

AS FILED WITH THE SECURITIES AND EXCHANGE COMMISSION ON AUGUST 7, 2000

REGISTRATION NO. 333-

SECURITIES AND EXCHANGE COMMISSION  
WASHINGTON, D.C. 20549

FORM S-1

REGISTRATION STATEMENT  
UNDER  
THE SECURITIES ACT OF 1933

PDF SOLUTIONS, INC.  
(EXACT NAME OF REGISTRANT AS SPECIFIED IN ITS CHARTER)

DELAWARE

7379

25-1701361

(STATE OR OTHER JURISDICTION OF  
INCORPORATION OR ORGANIZATION)

(PRIMARY STANDARD INDUSTRIAL  
CLASSIFICATION CODE NUMBER)

(I.R.S. EMPLOYER  
IDENTIFICATION NUMBER)

333 WEST SAN CARLOS STREET, SUITE 700  
SAN JOSE, CA 95110  
(408) 280-7900

(ADDRESS AND TELEPHONE NUMBER OF REGISTRANT'S PRINCIPAL EXECUTIVE OFFICES)

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PRESIDENT AND CHIEF EXECUTIVE OFFICER  
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(NAME, ADDRESS AND TELEPHONE NUMBER OF AGENT FOR SERVICE)

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APPROXIMATE DATE OF COMMENCEMENT OF PROPOSED SALE TO THE PUBLIC:  
As soon as practicable after the effective date of this Registration Statement.

If any of the securities being registered on this form are to be offered on a delayed or continuous basis pursuant to Rule 415 under the Securities Act of 1933, check the following box. [ ]

If this form is filed to register additional securities for an offering pursuant to Rule 462(b) under the Securities Act, please check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. [ ]

If this form is a post-effective amendment filed pursuant to Rule 462(c) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. [ ]

If this form is a post-effective amendment filed pursuant to Rule 462(d) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. [ ]

If delivery of the prospectus is expected to be made pursuant to Rule 434, please check the following box. [ ]

CALCULATION OF REGISTRATION FEE

TITLE OF EACH CLASS OF SECURITIES TO BE REGISTERED	PROPOSED MAXIMUM AGGREGATE OFFERING PRICE(1)	AMOUNT OF REGISTRATION FEE
Common Stock, \$0.0001 par value.....	\$75,000,000	\$19,800

(1) Estimated solely for the purpose of computing the amount of the registration fee pursuant to Rule 457(o) under the Securities Act. Includes proceeds from the sale of shares which the Underwriters have the option to purchase to cover over-allotments, if any.

THE REGISTRANT HEREBY AMENDS THIS REGISTRATION STATEMENT ON SUCH DATE OR DATES AS MAY BE NECESSARY TO DELAY ITS EFFECTIVE DATE UNTIL THE REGISTRANT SHALL FILE A FURTHER AMENDMENT WHICH SPECIFICALLY STATES THAT THIS REGISTRATION STATEMENT SHALL THEREAFTER BECOME EFFECTIVE IN ACCORDANCE WITH SECTION 8(a) OF THE SECURITIES ACT OF 1933 OR UNTIL THIS REGISTRATION STATEMENT SHALL BECOME EFFECTIVE ON SUCH DATE AS THE COMMISSION, ACTING PURSUANT TO SAID SECTION 8(a), MAY DETERMINE.

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THE INFORMATION IN THIS PROSPECTUS IS NOT COMPLETE AND MAY BE CHANGED. WE MAY NOT SELL THESE SECURITIES UNTIL THE REGISTRATION STATEMENT FILED WITH THE SECURITIES AND EXCHANGE COMMISSION IS EFFECTIVE. THIS PROSPECTUS IS NOT AN OFFER TO SELL THESE SECURITIES AND IT IS NOT SOLICITING AN OFFER TO BUY THESE SECURITIES IN ANY STATE WHERE THE OFFER OR SALE IS NOT PERMITTED.

SUBJECT TO COMPLETION, DATED \_\_\_\_\_, 2000

Shares

[PDF Solutions, Inc. Logo]

Common Stock

Prior to this offering, there has been no public market for our common stock. The initial public offering price of our common stock is expected to be between \$ \_\_\_\_\_ and \$ \_\_\_\_\_ per share. We have applied to list our common stock on The Nasdaq Stock Market's National Market under the symbol "PDFS."

The underwriters have an option to purchase a maximum of \_\_\_\_\_ additional shares to cover over-allotments of shares.

INVESTING IN OUR COMMON STOCK INVOLVES RISKS. SEE "RISK FACTORS" ON PAGE 6.

	PRICE TO PUBLIC	UNDERWRITING DISCOUNTS AND COMMISSIONS	PROCEEDS TO PDF SOLUTIONS
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Per Share.....	\$	\$	\$
Total.....	\$	\$	\$

Delivery of the shares of common stock will be made on or about \_\_\_\_\_, 2000.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or determined if this prospectus is accurate or complete. Any representation to the contrary is a criminal offense.

CREDIT SUISSE FIRST BOSTON

LEHMAN BROTHERS

DAIN RAUSCHER WESSELS

The date of this prospectus is \_\_\_\_\_, 2000.

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[INSIDE FRONT COVER]

[COLOR ARTWORK]

[The artwork depicts a bridge connecting two cliffs separated by a gap. The bridge is labeled "design-to-silicon yield solutions." The gap is labeled "design-to-silicon yield gap." The left cliff is labeled "integrated circuit design." The right cliff is labeled "manufacturing process." The tag line at the bottom reads "Bridging the design-to-silicon yield gap."]

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YOU SHOULD RELY ONLY ON THE INFORMATION CONTAINED IN THIS DOCUMENT OR TO WHICH WE HAVE REFERRED YOU. WE HAVE NOT AUTHORIZED ANYONE TO PROVIDE YOU WITH INFORMATION THAT IS DIFFERENT. THIS DOCUMENT MAY ONLY BE USED WHERE IT IS LEGAL TO SELL THESE SECURITIES. THE INFORMATION IN THIS DOCUMENT MAY BE ACCURATE ONLY ON THE DATE OF THIS DOCUMENT.

DEALER PROSPECTUS DELIVERY OBLIGATION

UNTIL \_\_\_\_\_, 2000 (25 DAYS AFTER THE COMMENCEMENT OF THIS OFFERING), ALL DEALERS THAT EFFECT TRANSACTIONS IN THESE SECURITIES, WHETHER OR NOT PARTICIPATING IN THIS OFFERING, MAY BE REQUIRED TO DELIVER A PROSPECTUS. THIS IS IN ADDITION TO THE DEALER'S OBLIGATION TO DELIVER A PROSPECTUS WHEN ACTING AS AN UNDERWRITER AND WITH RESPECT TO UNSOLD ALLOTMENTS OR SUBSCRIPTIONS.

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PROSPECTUS SUMMARY

You should read the following summary together with the more detailed information and our Consolidated Financial Statements and Notes thereto appearing elsewhere in this prospectus. Unless otherwise stated, information in this prospectus assumes no exercise of the underwriters' over-allotment option.

PDF SOLUTIONS, INC.

We provide comprehensive infrastructure technologies and services to improve yield and optimize performance of integrated circuits. We believe that our solutions can significantly improve a semiconductor company's time to market, rate of yield improvement and product profitability. To date, we have sold our technologies and services to, and established ongoing relationships with, key integrated device manufacturers such as Toshiba Corporation, Sony Corporation, Conexant Systems, Inc., Philips Semiconductor and Texas Instruments Incorporated.

Integrated circuits, or ICs, are becoming increasingly complex and geometries are rapidly shrinking to meet market demand for new applications and greater functionality at a lower cost. The introduction of diverse new IC technologies and novel manufacturing processes has resulted in increasingly complex manufacturing challenges. Demand -- largely driven by consumers in search of the next, more powerful yet smaller device -- has dramatically compressed product life cycles. This has reduced the time for semiconductor companies to successfully bring a product to market in high volumes to achieve dominant market share and high-margin revenues. In the current environment, semiconductor companies have encountered significant challenges in their attempt to achieve competitive yields and optimize performance, which are critical drivers of IC companies' financial results. Disaggregation of the semiconductor industry into many separate specialized organizations and entities has further complicated IC companies' ability to maximize yield and optimize performance by fragmenting design and manufacturing process knowledge. The combination of these factors has left a void, which we call the design-to-silicon yield gap.

We provide comprehensive silicon infrastructure solutions to address and bridge the design-to-silicon yield gap. Our solutions combine proprietary manufacturing process simulation, IC yield and performance modeling software, comprehensive test chips, proven yield and performance enhancement methodologies, and professional services. These solutions drive design and manufacturing changes that enable our customers to improve IC yield and performance earlier in product life cycles, thereby enabling our customers to simultaneously generate additional revenue and reduce costs. The result of implementing our solutions is the creation of value that can be measured based on improvements to our customers' actual IC yield and performance. By using a

unique approach that we call gain share, we align our financial interests with the demonstrated yield and performance improvements our customers realize on specific products or processes. As a result, our recurring revenues scale to the extent our customers continue to realize these improvements.

Our objective is to provide the industry standard in design-to-silicon yield solutions. To achieve this objective, we intend to leverage our results-based gain share model to deepen our relationships with our customers and rapidly generate market-driven improvements to our solutions. In addition, we intend to focus our solutions on key high-volume, high-growth IC product segments. We will also seek to extend and enhance our relationships with leading companies at key stages of the design-to-silicon process, thereby increasing our insight into future industry needs, and increasing industry awareness of our solutions. We intend to continue expanding our research and development efforts, and to selectively acquire complementary businesses and technologies to increase the scope of our solutions. Further, we plan to expand geographically to gain access to international engineering talent and to maintain proximity to our expanding customer base.

We were incorporated in Pennsylvania in November 1992. We reincorporated in California in November 1995 and will reincorporate in Delaware in September 2000. Our principal executive office is located at 333 West San Carlos Street, Suite 700, San Jose, CA 95110. Our telephone number at that

location is (408) 280-7900. Our Internet address on the world wide web is <http://www.pdf.com>. Information on our web site does not constitute part of this prospectus.

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PDF Solutions(R), Circuit Surfer(R) and pdFab(R) are our registered trademarks and Characterization Vehicle(TM), CV(TM), pdEx(TM) and Optissimo(TM) are trademarks of PDF. All other brand names or trademarks appearing in this prospectus are the property of their respective holders.

THE OFFERING

Common stock offered.....	shares
Common stock to be outstanding after this offering.....	shares
Use of proceeds.....	For general corporate purposes, including working capital, and repayment of indebtedness. See "Use of Proceeds."
Proposed Nasdaq National Market symbol.....	PDFS

The number of shares to be outstanding after this offering is based on:

- 15,071,879 shares of our common stock outstanding on June 30, 2000;
- automatic conversion of all Series A preferred stock outstanding on June 30, 2000 into 8,750,000 shares of our common stock upon completion of this offering; and
- automatic conversion of all Series B preferred stock issued on August 4, 2000 into 526,315 shares of our common stock upon completion of this offering.

The number of shares to be outstanding after this offering excludes:

- 1,236,744 shares issuable upon exercise of stock options and stock purchase rights outstanding on June 30, 2000 at a weighted average exercise price of \$1.53 per share;
- 2,740,572 shares reserved under our 1997 stock plan as of June 30, 2000 and available for grant prior to completion of this offering; and
- 3,300,000 shares reserved under our 2000 stock plans and available for

grant following completion of this offering.

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SUMMARY CONSOLIDATED FINANCIAL INFORMATION  
(IN THOUSANDS, EXCEPT PER SHARE DATA)

	YEAR ENDED DECEMBER 31,			SIX MONTHS ENDED JUNE 30,	
	1997	1998	1999	1999	2000
CONSOLIDATED STATEMENTS OF OPERATIONS DATA:					
Total revenue.....	\$2,621	\$6,227	\$11,824	\$5,334	\$ 8,276
Total costs and expenses.....	3,019	6,417	11,541	5,268	9,865
Income (loss) from operations.....	(398)	(190)	283	66	(1,589)
Net loss.....	(268)	(404)	(145)	(183)	(1,821)
Net loss per share -- basic and diluted.....	\$(0.04)	\$(0.05)	\$(0.02)	\$(0.02)	\$(0.17)
Shares used in computing basic and diluted net loss per share.....	6,152	7,416	9,128	8,576	10,474
Pro forma net loss per share -- basic and diluted...			\$(0.01)		\$(0.09)
Shares used in computing pro forma basic and diluted net loss per share.....			17,878		19,224

JUNE 30, 2000

	ACTUAL	PRO FORMA	PRO FORMA AS ADJUSTED
CONSOLIDATED BALANCE SHEET DATA:			
Cash and cash equivalents.....	\$1,443	\$ 6,403	\$
Working capital.....	434	5,394	
Total assets.....	9,093	14,053	
Long-term obligations, less current portion.....	54	54	
Convertible preferred stock.....	3,497	--	
Total shareholders' equity (deficiency).....	(419)	8,038	

See Notes 1 and 8 of Notes to Consolidated Financial Statements for an explanation of the determination of the amounts used in computing net loss per share and pro forma net loss per share amounts. See also Note 12 of Notes to Consolidated Financial Statements for the pro forma effects resulting from the sale, issuance and assumed conversion of the Series B preferred stock.

The pro forma balance sheet data above gives effect to receipt of the net proceeds from our sale of 526,315 shares of Series B preferred stock on August 4, 2000 and reflects the conversion of all shares of our preferred stock into 9,276,315 shares of common stock automatically upon completion of this offering.

The pro forma as adjusted balance sheet data gives effect to the sale of shares of common stock in this offering at an assumed initial public offering price of \$ per share, after deducting estimated underwriting discounts and commissions and estimated offering expenses, and the application of the net proceeds.

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RISK FACTORS

You should carefully consider the following risk factors and all other information contained in this prospectus before purchasing our common stock in this offering.

RISKS RELATING TO OUR BUSINESS

IF SEMICONDUCTOR DESIGNERS AND MANUFACTURERS DO NOT ADOPT OUR DESIGN-TO-SILICON YIELD SOLUTIONS, WE MAY BE UNABLE TO INCREASE OR MAINTAIN OUR REVENUE.

If semiconductor designers and manufacturers do not adopt our design-to-silicon yield solutions, our revenue could decline. To date, we have worked with a limited number of semiconductor companies on a limited number of integrated circuit, or IC, products and processes. To be successful, we will need to enter into agreements covering a larger number of IC products and processes with existing customers and new customers. Our existing customers are large integrated device manufacturers, or IDMs. We will need to target as new customers additional IDMs, as well as semiconductor companies in different segments of the semiconductor market, such as fabless semiconductor companies, foundries and system manufacturers. Factors that may limit adoption of our design-to-silicon yield solutions by semiconductor companies include:

- our customers may fail to achieve satisfactory yield improvements using our design-to-silicon yield solutions;
- the industry may develop alternative methods to enhance the integration between the semiconductor design and manufacturing processes due to a rapidly evolving market and the likely emergence of new technologies;
- our existing and potential customers' may be reluctant to understand and accept our unique gain share fee component, which is a fee based on improvements in our customers' yields;
- semiconductor companies may not use our design-to-silicon yield solutions if there is a decrease in demand for semiconductors generally or if the demand for deep submicron semiconductors fails to grow as rapidly as expected; and
- customers may be concerned about our ability to keep highly competitive information confidential.

OUR LIMITED OPERATING HISTORY AND RECENT ADOPTION OF A NOVEL AND UNPROVEN BUSINESS MODEL MAKE IT DIFFICULT TO EVALUATE OUR FUTURE PROSPECTS.

We have a limited operating history on which you can base your evaluation of our business. In 1998, we began selling software, services and other technologies together as a design-to-silicon yield solution. In addition, because we have not demonstrated our ability to generate significant revenue, our business model is unproven, especially with respect to gain share fees, which we expect will constitute a significant portion of our revenue for the foreseeable future. Our ability to generate gain share revenue is uncertain since our business model is unproven. Our existing and potential customers may resist this approach and may seek to limit or restrict our gain share fees. As a result, it will be difficult for financial markets analysts and investors to evaluate our future prospects.

FLUCTUATIONS IN OUR QUARTERLY OPERATING RESULTS MAY CAUSE OUR STOCK PRICE TO DECLINE.

Historically, our quarterly operating results have fluctuated. Our future quarterly operating results will likely fluctuate from time to time and may not meet the expectations of securities analysts and investors in some future period. The price of our common stock could decline due to such fluctuations. The following factors may cause significant fluctuations in our future quarterly operating results:

- the size and timing of sales volumes achieved by our customers' products;
- the loss of any of our large customers;

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- the size of improvements in our customers' yield and the timing of agreement as to those improvements;
- our long and variable sales cycle;
- changes in the mix of our revenue;
- changes in the level of our operating expenses needed to support our

projected growth; and

- delays in completing solution implementations for our customers.

OUR GAIN SHARE REVENUE IS LARGELY DEPENDENT ON THE VOLUME OF ICS OUR CUSTOMERS ARE ABLE TO SELL TO THEIR CUSTOMERS, WHICH IS OUTSIDE OUR CONTROL.

Our gain share revenue for a particular product is largely determined by the volume of that product our customer is able to sell to its customers, which is outside of our control. We have limited ability to predict the success or failure of our customer's IC products. We may commit a significant amount of time and resources to a customer who is ultimately unable to sell as many units as we had anticipated when contracting with them. Since we currently work on a small number of large projects, any product that does not achieve commercial viability could significantly harm our revenue and results of operations. In addition, if we work with two directly competitive products, volume in one may offset volume, and any of our related gain share, in the other product.

WE GENERATE VIRTUALLY ALL OF OUR TOTAL REVENUE FROM A LIMITED NUMBER OF CUSTOMERS, SO THE LOSS OF ANY ONE OF THESE CUSTOMERS COULD HAVE A SIGNIFICANT NEGATIVE EFFECT ON OUR REVENUE AND RESULTS OF OPERATIONS.

Historically, we have had a small number of large customers and we expect this to continue in the near term. The loss of any one customer may have a significant adverse effect on our total revenue. In particular, such a loss could cause significant fluctuations in results of operations due to our expenses being fixed in the short term, our lengthy sales cycle and because any offsetting gain share revenue from new customers would not begin to be recognized until much later.

WE HAVE A HISTORY OF LOSSES, WE EXPECT TO INCUR LOSSES IN THE FUTURE AND WE MAY BE UNABLE TO ACHIEVE OR SUBSEQUENTLY MAINTAIN PROFITABILITY.

We may not achieve or subsequently maintain profitability if our revenue increases more slowly than we expect or not at all. In addition, virtually all of our operating expenses are fixed, so any shortfall in anticipated revenue in any given period could cause our operating results to decrease. We have not been profitable in any quarter, and our accumulated deficit was approximately \$419,000 as of June 30, 2000. We expect to continue to incur significant expenses in connection with:

- increased funding for research and development;
- expansion of our solution implementation teams;
- expansion of our sales and marketing efforts; and
- additional non-cash charges relating to amortization of intangibles and deferred stock compensation.

As a result, we will need to significantly increase revenue to achieve and maintain profitability. If we do achieve profitability, we may be unable to sustain or increase profitability on a quarterly or annual basis. Any of these factors could cause our stock price to decline.

GAIN SHARE MEASUREMENT REQUIRES DATA COLLECTION AND IS SUBJECT TO CUSTOMER AGREEMENT, WHICH CAN RESULT IN UNCERTAINTY AND CAUSE QUARTERLY RESULTS TO FLUCTUATE.

We can only recognize gain share revenue once we have reached agreement with our customers on their level of yield performance improvements. Because measuring the amount of yield improvement is inherently complicated and dependent on our customers' internal information systems, there may be

uncertainty as to some components of measurement. This could result in our recognition of less revenue than expected. In addition, any delay in measuring gain share could cause all of the associated revenue to be delayed until the next quarter. Since we currently have only a few large customers and we are relying on gain share as a significant component of our total revenue, any delay could significantly harm our quarterly results.



WE HAVE A LONG AND VARIABLE SALES CYCLE, WHICH CAN RESULT IN UNCERTAINTY AND DELAYS IN GENERATING ADDITIONAL REVENUE.

Because our gain share business model is novel and our design-to-silicon yield solutions are unfamiliar, our sales cycle is lengthy and requires a significant amount of our senior management's time and effort. Furthermore, we need to target those individuals within our customer's organization who have overall responsibility for the profitability of an IC. These individuals tend to be senior management or executive officers. We may face difficulty identifying and establishing contact with such individuals. We typically send one or more of our senior executives and several engineers to meet with a prospective customer. Even after initial acceptance, due to the complexity of structuring the gain share component, the negotiation and documentation processes can be lengthy. It can take six months or more to reach a signed contract with a customer.

CHANGES IN THE STRUCTURE OF OUR CUSTOMER CONTRACTS, PARTICULARLY THE MIX BETWEEN FIXED AND VARIABLE REVENUE, CAN ADVERSELY AFFECT OUR OPERATING RESULTS.

Our success is largely dependent upon our ability to structure our future customer contracts to include a larger gain share component relative to the fixed fee component. If we are successful in increasing the gain share component of our customer contracts, we will experience an adverse impact on our operating results in the short term as we reduce the fixed fee component, which we typically recognize earlier than gain share fees. In addition, by increasing the gain share component, we increase the variability of our revenue, and therefore increase the risk that our total future revenue will be lower than expected and fluctuate significantly from period to period.

WE MUST CONTINUALLY ATTRACT AND RETAIN HIGHLY TALENTED EXECUTIVES, ENGINEERS AND RESEARCH AND DEVELOPMENT PERSONNEL OR WE WILL BE UNABLE TO EXECUTE OUR BUSINESS STRATEGY.

We will need to continue to hire highly talented executives, engineers and research and development personnel. We have experienced, and we expect to continue to experience, delays and limitations in hiring and retaining highly skilled individuals with appropriate qualifications to support our planned growth. We intend to continue to hire foreign nationals, particularly as we expand our operations internationally. We have had, and expect to continue to have, difficulty in obtaining visas permitting entry into the United States, for several of our key personnel, which disrupts our ability to strategically locate our personnel. In addition, we have a number of openings for key executive positions that we will need to fill in order to successfully execute our business strategy. We may have difficulty recruiting these executives or integrating them into our existing management team. In addition, if we lose the services of any of our key executives or a significant number of our engineers, it could disrupt our ability to implement our business strategy. Competition for executives and qualified engineers is intense, especially in the Silicon Valley area where we are principally based.

IF OUR DESIGN-TO-SILICON YIELD SOLUTIONS FAIL TO KEEP PACE WITH THE RAPID TECHNOLOGICAL CHANGES IN THE SEMICONDUCTOR INDUSTRY, WE COULD LOSE CUSTOMERS AND OUR OPERATING RESULTS COULD DECLINE.

We must continually devote significant engineering resources to enable us to keep up with the rapidly evolving technologies and equipment used in the semiconductor design and manufacturing processes. These innovations are inherently complex and require long development cycles. Not only do we need the technical expertise to implement the changes necessary to keep our technologies current, we also rely heavily on the judgment of our advisors and management to anticipate future market trends. Our customers expect us to stay ahead of the technology curve and expect that our design-to-silicon yield

solutions will support any new design or manufacturing processes or materials as soon as they are deployed. If we are not able to timely predict industry changes, or if we are unable to modify our design-to-silicon yield solutions on a timely basis, our existing solutions will be rendered obsolete and we may lose customers. If we do not keep pace with technology, our existing and potential customers may choose to develop their own solutions internally as an alternative to ours, and we could lose market share to competitors, which could adversely affect our operating results.

WE INTEND TO PURSUE ADDITIONAL STRATEGIC RELATIONSHIPS, WHICH ARE NECESSARY TO

MAXIMIZE OUR GROWTH AND WHICH COULD SUBSTANTIALLY DIVERT MANAGEMENT ATTENTION AND RESOURCES.

In order to establish strategic relationships with industry leaders at each stage of the IC design and manufacturing processes, we may need to expend significant resources and will need to commit a significant amount of management's time and attention, with no guarantee of success. If we are unable to enter into strategic relationships with these companies, we will not be as effective at modeling existing technologies or at keeping ahead of the curve as new technologies are introduced. In the past, the absence of an established working relationship with key companies in the industry has meant that we have had to exclude the effect of their component parts from our modeling analysis, which reduces the overall effectiveness of our analysis and limits our ability to improve yield. We may be unable to establish key industry strategic relationships if any of the following occur:

- potential industry partners become concerned about our ability to protect their intellectual property;
- potential industry partners develop their own solutions to address the need for yield improvement;
- our potential competitors establish relationships with industry partners with which we seek to establish a relationship; or
- potential industry partners attempt to restrict our ability to enter into relationships with their competitors.

WE FACE OPERATIONAL AND FINANCIAL RISKS ASSOCIATED WITH INTERNATIONAL OPERATIONS.

We derive a majority of our revenue from international sales, principally from customers based in Japan. We are subject to risks inherent in doing business in international markets. These risks include:

- some of our key engineers and other personnel who are foreign nationals may have difficulty gaining access to the United States and other countries in which our customers or our offices may be located;
- greater difficulty in collecting account receivables resulting in longer collection periods;
- language and other cultural differences may inhibit our sales and marketing efforts and create internal communication problems among our U.S. and foreign research and development teams;
- compliance with and unexpected changes in a wide variety of foreign laws and regulatory environments with which we are not familiar;
- currency risk due to the fact that expenses for our international offices are denominated in the local currency, while virtually all of our revenue is denominated in U.S. dollars; and
- economic or political instability.

If any of these risks materialize, we may be unable to continue to market our design-to-silicon yield solutions successfully in international markets.

COMPETITION IN THE MARKET FOR SOLUTIONS THAT ADDRESS YIELD IMPROVEMENT AND INTEGRATION BETWEEN IC DESIGN AND MANUFACTURING MAY INTENSIFY IN THE FUTURE, WHICH COULD SLOW OUR ABILITY TO GROW OR EXECUTE OUR STRATEGY.

Competition in our market may intensify in the future, which could slow our ability to grow or execute our strategy. Our current and potential customers may choose to develop their own solutions internally, particularly if we are slow in deploying our solutions. Many of these companies have the financial and technical capability to develop their own solutions. In addition, we believe that the demand for solutions that address the need for better integration between the silicon design and manufacturing processes may encourage competitors to enter into our market. For example, large integrated organizations, such as IDMs, electronic design automation software providers, IC design service

companies or semiconductor equipment vendors, may decide to spin-off a business unit that competes with us. Other potential competitors include fabrication facilities that may decide to offer solutions competitive with ours as part of their value proposition to their customers. If these potential competitors are able to attract industry partners or customers faster than we can, we may not be able to grow and execute our strategy as quickly or at all. In addition, customer preferences may shift away from our design-to-silicon yield solutions as a result of the increase in competition.

WE MUST EFFECTIVELY MANAGE AND SUPPORT OUR RECENT AND PLANNED GROWTH IN ORDER FOR OUR BUSINESS STRATEGY TO SUCCEED.

We will need to continue to grow in all areas of operation and successfully integrate and support our existing and new employees into our operations, or we may be unable to implement our business strategy in the time frame we anticipate, if at all. We expect to outgrow our principal office facilities by the end of 2000 and will need to relocate to a larger facility, which could be difficult in the very competitive Silicon Valley office leasing market. We will also need to switch to a new accounting system in the near future, which could result in reporting errors and other difficulties that may disrupt our business operations and distract management. In addition, we will need to expand our intranet to support new data centers to enhance our research and development efforts. Our intranet is expensive to expand and must be highly secure due to the sensitive nature of our customer's information that we transmit. Building and managing the support necessary for our growth places significant demands on our management and resources. These demands may divert these resources from the continued growth of our business and implementation of our business strategy. Further, we must adequately train our new personnel, especially our technical support personnel, to adequately, and accurately, respond to and support our customers. If we fail to do this, it could lead to dissatisfaction among our customers, which could slow our growth.

OUR SOLUTION IMPLEMENTATIONS MAY TAKE LONGER THAN WE ANTICIPATE WHICH COULD CAUSE US TO LOSE CUSTOMERS AND MAY RESULT IN ADJUSTMENTS TO OUR OPERATING RESULTS.

Our solution implementations require a team of engineers to collaborate with our customers to address complex yield loss issues by using our software and other technologies. We must estimate the amount of time needed to complete an existing solution implementation in order to estimate when the engineers will be able to commence a new solution implementation. Given the time pressures involved in bringing IC products to market, targeted customers may proceed without us if we are not able to commence their solution implementation on time. Due to our lengthy sales cycle, we may be unable to replace these targeted implementations in a timely manner, which could cause fluctuations in our operating results.

In addition, our accounting for solution implementation contracts, which generate fixed fees, sometimes require adjustments to profit and loss based on revised estimates during the performance of the contract. These adjustments may have a material effect on our results of operations in the period in which they are made. The estimates giving rise to these risks, which are inherent in fixed-price contracts, include the forecasting of costs and schedules, and contract revenues related to contract performance.

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OUR CHIEF EXECUTIVE OFFICER AND OUR HEAD OF PRODUCTS AND METHODS ARE CRITICAL TO OUR BUSINESS AND WE CANNOT GUARANTEE THAT THEY WILL REMAIN WITH US INDEFINITELY.

Our future success will depend to a significant extent on the continued services of John Kibarian, our President and Chief Executive Officer, and David Joseph, our Vice President, Products and Methods. If we lose the services of either of these key executives, it could slow execution of our business plan, hinder our product development processes and impair our sales efforts. Searching for their replacements could divert our other senior management's time and increase our operating expenses. In addition, our industry partners and customers could become concerned about our future operations, which could injure our reputation. We do not have long-term employment agreements with these executives and we do not maintain any key person life insurance policies on their lives.

INADVERTENT DISCLOSURE OF OUR CUSTOMERS' CONFIDENTIAL INFORMATION COULD RESULT

IN COSTLY LITIGATION AND CAUSE US TO LOSE EXISTING AND POTENTIAL CUSTOMERS.

Our customers consider their product yield information and other confidential information, which we must gather in the course of our engagement with the customer, to be extremely competitively sensitive. If we inadvertently disclosed or were required to disclose this information, we would likely lose existing and potential customers, and could be subject to costly litigation. In addition, to avoid potential disclosure of confidential information to competitors, some of our customers may, in the future, ask us not to work with key competitive products.

IF WE FAIL TO PROTECT OUR INTELLECTUAL PROPERTY RIGHTS, CUSTOMERS OR POTENTIAL COMPETITORS MAY BE ABLE TO USE OUR TECHNOLOGIES TO DEVELOP THEIR OWN SOLUTIONS WHICH COULD WEAKEN OUR COMPETITIVE POSITION, REDUCE OUR REVENUE OR INCREASE OUR COSTS.

Our success depends largely on the proprietary nature of our technologies. We currently rely primarily on copyright, trademark and trade secret protection. Whether or not patents are granted to us, litigation may be necessary to enforce our intellectual property rights or to determine the validity and scope of the proprietary rights of others. As a result of any such litigation, we could lose our proprietary rights and incur substantial unexpected operating costs. Litigation could also divert our resources, including our managerial and engineering resources. In the future, we intend to rely primarily on a combination of patents, copyrights, trademarks and trade secrets to protect our proprietary rights and prevent competitors from using our proprietary technologies in their products. These laws and procedures provide only limited protection. Our pending patent applications may not result in issued patents, and even if issued, they may not be sufficiently broad to protect our proprietary technologies. Also, patent protection in foreign countries may be limited or unavailable where we need such protection.

OUR TECHNOLOGIES COULD INFRINGE THE INTELLECTUAL PROPERTY RIGHTS OF OTHERS CAUSING COSTLY LITIGATION AND THE LOSS OF SIGNIFICANT RIGHTS.

Significant litigation regarding intellectual property rights exists in the semiconductor industry. It is possible that a third party may claim that our technologies infringe their intellectual property rights or misappropriate their trade secrets. Any claim, even if without merit, could be time consuming to defend, result in costly litigation and require us to enter into royalty or licensing agreements. These royalty or licensing agreements, if required, may not be available to us on acceptable terms or at all. A successful claim of infringement against us in connection with the use of our technologies could adversely affect our business.

DEFECTS IN OUR PROPRIETARY TECHNOLOGIES AND SOFTWARE TOOLS COULD DECREASE OUR REVENUE AND OUR COMPETITIVE MARKET SHARE.

If the software or proprietary technologies we provide to a customer contain defects that increase our customer's cost of goods sold and time to market, these defects could significantly decrease the market acceptance of our design-to-silicon yield solutions. Any actual or perceived defects with our software or

proprietary technologies may also hinder our ability to attract or retain industry partners or customers, leading to a decrease in our revenue. These defects are frequently found during the period following introduction of new software or proprietary technologies or enhancements to existing software or proprietary technologies. Our software or proprietary technologies may contain errors not discovered until after customer implementation of the silicon design and manufacturing process recommended by us. If our software or proprietary technologies contain errors or defects, it could require us to expend significant resources to alleviate these problems, which could result in the diversion of technical and other resources from our other development efforts.

WE MAY NOT BE ABLE TO RAISE NECESSARY FUNDS TO SUPPORT OUR GROWTH OR EXECUTE OUR STRATEGY.

We currently anticipate that our available cash resources, combined with the net proceeds from this offering, will be sufficient to meet our presently anticipated working capital and capital expenditure requirements for at least

the next 12 months. However, we may need to raise additional funds in order to:

- support more rapid expansion;
- develop or enhance design-to-silicon yield solutions;
- respond to competitive pressures; or
- acquire complementary businesses or technologies.

These factors will impact our future capital requirements and the adequacy of our available funds. We may need to raise additional funds through public or private financings, strategic relationships or other arrangements. We cannot guarantee that we will be able to raise any necessary funds on terms favorable to us, or at all.

WE MAY NOT BE ABLE TO EXPAND OUR PROPRIETARY TECHNOLOGIES IF WE DO NOT CONSUMMATE POTENTIAL ACQUISITIONS OR INVESTMENTS OR SUCCESSFULLY INTEGRATE THEM WITH OUR BUSINESS.

To expand our proprietary technologies, we may acquire or make investments in complementary businesses, technologies or products if appropriate opportunities arise. We may be unable to identify suitable acquisition or investment candidates at reasonable prices or on reasonable terms, or consummate future acquisitions or investments, each of which could slow our growth strategy. We may have difficulty integrating the acquired products, personnel or technologies of our recently acquired German company or of any additional acquisitions we might make. These difficulties could disrupt our ongoing business, distract our management and employees and increase our expenses.

#### RISKS RELATING TO OUR INDUSTRY

THE SEMICONDUCTOR INDUSTRY IS CYCLICAL IN NATURE.

Our revenue is highly dependent upon the overall condition of the semiconductor industry, especially in light of our gain share revenue component. The semiconductor industry is highly cyclical and subject to rapid technological change and has been subject to significant economic downturns at various times, characterized by diminished product demand, accelerated erosion of average selling prices and production overcapacity. The semiconductor industry also periodically experiences increased demand and production capacity constraints. As a result, we may experience significant fluctuations in operating results due to general semiconductor industry conditions, and overall economic conditions.

SEMICONDUCTOR COMPANIES ARE SUBJECT TO RISK OF NATURAL DISASTERS.

Semiconductor companies have in the past experienced major reductions in foundry capacity due to earthquakes in Taiwan, Japan and California. In light of our gain share revenue component, our results of operations can be significantly decreased if one of our customers must shut down IC production due to a natural disaster such as earthquake, fire, tornado or flood. Moreover, since semiconductor product life

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cycles have become relatively short, a significant delay in the production of a product could result in lost revenue, not merely delayed revenue.

#### RISKS RELATING TO THIS OFFERING

MANAGEMENT WILL HAVE BROAD DISCRETION AS TO THE USE OF PROCEEDS FROM THIS OFFERING AND, AS A RESULT, WE MAY NOT USE THE PROCEEDS TO THE SATISFACTION OF OUR STOCKHOLDERS.

Our board of directors and management will have broad discretion in allocating the net proceeds of this offering. They may choose to allocate such proceeds in ways that do not yield a favorable return or are not supported by our stockholders. We have designated only limited specific uses for the net proceeds from this offering. Please see "Use of Proceeds."

THE CONCENTRATION OF OUR CAPITAL STOCK OWNERSHIP WITH INSIDERS UPON THE COMPLETION OF THIS OFFERING WILL LIKELY LIMIT YOUR ABILITY TO INFLUENCE CORPORATE MATTERS.

The concentration of ownership of our outstanding capital stock with our directors and executive officers after this offering may limit your ability to influence corporate matters. Upon completion of this offering, our directors and executive officers, and their affiliates, will beneficially own % of our outstanding capital stock. As a result, these stockholders, if acting together, will have the ability to control all matters submitted to our stockholders for approval, including the election and removal of directors and the approval of any corporate transactions.

WE HAVE ANTI-TAKEOVER DEFENSES THAT COULD DELAY OR PREVENT AN ACQUISITION OF OUR COMPANY.

Provisions of our certificate of incorporation and bylaws in effect after completion of this offering and Delaware law could make it more difficult for a third party to acquire us, even if doing so would be beneficial to our stockholders. Please see "Description of Capital Stock."

NEGOTIATIONS BETWEEN THE UNDERWRITERS AND US DETERMINED THE INITIAL PUBLIC OFFERING PRICE, BUT THE MARKET PRICE MAY BE LESS OR MAY BE VOLATILE, AND YOU MAY NOT BE ABLE TO RESELL YOUR SHARES AT OR ABOVE THE INITIAL PUBLIC OFFERING PRICE.

The initial public offering price for the shares has been determined by negotiations between us and the representatives of the underwriters and may not be indicative of prices that will prevail in the trading market. An active public market for our common stock may not develop or be sustained after this offering. The market price of our common stock may fluctuate significantly in response to factors, some of which are beyond our control, including:

- actual or anticipated fluctuations in our operating results;
- changes in market valuations of other technology companies;
- conditions or trends in the semiconductor industry;
- announcements by us or our potential competitors of significant technical innovations, contracts, acquisitions or partnerships;
- additions or departures of key personnel;
- any deviations in revenue or in losses from levels expected by securities analysts;
- volume fluctuations, which are particularly common among highly volatile securities of technology related companies; and
- sales of substantial amounts of our common stock or other securities in the open market.

General political or economic conditions, such as a recession, or interest rate or currency rate fluctuations could also cause the market price of our common stock to decline. Please see "Underwriting."

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OUR STOCK PRICE IS LIKELY TO BE EXTREMELY VOLATILE AS THE MARKET FOR TECHNOLOGY COMPANIES' STOCK HAS RECENTLY EXPERIENCED EXTREME PRICE AND VOLUME FLUCTUATIONS.

Volatility in the market price of our common stock could result in securities class action litigation. Any litigation would likely result in substantial costs and a diversion of management's attention and resources. Despite the strong pattern of operating losses of technology companies, the market demand, valuation and trading prices of these companies have been high. At the same time, the share prices of these companies' stocks have been highly volatile and have recorded lows well below their historical highs. As a result, investors in these companies often buy the stock at very high prices only to see the price drop substantially a short time later, resulting in an extreme drop in value in the stock holdings of these investors. Our stock may not trade at the same levels as other technology stocks. In addition, technology stocks in general may not sustain current market prices.

A LARGE NUMBER OF SHARES BECOMING ELIGIBLE FOR SALE AFTER THIS OFFERING COULD CAUSE OUR STOCK PRICE TO DECLINE.

Sales of a substantial number of shares of our common stock after this

offering could cause our stock price to fall. Our current stockholders hold a substantial number of shares, which they will be able to sell in the public market in the near future. Beginning on the effective date of this prospectus, only the shares sold in the offering will be immediately available for sale in the public market. Beginning 180 days after the effective date, approximately shares will be eligible for sale pursuant to Rule 701 and approximately additional shares will be eligible for sale pursuant to Rule 144, of which all but shares are held by affiliates. An additional shares will be eligible for sale pursuant to Rule 144 by , 2000. Shares eligible to be sold by affiliates pursuant to Rule 144 are subject to volume restrictions. Please see "Shares Eligible for Future Sale."

YOU WILL INCUR IMMEDIATE AND SUBSTANTIAL DILUTION IN THE BOOK VALUE OF THE STOCK YOU PURCHASE.

The initial public offering price is substantially higher than the book value per share of our outstanding common stock immediately after the offering. This is referred to as dilution. Accordingly, if you purchase common stock in the offering, you will incur immediate dilution of approximately \$ , at an initial public offering price of \$ per share, in the book value per share of our common stock from the price you pay for our common stock. Please see "Dilution."

IF WE RAISE ADDITIONAL CAPITAL THROUGH THE ISSUANCE OF NEW SECURITIES AT A PRICE LOWER THAN THE INITIAL PUBLIC OFFERING PRICE, YOU WILL INCUR ADDITIONAL DILUTION.

If we raise additional capital through the issuance of new securities at a lower price than the initial public offering price, you will be subject to additional dilution. If we are unable to access the public markets in the future, or if our performance or prospects decreases, we may need to consummate a private placement or public offering of our capital stock at a lower price than the initial public offering price. In addition, any new securities may have rights, preferences or privileges senior to those securities held by you.

EXERCISE OF REGISTRATION RIGHTS AFTER THIS OFFERING COULD ADVERSELY AFFECT OUR STOCK PRICE.

If holders of registration rights exercise those rights after this offering, a large number of securities could be registered and sold in the public market, which could result in a decline in the price of our common stock. If we were to include in a company-initiated registration shares held by these holders pursuant to the exercise of their registration rights, our ability to raise needed capital could suffer. After this offering, the holders of 9,276,315 shares of our common stock, which will represent a total of approximately % of our outstanding stock after completion of this offering, are entitled to rights with respect to registration under the Securities Act of 1933.

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WE DO NOT INTEND TO PAY DIVIDENDS.

We have never declared or paid any cash dividends on our common stock. We currently intend to retain any future earnings for funding growth and, therefore, do not expect to pay any dividends in the foreseeable future. See "Dividend Policy."

#### SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus contains forward-looking statements. These statements relate to future events or our future financial performance. In some cases, you can identify forward-looking statements by terminology; for instance, may, will, should, intend, expect, plan, anticipate, believe, estimate, predict, potential or continue, the negative of these terms or other comparable terminology. These statements are only predictions. Actual events or results may differ materially. In evaluating these statements, you should specifically consider various factors, including the risks outlined in "Risk Factors." These factors may cause our actual results to differ materially from any forward-looking statement.

Although we believe that the expectations reflected in the forward-looking statements are reasonable, we cannot guarantee future results, levels of activity, performance or achievements. Moreover, neither we nor any other person assumes responsibility for the accuracy and completeness of these statements.

USE OF PROCEEDS

Our net proceeds from the sale of \_\_\_\_\_ shares of common stock in this offering at an assumed initial public offering price of \$ \_\_\_\_\_ per share are estimated to be \$ \_\_\_\_\_ (\$ \_\_\_\_\_ if the underwriters' over-allotment option is exercised in full). The principal purpose of the offering is to obtain additional working capital. We expect to use the net proceeds of this offering for working capital and other general corporate purposes. In addition, we expect to use a portion of the net proceeds of this offering to repay \$995,000 in notes payable incurred in connection with our acquisition of Applied Integrated Systems and Software GmbH. We may also use a portion of the net proceeds of this offering for potential acquisitions of complementary products, technologies or businesses, although we have no current agreements or negotiations with respect to any transactions of this type. Pending these uses, we intend to invest the net proceeds from this offering in short-term interest-bearing, investment grade securities.

DIVIDEND POLICY

We have never declared or paid cash dividends on our capital stock. We currently intend to retain all available funds and any future earnings for use in the operation of our business and do not anticipate paying any cash dividends in the foreseeable future.

CAPITALIZATION

The following table sets forth our capitalization as of June 30, 2000, on the following three bases:

- on an actual basis;
- on a pro forma basis to give effect to receipt of the proceeds from our sale of 526,315 shares of Series B preferred stock on August 4, 2000 (including the effect of the related deemed dividend of approximately \$684,000) and to reflect the conversion of all shares of our preferred stock into 9,276,315 shares of common stock automatically upon completion of this offering; and
- on a pro forma as adjusted basis to reflect the sale of shares of common stock in this offering at an assumed initial public offering price of \$ \_\_\_\_\_ per share, after deducting estimated underwriting discounts and commissions and estimated offering expenses, and the application of the net proceeds.

You should read this information together with our Consolidated Financial Statements and Notes thereto appearing elsewhere in this prospectus.

	JUNE 30, 2000		
	ACTUAL	PRO FORMA	PRO FORMA AS ADJUSTED
	-----	-----	-----
	(IN THOUSANDS, EXCEPT SHARE DATA)		
Current portion of long-term obligations.....	\$ 1,009	\$ 1,009	\$ 14
	=====	=====	=====
Long-term obligations, less current portion.....	\$ 54	\$ 54	\$ 54
Series A convertible preferred stock, \$0.0001 par value; shares authorized: 8,750,000 actual and pro forma and none pro forma as adjusted; issued and outstanding: 8,750,000 actual and none pro forma and pro forma as adjusted.....	3,497	--	--
Shareholders' equity (deficit):			
Preferred stock, \$0.0001 par value; shares authorized: none actual and pro forma and 5,000,000 pro forma as adjusted; issued and outstanding: none actual, pro forma and pro forma as adjusted.....			
Common stock, \$0.0001 par value; shares authorized:			



50,000,000 actual and pro forma and 75,000,000 pro forma as adjusted; shares issued and outstanding: 15,071,879 actual, 24,348,194 pro forma and pro forma as adjusted.....	2	2	
Additional paid-in capital.....	19,011	28,152	
Deferred stock-based compensation.....	(14,512)	(14,512)	(14,512)
Note receivable from shareholders.....	(2,321)	(2,321)	(2,321)
Accumulated deficit.....	(2,602)	(3,286)	(3,286)
Cumulative other comprehensive income.....	3	3	3
	-----	-----	-----
Total shareholders' equity (deficiency).....	(419)	8,038	
	-----	-----	-----
Total capitalization.....	\$ 3,132	\$ 8,092	\$
	=====	=====	=====

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This table excludes:

- an aggregate of 1,236,744 shares subject to outstanding options and purchase rights as of June 30, 2000 at a weighted average exercise price of \$1.53 per share;
- 2,740,572 shares reserved under our 1997 stock plan as of June 30, 2000 and available for grant prior to completion of this offering; and
- 3,300,000 shares reserved under our 2000 stock plans and available for grant following completion of this offering.

See "Management -- Benefit Plans," "Related-Party Transactions" and Notes 7 and 12 of Notes to Consolidated Financial Statements.

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#### DILUTION

Our pro forma net tangible book value as of June 30, 2000 was approximately \$6,024,000 or \$0.25 per share of common stock. Pro forma net tangible book value per share of common stock represents the amount of pro forma total assets, after giving effect to the net proceeds of our Series B preferred stock financing on August 4, 2000, reduced by the amount of total liabilities and intangible assets, divided by the total number of shares of common stock outstanding assuming conversion of our preferred stock, including shares of Series B preferred stock issued on August 4, 2000. After giving effect to the adjustments set forth above, and the sale of shares of common stock in this offering at an assumed initial public offering price of \$ per share, after deducting estimated underwriting discounts and commissions and estimated offering expenses, our pro forma net tangible book value as of June 30, 2000 would have been \$ or \$ per share of common stock. This represents an immediate increase in pro forma net tangible book value of \$ per share to existing stockholders and an immediate dilution of \$ per share to new investors. The following table illustrates this per share dilution:

Assumed initial public offering price per share.....		\$
Pro forma net tangible book value per share before this offering.....	\$ 0.25	
Increase per share attributable to new public investors...	-----	
Pro forma net tangible book value per share after this offering.....		\$
Dilution per share to new public investors.....		=====

The following table summarizes on a pro forma basis as of June 30, 2000, the differences between the existing stockholders and new investors with respect to the number of shares of common stock purchased from us, the total consideration paid to us and the average price per share paid. The pro forma basis gives effect to the issuance of 526,315 shares of Series B preferred stock on August 4, 2000 and the automatic conversion of all preferred stock into common stock upon completion of this offering.

	SHARES PURCHASED		TOTAL CASH CONSIDERATION		AVERAGE PRICE PER SHARE
	NUMBER	PERCENT	AMOUNT	PERCENT	
Existing stockholders.....	24,348,194	%	\$11,054,827	%	\$0.45
New investors					
Totals.....		100.0%	\$	100.0%	

As of June 30, 2000, options and rights to purchase 1,236,744 shares were outstanding with a weighted average price of \$1.53 per share. As of June 30, 2000, 2,740,572 shares were reserved under our 1997 stock plan and available for grant prior to completion of this offering. Upon completion of this offering, we will have 3,300,000 shares reserved under our 2000 stock plans and available for grant upon completion of this offering. The issuance of common stock under these plans will result in further dilution to new investors. See "Management -- Benefit Plans," "Related-Party Transactions" and Notes 7 and 12 of Notes to Consolidated Financial Statements.

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#### SELECTED CONSOLIDATED FINANCIAL DATA

The following selected consolidated financial data is qualified by reference to and should be read in conjunction with, Management's Discussion and Analysis of Financial Condition and Results of Operations and the Consolidated Financial Statements and Notes thereto and the other information contained in this prospectus.

The selected consolidated balance sheets data as of December 31, 1998 and 1999 and the selected consolidated statements of operations data for each year in the three years ended December 31, 1999, have been derived from our audited Consolidated Financial Statements appearing elsewhere in this prospectus. The balance sheets data as of June 30, 2000 and for the six months ended June 30, 2000 have been derived from our unaudited Consolidated Financial Statements appearing elsewhere in this prospectus. The selected consolidated balance sheets data as of December 31, 1995, 1996 and 1997, and the selected consolidated statements of operations data for the years ended December 31, 1995 and 1996 have been derived from our unaudited Consolidated Financial Statements not included in this prospectus. The unaudited Consolidated Financial Statements have been prepared by us on a basis consistent with the audited Consolidated Financial Statements appearing elsewhere in this prospectus and, in the opinion of management, include all adjustments, consisting only of normal recurring adjustments, necessary for the fair presentation of this data. Historical results are not necessarily indicative of future results.

	YEAR ENDED DECEMBER 31,					SIX MONTHS ENDED JUNE 30,	
	1995	1996	1997	1998	1999	1999	2000
(IN THOUSANDS, EXCEPT PER SHARE DATA)							
CONSOLIDATED STATEMENTS OF OPERATIONS DATA:							
Revenue:							
Design-to-silicon yield solutions.....	\$ 510	\$ 916	\$2,621	\$6,035	\$10,567	\$5,334	\$ 5,968
Gain share.....	--	--	--	192	1,257	--	2,308
Total revenue.....	510	916	2,621	6,227	11,824	5,334	8,276
Costs and expenses:							
Cost of design-to-silicon yield solutions.....	104	163	596	1,533	4,091	1,822	2,905
Research and development.....	101	624	1,005	1,864	3,087	1,244	2,242
Selling, general and administrative.....	133	454	1,404	2,959	4,295	2,202	3,025
Stock-based compensation amortization*.....	--	--	14	61	68	--	1,693
Total costs and expenses.....	338	1,241	3,019	6,417	11,541	5,268	9,865
Income (loss) from operations.....	172	(325)	(398)	(190)	283	66	(1,589)
Interest income and other.....	10	175	139	128	105	52	41
Income (loss) before taxes.....	182	(150)	(259)	(62)	388	118	(1,548)

Tax provision(1).....	--	--	9	342	533	301	273
Net income (loss).....	\$ 182	\$ (150)	\$ (268)	\$ (404)	\$ (145)	\$ (183)	\$ (1,821)
Net income (loss) per share -- basic and diluted(2).....	\$ 0.04	\$ (0.03)	\$ (0.04)	\$ (0.05)	\$ (0.02)	\$ (0.02)	\$ (0.17)
Shares used in computing basic and diluted net income (loss) per share(2).....	5,113	5,059	6,152	7,416	9,128	8,576	10,474
Pro forma net loss per share -- basic and diluted.....					\$ (0.01)		\$ (0.09)
Shares used in computing pro forma basic and diluted net loss per share.....					17,878		19,224
*STOCK-BASED COMPENSATION AMORTIZATION:							
Cost of design-to-silicon yield solutions.....	--	--	4	18	20	--	295
Research and development.....	--	--	10	43	48	--	1,190
Selling, general and administrative.....	--	--	--	--	--	--	208
	--	--	14	61	68	--	1,693

(1) Through November 1995, we were a Subchapter S corporation and all tax liabilities were attributable to the common shareholders.

(2) Amounts presented for 1995 represent diluted net income per share and shares used for computing diluted net income per share. Shares used to compute basic net income per share, which equaled \$0.04 per share, totaled 4,466,000.

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	DECEMBER 31,					JUNE 30, 2000
	1995	1996	1997	1998	1999	
	(IN THOUSANDS)					
CONSOLIDATED BALANCE SHEETS DATA:						
Cash and cash equivalents.....	\$3,555	\$3,357	\$2,208	\$2,155	\$1,933	\$1,443
Working capital.....	3,687	3,277	2,854	2,501	2,153	434
Total assets.....	3,727	3,797	5,351	4,837	5,644	9,093
Long term obligations, less current portion....	--	--	--	--	72	54
Convertible preferred stock.....	3,497	3,497	3,497	3,497	3,497	3,497
Total shareholders' equity (deficiency).....	252	100	(155)	(480)	(512)	(419)

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#### MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

This prospectus contains certain statements of a forward-looking nature relating to future events or our future financial performance. Prospective investors are cautioned that such statements involve risks and uncertainties, and that actual events or results may differ materially. In evaluating such statements, prospective investors should specifically consider the various factors identified in this prospectus, including the matters set forth under the caption "Risk Factors," which could cause actual results to differ materially from those indicated by such forward-looking statements.

#### OVERVIEW

We provide comprehensive infrastructure technologies and services that improve yield and optimize performance of integrated circuits. Our design-to-silicon yield solutions combine proprietary manufacturing process simulation, yield and performance modeling software, comprehensive test chips, proven yield and performance enhancement methodologies, and professional services.

From our incorporation in 1992 through late 1995, we were primarily focused on research and development of our proprietary manufacturing process simulation

and yield and performance modeling software. From late 1995 through late 1998, we continued to refine and sell our software, while expanding our offering to include yield and performance improvement consulting services. In late 1998, we began to sell our software and consulting services, together with our newly developed proprietary technologies, as complete design-to-silicon yield solutions, reflecting our current business model. In April 2000, we expanded our research and development team and gained additional technology by acquiring Applied Integrated Systems and Software GmbH, which develops software and provides development services to the semiconductor industry.

#### Sources of Revenue

We derive revenue from two sources: design-to-silicon yield solutions and a unique arrangement we call gain share.

**Design-to-Silicon Yield Solutions.** Design-to-silicon yield solutions revenue is derived from solution implementations, software and technology licenses and software support and maintenance. Our solution implementations involve delivery, installation and application of our software and other technologies by our integration engineers for: (1) assessment, which involves extensive diagnosis, analysis and prioritization of yield loss components; and (2) implementation, which involves modifications to the design or manufacturing process to improve IC yield and optimize performance. Solution implementations typically take 9 to 15 months to perform and our customer contracts generally provide for fixed price milestone payments during the course of the engagement. Revenue from solution implementations is recognized on the percentage of completion method as we perform the services. The majority of the software and other technologies that we license are bundled with solution implementations. Accordingly, these license fees are recognized as a component of solution implementation contracts. In some cases, we license selected software and technologies without solution implementation services to our existing customers. In addition, we may license our software and technologies without services to potential strategic industry partners to accelerate the adoption of our design-to-silicon yield solutions. If collection of the resulting receivable is probable, the fee is fixed or determinable, and vendor-specific objective evidence exists to allocate a portion of the total license fee to any undelivered elements of the arrangement, then these license fees are recognized upon delivery of our software or authorization codes. Otherwise, these license fees are recognized over the term of the license. Software support and maintenance fees are generally allocated based on vendor specific objective evidence and recognized ratably over the term of the maintenance agreement, typically 12 months.

**Gain Share.** In addition to the revenue we derive from our design-to-silicon yield solutions, many of our solution implementation contracts provide that we will receive revenue that varies based on the value we create for our customers. To date, we have determined this value based on our customer's actual yield

improvements relative to a negotiated yield target, or baseline, for specific products or processes. This target is typically based on the customer's projected yield without our solutions. We refer to these value-based fees as gain share. We have historically determined gain share fees based on one of two ways: as a percentage of the reduction in our customers' cost of goods sold or a percentage of incremental revenue achieved by our customers, in each case, relative to the baseline. Our customer contracts typically contain limitations on the scope of our gain share fees. Gain share may vary significantly because a customer's financial benefits of yield improvements can be affected by forces that are beyond our control, such as market demand for an end product, as well as a company's internal manufacturing performance and pricing decisions. Typically, gain share is measured on a quarterly basis, after mass production begins, and runs for periods of time exceeding one year. We recognize gain share revenue following agreement as to the level of performance achieved.

#### Stock-Based Awards

During the six months ended June 30, 2000, we issued 3,258,290 common stock options to employees at a weighted average exercise price of \$1.21 per share. The weighted average exercise price was below the weighted average deemed fair value of \$6.03 per share. The cumulative deferred stock-based compensation with respect to these grants was \$15.7 million, and is being amortized to expense on an accelerated method over the four year vesting periods of the options. During

the six months ended June 30, 2000, we amortized \$1.3 million to stock-based compensation expense and the remaining balance of \$14.4 million will be amortized over the remaining vesting periods through June 2004. Subsequent to June 30, 2000 and through July 31, 2000, we granted an additional 332,500 options to employees at exercise prices below the deemed fair value. The aggregate deferred stock-based compensation of \$1.7 million with respect to these options will be amortized on an accelerated method over periods of four years. Due to the accelerated method of amortization, most of the deferred stock-based compensation charge will be incurred over the first one to two years of the vesting of the options. Through December 31, 1999 the cumulative deferred stock-based compensation amortization related to non-employee awards was not material. During the six months ended June 30, 2000, the Company recorded stock-based compensation amortization of approximately \$469,000 related to non-employee awards.

#### Customer Concentration

To date, a small number of IC companies have accounted for virtually all of our total revenue. In the year ended December 31, 1997, two customers accounted for 90% of our total revenue, with Toshiba representing 70% and Texas Instruments representing 20%. In the year ended December 31, 1998, two customers accounted for 82% of our total revenue, with Toshiba representing 66% and Fujitsu representing 16%. In the year ended December 31, 1999, three customers accounted for 87% of our total revenue, with Toshiba representing 53%, Fujitsu representing 19% and Sony representing 15%. In the six months ended June 30, 2000, four customers accounted for 94% of our total revenue, with Toshiba representing 34%, Sony representing 34%, Conexant representing 15% and Philips representing 11%.

To date, companies based in Japan have accounted for the majority of our total revenue. Revenue generated from customers in Japan accounted for 70% of our total revenue in the year ended December 31, 1997, 82% in the year ended December 31, 1998, 90% in the year ended December 31, 1999, and 68% in the six months ended June 30, 2000. We expect that a significant portion of our total future revenue will continue to be derived from companies based in Japan. Virtually all of our total revenue generated internationally has been denominated in U.S. dollars.

#### Recent Acquisition

On April 27, 2000, we acquired all of the outstanding stock of Applied Integrated Systems and Software GmbH, or AISS, for \$1.25 million, consisting of \$995,000 in notes payable and \$255,000 in cash. We expect to repay these notes with the net proceeds of this offering. AISS develops software and provides development services to the semiconductor industry. The acquisition was accounted for using the purchase method and our Consolidated Financial Statements reflect the results of operations of AISS from

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the date of acquisition. The excess of the purchase price over the fair value of the tangible assets and liabilities assumed was \$2.1 million and represents acquired technology, employee workforce and goodwill which is being amortized on a straight line basis over a period of four years.

#### RESULTS OF OPERATIONS

We have historically experienced fluctuations from period to period. We expect these fluctuations to continue, therefore historical results are not indicative of future results.

##### SIX MONTHS ENDED JUNE 30, 1999 AND 2000

#### Revenue

Total revenue increased from \$5.3 million for the six months ended June 30, 1999 to \$8.3 million for the six months ended June 30, 2000.

Design-to-Silicon Yield Solutions. Design-to-silicon yield solutions revenue increased 12% from \$5.3 million for the six months ended June 30, 1999 to \$6.0 million for the six months ended June 30, 2000. This increase was primarily attributable to a greater number of solution implementations during the six months ended June 30, 2000 compared to the corresponding period in the

prior year.

Gain Share. Gain share revenue increased from zero for the six months ended June 30, 1999 to \$2.3 million for the six months ended June 30, 2000. This increase was due to the attainment of gain share yield targets for three customers.

#### Costs and Expenses

Cost of Design-to-Silicon Yield Solutions. Cost of design-to-silicon yield solutions consists primarily of compensation, benefits and related personnel costs of the engineers who perform solution implementations and software support and maintenance as well as allocated facilities costs. Cost of design-to-silicon yield solutions increased from \$1.8 million for the six months ended June 30, 1999 to \$2.9 million for the six months ended June 30, 2000. This increase was due to a greater number and increased average size of solution implementations, as well as the execution of our business strategy to aggressively increase capacity ahead of revenue, resulting in the hiring of additional personnel. As a percentage of design-to-silicon yield solutions revenue, cost of design-to-silicon yield solutions increased from 34% for the six months ended June 30, 1999 to 49% for the six months ended June 30, 2000. This percentage increase was primarily the result of increasing capacity in anticipation of expanding our customer base and being awarded new design-to-silicon solutions contracts. We anticipate that our cost of design-to-silicon yield solutions will increase in absolute dollars as we support an expanding number of solution implementations. We expect, however, that cost of design-to-silicon yield solutions revenue will decrease as a percentage of design-to-silicon yield solution revenue in the long term as capacity to deliver solution implementations is more efficiently balanced with the number of ongoing solution implementation contracts.

Research and Development. Research and development expenses consist primarily of compensation, benefits and related personnel costs of the engineers engaged in research and development as well as allocated facilities costs. Research and development expenses increased from \$1.2 million for the six months ended June 30, 1999 to \$2.2 million for the six months ended June 30, 2000. This increase was due to our expanding research and development efforts in software and technologies. As a percentage of total revenue, research and development expenses increased from 23% for the six months ended June 30, 1999 to 27% for the six months ended June 30, 2000. A significant portion of this increase was due to the addition of personnel and the increase in personnel-related costs for development of existing and new technologies, including as a result of our acquisition of AISS. We anticipate that we will continue to commit considerable resources to research and development in the future and that these expenses will continue to increase significantly in absolute dollars.

Selling, General and Administrative. Selling, general and administrative expenses consist primarily of compensation, benefits and related personnel costs as well as allocated facilities costs, outside sales

representative commissions, recruiting and relocation costs, accounting and administrative expenses, training, costs for legal and professional services and general corporate expenses. Selling, general and administrative expenses increased from \$2.2 million for the six months ended June 30, 1999 to \$3.0 million for the six months ended June 30, 2000. This increase was due to increased spending in personnel and related costs and legal and other professional services in connection with building the necessary administrative infrastructure to support the growth of our operations. As a percentage of total revenue, selling, general and administrative expenses decreased from 41% for the six months ended June 30, 1999 to 37% for the six months ended June 30, 2000. We expect that selling, general and administrative expenses will increase in absolute dollars to support increased selling and administrative efforts.

Stock-Based Compensation Amortization. Stock-based compensation amortization expense increased from zero during the six months ended June 30, 1999 to \$1.7 million during the six months ended June 30, 2000. The increase was attributable primarily to options granted to employees at exercise prices below the deemed fair value of our common stock.

#### Interest and Other Income

Interest and other income decreased from approximately \$51,000 for the six months ended June 30, 1999 to approximately \$41,000 for the six months ended June 30, 2000. This decrease was due to lower average cash and short-term investment balances.

#### Provision for Taxes

Provision for taxes decreased from approximately \$301,000 for the six months ended June 30, 1999 to approximately \$273,000 for the six months ended June 30, 2000. These provisions for taxes primarily represented foreign withholding taxes on some revenue from Japanese customers.

#### YEARS ENDED DECEMBER 31, 1997, 1998 AND 1999

#### Revenue

Total revenue increased from \$2.6 million for the year ended December 31, 1997, to \$6.2 million for the year ended December 31, 1998, to \$11.8 million for the year ended December 31, 1999.

Design-to-Silicon Yield Solutions. Design-to-silicon yield solutions revenue increased 131% from \$2.6 million for the year ended December 31, 1997 to \$6.0 million for the year ended December 31, 1998, and further increased 75% to \$10.6 million for the year ended December 31, 1999. These increases were primarily the result of a greater number and size of solution implementations.

Gain Share. Gain share revenue increased from zero for the year ended December 31, 1997, to approximately \$192,000 for the year ended December 31, 1998, to \$1.3 million for the year ended December 31, 1999. This increase was due to the introduction of our gain share business model in late 1997 and the achievement of yield improvements over negotiated contract baselines.

#### Costs and Expenses

Cost of Design-to-Silicon Yield Solutions. Cost of design-to-silicon yield solutions increased from approximately \$595,000 for the year ended December 31, 1997, to \$1.5 million for the year ended December 31, 1998, to \$4.1 million for the year ended December 31, 1999. As a percentage of design-to-silicon yield solutions revenue, cost of design-to-silicon yield solutions increased from 23% for the year ended December 31, 1997, to 25% for the year ended December 31, 1998, to 39% for the year ended December 31, 1999. These increases in absolute dollars and as a percentage of design-to-silicon yield solutions revenue were due to the hiring of additional engineers as we built our solution implementation teams in anticipation of increased demand for our solutions.

Research and Development. Research and development expenses increased from \$1.0 million for the year ended December 31, 1997, to \$1.9 million for the year ended December 31, 1998, to \$3.1 million for

the year ended December 31, 1999. These increases were due to an increase in personnel and related costs in each period. As a percentage of total revenue, research and development expenses decreased from 38% for the year ended December 31, 1997, to 30% for the year ended December 31, 1998, to 26% for the year ended December 31, 1999.

Selling, General and Administrative. Selling, general and administrative expenses increased from \$1.4 million for the year ended December 31, 1997, to \$3.0 million for the year ended December 31, 1998, to \$4.3 million for the year ended December 31, 1999. These increases were due to additional personnel and related costs, outside sales representative commissions, recruiting and relocation costs, accounting and administrative expenses, training and costs for legal and professional services. As a percentage of total revenue, selling, general and administrative expenses decreased from 54% for the year ended December 31, 1997, to 48% for the year ended December 31, 1998, to 36% for the year ended December 31, 1999.

Stock-Based Compensation Amortization. Stock-based compensation amortization expense increased from approximately \$14,000 for the year ended December 31, 1997, to approximately \$61,000 for the year ended December 31, 1998, to approximately \$68,000 for the year ended December 31, 1999. These increases were primarily attributable to timing of the vesting of options and

warrants granted to non-employees and the resulting revaluation of compensation expense related to such vested options and warrants.

Interest and Other Income

Interest and other income decreased from approximately \$139,000 for the year ended December 31, 1997, to approximately \$128,000 for the year ended December 31, 1998, to approximately \$105,000 for the year ended December 31, 1999. These decreases were due to lower average balances of cash and cash equivalents.

Tax Provision

The tax provision increased from approximately \$9,000 for the year ended December 31, 1997, to approximately \$341,000 for the year ended December 31, 1998, to approximately \$533,000 for the year ended December 31, 1999. These provisions primarily represented foreign withholding taxes on some revenue from Japanese customers. These increases were attributable to the increased number of contracts and the revenue subject to these withholding requirements.

SIX QUARTERS ENDED JUNE 30, 2000

The following tables set forth our consolidated statement of operations data for each quarter in the six quarters ended June 30, 2000. This unaudited quarterly information has been prepared on the same basis as our audited Consolidated Financial Statements and, in the opinion of management, includes all adjustments, consisting only of normal recurring adjustments, necessary for the fair presentation of such data. We believe that quarterly revenues, particularly the mix of the revenue components, and operating

results are likely to vary significantly in the future and that period-to-period comparisons of our results of operations should not be relied upon as indications of future performance.

	QUARTER ENDED					
	MAR 31, 1999	JUNE 30, 1999	SEPT 30, 1999	DEC 31, 1999	MAR 31, 2000	JUNE 30, 2000
	(IN THOUSANDS)					
CONSOLIDATED STATEMENTS OF OPERATIONS						
DATA:						
Revenue:						
Design-to-silicon yield solutions....	\$2,451	\$2,883	\$2,575	\$2,658	\$2,194	\$ 3,774
Gain share.....	--	--	500	757	1,500	808
Total revenue.....	2,451	2,883	3,075	3,415	3,694	4,582
Costs and expenses:						
Cost of design-to-silicon yield solutions.....	722	1,100	1,133	1,136	1,252	1,653
Research and development.....	650	594	816	1,027	946	1,296
Selling, general and administrative.....	1,142	1,060	1,084	1,009	1,446	1,579
Stock-based compensation amortization.....	--	--	27	41	259	1,434
Total costs and expenses.....	2,514	2,754	3,060	3,213	3,903	5,962
Income (loss) from operations.....	(63)	129	15	202	(209)	(1,380)
Interest income and other.....	27	25	26	27	17	24
Income (loss) before taxes.....	(36)	154	41	229	(192)	(1,356)
Tax provision.....	201	100	102	130	107	166
Net income (loss).....	\$ (237)	\$ 54	\$ (61)	\$ 99	\$ (299)	\$ (1,522)

The trends discussed in the annual comparisons of operating results from



1997 through 1999 as well as for the six month periods ended June 30, 1998 and 1999, generally apply to the comparisons of results for our six most recent quarters ended June 30, 2000.

A significant portion of our revenue has been, and will continue to be, derived from a small number of substantial contracts with large corporations, which involve extended contract negotiations. We attempt to maximize utilization of our implementation teams by minimizing the time between completion of one solution implementation and commencement of the next. Accordingly, the timing and performance of these contracts may cause material fluctuations in our operating results, particularly on a quarterly basis, although in the past this has been offset by gain share revenue resulting from previous engagements. For example, design-to-silicon yield solutions revenue decreased from the second quarter of 1999 to the third quarter of 1999 and from the fourth quarter of 1999 to the first quarter of 2000 as a result of a delay between completion of existing solution implementations and commencement of the next.

Some of our gain share arrangements provide for non-recurring incentive payments upon the achievement of negotiated yield targets within a specified time. Gain share revenue may increase significantly in the quarter in which these targets are met. For example, in the first quarter of 2000, we recognized revenue in connection with the achievement of one of these targets. In addition, our quarterly operating results, particularly as they pertain to gain share, have in the past and will in the future vary significantly depending upon factors such as our customers production cycles, our customers ability to measure, on a timely basis, the performance of their production facilities, changes in market demand for our customers' products, and our ability to deliver results above negotiated gain share baselines. These factors, among others, have made and will continue to make gain share revenues difficult to forecast.

Historically, research and development expenses have fluctuated depending on the rate of hiring engineers and on whether we use engineering resources for development projects or solution implementations. For example, in the fourth quarter of 1999, we experienced an increase in research and development expenses due to these factors.

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Selling, general and administrative expense levels have remained in a narrow range over most of the past six quarters. Recently, expenses have increased in the finance and administration functions as we have built the infrastructure necessary to support the growth of the business.

#### LIQUIDITY AND CAPITAL RESOURCES

Since inception, we have funded our operations primarily with the net proceeds from the sale of common and preferred stock, which amounted to \$8.7 million and, to a lesser extent, from cash flow from operations, bank borrowings and capital equipment leases.

On December 4, 1995, we issued 8,750,000 shares of Series A preferred stock at \$0.40 per share resulting in net proceeds of \$3.5 million. On August 4, 2000, we issued 526,315 shares of Series B preferred stock at \$9.50 per share resulting in net proceeds of \$5.0 million. Upon the closing of the Series B preferred stock financing, we will record a charge to net loss attributable to common shareholders of approximately \$684,000 for the beneficial conversion feature inherent in the Series B preferred stock. The beneficial conversion feature is equal to the difference between the price of the Series B preferred stock and the estimated fair value of our common stock into which the Series B preferred stock is convertible. The beneficial conversion feature is similar to a dividend on preferred stock that increases net loss to arrive at net loss attributable to common shareholders.

Net cash used in operating activities was approximately \$828,000 for the year ended December 31, 1997. Net cash provided by operating activities was approximately \$212,000 for the year ended December 31, 1998 and approximately \$272,000 for the year ended December 31, 1999. Net cash used in 1997 was principally the result of a net loss and an increase in accounts receivable partially offset by increases in deferred revenues, accounts payable, and accrued compensation and related benefits. Net cash provided by operating activities in 1998 was the result of decreases in accounts receivable and increases in accounts payable and other accrued liabilities partially offset by a loss and a decrease in deferred revenues. Net cash provided by operating

activities in 1999 resulted from increases in accrued compensation and related benefits and net income, after adjustment for depreciation and amortization, partially offset by increases in accounts receivable. Net cash provided by operating activities was approximately \$100,000 for the six months ended June 30, 2000. This resulted primarily from net income for the period of approximately \$163,000, as adjusted for depreciation and amortization, including amortization of deferred stock compensation costs of \$1.7 million, and increases in accounts payable of approximately \$824,000 and deferred revenues of approximately \$455,000, partially offset by increases in accounts receivable of \$1.0 million and accrued compensation and related benefits of approximately \$155,000.

Net cash used in investing activities was approximately \$321,000 for the year ended December 31, 1997, approximately \$281,000 for the year ended December 31, 1998 and was approximately \$537,000 for the year ended December 31, 1999, all primarily the result of purchases of property and equipment. Our capital expenditures consisted primarily of computer hardware and software and office furniture. Net cash used in investing activities was approximately \$791,000 for the six months ended June 30, 2000, primarily due to the purchase of property and equipment of approximately \$566,000 and the acquisition of AISS for \$995,000 in promissory notes and \$255,000 in cash.

Net cash provided by financing activities was zero for the year ended December 31, 1997, approximately \$16,000 for the year ended December 31, 1998 and approximately \$42,000 for the year ended December 31, 1999. Net cash provided by financing activities was approximately \$198,000 for the six months ended June 30, 2000, primarily due to the exercise of stock options.

We currently have a revolving credit commitment that provides for up to \$3.0 million in borrowings through August 31, 2000. The credit commitment is divided into the following components: a \$2.5 million Foreign Asset Based Line of Credit Commitment and a \$500,000 Domestic Asset Based Line of Credit Commitment for which advances are limited, respectively, to 90% of foreign and 75% of domestic accounts receivable, as defined. Outstanding borrowings bear interest at prime (9.5% at June 30, 2000) plus 0.75%. Borrowings under these arrangements are secured by all of our personal property. In addition, these

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agreements require us to comply with certain financial covenants. As of June 30, 2000, there were no borrowings outstanding under the agreements.

In connection with our acquisition of AISS, we issued \$995,000 in promissory notes on April 27, 2000. The principal amount, plus interest at 7% per annum, is payable April 27, 2001.

We currently anticipate capital expenditures for additional fixed assets of \$1.5 million for the year ended December 31, 2000. As of June 30, 2000 we did not have any material commitments for capital expenditures. From time to time, we may also consider acquisitions of complementary products, technologies or businesses. Any acquisition or investment of this type may require additional capital.

We expect to experience significant growth in our operating expenses, particularly for research and development and additions to our workforce in order to execute our business plan. As a result, we anticipate that our operating expenses, as well as planned capital expenditures, will constitute a material use of our cash resources. In addition, we may utilize cash resources to fund potential acquisitions of complementary products, technologies or businesses. We believe that the net proceeds from this offering together with our existing cash resources, available bank financing and anticipated funds from operations, will satisfy our cash requirements for at least the next twelve months. In the event additional financing is required, we may not be able to raise it on acceptable terms or at all.

#### EURO-CURRENCY

The Single European Currency, or Euro, was introduced on January 1, 1999, with complete transition to this new currency required by January 2002. In connection with our acquisition of AISS, we are currently assessing the issues raised by the introduction of the Euro, but we do not expect that required changes, if any, will have a material effect on our business.

## RECENT ACCOUNTING PRONOUNCEMENTS

In June 1998, the Financial Accounting Standards Board issued SFAS No. 133, Accounting for Derivative Instruments and Hedging Activities. This statement will require us to record derivatives on our balance sheet as assets or liabilities measured at fair value. Gains or losses resulting from changes in the values of those derivatives would be accounted for depending on the use of the derivative and whether it qualifies for hedge accounting. SFAS 133 will be effective for our fiscal year ending December 31, 2001. We have not yet determined the impact that the adoption of SFAS 133 will have on our earnings or financial position.

## MARKET RISK

The following discusses our exposure to market risk related to changes in interest rates and foreign currency exchange rates. We do not currently own any equity investments, nor do we expect to own any in the foreseeable future. This discussion contains forward-looking statements that are subject to risks and uncertainties. Actual results could vary materially as a result of a number of factors.

**Interest Rate Risk.** As of June 30, 2000 and including the net proceeds of \$5.0 million from the issuance of Series B preferred stock on August 4, 2000, we had cash and equivalents of \$6.4 million, consisting of cash and highly liquid money market instruments with maturities of less than 90 days. Because of the short maturities of these instruments, a sudden change in market interest rates would not have a material impact on the fair value of the portfolio. We would not expect our operating results or cash flows to be affected to any significant degree by the effect of a sudden change in market interest on our portfolio. As of June 30, 2000, we had outstanding notes payable of \$995,000 which bear interest at a fixed rate of 7%. The fair value of these notes approximated the recorded value at June 30, 2000. Changes in market interest rates will affect the fair market value of these notes. A hypothetical increase in market interest rates of 10% from the market rates in effect at June 30, 2000 would cause the fair value of these investments and notes payable to decrease and increase, respectively, by an immaterial amount and would

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not have significantly impacted our financial position or results of operations. Declines in interest rates over time will result in lower interest income and increased interest expense.

**Foreign Currency and Exchange Risk.** Virtually all of our revenue is denominated in U.S. dollars, although such revenue is derived substantially from foreign customers. Foreign sales to date, generated by AISS since the date of its acquisition, have been invoiced in local currencies, creating receivables denominated in currencies other than the U.S. dollar. The risk due to foreign currency fluctuations associated with these receivables is partially reduced by local payables denominated in the same currencies, and presently we do not consider it necessary to hedge these exposures. We intend to monitor our foreign currency exposure, and may use financial instruments to limit this exposure. There can be no assurance that exchange rate fluctuations will not have a materially negative impact on our business.

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## BUSINESS

### OVERVIEW

We provide comprehensive infrastructure technologies and services that improve yield and optimize performance of integrated circuits. We believe that our solutions significantly improve a semiconductor company's time to market, yield ramp and product profitability. Our design-to-silicon yield solutions combine proprietary manufacturing process simulation, yield and performance modeling software, comprehensive test chips, proven yield and performance enhancement methodologies, and professional services. The result of implementing our solutions is the creation of value that can be measured based on improvements to our customers' actual yield. We receive recurring revenue based on this value through a unique approach that we call gain share. To date, we

have sold our technologies and services to, and we have established ongoing relationships with, key integrated device manufacturers such as Toshiba Corporation, Sony Corporation, Conexant Systems, Inc., Philips Semiconductor and Texas Instruments Incorporated.

## INDUSTRY BACKGROUND

Integrated circuits, or ICs, are critical components used in an increasingly wide variety of applications, such as computer systems; Internet and communications infrastructure equipment, including wireless and network devices; and consumer products including cellular phones, pagers, personal digital assistants, game consoles and network appliances. As IC performance has increased and size and cost have decreased, the use of ICs in these applications has grown significantly. According to an October 1999 report by the Semiconductor Industry Association, the worldwide semiconductor market is expected to grow from \$144 billion in 1999 to \$233 billion in 2003. A large part of this growth is expected to occur in deep submicron ICs having circuit component feature sizes, or geometries, that measure less than 0.20 microns, or millionths of a meter. ICs are manufactured onto silicon disks, commonly referred to as wafers. According to an August 2000 report by VLSI Research, the demand for these deep submicron silicon wafers is estimated to grow at a compound annual rate in excess of 55% from 1999 to 2005. Rapid technological innovation has shortened product life cycles, which fuels the economic growth of the semiconductor industry.

ICs are becoming increasingly complex and geometries are rapidly shrinking to meet market requirements for new applications and greater functionality at a lower cost. Therefore, IC companies are adopting new designs, process technologies and materials at an unparalleled rate. For example, silicon germanium processes will be integrated with standard logic processes to provide better performance for radio-frequency components in communication ICs. The integration of diverse new technologies and the introduction of novel manufacturing processes has resulted in increasingly complex manufacturing challenges.

In addition, the IC industry faces compression in product lifecycles. Previously, companies could afford to take months, or years in some cases, to integrate their new design and manufacturing processes. With traditional product life cycles, IC companies ramped production slowly, produced at high volume once the product hit its prime, and slowly reduced production volume when the price and the demand started to decrease near the end of its life cycle. More recently, demand -- largely driven by consumers in search of the next, more powerful, smaller device -- has dramatically reduced the time that semiconductor companies have to successfully bring a product to market in high volumes. Companies now need to sell the most volume when a product is first introduced and has a performance and pricing advantage over its competition, or they will lose the market opportunity and the related high revenue.

Increased IC complexity and compressed product lifecycles create significant challenges to achieving competitive yields and optimizing high performance. Yield is the percentage of ICs produced that meet customers' specifications. For example, it is not uncommon for an initial manufacturing run to yield only 20%, meaning 80% of those wafers were wasted. Yield improvement and performance optimization are critical drivers of IC companies' financial results because they typically lead to cost reduction and revenue

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generation concurrently, causing a leveraged effect on profitability. Historically, yield loss resulted primarily from contamination in the IC manufacturing process. With deep submicron ICs, the dominant factor of yield loss has shifted from contamination to (1) systematic yield loss, or non-functioning ICs resulting from the lack of compatibility between the design and manufacturing processes, and (2) performance yield loss, or functioning ICs that do not meet customer speed requirements. Manufacturers have historically addressed systematic and performance yield loss reactively and almost exclusively by inefficient and time consuming trial-and-error adjustments to the manufacturing process.

Disaggregation of the semiconductor industry has further complicated IC companies' ability to maximize yield. Historically, leading semiconductor companies designed, manufactured and tested their ICs internally, thus retaining design-manufacturing integration know-how. Today, the industry is comprised of

organizations and separate companies that specialize in a particular phase of designing and manufacturing ICs. This has resulted in a fragmentation of the knowledge related to the integration of IC design and manufacturing.

The combination of increasingly complex ICs and design and manufacturing processes, reduced time to produce new products in high volumes and the loss of information due to disaggregation has left a void. This void, or what we call the design-to-silicon yield gap, creates a number of significant problems for semiconductor companies, including:

- Slow Yield Ramp. Increased process and design complexity extends the time needed to arrive at acceptable yields and increases the time it takes for a semiconductor company to begin producing at high volumes, directly and negatively impacting a company's potential market share and potential revenue.
- Longer Time to Market and Increased Up-front Costs. Yield problems in the initial manufacturing phase result in numerous design and process iterations that delay product introductions and appreciably increase up-front costs, such as non-recurring engineering, mask-set redesigns and excessive sample wafers.
- High Cost of Goods Sold. Processed wafer costs are typically the largest component of an IC company's cost of goods sold and, therefore, yield loss significantly increases costs.
- Difficulties Producing High-Performance ICs. High-performance ICs are particularly sensitive to the lack of compatibility between design and manufacturing. In addition, semiconductor companies typically experience a trade-off between yield and IC performance because it is generally more difficult to produce ICs with more stringent specifications. Semiconductor companies may target high-performance ICs because they typically have higher margins.

Delivering complex ICs quickly and in high volumes requires unique silicon infrastructure solutions to tightly integrate the IC design and manufacturing processes -- thus bridging this design-to-silicon yield gap.

#### THE PDF SOLUTION

We provide comprehensive silicon infrastructure technologies and services to address the design-to-silicon yield gap. Our solution combines proprietary manufacturing process simulation software, yield and performance modeling software, comprehensive test chips, proven yield and performance enhancement methodologies and professional services to increase yield, accelerate yield ramp and improve IC performance. We create a prioritized analysis of yield loss mechanisms to identify, quantify and correct the issues that cause yield loss, often before an IC design is complete. This drives IC design and manufacturing improvements that enable our customers to achieve and exceed targeted IC yield and performance earlier in product life cycles. Our solution is designed to increase the initial yield when a design first enters a manufacturing line, increase the rate at which that yield improves, and allow subsequent product designs to be added to manufacturing lines more quickly and easily. Because our design-to-silicon yield solutions dramatically and quickly improve a semiconductor company's time to market and yield ramp -- and ultimately product profitability -- we tie our revenue to these improvements

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through a unique approach that we call gain share. Gain share is the percentage we receive of our customers' incremental cost savings associated with improved yields and accelerated ramp. We believe our unique gain share model helps us to form highly collaborative and long term relationships with our customers.

The following graphically depicts the integration of IC design with manufacturing processes using our design-to-silicon yield solutions.

[Diagram]

[The diagram depicts two boxes on opposite sides of the page. The left box is labeled "IC design." The right box is labeled "manufacturing processes." The two boxes are connected by a bi-directional arrow which is labeled "Integrate, Design and Manufacturing Process." Underneath is a long box labeled

"Design-to-silicon yield solutions." Two arrows extend upward from this box to the bi-directional arrow. The left arrow is labeled "Simulate, design, yield and performance." The right arrow is labeled "Characterize, model and optimize manufacturing processes."]

The key benefits of our solution to our customers are:

**Faster Time to Market.** Our design-to-silicon yield solutions are designed to significantly accelerate our customers' time to market and increase product profitability. Our solutions, which predict and improve product yield even before IC product design is complete, change the traditional design-to-silicon sequence to primarily a concurrent process, and decrease our customers' time to market. Systematically incorporating knowledge of the integration of the design and manufacturing processes into software modules, enables faster introduction of additional products with consistently high initial yields. Our design-to-silicon yield solutions decrease design and process iterations, reduce our customers' up-front costs and speed time to market, thus providing our customers with early-mover advantages such as increased market share and higher selling prices.

**Faster Time to Volume.** After achieving higher initial yields and faster time to market, our design-to-silicon yield solutions are designed to enable our customers to isolate and eliminate remaining systematic yield issues to achieve cost efficient volume. Once a manufacturing process has been modeled using our solutions, our customers are able to diagnose problems and simulate potential corrections more quickly than using traditional methods. In addition, if process changes are required, improvements can be verified more quickly using our technology than using traditional methods. Our design-to-silicon yield solutions enable our customers to quickly reach cost efficient volume, so that they are able to increase revenue, improve their competitive position, and capture higher market share.

**Increased Manufacturing Efficiencies.** After using our design-to-silicon yield solutions for product introduction and yield ramp, our solutions are designed to allow our customers to achieve a higher final yield and therefore a lower cost of goods sold. In addition, our design-to-silicon yield solutions are designed to provide our customers with the ability to proactively monitor process health to avoid potential yield problems. By paying us gain share as our customers recognize cost savings from these manufacturing efficiencies, they also benefit from better matching their costs to their revenue.

**Increased Semiconductor Performance.** Our design-to-silicon yield solutions are designed to enable our customers to achieve over-all higher level semiconductor performance by modeling the factors that affect speed and simulating possible improvements. Typically, the changes necessary to achieve higher performance result in an overall reduction in yield. Because our design-to-silicon yield solutions also model the factors that affect yield at the same time, our customers can often achieve both higher IC performance and higher yield, thereby generating higher margin revenues.

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## OUR STRATEGY

Our objective is to provide the industry standard in design-to-silicon yield solutions. Key elements of our strategy include:

**Leverage Our Unique Gain Share Business Model.** We intend to expand the gain share component of our customer contracts. We believe this unique approach helps us to form highly collaborative and longer-term relationships. Working closely with our customers on their core technologies with a common focus on their business results provides direct and real-time feedback, which we will continue to use to rapidly generate market-driven improvements that add value to our solutions. We also believe that gain share allows us to increase penetration of our customer accounts because adding new semiconductor products to existing lines is increasingly easy and economical for our customers once our design-to-silicon yield solutions are implemented. As our gain share customers succeed in improving their yield and performance while reducing costs, we believe that we will generate new customer accounts based on these successes.

**Focus on Key IC Product Segments.** We intend to focus our solution on key IC product segments such as system-on-a-chip, communications networking, graphics and high-performance central processing units. These are high-volume,

high-growth segments and are fueled by the growth of Internet and wireless infrastructure and consumer applications. As a result, we will expand our solution for key technology drivers such as low-k dielectrics, copper, embedded DRAM and silicon germanium. We believe that these product segments are particularly attractive because they include complex IC design and manufacturing processes where processed silicon is costly and yield is critical.

**Expand Strategic Relationships with Industry Leaders.** We intend to extend and enhance our relationships with leading companies at key stages of the design-to-silicon process, such as manufacturing equipment vendors, silicon intellectual property vendors, semiconductor foundries, and test and assembly equipment providers. We believe that strategic relationships with industry leaders will increase our insight into future industry needs, thus allowing us to further accelerate our learning and enhance the value of our solutions. We expect these relationships to also serve as sales channels for our design-to-silicon yield solutions and to increase industry awareness of our solutions.

**Extend Our Technology Leadership Position.** We intend to continue expanding our research and development efforts by leveraging our experienced engineering staff and codifying the knowledge that we continually acquire in our solution implementations. In addition, we intend to selectively acquire complementary businesses and technologies to increase the scope of our solutions. We will continue to make significant investments in the development of proprietary manufacturing process simulation software, yield and performance modeling software, other technologies, and yield and performance enhancement methodologies to accommodate our customers' increasingly complex semiconductor needs.

**Expand Worldwide Presence.** We intend to establish engineering design and product development centers in key international locations around the world. To date, we have focused on regions specific to our design efforts -- the United States, Japan and Europe. We intend to expand geographically to gain access to international engineering talent and to maintain proximity to our expanding customer base. In addition, we believe that these efforts will have collateral sales and marketing benefits as a result of local presence.

## TECHNOLOGY

Our design-to-silicon yield solutions combine proprietary manufacturing process simulation, yield and performance modeling software, comprehensive test chips and proven yield and performance enhancement methodologies. We have designed a proprietary process that uses each of these technologies to (1) identify yield-relevant layout pattern elements by using the knowledge base embedded in our technologies, (2) categorize IC layout components into these elements, (3) quantify the yield of each of the elements, and (4) model the frequency of yield-relevant elements and their yield-loss probabilities to calculate the likely yield of an IC design. We continually enhance our technologies through the codification of knowledge that we gain in our solution implementations.

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Our software incorporates the following elements:

- efficient modeling algorithms of the interaction between design layout and manufacturing processes, which creates layout pattern-dependent systematic yield models that encompass process technologies such as lithography, etch, interlayer dielectric chemical-mechanical polishing (ILD CMP), copper CMP and shallow trench isolation CMP (STI CMP);
- pattern recognition algorithms, which allow us to categorize the yield-relevant elements of a design as a function of their layout, including the effects of their proximity to other elements;
- a hierarchical representation of the layout, which encompasses layout manufacturing process proximity effects and minimizes the time necessary for computation of systematic yield prediction;
- algorithms that compute an overall yield impact matrix for design as a function of layout elements and manufacturing yield models;
- statistical simulation of circuit performance as a function of

manufacturing process variations, including their impact on transistor performance; and

- statistical process and device simulation.

Our software that is used to predict yields of designs is also used to generate test chips, or characterization vehicles. These characterization vehicles, or CVs, are used to calibrate the yield models and to provide manufacturers with early prediction of product yields, often before the IC design is completed. Early prediction generated by the CVs is the basis of the yield improvement methodologies for the manufacturing line. Information generated by the CVs is also used to improve the IC design.

Our methodologies are a series of guidelines that our implementation teams use to drive our customers' adoption of our software and CVs to quantify the yield impact of each module of the process and design block, simulate the impact of changes to the design and manufacturing process, and analyze the outcome of executing such changes.

## PRODUCTS AND SERVICES

Our design-to-silicon yield solutions consist of integration engineering services, proprietary software and other technologies. Our proprietary software and other technologies include proprietary manufacturing process simulation software, yield and performance modeling software, and comprehensive test chips.

We tailor our solution to our customers' specific business issues by offering one of the following design-to-silicon yield solutions:

- Integration and Ramp. This solution enables our customers to ramp the yield of new products when the manufacturing process or fabrication facility is new. Our solution is used to improve the process capability and manufacturability of designs targeted for that process.
- Yield and Performance Ramp. This solution enables our customers to ramp the yield and performance of new products when the manufacturing process is assumed to be mostly correct and complete. In this case, we focus on design oriented issues.

Our design-to-silicon yield solutions can incorporate various software and other technologies, typically including the following:

- Characterization Vehicles and Characterization Vehicle software. Our integration engineers develop a design of experiments, or DOE, to determine how IC design building blocks interact with the manufacturing process. Our software utilizes the DOE, as well as a library of these building blocks that we know have potential yield and performance impact, to generate comprehensive test chips that we call Characterization Vehicles, or CVs. These CVs are run through the manufacturing process with intentional modifications to explore the effects of natural manufacturing process variations. Our CV analysis software is then used to analyze the electrical test results generated by

the test chips to model the yield and performance effects of process variations on these design building blocks.

- pdEx. pdEx analyzes an IC design to compute its systematic and contamination yield loss. pdEx takes as input, a layout that is typically in industry standard format, yield models generated by running our CVs, other test chip data and other in-line inspection systems. pdEx is designed to estimate the yield loss due to optical proximity effects, etch micro loading, dishing in chemical-mechanical polishing and contamination, as well as a number of other basic process issues.
- Circuit Surfer. Circuit Surfer estimates the performance yield and manufacturability of small blocks in a design, such as analog subsystems or critical paths of digital blocks. Using Circuit Surfer, a design engineer is able to estimate how manufacturing process variations will impact circuit performance.
- pdFab. pdFab provides a framework for statistical manufacturing process



and transistor simulation that enables our integration engineers to understand the effects of expected or measured manufacturing process variations on transistor performance. pdFab is used to optimize the transistor architecture and associated manufacturing process, and is primarily targeted to provide higher IC performance, although yield improvements may also be generated.

- Optissimo. Optissimo is used to optimize the layout of a design to minimize the impact of wafer printing variations due to optical proximity effects. Optissimo can be used for model based optical proximity correction technologies.

While the primary distribution method for our software and technologies is through our design-to-silicon yield solutions, we have in the past and may in the future separately license these and other technologies.

## CUSTOMERS AND CASE STUDIES

### Customers

Our customers are primarily large integrated device manufacturers, or IDMs. We have established ongoing relationships with key IDMs such as Toshiba Corporation, Sony Corporation, Conexant Systems, Inc., Philips Semiconductor and Texas Instruments Incorporated. Our customers' targeted product segments vary significantly, including microprocessors, graphics, memory, and communications. We believe that the adoption of our solutions by such diverse and technologically advanced companies validates the application of our design-to-silicon yield solutions to the broader market.

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### Case Studies

TOSHIBA CORPORATION -- one of the world's leading semiconductor manufacturers with IC and end product revenue over \$50 billion.

- Challenge: To meet the anticipated large market demand for a new consumer product, Toshiba sought to ramp production of a very large, complex system-on-a-chip, or SoC. A chip of this size and complexity had not previously been manufactured at the projected high volumes.
- Solution: Toshiba utilized our design-to-silicon yield solution to identify and quantify potential yield loss components and their root causes, and to monitor continuing manufacturing process health. Our CVs and analyses continuously identified yield issues and prioritized the causes by yield impact, which Toshiba used to drive proactive improvements to ensure that SoC yields would be on target. Toshiba made numerous design and manufacturing changes, so that the design and manufacturing process were already co-optimized to yield well by the time the SoC was inserted into mass production. In addition, our solution was used to improve the transistor architecture for significantly better transistor performance, which resulted in higher IC performance yield.
- Impact: The SoC yield ramp rate greatly exceeded the industry benchmark ramp rates, and increased the capacity of the fabrication facility and enabled Toshiba to meet the market demand. We continue to work very closely with Toshiba on the next generation of this process and SoC.

CONEXANT SYSTEMS, INC. -- one of the world's leading pure-play communications IC producers with IC revenue in excess of \$2 billion.

- Challenge: Conexant sought to achieve consistently high yields of a specific product across existing internal and external manufacturing processes. This was exacerbated by the added complexities of disparate design rules in each of the

facilities.

**Solution:** We worked with Conexant to identify, quantify and prioritize yield loss components and their root causes to drive yield improvements for an archetypal product. These improvements were also expected to apply to other Conexant products. Our proprietary technology allowed our team to uncover the two major systematic causes of low yield for this product -- the first was an inconsistency in the design rules that specified how layers of metals were connected to each other, or borderless contacts, and the second was a problem in the transistor to transistor interconnect. We worked with Conexant to identify layout changes to compensate for process differences across the manufacturing facilities. Our team used our software simulation capability to predict the yield improvement and ensure that proposed changes were optimal.

**Impact:** In three months, we increased yields dramatically for the archetypal product. In addition, the corrections implemented for the archetypal product were applied to many products in the 0.25 micron technology. We continue to work closely with Conexant on the next generation of its processes and products.

## SALES AND MARKETING

Our sales strategy is to pursue targeted accounts through a combination of our direct sales force and strategic alliances. To date, we have targeted leading IDMs to validate our solutions in leading technology and manufacturing environments and to establish credibility to support future sales and marketing efforts. We expect to extend these efforts to other IDMs and fabless semiconductor companies. For sales in the United States, we rely on our direct sales team, which primarily operates out of our San Jose, California headquarters. In Japan we rely on our direct sales team as well as Innotech, a large semiconductor sales and distribution company located in Japan. Innotech has been instrumental in providing introductions to key executives with some of our targeted customers, which has allowed us to establish direct relationships

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with these key executives. We expect to continue establishing strategic alliances with vendors in the electronic design automation software, capital equipment for IC production, silicon intellectual property and mask-making software segments to create and take advantage of co-marketing opportunities. We believe that these relationship will also serve as sales channels for our design-to-silicon yield solutions and to increase industry awareness of our solutions.

We strive to provide compelling value in our initial engagement to establish ourselves as a key vendor to our customers and solidify relationships at the executive level. Early in the solution implementation, our engineers establish relationships across the organization and gain a solid understanding of our customers' business issues. Our direct sales and solution implementation teams combine their efforts to deepen our customer relationships by expanding our penetration across the customer's products, processes and technologies. This close working relationship with the customer has the added benefit of helping us identify new product areas and technologies in which we should next focus our research and development efforts. We believe that our sales and marketing efforts will facilitate the adoption of our design-to-silicon yield solutions as the industry standard.

## RESEARCH AND DEVELOPMENT

Our research and development focuses on rapidly developing and introducing new proprietary technologies, software products and enhancements to our existing design-to-silicon yield solutions. We use a rapid-prototyping paradigm in the context of the customer engagement to achieve these goals. In addition, we have a highly-qualified technical advisory board comprised of professors from, Harvard University's Business School, the Massachusetts Institute of Technology, Carnegie Mellon University and the University of California, Berkeley to help us develop and guide our strategic development roadmap.

We have made and expect to continue to make substantial investments in

research and development. The complexity of our design-to-silicon yield technologies requires expertise in physical IC design and layout, transistor design and semiconductor physics, semiconductor process integration, numerical algorithms, statistics, and software development. We believe that the multidisciplinary expertise of our team of scientists and engineers will continue to advance our market and technological leadership. We conduct extensive in-house training for our engineers in the technical areas, as well focusing on ways to enhance their client service skills. At any given time, about one quarter of our research and development engineers are operating in the field, partnered with solution implementation engineers in a deliberate strategy to provide direct feedback between technology development and client needs. Our research and development expenses were approximately \$1.0 million in 1997, \$1.9 million in 1998, \$3.1 million in 1999 and \$2.2 million in the first six months of 2000.

#### COMPETITION

The semiconductor industry is highly competitive and characterized by rapidly changing design and process technologies, evolving standards, short product life cycles and decreasing prices. While the market for silicon infrastructure is in its infancy, it is rapidly evolving and we expect competition to develop and continue to increase. We believe a comprehensive solution to effectively close the design-to-silicon yield gap requires integration of design and manufacturing processes. We face the most direct competition from our customers' and potential customers' in-house teams who face the challenge of integrating these elements across internal organizational boundaries. Other potential sources of competition include: yield-management software vendors who could expand their offerings to include or increase design and process capabilities; electronic design automation vendors, who could expand their offerings to include process and manufacturing; and semiconductor process equipment vendors, who could expand their offerings to include design and other elements of process and manufacturing beyond their own equipment.

We believe that the principal factors affecting competition in our market are demonstrated results and reputation, strength of core technology, ability to implement solutions for new technology and product generations, time to market, and strategic relationships. Although we believe that our solutions compete favorably with respect to these factors, our market is relatively new and is evolving rapidly. We may not be

able to maintain our competitive position against current and potential competitors, especially those with significantly greater resources.

#### INTELLECTUAL PROPERTY

Our future success and competitive position are dependent upon our continued ability to develop and protect proprietary software and other technologies. We rely primarily on a combination of contractual provisions, confidentiality procedures, trade secrets, and patent, copyright and trademark laws to protect our proprietary technologies and prevent competitors from using our technologies in their products. We have been issued one German patent and have five patent applications currently pending in the United States. We intend to prepare additional patent applications for submission to the United States Patent and Trademark Office. In the future, we may seek additional patent protection when we feel it is necessary.

We license our products and technologies pursuant to non-exclusive license agreements which impose restrictions on customer use. In addition, we seek to avoid disclosure of our trade secrets, including, requiring employees, customers and others with access to our proprietary information to execute confidentiality agreements with us and restricting access to our source code. We also seek to protect our software, documentation and other written materials under trade secret and copyright laws. Despite this protection, unauthorized parties may copy aspects of our current or future software and other technologies or obtain and use information that we regard as proprietary.

The semiconductor industry is characterized by vigorous protection and pursuit of intellectual property rights or positions. There are also numerous patents in the semiconductor industry and new patents are being issued at a rapid rate. It is also possible that third parties will claim that we have infringed their patents and current or future products. Any claims, with or

without merit, could be time-consuming, result in costly litigation, cause delays, or require us to enter into royalty or licensing agreements, any of which could harm our business. Patent litigation in particular has complex technical issues and inherent uncertainties. In the event an infringement claim against us was successful and we could not obtain a license on acceptable terms or license a substitute technology or redesign to avoid infringement, our business would be harmed.

EMPLOYEES

As of June 30, 2000, we had 108 employees, including 43 in client service teams, 42 in products and methods, 6 in sales and marketing and 17 in general and administrative functions. Seventy-three of these employees are located in San Jose, California, 14 are located in Texas and Virginia, 18 are located in Germany and 3 employees are located in Japan. Of our 108 total employees, 80 are engineers, 70 of which have advanced degrees including 40 with Ph.Ds.

None of our employees is represented by a labor union or is subject to a collective bargaining agreement. We believe our relationship with our employees is good.

LEGAL PROCEEDINGS

We are not currently party to any material legal proceedings.

FACILITIES

Our principal executive offices are located in San Jose, California where we lease approximately 18,000 square feet under a lease that expires in October 2004. We lease 3,750 square feet in Dallas, Texas under a lease that expires in July 2002. In addition, we lease 4,200 square feet in Munich, Germany and 1,600 square feet in Tokyo, Japan under leases that expire in June 2002 and April 2002. We believe that our current facilities in San Jose are adequate to meet our needs through the end of fiscal 2000, at which time we will need to obtain additional space in the San Jose area, which we expect to be able to obtain when necessary. We are also currently in the process of seeking additional space in Dallas.

MANAGEMENT

EXECUTIVE OFFICERS AND DIRECTORS

The names and ages of our executive officers and directors as of June 30, 2000 are as follows:

NAME	AGE	POSITION(S)
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John K. Kibarian, Ph.D. ....	36	Chief Executive Officer, President and Director
Thomas F. Cobourn, Ph.D. ....	39	Vice President, Yield Analysis
David A. Joseph.....	46	Vice President, Products and Methods
P. Steven Melman.....	45	Chief Financial Officer and Vice President, Finance and Administration
Kimon Michaels, Ph.D. ....	34	Vice President, Integration Practice and Director
P.K. Mozumder, Ph.D. ....	38	Vice President, Integration Practice
W. Steven Rowe.....	50	Vice President, Human Resources
David Tarpley.....	54	Vice President, Worldwide Sales
B.J. Cassin.....	66	Director
Donald L. Lucas.....	70	Director
Lucio L. Lanza.....	56	Director

John K. Kibarian, Ph.D., one of our founders, has served as President since November 1991 and has served as our Chief Executive Officer since July 2000. Mr. Kibarian has served as a director since December 1992. Mr. Kibarian received a B.S. E.C.E., M.S. E.C.E. and Ph.D. E.C.E. from Carnegie Mellon University.

Thomas F. Cobourn, Ph.D., one of our founders, has served in Vice

Presidential capacities since June 1992 including currently as Vice President, Yield Analysis. Mr. Cobourn received a B.S., Computer Science and Engineering from the University of Pennsylvania and a M.S. E.C.E. and Ph.D. E.C.E. from Carnegie Mellon University.

David A. Joseph has served as Vice President, Products and Methods since July 1999. He served as Vice President, Business Development from November 1998 through June 1999. From February 1978 to October 1998, Mr. Joseph served KLA/Tencor, a semiconductor manufacturing company, in various positions, including as Japan Business Manager, VP Customer Satisfaction and GM Yield Analysis Software. Mr. Joseph received a B.S. in Mathematical Science from Stanford University.

P. Steven Melman has served as Chief Financial Officer and Vice President, Finance and Administration since July 1998. From April 1997 to June 1998, Mr. Melman served as Vice President Finance and Administration with Animation Science Corporation, an animation company. From April 1995 to April 1997, he served as Vice President, Finance and Chief Financial Officer with Business Resource Group, a facilities management and commercial furnishings company. Mr. Melman received a B.S. in Business Administration from Boston University. Mr. Melman is a Certified Public Accountant.

Kimon Michaels, Ph.D., one of our founders, has served in Vice Presidential capacities since March 1993 including currently as Vice President, Integration Practice, and as a director since November 1995. He also served as Chief Financial Officer from November 1995 to July 1998. Mr. Michaels received a B.S. in Electrical Engineering, a M.S. E.C.E. and a Ph.D. E.C.E. from Carnegie Mellon University.

P.K. Mozumder, Ph.D. has served as Vice President, Integration Practice since May 1998. From June 1994 to May 1998, Mr. Mozumder served as a Branch Manager with Texas Instruments, Inc., a consumer electronics and semiconductor company. Mr. Mozumder received a B. Tech in Electrical Engineering from the Indian Institute of Technology in Bombay, India, and a M.S. E.C.E. and a Ph.D. E.C.E. from Carnegie Mellon University.

W. Steven Rowe has served as Vice President, Human Resources since February 2000. From June 1995 to February 2000, Mr. Rowe served as Vice President, Human Resources at Trident Microsystems, a

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multimedia semiconductor company. From May 1994 to June 1995, he served as Vice President, Human Resources at OPTi Inc., an semiconductor company. Mr. Rowe received a M.A. in Education Administration from San Jose State University, a M.A. in Speech Pathology from Chico State University and a J.D. from Lincoln University.

David Tarpley has served as Vice President, Worldwide Sales since November 1996. From 1993 to November 1996, Mr. Tarpley served as Vice President, Worldwide Sales with HLD, Inc., an electronic design automation company. Mr. Tarpley received a B.S. in Business Administration from University of California at Berkeley and a M.B.A. from California State University Fullerton.

B.J. Cassin has served as a director since November 1995. Mr. Cassin has been a private venture capital investor since 1979. Previously, he co-founded Xidex Corporation, a manufacturer of data storage media in 1969. Mr. Cassin is chairman of the board of directors of Cerus Corporation, a medical device company and a director of Symphonix Devices, Inc., a medical device company. Mr. Cassin holds an A.B. in Economics from Holy Cross College.

Donald L. Lucas has served as a director since May 1999. He has been a venture capitalist since 1960. He also serves as a director of Cadence Design Systems, Inc., an electronic design automation company, Coulter Pharmaceutical, Inc., a pharmaceutical company, Macromedia, Inc., a software company, Oracle Corporation, an information management software company, Preview Systems, Inc., a infrastructure software company, Transcend Services, Inc., a medical services company, and Tricord Systems, Inc., a storage system management software company. Mr. Lucas holds a B.A. in Economics and a Masters in Business Administration from Stanford University.

Lucio L. Lanza has served as a director since November 1995. Mr. Lanza

joined U.S. Venture Partners, a venture capital firm, in 1990 and has served as a general partner since 1996. Mr. Lanza serves as chairman of the board of Artisan Components, Inc., a semiconductor IP company.

#### BOARD COMPOSITION

Our bylaws currently provide for a board of directors consisting of five members. Commencing upon completion of this offering, the board of directors will be divided into three classes, each serving staggered three-year terms:

- Class I directors will include Mr. Lucas and Mr. Cassin, and their terms will expire at the first annual meeting of stockholders following the date of this prospectus;
- Class II directors will include Mr. Lanza and Mr. Michaels, and their terms will expire at the second annual meeting of stockholders following the date of this prospectus; and
- Class III directors will include Mr. Kibarian, whose term will expire at the third annual meeting of stockholders following the date of this prospectus.

As a result, only one class of directors will be elected at each annual meeting of our stockholders, with the other classes continuing for the remainder of their respective terms.

Each officer is elected by the board of directors and serves at its discretion. Each of our officers and directors, other than nonemployee directors, devotes his or her full time to our affairs. Our nonemployee directors devote the amount of time to our affairs as is necessary to discharge their duties. There are no family relationships among any of our directors or officers.

#### BOARD COMMITTEES

We have established an audit committee and a compensation committee.

##### Audit Committee

The audit committee reviews our internal accounting procedures and considers and reports to the board of directors with respect to other auditing and accounting matters, including the selection of our

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independent auditors, the scope of annual audits, fees to be paid to our independent auditors and the performance of our independent auditors. The audit committee currently consists of Mr. Lucas, Mr. Lanza and Mr. Cassin.

##### Compensation Committee

The compensation committee reviews and recommends to the board of directors the salaries, benefits and stock option grants of all employees, consultants, directors and other individuals compensated by us. The compensation committee also administers our stock option and other employee benefits plans. The compensation committee currently consists of Mr. Cassin and Mr. Lanza.

#### DIRECTOR COMPENSATION

Our directors do not currently receive any compensation for serving on the board of directors, although they are reimbursed for reasonable travel expenses incurred in connection with attending board of directors and committee meetings. In May 2000, we issued options to purchase 75,000 shares of common stock to Mr. Lucas, at an exercise purchase price of \$1.00 per share, one-quarter of the shares vest on the 12 month anniversary of the vesting commencement date and 1/48 of the total number of shares subject to the option vest each month thereafter, provided that Mr. Lucas remains one of our directors. After the completion of this offering, any new directors will receive an initial option to purchase 30,000 shares of common stock and all our directors will receive on an annual basis options to purchase 7,500 shares of common stock. Please see "Management -- Benefit Plans -- 2000 Stock Plan."

#### COMPENSATION COMMITTEE INTERLOCKS AND INSIDER PARTICIPATION

The compensation committee makes all compensation decisions. Our compensation committee currently consists of Mr. Cassin and Mr. Lanza, neither of whom has ever been one of our officers or employees. Prior to the formation of the compensation committee in 1995, our board of directors made decisions relating to compensation of our executive officers. None of our executive officers serves as a member of the board of directors or compensation committee of any entity that has one or more of its executive officers serving as a member of our board of directors or compensation committee.

EXECUTIVE COMPENSATION

The following table sets forth information regarding the compensation that we paid during the fiscal year ended December 31, 1999 to our Chief Executive Officer and our four other most highly compensated officers who earned more than \$100,000 during that fiscal year. All option grants were made under our 1997 stock plan. Amounts listed under "Other Annual Compensation" represent the dollar value of commissions earned. The amounts listed under "All Other Compensation" represent the dollar value of

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term life insurance paid by us on behalf of the named executive officer during the fiscal year ended December 31, 1999. There is no cash surrender value under the life insurance policy.

SUMMARY COMPENSATION TABLE

NAME AND PRINCIPAL POSITION	ANNUAL COMPENSATION			LONG-TERM COMPENSATION AWARDS	ALL OTHER COMPENSATION
	SALARY	BONUS	OTHER ANNUAL COMPENSATION	SECURITIES UNDERLYING OPTIONS	
John K. Kibarian..... Chief Executive Officer and President	\$120,000	\$15,000	--	--	\$321
David Tarpley..... Vice President, Worldwide Sales	100,240	--	\$104,851	80,000	327
David A. Joseph..... Vice President, Products and Methods	160,240	1,450	--	50,000	327
P.K. Mozumder..... Vice President, Integration Practice	150,240	6,200	--	--	327
P. Steven Melman..... Chief Financial Officer and Vice President, Finance and Administration	150,240	4,600	--	--	327

Option Grants in 1999

The following table sets forth information with respect to stock options granted to our Chief Executive Officer and our four most highly compensated executive officers during the year ended December 31, 1999.

NAME	INDIVIDUAL GRANTS				POTENTIAL REALIZABLE VALUE AT ASSUMED ANNUAL RATES OF STOCK PRICE APPRECIATION FOR OPTION TERM	
	NUMBER OF SECURITIES UNDERLYING OPTIONS GRANTED	PERCENT OF TOTAL OPTIONS GRANTED TO EMPLOYEES IN FISCAL YEAR	EXERCISE OR BASE PRICE (PER SHARE)	EXPIRATION DATE	5%	10%
John K. Kibarian.....	--	--	--	--	--	--
David Tarpley.....	80,000	10.7%	\$0.25	1/27/09	\$12,578	\$31,875
David A. Joseph.....	50,000	6.7	0.25	5/20/09	7,861	19,922
P.K. Mozumder.....	--	--	--	--	--	--
P. Steven Melman.....	--	--	--	--	--	--

We have never granted any stock appreciation rights. All option grants were

made under our 1997 stock plan. The exercise price per share was equal to the fair market value of the common stock on the date of grant as determined by the board of directors. Percentage of total options is based on an aggregate of 746,500 shares of common stock granted under the 1997 stock plan in the year ended December 31, 1999. The potential realizable value is calculated based on the term of the ten-year option and assumed rates of stock appreciation of 5% and 10%, compounded annually. These assumed rates comply with the rules of the Securities and Exchange Commission and do not represent our estimate of future stock price. Actual gains, if any, on stock option exercises will be dependent on the future performance of our common stock. The options shown in this table vest at a rate of 1/4 of the common stock subject to the option on the first anniversary of the date of grant and thereafter 1/48 of the total number of the option shares vest monthly as long as the optionee remains an employee, consultant or director. The options granted to Mr. Tarpley were fully vested on the date of grant.

1999 Fiscal Year-End Option Values

The following table provides summary information with respect to our chief executive officer and our four other most highly compensated executive officers concerning:

- the shares of common stock acquired in 1999;
- the value realized upon exercise of stock options in 1999; and
- the number and value of unexercised options as of December 31, 1999.

The value was calculated by determining the difference between the fair market value of underlying securities and the exercise price. The fair market value of our common stock on December 31, 1999 was \$0.35 per share as determined by our Board of Directors. There was no public market for the common stock on December 31, 1999.

NAME	SHARES ACQUIRED ON EXERCISE	VALUE REALIZED	NUMBER OF SECURITIES UNDERLYING UNEXERCISED OPTIONS AT DECEMBER 31, 1999		VALUE OF UNEXERCISED IN-THE-MONEY OPTIONS AT DECEMBER 31, 1999	
			EXERCISABLE	UNEXERCISABLE	EXERCISABLE	UNEXERCISABLE
John K. Kibarian.....	--	--	--	--	--	--
David Tarpley.....	80,000	\$0	--	--	--	--
David Joseph.....	50,000	0	--	--	--	--
P.K. Mozumder.....	--	--	--	--	--	--
P. Steven Melman.....	--	--	--	--	--	--

BENEFIT PLANS

1996 Stock Option Plan

Our 1996 Stock Option Plan, or the 1996 Plan, provides for the granting of incentive stock options within the meaning of Section 422 of the Internal Revenue Code of 1986, as amended, or the Code, and for the granting to employees, directors and consultants of nonstatutory stock options. The 1996 Plan was approved by the board of directors in January of 1996 and by our stockholders in February of 1996. The board of directors approved an amendment to the 1996 Plan in August 1996 to allow grants to consultants, which amendment did not require stockholder approval. Unless terminated sooner, the 1996 Plan will terminate automatically in 2006. As of June 30, 2000, a total of 1,097,551 shares of common stock were reserved for issuance pursuant to the 1996 Plan of which options to purchase 28,126 were outstanding and none were available for grant.

The 1996 Plan may be administered by the board of directors or a committee of the board of directors, which committee shall, in the case of options intended to qualify as "performance-based compensation" within the meaning of Section 162(m) of the Code, consist of two or more "outside directors" within the meaning of Section 162(m) of the Code. The Administrator has the power to determine the terms of the options granted, including the exercise price, the number of shares, the exercisability thereof, and the form of consideration



payable upon exercise. In March 2000, the administrator amended the 1996 Plan exercise practices to allow for the early exercise of unvested shares by all optionees. The board of directors has the authority to amend, suspend or terminate the 1996 Plan, provided that the action may not adversely affect any share of common stock previously issued and sold or any option previously granted under the 1996 Plan.

Options granted under the 1996 Plan are not generally transferable by the optionee, and each option is exercisable during the lifetime of the optionee only by the optionee. Options granted under the 1996 Plan generally must be exercised within three months of the optionee's separation of service from PDF, or within twelve months of the optionee's termination by death or disability, but in no event later than the expiration of the option's ten year term. The exercise price of all incentive stock options granted under the 1996 Plan must be at least equal to the fair market value of the common stock on the date of grant. With respect to any participant who owns stock possessing more than 10% of the voting power of all classes of

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our outstanding capital stock, the exercise price of any incentive or nonstatutory stock option granted must equal at least 110% of the fair market value on the date of grant and the term of any incentive stock option must not exceed five years. The exercise price of a nonstatutory option granted to any other individual must equal at least 85% of the fair market value on the date of grant. The term of all other options granted under the 1996 Plan may not exceed ten years.

The 1996 Plan provides that in the event of a merger by us with or into another corporation or a sale of substantially all of our assets, each option shall be assumed or an equivalent option substituted by the successor corporation unless the administrator decides that the optionees shall have the right to exercise some or all of the unvested shares. If each outstanding option is made exercisable in lieu of substitution or assumption as described in the preceding sentence, the administrator shall notify the optionees that each option shall be exercisable for a period of thirty days from the date of such notice and that the option shall otherwise terminate upon the expiration of such period.

Following adoption of the 1997 Stock Plan in September 1997 by the board of directors, the 1996 Plan was effectively terminated and no additional grants could be issued under the 1996 Plan.

#### 1997 Stock Plan

Our 1997 Stock Plan, or the 1997 Plan, provides for the granting of incentive stock options within the meaning of Section 422 of the Internal Revenue Code of 1986, as amended, and for the granting to employees, directors and consultants of nonstatutory stock options and stock purchase rights. The 1997 Plan was approved by the board of directors and stockholders in September 1997. The board of directors approved an amendment to the 1997 Plan in December 1999, and the stockholders approved this amendment in January of 2000. Unless terminated sooner, the 1997 Plan will terminate automatically in 2007. As of June 30, 2000, a total of 8,402,449 shares of common stock were reserved for issuance pursuant to the 1997 Plan of which options to purchase 477,128 shares were outstanding and 2,740,572 were available for grant.

The 1997 Plan may be administered by the board of directors or a committee of the board of directors, which committee shall, in the case of options intended to qualify as "performance-based compensation" within the meaning of Section 162(m) of the Code, consist of two or more "outside directors" within the meaning of Section 162(m) of the Code. The Administrator has the power to determine the terms of the options granted, including the exercise price, the number of shares, the exercisability thereof, and the form of consideration payable upon exercise. In March 2000, the Administrator amended the 1997 Plan exercise practices to allow for the early exercise of unvested shares by all optionees. The board of directors has the authority to amend, suspend or terminate the 1997 Plan, provided that the action may not adversely affect any share of common stock previously issued and sold or any option previously granted under the 1997 Plan. On June 30, 2000, the board of directors form a Special Option Committee to serve as Administrator under the 1997 Plan for the purposes of granting options to purchase up to 35,000 shares of common stock to any new, non-executive employees. The Special Option Committee consists of Mr.

Kibarian and Mr. Melman.

Options and stock purchase rights granted under the 1997 Plan are not generally transferable by the optionee, and each option and stock purchase right is exercisable during the lifetime of the optionee only by the optionee. Options granted under the 1997 Plan must generally be exercised within three months of the optionee's separation of service from us, or within twelve months of the optionee's termination by death or disability, but in no event later than the expiration of the option's ten year term. Options granted under the 1997 Plan generally may be exercised immediately after the grant date, but to the extent the shares subject to the options are not vested as of the date of exercise, we retain a right to repurchase any shares that remain unvested at the time of the optionee's termination of employment by paying an amount equal to the exercise price times the number of unvested shares. Options granted under the 1997 Plan generally vest at the rate of 1/4 of the total number of shares subject to the options on the twelve month anniversary of the date of grant and 1/48 of the total number of shares subject to the options vest each month thereafter. In the case of stock purchase rights, unless the administrator determines otherwise, the

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Restricted Stock Purchase Agreement shall grant us a repurchase option exercisable upon the voluntary or involuntary termination of the purchaser's service for any reason, including death or disability. The purchase price for Shares repurchased pursuant to the Restricted Stock Purchase Agreement shall be the original price paid by the purchaser and may be paid by cancellation of any indebtedness of the purchaser to us. The repurchase option shall lapse at a rate determined by the administrator, which is generally equal to 25% per year. The exercise price of all incentive stock options granted under the 1997 Plan must be at least equal to the fair market value of the common stock on the date of grant. The exercise price of all incentive stock options granted under the 1997 Plan must be at least equal to the fair market value of the common stock on the date of grant, and any nonstatutory option must have an exercise price at least equal to 85% of the fair market value of the common stock on the date of grant. With respect to any participant who owns stock possessing more than 10% of the voting power of all classes of our outstanding capital stock, the exercise price of any incentive or nonstatutory stock option or stock purchase rights granted must equal at least 110% of the fair market value on the date of grant for options and 100% of the fair market value on the date of grant in the case of stock purchase rights and the term of any incentive stock option must not exceed five years. The term of all other options granted under the 1997 Plan may not exceed ten years.

The 1997 Plan provides that in the event of a merger by us with or into another corporation or a sale of substantially all of our assets, each option shall be assumed or an equivalent option substituted by the successor corporation. If each outstanding option is not assumed or substituted as described in the preceding sentence, the administrator shall notify the optionees that each option shall terminate upon the consummation of the merger or sale of assets.

Effective as of the date of this prospectus, no new grants will be made from the 1997 Plan.

#### 2000 Stock Plan

Our 2000 Stock Plan, or the 2000 Plan, provides for the granting of incentive stock options within the meaning of Section 422 of the Internal Revenue Code of 1986, as amended, and for the granting to employees, directors and consultants of nonstatutory stock options and stock purchase rights. The 2000 Plan was approved by the board of directors in August of 2000 and by the stockholders in September of 2000. A total of 3,000,000 shares of common stock has been reserved for issuance under the 2000 Plan, none of which have been issued as of the date of this offering. The number of shares reserved for issuance under the Purchase Plan will be increased on the first day of each of our fiscal years by the lesser of:

- 3,000,000 shares;
- 5% of our outstanding common stock on the last day of the immediately preceding fiscal year; or

- the number of shares determined by the board of directors.

The 2000 Plan may be administered by the board of directors or a committee of the board of directors, which committee shall, in the case of options intended to qualify as the "performance-based compensation" within the meaning of Section 162(m) of the Code, consist of two or more "outside directors" within the meaning of Section 162(m) of the Code. The administrator has the power to determine the terms of the options granted, including the exercise price, the number of shares, the exercisability thereof, and the form of consideration payable upon exercise. The board of directors has the authority to amend, suspend or terminate the 2000 Plan, provided that the action may not adversely affect any share of common stock previously issued and sold or any option previously granted under the 2000 Plan.

Options and stock purchase rights granted under the 2000 Plan are not generally transferable by the optionee, and each option and stock purchase right is exercisable during the lifetime of the optionee only by the optionee. Options granted under the 2000 Plan must generally be exercised within three months of the optionee's separation of service, or within twelve months of the optionee's termination by death or disability, but in no event later than the expiration of the option's ten year term. Options granted under the 2000 Plan generally may be exercised immediately after the grant date, but to the extent the shares

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subject to the options are not vested as of the date of exercise, we retain a right to repurchase any shares that remain unvested at the time of the optionee's termination of employment by paying an amount equal to the exercise price times the number of unvested shares. Options granted under the 2000 Plan generally vest at the rate of 1/4 of the total number of shares subject to the options on the twelve month anniversary of the date of grant and 1/48 of the total number of shares subject to the options vest each month thereafter. In the case of Stock purchase rights, unless the administrator determines otherwise, the Restricted Stock Purchase Agreement shall grant us a repurchase option exercisable upon the voluntary or involuntary termination of the purchaser's service for any reason, including death or disability. The purchase price for Shares repurchased pursuant to the Restricted Stock Purchase Agreement shall be the original price paid by the purchaser and may be paid by cancellation of any indebtedness of the purchaser to us. The repurchase option shall lapse at a rate determined by the administrator which is generally equal to 25% per year. The exercise price of all incentive stock options granted under the 2000 Plan must be at least equal to the fair market value of the common stock on the date of grant. The exercise price of nonstatutory stock options granted under the 2000 Plan is determined by the administrator. With respect to any participant who owns stock possessing more than 10% of the voting power of all classes of our outstanding capital stock, the exercise price of any incentive stock option or must equal at least 110% of the fair market value on the date of grant for options and the term of any incentive stock option must not exceed five years. The term of all other options granted under the 2000 Plan may not exceed ten years. For options granted on or after the effective date of registration of any class of equity security of PDF and prior to six months after the termination of such registration, the exercise price will be no less than the fair market value of the common stock on the date of grant.

The 2000 Plan provides for the automatic grant of nonstatutory stock options to nonemployee directors. The director option component will not become effective until completion of this offering. Each nonemployee director who first becomes a board member after the date of this prospectus will be granted options for 30,000 shares. In addition, each nonemployee director will be granted options for 7,500 shares annually. These automatic grants shall vest in accordance with the vesting schedule set forth above, however, in the event of a change in control, the options shall become 100% vested.

The 2000 Plan provides that in the event of a merger by us with or into another corporation or a sale of substantially all of our assets, each option shall be assumed or an equivalent option substituted by the successor corporation, unless the administrator decides in its sole discretion that optionees have the right to exercise some or all of the stock in lieu of substitution or assumption. If each outstanding option is not assumed or substituted as described in the preceding sentence, the administrator shall provide notify the optionees that each option shall be exercisable for a period of fifteen days from the date of such notice and the option will terminate upon expiration of such period.

## 2000 Employee Stock Purchase Plan

The 2000 Employee Stock Purchase Plan, or Purchase Plan, was adopted by the board of directors in August 2000 and approved by the stockholders in September 2000. A total of 300,000 shares of common stock has been reserved for issuance under the Purchase Plan, none of which have been issued as of the date of this offering. The number of shares reserved for issuance under the Purchase Plan will be increased on the first day of each of our fiscal years by the lesser of:

- 675,000 shares;
- 2% of our outstanding common stock on the last day of the immediately preceding fiscal year; or
- the number of shares determined by the board of directors.

The Purchase Plan becomes effective on the date of this prospectus. Unless terminated earlier by the board of directors, the Purchase Plan shall terminate in December 31, 2010.

The Purchase Plan, which is intended to qualify under Section 423 of the Code, will be implemented by a series of overlapping offering periods of 24 months' duration, with new offering periods, other than the first offering period, commencing on January 1 and July 1 of each year. Each offering period will consist of

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four consecutive purchase periods of six months' duration, and at the end of each six month period an automatic purchase will be made for participants. The initial offering period is expected to commence on the date of this offering and end on December 31, 2000; the initial purchase period is expected to begin on the date of this offering. The Purchase Plan will be administered by the board of directors or by a committee appointed by the board. Our employees (including officers and employee directors), or of any of our majority-owned subsidiaries designated by the board, are eligible to participate in the Purchase Plan if we or our subsidiary employs them for at least 20 hours per week and more than five months per year. Under the Purchase Plan, eligible employees may purchase common stock through payroll deductions, which in any event may not exceed 10% of an employee's compensation, at a price equal to the lower of 85% of the fair market value of the common stock at the beginning of each offering period or at the end of each purchase period. Employees may end their participation in the Purchase Plan at any time during an offering period and participation ends automatically on termination of employment.

Under the Purchase Plan no employee shall be granted an option if immediately after the grant the employee would own stock and/or hold outstanding options to purchase stock equaling 5% or more of the total voting power or value of all classes of our stock or its subsidiaries. In addition, no employee shall be granted an option under the Purchase Plan if the option would permit the employee to purchase stock under all our employee stock purchase plans and our subsidiaries in an amount that exceeds \$25,000 of fair market value for each calendar year in which the option is outstanding at any time. If the fair market value of the common stock on a purchase date is less than the fair market value at the beginning of the offering period, each participant in the Purchase Plan shall automatically be withdrawn from the offering period as of the end of the purchase date and re-enrolled in the new twenty-four month offering period beginning on the first business day following the purchase date.

The Purchase Plan provides that in the event of our merger or consolidation with or into another corporation or a sale of all or substantially all of our assets, each right to purchase stock under the Purchase Plan will be assumed or an equivalent right will be substituted by the successor corporation unless the board of directors shortens any ongoing offering period so that employees' rights to purchase stock under the Purchase Plan are exercised prior to consummation of the transaction. The board of directors has the power to amend or terminate the Purchase Plan and to change or terminate offering periods as long as any action does not adversely affect any outstanding rights to purchase stock under the Purchase Plan, however the board may amend or terminate the Purchase Plan or an offering period even if it would adversely affect outstanding options in order to avoid our incurring adverse accounting charges. We have not issued any shares under the Purchase Plan to date.

#### 401(k) PLAN

We sponsor a 401(k) plan in which eligible employees may participate. The 401(k) plan is intended to qualify under Sections 401(a) and 401(k) of the Code. Contributions to the 401(k) plan and income earned on such contributions are not taxable to employees until withdrawn from the 401(k) plan. Subject to restrictions imposed by the Code on highly compensated employees, employees generally may defer up to 15% of their pre-tax earnings up to the statutorily prescribed annual limit, which is \$10,500 for the 2000 calendar year, and to have the amount of such reduction contributed to the 401(k) plan. The 401(k) plan permits, but does not require, additional matching contributions from us to the 401(k) plan. Participants' salary reduction contributions are fully vested at all times. Each participant's interest in their employer discretionary contributions and matching contributions generally vest in accordance with a four-year graduated vesting schedule. Participants may receive loans and hardship distributions while in service and are eligible for a distribution from the 401(k) plan upon separation from service with us. All contributions are tax deductible by us. The trustee under the 401(k) plan, at the direction of participants, invests the assets of the 401(k) plan in any of seven designated investment options. To date, we have not made any matching contributions to the 401(k) plan. The 401(k) plan may be amended or terminated by us at any time, and in our sole discretion.

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#### CHANGE OF CONTROL ARRANGEMENTS

On July 9, 2000, we entered into a letter agreement with Mr. Melman to act as our Vice President, Finance and Administration and Chief Financial Officer. This letter agreement provides that in the event Mr. Melman is terminated without cause any time after his one-year anniversary with us and there is no change of control, Mr. Melman will receive six months accelerated vesting of shares purchased pursuant to an option or restricted stock purchase agreement. In the event of a change of control, Mr. Melman will receive 24 months accelerated vesting, regardless of whether his employment is terminated. Change of control is defined as an event whereby a party or group of parties, different from those in control of PDF at the time of Mr. Melman's offer, attains a majority voting right in PDF. Other than as described above, in general, our employees are not subject to written employment agreements.

#### LIMITATION OF LIABILITY AND INDEMNIFICATION MATTERS

As permitted by the Delaware general corporation law, we have included a provision in our certificate of incorporation to eliminate the personal liability of our officers and directors for monetary damages for breach or alleged breach of their fiduciary duties as officers or directors, other than in cases of fraud or other willful misconduct.

In addition, our bylaws provide that we are required to indemnify our officers and directors even when indemnification would otherwise be discretionary, and we are required to advance expenses to our officers and directors as incurred in connection with proceedings against them for which they may be indemnified. We have entered into indemnification agreements with our officers and directors containing provisions that are in some respects broader than the specific indemnification provisions contained in the Delaware general corporation law. The indemnification agreements require us to indemnify our officers and directors against liabilities that may arise by reason of their status or service as officers and directors other than for liabilities arising from willful misconduct of a culpable nature, to advance their expenses incurred as a result of any proceeding against them as to which they could be indemnified, and to obtain our directors' and officers' insurance if available on reasonable terms. We expect to obtain directors' and officers' liability insurance effective upon completion of this offering.

At present, we are not aware of any pending or threatened litigation or proceeding involving any of our directors, officers, employees or agents in which indemnification would be required or permitted. We believe that our charter provisions and indemnification agreements are necessary to attract and retain qualified persons as directors and officers.

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## RELATED-PARTY TRANSACTIONS

## SALES OF PREFERRED STOCK SECURITIES

On December 4, 1995, we sold 8,750,000 shares of Series A preferred stock at a price of \$0.40 per share to a group of private investors that included the directors, officers and 5% stockholders listed below. On August 4, 2000, we sold 526,315 shares of Series B preferred stock at a price of \$9.50 per share to a group of private investors that included the directors, officers and 5% stockholders listed below. Upon completion of this offering, each outstanding share of Series A and Series B preferred stock will automatically convert into one share of common stock. Listed below are the directors, executive officers, and stockholders who beneficially own 5% or more of our securities who participated in these financings.

	SERIES A PREFERRED -----	SERIES B PREFERRED -----	AGGREGATE CASH CONSIDERATION -----
Entities associated with U.S. Venture Partners.....	3,750,000	131,579	\$2,750,000
Telos Venture Partners, L.P.....	3,750,000	--	1,500,000
B.J. Cassin.....	812,500	--	325,000
Donald L. Lucas.....	187,500	47,368	524,996

U.S. Venture Partners IV, L.P., U.S.V.P. Entrepreneur Partners II, L.P., Second Ventures II, L.P. and 2180 Associates Fund are affiliated entities and together are considered a greater than 5% stockholder. Lucio L. Lanza, one of our directors, is a partner of U.S. Venture Partners. Mr. Lanza disclaims any beneficial ownership of the securities held by those entities, except to the extent of his proportional interest in the entities. This table also includes 62,500 shares that are held in the name of Cassin Family Partners, A California Limited Partnership of which Mr. Cassin is a General Partner and 750,000 shares held in the name of The Cassin Family Trust U/D/T dtd 1/31/96. Mr. Lucas is the trustee of the Richard M. Lucas Foundation which holds 187,500 shares of Series A preferred stock. Mr. Lucas disclaims beneficial ownership of these shares except for 36,000 shares which the foundation has agreed to assign to him. This table also includes 31,579 shares of Series B preferred stock held in the name of Donald L. Lucas Profit Sharing Trust and 15,789 shares held in the name of Teton Capital Company, which are beneficially owned by Mr. Lucas.

## LOANS TO, AND OTHER ARRANGEMENTS WITH, OFFICERS AND DIRECTORS

We have an early exercise provision under our 1996 Stock Option Plan and 1997 Stock Plan which allows our optionholders and holders of stock purchase rights to purchase shares of stock underlying unvested options, subject to our own repurchase right. In addition, we have an employee loan program which allows employees to borrow the full exercise price of their options or stock purchase rights from us by signing a full recourse promissory note bearing interest at the applicable federal rate in the month of purchase. The following officers have participated in the loan program:

- In connection with his purchase of 1,896,145 shares of common stock on December 1, 1995, we loaned approximately \$15,000 to Thomas Cobourn under a four year, 5.83% promissory note. The term of this note was extended for two years in 1999 at a rate of 5.62%. In connection with his purchase of 40,000 shares of common stock on July 14, 2000, we loaned \$80,000 to Mr. Cobourn under a four year, 6.62% promissory note. These notes were secured by pledges of the shares of common stock purchased. At July 31, 2000 his indebtedness plus accrued interest totaled approximately \$100,000.
- In connection with his purchase of 2,472,775 shares of common stock on December 1, 1995, we loaned approximately \$20,000 to Kimon Michaels under a four year, 5.83% promissory note. The term of this note was extended for two years in 1999 at a rate of 5.93%. In connection with his purchase of 60,000 shares of common stock on July 14, 2000, we loaned \$120,000 to Mr. Michaels under a four year, 6.62% promissory note. These notes were secured by pledges of the shares of common stock purchased. At July 31, 2000 his indebtedness plus accrued interest totaled approximately \$146,000.

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- In connection with his purchase of 300,000 shares of common stock on August 25, 1998, we loaned approximately \$30,000 to P. Steven Melman under a four year, 5.47% promissory note. In connection with his purchase of 50,000 shares of common stock on July 14, 2000, we loaned \$100,000 to Mr. Melman under a four year, 6.62% promissory note. These notes were secured by pledges of the shares of common stock purchased. At July 31, 2000 his indebtedness plus accrued interest totaled approximately \$134,000.
- In connection with his purchase of 250,000 shares of common stock on October 5, 1998, we loaned \$25,000 to P.K. Mozumder under a four year, 5.47% promissory note. In connection with his purchase of 60,000 shares of common stock on July 13, 2000, we loaned \$120,000 to Mr. Mozumder under a four year, 6.62% promissory note. These notes were secured by pledges of the shares of common stock purchased. At July 31, 2000 his indebtedness plus accrued interest totaled approximately \$148,000.
- In connection with his purchase of 300,000 shares of common stock on December 4, 1998 we loaned \$75,000 to David A. Joseph under a four year, 4.46% promissory note. In connection with his purchase of 50,000 shares on September 20, 1999 we loaned \$12,500 to David Joseph under a four year, 4.46% promissory note and in connection with his purchase of 80,000 shares of common stock on July 14, 2000, we loaned \$160,000 to Mr. Joseph under a four year, 6.62% promissory note. These notes were secured by pledges of the shares of common stock purchased. At July 31, 2000 his indebtedness plus accrued interest totaled approximately \$254,000.
- In connection with his purchase of 175,000 shares of common stock on February 24, 2000, we loaned approximately \$61,000 to W. Steven Rowe under a four year, 6.69% promissory note. This note was secured by a pledge of the shares of common stock purchased. At July 31, 2000 his indebtedness plus accrued interest totaled approximately \$63,000.
- In connection with his purchase of 300,000 shares of common stock on July 14, 2000, we loaned \$600,000 to John K. Kibarian under a four year, 6.62% promissory note. These notes were secured by pledges of the shares of common stock purchased. At July 31, 2000 his indebtedness plus accrued interest totaled approximately \$602,000.
- In connection with his purchase of 40,000 shares of common stock on July 13, 2000, we loaned \$80,000 to David Tarpley under a four year, 6.62% promissory note. This note was secured by a pledge of the shares of common stock purchased. As of July 31, 2000 his indebtedness plus accrued interest totaled approximately \$80,000.

#### OTHER TRANSACTIONS

We have granted options to some of our officers and directors. Please see "Management -- Executive Compensation," "Management -- Director Compensation" and "Principal Stockholders."

We have entered into indemnification agreements with each of our executive officers and directors. Please see "Management -- Limitation of Liability and Indemnification Matters."

Holders of preferred stock are entitled to registration rights with respect to common stock issued or issuable upon conversion of the preferred stock. Please see "Description of Capital Stock -- Registration Rights."

We believe that all related-party transactions described above were made on terms no less favorable to us than could have been otherwise obtained from unaffiliated third parties.

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#### PRINCIPAL STOCKHOLDERS

The following table sets forth information known to us regarding beneficial

ownership of our common stock as of August 4, 2000 by:

- each person known by us to beneficially own more than 5% of the outstanding common stock;
- each of our executive officers listed on the Summary Compensation Table under "Management;"
- each of our directors; and
- all of our executive officers and directors as a group.

Beneficial ownership is determined in accordance with the rules of the Securities and Exchange Commission and includes voting or investment power with respect to securities. All shares of common stock subject to options exercisable within 60 days following June 30, 2000 are deemed to be outstanding and beneficially owned by the persons holding those options for the purpose of computing the number of shares beneficially owned and the percentage of ownership of that person. They are not, however, deemed to be outstanding and beneficially owned for the purpose of computing the percentage ownership of any other person. Except as otherwise indicated the address for each person listed as a director or officer is c/o PDF Solutions, Inc., 333 West San Carlos Street, Suite 700, San Jose, CA 95110. Unless otherwise indicated in the footnotes, each person or entity has sole voting and investment power, or shares such powers with his or her spouse, with respect to the shares shown as beneficially owned.

Percentage of beneficial ownership prior to this offering is based on 25,070,714 common stock outstanding as of August 4, 2000, after giving effect to the conversion of the outstanding preferred stock. Percentage of beneficial ownership after this offering is based on \_\_\_\_\_ shares of common stock to be outstanding after completion of this offering, assuming no exercise of the underwriters' over-allotment option.

BENEFICIAL OWNER -----	NUMBER OF SHARES BENEFICIALLY OWNED -----	PERCENTAGE OF SHARES OUTSTANDING	
		PRIOR TO THIS OFFERING -----	AFTER THIS OFFERING -----
<b>5% STOCKHOLDERS:</b>			
Funds affiliated with U.S. Venture Partners(1)..... 2180 Sand Hill Road Suite 300 Menlo Park, CA 94025	3,881,579	15.4%	
Telos Venture Partners, L.P..... 2350 Mission College Boulevard Suite 1070 Santa Clara, CA 95054	3,750,000	14.9	
<b>EXECUTIVE OFFICERS AND DIRECTORS:</b>			
John K. Kibarian(2).....	4,173,635	16.5	
Lucio L. Lanza(3)..... 3000 Sand Hill Road Building 3, Suite 210 Menlo Park, CA 94025	3,881,579	15.4	
Kimon Michaels(4).....	2,532,775	10.1	
Thomas Cobourn(5).....	1,936,145	7.7	
B.J. Cassin(6)..... 2180 Sand Hill Road, Suite 300 Menlo Park, CA 94025	812,500	3.4	
David A. Joseph(7).....	430,000	1.7	
David Tarpley(8).....	370,000	1.5	
P. Steven Melman(9).....	350,000	1.4	
P.K. Mozumder(10).....	310,000	1.2	
Donald L. Lucas(11)..... 3000 Sand Hill Road Building 3, Suite 210 Menlo Park, CA 94025	309,868	1.2	
W. Steven Rowe(12).....	175,000	*	
All executive officers and directors as a group (11)	15,281,502	59.5	



persons).....

\* Less than 1%

- (1) U.S. Venture Partners IV, L.P., U.S.V.P. Entrepreneur Partners II, L.P., Second Ventures II, L.P. and 2180 Associates Fund are affiliated entities and together are considered a greater than 5% stockholder. Lucio L. Lanza, one of our directors, is a partner of U.S. Venture Partners. Mr. Lanza disclaims any beneficial ownership of the securities held by those entities, except to the extent of his proportional interest in the entities.
- (2) Includes 5,000 shares each issued in the names of Johanna Aznif Chilingarian, as custodian for Ani Maritsa Chilingarian under the Massachusetts Uniform Transfers to Minors Act and Johanna Aznif Chilingarian, as custodian for Berj Krikor Chilingarian under the Massachusetts Uniform Transfers to Minors Act, each of whom are family members of Mr. Kibarian. Mr. Kibarian disclaims beneficial ownership of these shares. Includes 293,751 unvested shares subject to our right to repurchase upon termination of employment.
- (3) Includes 3,738,750 shares of Series A preferred stock held by U.S. Venture Partners IV, L.P., U.S.V.P. Entrepreneur Partners II, L.P. , Second Ventures II, L.P. and 2180 Associates Fund are all affiliates of U.S. Venture Partners, of which Mr. Lanza is a partner. Mr. Lanza disclaims any

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beneficial ownership of the securities held by those entities, except to the extent of his proportional interest in the entities.

- (4) Includes 57,501 unvested shares subject to our right to repurchase upon termination of employment.
- (5) Includes 38,334 unvested shares subject to our right to repurchase upon termination of employment.
- (6) Includes 62,500 shares held in the name of Cassin Family Partners, A California Limited Partnership and 750,000 shares held in the name of The Cassin Family Trust U/D/T dtd 1/31/96.
- (7) Includes 290,418 unvested shares subject to our right to repurchase upon termination of employment.
- (8) Includes 8,000 shares each issued in the names of Scott David Tarpley, Andrew Neil Tarpley and Jeffrey John Tarpley, each of whom is an adult child of Mr. Tarpley. Mr. Tarpley disclaims beneficial ownership of these shares. Includes 55,268 unvested shares subject to our right to repurchase upon termination of employment.
- (9) Includes 200,002 unvested shares subject to our right to repurchase upon termination of employment.
- (10) Includes 174,585 unvested shares subject to our right to repurchase upon termination of employment.
- (11) Includes 187,500 shares held by the Richard M. Lucas Foundation of which Mr. Lucas is a trustee. Mr. Lucas disclaims beneficial ownership of these shares except as to 36,000 shares which the foundation has agreed to assign to him. Also includes 31,579 shares held in the name of the Donald L. Lucas Profit Sharing Trust and 15,789 shares held in the name of Teton Capital Company. Also includes 75,000 unvested shares subject to our right to repurchase upon termination of service.
- (12) Includes 175,000 unvested shares subject to our right to repurchase upon termination of employment.

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Upon the completion of this offering, we will be authorized to issue 75,000,000 shares of common stock, \$0.0001 par value per share, and 5,000,000 shares of undesignated preferred stock, \$0.0001 par value per share. All currently outstanding shares of preferred stock will be converted into common stock upon the closing of this offering.

#### COMMON STOCK

As of June 30, 2000, there were 24,348,194 shares of common stock outstanding, as adjusted to give effect to issuance of 526,315 shares of Series B preferred stock on August 4, 2000 and the automatic conversion of all outstanding shares of preferred stock upon completion of this offering, held of record by approximately 132 stockholders. Options and rights to purchase 1,236,744 shares of common stock were also outstanding. There will be shares of common stock outstanding, assuming no exercise of the underwriter's overallotment option or exercise of outstanding options under our stock option plans after June 30, 2000, after giving effect to the sale of the shares in this offering.

The holders of common stock are entitled to one vote for each share held of record on all matters submitted to a vote of the stockholders. Subject to preferences that may be applicable to any outstanding preferred stock, holders of common stock are entitled to receive ratably such dividends as may be declared by the board of directors out of funds legally available for that purpose. See "Dividend Policy." In the event of our liquidation, dissolution or winding, the holders of common stock are entitled to share ratably in all assets remaining after payment of liabilities, subject to the prior distribution rights of any outstanding preferred stock. The common stock has no preemptive or conversion rights or other subscription rights. The outstanding shares of common stock are, and the shares of common stock to be issued upon completion of this offering will be, fully paid and non-assessable.

#### PREFERRED STOCK

Upon the closing of the offering, all outstanding shares of preferred stock will be converted into 9,276,315 common stock and automatically retired. Thereafter, the board of directors will have the authority, without further action by the stockholders, to issue up to 5,000,000 shares of preferred stock, \$0.0001 par value, in one or more series. The board of directors will also have the authority to designate the rights, preferences, privileges and restrictions of each such series, including dividend rights, dividend rates, conversion rights, voting rights, terms of redemption, redemption prices, liquidation preferences and the number of shares constituting any series.

The issuance of preferred stock may have the effect of delaying, deferring or preventing a change in control of us without further action by the stockholders. The issuance of preferred stock with voting and conversion rights may also adversely affect the voting power of the holders of common stock. In some circumstances, an issuance of preferred stock could have the effect of decreasing the market price of the common stock. As of the closing of the offering, no shares of preferred stock will be outstanding. We currently have no plans to issue any shares of preferred stock.

#### WARRANTS

At June 30, 2000, there were no warrants outstanding to purchase our common or preferred stock.

#### REGISTRATION RIGHTS

The holders of 18,009,314 shares of common stock (assuming the conversion of all outstanding preferred stock upon completion of this offering) or their transferees are entitled to rights with respect to the registration of such shares under the Securities Act. These rights are provided under the terms of an agreement between us and the holders of these securities. Subject to limitations in the agreement, the holders of at least 50% of these securities then outstanding may require, on two occasions beginning six months after the date of this prospectus, that we use our best efforts to register these securities for public

resale if Form S-3 is not available. If we register any of our common stock either for our own account or for the account of other security holders, the holders of registrable securities are entitled to include their shares of common stock in that registration. A holder's right to include shares in an underwritten registration is subject to the ability of the underwriters to limit the number of shares included in this and other offerings, and in the case of our initial public offering, the underwriters may preclude any participation by holders of registrable securities. The holders of at least 50% of these securities then outstanding may also require us, not more than once in any twelve-month period, to register all or a portion of these securities on Form S-3 when the use of that form becomes available to us, provided, among other limitations, that the proposed aggregate selling price, net of any underwriters' discounts or commissions, is at least \$1.0 million. We will be responsible for paying all registration expenses, and the holders selling their shares will be responsible for paying all selling expenses.

#### DELAWARE ANTI-TAKEOVER LAW AND CHARTER AND BYLAW PROVISIONS

Provisions of Delaware law and our charter documents could make our acquisition and the removal of incumbent officers and directors more difficult. These provisions are expected to discourage certain types of coercive takeover practices and inadequate takeover bids and to encourage persons seeking to acquire control of us to negotiate with us first. We believe that the benefits of increased protection of our potential ability to negotiate with the proponent of an unfriendly or unsolicited proposal to acquire or restructure us outweighs the disadvantages of discouraging such proposals because, among other things, negotiation of such proposals could result in an improvement of their terms.

We are subject to the provisions of Section 203 of the Delaware law. In general, the statute prohibits a publicly-held Delaware corporation from engaging in a "business combination" with an "interested stockholder" for a period of three years after the date that the person became an interested stockholder unless, subject to exceptions, the business combination or the transaction in which the person became an interested stockholder is approved in a prescribed manner. Generally, a "business combination" includes a merger, asset or stock sale, or other transaction resulting in a financial benefit to the stockholder. Generally, an "interested stockholder" is a person who, together with affiliates and associates, owns, or within three years prior, did own, 15% or more of the corporation's voting stock. These provisions may have the effect of delaying, deferring or preventing a change in control of us without further action by the stockholders.

Our Amended and Restated Certificate of Incorporation provides that stockholder action can be taken only at an annual or special meeting of stockholders and may not be taken by written consent. The Bylaws provide that special meetings of stockholders can be called only by the board of directors, the chairman of the board, if any, the president and holders of 50% of the votes entitled to be cast at a meeting. Moreover, the business permitted to be conducted at any special meeting of stockholders is limited to the business brought before the meeting by the board of directors, the chairman of the board, if any, the president or any such 50% holder. The bylaws set forth an advance notice procedure with regard to the nomination, other than by or at the direction of the board of directors, of candidates for election as directors and with regard to business to be brought before a meeting of stockholders.

#### TRANSFER AGENT AND REGISTRAR

The transfer agent and registrar for the common stock is Boston EquiServe. The transfer agent's address is c/o Shareholder Services, 150 Royale Street, Canton, MA 02021.

#### SHARES ELIGIBLE FOR FUTURE SALE

Prior to this offering, there has been no market for our common stock. Future sales of substantial amounts of common stock in the public market could adversely affect prevailing market prices. Furthermore, since only a limited number of shares will be available for sale shortly after this offering because of certain contractual and legal restrictions on resale, sales of substantial amounts of our common stock in the public market after the restrictions lapse could adversely affect the prevailing market price and our ability to raise equity capital in the future.

Upon completion of the offering, we will have outstanding \_\_\_\_\_ shares of common stock. Of these shares, the \_\_\_\_\_ shares sold in the offering (plus any shares issued upon exercise of the underwriters' overallotment option) will be freely tradable without restriction under the Securities Act, unless purchased by our "affiliates" as that term is defined in Rule 144 under the Securities Act, which generally includes officers, directors or 10% stockholders.

The remaining \_\_\_\_\_ shares outstanding are "restricted securities" within the meaning of Rule 144 under the Securities Act. These shares may be sold in the public market only if registered or if they qualify for an exemption from registration under Rules 144, 144(k) or 701 promulgated under the Securities Act, which are summarized below. Sales of these shares in the public market, or the availability of such shares for sale, could adversely affect the market price of the common stock.

Our stockholders have entered into lock-up agreements generally providing that they will not offer, sell, contract to sell, pledge or otherwise dispose of, directly or indirectly, any shares of our common stock or securities convertible into or exchangeable or exercisable for any shares of our common stock, enter into a transaction which would have the same effect, or enter into swap, hedge or other arrangement that transfers, in whole or part, any of the economic consequences of ownership of our common stock, whether any such aforementioned transaction is to be settled by delivery of our common stock or such other securities, in cash or otherwise, or publicly disclose the intention to make any such offer, sale, pledge or disposition, or to enter into any such transaction, swap, hedge or other arrangement, without, in each case, the prior written consent of Credit Suisse First Boston Corporation for a period of 180 days after the date of this prospectus. As a result of these contractual restrictions, notwithstanding possible earlier eligibility for sale under the provisions of Rules 144, 144(k) and 701, shares subject to lock-up agreements will not be salable until such agreements expire or are waived. Taking into account the lock-up agreements, and assuming Credit Suisse First Boston Corporation does not release stockholders from these agreements, the following shares will be eligible for sale in the public market at the following times:

- Beginning on the effective date of this prospectus, only the shares sold in the offering will be immediately available for sale in the public market.
- Beginning 180 days after the effective date, approximately \_\_\_\_\_ shares will be eligible for sale pursuant to Rule 701 and approximately \_\_\_\_\_ additional shares will be eligible for sale pursuant to Rule 144, of which all but \_\_\_\_\_ shares are held by affiliates.
- An additional \_\_\_\_\_ shares will be eligible for sale pursuant to Rule 144 by \_\_\_\_\_, 2000. Shares eligible to be sold by affiliates pursuant to Rule 144 are subject to volume restrictions as described below.

In general, under Rule 144 as currently in effect, and beginning after the expiration of the lock-up agreements, or 180 days after the date of this prospectus, of a person who has beneficially owned restricted securities for at least one year would be entitled to sell within any three-month period a number of shares that does not exceed the greater of: (1) one percent of the number of shares of common stock then outstanding, which will equal approximately \_\_\_\_\_ shares immediately after the offering; or (2) the average weekly trading volume of the common stock during the four calendar weeks preceding the sale. Sales under Rule 144 are also subject to manner of sale provisions and notice requirements and to the availability of current public information about us. Under Rule 144(k), a person who is not deemed to have been our affiliate at any time during the three months preceding a sale, and who has beneficially

owned the shares proposed to be sold for at least two years, is entitled to sell such shares without complying with the manner of sale, public information, volume limitation or notice provisions of Rule 144.

The holders of approximately 9,276,315 shares of our common stock or their transferees are also entitled to rights with respect to registration of their shares of common stock for offer or sale to the public. If the holders, by

exercising their registration rights, cause a large number of shares to be registered and sold in the public market, the sales could have a material adverse effect on the market price for our common stock.

As a result of the lock-up agreements, all of our employees holding common stock or stock options may not sell shares acquired upon exercise until 180 days after the effective date. Beginning 180 days after the effective date, any of our employees, officers or directors or consultants who purchased shares pursuant to a written compensatory plan or contract may be entitled to rely on the resale provisions of Rule 701. Rule 701 permits affiliates to sell their Rule 701 shares under Rule 144 without complying with the holding period requirements of Rule 144. Rule 701 further provides that non-affiliates may sell such shares in reliance on Rule 144 without having to comply with the holding period, public information, volume limitation or notice provisions of Rule 144.

In addition, we intend to file registration statements under the Securities Act as promptly as possible after the effective date to register shares to be issued pursuant to our employee benefit plans. As a result, any options exercised under any of our benefit plans after the effectiveness of such registration statement will also be freely tradable in the public market, except that shares held by affiliates will still be subject to the volume limitation, manner of sale, notice and public information requirements of Rule 144 unless otherwise resalable under Rule 701. As of June 30, 2000, there were outstanding stock purchase rights and options for the purchase of 1,236,744 shares, of which 1,221,035 shares were exercisable. No shares have been issued to date under our 2000 Employee Stock Purchase Plan and 2000 Stock Plan. See "Shares Eligible for Future Sale," "Management -- Benefit Plans" and "Description of Capital Stock -- Registration Rights."

UNDERWRITING

Under the terms and subject to the conditions contained in an underwriting agreement dated \_\_\_\_\_, 2000, we have agreed to sell to the underwriters named below, for whom Credit Suisse First Boston Corporation, Lehman Brothers Inc. and Dain Rauscher Incorporated are acting as representatives, the following respective numbers of shares of common stock:

UNDERWRITER	NUMBER OF SHARES
	-----
Credit Suisse First Boston Corporation.....	
Lehman Brothers Inc. ....	
Dain Rauscher Incorporated.....	
	-----
Total.....	=====

The underwriting agreement provides that the underwriters are obligated to purchase all the shares of common stock in the offering if any are purchased, other than those shares covered by the over-allotment option described below. The underwriting agreement also provides that if an underwriter defaults, the purchase commitments of non-defaulting underwriters may be increased or the offering of common stock may be terminated.

We have granted to the underwriters a 30-day option to purchase on a pro rata basis up to \_\_\_\_\_ additional shares from us at the initial public offering price less the underwriting discounts and commissions. The option may be exercised only to cover any over-allotments of common stock.

The underwriters propose to offer the shares of common stock initially at the public offering price on the cover page of this prospectus and to selling group members at that price less a concession of \$ \_\_\_\_\_ per share. The underwriters and selling group members may allow a discount of \$ \_\_\_\_\_ per share on sales to other broker/dealers. After the initial public offering, the public offering price and concession and discount to broker/dealers may be changed by the representatives.

The following table summarizes the compensation and estimated expenses we will pay.

	PER SHARE		TOTAL	
	WITHOUT OVER-ALLOTMENT	WITH OVER-ALLOTMENT	WITHOUT OVER-ALLOTMENT	WITH OVER-ALLOTMENT
Underwriting discounts and commissions				
paid by us.....	\$	\$	\$	\$
Expenses payable by us.....	\$	\$	\$	\$

The underwriters have informed us that they do not expect discretionary sales to exceed 5% of the shares of common stock being offered.

We have agreed that we will not offer, sell, contract to sell, pledge or otherwise dispose of, directly or indirectly, or file with a SEC a registration statement under the Securities Act relating to, any shares of our common stock or securities convertible into or exchangeable or exercisable for any shares of our common stock, or publicly disclose the intention to make any such offer, sale, pledge, disposition or filing, without the prior written consent of Credit Suisse First Boston Corporation for a period of 180 days after the date of this prospectus.

Our officers, directors and some of our other stockholders have agreed that they will not offer, sell, contract to sell, pledge or otherwise dispose of, directly or indirectly, any shares of our common stock or securities convertible into or exchangeable or exercisable for any shares of our common stock, enter into a transaction which would have the same effect, or enter into swap, hedge or other arrangement that transfers, in whole or part, any of the economic consequences of ownership of our common stock, whether

any such aforementioned transaction is to be settled by delivery of our common stock or such other securities, in cash or otherwise, or publicly disclose the intention to make any such offer, sale, pledge or disposition, or to enter into any such transaction, swap, hedge or other arrangement, without, in each case, the prior written consent of Credit Suisse First Boston Corporation for a period of 180 days after the date of this prospectus.

The underwriters have reserved for sale, at the initial public offering price, up to \_\_\_\_\_ shares of common stock for employees, directors and some other persons associated with us, who have expressed an interest in purchasing common stock in the offering. The number of shares available for sale to the general public in the offering will be reduced to the extent such persons purchase such reserved shares. Any reserved shares not so purchased will be offered by the underwriters to the general public on the same terms as the other shares.

We have agreed to indemnify the underwriters against liabilities under the Securities Act, or contribute to payments which the underwriters may be required to make in that respect.

We have applied to list our common stock on The Nasdaq Stock Market's National Market under the symbol "PDFS."

Prior to this offering, there has been no public market for our common stock. The initial public offering price will be determined by negotiation between us and the underwriters and will not necessarily reflect the market price of the common stock following the offering. The principal factors that will be considered in determining the public offering price will include:

- the information in this prospectus and otherwise available to the underwriters;
- market conditions for initial public offerings;

- the history and the prospects for the industry in which we will compete;
- the ability of our management;
- the prospects for our future earnings;
- the present state of our development and our current financial condition;
- the recent market prices of, and the demand for, publicly traded common stock of generally comparable companies; and
- the general condition of the securities markets at the time of this offering.

We can offer no assurances that the initial public offering price will correspond to the price at which the common stock will trade in the public market subsequent to the offering or that an active trading market for the common stock will develop and continue after the offering.

In connection with the offering the underwriters may engage in stabilizing transactions, over-allotment transactions, syndicate covering transactions and penalty bids in accordance with Regulation M under the Securities Exchange Act of 1934 (the "Exchange Act").

- Stabilizing transactions permit bids to purchase the underlying security so long as the stabilizing bids do not exceed a specified maximum.
- Over-allotment involves sales by the underwriters of shares in excess of the number of shares the underwriters are obligated to purchase, which creates a syndicate short position. The short position may be either a covered short position or a naked short position. In a covered short position, the number of shares over-allotted by the underwriters is not greater than the number of shares that they may purchase in the over-allotment option. In a naked short position, the number of shares involved is greater than the number of shares in the over-allotment option. The underwriters may close out any short position by either exercising their over-allotment option and/or purchasing shares in the open market.

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- Syndicate covering transactions involve purchases of the common stock in the open market after the distribution has been completed in order to cover syndicate short positions. In determining the source of shares to close out the short position, the underwriters will consider, among other things, the price of shares available for purchase in the open market as compared to the price at which they may purchase shares through the over-allotment option. If the underwriters sell more shares than could be covered by the over-allotment option -- a naked short position -- that position can only be closed out by buying shares in the open market. A naked short position is more likely to be created if the underwriters are concerned that there may be downward pressure on the price of the shares in the open market after pricing that could adversely affect investors who purchase in the offering.
- Penalty bids permit the representatives to reclaim a selling concession from a syndicate member when the common stock originally sold by the syndicate member is purchased in a stabilizing or syndicate covering transaction to cover syndicate short positions.

These stabilizing transactions, syndicate covering transactions and penalty bids may have the effect of raising or maintaining the market price of the common stock or preventing or retarding a decline in the market price of the common stock. As a result, the price of the common stock may be higher than the price that might otherwise exist in the open market. These transactions may be effected on The Nasdaq National Market or otherwise and, if commenced, may be discontinued at any time.

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## RESALE RESTRICTIONS

The distribution of the common stock (the "Shares") in Canada is being made only on a private placement basis exempt from the requirement that we prepare and file a prospectus with the securities regulatory authorities in each province where trades of Shares are made. Any resale of the Shares in Canada must be made under applicable securities laws, which will vary depending on the relevant jurisdiction, and which may require resales to be made under available statutory exemptions or under a discretionary exemption granted by the applicable Canadian securities regulatory authority. Purchasers are advised to seek legal advice prior to any resale of the Shares.

## REPRESENTATIONS OF PURCHASERS

By purchasing Shares in Canada and accepting a purchase confirmation, a purchaser is representing to us and the dealer from whom the purchase confirmation is received that:

- the purchaser is entitled under applicable provincial securities laws to purchase the Shares without the benefit of a prospectus qualified under those securities laws,
- where required by law, that the purchaser is purchasing as principal and not as agent, and
- the purchaser has reviewed the text above under Resale Restrictions.

## RIGHTS OF ACTION--ONTARIO PURCHASERS

The securities being offered are those of a foreign issuer and Ontario purchasers will not receive the contractual right of action prescribed by Ontario securities law. As a result, Ontario purchasers must rely on other remedies that may be available, including common law rights of action for damages or rescission or rights of action under the civil liability provisions of the U.S. federal securities laws.

## ENFORCEMENT OF LEGAL RIGHTS

All of the issuer's directors and officers as well as the experts named herein may be located outside of Canada and, as a result, it may not be possible for Canadian purchasers to effect service of process within Canada upon the issuer or such persons. All or a substantial portion of the assets of the issuer and such persons may be located outside of Canada and, as a result, it may not be possible to satisfy a judgment against the issuer or such persons in Canada or to enforce a judgment obtained in Canadian courts against such issuer or persons outside of Canada.

## NOTICE TO BRITISH COLUMBIA RESIDENTS

A purchaser of Shares to whom the Securities Act (British Columbia) applies is advised that the purchaser is required to file with the British Columbia Securities Commission a report within ten days of the sale of any Shares acquired by the purchaser in this offering. The report must be in the form attached to British Columbia Securities Commission Blanket Order BOR #95/17, a copy of which may be obtained from us. Only one report must be filed for Shares acquired on the same date and under the same prospectus exemption.

## TAXATION AND ELIGIBILITY FOR INVESTMENT

Canadian purchasers of Shares should consult their own legal and tax advisers with respect to the tax consequences of an investment in the Shares in their particular circumstances and about the eligibility of the Shares for investment by the purchaser under relevant Canadian legislation.

## TAXATION AND ELIGIBILITY FOR INVESTMENT

Canadian purchasers of common stock should consult their own legal and tax advisors with respect to the tax consequences of an investment in the common stock in their particular circumstances and with respect to the eligibility of the common stock for investment by the purchaser under relevant Canadian



legislation.

#### LEGAL MATTERS

The validity of the common stock offered hereby will be passed upon for us by Orrick, Herrington & Sutcliffe LLP, Menlo Park, California. Peter Cohn, a partner of Orrick, Herrington & Sutcliffe LLP, is our Secretary. The underwriters are represented by Wilson Sonsini Goodrich & Rosati, Palo Alto, California. As of the completion of this offering, Orrick, Herrington & Sutcliffe LLP and partners in that firm beneficially own an aggregate of 18,026 shares of our common stock.

#### EXPERTS

The Consolidated Financial Statements of PDF Solutions, Inc. as of December 31, 1999 and 1998, and for each of the three years in the period ended December 31, 1999, included in this prospectus and the related financial statement schedule included elsewhere in the registration statement have been audited by Deloitte & Touche LLP, independent auditors, as stated in their reports appearing herein and elsewhere in the registration statement, and have been so included in reliance upon the reports of such firm given upon their authority as experts in accounting and auditing.

The financial statements of Applied Integrated Systems and Software Entwicklungs-, Produktions-und Vertriebs GmbH ("AISS") as of December 31, 1999 and for the year ended December 31, 1999, included in this prospectus have been audited by Deloitte & Touche GmbH Wirtschaftsprüfungsgesellschaft, independent auditors, as stated in their report appearing herein, and have been so included in reliance upon the report of such firm given upon their authority as experts in accounting and auditing.

#### WHERE TO FIND ADDITIONAL INFORMATION

We have filed with the Securities and Exchange Commission a Registration Statement on Form S-1 under the Securities Act with respect to the common stock offered hereby. This prospectus does not contain all of the information set forth in the Registration Statement and the exhibits and schedules. For further information with respect to us and the common stock offered hereby, reference is made to the Registration Statement and to the exhibits and schedules. Statements made in this prospectus concerning the contents of any document referred to herein are not necessarily complete. With respect to each such document filed as an exhibit to the Registration Statement, reference is made to the exhibit for a more complete description of the matter involved. The Registration Statement and the exhibits and schedules may be inspected without charge at the public reference facilities maintained by the SEC at 450 Fifth Street, N.W., Washington, D.C. 20549, and at the regional offices of the Commission located at Seven World Trade Center, 13th Floor, New York, NY 10048, and the Northwestern Atrium Center, 500 West Madison Street, Suite 1400, Chicago, Illinois 60661. Copies of all or any part of the Registration Statement may be obtained from the SEC's offices upon payment of fees prescribed by the SEC. The SEC maintains a World Wide Web site that contains reports, proxy and information statements and other information regarding registrants that file electronically with the SEC. The address of the site is <http://www.sec.gov>.

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#### PDF SOLUTIONS, INC.

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INDEPENDENT AUDITORS' REPORT

To the Board of Directors and Shareholders of PDF Solutions, Inc.

We have audited the accompanying consolidated balance sheets of PDF Solutions, Inc. and subsidiaries (collectively, the "Company") as of December 31, 1998 and 1999, and the related consolidated statements of operations, shareholders' deficiency, and cash flows for each of the three years in the period ended December 31, 1999. These consolidated financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these consolidated financial statements based on our audits.

We conducted our audits in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, such financial statements present fairly, in all material respects, the financial position of the Company at December 31, 1998 and 1999, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 1999, in conformity with accounting principles generally accepted in the United States of America.

DELOITTE & TOUCHE LLP

San Jose, California  
April 3, 2000  
(April 27, 2000 as to the first paragraph of Note 2)

PDF SOLUTIONS, INC.  
CONSOLIDATED BALANCE SHEETS

	DECEMBER 31,		JUNE 30, 2000	PRO FORMA JUNE 30, 2000
	1998	1999		
				(UNAUDITED) (NOTE 1)
<b>ASSETS</b>				
Current assets:				
Cash and cash equivalents.....	\$2,155,384	\$1,932,923	\$ 1,443,241	
Accounts receivable, net of allowances of \$93,000 in 1998, \$144,000 in 1999, \$153,000 in 2000.....	2,050,160	2,749,174	3,996,932	
Prepaid expenses and other current assets.....	116,059	58,714	266,368	
Total current assets.....	4,321,603	4,740,811	5,706,541	
Property and equipment, net.....	497,713	822,026	1,231,648	
Intangible assets, net.....	--	--	2,014,053	
Other assets.....	17,448	81,498	141,155	
Total assets.....	\$4,836,764	\$5,644,335	\$ 9,093,397	
<b>LIABILITIES AND SHAREHOLDERS' EQUITY</b>				
(DEFICIENCY)				
Current liabilities:				
Accounts payable.....	\$ 739,495	\$ 730,232	\$ 1,594,438	
Accrued compensation and related benefits.....	375,882	1,152,956	997,570	
Other accrued liabilities.....	107,300	213,690	742,869	
Taxes payable.....	117,325	130,000	118,580	
Deferred revenues.....	480,647	345,992	810,441	
Notes payable.....	--	--	995,000	
Current portion of capital lease obligations.....	--	15,379	13,726	
Total current liabilities.....	1,820,649	2,588,249	5,272,624	
Long-term portion of capital lease obligations.....	--	71,616	54,293	
Deferred tax liability.....	--	--	689,273	
Series A convertible preferred stock, \$0.0001 par value, shares authorized, issued and outstanding: 8,750,000 in 1998, 1999 and 2000; none pro forma (liquidation preference of \$3,500,000).....	3,496,558	3,496,558	3,496,558	--
Commitments (Note 4)				
Shareholders' equity (deficiency):				
Common stock, \$0.0001 par value, 50,000,000 shares authorized; shares issued and outstanding 10,650,957 in 1998, 10,989,811 in 1999, 15,071,879 in 2000; 23,821,879 pro forma.....	1,065	1,099	1,507	\$ 2,382
Additional paid-in capital.....	468,200	537,199	19,010,946	22,506,629
Deferred stock-based compensation.....	(74,974)	(43,406)	(14,511,751)	(14,511,751)
Notes receivable from shareholders.....	(237,761)	(225,261)	(2,321,007)	(2,321,007)
Accumulated deficit.....	(636,973)	(781,719)	(2,602,393)	(2,602,393)
Cumulative other comprehensive income.....	--	--	3,347	3,347
Total shareholders' equity (deficiency).....	(480,443)	(512,088)	(419,351)	\$ 3,077,207
Total liabilities and shareholders' equity (deficiency).....	\$4,836,764	\$5,644,335	\$ 9,093,397	

See notes to consolidated financial statements.

PDF SOLUTIONS, INC.  
CONSOLIDATED STATEMENTS OF OPERATIONS

	YEARS ENDED DECEMBER 31,			SIX MONTHS ENDED JUNE 30,	
	1997	1998	1999	1999	2000
					(UNAUDITED)

Revenue:					
Design-to-silicon yield solutions.....	\$2,620,694	\$6,035,249	\$10,566,597	\$5,334,218	\$ 5,967,816
Gain share.....	--	192,000	1,257,000	--	2,308,000
	-----	-----	-----	-----	-----
Total revenue.....	2,620,694	6,227,249	11,823,597	5,334,218	8,275,816
	-----	-----	-----	-----	-----
Costs and expenses:					
Cost of design-to-silicon yield solutions.....	595,329	1,532,620	4,090,649	1,822,353	2,904,980
Research and development.....	1,005,405	1,863,808	3,086,825	1,243,686	2,242,114
Selling, general and administrative.....	1,404,133	2,959,504	4,294,521	2,201,669	3,024,722
Stock-based compensation amortization*.....	13,677	61,317	68,282	--	1,692,971
	-----	-----	-----	-----	-----
Total costs and expenses.....	3,018,544	6,417,249	11,540,277	5,267,708	9,864,787
	-----	-----	-----	-----	-----
Income (loss) from operations.....	(397,850)	(190,000)	283,320	66,510	(1,588,971)
Interest income and other.....	138,692	127,598	105,021	51,397	41,321
	-----	-----	-----	-----	-----
Income (loss) before taxes.....	(259,158)	(62,402)	388,341	117,907	(1,547,650)
Tax provision.....	8,999	341,492	533,087	300,800	273,024
	-----	-----	-----	-----	-----
Net loss.....	\$ (268,157)	\$ (403,894)	\$ (144,746)	\$ (182,893)	\$ (1,820,674)
	=====	=====	=====	=====	=====
Net loss per share -- basic and diluted.....	\$ (0.04)	\$ (0.05)	\$ (0.02)	\$ (0.02)	\$ (0.17)
	=====	=====	=====	=====	=====
Shares used in computing basic and diluted net loss per share (Note 1).....	6,152,344	7,415,859	9,128,344	8,576,236	10,474,269
	=====	=====	=====	=====	=====
Pro forma net loss per share --basic and diluted (Note 1).....			\$ (0.01)		\$ (0.09)
			=====		=====
Shares used in computing pro forma basic and diluted net loss per share (Note 1).....			17,878,344		19,224,269
			=====		=====
*Stock-based compensation amortization:					
Cost of design-to-silicon yield solutions.....	\$ 4,103	\$ 18,395	\$ 20,485	\$ --	\$ 295,404
Research and development.....	9,574	42,922	47,797	--	1,189,562
Selling, general and administrative.....	--	--	--	--	208,005
	-----	-----	-----	-----	-----
	\$ 13,677	\$ 61,317	\$ 68,282	\$ --	\$ 1,692,971
	=====	=====	=====	=====	=====

See notes to consolidated financial statements.

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PDF SOLUTIONS, INC.

CONSOLIDATED STATEMENTS OF SHAREHOLDERS' DEFICIENCY

					NOTES	CUMULATIVE	
	COMMON STOCK		ADDITIONAL	DEFERRED	RECEIVABLE	ACCUMULATED	OTHER
	SHARES	AMOUNT	PAID-IN CAPITAL	STOCK COMPENSATION	FROM SHAREHOLDERS	EARNINGS (DEFICIT)	COMPREHENSIVE INCOME
Balances, January 1, 1997.....	8,750,000	\$ 875	\$ 116,430	\$ (13,281)	\$ (39,011)	\$ 35,078	\$ --
Compensatory stock arrangements.....			37,003	(37,003)			
Amortization of stock-based compensation.....				13,667		(268,157)	
Net loss.....							
Balances, December 31, 1997.....	8,750,000	875	153,433	(36,617)	(39,011)	(233,079)	--
Issuance of common stock.....	1,543,749	154	199,221		(198,750)		
Exercise of options.....	357,208	36	15,872				
Compensatory stock arrangements.....			99,674	(99,674)			
Amortization of stock-based compensation.....				61,317			
Net loss.....						(403,894)	

Balances, December 31, 1998.....	10,650,957	1,065	468,200	(74,974)	(237,761)	(636,973)	--
Issuance of common stock.....	50,000	5	12,495		(12,500)		
Repayment of notes receivable from shareholders.....					6,772		
Repurchase of common stock through cancellation of note receivable.....	(182,292)	(18)	(18,210)		18,228		
Exercise of options.....	471,146	47	38,000				
Compensatory stock arrangements.....			36,714	(36,714)			
Amortization of stock-based compensation.....				68,282			
Net loss.....						(144,746)	
Balances, December 31, 1999.....	10,989,811	1,099	537,199	(43,406)	(225,261)	(781,719)	--
Repayment of notes receivable from shareholders*.....					1,624		
Exercise of options*.....	4,082,068	408	2,312,431		(2,097,370)		
Compensatory stock arrangements*.....			16,161,316	(16,161,316)			
Amortization of stock-based compensation*.....				1,692,971			
Net loss*.....						(1,820,674)	
Cumulative translation adjustment*.....							3,347
Comprehensive loss*.....							
Balances, June 30, 2000*.....	15,071,879	\$1,507	\$19,010,946	\$ (14,511,751)	\$ (2,321,007)	\$ (2,602,393)	\$3,347

TOTAL

Balances, January 1, 1997.....	\$ 100,091
Compensatory stock arrangements.....	--
Amortization of stock-based compensation.....	13,667
Net loss.....	(268,157)
Balances, December 31, 1997.....	(154,399)
Issuance of common stock.....	625
Exercise of options.....	15,908
Compensatory stock arrangements.....	--
Amortization of stock-based compensation.....	61,317
Net loss.....	(403,894)
Balances, December 31, 1998.....	(480,443)
Issuance of common stock.....	--
Repayment of notes receivable from shareholders.....	6,772
Repurchase of common stock through cancellation of note receivable.....	--
Exercise of options.....	38,047
Compensatory stock arrangements.....	--
Amortization of stock-based compensation.....	68,282
Net loss.....	(144,746)
Balances, December 31, 1999.....	(512,088)
Repayment of notes receivable from shareholders*.....	1,624
Exercise of options*.....	215,469
Compensatory stock arrangements*.....	--
Amortization of stock-based compensation*.....	1,692,971
Net loss*.....	
Cumulative translation adjustment*.....	
Comprehensive loss*.....	(1,817,327)
Balances, June 30, 2000*.....	\$ (419,351)

\* Unaudited

See notes to consolidated financial statements.

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PDF SOLUTIONS, INC.  
CONSOLIDATED STATEMENTS OF CASH FLOWS

YEARS ENDED DECEMBER 31,			SIX MONTHS ENDED JUNE 30,	
1997	1998	1999	1999	2000

(UNAUDITED)

Operating activities:					
Net loss.....	\$ (268,157)	\$ (403,894)	\$ (144,746)	\$ (182,893)	\$ (1,820,674)
Adjustments to reconcile net loss to net cash provided by operating activities:					
Depreciation and amortization.....	151,834	240,953	303,546	122,333	290,290
Stock-based compensation amortization...	13,667	61,317	68,282	--	1,692,971
Common stock issued for services.....	--	625	--	--	--
Gain (loss) on the sale of property and equipment.....	--	16,902	(1,157)	--	--
Changes in assets and liabilities, net of effect of acquisition:					
Accounts receivable.....	(2,510,952)	578,254	(699,014)	(505,913)	(1,034,515)
Prepaid expenses and other assets.....	(22,997)	(93,295)	(6,705)	14,698	(68,687)
Accounts payable.....	220,611	502,020	(9,263)	67,181	824,236
Accrued compensation and related benefits.....	263,760	70,121	777,074	253,040	(155,386)
Other accrued liabilities and taxes payable.....	--	224,625	119,065	(150,202)	(82,662)
Deferred revenues.....	1,324,168	(985,372)	(134,655)	673,175	454,605
Net cash provided by (used in) operating activities.....	(828,066)	212,256	272,427	291,419	100,178
Investing activities:					
Purchases of property and equipment.....	(324,215)	(280,758)	(549,615)	(149,287)	(565,994)
Proceeds from sale of equipment.....	3,689	--	12,926	--	--
Acquisition of AISS, net of cash acquired.....	--	--	--	--	(225,330)
Net cash used in investing activities.....	(320,526)	(280,758)	(536,689)	(149,287)	(791,324)
Financing activities:					
Exercise of stock options.....	--	15,908	38,047	78,928	215,469
Collection of notes receivable from shareholders.....	--	--	6,772	--	1,624
Principal payments on capital lease obligations.....	--	--	(3,018)	--	(18,976)
Net cash provided by financing activities.....	--	15,908	41,801	78,928	198,117
Effect of exchange rate changes on cash.....	--	--	--	--	3,347
Net increase (decrease) in cash and cash equivalents.....	(1,148,592)	(52,594)	(222,461)	221,060	(489,682)
Cash and cash equivalents, beginning of period.....	3,356,570	2,207,978	2,155,384	2,155,384	1,932,923
Cash and cash equivalents, end of period.....	\$ 2,207,978	\$ 2,155,384	\$ 1,932,923	\$ 2,376,444	\$ 1,443,241
Noncash investing and financing activities:					
Common stock issued for notes receivable...	\$ --	\$ 198,750	\$ 12,500	\$ --	\$ 2,097,370
Property acquired under capital lease.....	\$ --	\$ --	\$ 90,013	\$ --	\$ --
Acquisition of AISS.....	\$ --	\$ --	\$ --	\$ --	\$ 995,000
Supplemental disclosure of cash flow information --					
Cash paid during the year for:					
Taxes.....	\$ 8,999	\$ 341,492	\$ 403,087	\$ 300,800	\$ 215,708
Interest.....	\$ --	\$ --	\$ 677	\$ --	\$ 2,735

See notes to consolidated financial statements.

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PDF SOLUTIONS, INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS  
YEARS ENDED DECEMBER 31, 1997, 1998 AND 1999 AND  
SIX MONTHS ENDED JUNE 30, 2000  
(INFORMATION AS OF JUNE 30, 1999 AND FOR THE SIX MONTHS  
ENDED JUNE 30, 1999 AND 2000 IS UNAUDITED)

1. BUSINESS AND SIGNIFICANT ACCOUNTING POLICIES

PDF Solutions, Inc. (the "Company"), a California corporation, was incorporated in November 1992 and provides comprehensive infrastructure technologies and services to improve yield and optimize performance of integrated circuits. The Company's approach includes manufacturing simulation and analysis, combined with yield improvement methodologies to increase product yield and performance.

Basis of Presentation -- The consolidated financial statements include the accounts of the Company and its wholly-owned subsidiaries after the elimination

of all significant intercompany balances and transactions.

Significant Estimates -- The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect the reported amounts of assets, liabilities, revenues and expenses. A significant portion of the Company's revenues require estimates in regards to total costs which may be incurred and revenues earned. Actual results could differ from these estimates.

Certain Significant Risks and Uncertainties -- The Company operates in the dynamic semiconductor and software industry, and accordingly, can be affected by a variety of factors. For example, management of the Company believes that changes in any of the following areas could have a significant negative effect on the Company in terms of its future financial position, results of operations and cash flows: ability to obtain additional financing; regulatory changes; fundamental changes in the technology underlying software technologies; market acceptance of the Company's solutions; development of sales channels; litigation or other claims against the Company; the hiring, training and retention of key employees; successful and timely completion of development efforts; and new product introductions by competitors.

Concentration of Credit Risk -- Financial instruments that potentially expose the Company to concentrations of credit risk consist primarily of accounts receivable. The Company primarily sells its products to companies in Japan and North America. The Company does not require collateral or other security to support accounts receivable. To reduce credit risk, management performs ongoing credit evaluations of its customers' financial condition. The Company maintains allowances for potential credit losses.

Cash Equivalents -- The Company considers all highly liquid debt instruments purchased with a remaining maturity of three months or less to be cash equivalents.

Accounts Receivable -- Accounts receivable include amounts that are unbilled at the end of the period. Unbilled accounts receivable are determined on an individual contract basis and were approximately \$190,000, \$0 and \$541,000 at December 31, 1998, 1999 and June 30, 2000.

Property and equipment -- Property and equipment are stated at cost and are depreciated using the straight-line method over the estimated useful lives of the related asset. The estimated useful lives are as follows:

Computer and equipment.....	3 years
Software.....	3 years
Furniture and fixtures.....	5 - 7 years

Intangible Assets -- Intangible assets are related to the business acquisition discussed in Note 2. Amortization is recorded on a straight-line basis over a period of four years.

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PDF SOLUTIONS, INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)  
YEARS ENDED DECEMBER 31, 1997, 1998 AND 1999 AND  
SIX MONTHS ENDED JUNE 30, 2000  
(INFORMATION AS OF JUNE 30, 1999 AND FOR THE SIX MONTHS  
ENDED JUNE 30, 1999 AND 2000 IS UNAUDITED)

Impairment of Long-Lived Assets -- In accordance with Statement of Financial Accounting Standards (SFAS) No. 121, "Accounting for the Impairment of Long-Lived Assets and for Long-Lived Assets to Be Disposed Of," the Company evaluates its long-lived assets for impairment whenever events or changes in circumstances indicate that the carrying amount of an asset may not be recoverable. When the sum of the undiscounted future net cash flows expected to result from the use of the asset and its eventual disposition is less than its carrying amount an impairment loss would be measured based on the discounted cash flows compared to the carrying amount. No impairment charge has been recorded in any of the periods presented.

Notes Receivable from Shareholders -- The notes receivable from shareholders are full recourse notes issued in exchange for common stock. Notes outstanding at December 31, 1999 bear interest at 4.46% to 5.83% per annum. Notes outstanding at June 30, 2000 bear interest at 4.46% to 6.62% per annum. The notes are generally payable in annual installments over three years.

Revenue Recognition -- The Company derives revenue from two sources: design-to-silicon yield solutions and gain share. The Company recognizes revenues in accordance with the provisions of American Institute of Certified Public Accountants Statement of Position ("SOP") 97-2, Software Revenue Recognition, as amended, and SOP 81-1, Accounting for Performance of Construction-Type and Certain Production-Type Contracts.

Design-to-Silicon Yield Solutions -- Design-to-silicon yield solutions revenue is derived from solution implementations, software licenses and software support and maintenance. Revenue under contracts for solution implementation services is recognized as the services are performed using the cost-to-cost percentage of completion method of contract accounting. License fees bundled with solution implementation services are recognized as a component of the overall solution implementation contract as vendor specific objective evidence of fair value does not exist for the service element. Losses on solution implementation contracts are recognized when determined. Revisions in profit estimates are reflected in the period in which the conditions that require the revision become known and are estimable. License fees under contracts which are not bundled with solution implementation services are recognized when an agreement has been signed, the software has been delivered, the license fee is fixed or determinable and collection of the fee is probable and vendor-specific objective evidence of fair value exists to allocate a portion of the total fee to any undelivered elements of the arrangement, or over the license term. Support and maintenance revenue is recognized ratably over the term of the support and maintenance contract. If support and maintenance is included in an arrangement that includes a license agreement, amounts related to support and maintenance are allocated based on vendor specific objective evidence.

Gain Share -- Gain share revenue represents profit sharing and performance incentives earned based upon its customer reaching certain defined operational levels. Upon achieving such operational levels, the Company receives either a fixed fee and/or royalties based on the units sold by the customer. Due to the uncertainties surrounding attainment of such operational levels, the Company recognizes gain share revenue (to the extent of completion of the related solution implementation contract) upon receipt of performance reports or other related information from the customer supporting the determination of amounts and probability of collection.

In October 1997, the American Institute of Certified Public Accountants issued SOP 97-2, Software Revenue Recognition. This statement provides guidance on applying generally accepted accounting principles in recognizing revenue on software transactions and superceded SOP 91-1, Software Revenue

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NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)  
YEARS ENDED DECEMBER 31, 1997, 1998 AND 1999 AND  
SIX MONTHS ENDED JUNE 30, 2000  
(INFORMATION AS OF JUNE 30, 1999 AND FOR THE SIX MONTHS  
ENDED JUNE 30, 1999 AND 2000 IS UNAUDITED)

Recognition. SOP 97-2 was effective for transactions entered into in 1998. The adoption of this standard did not have a material effect on the Company's financial position or results of operations.

Software Development Costs -- Costs for the development of new software products and substantial enhancements to existing software products are expensed as incurred until technological feasibility has been established, at which time any additional costs would be capitalized in accordance with Statement of Financial Accounting Standards (SFAS) No. 86, Computer Software to be Sold, Leased or Otherwise Marketed. Because the Company believes its current process for developing software is essentially completed concurrently with the establishment of technological feasibility, no costs have been capitalized to date.



Research and Development -- Research and development expenses are charged to operations as incurred.

Stock-Based Compensation -- The Company accounts for stock-based compensation in accordance with the provisions of Accounting Principles Board Opinion No. 25 ("APB No. 25"), Accounting for Stock Issued to Employees and complies with the disclosure provisions of Statement of Financial Accounting Standards No. 123 ("SFAS No. 123"). Deferred compensation recognized under APB No. 25 is amortized to expense using the graded vesting method. The Company accounts for stock options and warrants issued to non-employees in accordance with the provisions of SFAS No. 123 and Emerging Issues Task Force No. 96-18 under the fair value based method.

Net Loss per Share -- Basic net loss per share excludes dilution and is computed by dividing net loss by the weighted average number of common shares outstanding for the period (excluding shares subject to repurchase). Diluted net loss per share was the same as basic net loss per share for all periods presented since the effect of any potentially dilutive securities is excluded as they are anti-dilutive because of the Company's net losses.

Unaudited Pro Forma Net Loss per Share -- Pro forma basic and diluted net loss per share is computed by dividing net loss by the weighted average number of common shares outstanding for the period (excluding shares subject to repurchase) and the weighted average number of common shares resulting from the assumed conversion of outstanding shares of Series A convertible preferred stock which will occur upon the closing of the planned initial public offering.

Unaudited Pro Forma Information -- Upon the closing of the planned initial public offering, each of the outstanding shares of Series A convertible preferred stock will convert into one share of common stock. The pro forma balance sheet presents the Company's balance sheet as if this had occurred at June 30, 2000.

Unaudited Interim Financial Information -- The interim financial information as of June 30, 2000 and for the six months ended June 30, 1999 and 2000 is unaudited and has been prepared on the same basis as the audited financial statements. In the opinion of management, such unaudited financial information includes all adjustments (consisting only of normal recurring adjustments) necessary for a fair presentation of the interim information. Operating results for the six months ended June 30, 2000 are not necessarily indicative of the results that may be expected for the year ended December 31, 2000.

Foreign Currency Translation -- The functional currency of the Company's foreign subsidiaries is the local currency for the respective subsidiary. The assets and liabilities are translated at the period-end exchange rate, and statements of operations are translated at the average exchange rate during the year.

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PDF SOLUTIONS, INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)  
YEARS ENDED DECEMBER 31, 1997, 1998 AND 1999 AND  
SIX MONTHS ENDED JUNE 30, 2000  
(INFORMATION AS OF JUNE 30, 1999 AND FOR THE SIX MONTHS  
ENDED JUNE 30, 1999 AND 2000 IS UNAUDITED)

Gains and losses resulting from foreign currency translations are included as a component of other comprehensive income.

Comprehensive Income -- Statement of Financial Accounting Standards (SFAS) No. 130, Reporting Comprehensive Income, requires that an enterprise report, by major components and as a single total, the change in its net assets during the period from nonowner sources. For 1997, 1998 and 1999 comprehensive loss was equal to net loss. Comprehensive loss for the six months ended June 30, 2000 is presented within the statement of shareholders' deficiency.

Recently Issued Accounting Standards -- In June 1998, the Financial Accounting Standards Board issued SFAS No. 133, Accounting for Derivative Instruments and Hedging Activities. This statement requires companies to record derivatives on the balance sheet as assets or liabilities measured at fair

value. Gains or losses resulting from changes in the values of those derivatives would be accounted for depending on the use of the derivative and whether it qualifies for hedge accounting. SFAS 133 will be effective for the Company's fiscal year ending December 31, 2001. Management has not yet determined the impact that the adoption of SFAS 133 will have on its earnings or financial position.

2. BUSINESS COMBINATION

On April 27, 2000, the Company acquired all of the outstanding common stock of AISS, a German company, for \$1.25 million, consisting of \$995,000 in notes payable and \$255,000 in cash. AISS develops software and provides yield management services to the semiconductor industry. The note bears interest at 7% per annum payable quarterly with principal due on April 27, 2001.

The acquisition was accounted for using the purchase method and the operating results of AISS have been included in the consolidated statements of operations since the date of acquisition. The excess purchase price (including costs of acquisition) over the fair value of the tangible assets and liabilities assumed totaled \$2,101,622 and represents acquired technology, employee workforce and goodwill which is being amortized on a straight line basis over a period of four years. Amortization expense totaled \$87,569 for the six months ended June 30, 2000.

The fair value of the assets acquired and liabilities assumed were as follows (in thousands):

Cash.....	\$ 30
Accounts receivable.....	386
Other assets.....	27
Property and equipment.....	46
Intangible assets.....	2,102
Accrued acquisition cost.....	(113)
Less liabilities assumed.....	(509)
Deferred tax liability.....	(719)
	-----
	\$1,250
	=====

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PDF SOLUTIONS, INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)  
YEARS ENDED DECEMBER 31, 1997, 1998 AND 1999 AND  
SIX MONTHS ENDED JUNE 30, 2000  
(INFORMATION AS OF JUNE 30, 1999 AND FOR THE SIX MONTHS  
ENDED JUNE 30, 1999 AND 2000 IS UNAUDITED)

Had the acquisition taken place at the beginning of fiscal 1999 and 2000 respectively, the unaudited pro forma results of operations would have been as follows for the six months ended June 30, 1999 and 2000 (in thousands, except per share data):

	1999	2000
	-----	-----
	(UNAUDITED)	
Net revenues.....	\$5,928	\$ 8,598
Net loss.....	(285)	(1,887)
Net loss per share -- basic and diluted.....	(.01)	(0.10)

The pro forma results of operations give effect to certain adjustments, including amortization of purchased intangibles and goodwill, interest charges on the note issued in connection with the acquisition and the elimination of sales between the Company and AISS. The pro forma net loss per share -- basic

and diluted reflects the effect of the conversion of the outstanding shares of Series A convertible preferred stock into common stock, which will occur upon the closing of the planned initial public offering.

The pro forma amounts are based on certain assumptions and estimates and do not necessarily represent results which would have occurred if the acquisition had taken place on the basis assumed above, nor are they indicative of results of future combined operations.

### 3. PROPERTY AND EQUIPMENT

Property and equipment consist of:

	DECEMBER 31,		JUNE 30,
	1998	1999	2000
			(UNAUDITED)
Computer equipment.....	\$ 621,459	\$ 884,276	\$1,326,329
Software.....	236,934	355,687	452,652
Furniture, fixtures, and equipment.....	106,520	351,803	425,129
	964,913	1,591,766	2,204,110
Accumulated depreciation.....	(467,200)	(769,740)	(972,462)
	\$ 497,713	\$ 822,026	\$1,231,648
	=====	=====	=====

### 4. LEASE COMMITMENTS

Equipment with a net book value of \$87,747 at December 31, 1999 (net of accumulated amortization of \$2,266) has been leased under capital leases which expire in 2004. The Company leases administrative and sales offices and other equipment under noncancelable operating leases which contain various renewal options and require payment of common area costs, taxes and utilities, when applicable. These operating leases expire from 2001 to 2004.

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PDF SOLUTIONS, INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)  
YEARS ENDED DECEMBER 31, 1997, 1998 AND 1999 AND  
SIX MONTHS ENDED JUNE 30, 2000  
(INFORMATION AS OF JUNE 30, 1999 AND FOR THE SIX MONTHS  
ENDED JUNE 30, 1999 AND 2000 IS UNAUDITED)

Future minimum lease payments under capital and noncancelable operating leases at December 31, 1999 are as follows:

	YEARS ENDING DECEMBER 31, -----	CAPITAL LEASES -----	OPERATING LEASES -----
2000.....		\$ 21,744	\$ 710,054
2001.....		21,744	721,960
2002.....		21,744	742,822
2003.....		21,744	766,282
2004.....		18,048	654,860
		-----	-----
Total future minimum lease payments.....		105,024	\$3,595,978
			=====
Less amount representing interest (ranging from 7.32% to 9.25%).....		(18,029)	
		-----	
Present value of future minimum lease payments.....		86,995	
Less current portion.....		(15,379)	
		-----	

\$ 71,616  
=====

Rent expense was approximately \$98,222, \$220,226 and \$379,364 in 1997, 1998 and 1999, respectively.

#### 5. BANK OBLIGATIONS

At December 31, 1999, the Company had available term loan and revolving credit commitments providing for borrowings of up to \$3,500,000. The term loan commitment provides financing of up to \$500,000 for the purchase of equipment, furniture and software, as defined, through June 30, 2000. Borrowings against the term loan commitment bear interest at prime (8.25% at December 31, 1999) plus 1% and are payable in monthly installments of 36 months, commencing January 1, 2000 for loans made through December 31, 1999, or 30 months, commencing July 1, 2000 for loans made during the six months ended June 30, 2000. The remaining \$3,000,000 is available as follows: \$500,000 Domestic Asset Based Line of Credit Commitment and \$2,500,000 Foreign Asset Based Line of Credit Commitment for which advances are limited, respectively, to 75% of domestic and 90% of foreign accounts receivable, as defined. Outstanding borrowings bear interest at prime (8.25% at December 31, 1999) plus 0.75%. Borrowings under these arrangements are secured by all personal property of the Company. In addition, the agreements require the Company to comply with certain financial covenants. At December 31, 1999 and June 30, 2000, there were no borrowings outstanding under the agreements.

#### 6. CONVERTIBLE PREFERRED STOCK

Convertible Preferred Stock -- The Company had 8,750,000 shares of Series A convertible preferred stock outstanding at December 31, 1998, 1999 and June 30, 2000. The significant terms of the Series A convertible preferred stock are as follows:

- Each share is convertible into one share of common stock (subject to adjustment for events of dilution).
- Each share will automatically convert in the event of a public offering in which the Company receives proceeds equal to or greater than \$7,500,000 and a price per share equal to or greater than \$2.00.

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PDF SOLUTIONS, INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)  
YEARS ENDED DECEMBER 31, 1997, 1998 AND 1999 AND  
SIX MONTHS ENDED JUNE 30, 2000  
(INFORMATION AS OF JUNE 30, 1999 AND FOR THE SIX MONTHS  
ENDED JUNE 30, 1999 AND 2000 IS UNAUDITED)

- Each share of Series A convertible preferred stock has voting rights equivalent to the number of shares of common stock into which it is convertible.
- In the event of liquidation or winding up of the Company, the holders of Series A convertible preferred stock shall receive \$0.40 per share plus all accrued but unpaid dividends. A sale of substantially all of the Company's assets or a change in control is treated as a deemed liquidation.
- In the event the Board of Directors declares dividends payable on the then outstanding common stock, the holders of Series A preferred stock shall receive \$0.02 per share. The right to such dividends are not cumulative.
- The Series A convertible preferred stock shareholders, voting separately as a class, shall elect two members of the Board of Directors. Additionally, the holders of common stock and Series A preferred stock voting collectively as a class shall elect one member of the Board of Directors.

#### 7. SHAREHOLDERS' EQUITY

Common Stock -- Common stock issued to the founders and certain other employees are subject to repurchase agreements whereby the Company has the option to repurchase the unvested shares upon termination of employment at the original issue price. The Company's repurchase right generally lapses over four years. At December 31, 1999, 941,062 shares of common stock were subject to repurchase by the Company.

During 1998, the Company issued 6,250 shares of common stock to consultants for services rendered. The fair value of the common stock of \$625 was recognized as general and administrative expense at the date of issuance.

The Company has reserved shares of common stock for issuance as follows at December 31, 1999:

Conversion of preferred stock.....	8,750,000
Issuance and exercise of options.....	2,179,385
Exercise of warrants.....	300,000
	-----
	11,229,385
	=====

Stock Plans -- At December 31, 1999, under the Company's 1996 and 1997 Stock Plans ("the Plans"), the Company may grant options to purchase up to 4,500,000 shares of common stock to employees, directors and consultants at prices not less than the fair market value at the date of grant for incentive stock options and not less than 85% of fair market value for nonstatutory stock options. These options generally expire ten years from the date of grant and become exercisable ratably over a four-year period. Certain option grants provide for the immediate exercise by the optionee with the resulting shares issued subject to a right of repurchase by the Company which lapses based on the original vesting provisions. At December 31, 1999, 78,330 shares were available for future grant under the Plans.

In January 2000, the shareholders approved that the number of shares of the Company's common stock reserved for issuance under the Plans be increased by 2,500,000 shares to an aggregate number of shares of the Company's common stock reserved for issuance under the Plans of 7,000,000 shares.

At December 31, 1998 and 1999 and June 30, 2000, the Company's outstanding options include 101,490, 101,490 and 731,490 shares, respectively, which had been granted outside of the Plans.

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PDF SOLUTIONS, INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)  
YEARS ENDED DECEMBER 31, 1997, 1998 AND 1999 AND  
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(INFORMATION AS OF JUNE 30, 1999 AND FOR THE SIX MONTHS  
ENDED JUNE 30, 1999 AND 2000 IS UNAUDITED)

Additional information with respect to options under the Plans, including options granted outside the Plans, is as follows:

	NUMBER OF OPTIONS	WEIGHTED AVERAGE OPTION PRICE PER SHARE
	-----	-----
Outstanding, January 1, 1997 (63,435 shares vested and exercisable at a weighted exercise price of \$0.02 per share).....	1,054,235	\$0.04
Granted (weighted average fair value of \$0.01 per share)....	783,750	0.04
Exercised.....	--	--
Canceled.....	(300,000)	0.04
	-----	

Outstanding, December 31, 1997 (399,736 shares vested and

exercisable at a weighted exercise price of \$0.04 per share).....	1,537,985	0.04
Granted (weighted average fair value of \$0.03 per share)....	2,498,450	0.13
Exercised.....	(1,900,958)	0.11
Canceled.....	(97,792)	0.04
-----		
Outstanding, December 31, 1998 (613,022 shares vested and exercisable at a weighted average exercise price of \$0.04 per share).....	2,037,685	0.08
Granted (weighted average fair value of \$0.07 per share)....	746,500	0.25
Exercised.....	(521,147)	0.10
Canceled.....	(161,983)	0.11
-----		
Outstanding, December 31, 1999 (782,187 shares vested and exercisable at a weighted average exercise price of \$0.09 per share).....	2,101,055	0.14
Granted (weighted average fair value of \$5.34 per share)....	3,300,590	1.21
Exercised.....	(3,832,069)	0.60
Canceled.....	(332,832)	0.21
-----		
Outstanding, June 30, 2000 (128,552 shares vested and exercisable at a weighted average exercise price of \$0.07 per share).....	1,236,744	\$1.53
=====		

Additional information regarding options outstanding as of December 31, 1999 is as follows:

EXERCISE PRICES	OPTIONS OUTSTANDING		OPTIONS EXERCISABLE
	NUMBER OUTSTANDING	WEIGHTED AVERAGE REMAINING CONTRACTUAL LIFE (YEARS)	NUMBER VESTED AND EXERCISABLE
-----	-----	-----	-----
\$0.04	712,355	6.6	469,014
0.10	596,500	8.3	255,832
0.25	789,700	8.3	56,841
0.35	2,500	10.0	500
	-----		-----
\$0.04 - 0.35	2,101,055	7.8	782,187
	=====		=====

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PDF SOLUTIONS, INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)  
YEARS ENDED DECEMBER 31, 1997, 1998 AND 1999 AND  
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Statement of Financial Accounting Standards No. 123, Accounting for Stock-Based Compensation (SFAS 123), requires the disclosure of pro forma net loss as if the Company had adopted the fair value method. Under SFAS 123, the fair value of stock-based awards to employees is calculated through the use of option pricing models, even though such models were developed to estimate the fair value of freely tradable, fully transferable options without vesting restrictions, which significantly differ from the Company's stock option awards. These models also require subjective assumptions, including expected time to exercise, which affect the calculated values.

The weighted average fair value of the Company's stock-based awards to employees was estimated using the minimum value method and assuming no dividends will be declared and the following additional assumptions:

	DECEMBER 31,		
	1997	1998	1999
Estimated life (in years).....	5.5	5.5	5.5
Risk-free interest rate.....	6.0%	5.6%	6.0%

For pro forma purposes, the estimated fair value of the Company's stock-based awards to employees is amortized using the straight-line method over the options' vesting period. The Company's pro forma results are as follows (in thousands):

	DECEMBER 31,		
	1997	1998	1999
Net loss:			
As reported.....	\$ (268)	\$ (404)	\$ (145)
Pro forma.....	(281)	(448)	(198)
Basic and diluted net loss per share:			
As reported.....	\$(0.04)	\$(0.05)	\$(0.02)
Pro forma.....	(0.05)	(0.06)	(0.02)

#### Stock-Based Compensation

As of December 31, 1999, the Company had granted an aggregate of 493,935 nonstatutory stock options to consultants and advisory board members (of which 7,500 and 37,000 were granted in 1998 and 1999, respectively) at a weighted average exercise price of \$0.05 per share. The options vest monthly over a period of one to five years and 187,208 remained unvested at December 31, 1999. The values attributable to the grants are determined at each vesting date using the Black-Scholes pricing model and have been amortized over the service period. The estimated fair value of deferred stock-based compensation related to the unvested portion of these grants at December 31, 1999 is subject to adjustment based upon the future value of the Company's common stock and was revalued using the Black-Scholes pricing model with the following weighted average assumptions: contractual life of 10 years; risk-free interest rate of 4.6%; volatility of 40% and no dividends during the expected term.

During the six months ended June 30, 2000, the Company issued 3,258,290 common stock options to employees at a weighted average exercise price of \$1.21 per share. The weighted average exercise price was below the weighted average deemed fair value of \$6.03 per share. The cumulative deferred stock-based compensation with respect to these grants totaled \$15,692,098 and is being amortized to expense on a graded vesting method over the four year vesting period of the options through June 2004. During the six

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PDF SOLUTIONS, INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)  
YEARS ENDED DECEMBER 31, 1997, 1998 AND 1999 AND  
SIX MONTHS ENDED JUNE 30, 2000  
(INFORMATION AS OF JUNE 30, 1999 AND FOR THE SIX MONTHS  
ENDED JUNE 30, 1999 AND 2000 IS UNAUDITED)

months ended June 30, 2000 the Company granted fully vested options to purchase 42,300 shares of common stock to non-employees. These options, combined with the vesting of 55,132 non-employee options outstanding at December 31, 1999, were revalued using the Black-Scholes pricing model with the following weighted average assumptions: contractual life of 10 years; risk-free interest rate of 6.7%; volatility of 70% and no dividends during the expected term. As a result, the Company recorded additional stock-based compensation amortization of \$469,218 during the six months ended June 30, 2000.

Amortization of employee and non-employee stock-based compensation totaled \$13,677, \$61,317, \$68,282 and \$1,692,971 in 1997, 1998, 1999 and for the six

months ended June 30, 2000, respectively. The cumulative portion of stock based compensation amortization through December 31, 1999 related to non-employee awards was not material.

Common Stock Warrants

During 1996, the Company issued warrants to purchase 300,000 shares of the Company's common stock to consultants. As of December 31, 1999, 56,250 remained unvested. The value attributed to the warrants is determined at the vesting date using the Black-Scholes pricing model and has been amortized over the service period of four years. The estimated value of deferred stock-based compensation related to the unvested portion of these warrants at December 31, 1999 is subject to adjustment based upon the future value of the Company's common stock and was revalued using the Black-Scholes pricing model with weighted average assumptions consistent with the non-employee options described above. At June 30, 2000, no warrants remained outstanding.

8. NET LOSS PER SHARE

The following is a reconciliation of the numerators and denominators used in computing basic and diluted net loss per share (in thousands):

	YEARS ENDED DECEMBER 31,			SIX MONTHS ENDED JUNE 30,	
	1997	1998	1999	1999	2000
					(UNAUDITED)
Net loss (numerator), basic and diluted.....	\$ (268)	\$ (404)	\$ (145)	\$ (183)	\$ (1,821)
Shares (denominator):					
Weighted average common shares outstanding....	8,750	9,333	10,843	10,775	12,187
Weighted average common shares outstanding subject to repurchase.....	(2,598)	(1,917)	(1,715)	(2,199)	(1,713)
Shares used in computation, basic and diluted...	6,152	7,416	9,128	8,576	10,474
Net loss per share -- basic and diluted.....	\$ (0.04)	\$ (0.05)	\$ (0.02)	\$ (0.02)	\$ (0.17)
Shares used in computation -- basic and diluted.....			9,128		10,474
Weighted average Series A convertible preferred stock outstanding.....			8,750		8,750
Shares used in computing pro forma per share amounts on an as converted basis -- basic and diluted.....			17,878		19,224
Pro forma net loss per share on an as converted basis -- basic and diluted.....			\$ (0.01)		\$ (0.09)

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)  
YEARS ENDED DECEMBER 31, 1997, 1998 AND 1999 AND  
SIX MONTHS ENDED JUNE 30, 2000  
(INFORMATION AS OF JUNE 30, 1999 AND FOR THE SIX MONTHS  
ENDED JUNE 30, 1999 AND 2000 IS UNAUDITED)

Pro forma net loss per share assumes that the conversion of all shares of Series A convertible preferred stock into common stock, which occurs upon the consummation of an initial public offering.

For the above mentioned periods, the Company had securities outstanding which could potentially dilute basic earnings per share in the future, but were excluded in the computation of diluted net loss per share in the periods presented, as their effect would have been antidilutive. Such outstanding securities consist of the following (in thousands):



	YEARS ENDED DECEMBER 31,			SIX MONTHS ENDED JUNE 30,	
	1997	1998	1999	1999	2000
	-----	-----	-----	-----	-----
				(UNAUDITED)	
Convertible preferred stock.....	8,750	8,750	8,750	8,750	8,750
Shares of common stock subject to repurchase.....	2,598	1,917	1,715	2,199	1,635
Outstanding options.....	400	613	782	643	129
Warrants.....	94	169	244	206	--

## 9. TAX PROVISION

The tax provision in 1997, 1998 and 1999 was \$8,999, \$341,492, \$533,087, respectively, and primarily represents withholding tax on revenues from foreign customers. The tax provision for the six months ended June 30, 2000 of \$273,024 includes withholding tax on revenues from foreign customers of \$180,000, foreign and U.S. income tax of \$42,024 and \$51,000, respectively.

During fiscal 1997, 1998, and 1999 all income (loss) before taxes was derived from U.S. operations. In the period ended June 30, 2000, income (loss) before taxes was \$(1,685,000) and \$137,000 from U.S. and foreign operations, respectively.

Deferred income taxes reflect the tax effects of temporary differences between the carrying amount of assets and liabilities for financial reporting purposes and the amounts used for income tax purposes, as well as net operating loss and tax credit carryforwards.

The components of the net deferred tax liability is comprised of (in thousands):

	DECEMBER 31,			JUNE 30,
	1997	1998	1999	2000
	-----	-----	-----	-----
				(UNAUDITED)
Net operating loss carryforward.....	\$ 307	\$ 172	\$ 38	\$ --
Research and development credit carryforward.....	--	35	--	89
Foreign tax credit carryforward.....	25	365	765	1,068
Accruals deductible in different periods.....	(275)	(152)	(129)	156
Valuation allowances.....	(57)	(420)	(674)	(1,313)
Intangible assets.....	--	--	--	(689)
	-----	-----	-----	-----
	\$ --	\$ --	\$ --	\$ (689)
	=====	=====	=====	=====

The Company has established a valuation allowance against certain deferred tax assets due to the uncertainty surrounding the realization of such assets. Annually, management evaluates the recoverability of the deferred tax assets and the level of the valuation allowance. At such time as it is determined that it is more likely than not that deferred tax assets are realizable the valuation allowance will be reduced.

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PDF SOLUTIONS, INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)  
YEARS ENDED DECEMBER 31, 1997, 1998 AND 1999 AND  
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(INFORMATION AS OF JUNE 30, 1999 AND FOR THE SIX MONTHS  
ENDED JUNE 30, 1999 AND 2000 IS UNAUDITED)

The amount of income tax recorded differs from the amount using the statutory federal income tax rate for the following reasons:

	DECEMBER 31,			JUNE 30,
	1997	1998	1999	2000
				(UNAUDITED)
Federal statutory tax benefit.....	\$ (90)	\$ (22)	\$136	\$ (542)
State tax expense.....	1	1	3	1
Stock compensation expense.....	--	--	--	592
Meals and entertainment.....	6	8	2	2
Tax credits.....	--	(35)	--	(274)
Foreign tax, net.....	--	--	130	(104)
Valuation allowances.....	85	363	254	639
Other.....	7	26	8	(41)
Total.....	\$ 9	\$341	\$533	\$ 273

At December 31, 1999, the Company has net operating loss (NOL) carryforwards of approximately \$87,000 and \$118,000 for federal and state income tax purposes, respectively. The federal NOL carryforwards expire through 2012, while the state NOL carryforwards expire through 2002.

At December 31, 1999, the Company also has foreign tax credit carryforwards of approximately \$765,000 available to offset future federal income taxes, respectively. The federal credit carryforward begins to expire in 2001.

The extent to which the loss and credit carryforwards can be used to offset future taxable income and tax liabilities, respectively, may be limited, depending on the extent of ownership changes within any three-year period as provided in the Tax Reform Act of 1986 and the California Conformity Act of 1987.

#### 10. CUSTOMER AND GEOGRAPHIC INFORMATION

The Company operates in one segment. The Company had net revenues from individual customers in excess of 10% of net revenues, as follows:

CUSTOMER	YEARS ENDED DECEMBER 31,			SIX MONTHS ENDED JUNE 30,	
	1997	1998	1999	1999	2000
					(UNAUDITED)
A.....	70%	66%	53%	49%	34%
B.....	--	16%	19%	36%	--
C.....	--	--	15%	--	34%
D.....	--	--	--	--	15%
E.....	--	--	--	--	11%
F.....	20%	--	--	--	--

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PDF SOLUTIONS, INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)  
YEARS ENDED DECEMBER 31, 1997, 1998 AND 1999 AND  
SIX MONTHS ENDED JUNE 30, 2000  
(INFORMATION AS OF JUNE 30, 1999 AND FOR THE SIX MONTHS  
ENDED JUNE 30, 1999 AND 2000 IS UNAUDITED)

The Company had accounts receivable from individual customers in excess of 10% of gross accounts receivable as follows:

DECEMBER 31,

CUSTOMER -----	-----		JUNE 30,
	1998	1999	2000
	----	----	-----
			(UNAUDITED)
A.....	63%	47%	43%
C.....	--	15%	20%
D.....	--	23%	18%
E.....	--	--	18%
F.....	20%	--	--
G.....	--	11%	--

Revenues from customers by geographic area are as follows (in thousands):

	YEARS ENDED DECEMBER 31,			SIX MONTHS ENDED JUNE 30,	
	1997	1998	1999	1999	2000
	-----	-----	-----	-----	-----
					(UNAUDITED)
Japan.....	1,827	5,125	10,684	4,914	5,630
United States.....	794	1,102	1,140	421	2,495
Europe.....	--	--	--	--	151

The Company's long-lived assets were located primarily in North America as of December 31, 1998 and 1999. As of June 30, 2000, long-lived assets related to AISS totaling \$2,014,053 (see Note 2), reside in Germany. The majority of the Company's remaining long-lived assets reside in the United States.

#### 11. EMPLOYEE BENEFIT PLAN

During 1999, the Company established a 401(k) tax-deferred savings plan, whereby eligible employees may contribute up to 15% of their eligible compensation with a maximum amount subject to IRS guidelines in any calendar year. Company contributions are discretionary; no such Company contributions have been made since inception of this plan.

#### 12. SUBSEQUENT EVENTS (UNAUDITED)

In July 2000, the shareholders approved an amendment to its Stock Plans to provide that the number of shares of the Company's common stock reserved for issuance under the 1996 and 1997 Plans be increased to an aggregate of 1,097,551 shares and 8,402,449 shares, respectively.

On August 4, 2000, the Company issued 526,315 shares of Series B convertible preferred stock at \$9.50 per share, resulting in net proceeds of approximately \$4,960,000. The terms of the Series B convertible preferred stock provide for voting and conversion rights similar to the Series A convertible preferred stock and will automatically convert to common stock in the event of a public offering in which the Company receives proceeds equal to or greater than \$7.5 million and a price per share equal to or greater than \$9.50. Upon closing of the Series B convertible preferred stock financing, the Company will record a charge to net loss attributable to common shareholders of approximately \$684,210, for the beneficial conversion feature inherent in the Series B preferred stock. The beneficial conversion feature is equal to the difference between the price of the Series B preferred stock and the estimated fair value of common stock into which the Series B preferred stock is convertible. The beneficial conversion feature is

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similar to a dividend on preferred stock that increases net loss to arrive at

net loss attributable to common shareholders.

Had the sale issuance and conversion (which will occur upon the closing of the planned initial public offering) of the Series B preferred stock taken place at the beginning of fiscal 1999 and 2000, respectively, basic and diluted pro forma net loss per share for the year ended December 31, 1999 and the six months ended June 30, 2000 would have been (\$0.05) and (\$0.13), respectively.

On August 7, 2000, the Board of Directors approved, subject to shareholder approval, the following actions to occur concurrently with the effectiveness of the Company's planned initial public offering:

- Reincorporation of the Company in the State of Delaware and the increase in the number of authorized shares of common stock and preferred stock (\$0.0001 par value) to 75,000,000 and 5,000,000 respectively.
- Termination of the 1996 and 1997 Stock Option Plans as to future option grants.
- Adoption of the 2000 Stock Plan -- 3,000,000 shares of common stock were reserved for issuance under the 2000 Stock Plan. On January 1 of each year, starting with the year 2001, the number of shares in the reserve will automatically increase by 5% of the total number of shares of common stock that are outstanding at that time.

- Adoption of the 2000 Employee Stock Purchase Plan -- Under the purchase plan, eligible employees are allowed to have salary withholdings of up to 10% of their compensation to purchase shares of common stock at a price equal to 85% of the lower of the market value of the stock on the first date immediately before the first day of the applicable offering period or the fair market value on the purchase date. The initial offering period commences upon the effective date for the initial public offering of the Company's common stock. For the first offering period, shares of common stock may be purchased at a price equal to 85% of the lower of the price per share in the initial public offering or the market value on the purchase date. The Company has initially reserved 300,000 shares of common stock under this plan, plus an annual increase to be added each January beginning with the year 2001 equal to the lesser of (i) 675,000 shares, or (ii) 2% of the shares of common stock outstanding at that time.

\* \* \* \* \*

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INDEPENDENT AUDITORS' REPORT

To the Board of Directors and Shareholders of  
Applied Integrated Systems & Software Entwicklungs-, Produktions- und Vertriebs  
GmbH:

We have audited the accompanying balance sheet of Applied Integrated Systems & Software Entwicklungs-, Produktions- und Vertriebs GmbH as of December 31, 1999, and the related statements of income, shareholders' equity, and cash flows for the year ended December 31, 1999. These financial statements are the responsibility of the company's management. Our responsibility is to express an opinion on these financial statements based on our audit.

We conducted our audit in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audit provides a reasonable basis for our opinion.

In our opinion, such financial statements present fairly, in all material respects, the financial position of Applied Integrated Systems & Software Entwicklungs-, Produktions- und Vertriebs GmbH as of December 31, 1999, and the results of its operations and its cash flows for the year ended December 31, 1999, in conformity with accounting principles generally accepted in the United States of America.

Munich, Germany  
July 26, 2000

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APPLIED INTEGRATED SYSTEMS AND SOFTWARE GMBH  
ENTWICKLUNGS-, PRODUKTIONS- UND VERTRIEBS GMBH

BALANCE SHEETS

	DECEMBER 31, 1999	MARCH 31, 2000
	-----	-----
		(UNAUDITED)
ASSETS		
Current assets:		
Cash.....	DM 377,539	DM 11,858
Accounts receivable.....	331,700	763,830
Prepaid expenses.....	1,421	--
Other assets.....	21,065	18,801
Current deferred taxes.....	72,129	74,729
	-----	-----
Total current assets.....	803,854	869,218
Equipment, furniture, and fixtures, net.....	102,389	106,280
Intangible assets, net.....	14,053	12,391
Other assets.....	18,144	--
	-----	-----
Total assets.....	DM 938,440	DM 987,889
	=====	=====
LIABILITIES & SHAREHOLDERS' EQUITY (DEFICIENCY)		
Current liabilities:		
Short term portion of long term borrowings.....	DM 14,069	DM 14,294
Bank overdraft.....	--	415,741
Accounts payable.....	118,654	111,726
Accrued taxes.....	8,154	92,350
Deferred revenue.....	10,000	12,000
Accrued expenses and other liabilities.....	433,455	423,740
	-----	-----
Total current liabilities.....	584,332	1,069,851
Long term borrowings.....	33,620	29,961
Deferred tax liability.....	31,154	21,432
Shareholders' equity (deficiency):		
Registered capital.....	51,000	51,000
Less: subscribed capital.....	(25,500)	(25,500)
	-----	-----
Registered capital -- paid in.....	25,500	25,500
Retained earnings (distributions to shareholders in excess of earnings to date).....	263,834	(158,855)
	-----	-----
Total shareholders' equity (deficiency).....	289,334	(133,355)
	-----	-----
Total liabilities and shareholders' equity (deficiency).....	DM 938,440	DM 987,889
	=====	=====

See notes to financial statements.

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APPLIED INTEGRATED SYSTEMS AND SOFTWARE GMBH  
ENTWICKLUNGS-, PRODUKTIONS- UND VERTRIEBS GMBH

INCOME STATEMENTS

	YEAR ENDED DECEMBER 31, 1999	THREE MONTHS ENDED MARCH 31,	
		1999	2000
		(UNAUDITED)	
Revenues:			
Services.....	DM1,914,145	DM 378,322	DM461,922
License.....	837,962	440,424	125,815
	2,752,107	818,746	587,737
Costs and expenses:			
Cost of revenues.....	1,056,259	249,408	283,616
Research and development expenses.....	510,768	66,659	35,155
Sales and marketing expenses.....	325,487	78,458	45,087
General and administrative expenses.....	576,654	126,692	131,575
Total costs and expenses.....	2,469,168	521,217	495,433
Operating income.....	282,939	297,529	92,304
Other income.....	775	--	1,096
Interest income.....	4,430	474	1,725
Interest expenses.....	(8,087)	(562)	(6,839)
Income before income taxes.....	280,057	297,441	88,286
Provision for income taxes.....	(97,877)	(161,902)	(42,395)
Net income.....	DM 182,180	DM 135,539	DM 45,891

See notes to financial statements.

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APPLIED INTEGRATED SYSTEMS AND SOFTWARE GMBH  
ENTWICKLUNGS-, PRODUKTIONS- UND VERTRIEBS GMBH  
STATEMENTS OF SHAREHOLDERS' EQUITY (DEFICIENCY)

	REGISTERED CAPITAL - PAID IN	ADDITIONAL PAID IN CAPITAL	RETAINED EARNINGS (DEFICIENCY)	TOTAL SHAREHOLDERS EQUITY (DEFICIENCY)
Balance, January 1, 1999.....	DM25,500	DM --	DM 201,654	DM 227,154
Net income and total comprehensive income.....			182,180	182,180
Distributions.....			(120,000)	(120,000)
Balance, December 31, 1999.....	25,500	--	263,834	289,334
Net income and total comprehensive income*.....			45,891	45,891
Additional paid in capital resulting from sale of PDF shares to shareholders*.....		70,753		70,753
Distributions*.....		(70,753)	(468,580)	(539,333)
Balance, March 31, 2000*.....	DM25,500	DM --	DM(158,855)	DM(133,355)

\* Unaudited

See notes to financial statements.

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APPLIED INTEGRATED SYSTEMS AND SOFTWARE GMBH  
ENTWICKLUNGS-, PRODUKTIONS- UND VERTRIEBS GMBH

STATEMENTS OF CASH FLOWS

	YEAR ENDED DECEMBER 31, 1999	THREE MONTHS ENDED MARCH 31,	
		1999	2000
		(UNAUDITED)	
Operating activities:			
Net income.....	DM 182,180	DM 135,539	DM 45,891
Adjustments to reconcile net income to net cash provided by (used in) operating activities:			
Depreciation and amortization.....	140,206	20,237	23,645
Deferred income taxes.....	(47,839)	(13,137)	(2,600)
Changes in operating assets and liabilities:			
Accounts receivable.....	(211,151)	(399,522)	(432,130)
Prepaid expenses and other assets.....	25,798	(111,210)	3,685
Accounts payable.....	31,793	11,024	(6,929)
Other accrued liabilities and income taxes payable.....	(48,606)	24,309	(2,504)
Deferred revenues.....	3,800	1,000	2,000
Net cash provided by (used in) operating activities.....	76,181	(331,760)	(368,942)
Investing activities:			
Equipment additions.....	(178,473)	(115,598)	(25,874)
Payment to exercise warrants.....			(20,320)
Net cash used in investing activities.....	(178,473)	(115,598)	(46,194)
Financing activities:			
Shareholder distributions.....	(120,000)		(539,333)
Proceeds from borrowings.....	59,900	59,900	
Repayments of borrowings.....	(12,211)	(2,233)	(3,434)
Proceeds from sale of PDF stock to shareholders.....			176,481
Bank overdraft.....		(270)	415,741
Net cash provided by (used in) investing activities.....	(72,311)	57,397	49,455
Net decrease in cash.....	(174,603)	(389,961)	(365,681)
Cash at beginning of period.....	552,142	552,142	377,539
Cash at end of period.....	DM 377,539	DM 162,181	DM 11,858
Supplemental cash flow information:			
Cash payments for interest.....	DM 8,086	DM 562	DM 6,839
Cash payments for income taxes.....	148,954	27,590	37,238

See notes to financial statements.

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APPLIED INTEGRATED SYSTEMS AND SOFTWARE GMBH  
ENTWICKLUNGS-, PRODUKTIONS- UND VERTRIEBS GMBH

NOTES TO FINANCIAL STATEMENTS  
YEAR ENDED DECEMBER 31, 1999 AND THREE MONTHS ENDED MARCH 31, 2000  
(INFORMATION AS OF MARCH 31, 2000 AND  
FOR THE THREE MONTHS ENDED MARCH 31, 1999 AND 2000 IS UNAUDITED)

NOTE 1: NATURE OF BUSINESS AND SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

THE COMPANY

Applied Integrated Systems and Software Entwicklungs-, Produktions- und Vertriebs GmbH (the "Company" or "AISS") was founded on February 24, 1989 and develops software tools for the semiconductor industry.

UNAUDITED INTERIM FINANCIAL INFORMATION

The interim financial information as of March 31, 2000 and for the three months ended March 31, 1999 and 2000 is unaudited and has been prepared on the same basis as the audited financial statements. In the opinion of management, such unaudited financial information includes all adjustments, consisting only of normal recurring adjustments, necessary for a fair presentation of the interim information. The operating results for the three months ended March 31, 2000 are not necessarily indicative of the results that may be expected for the full fiscal year.

#### USE OF ESTIMATES

The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America ("US GAAP") requires management to make estimates and assumptions that affect the amounts reported in the financial statements and accompanying notes. Despite management's best effort to establish good faith estimates and assumptions, actual results could differ from those estimates.

#### REVENUE RECOGNITION

Software license revenue is recognized upon receipt of the product by the customer, provided that the license fee is fixed and determinable, collection is probable and all significant contractual obligations relating to this license have been satisfied (as described in the provisions of Statement of Position No. 97-2 "Software Revenue Recognition"). Maintenance contracts generally call for the Company to provide technical support and software updates and upgrades to customers. Maintenance revenue is deferred and recognized ratably over the term of the agreement, which is generally one year. Revenue from services, primarily consulting and research and development, is recognized as the related services are performed.

#### COST OF REVENUES

Cost of license revenue consists primarily of media, product packaging, documentation and other production costs, and third-party royalties. Cost of professional services and maintenance consists primarily of salaries and benefits, including cost of services provided by third party consultants engaged by the Company.

#### CERTAIN SIGNIFICANT RISKS AND UNCERTAINTIES

The Company operates in the software industry and can be affected by a variety of factors. For example, management of the Company believes that changes in any of the following areas could have a significant negative effect on the Company in terms of its future financial position, results of operations and cash flows: ability to obtain additional financing; regulatory changes; fundamental changes in the

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APPLIED INTEGRATED SYSTEMS AND SOFTWARE GMBH  
ENTWICKLUNGS-, PRODUKTIONS- UND VERTRIEBS GMBH

NOTES TO FINANCIAL STATEMENTS (CONTINUED)  
YEAR ENDED DECEMBER 31, 1999 AND THREE MONTHS ENDED MARCH 31, 2000  
(INFORMATION AS OF MARCH 31, 2000 AND  
FOR THE THREE MONTHS ENDED MARCH 31, 1999 AND 2000 IS UNAUDITED)

technology underlying software products; market acceptance of the Company's products under development; development of sales channels; litigation or other claims against the Company; the hiring, training and retention of key employees; successful and timely completion of product development efforts; and new product introductions by competitors.

#### CONCENTRATION OF CREDIT RISK

Financial instruments which potentially subject the Company to concentrations of credit risk consist primarily of account receivables. The Company performs ongoing credit evaluations of its customers.

#### FAIR VALUE OF FINANCIAL INSTRUMENTS

The carrying amount of cash, accounts receivable, accounts payable and



borrowings approximates fair value due to the short-term nature of these instruments. The fair value of the warrants as of December 31, 1999 was approximately DM170,000.

#### EQUIPMENT, FURNITURE AND FIXTURES

Equipment, furniture and fixtures are recorded at cost less accumulated depreciation. Depreciation is provided on the straight-line method over the estimated useful lives (three to ten years) of the related assets.

#### OTHER ASSETS

Long-term assets consist of warrants obtained from PDF Solutions, Inc. in an agreement dated September 17, 1996. These warrants were issued to the Company for the use of one of the Company's software products. The warrants are recorded at their estimated fair value at the date of issuance.

#### RESEARCH AND DEVELOPMENT

Research and development costs are expensed as incurred. The cost of developing new software products and enhancements are expensed as research and development costs as incurred because the Company believes that establishment of technological feasibility occurs concurrently with the date of general release of related products.

#### INTANGIBLE ASSETS

Intangible assets represent internal use software and are recorded at cost and are amortized over periods ranging from three to five years. Accumulated amortization was approximately DM19,186 at December 31, 1999.

#### INCOME TAXES

The Company provides for deferred income taxes resulting from temporary differences between the valuation of assets and liabilities in the financial statements and the carrying amounts for tax purposes. Such differences are measured using the enacted tax rates and laws that will be in effect when the differences are expected to reverse.

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#### APPLIED INTEGRATED SYSTEMS AND SOFTWARE GMBH ENTWICKLUNGS-, PRODUKTIONS- UND VERTRIEBS GMBH

NOTES TO FINANCIAL STATEMENTS (CONTINUED)  
YEAR ENDED DECEMBER 31, 1999 AND THREE MONTHS ENDED MARCH 31, 2000  
(INFORMATION AS OF MARCH 31, 2000 AND  
FOR THE THREE MONTHS ENDED MARCH 31, 1999 AND 2000 IS UNAUDITED)

#### EARNINGS PER SHARE

The Company is organized as a GmbH and has no tradable shares. Earnings per share has not been calculated.

#### COMPREHENSIVE INCOME

SFAS No. 130, "Reporting Comprehensive Income," requires that an enterprise report, by major components and as a single total, the change in its net assets during the period from nonowner sources. Comprehensive income was equal to net income for all periods presented.

#### IMPAIRMENT OF LONG-LIVED ASSETS

In accordance with Statement of Financial Accounting Standards (SFAS) No. 121, "Accounting for the Impairment of Long-Lived Assets and for Long-Lived Assets to Be Disposed Of," the Company evaluates its long-lived assets for impairment whenever events or changes in circumstances indicate that the carrying amount of an asset may not be recoverable. No impairment charge has been recorded in any of the periods presented.

#### NEW ACCOUNTING PRONOUNCEMENTS

In June 1998, the Financial Accounting Standards Board issued SFAS No. 133, "Accounting for Derivative Instruments and Hedging Activities." The Statement

establishes accounting and reporting standards requiring that every derivative instrument (including certain derivative instruments embedded in other contracts) be recorded in the balance sheet as either an asset or liability measured at its fair value. The Statement requires that changes in the derivative's fair value be recognized currently in earnings unless specific hedge accounting criteria are met. Special accounting for qualifying hedges allows a derivative's gains and losses to offset related results on the hedged item in the income statement, and requires that a company must formally document, designate, and assess the effectiveness of transactions that receive hedge accounting. SFAS 133 is effective for fiscal years beginning after June 15, 2000 and must be applied to instruments issued, acquired or substantively modified after December 31, 1997. The Company does not expect the adoption of the accounting pronouncement to have a material effect on its financial position, results of operations or cash flows.

NOTE 2: EQUIPMENT, FURNITURE AND FIXTURES

Equipment, furniture and fixtures at December 31 consist of:

Equipment, furniture and fixtures.....	DM 309,065
Accumulated depreciation.....	(206,676)
	-----
	DM 102,389
	=====

NOTE 3: BORROWINGS

The Company has a DM 150,000, secured line of credit with a bank. Borrowings under the line of credit are for working capital requirements and other general corporate purposes and bear an interest rate of 9.5 percent. The credit agreement is secured by the shareholders of the Company. At December 31, 1999, the Company did not have any amounts outstanding under the agreement.

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APPLIED INTEGRATED SYSTEMS AND SOFTWARE GMBH  
ENTWICKLUNGS-, PRODUKTIONS- UND VERTRIEBS GMBH

NOTES TO FINANCIAL STATEMENTS (CONTINUED)  
YEAR ENDED DECEMBER 31, 1999 AND THREE MONTHS ENDED MARCH 31, 2000  
(INFORMATION AS OF MARCH 31, 2000 AND  
FOR THE THREE MONTHS ENDED MARCH 31, 1999 AND 2000 IS UNAUDITED)

The Company borrowed DM 59,900 at approximately 6.4 percent in January 1999 to finance the acquisition of an automobile. The term of the financing was for a term of approximately four years. The required reductions in principle in the next three years are as follows:

2000.....	DM14,069
2001.....	14,994
2002.....	18,626
	-----
	DM47,689
	=====

NOTE 4: ACCRUED EXPENSES AND OTHER LIABILITIES

Accrued expenses and other liabilities at December 31, 1999 consisted of the following:

Accrued compensation and related benefits.....	DM362,428
Warranty.....	50,400
Other.....	20,627
	-----

NOTE 5: SHAREHOLDERS' EQUITY (DEFICIENCY)

The registered capital of the Company amounted to DM 51,000 as of December 31, 1999, of which DM 25,500 has been paid in by the company's shareholders.

On January 4, 2000, the Company exercised the warrants for shares in PDF Solutions Inc. that were issued on September 17, 1996. At the date the warrants were exercised, the Company paid DM 20,320 for the 249,999 shares. The shareholders of the Company then purchased these warrants from the Company for DM 176,408. The after tax gain related to this related party transaction was recorded as a contribution to additional paid in capital. The additional paid in capital was repaid to the shareholders in March 2000.

NOTE 6: INCOME TAXES

Federal corporation income tax is levied at 40 percent and a solidarity surcharge is levied on the federal corporate tax rate. The solidarity tax rate was 5.50 percent in 1999. Upon distribution of retained earnings to shareholders, the corporation tax rate on the distributed earnings is reduced to 30 percent.

German trade income tax is levied at a rate of approximately 19.7 percent. This tax can be deducted from the corporation tax.

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APPLIED INTEGRATED SYSTEMS AND SOFTWARE GMBH  
 ENTWICKLUNGS-, PRODUKTIONS- UND VERTRIEBS GMBH

NOTES TO FINANCIAL STATEMENTS (CONTINUED)  
 YEAR ENDED DECEMBER 31, 1999 AND THREE MONTHS ENDED MARCH 31, 2000  
 (INFORMATION AS OF MARCH 31, 2000 AND  
 FOR THE THREE MONTHS ENDED MARCH 31, 1999 AND 2000 IS UNAUDITED)

The significant components of the net deferred tax asset at December 31, 1999 which reflect the tax effects of the Company's temporary differences are as follows:

NET DEFERRED TAX ASSETS -- CURRENT:	
Vacation accrual.....	DM38,102
Warranty accrual.....	27,004
Deferred revenue.....	5,358
Other.....	1,665
	-----
	72,129
	-----
NET DEFERRED TAX LIABILITY -- NON-CURRENT:	
Capital expenditures reserve.....	21,432
Warrants.....	9,722
	-----
	31,154
	-----
Net deferred tax asset.....	DM40,975
	=====

The provision for income taxes consists of the following:

Current.....	DM145,716
Deferred.....	(47,839)
	-----
	DM 97,877
	=====

The provision for income taxes differs from the amounts computed by applying the Federal corporation income tax rate to income before income taxes, as follows:

Amounts computed by applying Federal statutory rate.....	DM112,023	40.0%
Trade tax, net of Federal income taxes.....	31,870	11.4%
Solidarity tax.....	3,733	1.3%
Credit for dividend distribution.....	(49,792)	(17.8)%
Other.....	43	--
	-----	-----
	DM 97,877	34.9%
	=====	=====

NOTE 7: OPERATING LEASES

The Company leases certain facilities and equipment under noncancelable operating lease arrangements. Rent expense is reflected on a straight-line basis over the term of the lease. Future minimum rental payments at December 31, 1999 under these leases, which expire in the first quarter of 2002, are as follows:

2000.....	DM112,000
2001.....	112,000
2002.....	10,000
	-----
Total.....	DM234,000
	=====

Total rent expense under all operating leases was approximately DM 91,560 for the year ended December 31, 1999.

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APPLIED INTEGRATED SYSTEMS AND SOFTWARE GMBH  
ENTWICKLUNGS-, PRODUKTIONS- UND VERTRIEBS GMBH

NOTES TO FINANCIAL STATEMENTS (CONTINUED)  
YEAR ENDED DECEMBER 31, 1999 AND THREE MONTHS ENDED MARCH 31, 2000  
(INFORMATION AS OF MARCH 31, 2000 AND  
FOR THE THREE MONTHS ENDED MARCH 31, 1999 AND 2000 IS UNAUDITED)

NOTE 8: BUSINESS SEGMENT

The Company operates in one industry segment consisting of developing, distribution, and maintenance for software, computer hardware and technical supply. The company's operations are primarily in Germany.

The following customers, a German electronics company and PDF Solutions, Inc., accounted for 53% and 33% of the net revenues of the Company in 1999, respectively.

NOTE 9: SUBSEQUENT EVENT

On April 27, 2000, the Company was acquired by PDF Solutions Inc., a U.S. company, for approximately DM 2,647,375 (US\$1,250,000). PDF Solutions provides comprehensive infrastructure technologies and services to improve yield and optimize performance of integrated circuits.

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PDF SOLUTIONS, INC.

UNAUDITED PRO FORMA CONSOLIDATED STATEMENTS OF OPERATIONS

On April 27, 2000, the Company acquired all of the outstanding common stock of Applied Integrated Systems and Software GmbH ("AISS"), a German company, for

\$1.25 million, consisting of \$995,000 in notes payable and \$255,000 in cash. AISS develops software and provides yield management services to the semiconductor industry. The acquisition is accounted for using the purchase method and the Company's consolidated financial statements reflect the results of operations of AISS from the date of acquisition. The aggregate purchase price was allocated to the assets and liabilities acquired based on their fair value at date of acquisition. The total consideration (including costs of acquisition) exceeds the fair value of the net liabilities assumed by \$2.1 million, which was allocated to acquired technology, employee workforce and goodwill being amortized over a period of four years.

The accompanying unaudited pro forma consolidated financial statements are presented in accordance with Article 11 of Regulation S-X.

The accompanying unaudited pro forma consolidated statements of operations give effect to the acquisition of AISS as if it had occurred on January 1, 1999, by consolidating the results of operations of AISS with PDF for the year ended December 31, 1999 and the six months ended June 30, 2000.

The unaudited pro forma consolidated information is presented for illustrative purposes only, and is not necessarily indicative of the operating results or financial position that would have occurred if the transaction had been consummated at the dates indicated, nor is it necessarily indicative of future operating results or the financial position of the combined companies.

The pro forma earnings per share disclosed in the unaudited pro forma consolidated statements of operations have assumed the conversion of the 8,750,000 shares of Series A convertible preferred stock into common stock since these shares will automatically convert upon the effectiveness of the Company's planned initial public offering.

The unaudited pro forma consolidated financial statements should be read in conjunction with the historical financial statements of the Company and AISS.

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PDF SOLUTIONS, INC.

UNAUDITED PRO FORMA CONSOLIDATED STATEMENTS OF OPERATIONS  
YEAR ENDED DECEMBER 31, 1999

	PDF	AISS (1)	PRO FORMA ADJUSTMENTS	NOTES	PRO FORMA
	-----	-----	-----	----	-----
Revenue:					
Design-to-silicon yield solutions.....	\$10,566,597	\$1,498,993	\$ (486,097)	(2)	\$11,579,493
Gain share.....	1,257,000	--	--		1,257,000
Total revenue.....	11,823,597	1,498,993	(486,097)		12,836,493
Costs and expenses:					
Cost of design-to-silicon yield solutions.....	4,090,649	575,314	--		4,665,963
Research and development.....	3,086,825	278,201	(486,097)	(2)	2,878,929
Selling, general and administrative.....	4,294,521	491,370	525,406	(3)	5,311,297
Stock-based compensation amortization.....	68,282	--	--		68,282
Total costs and expenses...	11,540,277	1,344,885	39,309		12,924,471
Income (loss) from operations...	283,320	154,108	(525,406)		(87,978)
Interest income and other.....	105,021	(1,570)	(69,650)	(4)	33,801
Income (loss) before taxes.....	388,341	152,538	(595,056)		(54,177)
Tax provision (benefit).....	533,087	53,311	(179,812)	(5)	406,586
Net income (loss).....	\$ (144,746)	\$ 99,227	\$ (415,244)		\$ (460,763)
Pro forma net loss per share -- basic and diluted....	\$ (0.02)				\$ (0.03)

Shares used in computing pro forma basic diluted net loss per share.....	9,128,344	8,750,000	(6)	17,878,344
--	-----------	-----------	-----	------------

See notes to unaudited pro forma consolidated statements of operations.

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PDF SOLUTIONS, INC.

UNAUDITED PRO FORMA CONSOLIDATED STATEMENTS OF OPERATIONS  
SIX MONTHS ENDED JUNE 30, 2000

	PDF SIX MONTHS ENDED JUNE 30, 2000	AISS (1) JANUARY 1, 2000 TO APRIL 27, 2000	PRO FORMA ADJUSTMENTS	NOTES	PRO FORMA ADJUSTMENT
Revenue:					
Design-to-silicon yield solutions.....	\$ 5,967,816	\$481,508	\$ (159,465)	(2)	\$ 6,289,859
Gain share.....	2,308,000	--	--		2,308,000
Total revenue.....	8,275,816	481,508	(159,465)		8,597,859
Costs and expenses:					
Cost of design-to-silicon yield solutions.....	2,904,980	205,930	--		3,110,910
Research and development.....	2,242,114	44,457	(159,465)	(2)	2,127,106
Selling, general and administrative.....	3,024,722	128,288	175,135	(3)	3,328,145
Stock-based compensation amortization.....	1,692,971	--	--		1,692,971
Total costs and expenses.....	9,864,787	378,675	15,670		10,259,132
Income (loss) from operations.....	(1,588,971)	102,833	(175,135)		(1,661,273)
Interest income and other.....	41,321	(331)	(23,216)	(4)	17,774
Income (loss) before taxes.....	(1,547,650)	102,502	(198,351)		(1,643,499)
Tax provision (benefit).....	273,024	29,969	(59,936)	(5)	243,057
Net income (loss).....	\$ (1,820,674)	\$ 72,533	\$ (138,415)		\$ (1,886,556)
Pro forma net loss per share -- basic and diluted.....	\$ (0.17)				\$ (0.10)
Shares used in computing pro forma basic and diluted loss per share.....	10,474,269		8,750,000	(6)	19,224,269

See notes to unaudited pro forma consolidated statements of operations.

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PDF SOLUTIONS, INC.

NOTES TO UNAUDITED PRO FORMA CONSOLIDATED STATEMENTS OF OPERATIONS

The following pro forma adjustments have been made to the unaudited pro forma consolidated statements of operations:

1. Amount translated from DM to US dollars using average annual exchange rates of DM1.836/\$ and DM1.998/\$ for the year ended December 31, 1999 and the six months ended June 30, 2000, respectively.
2. Reflects the elimination of sales by AISS to the Company.
3. Reflects the amortization of intangible assets totaling \$2.1 million resulting from the acquisition on a straight line basis over four years.
4. Reflects interest charges on the notes payable issued in connection with the acquisition at the stated interest rate of 7%.
5. Reflects the reduction of the deferred tax liability recorded in

connection with the acquisition of AISS.

- 6. Reflects the conversion of all Series A convertible preferred stock outstanding at June 30, 2000 into 8,750,000 shares of common stock which will occur automatically upon the closing of the planned initial public offering.

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[PDF Solutions, Inc. Logo]

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PART II

INFORMATION NOT REQUIRED IN PROSPECTUS

ITEM 13. OTHER EXPENSES OF ISSUANCE AND DISTRIBUTION

The following table sets forth the costs and expenses, other than underwriting discounts and commissions, payable by us in connection with the sale of common stock being registered. All amounts are estimates except the SEC registration fee and the NASD filing fee and the Nasdaq National Market listing fee.

	AMOUNT TO BE PAID -----
SEC registration fee.....	\$19,800
NASD filing fee.....	8,000
Nasdaq National Market listing fee.....	*
Printing and engraving expenses.....	*
Legal fees and expenses.....	*
Accounting fees and expenses.....	*
Blue Sky qualification fees and expenses.....	*
Transfer Agent and Registrar fees.....	*
Miscellaneous fees and expenses.....	*
	-----
Total.....	*
	=====

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\* to be filed by amendment

ITEM 14. INDEMNIFICATION OF DIRECTORS AND OFFICERS

Section 145 of the Delaware General Corporation Law (the "Delaware Law") authorizes a court to award, or a corporation's Board of Directors to grant, indemnity to directors and officers in terms sufficiently broad to permit such indemnification under certain circumstances for liabilities (including reimbursement for expenses incurred) arising under the Securities Act of 1933, as amended (the "Securities Act"). Article IV of our Certificate of Incorporation (Exhibit 3.2 hereto) and Article VI of our Bylaws (Exhibit 3.3 hereto) provide for indemnification of our directors, officers, employees and other agents to the maximum extent permitted by Delaware Law. In addition, we have entered into Indemnification Agreements (Exhibit 10.1 hereto) with our officers and directors. The Underwriting Agreement (Exhibit 1.1) also provides for cross-indemnification among us and the Underwriters with respect to certain matters, including matters arising under the Securities Act.

ITEM 15. RECENT SALES OF UNREGISTERED SECURITIES

Since November, 1995 we have sold and issued the following securities:

- 1. On December 4, 1995, we issued 8,750,000 shares of Series A preferred stock to investors for an aggregate cash consideration of \$0.40 per share or \$3,500,000.

2. On August 4, 2000, we issued 526,315 shares of Series B preferred stock to investors for an aggregate cash consideration of \$9.50 per share or \$5,000,000.

3. From inception through June 30, 2000, we have issued warrants to purchase 249,999 shares of common stock at a price of \$0.04 per share. These warrants have been exercised and no warrants remain outstanding.

4. From our inception through June 30, 2000, we have issued 8,383,525 options and rights to purchase common stock of PDF with a weighted average exercise price of \$0.55 per share to a number of our employees, and directors and consultants.

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The issuances of the above securities were deemed to be exempt from registration under the Securities Act in reliance on Section 4(2) or Regulation D, or other applicable exemption of such Securities Act as transactions by an issuer not involving any public offering. In addition, certain issuances described in Item 2 were deemed exempt from registration under the Securities Act in reliance upon Rule 701 promulgated under the Securities Act. The recipients of securities in each such transaction represented their intentions to acquire the securities for investment only and not with a view to or for sale in connection with any distribution thereof and appropriate legends were affixed to the share certificates and warrants issued in such transactions. All recipients had adequate access, through their relationships with us, to information about us.

## ITEM 16. EXHIBITS AND FINANCIAL STATEMENT SCHEDULES

See exhibits listed on the Exhibit Index following the signature page of this Form S-1, which is incorporated herein by reference.

## ITEM 17. UNDERTAKINGS

The undersigned registrant hereby undertakes to provide to the underwriters at the closing specified in the underwriting agreements certificates in such denominations and registered in such names as required by the underwriters to permit prompt delivery to each purchaser.

Insofar as indemnification for liabilities arising under the Securities Act of 1933 may be permitted to directors, officers and controlling persons of the registrant pursuant to the foregoing provisions, or otherwise, the registrant has been advised that in the opinion of the Securities and Exchange Commission such indemnification is against public policy as expressed in the Act, and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the registrant of expenses incurred or paid by a director, officer, or controlling person of the registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Act and will be governed by the final adjudication of such issue.

The undersigned registrant hereby undertakes that:

(1) For purposes of determining any liability under the Securities Act of 1933, the information omitted from the form of prospectus filed as part of this registration statement in reliance upon Rule 430A and contained in a form of prospectus filed by the registrant pursuant to Rule 424(b)(1) or (4) or 497(h) under the Securities Act shall be deemed to be part of this registration statement as of the time it was declared effective.

(2) For the purpose of determining any liability under the Securities Act of 1933, each post-effective amendment that contains a form of prospectus shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.



## SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, the registrant has duly caused this registration statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the city of San Jose, State of California on August 7, 2000

PDF SOLUTIONS, INC.

By: /s/ JOHN K. KIBARIAN

-----  
 John K. Kibarian  
 President and Chief Executive  
 Officer

## POWER OF ATTORNEY

KNOW ALL PERSONS BY THESE PRESENTS, that each person whose signature appears below hereby constitutes and appoints, jointly and severally, John K. Kibarian and P. Steven Melman, and each of them, as his attorney-in-fact, with full power of substitution, for him in any and all capacities, to sign any and all amendments to this Registration Statement (including post-effective amendments), and any and all Registration Statements filed pursuant to Rule 462 under the Securities Act of 1933, as amended, in connection with or related to the offering contemplated by this Registration Statement and its amendments, if any, and to file the same, with exhibits thereto and other documents in connection therewith, with the Securities and Exchange Commission, hereby ratifying and confirming our signatures as they may be signed by our said attorney to any and all amendments to said Registration Statement.

Pursuant to the requirements of the Securities Act of 1933, this Registration Statement has been signed by the following persons in the capacities and on the dates indicated:

SIGNATURE -----	TITLE -----	DATE ----
/s/ JOHN K. KIBARIAN ----- John K. Kibarian	Director, President and Chief Executive Officer (Principal Executive Officer)	August 7, 2000
/s/ P. STEVEN MELMAN ----- P. Steven Melman	Chief Financial Officer and Vice President Finance and Administration (Principal Financial and Accounting Officer)	August 7, 2000
/s/ B.J. CASSIN ----- B.J. Cassin	Director	August 7, 2000
/s/ LUCIO L. LANZA ----- Lucio L. Lanza	Director	August 7, 2000
/s/ DONALD L. LUCAS ----- Donald L. Lucas	Director	August 7, 2000
/s/ KIMON MICHAELS ----- Kimon Michaels	Director	August 7, 2000

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EXHIBIT  
NUMBER  
-----

DESCRIPTION  
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- 1.1 Form of Underwriting Agreement (subject to negotiation).\*
- 3.1 Amended and Restated Certificate of Incorporation of PDF Solutions, Inc.
- 3.2 Second Amended and Restated Certificate of Incorporation of PDF Solutions, Inc. (proposed).
- 3.3 Amended and Restated Bylaws of PDF Solutions, Inc.
- 3.4 Amended and Restated Bylaws of PDF Solutions, Inc. (proposed).
- 4.1 Specimen Stock Certificate.\*
- 4.2 First Amended and Restated Rights Agreement dated August 4, 2000.
- 5.1 Opinion of Orrick Herrington & Sutcliffe LLP regarding the legality of the common stock being registered.\*
- 10.1 Integration Technology Agreement between PDF Solutions, Inc. and Philips Semiconductor.+
- 10.2 Integration Technology Agreement between PDF Solutions, Inc. and Conexant Systems, Inc.+
- 10.3 Yield Improvement Consulting Agreement between PDF Solutions, Inc. and Toshiba Corporation.+
- 10.4 Yield Improvement Consulting Agreement between PDF Solutions, Inc. and Philips Semiconductor.+
- 10.5 Yield Improvement Agreement between PDF Solutions, Inc. and SONY Corporation.+
- 10.6 Technology Cooperation Agreement between PDF Solutions, Inc. and Toshiba Corporation.+
- 10.7 Form of Indemnification Agreement between PDF Solutions, Inc. and each of its Officers and Directors.
- 10.8 1996 Stock Option Plan and related agreements.
- 10.9 1997 Stock Plan and related agreements.
- 10.10 2000 Stock Plan and related agreements.
- 10.11 2000 Employee Stock Purchase Plan.
- 10.12 Lease Agreement between PDF Solutions, Inc. and Metropolitan Life Insurance Company dated April 1, 1996.
- 10.13 Credit Agreements between PDF Solutions, Inc. and Imperial Bank dated July 6, 1999 and August 12, 1999.
- 10.14 Offer letter to P. Steven Melman dated July 10, 1998.
- 21.1 List of Subsidiaries.
- 23.1 Consent of Deloitte & Touche LLP
- 23.2 Consent of Deloitte & Touche GmbH
- 23.3 Consent of Orrick Herrington & Sutcliffe LLP (part of Exhibit 5.1)\*
- 24.1 Power of Attorney (see page II-3)

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\* To be supplied by amendment.

+ Confidential treatment requested as to certain portions of this Exhibit.

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INDEPENDENT AUDITORS' REPORT

To the Board of Directors and Stockholders of  
PDF Solutions, Inc.

We have audited the consolidated financial statements of PDF Solutions, Inc. and its subsidiaries (collectively, the "Company") as of December 31, 1998 and 1999, and for each of the three years in the period ended December 31, 1999, and have issued our report thereon dated April 3, 2000 (April 27, 2000 as to the first paragraph of Note 2); such consolidated financial statements and report are included elsewhere in the Company's Registration Statement on Form S-1. Our audits also included the consolidated financial statement schedule of PDF Solutions, Inc, listed in Item 16(b). This consolidated financial statement schedule is the responsibility of the Company's management. Our responsibility is to express an opinion based on our audits. In our opinion, such consolidated financial statement schedule, when considered in relation to the basic financial statements taken as a whole, presents fairly in all material respects the information set forth therein.

DELOITTE & TOUCHE LLP

SCHEDULE II

PDF SOLUTIONS, INC.

VALUATION AND QUALIFYING ACCOUNTS

DATE: -----	BALANCE AT BEGINNING OF PERIOD -----	CHARGED TO COSTS AND EXPENSES -----	DEDUCTIONS/ WRITE-OFFS OF ACCOUNTS -----	BALANCE AT END OF PERIOD -----
Allowance for doubtful accounts				
June 30, 2000.....	\$144,000	\$ 9,000	\$--	\$153,000
December 31, 1999.....	\$ 93,000	\$51,000	\$--	\$144,000
December 31, 1998.....	\$ 53,000	\$40,000	\$--	\$ 93,000
December 31, 1997.....	\$ 2,000	\$51,000	\$--	\$ 53,000

AMENDED AND RESTATED  
ARTICLES OF INCORPORATION  
OF  
PDF SOLUTIONS, INC.

The undersigned, John K. Kibarian and Peter Cohn certify that:

1. They are the duly elected President and Chief Executive Officer and Secretary, respectively of PDF Solutions, Inc., a California corporation.

2. The Articles of Incorporation of this corporation are amended and restated to read in full as follows:

"I

The name of this corporation is: PDF Solutions, Inc.

II

The purpose of this corporation is to engage in any lawful act or activity for which a corporation may be organized under the General Corporation Law of California other than the banking business, the trust company business or the practice of a profession permitted to be incorporated by the California Corporations Code.

III

(A) Classes of Stock. The corporation is authorized to issue two classes of shares to be designated respectively "Preferred Stock" and "Common Stock" and each class shall have a par value of \$0.0001 per share. The total number of shares of Preferred Stock authorized is 9,300,000 and the total number of shares of Common Stock authorized is 50,000,000.

(B) Rights, Preferences and Restrictions of Preferred Stock. The Preferred Stock authorized by these Amended and Restated Articles of Incorporation may be issued from time to time in one or more series. The first series of Preferred Stock shall be designated "Series A Preferred Stock" and shall consist of 8,750,000 shares. The second series of Preferred Stock shall be designated "Series B Preferred Stock" and shall consist of 550,000 shares. The rights, preferences, privileges, and restrictions granted to and imposed on the Preferred Stock are as follows:

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(1) Dividends.

(aa) The holders of outstanding Preferred Stock shall, in pari passu, be entitled to receive in any fiscal year, when, as and if declared by the Board of Directors, out of any assets at the time legally available therefor, dividends in cash at the rate of \$0.02 per share of Series A Preferred Stock per annum and at the rate of \$0.76 per share of Series B Preferred Stock per annum, before any cash dividend is paid on Common Stock. Such dividend or distribution may be payable annually or otherwise as the Board of Directors may from time to time determine. Dividends or distributions (other than dividends payable solely in shares of Common Stock) may be declared and paid upon shares of Common Stock in any fiscal year of the corporation only if dividends shall have been paid on or declared and set apart upon all shares of Preferred Stock at such annual rate; and no further dividends shall be paid to holders of shares of Preferred Stock in excess of such annual rate in any fiscal year unless at the same time equivalent dividends are paid to holders of shares of Common Stock. The right to such dividends on shares of Preferred Stock shall not be

cumulative and no right shall accrue to holders of shares of Preferred Stock by reason of the fact that dividends on said shares are not declared in any prior year, nor shall any undeclared or unpaid dividend bear or accrue interest.

(bb) In the event this corporation shall declare a distribution payable in securities of other persons, evidences of indebtedness issued by this corporation or other persons, assets (excluding cash dividends) or options or rights to purchase any such securities or evidences of indebtedness, then, in each such case the holders of the Preferred Stock shall be entitled to a proportionate share of any such distribution as though the holders of the Preferred Stock were the holders of the number of shares of Common Stock of the corporation into which their respective shares of Preferred Stock are convertible as of the record date fixed for the determination of the holders of Common Stock of the corporation entitled to receive such distribution.

(2) Voting Rights.

(aa) In General. Subject to subsection (bb) hereof and except as otherwise required by law, the holders of Preferred Stock and the holders of Common Stock shall be entitled to notice of any shareholders' meeting and to vote as a single class upon any matter submitted to the shareholders for a vote, as follows: (i) each holder of Preferred Stock shall have one vote for each full share of Common Stock into which its shares of Preferred Stock would be convertible on the record date for the vote and (ii) the holders of Common Stock shall have one vote per share of Common Stock.

(bb) Voting for Board of Directors. The Board of Directors of this corporation shall consist of six members. The holders of shares of Preferred Stock, voting separately as a class, shall elect two members of the Board of Directors of the corporation (the "PREFERRED DIRECTORS"). The holders of shares of Common Stock, voting separately as a class, shall elect two members of the Board of Directors of the corporation (the "COMMON DIRECTORS"). The remaining two members of the Board of Directors (the "MUTUALLY AGREED UPON DIRECTORS") shall be elected by the holders of the shares of Common Stock and Preferred Stock, voting together as a class. If a vacancy on the Board of Directors is to be filled by the Board of Directors, only a director or directors elected by the same class of shareholders as those who would be entitled to vote to fill such vacancy, if any, shall vote to fill such vacancy, unless such vacancy is the position held by Mutually Agreed Upon Director, in which case

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such vacancy may be filled by the majority of the remaining directors. No action by members of the Board of Directors filling a vacancy on the Board of Directors shall be effective until 10 days after all Board members who do not have a right to vote on such appointment have received notice thereof. A majority of the Board members entitled to receive such notice may waive such notice requirement on behalf of all such Board members. A director may be removed from the Board of Directors with or without cause by the vote or consent of a majority of the holders of the outstanding class or series with voting power to elect him or her in accordance with the California General Corporation Law.

(3) Conversion. The holders of the Preferred Stock shall have conversion rights as follows (the "CONVERSION RIGHTS"):

(aa) Right to Convert.

(i) Each share of Preferred Stock shall be convertible, at the option of the holder thereof, at any time after the date of issuance of such share at the office of this corporation or any transfer agent for the Preferred Stock, into such number of fully paid and nonassessable shares of Common Stock as is determined by dividing (A) \$0.40 in the case of the Series A Preferred Stock and (B) \$9.50 in the case of the Series B Preferred Stock by the Conversion Price at the time in effect for such share. The initial "CONVERSION PRICE" for shares of Preferred Stock shall be \$0.40 for share of Series A Preferred Stock and \$9.50 for shares of Series B Preferred Stock. Such initial Conversion Price shall be subject, however, to the adjustments described below. The number of shares into which each share of Preferred Stock shall be converted shall be known as the "CONVERSION RATE." Any increase or decrease in the Conversion Price shall be reflected in a decrease or increase in the Conversion Rate as determined by reference to the first sentence of this section

III(B) (3) (aa) (i) .

(ii) Each share of Preferred Stock shall automatically be converted into shares of Common Stock at the then effective Conversion Rate in the event of, and contingent upon, the consummation of a firm commitment underwritten public offering pursuant to an effective registration statement under the Securities Act of 1933, as amended, covering the offer and sale of Common Stock for the account of the corporation to the public at a price per share of not less than \$9.50 (as adjusted for stock splits, reverse stock splits and the like) and an aggregate offering price of not less than \$7,500,000. Each share of Series A Preferred Stock shall automatically be converted into shares of common stock upon the consent of the holders of not less than a majority in voting interest of the then outstanding shares of Series A Preferred Stock. Each share of Series B Preferred Stock shall automatically be converted into shares of common stock upon the consent of the holders of not less than a majority in voting interest of the then outstanding shares of Series B Preferred Stock.

(iii) No fractional shares of Common Stock shall be issued upon conversion of the Preferred Stock and any shares of Preferred Stock surrendered for conversion which would otherwise result in a fractional share of Common Stock shall be redeemed for the then fair market value thereof as determined by the corporation's Board of Directors, payable as promptly as possible whenever funds are legally available therefor. If more than one share of Preferred Stock is surrendered for conversion at any one time by the same holder, the number of full shares of Common Stock to be issued upon conversion shall be computed on the basis of the aggregate number of shares of Preferred Stock so surrendered.

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(bb) Mechanics of Conversion. Before any holder of Preferred Stock shall be entitled to convert the same into shares of Common Stock, such holder shall surrender the certificate or certificates therefor, duly endorsed, at the office of the corporation or of any transfer agent for the Preferred Stock, and shall give written notice to the corporation at such office that such holder elects to convert the same and shall state therein the name or names in which such holder wishes the certificate or certificates for the number of shares of Common Stock to be issued. The corporation shall, as soon as practicable thereafter, issue and deliver at such office to such holder of Preferred Stock, or to such holder's nominee or nominees, a certificate or certificates for the number of shares of Common Stock to which such holder shall be entitled as aforesaid. Such conversion shall be deemed to have been made immediately prior to the close of business on the date of such surrender of the shares of Preferred Stock to be converted, and the person or persons entitled to receive the shares of Common Stock issuable upon such conversion shall be treated for all purposes as the record holder or holders of such shares of Common Stock on such date.

(cc) Adjustment of Conversion Price For Combinations or Consolidations of Common Stock. In the event the corporation, at any time or from time to time after the effective date of a written agreement by the corporation for the initial sale of Series B Preferred Stock (hereinafter referred to as the "ORIGINAL ISSUE DATE"), effects a subdivision or combination of its outstanding Common Stock into a greater or lesser number of shares without a proportionate and corresponding subdivision or combination of its outstanding Preferred Stock, then and in each such event the Conversion Price for the Preferred Stock shall be decreased or increased proportionately.

(dd) Adjustments for Reorganization, Reclassification, Exchange and Substitution. If the Common Stock issuable upon conversion of the Preferred Stock shall be changed into the same or a different number of shares of any other class or classes of stock or other securities or property, whether by reorganization (unless such reorganization is deemed a liquidation under Section III(B) (4) (bb) hereof), reclassification or otherwise (other than a subdivision or combination of shares provided for above), the Conversion Rate then in effect shall, concurrently with the effectiveness of such reorganization or reclassification, be proportionately adjusted such that the Preferred Stock shall be convertible into, in lieu of the number of shares of Common Stock which the holders would otherwise have been entitled to receive, a number of shares of such other class or classes of stock or other securities or property equivalent to the number of shares of Common Stock that would have been subject to receipt by the holders upon conversion of the Preferred Stock immediately before such

event; and, in any such case, appropriate adjustment shall be made in the application of the provisions herein set forth with respect to the rights and interest thereafter of the holders of the Preferred Stock, to the end that the provisions set forth herein (including provisions with respect to changes in and other adjustments of the Conversion Price) shall thereafter be applicable, as nearly as reasonably may be, in relation to any shares of stock or other property thereafter deliverable upon the conversion of the Preferred Stock.

(ee) Adjustment of Conversion Price for Dividends, Distributions and Common Stock Equivalents. In the event the corporation at any time or from time to time after the Original Issue Date shall make or issue, or fix a record date for the determination of holders of Common Stock entitled to receive a dividend or other distribution payable in additional shares of Common Stock

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or other securities or rights (hereinafter referred to as "COMMON STOCK EQUIVALENTS") convertible into or entitling the holder thereof to receive additional shares of Common Stock without payment of any consideration by such holder for such Common Stock Equivalents or the additional shares of Common Stock, then and in each such event the maximum number of shares (as set forth in the instrument relating thereto without regard to any provisions contained therein for a subsequent adjustment of such number) of Common Stock issuable in payment of such dividend or distribution or upon conversion or exercise of such Common Stock Equivalents shall be deemed to be issued and outstanding as of the time of such issuance or, in the event such a record date shall have been fixed, as of the close of business on such record date. In each such event, the Conversion Price for the Preferred Stock shall be decreased as of the time of such issuance or, in the event such a record date shall have been fixed, as of the close of business on such record date, by dividing the Conversion Price for such series by a fraction,

(i) the numerator of which shall be the total number of shares of Common Stock issued and outstanding or deemed to be issued and outstanding immediately prior to the time of such issuance on the close of business on such record date plus the number of shares of Common Stock issuable in payment of such dividend or distribution or upon conversion or exercise of such Common Stock Equivalents, and

(ii) the denominator of which shall be the total number of shares of Common Stock issued and outstanding or deemed to be issued and outstanding immediately prior to the time of such issuance on the close of business on such record date provided, however, (A) if such record date shall have been fixed and such dividend is not fully paid or if such distribution is fully made on the date fixed therefor, the Conversion Price for such series shall be recomputed accordingly as of the close of business on such record date and thereafter the Conversion Price for such series shall be adjusted pursuant to this paragraph III(B)(3)(ee) as of the time of actual payment of such dividends or distribution; (B) if such Common Stock Equivalents provide, with the passage of time or otherwise, for any decrease in the number of shares of Common Stock issuable upon conversion or exercise thereof, the Conversion Price for such series shall, upon any such decrease becoming effective, be recomputed to reflect such decrease insofar as it affects the rights of conversion or exercise of the Common Stock Equivalents then outstanding; and (C) upon the expiration of any rights or conversion or exercise under any unexercised Common Stock Equivalents, the Conversion Price for such series computed upon the original issue thereof shall, upon such expiration, be recomputed as if the only additional shares of Common Stock issued were the shares of such stock, if any, actually issued upon the conversion or exercise of such Common Stock Equivalents.

(ff) Adjustment of Conversion Price for Subsequent Sales Below Conversion Price. If the corporation shall issue, after the date upon which any shares of Series B Preferred Stock were first issued (the "PURCHASE DATE"), any Additional Stock (as defined below) without consideration or for a consideration per share less than the Conversion Price in effect immediately prior to the issuance of such Additional Stock, then such Conversion Price shall be adjusted by multiplying such Conversion Price by a fraction, the numerator of which shall be the number of shares of Common Stock outstanding immediately prior to such issuance plus the number of shares of Common Stock that the aggregate consideration received by the corporation for such issuance would purchase at the Conversion Price in effect immediately prior to the issuance of such

Additional Stock and the denominator of which shall be

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the number of shares of Common Stock outstanding immediately prior to such issuance plus the number of shares of such Additional Stock so issued. For purposes of this paragraph III(B)(3)(ff) and paragraph III(B)(3)(ee), the shares of issued or issuable Common Stock that are excluded from the definition of Additional Stock will be deemed outstanding.

(i) No adjustment of the Conversion Price for any series of Preferred Stock shall be made in an amount less than one cent per share, and any adjustments which are not required to be made by reason of this sentence shall not be carried forward nor taken into account in any subsequent adjustment. Except to the limited extent provided for in paragraphs III(B)(3)(ff)(iv)(C) and III(B)(3)(ff)(iv)(D), no adjustment of such Conversion Price pursuant to this paragraph III(B)(3)(ff)(i) shall have the effect of increasing the Conversion Price above the Conversion Price in effect immediately prior to such adjustment.

(ii) In the case of the issuance of Common Stock for cash, the consideration shall be deemed to be the amount of cash paid therefor before deducting any reasonable discounts, commissions or other expenses allowed, paid or incurred by this corporation for any underwriting or otherwise in connection with the issuance and sale thereof.

(iii) In the case of the issuance of the Common Stock for a consideration in whole or in part other than cash, the consideration other than cash shall be deemed to be the fair value thereof as determined by the Board of Directors irrespective of any accounting treatment.

(iv) In the case of the issuance, whether before, on or after the Purchase Date of such series of Preferred Stock, of options to purchase or rights to subscribe for Common Stock, securities by their terms convertible into or exchangeable for Common Stock or options to purchase or rights to subscribe for such convertible or exchangeable securities (which are not excluded from the definition of Additional Stock), the following provisions shall apply:

(A) The aggregate maximum number of shares of Common Stock deliverable upon exercise of such options to purchase or rights to subscribe for Common Stock shall be deemed to have been issued at the time such options or rights were issued and for a consideration equal to the consideration (determined in the manner provided in paragraphs III(B)(3)(ff)(ii) and III(B)(3)(ff)(iii)), if any, received by the corporation upon the issuance of such options or rights plus the minimum purchase price provided in such options or rights for the Common Stock covered thereby.

(B) The aggregate maximum number of shares of Common Stock deliverable upon conversion of or in exchange for any such convertible or exchangeable securities or upon the exercise of options to purchase or rights to subscribe for such convertible or exchangeable securities and subsequent conversion or exchange thereof shall be deemed to have been issued at the time such securities were issued or such options or rights were issued and for a consideration equal to the consideration, if any, received by the corporation for any such securities and related options or rights (excluding any cash received on account of accrued interest or accrued dividends), plus the additional consideration, if any, to be received by the corporation upon the conversion or exchange of such

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securities or the exercise of any related options or rights (the consideration in each case to be determined in the manner provided in paragraphs III(B)(3)(ff)(ii) and III(B)(3)(ff)(iii)).

(C) In the event of any change in the number of shares of Common Stock deliverable or any increase in the consideration payable to this corporation upon exercise of such options or rights or upon conversion of or in



exchange for such convertible or exchangeable securities, including, but not limited to, a change resulting from the antidilution provisions thereof, the Conversion Price of any series of Preferred Stock obtained with respect to the adjustment which was made upon the issuance of such options, rights or securities, and any subsequent adjustments based thereon, shall be recomputed to reflect such change, but no further adjustment shall be made for the actual issuance of Common Stock or any payment of such consideration upon the exercise of any such options or rights or the conversion or exchange of such securities.

(D) Upon the expiration of any such options or rights, the termination of any such rights to convert or exchange or the expiration of any options or rights related to such convertible or exchangeable securities, the Conversion Price of any series of Preferred Stock obtained with respect to the adjustment which was made upon the issuance of such options, rights or securities or options or rights related to such securities, and any subsequent adjustments based thereon, shall be recomputed to reflect the issuance of only the number of shares of Common Stock actually issued upon the exercise of such options or rights, upon the conversion or exchange of such securities or upon the exercise of the options or rights related to such securities. Upon the expiration of any such options or rights, the termination of any such rights to convert or exchange or the expiration of any options or rights related to such convertible or exchangeable securities, only the number of shares of Common Stock actually issued upon the exercise of such options or rights, upon the conversion or exchange of such securities or upon the exercise of the options or rights related to such securities shall continue to be deemed to be issued.

(E) All Common Stock deemed issued pursuant to this paragraph III(B)(3)(ff)(iv)(E) shall be considered issued only at the time of its deemed issuance and any actual issuance of such stock shall not be an actual issuance or a deemed issuance of the corporation's Common Stock under the provisions of this paragraph III(B)(3).

(gg) No Impairment. The corporation will not, by amendment of its Articles of Incorporation or through any reorganization, recapitalization, transfer of assets, merger, dissolution, issue or sale of securities or any other voluntary action, avoid or seek to avoid the observance or performance of any of the terms to be observed or performed hereunder by the corporation, but will at all times in good faith assist in the carrying out of all the provisions of this paragraph III(B)(3) and in the taking of all such action as may be necessary or appropriate in order to protect the Conversion Rights of the holders of the Preferred Stock against impairment.

(hh) Certificate as to Adjustments. Upon the occurrence of each adjustment or readjustment of the Conversion Price for Preferred Stock pursuant to this paragraph III(B)(3), the corporation at its expense shall promptly compute such adjustment or readjustment in accordance with the terms hereof and prepare and furnish to each holder of Preferred Stock a certificate setting forth such adjustment or readjustment and showing in detail the facts upon which such adjustment or readjustment

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is based. The corporation shall, upon the written request at any time of any holder of Preferred Stock, furnish or cause to be furnished to such holder a like certificate setting forth (i) such adjustments and readjustments, (ii) the Conversion Price at the time in effect, and (iii) the number of shares of Common Stock and the amount, if any, of the property which at the time would be received upon the conversion of such holder's shares of Preferred Stock.

(ii) Notices of Record Date. In the event of the establishment by the corporation of a record of the holders of any class of securities for the purpose of determining the holders thereof who are entitled to receive any dividend (other than a cash dividend) or other distribution, any Common Stock Equivalents or any right to subscribe for, purchase or otherwise acquire any shares of stock of any class or any other securities or property, or to receive any other right, the corporation shall mail to each holder of Preferred Stock, at least twenty (20) days prior to the date specified therein, notice specifying the date on which any such record is to be taken for the purpose of such dividend, distribution or right, and the amount and character of such dividend, distribution or right.

(jj) Reservation of Stock Issuable Upon Conversion. The corporation

shall at all times reserve and keep available out of its authorized but unissued shares of Common Stock solely for the purpose of effecting the conversion of the shares of the Preferred Stock such number of its shares of Common Stock as shall from time to time be sufficient to effect the conversion of all then outstanding shares of the Preferred Stock; and if at any time the number of authorized but unissued shares of Common Stock shall not be sufficient to effect the conversion of all then outstanding shares of the Preferred Stock, the corporation will take such corporate action as may, in the opinion of its counsel, be necessary to increase its authorized but unissued shares of Common Stock to such number of shares as shall be sufficient for such purpose.

(kk) Notices. Any notices required by the provisions of this paragraph III(B)(3) to be given to the holders of shares of Preferred Stock shall be deemed given if deposited in the United States mail, postage prepaid, and addressed to each holder of record at such holder's address appearing on the books of the corporation.

(ll) Additional Stock. "ADDITIONAL STOCK" shall mean any shares of Common Stock issued (or deemed to have been issued pursuant to paragraph III(B)(3)(ff)(IV)) by this corporation on or after the Original Issue Date other than:

(i) shares issued or issuable pursuant to a transaction described in paragraphs III(B)(3)(cc) through III(B)(3)(ff) hereof,

(ii) Common Stock issued to officers, directors, employees and consultants of this corporation directly (and approved by a majority of the Preferred Directors) or pursuant to a stock option plan, restricted stock plan or a combination restricted stock and stock option plan,

(iii) options, warrants or stock (including stock issued upon conversion of any such options or warrants) previously or in the future issued or issuable in connection with borrowings from banks or other similar financial institutions, capital equipment leases, technology

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acquisitions or licenses, or other comparable transactions, provided the foregoing are approved by a majority of the Preferred Directors; or

(iv) shares issued or issuable upon conversion of any series of Preferred Stock.

(4) Liquidation Preference.

(aa) In the event of any liquidation, dissolution or winding up of the corporation, either voluntary or involuntary, the holders of the Preferred Stock shall be entitled to receive, prior and in preference to any distribution of any of the assets or surplus funds of the corporation to the holders of the Common Stock by reason of their ownership thereof, an amount per share equal to: (i) \$0.40 per share for each share of Series A Preferred Stock then held by them and (ii) \$9.50 per share for each share of Series B Preferred Stock then held by them, and, in addition, an amount equal to all declared but unpaid dividends on the Preferred Stock, if any. If, upon the occurrence of such event, the assets and funds thus distributed among the holders of the Preferred Stock shall be insufficient to permit the payment to such holders of the full preferential amount, then the entire assets and funds of the corporation legally available for distribution shall be distributed ratably among the holders of the Preferred Stock, in proportion to the preferential amount each such holder is otherwise entitled to receive. After payment has been made to the holders of the Preferred Stock of the full amounts to which they shall be entitled as aforesaid, any remaining assets shall be distributed ratably to the holders of the corporation's Common Stock.

(bb) A merger of the corporation with or into any other corporation or corporations, or the merger of any other corporation or corporations into the corporation, in which consolidation or merger the shareholders of the corporation receive distributions in cash or securities of another corporation or corporations as a result of such consolidation or merger, or a sale of all or substantially all of the assets of the corporation, shall be treated as a liquidation, dissolution or winding up for purposes of this paragraph III(B)(4), unless the shareholders of this corporation hold at least

50% of the outstanding voting equity securities of the surviving corporation; provided that nothing contained in this paragraph (bb) shall limit the right of a holder of Preferred Stock to convert such shares into Common Stock prior to the effective date of any such transaction.

(5) Protective Provisions. In addition to any other rights provided by law, so long as 4,650,000 shares of Preferred Stock shall be outstanding, this corporation shall not, without first obtaining the affirmative vote or written consent of the holders of not less than a majority in voting interest of such outstanding shares of Preferred Stock, voting together as a single class:

(aa) amend or repeal any provision of, or add any provision to, this corporation's Articles of Incorporation or Bylaws if such action would alter or change the preferences, rights, privileges or powers of, or the restrictions provided for the benefit of, the Preferred Stock;

(bb) authorize shares of any class of stock having any preference or priority as to dividends or assets superior to or on a parity with any such preference or priority of the Preferred Stock, or authorize shares of stock of any class or any bonds, debentures, notes or other obligations

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convertible into or exchangeable for, or having option rights to purchase, any shares of stock of this corporation having any preference or priority as to dividends or assets superior to or on a parity with any such preference or priority of the Preferred Stock;

(cc) effect in any transaction or series of transactions a sale or other conveyance of all or substantially all of the assets of the corporation or any of its subsidiaries, or any consolidation or merger involving the corporation or any of its subsidiaries where the corporation or such subsidiary is not the surviving corporation, or any sale of more than 50% of the corporation's capital stock; or

(dd) increase the authorized number of shares of Preferred Stock.

(C) Common Stock.

(1) Dividend Rights. Subject to the prior rights of holders of all classes of stock at the time outstanding having prior rights as to dividends, the holders of the Common Stock shall be entitled to receive, when and as declared by the Board of Directors, out of any assets of the corporation legally available therefor, such dividends as may be declared from time to time by the Board of Directors.

(2) Liquidation Rights. Upon the liquidation, dissolution or winding up of the corporation, the assets of the corporation shall be distributed as provided in paragraph III(B)(4) hereof.

(3) Voting Rights. The holder of each share of Common Stock shall have the right to one vote, and shall be entitled to notice of any shareholders' meeting in accordance with the Bylaws of this corporation, and shall be entitled to vote upon such matters and in such manner as may be provided by law.

IV

(A) Limitation of Directors' Liability. The liability of the directors of this corporation for monetary damages shall be eliminated to the fullest extent permissible under California law.

(B) Indemnification of Directors and Officers. This corporation is authorized to indemnify the directors and officers of the corporation to the fullest extent permissible under California law.

(C) Repeal or Modification. Any repeal or modification of the foregoing provisions of this Article IV by the shareholders of the corporation shall not adversely affect any right or protection of a director of the corporation existing at the time of such repeal or modification."

\* \* \* \* \*

3. The foregoing amendment and restatement of the Articles of Incorporation has been duly approved by the Board of Directors.

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4. The foregoing amendment and restatement of the Articles of Incorporation have been duly approved by the required vote of shareholders in accordance with Sections 902 and 903 of the California Corporations Code. The total number of outstanding shares of the corporation is 14,986,879 shares of Common Stock and 8,750,000 shares of Series A Preferred Stock. The number of shares voting in favor of the amendment equaled or exceeded the vote required. The percentage vote required was (a) more than 50% of the outstanding shares of Common Stock, voting together as a single class, (b) more than 50% of the outstanding shares of Series A Preferred Stock, and (c) more than 50% of the outstanding shares of Common Stock and Series A Preferred Stock, voting together as a single class. No shares of Series B Preferred Stock are outstanding.

[SIGNATURE PAGE FOLLOWS]

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We further declare under penalty of perjury under the laws of the State of California that the matter set forth in this certificate are true and correct of our own knowledge.

Dated: July 31, 2000

/s/ John K. Kibarian  
-----  
John K. Kibarian  
President and Chief Executive Officer

/s/ Peter Cohn  
-----  
Peter Cohn  
Secretary

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SECOND AMENDED AND RESTATED  
CERTIFICATE OF INCORPORATION  
OF  
PDF SOLUTIONS, INC.

The undersigned, John Kibarian and Peter Cohn, hereby certify that:

1. They are the duly elected and acting President and Secretary, respectively, of PDF Solutions, Inc., a Delaware corporation.

2. The Certificate of Incorporation of this corporation was originally filed with the Secretary of State of Delaware on July 19, 2000 under the name of PDF Solutions, Inc. and the First Amended and Restated Certificate of Incorporation of this corporation was filed with the Secretary of State of Delaware on August 4, 2000.

3. The Certificate of Incorporation of this corporation shall be amended and restated to read in full as follows:

"ARTICLE I

The name of this corporation is PDF Solutions, Inc. (the "Corporation").

ARTICLE II

The address of the Corporation's registered office in the State of Delaware is 1013 Centre Road, City of Wilmington, County of New Castle. The name of its registered agent at such address is Corporation Service Company.

ARTICLE III

The purpose of the Corporation is to engage in any lawful act or activity for which corporations may be organized under the General Corporation Law of Delaware.

ARTICLE IV

(A) The Corporation is authorized to issue two classes of stock to be designated, respectively, "Common Stock" and "Preferred Stock." The total number of shares which the Corporation is authorized to issue is 75,000,000 shares, each with a par value of \$0.0001 per share. 70,000,000 shares shall be Common Stock and 5,000,000 shares shall be Preferred Stock.

(B) The Preferred Stock may be issued from time to time in one or more series. The Board of Directors is hereby authorized, by filing a certificate pursuant to the applicable law of the state of Delaware and within the limitations and restrictions stated in this Certificate of Incorporation, to determine or alter the rights, preferences, privileges and restrictions granted to or imposed upon any wholly unissued series of Preferred Stock and the number of shares constituting any such series and the designation thereof, or any of them; and to increase or decrease the number of shares of any series subsequent to the issuance of shares of that series, but not below the number of shares of such series then outstanding. In case the number of shares

of any series shall be so decreased, the shares constituting such decrease shall resume the status which they had prior to the adoption of the resolution originally fixing the number of shares of such series.

ARTICLE V

The number of directors of the Corporation shall be fixed from time to time by a bylaw or amendment thereof duly adopted by the Board of Directors.

## ARTICLE VI

On or prior to the date on which the Corporation first provides notice of an annual meeting of the stockholders, the Board of Directors of the Corporation shall divide the directors into three classes, as nearly equal in number as reasonably possible, designated Class I, Class II and Class III, respectively. Directors shall be assigned to each class in accordance with a resolution or resolutions adopted by the Board of Directors. At the first annual meeting of stockholders or any special meeting in lieu thereof, the terms of the Class I directors shall expire and Class I directors shall be elected for a full term of three years. At the second annual meeting of stockholders or any special meeting in lieu thereof, the terms of the Class II directors shall expire and Class II directors shall be elected for a full term of three years. At the third annual meeting of stockholders or any special meeting in lieu thereof, the terms of the Class III directors shall expire and Class III directors shall be elected for a full term of three years. At each succeeding annual meeting of stockholders or special meeting in lieu thereof, directors elected to succeed the directors of the class whose terms expire at such meeting shall be elected for a full term of three years.

Notwithstanding the foregoing provisions of this Article VI, each director shall serve until his or her successor is duly elected and qualified or until his or her death, resignation, or removal. No decrease in the number of directors constituting the Board of Directors shall shorten the term of any incumbent director.

Any vacancies on the Board of Directors resulting from death, resignation, disqualification, removal, or other causes shall be filled by either (i) the affirmative vote of the holders of a majority of the voting power of the then-outstanding shares of voting stock of the Corporation entitled to vote generally in the election of directors (the "Voting Stock") voting together as a single class; or (ii) by the affirmative vote of a majority of the remaining directors then in office, even though less than a quorum of the Board of Directors. Subject to the rights of any series of Preferred Stock then outstanding, newly created directorships resulting from any increase in the number of directors shall, unless the Board of Directors determines by resolution that any such newly created directorship shall be filled by the stockholders, be filled only by the affirmative vote of the directors then in office, even though less than a quorum of the Board of Directors, or by a sole remaining director. Any director elected in accordance with the preceding sentence shall hold office for the remainder of the full term of the class of directors in which the new directorship was created or the vacancy occurred and until such director's successor shall have been elected and qualified. Any director, or the entire Board of Directors, may be removed from office, with or without cause, by the holders of a majority of the Voting Stock.

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## ARTICLE VII

In the election of directors, each holder of shares of any class or series of capital stock of the Corporation shall be entitled to one vote for each share held. No stockholder will be permitted to cumulate votes at any election of directors.

## ARTICLE VIII

No action shall be taken by the stockholders of the Corporation other than at an annual or special meeting of the stockholders, upon due notice and in accordance with the provisions of the Bylaws of the Corporation (the "Bylaws"), and no action shall be taken by the stockholders by written consent.

## ARTICLE IX

The Corporation reserves the right to amend, alter, change or repeal any provision contained in this Certificate of Incorporation, in the manner now or hereafter prescribed by statute, and all rights conferred upon stockholders herein are granted subject to this reservation.

## ARTICLE X

(A) Except as otherwise provided in the Bylaws, the Bylaws may be

altered or amended or new Bylaws adopted by the affirmative vote of at least 66 2/3% of the voting power of all of the then-outstanding shares of the voting stock of the Corporation entitled to vote. The Board of Directors of the Corporation is expressly authorized to adopt, amend or repeal Bylaws.

(B) The directors of the Corporation need not be elected by written ballot unless the Bylaws so provide.

(C) Advance notice of stockholder nominations for the election of directors or of business to be brought by the stockholders before any meeting of the stockholders of the Corporation shall be given in the manner provided in the Bylaws.

#### ARTICLE XI

Meetings of stockholders may be held within or without the State of Delaware, as the Bylaws may provide. The books of the Corporation may be kept (subject to any provision contained in the statutes) outside the State of Delaware at such place or places as may be designated from time to time by the Board of Directors or in the bylaws of the Corporation.

#### ARTICLE XII

The Corporation shall have perpetual existence.

#### ARTICLE XIII

(A) To the fullest extent permitted by the General Corporation Law of Delaware, as the same may be amended from time to time, a director of the Corporation shall not be personally

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liable to the Corporation or its stockholders for monetary damages for breach of fiduciary duty as a director. If the General Corporation Law of Delaware is hereafter amended to authorize, with the approval of a corporation's stockholders, further reductions in the liability of a corporation's directors for breach of fiduciary duty, then a director of the Corporation shall not be liable for any such breach to the fullest extent permitted by the General Corporation Law of Delaware, as so amended.

(B) Any repeal or modification of the foregoing provisions of this Article XIII shall not adversely affect any right or protection of a director of the Corporation with respect to any acts or omissions of such director occurring prior to such repeal or modification.

#### ARTICLE XIV

(A) To the fullest extent permitted by applicable law, the Corporation is also authorized to provide indemnification of (and advancement of expenses to) such agents (and any other persons to which Delaware law permits the Corporation to provide indemnification) through Bylaw provisions, agreements with such agents or other persons, vote of stockholders or disinterested directors or otherwise, in excess of the indemnification and advancement otherwise permitted by Section 145 of the General Corporation Law of Delaware, subject only to limits created by applicable Delaware law (statutory or non-statutory), with respect to actions for breach of duty to a corporation, its stockholders, and others.

(B) Any repeal or modification of any of the foregoing provisions of this Article XIV shall not adversely affect any right or protection of a director, officer, agent or other person existing at the time of, or increase the liability of any director of the Corporation with respect to any acts or omissions of such director, officer or agent occurring prior to such repeal or modification."

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The foregoing Amended and Restated Certificate of Incorporation has been duly adopted by this Corporation's Board of Directors and stockholders in accordance with the applicable provisions of Section 228, 242 and 245 of the General Corporation Law of the State of Delaware.

Executed at Menlo Park, on the \_\_\_\_ day of October, 2000.

-----  
John Kibarian, President

-----  
Peter Cohn, Secretary



BYLAWS  
OF  
PDF SOLUTIONS, INC.

BYLAWS  
OF  
PDF SOLUTIONS, INC.  
[Effective September 23, 1997]  
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BYLAWS

OF

PDF SOLUTIONS, INC.

ARTICLE I

CORPORATE OFFICES

1.1 PRINCIPAL OFFICE

The board of directors shall fix the location of the principal executive office of the corporation at any place within or outside the State of California. If the principal executive office is located outside such state and the corporation has one or more business offices in such state, then the board of directors shall fix and designate a principal business office in the State of California.

1.2 OTHER OFFICES

The board of directors may at any time establish branch or subordinate offices at any place or places where the corporation is qualified to do business.

ARTICLE II

MEETINGS OF SHAREHOLDERS

2.1 PLACE OF MEETINGS

Meetings of shareholders shall be held at any place within or outside the State of California designated by the board of directors. In the absence of any such designation, shareholders' meetings shall be held at the principal executive office of the corporation.

2.2 ANNUAL MEETING

The annual meeting of shareholders shall be held each year on a date and at a time designated by the board of directors. In the absence of such designation, the annual meeting of shareholders shall be held on the fourth Monday of March of each year, at 10:00 a.m. However, if such day falls on a legal holiday, then the meeting shall be held at the same time and place on the next succeeding full business day. At the meeting, directors shall be elected, and any other proper business may be transacted.

2.3 SPECIAL MEETING

A special meeting of the shareholders may be called at any time by the board of directors, or by the chairman of the board, or by the president, or by one or more shareholders holding shares in the aggregate entitled to cast not less than ten percent (10%) of the votes at that meeting.

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If a special meeting is called by any person or persons other than the board of directors or the president or the chairman of the board, then the request shall be in writing, specifying the time of such meeting and the general nature of the business proposed to be transacted, and shall be delivered personally or sent by registered mail or by telegraphic or other facsimile transmission to the chairman of the board, the president, any vice president or the secretary of the corporation. The officer receiving the request shall cause notice to be promptly given to the shareholders entitled to vote, in accordance with the provisions of Sections 2.4 and 2.5 of these bylaws, that a meeting will be held at the time requested by the person or persons calling the meeting, so long as that time is not less than thirty-five (35) nor more than sixty (60) days after the receipt of the request. If the notice is not given within twenty (20) days after receipt of the request, then the person or persons requesting the meeting may give the notice. Nothing contained in this paragraph of this Section 2.3 shall be construed as limiting, fixing or affecting the time when a meeting of shareholders called by action of the board of directors may be held.

2.4 NOTICE OF SHAREHOLDERS' MEETINGS

All notices of meetings of shareholders shall be sent or otherwise given

in accordance with Section 2.5 of these bylaws not less than ten (10) (or, if sent by third-class mail pursuant to Section 2.5 of these bylaws, thirty (30)) nor more than sixty (60) days before the date of the meeting. The notice shall specify the place, date, and hour of the meeting and (i) in the case of a special meeting, the general nature of the business to be transacted (no business other than that specified in the notice may be transacted) or (ii) in the case of the annual meeting, those matters which the board of directors, at the time of giving the notice, intends to present for action by the shareholders (but subject to the provisions of the next paragraph of this Section 2.4 any proper matter may be presented at the meeting for such action). The notice of any meeting at which directors are to be elected shall include the name of any nominee or nominees who, at the time of the notice, the board intends to present for election.

If action is proposed to be taken at any meeting for approval of (i) a contract or transaction in which a director has a direct or indirect financial interest, pursuant to Section 310 of the Corporations Code of California (the "Code"), (ii) an amendment of the articles of incorporation, pursuant to Section 902 of the Code, (iii) a reorganization of the corporation, pursuant to Section 1201 of the Code, (iv) a voluntary dissolution of the corporation, pursuant to Section 1900 of the Code, or (v) a distribution in dissolution other than in accordance with the rights of outstanding preferred shares, pursuant to Section 2007 of the Code, then the notice shall also state the general nature of that proposal.

#### 2.5 MANNER OF GIVING NOTICE; AFFIDAVIT OF NOTICE

Written notice of any meeting of shareholders shall be given either (i) personally or (ii) by first-class mail or (iii) by third-class mail but only if the corporation has outstanding shares held of record by five hundred (500) or more persons (determined as provided in Section 605 of the Code) on the record date for the shareholders' meeting, or (iv) by telegraphic or other written communication. Notices not personally delivered shall be sent charges prepaid and shall be addressed to the shareholder at the address of that shareholder appearing on the books of the corporation or given by the shareholder to the corporation for the purpose of notice. If no such address appears on the corporation's books or is given, notice shall be deemed to have

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been given if sent to that shareholder by mail or telegraphic or other written communication to the corporation's principal executive office, or if published at least once in a newspaper of general circulation in the county where that office is located. Notice shall be deemed to have been given at the time when delivered personally or deposited in the mail or sent by telegram or other means of written communication.

If any notice addressed to a shareholder at the address of that shareholder appearing on the books of the corporation is returned to the corporation by the United States Postal Service marked to indicate that the United States Postal Service is unable to deliver the notice to the shareholder at that address, then all future notices or reports shall be deemed to have been duly given without further mailing if the same shall be available to the shareholder on written demand of the shareholder at the principal executive office of the corporation for a period of one (1) year from the date of the giving of the notice.

An affidavit of the mailing or other means of giving any notice of any shareholders' meeting, executed by the secretary, assistant secretary or any transfer agent of the corporation giving the notice, shall be prima facie evidence of the giving of such notice.

#### 2.6 QUORUM

The presence in person or by proxy of the holders of a majority of the shares entitled to vote thereat constitutes a quorum for the transaction of business at all meetings of shareholders. The shareholders present at a duly called or held meeting at which a quorum is present may continue to do business until adjournment, notwithstanding the withdrawal of enough shareholders to leave less than a quorum, if any action taken (other than adjournment) is approved by at least a majority of the shares required to constitute a quorum.

## 2.7 ADJOURNED MEETING; NOTICE

Any shareholders' meeting, annual or special, whether or not a quorum is present, may be adjourned from time to time by the vote of the majority of the shares represented at that meeting, either in person or by proxy. In the absence of a quorum, no other business may be transacted at that meeting except as provided in Section 2.6 of these bylaws.

When any meeting of shareholders, either annual or special, is adjourned to another time or place, notice need not be given of the adjourned meeting if the time and place are announced at the meeting at which the adjournment is taken. However, if a new record date for the adjourned meeting is fixed or if the adjournment is for more than forty-five (45) days from the date set for the original meeting, then notice of the adjourned meeting shall be given. Notice of any such adjourned meeting shall be given to each shareholder of record entitled to vote at the adjourned meeting in accordance with the provisions of Sections 2.4 and 2.5 of these bylaws. At any adjourned meeting the corporation may transact any business which might have been transacted at the original meeting.

## 2.8 VOTING

The shareholders entitled to vote at any meeting of shareholders shall be determined in accordance with the provisions of Section 2.11 of these bylaws, subject to the provisions of

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Sections 702 through 704 of the Code (relating to voting shares held by a fiduciary, in the name of a corporation or in joint ownership).

The shareholders' vote may be by voice vote or by ballot; provided, however, that any election for directors must be by ballot if demanded by any shareholder at the meeting and before the voting has begun.

Except as provided in the last paragraph of this Section 2.8, or as may be otherwise provided in the articles of incorporation, each outstanding share, regardless of class, shall be entitled to one vote on each matter submitted to a vote of the shareholders. Any shareholder entitled to vote on any matter may vote part of the shares in favor of the proposal and refrain from voting the remaining shares or, except when the matter is the election of directors, may vote them against the proposal; but, if the shareholder fails to specify the number of shares which the shareholder is voting affirmatively, it will be conclusively presumed that the shareholder's approving vote is with respect to all shares which the shareholder is entitled to vote.

If a quorum is present, the affirmative vote of the majority of the shares represented and voting at a duly held meeting (which shares voting affirmatively also constitute at least a majority of the required quorum) shall be the act of the shareholders, unless the vote of a greater number or a vote by classes is required by the Code or by the articles of incorporation.

At a shareholders' meeting at which directors are to be elected, a shareholder shall be entitled to cumulate votes (i.e., cast for any candidate a number of votes greater than the number of votes which such shareholder normally is entitled to cast) if the candidates' names have been placed in nomination prior to commencement of the voting and the shareholder has given notice prior to commencement of the voting of the shareholder's intention to cumulate votes. If any shareholder has given such a notice, then every shareholder entitled to vote may cumulate votes for candidates in nomination either (i) by giving one candidate a number of votes equal to the number of directors to be elected multiplied by the number of votes to which that shareholder's shares are normally entitled or (ii) by distributing the shareholder's votes on the same principle among any or all of the candidates, as the shareholder thinks fit. The candidates receiving the highest number of affirmative votes, up to the number of directors to be elected, shall be elected; votes against any candidate and votes withheld shall have no legal effect.

## 2.9 VALIDATION OF MEETINGS; WAIVER OF NOTICE; CONSENT

The transactions of any meeting of shareholders, either annual or special, however called and noticed, and wherever held, shall be as valid as though they had been taken at a meeting duly held after regular call and notice, if a quorum be present either in person or by proxy, and if, either before or

after the meeting, each person entitled to vote, who was not present in person or by proxy, signs a written waiver of notice or a consent to the holding of the meeting or an approval of the minutes thereof. The waiver of notice or consent or approval need not specify either the business to be transacted or the purpose of any annual or special meeting of shareholders, except that if action is taken or proposed to be taken for approval of any of those matters specified in the second paragraph of Section 2.4 of these bylaws, the waiver of notice or consent or approval shall state the general nature of the proposal. All such waivers, consents,

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and approvals shall be filed with the corporate records or made a part of the minutes of the meeting.

Attendance by a person at a meeting shall also constitute a waiver of notice of and presence at that meeting, except when the person objects at the beginning of the meeting to the transaction of any business because the meeting is not lawfully called or convened. Attendance at a meeting is not a waiver of any right to object to the consideration of matters required by the Code to be included in the notice of the meeting but not so included, if that objection is expressly made at the meeting.

#### 2.10 SHAREHOLDER ACTION BY WRITTEN CONSENT WITHOUT A MEETING

Any action which may be taken at any annual or special meeting of shareholders may be taken without a meeting and without prior notice, if a consent in writing, setting forth the action so taken, is signed by the holders of outstanding shares having not less than the minimum number of votes that would be necessary to authorize or take that action at a meeting at which all shares entitled to vote on that action were present and voted.

In the case of election of directors, such a consent shall be effective only if signed by the holders of all outstanding shares entitled to vote for the election of directors. However, a director may be elected at any time to fill any vacancy on the board of directors, provided that it was not created by removal of a director and that it has not been filled by the directors, by the written consent of the holders of a majority of the outstanding shares entitled to vote for the election of directors.

All such consents shall be maintained in the corporate records. Any shareholder giving a written consent, or the shareholder's proxy holders, or a transferee of the shares, or a personal representative of the shareholder, or their respective proxy holders, may revoke the consent by a writing received by the secretary of the corporation before written consents of the number of shares required to authorize the proposed action have been filed with the secretary.

If the consents of all shareholders entitled to vote have not been solicited in writing and if the unanimous written consent of all such shareholders has not been received, then the secretary shall give prompt notice of the corporate action approved by the shareholders without a meeting. Such notice shall be given to those shareholders entitled to vote who have not consented in writing and shall be given in the manner specified in Section 2.5 of these bylaws. In the case of approval of (i) a contract or transaction in which a director has a direct or indirect financial interest, pursuant to Section 310 of the Code, (ii) indemnification of a corporate "agent," pursuant to Section 317 of the Code, (iii) a reorganization of the corporation, pursuant to Section 1201 of the Code, and (iv) a distribution in dissolution other than in accordance with the rights of outstanding preferred shares, pursuant to Section 2007 of the Code, the notice shall be given at least ten (10) days before the consummation of any action authorized by that approval.

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#### 2.11 RECORD DATE FOR SHAREHOLDER NOTICE; VOTING; GIVING CONSENTS

For purposes of determining the shareholders entitled to notice of any meeting or to vote thereat or entitled to give consent to corporate action without a meeting, the board of directors may fix, in advance, a record date, which shall not be more than sixty (60) days nor less than ten (10) days before the date of any such meeting nor more than sixty (60) days before any such

action without a meeting, and in such event only shareholders of record on the date so fixed are entitled to notice and to vote or to give consents, as the case may be, notwithstanding any transfer of any shares on the books of the corporation after the record date, except as otherwise provided in the Code.

If the board of directors does not so fix a record date:

(a) the record date for determining shareholders entitled to notice of or to vote at a meeting of shareholders shall be at the close of business on the business day next preceding the day on which notice is given or, if notice is waived, at the close of business on the business day next preceding the day on which the meeting is held; and

(b) the record date for determining shareholders entitled to give consent to corporate action in writing without a meeting, (i) when no prior action by the board has been taken, shall be the day on which the first written consent is given, or (ii) when prior action by the board has been taken, shall be at the close of business on the day on which the board adopts the resolution relating to that action, or the sixtieth (60th) day before the date of such other action, whichever is later.

The record date for any other purpose shall be as provided in Article VIII of these bylaws.

## 2.12 PROXIES

Every person entitled to vote for directors, or on any other matter, shall have the right to do so either in person or by one or more agents authorized by a written proxy signed by the person and filed with the secretary of the corporation. A proxy shall be deemed signed if the shareholder's name is placed on the proxy (whether by manual signature, typewriting, telegraphic transmission or otherwise) by the shareholder or the shareholder's attorney-in-fact. A validly executed proxy which does not state that it is irrevocable shall continue in full force and effect unless (i) the person who executed the proxy revokes it prior to the time of voting by delivering a writing to the corporation stating that the proxy is revoked or by executing a subsequent proxy and presenting it to the meeting or by voting in person at the meeting, or (ii) written notice of the death or incapacity of the maker of that proxy is received by the corporation before the vote pursuant to that proxy is counted; provided, however, that no proxy shall be valid after the expiration of eleven (11) months from the date of the proxy, unless otherwise provided in the proxy. The dates contained on the forms of proxy presumptively determine the order of execution, regardless of the postmark dates on the envelopes in which they are mailed. The revocability of a proxy that states on its face that it is irrevocable shall be governed by the provisions of Sections 705(e) and 705(f) of the Code.

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## 2.13 INSPECTORS OF ELECTION

Before any meeting of shareholders, the board of directors may appoint an inspector or inspectors of election to act at the meeting or its adjournment. If no inspector of election is so appointed, then the chairman of the meeting may, and on the request of any shareholder or a shareholder's proxy shall, appoint an inspector or inspectors of election to act at the meeting. The number of inspectors shall be either one (1) or three (3). If inspectors are appointed at a meeting pursuant to the request of one (1) or more shareholders or proxies, then the holders of a majority of shares or their proxies present at the meeting shall determine whether one (1) or three (3) inspectors are to be appointed. If any person appointed as inspector fails to appear or fails or refuses to act, then the chairman of the meeting may, and upon the request of any shareholder or a shareholder's proxy shall, appoint a person to fill that vacancy.

Such inspectors shall:

(a) determine the number of shares outstanding and the voting power of each, the number of shares represented at the meeting, the existence of a quorum, and the authenticity, validity, and effect of proxies;

(b) receive votes, ballots or consents;

(c) hear and determine all challenges and questions in any way arising in connection with the right to vote;

(d) count and tabulate all votes or consents;

(e) determine when the polls shall close;

(f) determine the result; and

(g) do any other acts that may be proper to conduct the election or vote with fairness to all shareholders.

## ARTICLE III

### DIRECTORS

#### 3.1 POWERS

Subject to the provisions of the Code and any limitations in the articles of incorporation and these bylaws relating to actions required to be approved by the shareholders or by the outstanding shares, the business and affairs of the corporation shall be managed and all corporate powers shall be exercised by or under the direction of the board of directors.

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#### 3.2 NUMBER OF DIRECTORS

The number of directors of the corporation shall be not less than five (5) nor more than nine (9). The exact number of directors shall be six (6) until changed, within the limits specified above, by a bylaw amending this Section 3.2, duly adopted by the board of directors or by the shareholders. The indefinite number of directors may be changed, or a definite number may be fixed without provision for an indefinite number, by a duly adopted amendment to the articles of incorporation or by an amendment to this bylaw duly adopted by the vote or written consent of holders of a majority of the outstanding shares entitled to vote; provided, however, that an amendment reducing the fixed number or the minimum number of directors to a number less than five (5) cannot be adopted if the votes cast against its adoption at a meeting, or the shares not consenting in the case of an action by written consent, are equal to more than sixteen and two-thirds percent (16-2/3%) of the outstanding shares entitled to vote thereon. No amendment may change the stated maximum number of authorized directors to a number greater than two (2) times the stated minimum number of directors minus one (1).

No reduction of the authorized number of directors shall have the effect of removing any director before that director's term of office expires.

#### 3.3 ELECTION AND TERM OF OFFICE OF DIRECTORS

Directors shall be elected at each annual meeting of shareholders to hold office until the next annual meeting. Each director, including a director elected to fill a vacancy, shall hold office until the expiration of the term for which elected and until a successor has been elected and qualified.

#### 3.4 RESIGNATION AND VACANCIES

Any director may resign effective on giving written notice to the chairman of the board, the president, the secretary or the board of directors, unless the notice specifies a later time for that resignation to become effective. If the resignation of a director is effective at a future time, the board of directors may elect a successor to take office when the resignation becomes effective.

Vacancies in the board of directors may be filled by a majority of the remaining directors, even if less than a quorum, or by a sole remaining director; however, a vacancy created by the removal of a director by the vote or written consent of the shareholders or by court order may be filled only by the affirmative vote of a majority of the shares represented and voting at a duly held meeting at which a quorum is present (which shares voting affirmatively also constitute a majority of the required quorum), or by the unanimous written



consent of all shares entitled to vote thereon. Each director so elected shall hold office until the next annual meeting of the shareholders and until a successor has been elected and qualified.

A vacancy or vacancies in the board of directors shall be deemed to exist (i) in the event of the death, resignation or removal of any director, (ii) if the board of directors by resolution declares vacant the office of a director who has been declared of unsound mind by an order of court or convicted of a felony, (iii) if the authorized number of directors is increased, or (iv) if

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the shareholders fail, at any meeting of shareholders at which any director or directors are elected, to elect the number of directors to be elected at that meeting.

The shareholders may elect a director or directors at any time to fill any vacancy or vacancies not filled by the directors, but any such election other than to fill a vacancy created by removal, if by written consent, shall require the consent of the holders of a majority of the outstanding shares entitled to vote thereon.

### 3.5 PLACE OF MEETINGS; MEETINGS BY TELEPHONE

Regular meetings of the board of directors may be held at any place within or outside the State of California that has been designated from time to time by resolution of the board. In the absence of such a designation, regular meetings shall be held at the principal executive office of the corporation. Special meetings of the board may be held at any place within or outside the State of California that has been designated in the notice of the meeting or, if not stated in the notice or if there is no notice, at the principal executive office of the corporation.

Any meeting, regular or special, may be held by conference telephone or similar communication equipment, so long as all directors participating in the meeting can hear one another; and all such directors shall be deemed to be present in person at the meeting.

### 3.6 REGULAR MEETINGS

Regular meetings of the board of directors may be held without notice if the times of such meetings are fixed by the board of directors.

### 3.7 SPECIAL MEETINGS; NOTICE

Special meetings of the board of directors for any purpose or purposes may be called at any time by the chairman of the board, the president, any vice president, the secretary or any two directors.

Notice of the time and place of special meetings shall be delivered personally or by telephone to each director or sent by first-class mail or telegram, charges prepaid, addressed to each director at that director's address as it is shown on the records of the corporation. If the notice is mailed, it shall be deposited in the United States mail at least four (4) days before the time of the holding of the meeting. If the notice is delivered personally or by telephone or telegram, it shall be delivered personally or by telephone or to the telegraph company at least forty-eight (48) hours before the time of the holding of the meeting. Any oral notice given personally or by telephone may be communicated either to the director or to a person at the office of the director who the person giving the notice has reason to believe will promptly communicate it to the director. The notice need not specify the purpose or the place of the meeting, if the meeting is to be held at the principal executive office of the corporation.

### 3.8 QUORUM

A majority of the authorized number of directors shall constitute a quorum for the transaction of business, except to adjourn as provided in Section 3.10 of these bylaws. Every act or

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decision done or made by a majority of the directors present at a duly held meeting at which a quorum is present shall be regarded as the act of the board of directors, subject to the provisions of Section 310 of the Code (as to approval of contracts or transactions in which a director has a direct or indirect material financial interest), Section 311 of the Code (as to appointment of committees), Section 317(e) of the Code (as to indemnification of directors), the articles of incorporation, and other applicable law.

A meeting at which a quorum is initially present may continue to transact business notwithstanding the withdrawal of directors, if any action taken is approved by at least a majority of the required quorum for that meeting.

### 3.9 WAIVER OF NOTICE

Notice of a meeting need not be given to any director (i) who signs a waiver of notice or a consent to holding the meeting or an approval of the minutes thereof, whether before or after the meeting, or (ii) who attends the meeting without protesting, prior thereto or at its commencement, the lack of notice to such director. All such waivers, consents, and approvals shall be filed with the corporate records or made part of the minutes of the meeting. A waiver of notice need not specify the purpose of any regular or special meeting of the board of directors.

### 3.10 ADJOURNMENT

A majority of the directors present, whether or not constituting a quorum, may adjourn any meeting to another time and place.

### 3.11 NOTICE OF ADJOURNMENT

Notice of the time and place of holding an adjourned meeting need not be given unless the meeting is adjourned for more than twenty-four (24) hours. If the meeting is adjourned for more than twenty-four (24) hours, then notice of the time and place of the adjourned meeting shall be given before the adjourned meeting takes place, in the manner specified in Section 3.7 of these bylaws, to the directors who were not present at the time of the adjournment.

### 3.12 BOARD ACTION BY WRITTEN CONSENT WITHOUT A MEETING

Any action required or permitted to be taken by the board of directors may be taken without a meeting, provided that all members of the board individually or collectively consent in writing to that action. Such action by written consent shall have the same force and effect as a unanimous vote of the board of directors. Such written consent and any counterparts thereof shall be filed with the minutes of the proceedings of the board.

### 3.13 FEES AND COMPENSATION OF DIRECTORS

Directors and members of committees may receive such compensation, if any, for their services and such reimbursement of expenses as may be fixed or determined by resolution of the board of directors. This Section 3.13 shall not be construed to preclude any director from serving the corporation in any other capacity as an officer, agent, employee or otherwise and receiving compensation for those services.

### 3.14 APPROVAL OF LOANS TO OFFICERS

The corporation may, upon the approval of the board of directors alone, make loans of money or property to, or guarantee the obligations of, any officer of the corporation or its parent or subsidiary, whether or not a director, or adopt an employee benefit plan or plans authorizing such loans or guaranties provided that (i) the board of directors determines that such a loan or guaranty or plan may reasonably be expected to benefit the corporation, (ii) the corporation has outstanding shares held of record by 100 or more persons (determined as provided in Section 605 of the Code) on the date of approval by the board of directors, and (iii) the approval of the board of directors is by a vote sufficient without counting the vote of any interested director or

directors.

## ARTICLE IV

### COMMITTEES

#### 4.1 COMMITTEES OF DIRECTORS

The board of directors may, by resolution adopted by a majority of the authorized number of directors, designate one (1) or more committees, each consisting of two or more directors, to serve at the pleasure of the board. The board may designate one (1) or more directors as alternate members of any committee, who may replace any absent member at any meeting of the committee. The appointment of members or alternate members of a committee requires the vote of a majority of the authorized number of directors. Any committee, to the extent provided in the resolution of the board, shall have all the authority of the board, except with respect to:

(a) the approval of any action which, under the Code, also requires shareholders' approval or approval of the outstanding shares;

(b) the filling of vacancies on the board of directors or in any committee;

(c) the fixing of compensation of the directors for serving on the board or any committee;

(d) the amendment or repeal of these bylaws or the adoption of new bylaws;

(e) the amendment or repeal of any resolution of the board of directors which by its express terms is not so amendable or repealable;

(f) a distribution to the shareholders of the corporation, except at a rate or in a periodic amount or within a price range determined by the board of directors; or

(g) the appointment of any other committees of the board of directors or the members of such committees.

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#### 4.2 MEETINGS AND ACTION OF COMMITTEES

Meetings and actions of committees shall be governed by, and held and taken in accordance with, the provisions of Article III of these bylaws, Section 3.5 (place of meetings), Section 3.6 (regular meetings), Section 3.7 (special meetings and notice), Section 3.8 (quorum), Section 3.9 (waiver of notice), Section 3.10 (adjournment), Section 3.11 (notice of adjournment), and Section 3.12 (action without meeting), with such changes in the context of those bylaws as are necessary to substitute the committee and its members for the board of directors and its members; provided, however, that the time of regular meetings of committees may be determined either by resolution of the board of directors or by resolution of the committee, that special meetings of committees may also be called by resolution of the board of directors, and that notice of special meetings of committees shall also be given to all alternate members, who shall have the right to attend all meetings of the committee. The board of directors may adopt rules for the government of any committee not inconsistent with the provisions of these bylaws.

## ARTICLE V

### OFFICERS

#### 5.1 OFFICERS

The officers of the corporation shall be a president, a secretary, and a chief financial officer. The corporation may also have, at the discretion of the board of directors, a chairman of the board, one or more vice presidents, one or more assistant secretaries, one or more assistant treasurers, and such other

officers as may be appointed in accordance with the provisions of Section 5.3 of these bylaws. Any number of offices may be held by the same person.

#### 5.2 ELECTION OF OFFICERS

The officers of the corporation, except such officers as may be appointed in accordance with the provisions of Section 5.3 or Section 5.5 of these bylaws, shall be chosen by the board, subject to the rights, if any, of an officer under any contract of employment. Any contract of employment with an officer shall be unenforceable unless in writing and specifically authorized by the board of directors.

#### 5.3 SUBORDINATE OFFICERS

The board of directors may appoint, or may empower the president to appoint, such other officers as the business of the corporation may require, each of whom shall hold office for such period, have such authority, and perform such duties as are provided in these bylaws or as the board of directors may from time to time determine.

#### 5.4 REMOVAL AND RESIGNATION OF OFFICERS

Subject to the rights, if any, of an officer under any contract of employment, any officer may be removed, either with or without cause, by the board of directors at any regular or special

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meeting of the board or, except in case of an officer chosen by the board of directors, by any officer upon whom such power of removal may be conferred by the board of directors.

Any officer may resign at any time by giving written notice to the corporation. Any resignation shall take effect at the date of the receipt of that notice or at any later time specified in that notice; and, unless otherwise specified in that notice, the acceptance of the resignation shall not be necessary to make it effective. Any resignation is without prejudice to the rights, if any, of the corporation under any contract to which the officer is a party.

#### 5.5 VACANCIES IN OFFICES

A vacancy in any office because of death, resignation, removal, disqualification or any other cause shall be filled in the manner prescribed in these bylaws for regular appointments to that office.

#### 5.6 CHAIRMAN OF THE BOARD

The chairman of the board, if such an officer be elected, shall, if present, preside at meetings of the board of directors and exercise and perform such other powers and duties as may from time to time be assigned to him by the board of directors or as may be prescribed by these bylaws. If there is no president, then the chairman of the board shall also be the chief executive officer of the corporation and shall have the powers and duties prescribed in Section 5.7 of these bylaws.

#### 5.7 PRESIDENT

Subject to such supervisory powers, if any, as may be given by the board of directors to the chairman of the board, if there be such an officer, the president shall be the chief executive officer of the corporation and shall, subject to the control of the board of directors, have general supervision, direction, and control of the business and the officers of the corporation. He shall preside at all meetings of the shareholders and, in the absence or nonexistence of a chairman of the board, at all meetings of the board of directors. He shall have the general powers and duties of management usually vested in the office of president of a corporation, and shall have such other powers and duties as may be prescribed by the board of directors or these bylaws.

#### 5.8 VICE PRESIDENTS

In the absence or disability of the president, the vice presidents, if

any, in order of their rank as fixed by the board of directors or, if not ranked, a vice president designated by the board of directors, shall perform all the duties of the president and when so acting shall have all the powers of, and be subject to all the restrictions upon, the president. The vice presidents shall have such other powers and perform such other duties as from time to time may be prescribed for them respectively by the board of directors, these bylaws, the president or the chairman of the board.

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#### 5.9 SECRETARY

The secretary shall keep or cause to be kept, at the principal executive office of the corporation or such other place as the board of directors may direct, a book of minutes of all meetings and actions of directors, committees of directors and shareholders. The minutes shall show the time and place of each meeting, whether regular or special (and, if special, how authorized and the notice given), the names of those present at directors' meetings or committee meetings, the number of shares present or represented at shareholders' meetings, and the proceedings thereof.

The secretary shall keep, or cause to be kept, at the principal executive office of the corporation or at the office of the corporation's transfer agent or registrar, as determined by resolution of the board of directors, a share register, or a duplicate share register, showing the names of all shareholders and their addresses, the number and classes of shares held by each, the number and date of certificates evidencing such shares, and the number and date of cancellation of every certificate surrendered for cancellation.

The secretary shall give, or cause to be given, notice of all meetings of the shareholders and of the board of directors required to be given by law or by these bylaws. He shall keep the seal of the corporation, if one be adopted, in safe custody and shall have such other powers and perform such other duties as may be prescribed by the board of directors or by these bylaws.

#### 5.10 CHIEF FINANCIAL OFFICER

The chief financial officer shall keep and maintain, or cause to be kept and maintained, adequate and correct books and records of accounts of the properties and business transactions of the corporation, including accounts of its assets, liabilities, receipts, disbursements, gains, losses, capital, retained earnings, and shares. The books of account shall at all reasonable times be open to inspection by any director.

The chief financial officer shall deposit all money and other valuables in the name and to the credit of the corporation with such depositories as may be designated by the board of directors. He shall disburse the funds of the corporation as may be ordered by the board of directors, shall render to the president and directors, whenever they request it, an account of all of his transactions as chief financial officer and of the financial condition of the corporation, and shall have such other powers and perform such other duties as may be prescribed by the board of directors or these bylaws.

### ARTICLE VI

#### INDEMNIFICATION OF DIRECTORS, OFFICERS, EMPLOYEES, AND OTHER AGENTS

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#### 6.1 INDEMNIFICATION OF DIRECTORS AND OFFICERS

The corporation shall, to the maximum extent and in the manner permitted by the Code, indemnify each of its directors and officers against expenses (as defined in Section 317(a) of the Code), judgments, fines, settlements, and other amounts actually and reasonably incurred in connection with any proceeding (as defined in Section 317(a) of the Code), arising by reason of the fact that such

person is or was an agent of the corporation. For purposes of this Article VI, a "director" or "officer" of the corporation includes any person (i) who is or was a director or officer of the corporation, (ii) who is or was serving at the request of the corporation as a director or officer of another corporation, partnership, joint venture, trust or other enterprise, or (iii) who was a director or officer of a corporation which was a predecessor corporation of the corporation or of another enterprise at the request of such predecessor corporation.

#### 6.2 INDEMNIFICATION OF OTHERS

The corporation shall have the power, to the extent and in the manner permitted by the Code, to indemnify each of its employees and agents (other than directors and officers) against expenses (as defined in Section 317(a) of the Code), judgments, fines, settlements, and other amounts actually and reasonably incurred in connection with any proceeding (as defined in Section 317(a) of the Code), arising by reason of the fact that such person is or was an agent of the corporation. For purposes of this Article VI, an "employee" or "agent" of the corporation (other than a director or officer) includes any person (i) who is or was an employee or agent of the corporation, (ii) who is or was serving at the request of the corporation as an employee or agent of another corporation, partnership, joint venture, trust or other enterprise, or (iii) who was an employee or agent of a corporation which was a predecessor corporation of the corporation or of another enterprise at the request of such predecessor corporation.

#### 6.3 PAYMENT OF EXPENSES IN ADVANCE

Expenses incurred in defending any civil or criminal action or proceeding for which indemnification is required pursuant to Section 6.1 or for which indemnification is permitted pursuant to Section 6.2 following authorization thereof by the Board of Directors shall be paid by the corporation in advance of the final disposition of such action or proceeding upon receipt of an undertaking by or on behalf of the indemnified party to repay such amount if it shall ultimately be determined that the indemnified party is not entitled to be indemnified as authorized in this Article VI.

#### 6.4 INDEMNITY NOT EXCLUSIVE

The indemnification provided by this Article VI shall not be deemed exclusive of any other rights to which those seeking indemnification may be entitled under any bylaw, agreement, vote of shareholders or disinterested directors or otherwise, both as to action in an official capacity and as to action in another capacity while holding such office, to the extent that such additional rights to indemnification are authorized in the articles of incorporation.

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#### 6.5 INSURANCE INDEMNIFICATION

The corporation shall have the power to purchase and maintain insurance on behalf of any person who is or was a director, officer, employee or agent of the corporation against any liability asserted against or incurred by such person in such capacity or arising out of such person's status as such, whether or not the corporation would have the power to indemnify him against such liability under the provisions of this Article VI.

#### 6.6 CONFLICTS

No indemnification or advance shall be made under this Article VI, except where such indemnification or advance is mandated by law or the order, judgment or decree of any court of competent jurisdiction, in any circumstance where it appears:

(1) That it would be inconsistent with a provision of the articles of incorporation, these bylaws, a resolution of the shareholders or an agreement in effect at the time of the accrual of the alleged cause of the action asserted in the proceeding in which the expenses were incurred or other amounts were paid, which prohibits or otherwise limits indemnification; or

(2) That it would be inconsistent with any condition expressly

imposed by a court in approving a settlement.

## ARTICLE VII

### RECORDS AND REPORTS

#### 7.1 MAINTENANCE AND INSPECTION OF SHARE REGISTER

The corporation shall keep either at its principal executive office or at the office of its transfer agent or registrar (if either be appointed), as determined by resolution of the board of directors, a record of its shareholders listing the names and addresses of all shareholders and the number and class of shares held by each shareholder.

A shareholder or shareholders of the corporation who holds at least five percent (5%) in the aggregate of the outstanding voting shares of the corporation or who holds at least one percent (1%) of such voting shares and has filed a Schedule 14B with the Securities and Exchange Commission relating to the election of directors, may (i) inspect and copy the records of shareholders' names, addresses, and shareholdings during usual business hours on five (5) days' prior written demand on the corporation, (ii) obtain from the transfer agent of the corporation, on written demand and on the tender of such transfer agent's usual charges for such list, a list of the names and addresses of the shareholders who are entitled to vote for the election of directors, and their shareholdings, as of the most recent record date for which that list has been compiled or as of a date specified by the shareholder after the date of demand. Such list shall be made available to any such shareholder by the transfer agent on or before the later of five (5) days after the demand is received or five (5) days after the date specified in the demand as the date as of which the list is to be compiled.

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The record of shareholders shall also be open to inspection on the written demand of any shareholder or holder of a voting trust certificate, at any time during usual business hours, for a purpose reasonably related to the holder's interests as a shareholder or as the holder of a voting trust certificate.

Any inspection and copying under this Section 7.1 may be made in person or by an agent or attorney of the shareholder or holder of a voting trust certificate making the demand.

#### 7.2 MAINTENANCE AND INSPECTION OF BYLAWS

The corporation shall keep at its principal executive office or, if its principal executive office is not in the State of California, at its principal business office in California the original or a copy of these bylaws as amended to date, which bylaws shall be open to inspection by the shareholders at all reasonable times during office hours. If the principal executive office of the corporation is outside the State of California and the corporation has no principal business office in such state, then the secretary shall, upon the written request of any shareholder, furnish to that shareholder a copy of these bylaws as amended to date.

#### 7.3 MAINTENANCE AND INSPECTION OF OTHER CORPORATE RECORDS

The accounting books and records and the minutes of proceedings of the shareholders, of the board of directors, and of any committee or committees of the board of directors shall be kept at such place or places as are designated by the board of directors or, in absence of such designation, at the principal executive office of the corporation. The minutes shall be kept in written form, and the accounting books and records shall be kept either in written form or in any other form capable of being converted into written form.

The minutes and accounting books and records shall be open to inspection upon the written demand of any shareholder or holder of a voting trust certificate, at any reasonable time during usual business hours, for a purpose reasonably related to the holder's interests as a shareholder or as the holder of a voting trust certificate. The inspection may be made in person or by an agent or attorney and shall include the right to copy and make extracts. Such

rights of inspection shall extend to the records of each subsidiary corporation of the corporation.

#### 7.4 INSPECTION BY DIRECTORS

Every director shall have the absolute right at any reasonable time to inspect all books, records, and documents of every kind as well as the physical properties of the corporation and each of its subsidiary corporations. Such inspection by a director may be made in person or by an agent or attorney. The right of inspection includes the right to copy and make extracts of documents.

#### 7.5 ANNUAL REPORT TO SHAREHOLDERS; WAIVER

The board of directors shall cause an annual report to be sent to the shareholders not later than one hundred twenty (120) days after the close of the fiscal year adopted by the corporation. Such report shall be sent at least fifteen (15) days (or, if sent by third-class mail, thirty-five (35) days) before the annual meeting of shareholders to be held during the next fiscal year and in the

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manner specified in Section 2.5 of these bylaws for giving notice to shareholders of the corporation.

The annual report shall contain (i) a balance sheet as of the end of the fiscal year, (ii) an income statement, (iii) a statement of changes in financial position for the fiscal year, and (iv) any report of independent accountants or, if there is no such report, the certificate of an authorized officer of the corporation that the statements were prepared without audit from the books and records of the corporation.

The foregoing requirement of an annual report shall be waived so long as the shares of the corporation are held by fewer than one hundred (100) holders of record.

#### 7.6 FINANCIAL STATEMENTS

If no annual report for the fiscal year has been sent to shareholders, then the corporation shall, upon the written request of any shareholder made more than one hundred twenty (120) days after the close of such fiscal year, deliver or mail to the person making the request, within thirty (30) days thereafter, a copy of a balance sheet as of the end of such fiscal year and an income statement and statement of changes in financial position for such fiscal year.

If a shareholder or shareholders holding at least five percent (5%) of the outstanding shares of any class of stock of the corporation makes a written request to the corporation for an income statement of the corporation for the three-month, six-month or nine-month period of the then current fiscal year ended more than thirty (30) days before the date of the request, and for a balance sheet of the corporation as of the end of that period, then the chief financial officer shall cause that statement to be prepared, if not already prepared, and shall deliver personally or mail that statement or statements to the person making the request within thirty (30) days after the receipt of the request. If the corporation has not sent to the shareholders its annual report for the last fiscal year, the statements referred to in the first paragraph of this Section 7.6 shall likewise be delivered or mailed to the shareholder or shareholders within thirty (30) days after the request.

The quarterly income statements and balance sheets referred to in this section shall be accompanied by the report, if any, of any independent accountants engaged by the corporation or by the certificate of an authorized officer of the corporation that the financial statements were prepared without audit from the books and records of the corporation.

#### 7.7 REPRESENTATION OF SHARES OF OTHER CORPORATIONS

The chairman of the board, the president, any vice president, the chief financial officer, the secretary or assistant secretary of this corporation, or any other person authorized by the board of directors or the president or a vice president, is authorized to vote, represent, and exercise on behalf of this corporation all rights incident to any and all shares of any other corporation



or corporations standing in the name of this corporation. The authority herein granted may be exercised either by such person directly or by any other person authorized to do so by proxy or power of attorney duly executed by such person having the authority.

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ARTICLE VIII  
GENERAL MATTERS

8.1 RECORD DATE FOR PURPOSES OTHER THAN NOTICE AND VOTING

For purposes of determining the shareholders entitled to receive payment of any dividend or other distribution or allotment of any rights or the shareholders entitled to exercise any rights in respect of any other lawful action (other than action by shareholders by written consent without a meeting), the board of directors may fix, in advance, a record date, which shall not be more than sixty (60) days before any such action. In that case, only shareholders of record at the close of business on the date so fixed are entitled to receive the dividend, distribution or allotment of rights, or to exercise such rights, as the case may be, notwithstanding any transfer of any shares on the books of the corporation after the record date so fixed, except as otherwise provided in the Code.

If the board of directors does not so fix a record date, then the record date for determining shareholders for any such purpose shall be at the close of business on the day on which the board adopts the applicable resolution or the sixtieth (60th) day before the date of that action, whichever is later.

8.2 CHECKS; DRAFTS; EVIDENCES OF INDEBTEDNESS

From time to time, the board of directors shall determine by resolution which person or persons may sign or endorse all checks, drafts, other orders for payment of money, notes or other evidences of indebtedness that are issued in the name of or payable to the corporation, and only the persons so authorized shall sign or endorse those instruments.

8.3 CORPORATE CONTRACTS AND INSTRUMENTS; HOW EXECUTED

The board of directors, except as otherwise provided in these bylaws, may authorize any officer or officers, or agent or agents, to enter into any contract or execute any instrument in the name of and on behalf of the corporation; such authority may be general or confined to specific instances. Unless so authorized or ratified by the board of directors or within the agency power of an officer, no officer, agent or employee shall have any power or authority to bind the corporation by any contract or engagement or to pledge its credit or to render it liable for any purpose or for any amount.

8.4 CERTIFICATES FOR SHARES

A certificate or certificates for shares of the corporation shall be issued to each shareholder when any of such shares are fully paid. The board of directors may authorize the issuance of certificates for shares partly paid provided that these certificates shall state the total amount of the consideration to be paid for them and the amount actually paid. All certificates shall be signed in the name of the corporation by the chairman of the board or the vice chairman of the board or the president or a vice president and by the chief financial officer or an assistant treasurer or the secretary or an assistant secretary, certifying the number of shares and the class or

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series of shares owned by the shareholder. Any or all of the signatures on the certificate may be facsimile.

In case any officer, transfer agent or registrar who has signed or whose facsimile signature has been placed on a certificate ceases to be that officer, transfer agent or registrar before that certificate is issued, it may be issued

by the corporation with the same effect as if that person were an officer, transfer agent or registrar at the date of issue.

#### 8.5 LOST CERTIFICATES

Except as provided in this Section 8.5, no new certificates for shares shall be issued to replace a previously issued certificate unless the latter is surrendered to the corporation and canceled at the same time. The board of directors may, in case any share certificate or certificate for any other security is lost, stolen or destroyed, authorize the issuance of replacement certificates on such terms and conditions as the board may require; the board may require indemnification of the corporation secured by a bond or other adequate security sufficient to protect the corporation against any claim that may be made against it, including any expense or liability, on account of the alleged loss, theft or destruction of the certificate or the issuance of the replacement certificate.

#### 8.6 CONSTRUCTION; DEFINITIONS

Unless the context requires otherwise, the general provisions, rules of construction, and definitions in the Code shall govern the construction of these bylaws. Without limiting the generality of this provision, the singular number includes the plural, the plural number includes the singular, and the term "person" includes both a corporation and a natural person.

### ARTICLE IX

#### AMENDMENTS

##### 9.1 AMENDMENT BY SHAREHOLDERS

New bylaws may be adopted or these bylaws may be amended or repealed by the vote or written consent of holders of a majority of the outstanding shares entitled to vote; provided, however, that if the articles of incorporation of the corporation set forth the number of authorized directors of the corporation, then the authorized number of directors may be changed only by an amendment of the articles of incorporation.

##### 9.2 AMENDMENT BY DIRECTORS

Subject to the rights of the shareholders as provided in Section 9.1 of these bylaws, bylaws, other than a bylaw or an amendment of a bylaw changing the authorized number of directors (except to fix the authorized number of directors pursuant to a bylaw providing for a variable number of directors), may be adopted, amended or repealed by the board of directors.

BYLAWS  
OF  
PDF SOLUTIONS, INC.

(AS AMENDED AND RESTATED EFFECTIVE OCTOBER \_\_, 2000,  
AT THE CLOSING OF THE COMPANY'S  
INITIAL PUBLIC OFFERING)

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BYLAWS  
OF  
PDF SOLUTIONS, INC.

ARTICLE I  
CORPORATE OFFICES

1.1 REGISTERED OFFICE.

The address of the Corporation's registered office in the State of Delaware is 1013 Centre Road, City of Wilmington, County of New Castle. The name of its registered agent at such address is Corporation Service Company.

1.2 OTHER OFFICES.

The Board of Directors may at any time establish other offices at any place or places where the Corporation is qualified to do business.

ARTICLE II  
MEETINGS OF STOCKHOLDERS

2.1 PLACE OF MEETINGS.

Meetings of stockholders shall be held at any place, within or outside the State of Delaware, designated by the Board of Directors. In the absence of any such designation, stockholders' meetings shall be held at the registered office of the Corporation.

2.2 ANNUAL MEETING.

(a) The annual meeting of stockholders shall be held each year on a date and at a time designated by resolution of the Board of Directors. At the meeting, directors shall be elected and any other proper business may be transacted.

(b) Nominations of persons for election to the Board of Directors of the Corporation and the proposal of business to be transacted by the stockholders may be made at an annual meeting of stockholders (i) pursuant to the Corporation's notice with respect to such meeting, (ii) by or at the direction of the Board of Directors or (iii) by any stockholder of the Corporation who was a stockholder of record at the time of giving of the notice provided for in this Section 2.2, who is entitled to vote at the meeting and who has complied with the notice procedures set forth in this Section 2.2.

(c) For nominations or other business to be properly brought before an annual meeting by a stockholder pursuant to clause (iii) of paragraph (b) of this Section 2.2, the stockholder must have given timely notice thereof in writing to the secretary of the Corporation,

as provided in Section 2.5, and such business must be a proper matter for stockholder action under the General Corporation Law of Delaware.

(d) Only such business shall be conducted at an annual meeting of stockholders as shall have been brought before the meeting in accordance with the procedures set forth in these Bylaws. The chairman of the meeting shall determine whether a nomination or any business proposed to be transacted by the

stockholders has been properly brought before the meeting and, if any proposed nomination or business has not been properly brought before the meeting, the chairman shall declare that such proposed business or nomination shall not be presented for stockholder action at the meeting.

(e) For purposes of this Section 2.2, "public announcement" shall mean disclosure in a press release reported by the Dow Jones News Service, Associated Press or a comparable national news service.

(f) Nothing in this Section 2.2 shall be deemed to affect any rights of stockholders to request inclusion of proposals in the Corporation's proxy statement pursuant to Rule 14a-8 under the Exchange Act.

### 2.3 SPECIAL MEETING.

(a) A special meeting of the stockholders may be called at any time by the Board of Directors, or by the chairman of the board, or by the president.

(b) Nominations of persons for election to the Board of Directors may be made at a special meeting of stockholders at which directors are to be elected pursuant to such notice of meeting (i) by or at the direction of the Board of Directors or (ii) by any stockholder of the Corporation who is a stockholder of record at the time of giving of notice provided for in Section 2.5, who shall be entitled to vote at the meeting and who complies with the notice procedures set forth in Section 2.5.

### 2.4 NOTICE OF STOCKHOLDER'S MEETINGS; AFFIDAVIT OF NOTICE.

All notices of meetings of stockholders shall be in writing and shall be sent or otherwise given in accordance with this Section 2.4 of these Bylaws not less than 10 nor more than 60 days before the date of the meeting to each stockholder entitled to vote at such meeting (or such longer or shorter time as is required by Section 2.5 of these Bylaws, if applicable). The notice shall specify the place, date, and hour of the meeting, and, in the case of a special meeting, the purpose or purposes for which the meeting is called. Written notice of any meeting of stockholders, if mailed, is given when deposited in the United States mail, postage prepaid, directed to the stockholder at his address as it appears on the records of the Corporation. An affidavit of the secretary or an assistant secretary or of the transfer agent of the Corporation that the notice has been given shall, in the absence of fraud, be prima facie evidence of the facts stated therein.

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### 2.5 ADVANCE NOTICE OF STOCKHOLDER NOMINEES AND OTHER STOCKHOLDER PROPOSALS.

Only persons who are nominated in accordance with the procedures set forth in this Section 2.5 shall be eligible for election as directors. Nominations of persons for election to the Board of Directors of the Corporation may be made at a meeting of stockholders by or at the direction of the Board of Directors or by any stockholder of the Corporation entitled to vote for the election of directors at the meeting who complies with the notice procedures set forth in this Section 2.5. Such nominations, other than those made by or at the direction of the Board of Directors, shall be made pursuant to timely notice in writing to the secretary of the Corporation. Stockholders may bring other business before the annual meeting, provided that timely notice is provided to the secretary of the Corporation in accordance with this section, and provided further that such business is a proper matter for stockholder action under the General Corporation Law of Delaware. To be timely, a stockholder's notice shall be delivered to or mailed and received at the principal executive offices of the Corporation not less than 90 days nor more than 120 days prior to the anniversary date of the prior year's meeting; provided, however, that in the event that (i) the date of the annual meeting is more than 30 days prior to or more than 60 days after such anniversary date, and (ii) less than 60 days notice or prior public disclosure of the date of the meeting is given or made to stockholders, notice by the stockholder to be timely must be so received not later than the close of business on the 10th day following the day on which such notice of the date of the meeting was mailed or such public disclosure was made. Such stockholder's notice shall set forth (a) as to each person whom the

stockholder proposes to nominate for election or re-election as a director, (i) the name, age, business address and residence address of such person, (ii) the principal occupation or employment of such person, (iii) the class and number of shares of the Corporation which are beneficially owned by such person and (iv) any other information relating to such person that is required to be disclosed in solicitations of proxies for election of directors, or is otherwise required, in each case pursuant to Regulation 14A under the Securities Exchange Act of 1934 (including, without limitation, such person's written consent to being named in the proxy statement as a nominee and to serving as a director if elected); (b) as to any other business that the stockholder proposes to bring before the meeting, a brief description of such business, the reasons for conducting such business at the meeting and any material interest in such business of such stockholder and the beneficial owner, if any, on whose behalf the proposal is made; and (c) as to the stockholder giving the notice and the beneficial owner, if any, on whose behalf the proposal is made (i) the name and address of the stockholder, as they appear on the Corporation's books, and of such beneficial owner and (ii) the class and number of shares of the Corporation which are owned of record by such stockholder and beneficially by such beneficial owner. At the request of the Board of Directors any person nominated by the Board of Directors for election as a director shall furnish to the secretary of the Corporation that information required to be set forth in a stockholder's notice of nomination which pertains to the nominee. No person shall be eligible for election as a director of the Corporation unless nominated in accordance with the procedures set forth in this Section 2.5. The chairman of the meeting shall, if the facts warrant, determine and declare to the meeting that a nomination was not made in accordance with the procedures prescribed by the Bylaws, and if he or she should so determine, he or she shall so declare to the meeting and the defective nomination shall be disregarded.

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#### 2.6 QUORUM.

The holders of a majority of the stock issued and outstanding and entitled to vote thereat, present in person or represented by proxy, shall constitute a quorum at all meetings of the stockholders for the transaction of business except as otherwise provided by statute or by the Certificate of Incorporation. If, however, such quorum is not present or represented at any meeting of the stockholders, then either (a) the chairman of the meeting or (b) the stockholders entitled to vote thereat, present in person or represented by proxy, shall have power to adjourn the meeting from time to time, without notice other than announcement at the meeting, until a quorum is present or represented. At such adjourned meeting at which a quorum is present or represented, any business may be transacted that might have been transacted at the meeting as originally noticed.

#### 2.7 ADJOURNED MEETING; NOTICE.

When a meeting is adjourned to another time or place, unless these Bylaws otherwise require, notice need not be given of the adjourned meeting if the time and place thereof are announced at the meeting at which the adjournment is taken. At the adjourned meeting the Corporation may transact any business that might have been transacted at the original meeting. If the adjournment is for more than 30 days, or if after the adjournment a new record date is fixed for the adjourned meeting, a notice of the adjourned meeting shall be given to each stockholder of record entitled to vote at the meeting.

#### 2.8 CONDUCT OF BUSINESS.

The chairman of any meeting of stockholders shall determine the order of business and the procedure at the meeting, including the manner of voting and the conduct of business.

#### 2.9 VOTING.

(a) The stockholders entitled to vote at any meeting of stockholders shall be determined in accordance with the provisions of Section 2.11 of these Bylaws, subject to the provisions of Sections 217 and 218 of the General Corporation Law of Delaware (relating to voting rights of fiduciaries, pledgors and joint owners of stock and to voting trusts and other voting agreements).

(b) Except as may be otherwise provided in the Certificate of Incorporation, each stockholder shall be entitled to one vote for each share of capital stock held by such stockholder.

#### 2.10 WAIVER OF NOTICE.

Whenever notice is required to be given under any provision of the General Corporation Law of Delaware or of the Certificate of Incorporation or these Bylaws, a written waiver thereof, signed by the person entitled to notice, whether before or after the time stated therein, shall be deemed equivalent to notice. Attendance of a person at a meeting shall constitute a waiver of notice of such meeting, except when the person attends a meeting for the

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express purpose of objecting, at the beginning of the meeting, to the transaction of any business because the meeting is not lawfully called or convened. Neither the business to be transacted at, nor the purpose of, any regular or special meeting of the stockholders need be specified in any written waiver of notice unless so required by the Certificate of Incorporation or these Bylaws.

#### 2.11 RECORD DATE FOR STOCKHOLDER NOTICE; VOTING.

In order that the Corporation may determine the stockholders entitled to notice of or to vote at any meeting of stockholders or any adjournment thereof or entitled to receive payment of any dividend or other distribution or allotment of any rights, or entitled to exercise any rights in respect of any change, conversion or exchange of stock or for the purpose of any other lawful action, the Board of Directors may fix, in advance, a record date, which shall not be more than 60 nor less than 10 days before the date of such meeting, nor more than 60 days prior to any other action. If the Board of Directors does not so fix a record date:

(a) The record date for determining stockholders entitled to notice of or to vote at a meeting of stockholders shall be at the close of business on the day next preceding the day on which notice is given, or, if notice is waived, at the close of business on the day next preceding the day on which the meeting is held.

(b) The record date for determining stockholders for any other purpose shall be at the close of business on the day on which the Board of Directors adopts the resolution relating thereto.

A determination of stockholders of record entitled to notice of or to vote at a meeting of stockholders shall apply to any adjournment of the meeting; provided, however, that the Board of Directors may fix a new record date for the adjourned meeting.

#### 2.12 PROXIES.

Each stockholder entitled to vote at a meeting of stockholders may authorize another person or persons to act for such stockholder by a written proxy, signed by the stockholder and filed with the secretary of the Corporation, but no such proxy shall be voted or acted upon after three years from its date, unless the proxy provides for a longer period. A proxy shall be deemed signed if the stockholder's name is placed on the proxy (whether by manual signature, typewriting, electronic or telegraphic transmission or otherwise) by the stockholder or the stockholder's attorney-in-fact. The revocability of a proxy that states on its face that it is irrevocable shall be governed by the provisions of Section 212(e) of the General Corporation Law of Delaware.

### ARTICLE III

#### DIRECTORS

#### 3.1 POWERS.



Subject to the provisions of the General Corporation Law of Delaware and any limitations in the Certificate of Incorporation or these Bylaws relating to action required to be

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approved by the stockholders or by the outstanding shares, the business and affairs of the Corporation shall be managed and all corporate powers shall be exercised by or under the direction of the Board of Directors.

### 3.2 NUMBER OF DIRECTORS.

The number of directors constituting the entire Board of Directors shall be five.

Thereafter, this number may be changed by a resolution of the Board of Directors or of the stockholders, subject to Section 3.4 of these Bylaws. No reduction of the authorized number of directors shall have the effect of removing any director before such director's term of office expires.

### 3.3 ELECTION, QUALIFICATION AND TERM OF OFFICE OF DIRECTORS.

Except as provided in Section 3.4 of these Bylaws, directors shall be elected at each annual meeting of stockholders to hold office until the next annual meeting. Directors need not be stockholders unless so required by the Certificate of Incorporation or these Bylaws, wherein other qualifications for directors may be prescribed. Each director, including a director elected to fill a vacancy, shall hold office until his or her successor is elected and qualified or until his or her earlier resignation or removal.

### 3.4 RESIGNATION AND VACANCIES.

Any director may resign at any time upon written notice to the attention of the secretary of the Corporation. When one or more directors so resigns and the resignation is effective at a future date, a majority of the directors then in office, including those who have so resigned, shall have power to fill such vacancy or vacancies, the vote thereon to take effect when such resignation or resignations shall become effective, and each director so chosen shall hold office as provided in this section in the filling of other vacancies. A vacancy created by the removal of a director by the vote of the stockholders or by court order may be filled only by the affirmative vote of a majority of the shares represented and voting at a duly held meeting at which a quorum is present (which shares voting affirmatively also constitute a majority of the quorum). Each director so elected shall hold office until the next annual meeting of the stockholders and until a successor has been elected and qualified.

Unless otherwise provided in the Certificate of Incorporation or these Bylaws:

(a) Vacancies and newly created directorships resulting from any increase in the authorized number of directors elected by all of the stockholders having the right to vote as a single class may be filled by a majority of the directors then in office, although less than a quorum, or by a sole remaining director.

(b) Whenever the holders of any class or classes of stock or series thereof are entitled to elect one or more directors by the provisions of the Certificate of Incorporation, vacancies and newly created directorships of such class or classes or series may be filled by a majority of the directors elected by such class or classes or series thereof then in office, or by a sole remaining director so elected.

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If at any time, by reason of death or resignation or other cause, the Corporation should have no directors in office, then any officer or any stockholder or an executor, administrator, trustee or guardian of a stockholder, or other fiduciary entrusted with like responsibility for the person or estate of a stockholder, may call a special meeting of stockholders in accordance with the provisions of the Certificate of Incorporation or these Bylaws, or may apply to the Court of Chancery for a decree summarily ordering an election as provided in Section 211 of the General Corporation Law of Delaware.

If, at the time of filling any vacancy or any newly created directorship, the directors then in office constitute less than a majority of the whole Board of Directors (as constituted immediately prior to any such increase), then the Court of Chancery may, upon application of any stockholder or stockholders holding at least 10% of the total number of the shares at the time outstanding having the right to vote for such directors, summarily order an election to be held to fill any such vacancies or newly created directorships, or to replace the directors chosen by the directors then in office as aforesaid, which election shall be governed by the provisions of Section 211 of the General Corporation Law of Delaware as far as applicable.

### 3.5 PLACE OF MEETINGS; MEETINGS BY TELEPHONE.

The Board of Directors of the Corporation may hold meetings, both regular and special, either within or outside the State of Delaware. Unless otherwise restricted by the Certificate of Incorporation or these Bylaws, members of the Board of Directors, or any committee designated by the Board of Directors, may participate in a meeting of the Board of Directors, or any committee, by means of conference telephone or similar communications equipment by means of which all persons participating in the meeting can hear each other, and such participation in a meeting shall constitute presence in person at the meeting.

### 3.6 REGULAR MEETINGS.

Regular meetings of the Board of Directors may be held without notice at such time and at such place as shall from time to time be determined by the Board of Directors.

### 3.7 SPECIAL MEETINGS; NOTICE.

Special meetings of the board of directors for any purpose or purposes may be called at any time by the chairman of the board, the president, any vice president, the secretary or any two (2) directors.

Notice of the time and place of special meetings shall be delivered personally or by telephone to each director or sent by first-class mail or telegram, charges prepaid, addressed to each director at that director's address as it is shown on the records of the Corporation. If the notice is mailed, it shall be deposited in the United States mail at least four (4) days before the time of the holding of the meeting. If the notice is delivered personally or by telephone, telecopy, telegram, telex or other similar means of communication, it shall be delivered at least twenty-four (24) hours before the time of the holding of the meeting, or on such shorter notice as the person or persons calling such meeting may deem necessary and appropriate in the circumstances. Any oral notice given personally or by telephone may be communicated either to the director or to a person at the office of the director who the person giving the notice has reason

to believe will promptly communicate it to the director. The notice need not specify the purpose of the place of the meeting, if the meeting is to be held at the principal executive office of the Corporation.

### 3.8 QUORUM.

At all meetings of the Board of Directors, a majority of the authorized number of directors shall constitute a quorum for the transaction of business and the act of a majority of the directors present at any meeting at which there is a quorum shall be the act of the Board of Directors, except as

may be otherwise specifically provided by statute or by the Certificate of Incorporation. If a quorum is not present at any meeting of the Board of Directors, then the directors present thereat may adjourn the meeting from time to time, without notice other than announcement at the meeting, until a quorum is present.

A meeting at which a quorum is initially present may continue to transact business notwithstanding the withdrawal of directors, if any action taken is approved by at least a majority of the required quorum for that meeting.

### 3.9 WAIVER OF NOTICE.

Whenever notice is required to be given under any provision of the General Corporation Law of Delaware or of the Certificate of Incorporation or these Bylaws, a written waiver thereof, signed by the person entitled to notice, whether before or after the time stated therein, shall be deemed equivalent to notice. Attendance of a person at a meeting shall constitute a waiver of notice of such meeting, except when the person attends a meeting for the express purpose of objecting, at the beginning of the meeting, to the transaction of any business because the meeting is not lawfully called or convened. Neither the business to be transacted at, nor the purpose of, any regular or special meeting of the directors, or members of a committee of directors, need be specified in any written waiver of notice unless so required by the Certificate of Incorporation or these Bylaws.

### 3.10 BOARD ACTION BY WRITTEN CONSENT WITHOUT A MEETING.

Unless otherwise restricted by the Certificate of Incorporation or these Bylaws, any action required or permitted to be taken at any meeting of the Board of Directors, or of any committee thereof, may be taken without a meeting if all members of the Board of Directors or committee, as the case may be, consent thereto in writing and the writing or writings are filed with the minutes of proceedings of the Board of Directors or committee. Written consents representing actions taken by the board or committee may be executed by telex, telecopy or other facsimile transmission, and such facsimile shall be valid and binding to the same extent as if it were an original.

### 3.11 FEES AND COMPENSATION OF DIRECTORS.

Unless otherwise restricted by the Certificate of Incorporation or these Bylaws, the Board of Directors shall have the authority to fix the compensation of directors. No such compensation shall preclude any director from serving the Corporation in any other capacity and receiving compensation therefor.

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### 3.12 APPROVAL OF LOANS TO OFFICERS.

The Corporation may lend money to, or guarantee any obligation of, or otherwise assist any officer or other employee of the Corporation or of its subsidiary, including any officer or employee who is a director of the Corporation or its subsidiary, whenever, in the judgment of the directors, such loan, guaranty or assistance may reasonably be expected to benefit the Corporation. The loan, guaranty or other assistance may be with or without interest and may be unsecured, or secured in such manner as the Board of Directors shall approve, including, without limitation, a pledge of shares of stock of the Corporation. Nothing in this Section 3.2 contained shall be deemed to deny, limit or restrict the powers of guaranty or warranty of the Corporation at common law or under any statute.

### 3.13 REMOVAL OF DIRECTORS.

Unless otherwise restricted by statute, by the Certificate of Incorporation or by these Bylaws, any director or the entire Board of Directors may be removed, with or without cause, by the holders of a majority of the shares then entitled to vote at an election of directors; provided, however, that if the stockholders of the Corporation are entitled to cumulative voting, if less than the entire Board of Directors is to be removed, no director may be

removed without cause if the votes cast against his removal would be sufficient to elect him if then cumulatively voted at an election of the entire Board of Directors.

No reduction of the authorized number of directors shall have the effect of removing any director prior to the expiration of such director's term of office.

### 3.14 CHAIRMAN OF THE BOARD OF DIRECTORS.

The Corporation may also have, at the discretion of the Board of Directors, a Chairman of the Board of Directors who shall not be considered an officer of the Corporation.

## ARTICLE IV

### COMMITTEES

#### 4.1 COMMITTEES OF DIRECTORS.

The Board of Directors may, by resolution passed by a majority of the whole Board of Directors, designate one or more committees, with each committee to consist of one or more of the directors of the Corporation. The Board of Directors may designate one or more directors as alternate members of any committee, who may replace any absent or disqualified member at any meeting of the committee. In the absence or disqualification of a member of a committee, the member or members thereof present at any meeting and not disqualified from voting, whether or not such member or members constitute a quorum, may unanimously appoint another member of the Board of Directors to act at the meeting in the place of any such absent or disqualified member. Any such committee, to the extent provided in the resolution of the Board of Directors or in the Bylaws of the Corporation, shall have and may exercise all the powers and authority of the Board of Directors in the management of the business and affairs of the Corporation, and may authorize the seal of the Corporation to be affixed to all papers that may require it; but no

such committee shall have the power or authority to (a) amend the Certificate of Incorporation (except that a committee may, to the extent authorized in the resolution or resolutions providing for the issuance of shares of stock adopted by the Board of Directors as provided in Section 151(a) of the General Corporation Law of Delaware, fix the designations and any of the preferences or rights of such shares relating to dividends, redemption, dissolution, any distribution of assets of the Corporation or the conversion into, or the exchange of such shares for, shares of any other class or classes or any other series of the same or any other class or classes of stock of the Corporation or fix the number of shares of any series of stock or authorize the increase or decrease of the shares of any series), (b) adopt an agreement of merger or consolidation under Sections 251 or 252 of the General Corporation Law of Delaware, (c) recommend to the stockholders the sale, lease or exchange of all or substantially all of the Corporation's property and assets, (d) recommend to the stockholders a dissolution of the Corporation or a revocation of a dissolution, or (e) amend the Bylaws of the Corporation; and, unless the board resolution establishing the committee, the Bylaws or the Certificate of Incorporation expressly so provide, no such committee shall have the power or authority to declare a dividend, to authorize the issuance of stock, or to adopt a certificate of ownership and merger pursuant to Section 253 of the General Corporation Law of Delaware.

#### 4.2 COMMITTEE MINUTES.

Each committee shall keep regular minutes of its meetings and report the same to the Board of Directors when required.

#### 4.3 MEETINGS AND ACTION OF COMMITTEES.

Meetings and actions of committees shall be governed by, and held and taken in accordance with, the provisions of Section 3.5 (place of meetings

and meetings by telephone), Section 3.6 (regular meetings), Section 3.7 (special meetings and notice), Section 3.8 (quorum), Section 3.9 (waiver of notice), and Section 3.10 (action without a meeting) of these Bylaws, with such changes in the context of such provisions as are necessary to substitute the committee and its members for the Board of Directors and its members; provided, however, that the time of regular meetings of committees may be determined either by resolution of the Board of Directors or by resolution of the committee, that special meetings of committees may also be called by resolution of the Board of Directors and that notice of special meetings of committees shall also be given to all alternate members, who shall have the right to attend all meetings of the committee. The Board of Directors may adopt rules for the government of any committee not inconsistent with the provisions of these Bylaws.

## ARTICLE V

### OFFICERS

#### 5.1 OFFICERS.

The officers of the Corporation shall be a chief executive officer, a president, a secretary, and a chief financial officer. The Corporation may also have, at the discretion of the Board of Directors, one or more vice presidents, one or more assistant secretaries, one or more assistant treasurers, and any such other officers as may be appointed in accordance with the

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provisions of Section 5.3 of these Bylaws. Any number of offices may be held by the same person.

#### 5.2 APPOINTMENT OF OFFICERS.

The officers of the Corporation, except such officers as may be appointed in accordance with the provisions of Sections 5.3 or 5.5 of these Bylaws, shall be appointed by the Board of Directors, subject to the rights, if any, of an officer under any contract of employment.

#### 5.3 SUBORDINATE OFFICERS.

The Board of Directors may appoint, or empower the chief executive officer or the president to appoint, such other officers and agents as the business of the Corporation may require, each of whom shall hold office for such period, have such authority, and perform such duties as are provided in these Bylaws or as the Board of Directors may from time to time determine.

#### 5.4 REMOVAL AND RESIGNATION OF OFFICERS.

Subject to the rights, if any, of an officer under any contract of employment, any officer may be removed, either with or without cause, by an affirmative vote of the majority of the Board of Directors at any regular or special meeting of the Board of Directors or, except in the case of an officer chosen by the Board of Directors, by any officer upon whom such power of removal may be conferred by the Board of Directors.

Any officer may resign at any time by giving written notice to the attention of the secretary of the Corporation. Any resignation shall take effect at the date of the receipt of that notice or at any later time specified in that notice; and, unless otherwise specified in that notice, the acceptance of the resignation shall not be necessary to make it effective. Any resignation is without prejudice to the rights, if any, of the Corporation under any contract to which the officer is a party.

#### 5.5 VACANCIES IN OFFICES.

Any vacancy occurring in any office of the Corporation shall be filled by the Board of Directors.

#### 5.6 CHIEF EXECUTIVE OFFICER.

Subject to such supervisory powers, if any, as may be given by the Board of Directors to the chairman of the board, if any, the chief executive officer of the Corporation shall, subject to the control of the Board of Directors, have general supervision, direction, and control of the business and the officers of the Corporation. He or she shall preside at all meetings of the stockholders and, in the absence or nonexistence of a chairman of the board, at all meetings of the Board of Directors and shall have the general powers and duties of management usually vested in the office of chief executive officer of a corporation and shall have such other powers and duties as may be prescribed by the Board of Directors or these Bylaws.

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#### 5.7 PRESIDENT.

Subject to such supervisory powers, if any, as may be given by the Board of Directors to the chairman of the board (if any) or the chief executive officer, the president shall have general supervision, direction, and control of the business and other officers of the Corporation. He or she shall have the general powers and duties of management usually vested in the office of president of a corporation and such other powers and duties as may be prescribed by the Board of Directors or these Bylaws.

#### 5.8 VICE PRESIDENTS.

In the absence or disability of the chief executive officer and president, the vice presidents, if any, in order of their rank as fixed by the Board of Directors or, if not ranked, a vice president designated by the Board of Directors, shall perform all the duties of the president and when so acting shall have all the powers of, and be subject to all the restrictions upon, the president. The vice presidents shall have such other powers and perform such other duties as from time to time may be prescribed for them respectively by the Board of Directors, these Bylaws, the president or the chairman of the board.

#### 5.9 SECRETARY.

The secretary shall keep or cause to be kept, at the principal executive office of the Corporation or such other place as the Board of Directors may direct, a book of minutes of all meetings and actions of directors, committees of directors, and stockholders. The minutes shall show the time and place of each meeting, the names of those present at directors' meetings or committee meetings, the number of shares present or represented at stockholders' meetings, and the proceedings thereof.

The secretary shall keep, or cause to be kept, at the principal executive office of the Corporation or at the office of the Corporation's transfer agent or registrar, as determined by resolution of the Board Of Directors, a share register, or a duplicate share register, showing the names of all stockholders and their addresses, the number and classes of shares held by each, the number and date of certificates evidencing such shares, and the number and date of cancellation of every certificate surrendered for cancellation.

The secretary shall give, or cause to be given, notice of all meetings of the stockholders and of the Board of Directors required to be given by law or by these Bylaws. He or she shall keep the seal of the Corporation, if one be adopted, in safe custody and shall have such other powers and perform such other duties as may be prescribed by the Board of Directors or by these Bylaws.

#### 5.10 CHIEF FINANCIAL OFFICER.

The chief financial officer shall keep and maintain, or cause to be kept and maintained, adequate and correct books and records of accounts of the properties and business transactions of the Corporation, including accounts of its assets, liabilities, receipts, disbursements, gains, losses, capital retained earnings, and shares. The books of account shall at all reasonable times be open to inspection by any director.

The chief financial officer shall deposit all moneys and other valuables in the name and to the credit of the Corporation with such depositories as may be designated by the Board of Directors. He or she shall disburse the funds of the Corporation as may be ordered by the Board of Directors, shall render to the president, the chief executive officer, or the directors, upon request, an account of all his or her transactions as chief financial officer and of the financial condition of the Corporation, and shall have other powers and perform such other duties as may be prescribed by the Board of Directors or the Bylaws.

#### 5.11 REPRESENTATION OF SHARES OF OTHER CORPORATIONS.

The chairman of the board, the chief executive officer, the president, any vice president, the chief financial officer, the secretary or assistant secretary of this Corporation, or any other person authorized by the Board of Directors or the chief executive officer or the president or a vice president, is authorized to vote, represent, and exercise on behalf of this Corporation all rights incident to any and all shares of any other corporation or corporations standing in the name of this Corporation. The authority granted herein may be exercised either by such person directly or by any other person authorized to do so by proxy or power of attorney duly executed by the person having such authority.

#### 5.12 AUTHORITY AND DUTIES OF OFFICERS.

In addition to the foregoing authority and duties, all officers of the Corporation shall respectively have such authority and perform such duties in the management of the business of the Corporation as may be designated from time to time by the Board of Directors or the stockholders.

### ARTICLE VI

#### INDEMNIFICATION OF DIRECTORS, OFFICERS, EMPLOYEES, AND OTHER AGENTS

##### 6.1 INDEMNIFICATION OF DIRECTORS AND OFFICERS.

The Corporation shall, to the maximum extent and in the manner permitted by the General Corporation Law of Delaware, indemnify each of its directors and officers against expenses (including attorneys' fees), judgments, fines, settlements and other amounts actually and reasonably incurred in connection with any proceeding, arising by reason of the fact that such person is or was an agent of the Corporation. For purposes of this Section 6.1, a "director" or "officer" of the Corporation includes any person (a) who is or was a director or officer of the Corporation, (b) who is or was serving at the request of the Corporation as a director or officer of another corporation, partnership, joint venture, trust or other enterprise, or (c) who was a director or officer of a Corporation which was a predecessor corporation of the Corporation or of another enterprise at the request of such predecessor corporation.

##### 6.2 INDEMNIFICATION OF OTHERS.

The Corporation shall have the power, to the maximum extent and in the manner permitted by the General Corporation Law of Delaware, to indemnify each of its employees and agents (other than directors and officers) against expenses (including attorneys' fees), judgments,

fines, settlements and other amounts actually and reasonably incurred in connection with any proceeding, arising by reason of the fact that such person is or was an agent of the Corporation. For purposes of this Section 6.2, an "employee" or "agent" of the Corporation (other than a director or officer) includes any person (a) who is or was an employee or agent of the Corporation, (b) who is or was serving at the request of the Corporation as an employee or agent of another corporation, partnership, joint venture, trust or other

enterprise, or (c) who was an employee or agent of a corporation which was a predecessor corporation of the Corporation or of another enterprise at the request of such predecessor corporation.

#### 6.3 PAYMENT OF EXPENSES IN ADVANCE.

Expenses incurred in defending any action or proceeding for which indemnification is required pursuant to Section 6.1 or for which indemnification is permitted pursuant to Section 6.2 following authorization thereof by the Board of Directors shall be paid by the Corporation in advance of the final disposition of such action or proceeding upon receipt of an undertaking by or on behalf of the indemnified party to repay such amount if it shall ultimately be determined that the indemnified party is not entitled to be indemnified as authorized in this Article VI.

#### 6.4 INDEMNITY NOT EXCLUSIVE.

The indemnification provided by this Article VI shall not be deemed exclusive of any other rights to which those seeking indemnification may be entitled under any Bylaw, agreement, vote of shareholders or disinterested directors or otherwise, both as to action in an official capacity and as to action in another capacity while holding such office, to the extent that such additional rights to indemnification are authorized in the Certificate of Incorporation.

#### 6.5 INSURANCE.

The Corporation may purchase and maintain insurance on behalf of any person who is or was a director, officer, employee or agent of the Corporation, or is or was serving at the request of the Corporation as a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise against any liability asserted against him or her and incurred by him or her in any such capacity, or arising out of his or her status as such, whether or not the Corporation would have the power to indemnify him or her against such liability under the provisions of the General Corporation Law of Delaware.

#### 6.6 CONFLICTS.

No indemnification or advance shall be made under this Article VI, except where such indemnification or advance is mandated by law or the order, judgment or decree of any court of competent jurisdiction, in any circumstance where it appears:

(a) That it would be inconsistent with a provision of the Certificate of Incorporation, these Bylaws, a resolution of the stockholders or an agreement in effect at the time of the accrual of the alleged cause of the action asserted in the proceeding in which the expenses were incurred or other amounts were paid, which prohibits or otherwise limits indemnification; or

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(b) That it would be inconsistent with any condition expressly imposed by a court in approving a settlement.

### ARTICLE VII

#### RECORDS AND REPORTS

##### 7.1 MAINTENANCE AND INSPECTION OF RECORDS.

The Corporation shall, either at its principal executive offices or at such place or places as designated by the Board of Directors, keep a record of its stockholders listing their names and addresses and the number and class of shares held by each stockholder, a copy of these Bylaws as amended to date, accounting books, and other records.

Any stockholder of record, in person or by attorney or other agent, shall, upon written demand under oath stating the purpose thereof, have the



right during the usual hours for business to inspect for any proper purpose the Corporation's stock ledger, a list of its stockholders, and its other books and records and to make copies or extracts therefrom. A proper purpose shall mean a purpose reasonably related to such person's interest as a stockholder. In every instance where an attorney or other agent is the person who seeks the right to inspection, the demand under oath shall be accompanied by a power of attorney or such other writing that authorizes the attorney or other agent to so act on behalf of the stockholder. The demand under oath shall be directed to the Corporation at its registered office in Delaware or at its principal place of business.

#### 7.2 INSPECTION BY DIRECTORS.

Any director shall have the right to examine the Corporation's stock ledger, a list of its stockholders, and its other books and records for a purpose reasonably related to his or her position as a director. The Court of Chancery is hereby vested with the exclusive jurisdiction to determine whether a director is entitled to the inspection sought. The Court may summarily order the Corporation to permit the director to inspect any and all books and records, the stock ledger, and the stock list and to make copies or extracts therefrom. The Court may, in its discretion, prescribe any limitations or conditions with reference to the inspection, or award such other and further relief as the Court may deem just and proper.

#### 7.3 ANNUAL STATEMENT TO STOCKHOLDERS.

The Board of Directors shall present at each annual meeting, and at any special meeting of the stockholders when called for by vote of the stockholders, a full and clear statement of the business and condition of the Corporation.

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### ARTICLE VIII

#### GENERAL MATTERS

##### 8.1 CHECKS.

From time to time, the Board of Directors shall determine by resolution which person or persons may sign or endorse all checks, drafts, other orders for payment of money, notes or other evidences of indebtedness that are issued in the name of or payable to the Corporation, and only the persons so authorized shall sign or endorse those instruments.

##### 8.2 EXECUTION OF CORPORATE CONTRACTS AND INSTRUMENTS.

The Board of Directors, except as otherwise provided in these Bylaws, may authorize any officer or officers, or agent or agents, to enter into any contract or execute any instrument in the name of and on behalf of the Corporation; such authority may be general or confined to specific instances. Unless so authorized or ratified by the Board of Directors or within the agency power of an officer, no officer, agent or employee shall have any power or authority to bind the Corporation by any contract or engagement or to pledge its credit or to render it liable for any purpose or for any amount.

##### 8.3 STOCK CERTIFICATES; PARTLY PAID SHARES.

The shares of the Corporation shall be represented by certificates, provided that the Board of Directors of the Corporation may provide by resolution or resolutions that some or all of any or all classes or series of its stock shall be uncertificated shares. Any such resolution shall not apply to shares represented by a certificate until such certificate is surrendered to the Corporation. Notwithstanding the adoption of such a resolution by the Board of Directors, every holder of stock represented by certificates and upon request every holder of uncertificated shares shall be entitled to have a certificate signed by, or in the name of the Corporation by the chairman or vice-chairman of the Board of Directors, or the chief executive officer or the president or vice-president, and by the chief financial officer or an assistant treasurer, or the secretary or an assistant secretary of the Corporation representing the

number of shares registered in certificate form. Any or all of the signatures on the certificate may be a facsimile. In case any officer, transfer agent or registrar who has signed or whose facsimile signature has been placed upon a certificate has ceased to be such officer, transfer agent or registrar before such certificate is issued, it may be issued by the Corporation with the same effect as if he or she were such officer, transfer agent or registrar at the date of issue.

The Corporation may issue the whole or any part of its shares as partly paid and subject to call for the remainder of the consideration to be paid therefor. Upon the face or back of each stock certificate issued to represent any such partly paid shares, upon the books and records of the Corporation in the case of uncertificated partly paid shares, the total amount of the consideration to be paid therefor and the amount paid thereon shall be stated. Upon the declaration of any dividend on fully paid shares, the Corporation shall declare a dividend upon partly paid shares of the same class, but only upon the basis of the percentage of the consideration actually paid thereon.

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#### 8.4 SPECIAL DESIGNATION ON CERTIFICATES.

If the Corporation is authorized to issue more than one class of stock or more than one series of any class, then the powers, the designations, the preferences, and the relative, participating, optional or other special rights of each class of stock or series thereof and the qualifications, limitations or restrictions of such preferences and/or rights shall be set forth in full or summarized on the face or back of the certificate that the Corporation shall issue to represent such class or series of stock; provided, however, that, except as otherwise provided in Section 202 of the General Corporation Law of Delaware, in lieu of the foregoing requirements there may be set forth on the face or back of the certificate that the Corporation shall issue to represent such class or series of stock a statement that the Corporation will furnish without charge to each stockholder who so requests the powers, the designations, the preferences, and the relative, participating, optional or other special rights of each class of stock or series thereof and the qualifications, limitations or restrictions of such preferences and/or rights.

#### 8.5 LOST CERTIFICATES.

Except as provided in this Section 8.5, no new certificates for shares shall be issued to replace a previously issued certificate unless the latter is surrendered to the Corporation and canceled at the same time. The Corporation may issue a new certificate of stock or uncertificated shares in the place of any certificate previously issued by it, alleged to have been lost, stolen or destroyed, and the Corporation may require the owner of the lost, stolen or destroyed certificate, or the owner's legal representative, to give the Corporation a bond sufficient to indemnify it against any claim that may be made against it on account of the alleged loss, theft or destruction of any such certificate or the issuance of such new certificate or uncertificated shares.

#### 8.6 CONSTRUCTION; DEFINITIONS.

Unless the context requires otherwise, the general provisions, rules of construction, and definitions in the Delaware General Corporation Law shall govern the construction of these Bylaws. Without limiting the generality of this provision, the singular number includes the plural, the plural number includes the singular, and the term "person" includes both a corporation and a natural person.

#### 8.7 DIVIDENDS.

The directors of the Corporation, subject to any restrictions contained in (a) the General Corporation Law of Delaware or (b) the Certificate of Incorporation, may declare and pay dividends upon the shares of its capital stock. Dividends may be paid in cash, in property, or in shares of the Corporation's capital stock.

The directors of the Corporation may set apart out of any of the funds of the Corporation available for dividends a reserve or reserves for any proper purpose and may abolish any such reserve. Such purposes shall include but not be limited to equalizing dividends, repairing or maintaining any property of the Corporation, and meeting contingencies.

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#### 8.8 FISCAL YEAR.

The fiscal year of the Corporation shall be fixed by resolution of the Board of Directors and may be changed by the Board of Directors.

#### 8.9 SEAL.

The Corporation may adopt a corporate seal, which may be altered at pleasure, and may use the same by causing it or a facsimile thereof, to be impressed or affixed or in any other manner reproduced.

#### 8.10 TRANSFER OF STOCK.

Upon surrender to the Corporation or the transfer agent of the Corporation of a certificate for shares duly endorsed or accompanied by proper evidence of succession, assignation or authority to transfer, it shall be the duty of the Corporation to issue a new certificate to the person entitled thereto, cancel the old certificate, and record the transaction in its books.

#### 8.11 STOCK TRANSFER AGREEMENTS.

The Corporation shall have power to enter into and perform any agreement with any number of stockholders of any one or more classes of stock of the Corporation to restrict the transfer of shares of stock of the Corporation of any one or more classes owned by such stockholders in any manner not prohibited by the General Corporation Law of Delaware.

#### 8.12 REGISTERED STOCKHOLDERS.

The Corporation shall be entitled to recognize the exclusive right of a person registered on its books as the owner of shares to receive dividends and to vote as such owner, shall be entitled to hold liable for calls and assessments the person registered on its books as the owner of shares, and shall not be bound to recognize any equitable or other claim to or interest in such share or shares on the part of another person, whether or not it shall have express or other notice thereof, except as otherwise provided by the laws of Delaware.

### ARTICLE IX

#### AMENDMENTS

The Bylaws of the Corporation may be adopted, amended or repealed by the stockholders entitled to vote, as specified in the Certificate of Incorporation; provided, however, that the Corporation may, in its Certificate of Incorporation, confer the power to adopt, amend or repeal Bylaws upon the directors. The fact that such power has been so conferred upon the directors shall not divest the stockholders of the power, nor limit their power to adopt, amend or repeal Bylaws.

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## FIRST AMENDED AND RESTATED RIGHTS AGREEMENT

THIS FIRST AMENDED AND RESTATED RIGHTS AGREEMENT (the "Agreement") is entered into as of the 4th day of August, 2000, by and among PDF Solutions, Inc., a California corporation (the "Company"), the holders of shares of Series A Preferred Stock (the "Series A Purchasers") and Series B Preferred Stock (the "Series B Purchasers") listed on Exhibit A hereto, (the Series A Purchasers and Series B Purchasers are referred to herein collectively as the "Preferred Purchasers," and certain other shareholders listed on Exhibit B hereto (the "Founders" and collectively with the Series A Purchasers and Series B Purchasers the "Purchasers" or the "Investors").

## RECITALS

WHEREAS, the Company, the Series A Purchasers and the Founders have entered into a Rights Agreement dated as of December 4, 1995 (the "Original Rights Agreement"). The Company, the Founders, and a majority of the holders of Series A Preferred Stock desire to amend and restate in its entirety the Original Rights Agreement in accordance with Section 3.7 thereof.

WHEREAS, the Company and the Series B Purchasers are entering into a Series B Preferred Stock Purchase Agreement of even date herewith (the "Purchase Agreement"), pursuant to which the Company shall sell, and the Series B Purchasers shall acquire, shares of the Company's Series B Preferred Stock.

WHEREAS, a condition to the Series B Purchasers' obligations under the Purchase Agreement is that the Company and the Purchasers enter into this Agreement in order to provide the Series B Purchasers with (i) certain rights to register shares of the Company's Common Stock issuable upon conversion of the Series B Preferred Stock held by the Series B Purchasers and (ii) a right of participation with respect to certain issuances by the Company of its securities. The Company desires to induce the Series B Purchasers to purchase shares of Series B Preferred Stock pursuant to the Purchase Agreement by agreeing to the terms and conditions set forth herein.

NOW, THEREFORE, IN CONSIDERATION OF THE MUTUAL PROMISES AND COVENANTS HEREINAFTER SET FORTH, THE PARTIES AGREE that effective and contingent upon execution of this Agreement by the Company and the holders of a majority of the Registrable Securities, as that term is defined in the Original Rights Agreement, not including the stock held by the Founders, and upon closing of the transactions contemplated by the Purchase Agreement, the Original Rights Agreement is hereby amended and restated in its entirety to read as set forth in this Agreement, and the Company, the Founders, and the Investors hereby agree to be bound by the provisions hereof as the sole agreement of the Company, the Founders and the Investors with respect to registration rights of the Company's securities and certain other rights, as set forth herein;

AND FURTHER AGREE AS FOLLOWS:

## SECTION 1

Restrictions on Transferability;  
Registration Rights

1.1 Certain Definitions. As used in this Agreement, the following terms shall have the following respective meanings:

"Commission" shall mean the Securities and Exchange Commission or any other federal agency at the time administering the Securities Act.

"Common Shares" shall mean all shares of Common Stock issued to the

Founders as of the date hereof.

"Conversion Shares" shall mean the Common Stock issued or issuable upon conversion of the Preferred Shares as defined herein.

"Holder" shall mean any Investor holding Registrable Securities and any person holding Registrable Securities to whom the rights under this Agreement have been transferred in accordance with Section 1.14 hereof.

"Initiating Holders" shall mean Holders in the aggregate of not less than fifty percent (50%) of the Registrable Securities as defined for purposes of that particular section.

"Major Purchaser" shall mean any Investor (together with its affiliates) holding more than 100,000 shares of Registrable Securities.

"Preferred Shares" shall mean shares of the Series A Preferred and Series B Preferred Stock outstanding as of the date hereof.

The terms "register," "registered" and "registration" refer to a registration effected by preparing and filing a registration statement in compliance with the Securities Act, and the declaration or ordering of the effectiveness of such registration statement.

"Registration Expenses" shall mean all expenses incurred by the Company in complying with Sections 1.5, 1.6 and 1.7 of this Agreement, including, without limitation, all registration, qualification and filing fees, printing expenses, escrow fees, fees and disbursements of counsel for the Company, blue sky fees and expenses, and the expense of any special audits incident to or required by any such registration (but excluding the compensation of regular employees of the Company which shall be paid in any event by the Company).

"Registrable Securities" means (i) the Common Shares except that all such Common Shares shall not be included in the definition of Registrable Securities for the purposes of Section 1.5 and 1.7; (ii) the Conversion Shares; and (iii) any Common Stock of the Company issued or issuable in respect of the Common Shares, Preferred Shares or Conversion Shares or other securities issued or issuable with respect to the Preferred Shares, Conversion Shares or Common Shares upon any stock split, stock dividend, recapitalization, or similar event, or any Common Stock otherwise issued or issuable with respect to the Common Shares, Conversion

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Shares or Preferred Shares; provided, however, that shares of Common Stock or other securities shall only be treated as Registrable Securities if and so long as they have not been (A) sold to or through a broker or dealer or underwriter in a public distribution or a public securities transaction, or (B) sold in a transaction exempt from the registration and prospectus delivery requirements of the Securities Act under Section 4(1) thereof so that all transfer restrictions and restrictive legends with respect thereto are removed upon the consummation of such sale.

"Restricted Securities" shall mean the securities of the Company required to bear the legend set forth in Section 1.3 of this Agreement.

"Securities Act" shall mean the Securities Act of 1933, as amended, or any similar federal statute and the rules and regulations of the Commission thereunder, all as the same shall be in effect at the time.

"Selling Expenses" shall mean all underwriting discounts, selling commissions and stock transfer taxes applicable to the securities registered by the Holders and all fees and disbursements of counsel for the Holders (except as provided by Section 1.9).

1.2 Restrictions. The Preferred Shares, the Conversion Shares and the Common Shares shall not be sold, assigned, transferred or pledged except upon the conditions specified in this Agreement, which conditions are intended to ensure compliance with the provisions of the Securities Act. The Investors will

cause any proposed purchaser, assignee, transferee or pledgee of the Preferred Shares, the Conversion Shares or the Common Shares to agree to take and hold such securities subject to the provisions and upon the conditions specified in this Agreement.

1.3 Restrictive Legend. Each certificate representing (i) the Preferred Shares, (ii) the Conversion Shares, (iii) the Common Shares and (iv) any other securities issued in respect of the securities referenced in clauses (i), (ii) and (iii) upon any stock split, stock dividend, recapitalization, merger, consolidation or similar event, shall (unless otherwise permitted by the provisions of Section 1.4 below) be stamped or otherwise imprinted with legends in the following form (in addition to any legend required under applicable state securities laws):

"THE SHARES REPRESENTED BY THIS CERTIFICATE HAVE BEEN ACQUIRED FOR INVESTMENT AND HAVE NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933. SUCH SHARES MAY NOT BE SOLD, TRANSFERRED OR PLEDGED IN THE ABSENCE OF SUCH REGISTRATION OR UNLESS THE COMPANY RECEIVES AN OPINION OF COUNSEL (WHICH MAY BE COUNSEL FOR THE COMPANY) REASONABLY ACCEPTABLE TO IT STATING THAT SUCH SALE OR TRANSFER IS EXEMPT FROM THE REGISTRATION AND PROSPECTUS DELIVERY REQUIREMENTS OF SAID ACT."

Each Investor and Holder consents to the Company making a notation on its records and giving instructions to any transfer agent of the Restricted Securities in order to implement the restrictions on transfer established in this Section 1.

1.4 Notice of Proposed Transfers. The holder of each certificate representing Restricted Securities, by acceptance thereof, agrees to comply in all respects with the provisions of this Section 1. Prior to any proposed sale, assignment, transfer or pledge of any Restricted

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Securities, unless there is in effect a registration statement under the Securities Act covering the proposed transfer, the holder thereof shall give written notice to the Company of such holder's intention to effect such transfer, sale, assignment or pledge. Each such notice shall describe the manner and circumstances of the proposed transfer, sale, assignment or pledge in sufficient detail, and shall be accompanied at such holder's expense by either (i) an unqualified written opinion of legal counsel who shall, and whose legal opinion shall be, reasonably satisfactory to the Company, addressed to the Company, to the effect that the proposed transfer of the Restricted Securities may be effected without registration under the Securities Act, or (ii) a "no action" letter from the Commission to the effect that the transfer of such securities without registration will not result in a recommendation by the staff of the Commission that action be taken with respect thereto, whereupon the holder of such Restricted Securities shall be entitled to transfer such Restricted Securities in accordance with the terms of the notice delivered by the holder to the Company. The Company will not require such a legal opinion or "no action" letter (a) in any transaction in compliance with Rule 144, (b) in any transaction in which an Investor which is a corporation distributes Restricted Securities after six (6) months after the purchase thereof solely to its majority-owned subsidiaries or affiliates for no consideration, or (c) in any transaction in which an Investor which is a partnership distributes Restricted Securities after six (6) months after the purchase thereof solely to partners thereof for no consideration, provided that each transferee agrees in writing to be subject to the terms of this Section 1.4. Each certificate evidencing the Restricted Securities transferred as above provided shall bear, except if such transfer is made pursuant to Rule 144, the appropriate restrictive legend set forth in Section 1.3 above, except that such certificate shall not bear such restrictive legend if, in the opinion of counsel for such holder and the Company, such legend is not required in order to establish compliance with any provisions of the Securities Act.

1.5 Requested Registration.

(a) Request for Registration. In case the Company shall receive from Initiating Holders a written request that the Company effect any qualification, compliance or registration the reasonably anticipated aggregate price to the

public of which net of underwriting discounts and commissions, would exceed \$7,500,000, the Company shall:

(i) promptly give written notice of the proposed registration, qualification or compliance to all other Holders; and

(ii) as soon as practicable, use its best efforts to effect such registration, qualification or compliance (including, without limitation, the execution of an undertaking to file post-effective amendments, appropriate qualification under applicable blue sky or other state securities laws and appropriate compliance with applicable regulations issued under the Securities Act and any other governmental requirements or regulations) as may be so requested and as would permit or facilitate the sale and distribution of all or such portion of such Registrable Securities as are specified in such request, together with all or such portion of the Registrable Securities of any Holder or Holders joining in such request as are specified in a written request received by the Company within twenty (20) days after receipt of such written notice from the Company; provided, however, that the Company shall not be obligated to take any action to effect any such registration, qualification or compliance pursuant to this Section 1.5:

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(1) In any particular jurisdiction in which the Company would be required to execute a general consent to service of process in effecting such registration, qualification or compliance unless the Company is already subject to service in such jurisdiction and except as may be required by the Securities Act;

(2) Prior to the earlier of (i) six (6) months following the Company's initial public offering or (ii) July 31, 2003;

(3) During the period ending on the date three (3) months immediately following the effective date of any registration statement pertaining to securities of the Company (other than a registration of securities in a Rule 145 transaction or with respect to an employee benefit plan);

(4) After the Company has effected two (2) such registrations pursuant to this subparagraph 1.5(a), such registrations have been declared or ordered effective and the securities offered pursuant to such registrations have been sold; or

(5) If the Company shall furnish to such Holders a certificate, signed by the President of the Company, stating that in the good faith judgment of the Board of Directors it would be seriously detrimental to the Company or its shareholders for a registration statement to be filed in the near future, then the Company's obligation to use its best efforts to register, qualify or comply under this Section 1.5 shall be deferred for a single period not to exceed one hundred-twenty (120) days from the date of receipt of written request from the Initiating Holders.

Subject to the foregoing clauses (1) through (5), the Company shall file a registration statement covering the Registrable Securities so requested to be registered as soon as practicable after receipt of the request or requests of the Initiating Holders.

(b) Underwriting. In the event that a registration pursuant to Section 1.5 is for a registered public offering involving an underwriting, the Company shall so advise the Holders as part of the notice given pursuant to Section 1.5(a)(i). The right of any Holder to registration pursuant to Section 1.5 shall be conditioned upon such Holder's participation in the underwriting arrangements required by this Section 1.5 and the inclusion of such Holder's Registrable Securities in the underwriting, to the extent requested, to the extent provided in this Agreement.

The Company shall (together with all Holders proposing to distribute their securities through such underwriting) enter into an underwriting agreement in customary form with the managing underwriter selected for such underwriting by a majority in interest of the Initiating Holders (which managing underwriter shall be reasonably acceptable to the Company). Notwithstanding any other

provision of this Section 1.5, if the managing underwriter advises the Initiating Holders in writing that marketing factors require a limitation of the number of shares to be underwritten, then the Company shall so advise all Holders of Registrable Securities and the number of shares of Registrable Securities that may be included in the registration and underwriting shall be allocated among all Holders thereof in proportion, as nearly as practicable, to the respective amounts of Registrable Securities held by such Holders at the time of filing the registration statement. No Registrable Securities excluded from the underwriting by reason of

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the underwriter's marketing limitation shall be included in such registration. To facilitate the allocation of shares in accordance with the above provisions, the Company or the underwriters may round the number of shares allocated to any Holder to the nearest 100 shares.

If any Holder of Registrable Securities disapproves of the terms of the underwriting, such person may elect to withdraw therefrom by written notice to the Company and the managing underwriter. The Registrable Securities and/or other securities so withdrawn shall also be withdrawn from registration, and such Registrable Securities shall not be transferred in a public distribution prior to one hundred eighty (180) days after the effective date of such registration.

#### 1.6 Company Registration.

(a) Notice of Registration. If at any time or from time to time, the Company shall determine to register any of its securities, either for its own account or the account of a security holder or holders other than (i) a registration relating solely to employee benefit plans, or (ii) a registration relating solely to a Commission Rule 145 transaction, the Company will:

(i) promptly give to each Holder written notice thereof; and

(ii) include in such registration (and any related qualification under blue sky laws or other compliance), and in any underwriting involved in such registration, all the Registrable Securities specified in a written request or requests received within twenty (20) days after receipt of such written notice from the Company by any Holder, but only to the extent that such inclusion will not diminish the number of securities included by the Company or by holders of the Company's securities who have demanded such registration.

(b) Underwriting. If the registration of which the Company gives notice is for a registered public offering involving an underwriting, the Company shall so advise the Holders as a part of the written notice given pursuant to Section 1.6(a)(i). In such event, the right of any Holder to registration pursuant to Section 1.6 shall be conditioned upon such Holder's participation in such underwriting and the inclusion of Registrable Securities in the underwriting to the extent provided herein. All Holders proposing to distribute their securities through such underwriting shall (together with the Company and the other holders distributing their securities through such underwriting) enter into an underwriting agreement in customary form with the managing underwriter selected for such underwriting by the Company (or by the holders who have demanded such registration). Notwithstanding any other provision of this Section 1.6, if the managing underwriter determines that marketing factors require a limitation of the number of shares to be underwritten, the managing underwriter may limit the Registrable Securities to be included in such registration to a minimum of 30% of the total shares to be included in such underwriting or exclude them entirely in the case of the Company's initial public offering. The Company shall so advise all Holders and the other holders distributing their securities through such underwriting pursuant to piggyback registration rights similar to this Section 1.6, and the number of shares of Registrable Securities and other securities that may be included in the registration and underwriting shall be first allocated among all Preferred Purchasers in proportion, as nearly as practicable, to the respective amounts of Registrable Securities held by such Preferred Purchasers at the time of filing the registration statement, and after satisfaction of the requirements of the Preferred Purchasers, the remaining shares that may be included in the



registration and underwriting shall be allocated among the Founders in proportion, as nearly as practicable, to the respective amounts of Registrable Securities held by such Founders at the time of filing of the registration statement. To facilitate the allocation of shares in accordance with the above provisions, the Company or the underwriters may round the number of shares allocated to any Holder or other holder to the nearest 100 shares. If any Holder or other holder disapproves of the terms of any such underwriting, he or she may elect to withdraw therefrom by written notice to the Company and the managing underwriter. Any securities withdrawn from such underwriting shall be withdrawn from such registration, and shall not be transferred in a public distribution prior to one hundred eighty (180) days after the effective date of the registration statement relating thereto (the "Lock-Up Period"); provided, however, that if such registration is not the Company's initial public offering such Lock-Up Period shall be one hundred twenty (120) days unless the managing underwriter determines that marketing factors require a longer period in which case the Lock-Up period shall be specified by the managing underwriter but shall not exceed one hundred eighty (180) days.

(c) Right to Terminate Registration. The Company shall have the right to terminate or withdraw any registration initiated by it under this Section 1.6 prior to the effectiveness of such registration, whether or not any Holder has elected to include securities in such registration.

#### 1.7 Registration on Form S-3.

(a) If Initiating Holders request that the Company file a registration statement on Form S-3 (or any successor form to Form S-3) for a public offering of shares of the Registrable Securities, the reasonably anticipated aggregate price to the public of which, net of underwriting discounts and commissions, would exceed \$1,000,000, and the Company is a registrant entitled to use Form S-3 to register the Registrable Securities for such an offering, the Company shall use its best efforts to cause such Registrable Securities to be registered for the offering on such form; provided, however, that the Company shall not be required to effect more than one registration pursuant to this Section 1.7 in any twelve (12) month period. The Company will (i) promptly give written notice of the proposed registration to all other Holders, and (ii) as soon as practicable, use its best efforts to effect such registration (including, without limitation, the execution of an undertaking to file post-effective amendments, appropriate qualification under applicable blue sky or other state securities laws and appropriate compliance with applicable regulations issued under the Securities Act and any other governmental requirements or regulations) as may be so requested and as would permit or facilitate the sale and distribution of all or such portion of such Registrable Securities as are specified in such request, together with all or such portion of the Registrable Securities of any Holder or Holders joining in such request as are specified in a written request received by the Company within twenty (20) days after receipt of such written notice from the Company. The substantive provisions of Section 1.5(b) shall be applicable to each registration initiated under this Section 1.7.

(b) Notwithstanding the foregoing, the Company shall not be obligated to take any action pursuant to this Section 1.7: (i) in any particular jurisdiction in which the Company would be required to execute a general consent to service of process in effecting such registration, qualification or compliance unless the Company is already subject to service in such jurisdiction and except as may be required by the Securities Act, (ii) during the period ending on a

date three (3) months following the effective date of a registration statement (other than with respect to a registration statement relating to a Rule 145 transaction, an offering solely to employees or any other registration which is

not appropriate for the registration of Registrable Securities), or (iii) if the Company shall furnish to such Holder a certificate signed by the President of the Company stating that, in the good faith judgment of the Board of Directors, it would be seriously detrimental to the Company or its shareholders for registration statements to be filed in the near future, then the Company's obligation to use its best efforts to file a registration statement shall be deferred for a single period not to exceed one hundred twenty (120) days from the receipt of the request to file such registration by such Holder or Holders.

1.8 Limitations on Subsequent Registration Rights. From and after the date of this Agreement, the Company shall not enter into any agreement granting any holder or prospective holder of any securities of the Company registration rights with respect to such securities unless such holder derives its rights as an additional Holder hereunder, or such shares or securities are entitled to be included in registrations only to the extent that the inclusion of such securities will not diminish the amount of Holder's Registrable Securities that are included.

1.9 Expenses of Registration. All Registration Expenses incurred in connection with any registration pursuant to Sections 1.5, 1.6 or 1.7 and the reasonable cost of one special legal counsel to represent all of the Holders together in any such registration shall be borne by the Company, provided that the Company shall not be required to pay the Registration Expenses of any registration proceeding begun pursuant to Section 1.5, the request of which has been subsequently withdrawn by the Initiating Holders. In such case, the Holders of Registrable Securities to have been registered shall bear all such Registration Expenses pro rata on the basis of the number of shares to have been registered unless the Holders of a majority of the Registrable Securities agree to forfeit their right to one demand registration pursuant to Section 1.5. Notwithstanding the foregoing, however, if at the time of the withdrawal, the Holders have learned of a material adverse change in the condition, business or prospects of the Company from that known to the Holders at the time of their request, of which the Company had knowledge at the time of the request, then the Holders shall not be required to pay any of said Registration Expenses or to forfeit the right to one demand registration.

1.10 Registration Procedures. In the case of each registration, qualification or compliance effected by the Company pursuant to this Section 1, the Company will keep each Holder advised in writing as to the initiation of each registration, qualification and compliance and as to the completion thereof. At its expense the Company will:

(a) Prepare and file with the Commission a registration statement with respect to such securities and use its best efforts to cause such registration statement to become and remain effective for at least one hundred eighty (120) days or until the distribution described in the registration statement has been completed; and

(b) Furnish to the Holders participating in such registration and to the underwriters of the securities being registered such reasonable number of copies of the registration statement, preliminary prospectus, final prospectus and such other documents as such underwriters may reasonably request in order to facilitate the public offering of such securities.

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1.11 Indemnification.

(a) The Company will indemnify each Holder, each of its officers and directors and partners, and each person controlling such Holder within the meaning of Section 15 of the Securities Act, with respect to which registration, qualification or compliance has been effected pursuant to this Section 1, and each underwriter, if any, and each person who controls any underwriter within the meaning of Section 15 of the Securities Act, against all expenses, claims, losses, damages or liabilities (or actions in respect thereof), including any of the foregoing incurred in settlement of any litigation, commenced or threatened, arising out of or based on any untrue statement (or alleged untrue statement) of a material fact contained in any registration statement, prospectus, offering circular or other document, or any amendment or supplement thereto, incident to any such registration, qualification or compliance, or based on any omission (or

alleged omission) to state therein a material fact required to be stated therein or necessary to make the statements therein, in light of the circumstances in which they were made, not misleading, or any violation by the Company of any rule or regulation promulgated under the Securities Act applicable to the Company in connection with any such registration, qualification or compliance, and the Company will reimburse each such Holder, each of its officers and directors, and each person controlling such Holder, each such underwriter and each person who controls any such underwriter, for any legal and any other expenses reasonably incurred in connection with investigating, preparing or defending any such claim, loss, damage, liability or action, provided that the Company will not be liable in any such case to the extent that any such claim, loss, damage, liability or expense arises out of or is based on any untrue statement or omission or alleged untrue statement or omission, made in reliance upon and in conformity with written information furnished to the Company by an instrument duly executed by such Holder, controlling person or underwriter and stated to be specifically for use therein.

(b) Each Holder will, if Registrable Securities held by such Holder are included in the securities as to which such registration, qualification or compliance is being effected, indemnify the Company, each of its directors and officers, each underwriter, if any, of the Company's securities covered by such a registration statement, each person who controls the Company or such underwriter within the meaning of Section 15 of the Securities Act, and each other such Holder, each of its officers and directors and each person controlling such Holder within the meaning of Section 15 of the Securities Act, against all claims, losses, damages and liabilities (or actions in respect thereof) arising out of or based on any untrue statement (or alleged untrue statement) of a material fact contained in any such registration statement, prospectus, offering circular or other document, or any omission (or alleged omission) to state therein a material fact required to be stated therein or necessary to make the statements therein not misleading, and will reimburse the Company, such Holders, such directors, officers, persons, underwriters or control persons for any legal or any other expenses reasonably incurred in connection with investigating or defending any such claim, loss, damage, liability or action, in each case to the extent, but only to the extent, that such untrue statement (or alleged untrue statement) or omission (or alleged omission) is made in such registration statement, prospectus, offering circular or other document in reliance upon and in conformity with written information furnished to the Company by an instrument duly executed by such Holder and stated to be specifically for use therein; provided, however, that the liability of a Holder for indemnification under this Section 1.11(b) shall not exceed the net proceeds from the offering received by such Holder.

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(c) Each party entitled to indemnification under this Section 1.11 (the "Indemnified Party") shall give notice to the party required to provide indemnification (the "Indemnifying Party") promptly after such Indemnified Party has actual knowledge of any claim as to which indemnity may be sought, and shall permit the Indemnifying Party to assume the defense of any such claim or any litigation resulting therefrom, provided that counsel for the Indemnifying Party, who shall conduct the defense of such claim or litigation, shall be approved by the Indemnified Party (whose approval shall not unreasonably be withheld), and the Indemnified Party may participate in such defense at such party's expense, and provided further that the failure of any Indemnified Party to give notice as provided herein shall not relieve the Indemnifying Party of its obligations under this Section 1 unless the failure to give such notice is materially prejudicial to an Indemnifying Party's ability to defend such action. No Indemnifying Party, in the defense of any such claim or litigation, shall, except with the consent of each Indemnified Party, consent to entry of any judgment or enter into any settlement which does not include as an unconditional term thereof the giving by the claimant or plaintiff to such Indemnified Party of a release from all liability in respect to such claim or litigation.

1.12 Information by Holder. The Holder or Holders of Registrable Securities included in any registration shall furnish to the Company such information regarding such Holder or Holders, the Registrable Securities held by them and the distribution proposed by such Holder or Holders as the Company may request in writing and as shall be required in connection with any registration, qualification or compliance referred to in this Section 1.

1.13 Rule 144 Reporting. With a view to making available the benefits of certain rules and regulations of the Commission which may at any time permit the sale of the Restricted Securities to the public without registration, after such time as a public market exists for the Common Stock of the Company, the Company agrees to use its best efforts to:

(a) Make and keep public information available, as those terms are understood and defined in Rule 144 under the Securities Act, at all times after the effective date that the Company becomes subject to the reporting requirements of the Securities Act or the Securities Exchange Act of 1934, as amended (the "Exchange Act");

(b) File with the Commission in a timely manner all reports and other documents required of the Company under the Securities Act and the Exchange Act (at any time after it has become subject to such reporting requirements); and

(c) So long as an Investor owns any Restricted Securities, to furnish to the Investor forthwith upon request a written statement by the Company as to its compliance with the reporting requirements of said Rule 144 (at any time after ninety (90) days after the effective date of the first registration statement filed by the Company for an offering of its securities to the general public), and of the Securities Act and the Exchange Act (at any time after it has become subject to such reporting requirements), a copy of the most recent annual or quarterly report of the Company, and such other reports and documents of the Company and other information in the possession of or reasonably obtainable by the Company as an Investor may reasonably request in availing itself of any rule or regulation of the Commission allowing an Investor to sell any such securities without registration.

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1.14 Transfer of Registration Rights. The rights to cause the Company to register securities granted Investors under Sections 1.5, 1.6 and 1.7 may be assigned to a transferee or assignee in connection with any transfer or assignment of Registrable Securities by an Investor (together with any affiliate); provided, that (a) such transfer may otherwise be effected in accordance with applicable securities laws, (b) notice of such assignment is given to the Company, and (c) such transferee or assignee (i) is an affiliate of such Investor or a constituent partner (including limited partners) of such Investor, or (ii) acquires from such Investor the lesser of (a) 100,000 or more shares of Restricted Securities (as appropriately adjusted for stock splits and the like) or (b) all of the Restricted Securities then owned by such Investor.

1.15 Standoff Agreement. Each Holder agrees in connection with the initial public offering of the Company's securities that, upon request of the Company or the underwriters managing any underwritten initial public offering of the Company's securities, not to sell, make any short sale of, loan, grant any option for the purchase of, or otherwise dispose of any Registrable Securities (other than those included in the registration) without the prior written consent of the Company or such underwriters, as the case may be, for such period of time (not to exceed one hundred eighty (180) days from the effective date of such registration) as may be requested by the Company or such managing underwriters; provided, however, that the officers and directors of the Company who own stock of the Company also agree to such restrictions.

1.16 Termination of Rights. No Holder shall be entitled to exercise any right provided for in this Section 1:

(a) after five (5) years following the consummation of the sale of securities pursuant to a registration statement filed by the Company under the Act in connection with the initial firm commitment underwritten offering of its securities to the general public, or

(b) on or after the closing of a public offering of the Common Stock of the Company when all shares of the Holder's Registrable Securities may be sold under Rule 144 during any 90-day period; provided, however, that the provisions of this subsection (b) shall not apply where the Holder owns more than two percent (2%) of the Company's outstanding stock until such time as such

Holder owns less than two percent (2%) of the outstanding stock.

## SECTION 2

### Right of Participation

#### 2.1 Purchasers' Right of Participation.

(a) Right of Participation. Subject to the terms and conditions contained in this Section 2.1, the Company hereby grants to each Major Purchaser the right of participation to purchase its Pro Rata Portion of any New Securities (as defined in subsection 2.1(b)) which the Company may, from time to time, propose to sell and issue. A Major Purchaser's "Pro Rata Portion" for purposes of this Section 2.1 is the ratio that (x) the sum of the number of shares of the Company's Common Stock then held by such Major Purchaser and the number of shares of the Company's Common Stock issuable upon conversion of the Preferred Stock then held by such Major Purchaser, bears to (y) the sum of the total number of shares of the Company's Common Stock then outstanding, the number of shares of the Company's Common Stock

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issuable upon the exercise of any issued and outstanding rights, options or warrants, and the number of shares of the Company's Common Stock issuable upon conversion of the then outstanding Preferred Stock.

(b) Definition of New Securities. Except as set forth below, "New Securities" shall mean any shares of capital stock of the Company, including Common Stock and Preferred Stock, whether authorized or not, and rights, options or warrants to purchase said shares of Common Stock or Preferred Stock, and securities of any type whatsoever that are, or may become, convertible into said shares of Common Stock or Preferred Stock. Notwithstanding the foregoing, "New Securities" does not include (i) the Common Shares, the Preferred Shares or the Conversion Shares, (ii) securities offered to the public generally pursuant to a registration statement under the Securities Act, (iii) securities issued pursuant to the acquisition of another corporation by the Company by merger, purchase of substantially all of the assets or shares or other reorganization whereby the Company or its shareholders own not less than a majority of the voting power of the surviving or successor corporation, (iv) shares of the Company's Common Stock or related options or warrants convertible into or exercisable for such Common Stock issued to employees, officers and directors of, and consultants to, the Company, pursuant to any arrangement approved by the Board of Directors of the Company, (v) shares of the Company's Common Stock or related options or warrants convertible into or exercisable for such Common Stock issued to customers and vendors of the Company pursuant to any arrangement unanimously approved by the Board of Directors of the Company; (vi) shares of the Company's Common Stock or related options convertible into or exercisable for such Common Stock issued to banks, commercial lenders, lessors and other financial institutions in connection with the borrowing of money or the leasing of equipment by the Company, (vii) stock issued pursuant to any rights or agreements, including, without limitation, convertible securities, options and warrants, provided that the Company shall have complied with the rights of participation established by this Section 2.1 with respect to the initial sale or grant by the Company of such rights or agreements, or (viii) shares of capital stock issued in connection with any stock split, stock dividend or recapitalization by the Company.

(c) Notice of Right. In the event the Company proposes to undertake an issuance of New Securities, it shall give each Purchaser written notice of its intention, describing the type of New Securities and the price and terms upon which the Company proposes to issue the same. Each Purchaser shall have twenty (20) days from the date of receipt of any such notice to agree to purchase shares of such New Securities (up to the amount referred to in subsection 2.1(a)), for the price and upon the terms specified in the notice, by giving written notice to the Company and stating therein the quantity of New Securities to be purchased.

(d) Exercise of Right. If any Purchaser exercises its right of participation under this Agreement, the closing of the purchase of the New

Securities with respect to which such right has been exercised shall take place within ninety (90) calendar days after the Purchaser gives notice of such exercise, which period of time shall be extended in order to comply with applicable laws and regulations. Upon exercise of such right of participation, the Company and the Purchaser shall be legally obligated to consummate the purchase contemplated thereby and shall use their best efforts to secure any approvals required in connection therewith.

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(e) Lapse and Reinstatement of Right. In the event a Purchaser fails to exercise the right of participation provided in this Section 2.1 within said twenty (20) day period, the Company shall have ninety (90) days thereafter to sell or enter into an agreement (pursuant to which the sale of New Securities covered thereby shall be closed, if at all, within sixty (60) days from the date of said agreement) to sell the New Securities not elected to be purchased by such Purchaser at the price and upon the terms no more favorable to the purchasers of such securities than specified in the Company's notice. In the event the Company has not sold the New Securities or entered into an agreement to sell the New Securities within said ninety (90) day period (or sold and issued New Securities in accordance with the foregoing within sixty (60) days from the date of said agreement), the Company shall not thereafter issue or sell any New Securities without first offering such securities to the Purchasers in the manner provided above.

(f) Assignment. The right of the Purchasers to purchase any part of the New Securities may be assigned in whole or in part to any partner, subsidiary, affiliate or shareholder of a Purchaser, or other persons or organizations who acquire the lesser of (i) 100,000 or more shares of Restricted Securities (as adjusted for stock splits and the like) or (ii) all of the Restricted Securities then owned by such Purchaser.

2.2 Termination of Participation Right. The rights of participation granted under Section 2.1 of this Agreement shall terminate on and be of no further force or effect upon the earlier of (i) the consummation of the Company's sale of its Common Stock in an underwritten public offering pursuant to an effective registration statement filed under the Securities Act immediately subsequent to which the Company shall be obligated to file annual and quarterly reports with the Commission pursuant to Section 13 or 15(d) of the Exchange Act or (ii) the registration by the Company of a class of its equity securities under Section 12(b) or 12(g) of the Exchange Act.

### SECTION 3

#### Miscellaneous

3.1 Assignment. Except as otherwise provided in this Agreement, the terms and conditions of this Agreement shall inure to the benefit of and be binding upon the respective successors and assigns of the parties to this Agreement.

3.2 Third Parties. Nothing in this Agreement, express or implied, is intended to confer upon any party, other than the parties to this Agreement, and their respective successors and assigns, any rights, remedies, obligations or liabilities under or by reason of this Agreement, except as expressly provided in this Agreement.

3.3 Governing Law. This Agreement shall be governed by and construed under the laws of the State of California in the United States of America without giving effect to the conflicts of laws principles thereof.

3.4 Counterparts. This Agreement may be executed in counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument.

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3.5 Notices. Any notice required or permitted by this Agreement shall be in writing and shall be sent by prepaid registered or certified mail, return receipt requested, or otherwise delivered by hand or by messenger addressed to the other party at the address shown below or at such other address for which such party gives notice under this Agreement. Such notice shall be deemed to have been given when delivered if delivered personally, or, if sent by mail, at the earlier of its receipt or three (3) days after deposit in the mail.

3.6 Severability. If one or more provisions of this Agreement are held to be unenforceable under applicable law, portions of such provisions, or such provisions in their entirety, to the extent necessary, shall be severed from this Agreement, and the balance of this Agreement shall be enforceable in accordance with its terms.

3.7 Amendment and Waiver. Any provision of this Agreement may be amended or waived with the written consent of the Company and the Holders of at least a majority of the outstanding shares of the Registrable Securities, so long as the effect is to treat all Holders equally. \*\*\*\*\* Any amendment or waiver effected in accordance with this paragraph shall be binding upon each Holder of Registrable Securities and the Company. In addition, the Company may waive performance of any obligation owing to it, as to some or all of the Holders of Registrable Securities, or agree to accept alternatives to such performance, without obtaining the consent of any Holder of Registrable Securities. In the event that an underwriting agreement is entered into between the Company and any Holder, and such underwriting agreement contains terms differing from this Agreement, as to any such Holder the terms of such underwriting agreement shall govern.

3.8 Effect of Amendment or Waiver. The Investors and their successors and assigns acknowledge that by the operation of Section 3.7 of this Agreement the holders of a majority of the outstanding Registrable Securities, acting in conjunction with the Company, will have the right and power to diminish or eliminate any or all rights or increase any or all obligations pursuant to this Agreement.

3.9 Rights of Holders. Each holder of Registrable Securities shall have the absolute right to exercise or refrain from exercising any right or rights that such holder may have by reason of this Agreement, including, without limitation, the right to consent to the waiver or modification of any obligation under this Agreement, and such holder shall not incur any liability to any other holder of any securities of the Company as a result of exercising or refraining from exercising any such right or rights.

3.10 Delays or Omissions. No delay or omission to exercise any right, power or remedy accruing to any party to this Agreement, upon any breach or default of the other party, shall impair any such right, power or remedy of such non-breaching party nor shall it be construed to be a waiver of any such breach or default, or an acquiescence therein, or of or in any

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similar breach or default thereafter occurring; nor shall any waiver of any single breach or default be deemed a waiver of any other breach or default theretofore or thereafter occurring. Any waiver, permit, consent or approval of any kind or character on the part of any party of any breach or default under this Agreement, or any waiver on the part of any party of any provisions or conditions of this Agreement, must be made in writing and shall be effective only to the extent specifically set forth in such writing. All remedies, either under this Agreement, or by law or otherwise afforded to any holder, shall be cumulative and not alternative.

3.11 Aggregation of Stock. All Registrable Securities held or acquired by affiliated entities or persons shall be aggregated together for the purpose of determining the availability of any rights under this Agreement.

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IN WITNESS WHEREOF, the parties hereto have executed this Agreement as of the day and year first above written.

COMPANY:

PDF SOLUTIONS, INC.,  
a California corporation

By: /s/ John K. Kibarian

-----  
John K. Kibarian, President and Chief Executive Officer

FOUNDERS:

/s/ John K. Kibarian

-----  
JOHN K. KIBARIAN

/s/ Kimon Michaels

-----  
KIMON MICHAELS

/s/ Thomas Cobourn

-----  
THOMAS COBOURN

/s/ Howard Read

-----  
HOWARD READ

SIGNATURE PAGE TO  
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SERIES A AND SERIES B HOLDERS:

U.S. VENTURE PARTNERS IV, L.P.

By: Presidio Management Group IV, L.P.  
Its General Partner

By: /s/ PHILIP M. YOUNG

-----  
Name: Philip M. Young  
Title: General Partner

2180 Sand Hill Road, Suite 300  
Menlo Park, CA 94025



SECOND VENTURES II, L.P.

By: Presidio Management Group IV, L.P.  
Its General Partner

By: /s/ PHILIP M. YOUNG

-----  
Name: Philip M. Young  
Title: General Partner

2180 Sand Hill Road, Suite 300  
Menlo Park, CA 94025

U.S.V.P. ENTREPRENEUR PARTNERS II, L.P.  
A Delaware Limited Partnership

By: Presidio Management Group IV, L.P.  
Its General Partner

By: /s/ PHILIP M. YOUNG

-----  
Name: Philip M. Young  
Title: General Partner

2180 Sand Hill Road, Suite 300  
Menlo Park, CA 94025

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2180 ASSOCIATES FUND

By: /s/ JONATHON D. ROOT, M.D.

-----  
Name: Jonathon D. Root, M.D.  
Title: General Partner

2180 Sand Hill Road, Suite 300  
Menlo Park, CA 94025

TELOS VENTURE PARTNERS, L.P.

By: /s/ BRUCE R. BOURBON

-----  
Name: Bruce R. Bourbon  
Title: Managing Member of the General  
Partner, Telos Management LLC

2350 Mission College Blvd., Suite 1070  
Santa Clara, CA 95054

THE CASSIN FAMILY TRUST U/D/T/  
DTD 1/31/96, BRENDAN J. AND ISABEL  
B. CASSIN, TRUSTEES

By: \_\_\_\_\_

Name:  
Title:

3000 Sand Hill Road, Building 3, Suite 210

Menlo Park, CA 94025

CASSIN FAMILY PARTNERS,  
A CALIFORNIA LIMITED PARTNERSHIP

By: \_\_\_\_\_

Name:  
Title:

3000 Sand Hill Road, Building 3, Suite 210  
Menlo Park, CA 94025

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VLG INVESTMENTS 1995

By: \_\_\_\_\_

Name:  
Title:

c/o Venture Law Group  
2800 Sand Hill Road  
Menlo Park, CA 94025

CRAIG W. JOHNSON

/s/ Craig W. Johnson

-----  
Craig W. Johnson

c/o Venture Law Group  
2800 Sand Hill Road  
Menlo Park, CA 94025

PETER COHN

/s/ Peter Cohn

-----  
Peter Cohn

c/o 1020 Marsh Road  
Menlo Park, CA 94025

PETER COHN, AS TRUSTEE OR THE  
SUCCESSOR TRUSTEE OR TRUSTEES  
U/A/D JUNE 29, 1995, AS AMENDED,  
CREATING THE PETER COHN REVOCABLE TRUST

By: /s/ Peter Cohn

-----  
1020 Marsh Road  
Menlo Park, CA 94025

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ORRICK, HERRINGTON & SUTCLIFFE LLP

By: /s/ Peter Cohn

-----  
Peter Cohn  
Partner

1020 Marsh Road  
Menlo Park, CA 94025

RICHARD M. LUCAS FOUNDATION

By: /s/ DONALD L. LUCAS

-----  
Name: Donald L. Lucas  
Title: Chairman of the Board

3000 Sand Hill Road, Suite 3-210  
Menlo Park, CA 94025

ST. MARY'S COLLEGE OF CALIFORNIA

By: \_\_\_\_\_

Name:  
Title:

1928 St Mary's Road  
Moraga, CA 94556

ST. FRANCIS GROWTH FUND

By: \_\_\_\_\_

Name:  
Title:

San Francis High School  
1885 Miramonte Avenue  
Mountain View, CA 94049

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LARRY YOSHIDA

/s/ LARRY YOSHIDA

-----  
Larry Yoshida

Address: I-3-20 Tamagawa-Bakuen  
Machida City, Tokyo 194-0041  
Japan

DONALD L. LUCAS PROFIT SHARING TRUST

By: /s/ DONALD L. LUCAS

-----  
Name: Donald L. Lucas  
Title: Successor Trustee

Attn: Donald L. Lucas  
3000 Sand Hill Road, #3-210  
Menlo Park, CA 94025  
(650) 854-4223

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RWI GROUP IV, L.P.  
By: RWI GROUP LLC  
Its General Partner

By: /s/ Donald A. Lucas

-----  
Name: Donald A. Lucas  
Title: Managing Member

Attn: Donald A. Lucas  
720 University Ave., # 103  
Palo Alto, CA 94301  
(650) 833-4980

BRIAN BURR

/s/ BRIAN BURR

-----  
Brian Burr

c/o 1020 Marsh Road  
Menlo Park, CA 94025

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TETON CAPITAL COMPANY,  
A CALIFORNIA LIMITED PARTNERSHIP

By: /s/ Donald L. Lucas

-----  
Name: Donald L. Lucas  
Title: General Partner

Attn: Donald L. Lucas  
3000 Sand Hill Road, #3-210  
Menlo Park, CA 94025  
(650) 854-4223

THE RYDE REVOCABLE TRUST  
dated 12/15/94

By: /s/ MAGNUS RYDE

-----  
Name: Magnus Ryde

Title: Trustee

39 Winchester Drive  
Atherton, CA 94027  
(650) 329-9738

SIGNATURE PAGE TO  
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CONFIDENTIAL MATERIAL  
OMITTED AND FILED SEPARATELY WITH  
THE SECURITIES AND EXCHANGE COMMISSION.  
ASTERISKS DENOTE SUCH OMISSIONS.

EXHIBIT 10.1

CONFIDENTIAL TREATMENT  
PDF SOLUTIONS, INC. HAS REQUESTED  
THAT THE MARKED PORTIONS OF THIS  
DOCUMENT BE ACCORDED CONFIDENTIAL  
TREATMENT PURSUANT TO RULE 406 UNDER  
THE SECURITIES ACT OF 1933, AS AMENDED.

INTEGRATION TECHNOLOGY AGREEMENT

THIS INTEGRATION TECHNOLOGY AGREEMENT ("this Agreement") is made and entered into as of \*\*\* (the "EFFECTIVE DATE") by and between Philips Semiconductors, a Netherlands corporation ("CUSTOMER") with a Tax Identification Number of \_\_\_\_\_, and PDF Solutions, Inc., a California corporation ("PDF SOLUTIONS") with a Tax Identification Number of 25-1701361.

RECITALS

A. PDF Solutions possesses technology and expertise useful in discovering, analyzing, and fixing problems in the design and manufacturing processes that cause low yields of useable integrated circuits.

B. Customer desires to engage PDF Solutions and receive a license to certain technology useful to analyze its internal integrated circuit manufacturing process, identify problems therewith, and recommend solutions thereto, by way of methodology or otherwise, upon the terms and conditions contained herein.

C. PDF Solutions desires to be so engaged upon the terms and conditions contained herein.

DEFINITIONS

"Analysis" refers to all interpretations, recommendations, extractions, statistical models or other yield and performance models developed by PDF Solutions and derived in whole or in part from Customer's Raw Data; provided, however, that Analysis does not include any information sufficiently detailed that Raw Data could be feasibly re-constructed.

"Characterization Vehicle" or "CV" refers to the parameterized layout structures or circuit elements, specific implementations of said structures or circuit elements either in computer format or layout format, and images of said structures or circuit elements, historically or hereafter created or customized by PDF Solutions for the purposes of creating a test

CONFIDENTIAL MATERIAL  
OMITTED AND FILED SEPARATELY WITH  
THE SECURITIES AND EXCHANGE COMMISSION.  
ASTERISKS DENOTE SUCH OMISSIONS.

vehicle used to characterize any given manufacturing process. Manufacturing Designs are usually referenced in the process of generating CVs for the purposes of optimizing or tuning the vehicle to the targeted designs and process. The CV is used to create a Mask Set which is used by the fabrication facility to generate test wafers.

"Foundry" refers to any facility Customer owns or operates to manufacture products and any third party foundry with which Customer has a relationship that manufactures products for Customer.

"Manufacturing Designs" refers to all non-public information relating to Customer's manufacturing processes and integrated circuit designs (structures and elements) used in connection with the CV to generate Raw Data.

"Mask Set" refers to translucent glass plates used as a light filter to transfer designs onto a wafer.

"Proprietary Rights" shall mean all intellectual property rights including, but not limited to, patents, patent applications, copyrights, copyright registrations, moral rights, mask work rights, rights of authorship, industrial design rights, trademarks, tradenames, know-how and trade secrets, irrespective of whether such rights arise under U.S. or international intellectual property, unfair competition or trade secret laws.

"PDF Technology" refers to all historically, or hereafter developed methodologies, techniques, software, designs, CVs, problem solving processes and practices utilized by PDF Solutions, and any modifications, compilations or works derivative of the foregoing, excluding know-how, methodologies, techniques or practices that are commonly known or that Customer independently has the right to use.

"Raw Data" shall mean the data generated by PDF Solutions using the CV in conjunction with Customer's Manufacturing Design.

#### AGREEMENT

NOW, THEREFORE, in consideration of the mutual promises herein contained, the above recitals and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, Customer and PDF Solutions, intending to be legally bound, hereby agree as follows:

#### SECTION 1. TERM AND TERMINATION

1.1 Term. This Agreement shall commence on the Effective Date and shall expire on \*\*\*, unless sooner terminated in accordance with Sections 1.2 or 1.3.

1.2 Termination Without Cause. Either party may upon 120 days prior written notice to the other party, at any time and/or for any reason, terminate this Agreement. In such case, Customer shall pay PDF Solutions all Fixed Fees (as defined in EXHIBIT "B" attached hereto) payable at the effective date of such termination, all Reimbursements (as

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defined below) incurred through the effective date of such termination and all Incentive Fees and Gainshare Fees (as defined in EXHIBIT "B") that would otherwise have been earned had this Agreement not been terminated; provided that should PDF Solutions exercise its right to terminate this Agreement under this Section 1.2 prior to the end of the term PDF Solutions shall thereby forfeit any and all right it may have in any Incentive Fee, Gainshare Fee (as defined in EXHIBIT "B" attached hereto) other than Incentive Fees and Gainshare Fees earned based upon work completed prior to the effective date of such termination.

1.3 Termination for Cause. This Agreement may be terminated upon thirty (30) days prior written notice by either party if the other party materially breaches or fails to perform any material obligations hereunder and the breaching party fails to cure such breach within thirty (30) days of such written notice. Notwithstanding the foregoing, the cure period for any failure of Customer to pay Fees and Reimbursements due hereunder shall be 10 days from the date of receipt by Customer of any notice of breach relating thereto. In the event of a termination under this Section 1.3, Customer shall pay PDF Solutions all Fixed Fees incurred through the effective date of such termination, all Reimbursements incurred through the effective date of such termination and, if PDF Solutions shall so terminate this Agreement, all Incentive Fees and Gainshare Fees that would otherwise have been earned had this Agreement not been terminated.

1.4 Survival of Provisions. Any and all obligations and duties which have accrued hereunder upon such termination shall survive the termination and remain obligations and duties of the burdened party. Additionally, Sections 3 (Payment for Services and Technology) as modified by this Section 1, 4

(Proprietary Rights), 5 (Confidentiality), 6 (Representations and Warranties), 7 (Indemnity), 8 (Limitation of Liability) and 9 (Miscellaneous) shall survive the expiration or sooner termination of this Agreement and remain binding upon the parties hereto; provided that in the event of any termination of this Agreement by PDF Solutions pursuant to Section 1.3, any and all rights and licenses granted by PDF Solutions to Customer hereunder shall terminate effective upon such termination.

## SECTION 2. DELIVERY OF SERVICES AND TECHNOLOGY

2.1 Scope of Services. During the term of this Agreement, PDF Solutions shall furnish the PDF Technology and related services (the "SERVICES AND TECHNOLOGY") described in detail in EXHIBIT "A" attached hereto (the "SCOPE OF SERVICES AND TECHNOLOGY"). The manner and means used by PDF Solutions to provide the Services and Technology are in the sole discretion and control of PDF Solutions.

2.2 Standard for Performance. PDF Solutions shall perform and deliver the Services and Technology under this Agreement in accordance with the standards and practices of care consistent with the quality of services PDF Solutions performs for its other similarly situated clients. PDF Solutions at all times shall provide such number of qualified and skilled personnel to perform and deliver the Services and Technology in accordance with the quality standards, time frames and other requirements set forth in this Agreement. PDF Solutions shall utilize and comply with the relevant portions of any

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regulatory standards applicable to the provision of the Services and Technology. PDF Solutions shall promptly repair or replace at its own expense all damages, scars or disfigurements to any materials or property that is part of, or contained in, Customer's work site that are the result of the negligence of personnel employed by PDF Solutions.

2.3 Customer Assistance. Subject to Section 5 (Confidentiality), Customer will provide PDF Solutions with such information, materials, technology and Proprietary Rights as PDF Solutions shall reasonably require in order to perform and deliver the Services and Technology as specified in the Scope of Services and Technology.

2.4 Mutual Cooperation; Schedule. Customer and PDF Solutions agree to cooperate in good faith to achieve completion of the services specified in EXHIBIT A in a timely and professional manner. Customer understands and agrees that PDF Solutions' provision of the Services and Technology may depend on Customer or a third party Foundry completing certain tasks or adhering to certain schedules within Customer's control. Consequently, the schedule for completion of the services specified in EXHIBIT A or any portion thereof may require adjustments or changes in the event such tasks are not completed as anticipated. PDF Solutions shall bear no liability or otherwise be responsible for delays in the provision of services specified in EXHIBIT A or any portion thereof proximately caused by failure by Customer or a third party Foundry to complete a reasonable task or adhere to a reasonable schedule.

2.5 Right to Perform Services for Others. Customer acknowledges that PDF Solutions has extensive expertise, experience, technology and proprietary products and tools in the area of electronic design and yield improvement and that PDF Solutions intends to utilize such expertise, experience, products and tools in providing consulting services and other services to other clients. Subject to PDF Solutions' compliance with the confidentiality provisions stated herein, nothing in this Agreement shall restrict or limit PDF Solutions from providing integration technology or services to any other entity in any industry, including the semiconductor and electronics industries. Customer agrees that, except as otherwise agreed in this Agreement, PDF Solutions and its employees may provide design consulting services similar in nature to the Services and Technology for any third parties both during and after the term of this Agreement. Subject to the limitations placed on PDF Solutions by this Agreement, PDF Solutions may in its sole discretion develop, use, market, license, offer for sale, or sell any software, application or product that is similar or related to that which was developed by PDF Solutions for Customer hereunder.

## SECTION 3. PAYMENT FOR SERVICES AND TECHNOLOGY



3.1 Fees. As compensation for the Services and Technology, Customer shall pay to PDF Solutions the fees ("FEES") set forth in EXHIBIT "B" attached hereto.

3.2 Expenses. Customer shall also reimburse PDF Solutions for its reasonable out-of-pocket expenses incurred in carrying out its obligations under this Agreement including, but not limited to, travel, hotel, meals, document production and other customary business expenses directly related to the Services and Technology

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ASTERISKS DENOTE SUCH OMISSIONS.

("REIMBURSEMENT"). Travel, other than trips to Customer's office or fabrication facilities, shall be in accordance with PDF Solution's travel policy. Reimbursement for expenses incurred in an amount of up to \*\*\*\*\* in any calendar month shall not require the written approval of Customer; provided, however, that any extraordinary engagement-related purchases including, but not limited to, expenses for mask production, equipment purchases, on-site facilities and on-site communications services, must receive Customer's prior written authorization. Customer shall not have any liability to PDF Solutions for any Reimbursement for expenses incurred in an amount in excess of \*\*\*\*\* in any calendar month, unless such expenses are approved in writing by the designated individual(s) set forth in EXHIBIT "C" attached hereto.

3.3 Invoice. PDF Solutions shall bill Customer as agreed herein for Services and Technology pursuant to an invoice delivered on a monthly basis. Each invoice shall be accompanied by a reasonably detailed breakdown of the invoiced amount. Invoices shall be mailed to:

Philips Semiconductors  
9651 Westover Hills Blvd.  
San Antonio, TX 78251  
Attn: \*\*\*\*\*

3.4 Payment of Invoices. All payments by Customer hereunder shall be made by corporate or other check. All invoices shall be due and payable within thirty (30) days after the date of invoice. Amounts not paid in accordance herewith shall be subject to a late charge equal to \*\*\*\*\* (or, if less, the maximum allowed by applicable law). Without prejudice to other remedies available, PDF Solutions reserves the right to suspend performance and delivery of Services and Technology until such delinquency is corrected, provided that PDF Solutions shall give written notice of payment delinquency and shall give 10 days advance written notice of its intention to suspend performance. The amounts payable to PDF Solutions hereunder are exclusive of any sales or use or other taxes or governmental charges. Customer shall be responsible for payment of all such taxes or charges except for any taxes based solely on PDF Solutions' net income. If Customer is required to pay any taxes based on this Section 3.4, Customer shall pay such taxes with no reduction or offset in the amounts payable to PDF Solutions hereunder.

#### SECTION 4. PROPRIETARY RIGHTS

4.1 Ownership. Customer and PDF Solutions acknowledge and agree that, as between them, ownership shall be as follows:

(a) PDF Solutions is the exclusive owner of all PDF Technology and all Proprietary Rights in the PDF Technology;

(b) Customer is the exclusive owner of all Analysis, Manufacturing Designs, Raw Data and all Proprietary Rights in the Analysis, Manufacturing Design and the Raw Data; and

(c) Customer is the exclusive owner of Mask Sets.

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CONFIDENTIAL MATERIAL  
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 THE SECURITIES AND EXCHANGE COMMISSION.  
 ASTERISKS DENOTE SUCH OMISSIONS.

To the extent the law would provide for ownership other than as provided herein, (y) Customer hereby assigns to PDF Solutions its right, title and interest in and to the PDF Technology and the Proprietary Rights in the PDF Technology and (z) PDF Solutions hereby assigns to Customer its right, title and interest in and to the Analysis, Manufacturing Designs, Raw Data and the Proprietary Rights in the Analysis, Manufacturing Designs and Raw Data, and in the Mask Sets.

4.2 Grant of License by PDF Solutions. Subject to the terms and conditions of this Agreement, including the timely payment of Fees, PDF Solutions hereby grants to Customer and its subsidiaries, \*\*\*\*\* license \*\*\*\*\* to use the PDF Technology and associated Proprietary Rights disclosed by PDF Solutions under this Agreement, but only to the extent PDF Solutions has the right to grant such license; provided that such license is solely for use of PDF Technology in connection with the development, manufacture and fabrication of integrated circuit products of Customer and its majority-owned subsidiaries. The foregoing license includes all PDF Technology disclosed by PDF Solutions in its work for Customer hereunder (including methodologies or practices observed by Customer personnel in the course of PDF Solutions' work hereunder); provided, however, that specifically excluded from this license of PDF Technology is any and all software or software tools or software manuals and documentation. Customer shall be bound by and shall cause its sublicensees to be bound by the confidentiality obligations contained in Section 5 or obligations at least as restrictive as the confidentiality obligations contained in Section 5. Except as specifically provided herein, Customer shall not disclose or license PDF Technology to any third party. Customer understands that PDF Solutions will not disclose to Customer certain proprietary methods or trade secrets in connection with the services to be rendered by PDF Solutions hereunder. To this end, PDF Solutions retains the right to take industry standard measures to keep such proprietary methods or trade secrets from Customer, unless the same defeats or substantially impedes the Scope of Services and Services and Technology under Section 2 of this Agreement.

4.3 Grant of License by Customer. Subject to the terms and conditions of this Agreement, Customer hereby grants to PDF Solutions \*\*\*\*\* license \*\*\*\*\*, but only to the extent Customer has the right to grant such license, as follows:

(a) to incorporate Customer's Manufacturing Designs in CVs at any time during the term solely for the purpose of performing under this Agreement;

(b) to use, copy, compile, manipulate, analyze or reproduce Raw Data and the Mask Sets solely for the purpose of performing under this Agreement; and

(c) to use and rely upon Raw Data and Analysis from any Foundry for any purpose, including with other customers of PDF Solution. PDF Solutions shall be bound by and shall cause its sublicensees to be bound by the confidentiality obligations contained in Section 5 or obligations at least as restrictive as the confidentiality obligations contained in Section 5. Customer will, in good faith, work with PDF Solutions

and third party Foundry to encourage third party Foundry to provide any required consents or licenses in accordance with this Section 4.

4.4 No Other Rights. Except as otherwise set forth in this Section 4, neither this Agreement nor performance and delivery of the Services and Technology shall give either PDF Solutions or Customer any ownership, interest in, or rights to, the Proprietary Rights owned or provided by the other party.

SECTION 5. CONFIDENTIALITY

The parties acknowledge and agree that during the course of the performance of

the mutual obligations hereunder, each party will occasionally deliver to the other party certain information (including proprietary information, technical data, trade secrets, know-how, research, software, developments, inventions, processes, design flows, methods, methodologies, formulas, algorithms, technologies, designs, drawings, engineering, hardware configuration information, yield data or other similar information, and related documentation and information) which the disclosing party deems to be confidential or proprietary. Such information shall be considered and treated hereunder as proprietary and other confidential information if it is marked as "Confidential" or "Proprietary" (hereinafter referred to as "CONFIDENTIAL INFORMATION"): (i) by stamp or legend if communicated in writing or other tangible form, or (ii) orally at the time of disclosure with a written confirmation within thirty days describing the Confidential Information communicated orally. All restrictions as to use and disclosure shall apply during such thirty day period. Except as permitted hereunder, the receiving party shall not use or disclose the Confidential Information of the disclosing party. Any recipient of Confidential Information disclosed pursuant to this Agreement shall hold the Confidential Information in strictest confidence and shall protect the Confidential Information by using the same degree of care, but no less than a reasonable degree of care, to prevent the unauthorized use, disclosure, dissemination or publication of the Confidential Information as the recipient uses to protect its own comparable confidential and proprietary information. Any permitted reproduction of Confidential Information shall contain all confidential or proprietary legends which appear on the original. If the disclosing party discloses any software, the recipient is prohibited from disassembling, decompiling, reverse-engineering or otherwise attempting to discover or disclose the disclosing party's software or methods or concepts embodied in such software. Subject to the licenses granted in Section 4, upon receipt of the written request of the disclosing party, the receiving party will return, or give written certification of the destruction of all Confidential Information in any tangible or digital form, including all copies thereof whether on paper or in digital form, which are in the recipient's possession or control. The recipient will immediately notify the disclosing party in the event of any loss or unauthorized disclosure of Confidential Information. The above restrictions on use and disclosure shall not apply to any Confidential Information that: (1) is in the public domain or in the possession of the recipient without restriction at the time of receipt under this Agreement through no wrongful act or omission of the recipient, (2) is disclosed with the prior written approval of the disclosing party, (3) is disclosed after five years from the date of expiration or earlier termination of this Agreement, (4) is independently developed by the recipient without breach of this Agreement which independent development is

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supported by reasonable contemporary evidence, (5) becomes known to the recipient from a source other than the disclosing party without breach of this Agreement by the recipient or any other wrongful act or omission by recipient or any third party; or (6) is required to be disclosed pursuant to law, provided the recipient uses reasonable efforts to give the disclosing party reasonable notice of such required disclosure sufficient to give the disclosing party the opportunity to contest such disclosure. The obligations of confidentiality shall survive the expiration or sooner termination of this Agreement for a period of \*\*\*\*\* years thereafter. Disclosing party assumes no responsibility or liability whatever under this Agreement for any use of Confidential Information by the recipient or its sublicensees, customers or agents. Nothing in this Agreement shall restrict recipient's discretion to transfer or assign its personnel, providing the obligations of recipient under this Agreement are otherwise met. Subject to the provisions of Section 4, either party shall be free to use for any purpose the "residuals" resulting from access to or work with such Confidential Information, provided that such party shall maintain the confidentiality of the Confidential Information as provided herein. The term "residuals" means information in non-tangible form, which may be retained by persons who have had access to the Confidential Information, including ideas, concepts, know-how or techniques contained therein. Neither party shall have any obligation to limit or restrict the assignment of such persons or to pay royalties for any work resulting from the use of residuals. Each party hereto recognizes and agrees that there is no adequate remedy at law for a breach of this Section 5, that such a breach would irreparably harm the disclosing party and that the disclosing party shall be entitled to seek equitable relief (including, without limitation, injunctions) with respect to any such breach or potential breach in addition to any other remedies.

## SECTION 6. REPRESENTATIONS AND WARRANTIES

6.1 Corporate Warranties. Each party hereby represents and warrants to the other party that: (i) it is duly organized, validly existing and in good standing under the laws of the jurisdiction in which it was organized, (ii) the person executing this Agreement on behalf of each party is duly authorized to bind such party to all terms and conditions of this Agreement, (iii) this Agreement, when executed and delivered by each party, will be the legal, valid, and binding obligation of such party, enforceable against it in accordance with its terms, and (iv) the execution, delivery and performance of this Agreement by each party does not and will not conflict with or constitute a breach or default under such party's charter documents, delegations of authority, or any material agreement, contract or commitment of such party, or require the consent, approval or authorization of, or notice, declaration, filing or registration with, any third party or governmental or regulatory authority.

6.2 Infringement. PDF Solutions warrants that it is not aware of infringement or alleged infringement of its deliverables under third parties' valid U.S. intellectual property rights.

6.3 Disclaimer of Warranties. THE WARRANTIES STATED IN THIS SECTION 6 ARE THE PARTIES' SOLE AND EXCLUSIVE WARRANTIES PERTAINING TO THE SUBJECT MATTER OF THIS AGREEMENT, AND EACH

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PARTY HEREBY DISCLAIMS ANY OTHER WARRANTY, EXPRESS OR IMPLIED, WRITTEN OR ORAL, INCLUDING, WITHOUT LIMITATION, ANY WARRANTY OF TITLE, MERCHANTABILITY, NON-INFRINGEMENT OR FITNESS FOR A PARTICULAR PURPOSE. NOTHING UNDER THIS AGREEMENT, OR THE STATEMENT OF WORK OR PROJECT SHALL BE DEEMED TO BE A WARRANTY AS TO THE OUTCOME OF ANY PROJECT OR THE EFFICACY OF ANY RECOMMENDATIONS MADE BY PDF SOLUTIONS. NOTHING UNDER THIS AGREEMENT OR THE STATEMENT OF WORK SHALL BE DEEMED TO CREATE ANY LIABILITY ON THE PART OF EITHER PARTY WITH RESPECT TO THE OUTCOME OF A PROJECT OR ANY ACTIONS TAKEN BY CUSTOMER OR THE PDF SOLUTIONS AS A CONSEQUENCE OF THE OTHER PARTIE'S RECOMMENDATIONS.

## SECTION 7. INDEMNIFICATION.

PDF Solutions shall defend or settle at PDF Solutions' expense any claim ("Claim") brought against Customer that the Services and Technology and/or any tangible or intangible delivered in connection therewith impermissibly contains third party's proprietary rights, trade secrets, or copyrighted materials or that Customer's use of any such materials, as permitted hereunder, infringes any United States patent; provided that such indemnification shall not extend (a) to any infringement by Customer's designs or products, (b) to any infringement resulting from any infringement contained in any technical data, Manufacturing Designs, Mask Sets or materials or reports or information provided by Customer. The indemnification obligations set forth in this Section 7 are subject to the conditions that the Customer: (i) gives prompt written notice of the Claim to the PDF Solutions, (ii) gives the PDF Solutions the exclusive authority to control and direct the defense or settlement of such Claim, provided that the PDF Solutions does not take adopt any positions that may be prejudicial to Customer and (iii) gives the PDF Solutions, at Customer's own expense (except for the value of the Customer's employees' time), all reasonably necessary information and reasonable assistance with respect to such Claim. PDF Solutions shall pay all amounts paid in settlement and all damages and costs awarded with respect to such Claim. PDF Solutions will not be liable for any costs or expenses incurred without its prior written authorization. In the event of any Claim under this Section 7, PDF Solutions shall have the option, at its election, to (a) obtain a license to permit continued use of the allegedly infringing item or practice, (b) modify the allegedly infringing item or practice to avoid continued infringement provided the modified item or practice is substantially equivalent, (c) procure or provide a substantially equivalent substitute for the allegedly infringing item or practice or (d) if PDF Solutions is unable to achieve (a), (b) or (c) after reasonable efforts, then PDF Solutions may require that Customer cease use of the infringing item or practice as soon as feasible and terminate this Agreement and refund all Incentive Fees and Gainshare Fees paid by Customer to PDF Solutions.

## SECTION 8. LIMITATION OF LIABILITY

WHOLE, WHETHER IN TORT, CONTRACT OR OTHERWISE, AND NOTWITHSTANDING ANY FAULT, NEGLIGENCE, STRICT LIABILITY OR PRODUCT LIABILITY OF SUCH PARTY OR OF ITS OFFICERS, DIRECTORS, EMPLOYEES, OR AGENTS OR FAILURE OF ESSENTIAL PURPOSE, WITH REGARD TO ANY SERVICES OR OTHER ITEMS FURNISHED UNDER THIS AGREEMENT SHALL IN NO EVENT EXCEED THE AGGREGATE COMPENSATION PAID BY CUSTOMER TO SERVICE PROVIDER HEREUNDER. NOTWITHSTANDING ANYTHING TO THE CONTRARY IN THIS AGREEMENT, IN NO EVENT SHALL EITHER PARTY BE LIABLE FOR ANY CLAIM FOR ANY INDIRECT, INCIDENTAL, SPECIAL OR CONSEQUENTIAL DAMAGES, COVER OR ANY LOSS OF DATA, PROFIT, REVENUE OR USE UNDER ANY THEORY OF LAW OR FOR ANY CAUSE OF ACTION.

SECTION 9. MISCELLANEOUS

9.1 Publicity. Neither party shall disclose the terms of this Agreement to any third party, or in any manner advertise or publish statements to such effect, without the prior written consent and mutual agreement as to the content, medium, and manner of the public announcement of the other party. Customer agrees during the term to work in good faith with PDF Solutions to produce five mutually acceptable public announcements of PDF Solutions' engagement with Customer under this Agreement. Notwithstanding the above, should one of the parties be required to disclose either the existence or terms of this Agreement to a court of law, a governmental agency, an auditor or a bank, such party may do so without the prior written consent of the other party provided that the disclosing party: (i) notifies the recipient of the confidential nature of the information, (ii) requests confidential treatment of such information, (iii) limits the disclosure to only such information as is required under the circumstances, and (iv) delivers prompt notice to the other party of such requested or actual disclosure.

9.2 Assignment. Neither party shall assign any portion of its rights, duties, or obligations under this Agreement without the prior written consent of the other party, which consent will not be unreasonably withheld or delayed, provided that PDF Solutions may utilize the services of consultants and subcontractors to perform hereunder.

9.3 Changes. No modification to this Agreement will be binding unless in writing and signed by a duly authorized representative of each party. Change orders affecting any Scope of Services will not be effective until reviewed and approved in writing by PDF Solutions and Customer. PDF Solutions will submit to Customer a report on how the proposed changes will affect the current Services including the effect on the time schedule and cost estimates. The parties will have no obligation to proceed with changed work until both parties have approved the change in writing.

9.4 Notices. All notices or correspondence pertaining to this Agreement shall be in writing, delivered by either first class mail with receipt or by facsimile with receipt. Such notice shall be effective upon the earlier of actual receipt or the expiration of three

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THE SECURITIES AND EXCHANGE COMMISSION.  
ASTERISKS DENOTE SUCH OMISSIONS.

days following the date of mailing to the addresses as follows, or such alternative address the parties may designate in the future:

To Customer:

Philips Semiconductors  
9651 Westover Hills Blvd.  
San Antonio, TX 78251  
Attn: \*\*\*\*\*  
Tel: (210) 522-7010

To PDF Solutions:

PDF Solutions, Inc.  
333 West San Carlos Street  
Suite 700  
San Jose, CA 95110  
Attn: Chief Financial Officer  
Tel: (408) 938-6445  
Fax: (408) 938-6478

9.5 Independent Contractors. PDF Solutions and Customer shall perform their obligations under this Agreement as independent contractors, and nothing contained in this Agreement shall be construed to create or imply a joint venture, partnership, principal-agent or employment relationship between the parties. Neither party shall take any action or permit any action to be taken on its behalf which purports to be done in the name of or on behalf of the other party and shall have no power or authority to bind the other party to assume or create any obligation or responsibility express or implied on the other party's behalf or in its name, nor shall such party represent to any one that it has such power or authority.

9.6 Force Majeure. Neither party shall be liable to the other party for any loss, damage, or penalty arising from delay to the extent due to causes beyond its reasonable control including acts of God, acts of government, war, riots, or embargoes.

9.7 Severability. If any term or provision of this Agreement is determined to be invalid or unenforceable for any reason, it shall be adjusted rather than voided, if possible, to achieve the intent of the parties to extent possible. In any event, all other terms and provisions shall be deemed valid and enforceable to the maximum extent possible.

9.8 Insurance. PDF Solutions shall carry Workers' Compensation and Comprehensive General Liability Insurance (including Products, Contractual, and Automobile Liability) having limits of liability not less than \$1 million combined single limit per occurrence for bodily injury, including death and property damages, prior to performing any services on site at Foundry.

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9.9 Disputes. If any claim or controversy arises out of this Agreement, the parties shall first make a good faith attempt to resolve the matter through a designated executive officer. The officers having cognizance of the subject matter of the Agreement for each of the parties shall first meet and make a good faith attempt to resolve such controversy or claim. In the event such good faith negotiation fails to settle any dispute within sixty (60) days from notice of such dispute, the controversy shall be settled by binding arbitration by one or three arbitrators, (if three are used, each party shall select one, and the third shall be selected by mutual agreement of the parties), conducted in Santa Clara County, California and in accordance with the Commercial Arbitration Rules of the American Arbitration Association and judgment upon the award rendered by the arbitrator(s) may be entered by any court having jurisdiction thereof. The arbitrator(s) shall not be empowered to award damages in excess of, and/or in addition to, actual damages, and the arbitrator(s) shall deliver a reasoned opinion in connection with his/her/their decision. Nothing herein, however, shall prohibit either party from seeking injunctive relief if such party would be substantially prejudiced by a failure to act during the time that such good faith efforts are being made to resolve the claim or controversy. In the event either party seeks injunctive relief, the parties agree that jurisdiction will be before a state or district court seated in either Santa Clara County, California.

9.10 Governing Law. This Agreement and any and all disputes arising hereunder shall be governed by the internal laws of the State of California, without regard to choice of law principles. This Agreement is prepared and executed and shall be interpreted in the English language only, and no translation of the Agreement into another language shall have any effect. The parties agree that the United Nations Convention on Contracts for the International Sale of Goods (1980) is specifically excluded from and shall not

apply to this Agreement.

9.11 Waiver. The failure of any party hereto to enforce at any time any of the provisions of this Agreement or to require at any time performance by the other party of any of the provisions of this Agreement, or any part hereof, shall not be construed to be a waiver of said provision or to effect the right of any party to enforce each and every provision in accordance with the terms of this Agreement.

9.12 Interpretation. In the event that any term of the Scope of Services conflicts with the terms of this Agreement, the terms of this Agreement shall take precedence.

9.13 Non-Solicitation. Customer shall not actively solicit or influence or attempt to influence any person employed by PDF Solutions to terminate or otherwise cease his or her employment with PDF Solutions or become an employee of Customer. PDF Solutions shall not actively solicit or influence or attempt to influence any person employed by Customer to terminate or otherwise cease his or her employment with Customer or become an employee of PDF Solutions.

9.14 Drafter. Neither party will be deemed the drafter of this Agreement, which Agreement will be deemed to have been jointly prepared by the parties. If this Agreement is ever construed, whether by a court or by an arbitrator, such court or arbitrator will not construe this Agreement or any provision hereof against any party as drafter.

9.15 Entire Agreement. The parties acknowledge that PDF Solutions is not providing or licensing to Customer under this Agreement any software programs or products and anticipate that they will enter into a Software Evaluation and/or Software License Agreement related to the subject matter hereof. Such agreement shall also not be affected by this Agreement. Except for such software agreements, this Agreement shall constitute the entire agreement between the parties with respect to the subject matter hereof and: (i) shall supersede all prior contemporaneous oral or written communications, proposals and representations with respect to its subject matter, and (ii) shall prevail over any conflicting or additional terms of any statement of work, quote, order acknowledgment or similar communication between the parties during the term of this Agreement.

9.16 Counterparts. This Agreement may be executed in counterparts, each of which shall be deemed an original, but all of which together will constitute one and the same instrument.

9.17 Exhibits. Exhibits "A," "B," and "C" attached hereto are incorporated herein by this reference as if fully set forth herein.

IN WITNESS WHEREOF, the parties hereto have executed this Services Agreement as of the date(s) set forth below to be effective as of the Effective Date.

PDF SOLUTIONS, INC., A CALIFORNIA CORPORATION

PHILIPS SEMICONDUCTORS

By: /s/ PS Melman  
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Name: PS Melman  
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Title: CFO  
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Date: 6/15/00  
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By: /s/ David N. Ledvina  
-----  
Name: David Ledvina  
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Title: VP - General Manager  
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Date: 6/14/00  
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OMITTED AND FILED SEPARATELY WITH  
THE SECURITIES AND EXCHANGE COMMISSION.  
ASTERISKS DENOTE SUCH OMISSIONS.

STATEMENT OF WORK

for

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Philips Semiconductor, Inc. - \*\*\*\*\*

SCOPE: THIS STATEMENT OF WORK (SOW) DESCRIBES TASKS TO BE PERFORMED BY  
PDF SOLUTIONS INC. IN COLLABORATION WITH PHILIPS SEMICONDUCTOR, INC. - \*\*\*\*\*.  
AS INDICATED BELOW, IT IS THE GOAL OF THIS EFFORT TO GENERATE A CHARACTERIZATION  
VEHICLE (CV) FOR A SCALABLE \_ FLOW FRONT-END AND SUPPORT FOR PHILIPS'  
\*\*\*\*\*.

1. PROJECT PLAN

1.1 Phase I \*\*\*\*\*  
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1.2 Phase II \*\*\*\*\*  
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1.3 Phase III \*\*\*\*\*  
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1.4 Phase IV \*\*\*\*\*  
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2. PROJECT MILESTONES

STEP	DESCRIPTION	PHASE	DELIVERABLE	DATE*
0	Project Start Date	N/A	N/A	TBD
1	***** ***** *****	I		Start date plus *****
2	*****	I	0	Step 1 plus *****
3	***** *****	II	0	Step 2 plus *****
4	***** *****	II	0	Step 3 plus *****
5	***** ***** *****	III	0	TBD
6	*****	III		TBD
7	*****	IV		Step 6 plus *****
8	***** ***** *****	IV	0	Step 7 plus *****

3. DELIVERABLES

The deliverables are itemized below:

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CONFIDENTIAL MATERIAL  
 OMITTED AND FILED SEPARATELY WITH  
 THE SECURITIES AND EXCHANGE COMMISSION.  
 ASTERISKS DENOTE SUCH OMISSIONS.

1 COMPENSATION

- 1.1 Service Fees for this IP and service will be \*\*\*\*\* for the CV and initial full support plus \*\*\*\*\* per month for on-going support.
  - 1.1.1. The initial support period will last for \*\*\*\*\*  
 The start of the \*\*\*\*\* support period will commence after \*\*\*\*\*  
 \*\*\*\*\*  
 \*\*\*\*\* whichever occurs first.
- 1.2 Philips will reimburse all authorized travel by PDF Solutions up to a limit of \*\*\*\*\*.
- 1.3. CV and CVA License Fees
  - 1.3.1. NRE: CV (GDSII) and associated analysis - included in fixed fee.
  - 1.3.2. CV use in \*\*\*\*\* for \*\*\*\*\* technology - included in fixed fee.
- 1.4. Other expenses to be paid by Philips include \*\*\*\*\* cost.

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Philips Semiconductors  
 9651 Westover Hills Blvd.  
 San Antonio, TX 78251  
 Attn: \*\*\*\*\*  
 Tel: (210) 522-7010  
 FAX: (210) 522-7301

PDF Solutions  
 101 West Renner RD  
 Suite 325  
 Richardson, TX 75082  
 Attn: \*\*\*\*\*  
 Tel: (972) 889-3085 ext. 208  
 FAX: (972) 889-2486

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EXHIBIT 10.2

CONFIDENTIAL TREATMENT  
PDF SOLUTIONS, INC. HAS REQUESTED  
THAT THE MARKED PORTIONS OF THIS  
DOCUMENT BE ACCORDED CONFIDENTIAL  
TREATMENT PURSUANT TO RULE 406 UNDER  
THE SECURITIES ACT OF 1933, AS AMENDED.

INTEGRATION TECHNOLOGY AGREEMENT

THIS INTEGRATION TECHNOLOGY AGREEMENT ("this AGREEMENT") is made and entered into as of \*\*\*\*\* (the "EFFECTIVE DATE") by and between Conexant Systems, Inc., a Delaware corporation ("CONEXANT") with a Tax Identification Number of 251799439 and its principal place of business at 4311 Jamboree Road, Newport Beach, California 92660, and PDF Solutions, Inc., a California corporation ("PDF SOLUTIONS") with a Tax Identification Number of 25-1701361 and its principal place of business at 333 West San Carlos Street, Suite 700, San Jose, California 95110.

RECITALS

A. PDF Solutions possesses technology and expertise useful in discovering, analyzing, and fixing problems in the design and manufacturing processes that cause low yields of useable integrated circuits.

B. Conexant desires to engage PDF Solutions and receive a license to certain technology useful to analyze its internal integrated circuit manufacturing process, identify problems therewith, and recommend solutions thereto, by way of methodology or otherwise, upon the terms and conditions contained herein.

C. PDF Solutions desires to be so engaged upon the terms and conditions contained herein.

DEFINITIONS

"ANALYSIS" refers to all interpretations, recommendations, extractions, statistical models or other yield and performance models developed by PDF Solutions and derived in whole or in part from Conexant's Raw Data; provided, however, that Analysis does not include any information sufficiently detailed that Raw Data could be feasibly re-constructed.

"CHARACTERIZATION VEHICLE" or "CV" refers to the parameterized layout structures or circuit elements, specific implementations of said structures or circuit elements either in computer format or layout format, and images of said structures or circuit elements

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historically or hereafter created or customized by PDF Solutions for the purposes of creating a test vehicle used to characterize any given manufacturing process. Manufacturing Designs are usually referenced in the process of generating CVs for the purposes of optimizing or tuning the vehicle to the targeted designs and process. The CV is used to create a Mask Set which is used by the fabrication facility to generate test wafers.

"FOUNDRY" refers to any foundry with which Conexant has a relationship that manufactures \*\*\*\* technology products for Conexant.

"MANUFACTURING DESIGNS" refers to all non-public information relating to Conexant's manufacturing processes and integrated circuit designs (structures and elements) used in connection with the CV to generate Raw Data.

"MASK SET" refers to translucent glass plates used as a light filter to transfer designs onto a wafer.

"PROPRIETARY RIGHTS" shall mean all intellectual property rights including, but not limited to, patents, patent applications, copyrights, copyright registrations, moral rights, mask work rights, rights of authorship, industrial design rights, trademarks, tradenames, know-how and trade secrets, irrespective of whether such rights arise under U.S. or international intellectual property, unfair competition or trade secret laws.

"PDF TECHNOLOGY" refers to all historically, or hereafter developed methodologies, techniques, software, designs, CVs, problem solving processes and practices utilized by PDF Solutions, and any modifications, compilations or works derivative of the foregoing, excluding know-how, methodologies, techniques or practices that are commonly known or that Conexant independently has the right to use.

"RAW DATA" shall mean the data generated by PDF Solutions using the CV in conjunction with Conexant's Manufacturing Design.

"\*\*\*\*\*" shall be defined as the following \*\*\*\*\* processes run by Conexant using

\*\*\*\*\*.

AGREEMENT

NOW, THEREFORE, in consideration of the mutual promises herein contained, the above recitals and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, Conexant and PDF Solutions, intending to be legally bound, hereby agree as follows:

SECTION 1. TERM AND TERMINATION

1.1 Term. This Agreement shall commence on the Effective Date and shall expire on \*\*\*\*\* , unless sooner terminated in accordance with Sections 1.2, 1.3 or 1.4.

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1.2 Termination Without Cause. Either party may upon 60 days prior written notice to the other party, at any time and/or for any reason, terminate this Agreement. In such case, Conexant shall pay PDF Solutions all Fixed Fees (as defined in Exhibit "B" attached hereto) payable at the effective date of such termination, all Reimbursements (as defined below) incurred through the effective date of such termination and all Incentive Fees and Gainshare Fees that would otherwise have been earned had this Agreement not been terminated; provided that should PDF Solutions exercise its right to terminate this Agreement under this Section 1.2 prior to \*\*\*\*\* PDF Solutions shall thereby forfeit any and all right it may have in any Incentive Fee, Gainshare Fee (as defined in Exhibit "B" attached hereto) other than Incentive Fees and Gainshare Fees earned prior to the effective date of such termination.

1.3 Termination for Cause. This Agreement may be terminated upon thirty (30) days prior written notice by either party if the other party materially breaches or fails to perform any material obligations hereunder and the breaching party fails to cure such breach within thirty (30) days of such written notice. Notwithstanding the foregoing, the cure period for any failure of Conexant to pay Fees and Reimbursements due hereunder shall be 20 days from the date of receipt by Conexant of any notice of breach relating thereto. In the event of a termination under this Section 1.3, Conexant shall pay PDF Solutions all Fixed Fees incurred through the effective date of such termination, all

Reimbursements incurred through the effective date of such termination and, if PDF Solutions shall so terminate this Agreement, all Incentive Fees and Gainshare Fees that would otherwise have been earned had this Agreement not been terminated.

1.4 Change of Control Termination. This Agreement may be terminated upon thirty (30) days prior written notice by either party if either party has experienced a Change of Control and continuation under this Agreement is not feasible, provided such notice is given within six (6) months of the Announcement Date. If termination occurs under this Section 1.4 then both parties will work together in good faith to agree upon a reasonable settlement payment for dissolution of the Agreement. If the parties are unable to achieve mutual agreement within thirty (30) days of termination notice under this Section 1.4, then the settlement payment due to PDF Solutions shall be finally determined in arbitration pursuant to Section 9.10; provided that the reasonable settlement is intended to be an estimate of the Fixed Fees, Incentive Fees and Gainshare Fees PDF Solutions would have earned for PDF Solution's efforts extended prior to the termination under this Section 1.4.

\* INCORPORATE "CHANGE OF CONTROL" DEFINITION PER ATTACHED EMAIL FROM \*\*\*\*\* DATED 5/18/00.

1.5 Survival of Provisions. Any and all obligations and duties which have accrued hereunder upon such termination shall survive the termination and remain obligations and duties of the burdened party. Sections 3 (Payment for Services and Technology) as modified by this Section 1, 4 (Proprietary Rights), 5 (Confidentiality), 6 (Representations and Warranties), 7 (Indemnity), 8 (Limitation of Liability) and 9 (Miscellaneous) shall survive the expiration or sooner termination of this Agreement and remain binding upon the parties hereto; provided that in the event of any termination of

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this Agreement by PDF Solutions pursuant to Section 1.3, any and all rights and licenses granted by PDF Solutions to Conexant hereunder shall terminate effective upon such termination; and provided that in the event of any termination of this Agreement Conexant pursuant to Section 1.3, any and all rights and licenses granted by Conexant to PDF Solutions hereunder shall terminate effective upon such termination.

## SECTION 2. DELIVERY OF SERVICES AND TECHNOLOGY

2.1 Scope of Services. During the term of this Agreement, PDF Solutions shall furnish the PDF Technology and related services (the "SERVICES AND TECHNOLOGY") described in detail in Exhibit "A" attached hereto (the "SCOPE OF SERVICES AND TECHNOLOGY"). The manner and means used by PDF Solutions to provide the Services and Technology are in the sole discretion and control of PDF Solutions. The Scope of the Services and Technology shall be governed by the terms and conditions of this Agreement.

2.2 Standard for Performance. PDF Solutions shall perform and deliver the Services and Technology under this Agreement in accordance with the standards and practices of care consistent with the quality of services PDF Solutions performs for its other similarly situated clients. PDF Solutions at all times shall provide such number of qualified and skilled personnel to perform and deliver the Services and Technology in accordance with the quality standards, time frames and other requirements set forth in this Agreement. PDF Solutions shall utilize and comply with the relevant portions of any regulatory standards applicable to the provision of the Services and Technology. PDF Solutions shall promptly repair or replace at its own expense all damages, scars or disfigurements to any materials or property that is part of, or contained in, Conexant's work site that are the result of the methods or materials used or employed by PDF Solutions, its personnel or its other agents.

2.3 Conexant Assistance. Subject to Section 5 (Confidentiality), Conexant will provide PDF Solutions with such information, materials, technology and Proprietary Rights as PDF Solutions shall reasonably require in order to perform and deliver the Services and Technology as specified in the Scope of Services and Technology.

2.4 Mutual Cooperation; Schedule. Conexant and PDF Solutions agree to cooperate in good faith to achieve completion of the services specified in

Exhibit A in a timely and professional manner. Conexant understands and agrees that PDF Solutions' provision of the Services and Technology may depend on Conexant completing certain tasks or adhering to certain schedules within Conexant's control. Consequently, the schedule for completion of the services specified in Exhibit A or any portion thereof may require adjustments or changes in the event such tasks are not completed as anticipated. PDF Solutions shall bear no liability or otherwise be responsible for delays in the provision of services specified in Exhibit A or any portion thereof proximately caused by Conexant's failure to complete a reasonable Conexant task or adhere to a reasonable Conexant schedule. PDF Solutions shall provide prior written notice, allowing reasonable time for Conexant to act on the notice, of any Conexant task and/or Conexant schedule upon which PDF Solutions is depending on to perform services specified in Exhibit A. Conexant shall bear no liability or otherwise be responsible for delays in the provision of services

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specified in Exhibit A or any portion thereof proximately caused by a Foundry's failure to complete tasks or schedules upon which Conexant and PDF Solutions may depend.

2.5 Right to Perform Services for Others. Conexant acknowledges that PDF Solutions has extensive expertise, experience, technology and proprietary products and tools in the area of electronic design and yield improvement and that PDF Solutions intends to utilize such expertise, experience, products and tools in providing consulting services and other services to other clients. Subject to PDF Solutions' compliance with the confidentiality provisions stated herein, nothing in this Agreement shall restrict or limit PDF Solutions from performing such design consulting or other services to any other entity in any industry, including the semiconductor and electronics industries. Conexant agrees that, except as otherwise agreed in this Agreement, PDF Solutions and its employees may provide design consulting services similar in nature to the Services and Technology for any third parties both during and after the term of this Agreement. Subject to the limitations placed on PDF Solutions by this Agreement or by any existing Non-Disclosure Agreement between PDF Solutions and Conexant, PDF Solutions may in its sole discretion develop, use, market, license, offer for sale, or sell any software, application or product that is similar or related to that which was developed by PDF Solutions for Conexant hereunder.

### SECTION 3. PAYMENT FOR SERVICES AND TECHNOLOGY

3.1 Fees. As compensation for the Services and Technology, Conexant shall pay to PDF Solutions the fees ("FEES") set forth in Exhibit "B" attached hereto.

3.2 Expenses. Conexant shall also reimburse PDF Solutions for its reasonable out-of-pocket expenses incurred in carrying out its obligations under this Agreement including, but not limited to, travel, hotel, meals, document production and other customary business expenses directly related to the Services and Technology ("REIMBURSEMENT"). Travel, other than trips to Conexant's office or fabrication facilities, shall be in accordance with Conexant's travel policy (provided that PDF Solutions may select its own travel agency). Reimbursement for expenses incurred in an amount of up to \*\*\*\*\* in any calendar month shall not require the written approval of Conexant; provided, however, that any extraordinary engagement-related purchases including, but not limited to, expenses for mask production, equipment purchases, on-site facilities and communications services, must receive Conexant's prior written authorization. Conexant shall not have any liability to PDF Solutions for any Reimbursement for expenses incurred in an amount in excess of \*\*\*\*\* in any calendar month, unless such expenses are approved in writing by the designated individual(s) set forth in Exhibit "C" attached hereto. Reimbursement shall be made only upon presentation by PDF Solutions of mutually agreed upon documentation substantiating the amount and purpose of such expense.

3.3 Invoice. PDF Solutions shall bill Conexant as agreed herein for Services and Technology pursuant to an invoice delivered on a monthly basis.

Each invoice shall be accompanied by a reasonably detailed breakdown of the invoiced amount. Invoices shall be mailed to:

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Conexant Systems, Inc.  
4311 Jamboree Road, PO Box 7370  
Newport Beach, CA 92658-7370  
Attention: Accounts Payable

3.4 Payment of Invoices. All payments by Conexant hereunder shall be made by corporate or other check. All invoices shall be due and payable within thirty (30) days after the date of invoice. Amounts not paid in accordance herewith shall be subject to a late charge equal to \*\*\*\*\* (1.5%) per month (or, if less, the maximum allowed by applicable law). Without prejudice to other remedies available, PDF Solutions reserves the right to suspend performance and delivery of Services and Technology until such delinquency is corrected, provided that PDF Solutions shall give written notice of payment delinquency and shall give \*\*\*\*\* advance written notice of its intention to suspend performance. The amounts payable to PDF Solutions hereunder are exclusive of any sales or use or other taxes or governmental charges. Conexant shall be responsible for payment of all such taxes or charges except for any taxes based solely on PDF Solutions' net income. If Conexant is required to pay any taxes based on this Section 3.4, Conexant shall pay such taxes with no reduction or offset in the amounts payable to PDF Solutions hereunder.

SECTION 4. PROPRIETARY RIGHTS

4.1 Ownership. Conexant and PDF Solutions acknowledge and agree that, as between them, ownership shall be as follows:

(a) PDF Solutions is the exclusive owner of all PDF Technology and all Proprietary Rights in the PDF Technology;

(b) Conexant is the exclusive owner of all Analysis, Manufacturing Designs, Raw Data and all Proprietary Rights in the Analysis, Manufacturing Design and the Raw Data; and

(c) Conexant is the exclusive owner of Mask Sets.

To the extent the law would provide for ownership other than as provided herein, (y) Conexant hereby assigns to PDF Solutions its right, title and interest in and to the PDF Technology and the Proprietary Rights in the PDF Technology and (z) PDF Solutions hereby assigns to Conexant its right, title and interest in and to the Analysis, Manufacturing Designs, Raw Data and the Proprietary Rights in the Analysis, Manufacturing Designs and Raw Data, and in the Mask Sets.

4.2 Grant of License by PDF Solutions. Subject to the terms and conditions of this Agreement, including the timely payment of Fees, PDF Solutions hereby grants to Conexant and its subsidiaries, a \*\*\*\*\* license \*\*\*\*\* to use the PDF Technology and associated Proprietary Rights disclosed by PDF Solutions under this Agreement, but only to the extent PDF Solutions has the right to grant such license; provided that such license is only for use of PDF Technology in connection with the development, manufacture and

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fabrication of \*\*\*\*\* technology products of Conexant and its majority-owned subsidiaries. The foregoing license includes all PDF Technology

disclosed by PDF Solutions in its work for Conexant hereunder (including methodologies or practices observed by Conexant personnel in the course of PDF Solutions' work hereunder); provided, however, that specifically excluded from this license of PDF Technology is any and all software or software tools or software manuals and documentation. Conexant shall be bound by and shall cause its sublicensees to be bound by the confidentiality obligations contained in Section 5 or obligations at least as restrictive as the confidentiality obligations contained in Section 5. Except as specifically provided herein, Conexant shall not disclose or license PDF Technology to any third party. Conexant understands that PDF Solutions will not disclose to Conexant certain proprietary methods or trade secrets in connection with the services to be rendered by PDF Solutions hereunder. To this end, PDF Solutions retains the right to take industry standard measures to keep such proprietary methods or trade secrets from Conexant, unless the same defeats or substantially impedes the Scope of Services and Services and Technology under Section 2 of this Agreement. This Section 4.2 shall not limit or alter any other Software license or rights that may exist between the parties under a separate agreement.

4.3 Grant of License by Conexant. Subject to the terms and conditions of this Agreement, Conexant hereby grants to PDF Solutions \*\*\*\*\* license \*\*\*\*\* but only to the extent Conexant has the right to grant such license, as follows:

(a) to incorporate Conexant's Manufacturing Designs in CVs at any time during the term solely for the purpose of performing under this Agreement;

(b) to use, copy, compile, manipulate, analyze or reproduce Raw Data and the Mask Sets solely for the purpose of performing under this Agreement; and

(c) to use and rely upon Raw Data and Analysis from any Foundry for any purpose, including with other customers of PDF Solutions; provided, however that (i) PDF Solutions shall not use and rely upon CVs incorporating Conexant's Manufacturing Designs, Raw Data or Analysis from any Foundry for any other customers for a period of four months from the date of CV approval by Conexant and (ii) PDF Solutions may itself rely upon, but shall not disclose or deliver Raw Data to any third party. (iii) PDF Solutions shall be bound by and shall cause its sublicensees to be bound by the confidentiality obligations contained in Section 5 or obligations at least as restrictive as the confidentiality obligations contained in Section 5. Conexant will, in good faith, work with PDF Solutions and Foundry to encourage Foundry to provide any required consents or licenses in accordance with this Section 4.

4.4 No Other Rights. Except as otherwise set forth in this Section 4, neither this Agreement nor performance and delivery of the Services and Technology shall give either PDF Solutions or Conexant any ownership, interest in, or rights to, the Proprietary Rights owned or provided by the other party.

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SECTION 5. CONFIDENTIALITY

Both parties hereto acknowledge and agree that they are parties to that certain Master Non-Disclosure Agreement numbered \*\*\*\*\* the "Master NDA" pursuant to which they have exchanged confidential and/or proprietary information under cover of various Confidential Information Transmittal Records ("CITR'S"). Both parties further acknowledge that the Raw Data developed pursuant to PDF Solutions' services to Conexant under this Agreement shall be deemed Confidential and shall not be disclosed. Both parties agree that this Agreement shall not modify, alter or extinguish the Master NDA nor any CITR's currently existing or to be executed in the future. The parties acknowledge and agree that during the course of the performance of the mutual obligations hereunder, each party will occasionally deliver to the other party certain information (including proprietary information, technical data, trade secrets, know-how, research, software, developments, inventions, processes, design flows, methods, methodologies, formulas, algorithms, technologies, designs, drawings, engineering, hardware configuration information, yield data or other similar



information, and related documentation and information) which the disclosing party deems to be confidential or proprietary. Such information shall be considered and treated hereunder as proprietary and other confidential information if it is marked as "Confidential" or "Proprietary" (hereinafter referred to as "CONFIDENTIAL INFORMATION"): (i) by stamp or legend if communicated in writing or other tangible form, or (ii) orally at the time of disclosure with a written confirmation within thirty days describing the Confidential Information communicated orally. All restrictions as to use and disclosure shall apply during such thirty day period. Any recipient of Confidential Information disclosed pursuant to this Agreement shall hold the Confidential Information in strictest confidence and shall protect the Confidential Information by using the same degree of care, but no less than a reasonable degree of care, to prevent the unauthorized use, disclosure, dissemination or publication of the Confidential Information as the recipient uses to protect its own comparable confidential and proprietary information. Any permitted reproduction of Confidential Information shall contain all confidential or proprietary legends which appear on the original. If the disclosing party discloses any software, the recipient is prohibited from disassembling, decompiling, reverse-engineering or otherwise attempting to discover or disclose the disclosing party's software or methods or concepts embodied in such software. Subject to the licenses granted in Section 4, upon receipt of the written request of the disclosing party, the receiving party will return, or give written certification of the destruction of all Confidential Information in any tangible or digital form, including all copies thereof whether on paper or in digital form, which are in the recipient's possession or control. The recipient will immediately notify the disclosing party in the event of any loss or unauthorized disclosure of Confidential Information. The above restrictions on use and disclosure shall not apply to any Confidential Information that: (1) is in the public domain or in the possession of the recipient without restriction at the time of receipt under this Agreement through no wrongful act or omission of the recipient, (2) is used or disclosed with the prior written approval of the disclosing party, (3) is used or disclosed after \*\*\* years from the date of expiration or earlier termination of this Agreement, (4) is independently developed by the recipient without breach of this Agreement which independent development is supported by reasonable contemporary evidence, (5) becomes known to the recipient from a source other than the disclosing party without breach of this

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Agreement by the recipient or any other wrongful act or omission by recipient or any third party; or (6) is required to be disclosed pursuant to law, provided the recipient uses reasonable efforts to give the disclosing party reasonable notice of such required disclosure sufficient to give the disclosing party the opportunity to contest such disclosure. The obligations of confidentiality shall survive the expiration or sooner termination of this Agreement for a period of \*\*\*\*\* thereafter. Disclosing party assumes no responsibility or liability whatever under this Agreement for any use of Confidential Information by the recipient or its customers or agents. Nothing in this Agreement shall restrict recipient's discretion to transfer or assign its personnel, providing the obligations of recipient under this Agreement are otherwise met. Each party understands that the other party may currently or in the future be developing information internally, or receiving information from third parties that may be similar to the Confidential Information. Accordingly, nothing in this Agreement will be construed as a representation or inference that either party will not develop products, or have products developed for it, or enter into joint ventures, alliances, or licensing arrangements that, without violation of this Agreement, compete with the products or systems embodying the Confidential Information. Further, subject to the provisions of Section 4, either party shall be free to use for any purpose the "residuals" resulting from access to or work with such Confidential Information, provided that such party shall maintain the confidentiality of the Confidential Information as provided herein. The term "RESIDUALS" means information in non-tangible form, which may be retained by persons who have had access to the Confidential Information, including ideas, concepts, know-how or techniques contained therein. Neither party shall have any obligation to limit or restrict the assignment of such persons or to pay royalties for any work resulting from the use of residuals. The parties do not intend that any agency or partnership relationship be created between them by

this Agreement. Each party hereto recognizes and agrees that there is no adequate remedy at law for a breach of this Section 5, that such a breach would irreparably harm the disclosing party and that the disclosing party shall be entitled to seek equitable relief (including, without limitation, injunctions) with respect to any such breach or potential breach in addition to any other remedies.

## SECTION 6. REPRESENTATIONS AND WARRANTIES

6.1 Corporate Warranties. Each party hereby represents and warrants to the other party that: (i) it is duly organized, validly existing and in good standing under the laws of the jurisdiction in which it was organized, (ii) the person executing this Agreement on behalf of each party is duly authorized to bind such party to all terms and conditions of this Agreement, (iii) this Agreement, when executed and delivered by each party, will be the legal, valid, and binding obligation of such party, enforceable against it in accordance with its terms, and (iv) the execution, delivery and performance of this Agreement by each party does not and will not conflict with or constitute a breach or default under such party's charter documents, delegations of authority, or any material agreement, contract or commitment of such party, or require the consent, approval or authorization of, or notice, declaration, filing or registration with, any third party or governmental or regulatory authority.

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6.2 Infringement. PDF Solutions warrants that it is not aware of infringement or alleged infringement of its deliverables under third parties' intellectual property rights.

6.3 Disclaimer of Warranties. THE WARRANTIES STATED IN THIS SECTION 6 ARE PARTIES' SOLE AND EXCLUSIVE WARRANTIES PERTAINING TO THE SUBJECT MATTER OF THIS AGREEMENT, AND EACH PARTY HEREBY DISCLAIMS ANY OTHER WARRANTY, EXPRESS OR IMPLIED, WRITTEN OR ORAL, INCLUDING, WITHOUT LIMITATION, ANY WARRANTY OF TITLE, MERCHANTABILITY, NON-INFRINGEMENT OR FITNESS FOR A PARTICULAR PURPOSE. NOTHING UNDER THIS AGREEMENT, OR THE STATEMENT OF WORK OR PROJECT SHALL BE DEEMED TO BE A WARRANTY AS TO THE OUTCOME OF ANY PROJECT OR THE EFFICACY OF ANY RECOMMENDATIONS MADE BY PDF SOLUTIONS. NOTHING UNDER THIS AGREEMENT OR THE STATEMENT OF WORK SHALL BE DEEMED TO CREATE ANY LIABILITY ON THE PART OF EITHER PARTY WITH RESPECT TO THE OUTCOME OF A PROJECT OR ANY ACTIONS TAKEN BY CONEXANT OR THE PDF SOLUTIONS AS A CONSEQUENCE OF THE OTHER PARTIE'S RECOMMENDATIONS.

6.4 Limitation. Nothing in this Agreement shall extend the time or remedies allowable under law or remedy for either party to file an action against the other party.

## SECTION 7. INDEMNIFICATION

7.1 Infringement Indemnity. PDF Solutions shall defend or settle at PDF Solutions' expense any claim ("CLAIM") brought against Conexant that the Services and Technology and/or any tangible or intangible delivered in connection therewith impermissibly contains third party's proprietary rights, trade secrets, patents or copyrighted materials or that Conexant's use of any such materials, as permitted hereunder, infringes any United States, Singapore, Korean, Japanese, or Taiwanese patent; provided that such indemnification shall not extend (a) to any infringement by Conexant's designs or products, provided such designs, processes or products are not influenced by PDF Solutions in a way that renders it infringing, (b) to the extent any infringement results from any infringement contained in any technical data, Manufacturing Designs, Mask Sets or materials or reports or information provided by Conexant. The indemnification obligations set forth above in this Section 7 are subject to the conditions that the Indemnified Party: (i) gives prompt written notice of the Claim to the Indemnifying Party, (ii) gives the PDF Solutions the exclusive authority to control and direct the defense or settlement of such Claim, provided that the PDF Solutions does not take adopt any positions that may be prejudicial to Conexant and (iii) gives the PDF Solutions, at the Indemnified Party's own expense (except for the value of the Indemnified Party's employees' time), all reasonably necessary information and reasonable assistance with respect to such Claim. PDF Solutions shall pay all amounts paid in settlement and all damages and costs awarded with respect to such Claim. PDF Solutions will not be liable for any costs or expenses incurred without its prior written authorization. In the event of any Claim under this Section 7.2, PDF Solutions shall have the option, at its election, to (a) obtain a license to permit continued use of the

allegedly infringing item or practice, (b) modify the allegedly

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infringing item or practice to avoid continued infringement provided the modified item or practice is substantially equivalent, (c) procure or provide a substantially equivalent substitute for the allegedly infringing item or practice or (d) if PDF Solutions is unable to achieve (a), (b) or (c) after best efforts, then PDF Solutions may require that Conexant cease use of the infringing item or practice as soon as feasible and terminate this Agreement and refund all Incentive Fees and Gainshare Fees paid by Conexant to PDF Solutions.

#### SECTION 8. LIMITATION OF LIABILITY

THE LIABILITY OF EITHER PARTY AND OF SUCH PARTY'S OFFICERS, DIRECTORS, EMPLOYEES, CONTRACTORS AND AGENTS, TAKEN AS A WHOLE, WHETHER IN TORT, CONTRACT OR OTHERWISE, AND NOTWITHSTANDING ANY FAULT, NEGLIGENCE, STRICT LIABILITY OR PRODUCT LIABILITY OF SUCH PARTY OR OF ITS OFFICERS, DIRECTORS, EMPLOYEES, OR AGENTS OR FAILURE OF ESSENTIAL PURPOSE, WITH REGARD TO ANY SERVICES OR OTHER ITEMS FURNISHED UNDER THIS AGREEMENT SHALL IN NO EVENT EXCEED THE AGGREGATE COMPENSATION PAID BY CONEXANT TO SERVICE PROVIDER HEREUNDER. NOTWITHSTANDING ANYTHING TO THE CONTRARY IN THIS AGREEMENT, IN NO EVENT SHALL EITHER PARTY BE LIABLE FOR ANY CLAIM FOR ANY INDIRECT, INCIDENTAL, SPECIAL OR CONSEQUENTIAL DAMAGES, COVER OR ANY LOSS OF DATA, PROFIT, REVENUE OR USE UNDER ANY THEORY OF LAW OR FOR ANY CAUSE OF ACTION.

#### SECTION 9. MISCELLANEOUS

9.1 Publicity. Neither party shall disclose the terms of this Agreement to any third party, or in any manner advertise or publish statements to such effect, without the prior written consent and mutual agreement as to the content, medium, and manner of the public announcement of the other party. Conexant agrees to work in good faith with PDF Solutions to produce two mutually acceptable public announcements of PDF Solutions' engagement with Conexant under this Agreement. Notwithstanding the above, should one of the parties be required to disclose either the existence or terms of this Agreement to a court of law, a governmental agency, an auditor or a bank, such party may do so without the prior written consent of the other party provided that the disclosing party: (i) notifies the recipient of the confidential nature of the information, (ii) requests confidential treatment of such information, (iii) limits the disclosure to only such information as is required under the circumstances, and (iv) delivers prompt notice to the other party of such requested or actual disclosure.

9.2 Assignment. Neither party shall assign, delegate, or subcontract any portion of its rights, duties, or obligations under this Agreement without the prior written consent of the other party, which consent will not be unreasonably withheld or delayed, provided that PDF Solutions may utilize the services of consultants whose services it utilizes on a regular basis.

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9.3 Changes. No modification to this Agreement will be binding unless in writing and signed by a duly authorized representative of each party. Change orders affecting any Scope of Services will not be effective until reviewed and approved in writing by PDF Solutions and Conexant and attached to this Agreement. PDF Solutions will submit to Conexant a report on how the proposed changes will affect the current Services including the effect on the time schedule and cost estimates. The parties will have no obligation to proceed with changed work until both parties have approved the change in writing. Conexant will be under no obligation to pay for work performed under a change order without prior written authorization in accordance herewith.

9.4 Notices. All notices or correspondence pertaining to this Agreement shall be in writing, delivered by either first class mail with receipt or by facsimile with receipt. Such notice shall be effective upon the earlier of actual receipt or the expiration of three days following the date of mailing to the addresses as follows, or such alternative address the parties may designate in the future:

To Conexant:

Conexant Systems, Inc.  
4311 Jamboree Rd.  
Newport Beach, CA 92660  
Attn: Manager, Contracts  
Tel: (949) 483-6610  
Fax: (949) 483-4176

To PDF Solutions:

PDF Solutions, Inc.  
333 West San Carlos Street  
Suite 700  
San Jose, CA 95110  
Attn: Chief Financial Officer  
Tel: (408) 938-6445  
Fax: (408) 938-6478

9.5 Independent Contractors. PDF Solutions and Conexant shall perform their obligations under this Agreement as independent contractors, and nothing contained in this Agreement shall be construed to create or imply a joint venture, partnership, principal-agent or employment relationship between the parties. Neither party shall take any action or permit any action to be taken on its behalf which purports to be done in the name of or on behalf of the other party and shall have no power or authority to bind the other party to assume or create any obligation or responsibility express or implied on the other party's behalf or in its name, nor shall such party represent to any one that it has such power or authority.

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THE SECURITIES AND EXCHANGE COMMISSION.  
ASTERISKS DENOTE SUCH OMISSIONS.

9.6 Force Majeure. Neither party shall be liable to the other party for any loss, damage, or penalty arising from delay due to causes beyond its reasonable control including acts of God, acts of government, war, riots, or embargoes.

9.7 Severability. If any term or provision of this Agreement is determined to be invalid or unenforceable for any reason, it shall be adjusted rather than voided, if possible, to achieve the intent of the parties to extent possible. In any event, all other terms and provisions shall be deemed valid and enforceable to the maximum extent possible.

9.8 Insurance. PDF Solutions shall carry Workers' Compensation and Comprehensive General Liability Insurance (including Products, Contractual, and Automobile Liability) in such form as to protect PDF Solutions and Conexant, their directors and officers, and the agents and employees as additional insureds from any claims or omissions of PDF Solutions under this Agreement. PDF Solutions shall furnish Conexant with a Certificate(s) of Insurance evidencing limits of liability not less than \*\*\*\*\* combined single limit per occurrence for bodily injury, including death and property damages, prior to performing any services on site at Conexant's facility. Such insurance shall be primary and non-contributing to any insurance maintained or obtained by Conexant and shall not be canceled or materially reduced without thirty (30) days prior written notice to Conexant. PDF Solutions agrees to waive any rights of subrogation PDF Solutions or PDF Solutions' insurers may have against Conexant under applicable Workers' Compensation laws.

9.9 Export Control Laws and Regulations. Each party, for itself and any of its employees and agents who may be given access by such party to technical information pursuant to the performance of the Services hereunder, acknowledges its obligations to control access to such technical information and to ensure that such access does not result in a violation of the U.S. Export Control Laws and Regulations.

9.10 Disputes. If any claim or controversy arises out of this Agreement, the parties shall first make a good faith attempt to resolve the matter through

a designated executive officer. The officers having cognizance of the subject matter of the Agreement for each of the parties shall first meet and make a good faith attempt to resolve such controversy or claim. In the event such good faith negotiation fails to settle any dispute within sixty (60) days from notice of such dispute, the parties shall endeavor to resolve such dispute arising out of this Agreement by mediation in either Santa Clara County, Orange County or Los Angeles County California or at such other place as the parties hereto mutually agree upon, in accordance with the Center for Public Resources (CPR) Model Procedure for Mediation of a Business Dispute. Unless the parties agree otherwise, the mediator will be selected from the CPR Panels of Distinguished Neutrals and each party shall be responsible for its own costs associated with such mediation. If the matter has not been resolved pursuant to the aforementioned mediation procedure within sixty (60) days of the initiation of such procedure, the controversy shall be settled by binding arbitration by one or three arbitrators, (if three are used, each party shall select one, and the third shall be selected by mutual agreement of the parties), conducted in accordance with the Commercial Arbitration Rules of the American Arbitration Association and judgment upon the award rendered by the arbitrator(s) may be entered by

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any court having jurisdiction thereof. The arbitrator(s) shall not be empowered to award damages in excess of, and/or in addition to, actual damages, including punitive damages, and the arbitrator(s) shall deliver a reasoned opinion in connection with his/her/their decision. Nothing herein, however, shall prohibit either party from seeking injunctive relief if such party would be substantially prejudiced by a failure to act during the time that such good faith efforts are being made to resolve the claim or controversy. In the event either party seeks injunctive relief, the parties agree that jurisdiction will be before a state or district court seated in either Santa Clara County, Orange County or Los Angeles County, California. All deadlines in this Section 9.10 may be extended by mutual agreement.

9.11 Governing Law. This Agreement and any and all disputes arising hereunder shall be governed by the internal laws of the State of California. This Agreement is prepared and executed and shall be interpreted in the English language only, and no translation of the Agreement into another language shall have any effect. The parties agree that the United Nations Convention on Contracts for the International Sale of Goods (1980) is specifically excluded from and shall not apply to this Agreement.

9.12 Waiver. The failure of any party hereto to enforce at any time any of the provisions of this Agreement or to require at any time performance by the other party of any of the provisions of this Agreement, or any part hereof, shall not be construed to be a waiver of said provision or to effect the right of any party to enforce each and every provision in accordance with the terms of this Agreement.

9.13 Interpretation. In the event that any term of the Scope of Services conflicts with the terms of this Agreement, the terms of this Agreement shall take precedence.

9.14 Non-Solicitation. Conexant shall not actively solicit or influence or attempt to influence any person employed by PDF Solutions to terminate or otherwise cease his or her employment with PDF Solutions or become an employee of Conexant. PDF Solutions shall not actively solicit or influence or attempt to influence any person employed by Conexant to terminate or otherwise cease his or her employment with Conexant or become an employee of PDF Solutions.

9.15 Drafter. Neither party will be deemed the drafter of this Agreement, which Agreement will be deemed to have been jointly prepared by the parties. If this Agreement is ever construed, whether by a court or by an arbitrator, such court or arbitrator will not construe this Agreement or any provision hereof against any party as drafter.

9.16 Entire Agreement. As noted in Section 5 relating to confidentiality, the parties hereto have a separate confidentiality agreement in place that will not be affected by this Agreement. The parties also acknowledge that PDF Solutions is not providing or licensing to Conexant under this Agreement any existing software programs or products and anticipate that they will enter into a Software Evaluation and/or Software License Agreement related

to the subject matter hereof. Such agreement shall also not be affected by this Agreement. Other than these specified agreements, this Agreement shall constitute the entire agreement between the parties with respect to the subject matter hereof and: (i) shall supersede all prior contemporaneous oral or written communications, proposals and

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representations with respect to its subject matter, and (ii) shall prevail over any conflicting or additional terms of any statement of work, quote, order acknowledgment or similar communication between the parties during the term of this Agreement.

9.17 Counterparts. This Agreement may be executed in counterparts, each of which shall be deemed an original, but all of which together will constitute one and the same instrument.

9.18 Exhibits. Exhibits "A," "B" and "C" attached hereto are incorporated herein by this reference as if fully set forth herein.

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IN WITNESS WHEREOF, the parties hereto have executed this Services Agreement as of the date(s) set forth below to be effective as of the Effective Date.

PDF SOLUTIONS, INC., A CALIFORNIA CORPORATION	CONEXANT SYSTEMS, INC., A DELAWARE CORPORATION
By: /s/ P.S. Melman	By: /s/ James Spoto
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Name: P.S. Melman	Name: James P. Spoto
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Title: CFO	Title: Senior VP, ***** Group
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Date: 5/18/00	Date: 5/16/00
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EXHIBIT "A" TO SERVICES AGREEMENT - SCOPE OF SERVICES AND TECHNOLOGY

This Exhibit specifies in detail the Services and Technology to be performed by PDF Solutions during the term of this Agreement.

PROJECT DESCRIPTION & GOALS

PDF Solutions agrees to provide Conexant with \*\*\*\*\* services for all of Conexant's products targeted for \*\*\*\*\* technology. Services in support of these products are divided into two major components: (1) CONEXANT'S \*\*\*\*\* AND (2) CONEXANT'S \*\*\*\*\*.

The primary goals of the project are (1) to accelerate Conexant's historical yield ramp rates at \*\*\*\*\* and (2) to improve Conexant's yield \*\*\*\*\* management of products \*\*\*\*\*.

At \*\*\*\*\* , PDF Solutions and Conexant will jointly attempt to improve Conexant's \*\*\*\*\* the estimated month the \*\*\*\*\* process will be brought to mass production. The project will target to improve yield in the range of \*\*\*\*\* after \*\*\*\*\* . The specified \*\*\*\*\*



(Level 2)

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\*\*\*\*\* - \*\*\*\*\*  
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(Level 3)

DELIVERABLES: \*\*\*\*\* SYSTEM

PDF Solutions agrees to provide Conexant the following deliverables:

DELIVERABLE	DESCRIPTION	ESTIMATED DELIVERY PERIOD
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***** -	*****	*****

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\*\*\*\*\* SYSTEM

PDF Solution agrees to develop, \*\*\*\*\* for all of Conexant's  
\*\*\*\*\*. Data to be used to manage potential improvements to Conexant's  
\*\*\*\*\* process (only if necessary) to increase yield.

PROJECT PHASE	PDF SOLUTIONS WORK STEPS	ESTIMATED DURATION
***** -	*****	*****
***** -	*****	*****
*****	*****	*****
*****	*****	*****
*****	*****	*****
*****	*****	*****
*****	*****	*****

DELIVERABLES: \*\*\*\*\*

PDF Solutions agrees to provide Conexant the following deliverables:

DELIVERABLE	DESCRIPTION	ESTIMATED DELIVERY PERIOD
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GAINSHARE FEE

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PRODUCT VOLUME EXCLUDED FROM GAINSHARE FEE COGS REDUCTION CALCULATIONS

The following volume shall be excluded from the calculation of the defect density for both \*\*\*\*\* and Conexant \*\*\*\*\* run at \*\*\*\*\*:

- Pre-production lots
- Engineering lots
- Lots adversely affected by equipment failures or malfunctions.
- Lots adversely affected by non-qualified PM adjustments. Non-qualified means equipment introduced not verified to process tolerances. Conexant and PDF Solutions agree to review the qualification process by \*\*\*\*\*. Conexant may elect not to make any changes suggested by PDF Solutions that are deemed unreasonable or beyond Conexant's control.
- Mis-processed lots or lots otherwise adversely affected by mishandling.
- Products identified with yield issues that are not adequately addressed during the engineering phase and prematurely introduced into mass production for reasons beyond PDF Solutions' control. For products to be considered under this exclusion, products must be first identified by PDF Solutions during the engineering phase as products to be excluded from the calculations. In such an event, products will be excluded from the calculations for a grace period of \*\*\*\*\* after date product is identified by PDF Solutions by written notice.

GAINSHARE FEE CALCULATION SCHEDULE

Gainshare Fee is to be calculated quarterly, but accumulated monthly. The Gainshare Fee will be calculated during the months of (1) January, (2) April, (3) July and (4) October for the prior three months. An example schedule is provided to clarify the calculation dates. Each party will work together in good faith, to determine and agree upon the appropriate Gainshare amount within the first twenty (20) days of the stated month.

GAINSHARE FEE MONTH	WHEN CALCULATED	WHEN INVOICED
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NPB COGS REDUCTION MODEL: \*\*\*\*\* PROCESS

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YIELD MODEL

For the purposes of this Agreement, the \*\*\*\*\* equation used in determining Gainshare Fees when appropriate will be \*\*\*\*\* , described as \*\*\*\*\* in Conexant's use of the model. The \*\*\*\*\* was developed with the use of the \*\*\*\*\* as described above. Both Conexant and PDF Solutions agree that the complexity factor, \*\*\*, will vary based on the design and may be adjusted as required. Both Engagement Managers will verbally agree to such changes.

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The baseline information is described in the following table:

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*****	*****

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If Conexant's \*\*\*\*\* , both parties agree to discuss actions to be taken.

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\*\*\*\*\* \*\*\*\* \*\*\*\*\* MODEL: CONEXANT'S \*\*\*\*\*

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The \*\*\*\*\* will be set to each \*\*\*\*\* \*\*\*\* forecast for Conexant's  
\*\*\*\*\* products, unless otherwise mutually agreed to in writing. Conexant  
agrees to meet with PDF Solutions  
on or around \*\*\*\*\*

to re-evaluate the methodology for \*\*\*\*\*.

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GAINSHARE FEE CALCULATION MODEL

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For questions on technical issues contact:

Conexant Systems, Inc.  
Attn: \*\*\*\*\* , Yield Engineering  
Tel: \*\*\*\*\*  
Fax:

For approval of expenses and/or questions on contract or business related  
issues, contact:

Conexant Systems, Inc.  
Attn: \*\*\*\*\* , Strategic Sourcing  
Tel: \*\*\*\*\*  
Fax:

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Subject: Re. Change of Control  
Date: Thu, 11:28:25 - 0700  
From: \*\*\*\*\*  
To: dan@PDF.COM  
CC: \*\*\*\*\*

Dan,

As discussed this morning regarding the \*\*\*\*\* Conexant hereby defines the  
term "Change of Control" as follows:

"Change of Control" is defined as any of the following events: (i) any  
consolidation or merger of a party in which such party is not the continuing or  
surviving corporation, or pursuant to which a material number of shares of such  
party's common stock would be converted to cash, securities or other property;

(ii) any sale, exchange or other transfer (in one transaction or series of related transactions) of all or substantially all the assets of such party;  
(iii) any sale or other transfer of stock or assets, any consolidation or merger, or any other transaction, that results in management or control of the facility resting with a third party.

If PDF accepts this definition as applicable and binding under the above referenced Integrated Technology Agreement, please respond with your acknowledgement.

Thanks,

Conexant Systems, Inc.

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INTEGRATION TECHNOLOGY AGREEMENT (ITA)

\*\*\*\*\*

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EXHIBIT 10.3

CONFIDENTIAL TREATMENT  
PDF SOLUTIONS, INC. HAS REQUESTED  
THAT THE MARKED PORTIONS OF THIS  
DOCUMENT BE ACCORDED CONFIDENTIAL  
TREATMENT PURSUANT TO RULE 406 UNDER  
THE SECURITIES ACT OF 1933, AS AMENDED.

PROJECT: TOSHIBA -  
\*\*\*\*\*

YIELD IMPROVEMENT CONSULTING AGREEMENT

This Yield Improvement Consulting Agreement dated as of \*\*\*\*\*  
(this "AGREEMENT") is entered into by and between Toshiba Corporation, a  
corporation organized under the laws of Japan ("TOSHIBA") having its principal  
place of business at 1-1 Shibaura 1-chome, Minato-ku, Tokyo 105-8001, Japan, and  
PDF Solutions, Inc., a corporation organized under the laws of California  
("PDF") having its principal place of business at 333 West San Carlos Street,  
Suite 700, San Jose, California, U.S.A.

RECITALS

A. PDF Solutions possesses technology and expertise useful in  
discovering, analyzing, and fixing problems in the design and manufacturing  
processes that cause low yields of useable integrated circuits.

B. Toshiba desires to engage PDF Solutions and receive a license  
to certain technology useful to analyze its internal integrated circuit  
manufacturing process, identify problems therewith, and recommend solutions  
thereto, by way of methodology or otherwise, upon the terms and conditions  
contained herein.

C. PDF Solutions desires to be so engaged upon the terms and  
conditions contained herein.

DEFINITIONS

"Analysis" refers to all interpretations, recommendations, extractions,  
statistical models or other yield and performance models developed by PDF  
Solutions and derived in whole or in part from Toshiba's Raw Data; provided,  
however, that Analysis does not include any information sufficiently detailed  
that Raw Data could be feasibly re-constructed.

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"Characterization Vehicle" or "CV" refers to the parameterized layout structures  
or circuit elements, specific implementations of said structures or circuit  
elements either in computer format or layout format (for example, GDS-II files),  
and images of said structures or circuit elements, historically or hereafter  
created or customized by PDF Solutions for the purposes of creating a test  
vehicle used to characterize any given manufacturing process. Manufacturing  
Designs are usually referenced in the process of generating CVs for the purposes  
of optimizing or tuning the vehicle to the targeted designs and process. The CV

is used to create a Mask Set which is used by the fabrication facility to generate test wafers.

"Foundry" refers to any facility Toshiba owns or operates to manufacture products and any third party foundry with which Toshiba has a relationship that manufactures products for Toshiba.

"Manufacturing Designs" refers to all non-public information relating to Toshiba's manufacturing processes and integrated circuit designs (structures and elements) used in connection with the CV to generate Raw Data.

"Mask Set" refers to translucent glass plates used as a light filter to transfer designs onto a wafer.

"Proprietary Rights" shall mean all intellectual property rights including, but not limited to, patents, patent applications, copyrights, copyright registrations, moral rights, mask work rights, rights of authorship, industrial design rights, trademarks, tradenames, know-how and trade secrets, irrespective of whether such rights arise under U.S. or international intellectual property, unfair competition or trade secret laws.

"PDF Technology" refers to all historically, or hereafter developed methodologies, techniques, software, designs, CVs, problem solving processes and practices utilized by PDF Solutions, and any modifications, compilations or works derivative of the foregoing, excluding know-how, methodologies, techniques or practices that are commonly known or that Toshiba independently has the right to use. PDF Technology also refers to the CV layout and the Design of Experiments used in creating the CV layout.

"Raw Data" shall mean the data generated by PDF Solutions using the CV in conjunction with Toshiba's Manufacturing Design.

#### AGREEMENT

NOW, THEREFORE, in consideration of the mutual promises herein contained, the above recitals and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, Toshiba and PDF Solutions, intending to be legally bound, hereby agree as follows:

1. YIELD IMPROVEMENT SERVICES.

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1.1 PROVISION OF SERVICES. During the term of this Agreement, PDF will provide to Toshiba development work and services with respect to integrated circuit yield management issues. The services and the Deliverables to be delivered as a result thereof (the "PROJECT") are described in detail on a statement of work (the "STATEMENT OF WORK") attached hereto as Exhibit A. The Statement of Work shall be governed by the terms of this Agreement, and specifies:

- (a) Deliverables. The specific deliverables (the "DELIVERABLES") to be delivered under the Project and relevant milestones for delivering the Deliverables;
- (b) Team Structure. The team members from PDF and Toshiba who are to work on the Project and the expected time contributions for each such member;
- (c) Tools. The required data, tools, hardware, software, materials, access to personnel and facilities, and other materials required for effectively completing the Project;
- (d) Location. The geographic location where each component of the Project will be completed;
- (e) Fees and Expenses. The amount and structure of PDF's Fees (as defined below) payable upon delivery of the Deliverables and Expenses (as defined below).



1.2 TOSHIBA INTELLECTUAL PROPERTY. Toshiba will disclose to PDF on a timely basis such Proprietary Rights (as defined in Section 3.1) and such other data and materials as PDF shall reasonably require in order to perform the Project and/or prepare the Deliverables as defined in the Statement of Work.

1.3 DELIVERABLES. In performing the Project, PDF shall develop and/or make for Toshiba the Deliverables in accordance with any schedules set forth in the Statement of Work. The Deliverables shall meet in all material respects the description of the Deliverable (the "DELIVERABLE DESCRIPTION") set forth in the Statement of Work.

1.4 ACCEPTANCE. Upon delivery of any Deliverable by PDF to Toshiba, Toshiba shall examine the Deliverable to determine whether it reasonably conforms to the Deliverable Description. If the Deliverable does not reasonably conform to such Deliverable Description, Toshiba shall have fifteen (15) days from the date of delivery thereof to reject such Deliverable and specify in writing why it does not reasonably conform to such Deliverable Description. Upon such rejection the parties shall work together to determine what needs to be done to bring such Deliverable up to such Deliverable Description. If the Deliverable does not meet the Deliverable Description, PDF shall exercise reasonable efforts to correct promptly such nonconformity of the Deliverable with the Deliverable Description and redeliver the Deliverable to Toshiba

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upon completion of such correction within one month following the parties' agreement referenced in the preceding sentence but only if there are no limitations outside of PDF's control. If there are limitations outside PDF's control, PDF and Toshiba will negotiate in good faith a time for delivery of the Deliverable. If a rejection of the Deliverable is not received by PDF within fifteen (15) days after any delivery or redelivery of a Deliverable under this Section 1.4, the Deliverable shall be deemed accepted. "ACCEPTANCE" (including with correlative meaning the term "ACCEPT") shall mean any acceptance under this Section 1.4. Toshiba agrees to deliver a notice of Acceptance (the "NOTICE OF ACCEPTANCE") upon its decision to Accept any Deliverable hereunder within such fifteen (15) days following such delivery or redelivery.

2. FEES AND EXPENSES.

2.1 SERVICES FEES AND EXPENSES. Upon delivery of each of the respective Deliverables provided by PDF hereunder, Toshiba shall pay to PDF the fees specified to the extent and in the manner set forth in the Statement of Work ("FEES"), and shall reimburse PDF for its out-of-pocket expenses incurred in carrying out its obligations under this Agreement including, but not limited to, travel, hotel, meal, document production, equipment and other expenses directly related to the services performed hereunder further subject to the terms and conditions set forth in the Statement of Work ("EXPENSES"). In no event shall the Expenses for which Toshiba shall be liable hereunder exceed any limitation on Expenses specified in the Statement of Work without written agreement from Toshiba. PDF shall use reasonable and diligent efforts to deliver the Deliverables hereunder within the estimated expenses and time schedule specified in the Statement of Work.

2.2 PAYMENT OF INVOICES If required by applicable law, PDF shall pay any taxes and assessments levied or imposed by any Japanese tax or other governmental body resulting from the services or the Deliverables to be provided by PDF to Toshiba and the payment to be made by Toshiba to PDF hereunder, including without limitation all personal property taxes on any of the foregoing and any taxes or amounts in lieu of any of the foregoing paid or payable by PDF, other than taxes based on PDF's net income. Toshiba agrees that PDF Solutions or PDF Solutions' designated representative will have the right to participate and negotiate in all discussions with the appropriate tax authorities regarding taxes to be paid by PDF Solutions in the process of determining the required tax burden, if any. The parties acknowledge that PDF Solutions shall be obligated to pay any such tax at the reduced withholding income tax rate rather than the ordinary rate by filing "Application Form for Income Tax Convention between the

United States and Japan" with the Japanese tax authorities. If applicable, Toshiba shall send PDF the application form immediately after the execution of this Agreement for PDF's signature and PDF shall promptly sign it and return it to Toshiba so that Toshiba may file it with the applicable Japanese tax authorities on behalf of PDF.

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3. PROPRIETARY RIGHTS

3.1 OWNERSHIP. Toshiba and PDF Solutions acknowledge and agree that, as between them, ownership shall be as follows:

(a) PDF Solutions is the exclusive owner of all PDF Technology and all Proprietary Rights in the PDF Technology;

(b) Toshiba is the exclusive owner of all Analysis, Manufacturing Designs, Raw Data and all Proprietary Rights in the Analysis, Manufacturing Design and the Raw Data; and

(c) Toshiba is the exclusive owner of Mask Sets.

3.2 SOLELY DEVELOPED PROPRIETARY RIGHTS OWNERSHIP. Each party shall solely own any Proprietary Rights solely developed by such party or the employee(s) of such party, whether before, during or after the term of this Agreement.

3.3 GRANT OF LICENSE BY PDF SOLUTIONS. Subject to the terms and conditions of this Agreement, including the timely payment of Fees, PDF Solutions hereby grants to Toshiba and its Subsidiaries, \*\*\*\*\* license to \*\*\*\*\* (as set forth in the Statement of Work), any PDF Technology and associated Proprietary Rights disclosed by PDF Solutions under this Agreement, but only to the extent PDF Solutions has the right to grant such license; provided that such license is solely for the development, manufacture, fabrication and sale of all Toshiba's semiconductor products associated with Toshiba's \*\*\*\*\* Process. The foregoing license includes all PDF Technology disclosed by PDF Solutions in its work for Toshiba hereunder; provided, however, that specifically excluded from this license of PDF Technology is any and all software or software tools used by PDF in connection with or during the course of such services, or software manuals and documentation relating to such software or tools. Notwithstanding the foregoing, Toshiba shall not be limited to the \*\*\*\*\* Process with respect to PDF Technology that consists of methodologies or practices observed by Toshiba personnel in the course of PDF Solutions' work hereunder. In particular, Toshiba shall have the right to create any new CV, GDS-II and related software for the purpose of transferring to other semiconductor process than \*\*\*\*\* Process by using PDF's know-how of CV and modifying CVs generated by PDF under this Agreement ("\*\*\*\*\*"); provided that Toshiba shall not violate any PDF's copyright or patent. In the event that Toshiba reasonably determines that there is a possibility of violating PDF's copyright or patent in connection with the modification of \*\*\*\*\* to be implemented by Toshiba, Toshiba shall consult PDF and PDF shall provide Toshiba with it views thereon and/or alternative solutions to avoid such possible violation. Toshiba shall be bound by and shall cause its sublicensees to be bound by the confidentiality obligations contained in

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Section 6 or obligations at least as restrictive as the confidentiality obligations contained in Section 6. Except as specifically provided herein, Toshiba shall not disclose or license PDF Technology to any third party. Toshiba understands that PDF Solutions will not disclose to Toshiba certain proprietary methods or trade secrets in connection with the services to be rendered by PDF Solutions hereunder. To this end, PDF Solutions retains the right to take industry standard measures to keep such proprietary methods or trade secrets from Toshiba, unless the same defeats or substantially impedes the Scope of

Services and Technology under this Agreement.

3.4 PDF SOLUTIONS SERVICES. PDF Solutions may do the following:

(a) to use, copy, compile, manipulate, analyze or reproduce Raw Data and the Mask Sets solely for the purpose of performing under this Agreement; and

(b) to use and rely upon Raw Data and Analysis for the purpose of supporting Toshiba's yield ramp. PDF Solutions shall be bound by and shall cause its sublicensees to be bound by the confidentiality obligations contained in Section 6 or obligations at least as restrictive as the confidentiality obligations contained in Section 6.

3.5 NO OTHER RIGHTS. Except as otherwise set forth in this Section 3, neither this Agreement nor performance and delivery of the Services and Technology shall give either PDF Solutions or Toshiba any ownership, interest in, or rights to, the Proprietary Rights owned or provided by the other party.

3.6 DEFINITION OF SUBSIDIARY. For the purpose of this Agreement and the Statement of Work, the term "SUBSIDIARY" of any party shall mean any corporation or other entity more than fifty percent (50%) of the Voting Stock of which is beneficially owned or controlled, directly or indirectly, by such party; provided that such corporation, company or other entity shall be deemed to be a Subsidiary only so long as such ownership or control exists. "VOTING STOCK" of any entity shall mean any stock or other equity interest entitled to vote for the election of directors or any equivalent governing body of such entity. Notwithstanding the above, \*\*\*\*\*  
\*\*\*\*\*  
\*\*\*\*\*.  
\*\*\*\*\*.

4. TERM AND TERMINATION.

4.1 COMMENCEMENT. This Agreement shall commence as of the date first set forth above and shall continue in force until completion of the Project, unless sooner terminated as provided in this Section 4.

4.2 TERMINATION.

(a) If either party defaults in the performance of any material obligation hereunder the non-defaulting party may give the defaulting party written notice

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of such default within twenty (20) days following the non-defaulting party's discovery of such default. If the defaulting party fails to cure such default within forty-five (45) days (or such other time period as the parties shall mutually agree) after the defaulting party's receipt of such notice of default, then the non-defaulting party, at its option, may, terminate this Agreement by giving the defaulting party written notice of termination of this Agreement within ten days following the end of such 45-day period. If such notice of default or notice of termination is not given within such period, then the default shall no longer constitute cause for termination of this Agreement.

(b) Either party may terminate this Agreement effective upon written notice to the other party in the event the other party becomes the subject of a voluntary or involuntary petition in bankruptcy or any proceeding relating to insolvency, or assignment for the benefit creditors, if that petition or proceeding is not dismissed within sixty (60) days after filing. Such written notice of termination must be delivered no later than ten (10) days following the expiration of such 60-day period. If such notice of termination is not given within such 10-day period, then the default shall no longer constitute cause for termination of this Agreement.

(c) Either party may terminate this Agreement effective upon written notice to the other party in the event that the other party is merged with or into, or all or substantially all of the other party's assets are sold

to, a third party corporation or other entity, unless such acquiring corporation or entity expressly agrees to assume the other party's obligations under this Agreement. Such written notice of termination must be delivered no later than ten (10) days following the consummation of such transaction. If such notice of termination is not given within such 10-day period, then the default shall no longer constitute cause for termination of this Agreement.

(d) Toshiba shall be entitled to terminate this Agreement upon forty-five (45) days prior written notice if (i) Toshiba reasonably rejects the Deliverables due to their material nonconformity with the Deliverable Description set forth in the Statement of Work (and clearly and properly specifies the reason for such nonconformity), the Acceptance procedure set forth in Section 1.4 shall have been exhausted without an Acceptance, and PDF does not reasonably cure such material nonconformity within forty-five (45) days following the final written rejection of such Deliverable, or (ii) Toshiba reasonably and in good faith judges that the expected progress for the services to be performed by PDF necessary to deliver the Deliverables hereunder cannot be achieved within the mutually agreed time frame, and within forty-five (45) days following such notice PDF cannot reasonably establish that such progress can be achieved. This Agreement may then be terminated by a written notice of termination delivered within ten (10) days following the applicable foregoing forty-five (45) day period. If such written notice of termination is not given within such 10-day period, then the default under this Section 4.2(d) shall no longer constitute cause for termination of this Agreement.

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4.3 TERMINATION OF RIGHTS. Upon expiration or termination of this Agreement, all rights and licenses granted and all obligations undertaken hereunder shall forthwith terminate except the following:

(a) Any and all licenses granted by PDF to Toshiba and its Subsidiaries under this Agreement as to previously delivered, Accepted and paid for Deliverables shall survive the expiration or termination of this Agreement unless this Agreement is terminated by PDF in accordance with the provisions of Section 4.2(a), (b) or (c) in which case none of such licenses shall survive and all copies of such Deliverables shall be returned to PDF.

(b) If Toshiba terminates this Agreement for the reason as stated in Section 4.2, Toshiba shall pay to PDF, within thirty (30) days after the date of termination, (i) the actual amount of unreimbursed Expenses incurred by PDF through the date of termination by Toshiba, (ii) the amount of the Deliverables Fees with respect to Deliverables delivered or otherwise accrued, and unpaid through the date of termination; provided that payment of such Fees and Expenses shall be subject to the provisions of Section 2.

(c) If Toshiba terminates this Agreement for the reason specified in Section 4.2, Toshiba shall pay to PDF:

(i) the amount of any unpaid Product Fees accrued prior to the date of termination; and

(ii) the amount of any future Product Fees in accordance with Paragraph (e)(iii) of the Statement of Work with respect to any Product that incorporates any Deliverable delivered by PDF to Toshiba which Product Fees shall be payable through the term of payment specified in such Paragraph (e)(iii); provided that Product Fees to be accrued and paid following a date of termination shall terminate only if the basis for termination of this Agreement shall be (A) an involuntary bankruptcy under Section 4.2(b) or (B) the material default under PDF's confidentiality obligations under Section 6 of this Agreement;

provided that payment of such Product Fees under this Section 4.3(c) shall be subject to the provisions of Section 2.

(d) The provisions of Sections 2 (including by reference Toshiba's obligations to pay Fees and Expenses set forth in the Statement of Work but subject to Section 4.3(b) and (c)), 3.1, 3.2, 3.4 (with respect to Deliverables delivered by PDF to Toshiba and Accepted and paid for by Toshiba), 4, 6, 7, 8.4, 8.7 and 8.8 shall survive any expiration or termination of this

Agreement.

5. INDEPENDENT CONTRACTORS. The relationship of PDF and Toshiba established by this Agreement is that of independent contractors, and nothing contained in this

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Agreement shall be construed to (i) give either party the power to direct or control the day-to-day activities of the other, (ii) constitute the parties as agents, partners, joint venturers, co-owners or otherwise as participants in a joint or common undertaking, or (iii) allow either party to create or assume any obligation on behalf of the other for any purpose whatsoever.

6. CONFIDENTIALITY. Except as otherwise provided herein, each party agrees, at all times during the term of this Agreement and for \*\*\*\*\* years after receipt of Confidential Information, to hold in strictest confidence (and to cause its Subsidiaries to hold in strictest confidence), and not to use, except for the purposes contemplated herein, or to disclose to any person, firm or corporation without written authorization of the other party, any Confidential Information of the disclosing party. As used in this Agreement, "CONFIDENTIAL INFORMATION" means any proprietary information, technical data, trade secrets or know-how, including, but not limited to, research, software, developments, inventions, processes, formulas, technology, designs, drawings, engineering, hardware configuration information, yield data or other information disclosed by one party to the other, which is marked as "Confidential," and/or orally or in other tangible form identified as confidential at the time of disclosure and confirmed as Confidential Information in writing within thirty (30) days of its initial disclosure, provided that any methodologies, practices or procedures used by PDF and observed by Toshiba shall constitute "Confidential Information" within the meaning of this Agreement without any such notification. Confidential Information does not include any of the foregoing items which have become publicly known and made generally available through no wrongful act of the receiving party, or which is already known by the receiving party as evidenced by the receiving party's files immediately prior to such disclosure, or which the receiving party proves was independently developed, prior to the receiving party's receipt of such Confidential Information, by employees or other representatives of such receiving party who have not had access to such information or the ideas or theories underlying such Confidential Information. Each party receiving Confidential Information of the other party agrees to limit disclosure of Confidential Information to only those of its officers and employees the receiving party considers necessary to complete its services contemplated in this Agreement and then only after such officers and employees have undertaken by Recipient under this Agreement. Except as otherwise agreed by both parties, PDF shall return to Toshiba all Confidential Information of Toshiba owned by Toshiba and not licensed to PDF or jointly owned by PDF and Toshiba and copies thereof, within thirty (30) days after completion of the Project or after expiration or termination of this Agreement. Except as otherwise agreed by both parties, Toshiba shall return to PDF all Confidential Information of PDF owned by PDF and not licensed to Toshiba or jointly owned by PDF and Toshiba and copies thereof, within thirty (30) days after completion of the Project or after expiration or termination of this Agreement.

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7. WARRANTY. PDF warrants to Toshiba that PDF's Intellectual Property utilized by PDF in performing the Project does not infringe any patent, copyright, trade secret, and any other proprietary rights of any third party. EXCEPT FOR THE FOREGOING, NOTHING UNDER THIS AGREEMENT, OR THE STATEMENT OF WORK OR PROJECT SHALL BE DEEMED TO BE A WARRANTY OR REPRESENTATION AS TO THE OUTCOME OF ANY PROJECT OR THE EFFICACY OF ANY RECOMMENDATIONS MADE BY PDF. NOTHING UNDER THIS AGREEMENT OR THE STATEMENT OF WORK SHALL BE DEEMED TO CREATE ANY LIABILITY ON THE PART OF PDF WITH RESPECT TO THE OUTCOME OF A PROJECT OR ANY ACTIONS TAKEN BY TOSHIBA AS A CONSEQUENCE OF PDF'S RECOMMENDATIONS.

8. MISCELLANEOUS.

8.1 AMENDMENTS AND WAIVERS. Any term of this Agreement or any Statement of Work may be amended or waived only with the written consent by the representatives of the parties.

8.2 SOLE AGREEMENT. This Agreement and the Statement of Work constitute the sole agreement of the parties and supersede all oral negotiations and prior writings with respect to the subject matter hereof.

8.3 NOTICES. Any notice required or permitted by this Agreement shall be in writing and shall be deemed sufficient upon receipt, when delivered personally or by an internationally-recognized delivery service (such as Federal Express or DHL), or after being deposited in the U.S. mail as certified or registered mail with postage prepaid, if such notice is addressed to the party to be notified at such party's address as set forth above or as subsequently modified by written notice.

8.4 CHOICE OF LAW. The validity, interpretation, construction and performance of this Agreement shall be governed by the laws of the State of California, without giving effect to the principles of conflict of laws.

8.5 SEVERABILITY. If one or more provisions of this Agreement are held to be unenforceable under applicable law, the parties agree to renegotiate such provision in good faith. In the event that the parties cannot reach a mutually agreeable and enforceable replacement for such provision, then (i) such provision shall be excluded from this Agreement, (ii) the balance of this Agreement shall be interpreted as if such provision were so excluded and (iii) the balance of this Agreement shall be enforceable in accordance with its other terms.

8.6 COUNTERPARTS. This Agreement may be executed in counterparts, each of which shall be deemed an original, but all of which together will constitute one and the same instrument.

8.7 ARBITRATION. The parties shall attempt in good faith to resolve any dispute

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arising under this Agreement. If the parties are unable to resolve dispute within a reasonable period then the dispute shall be finally settled by binding arbitration (a) if brought by Toshiba, in San Jose, California, in accordance with the Commercial Rules of the American Arbitration Association and, (b) if brought by PDF, in Tokyo, Japan in accordance with the rules of the International Chamber of Commerce. In either case such arbitration shall be conducted by one arbitrator appointed in accordance with said rules. The arbitrator shall apply California law, without reference to rules of conflicts of law or rules of statutory arbitration, to the resolution of any dispute. Judgment on the award rendered by the arbitrator may be entered in any court having jurisdiction thereof. Notwithstanding the foregoing, the parties may apply to any court of competent jurisdiction for preliminary or interim equitable relief, or to compel arbitration in accordance with this paragraph, without breach of this arbitration provision.

8.8 EXPORT CONTROL. Neither party shall, directly or indirectly export or re-export any technical data or information or data received from the other party hereunder or the direct products thereof to any destination prohibited or restricted by export control regulations of Japan and the United States, including U.S. Export Administration Regulations, without proper authorization from the appropriate governmental authorities. In addition, the parties agree that no technology furnished to the other will be used for any purpose to develop and/or manufacture nuclear, chemical or biological weapons and/or missiles.

8.9 NON-SOLICITATION. Toshiba shall not solicit or influence or attempt to influence any person employed by PDF to terminate or otherwise cease his or her employment with PDF or become an employee of Toshiba or any competitor of PDF. A company's status as a competitor of PDF shall be determined by PDF in its sole discretion.

8.10 PUBLICITY. Neither party shall disclose the terms of this Agreement to any third party, or in any manner advertise or publish statements to such effect, without the prior written consent and mutual agreement as to the content, medium, and manner of the public announcement of the other party. Customer agrees during the term to work in good faith with PDF Solutions to produce mutually acceptable public announcements by PDF Solutions of PDF Solutions' engagement with Customer under this Agreement. Notwithstanding the above, should one of the parties be required to disclose either the existence or terms of this Agreement to a court of law, a governmental agency, an auditor or a bank, such party may do so without the prior written consent of the other party provided that the disclosing party: (i) notifies the recipient of the confidential nature of the information, (ii) requests confidential treatment of such information, (iii) limits the disclosure to only such information as is required under the circumstances, and (iv) delivers prompt notice to the other party of such requested or actual disclosure.

IN WITNESS WHEREOF, the parties have executed this Agreement as of the date first

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set forth above.

PDF SOLUTIONS, INC.

TOSHIBA CORPORATION

By: /s/ John K. Kibarian

By: /s/ Yasuo Morimoto

Name: John K. Kibarian

Name: Yasuo Morimoto

Title: President

Title: President & CEO,  
Semiconductor Company

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EXHIBIT A

STATEMENT OF WORK

\*\*\*\*\*  
For  
\*\*\*\*\*  
\*\*\*\*\*

This Statement of Work is made between PDF Solutions, Inc. ("PDF") and Toshiba Corporation ("TOSHIBA") pursuant to and attached as an exhibit to that certain Technology Cooperation Agreement dated as of \*\*\*\*\* (the "AGREEMENT") between PDF and Toshiba. All terms and conditions contained in this Statement of Work are subject to the terms and conditions set forth in the Agreement. The date of commencement of services under this Agreement was \*\*\*\*\* (the "ENGAGEMENT COMMENCEMENT DATE").

PROJECT DESCRIPTION & GOALS

PDF Solutions agrees to provide Toshiba with \*\*\*\*\* services for Toshiba's \*\*\*\*\* technology development. Services in support of this project are divided into two major components:

- (1) \*\*\*\*\*
- (2) \*\*\*\*\*

(a) PROJECTS, DELIVERABLES AND FEE

Two sections are outlined below that review the project services.  
 The two sections each have Project Phases and Deliverables.

- (1) \*\*\*\*\* PROJECT (START DATE = \*\*\*\*\*)  
 Seven phases are included in this project;  
 (i) \*\*\*\*\*  
 (ii) \*\*\*\*\*  
 (iii) \*\*\*\*\*  
 (iv) \*\*\*\*\*  
 (v) \*\*\*\*\*  
 (vi) \*\*\*\*\*  
 (vii) \*\*\*\*\*  
 Five deliverables are included in this project;  
 (i) \*\*\*\*\*  
 (ii) \*\*\*\*\*  
 (iii) \*\*\*\*\*  
 (iv) \*\*\*\*\*  
 (v) \*\*\*\*\*

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(a) DESCRIPTION OF PHASES (START DATE : \*\*\*\*\*)

PROJECT PHASE	PDF SOLUTIONS WORK STEPS	DURATION
*****	*****	***
*****	*****	***
*****	*****	***
*****	*****	***
*****	*****	***
*****	*****	***
*****	*****	***

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(b) DELIVERABLES

DELIVERABLE	DESCRIPTION	PLANED DELIVERY MONTH	DELIVER-ABLE FEE	QUARTERLY ***** FEE	ESTIMATED PERIOD OF ***** FEE
*****	*****	***	***	***	***
*****	*****	***	***	***	***
*****	*****	***	***	***	***
*****	*****	***	***	***	***
*****	*****	***	***	***	***



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- (2) \*\*\*\*\* PROJECT
- Four major phases are included in this project;
- (i) \*\*\*\*\*
- (ii) \*\*\*\*\*
- (iii) \*\*\*\*\*
- (iv) \*\*\*\*\*
- Six deliverables are included in this project;
- (i) \*\*\*\*\*
- (ii) \*\*\*\*\*
- (iii) \*\*\*\*\*
- (iv) \*\*\*\*\*
- (v) \*\*\*\*\* \*\*\*\*\*
- (vi) \*\*\*\*\*

(a) DESCRIPTION OF PHASES (START DATE : \*\*\*\*\*)

- (i) \*\*\*\*\*PHASE (START DATE = \*\*\*\*\*)

PROJECT PHASE	PDF SOLUTIONS WORK STEPS	ESTIMATED DURATION
---------------	--------------------------	--------------------

\*\*\*\*\*

- (ii) \*\*\*\*\*PHASES (START DATE = \*\*\*\*\*)

PROJECT PHASE	PDF SOLUTIONS WORK STEPS	ESTIMATED DURATION
---------------	--------------------------	--------------------

\*\*\*\*\*

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- (iii) \*\*\*\*\* (START DATE = \*\*\*\*\*)

PROJECT PHASE	PDF SOLUTIONS WORK STEPS	ESTIMATED DURATION
---------------	--------------------------	--------------------

\*\*\*\*\*

- (iv) \*\*\*\*\* (START DATE = \*\*\*\*\*)

PROJECT PHASE	PDF SOLUTIONS WORK STEPS	ESTIMATED DURATION
*****		*****
*****		

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(b) DELIVERABLES

DELIVERABLE	DESCRIPTION	PLANED DELIVERY MONTH	DELIVER-ABLE FEE	***** ***** FEE	ESTIMATED PERIOD OF ***** ***** FEE
*****					

\*1 : \*\*\*\*\* \*\* \*\*\*\*\* \*\*\*\*\* \*\*\*\*\* \*\* \*\*\*\*\* \*\* \* \*\*\*\*\* \*\*\*\*\*  
 \*\*\*\*\* \*\*\*\*\* \*\*\*\*\* \*\*\*\*\* \*\*\*\*\* \*\*\*\*\* \*\*\*\*\* \*\*\*\*\* \*\*\*\*\*  
 \*\*\*\*\*.

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(b) TEAM STRUCTURE

The team is structured to divide the decision-making, project leadership and analysis management between three bodies in the form of "TEAM STRUCTURE" in the form attached to this Statement of Work as Exhibit C.

Toshiba will establish a Steering Committee (the "STEERING COMMITTEE") which will consist of (a) \*\*\*\*\* and any other Toshiba manager who is necessary in order for yield improvement decisions to be made, and (b) \*\*\*\*\* or another senior executive of PDF. The Steering Committee will be limited to four representatives of Toshiba and one representative of PDF. The Steering Committee will have sufficient authority to make the relevant decisions concerning this Project. The Steering Committee is responsible for giving the team its charter, deciding which yield improvement actions to take and who in the Toshiba organization will be responsible for carrying out the improvement.

Project leadership responsibility will be shared by \*\*\*\*\* (the "TOSHIBA PROJECT MANAGER") on behalf of Toshiba, and \*\*\*\*\* (the "PDF PROJECT MANAGER"), on behalf of PDF. Their primary responsibility will be to ensure overall project status include delivery timing and the deliverables of the work chartered by the Steering Committee. In order to maximize the likelihood that the team is making good progress, the Project Managers will monitor the team's work on a monthly basis and help reduce any organizational obstacles which may impede the team's progress.

Technical responsibility will be shared by \*\*\*\*\* for \*\*\*\*\* project, \*\*\*\*\* for \*\*\*\*\* project, \*\*\*\*\* for \*\*\*\*\* and others (the "TOSHIBA ENGAGEMENT MANAGER") on behalf of Toshiba, and \*\*\*\*\* (the "PDF ENGAGEMENT MANAGER"), on behalf of PDF. Their primary responsibility will be to ensure that the team is making good progress toward delivery of the work. Engagement Managers will monitor the team's work on a weekly basis and ensure the project from technical view point.

The day-to-day analyses will be conducted by a \*\*\*\*\* Team ("\*\*\*\*") of engineers from Toshiba and PDF. A PDF Engagement Manager will manage the activities of the \*\*\*\*. The PDF Engagement Manager will be responsible for directing all team members in their analyses as well as aggregating and synthesizing the results of all the analyses conducted by the entire team. In addition, the Engagement Managers will be the principal point of contact for any technical questions regarding the project.

Up to \*\*\*\*\* Toshiba engineers will be asked to participate actively with the \*\*\*\*. Toshiba team members should be assigned to \*\*\*\* and be skilled at \*\*\*\*\*. Toshiba engineers will be placed on the Team after approval by PDF for the purpose of gathering data and conducting analyses. The Toshiba team members will work at the direction of the Engagement Managers.

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(c) TOOLS

Toshiba will provide PDF with office space and other reasonable and customary business resources. In particular, Toshiba will provide PDF with secure office space large enough to accommodate the required PDF personnel in addition to the Toshiba engineers assigned to work on the \*\*\*. Toshiba will provide PDF with office equipment reasonably requested by PDF from time to time including \*\*\*\* international access telephones (including such analog lines as PDF shall request), an international access Facsimile machine and line, and a photocopier. Toshiba will provide PDF with 24-hour access to the team office so work can continue at night and on weekends.

Toshiba will provide PDF with computing resources that PDF reasonably deems necessary to conduct \*\*\*\*\*. The details of such request will be sent in a separate document to the Toshiba Engineering Manager but in general, Toshiba will provide \*\*\*\* engineering workstations connected to both the Toshiba network and the Internet. Toshiba will also provide such other accessories as PDF shall reasonably request including, but not limited to, a removable data storage device, such as a tape drive and a printer.

(d) LOCATION

The Project will be conducted by Toshiba's and PDF's personnel at Toshiba's \*\*\*\*\* and PDF's facilities in San Jose, CA. In certain cases, PDF may require Toshiba engineers to work at the PDF facility in San Jose, California. PDF engineers may also work in \*\*\*\*\* and \*\*\*\* factory when the engagement manager believes this is necessary to achieve progress. If Toshiba shall provide PDF employees with an English version of the employee rules and regulations in force at the Toshiba facilities, then PDF employees shall comply with such rules and regulations in all material respects in an equivalent manner as other Toshiba employees generally. Any failure to comply with such rules and regulations shall not constitute a default of a material obligation constituting a basis for termination of this Agreement unless (A) Toshiba has repeatedly given notices of such failure to PDF and PDF has repeatedly failed to remedy such noncompliance as specified in such notices, (B) Toshiba shall notify PDF in writing that failure to cure such repeated non compliance within 45 days shall constitute a basis for termination of the Agreement and PDF shall fail to remedy such non compliance, and (C) Toshiba gives final notice of termination within ten (10) days following such 45 day period. PDF shall take all reasonable steps necessary to ensure that all employees resident at or visiting a Toshiba facility shall treat as confidential in accordance with Section 6 all material

information of a proprietary nature observed by or disclosed to such employee, and shall comply in all material respects with the all export control obligations contained in Section 8.8.

FEEES AND EXPENSESES.

Toshiba will pay PDF Fees consisting of three components: (1) the \*\*\*\*\* Fees and (2) the \*\*\*\*\* Fees and (3) the \*\*\*\*\* Fees, each as defined below:

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(i) DELIVERABLE FEEES. Toshiba will pay PDF a deliverable fee described in each deliverable tables after each deliverable are provided to Toshiba (the "DELIVERABLE FEEES"). The payment will be made within thirty (30) days of receipt of an invoice covering such Deliverable Fees.

(ii) \*\*\*\*\*

(iii) \*\*\*\*\*

EXPENSESES.

Toshiba will reimburse PDF for all reasonable and customary Expenses incurred by PDF in performing the services, delivering the Deliverables and fulfilling its obligations under the Project. The Expenses will be billed to Toshiba at PDF's cost and will not exceed an average of \*\*\*\*\* per calendar quarter without the written consent of Toshiba. PDF will submit to Toshiba invoices specifying the Expenses and Toshiba will pay the Expenses within thirty (30) days of the receipt of the invoice. Invoices will be submitted to Toshiba no more frequently than a monthly basis. Payments of invoices for PDF's expenses will be made in accordance with the provisions of Section 2.2 of the Agreement. Notwithstanding the foregoing if PDF is entitled to receive reimbursement of the same travel, lodging and other similar expenses from both Toshiba and other customers, then PDF will allocate any expenses that are for the benefit of both Toshiba and such other customers, among Toshiba and such other customers on a basis that PDF shall determine is fair, just and equitable to Toshiba and such other customers taking into account all relevant factors.

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ASTERISKS DENOTE SUCH OMISSIONS.

EXHIBIT 10.4

CONFIDENTIAL TREATMENT  
PDF SOLUTIONS, INC. HAS REQUESTED  
THAT THE MARKED PORTIONS OF THIS  
DOCUMENT BE ACCORDED CONFIDENTIAL  
TREATMENT PURSUANT TO RULE 406 UNDER  
THE SECURITIES ACT OF 1933, AS AMENDED.

PHILIPS SEMICONDUCTOR  
JANUARY 21, 2000

YIELD IMPROVEMENT  
CONSULTING AGREEMENT

This Yield Improvement Consulting Agreement (this "AGREEMENT") effective as of \*\*\*\*\* (the "EFFECTIVE DATE") is entered into by and between Philips Semiconductor, a corporation organized under the laws of California having its principal place of business at PO Box 3409, Sunnyvale, CA 94088, ("PHILIPS") and PDF Solutions, Inc., a corporation organized under the laws of California, having its principal place of business at 333 West San Carlos Street, Suite 700, San Jose, California, U.S.A. ("PDF").

1. YIELD IMPROVEMENT SERVICES.

1.1 During the term of this Agreement, PDF will provide consulting services with respect to integrated circuit yield management issues to Philips. The services (the "PROJECT") are described in detail on a statement of work (the "STATEMENT OF WORK") attached hereto as Exhibit A. The manner and means used by PDF to perform the Services desired by Philips are in the sole discretion and control of PDF. The Statement of Work shall be governed by the terms of this Agreement, and specifies:

- (a) Deliverables. The specific deliverables (the "DELIVERABLES") to be delivered under the Project and relevant milestones for delivering the Deliverables;
- (b) Time Line. A time line for the Project and delivery of the Deliverables;
- (c) Team Members. The team members from PDF and Philips who are to work on the Project and the expected time contributions for each such member;

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ASTERISKS DENOTE SUCH OMISSIONS.

- (d) Data and Tools. The required data, tools, hardware, software, materials, access to personnel and facilities, and other materials required for effectively completing the Project;
- (e) Location. The geographic location where each component of the Project will be completed;
- (f) Fees. The amount and structure of service fees and expenses

payable to PDF.

1.2 Under this Agreement, PDF is not providing or licensing to Philips any existing PDF software programs or products, except to the extent set forth in the Statement of Work, but then only to the extent set forth in a separate software license agreement specifying the software licensed.

1.3 Philips will provide PDF with such information, materials, technology and Intellectual Property (as defined in Section 3.1) as PDF shall reasonably require in order to perform the Project and/or prepare the Deliverables as specified in the Statement of Work (the "LICENSED PHILIPS TECHNOLOGY"). Philips hereby grants PDF a \*\*\*\*\* license to use and practice the Licensed Philips Technology, in order for PDF to perform the Services and develop or prepare the Deliverables solely during the term of this Agreement. Philips agrees to obtain for PDF the right to use, for the purpose of performing the Services and preparing the Deliverables, such third party information, materials and technology, and the Intellectual Property rights therein, as PDF reasonably requires in order to perform the Services and/or prepare the Deliverables.

1.4 In performing the Project, PDF shall exercise all commercially reasonable efforts to prepare, develop and/or make for Philips the Deliverables in accordance with the time schedules set forth in the Statement of Work. PDF shall exercise all commercially reasonable efforts to prepare the Deliverables in conformity with the specifications set forth in the Statement of Work for such Deliverables.

1.5 Upon delivery of any Deliverable by PDF to Philips, Philips shall examine the Deliverable to determine whether it reasonably meets the Specifications set forth in the Statement of Work. If the Deliverable does not reasonably meet such Specifications, Philips shall have ten (10) days from the date of delivery thereof to reject such Deliverable and specify why it does not reasonably meet such Specifications. Upon such rejection the parties shall work together to determine what needs to be done to bring such Deliverable up to such Specifications. If the Deliverable does not meet the Specifications, PDF shall exercise reasonable efforts to correct promptly such nonconformity of the Deliverable with the Specification and redeliver the Deliverable to Philips upon completion of such correction as soon as reasonably practicable. If a rejection of the Deliverable is not received by PDF within such ten (10) day Period, the Deliverable shall be deemed accepted. Any such acceptance is referred to as an "ACCEPTANCE." Philips agrees to deliver a notice of Acceptance (the "NOTICE OF ACCEPTANCE") of any Deliverable that is Accepted hereunder within such ten (10) day period.

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ASTERISKS DENOTE SUCH OMISSIONS.

1.6 Philips and PDF agree to cooperate in good faith to achieve completion of the Services in a timely and professional manner. Philips understands and agrees that PDF's provision of the Services may depend on Philips completing certain tasks or adhering to certain schedules within Philips's control. Consequently, the schedule for completion of the Services or any portion thereof or delivery of any Deliverable may require adjustments or changes in the event such Philips's tasks or schedules change or are modified or are not completed as anticipated. PDF shall bear no liability or otherwise be responsible for delays in the provision of Services or any portion thereof occasioned by Philips's failure to complete a Philips task or adhere to a Philips schedule.

2. FEES AND EXPENSES.

2.1 For the performance of the Project and the Deliverables provided by PDF hereunder, Philips shall pay to PDF the fees and expenses set forth in the Statement of Work ("SERVICE FEES"). Philips shall also reimburse PDF for its out-of-pocket expenses incurred in carrying out its obligations under this Agreement including, but not limited to, travel, hotel, meal, document production and other expenses directly related to the Services performed

hereunder further subject to the terms and conditions set forth in the Statement of Work ("EXPENSES").

2.2 PDF shall invoice Philips for its Service Fees and Expenses upon delivery of a Deliverable or otherwise earning a Service Fee, and otherwise on a monthly basis. Such invoice shall be accompanied by a reasonably detailed breakdown of the invoiced amount. All invoices shall be due and payable when invoiced, and shall be deemed overdue if they remain unpaid 30 days after they become payable. Philips shall pay to PDF the Service Fee so invoiced, within thirty (30) days after its receipt of PDF's invoice therefor.

2.3 All payments by Philips hereunder shall be made by wire transfer to a bank account to be designated by PDF. The amounts payable to PDF set forth in the Statement of Work are exclusive of any sales or use or other taxes or governmental charges. Philips shall be responsible for payment of all such taxes or charges except for any taxes based solely on PDF's net income. If Philips is required to pay any taxes based on this Section 2.3, Philips shall pay such taxes with no reduction or offset in the amounts payable to PDF hereunder.

2.4 All amounts which Philips does not pay on a timely basis as required by this Agreement shall be subject to a late charge equal to one and one-half percent (1.5%) per month (or, if less, the maximum allowed by applicable law). In the event that any payment due hereunder is overdue, PDF reserves the right to suspend performance until such delinquency is corrected.

3. OWNERSHIP.

3.1 Each party shall solely own any Intellectual Property developed solely by the employee(s) or agents of such party, whether before, during or after the term of this Agreement. For the purposes of this Agreement, provided however, that PDF shall grant Philips a \*\*\*\*\* license \*\*\*\*\* to use any Intellectual Property constituting a Deliverable that is developed solely by PDF pursuant to a Statement of Work. "INTELLECTUAL

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PROPERTY" shall mean the Confidential Information (as defined in Section 7), patent and patent applications, copyrights, trademarks, trade secrets, know how, maskworks, industrial design rights, rights of authorship, rights of priority, and any other intellectual property rights or rights protecting intangible property information recognized by the law of any country or jurisdiction of the world.

3.2 Any Intellectual Property jointly developed by the employees of both parties in connection with or as a result of the Services shall be jointly-owned by PDF and Philips; provided, however, that any such Intellectual Property so jointly developed by PDF and Philips which consists of, effects or results in any improvement, enhancement or derivative work of PDF's software and methodologies (including, problem solving processes and practices) and Intellectual Property shall be solely owned by PDF but subject to the license provided in Section 3.4; provided, further, that any such Intellectual Property so jointly developed by PDF and Philips in the manner embodied in the Deliverables and in Philips's product designs, products, fabrication facilities or fabrication processes shall be owned solely by Philips. Each party shall have the right to use, exercise, disclose and license to third parties such jointly developed Intellectual Property that is not solely owned by the other party without accounting to or the consent of the other party.

3.3 PDF shall grant to Philips and its subsidiaries a \*\*\*\*\*  
\*\*\*\*\* license (\*\*\*\*\*  
\*\*\*\*\* to use, have used for Philips and/or its  
subsidiaries, copy, modify and/or enhance the Deliverables as set forth in the  
Statement of Work and any PDF-owned methodologies or practices that Philips  
shall observe in the ordinary course of the provision of services by PDF under  
this Agreement (collectively, the "LICENSED PROPERTY") for any purpose in  
connection with sales, development, manufacture, fabrication, and/or use of  
products of Philips and/or its subsidiaries, but only to the extent PDF has the

right to grant such license; provided that such license shall not extend to any software or tools used by PDF in connection with or during the course of such services or to any software manuals or documents relating to such software or tools except as specifically provided herein; provided, further, that Philips shall be bound by and shall cause its sublicensees to be bound by the confidentiality obligations contained in Section 7; provided, further, that Philips shall not disclose or license any such Licensed Property to any third party independent of the third party's sale, development, manufacturing, fabrication and/or use of semiconductor products in connection with Philips technology or Philips products. Philips understands that PDF will not disclose to Philips certain proprietary methods or trade secrets in connection with the services to be rendered by PDF hereunder. To this end, PDF retains the right to take industry standard measures to keep such proprietary methods or trade secrets from Philips.

3.4 Except as otherwise set forth in this Section 3, neither this Agreement nor performance of the Project shall give either PDF or Philips any ownership, interest in or rights to the Intellectual Property owned or provided by the other party.

#### 4. TERM AND TERMINATION.

4.1 This Agreement shall commence as of the date first set forth above and shall continue in force until completion of the Project, unless sooner terminated as provided in this Section 4.

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4.2 This Agreement may be terminated upon \*\*\*\*\* prior written notice by either party if the other party materially breaches or fails to perform any material obligations-hereunder and the breaching party fails to cure such breach within thirty (30) days of written notice of breach from the non breaching party. Notwithstanding the foregoing, the cure period for any failure of Philips to pay fees and charges due hereunder shall be 10 days from the date of receipt by Philips of any notice of breach relating thereto.

4.3 Upon expiration or termination of this Agreement, all rights and licenses granted and obligations undertaken hereunder shall forthwith terminate except the following:

- (a) Any and all licenses granted by PDF to Philips under this Agreement shall survive the expiration or termination unless this Agreement is terminated by PDF or Philips in accordance with the provisions of Section 4.2.
- (b) Within thirty (30) days of termination of this Agreement for any reason, PDF shall submit to Philips an itemized invoice for any Service Fees or Expenses accrued and unpaid under this Agreement prior to the date of such termination. Payments shall be made in accordance with Section 2.
- (c) The provisions of Sections 3.1, 3.2, 3.4, 4, 5, 6, 7, 8, 9, 10, 11 shall survive any expiration or termination of this Agreement. .

5. INDEPENDENT CONTRACTORS. The relationship of PDF and Philips established by this Agreement is that of independent contractors, and nothing contained in this Agreement shall be construed to (i) give either party the power to direct or control the day-to-day activities of the other, (ii) constitute the, parties as agents, partners, joint venturers, co-owners, or otherwise as participants in a joint or common undertaking, or (iii) either party to create or assume any obligation on behalf of the other or bind the other for any purpose whatsoever nor shall either party represent to anyone that it has such power or authority.

6. RIGHT TO PERFORM SERVICES FOR OTHERS. Philips acknowledges that PDF has extensive expertise, experience, and proprietary products and tools in the area of electronic design and yield improvement and that PDF intends to utilize such expertise, experience, products and tools in providing consulting services and other services to other clients. Subject to PDF's compliance with the confidentiality provisions stated herein, nothing in this Agreement shall



restrict or limit PDF from performing such design consulting or other services to any other entity in any industry, including the semiconductor and electronics industries. Philips agrees that, except as otherwise agreed in this Agreement, PDF and its employees may provide design consulting services similar in nature to the Services for any third parties both during and after the term of this Agreement. Subject to the limitations placed on PDF by the confidentiality provisions of this Agreement or by any existing Non-Disclosure Agreement between PDF and Philips, PDF may in its sole discretion develop, use, market, license, offer for sale, or sell any software, application or product that is similar or related to that which was developed by PDF for Philips hereunder.

7. CONFIDENTIALITY.

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7.1 Except as otherwise provided herein, each party agrees, at all times during the term of this Agreement and for \*\*\*\*\* years after receipt of Confidential Information, to hold in strictest confidence (and to cause its subsidiaries, employees and affiliates to hold in strictest confidence), and not to use, except for the purposes contemplated herein, or to disclose to any person, firm or corporation without written authorization of the other party, any Confidential Information of the disclosing party. As used in this Agreement, "CONFIDENTIAL INFORMATION" means any proprietary information, technical data, trade secrets or know-how, including, but not limited to, research, software, developments, inventions, processes, design flows, methods, methodologies, formulas, algorithms, technologies, designs, drawings, engineering, hardware configuration information, yield data or other information disclosed by one party to the other either directly or indirectly in writing, orally or by drawings or observation of parts or equipment.

7.2 Confidential Information does not include any of the foregoing items which (a) is or becomes a part of the public domain through no act or omission of the other party; (b) was in the other party's lawful possession prior to the disclosure as evidenced by the receiving party's files immediately prior to such disclosure and had not been obtained by the other party either directly or indirectly from the disclosing party; (c) is lawfully disclosed to the other party by a third party without restriction on disclosure; or (d) is independently developed by the other party by employees or agents without access to the party's Confidential Information.

7.3 Except as otherwise agreed by both parties, PDF shall return to Philips all Confidential Information of Philips owned by Philips and not licensed to PDF or jointly owned by PDF and Philips and copies thereof, within thirty (30) days after completion of the Project or after expiration or termination of this Agreement. Except as otherwise agreed by both parties, Philips shall return to PDF all Confidential Information of PDF owned by PDF and not licensed to Philips or jointly owned by PDF and Philips and copies thereof, within thirty (30) days after completion of the Project or after expiration or termination of this Agreement.

8. WARRANTY.

8.1 PDF warrants to Philips that the Services provided hereunder will be performed in a professional manner consistent with the quality of PDF's performance of services for similarly situated clients.

8.2 THE WARRANTY ABOVE IS EXCLUSIVE AND IN LIEU OF ALL OTHER WARRANTIES, WHETHER EXPRESS OR IMPLIED, INCLUDING THE IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR NON-INFRINGEMENT, WHICH ARE EXPRESSLY DISCLAIMED. NOTHING UNDER THIS AGREEMENT, OR THE STATEMENT OF WORK OR PROJECT SHALL BE DEEMED TO BE A WARRANTY AS TO THE OUTCOME OF ANY PROJECT OR THE EFFICACY OF ANY RECOMMENDATIONS MADE BY PDF. NOTHING UNDER THIS AGREEMENT OR THE STATEMENT OF WORK SHALL BE DEEMED TO CREATE ANY LIABILITY ON THE PART OF PDF WITH RESPECT TO THE OUTCOME OF A PROJECT OR ANY ACTIONS TAKEN BY PHILIPS AS A CONSEQUENCE OF PDF'S RECOMMENDATIONS.

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9. LIMITATIONS ON LIABILITY.

9.1 IN NO EVENT SHALL EITHER PARTY BE LIABLE TO THE OTHER FOR SPECIAL, CONSEQUENTIAL, INCIDENTAL, INDIRECT, PUNITIVE OR EXEMPLARY DAMAGES, HOWEVER CAUSED, WHETHER FOR BREACH OF WARRANTY, CONTRACT, TORT NEGLIGENCE, STRICT LIABILITY OR OTHERWISE, EVEN IF SUCH PARTY HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

9.2 No action, regardless of form, arising from this Agreement may be brought by either party more than one (1) year after the cause of action has accrued, except that an action for non-payment may be brought within one (1) year after the later of the date of last payment or the date such unpaid amount should have been paid.

10. DISPUTE RESOLUTION.

10.1 The parties shall attempt in good faith to resolve any dispute arising under this Agreement informally according to the following procedure. Upon written request of either party identifying a dispute to be resolved, each party will designate an executive officer with the responsibility and authority to resolve the dispute. These officers shall meet preliminarily within fifteen (15) days (or such longer time period as the parties shall agree) after the request to identify the scope of the dispute and the information needed to discuss and attempt to resolve such dispute. These officers shall then gather relevant information regarding the dispute and shall meet to discuss the issue and to negotiate in good faith to resolve the issue.

10.2 In the event the parties are unable to resolve the dispute within thirty (30) days after the first meeting of the designated officers as specified above (or such longer time period as the parties agree), then the dispute shall be resolved by binding arbitration under the terms of this Section 10.2. The arbitration shall be held in the city of San Jose, California U.S.A. in accordance with the then existing Commercial Arbitration Rules of the American Arbitration Association, as modified hereunder. The arbitration shall be conducted by one (1) arbitrator, who shall be an expert in the area of the industry and not associated with either party. The decision of the arbitrator shall be binding upon the parties, and judgment in accordance with that decision may be entered in any court having jurisdiction thereof.

10.3 Nothing in this Section shall restrict the right of either party to apply to a court of competent jurisdiction for emergency equitable relief prior to or pending final determination of a claim by arbitration in accordance with this Section. The prevailing party in any arbitration or judicial action brought to enforce or interpret this Agreement or for relief for its breach shall be entitled to recover its costs (including its share of arbitration fees) and its reasonable attorneys fees therein incurred.

11. MISCELLANEOUS

11.1 AMENDMENTS AND WAIVERS; INTERPRETATION. Any term of this Agreement or any Statement of Work may be amended or waived only with the written consent by the representatives of the parties. The failure of a party to enforce any provision of this Agreement shall not constitute a waiver of such provision or the right of such party to enforce such provision

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or any other provision. In the event that any term of the Statement of Work

conflicts with the terms of this Agreement, the terms of this Agreement shall take precedence.

11.2 ASSIGNMENT. Neither party shall assign, delegate, or subcontract any portion of its Canada and the United States, including U.S. Export Administration Regulations, without proper authorization from the appropriate governmental authorities. In addition, the parties agree that no technology furnished to the other will be used for any purpose to develop and/or manufacture nuclear, chemical or biological weapons and/or missiles.

11.3 NON-SOLICITATION. Philips shall not solicit or influence or attempt to influence any person employed by PDF to terminate or otherwise cease his or her employment with PDF or become an employee of Philips or any competitor of PDF. A company's status as a competitor of PDF shall be determined by PDF in its sole discretion.

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IN WITNESS WHEREOF, the-parties have executed this Agreement as of the date first set forth above.

PHILIPS SEMICONDUCTOR                                 PDF SOLUTIONS, INC.

By:         /s/ David Ledvina                                 By:         /s/ PS Melman

Title: Vice President   Title: CFO

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PHILIPS SEMICONDUCTORS - \*\*\*\*\*

DATE:                 1/21/2000  
TO:                     Dave Joseph - PDF Solutions  
CC:                     \*\*\*\*\*  
                           \*\*\*\*\*  
FROM:                  Miguel Delgado  
RE.                     PDF - Yield Improvement Deliverables  
PRIORITY:             (Urgent)

-----  
The scope of the yield consulting service is to improve Philips \*\*\*\*\*  
\*\*\*\*\* as outlined in the PDF Solutions, Inc. presentation "Yield  
Improvement Proposal \*\*\*\*\*", dated \*\*\*\*\*.

PDF's overall services shall be aimed to improve \*\*\*\*\* yield to achieve  
\*\*\*\*\* plus  
various deliverables as outlined in the above cited document and PDF revision  
1.2, including software.

Outlined below is a list of essential deliverables from PDF Solutions, Inc. to  
the \*\*\*\*\*. The bases of these deliverables are the above-named documents,

with the following clarifications and modifications:

1. \*\*\*\*\*  
\*\*\*\*\*  
\*\*\*\*\*.

2. \*\*\*\*\*.

2.1 \*\*\*\*\*  
\*\*\*\*\*  
\*\*\*\*\*.

3. Software License Fees:

3.1 Philips-\*\*\*\*\* to be granted, \*\*\*\*\*, a software license to use \*\*\*\* for the duration of the project (expected to be \* months).

3.2 For use beyond the projects duration:

3.2.1 \*\*\*\*\*  
\*\*\*\*\*  
\*\*\*\*\*

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3.2.2 \*\*\*\*\*  
\*\*\*\*\*  
\*\*\*\*\*

3.2.3 \*\*\*\*\*  
\*\*\*\*\*  
\*\*\*\*\*

3.3 \*\*\*\*\*  
\*\*\*\*\*  
\*\*\*\*\*  
\*\*\*\*\*  
\*\*\*\*\*.

3.4 \*\*\*\*\*  
\*\*\*\*\*  
\*\*\*\*\*

3.5 Complete training of the use of the software and analysis techniques - provide \*\*\*\*\* classes that cover the use of the tools. Details to be worked out between PDF and Philips Semiconductors,\*\*\*\*\*.

3.5.1 Training of approx. \*\*\* engineers over the \*\*\* months engagement period in up to \*\*\*\*\* classes.

3.6 Software customization specific to \*\*\*\*\* will provided at mutually acceptable time frame throughout the life of the engagement.

4. CV and CVA License Fees:

4.1 \*\*\*\*\* included in fixed fee.

4.2 \*\*\*\*\*

4.3 Characterization Vehicles -  
\*\*\*\*\*. These are vehicles to provide the \*\*\*\*\*  
\*\*\*\*\*.

- 4.4 \*\*\*\*\*  
\*\*\*\*\*.
- 4.5 \*\*\*\*\*  
\*\*\*\*\*.

5. Module Support and Resources:

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- 5.1 \*\*\*\*\*  
\*\*\*\*\*.
- 5.2 Philips Semiconductors will have full access to all PDF research and experience on best known methods/practices that are not restricted by confidentiality agreements.
- 5.3 Philips \*\*\*\*\* will have full access to data search capabilities and resources within PDF to bring resolutions to issues and or enhancements to \*\*\*\*\* and or \*\*\*\*\* issues.
- 5.4 On site resources for module issues and or software will be provided \*\*\*\*\*.
- 5.5 Minimum PDF resources dedicated to the program:
  - 5.5.1 \*\*\*\*\* Engagement Leader (~ \*\*% on site).
  - 5.5.2 \*\*\*\*\*

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EXHIBIT "B"  
TO SERVICES AGREEMENT

FEEES

GENERAL

The Services specifically contemplate is the improvement of Philips \*\*\*\*\* yield ramp for \*\*\* from the baseline yield ramp as defined in the Statement of Work (SOW). \*\*\*\*\*

FIXED FEE

PDF shall invoice Philips for \*\*\*\*\*. The estimate is for Phase 1 as described in the SOW is \*\*\*\*\*. The duration may be modified in writing by mutual agreement. Philips shall pay such invoices in accordance with this Agreement.

INCENTIVE FEE

PDF and Philips shall review the yield of all wafers processed on the \*\*\*\* product line and determine the yields.  
\*\*\*\*\*  
\*\*\*\*\* commencing upon

project commencement. \*\*\*\*\*  
\*\*\*\*\*

\* \*\*\*\*\*  
\*\*\*\*\*  
\*\*\*\*\*

TRAVEL REIMBURSEMENT

PDF shall invoice Philips for all actual authorized travel in support of the project. The time period for travel reimbursement shall include Phase 1 and Phase 2 of the project  
\*\*\*\*\*

SOFTWARE LICENSE FEES

\*\*\*\*\*  
\*\*\*\*\*

\*\*\*\*\*  
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\*\*\*\*\*  
\*\*\*\*\*

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EXHIBIT 10.5

CONFIDENTIAL TREATMENT  
PDF SOLUTIONS, INC. HAS REQUESTED  
THAT THE MARKED PORTIONS OF THIS  
DOCUMENT BE ACCORDED CONFIDENTIAL  
TREATMENT PURSUANT TO RULE 406 UNDER  
THE SECURITIES ACT OF 1933, AS AMENDED.

PROJECT: SONY CORPORATION  
\*\*\*\*\*

YIELD IMPROVEMENT AGREEMENT

This Yield Improvement Agreement is made as of the \*\*\* \*\* \* \*\*\*,  
\*\*\*\*, by and between SONY Corporation, a corporation organized and existing  
under and by virtue of the laws of Japan, maintaining its principal office at  
7-35, Kitashinagawa 6-chome, Shinagawa-ku, Tokyo, Japan (hereinafter referred to  
as "SONY") and PDF Solutions, Inc., a corporation organized and existing under  
and by virtue of the laws of the State of California, having its principal place  
of business at 333 West San Carlos Street, San Jose, California 95110 U.S.A.  
(hereinafter referred to as "PDF").

W I T N E S S E T H:

WHEREAS, SONY is, among other things, engaged in the business of  
manufacturing and selling \*\*\*\*\* referred to as the \*\*\*\*\* Product  
designed by or for SONY (hereinafter referred to as the "PRODUCTS"); and

WHEREAS, PDF has substantial expertise and skill in yield improvement  
for semiconductor manufacturing; and

WHEREAS, SONY desires that PDF render certain services for SONY for  
purposes of improving the yield of the Products manufactured at SONY's  
subsidiary located in \*\*\*\*\* (hereinafter referred to as the "SONY  
SUBSIDIARY"); and

WHEREAS, PDF is willing to render such services to SONY under the terms  
and conditions hereinafter set forth.

NOW, THEREFORE, in consideration of the mutual covenants hereinafter set  
forth, it is mutually covenanted and agreed as follows:

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1. SERVICES

- 1.1 PDF shall, at its cost and expense, render the following services  
(hereinafter referred to as the "SERVICES") for SONY, which are more  
fully described in Exhibit A:
  - 1.1.1 To provide SONY with certain characterization vehicles to  
assist in enhancing the yield in the fabrication of the  
Products manufactured at SONY Subsidiary (the  
"CHARACTERIZATION VEHICLES").
  - 1.1.2 To provide certain consulting services in connection with  
such yield enhancement activities of SONY ("YIELD RAMP  
SERVICES").

1.1.3 To provide certain software to be used at the Sony  
Subsidiary (THE "SOFTWARE DELIVERABLE").

1.2 For purposes of rendering the Services, PDF shall assign appropriate  
number of its employees and have at least \*\*\*\* of them devote their  
full-time to render the Services. PDF shall ensure that such employees  
are fully qualified personnel with enough experience and expertise to  
render the Services.

2. SCHEDULES AND DELIVERABLES

2.1 The Services shall be rendered by PDF \*\*\*\*\* and shall  
continue to be rendered until  
\*\*\*\*\*  
Characterization Vehicle Deliverables (as defined below) pursuant to  
Section 2.5 (THE "SERVICE PERIOD"). Upon five (5) working days prior  
written notice by SONY to PDF, SONY may change, if needed, the time  
schedule for the provision of the Services so long as the total period  
of time for the Services to be rendered after the acceptance by SONY  
of the last Characterization Vehicle Deliverables shall not exceed  
\*\*\*\*\*. If any  
such change significantly affects the costs or efforts required to  
render the Services, the parties shall work together to agree upon an  
equitable adjustment to the Service Fees.

2.2 PDF shall prepare and deliver to SONY the "Characterization Vehicle  
Deliverables", the "Yield Ramp Status Report Deliverables" and the  
"Software Deliverables" described under "Deliverables" in Exhibit A  
(hereinafter collectively referred to as the "DELIVERABLES").  
Characterization Vehicle Deliverables shall be delivered by PDF to  
SONY in accordance with the schedule as described in EXHIBIT A. Upon  
delivery and acceptance of all Characterization Vehicle Deliverables,  
PDF will begin performing Yield Ramp Services for which Yield Ramp  
Status Report Deliverables will be generated and submitted to SONY by  
the end of each month.

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2.3 SONY shall prepare and provide PDF with such design data, process data  
and other data and information as is reasonably deemed necessary by  
SONY or as is reasonably requested by PDF and agreed by SONY for PDF  
to render the Services and deliver the Deliverables (hereinafter  
referred to as the "TECHNICAL DATA"). In addition, SONY shall at its  
cost and expense prepare and make available to the employees of PDF  
stationed at SONY Subsidiary, office space, equipment and services as  
PDF shall reasonably request including secure office space for use as  
a team office, appropriate equipment such as workstations, telephones,  
facsimile machines, a photocopier, printers and a removable data  
storage device, such as tape drives, and services such as  
international access telephone lines, and email access to the  
internet; provided that the costs for office supplies and telephone  
charges used by employees of PDF shall be borne by PDF, however, such  
costs shall constitute additional out-of-pocket expenses to be  
reimbursed by SONY to PDF under, and subject to the limitations set  
forth in, Section 3.3. The bearing of such costs by PDF and the  
reimbursement thereof by SONY shall be accomplished by offsets of one  
against the other to the extent reasonably practicable.

2.4 In addition to the provisions of Section 2.1 above, SONY may, if  
needed, upon written notice to PDF, make changes to Exhibit A relating  
to Deliverables which have not been delivered or actions which have  
not been taken as of the time of such change; provided that if any  
such change significantly affects the scope or timing of the Services  
rendered or any Deliverables to be delivered or changes the costs and  
efforts required to render the Services or deliver the Deliverables,  
the parties shall work together to agree upon an additional amount to  
be paid for such Services, Deliverables, costs or efforts, and upon an



appropriate time schedule.

2.5 Upon receipt of each Deliverable, SONY shall inspect such Deliverable to determine whether such Deliverable conforms to the description thereof contained in Exhibit A. Should any Deliverable not reasonably conform to such description, SONY shall, within ten (10) days after receipt of such Deliverable, so notify PDF in writing specifying the variance from the description, and PDF shall promptly correct and deliver the Deliverable to SONY again. Such Deliverable, as so corrected, shall be redelivered in accordance with this Section 2.5. If no notification is made by SONY to PDF within such ten (10) day period, such Deliverable shall be deemed accepted by SONY.

2.6 For a period of ten (10) days following the end of the Service Period, PDF shall, upon the request of SONY, assist SONY by answering SONY's questions through telephone, facsimile or e-mail communications ("VERBAL SUPPORT"); provided that any such Verbal Support shall relate only to the Services specified to be performed with respect to the Products under this Agreement and not to other products, projects or work SONY wishes to have PDF perform.

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2.7 The Services shall be deemed completed at the time when all the Deliverables are delivered by PDF to, and accepted by, SONY. PDF shall, upon the written request of SONY, render for SONY additional services of providing additional Yield Ramp Status Report Deliverables following the Service Period defined in Section 2.1 above ("FOLLOW-UP SERVICES"); provided that SONY shall pay as consideration the Yield Ramp Status Report Deliverable Fee specified in Section 3.1 for each such additional Yield Ramp Status Report Deliverable.

3. CONSIDERATION

3.1 In full and complete consideration for the Services rendered by PDF to SONY (including the delivery of the Deliverables), SONY shall pay to PDF an aggregate amount equal to \*\*\*\*\* in total (hereinafter referred to as the "SERVICE FEE"). Such Service Fee shall be payable by SONY to PDF in \*\*\*\*\* installments as follows:

3.1.1 Upon acceptance of each Characterization Vehicle Deliverable, SONY shall pay the amount of \*\*\*\*\* as the "Characterization Vehicle Deliverables Fee"; and

3.1.2 Upon acceptance of each Yield Ramp Status Report Deliverable, SONY shall pay the amount of \*\*\*\*\* as the "Yield Ramp Status Report Deliverables Fee".

3.2 Upon SONY's acceptance of each of the Deliverables pursuant to Section 2.5, PDF shall issue to SONY an invoice for the payment in United States Dollars of the applicable installment of the Service Fee payable by SONY to PDF under Section 3.1 above. SONY shall make payment of such installment in United States Dollars by making a telegraphic transfer remittance to the bank account of PDF within thirty (30) days following the date of receipt of the invoice by SONY from PDF.

3.3 In addition to the Service Fee payable under Section 3.1 above, SONY shall pay to PDF travel and other reasonable out of pocket expenses actually incurred by PDF in rendering the Services, including the economy class air fares, domestic travel expenses in the U.S.A. and

Japan, hotel accommodation expenses and meal expenses for the employees and consultants of PDF engaged in the Services; provided, however, that in no event shall the expenses to be paid by SONY to PDF hereunder exceed \*\*\*\*\*. The costs and expenses reimbursable under this Section 3.3 are referred to as "EXPENSES."

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3.4 Within thirty (30) days after close of each calendar month, PDF shall issue an invoice for the payment in United States Dollars of the Expenses payable by SONY to PDF under Section 3.3 above together with a detailed listing of such Expenses. SONY shall make payment of such Expenses in United States Dollars by making a telegraphic transfer remittance to the bank account of PDF within thirty (30) days following the date of receipt of the invoice by SONY from PDF. SONY shall have the right at SONY's expense to have such Expenses audited by independent accountants of recognized standing.

3.5 All amounts which SONY does not pay on a timely basis as required by this Agreement shall be subject to a late charge equal to \*\*\*\*\* (or, if less, the maximum allowed by applicable law). In the event that any payment due hereunder is overdue, PDF reserves the right to suspend performance until such delinquency is corrected.

4. OWNERSHIP AND RIGHTS

4.1 Each party shall solely own any Intellectual Property (as defined below) developed solely by the employee(s) or agents of such party irrespective of the Services before or after the term of this Agreement.

4.2 SONY and PDF agree that the Deliverables shall become the sole and exclusive property of SONY.

4.3 PDF and SONY agree that the ownership of the inventions and the intellectual property rights thereon, including, without limitation, patents and patent applications, copyrights, mask works, trade secrets, know how, industrial design rights, rights of authorship, and other intellectual property rights or rights protecting intangible property or information recognized by the law of any country or jurisdiction of the world (hereinafter collectively referred to as the "INTELLECTUAL PROPERTY") generated during the course of the Services, shall be determined as follows:

- 4.3.1. \*\*\*
- 4.3.2. \*\*\*
- 4.3.3. \*\*\*
- 4.3.4. \*\*\*
- 4.3.5. \*\*\*

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\*\*\*\*\*  
\*\*\*\*\*  
\*\*\*\*\*

\*\*\*\*\*

4.4 SONY hereby grants to PDF a \*\*\*\*\*  
\*\*\*\*\* license;  
provided that \*\*\* shall be bound by the confidentiality obligations  
contained in this Agreement.

4.5 PDF hereby grants to SONY a \*\*\*\*\*  
\*\*\*\*\* license;  
provided, further, that SONY shall be bound by and shall cause its  
sublicensees to be bound by the confidentiality obligations contained  
in this Agreement.

4.6 Except as otherwise set forth in this Section 4, neither this  
Agreement nor the performance of the Services shall give either PDF or  
SONY any ownership, interest in or rights to the Intellectual Property  
owned by the other party.

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5. DURATION AND TERMINATION OF AGREEMENT

5.1 This Agreement shall become effective as of the date first above  
written and shall continue in full force and effect until the payment  
of the Service Fees shall have been completed in accordance with the  
terms and conditions of this Agreement.

5.2 Either party shall have the right to terminate this Agreement at any  
time if:

5.2.1 the other party is in breach of any term, condition or  
covenant of this Agreement and fails to cure that breach  
within thirty (30) days after receiving written notice of  
that breach, which notice must state that failure to cure  
such breach will result in termination of this Agreement.

5.2.2 the other party (i) becomes insolvent, (ii) admits in  
writing its insolvency or inability to pay its debts or  
perform its obligations as they mature, or (iii) becomes the  
subject to any voluntary or involuntary proceeding in  
bankruptcy, liquidation, dissolution, receivership,  
attachment or composition or general assignment for the  
benefit of creditors.

5.2.3 More than ten percent (10%) of the other party's outstanding  
stock or equity interests is acquired by, or the other party  
is merged with, any competitor of such terminating party.

5.3 In addition to the provisions of Section 5.2, SONY may  
terminate this Agreement at any time prior to the completion  
of the Services by giving a written notice to PDF. In such  
case, SONY shall pay to PDF \*\*\*\*\*  
\*\*\*\*\*.

5.4 The provisions of Sections 2.6, 2.7, 3 (to the extent Service Fees,  
Expenses or any portion thereof are payable), 4, 6, 7 and 8 of this  
Agreement shall survive the expiration and termination of this  
Agreement.

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6. CONFIDENTIALITY

6.1 Each party (the "RECEIVING PARTY") hereto agrees to maintain as confidential and to use only for the purposes permitted under this Agreement, during the term of this Agreement and for \*\*\*\*\* thereafter, all confidential and proprietary information and materials received from the other party (the "DISCLOSING PARTY") under this Agreement ("CONFIDENTIAL INFORMATION"); provided that to be protected as Confidential Information, information and materials shall be (a) physically marked as confidential or proprietary, or (b) if disclosed orally or visually, identified as confidential at the time of disclosure and be reduced to writing with confidential or proprietary marking, which shall be delivered to the Receiving Party within thirty (30) days after the oral or visual disclosure. Notwithstanding the immediate foregoing, (i) the Deliverables, (ii) the Technical Data and (iii) any and all the information and materials provided to or acquired by the employees of PDF at SONY Subsidiary shall be deemed Confidential Information of SONY even without marking or designation of confidentiality.

6.2 Notwithstanding the provisions of Section 6.1 above, a Receiving Party shall have no obligation to maintain the confidentiality of any information or material that:

- 6.2.1 was in the Receiving Party's lawful possession prior to the disclosure as supported by satisfactory evidence of such possession;
- 6.2.2 becomes publicly known through no wrongful act or omission of the Receiving Party;
- 6.2.3 is lawfully received by the Receiving Party from a third party without breach of any confidentiality obligation or other restriction on disclosure;
- 6.2.4 is independently ascertainable or developed by the Receiving Party or its employees who have not had access to the Confidential Information.
- 6.2.5 is required to be disclosed to a court or government agency, provided that prompt prior written notice of such intended disclosure is given to the Disclosing Party sufficient to enable it to acquire a protective order.

6.3 Confidential Information of each party shall be and remain the property of such party. Upon request by the Disclosing Party or upon expiration or termination of this Agreement, whichever is earlier, the Receiving Party shall return all Confidential Information received from the Disclosing Party together with all copies thereof or destroy them, if so requested by the Disclosing Party.

7. WARRANTIES AND INDEMNIFICATION

7.1 PDF warrants that the Services shall be rendered in a professional manner consistent with the quality of PDF's performance of services for other similarly situated clients. PDF also warrants that the Services shall be rendered in compliance with all relevant Japanese and United States (federal and state) laws, ordinances, rules and regulations and shall not constitute any breach of contractual obligations of PDF with third parties. PDF further warrants that the Deliverables are free from infringement of any patent, copyright, trade secret right or, to PDF's actual knowledge, other Intellectual Property of any third party; provided that such warranty shall not extend (a) to any infringement that are caused by or results from (i) any modifications recommended to be made to SONY's designs or products, or (ii) other suggestions, recommendations or other matters made or provided by PDF contained in such Deliverables or the

application or implementation of any of the foregoing unless such recommendations, suggestions, Deliverables, applications, and implementations considered alone (and not in conjunction with Technical Data, Intellectual Property or other reports or information provided by SONY or any third party other than consultants or subcontractors of PDF) would constitute such an infringement; or (b) to the extent any infringement results from any infringement contained in any Technical Data, Intellectual Property or other reports or information provided by SONY or any third party other than consultants or subcontractors of PDF.

- 7.2 THE WARRANTY IN THIS SECTION 7 IS EXCLUSIVE AND IN LIEU OF ALL OTHER WARRANTIES, WHETHER EXPRESS OR IMPLIED, INCLUDING THE IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR NON-INFRINGEMENT, WHICH ARE EXPRESSLY DISCLAIMED. NOTHING UNDER THIS AGREEMENT, OR THE STATEMENT OF WORK OR PROJECT SHALL BE DEEMED TO BE A WARRANTY AS TO THE OUTCOME OF ANY PROJECT OR THE EFFICACY OF ANY RECOMMENDATIONS MADE BY PDF. EXCEPT AS EXPRESSLY PROVIDED IN SECTION 7.1 ABOVE, NOTHING UNDER THIS AGREEMENT OR THE STATEMENT OF WORK SHALL BE DEEMED TO CREATE ANY LIABILITY ON THE PART OF PDF WITH RESPECT TO THE RESULTS OF ANY ACTIONS TAKEN BY SONY AS A CONSEQUENCE OF PDF'S RECOMMENDATIONS OR THE OUTCOME ON A PRODUCT FROM FOLLOWING ANY SUGGESTIONS OR RECOMMENDATIONS CONTAINED IN THE DELIVERABLES.
- 7.3 EXCEPT AS SPECIFICALLY PROVIDED FOR IN SECTION 7.4, IN NO EVENT SHALL EITHER PARTY BE LIABLE TO THE OTHER FOR SPECIAL, CONSEQUENTIAL, INCIDENTAL, INDIRECT, PUNITIVE OR EXEMPLARY DAMAGES, HOWEVER CAUSED, WHETHER FOR BREACH OF WARRANTY, CONTRACT, TORT NEGLIGENCE, STRICT LIABILITY OR OTHERWISE, EVEN IF SUCH PARTY HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

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CONFIDENTIAL MATERIAL  
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- 7.4 PDF hereby agrees to indemnify and hold SONY, its affiliates, and their respective officers, directors, employees, and agents ("SONY INDEMNITEES") harmless from and against any and all liabilities, losses, damages, costs, and expenses ("LOSSES"), and any attorney's fees and expenses relating to its defense, resulting directly from any claim or action brought against the SONY Indemnitees resulting from any breach by PDF of the foregoing warranties (a "CLAIM") and defend the SONY Indemnitees against such Claims, provided that the SONY Indemnitees shall follow the indemnification procedure as set forth in this Agreement. \*\*\* The indemnification contained in this Section 7.4 shall be the sole and exclusive remedy for any breach of warranty contained in this Agreement.
- 7.5 If any Claim is commenced against a party entitled to indemnification under this Section 7, such party shall give written notice to the other party within ten (10) days of notice of such Claim. If such party receiving notice is obligated under this Section 7 to defend the party against such Claim, then the indemnifying party shall take control of the defense and investigation of the Claim, using such attorneys and other assistance as it selects in its discretion. The indemnified party shall cooperate in all reasonable respects in such investigation and defense, including trial and any appeals, provided that such party may also participate, at its own expense, in such defense. No settlement of a Claim that involves a remedy other than payment of money by indemnifying party shall be agreed to and entered without the consent of the indemnified party, which consent shall not be unreasonably withheld.
- 7.6 No action, regardless of form, arising from this Agreement may be brought by either party more than one (1) year after the cause of action actually is discovered by that party (but in no event later than as otherwise provided by law), except that an action for non-payment may be brought within one (1) year after the later of the date of last payment or the date such unpaid amount should have been

paid.

8. APPLICABLE LAW; JURISDICTION

8.1 This Agreement shall be governed by and construed in accordance with the laws of the State of California without reference to choice or conflicts of laws. This Agreement is prepared and executed and shall be interpreted in the English language only, and no translation of the Agreement into another language shall have any effect. The parties agree that the United Nations Convention on Contracts for the International Sale of Goods (1980) is specifically excluded from and shall not apply to this Agreement.

8.2 Any controversies and disputes arising out of or relating to this Agreement shall be submitted to: (i) the Tokyo District Court in Japan in case the action is instituted by PDF; and (ii) the United States District Court for the Northern District of California in case the

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action is instituted by SONY; as the Court of first instance. The parties hereto agree that the judgment, degree, or order rendered by a Court of last resort or a Court of lower jurisdiction from which no appeal has been taken in Japan or the United States shall be final and binding upon both parties.

9. WORKING INDEPENDENTLY OR WITH OTHERS.

9.1 Subject to SONY's compliance with the confidentiality and other provisions stated herein and in any existing agreement between the parties, nothing in this Agreement shall be construed to preclude SONY from independently performing or acquiring from other parties the same or similar services as the Services provided by PDF hereunder.

9.2 SONY acknowledges that PDF has extensive expertise, experience, and proprietary products and tools in the area of electronic design and yield improvement and that PDF intends to utilize such expertise, experience, products and tools in providing consulting services and other services to other clients. Subject to PDF's compliance with the confidentiality and other provisions stated herein and in any existing agreement between the parties, nothing in this Agreement shall restrict or limit PDF from performing such design consulting or other services to any other entity in any industry, including the semiconductor and electronics industries. SONY agrees that, except as otherwise agreed in this Agreement, PDF and its employees may provide design consulting services similar in nature to the Services for any third parties both during and after the term of this Agreement. Subject to the limitations placed on PDF by the confidentiality and other provisions of this Agreement or by any existing agreement between PDF and SONY, PDF may in its sole discretion develop, use, market, license, offer for sale, or sell any software, application or product that is similar or related to that which was developed by PDF for SONY hereunder.

10. GENERAL

10.1 PDF shall not disclose or publicize the existence and terms of this Agreement to any third party without the prior written consent of SONY. In particular, no press releases shall be made by PDF without prior written consent of SONY.

10.2 The relationship of PDF and SONY established by this Agreement is that of independent contractors, and nothing contained in this Agreement shall be construed to (i) give either party the power to direct or control the day-to-day activities of the other, (ii) constitute the parties as agents, partners, joint venturers, co-owners or otherwise as participants in a joint or common undertaking, or (iii) allow either party to create or assume any obligation on behalf of the other or bind the other for any purpose whatsoever nor shall either party represent to anyone that it has such power or authority.

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- 10.3 Neither party may assign or transfer any of the rights and responsibilities under this Agreement without written consent of the other party and any purported attempt to do so shall be deemed void.
- 10.4 This Agreement expresses the entire understanding and agreement between SONY and PDF with regard to the subject matter hereof and, except for any confidentiality or nondisclosure agreements between the parties, supersedes any and all agreements previously entered into between the parties hereto with regard to the subject matter hereof.
- 10.5 For purposes of this Agreement, "Subsidiary" shall mean any corporation or other entity, in which more than fifty percent (50%) of the stocks or other equity interest entitled to vote for the election of directors of such entity shall be owned or controlled by PDF or SONY directly or indirectly; provided that such corporation or entity shall be deemed to be a "Subsidiary" only so long as such ownership or control exists.
- 10.6 This Agreement shall not be subject to change or modification except by the execution of an instrument in writing subscribed by the parties hereto.
- 10.7 If one or more provisions of this Agreement are held to be unenforceable under applicable law, the parties agree to renegotiate such provision in good faith. In the event that the parties cannot reach a mutually agreeable and enforceable replacement for such provision, then (i) such provision shall be excluded from this Agreement, (ii) the balance of this Agreement shall be interpreted as if such provision were so excluded and (iii) the balance of this Agreement shall be enforceable in accordance with its other terms.
- 10.8 This Agreement may be executed in counterparts, each of which shall be deemed an original, but all of which together will constitute one and the same instrument.
- 10.9 Either PDF or SONY shall not be liable for any loss, damage, or penalty arising from delay due to causes beyond its reasonable control.
- 10.10 Neither party shall, directly or indirectly export or re-export any technical data or information or data received from the other party hereunder or the direct products thereof to any destination prohibited or restricted by export control regulations of Japan and the United States, including U.S. Export Administration Regulations, without proper authorization from the appropriate governmental authorities. In addition, the parties agree that no technology furnished to the other will be used for any purpose to develop and/or manufacture nuclear, chemical or biological weapons and/or missiles.
- 10.11 In rendering the Services hereunder, PDF may use consultants and other subcontractors upon obtaining prior consent of SONY, which consent shall not be unreasonably

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withheld. PDF shall cause such consultants and subcontractors to be subject to and bound by the confidentiality obligations set forth in Section 6 of the Agreement and agree to SONY's and PDF's ownership of the Intellectual Property as described in Section 4 of the Agreement. Failure by such consultants and subcontractors to observe any provisions of this Agreement shall constitute a breach of this Agreement by PDF.

10.12 All notices required or permitted to be given under this Agreement must be in writing and will be effective when delivered personally or sent by registered mail, postage prepaid, and addressed to the parties at their respective address set forth below or new address or addresses subsequently designated in writing by either party to the other:

SONY  
Legal & Intellectual Property Dept.  
Core Technology & Network Company  
Sony Corporation  
1-11-1, Osaki, Shinagawa-ku, Tokyo  
141-0032, Japan

PDF  
Chief Financial Officer  
PDF Solutions, Inc.  
333 West San Carlos Street,  
Suite 625  
San Jose, California 95110 USA

IN WITNESS WHEREOF, the parties hereto have executed this Agreement as of the day and year first above written.

SONY CORPORATION

PDF SOLUTIONS, INC.

By: /s/ Norikazu Ouchi  
Norikazu Ouchi  
General Manager  
Device Development Dept.-1  
LSI Development Div.  
LSI Business & Technology  
Development Group  
Core Technology &  
Network Company

By /s/ John K. Kibarian  
John K. Kibarian  
President

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EXHIBIT A

STATEMENT OF WORK

SONY CORPORATION  
\*\*\*\*\*

This Statement of Work is made between PDF Solutions, Inc. ("PDF") and SONY Corporation ("SONY") pursuant to and attached as an exhibit to that certain Yield Improvement Agreement dated as of January 1, 2000 (the "AGREEMENT") between PDF and SONY. All terms and conditions contained in the Statement of Work are subject to the terms and conditions set forth in the Agreement.

SERVICES

PDF will provide SONY with characterization vehicles and other Deliverables resulting from consulting services relating to assisting SONY in \*\*\*\*\* of the \*\*\*\*\* Product designed by or for SONY \*\*\*\*\* (the "PRODUCTS").

COMMENCEMENT

The engagement will commence with a kick-off meeting on or before \*\*\*\*\* (the "KICK-OFF MEETING"). At this meeting PDF and SONY representatives will meet to commence the project. Prior to the kickoff meeting, PDF managers and engineers will have met with SONY managers and engineers to assess availability of data and design a specific work plan for delivery of the Deliverables based upon available data and resources. This assessment will be presented at the kickoff meeting along with the first Characterization Vehicle.

DELIVERABLES



The objective of the Project and the result of the above activities will be to deliver the following Deliverables (which shall be the "DELIVERABLES" as defined in the Agreement):

- (1) CHARACTERIZATION VEHICLE DELIVERABLES. The following four items shall collectively be referred to as the \*\*\*\*\*  
 \*\*\*\*\* The following \*\*\*\*\* will be delivered by \*\*\*\*\*:
  - (a) \*\*\*\*\* data and documentation
  - (b) \*\*\*\*\* data and documentation
  - (c) \*\*\*\*\* data and documentation
  - (d) \*\*\*\*\* data and documentation

ExA-1

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NOTE: Mask data is defined to be an electronic GDS-II file and will be delivered either on 8mm tape or through network TCP/IP FTP.

\*\*\*\*\* DOCUMENTATION:

As part of the \*\*\*\*\* portion of the project, the following documentation will be provided:

- (A) Summary. \*\*\*\*\*.
- (B) \*\*\*\*\*.
- (C) \*\*\*\*\*  
 \*\*\*\*\*  
 \*\*\*\*\* will be provided to SONY by \*\*\*\*\*.
- (D) \*\*\*\*\*  
 \*\*\*\*\*  
 \*\*\*\*\* One or more status report(s) will be generated for \*\*\*\*\* data containing the following information and these reports will be provided to SONY by \*\*\*\*\*:
  - (i) \*\*\*\*\*  
 \*\*\*\*\*
  - (ii) \*\*\*\*\*  
 \*\*\*\*\*
  - (iii) \*\*\*\*\*  
 \*\*\*\*\*
- (E) \*\*\*\*\*Report.  
 \*\*\*\*\*  
 \*\*\*\*\*will be generated for the \*\*\*\*\*  
 \*\*\*\*\*This report will contain the following information and will be provided to SONY by \*\*\*\*\*:
  - (i) \*\*\*\*\*  
 \*\*\*\*\*

ExA-2

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- (ii) \*\*\*\*\*

(iii) \*\*\*\*\*  
\*\*\*\*\*

(2) \*\*\*\*\*

(A) \*\*\*\*\*

(B) \*\*\*\*\*

(C) \*\*\*\*\*

ExA-3

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- (i) \*\*\*
- (ii) \*\*\*\*\* of yield with \*\*\*\*\* data;
- (iii) \*\*\*\*\* assessment; and
- (iv) \*\*\*\*\* results necessary to \*\*\*\*\*.

(D) Quantification of \*\*\*\*\*

(3) SOFTWARE DELIVERABLE. PDF will grant SONY a \*\*\*\*\* software license for use solely in the SONY Subsidiary. PDF will, upon SONY's timely execution of PDF's applicable license agreement, deliver and install such software by \*\*\*\*\*.

TEAM STRUCTURE

Sony will establish a Steering Committee (the "STEERING COMMITTEE") which will consist of (a) \*\*\*\*\*, and (b) \*. \* will make all such personnel available for performance under the Agreement and this Statement of Work. The Steering Committee will be limited to \* in order to allow decisions to be reached in a timely fashion. The Steering Committee is responsible for giving the team its charter, deciding which yield improvement actions to take and who in the Sony organization will be responsible for carrying out the improvement. At the quarterly Steering Committee Review Meetings, PDF will provide a summary of the monthly engineering meetings \*\*\*\*\* to assist the Steering Committee in its charter.

The day-to-day analyses will be conducted by a \* of engineers from SONY and PDF. A PDF Engagement Manager will manage the activities of \*. The PDF Engagement Manager will be responsible for directing all team members in their analyses as well as aggregating and synthesizing the results of all the analyses conducted by the entire team. The PDF Engagement Manager will be available for all communications at reasonable times with the \* members and the Steering Committee. In addition, the PDF Engagement Manager will be the principal point of contact for any questions that Sony personnel not on the \* or Steering Committee may have during the course of the engagement.

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In addition to the PDF Engagement Manager, PDF will make a total of \*\* engineers and managers available to this engagement. PDF may staff additional engineers during critical points during the term of this Agreement.

TOOLS

SONY will provide PDF with office space in \*\*\*\*\* and other typical business resources reasonably requested from time to time by PDF. In particular, SONY will provide PDF with secure office space large enough to accommodate up to \*\*\*\*\* PDF personnel in addition to the SONY engineers assigned to work on the \*\*\*\*\*. SONY will provide PDF with office equipment reasonably requested by PDF from time to time including \*\*\*\*\* international access telephones (including such analog lines as PDF shall request), an international access Facsimile machine and line, and a photocopier. SONY will provide PDF with 24-hour access to the team office so work can continue at night and on weekends.

SONY will provide PDF with computing resources that PDF reasonably deems necessary to conduct data analysis and simulations. The details of such request will be sent in a separate document to the SONY project leader but in general, SONY will provide \*\*\*\*\* engineering workstations connected to \*\*\*\*\* the Internet. SONY will also provide such other accessories as PDF shall reasonably request including a removable data storage device, such as a tape drive, and a printer.

LOCATION

The Project will be conducted by SONY's and PDF's personnel at SONY's Subsidiary , and by PDF's personnel at PDF's facilities. In certain cases, PDF may require SONY engineers to work at the PDF facility in San Jose, California. PDF engineers may also work in SONY's Subsidiary when the engagement manager believes this is necessary to achieve progress. If SONY shall provide PDF employees with an English version of the employee rules and regulations in force at the SONY facilities, then PDF employees shall comply with such rules and regulations in all material respects in an equivalent manner as other SONY employees generally. PDF shall take all reasonable steps necessary to ensure that all employees resident at or visiting a SONY facility shall treat as confidential in accordance with Section 6 all material information of a proprietary nature observed by or disclosed to such employee, and shall comply in all material respects with all export control obligations contained in Section 8.

DURATION

The Project will proceed for a period of \*\*\*\*\* following the acceptance of the last Characterization Vehicle Deliverables unless earlier terminated pursuant to the Agreement.

ExA-5

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Appendix A

\*\*\*\*\*

APP-1

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EXHIBIT 10.6

CONFIDENTIAL TREATMENT  
PDF SOLUTIONS, INC. HAS REQUESTED  
THAT THE MARKED PORTIONS OF THIS  
DOCUMENT BE ACCORDED CONFIDENTIAL  
TREATMENT PURSUANT TO RULE 406 UNDER  
THE SECURITIES ACT OF 1933, AS AMENDED.

PROJECT: TOSHIBA -  
\*\*\*\*\*  
\*\*\*\*\*

TECHNOLOGY COOPERATION AGREEMENT

This Technology Cooperation Agreement dated as of \*\*\*\*\*  
(this "AGREEMENT") is entered into by and between Toshiba Corporation, a  
corporation organized under the laws of Japan ("TOSHIBA") having its principal  
place of business at 1-1 Shibaura 1-chome, Minato-ku, Tokyo 105-8001, Japan, and  
PDF Solutions, Inc., a corporation organized under the laws of California  
("PDF") having its principal place of business at 333 West San Carlos Street,  
Suite 1200, San Jose, California, U.S.A..

1. YIELD IMPROVEMENT SERVICES.

1.1 PROVISION OF SERVICES. During the term of this Agreement, PDF will  
provide to Toshiba development work and services with respect to integrated  
circuit yield management issues. The services and the Deliverables to be  
delivered as a result thereof (the "PROJECT") are described in detail on a  
statement of work (the "STATEMENT OF WORK") attached hereto as Exhibit A. The  
Statement of Work shall be governed by the terms of this Agreement, and  
specifies:

- (a) Deliverables. The specific deliverables (the "DELIVERABLES") to be delivered under the Project and relevant milestones for delivering the Deliverables;
- (b) Team Structure. The team members from PDF and Toshiba who are to work on the Project and the expected time contributions for each such member;
- (c) Tools. The required data, tools, hardware, software, materials, access to personnel and facilities, and other materials required for

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effectively completing the Project;

- (d) Location. The geographic location where each component of the Project will be completed;

- (e) Fees and Expenses. The amount and structure of PDF's Fees (as defined below) payable upon delivery of the Deliverables and Expenses (as defined below).

1.2 TOSHIBA INTELLECTUAL PROPERTY. Toshiba will provide PDF on a timely basis with such Intellectual Property (as defined in Section 3.1) and such other data and materials as PDF shall reasonably require in order to perform the Project and/or prepare the Deliverables as defined in the Statement of Work.

1.3 DELIVERABLES. In performing the Project, PDF shall develop and/or make for Toshiba the Deliverables in accordance with any schedules set forth in the Statement of Work. The Deliverables shall meet in all material respects the description of the Deliverable (the "DELIVERABLE DESCRIPTION") set forth in the Statement of Work.

1.4 ACCEPTANCE. Upon delivery of any Deliverable by PDF to Toshiba, Toshiba shall examine the Deliverable to determine whether it reasonably conforms to the Deliverable Description. If the Deliverable does not reasonably conform to such Deliverable Description, Toshiba shall have fifteen (15) days from the date of delivery thereof to reject such Deliverable and specify in writing why it does not reasonably conform to such Deliverable Description. Upon such rejection the parties shall work together to determine what needs to be done to bring such Deliverable up to such Deliverable Description. If the Deliverable does not meet the Deliverable Description, PDF shall exercise reasonable efforts to correct promptly such nonconformity of the Deliverable with the Deliverable Description and redeliver the Deliverable to Toshiba upon completion of such correction within one month following the parties' agreement referenced in the preceding sentence but only if there are no limitations outside of PDF's control. If there are limitations outside PDF's control, PDF and Toshiba will negotiate in good faith a time for delivery of the Deliverable. If a rejection of the Deliverable is not received by PDF within fifteen (15) days after any delivery or redelivery of a Deliverable under this Section 1.4, the Deliverable shall be deemed accepted. "ACCEPTANCE" (including with correlative meaning the term "ACCEPT") shall mean any acceptance under this Section 1.4. Toshiba agrees to deliver a notice of Acceptance (the "NOTICE OF ACCEPTANCE") upon its decision to Accept any Deliverable hereunder within such fifteen (15) days following such delivery or redelivery.

## 2. FEES AND EXPENSES.

2.1 SERVICES FEES AND EXPENSES. Upon delivery of each of the respective Deliverables provided by PDF hereunder, Toshiba shall pay to PDF the fees specified to the extent and in the manner set forth in the Statement of Work ("FEES"), and shall reimburse PDF for its out-of-pocket expenses incurred in carrying out its obligations under this Agreement including, but not limited to, travel, hotel, meal, document

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production, equipment and other expenses directly related to the services performed hereunder further subject to the terms and conditions set forth in the Statement of Work ("EXPENSES"). In no event shall the Expenses for which Toshiba shall be liable hereunder exceed any limitation on Expenses specified in the Statement of Work without written agreement from Toshiba. PDF shall use reasonable and diligent efforts to deliver the Deliverables hereunder within the estimated expenses and time schedule specified in the Statement of Work.

2.2 PAYMENTS. All payments by Toshiba hereunder shall be made by wire transfer to the bank account to be designated by PDF. If required by applicable law, Toshiba shall withhold and pay any taxes and assessments levied or imposed by any Japanese tax or other governmental body resulting from the services or the Deliverables to be provided by PDF to Toshiba and the payment to be made by Toshiba to PDF hereunder, including without limitation all personal property taxes on any of the foregoing and any taxes or amounts in lieu of any of the foregoing paid or payable by PDF, other than taxes based on PDF's net income. Toshiba shall promptly and timely effect the payment of any such taxes so withheld to the appropriate tax or other governmental authorities. Upon payment of such taxes so withheld, Toshiba shall, as promptly as possible, send to PDF an official tax receipt, tax payment certificate or other evidence issued by the applicable tax or governmental authorities. The parties acknowledge that PDF

shall be obligated to pay any such tax at the reduced withholding income tax rate rather than the ordinary rate by filing "Application Form for Income Tax Convention between the United States and Japan" with the Japanese tax authorities. If applicable, Toshiba shall send PDF the application form immediately after the execution of this Agreement for PDF's signature and PDF shall promptly sign it and return it to Toshiba so that Toshiba may file it with the applicable Japanese tax authorities on behalf of PDF.

3. OWNERSHIP.

3.1 SOLELY DEVELOPED INTELLECTUAL PROPERTY. Each party shall solely own any Intellectual Property solely developed by such party or the employee(s) of such party, whether before, during or after the term of this Agreement. For the purposes of this Agreement, "INTELLECTUAL PROPERTY" shall mean the Confidential Information (as defined in Section 6), patent and patent applications, copyrights, trade secrets, know how, rights of authorship, and any other intellectual property rights recognized by the law of any country or jurisdiction of the world.

3.2 JOINTLY DEVELOPED INTELLECTUAL PROPERTY. Any Intellectual Property jointly developed by the employees of both parties in connection with or as a result of the services provided by PDF hereunder shall be jointly-owned by PDF and Toshiba; provided, however, that any such Intellectual Property so jointly developed by PDF and Toshiba which consists of, effects or results in any improvement, enhancement or derivative work of PDF's software and methodologies including problem solving processes and practices shall be solely owned by PDF but subject to the license provided in Section 3.4; provided, further, that any such Intellectual Property so jointly developed by PDF and Toshiba in the manner embodied in Toshiba's product designs, products,

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fabrication facilities or fabrication processes shall be owned solely by Toshiba. Each party shall have the right to use, exercise, disclose and license to third parties such jointly developed Intellectual Property that is not solely owned by the other party without accounting to or the consent of the other party.

3.3 TOSHIBA LICENSE. Toshiba hereby grants to PDF a \*\*\*\*, \*\*\*\*\* license to use and practice the Intellectual Property provided by Toshiba hereunder, in order for PDF to perform the Project and develop or prepare the Deliverables solely during the term of this Agreement.

3.4 PDF LICENSE. PDF shall grant to Toshiba and its Subsidiaries \*\*\*\*\* license to use, have used for Toshiba and/or its Subsidiaries ("HAVE-USED RIGHTS"), copy for internal use, modify and/or enhance the Deliverables as set forth in the Statement of Work and any PDF-owned methodologies or practices that Toshiba shall observe in the ordinary course of the provision of services by PDF under this Agreement (collectively, the "LICENSED PROPERTY") which license, sublicense, have-used rights or other rights shall only be for any purpose in connection with sales, development, manufacture, fabrication, and/or use of products of Toshiba and/or its Subsidiaries, but only to the extent PDF has the right to grant such license; provided that such have-used rights with respect to any Specified Deliverable (as defined in Paragraph (a) of the Statement of Work) shall only be permitted (a) if the have-used rights are solely for the purpose of establishing Toshiba's Products on the applicable process at the fabrication facility of the partner of Toshiba which is granted such have-used rights and for no other purpose or use, and (b) once the Product on the applicable process is established at such partner's fabrication facility, such partner must return or destroy all copies of the Deliverables and have an appropriate officer of such partner certify that all copies of such Specified Deliverable have been returned or destroyed; provided, further, that such license shall not extend to any software or tools used by PDF in connection with or during the course of such services or to any software manuals or documents relating to such software or

tools; provided, further, that Toshiba shall be bound by and shall cause its Subsidiaries, sublicensees or have-used or other partners to be bound by the confidentiality obligations contained in Section 6; provided, further, that Toshiba shall not disclose, license, sublicense or make available on a have-used basis any such Licensed Property to any third party other than as a part of the third party's sale, development, manufacturing, fabrication and/or use of semiconductor products in connection with Toshiba technology or Toshiba products. Toshiba understands that PDF will not disclose to Toshiba certain proprietary methods or trade secrets in connection with the services to be rendered by PDF hereunder. To this end, PDF retains the right to take industry standard measures to keep such proprietary methods or trade secrets from Toshiba.

3.5 NO OTHER OWNERSHIP. Except as otherwise set forth in this Section 3, neither this Agreement nor performance of the Project shall give either PDF or Toshiba any ownership, interest in or rights to the Intellectual Property owned or provided by the other party.

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3.6 DEFINITION OF SUBSIDIARY. For the purpose of this Agreement and the Statement of Work, the term "SUBSIDIARY" of any party shall mean any corporation or other entity more than fifty percent (50%) of the Voting Stock of which is beneficially owned or controlled, directly or indirectly, by such party; provided that such corporation, company or other entity shall be deemed to be a Subsidiary only so long as such ownership or control exists. "VOTING STOCK" of any entity shall mean any stock or other equity interest entitled to vote for the election of directors or any equivalent governing body of such entity. Notwithstanding the above, \*\*\*\*\* shall be deemed a Subsidiary of Toshiba under this Agreement for so long as Toshiba continues to hold \*\*\*\*\* of the voting stock of \*\*\*\*\*.

4. TERM AND TERMINATION.

4.1 COMMENCEMENT. This Agreement shall commence as of the date first set forth above and shall continue in force until completion of the Project, unless sooner terminated as provided in this Section 4.

4.2 TERMINATION.

(a) If either party defaults in the performance of any material obligation hereunder the non-defaulting party may give the defaulting party written notice of such default within twenty (20) days following the non-defaulting party's discovery of such default. If the defaulting party fails to cure such default within forty-five (45) days (or such other time period as the parties shall mutually agree) after the defaulting party's receipt of such notice of default, then the non-defaulting party, at its option, may, terminate this Agreement by giving the defaulting party written notice of termination of this Agreement within ten days following the end of such 45 day period. If such notice of default or notice of termination is not given within such period, then the default shall no longer constitute cause for termination of this Agreement.

(b) Either party may terminate this Agreement effective upon written notice to the other party in the event the other party becomes the subject of a voluntary or involuntary petition in bankruptcy or any proceeding relating to insolvency, or assignment for the benefit creditors, if that petition or proceeding is not dismissed within sixty (60) days after filing. Such written notice of termination must be delivered no later than ten (10) days following the expiration of such 60-day period. If such notice of termination is not given within such 10-day period, then the default shall no longer constitute cause for termination of this Agreement.

(c) Either party may terminate this Agreement effective upon written notice to the other party in the event that the other party is merged with or

into, or all or substantially all or the other party's assets are sold to, a third party corporation or other entity, unless such acquiring corporation or entity expressly agrees to assume the other party's obligations under this Agreement. Such written notice of termination must be delivered no later than ten (10) days following the consummation of such transaction. If

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such notice of termination is not given within such 10-day period, then the default shall no longer constitute cause for termination of this Agreement.

(d) Toshiba shall be entitled to terminate this Agreement upon forty-five (45) days prior written notice if (i) Toshiba reasonably rejects the Deliverables due to their material nonconformity with the Deliverable Description set forth in the Statement of Work (and clearly and properly specifies the reason for such nonconformity), the Acceptance procedure set forth in Section 1.4 shall have been exhausted without an Acceptance, and PDF does not reasonably cure such material nonconformity within forty-five (45) days following the final written rejection of such Deliverable, or (ii) Toshiba reasonably and in good faith judges that the expected progress for the services to be performed by PDF necessary to deliver the Deliverables hereunder cannot be achieved within the mutually agreed time frame, and within ten (10) days following such notice PDF cannot reasonably establish that such progress can be achieved. This Agreement may then be terminated by a written notice of termination delivered within ten (10) days following the applicable foregoing forty-five (45) day period. If such written notice of termination is not given within such 10-day period, then the default under this Section 4.2(d) shall no longer constitute cause for termination of this Agreement.

4.3 TERMINATION OF RIGHTS. Upon expiration or termination of this Agreement, all rights and licenses granted and all obligations undertaken hereunder shall forthwith terminate except the following:

(a) Any and all licenses granted by PDF to Toshiba and its Subsidiaries under this Agreement as to previously delivered, Accepted and paid for Deliverables shall survive the expiration or termination of this Agreement unless this Agreement is terminated by PDF in accordance with the provisions of Section 4.2(a), (b) or (c) in which case none of such licenses shall survive and all copies of such Deliverables shall be returned to PDF.

(b) If Toshiba terminates this Agreement for the reason as stated in Section 4.2, Toshiba shall pay to PDF, within thirty (30) days after the date of termination, (i) the actual amount of unreimbursed Expenses incurred by PDF through the date of termination by Toshiba, (ii) the amount of the Deliverables Fees with respect to Deliverables delivered or otherwise accrued, and unpaid through the date of termination, (iii) the Incentive Fee if the Incentive Fee remains unpaid; provided that payment of such Fees and Expenses shall be subject to the provisions of Section 2.

(c) If Toshiba terminates this Agreement for the reason specified in Section 4.2, Toshiba shall pay to PDF:

(i) the amount of any unpaid Product Fees accrued prior to the date of termination; and

(ii) the amount of any future Product Fees in accordance with Paragraph (e) (iii) of the Statement of Work with respect to any Product that incorporates

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any Deliverable delivered by PDF to Toshiba which Product Fees shall be payable through the term of payment specified in such Paragraph (e)(iii); provided that Product Fees to be accrued and paid following a date of termination shall terminate only if the basis for termination of this Agreement shall be (A) an involuntary bankruptcy under Section 4.2(b) or (B) the material default under PDF's confidentiality obligations under Section 6 of this Agreement;

provided that payment of such Product Fees under this Section 4.3(c) shall be subject to the provisions of Section 2.

(d) The provisions of Sections 2 (including by reference Toshiba's obligations to pay Fees and Expenses set forth in the Statement of Work but subject to Section 4.3(b) and (c)), 3.1, 3.2, 3.4 (with respect to Deliverables delivered by PDF to Toshiba and Accepted and paid for by Toshiba), 4, 6, 7, 8.4, 8.7 and 8.8 shall survive any expiration or termination of this Agreement.

5. INDEPENDENT CONTRACTORS. The relationship of PDF and Toshiba established by this Agreement is that of independent contractors, and nothing contained in this Agreement shall be construed to (i) give either party the power to direct or control the day-to-day activities of the other, (ii) constitute the parties as agents, partners, joint venturers, co-owners or otherwise as participants in a joint or common undertaking, or (iii) allow either party to create or assume any obligation on behalf of the other for any purpose whatsoever.

6. CONFIDENTIALITY. Except as otherwise provided herein, each party agrees, at all times during the term of this Agreement and for 5 years after receipt of Confidential Information, to hold in strictest confidence (and to cause its Subsidiaries to hold in strictest confidence), and not to use, except for the purposes contemplated herein, or to disclose to any person, firm or corporation without written authorization of the other party, any Confidential Information of the disclosing party. As used in this Agreement, "CONFIDENTIAL INFORMATION" means any proprietary information, technical data, trade secrets or know-how, including, but not limited to, research, software, developments, inventions, processes, formulas, technology, designs, drawings, engineering, hardware configuration information, yield data or other information disclosed by one party to the other, which is marked as "Confidential," and/or orally or in other tangible form identified as confidential at the time of disclosure and confirmed as Confidential Information in writing within thirty (30) days of its initial disclosure, provided that any methodologies, practices or procedures used by PDF and observed by Toshiba shall constitute "Confidential Information" within the meaning of this Agreement without any such notification. Confidential Information does not include any of the foregoing items which have become publicly known and made generally available through no wrongful act of the receiving party, or which is already known by the receiving party as evidenced by the receiving party's files immediately prior to such disclosure, or which the receiving party proves was independently developed, prior to the receiving party's receipt of such Confidential Information, by employees or other representatives of such receiving party who have not had access to such information or the ideas or theories underlying such Confidential Information. Except as otherwise agreed by both parties, PDF shall return to

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Toshiba all Confidential Information of Toshiba owned by Toshiba and not licensed to PDF or jointly owned by PDF and Toshiba and copies thereof, within thirty (30) days after completion of the Project or after expiration or termination of this Agreement. Except as otherwise agreed by both parties, Toshiba shall return to PDF all Confidential Information of PDF owned by PDF and

not licensed to Toshiba or jointly owned by PDF and Toshiba and copies thereof, within thirty (30) days after completion of the Project or after expiration or termination of this Agreement.

7. WARRANTY. PDF warrants to Toshiba that PDF's Intellectual Property utilized by PDF in performing the Project does not infringe any patent, copyright, trade secret, and any other proprietary rights of any third party. EXCEPT FOR THE FOREGOING, NOTHING UNDER THIS AGREEMENT, OR THE STATEMENT OF WORK OR PROJECT SHALL BE DEEMED TO BE A WARRANTY OR REPRESENTATION AS TO THE OUTCOME OF ANY PROJECT OR THE EFFICACY OF ANY RECOMMENDATIONS MADE BY PDF. NOTHING UNDER THIS AGREEMENT OR THE STATEMENT OF WORK SHALL BE DEEMED TO CREATE ANY LIABILITY ON THE PART OF PDF WITH RESPECT TO THE OUTCOME OF A PROJECT OR ANY ACTIONS TAKEN BY TOSHIBA AS A CONSEQUENCE OF PDF'S RECOMMENDATIONS.

8. MISCELLANEOUS.

8.1 AMENDMENTS AND WAIVERS. Any term of this Agreement or any Statement of Work may be amended or waived only with the written consent by the representatives of the parties.

8.2 SOLE AGREEMENT. This Agreement and the Statement of Work constitute the sole agreement of the parties and supersede all oral negotiations and prior writings with respect to the subject matter hereof.

8.3 NOTICES. Any notice required or permitted by this Agreement shall be in writing and shall be deemed sufficient upon receipt, when delivered personally or by an internationally-recognized delivery service (such as Federal Express or DHL), or after being deposited in the U.S. mail as certified or registered mail with postage prepaid, if such notice is addressed to the party to be notified at such party's address as set forth above or as subsequently modified by written notice.

8.4 CHOICE OF LAW. The validity, interpretation, construction and performance of this Agreement shall be governed by the laws of the State of California, without giving effect to the principles of conflict of laws.

8.5 SEVERABILITY. If one or more provisions of this Agreement are held to be unenforceable under applicable law, the parties agree to renegotiate such provision in good faith. In the event that the parties cannot reach a mutually agreeable and enforceable replacement for such provision, then (i) such provision shall be excluded from this Agreement, (ii) the balance of this Agreement shall be interpreted as if such provision were so excluded and (iii) the balance of this Agreement shall be enforceable in

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accordance with its other terms.

8.6 COUNTERPARTS. This Agreement may be executed in counterparts, each of which shall be deemed an original, but all of which together will constitute one and the same instrument.

8.7 ARBITRATION. The parties shall attempt in good faith to resolve any dispute arising under this Agreement. If the parties are unable to resolve dispute within a reasonable period then the dispute shall be finally settled by binding arbitration (a) if brought by Toshiba, in San Jose, California, in accordance with the Commercial Rules of the American Arbitration Association and, (b) if brought by PDF, in Tokyo, Japan in accordance with the rules of the International Chamber of Commerce. In either case such arbitration shall be conducted by one arbitrator appointed in accordance with said rules. The arbitrator shall apply California law, without reference to rules of conflicts of law or rules of statutory arbitration, to the resolution of any dispute. Judgment on the award rendered by the arbitrator may be entered in any court having jurisdiction thereof. Notwithstanding the foregoing, the parties may apply to any court of competent jurisdiction for preliminary or interim equitable relief, or to compel arbitration in accordance with this paragraph, without breach of this arbitration provision.

8.8 EXPORT CONTROL. Neither party shall, directly or indirectly export or re-export any technical data or information or data received from the other party hereunder or the direct products thereof to any destination prohibited or

restricted by export control regulations of Japan and the United States, including U.S. Export Administration Regulations, without proper authorization from the appropriate governmental authorities. In addition, the parties agree that no technology furnished to the other will be used for any purpose to develop and/or manufacture nuclear, chemical or biological weapons and/or missiles.

8.9 NON-SOLICITATION. Toshiba shall not solicit or influence or attempt to influence any person employed by PDF to terminate or otherwise cease his or her employment with PDF or become an employee of Toshiba or any competitor of PDF. A company's status as a competitor of PDF shall be determined by PDF in its sole discretion.

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IN WITNESS WHEREOF, the parties have executed this Agreement as of the date first set forth above.

PDF SOLUTIONS, INC.

TOSHIBA CORPORATION

By: /s/ P. Steven Melman

By: /s/ Koichi Suzuki

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P. Steven Melman

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Koichi Suzuki, VP

Title: Chief Financial Officer

Title: Group Executive

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Semiconductor Group

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STATEMENT OF WORK

\*\*\*\*\*  
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\*\*\*\*\*

This Statement of Work is made between PDF Solutions, Inc. ("PDF") and Toshiba Corporation ("TOSHIBA") pursuant to and attached as an exhibit to that certain Technology Cooperation Agreement dated as of \*\*\*\*\* (the "AGREEMENT") between PDF and Toshiba. All terms and conditions contained in this Statement of Work are subject to the terms and conditions set forth in the Agreement. The date of commencement of services under this Agreement was \*\*\*\*\* (the "ENGAGEMENT COMMENCEMENT DATE").

(a) DELIVERABLES

PDF will provide Toshiba with development work and other consulting services to assist Toshiba in (a) \*\*\*\*\* of Toshiba's \*\*\*\*\* processes referred to as \*\*\*\*\* (and derivatives thereof) for use with the specific \*\*\*\*\* ("\*\*\*\*\*") or any other device that Toshiba selects to use to verify the \*\*\*\*\* and \*\*\*\*\* Processes (a "\*\*\*\*\*"), (b) effecting the transfer of the \*\*\*\*\* and \*\*\*\*\* from Toshiba's \*\*\*\*\*

facility to its \*\*\*\*\* facility, and (c) improving the \*\*\*\*\*  
 \*\*\*\*\* of \*\*\*\*\* manufactured utilizing the \*\*\*\*\* (the  
 \*\*\*\*\*), \*\*\*\*\* manufactured utilizing the \*\*\*\*\* (the  
 \*\*\*\*\*), and any other devices manufactured utilizing the  
 \*\*\*\*\* or the \*\*\*\*\* such as \*\*\*\*\* manufactured  
 utilizing the \*\*\*\*\* (the \*\*\*\*\*), \*\*\*\*\*  
 manufactured utilizing the \*\*\*\*\* (the \*\*\*\*\*),  
 \*\*\*\*\* manufactured utilizing the \*\*\*\*\* (the  
 \*\*\*\*\*), \*\*\*\*\*manufactured utilizing the \*\*\*\*\*  
 (the \*\*\*\*\*). The \*\*\*\*\* , the \*\*\*\*\* , the  
 \*\*\*\*\* , the \*\*\*\*\* , the \*\*\*\*\* , the  
 \*\*\*\*\* , and each other Toshiba product manufactured utilizing the  
 \*\*\*\*\* and the \*\*\*\*\* are each individually referred to as a  
 "PRODUCT" and are collectively referred to as the "PRODUCTS". The parties  
 acknowledge and agree that a device (such as \*\*\*\*\* ) manufactured on  
 \*\*\*\*\* is a different product than such device (\*\*\*\*\* ,  
 respectively) manufactured on the \*\*\*\*\* . During the engagement  
 Toshiba engineers will be invited to be part of the team and work at the  
 direction of the PDF engineers in conducting the data gathering and analyses  
 necessary to carry out PDF's holistic yield improvement methodology.

In order to ensure that the work of the team will result in actions and  
 subsequent measurable improvements in \*\*\*\*\* , the team will report  
 its recommendations directly to a management steering committee consisting of  
 the set of Toshiba managers who are necessary to make all decisions regarding  
 the Product (the "TOSHIBA MANAGEMENT GROUP").

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In providing the Services to Toshiba, PDF, working with Toshiba  
 engineers, will recommend specific actions to be taken to improve \*\*\*\*\*  
 \*\*\*\*\* of each Product. Where determined by PDF to be necessary, PDF will present  
 a business case stating the expected size of the potential yield improvements,  
 the likely cost of making the improvements and the relative likelihood of  
 success.

The objective of the Project and the result of the activities above will  
 be to deliver the following Deliverables:

DELIVERABLES  
 DELIVERABLES

No.	Description	Payment	Anticipated Delivery Date
1.	Detailed Project Plan and Schedule.	\$*****	*****
2.	***** *****.	\$*****	*****
3.	***** *****	\$*****	*****
4.	*****.	\$*****	*****
5.	***** *****	\$*****	*****
6.	*****.	\$*****	*****
7.	***** *****.	\$*****	*****
8.	***** *****	\$*****	*****

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9. \*\*\*\*\* §\*\*\*\*\* \*\*\*\*\*  
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For the purpose of this Agreement, "SPECIFIED DELIVERABLES" (for example, as used in Section 3.4 of the Agreement) shall mean Deliverable Numbers 2, 3, 4, 5, 6 and 7.

The parties acknowledge that the Analysis Software comprising a part of the Deliverables requires the use of pdFab, pdEx and/or other PDF software products that PDF separately sells or licenses (the "UNDERLYING SOFTWARE"). This Analysis Software consists solely of the specifically and custom designed Analysis Software applicable to Toshiba, and specifically excludes any of the Underlying Software. Any licensee, sublicensee or other user of the Analysis Software must have appropriate licenses to use such Underlying Software. No license, sublicense or other right to use or other right in any Underlying Software is granted under this Agreement and Statement of Work.

PDF will present the findings to the Toshiba Management Group during pre-arranged review meetings. The purpose of these review meetings will be for the Toshiba Management Group to review recommendations, seek clarifications where necessary and decide which yield improvement actions to take.

Within \*\*\*\*\* following the delivery of any Deliverable listed above, Toshiba will deliver to PDF such test data and other data and materials as shall be reasonably necessary to enable PDF to prepare and deliver the next Deliverable (the "TOSHIBA DELIVERABLES").

(b) TEAM STRUCTURE

The team is structured to divide the decision-making, project leadership and analysis management between three bodies in the form of "TEAM STRUCTURE" in the form attached to this Statement of Work as Exhibit C.

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Toshiba will establish a Steering Committee (the "STEERING COMMITTEE") which will consist of (a) \*\*\*\*\* and any other Toshiba manager who is necessary in order for yield improvement decisions to be made, and (b) \*\*\*\*\* or another senior executive of PDF. Toshiba and PDF will make all such personnel available for performance under the Agreement and this Statement of Work. The Steering Committee will be limited to four representatives of Toshiba and one representative of PDF in order to allow decisions to be reached in a timely fashion but will have sufficient authority to make the relevant decisions. The Steering Committee is responsible for giving the team its charter, deciding which yield improvement actions to take and who in the Toshiba organization will be responsible for carrying out the improvement.

Project leadership responsibility will be shared by \*\*\*\*\* (the "TOSHIBA PROJECT LEADER"), on behalf of Toshiba, and \*\*\*\*\* (the "PDF PROJECT LEADER"), on behalf of PDF. The Toshiba Project Leader and the PDF Project Manager will consult with \*\*\*\*\* of PDF as they together shall deem necessary and appropriate. Their primary responsibility will be to ensure that the team is making good progress toward delivery of the work chartered by the Steering Committee. In order to maximize the likelihood that the team is making good progress, the Toshiba Project Leader and the PDF Project Leader will monitor the team's work on a weekly basis and help reduce any organizational obstacles which may impede the team's progress.

The day-to-day analyses will be conducted by a \*\*\*\*\*Team \*\*\*\*\* of engineers from Toshiba and PDF. A PDF Engagement Manager will manage the activities of the \*\*\*\*. The PDF Engagement Manager will be responsible for directing all team members in their analyses as well as aggregating and synthesizing the results of all the analyses conducted by the entire team. The PDF Engagement Manager will be available for all communications at reasonable times with the project leaders. In addition, the PDF Engagement Manager will be the principal point of contact for any questions that Toshiba personnel not on the \*\*\*\* may have during the course of the engagement.

In addition to the PDF Engagement Manager, PDF will make a total of \*\*\*\*\* available to this engagement. PDF may staff additional engineers during critical points during the term of this Agreement.

Also, \*\*\*\*\* Toshiba engineers will be asked to participate actively with the \*\*\*\*. Toshiba team members should be assigned to one of the Subgroups and be skilled at one of the principal analytical streams of the PDF yield improvement methodology. They will be placed on the Team and Subgroups after approval by PDF for the purpose of gathering data and conducting analyses to improve yield on the Product. The Toshiba team members will work at the direction of a PDF engineer responsible for one of the Subgroups and principal analytical streams of the engagement.

(c) TOOLS

Toshiba will provide PDF with office space and other typical business resources reasonably requested from time to time by PDF. In particular, Toshiba will provide PDF with secure office space large enough to accommodate up to \*\* PDF personnel in addition to Toshiba engineers assigned to work on the \*\*\*\*. Toshiba will provide PDF with office equipment reasonably requested by PDF from time to time including \*\*\*\* international access Facsimile machine and line and a photo copier. Toshiba will provide PDF with 24-hour access to the team office so work can continue at night and on weekends.

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Toshiba will provide PDF with computing resources that PDF reasonably deems necessary to \*\*\*\*\*. The details of such request will be sent in a separate document to the Toshiba Project Leader but in general, Toshiba will provide \*\*\*\* engineering workstations connected to both the Toshiba network and the Internet. Toshiba will also provide such other accessories as PDF shall reasonably request including a removable data storage device, such as a tape drive, and a printer.

(d) LOCATION

The Project will be conducted by Toshiba's and PDF's personnel at Toshiba's \*\*\*\*\* in \*\*\*\*\* and Toshiba's \*\*\*\*\* in \*\*\*\*\* , and by PDF's personnel at PDF's facilities. In certain cases, PDF may require Toshiba engineers to work at the PDF facility in San Jose, California. PDF engineers may also work in \*\*\*\*\* and \*\*\*\*\* factory when the engagement manager believes this is necessary to achieve progress. If

Toshiba shall provide PDF employees with an English version of the employee rules and regulations in force at the Toshiba facilities, then PDF employees shall comply with such rules and regulations in all material respects in an equivalent manner as other Toshiba employees generally. Any failure to comply with such rules and regulations shall not constitute a default of a material obligation constituting a basis for termination of this Agreement unless (A) Toshiba has repeatedly given notices of such failure to PDF and PDF has repeatedly failed to remedy such noncompliance as specified in such notices, (B) Toshiba shall notify PDF in writing that failure to cure such repeated non compliance within \*\*\*\*\* shall constitute a basis for termination of the Agreement and PDF shall fail to remedy such non compliance, and (C) Toshiba gives final notice of termination within \*\*\*\*\* following such \*\*\*\*\* period. PDF shall take all reasonable steps necessary to ensure that all employees resident at or visiting a Toshiba facility shall treat as confidential in accordance with Section 6 all material information of a proprietary nature observed by or disclosed to such employee, and shall comply in all material respects with the all export control obligations contained in Section 8.8.

(e) FEES AND EXPENSES.

Toshiba will pay PDF Fees consisting of three components: (1) the Deliverables Fees, (2) the Incentive Fee and (3) the Product Fees, each as defined below:

(i) DELIVERABLES FEES. Toshiba will pay PDF a fixed fee upon delivery of each of the Deliverables equal to the "Payment" with respect to each such Deliverable specified under (a) above (the "DELIVERABLES FEES"). Toshiba acknowledges that PDF delivered Deliverable No. 1 to Toshiba on \*\*\*\*\* and hereby Accepts Deliverable No. 1. Upon Acceptance by Toshiba of each other Deliverable, PDF will submit to Toshiba an invoice specifying the

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Deliverable delivered and the Deliverable Fee due. Toshiba shall pay the Deliverable Fees within \*\*\*\*\* days following the date of the invoice. Payment shall be made in accordance with the provisions of Section 2.2 of the Agreement. If Toshiba shall fail to deliver a Toshiba Deliverable with respect to a PDF Deliverable within the time period specified in the last paragraph of Paragraph (a) of this Statement of Work and as a result, the delivery of the Deliverable by PDF is delayed by more than six weeks after the "Anticipated Delivery Date" referenced in the table in Paragraph (a) of this Statement of Work above, then the parties hereby agree that such Deliverable shall be deemed to have been delivered by PDF upon PDF's delivery of such Deliverable to the extent developed through such date, Toshiba shall be obligated to deliver the respective Deliverable Fee, and upon payment of such Deliverable Fee and delivery of the applicable Toshiba Deliverable, PDF shall complete delivery of the Deliverable; provided that if Toshiba shall wish to modify or alter the Toshiba Deliverable, then the parties shall work together in good faith to mutually agree upon a substitute Toshiba Deliverable in which case, if appropriate, the Deliverable specifications, the Deliverable Fees, time for delivery of Deliverables and due date for completion of Deliverables necessary to satisfy the requirements to receive the Incentive Fee, and the Product Fees applicable to such altered Deliverables shall be appropriately adjusted as well.

(ii) INCENTIVE FEE. PDF shall deliver to Toshiba an analysis report and shall work with Toshiba with the objective of enabling Toshiba to achieve an average yield of \*\*\*\*\* shippable die per wafer (based on a die size of \*\*\*\*\* square millimeters or smaller), over all lots (excluding lots deemed adversely affected by material operational errors such as equipment malfunctions, misprocessing (such as operating the recipe not in accordance with the specifications) and other similar reasons) of the \*\*\*\*\* meeting the Functional Tests and Specifications (as defined below) for which production is completed during any two-week period of Mass Production commencing on or prior to \*\*\*\*\* (the last date that two weeks of Mass Production can be completed to achieve the Incentive Fee is referred to as the "INCENTIVE FEE

DATE"). Such average number of shippable die per wafer referenced in the preceding sentence, as adjusted pursuant to the last sentence of this Paragraph (e) (ii), shall be referred to as the (the "INCENTIVE TARGET YIELD"). Upon Toshiba achieving the Incentive Target Yield on or prior to the Incentive Fee Date as described above, Toshiba shall be obligated to pay PDF an incentive fee equal to \*\*\*\*\* (the "INCENTIVE FEE"); provided, however, that the Incentive Target Yield shall not be considered achieved and Toshiba shall have no obligation to pay the Incentive Fee unless Toshiba shall have achieved (in the manner provided above) the Incentive Target Yield on or prior to the Incentive Fee Date. In the event the Functional Tests and Specifications for the \*\*\*\*\* change then the Incentive Target Yield will be appropriately adjusted to account for the change in specifications.

Upon commencement of Mass Production of the \*\*\*\*\* Toshiba will provide PDF with regular, ongoing data as to the yield on the wafers for such Product to enable PDF to assess the average yield on the wafers for such Product for any two-week period commencing on or prior to \*\*\*\*\* and will provide PDF with such average yield every two-weeks. Upon achievement of the Incentive Target Yield, Toshiba will notify PDF and PDF will submit to Toshiba an invoice for the Incentive Fee. Toshiba shall pay the Incentive Fee within thirty (30) days following the date of the invoice. Payment shall be made in accordance with the provisions of Section 2.2 of the Agreement.

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PDF's failure to deliver the materials necessary to enable Toshiba to achieve the Incentive Target Yield referenced above on or prior to the Incentive Fee Date shall not constitute a basis for termination of the Agreement under Section 4 of the Agreement.

(iii) PRODUCT FEES. Toshiba will pay PDF a separate Quarterly fee with respect to each separate Product (as defined in the first paragraph in Paragraph (a) of this Statement of Work above) manufactured \*\* \*\*\*\* \*\*\*\*\* \*\* \*\*\*\* \*\*\*\*\* \*\*\*\*\* is manufactured (the "PRODUCT FEES"). If Toshiba determines to \*\*\*\*\* \* \*\*\*\*\* \* \*\*\*\*\* \*\*\*\*\* \*\*\*\*\* \*\*\*\*\* \*\*\*\*\* \*\* \*\*\*\*, upon Toshiba's request PDF shall assist in assessing such facility's yield ramp methodologies and process transfer data if such facility is to receive \*\*\*\*\* of the scheduled production of such Product. If PDF's services in designing new procedures (including without limitation development of test structures, TEGs, analysis models, or other similar services) are necessary to help achieve the targeted yield \*\* \*\*\*\* \*\*\*\*\* \*\*\*\*\* \*\*\*\*\* \*\*\*\*\* \*\*\*\*\* shall not be covered by this Agreement but shall be provided pursuant to a separate agreement to be agreed upon between PDF and either Toshiba or the owner of such other facility. The Product Fees shall be calculated separately \*\* \*\*\*\* \*\*\*\*\* \*\*\*\*\* \*\* \*\*\*\* Product is produced, provided that all \*\*\*\*\* \*\*\*\*\* with respect to which PDF provides services or advice under an agreement with PDF (including this Agreement) shall \*\*\*\*\* \*\* \*\*\*\*\* \*\* \*\*\*\*\* \*\*\*\*\* \*\*\*\*\* \*\*\*\*\* for purposes of such calculation so long as PDF agrees to include such \*\*\*\*\* as a part of such \*\*\*\*\* \*\*\*\*\*. No Product Fees shall be payable with respect to any \*\*\*\*\* \*\* \* \*\*\*\*\* \*\*\*\*\* \*\*\*\*\* \*\*\*\*\* \*\*\*\*\* \*\*\*\*\* \*\* \*\*\*\* \* \*\*\*\*\* \*\*\*\*\* \*\* \*\*\*\* \* \*\*\*\*\* \*\*\*\*\* \*\* \*\*\*\* \* \*\*\*\*\* \*\*\*\*\* \*\* \*\*\*\* \* \*\*\*\*\* \*\*\*\*\* \*\* \*\*\*\* \* \*\*\*\*\* \*\*\*\*\* \*\* \*\*\*\* \* \*\*\*\*\* \*\*\*\*\* Product produced. In making such calculations and paying such amounts, the foregoing terms (and certain other terms) are defined as follows:

"AVERAGE UNIT SALES PRICE" for any Product during any Quarter shall mean the Net Sales of such Product during such Quarter divided by the total number of units of such Product sold during such Quarter which comprise such Net Sales.

"BASE NUMBER OF SHIPPABLE DIE PER WAFER" for any Product during any Quarter shall mean a number of die per wafer to be determined by agreement between PDF and Toshiba. With respect to the \*\*\*\*\* \*\*\*\*\* \*\*\*\*\* Base Number of Shippable Die Per Wafer shall initially be \*\*\*\* shippable die per wafer (based on a die size of \*\*\*\*\* square millimeters or smaller), subject to



adjustment pursuant to a ramp schedule to be mutually agreed upon in writing between Toshiba and PDF before \*\*\*\*\*. Such ramp schedule shall adjust the Base Number of Shippable Die per Wafer no more frequently than quarterly. For each other Product, within 30 days following the first tape out of such Product, PDF and Toshiba shall meet and agree upon what shall constitute such Base Number of Shippable Die per Wafer for such Product. The adjustments to the Base Number of Shippable Die per Wafer established in the ramp schedule for the \*\*\*\*\* Product and with respect to any other Product shall be mutually agreed upon and shall be based upon analysis of the following factors: (a) the defect limited yield used from Toshiba's targets; (b) an estimation of the parametric yield based on static timing analysis and other design factors; (c) an estimation of the typical

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systematic yield based on Toshiba and industry typical yield improvement rates for systematic yield; and (d) the profitability of the Product. The Base Number of Shippable Die Per Wafer for any Product shall be the same for all fabrication facilities.

"FIRST QUALIFYING MONTH" for any Product shall mean the calendar month beginning on the later of (a) the first day of the calendar month immediately following the calendar month in which Mass Production units of such Product are first sold to Customers (unless such first sale occurs on the first day of a calendar month in which case the First Qualifying Month shall commence on the date of such first sale) or (b) \*\*\*\*\*.

"FUNCTIONAL TESTS AND PERFORMANCE SPECIFICATIONS" for any Product shall mean the functional tests and performance specifications at wafer probe test and at die sort test, as the case may be, as are specified for qualification by the client of Toshiba with respect to such Product, or such other less stringent functional tests and performance specifications that such client shall accept, or such other functional tests and performance specifications as are otherwise mutually agreed upon by Toshiba and PDF.

"NET SALES" for any Product during any Quarter shall mean the actual gross sales of such Product (a) by Toshiba to any customer, distributor or other third party; and (b) by any such customer, distributor or other third party which is controlling, controlled by or under common control ("AFFILIATED") with Toshiba to any other person; during such Quarter, less returns of such Product during such Quarter. Any sales by an affiliated customer, distributor or other third party shall be reduced by the amount paid for such product to Toshiba by such affiliated customer, distributor or other third party under clause (a) above so as to avoid double counting of sales by such parties. Such amounts shall be determined in accordance with generally accepted accounting principles consistently applied. All persons to whom sales of Products are made under clauses (a) and (b) above or otherwise are collectively referred to as "CUSTOMERS."

"MASS PRODUCTION" units shall mean units of a Product that are sold to Customers in mass commercial quantities for use in commercial systems (and not merely for evaluation) or otherwise than for commercial use.

"NUMBER OF QUALIFYING UNITS" for any Product during any

Quarter shall mean the amount, if any, by which (a) the total number of units of such Product which are produced during such Quarter which meet the Functional Tests and Performance Specifications for such Product upon completion of the die sort test (hereinafter referred to as "PRODUCED"), exceeds (b) the Base Number of Shippable Die Per Wafer for such Product during such Quarter multiplied by the total number of wafers from which die for such Product are produced during such Quarter. (This explicitly excludes zero-yielding wafers since zero-yielding wafers are indicative of operational problems like equipment malfunctions or

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misprocessing; not process or design related problems which PDF has the ability to affect.)

"QUARTER" with respect to any Product shall mean each successive three month period commencing on the later of \*\*\*\*\* or the First Qualifying Month for such Product.

Amount of Product Fee. The Product Fee for each Product shall be calculated with respect to each Quarter and shall equal the product of:

- (a) the product fee multiplier of \*\*\*\*\* , multiplied by,
- (b) the Average Unit Sales Price for such product in such Quarter, multiplied by,
- (c) the Number of Qualifying Units in such Quarter.

The Product Fee for all Products at all fabrication facilities shall collectively not exceed \*\*\*\*\* in the aggregate.

Calculation of Product Fee. The Product Fee for each Product (as defined in the first paragraph in Paragraph (a) of this Statement of Work above) will be calculated with respect to each such Product for each Quarter commencing with the First Qualifying Month for such Product, and for each additional Quarter thereafter for an aggregate of \*\*\* consecutive Quarters (or \*\*\* months) (each, the "PRODUCT PAYMENT PERIOD"). The First Qualifying Month and the Product Payment Period shall be calculated separately for each separate Product (as defined above). In the event of a suspension in the production of such Product or the reduction of quantities of production of such Product to less than Mass Production quantities for any reason, the Product Payment Period for which the Product Fee is being calculated and the calculation of the Base Number of Die Per Wafer shall be extended for a period of time equal to the period during which production is suspended or such commercial quantities are not being produced. Notwithstanding the foregoing, no Product Payment Period shall extend beyond, and no Product Fee shall be calculated or payable with respect to any period after, \*\*\*\*\*.

Payment of Product Fee. The Product Fee will be paid for each Product with respect to each successive Quarter commencing with the Quarter beginning with the First Qualifying Month and continuing through the end of the Product Payment Period. Toshiba will make such payment to PDF within forty-five (45) days following the last day of each such Quarter with respect to which the Product Fee is determined. Payment will be delivered in accordance with the provisions of Section 2.3 of the Agreement.

Verification. Within thirty (30) days following the end of each Quarter, Toshiba will provide PDF with a report containing the following information with respect to each Product during such Quarter:

(a) the "Net Sales";

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(b) the total number of units sold which comprise such Net Sales;

(c) the "Average Sales Price;"

(d) the total number of units which are produced during such Quarter which meet the applicable Functional Tests and Performance Specifications upon completion of the wafer probe test;

(e) the "Base Number of Shippable Die Per Wafer;"

(f) the total number of wafers from which Mass Production Units are produced during such Quarter; and

(g) the "Number of Qualifying Units."

Upon the reasonable request of PDF but no more often than once in any year, PDF may have its independent auditors inspect the accuracy of Toshiba's reports. If there are inconsistencies found in PDF's favor, Toshiba agrees to pay the difference within thirty (30) days of the finding. Any information contained in the report and the results of the inspection shall be considered Confidential Information under Section 6 of the Agreement.

(iv) EXPENSES.

Toshiba will reimburse PDF for all Expenses incurred by PDF in performing the services, delivering the Deliverables and fulfilling its obligations under the Project. The Expenses will be billed to Toshiba at PDF's cost and will not exceed an average of \*\*\*\*\* per calendar quarter without the written consent of Toshiba. PDF will submit to Toshiba invoices specifying the Expenses and Toshiba will pay the Deliverable Fees within thirty (30) days following the date of the invoice. Invoices will be submitted to Toshiba no more frequently than a monthly basis. Payments of invoices for PDF's expenses will be made in accordance with the provisions of Section 2.2 of the Agreement. Notwithstanding the foregoing if PDF is entitled to receive reimbursement of the same travel, lodging and other similar expenses from both Toshiba and other customers, then PDF will allocate any expenses that are for the benefit of both Toshiba and such other customers, among Toshiba and such other customers on a basis that PDF shall determine is fair, just and equitable to Toshiba and such other customers taking into account all relevant factors.

(v) VERIFICATION.

Toshiba will provide PDF access to all other relevant information and documentation (or will provide PDF with copies of all relevant documentation) necessary to confirm and verify the Deliverables Fees, the Incentive Fee and Product Fees payable to PDF hereunder.

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AMENDMENT NO. 1  
TO  
TECHNOLOGY COOPERATION AGREEMENT

This Amendment No. 1 to the Technology Cooperation Agreement (the "AMENDMENT") is made as of the \*\*\*\*\* by and between Toshiba Corporation, a corporation organized under the laws of Japan ("TOSHIBA") having its principal place of business at 1-1 Shibaura 1-chome, Minato-ku, Tokyo 105-8001, Japan, and PDF Solutions, Inc., a corporation organized under the laws of California ("PDF") having its principal place of business at 333 West San Carlos Street, Suite 1200, San Jose, California, U.S.A.

RECITALS

WHEREAS, on \*\*\*\*\* , Toshiba and PDF entered into a Technology Cooperation Agreement (the "AGREEMENT") relating to the provision of services by PDF to Toshiba.

WHEREAS, the Agreement contained a Statement of Work which detailed the specific obligations of PDF and Toshiba with respect to the Project; and

WHEREAS, the schedule for the mass production of the products covered by the Agreement has been delayed by certain circumstances, and the parties desire to amend the Statement of Work to change the terms and conditions relating to the Incentive Fee and the Product Fee sections in the Statement of Work to more accurately reflect the parties' intentions.

NOW THEREFORE, in consideration of the mutual promises, covenants and conditions contained herein, the adequacy of which is hereby acknowledged, the parties hereto mutually agree as follows:

1. Definitions. All capitalized terms unless defined elsewhere in this Amendment shall have the meanings ascribed to them in the Agreement

2. Statement of Work. Paragraphs (e)(ii) and e(iii) of the Statement of Work are hereby amended and restated their entirety as follows:

"(ii) INCENTIVE FEE. PDF shall deliver to Toshiba analysis reports and shall work with Toshiba with the objective of enabling Toshiba to achieve the First, Second and Third Incentive Target Yield (each as defined below) (collectively, the "INCENTIVE TARGET YIELDS"). Upon Toshiba achieving any of the First, Second or Third Incentive Target Yields, Toshiba shall pay PDF the First, Second or Third Incentive Fee (each as defined below), respectively, which Fees shall total \*\*\*\*\* (collectively, the "INCENTIVE FEES"). The Incentive Fees and Incentive Target Yields shall be determined as follows:

\* CONFIDENTIAL TREATMENT REQUESTED. CONFIDENTIAL PORTION HAS BEEN FILED SEPARATELY WITH THE SECURITIES AND EXCHANGE COMMISSION.

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(a) FIRST INCENTIVE FEE. Toshiba shall pay PDF \*\*\*\*\* (the "FIRST INCENTIVE FEE") upon achieving a yield of \*\*\* shippable die (based on a die size of \*\*\*\* square millimeters or smaller) on any single wafer of the \*\*\*\*\* Product produced and meeting the Functional Tests and Specifications (as defined below) measured at wafer probe test at any time on or prior to



Product is produced, provided that all fabrication facilities with respect to which PDF provides services or advice under an agreement with PDF (including this Agreement) shall collectively be considered one facility (the "PRIMARY FACILITY") for purposes of such calculation so long as PDF agrees to include such facility as a part of such Primary Facility. No Product Fees shall be payable with respect to any facility owned by an unaffiliated third party which facility accounts for less than 25% of the total number of units of such Product produced. In making such calculations and paying such amounts, the foregoing terms (and certain other terms) are defined as follows:

"AVERAGE NUMBER OF SHIPPABLE DIE PER WAFER" for any Product during any Quarter shall mean the average number of shippable die per wafer (based on a die size of \*\*\*\* square millimeters or smaller), over all lots (excluding engineering lots and lots deemed adversely affected by material operational errors such as equipment malfunctions, misprocessing (such as operating the recipe not in accordance with the specifications) and other similar reasons) of such Product during such Quarter meeting the Functional Tests and Specifications measured at final test for which production is completed during such Quarter.

"BASE NUMBER OF SHIPPABLE DIE PER WAFER" for any Product during any Quarter shall mean a number of die per wafer to be determined by agreement between PDF and Toshiba.

- (a) With respect to the \*\*\*\*\* Product, Base Number of Shippable Die Per Wafer shall initially be \*\*\*\* shippable die per wafer in the Quarter commencing \*\*\*\*\* through \*\*\*\*\* , \*\*\* shippable die per wafer in the Quarter commencing \*\*\*\*\* through \*\*\*\*\* and \*\*\* shippable die per wafer in the Quarter commencing \*\*\*\*\* through \*\*\*\*\* and thereafter (based on a die size of \*\*\*\* square millimeters or smaller).
- (b) With respect to the Base Number of Shippable Die Per Wafer for the \*\*\*\*\* Product, the Base Number of Shippable Die per Wafer shall be

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mutually agreed upon by the parties within \*\*\* days of the date of execution of the Amendment.

- (c) For each other Product, within \*\*\* days following the first tape out of such Product, PDF and Toshiba shall meet and agree upon what shall constitute such Base Number of Shippable Die per Wafer for such Product. The adjustments to the Base Number of Shippable Die per Wafer established in the ramp schedule for the \*\*\*\*\* Product and with respect to any other Product shall be mutually agreed upon and shall be based upon analysis of the following factors: \*\*\*\*\*  
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"CURRENT WAFER PRICE" shall mean the following:

- (a) With respect to \*\*\*\*\* Products, the "Current Wafer Price" in the Quarter commencing \*\*\*\*\* though \*\*\*\*\* shall be \*\*\*\*\* . Such price shall be reduced by \*\*\*\*\* percent in the Quarter commencing \*\*\*\*\* through \*\*\*\*\* . On a quarterly basis thereafter determined one week

prior to the commencement of such Quarter, the price will be adjusted to reflect then current market prices for such wafers and other relevant market conditions, provided that such reductions shall not exceed \*\*\*\*\* percent in any consecutive 12-month period. If market prices for such wafers vary more than plus or minus \*\*\*\*\* in any consecutive 12-month period, the parties agree to re-examine the prices and to make alterations accordingly, as mutually agreed upon.

- (b) With respect to \*\*\*\*\* Products, the "Current Wafer Price" in the Quarter commencing \*\*\*\*\* through \*\*\*\*\* shall be \*\*\*\*\* . Such price shall be reduced by \*\*\*\*\* percent in the Quarter commencing \*\*\*\*\* through \*\*\*\*\* . On a quarterly basis thereafter determined one week prior to the commencement of such Quarter, the price will be adjusted to reflect then current market prices for such wafers and other relevant market conditions, provided that such reductions shall not exceed \*\*\*\*\* percent in any consecutive 12-month period. If market prices for such wafers vary more than plus or minus \*\*\*\*\* in any consecutive 12-month period, the parties agree to re-examine the prices and to make alterations accordingly, as mutually agreed upon.

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"FIRST QUALIFYING MONTH" for any Product shall mean the calendar month beginning on the later of (a) the first day of the calendar month immediately following the calendar month in which Mass Production units of such Product are first sold to Customers (unless such first sale occurs on the first day of a calendar month, the First Qualifying Month shall commence on the date of such first sale) or (b) \*\*\*\*\* .

"FUNCTIONAL TESTS AND PERFORMANCE SPECIFICATIONS" for any Product shall mean the functional tests and performance specifications at wafer probe test, at die sort test and at final test, as the case may be, as are specified for qualification by the client of Toshiba with respect to such Product, or such other less stringent functional tests and performance specifications that such client shall accept, or such other functional tests and performance specifications as are otherwise mutually agreed upon by Toshiba and PDF.

"MASS PRODUCTION" units shall mean units of a Product that are sold to Customers in mass commercial quantities for use in commercial systems (and not merely for evaluation) or otherwise than for commercial use, and/or when the final mark set has been approved for mass production.

"QUARTER" with respect to any Product shall mean each successive three month period commencing on the later of \*\*\*\*\* or the First Qualifying Month for such Product.

Amount of Product Fee. The Product Fee for each Product shall be calculated with respect to each Quarter and shall equal the product of:

- (a) the Current Wafer Price for such Product during such Quarter multiplied by \*\*\*\*\*;
- (b) multiplied by \*\*\*\*\*;
- (c) multiplied by the difference determined by (x) the quotient of the Average Number of Shippable Die per Wafer divided by the Base Number of Shippable Die per Wafer for such Product during such Quarter minus (y) one (1);

- (d) multiplied by the number of Mass Production wafers for such Product during such Quarter.

The Product Fee for all Products at all fabrication facilities shall collectively not exceed \*\*\*\*\* in the aggregate.

Calculation of Product Fee. The Product Fee for each Product (as defined in the first paragraph in Paragraph (a) of this Statement of Work above) will be calculated with respect to each such Product for each Quarter commencing with the First Qualifying Month for such

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Product, and for each additional Quarter thereafter for an aggregate of 8 consecutive Quarters (or 24 months) (each, the "PRODUCT PAYMENT PERIOD"). The First Qualifying Month and the Product Payment Period shall be calculated separately for each separate Product (as defined above). In the event of a suspension in the production of such Product or the reduction of quantities of production of such Product to less than Mass Production quantities for any reason, the Product Payment Period for which the Product Fee is being calculated and the calculation of the Base Number of Die Per Wafer shall be extended for a period of time equal to the period during which production is suspended or such commercial quantities are not being produced. Notwithstanding the foregoing, no Product Payment Period shall extend beyond, and no Product Fee shall be calculated or payable with respect to any period after, \*\*\*\*\*.

Payment of Product Fee. The Product Fee will be paid for each Product with respect to each successive Quarter commencing with the Quarter beginning with the First Qualifying Month and continuing through the end of the Product Payment Period. Toshiba will make such payment to PDF within \*\*\* days following the last day of each such Quarter with respect to which the Product Fee is determined. Payment will be delivered in accordance with the provisions of Section 2.3 of the Agreement.

Verification. Within thirty (30) days following the end of each Quarter, Toshiba will provide PDF with a report containing the following information with respect to each Product during such Quarter:

- (a) the Average Number of Shippable Die per Wafer (including method of calculating such number);
- (b) the total number of units which are produced which meet the applicable Functional Tests and Performance Specifications upon completion of the wafer probe test; and
- (c) the total number of Mass Production wafers produced.

Upon the reasonable request of PDF but no more often than once in any year, PDF may have its independent auditors inspect the accuracy of Toshiba's reports and the underlying data. If there are inconsistencies found in PDF's favor, Toshiba agrees to pay the difference within thirty (30) days of the finding. Any information contained in the report and the results of the inspection shall be considered Confidential Information under Section 6 of the Agreement.

3. Counterparts. This Amendment may be executed in any number of counterparts, all of which together shall constitute one instrument.

[SIGNATURE PAGE FOLLOWS]

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The parties hereto have executed this Amendment as of the date first set forth above.

PDF SOLUTIONS, INC.

TOSHIBHA

By: /s/ John K. Kibarian

By: /s/ Shigen Komats

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Title: President & CEO

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Title: Vice President  
Micro & Custom LSI Division  
Semiconductor Company

## INDEMNIFICATION AGREEMENT

This Indemnification Agreement (the "Agreement") is made as of \_\_\_\_\_, by and between PDF Solutions, Inc., a Delaware corporation (the "Company"), and <<IndemniteeName>> (the "Indemnitee").

## RECITALS

The Company and Indemnitee recognize the increasing difficulty in obtaining liability insurance for directors, officers and key employees, the significant increases in the cost of such insurance and the general reductions in the coverage of such insurance. The Company and Indemnitee further recognize the substantial increase in corporate litigation in general, subjecting directors, officers and key employees to expensive litigation risks at the same time as the availability and coverage of liability insurance has been severely limited. Indemnitee does not regard the current protection available as adequate under the present circumstances, and Indemnitee and agents of the Company may not be willing to continue to serve as agents of the Company without additional protection. The Company desires to attract and retain the services of highly qualified individuals, such as Indemnitee, and to indemnify its directors, officers and key employees so as to provide them with the maximum protection permitted by law.

## AGREEMENT

In consideration of the mutual promises made in this Agreement, and for other good and valuable consideration, receipt of which is hereby acknowledged, the Company and Indemnitee hereby agree as follows:

## 1. INDEMNIFICATION.

(a) THIRD PARTY PROCEEDINGS. The Company shall indemnify Indemnitee if Indemnitee is or was a party or is threatened to be made a party to any threatened, pending or completed action, suit or proceeding, whether civil, criminal, administrative or investigative (other than an action by or in the right of the Company) by reason of the fact that Indemnitee is or was a director, officer, employee or agent of the Company, or any subsidiary of the Company, by reason of any action or inaction on the part of Indemnitee while an officer or director or by reason of the fact that Indemnitee is or was serving at the request of the Company as a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise, against expenses (including attorneys' fees), judgments, fines and amounts paid in settlement (if such settlement is approved in advance by the Company, which approval shall not be unreasonably withheld) actually and reasonably incurred by Indemnitee in connection with such action, suit or proceeding if Indemnitee acted in good faith and in a manner Indemnitee reasonably believed to be in or not opposed to the best interests of the Company, and, with respect to any criminal action or proceeding, had no reasonable cause to believe Indemnitee's conduct was unlawful. The termination of any action, suit or proceeding by judgment, order, settlement, conviction, or upon a plea of nolo contendere or its equivalent, shall not, of itself, create a presumption that Indemnitee did not act in good faith and in a manner which Indemnitee reasonably believed to be in or not opposed to the best interests of the Company, or, with respect

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to any criminal action or proceeding, that Indemnitee had reasonable cause to believe that Indemnitee's conduct was unlawful.

(b) PROCEEDINGS BY OR IN THE RIGHT OF THE COMPANY. The Company shall indemnify Indemnitee if Indemnitee was or is a party or is threatened to be made a party to any threatened, pending or completed action or proceeding by or in the right of the Company or any subsidiary of the Company to procure a judgment in its favor by reason of the fact that Indemnitee is or was a director, officer, employee or agent of the Company, or any subsidiary of the Company, by reason of any action or inaction on the part of Indemnitee while an

officer or director or by reason of the fact that Indemnitee is or was serving at the request of the Company as a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise, against expenses (including attorneys' fees) and, to the fullest extent permitted by law, amounts paid in settlement (if such settlement is approved in advance by the Company, which approval shall not be unreasonably withheld), in each case to the extent actually and reasonably incurred by Indemnitee in connection with the defense or settlement of such action or suit if Indemnitee acted in good faith and in a manner Indemnitee reasonably believed to be in or not opposed to the best interests of the Company and its stockholders, except that no indemnification shall be made in respect of any claim, issue or matter as to which Indemnitee shall have been finally adjudicated by court order or judgment to be liable to the Company in the performance of Indemnitee's duty to the Company and its stockholders unless and only to the extent that the court in which such action or proceeding is or was pending shall determine upon application that, in view of all the circumstances of the case, Indemnitee is fairly and reasonably entitled to indemnity for such expenses which such court shall deem proper.

(c) MANDATORY PAYMENT OF EXPENSES. To the extent that Indemnitee has been successful on the merits or otherwise in defense of any action, suit or proceeding referred to in Section 1(a) or Section 1(b) or the defense of any claim, issue or matter therein, Indemnitee shall be indemnified against expenses (including attorneys' fees) actually and reasonably incurred by Indemnitee in connection therewith.

2. NO EMPLOYMENT RIGHTS. Nothing contained in this Agreement is intended to create in Indemnitee any right to continued employment.

### 3. EXPENSES; INDEMNIFICATION PROCEDURE.

(a) ADVANCEMENT OF EXPENSES. The Company shall advance all expenses incurred by Indemnitee in connection with the investigation, defense, settlement or appeal of any civil or criminal action, suit or proceeding referred to in Section 1(a) or Section 1(b) hereof (including amounts actually paid in settlement of any such action, suit or proceeding). Indemnitee hereby undertakes to repay such amounts advanced only if, and to the extent that, it shall ultimately be determined that Indemnitee is not entitled to be indemnified by the Company as authorized hereby.

(b) NOTICE/COOPERATION BY INDEMNITEE. Indemnitee shall, as a condition precedent to his or her right to be indemnified under this Agreement, give the Company notice in writing as soon as practicable of any claim made against Indemnitee for which indemnification will or could be sought under this Agreement. Notice to the Company shall be directed to the

Chief Executive Officer of the Company and shall be given in accordance with the provisions of Section 12(d) below. In addition, Indemnitee shall give the Company such information and cooperation as it may reasonably require and as shall be within Indemnitee's power.

(c) PROCEDURE. Any indemnification and advances provided for in Section 1 and this Section 3 shall be made no later than twenty (20) days after receipt of the written request of Indemnitee. If a claim under this Agreement, under any statute, or under any provision of the Company's Certificate of Incorporation or Bylaws providing for indemnification, is not paid in full by the Company within twenty (20) days after a written request for payment thereof has first been received by the Company, Indemnitee may, but need not, at any time thereafter bring an action against the Company to recover the unpaid amount of the claim and, subject to Section 11 of this Agreement, Indemnitee shall also be entitled to be paid for the expenses (including attorneys' fees) of bringing such action. It shall be a defense to any such action (other than an action brought to enforce a claim for expenses incurred in connection with any action, suit or proceeding in advance of its final disposition) that Indemnitee has not met the standards of conduct which make it permissible under applicable law for the Company to indemnify Indemnitee for the amount claimed, but the burden of proving such defense shall be on the Company and Indemnitee shall be entitled to receive interim payments of expenses pursuant to Section 3(a) unless and until such defense may be finally adjudicated by court order or judgment from which no

further right of appeal exists. It is the parties' intention that if the Company contests Indemnatee's right to indemnification, the question of Indemnatee's right to indemnification shall be for the court to decide, and neither the failure of the Company (including its Board of Directors, any committee or subgroup of the Board of Directors, independent legal counsel, or its stockholders) to have made a determination that indemnification of Indemnatee is proper in the circumstances because Indemnatee has met the applicable standard of conduct required by applicable law, nor an actual determination by the Company (including its Board of Directors, any committee or subgroup of the Board of Directors, independent legal counsel, or its stockholders) that Indemnatee has not met such applicable standard of conduct, shall create a presumption that Indemnatee has or has not met the applicable standard of conduct.

(d) NOTICE TO INSURERS. If, at the time of the receipt of a notice of a claim pursuant to Section 3(b) hereof, the Company has director and officer liability insurance in effect, the Company shall give prompt notice of the commencement of such proceeding to the insurers in accordance with the procedures set forth in the respective policies. The Company shall thereafter take all necessary or desirable action to cause such insurers to pay, on behalf of the Indemnatee, all amounts payable as a result of such proceeding in accordance with the terms of such policies.

(e) SELECTION OF COUNSEL. In the event the Company shall be obligated under Section 3(a) hereof to pay the expenses of any proceeding against Indemnatee, the Company, if appropriate, shall be entitled to assume the defense of such proceeding, with counsel approved by Indemnatee, upon the delivery to Indemnatee of written notice of its election so to do. After delivery of such notice, approval of such counsel by Indemnatee and the retention of such counsel by the Company, the Company will not be liable to Indemnatee under this Agreement for any fees of counsel subsequently incurred by Indemnatee with respect to the same proceeding, provided that (i) Indemnatee shall have the right to employ counsel in any such proceeding at Indemnatee's expense; and (ii) if (A) the employment of counsel by Indemnatee has been

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previously authorized by the Company, (B) Indemnatee shall have reasonably concluded that there may be a conflict of interest between the Company and Indemnatee in the conduct of any such defense or (C) the Company shall not, in fact, have employed counsel to assume the defense of such proceeding, then the fees and expenses of Indemnatee's counsel shall be at the expense of the Company.

#### 4. ADDITIONAL INDEMNIFICATION RIGHTS; NONEXCLUSIVITY.

(a) SCOPE. Notwithstanding any other provision of this Agreement, the Company hereby agrees to indemnify the Indemnatee to the fullest extent permitted by law, notwithstanding that such indemnification is not specifically authorized by the other provisions of this Agreement, the Company's Certificate of Incorporation, the Company's Bylaws or by statute. In the event of any change, after the date of this Agreement, in any applicable law, statute, or rule which expands the right of a Delaware corporation to indemnify a member of its board of directors or an officer, such changes shall be deemed to be within the purview of Indemnatee's rights and the Company's obligations under this Agreement. In the event of any change in any applicable law, statute or rule which narrows the right of a Delaware corporation to indemnify a member of its board of directors or an officer, such changes, to the extent not otherwise required by such law, statute or rule to be applied to this Agreement shall have no effect on this Agreement or the parties' rights and obligations hereunder.

(b) NONEXCLUSIVITY. The indemnification provided by this Agreement shall not be deemed exclusive of any rights to which Indemnatee may be entitled under the Company's Certificate of Incorporation, its Bylaws, any agreement, any vote of stockholders or disinterested members of the Company's Board of Directors, the General Corporation Law of the State of Delaware, or otherwise, both as to action in Indemnatee's official capacity and as to action in another capacity while holding such office. The indemnification provided under this Agreement shall continue as to Indemnatee for any action taken or not taken while serving in an indemnified capacity even though he or she may have ceased to serve in any such capacity at the time of any action, suit or other

covered proceeding.

5. PARTIAL INDEMNIFICATION. If Indemnitee is entitled under any provision of this Agreement to indemnification by the Company for some or a portion of the expenses, judgments, fines or penalties actually or reasonably incurred in the investigation, defense, appeal or settlement of any civil or criminal action, suit or proceeding, but not, however, for the total amount thereof, the Company shall nevertheless indemnify Indemnitee for the portion of such expenses, judgments, fines or penalties to which Indemnitee is entitled.

6. MUTUAL ACKNOWLEDGMENT. Both the Company and Indemnitee acknowledge that in certain instances, Federal law or public policy may override applicable state law and prohibit the Company from indemnifying its directors and officers under this Agreement or otherwise. For example, the Company and Indemnitee acknowledge that the Securities and Exchange Commission (the "SEC") has taken the position that indemnification is not permissible for liabilities arising under certain federal securities laws, and federal legislation prohibits indemnification for certain ERISA violations. Indemnitee understands and acknowledges that the Company has undertaken or may be required in the future to undertake with the SEC to submit

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the question of indemnification to a court in certain circumstances for a determination of the Company's right under public policy to indemnify Indemnitee.

7. OFFICER AND DIRECTOR LIABILITY INSURANCE. The Company shall, from time to time, make the good faith determination whether or not it is practicable for the Company to obtain and maintain a policy or policies of insurance with reputable insurance companies providing the officers and directors of the Company with coverage for losses from wrongful acts, or to ensure the Company's performance of its indemnification obligations under this Agreement. Among other considerations, the Company will weigh the costs of obtaining such insurance coverage against the protection afforded by such coverage. In all policies of director and officer liability insurance, Indemnitee shall be named as an insured in such a manner as to provide Indemnitee the same rights and benefits as are accorded to the most favorably insured of the Company's directors, if Indemnitee is a director; or of the Company's officers, if Indemnitee is not a director of the Company but is an officer; or of the Company's key employees, if Indemnitee is not an officer or director but is a key employee. Notwithstanding the foregoing, the Company shall have no obligation to obtain or maintain such insurance if the Company determines in good faith that such insurance is not reasonably available, if the premium costs for such insurance are disproportionate to the amount of coverage provided, if the coverage provided by such insurance is limited by exclusions so as to provide an insufficient benefit, or if Indemnitee is covered by similar insurance maintained by a parent or subsidiary of the Company.

8. SEVERABILITY. Nothing in this Agreement is intended to require or shall be construed as requiring the Company to do or fail to do any act in violation of applicable law. The Company's inability, pursuant to court order, to perform its obligations under this Agreement shall not constitute a breach of this Agreement. The provisions of this Agreement shall be severable as provided in this Section 8. If this Agreement or any portion hereof shall be invalidated on any ground by any court of competent jurisdiction, then the Company shall nevertheless indemnify Indemnitee to the full extent permitted by any applicable portion of this Agreement that shall not have been invalidated, and the balance of this Agreement not so invalidated shall be enforceable in accordance with its terms.

9. EXCEPTIONS. Any other provision herein to the contrary notwithstanding, the Company shall not be obligated pursuant to the terms of this Agreement:

(a) CLAIMS INITIATED BY INDEMNITEE. To indemnify or advance expenses to Indemnitee with respect to proceedings or claims initiated or brought voluntarily by Indemnitee and not by way of defense, except with respect to proceedings brought to establish or enforce a right to indemnification under this Agreement or any other statute or law or otherwise as required under Section 145 of the Delaware General Corporation Law, but such indemnification or

advancement of expenses may be provided by the Company in specific cases if the Board of Directors finds it to be appropriate;

(b) LACK OF GOOD FAITH. To indemnify Indemnitee for any expenses incurred by Indemnitee with respect to any proceeding instituted by Indemnitee to enforce or interpret this Agreement, if a court of competent jurisdiction determines that each of the material assertions made by Indemnitee in such proceeding was not made in good faith or was frivolous;

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(c) INSURED CLAIMS. To indemnify Indemnitee for expenses or liabilities of any type whatsoever (including, but not limited to, judgments, fines, ERISA excise taxes or penalties, and amounts paid in settlement) to the extent such expenses or liabilities have been paid directly to Indemnitee by an insurance carrier under a policy of officers' and directors' liability insurance maintained by the Company; or

(d) CLAIMS UNDER SECTION 16(b). To indemnify Indemnitee for expenses or the payment of profits arising from the purchase and sale by Indemnitee of securities in violation of Section 16(b) of the Securities Exchange Act of 1934, as amended, or any similar successor statute.

#### 10. CONSTRUCTION OF CERTAIN PHRASES.

(a) For purposes of this Agreement, references to the "Company" shall include, in addition to the resulting corporation, any constituent corporation (including any constituent of a constituent) absorbed in a consolidation or merger which, if its separate existence had continued, would have had power and authority to indemnify its directors, officers, and employees or agents, so that if Indemnitee is or was a director, officer, employee or agent of such constituent corporation, or is or was serving at the request of such constituent corporation as a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise, Indemnitee shall stand in the same position under the provisions of this Agreement with respect to the resulting or surviving corporation as Indemnitee would have with respect to such constituent corporation if its separate existence had continued.

(b) For purposes of this Agreement, references to "other enterprises" shall include employee benefit plans; references to "fines" shall include any excise taxes assessed on Indemnitee with respect to an employee benefit plan; and references to "serving at the request of the Company" shall include any service as a director, officer, employee or agent of the Company which imposes duties on, or involves services by, such director, officer, employee or agent with respect to an employee benefit plan, its participants, or beneficiaries; and if Indemnitee acted in good faith and in a manner Indemnitee reasonably believed to be in the interest of the participants and beneficiaries of an employee benefit plan, Indemnitee shall be deemed to have acted in a manner "not opposed to the best interests of the Company" as referred to in this Agreement.

11. ATTORNEYS' FEES. In the event that any action is instituted by Indemnitee under this Agreement to enforce or interpret any of the terms hereof, Indemnitee shall be entitled to be paid all court costs and expenses, including reasonable attorneys' fees, incurred by Indemnitee with respect to such action, unless as a part of such action, the court of competent jurisdiction determines that each of the material assertions made by Indemnitee as a basis for such action were not made in good faith or were frivolous. In the event of an action instituted by or in the name of the Company under this Agreement or to enforce or interpret any of the terms of this Agreement, Indemnitee shall be entitled to be paid all court costs and expenses, including attorneys' fees, incurred by Indemnitee in defense of such action (including with respect to Indemnitee's counterclaims and cross-claims made in such action), unless as a part of such action the court determines that each of Indemnitee's material defenses to such action were made in bad faith or were frivolous.

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12. MISCELLANEOUS.

(a) GOVERNING LAW. This Agreement and all acts and transactions pursuant hereto and the rights and obligations of the parties hereto shall be governed, construed and interpreted in accordance with the laws of the State of Delaware, without giving effect to principles of conflict of law.

(b) ENTIRE AGREEMENT; ENFORCEMENT OF RIGHTS. This Agreement sets forth the entire agreement and understanding of the parties relating to the subject matter herein and merges all prior discussions between them. No modification of or amendment to this Agreement, nor any waiver of any rights under this Agreement, shall be effective unless in writing signed by the parties to this Agreement. The failure by either party to enforce any rights under this Agreement shall not be construed as a waiver of any rights of such party.

(c) CONSTRUCTION. This Agreement is the result of negotiations between and has been reviewed by each of the parties hereto and their respective counsel, if any; accordingly, this Agreement shall be deemed to be the product of all of the parties hereto, and no ambiguity shall be construed in favor of or against any one of the parties hereto.

(d) NOTICES. Any notice, demand or request required or permitted to be given under this Agreement shall be in writing and shall be deemed sufficient when delivered personally or sent by telegram or fax, or forty-eight (48) hours after being deposited in the U.S. mail, as certified or registered mail, with postage prepaid, and addressed to the party to be notified at such party's address as set forth below or as subsequently modified by written notice.

(e) COUNTERPARTS. This Agreement may be executed in two or more counterparts, each of which shall be deemed an original and all of which together shall constitute one instrument.

(f) SUCCESSORS AND ASSIGNS. This Agreement shall be binding upon the Company and its successors and assigns, and inure to the benefit of Indemnatee and Indemnatee's heirs, legal representatives and assigns.

(g) SUBROGATION. In the event of payment under this Agreement, the Company shall be subrogated to the extent of such payment to all of the rights of recovery of Indemnatee, who shall execute all documents required and shall do all acts that may be necessary to secure such rights and to enable the Company to effectively bring suit to enforce such rights.

[Signature Page Follows]

The parties hereto have executed this Agreement as of the day and year set forth on the first page of this Agreement.

PDF SOLUTIONS, INC.

By: \_\_\_\_\_  
Name:  
Title:  
  
Address: 333 West San Carlos St.  
Suite 700  
San Jose, CA 95110

AGREED TO AND ACCEPTED:

<<IndemnateeName>>

-----  
(Signature)

Address: <<IndemniteeAddress1>>  
          <<IndemniteeAddress2>>



## PDF SOLUTIONS, INC.

## 1996 STOCK OPTION PLAN

(AS AMENDED AND RESTATED ON JUNE 30, 2000)

1. Purposes of the Plan. The purposes of this Stock Option Plan are to attract and retain the best available personnel for positions of substantial responsibility, to provide additional incentive to Employees and Consultants of the Company and its Subsidiaries and to promote the success of the Company's business. Options granted under the Plan may be incentive stock options (as defined under Section 422 of the Code) or non-statutory stock options, as determined by the Administrator at the time of grant of an option and subject to the applicable provisions of Section 422 of the Code, as amended, and the regulations promulgated thereunder.

2. Definitions. As used herein, the following definitions shall apply:

(a) "Administrator" means the Board or any of its Committees appointed pursuant to paragraph (a) of Section 4 of the Plan.

(b) "Affiliate" means any entity which has a business relationship with the Company.

(c) "Board" means the Board of Directors of the Company.

(d) "Code" means the Internal Revenue Code of 1986, as amended.

(e) "Committee" means the Committee appointed by the Board of Directors in accordance with paragraph (a) of Section 4 of the Plan.

(f) "Common Stock" means the Common Stock of the Company.

(g) "Company" means PDF Solutions, Inc., a California corporation.

(h) "Consultant" means any person, including an advisor, who is engaged by the Company or any Parent, Subsidiary or Affiliate to render consulting services and is compensated for such services, and any director of the Company whether compensated for such services or not, provided that if and in the event the Company registers any class of any equity security pursuant to the Exchange Act, the term Consultant shall thereafter not include directors who are not compensated for their services or are paid only a director's fee by the Company.

(i) "Continuous Status as an Employee" means the absence of any interruption or termination of the employment relationship by the Company or any Subsidiary. Continuous Status as an Employee shall not be considered interrupted in the case of: (i) sick leave; (ii) military leave; (iii) any other leave of absence approved by the Board, provided that such leave is for a period of not more than ninety (90) days, unless reemployment upon the expiration of such leave is guaranteed by contract or statute, or unless provided otherwise

pursuant to Company policy adopted from time to time; or (iv) in the case of transfers between locations of the Company or between the Company, its Subsidiaries or its successor.

(j) "Employee" means any person, including officers and directors, employed by the Company or any Parent, Subsidiary or Affiliate of the Company. The payment of a director's fee by the Company shall not be sufficient to constitute "employment" by the Company.

(k) "Exchange Act" means the Securities Exchange Act of 1934, as amended.

(l) "Fair Market Value" means, as of any date, the value of Common Stock determined as follows:

(i) If the Common Stock is listed on any established stock exchange or a national market system including without limitation the National Market of the National Association of Securities Dealers, Inc. Automated Quotation ("Nasdaq") System, its Fair Market Value shall be the closing sales price for such stock (or the closing bid, if no sales were reported, as quoted on such system or exchange, or the exchange with the greatest volume of trading in Common Stock) for the last market trading day prior to the time of determination, as reported in The Wall Street Journal or such other source as the Administrator deems reliable;

(ii) If the Common Stock is quoted on the Nasdaq System (but not on the National Market thereof) or regularly quoted by a recognized securities dealer but selling prices are not reported, its Fair Market Value shall be the mean between the high bid and low asked prices for the Common Stock for the last market trading day prior to the time of determination, as reported in The Wall Street Journal or such other source as the Administrator deems reliable; or

(iii) In the absence of an established market for the Common Stock, the Fair Market Value thereof shall be determined in good faith by the Administrator.

(m) "Incentive Stock Option" means an Option intended to qualify as an incentive stock option within the meaning of Section 422 of the Code.

(n) "Named Executive" means (any individual who, on the last day of the Company's fiscal year, is the chief executive officer of the Company (or is acting in such capacity) or among the four highest compensated officers of the Company (other than the chief executive officer). Such officer status shall be determined pursuant to the executive compensation disclosure rules under the Exchange Act.

(o) "Nonstatutory Stock Option" means an Option not intended to qualify as an Incentive Stock Option.

(p) "Option" means a stock option granted pursuant to the Plan.

(q) "Optioned Stock" means the Common Stock subject to an Option.

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(r) "Optionee" means an Employee or Consultant who receives an Option.

(s) "Parent" means a "parent corporation", whether now or hereafter existing, as defined in Section 424(e) of the Code.

(t) "Plan" means this 1996 Stock Option Plan.

(u) "Share" means a share of the Common Stock, as adjusted in accordance with Section 13 of the Plan.

(v) "Subsidiary" means a "subsidiary corporation", whether now or hereafter existing, as defined in Section 424(f) of the Code.

3. Stock Subject to the Plan. Subject to the provisions of Section 13 of the Plan, the maximum aggregate number of shares that may be optioned and sold under the Plan is 1,097,551 shares of Common Stock. The shares may be authorized, but unissued, or reacquired Common Stock.

If an Option should expire or become unexercisable for any reason without having been exercised in full, the unpurchased Shares that were subject thereto shall, unless the Plan shall have been terminated, become available for future grant under the Plan.

4. Administration of the Plan.

(a) Composition of Administrator.

(i) Multiple Administrative Bodies. If permitted by Rule 16b-3, and by the legal requirements relating to the administration of Stock Option Plans, if any, of applicable securities laws and the Code (collectively, the "Applicable Laws"), the Plan may (but need not) be administered by different administrative bodies with respect to directors, officers who are not directors and Employees who are neither directors nor officers.

(ii) Administration with respect to Directors and Officers. With respect to grants of Options to Employees or Consultants who are also officers or directors of the Company, the Plan shall be administered by (A) the Board, if the Board may administer the Plan in compliance with Rule 16b-3 as it applies to a plan intended to qualify thereunder as a discretionary plan and Section 162(m) of the Code as it applies so as to qualify grants of Options to Named Executives as performance-based compensation, or (B) a Committee designated by the Board to administer the Plan, which Committee shall be constituted in such a manner as to permit the Plan to comply with Rule 16b-3 as it applies to a plan intended to qualify thereunder as a discretionary plan, to qualify grants of Options to Named Executives as performance-based compensation under Section 162(m) of the Code and otherwise so as to satisfy the Applicable Laws.

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(iii) Administration with respect to Other Persons. With respect to grants of Options to Employees or Consultants who are neither directors nor officers of the Company, the Plan shall be administered by (A) the Board or (B) a Committee designated by the Board, which Committee shall be constituted in such a manner as to satisfy the Applicable Laws.

(iv) General. If a Committee has been appointed pursuant to subsection (ii) or (iii) of this Section 4(a), such Committee shall continue to serve in its designated capacity until otherwise directed by the Board. From time to time the Board may increase the size of any Committee and appoint additional members thereof, remove members (with or without cause) and appoint new members in substitution therefor, fill vacancies (however caused) and remove all members of a Committee and thereafter directly administer the Plan, all to the extent permitted by the Applicable Laws and, in the case of a Committee appointed under subsection (ii), to the extent permitted by Rule 16b-3 as it applies to a plan intended to qualify thereunder as a discretionary plan, and to the extent required under Section 162(m) of the Code to qualify grants of Options to Named Executives as performance-based compensation.

(b) Powers of the Administrator. Subject to the provisions of the Plan and in the case of a Committee, the specific duties delegated by the Board to such Committee, the Administrator shall have the authority, in its discretion:

(i) to determine the Fair Market Value of the Common Stock, in accordance with Section 2(l) of the Plan;

(ii) to select the Consultants and Employees to whom Options may from time to time be granted hereunder;

(iii) to determine whether and to what extent Options are granted hereunder;

(iv) to determine the number of shares of Common Stock to be covered by each such award granted hereunder;

(v) to approve forms of agreement for use under the Plan;

(vi) to determine the terms and conditions, not inconsistent with the terms of the Plan, of any award granted hereunder (including, but not limited to, the share price and any restriction or limitation, or any vesting acceleration or waiver of forfeiture restrictions regarding any Option and/or the shares of Common Stock relating thereto, based in each case on such factors as the Administrator shall determine, in its sole discretion);

(vii) to determine whether and under what circumstances an Option may be settled in cash under Section 10(f) instead of Common Stock;

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(viii) to reduce the exercise price of any Option to the then current Fair Market Value if the Fair Market Value of the Common Stock covered by such Option shall have declined since the date the Option was granted.

(c) Effect of Administrator's Decision. All decisions, determinations and interpretations of the Administrator shall be final and binding on all Optionees and any other holders of any Options.

#### 5. Eligibility.

(a) Nonstatutory Stock Options may be granted to Employees and Consultants. Incentive Stock Options may be granted only to Employees. An Employee or Consultant who has been granted an Option may, if he or she is otherwise eligible, be granted an additional Option or Options.

(b) Each Option shall be designated in the written option agreement as either an Incentive Stock Option or a Nonstatutory Stock Option. However, notwithstanding such designations, to the extent that the aggregate Fair Market Value of the Shares with respect to which Options designated as Incentive Stock Options are exercisable for the first time by any Optionee during any calendar year (under all plans of the Company or any Parent, Subsidiary or Affiliate) exceeds \$100,000, such excess Options shall be treated as Nonstatutory Stock Options.

(c) For purposes of Section 5(b), Incentive Stock Options shall be taken into account in the order in which they were granted, and the Fair Market Value of the Shares shall be determined as of the time the Option with respect to such Shares is granted.

(d) The Plan shall not confer upon any Optionee any right with respect to continuation of employment or consulting relationship with the Company, nor shall it interfere in any way with an Optionee's right or the Company's right to terminate his or her employment or consulting relationship at any time, with or without cause.

6. Term of Plan. The Plan shall become effective upon the earlier to occur of its adoption by the Board of Directors or its approval by the shareholders of the Company as described in Section 19 of the Plan. It shall continue in effect for a term of ten (10) years unless sooner terminated under Section 15 of the Plan.

7. Term of Option. The term of each Option shall be the term stated in the Option Agreement; provided, however, that the term shall be no more than ten (10) years from the date of grant thereof or such shorter term as may be provided in the Option Agreement. However, in the case of an Option granted to an Optionee who, at the time the Option is granted, owns stock representing more than ten percent (10%) of the voting power of all classes of stock of the Company or any Parent, Subsidiary or Affiliate, the term of the Option shall be five (5) years from the date of grant thereof or such shorter term as may be provided in the Option Agreement.

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8. Limitation on Grants to Employees. Subject to adjustment as provided in Section 13 of this Plan, the maximum number of shares which may be subject to Options granted to any one employee under this Plan for any fiscal year of the Company shall be 300,000.

#### 9. Option Exercise Price and Consideration.

(a) Exercise Price. The per share exercise price for the Shares to be issued pursuant to exercise of an Option shall be such price as is determined by the Board, but shall be subject to the following:

(i) In the case of an Incentive Stock Option

(A) granted to an Employee who, at the time of the grant of such Incentive Stock Option, owns stock representing more than ten percent (10%) of the voting power of all classes of stock of the Company or any Parent, Subsidiary or Affiliate, the per Share exercise price shall be no less than 110% of the Fair Market Value per Share on the date of grant.

(B) granted to any other Employee, the per Share exercise price shall be no less than 100% of the Fair Market Value per Share on the date of grant.

(ii) In the case of a Nonstatutory Stock Option

(A) granted to a person who, at the time of the grant of such Option, owns stock representing more than ten percent (10%) of the voting power of all classes of stock of the Company or any Parent, Subsidiary or Affiliate, the per Share exercise price shall be no less than 110% of the Fair Market Value per Share on the date of the grant.

(B) granted to a person, who, at the time of grant of such Option is a Named Executive of the Company, the per share exercise price shall be no less than 100% of the Fair Market Value on the date of grant.

(C) granted to any person other than those persons described in subsections (ii) (A) and (B) above, the per Share exercise price shall be no less than 85% of the Fair Market Value per Share on the date of grant.

(b) Permissible Consideration. The consideration to be paid for the Shares to be issued upon exercise of an Option, including the method of payment, shall be determined by the Administrator (and, in the case of an Incentive Stock Option, shall be determined at the time of grant) and may consist entirely of (1) cash, (2) check, (3) promissory note, (4) other Shares that (x) in the case of Shares acquired upon exercise of an Option, have been owned by the Optionee for more than six months on the date of surrender, and (y) have a Fair Market Value on the date of surrender equal to the aggregate exercise price of the Shares as to which such Option shall be exercised, (5) authorization from the Company to retain from the total number of Shares as to which the Option is exercised that number of Shares having a Fair Market Value on the date of exercise equal to the exercise price for the total number of Shares as to which the Option is exercised, (6) delivery of a properly executed exercise notice together with such other

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documentation as the Administrator and the broker, if applicable, shall require to effect an exercise of the Option and delivery to the Company of the sale or loan proceeds required to pay the exercise price, (7) delivery of a subscription agreement for the Shares that irrevocably obligates the option holder to take and pay for the Shares not more than twelve months after the date of delivery of the subscription agreement, (8) any combination of the foregoing methods of payment, or (9) such other consideration and method of payment for the issuance of Shares to the extent permitted under Applicable Laws. In making its determination as to the type of consideration to accept, the Board shall consider if acceptance of such consideration may be reasonably expected to benefit the Company.

#### 10. Exercise of Option.

(a) Procedure for Exercise; Rights as a Shareholder. Any Option granted hereunder shall be exercisable at such times and under such conditions as determined by the Board, including performance criteria with respect to the Company and/or the Optionee, and as shall be permissible under the terms of the Plan.

An Option may not be exercised for a fraction of a Share.

An Option shall be deemed to be exercised when written notice of such exercise has been given to the Company in accordance with the terms of the Option by the person entitled to exercise the Option and the Company has received full payment for the Shares with respect to which the Option is exercised. Full payment may, as authorized by the Board, consist of any consideration and method of payment allowable under Section 9(b) of the Plan. Until the issuance (as evidenced by the appropriate entry on the books of the Company or of a duly authorized transfer agent of the Company) of the stock certificate evidencing such Shares, no right to vote or receive dividends or any other rights as a shareholder shall exist with respect to the Optioned Stock, notwithstanding the exercise of the Option. The Company shall issue (or cause to be issued) such stock certificate promptly upon exercise of the Option. No adjustment will be made for a dividend or other right for which the record date is prior to the date the stock certificate is issued, except as provided in Section 13 of the Plan.

Exercise of an Option in any manner shall result in a decrease in the number of Shares which thereafter may be available, both for purposes of the Plan and for sale under the Option, by the number of Shares as to which the Option is exercised.

(b) Termination of Employment. In the event of termination of an Optionee's consulting relationship or Continuous Status as an Employee with the Company, such Optionee may, but only within three (3) months (or such other period of time as is determined by the Board, with such determination in the case of an Incentive Stock Option being made at the time of grant of the Option and not exceeding three (3) months) after the date of such termination (but in no event later than the expiration date of the term of such Option as set forth in the Option Agreement), exercise his or her Option to the extent that Optionee was entitled to exercise it at the date of such termination. To the extent that Optionee was not entitled to exercise the Option at the date of such termination, or if Optionee does not exercise such Option to the extent so entitled within the time specified herein, the Option shall terminate.

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(c) Disability of Optionee. Notwithstanding the provisions of Section 10(b) above, in the event of termination of an Optionee's consulting relationship or Continuous Status as an Employee as a result of his or her total and permanent disability (within the meaning of Section 22(e)(3) of the Code), Optionee may, but only within twelve (12) months from the date of such termination (but in no event later than the expiration date of the term of such Option as set forth in the Option Agreement), exercise the Option to the extent otherwise entitled to exercise it at the date of such termination. To the extent that Optionee was not entitled to exercise the Option at the date of termination, or if Optionee does not exercise such Option to the extent so entitled within the time specified herein, the Option shall terminate.

(d) Death of Optionee. In the event of the death of an Optionee, the Option may be exercised, at any time within twelve (12) months following the date of death (but in no event later than the expiration date of the term of such Option as set forth in the Option Agreement), by the Optionee's estate or by a person who acquired the right to exercise the Option by bequest or inheritance, but only to the extent the Optionee was entitled to exercise the Option at the date of death. To the extent that the Optionee was not entitled to exercise the Option at the date of termination, or if Optionee does not exercise such Option to the extent so entitled within the time specified herein, the Option shall terminate.

(e) Rule 16b-3. Options granted to persons subject to Section 16(b) of the Exchange Act must comply with Rule 16b-3 and shall contain such additional conditions or restrictions as may be required thereunder to qualify for the maximum exemption from Section 16 of the Exchange Act with respect to Plan transactions.

(f) Buyout Provisions. The Administrator may at any time offer to buy out for a payment in cash or Shares, an Option previously granted, based on such terms and conditions as the Administrator shall establish and communicate to the Optionee at the time that such offer is made.

11. Non-Transferability of Options. The Option may not be sold, pledged, assigned, hypothecated, transferred, or disposed of in any manner other than by will or by the laws of descent or distribution and may be exercised, during the lifetime of the Optionee, only by the Optionee.

12. Stock Withholding to Satisfy Withholding Tax Obligation. At the discretion of the Administrator. Optionees may satisfy withholding obligations as provided in this paragraph. When an Optionee incurs tax liability in connection with an Option, which tax liability is subject to tax withholding under applicable tax laws, and the Optionee is obligated to pay the Company an amount required to be withheld under applicable tax laws, the Optionee may satisfy the withholding tax obligation by electing to have the Company withhold from the Shares to be issued upon exercise of the Option that number of Shares having a Fair Market Value equal to the amount required to be withheld. The Fair Market Value of the Shares to be withheld shall be determined on the date that the amount of tax to be withheld is to be determined (the "Tax Date").

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All elections by an Optionee to have Shares withheld for this purpose shall be made in writing in a form acceptable to the Administrator and shall be subject to the following restrictions:

(a) the election must be made on or prior to the applicable Tax Date;

(b) once made, the election shall be irrevocable as to the particular Shares of the Option as to which the election is made;

(c) all elections shall be subject to the consent or disapproval of the Administrator;

(d) if the Optionee is subject to Section 16 of the Exchange Act, the election must comply with the applicable provisions of Rule 16b-3 and shall be subject to such additional conditions or restrictions as may be required thereunder to qualify for the maximum exemption from Section 16 of the Exchange Act with respect to Plan transactions.

In the event the election to have Shares withheld is made by an Optionee and the Tax Date is deferred under Section 83 of the Code because no election is filed under Section 83(b) of the Code, the Optionee shall receive the full number of Shares with respect to which the Option or Stock Purchase Right is exercised but, such Optionee shall be unconditionally obligated to tender back to the Company the proper number of Shares on the Tax Date.

13. Adjustments Upon Changes in Capitalization; Corporate Transactions.

(a) Changes in Capitalization. Subject to any required action by the shareholders of the Company, the number of shares of Common Stock covered by each outstanding Option, and the number of shares of Common Stock that have been authorized for issuance under the Plan but as to which no Options have yet been granted or that have been returned to the Plan upon cancellation or expiration of an Option, the maximum number of shares of Common Stock for which Options may be granted to any employee under Section 8 of the Plan and the price per share of Common Stock covered by each such outstanding Option, shall be proportionately adjusted for any increase or decrease in the number of issued shares of Common Stock resulting from a stock split, reverse stock split, stock dividend, combination or reclassification of the Common Stock, or any other increase or decrease in the number of issued shares of Common Stock effected without receipt of consideration by the Company; provided, however, that conversion of any convertible securities of the Company shall not be deemed to have been "effected without receipt of consideration." Such adjustment shall be made by the Board, whose determination in that respect shall be final, binding and conclusive. Except as expressly provided herein, no issuance by the Company of shares of stock of any class, or securities convertible into shares of stock of any class, shall affect, and no adjustment by reason

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thereof shall be made with respect to, the number or price of shares of Common Stock subject to an Option.

(b) Corporate Transactions. In the event of the proposed dissolution or liquidation of the Company, the Option will terminate immediately prior to the consummation of such proposed action, unless otherwise provided by the Administrator. The Administrator may, in the exercise of its sole discretion in such instances, declare that any Option shall terminate as of a date fixed by the Administrator and give each Optionee the right to exercise his or her Option as to all or any part of the Optioned Stock, including Shares as to which the Option would not otherwise be exercisable. In the event of a proposed sale of all or substantially all of the assets of the Company, or the merger of the Company with or into another corporation, the Option shall be assumed or an equivalent option shall be substituted by such successor corporation or a parent or subsidiary of such successor corporation, unless the Administrator determines, in the exercise of its sole discretion and in lieu of such assumption or substitution, that the Optionee shall have the right to exercise the Option as to some or all of the Optioned Stock, including Shares as to which the Option would not otherwise be exercisable. If the Administrator makes an Option exercisable in lieu of assumption or substitution in the event of a merger or sale of assets, the Administrator shall notify the Optionee that the Option shall be exercisable for a period of thirty (30) days from the date of such notice, and the Option will terminate upon the expiration of such period.

14. Time of Granting Options. The date of grant of an Option shall, for all purposes, be the date on which the Administrator makes the determination granting such Option, or such other date as is determined by the Board. Notice of the determination shall be given to each Employee or Consultant to whom an Option is so granted within a reasonable time after the date of such grant.

15. Amendment and Termination of the Plan.

(a) Amendment and Termination. The Board may amend or terminate the Plan from time to time in such respects as the Board may deem advisable; provided that, the following revisions or amendments shall require approval of the shareholders of the Company in the manner described in Section 19 of the Plan:

- (i) any increase in the number of Shares subject to the Plan, other than an adjustment under Section 13 of the Plan;
- (ii) any change in the designation of the class of persons eligible to be granted Options;
- (iii) any change in the limitation on grants to employees as described in Section 8 of the Plan or other changes which would require shareholder approval to qualify options granted hereunder as performance-based compensation under Section 162(m) of the Code; or

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- (iv) any revision or amendment requiring shareholder approval in order to preserve the qualification of the Plan under Rule 16b-3.

(b) Shareholder Approval. If any amendment requiring shareholder approval under Section 16(a) of the Plan is made subsequent to the first registration of any class of equity securities by the Company under Section 12 of the Exchange Act, such shareholder approval shall be solicited as described in Section 19 of the Plan.

(c) Effect of Amendment or Termination. Any such amendment or termination of the Plan shall not affect Options already granted and such Options shall remain in full force and effect as if this Plan had not been amended or terminated, unless mutually agreed otherwise between the Optionee and the Board, which agreement must be in writing and signed by the Optionee and the Company.



16. Conditions Upon Issuance of Shares. Shares shall not be issued pursuant to the exercise of an Option unless the exercise of such Option and the issuance and delivery of such Shares pursuant thereto shall comply with all relevant provisions of law, including, without limitation, the Securities Act of 1933, as amended, the Exchange Act, the rules and regulations promulgated thereunder, and the requirements of any stock exchange upon which the Shares may then be listed, and shall be further subject to the approval of counsel for the Company with respect to such compliance.

As a condition to the exercise of an Option, the Company may require the person exercising such Option to represent and warrant at the time of any such exercise that the Shares are being purchased only for investment and without any present intention to sell or distribute such Shares if, in the opinion of counsel for the Company, such a representation is required by any of the aforementioned relevant provisions of law.

17. Reservation of Shares. The Company, during the term of this Plan, will at all times reserve and keep available such number of Shares as shall be sufficient to satisfy the requirements of the Plan.

The inability of the Company to obtain authority from any regulatory body having jurisdiction, which authority is deemed by the Company's counsel to be necessary to the lawful issuance and sale of any Shares hereunder, shall relieve the Company of any liability in respect of the failure to issue or sell such Shares as to which such requisite authority shall not have been obtained.

18. Agreements. Options shall be evidenced by written agreements in such form as the Board shall approve from time to time.

19. Shareholder Approval.

(a) Continuance of the Plan shall be subject to approval by the shareholders of the Company within twelve (12) months before or after the date the Plan is adopted. Such

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shareholder approval shall be obtained in the degree and manner required under applicable state and federal law and the rules of any stock exchange upon which the Shares are listed.

(b) In the event that the Company registers any class of equity securities pursuant to Section 12 of the Exchange Act, any required approval of the shareholders of the Company obtained after such registration shall be solicited substantially in accordance with Section 14(a) of the Exchange Act and the rules and regulations promulgated thereunder.

(c) If any required approval by the shareholders of the Plan itself or of any amendment thereto is solicited at any time otherwise than in the manner described in Section 19(b) hereof, then the Company shall, at or prior to the first annual meeting of shareholders held subsequent to the later of (1) the first registration of any class of equity securities of the Company under Section 12 of the Exchange Act or (2) the granting of an Option hereunder to an officer or director after such registration, do the following:

(i) furnish in writing to the holders entitled to vote for the Plan substantially the same information that would be required (if proxies to be voted with respect to approval or disapproval of the Plan or amendment were then being solicited) by the rules and regulations in effect under Section 14(a) of the Exchange Act at the time such information is furnished; and

(ii) file with, or mail for filing to, the Securities and Exchange Commission four copies of the written information referred to in subsection (i) hereof not later than the date on which such information is first sent or given to shareholders.

20. Information to Optionees. The Company shall provide to each Optionee and individual who acquired shares pursuant to the exercise of an option, during the period for which such Optionee has one or more Options outstanding, copies of all annual reports and other information that are provided to all

shareholders of the Company.

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PDF SOLUTIONS, INC.  
1996 STOCK OPTION PLAN  
NOTICE OF STOCK OPTION GRANT

<<NameofOptionee>>

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(Address)

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You have been granted an option to purchase Common Stock of PDF Solutions, Inc. (the "Company") as follows:

Date of Grant	<<DateofGrant>>
Vesting Commencement Date	<<VCD>>
Exercise Price per Share	\$<<ExercisePrice>>
Total Number of Shares Granted	<<NoShares>>
Total Exercise Price	\$<<TotalExercisePrice>>
Type of Option:	<<ISO>> Incentive Stock Option <<NSO>> Nonstatutory Stock Option
Term/Expiration Date:	<<ExpirationDate>>
Vesting Schedule:	This Option may be exercised, in whole or in part, in accordance with the following schedule: 1/4 of the Shares subject to the Option shall vest on the one year anniversary of the Vesting Commencement Date and 1/48 of the Shares shall vest on the <<VestDay>> day of each month after the Vesting Commencement Date.
Termination Period:	Option may be exercised for 30 days after termination of employment or consulting relationship except as set out in Sections 7 and 8 of the Stock Option Agreement (but in no event later than the Expiration Date).

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By your signature and the signature of the Company's representative below, you and the Company agree that this option is granted under and governed by the terms and conditions of the 1996 Stock Option Plan and the Stock Option Agreement, all of which are attached and made a part of this document.

OPTIONEE:

PDF SOLUTIONS, INC.

By:

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Signature

Title:

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Print Name

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PDF SOLUTIONS, INC.  
1996 STOCK OPTION PLAN  
STOCK OPTION AGREEMENT

1. Grant of Option. PDF Solutions, Inc., a California corporation (the "Company"), hereby grants to the Optionee named in the Notice of Grant (the "Optionee"), an option (the "Option") to purchase a total number of shares of Common Stock (the "Shares") set forth in the Notice of Grant, at the exercise price per share set forth in the Notice of Grant (the "Exercise Price") subject to the terms, definitions and provisions of the PDF Solutions, Inc. 1996 Stock Option Plan (the "Plan") adopted by the Company, which is incorporated herein by reference. Unless otherwise defined herein, the terms defined in the Plan shall have the same defined meanings in this Option.

If designated an Incentive Stock Option, this Option is intended to qualify as an Incentive Stock Option as defined in Section 422 of the Code.

2. Exercise of Option. This Option shall be exercisable during its term in accordance with the Exercise Schedule set out in the Notice of Grant and with the provisions of Section 9 of the Plan as follows:

(i) Right to Exercise.

(a) This Option may not be exercised for a fraction of a share.

(b) In the event of Optionee's death, disability or other termination of employment, the exercisability of the Option is governed by Sections 6, 7 and 8 below, subject to the limitation contained in subsection 2(i)(c).

(c) In no event may this Option be exercised after the date of expiration of the term of this Option as set forth in the Notice of Grant.

(ii) Method of Exercise. This Option shall be exercisable by written notice (in the form attached as EXHIBIT A) which shall state the election to exercise the Option, the number of Shares in respect of which the Option is being exercised, and such other representations and agreements as to the holder's investment intent with respect to such shares of Common Stock as may be required by the Company pursuant to the provisions of the Plan. Such written notice shall be signed by the Optionee and shall be delivered in person or by certified mail to the Secretary of the Company. The written notice shall be accompanied by payment of the Exercise Price. This Option shall be deemed to be exercised upon receipt by the Company of such written notice accompanied by the Exercise Price.

No Shares will be issued pursuant to the exercise of an Option unless such issuance and such exercise shall comply with all relevant provisions of law and the requirements of any stock exchange upon which the Shares may then be listed. Assuming such compliance, for income tax purposes the Shares shall be considered transferred to the Optionee on the date on which the Option is exercised with respect to such Shares.

3. Optionee's Representations. In the event the Shares purchasable pursuant to the exercise of this Option have not been registered under the Securities Act of 1933, as amended, at the time this Option is exercised, Optionee shall, if required by the Company, concurrently with the exercise of all or any portion of this Option, deliver to the Company his Investment Representation Statement in the form attached hereto as EXHIBIT B, and shall read the applicable rules of the Commissioner of Corporations attached to such Investment Representation Statement.

4. Method of Payment. Payment of the Exercise Price shall be by any of the following, or a combination thereof, at the election of the Optionee:

i. cash; or

ii. check; or

iii. surrender of other shares of Common Stock of the Company which (A) in the case of Shares acquired pursuant to the exercise of a Company option, have been owned by the Optionee for more than six (6) months on the date of surrender, and (B) have a fair market value on the date of surrender equal to the Exercise Price of the Shares as to which the Option is being exercised; or

iv. such other consideration, including promissory notes, as may be determined by the Board in its absolute discretion to the extent permitted under Sections 408 and 409 of the California General Corporation Law.

5. Restrictions on Exercise. This Option may not be exercised until such time as the Plan has been approved by the shareholders of the Company, or if the issuance of such Shares upon such exercise or the method of payment of consideration for such shares would constitute a violation of any applicable federal or state securities or other law or regulation, including any rule under Part 207 of Title 12 of the Code of Federal Regulations ("Regulation G") as promulgated by the Federal Reserve Board. As a condition to the exercise of this Option, the Company may require Optionee to make any representation and warranty to the Company as may be required by any applicable law or regulation.

6. Termination of Relationship. In the event of termination of Optionee's consulting relationship or Continuous Status as an Employee, Optionee may, to the extent otherwise so entitled at the date of such termination (the "Termination Date"), exercise this Option during the Termination Period set out in the Notice of Grant. To the extent that Optionee was not entitled to exercise this Option at the date of such termination, or if Optionee does not exercise this Option within the time specified herein, the Option shall terminate.

7. Disability of Optionee.

(i) Notwithstanding the provisions of Section 6 above, in the event of termination of Optionee's consulting relationship or Continuous Status as an Employee as a result of his total and permanent disability (as defined in Section 22(e)(3) of the Code), Optionee may, but only within twelve (12) months from the date of termination of employment (but in no event later than the date of expiration of the term of this Option as set forth in Section 10 below), exercise this Option to the extent he was entitled to exercise it at the date of such termination. To the extent that Optionee was not entitled to exercise the Option at the date of termination, or if Optionee does not exercise such Option (which he was entitled to exercise) within the time specified herein, the Option shall terminate.

(ii) Notwithstanding the provisions of Section 6 above, in the event of termination of Optionee's consulting relationship or Continuous Status as an Employee as a result of any disability not constituting a total and permanent disability (as defined in Section 22(e)(3) of the Code), Optionee may, but only within six (6) months from the date of termination of employment (but in no event later than the date of expiration of the term of this Option as set forth in Section 10 below), exercise this Option to the extent he was entitled to exercise it at the date of such termination; provided, however, that if this is an Incentive Stock Option and Optionee fails to exercise this Incentive Stock Option within three (3) months from the date of termination of employment, this Option will cease to qualify as an Incentive Stock Option (as defined in Section 422 of the Code) and Optionee will be treated for federal income tax purposes as having received ordinary income at the time of such exercise in an amount generally measured by the difference between the exercise price for the Shares and the fair market value of the Shares on the date of exercise. To the extent that

Optionee was not entitled to exercise the Option at the date of termination, or if Optionee does not exercise such Option (which he was entitled to exercise) within the time specified herein, the Option shall terminate.

8. Death of Optionee. In the event of the death of Optionee:

(i) during the term of this Option and while an Employee or Consultant of the Company and having a consulting relationship with the Company or having been in Continuous Status as an Employee since the date of grant of the Option, the Option may be exercised, at any time within six (6) following the termination of such status, months following the date of death (but in no event later than the date of expiration of the term of this Option as set forth in Section 10 below), by Optionee's estate or by a person who acquired the right to exercise the Option by bequest or inheritance, but only to the extent of the right to exercise that would have accrued had the Optionee continued living and remained a consultant or remained in Continuous Status as an Employee six (6) months after the date of death; or

(ii) within thirty (30) days after the termination of Optionee's Status as an Employee or Consultant, the Option may be exercised, at any time within six (6) months following the date of death (but in no event later than the date of expiration of the term of this Option as set forth in Section 10 below), by Optionee's estate or by a person who acquired the right to exercise the Option by bequest or inheritance, but only to the extent of the right to exercise that had accrued at the date of termination.

9. Non-Transferability of Option. This Option may not be transferred in any manner otherwise than by will or by the laws of descent or distribution and may be exercised during the lifetime of Optionee only by him. The terms of this Option shall be binding upon the executors, administrators, heirs, successors and assigns of the Optionee.

10. Term of Option. This Option may be exercised only within the term set out in the Notice of Grant, and may be exercised during such term only in accordance with the Plan and the terms of this Option. The limitations set out in Section 7 of the Plan regarding Options designated as Incentive Stock Options and Options granted to more than ten percent (10%) shareholders shall apply to this Option.

11. Tax Consequences. Set forth below is a brief summary as of the date of this Option of some of the federal and California tax consequences of exercise of this Option and disposition of the Shares. THIS SUMMARY IS NECESSARILY INCOMPLETE, AND THE TAX LAWS AND REGULATIONS ARE SUBJECT TO CHANGE. OPTIONEE SHOULD CONSULT A TAX ADVISER BEFORE EXERCISING THIS OPTION OR DISPOSING OF THE SHARES.

(i) Exercise of Incentive Stock Option. If this Option qualifies as an incentive stock option, there will be no regular federal income tax liability or California income tax liability upon the exercise of the Option, although the excess, if any, of the fair market value of the Shares on the date of exercise over the Exercise Price will be treated as an adjustment to the alternative minimum tax for federal tax purposes and may subject the Optionee to the alternative minimum tax in the year of exercise.

(ii) Exercise of Nonstatutory Stock Option. If this Option does not qualify as an incentive stock option, there may be a regular federal income tax liability and a California income tax liability upon the exercise of the Option. The Optionee will be treated as having received compensation income (taxable at ordinary income tax rates) equal to the excess, if any, of the fair market value of the Shares on the date of exercise over the Exercise Price. If Optionee is an employee, the Company will be required to withhold from Optionee's compensation or collect from Optionee and pay to the applicable taxing authorities an amount equal to a percentage of this compensation income at the time of exercise.

(iii) Disposition of Shares. In the case of a nonstatutory stock option, if Shares are held for at least one year, any gain realized on disposition of the Shares will be treated as long-term capital gain for federal and California income tax purposes. In the case of an incentive stock option, if Shares transferred

pursuant to the Option are held for at least one year after exercise and are disposed of at least two years after the Date of Grant, any gain realized on disposition of the Shares will also be treated as long-term capital gain for federal and California income tax purposes. If Shares purchased under an incentive stock option are disposed of within such one-year period or within two years after the Date of Grant, any gain realized on such disposition will be treated as compensation income (taxable at ordinary income rates) to the extent of the difference between the Exercise Price and the lesser of (1) the fair market value of the Shares on the date of exercise, or (2) the sale price of the Shares.

(iv) Notice of Disqualifying Disposition of Incentive Stock Option Shares. If the Option granted to Optionee herein is an incentive stock option, and if Optionee sells or otherwise disposes of any of the Shares acquired pursuant to the incentive stock option on or before the later of (1) the date two years after the Date of Grant, or (2) the date one year after the date of exercise, the Optionee shall immediately notify the Company in writing of such disposition. Optionee agrees that Optionee may be subject to income tax withholding by the Company on the compensation income recognized by the Optionee from the early disposition by payment in cash or out of the current earnings paid to the Optionee.

12. Withholding Tax Obligations. Optionee understands that, upon exercising a nonstatutory stock option, he or she will recognize income for tax purposes in an amount equal to the excess of the then fair market value of the Shares over the exercise price. However, the timing of this income recognition may be deferred for up to six months if Optionee is subject to Section 16 of the Securities Exchange Act of 1934, as amended (the "Exchange Act"). If the Optionee is an employee, the Company will be required to withhold from Optionee's compensation, or collect from Optionee and pay to the applicable taxing authorities an amount equal to a percentage of this compensation income. Additionally, the Optionee may at some point be required to satisfy tax withholding obligations with respect to the disqualifying disposition of an incentive stock option. The Optionee shall satisfy his or her tax withholding obligation arising upon the exercise of this Option by one or some combination of the following methods: (i) by cash payment, or (ii) out of Optionee's current compensation, or (iii) if permitted by the Administrator, in its discretion, by surrendering to the Company Shares which (a) in the case of Shares previously acquired from the Company, have been owned by the Optionee for more than six months on the date of surrender, and (b) have a fair market value on the date of surrender equal to or greater than Optionee's marginal tax rate times the ordinary income recognized, (iv) by electing to have the Company withhold from the Shares to be issued upon exercise of the Option that number of Shares having a fair market value equal to the amount required to be withheld. For this purpose, the fair market value of the Shares to be withheld shall be determined on the date that the amount of tax to be withheld is to be determined (the "Tax Date").

If the Optionee is subject to Section 16 of the Exchange Act (an "Insider"), any surrender of previously owned Shares to satisfy tax withholding obligations arising upon exercise of this Option must comply with the applicable provisions of Rule 16b-3 promulgated under the Exchange Act ("Rule 16b-3") and shall be subject to such additional conditions or restrictions as may be required thereunder to qualify for the maximum exemption from Section 16 of the Exchange Act with respect to Plan transactions.

All elections by an Optionee to have Shares withheld to satisfy tax withholding obligations shall be made in writing in a form acceptable to the Administrator and shall be subject to the following restrictions:

(1) the election must be made on or prior to the applicable Tax Date;

(2) once made, the election shall be irrevocable as to the particular Shares of the Option as to which the election is made;

(3) all elections shall be subject to the consent or disapproval of the Administrator;

(4) if the Optionee is an Insider, the election must comply with the applicable provisions of Rule 16b-3 and shall be subject to such additional conditions or restrictions as may be required thereunder to qualify for the maximum exemption from Section 16 of the Exchange Act with respect to Plan transactions.

PDF Solutions, Inc.,  
a California corporation

By: \_\_\_\_\_

Title: \_\_\_\_\_

OPTIONEE ACKNOWLEDGES AND AGREES THAT THE VESTING OF SHARES PURSUANT TO THE OPTION HEREOF IS EARNED ONLY BY CONTINUING CONSULTANCY OR EMPLOYMENT AT THE WILL OF THE COMPANY (NOT THROUGH THE ACT OF BEING HIRED, BEING GRANTED THIS OPTION OR ACQUIRING SHARES HEREUNDER). OPTIONEE FURTHER ACKNOWLEDGES AND AGREES THAT NOTHING IN THIS AGREEMENT, NOR IN THE COMPANY'S STOCK OPTION PLAN WHICH IS INCORPORATED HEREIN BY REFERENCE, SHALL CONFER UPON OPTIONEE ANY RIGHT WITH RESPECT TO CONTINUATION OF EMPLOYMENT OR CONSULTANCY BY THE COMPANY, NOR SHALL IT INTERFERE IN ANY WAY WITH HIS RIGHT OR THE COMPANY'S RIGHT TO TERMINATE HIS EMPLOYMENT OR CONSULTANCY AT ANY TIME, WITH OR WITHOUT CAUSE.

Optionee acknowledges receipt of a copy of the Plan and represents that he is familiar with the terms and provisions thereof, and hereby accepts this Option subject to all of the terms and provisions thereof. Optionee has reviewed the Plan and this Option in their entirety, has had an opportunity to obtain the advice of counsel prior to executing this Option and fully understands all provisions of the Option. Optionee hereby agrees to accept as binding, conclusive and final all decisions or interpretations of the Administrator upon any questions arising under the Plan or this Option.

Dated: \_\_\_\_\_  
Signature of Optionee

EXHIBIT A  
1996 STOCK OPTION PLAN  
EXERCISE NOTICE

PDF Solutions, Inc.  
333 West San Carlos, Suite 625  
San Jose, CA 95110  
Attn: John Kibarian

1. Exercise of Option. Effective as of today, \_\_\_\_\_, 19\_\_\_\_, the undersigned ("Optionee") hereby elects to exercise Optionee's option to purchase \_\_\_\_\_ shares of the Common Stock (the "Shares") of PDF Solutions, Inc. (the "Company") under and pursuant to the Company's 1996 Stock Option Plan, as amended (the "Plan") and the Incentive Stock Option Agreement dated <<DateofGrant>> (the "Option Agreement").

2. Representations of Optionee. Optionee acknowledges that Optionee has received, read and understood the Plan and the Option Agreement and agrees to abide by and be bound by their terms and conditions. Optionee represents that Optionee is purchasing the Shares for Optionee's own account for investment and not with a view to, or for sale in connection with, a distribution of any of such Shares.

3. Compliance with Securities Laws. Optionee understands and acknowledges that the Shares have not been registered under the Securities Act of 1933, as amended (the "1933 Act"), and, notwithstanding any other provision of the Option Agreement to the contrary, the exercise of any rights to purchase any Shares is expressly conditioned upon compliance with the 1933 Act, all applicable state securities laws and all applicable requirements of any stock exchange or over the counter market on which the Company's Common Stock may be listed or traded at the time of exercise and transfer. Optionee agrees to cooperate with the Company to ensure compliance with such laws.

4. Federal Restrictions on Transfer. Optionee understands that the Shares have not been registered under the 1933 Act and therefore cannot be resold and must be held indefinitely unless they are registered under the 1933 Act or unless an exemption from such registration is available and that the certificate(s) representing the Shares may bear a legend to that effect. Optionee understands that the Company is under no obligation to register the Shares and that an exemption may not be available or may not permit Optionee to transfer Shares in the amounts or at the times proposed by Optionee. Specifically, Optionee has been advised that Rule 144 promulgated under the 1933 Act, which permits certain resales of unregistered securities, is not presently available with respect to the Shares and, in any event requires that the Shares be paid for and then be held for at least one year (and in some cases two years) before they may be resold under Rule 144.

5. Rights as Shareholder. Until the stock certificate evidencing such Shares is issued (as evidenced by the appropriate entry on the books of the Company or of a duly authorized transfer agent of the Company), no right to vote or receive dividends or any other rights as a shareholder shall exist with respect to the optioned Stock, notwithstanding the exercise of the Option. The Company shall issue (or cause to be issued) such stock certificate promptly after the Option is exercised. No adjustment will be made for a dividend or other right for which the record date is prior to the date the stock certificate is issued, except as provided in Section 12 of the Plan.

Optionee shall enjoy rights as a shareholder until such time as Optionee disposes of the Shares or the Company and/or its assignee(s) exercises the Right of First Refusal hereunder. Upon such

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exercise, Optionee shall have no further rights as a holder of the Shares so purchased except the right to receive payment for the Shares so purchased in accordance with the provisions of this Agreement, and Optionee shall forthwith cause the certificate(s) evidencing the Shares so purchased to be surrendered to the Company for transfer or cancellation.

6. Company's Right of First Refusal. Before any Shares held by Optionee or any transferee (either being sometimes referred to herein as the "Holder") may be sold or otherwise transferred (including transfer by gift or operation of law), the Company or its assignee(s) shall have a right of first refusal to purchase the Shares on the terms and conditions set forth in this Section (the "Right of First Refusal").

(a) Notice of Proposed Transfer. The Holder of the Shares shall deliver to the Company a written notice (the "Notice") stating: (i) the Holder's bona fide intention to sell or otherwise transfer such Shares; (ii) the name of each proposed purchaser or other transferee ("Proposed Transferee"); (iii) the number of Shares to be transferred to each Proposed Transferee; and (iv) the bona fide cash price or other consideration for which the Holder proposes to transfer the Shares (the "Offered Price"), and the Holder shall offer the Shares at the Offered Price to the Company or its assignee(s).

(b) Exercise of Right of First Refusal. At any time within thirty (30) days after receipt of the Notice, the Company and/or its assignee(s) may, by giving written notice to the Holder, elect to purchase all, but not less than all, of the Shares proposed to be transferred to any one or more of the Proposed Transferees, at the purchase price determined in accordance with subsection (c) below.

(c) Purchase Price. The purchase price ("Purchase Price") for the Shares purchased by the Company or its assignee(s) under this Section shall be the Offered Price. If the Offered Price includes consideration other than cash, the cash equivalent value of the non-cash consideration shall be determined by the Board of Directors of the Company in good faith.



(d) Payment. Payment of the Purchase Price shall be made, at the option of the Company or its assignee(s), in cash (by check), by cancellation of all or a portion of any outstanding indebtedness of the Holder to the Company (or, in the case of repurchase by an assignee, to the assignee), or by any combination thereof within 30 days after receipt of the Notice or in the manner and at the times set forth in the Notice.

(e) Holder's Right to Transfer. If all of the Shares proposed in the Notice to be transferred to a given Proposed Transferee are not purchased by the Company and/or its assignee(s) as provided in this Section, then the Holder may sell or otherwise transfer such Shares to that Proposed Transferee at the Offered Price or at a higher price, provided that such sale or other transfer is consummated within 120 days after the date of the Notice and provided further that any such sale or other transfer is effected in accordance with any applicable securities laws and the Proposed Transferee agrees in writing that the provisions of this Section shall continue to apply to the Shares in the hands of such Proposed Transferee. If the Shares described in the Notice are not transferred to the Proposed Transferee within such period, a new Notice shall be given to the Company, and the Company and/or its assignees shall again be offered the Right of First Refusal before any Shares held by the Holder may be sold or otherwise transferred.

(f) Exception for Certain Family Transfers. Anything to the contrary contained in this Section notwithstanding, the transfer of any or all of the Shares during the Optionee's lifetime or on the Optionee's death by will or intestacy to the Optionee's immediate family or a trust for the benefit of the Optionee's immediate family shall be exempt from the provisions of this Section. "Immediate Family" as used herein shall mean spouse, lineal descendant or antecedent, father, mother, brother or sister. In such case, the transferee or other recipient shall receive and hold the Shares so transferred subject to the provisions of this Section, and there shall be no further transfer of such Shares except in accordance with the terms of this Section.

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(g) Termination of Right of First Refusal. The Right of First Refusal shall terminate as to any Shares 90 days after the first sale of Common Stock of the Company to the general public pursuant to a registration statement filed with and declared effective by the Securities and Exchange Commission under the 1933 Act.

7. Tax Consultation. Optionee understands that Optionee may suffer adverse tax consequences as a result of Optionee's purchase or disposition of the Shares. Optionee represents that Optionee has consulted with any tax consultants Optionee deems advisable in connection with the purchase or disposition of the Shares and that Optionee is not relying on the Company for any tax advice.

#### 8. Restrictive Legends and Stop-Transfer Orders.

(a) Legends. Optionee understands and agrees that the Company shall cause the legends set forth below or legends substantially equivalent thereto, to be placed upon any certificate(s) evidencing ownership of the Shares together with any other legends that may be required by state or federal securities laws:

THE SECURITIES REPRESENTED HEREBY HAVE NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933 (THE "ACT") AND MAY NOT BE OFFERED, SOLD OR OTHERWISE TRANSFERRED, PLEDGED OR HYPOTHECATED UNLESS AND UNTIL REGISTERED UNDER THE ACT OR, IN THE OPINION OF COUNSEL IN FORM AND SUBSTANCE SATISFACTORY TO THE ISSUER OF THESE SECURITIES, SUCH OFFER, SALE OR TRANSFER, PLEDGE OR HYPOTHECATION IS IN COMPLIANCE THEREWITH.

THE SHARES REPRESENTED BY THIS CERTIFICATE ARE SUBJECT TO CERTAIN RESTRICTIONS ON TRANSFER AND RIGHT OF FIRST REFUSAL OPTIONS HELD BY THE ISSUER OR ITS ASSIGNEE(S) AS SET FORTH IN THE EXERCISE NOTICE BETWEEN THE ISSUER AND THE ORIGINAL HOLDER OF THESE SHARES, A COPY OF WHICH MAY BE OBTAINED AT THE PRINCIPAL OFFICE OF THE ISSUER. SUCH TRANSFER RESTRICTIONS AND RIGHT OF FIRST

REFUSAL ARE BINDING ON TRANSFEREES OF THESE SHARES.

IT IS UNLAWFUL TO CONSUMMATE A SALE OR TRANSFER OF THIS SECURITY, OR ANY INTEREST THEREIN, OR TO RECEIVE ANY CONSIDERATION THEREFOR, WITHOUT THE PRIOR WRITTEN CONSENT OF THE COMMISSIONER OF CORPORATIONS OF THE STATE OF CALIFORNIA, EXCEPT AS PERMITTED IN THE COMMISSIONER'S RULES.

Optionee understands that transfer of the Shares may be restricted by Section 260.141.11 of the Rules of the California Corporations Commissioner, a copy of which is attached to EXHIBIT B, the Investment Representation Statement.

(b) Stop-Transfer Notices. Optionee agrees that, in order to ensure compliance with the restrictions referred to herein, the Company may issue appropriate "stop transfer" instructions to its transfer agent, if any, and that, if the Company transfers its own securities, it may make appropriate notations to the same effect in its own records.

(c) Refusal to Transfer. The Company shall not be required (i) to transfer on its books any Shares that have been sold or otherwise transferred in violation of any of the provisions of this Agreement or (ii) to treat as owner of such Shares or to accord the right to vote or pay dividends to any purchaser or other transferee to whom such Shares shall have been so transferred.

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9. Market Standoff Agreement. In connection with the initial public offering of the Company's securities and upon request of the Company or the underwriters managing any underwritten offering of the Company's securities, Optionee hereby agrees not to sell, make any short sale of, loan, grant any option for the purchase of, or otherwise dispose of any Shares (other than those included in the registration) without the prior written consent of the Company or such underwriters, as the case may be, for such period of time (not to exceed 180 days) from the effective date of such registration as may be requested by the Company or such managing underwriters.

10. Successors and Assigns. The Company may assign any of its rights under this Agreement to single or multiple assignees, and this Agreement shall inure to the benefit of the successors and assigns of the Company. Subject to the restrictions on transfer herein set forth, this Agreement shall be binding upon Optionee and his or her heirs, executors, administrators, successors and assigns.

11. Interpretation. Any dispute regarding the interpretation of this Agreement shall be submitted by Optionee or by the Company forthwith to the Company's Board of Directors or the committee thereof that administers the Plan, which shall review such dispute at its next regular meeting. The resolution of such a dispute by the Board or committee shall be final and binding on the Company and on Optionee.

12. Governing Law; Severability. This Agreement shall be governed by and construed in accordance with the laws of the State of California excluding that body of law pertaining to conflicts of law. Should any provision of this Agreement be determined by a court of law to be illegal or unenforceable, the other provisions shall nevertheless remain effective and shall remain enforceable.

13. Notices. Any notice required or permitted hereunder shall be given in writing and shall be deemed effectively given upon personal delivery or upon deposit in the United States mail by certified mail, with postage and fees prepaid, addressed to the other party at its address as shown below beneath its signature, or to such other address as such party may designate in writing from time to time to the other party.

14. Further Instruments. The parties agree to execute such further instruments and to take such further action as may be reasonably necessary to carry out the purposes and intent of this Agreement.

15. Delivery of Payment. Optionee herewith delivers to the Company the full Exercise Price for the Shares.

16. Entire Agreement. The Plan and Notice of Grant/Option Agreement are incorporated herein by reference. This Agreement, the Plan and the Notice of Grant/Option Agreement constitute the entire agreement of the parties and supersede in their entirety all prior undertakings and agreements of the Company and Optionee with respect to the subject matter hereof, and is governed by California law except for that body of law pertaining to conflict of laws.

Submitted by:

Accepted by:

OPTIONEE:

PDF SOLUTIONS, INC.

By:

<<NameofOptionee>>

Title:

Address:

Address: 333 West San Carlos, Suite 625  
San Jose, CA 95110

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EXHIBIT B

INVESTMENT REPRESENTATION STATEMENT

OPTIONEE : <<NameofOptionee>>  
COMPANY : PDF Solutions, Inc.  
SECURITY : Common Stock  
AMOUNT : \_\_\_\_\_ Shares  
DATE : \_\_\_\_\_, 19\_\_\_\_

In connection with the purchase of the above-listed Securities, I, the Optionee, represent to the Company the following:

(a) I am aware of the Company's business affairs and financial condition, and have acquired sufficient information about the Company to reach an informed and knowledgeable decision to acquire the Securities. I am purchasing these Securities for my own account for investment purposes only and not with a view to, or for the resale in connection with, any "distribution" thereof for purposes of the Securities Act of 1933, as amended (the "Securities Act").

(b) I understand that the Securities have not been registered under the Securities Act in reliance upon a specific exemption therefrom, which exemption depends upon, among other things, the bona fide nature of my investment intent as expressed herein. In this connection, I understand that, in the view of the Securities and Exchange Commission (the "SEC"), the statutory basis for such exemption may be unavailable if my representation was predicated solely upon a present intention to hold these Securities for the minimum capital gains period specified under tax statutes, for a deferred sale, for or until an increase or decrease in the market price of the Securities, or for a period of one year or any other fixed period in the future.

(c) I further understand that the Securities must be held indefinitely unless subsequently registered under the Securities Act or unless an exemption from registration is otherwise available. Moreover, I understand that the Company is under no obligation to register the Securities. In addition, I understand that the certificate evidencing the Securities will be imprinted with a legend which prohibits the transfer of the Securities unless they are

registered or such registration is not required in the opinion of counsel for the Company.

(d) I am familiar with the provisions of Rule 701 and Rule 144, each promulgated under the Securities Act, which, in substance, permit limited public resale of "restricted securities" acquired, directly or indirectly, from the issuer thereof, in a non-public offering subject to the satisfaction of certain conditions. Rule 701 provides that if the issuer qualifies under Rule 701 at the time of issuance of the Securities, such issuance will be exempt from registration under the Securities Act. In the event the Company later becomes subject to the reporting requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, ninety (90) days thereafter the securities exempt under Rule 701 may be resold, subject to the satisfaction of certain of the conditions specified by Rule 144, including among other things: (1) the sale being made through a broker in an unsolicited "broker's transaction" or in transactions directly with a market maker (as said term is defined under the Securities Exchange Act of 1934); and, in the case of an affiliate, (2) the availability of certain public information about the Company, and the amount of securities being sold during any three month period not exceeding the limitations specified in Rule 144(e), if applicable. Notwithstanding this paragraph (d), I acknowledge and agree to the restrictions set forth in paragraph (e) hereof.

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In the event that the Company does not qualify under Rule 701 at the time of issuance of the Securities, then the Securities may be resold in certain limited circumstances subject to the provisions of Rule 144, which requires among other things: (1) the availability of certain public information about the Company, (2) the resale occurring not less than one year after the party has purchased, and made full payment for, within the meaning of Rule 144, the securities to be sold; and, in the case of an affiliate, or of a non-affiliate who has held the securities less than two years, (3) the sale being made through a broker in an unsolicited "broker's transaction" or in transactions directly with a market maker (as said term is defined under the Securities Exchange Act of 1934) and the amount of securities being sold during any three month period not exceeding the specified limitations stated therein, if applicable.

(e) I further understand that in the event all of the applicable requirements of Rule 144 or Rule 701 are not satisfied, registration under the Securities Act, compliance with Regulation A, or some other registration exemption will be required; and that, notwithstanding the fact that Rule 144 and Rule 701 are not exclusive, the Staff of the SEC has expressed its opinion that persons proposing to sell private placement securities other than in a registered offering and otherwise than pursuant to Rule 144 or Rule 701 will have a substantial burden of proof in establishing that an exemption from registration is available for such offers or sales, and that such persons and their respective brokers who participate in such transactions do so at their own risk.

(f) I understand that the certificate evidencing the Securities may be imprinted with a legend which prohibits the transfer of the Securities without the consent of the Commissioner of Corporations of California. I have read the applicable Commissioner's Rules with respect to such restriction, a copy of which is attached.

Signature of Optionee:

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<<NameofOptionee>>

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STATE OF CALIFORNIA - CALIFORNIA ADMINISTRATIVE CODE  
Title 10. Investment - Chapter 3. Commissioner of Corporations

260.141.11: Restriction on Transfer.

(a) The issuer of any security upon which a restriction on transfer has

been imposed pursuant to Sections 260.102.6, 260.141.10 or 260.534 shall cause a copy of this section to be delivered to each issuee or transferee of such security at the time the certificate evidencing the security is delivered to the issuee or transferee.

(b) It is unlawful for the holder of any such security to consummate a sale or transfer of such security, or any interest therein, without the prior written consent of the Commissioner (until this condition is removed pursuant to Section 260.141.12 of these rules), except:

(1) to the issuer;

(2) pursuant to the order or process of any court;

(3) to any person described in Subdivision (i) of Section 25102 of the Code or Section 260.105.14 of these rules;

(4) to the transferor's ancestors, descendants or spouse, or any custodian or trustee for the account of the transferor or the transferor's ancestors, descendants, or spouse; or to a transferee by a trustee or custodian for the account of the transferee or the transferee's ancestors, descendants or spouse;

(5) to holders of securities of the same class of the same issuer;

(6) by way of gift or donation inter vivos or on death;

(7) by or through a broker-dealer licensed under the Code (either acting as such or as a finder) to a resident of a foreign state, territory or country who is neither domiciled in this state to the knowledge of the broker-dealer, nor actually present in this state if the sale of such securities is not in violation of any securities law of the foreign state, territory or country concerned;

(8) to a broker-dealer licensed under the Code in a principal transaction, or as an underwriter or member of an underwriting syndicate or selling group;

(9) if the interest sold or transferred is a pledge or other lien given by the purchaser to the seller upon a sale of the security for which the Commissioner's written consent is obtained or under this rule not required;

(10) by way of a sale qualified under Sections 25111, 25112, 25113 or 25121 of the Code, of the securities to be transferred, provided that no order under Section 25140 or Subdivision (a) of Section 25143 is in effect with respect to such qualification;

(11) by a corporation to a wholly owned subsidiary of such corporation, or by a wholly owned subsidiary of a corporation to such corporation;

(12) by way of an exchange qualified under Section 25111, 25112 or 25113 of the Code, provided that no order under Section 25140 or Subdivision (a) of Section 25143 is in effect with respect to such qualification;

(13) between residents of foreign states, territories or countries who are neither domiciled nor actually present in this state;

(14) to the State Controller pursuant to the Unclaimed Property Law or to the administrator of the unclaimed property law of another state;

(15) by the State Controller pursuant to the Unclaimed Property Law or by the administrator of the unclaimed property law of another state if, in either such case, such person (i) discloses to potential purchasers at the sale that transfer of the securities is restricted under this rule, (ii) delivers to each purchaser a copy of this rule, and (iii) advises the Commissioner of the name of each purchaser;

(16) by a trustee to a successor trustee when such transfer does not involve a change in the beneficial ownership of the securities; or

(17) by way of an offer and sale of outstanding securities in an issuer transaction that is subject to the qualification requirement of Section 25110 of the Code but exempt from that qualification requirement by subdivision (f) of Section 25102;

provided that any such transfer is on the condition that any certificate evidencing the security issued to such transferee shall contain the legend required by this section.

(c) The certificates representing all such securities subject to such a restriction on transfer, whether upon initial issuance or upon any transfer thereof, shall bear on their face a legend, prominently stamped or printed thereon in capital letters of not less than 10-point size, reading as follows:

"IT IS UNLAWFUL TO CONSUMMATE A SALE OR TRANSFER OF THIS SECURITY, OR ANY INTEREST THEREIN, OR TO RECEIVE ANY CONSIDERATION THEREFOR, WITHOUT THE PRIOR WRITTEN CONSENT OF THE COMMISSIONER OR CORPORATIONS OF THE STATE OF CALIFORNIA, EXCEPT AS PERMITTED IN THE COMMISSIONER'S RULES."

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PDF SOLUTIONS, INC.

1996 STOCK OPTION PLAN / 1997 STOCK PLAN

EARLY EXERCISE NOTICE AND RESTRICTED STOCK PURCHASE AGREEMENT

This Agreement ("Agreement") is made as of \_\_\_\_\_, by and between PDF Solutions, Inc., a Delaware corporation (the "Company"), and \_\_\_\_\_ ("Purchaser"). To the extent any capitalized terms used in this Agreement are not defined, they shall have the meaning ascribed to them in the [ ] 1996 Stock Option Plan / [ ] 1997 Stock Plan (check applicable plan).

1. EXERCISE OF OPTION. Subject to the terms and conditions hereof, Purchaser hereby elects to exercise his or her option to purchase \_\_\_\_\_ shares of the Common Stock (the "Shares") of the Company under and pursuant to the Company's [ ] 1996 Stock Option Plan / [ ] 1997 Stock Plan (the "Plan") and the Stock Option Agreement dated \_\_\_\_\_ (the "Option Agreement"). Of these Shares, Purchaser has elected to purchase \_\_\_\_\_ of those Shares which have become vested as of the date hereof under the Vesting Schedule set forth in the Notice of Stock Option Grant (the "Vested Shares") and \_\_\_\_\_ Shares which have not yet vested under such Vesting Schedule (the "Unvested Shares"). The purchase price for the Shares shall be \$\_\_\_\_\_ per Share for a total purchase price of \$\_\_\_\_\_. The term "Shares" refers to the purchased Shares and all securities received in replacement of the Shares or as stock dividends or splits, all securities received in replacement of the Shares in a recapitalization, merger, reorganization, exchange or the like, and all new, substituted or additional securities or other properties to which Purchaser is entitled by reason of Purchaser's ownership of the Shares.

2. TIME AND PLACE OF EXERCISE. The purchase and sale of the Shares under this Agreement shall occur at the principal office of the Company simultaneously with the execution and delivery of this Agreement in accordance with the provisions of Section 2(b) of the Option Agreement. On such date, the Company will deliver to Purchaser a certificate representing the Shares to be purchased by Purchaser (which shall be issued in Purchaser's name) against payment of the purchase price therefor by Purchaser by (a) check made payable to the Company, (b) cancellation of indebtedness of the Company to Purchaser, (c) delivery of shares of the Common Stock of the Company in accordance with Section 3 of the Option Agreement, (d) delivery of a promissory note in the form attached as Attachment A (or in any form acceptable to the Company), or (e) a combination of the foregoing. If Purchaser delivers a promissory note as partial or full payment of the purchase price, Purchaser will also deliver a Pledge and Security Agreement in the form attached to Attachment B (or in any form acceptable to the Company).

3. LIMITATIONS ON TRANSFER. In addition to any other limitation on transfer created by applicable securities laws, Purchaser shall not assign, encumber or dispose of any interest in the Shares while the Shares are subject to the Company's Repurchase Option (as defined below). After any Shares have been released from such Repurchase Option, Purchaser shall not assign, encumber or dispose of any interest in such Shares except in compliance with the provisions below and applicable securities laws.

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(a) REPURCHASE OPTION.

(i) In the event of the voluntary or involuntary termination of Purchaser's employment or consulting relationship with the Company for any reason (including death or disability), with or without cause, the Company shall upon the date of such termination (the "Termination Date") have an irrevocable, exclusive option (the "Repurchase Option") for a period of 60 days from such date to repurchase all or any portion of the Unvested Shares held by Purchaser as of the Termination Date which have not yet been released from the Company's Repurchase Option at the original purchase price per Share specified in Section 1 (adjusted for any stock splits, stock dividends and the like).

(ii) The Repurchase Option shall be exercised by the Company by written notice to Purchaser or Purchaser's executor and, at the Company's option, (A) by delivery to Purchaser or Purchaser's executor with such notice of a check in the amount of the purchase price for the Shares being purchased, or (B) in the event Purchaser is indebted to the Company, by cancellation by the Company of an amount of such indebtedness equal to the purchase price for the Shares being repurchased, or (C) by a combination of (A) and (B) so that the combined payment and cancellation of indebtedness equals such purchase price. Upon delivery of such notice and payment of the purchase price in any of the ways described above, the Company shall become the legal and beneficial owner of the Shares being repurchased and all rights and interest therein or related thereto, and the Company shall have the right to transfer to its own name the number of Shares being repurchased by the Company, without further action by Purchaser.

(iii) One hundred percent (100%) of the Unvested Shares shall initially be subject to the Repurchase Option. The Unvested Shares shall be released from the Repurchase Option in accordance with the Vesting Schedule set forth in the Notice of Stock Option Grant until all Shares are released from the Repurchase Option. Fractional shares shall be rounded to the nearest whole share.

(b) RIGHT OF FIRST REFUSAL. Before any Shares held by Purchaser or any transferee of Purchaser (either being sometimes referred to herein as the "Holder") may be sold or otherwise transferred (including transfer by gift or operation of law), the Company or its assignee(s) shall have a right of first refusal to purchase the Shares on the terms and conditions set forth in this Section 3(b) (the "Right of First Refusal").

(i) NOTICE OF PROPOSED TRANSFER. The Holder of the Shares shall deliver to the Company a written notice (the "Notice") stating: (i) the Holder's bona fide intention to sell or otherwise transfer such Shares; (ii) the name of each proposed purchaser or other transferee ("Proposed Transferee"); (iii) the number of Shares to be transferred to each Proposed Transferee; and (iv) the terms and conditions of each proposed sale or transfer. The Holder shall offer the Shares at the same price (the "Offered Price") and upon the same terms (or terms as similar as reasonably possible) to the Company or its assignee(s).

(ii) EXERCISE OF RIGHT OF FIRST REFUSAL. At any time within 30 days after receipt of the Notice, the Company and/or its assignee(s) may, by giving written notice to the Holder, elect to purchase all, but not less than all, of the Shares proposed to be transferred to

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any one or more of the Proposed Transferees, at the purchase price determined in accordance with subsection (iii) below.

(iii) PURCHASE PRICE. The purchase price ("Purchase Price") for the Shares purchased by the Company or its assignee(s) under this Section 3(b) shall be the Offered Price. If the Offered Price includes consideration other than cash, the cash equivalent value of the non-cash consideration shall be determined by the Board of Directors of the Company in good faith.

(iv) PAYMENT. Payment of the Purchase Price shall be made, at the option of the Company or its assignee(s), in cash (by check), by cancellation of all or a portion of any outstanding indebtedness of the Holder

to the Company (or, in the case of repurchase by an assignee, to the assignee), or by any combination thereof within 30 days after receipt of the Notice or in the manner and at the times set forth in the Notice.

(v) HOLDER'S RIGHT TO TRANSFER. If all of the Shares proposed in the Notice to be transferred to a given Proposed Transferee are not purchased by the Company and/or its assignee(s) as provided in this Section 3(b), then the Holder may sell or otherwise transfer such Shares to that Proposed Transferee at the Offered Price or at a higher price, provided that such sale or other transfer is consummated within 60 days after the date of the Notice and provided further that any such sale or other transfer is effected in accordance with any applicable securities laws and the Proposed Transferee agrees in writing that the provisions of this Section 3 shall continue to apply to the Shares in the hands of such Proposed Transferee. If the Shares described in the Notice are not transferred to the Proposed Transferee within such period, or if the Holder proposes to change the price or other terms to make them more favorable to the Proposed Transferee, a new Notice shall be given to the Company, and the Company and/or its assignees shall again be offered the Right of First Refusal before any Shares held by the Holder may be sold or otherwise transferred.

(vi) EXCEPTION FOR CERTAIN FAMILY TRANSFERS. Anything to the contrary contained in this Section 3(b) notwithstanding, the transfer of any or all of the Shares during Purchaser's lifetime or on Purchaser's death by will or intestacy to Purchaser's Immediate Family (as defined below) or a trust for the benefit of Purchaser's Immediate Family shall be exempt from the provisions of this Section 3(b). "Immediate Family" as used herein shall mean spouse, lineal descendant or antecedent, father, mother, brother or sister. In such case, the transferee or other recipient shall receive and hold the Shares so transferred subject to the provisions of this Section, and there shall be no further transfer of such Shares except in accordance with the terms of this Section 3.

(c) INVOLUNTARY TRANSFER.

(i) COMPANY'S RIGHT TO PURCHASE UPON INVOLUNTARY TRANSFER. In the event, at any time after the date of this Agreement, of any transfer by operation of law or other involuntary transfer (including divorce or death, but excluding, in the event of death, a transfer to Immediate Family as set forth in Section 3(b)(vi) above) of all or a portion of the Shares by the record holder thereof, the Company shall have the right to purchase all of the Shares transferred at the greater of the purchase price paid by Purchaser pursuant to this

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Agreement or the Fair Market Value of the Shares on the date of transfer. Upon such a transfer, the person acquiring the Shares shall promptly notify the Secretary of the Company of such transfer. The right to purchase such Shares shall be provided to the Company for a period of 30 days following receipt by the Company of written notice by the person acquiring the Shares.

(ii) PRICE FOR INVOLUNTARY TRANSFER. With respect to any stock to be transferred pursuant to Section 3(c)(i), the price per Share shall be a price set by the Board of Directors of the Company that will reflect the current value of the stock in terms of present earnings and future prospects of the Company. The Company shall notify Purchaser or his or her executor of the price so determined within 30 days after receipt by it of written notice of the transfer or proposed transfer of Shares. However, if the Purchaser does not agree with the valuation as determined by the Board of Directors of the Company, the Purchaser shall be entitled to have the valuation determined by an independent appraiser to be mutually agreed upon by the Company and the Purchaser and whose fees shall be borne equally by the Company and the Purchaser.

(d) ASSIGNMENT. The right of the Company to purchase any part of the Shares may be assigned in whole or in part to any shareholder or shareholders of the Company or other persons or organizations; provided, however, that an assignee, other than a corporation that is the Parent or a 100% owned Subsidiary of the Company, must pay the Company, upon assignment of such right, cash equal to the difference between the original purchase price and Fair



Market Value, if the original purchase price is less than the Fair Market Value of the Shares subject to the assignment.

(e) RESTRICTIONS BINDING ON TRANSFEREES. All transferees of Shares or any interest therein will receive and hold such Shares or interest subject to the provisions of this Agreement, including, insofar as applicable, the Repurchase Option. Any sale or transfer of the Shares shall be void unless the provisions of this Agreement are satisfied.

(f) TERMINATION OF RIGHTS. The Right of First Refusal and the Company's right to repurchase the Shares in the event of an involuntary transfer pursuant to Section 3(c) above shall terminate upon the first sale of Common Stock of the Company to the general public pursuant to a registration statement filed with and declared effective by the Securities and Exchange Commission under the Securities Act of 1933, as amended (the "Securities Act").

(g) MARKET STANDOFF AGREEMENT. In connection with the initial public offering of the Company's securities and upon request of the Company or the underwriters managing such underwritten offering of the Company's securities, Purchaser agrees not to sell, make any short sale of, loan, grant any option for the purchase of, or otherwise dispose of any securities of the Company (other than those included in the registration) without the prior written consent of the Company or such underwriters, as the case may be, for such period of time (not to exceed 180 days) from the effective date of such registration as may be requested by the Company or such managing underwriters and to execute an agreement reflecting the foregoing as may be requested by the underwriters at the time of the Company's initial public offering.

4. ESCROW OF UNVESTED SHARES. For purposes of facilitating the enforcement of the provisions of Section 3 above, Purchaser agrees, immediately upon receipt of the certificate(s)

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for the Shares subject to the Repurchase Option, to deliver such certificate(s), together with an Assignment Separate from Certificate in the form attached to this Agreement as Attachment C executed by Purchaser and by Purchaser's spouse (if required for transfer), in blank, to the Secretary of the Company, or the Secretary's designee, to hold such certificate(s) and Assignment Separate from Certificate in escrow and to take all such actions and to effectuate all such transfers and/or releases as are in accordance with the terms of this Agreement. Purchaser hereby acknowledges that the Secretary of the Company, or the Secretary's designee, is so appointed as the escrow holder with the foregoing authorities as a material inducement to make this Agreement and that said appointment is coupled with an interest and is accordingly irrevocable. Purchaser agrees that said escrow holder shall not be liable to any party hereof (or to any other party). The escrow holder may rely upon any letter, notice or other document executed by any signature purported to be genuine and may resign at any time. Purchaser agrees that if the Secretary of the Company, or the Secretary's designee, resigns as escrow holder for any or no reason, the Board of Directors of the Company shall have the power to appoint a successor to serve as escrow holder pursuant to the terms of this Agreement.

5. INVESTMENT AND TAXATION REPRESENTATIONS. In connection with the purchase of the Shares, Purchaser represents to the Company the following:

(a) Purchaser is aware of the Company's business affairs and financial condition and has acquired sufficient information about the Company to reach an informed and knowledgeable decision to acquire the Shares. Purchaser is purchasing the Shares for investment for his or her own account only and not with a view to, or for resale in connection with, any "distribution" thereof within the meaning of the Securities Act.

(b) Purchaser understands that the Shares have not been registered under the Securities Act by reason of a specific exemption therefrom, which exemption depends upon, among other things, the bona fide nature of Purchaser's investment intent as expressed herein.

(c) Purchaser understands that the Shares are "restricted securities" under applicable U.S. federal and state securities laws and that, pursuant to these laws, Purchaser must hold the Shares indefinitely unless they

are registered with the Securities and Exchange Commission and qualified by state authorities, or an exemption from such registration and qualification requirements is available. Purchaser acknowledges that the Company has no obligation to register or qualify the Shares for resale. Purchaser further acknowledges that if an exemption from registration or qualification is available, it may be conditioned on various requirements including, but not limited to, the time and manner of sale, the holding period for the Shares, and requirements relating to the Company which are outside of the Purchaser's control, and which the Company is under no obligation and may not be able to satisfy.

(d) Purchaser understands that Purchaser may suffer adverse tax consequences as a result of Purchaser's purchase or disposition of the Shares. Purchaser represents that Purchaser has consulted any tax consultants Purchaser deems advisable in connection with the purchase or disposition of the Shares and that Purchaser is not relying on the Company for any tax advice.

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#### 6. RESTRICTIVE LEGENDS AND STOP-TRANSFER ORDERS.

(a) LEGENDS. The certificate or certificates representing the Shares shall bear the following legends (as well as any legends required by applicable state and federal corporate and securities laws):

- (i) THE SHARES REPRESENTED BY THIS CERTIFICATE HAVE NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AND HAVE BEEN ACQUIRED FOR INVESTMENT AND NOT WITH A VIEW TO, OR IN CONNECTION WITH, THE SALE OR DISTRIBUTION THEREOF. NO SUCH SALE OR DISTRIBUTION MAY BE EFFECTED WITHOUT AN EFFECTIVE REGISTRATION STATEMENT RELATED THERETO OR AN OPINION OF COUNSEL IN A FORM SATISFACTORY TO THE COMPANY THAT SUCH REGISTRATION IS NOT REQUIRED UNDER THE SECURITIES ACT OF 1933.
- (ii) THE SHARES REPRESENTED BY THIS CERTIFICATE MAY BE TRANSFERRED ONLY IN ACCORDANCE WITH THE TERMS OF AN AGREEMENT BETWEEN THE COMPANY AND THE STOCKHOLDER, A COPY OF WHICH IS ON FILE WITH THE SECRETARY OF THE COMPANY.

(b) STOP-TRANSFER NOTICES. Purchaser agrees that, in order to ensure compliance with the restrictions referred to herein, the Company may issue appropriate "stop transfer" instructions to its transfer agent, if any, and that, if the Company transfers its own securities, it may make appropriate notations to the same effect in its own records.

(c) REFUSAL TO TRANSFER. The Company shall not be required (i) to transfer on its books any Shares that have been sold or otherwise transferred in violation of any of the provisions of this Agreement or (ii) to treat as owner of such Shares or to accord the right to vote or pay dividends to any purchaser or other transferee to whom such Shares shall have been so transferred.

(d) REMOVAL OF LEGEND. When all of the following events have occurred, the Shares then held by Purchaser will no longer be subject to the legend referred to in Section 6(a)(ii): (i) the termination of the Right of First Refusal; (ii) the expiration or termination of the market standoff provisions of Section 3(g) (and of any agreement entered pursuant to Section 3(g)); and (iii) the expiration or exercise in full of the Repurchase Option. After such time, and upon Purchaser's request, a new certificate or certificates representing the Shares not repurchased shall be issued without the legend referred to in Section 6(a)(ii), and delivered to Purchaser.

7. NO EMPLOYMENT RIGHTS. Nothing in this Agreement shall affect in any manner whatsoever the right or power of the Company, or a Parent or Subsidiary of the Company, to terminate Purchaser's employment or consulting relationship, for any reason, with or without cause.

8. SECTION 83(b) ELECTION. Purchaser understands that Section 83(a) of the Internal Revenue Code of 1986, as amended (the "Code"), taxes as ordinary

income for a Nonstatutory Stock Option and as alternative minimum taxable income for an Incentive Stock Option the

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difference between the amount paid for the Shares and the Fair Market Value of the Shares as of the date any restrictions on the Shares lapse. In this context, "restriction" means the right of the Company to buy back the Shares pursuant to the Repurchase Option set forth in Section 3(a) of this Agreement. Purchaser understands that Purchaser may elect to be taxed at the time the Shares are purchased, rather than when and as the Repurchase Option expires, by filing an election under Section 83(b) (an "83(b) Election") of the Code with the Internal Revenue Service within 30 days from the date of purchase. Even if the Fair Market Value of the Shares at the time of the execution of this Agreement equals the amount paid for the Shares, the election must be made to avoid income and alternative minimum tax treatment under Section 83(a) in the future. Purchaser understands that failure to file such an election in a timely manner may result in adverse tax consequences for Purchaser. Purchaser further understands that an additional copy of such election form should be filed with his or her federal income tax return for the calendar year in which the date of this Agreement falls. Purchaser acknowledges that the foregoing is only a summary of the effect of United States federal income taxation with respect to purchase of the Shares hereunder, and does not purport to be complete. Purchaser further acknowledges that the Company has directed Purchaser to seek independent advice regarding the applicable provisions of the Code, the income tax laws of any municipality, state or foreign country in which Purchaser may reside, and the tax consequences of Purchaser's death.

Purchaser agrees that he or she will execute and deliver to the Company with this executed Agreement a copy of the Acknowledgment and Statement of Decision Regarding Section 83(b) Election (the "Acknowledgment") attached hereto as Attachment D. Purchaser further agrees that he or she will execute and submit with the Acknowledgment a copy of the 83(b) Election attached hereto as Attachment E (for tax purposes in connection with the early exercise of an option) if Purchaser has indicated in the Acknowledgment his or her decision to make such an election.

#### 9. MISCELLANEOUS.

(a) GOVERNING LAW. This Agreement and all acts and transactions pursuant hereto and the rights and obligations of the parties hereto shall be governed, construed and interpreted in accordance with the laws of the State of California, without giving effect to principles of conflicts of law.

(b) ENTIRE AGREEMENT; ENFORCEMENT OF RIGHTS. This Agreement sets forth the entire agreement and understanding of the parties relating to the subject matter herein and merges all prior discussions between them. No modification or amendment to this Agreement, nor any waiver of any rights under this Agreement, shall be effective unless in writing signed by the parties to this Agreement. The failure by either party to enforce any rights under this Agreement shall not be construed as a waiver of any rights of such party.

(c) SEVERABILITY. If one or more provisions of this Agreement are held to be unenforceable under applicable law, the parties agree to renegotiate such provision in good faith. In the event that the parties cannot reach a mutually agreeable and enforceable replacement for such provision, then (i) such provision shall be excluded from this Agreement, (ii) the balance of the Agreement shall be interpreted as if such provision were so excluded and (iii) the balance of the Agreement shall be enforceable in accordance with its terms.

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(d) CONSTRUCTION. This Agreement is the result of negotiations between and has been reviewed by each of the parties hereto and their respective counsel, if any; accordingly, this Agreement shall be deemed to be the product of all of the parties hereto, and no ambiguity shall be construed in favor of or against any one of the parties hereto.

(e) NOTICES. Any notice required or permitted by this Agreement shall be in writing and shall be deemed sufficient when delivered personally or sent by telegram or fax or 48 hours after being deposited in the U.S. mail, as certified or registered mail, with postage prepaid, and addressed to the party to be notified at such party's address as set forth below or as subsequently modified by written notice.

(f) COUNTERPARTS. This Agreement may be executed in two or more counterparts, each of which shall be deemed an original and all of which together shall constitute one instrument.

(g) SUCCESSORS AND ASSIGNS. The rights and benefits of this Agreement shall inure to the benefit of, and be enforceable by the Company's successors and assigns. The rights and obligations of Purchaser under this Agreement may only be assigned with the prior written consent of the Company.

(h) CALIFORNIA CORPORATE SECURITIES LAW. THE SALE OF THE SECURITIES WHICH ARE THE SUBJECT OF THIS AGREEMENT HAS NOT BEEN QUALIFIED WITH THE COMMISSIONER OF CORPORATIONS OF THE STATE OF CALIFORNIA AND THE ISSUANCE OF THE SECURITIES OR THE PAYMENT OR RECEIPT OF ANY PART OF THE CONSIDERATION THEREFOR PRIOR TO THE QUALIFICATION IS UNLAWFUL, UNLESS THE SALE OF SECURITIES IS EXEMPT FROM QUALIFICATION BY SECTION 25100, 25102 OR 25105 OF THE CALIFORNIA CORPORATIONS CODE. THE RIGHTS OF ALL PARTIES TO THIS AGREEMENT ARE EXPRESSLY CONDITIONED UPON THE QUALIFICATION BEING OBTAINED, UNLESS THE SALE IS SO EXEMPT.

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The parties have executed this Agreement as of the date first set forth above.

COMPANY:

PDF SOLUTIONS, INC.

By: \_\_\_\_\_

Name: \_\_\_\_\_

(print)

Title: \_\_\_\_\_

Address: \_\_\_\_\_  
\_\_\_\_\_

PURCHASER:

NAME: \_\_\_\_\_

\_\_\_\_\_  
(Signature)

\_\_\_\_\_  
(Print Name)

Address: \_\_\_\_\_  
\_\_\_\_\_

I, \_\_\_\_\_, spouse of \_\_\_\_\_ have read and hereby approve the foregoing Agreement. In consideration of the Company's granting my spouse the right to purchase the Shares as set forth in the Agreement, I hereby

agree to be bound irrevocably by the Agreement and further agree that any community property or similar interest that I may have in the Shares shall hereby be similarly bound by the Agreement. I hereby appoint my spouse as my attorney-in-fact with respect to any amendment or exercise of any rights under the Agreement.

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Spouse of \_\_\_\_\_  
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Attachment A

PROMISSORY NOTE

\$ \_\_\_\_\_

San Jose, California  
\_\_\_\_\_, 2000

For value received, the undersigned promises to pay PDF Solutions, Inc., a California corporation (the "Company"), at its principal office the principal sum of \$ \_\_\_\_\_ with interest from the date hereof at a rate of \_\_\_\_\_% per annum, compounded annually, on the unpaid balance of such principal sum. Such accrued interest shall be due and payable on each annual interest compounding date, and such principal shall be due and payable on \_\_\_\_\_.

If the undersigned's employment or consulting relationship with the Company is terminated prior to payment in full of this Note, this Note shall be immediately due and payable.

Principal and interest are payable in lawful money of the United States of America. AMOUNTS DUE UNDER THIS NOTE MAY BE PREPAID AT ANY TIME WITHOUT INTEREST OR PENALTY.

Should suit be commenced to collect any sums due under this Note, such sum as the Court may deem reasonable shall be added hereto as attorneys' fees. The makers and endorsers have severally waived presentment for payment, protest, notice of protest and notice of nonpayment of this Note.

This Note, which is full recourse, is secured by a pledge of certain shares of Common Stock of the Company and is subject to the terms of a Pledge and Security Agreement between the undersigned and the Company of even date herewith.

-----  
<<Optionee>>

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Attachment B

PLEDGE AND SECURITY AGREEMENT

This Pledge and Security Agreement (the "Agreement") is entered into this \_\_\_\_\_ day of \_\_\_\_\_ by and between PDF Solutions, Inc., a California corporation (the "Company") and <<Optionee>> ("Purchaser").

RECITALS

In connection with Purchaser's exercise of an option to purchase certain shares of the Company's Common Stock (the "Shares") pursuant to an Option Agreement dated \_\_\_\_\_ between Purchaser and the Company, Purchaser is delivering a promissory note of even date herewith (the "Note") in full or partial payment of the exercise price for the Shares. The company requires that

the Note be secured by a pledge of the Shares or the terms set forth below.

#### AGREEMENT

In consideration of the Company's acceptance of the Note as full or partial payment of the exercise price of the Shares, and for other good and valuable consideration, the receipt of which is hereby acknowledged, the parties hereto agree as follows:

1. The Note shall become payable in full upon the voluntary or involuntary termination or cessation of employment of Purchaser with the Company, for any reason, with or without cause (including death or disability).

2. Purchaser shall deliver to the Secretary of the Company, or his or her designee (hereinafter referred to as the "Pledge Holder"), all certificates representing the Shares, together with an Assignment Separate from Certificate in the form attached to this Agreement as Exhibit A executed by Purchaser and by Purchaser's spouse (if required for transfer), in blank, for use in transferring all or a portion of the Shares to the Company if, as and when required pursuant to this Agreement. In addition, if Purchaser is married, Purchaser's spouse shall execute the signature page attached to this Agreement.

3. As security for the payment of the Note and any renewal, extension or modification of the Note, Purchaser hereby grants to the Company a security interest in and pledges with and delivers to the Company Purchaser's Shares (sometimes referred to herein as the "Collateral").

4. In the event that Purchaser prepays all or a portion of the Note, in accordance with the provisions thereof, Purchaser intends, unless written notice to the contrary is delivered to the Pledge Holder, that the Shares represented by the portion of the Note so repaid, including annual interest thereon, shall continue to be so held by the Pledge Holder, to serve as independent collateral for the outstanding portion of the Note for the purpose of commencing the holding period set forth in Rule 144(d) promulgated under the Securities Act of 1933, as amended (the "Securities Act").

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5. In the event of any foreclosure of the security interest created by this Agreement, the Company may sell the Shares at a private sale or may repurchase the Shares itself. The parties agree that, prior to the establishment of a public market for the Shares of the Company, the securities laws affecting sale of the Shares make a public sale of the Shares commercially unreasonable. The parties further agree that the repurchasing of such Shares by the Company, or by any person to whom the Company may have assigned its rights under this Agreement, is commercially reasonable if made at a price determined by the Board of Directors in its discretion, fairly exercised, representing what would be the fair market value of the Shares reduced by any limitation on transferability, whether due to the size of the block of shares or the restrictions of applicable securities laws.

6. In the event of default in payment when due of any indebtedness under the Note, the Company may elect then, or at any time thereafter, to exercise all rights available to a secured party under the California Commercial Code including the right to sell the Collateral at a private or public sale or repurchase the Shares as provided above. The proceeds of any sale shall be applied in the following order:

(a) To the extent necessary, proceeds shall be used to pay all reasonable expenses of the Company in enforcing this Agreement and the Note, including, without limitation, reasonable attorney's fees and legal expenses incurred by the Company.

(b) To the extent necessary, proceeds shall be used to satisfy any remaining indebtedness under Purchaser's Note.

(c) Any remaining proceeds shall be delivered to Purchaser.

7. Upon full payment by Purchaser of all amounts due under the Note, Pledge Holder shall deliver to Purchaser all Shares in Pledge Holder's possession belonging to Purchaser, and Pledge Holder shall thereupon be discharged of all further obligations under this Agreement; provided, however, that Pledge Holder shall nevertheless retain the Shares as escrow agent if at the time of full payment by Purchaser said Shares are still subject to a

Repurchase Option in favor of the Company.

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The parties have executed this Pledge and Security Agreement as of the date first set forth above.

COMPANY:

PDF Solutions, Inc.

By:

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Name:

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(print)

Title:

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PURCHASER:

<<Optionee>>

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(Signature)

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(Print Name)

Address:

<<OptioneeAddress1>>

<<OptioneeAddress2>>

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Exhibit A

ASSIGNMENT SEPARATE FROM CERTIFICATE

FOR VALUE RECEIVED and pursuant to that certain Pledge and Security Agreement between the undersigned ("Purchaser") and PDF Solutions, Inc., dated \_\_\_\_\_, (the "Agreement"), Purchaser hereby sells, assigns and transfers unto \_\_\_\_\_ (\_\_\_\_\_) shares of the Common Stock of PDF Solutions, Inc., standing in Purchaser's name on the books of said corporation represented by Certificate No. \_\_\_ herewith and hereby irrevocably appoints \_\_\_\_\_ to transfer said stock on the books of the within-named corporation with full power of substitution in the premises. THIS ASSIGNMENT MAY ONLY BE USED AS AUTHORIZED BY THE AGREEMENT.

Dated:

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Signature:

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<<Optionee>>

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Spouse of <<Optionee>> (if applicable)

Instruction: Please do not fill in any blanks other than the signature line. The purpose of this assignment is to perfect the security interest of the Company pursuant to the Agreement.

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ATTACHMENT C

ASSIGNMENT SEPARATE FROM CERTIFICATE

FOR VALUE RECEIVED and pursuant to that certain Early Exercise Notice and Restricted Stock Purchase Agreement between the undersigned ("Purchaser") and PDF Solutions, Inc. (the "Company") dated \_\_\_\_\_, \_\_\_\_\_ (the "Agreement"), Purchaser hereby sells, assigns and transfers unto the Company \_\_\_\_\_ (\_\_\_\_\_) shares of the Common Stock of the Company, standing in Purchaser's name on the books of the Company and represented by Certificate No. \_\_\_\_\_, and does hereby irrevocably constitute and appoint \_\_\_\_\_ to transfer said stock on the books of the Company with full power of substitution in the premises. THIS ASSIGNMENT MAY ONLY BE USED AS AUTHORIZED BY THE AGREEMENT AND THE ATTACHMENTS THERETO.

Dated: \_\_\_\_\_

Signature:

\_\_\_\_\_  
Name:

\_\_\_\_\_  
Spouse of \_\_\_\_\_ (if applicable)

Instruction: Please do not fill in any blanks other than the signature line. The purpose of this assignment is to enable the Company to exercise its Repurchase Option set forth in the Agreement without requiring additional signatures on the part of Purchaser.

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ATTACHMENT D

ACKNOWLEDGMENT AND STATEMENT OF DECISION  
REGARDING SECTION 83(b) ELECTION

The undersigned (which term includes the undersigned's spouse), a purchaser of \_\_\_\_\_ shares of Common Stock of PDF Solutions, Inc., a Delaware corporation (the "Company") by exercise of an option (the "Option") granted pursuant to the Company's 1996 Stock Option Plan / [\_\_]1997 Stock Plan (the "Plan"), hereby states as follows:

1. The undersigned acknowledges receipt of a copy of the Plan relating to the offering of such shares. The undersigned has carefully reviewed the Plan and the option agreement pursuant to which the Option was granted.

2. The undersigned either [check and complete as applicable]:

(a) \_\_\_\_ has consulted, and has been fully advised by, the undersigned's



own tax advisor, \_\_\_\_\_, whose business address is \_\_\_\_\_, regarding the federal, state and local tax consequences of purchasing shares under the Plan, and particularly regarding the advisability of making elections pursuant to Section 83(b) of the Internal Revenue Code of 1986, as amended (the "Code") and pursuant to the corresponding provisions, if any, of applicable state law; or

(b) \_\_\_\_\_ has knowingly chosen not to consult such a tax advisor.

3. The undersigned hereby states that the undersigned has decided [check as applicable]:

(a) \_\_\_\_\_ to make an election pursuant to Section 83(b) of the Code, and is submitting to the Company, together with the undersigned's executed Early Exercise Notice and Restricted Stock Purchase Agreement, an executed form entitled "Election Under Section 83(b) of the Internal Revenue Code of 1986;" or

(b) \_\_\_\_\_ not to make an election pursuant to Section 83(b) of the Code.

4. Neither the Company nor any subsidiary or representative of the Company has made any warranty or representation to the undersigned with respect to the tax consequences of the undersigned's purchase of shares under the Plan or of the making or failure to make an election pursuant to Section 83(b) of the Code or the corresponding provisions, if any, of applicable state law.

Date: \_\_\_\_\_  
Name: \_\_\_\_\_

Date: \_\_\_\_\_  
Spouse of \_\_\_\_\_

ATTACHMENT E

ELECTION UNDER SECTION 83(b)  
OF THE INTERNAL REVENUE CODE OF 1986

The undersigned taxpayer hereby elects, pursuant to Section 83(b) of the Internal Revenue Code, to include in taxpayer's gross income or alternative minimum taxable income, as applicable, for the current taxable year, the amount of any income that may be taxable to taxpayer in connection with taxpayer's receipt of the property described below:

1. The name, address, taxpayer identification number and taxable year of the undersigned are as follows:

NAME OF TAXPAYER: \_\_\_\_\_  
NAME OF SPOUSE: \_\_\_\_\_  
ADDRESS: \_\_\_\_\_  
IDENTIFICATION NO. OF TAXPAYER: \_\_\_\_\_  
IDENTIFICATION NO. OF SPOUSE: \_\_\_\_\_  
TAXABLE YEAR: \_\_\_\_\_

2. The property with respect to which the election is made is described as follows:

\_\_\_\_\_ shares of the Common Stock \$0.0001par value, of PDF Solutions, Inc., a Delaware corporation (the "Company").

3. The date on which the property was transferred is: \_\_\_\_\_
4. The property is subject to the following restrictions:  
 Repurchase option at cost in favor of the Company upon termination of taxpayer's employment or consulting relationship.
5. The fair market value at the time of transfer, determined without regard to any restriction other than a restriction which by its terms will never lapse, of such property is: \$\_\_\_\_\_
6. The amount (if any) paid for such property: \$\_\_\_\_\_

The undersigned has submitted a copy of this statement to the person for whom the services were performed in connection with the undersigned's receipt of the above-described property. The transferee of such property is the person performing the services in connection with the transfer of said property.

The undersigned understands that the foregoing election may not be revoked except with the consent of the Commissioner.

Date: \_\_\_\_\_  
 \_\_\_\_\_  
 Name:

Date: \_\_\_\_\_  
 \_\_\_\_\_  
 Spouse of \_\_\_\_\_

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RECEIPT

The undersigned hereby acknowledges receipt of Certificate No. \_\_\_\_\_ for \_\_\_\_\_ shares of Common Stock of PDF Solutions, Inc.

Dated: \_\_\_\_\_  
 \_\_\_\_\_  
 <<Optionee>>

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RECEIPT AND CONSENT

The undersigned hereby acknowledges receipt of a photocopy Certificate No. \_\_\_\_\_ purchaser for \_\_\_\_\_ shares of Common Stock of PDF Solutions, Inc. (the "Company").

The undersigned further acknowledges that the Secretary of the Company, or his or her designee, is acting as Pledge Holder pursuant to the Pledge and Security Agreement Purchaser has previously entered into with the Company. As Pledge Holder, the Secretary of the Company, or his or her designee, holds the original of the aforementioned certificate issued in the undersigned's name.

Dated: \_\_\_\_\_  
 \_\_\_\_\_  
 <<Optionee>>

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RECEIPT

PDF Solutions, Inc. (the "Company") hereby acknowledges receipt of a check in the amount of \$\_\_\_\_\_ given by <<Optionee>> as consideration for Certificate No. \_\_\_\_\_ for \_\_\_\_\_ shares of Common Stock of PDF Solutions, Inc.

Dated: \_\_\_\_\_

PDF Solutions, Inc.

By: \_\_\_\_\_

Name: \_\_\_\_\_

(print)

Title: \_\_\_\_\_

## PDF SOLUTIONS, INC.

## 1997 STOCK PLAN

(amended and restated as of June 30, 2000)

1. PURPOSES OF THE PLAN. The purposes of this 1997 Stock Plan are to attract and retain the best available personnel for positions of substantial responsibility, to provide additional incentive to Employees and Consultants of the Company and its Subsidiaries and to promote the success of the Company's business. Options granted under the Plan may be incentive stock options (as defined under Section 422 of the Code) or nonstatutory stock options, as determined by the Administrator at the time of grant of an option and subject to the applicable provisions of Section 422 of the Code, as amended, and the regulations promulgated thereunder. Stock purchase rights may also be granted under the Plan.

2. DEFINITIONS. As used herein, the following definitions shall apply:

(a) "ADMINISTRATOR" means the Board or any of its Committees appointed pursuant to Section 4 of the Plan.

(b) "AFFILIATE" means any entity which has a business relationship with the Company.

(c) "BOARD" means the Board of Directors of the Company.

(d) "CODE" means the Internal Revenue Code of 1986, as amended.

(e) "COMMITTEE" means the Committee appointed by the Board of Directors in accordance with Section 4(a) of the Plan.

(f) "COMMON STOCK" means the Common Stock of the Company.

(g) "COMPANY" means PDF Solutions, Inc., a California corporation.

(h) "CONSULTANT" means any person, including an advisor, who is engaged by the Company or any Parent, Subsidiary or Affiliate to render services and is compensated for such services, and any director of the Company whether compensated for such services or not, provided that if and in the event the Company registers any class of any equity security pursuant to the Exchange Act, the term Consultant shall thereafter not include directors who are not compensated for their services or are paid only a director's fee by the Company.

(i) "CONTINUOUS STATUS AS AN EMPLOYEE OR CONSULTANT" means the absence of any interruption or termination of service as an Employee or Consultant. Continuous Status as an Employee or Consultant shall not be considered interrupted in the case of: (i) sick leave; (ii) military leave; (iii) any other leave of absence approved by the Administrator, provided that such leave is for a period of not more than ninety (90) days, unless reemployment upon the expiration of such leave is guaranteed by contract or statute, or unless provided otherwise pursuant to Company policy adopted from time to time; or (iv) in the case of transfers between locations of the Company or between the Company, its Subsidiaries or their respective

successors. For purposes of this Plan, a change in status from an Employee to a Consultant or from a Consultant to an Employee will not constitute an interruption of Continuous Status as an Employee or Consultant.

(j) "EMPLOYEE" means any person, including officers and directors, employed by the Company or any Parent or Subsidiary of the Company, with the status of employment determined based upon such minimum number of hours or periods worked as shall be determined by the Administrator in its discretion, subject to any requirements of the Code. The payment by the Company of a director's fee to a Director shall not be sufficient to constitute "employment"

of such Director by the Company.

(k) "EXCHANGE ACT" means the Securities Exchange Act of 1934, as amended.

(l) "FAIR MARKET VALUE" means, as of any date, the fair market value of Common Stock determined as follows:

(i) If the Common Stock is listed on any established stock exchange or a national market system including without limitation the National Market of the National Association of Securities Dealers, Inc. Automated Quotation ("Nasdaq") System, its Fair Market Value shall be the closing sales price for such stock (or the closing bid, if no sales were reported), as quoted on such system or exchange, or the exchange with the greatest volume of trading in Common Stock for the last market trading day prior to the time of determination, as reported in The Wall Street Journal or such other source as the Administrator deems reliable;

(ii) If the Common Stock is quoted on the Nasdaq System (but not on the National Market thereof) or regularly quoted by a recognized securities dealer but selling prices are not reported, its Fair Market Value shall be the mean between the high bid and low asked prices for the Common Stock for the last market trading day prior to the time of determination, as reported in The Wall Street Journal or such other source as the Administrator deems reliable; or

(iii) In the absence of an established market for the Common Stock, the Fair Market Value thereof shall be determined in good faith by the Administrator.

(m) "INCENTIVE STOCK OPTION" means an Option intended to qualify as an incentive stock option within the meaning of Section 422 of the Code, as designated in the applicable written option agreement.

(n) "NONSTATUTORY STOCK OPTION" means an Option not intended to qualify as an Incentive Stock Option, as designated in the applicable written option agreement.

(o) "OPTION" means a stock option granted pursuant to the Plan.

(p) "OPTIONED STOCK" means the Common Stock subject to an Option or a Stock Purchase Right.

(q) "OPTIONEE" means an Employee or Consultant who receives an Option or a Stock Purchase Right.

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(r) "PARENT" means a "parent corporation", whether now or hereafter existing, as defined in Section 424(e) of the Code, or any successor provision.

(s) "PLAN" means this 1997 Stock Plan.

(t) "REPORTING PERSON" means an officer, director, or greater than ten percent shareholder of the Company within the meaning of Rule 16a-2 under the Exchange Act, who is required to file reports pursuant to Rule 16a-3 under the Exchange Act.

(u) "RESTRICTED STOCK" means shares of Common Stock acquired pursuant to a grant of a Stock Purchase Right under Section 10 below.

(v) "RULE 16b-3" means Rule 16b-3 promulgated under the Exchange Act, as the same may be amended from time to time, or any successor provision.

(w) "SHARE" means a share of the Common Stock, as adjusted in accordance with Section 12 of the Plan.

(x) "STOCK EXCHANGE" means any stock exchange or consolidated stock price reporting system on which prices for the Common Stock are quoted at any given time.

(y) "STOCK PURCHASE RIGHT" means the right to purchase Common Stock pursuant to Section 10 below.

(z) "SUBSIDIARY" means a "subsidiary corporation," whether now or hereafter existing, as defined in Section 424(f) of the Code, or any successor provision.

3. STOCK SUBJECT TO THE PLAN. Subject to the provisions of Section 12 of the Plan, the maximum aggregate number of Shares that may be optioned and sold under the Plan is 8,402,449 shares of Common Stock. The Shares may be authorized, but unissued, or reacquired Common Stock. If an Option should expire or become unexercisable for any reason without having been exercised in full, the unpurchased Shares that were subject thereto shall, unless the Plan shall have been terminated, become available for future grant under the Plan. In addition, any Shares of Common Stock which are retained by the Company upon exercise of an Option or Stock Purchase Right in order to satisfy the exercise or purchase price for such Option or Stock Purchase Right or any withholding taxes due with respect to such exercise shall be treated as not issued and shall continue to be available under the Plan. Shares repurchased by the Company pursuant to any repurchase right which the Company may have shall not be available for future grant under the Plan.

#### 4. ADMINISTRATION OF THE PLAN.

(a) INITIAL PLAN PROCEDURE. Prior to the date, if any, upon which the Company becomes subject to the Exchange Act, the Plan shall be administered by the Board or a committee appointed by the Board.

(b) PLAN PROCEDURE AFTER THE DATE, IF ANY, UPON WHICH THE COMPANY BECOMES SUBJECT TO THE EXCHANGE ACT.

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(i) MULTIPLE ADMINISTRATIVE BODIES. If permitted by Rule 16b-3, grants under the Plan may be made by different bodies with respect to directors, non-director officers and Employees or Consultants who are not Reporting Persons.

(ii) ADMINISTRATION WITH RESPECT TO REPORTING PERSONS. With respect to grants of Options or Stock Purchase Rights to Employees who are Reporting Persons, such grants shall be made by (A) the Board if the Board may make grants to Reporting Persons under the Plan in compliance with Rule 16b-3, or (B) a committee designated by the Board to make grants to Reporting Persons under the Plan, which committee shall be constituted in such a manner as to permit grants under the Plan to comply with Rule 16b-3. Once appointed, such committee shall continue to serve in its designated capacity until otherwise directed by the Board. From time to time the Board may increase the size of the committee and appoint additional members thereof, remove members (with or without cause) and appoint new members in substitution therefor, fill vacancies, however caused, and remove all members of the committee and thereafter directly make grants to Reporting Persons under the Plan, all to the extent permitted by Rule 16b-3.

(iii) ADMINISTRATION WITH RESPECT TO CONSULTANTS AND OTHER Employees. With respect to grants of Options or Stock Purchase Rights to Employees or Consultants who are not Reporting Persons, the Plan shall be administered by (A) the Board or (B) a committee designated by the Board, which committee shall be constituted in such a manner as to satisfy the legal requirements relating to the administration of incentive stock option plans, if any, of California corporate and securities laws, of the Code and of any applicable Stock Exchange (the "Applicable Laws"). Once appointed, such Committee shall continue to serve in its designated capacity until otherwise directed by the Board. From time to time the Board may increase the size of the Committee and appoint additional members thereof, remove members (with or without cause) and appoint new members in substitution therefor, fill vacancies, however caused, and remove all members of the Committee and thereafter directly administer the Plan, all to the extent permitted by the Applicable Laws.

(c) POWERS OF THE ADMINISTRATOR. Subject to the provisions of the Plan and in the case of a Committee, the specific duties delegated by the Board to such Committee, and subject to the approval of any relevant authorities,

including the approval, if required, of any Stock Exchange, the Administrator shall have the authority, in its discretion:

(i) to determine the Fair Market Value of the Common Stock, in accordance with Section 2(k) of the Plan;

(ii) to select the Consultants and Employees to whom Options and Stock Purchase Rights may from time to time be granted hereunder;

(iii) to determine whether and to what extent Options and Stock Purchase Rights or any combination thereof are granted hereunder;

(iv) to determine the number of shares of Common Stock to be covered by each such award granted hereunder;

(v) to approve forms of agreement for use under the Plan;

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(vi) to determine the terms and conditions, not inconsistent with the terms of the Plan, of any award granted hereunder;

(vii) to determine whether and under what circumstances an Option may be settled in cash under Section 9(f) instead of Common Stock;

(viii) to reduce the exercise price of any Option to the then current Fair Market Value if the Fair Market Value of the Common Stock covered by such Option shall have declined since the date the Option was granted;

(ix) to determine the terms and restrictions applicable to Stock Purchase Rights and the Restricted Stock purchased by exercising such Stock Purchase Rights; and

(x) to construe and interpret the terms of the Plan and awards granted pursuant to the Plan; and

(xi) in order to fulfill the purposes of the Plan and without amending the Plan, to modify grants of Options or Stock Purchase Rights to participants who are foreign nationals or employed outside of the United States in order to recognize differences in local law, tax policies or customs.

(d) EFFECT OF ADMINISTRATOR'S DECISION. All decisions, determinations and interpretations of the Administrator shall be final and binding on all holders of Options or Stock Purchase Rights.

#### 5. ELIGIBILITY.

(a) RECIPIENTS OF GRANTS. Nonstatutory Stock Options and Stock Purchase Rights may be granted to Employees and Consultants. Incentive Stock Options may be granted only to Employees. An Employee or Consultant who has been granted an Option or Stock Purchase Right may, if he or she is otherwise eligible, be granted additional Options or Stock Purchase Rights.

(b) TYPE OF OPTION. Each Option shall be designated in the written option agreement as either an Incentive Stock Option or a Nonstatutory Stock Option. However, notwithstanding such designations, to the extent that the aggregate Fair Market Value of Shares with respect to which Options designated as Incentive Stock Options are exercisable for the first time by any Optionee during any calendar year (under all plans of the Company or any Parent, Subsidiary or Affiliate) exceeds \$100,000, such excess Options shall be treated as Nonstatutory Stock Options. For purposes of this Section 5(b), Incentive Stock Options shall be taken into account in the order in which they were granted, and the Fair Market Value of the Shares subject to an Incentive Stock Option shall be determined as of the date of the grant of such Option.

(c) The Plan shall not confer upon any Optionee any right with respect to continuation of employment or consulting relationship with the Company, nor shall it interfere in any way with such Optionee's right or the Company's right to terminate his or her employment or consulting relationship at any time, with or without cause.

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6. TERM OF PLAN. The Plan shall become effective upon the earlier to occur of its adoption by the Board of Directors or its approval by the shareholders of the Company as described in Section 19 of the Plan. It shall continue in effect for a term of ten (10) years unless sooner terminated under Section 15 of the Plan.

7. TERM OF OPTION. The term of each Option shall be the term stated in the Option Agreement; provided, however, that the term shall be no more than ten (10) years from the date of grant thereof or such shorter term as may be provided in the Option Agreement and provided further that, in the case of an Incentive Stock Option granted to an Optionee who, at the time the Option is granted, owns stock representing more than ten percent (10%) of the total combined voting power of all classes of stock of the Company or any Parent or Subsidiary, the term of the Option shall be five (5) years from the date of grant thereof or such shorter term as may be provided in the written option agreement.

8. OPTION EXERCISE PRICE AND CONSIDERATION.

(a) The per share exercise price for the Shares to be issued pursuant to exercise of an Option shall be such price as is determined by the Board and set forth in the applicable agreement, but shall be subject to the following:

(i) In the case of an Incentive Stock Option that is:

(A) granted to an Employee who, at the time of the grant of such Incentive Stock Option, owns stock representing more than ten percent (10%) of the total combined voting power of all classes of stock of the Company or any Parent or Subsidiary, the per Share exercise price shall be no less than 110% of the Fair Market Value per Share on the date of grant.

(B) granted to any other Employee, the per Share exercise price shall be no less than 100% of the Fair Market Value per Share on the date of grant.

(ii) In the case of a Nonstatutory Stock Option that is:

(A) granted to a person who, at the time of the grant of such Option, owns stock representing more than ten percent (10%) of the total combined voting power of all classes of stock of the Company or any Parent or Subsidiary, the per Share exercise price shall be no less than 110% of the Fair Market Value per Share on the date of the grant.

(B) granted to any person, the per Share exercise price shall be no less than 85% of the Fair Market Value per Share on the date of grant.

(b) The consideration to be paid for the Shares to be issued upon exercise of an Option, including the method of payment, shall be determined by the Administrator (and, in the case of an Incentive Stock Option, shall be determined at the time of grant) and may consist entirely of (1) cash, (2) check, (3) promissory note, (4) other Shares that (x) in the case of Shares acquired upon exercise of an Option, have been owned by the Optionee for more than six months on the date of surrender or such other period as may be required to avoid a charge to the Company's earnings, and (y) have a Fair Market Value on the date of surrender equal to the

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aggregate exercise price of the Shares as to which such Option shall be exercised, (5) authorization for the Company to retain from the total number of Shares as to which the Option is exercised that number of Shares having a Fair Market Value on the date of exercise equal to the exercise price for the total number of Shares as to which the Option is exercised, (6) delivery of a properly



executed exercise notice together with such other documentation as the Administrator and the broker, if applicable, shall require to effect an exercise of the Option and delivery to the Company of the sale or loan proceeds required to pay the exercise price and any applicable income or employment taxes, (7) delivery of an irrevocable subscription agreement for the Shares that irrevocably obligates the option holder to take and pay for the Shares not more than twelve months after the date of delivery of the subscription agreement, (8) any combination of the foregoing methods of payment, or (9) such other consideration and method of payment for the issuance of Shares to the extent permitted under Applicable Laws. In making its determination as to the type of consideration to accept, the Administrator shall consider if acceptance of such consideration may be reasonably expected to benefit the Company.

#### 9. EXERCISE OF OPTION.

(a) PROCEDURE FOR EXERCISE; RIGHTS AS A SHAREHOLDER. Any Option granted hereunder shall be exercisable at such times and under such conditions as determined by the Administrator, and reflected in the written option agreement, which may include vesting requirements and/or performance criteria with respect to the Company and/or the Optionee; provided that such Option shall become exercisable at the rate of at least twenty percent (20%) per year over five (5) years from the date the Option is granted. In the event that any of the Shares issued upon exercise of an Option should be subject to a right of repurchase in the Company's favor, such repurchase right shall lapse at the rate of at least twenty percent (20%) per year over five (5) years from the date the Option is granted.

An Option may not be exercised for a fraction of a Share.

An Option shall be deemed to be exercised when written notice of such exercise has been given to the Company in accordance with the terms of the Option by the person entitled to exercise the Option and the Company has received full payment for the Shares with respect to which the Option is exercised. Full payment may, as authorized by the Board, consist of any consideration and method of payment allowable under Section 8(b) of the Plan. Until the issuance (as evidenced by the appropriate entry on the books of the Company or of a duly authorized transfer agent of the Company) of the stock certificate evidencing such Shares, no right to vote or receive dividends or any other rights as a shareholder shall exist with respect to the Optioned Stock, notwithstanding the exercise of the Option. The Company shall issue (or cause to be issued) such stock certificate promptly upon exercise of the Option. No adjustment will be made for a dividend or other right for which the record date is prior to the date the stock certificate is issued, except as provided in Section 12 of the Plan.

Exercise of an Option in any manner shall result in a decrease in the number of Shares that thereafter may be available, both for purposes of the Plan and for sale under the Option, by the number of Shares as to which the Option is exercised.

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(b) TERMINATION OF EMPLOYMENT OR CONSULTING RELATIONSHIP. Subject to Section 9(c), in the event of termination of an Optionee's Continuous Status as an Employee or Consultant with the Company, such Optionee may, but only within three (3) months (or such other period of time not less than thirty (30) days as is determined by the Administrator, with such determination in the case of an Incentive Stock Option being made at the time of grant of the Option and not exceeding three (3) months) after the date of such termination (but in no event later than the expiration date of the term of such Option as set forth in the Option Agreement), exercise his or her Option to the extent that the Optionee was entitled to exercise it at the date of such termination. To the extent that Optionee was not entitled to exercise the Option at the date of such termination, or if Optionee does not exercise such Option to the extent so entitled within the time specified herein, the Option shall terminate. No termination shall be deemed to occur and this Section 9(b) shall not apply if (i) the Optionee is a Consultant who becomes an Employee; or (ii) the Optionee is an Employee who becomes a Consultant.

(c) DISABILITY OF OPTIONEE.

(i) Notwithstanding Section 9(b) above, in the event of termination of an Optionee's Continuous Status as an Employee or Consultant as a result of his or her total and permanent disability (within the meaning of Section 22(e)(3) of the Code), Optionee may, but only within twelve (12) months from the date of such termination (but in no event later than the expiration date of the term of such Option as set forth in the Option Agreement), exercise the Option to the extent otherwise entitled to exercise it at the date of such termination. To the extent that Optionee was not entitled to exercise the Option at the date of termination, or if Optionee does not exercise such Option to the extent so entitled within the time specified herein, the Option shall terminate.

(ii) In the event of termination of an Optionee's Continuous Status as an Employee or Consultant as a result of a disability which does not fall within the meaning of total and permanent disability (as set forth in Section 22(e)(3) of the Code), Optionee may, but only within six (6) months from the date of such termination (but in no event later than the expiration date of the term of such Option as set forth in the Option Agreement), exercise the Option to the extent otherwise entitled to exercise it at the date of such termination. However, to the extent that such Optionee fails to exercise an Option which is an Incentive Stock Option ("ISO") (within the meaning of Section 422 of the Code) within three (3) months of the date of such termination, the Option will not qualify for ISO treatment under the Code. To the extent that Optionee was not entitled to exercise the Option at the date of termination, or if Optionee does not exercise such Option to the extent so entitled within six months (6) from the date of termination, the Option shall terminate.

(d) DEATH OF OPTIONEE. In the event of the death of an Optionee during the period of Continuous Status as an Employee or Consultant since the date of grant of the Option, or within thirty (30) days following termination of Optionee's Continuous Status as an Employee or Consultant, the Option may be exercised, at any time within six (6) months following the date of death (but in no event later than the expiration date of the term of such Option as set forth in the Option Agreement), by Optionee's estate or by a person who acquired the right to exercise the Option by bequest or inheritance, but only to the extent of the right to exercise that had accrued at the date of death or, if earlier, the date of termination of Optionee's Continuous Status

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as an Employee or Consultant. To the extent that Optionee was not entitled to exercise the Option at the date of death or termination, as the case may be, or if Optionee does not exercise such Option to the extent so entitled within the time specified herein, the Option shall terminate.

(e) RULE 16b-3. Options granted to Reporting Persons shall comply with Rule 16b-3 and shall contain such additional conditions or restrictions as may be required thereunder to qualify for the maximum exemption for Plan transactions.

(f) BUYOUT PROVISIONS. The Administrator may at any time offer to buy out for a payment in cash or Shares, an Option previously granted, based on such terms and conditions as the Administrator shall establish and communicate to the Optionee at the time that such offer is made.

#### 10. STOCK PURCHASE RIGHTS.

(a) RIGHTS TO PURCHASE. Stock Purchase Rights may be issued either alone, in addition to, or in tandem with other awards granted under the Plan and/or cash awards made outside of the Plan. After the Administrator determines that it will offer Stock Purchase Rights under the Plan, it shall advise the offeree in writing of the terms, conditions and restrictions related to the offer, including the number of Shares that such person shall be entitled to purchase, the price to be paid (which price shall not be less than 85% of the Fair Market Value of the Shares as of the date of the offer, or, in the case of a person owning stock representing more than ten percent (10%) of the total combined voting power of all classes of stock of the Company or any Parent or Subsidiary, the price shall not be less than one hundred percent (100%) of the Fair Market Value of the Shares as of the date of the offer), and the time within which such person must accept such offer, which shall in no event exceed thirty (30) days from the date upon which the Administrator made the determination to grant the Stock Purchase Right. The offer shall be accepted by execution of a Restricted Stock purchase agreement in the form determined by the

Administrator. Shares purchased pursuant to the grant of a Stock Purchase Right shall be referred to herein as "Restricted Stock."

(b) REPURCHASE OPTION. Unless the Administrator determines otherwise, the Restricted Stock purchase agreement shall grant the Company a repurchase option exercisable upon the voluntary or involuntary termination of the purchaser's employment with the Company for any reason (including death or disability). The purchase price for Shares repurchased pursuant to the Restricted Stock purchase agreement shall be the original purchase price paid by the purchaser and may be paid by cancellation of any indebtedness of the purchaser to the Company. The repurchase option shall lapse at such rate as the Administrator may determine, but at a minimum rate of 20% per year.

(c) OTHER PROVISIONS. The Restricted Stock purchase agreement shall contain such other terms, provisions and conditions not inconsistent with the Plan as may be determined by the Administrator in its sole discretion. In addition, the provisions of Restricted Stock purchase agreements need not be the same with respect to each purchaser.

(d) RIGHTS AS A SHAREHOLDER. Once the Stock Purchase Right is exercised, the purchaser shall have the rights equivalent to those of a shareholder, and shall be a shareholder

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when his or her purchase is entered upon the records of the duly authorized transfer agent of the Company. No adjustment will be made for a dividend or other right for which the record date is prior to the date the Stock Purchase Right is exercised, except as provided in Section 12 of the Plan.

11. STOCK WITHHOLDING TO SATISFY WITHHOLDING TAX OBLIGATIONS. At the discretion of the Administrator, Optionees may satisfy withholding obligations as provided in this paragraph. When an Optionee incurs tax liability in connection with an Option or Stock Purchase Right, which tax liability is subject to tax withholding under applicable tax laws, and the Optionee is obligated to pay the Company an amount required to be withheld under applicable tax laws, the Optionee may satisfy the withholding tax obligation by one or some combination of the following methods: (a) by cash payment, or (b) out of Optionee's current compensation, (c) if permitted by the Administrator, in its discretion, by surrendering to the Company Shares that (i) in the case of Shares previously acquired from the Company, have been owned by the Optionee for more than six months on the date of surrender, and (ii) have a fair market value on the date of surrender equal to or less than Optionee's marginal tax rate times the ordinary income recognized, or (d) by electing to have the Company withhold from the Shares to be issued upon exercise of the Option, or the Shares to be issued in connection with the Stock Purchase Right, if any, that number of Shares having a fair market value equal to the amount required to be withheld. For this purpose, the fair market value of the Shares to be withheld shall be determined on the date that the amount of tax to be withheld is to be determined (the "Tax Date").

Any surrender by a Reporting Person of previously owned Shares to satisfy tax withholding obligations arising upon exercise of this Option must comply with the applicable provisions of Rule 16b-3.

All elections by an Optionee to have Shares withheld to satisfy tax withholding obligations shall be made in writing in a form acceptable to the Administrator and shall be subject to the following restrictions:

(a) the election must be made on or prior to the applicable Tax Date;

(b) once made, the election shall be irrevocable as to the particular Shares of the Option or Stock Purchase Right as to which the election is made; and

(c) all elections shall be subject to the consent or disapproval of the Administrator.

In the event the election to have Shares withheld is made by an Optionee and the Tax Date is deferred under Section 83 of the Code because no election is filed under Section 83(b) of the Code, the Optionee shall receive

the full number of Shares with respect to which the Option or Stock Purchase Right is exercised but such Optionee shall be unconditionally obligated to tender back to the Company the proper number of Shares on the Tax Date.

12. ADJUSTMENTS UPON CHANGES IN CAPITALIZATION, MERGER OR CERTAIN OTHER TRANSACTIONS.

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(a) CHANGES IN CAPITALIZATION. Subject to any required action by the shareholders of the Company, the number of shares of Common Stock covered by each outstanding Option or Stock Purchase Right, and the number of shares of Common Stock that have been authorized for issuance under the Plan but as to which no Options or Stock Purchase Rights have yet been granted or that have been returned to the Plan upon cancellation or expiration of an Option or Stock Purchase Right, as well as the price per share of Common Stock covered by each such outstanding Option or Stock Purchase Right, shall be proportionately adjusted for any increase or decrease in the number of issued shares of Common Stock resulting from a stock split, reverse stock split, stock dividend, combination, recapitalization or reclassification of the Common Stock, or any other increase or decrease in the number of issued shares of Common Stock effected without receipt of consideration by the Company; provided, however, that conversion of any convertible securities of the Company shall not be deemed to have been "effected without receipt of consideration." Such adjustment shall be made by the Board, whose determination in that respect shall be final, binding and conclusive. Except as expressly provided herein, no issuance by the Company of shares of stock of any class, or securities convertible into shares of stock of any class, shall affect, and no adjustment by reason thereof shall be made with respect to, the number or price of shares of Common Stock subject to an Option or Stock Purchase Right.

(b) DISSOLUTION OR LIQUIDATION. In the event of the proposed dissolution or liquidation of the Company, the Board shall notify the Optionee at least fifteen (15) days prior to such proposed action. To the extent it has not been previously exercised, the Option or Stock Purchase Right will terminate immediately prior to the consummation of such proposed action.

(c) MERGER OR SALE OF ASSETS. In the event of a proposed sale of all or substantially all of the Company's assets or a merger of the Company with or into another corporation where the successor corporation issues its securities to the Company's shareholders, each outstanding Option or Stock Purchase Right shall be assumed or an equivalent option or right shall be substituted by such successor corporation or a parent or subsidiary of such successor corporation, unless the successor corporation does not agree to assume the Option or Stock Purchase Right or to substitute an equivalent option or right, in which case such Option or Stock Purchase Right shall terminate upon the consummation of the merger or sale of assets.

(d) CERTAIN DISTRIBUTIONS. In the event of any distribution to the Company's shareholders of securities of any other entity or other assets (other than dividends payable in cash or stock of the Company) without receipt of consideration by the Company, the Administrator may, in its discretion, appropriately adjust the price per share of Common Stock covered by each outstanding Option or Stock Purchase Right to reflect the effect of such distribution.

13. NON-TRANSFERABILITY OF OPTIONS AND STOCK PURCHASE RIGHTS. Options and Stock Purchase Rights may not be sold, pledged, assigned, hypothecated, transferred, or disposed of in any manner other than by will or by the laws of descent or distribution and may be exercised or purchased during the lifetime of the Optionee or Stock Purchase Rights Holder only by the Optionee or Stock Purchase Rights Holder.

14. TIME OF GRANTING OPTIONS AND STOCK PURCHASE RIGHTS. The date of grant of an Option or Stock Purchase Right shall, for all purposes, be the date on which the Administrator

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makes the determination granting such Option or Stock Purchase Right, or such other date as is determined by the Board; provided however that in the case of any Incentive Stock Option, the grant date shall be the later of the date on which the Administrator makes the determination granting such Incentive Stock Option or the date of commencement of the Optionee's employment relationship with the Company. Notice of the determination shall be given to each Employee or Consultant to whom an Option or Stock Purchase Right is so granted within a reasonable time after the date of such grant.

15. AMENDMENT AND TERMINATION OF THE PLAN.

(a) AUTHORITY TO AMEND OR TERMINATE. The Board may at any time amend, alter, suspend or discontinue the Plan, but no amendment, alteration, suspension or discontinuation shall be made that would impair the rights of any Optionee under any grant theretofore made, without his or her consent. In addition, to the extent necessary and desirable to comply with Rule 16b-3 or with Section 422 of the Code (or any other applicable law or regulation, including the requirements of any Stock Exchange), the Company shall obtain shareholder approval of any Plan amendment in such a manner and to such a degree as required.

(b) EFFECT OF AMENDMENT OR TERMINATION. No amendment or termination of the Plan shall adversely affect Options already granted, unless mutually agreed otherwise between the Optionee and the Board, which agreement must be in writing and signed by the Optionee and the Company.

16. CONDITIONS UPON ISSUANCE OF SHARES. Shares shall not be issued pursuant to the exercise of an Option or Stock Purchase Right unless the exercise of such Option or Stock Purchase Right and the issuance and delivery of such Shares pursuant thereto shall comply with all relevant provisions of law, including, without limitation, the Securities Act of 1933, as amended, the Exchange Act, the rules and regulations promulgated thereunder, and the requirements of any Stock Exchange. As a condition to the exercise of an Option, the Company may require the person exercising such Option to represent and warrant at the time of any such exercise that the Shares are being purchased only for investment and without any present intention to sell or distribute such Shares if, in the opinion of counsel for the Company, such a representation is required by law.

17. RESERVATION OF SHARES. The Company, during the term of this Plan, will at all times reserve and keep available such number of Shares as shall be sufficient to satisfy the requirements of the Plan. The inability of the Company to obtain authority from any regulatory body having jurisdiction, which authority is deemed by the Company's counsel to be necessary to the lawful issuance and sale of any Shares hereunder, shall relieve the Company of any liability in respect of the failure to issue or sell such Shares as to which such requisite authority shall not have been obtained.

18. AGREEMENTS. Options and Stock Purchase Rights shall be evidenced by written agreements in such form as the Administrator shall approve from time to time.

19. SHAREHOLDER APPROVAL. Continuance of the Plan shall be subject to approval by the shareholders of the Company within twelve (12) months before or after the date the Plan is

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adopted. Such shareholder approval shall be obtained in the degree and manner required under applicable state and federal law and the rules of any Stock Exchange upon which the Common Stock is listed. All Options and Stock Purchase Rights issued under the Plan shall become void in the event such approval is not obtained.

20. INFORMATION AND DOCUMENTS TO OPTIONEES AND PURCHASERS. The Company shall provide financial statements at least annually to each Optionee and to each individual who acquired Shares Pursuant to the Plan, during the period such Optionee or purchaser has one or more Options or Stock Purchase Rights outstanding, and in the case of an individual who acquired Shares pursuant to the Plan, during the period such individual owns such Shares. The Company shall not be required to provide such information if the issuance of Options or Stock

Purchase Rights under the Plan is limited to key employees whose duties in connection with the Company assure their access to equivalent information. In addition, at the time of issuance of any securities under the Plan, the Company shall provide to the Optionee or the Purchaser a copy of the Plan and a copy of the agreement(s) pursuant to which securities under the Plan are issued.

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PDF SOLUTIONS, INC.  
1997 STOCK PLAN  
NOTICE OF STOCK OPTION GRANT

<<Optionee>>

You have been granted an option to purchase Common Stock ("Common Stock") of PDF Solutions, Inc. (the "Company") as follows:

Board Approval Date: <<BoardApprovDate>>  
Date of Grant (Later of Board Approval Date or Commencement of Employment/Consulting): <<GrantDate>>  
Vesting Commencement Date: <<VestingCommenceDate>>  
Exercise Price Per Share: \$<<ExercisePrice>>  
Total Number of Shares Granted: <<NoofShares>>  
Total Exercise Price: \$<<TotalExercisePrice>>  
Type of Option: <<Type>>  
Term/Expiration Date: <<ExpirDate>>  
Vesting Schedule: <<Vesting>>

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Termination Period: This Option may be exercised for 60 days after termination of employment or consulting relationship except as set out in Sections 6 and 7 of the Stock Option Agreement (but in no event later than the Expiration Date).

By your signature and the signature of the Company's representative below, you and the Company agree that this option is granted under and governed by the terms and conditions of the 1997 Stock Plan and the Stock Option Agreement, both of which are attached and made a part of this document.

<<OPTIONEE>>:

PDF SOLUTIONS, INC.:

-----  
Signature

By:

P. S. Melman, CFO

-----  
Print Name

-----  
Print Name and Title

-----  
Address

-----  
Address

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PDF SOLUTIONS, INC.  
1997 STOCK PLAN  
STOCK OPTION AGREEMENT

1. GRANT OF OPTION. PDF Solutions, Inc., a California corporation (the "Company"), hereby grants to <<Optionee>> ("Optionee") an option (the "Option") to purchase a total number of shares of Common Stock (the "Shares") set forth in the Notice of Stock Option Grant, at the exercise price per share set forth in the Notice of Stock Option Grant (the "Exercise Price") subject to the terms, definitions and provisions of the PDF Solutions, Inc. 1997 Stock Plan (the "Plan") adopted by the Company, which is incorporated herein by reference. Unless otherwise defined herein, the terms defined in the Plan shall have the same defined meanings in this Option.

If designated an Incentive Stock Option, this Option is intended to qualify as an Incentive Stock Option as defined in Section 422 of the Code.

2. EXERCISE OF OPTION. This Option shall be exercisable during its Term in accordance with the Vesting Schedule set out in the Notice of Stock Option Grant and with the provisions of Section 9 of the Plan as follows:

(a) RIGHT TO EXERCISE.

RIGHT TO EXERCISE.

(i) This Option may be early exercised in whole any time after the Date of Grant (the "Early Exercise"), as to Shares which have not yet vested under the vesting schedule indicated on the Notice of Stock Option Grant; provided, however, that Optionee shall execute as a condition to such exercise of this Option, the Early Exercise Notice and Restricted Stock Purchase Agreement attached hereto as Exhibit A (the "Early Exercise Agreement"). If Optionee chooses to exercise this Option solely as to Shares which have vested under the vesting schedule indicated on the Notice of Stock Option Grant, Optionee shall complete and execute the form of Exercise Notice and Restricted Stock Purchase Agreement attached hereto as Exhibit B (the "Exercise Agreement"). Notwithstanding the foregoing, the Company may in its discretion prescribe or accept a different form of notice of exercise and/or stock purchase agreement if such forms are otherwise consistent with this Agreement, the Plan and then-applicable law.

(ii) This Option may not be exercised for a fraction of a share.

(iii) In the event of Optionee's death, disability or other termination of employment or consulting relationship, the exercisability of the Option is governed by Sections 5, 6 and 7 below, subject to the limitation contained in Section 2(a)(iv) below.

(iv) In no event may this Option be exercised after the Expiration Date of this Option as set forth in the Notice of Stock Option Grant.

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(b) METHOD OF EXERCISE. This Option shall be exercisable by execution and delivery of the Early Exercise Agreement or the Exercise Agreement, whichever is applicable, or of any other written notice approved for such purpose by the Company which shall state the election to exercise the

Option, the number of Shares in respect of which the Option is being exercised, and such other representations and agreements as to the holder's investment intent with respect to such shares of Common Stock as may be required by the Company pursuant to the provisions of the Plan. Such written notice shall be signed by Optionee and shall be delivered in person or by certified mail to the Secretary of the Company. The written notice shall be accompanied by payment of the Exercise Price. This Option shall be deemed to be exercised upon receipt by the Company of such written notice accompanied by the Exercise Price.

No Shares will be issued pursuant to the exercise of an Option unless such issuance and such exercise shall comply with all relevant provisions of applicable law, including the requirements of any stock exchange upon which the Shares may then be listed. Assuming such compliance, for income tax purposes the Shares shall be considered transferred to Optionee on the date on which the Option is exercised with respect to such Shares.

3. METHOD OF PAYMENT. Payment of the Exercise Price shall be by cash, check, promissory note (either in the form attached as Exhibit C to this agreement or any other form approved by the Company), or any other method permitted under the Plan; provided however that the Administrator may refuse to allow Optionee to tender a particular form of payment (other than cash or check) if, in the Administrator's sole discretion, acceptance of such form of consideration would not be in the best interests of the Company at such time.

4. RESTRICTIONS ON EXERCISE. This Option may not be exercised until such time as the Plan has been approved by the shareholders of the Company, or if the issuance of such Shares upon such exercise or the method of payment of consideration for such shares would constitute a violation of any applicable federal or state securities or other law or regulation, including any rule under Part 207 of Title 12 of the Code of Federal Regulations as promulgated by the Federal Reserve Board. As a condition to the exercise of this Option, the Company may require Optionee to make any representation and warranty to the Company as may be required by any applicable law or regulation.

5. TERMINATION OF RELATIONSHIP. In the event of termination of Optionee's Continuous Status as an Employee or Consultant, Optionee may, to the extent otherwise so entitled at the date of such termination (the "Termination Date"), exercise this Option during the Termination Period set forth in the Notice of Stock Option Grant. To the extent that Optionee was not entitled to exercise this Option at such Termination Date, or if Optionee does not exercise this Option within the Termination Period, the Option shall terminate.

#### 6. DISABILITY OF OPTIONEE.

(a) Notwithstanding the provisions of Section 5 above, in the event of termination of Optionee's Continuous Status as an Employee or Consultant as a result of his or her total and permanent disability (as defined in Section 22(e)(3) of the Code), Optionee may, but only within twelve months from the Termination Date (but in no event later than the Expiration Date set forth in the Notice of Stock Option Grant and in Section 9 below), exercise

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this Option to the extent he or she was entitled to exercise it at such Termination Date. To the extent that Optionee was not entitled to exercise the Option on the Termination Date, or if Optionee does not exercise such Option to the extent so entitled within the time specified in this Section 6(a), the Option shall terminate.

(b) Notwithstanding the provisions of Section 5 above, in the event of termination of Optionee's consulting relationship or Continuous Status as an Employee as a result of a disability not constituting a total and permanent disability (as set forth in Section 22(e)(3) of the Code), Optionee may, but only within six (6) months from the Termination Date (but in no event later than the Expiration Date set forth in the Notice of Stock Option Grant), exercise the Option to the extent Optionee was entitled to exercise it as of such Termination Date; provided, however, that if this is an Incentive Stock Option and Optionee fails to exercise this Incentive Stock Option within three (3) months from the Termination Date, this Option will cease to qualify as an Incentive Stock Option (as defined in Section 422 of the Code) and Optionee will be treated for federal income tax purposes as having received ordinary income at the time of such



exercise in an amount generally measured by the difference between the Exercise Price for the Shares and the Fair Market Value of the Shares on the date of exercise. To the extent that Optionee was not entitled to exercise the Option at the Termination Date, or if Optionee does not exercise such Option to the extent so entitled within the time specified in this Section 6(b), the Option shall terminate.

7. DEATH OF OPTIONEE. In the event of the death of Optionee (a) during the Term of this Option and while an Employee or Consultant of the Company and having been in Continuous Status as an Employee or Consultant since the date of grant of the Option, or (b) within 30 days after Optionee's Termination Date, the Option may be exercised at any time within six months following the date of death (but in no event later than the Expiration Date set forth in the Notice of Stock Option Grant and in Section 9 below), by Optionee's estate or by a person who acquired the right to exercise the Option by bequest or inheritance, but only to the extent of the right to exercise that had accrued at the Termination Date.

8. NON-TRANSFERABILITY OF OPTION. This Option may not be transferred in any manner otherwise than by will or by the laws of descent or distribution and may be exercised during the lifetime of Optionee only by him or her. The terms of this Option shall be binding upon the executors, administrators, heirs, successors and assigns of Optionee.

9. TERM OF OPTION. This Option may be exercised only within the Term set forth in the Notice of Stock Option Grant, subject to the limitations set forth in Section 7 of the Plan.

10. TAX CONSEQUENCES. Set forth below is a brief summary as of the date of this Option of certain of the federal and California tax consequences of exercise of this Option and disposition of the Shares under the laws in effect as of the Date of Grant. THIS SUMMARY IS NECESSARILY INCOMPLETE, AND THE TAX LAWS AND REGULATIONS ARE SUBJECT TO CHANGE. OPTIONEE SHOULD CONSULT A TAX ADVISER BEFORE EXERCISING THIS OPTION OR DISPOSING OF THE SHARES.

(a) EXERCISE OF INCENTIVE STOCK OPTION. If this Option qualifies as an Incentive Stock Option, there will be no regular federal or California income tax liability upon

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the exercise of the Option, although the excess, if any, of the Fair Market Value of the Shares on the date of exercise over the Exercise Price will be treated as an adjustment to the alternative minimum tax for federal tax purposes and may subject Optionee to the alternative minimum tax in the year of exercise.

(b) EXERCISE OF NONSTATUTORY STOCK OPTION. If this Option does not qualify as an Incentive Stock Option, there may be a regular federal income tax liability and a California income tax liability upon the exercise of the Option. Optionee will be treated as having received compensation income (taxable at ordinary income tax rates) equal to the excess, if any, of the fair market value of the Shares on the date of exercise over the Exercise Price. If Optionee is an employee, the Company will be required to withhold from Optionee's compensation or collect from Optionee and pay to the applicable taxing authorities an amount equal to a percentage of this compensation income at the time of exercise.

(c) DISPOSITION OF SHARES. In the case of a Nonstatutory Stock Option, if Shares are held for more than one year, any gain realized on disposition of the Shares will be treated as long-term capital gain for federal and California income tax purposes. In the case of an Incentive Stock Option, if Shares transferred pursuant to the Option are held for more than one year after exercise and are disposed of at least two years after the Date of Grant, any gain realized on disposition of the Shares will also be treated as long-term capital gain for federal and California income tax purposes. In either case, the long-term capital gain will be taxed for federal income tax and alternative minimum tax purposes at a maximum rate of 20% if the Shares are held more than one year after exercise. If Shares purchased under an Incentive Stock Option are disposed of within one-year after exercise or within two years after the Date of Grant, any gain realized on such disposition will be treated as compensation income (taxable at ordinary income rates) to the extent of the difference between the Exercise Price and the lesser of (i) the Fair Market Value of the Shares on the date of exercise, or (ii) the sale price of the Shares.

(d) NOTICE OF DISQUALIFYING DISPOSITION OF INCENTIVE STOCK OPTION SHARES. If the Option granted to Optionee herein is an Incentive Stock Option, and if Optionee sells or otherwise disposes of any of the Shares acquired pursuant to the Incentive Stock Option on or before the later of (i) the date two years after the Date of Grant, or (ii) the date one year after the date of exercise, Optionee shall immediately notify the Company in writing of such disposition. Optionee acknowledges and agrees that he or she may be subject to income tax withholding by the Company on the compensation income recognized by Optionee from the early disposition by payment in cash or out of the current earnings paid to Optionee.

#### 11. WITHHOLDING TAX OBLIGATIONS.

(a) GENERAL WITHHOLDING OBLIGATIONS. As a condition to the exercise of Option granted hereunder, Optionee shall make such arrangements as the Administrator may require for the satisfaction of any federal, state, local or foreign withholding tax obligations that may arise in connection with the exercise, receipt or vesting of the Option. The Company shall not be required to issue any Shares under the Plan until such obligations are satisfied. Optionee understands that, upon exercising a Nonstatutory Stock Option, he or she will recognize income for tax purposes in an amount equal to the excess of the then Fair Market Value of the Shares over the Exercise Price. If Optionee is an employee, the Company will be required to withhold

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from Optionee's compensation, or collect from Optionee and pay to the applicable taxing authorities an amount equal to a percentage of this compensation income. Additionally, Optionee may at some point be required to satisfy tax withholding obligations with respect to the disqualifying disposition of an Incentive Stock Option. Optionee shall satisfy his or her tax withholding obligation arising upon the exercise of this Option by one or some combination of the following methods: (i) by cash or check payment, (ii) out of Optionee's current compensation, (iii) if permitted by the Administrator, in its discretion, by surrendering to the Company Shares which (A) in the case of Shares previously acquired from the Company, have been owned by Optionee for more than six months on the date of surrender, and (B) have a Fair Market Value determined as of the applicable Tax Date (as defined in Section 11(c) below) on the date of surrender equal to the amount required to be withheld, or (iv) by electing to have the Company withhold from the Shares to be issued upon exercise of the Option, or the Shares to be issued in connection with the Stock Purchase Right, if any, that number of Shares having a Fair Market Value determined as of the applicable Tax Date equal to the amount required to be withheld. If the Administrator allows the withholding or surrender of Shares to satisfy a Participant's tax withholding obligations, the Administrator shall not allow Shares to be withheld in an amount that exceeds the minimum statutory withholding rates for federal and state tax purposes, including payroll taxes.

(b) STOCK WITHHOLDING TO SATISFY WITHHOLDING TAX OBLIGATIONS. In the event the Administrator allows Optionee to satisfy his or her tax withholding obligations as provided in Section 11(a)(iii) or (iv) above, such satisfaction must comply with the requirements of this Section (11)(b) and all applicable laws. All elections by Optionee to have Shares withheld to satisfy tax withholding obligations shall be made in writing in a form acceptable to the Administrator and shall be subject to the following restrictions:

(i) the election must be made on or prior to the applicable Tax Date (as defined in Section 11(c) below);

(ii) once made, the election shall be irrevocable as to the particular Shares of the Option as to which the election is made; and

(iii) all elections shall be subject to the consent or disapproval of the Administrator.

In the event the election to have Shares withheld is made by Optionee and the Tax Date is deferred under Section 83 of the Code because no election is filed under Section 83(b) of the Code, Optionee shall receive the full number of Shares with respect to which the Option is exercised but Optionee shall be unconditionally obligated to tender back to the Company the proper number of Shares on the Tax Date.

(c) DEFINITIONS. For purposes of this Section 11, the Fair Market Value of the Shares to be withheld shall be determined on the date that the amount of tax to be withheld is to be determined under the applicable laws (the "Tax Date").

12. MARKET STANDOFF AGREEMENT. In connection with the initial public offering of the Company's securities and upon request of the Company or the underwriters managing such

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underwritten offering of the Company's securities, Optionee agrees not to sell, make any short sale of, loan, grant any option for the purchase of, or otherwise dispose of any securities of the Company (other than those included in the registration) without the prior written consent of the Company or such underwriters, as the case may be, for such period of time (not to exceed 180 days) from the effective date of such registration as may be requested by the Company or such managing underwriters and to execute an agreement reflecting the foregoing as may be requested by the underwriters at the time of the Company's initial public offering.

[Signature Page Follows]

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This Agreement may be executed in two or more counterparts, each of which shall be deemed an original and all of which together shall constitute one document.

PDF Solutions, Inc.

By: \_\_\_\_\_

Name: P. S. Melman  
\_\_\_\_\_  
(print)

Title: Chief Financial Officer  
\_\_\_\_\_

OPTIONEE ACKNOWLEDGES AND AGREES THAT THE VESTING OF SHARES PURSUANT TO THE OPTION HEREOF IS EARNED ONLY BY CONTINUING CONSULTANCY OR EMPLOYMENT AT THE WILL OF THE COMPANY (NOT THROUGH THE ACT OF BEING HIRED, BEING GRANTED THIS OPTION OR ACQUIRING SHARES HEREUNDER). OPTIONEE FURTHER ACKNOWLEDGES AND AGREES THAT NOTHING IN THIS AGREEMENT, NOR IN THE COMPANY'S STOCK PLAN WHICH IS INCORPORATED HEREIN BY REFERENCE, SHALL CONFER UPON OPTIONEE ANY RIGHT WITH RESPECT TO CONTINUATION OF EMPLOYMENT OR CONSULTANCY BY THE COMPANY, NOR SHALL IT INTERFERE IN ANY WAY WITH OPTIONEE'S RIGHT OR THE COMPANY'S RIGHT TO TERMINATE OPTIONEE'S EMPLOYMENT OR CONSULTANCY AT ANY TIME, WITH OR WITHOUT CAUSE.

Optionee acknowledges receipt of a copy of the Plan and represents that he or she is familiar with the terms and provisions thereof, and hereby accepts this Option subject to all of the terms and provisions thereof. Optionee has reviewed the Plan and this Option in their entirety, has had an opportunity to obtain the advice of counsel prior to executing this Option and fully understands all provisions of the Option. Optionee hereby agrees to accept as binding, conclusive and final all decisions or interpretations of the Administrator upon any questions arising under the Plan or this Option.

Dated:

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<<Optionee>>  
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Address 1  
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Address 2  
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EXHIBIT A

PDF SOLUTIONS, INC.

1997 STOCK PLAN

EARLY EXERCISE NOTICE AND RESTRICTED STOCK PURCHASE AGREEMENT

This Agreement ("Agreement") is made as of \_\_\_\_\_, by and between PDF Solutions, Inc. a California corporation (the "Company"), and <<Optionee>> ("Purchaser"). To the extent any capitalized terms used in this Agreement are not defined, they shall have the meaning ascribed to them in the 1997 Stock Plan.

1. EXERCISE OF OPTION. Subject to the terms and conditions hereof, Purchaser hereby elects to exercise his or her option to purchase \_\_\_\_\_ shares of the Common Stock (the "Shares") of the Company under and pursuant to the Company's 1997 Stock Plan (the "Plan") and the Stock Option Agreement dated \_\_\_\_\_ (the "Option Agreement"). Of these Shares, Purchaser has elected to purchase \_\_\_\_\_ of those Shares which have become vested as of the date hereof under the Vesting Schedule set forth in the Notice of Stock Option Grant (the "Vested Shares") and \_\_\_\_\_ Shares which have not yet vested under such Vesting Schedule (the "Unvested Shares"). The purchase price for the Shares shall be \$<<ExercisePrice>> per Share for a total purchase price of \$\_\_\_\_\_. The term "Shares" refers to the purchased Shares and all securities received in replacement of the Shares or as stock dividends or splits, all securities received in replacement of the Shares in a recapitalization, merger, reorganization, exchange or the like, and all new, substituted or additional securities or other properties to which Purchaser is entitled by reason of Purchaser's ownership of the Shares.

2. TIME AND PLACE OF EXERCISE. The purchase and sale of the Shares under this Agreement shall occur at the principal office of the Company simultaneously with the execution and delivery of this Agreement in accordance with the provisions of Section 2(b) of the Option Agreement. On such date, the Company will deliver to Purchaser a certificate representing the Shares to be purchased by Purchaser (which shall be issued in Purchaser's name) against payment of the purchase price therefor by Purchaser by (a) check made payable to the Company, (b) cancellation of indebtedness of the Company to Purchaser, (c) delivery of shares of the Common Stock of the Company in accordance with Section 3 of the Option Agreement, (d) delivery of a promissory note in the form attached as Exhibit C to the Option Agreement (or in any form acceptable to the Company), or (e) a combination of the foregoing. If Purchaser delivers a promissory note as partial or full payment of the purchase price, Purchaser will also deliver a Pledge and Security Agreement in the form attached to Exhibit D to the Option Agreement (or in any form acceptable to the Company).

3. LIMITATIONS ON TRANSFER. In addition to any other limitation on transfer created by applicable securities laws, Purchaser shall not assign, encumber or dispose of any interest in the Shares while the Shares are subject to the Company's Repurchase Option (as defined below). After any Shares have been released from such Repurchase Option, Purchaser shall not assign,

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encumber or dispose of any interest in such Shares except in compliance with the

provisions below and applicable securities laws.

(a) REPURCHASE OPTION.

(i) In the event of the voluntary or involuntary termination of Purchaser's employment or consulting relationship with the Company for any reason (including death or disability), with or without cause, the Company shall upon the date of such termination (the "Termination Date") have an irrevocable, exclusive option (the "Repurchase Option") for a period of 90 days from such date to repurchase all or any portion of the Shares held by Purchaser as of the Termination Date which have not yet been released from the Company's Repurchase Option at the original purchase price per Share specified in Section 1 (adjusted for any stock splits, stock dividends and the like).

(ii) Unless the Company notifies Purchaser within 90 days from the date of termination of Purchaser's employment or consulting relationship that it does not intend to exercise its Repurchase Option with respect to some or all of the Shares, the Repurchase Option shall be deemed automatically exercised by the Company as of the 90th day following such termination, provided that the Company may notify Purchaser that it is exercising its Repurchase Option as of a date prior to such 90th day. Unless Purchaser is otherwise notified by the Company pursuant to the preceding sentence that the Company does not intend to exercise its Repurchase Option as to some or all of the Shares to which it applies at the time of termination, execution of this Agreement by Purchaser constitutes written notice to Purchaser of the Company's intention to exercise its Repurchase Option with respect to all Shares to which such Repurchase Option applies. The Company, at its choice, may satisfy its payment obligation to Purchaser with respect to exercise of the Repurchase Option by either (A) delivering a check to Purchaser in the amount of the purchase price for the Shares being repurchased, or (B) in the event Purchaser is indebted to the Company, canceling an amount of such indebtedness equal to the purchase price for the Shares being repurchased, or (C) by a combination of (A) and (B) so that the combined payment and cancellation of indebtedness equals such purchase price. In the event of any deemed automatic exercise of the Repurchase Option pursuant to this Section 3(a)(ii) in which Purchaser is indebted to the Company, such indebtedness equal to the purchase price of the Shares being repurchased shall be deemed automatically canceled as of the 90th day following termination of Purchaser's employment or consulting relationship unless the Company otherwise satisfies its payment obligations. As a result of any repurchase of Shares pursuant to this Section 3(a), the Company shall become the legal and beneficial owner of the Shares being repurchased and shall have all rights and interest therein or related thereto, and the Company shall have the right to transfer to its own name the number of Shares being repurchased by the Company, without further action by Purchaser.

(iii) One hundred percent (100%) of the Shares shall initially be subject to the Repurchase Option. The Unvested Shares shall be released from the Repurchase Option in accordance with the Vesting Schedule set forth in the Notice of Stock Option Grant until all Shares are released from the Repurchase Option. Fractional shares shall be rounded to the nearest whole share.

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(b) RIGHT OF FIRST REFUSAL. Before any Shares held by Purchaser or any transferee of Purchaser (either being sometimes referred to herein as the "Holder") may be sold or otherwise transferred (including transfer by gift or operation of law), the Company or its assignee(s) shall have a right of first refusal to purchase the Shares on the terms and conditions set forth in this Section 3(b) (the "Right of First Refusal").

(i) NOTICE OF PROPOSED TRANSFER. The Holder of the Shares shall deliver to the Company a written notice (the "Notice") stating: (i) the Holder's bona fide intention to sell or otherwise transfer such Shares; (ii) the name of each proposed purchaser or other transferee ("Proposed Transferee"); (iii) the number of Shares to be transferred to each Proposed Transferee; and (iv) the terms and conditions of each proposed sale or transfer. The Holder shall offer the Shares at the same price (the "Offered Price") and upon the same terms (or terms as similar as reasonably possible) to the Company or its assignee(s).

(ii) EXERCISE OF RIGHT OF FIRST REFUSAL. At any time within thirty 30 days after receipt of the Notice, the Company and/or its assignee(s) may, by giving written notice to the Holder, elect to purchase all, but not less than all, of the Shares proposed to be transferred to any one or more of the Proposed Transferees, at the purchase price determined in accordance with subsection (iii) below.

(iii) PURCHASE PRICE. The purchase price ("Purchase Price") for the Shares purchased by the Company or its assignee(s) under this Section 3(b) shall be the Offered Price. If the Offered Price includes consideration other than cash, the cash equivalent value of the non-cash consideration shall be determined by the Board of Directors of the Company in good faith.

(iv) PAYMENT. Payment of the Purchase Price shall be made, at the option of the Company or its assignee(s), in cash (by check), by cancellation of all or a portion of any outstanding indebtedness of the Holder to the Company (or, in the case of repurchase by an assignee, to the assignee), or by any combination thereof within 30 days after receipt of the Notice or in the manner and at the times set forth in the Notice.

(v) HOLDER'S RIGHT TO TRANSFER. If all of the Shares proposed in the Notice to be transferred to a given Proposed Transferee are not purchased by the Company and/or its assignee(s) as provided in this Section 3(b), then the Holder may sell or otherwise transfer such Shares to that Proposed Transferee at the Offered Price or at a higher price, provided that such sale or other transfer is consummated within 60 days after the date of the Notice and provided further that any such sale or other transfer is effected in accordance with any applicable securities laws and the Proposed Transferee agrees in writing that the provisions of this Section 3 shall continue to apply to the Shares in the hands of such Proposed Transferee. If the Shares described in the Notice are not transferred to the Proposed Transferee within such period, or if the Holder proposes to change the price or other terms to make them more favorable to the Proposed Transferee, a new Notice shall be given to the Company, and the Company and/or its assignees shall again be offered the Right of First Refusal before any Shares held by the Holder may be sold or otherwise transferred.

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(vi) EXCEPTION FOR CERTAIN FAMILY TRANSFERS. Anything to the contrary contained in this Section 3(b) notwithstanding, the transfer of any or all of the Shares during Purchaser's lifetime or on Purchaser's death by will or intestacy to Purchaser's Immediate Family (as defined below) or a trust for the benefit of Purchaser's Immediate Family shall be exempt from the provisions of this Section 3(b). "Immediate Family" as used herein shall mean spouse, lineal descendant or antecedent, father, mother, brother or sister. In such case, the transferee or other recipient shall receive and hold the Shares so transferred subject to the provisions of this Section, and there shall be no further transfer of such Shares except in accordance with the terms of this Section 3.

(c) INVOLUNTARY TRANSFER.

(i) COMPANY'S RIGHT TO PURCHASE UPON INVOLUNTARY TRANSFER. In the event, at any time after the date of this Agreement, of any transfer by operation of law or other involuntary transfer (including divorce or death, but excluding, in the event of death, a transfer to Immediate Family as set forth in Section 3(b)(vi) above) of all or a portion of the Shares by the record holder thereof, the Company shall have the right to purchase all of the Shares transferred at the greater of the purchase price paid by Purchaser pursuant to this Agreement or the Fair Market Value of the Shares on the date of transfer. Upon such a transfer, the person acquiring the Shares shall promptly notify the Secretary of the Company of such transfer. The right to purchase such Shares shall be provided to the Company for a period of 30 days following receipt by the Company of written notice by the person acquiring the Shares.

(ii) PRICE FOR INVOLUNTARY TRANSFER. With respect to any stock to be transferred pursuant to Section 3(c)(i), the price per Share shall be a price set by the Board of Directors of the Company that will reflect the current value of the stock in terms of present earnings and future prospects of the Company. The Company shall notify Purchaser or his or her executor of the price so determined within 30 days after receipt by it of written notice of the transfer or proposed transfer of Shares. However, if the Purchaser does not agree with the valuation as determined by the Board of Directors of the Company,

the Purchaser shall be entitled to have the valuation determined by an independent appraiser to be mutually agreed upon by the Company and the Purchaser and whose fees shall be borne equally by the Company and the Purchaser.

(d) ASSIGNMENT. The right of the Company to purchase any part of the Shares may be assigned in whole or in part to any shareholder or shareholders of the Company or other persons or organizations.

(e) RESTRICTIONS BINDING ON TRANSFEREES. All transferees of Shares or any interest therein will receive and hold such Shares or interest subject to the provisions of this Agreement, including, insofar as applicable, the Repurchase Option. In the event of any purchase by the Company hereunder where the Shares or interest are held by a transferee, the transferee shall be obligated, if requested by the Company, to transfer the Shares or interest to the Purchaser for consideration equal to the amount to be paid by the Company hereunder. In the event the Repurchase Option is deemed exercised by the Company pursuant to Section 3(a)(ii) hereof, the Company may deem any transferee to have transferred the Shares or interest to Purchaser prior to their purchase by the Company, and payment of the purchase price by the

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Company to such transferee shall be deemed to satisfy Purchaser's obligation to pay such transferee for such Shares or interest, and also to satisfy the Company's obligation to pay Purchaser for such Shares or interest. Any sale or transfer of the Shares shall be void unless the provisions of this Agreement are satisfied.

(f) TERMINATION OF RIGHTS. The Right of First Refusal and the Company's right to repurchase the Shares in the event of an involuntary transfer pursuant to Section 3(c) above shall terminate upon the first sale of Common Stock of the Company to the general public pursuant to a registration statement filed with and declared effective by the Securities and Exchange Commission under the Securities Act of 1933, as amended (the "Securities Act").

(g) MARKET STANDOFF AGREEMENT. In connection with the initial public offering of the Company's securities and upon request of the Company or the underwriters managing such underwritten offering of the Company's securities, Purchaser agrees not to sell, make any short sale of, loan, grant any option for the purchase of, or otherwise dispose of any securities of the Company (other than those included in the registration) without the prior written consent of the Company or such underwriters, as the case may be, for such period of time (not to exceed 180 days) from the effective date of such registration as may be requested by the Company or such managing underwriters and to execute an agreement reflecting the foregoing as may be requested by the underwriters at the time of the Company's initial public offering.

4. ESCROW OF UNVESTED SHARES. For purposes of facilitating the enforcement of the provisions of Section 3 above, Purchaser agrees, immediately upon receipt of the certificate(s) for the Shares subject to the Repurchase Option, to deliver such certificate(s), together with an Assignment Separate from Certificate in the form attached to this Agreement as Attachment A executed by Purchaser and by Purchaser's spouse (if required for transfer), in blank, to the Secretary of the Company, or the Secretary's designee, to hold such certificate(s) and Assignment Separate from Certificate in escrow and to take all such actions and to effectuate all such transfers and/or releases as are in accordance with the terms of this Agreement. Purchaser hereby acknowledges that the Secretary of the Company, or the Secretary's designee, is so appointed as the escrow holder with the foregoing authorities as a material inducement to make this Agreement and that said appointment is coupled with an interest and is accordingly irrevocable. Purchaser agrees that said escrow holder shall not be liable to any party hereof (or to any other party). The escrow holder may rely upon any letter, notice or other document executed by any signature purported to be genuine and may resign at any time. Purchaser agrees that if the Secretary of the Company, or the Secretary's designee, resigns as escrow holder for any or no reason, the Board of Directors of the Company shall have the power to appoint a successor to serve as escrow holder pursuant to the terms of this Agreement.

5. INVESTMENT AND TAXATION REPRESENTATIONS. In connection with the purchase of the Shares, Purchaser represents to the Company the following:

(a) Purchaser is aware of the Company's business affairs and financial condition and has acquired sufficient information about the Company to reach an informed and knowledgeable decision to acquire the Shares. Purchaser is purchasing the Shares for investment for his or her own account only and not with a view to, or for resale in connection with, any

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"distribution" thereof within the meaning of the Securities Act. Purchaser does not have any present intention to transfer the Shares to any other person or entity.

(b) Purchaser understands that the Shares have not been registered under the Securities Act by reason of a specific exemption therefrom, which exemption depends upon, among other things, the bona fide nature of Purchaser's investment intent as expressed herein.

(c) Purchaser understands that the Shares are "restricted securities" under applicable U.S. federal and state securities laws and that, pursuant to these laws, Purchaser must hold the Shares indefinitely unless they are registered with the Securities and Exchange Commission and qualified by state authorities, or an exemption from such registration and qualification requirements is available. Purchaser acknowledges that the Company has no obligation to register or qualify the Shares for resale. Purchaser further acknowledges that if an exemption from registration or qualification is available, it may be conditioned on various requirements including, but not limited to, the time and manner of sale, the holding period for the Shares, and requirements relating to the Company which are outside of the Purchaser's control, and which the Company is under no obligation and may not be able to satisfy.

(d) Purchaser understands that Purchaser may suffer adverse tax consequences as a result of Purchaser's purchase or disposition of the Shares. Purchaser represents that Purchaser has consulted any tax consultants Purchaser deems advisable in connection with the purchase or disposition of the Shares and that Purchaser is not relying on the Company for any tax advice.

#### 6. RESTRICTIVE LEGENDS AND STOP-TRANSFER ORDERS.

(a) LEGENDS. The certificate or certificates representing the Shares shall bear the following legends (as well as any legends required by applicable state and federal corporate and securities laws):

- (i) THE SHARES REPRESENTED BY THIS CERTIFICATE HAVE NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AND HAVE BEEN ACQUIRED FOR INVESTMENT AND NOT WITH A VIEW TO, OR IN CONNECTION WITH, THE SALE OR DISTRIBUTION THEREOF. NO SUCH SALE OR DISTRIBUTION MAY BE EFFECTED WITHOUT AN EFFECTIVE REGISTRATION STATEMENT RELATED THERETO OR AN OPINION OF COUNSEL IN A FORM SATISFACTORY TO THE COMPANY THAT SUCH REGISTRATION IS NOT REQUIRED UNDER THE SECURITIES ACT OF 1933.
- (ii) THE SHARES REPRESENTED BY THIS CERTIFICATE MAY BE TRANSFERRED ONLY IN ACCORDANCE WITH THE TERMS OF AN AGREEMENT BETWEEN THE COMPANY AND THE SHAREHOLDER, A COPY

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OF WHICH IS ON FILE WITH THE SECRETARY OF THE COMPANY.

(b) STOP-TRANSFER NOTICES. Purchaser agrees that, in order to ensure compliance with the restrictions referred to herein, the Company may issue appropriate "stop transfer" instructions to its transfer agent, if any, and that, if the Company transfers its own securities, it may make appropriate notations to the same effect in its own records.

(c) REFUSAL TO TRANSFER. The Company shall not be required (i) to



transfer on its books any Shares that have been sold or otherwise transferred in violation of any of the provisions of this Agreement or (ii) to treat as owner of such Shares or to accord the right to vote or pay dividends to any purchaser or other transferee to whom such Shares shall have been so transferred.

(d) REMOVAL OF LEGEND. When all of the following events have occurred, the Shares then held by Purchaser will no longer be subject to the legend referred to in Section 6(a)(ii): (i) the termination of the Right of First Refusal; (ii) the expiration or termination of the market standoff provisions of Section 3(g) (and of any agreement entered pursuant to Section 3(g)); and (iii) the expiration or exercise in full of the Repurchase Option. After such time, and upon Purchaser's request, a new certificate or certificates representing the Shares not repurchased shall be issued without the legend referred to in Section 6(a)(ii), and delivered to Purchaser.

7. NO EMPLOYMENT RIGHTS. Nothing in this Agreement shall affect in any manner whatsoever the right or power of the Company, or a Parent or Subsidiary of the Company, to terminate Purchaser's employment or consulting relationship, for any reason, with or without cause.

8. SECTION 83(b) ELECTION. Purchaser understands that Section 83(a) of the Internal Revenue Code of 1986, as amended (the "Code"), taxes as ordinary income for a Nonstatutory Stock Option and as alternative minimum taxable income for an Incentive Stock Option the difference between the amount paid for the Shares and the Fair Market Value of the Shares as of the date any restrictions on the Shares lapse. In this context, "restriction" means the right of the Company to buy back the Shares pursuant to the Repurchase Option set forth in Section 3(a) of this Agreement. Purchaser understands that Purchaser may elect to be taxed at the time the Shares are purchased, rather than when and as the Repurchase Option expires, by filing an election under Section 83(b) (an "83(b) Election") of the Code with the Internal Revenue Service within 30 days from the date of purchase. Even if the Fair Market Value of the Shares at the time of the execution of this Agreement equals the amount paid for the Shares, the election must be made to avoid income and alternative minimum tax treatment under Section 83(a) in the future. Purchaser understands that failure to file such an election in a timely manner may result in adverse tax consequences for Purchaser. Purchaser further understands that an additional copy of such election form should be filed with his or her federal income tax return for the calendar year in which the date of this Agreement falls. Purchaser acknowledges that the foregoing is only a summary of the effect of United States federal income taxation with respect to purchase of the Shares hereunder, and does not purport to be complete. Purchaser further acknowledges that the Company has directed Purchaser to seek independent advice regarding the applicable

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provisions of the Code, the income tax laws of any municipality, state or foreign country in which Purchaser may reside, and the tax consequences of Purchaser's death.

Purchaser agrees that he or she will execute and deliver to the Company with this executed Agreement a copy of the Acknowledgment and Statement of Decision Regarding Section 83(b) Election (the "Acknowledgment") attached hereto as Attachment B. Purchaser further agrees that he or she will execute and submit with the Acknowledgment a copy of the 83(b) Election attached hereto as Attachment C (for tax purposes in connection with the early exercise of an option) if Purchaser has indicated in the Acknowledgment his or her decision to make such an election.

#### 9. MISCELLANEOUS.

(a) GOVERNING LAW. This Agreement and all acts and transactions pursuant hereto and the rights and obligations of the parties hereto shall be governed, construed and interpreted in accordance with the laws of the State of California, without giving effect to principles of conflicts of law.

(b) ENTIRE AGREEMENT; ENFORCEMENT OF RIGHTS. This Agreement sets forth the entire agreement and understanding of the parties relating to the subject matter herein and merges all prior discussions between them. No modification of or amendment to this Agreement, nor any waiver of any rights under this Agreement, shall be effective unless in writing signed by the parties to this Agreement. The failure by either party to enforce any rights under this

Agreement shall not be construed as a waiver of any rights of such party.

(c) SEVERABILITY. If one or more provisions of this Agreement are held to be unenforceable under applicable law, the parties agree to renegotiate such provision in good faith. In the event that the parties cannot reach a mutually agreeable and enforceable replacement for such provision, then (i) such provision shall be excluded from this Agreement, (ii) the balance of the Agreement shall be interpreted as if such provision were so excluded and (iii) the balance of the Agreement shall be enforceable in accordance with its terms.

(d) CONSTRUCTION. This Agreement is the result of negotiations between and has been reviewed by each of the parties hereto and their respective counsel, if any; accordingly, this Agreement shall be deemed to be the product of all of the parties hereto, and no ambiguity shall be construed in favor of or against any one of the parties hereto.

(e) NOTICES. Any notice required or permitted by this Agreement shall be in writing and shall be deemed sufficient when delivered personally or sent by telegram or fax or 48 hours after being deposited in the U.S. mail, as certified or registered mail, with postage prepaid, and addressed to the party to be notified at such party's address as set forth below or as subsequently modified by written notice.

(f) COUNTERPARTS. This Agreement may be executed in two or more counterparts, each of which shall be deemed an original and all of which together shall constitute one instrument.

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(g) SUCCESSORS AND ASSIGNS. The rights and benefits of this Agreement shall inure to the benefit of, and be enforceable by the Company's successors and assigns. The rights and obligations of Purchaser under this Agreement may only be assigned with the prior written consent of the Company.

(h) CALIFORNIA CORPORATE SECURITIES LAW. THE SALE OF THE SECURITIES WHICH ARE THE SUBJECT OF THIS AGREEMENT HAS NOT BEEN QUALIFIED WITH THE COMMISSIONER OF CORPORATIONS OF THE STATE OF CALIFORNIA AND THE ISSUANCE OF THE SECURITIES OR THE PAYMENT OR RECEIPT OF ANY PART OF THE CONSIDERATION THEREFOR PRIOR TO THE QUALIFICATION IS UNLAWFUL, UNLESS THE SALE OF SECURITIES IS EXEMPT FROM QUALIFICATION BY SECTION 25100, 25102 OR 25105 OF THE CALIFORNIA CORPORATIONS CODE. THE RIGHTS OF ALL PARTIES TO THIS AGREEMENT ARE EXPRESSLY CONDITIONED UPON THE QUALIFICATION BEING OBTAINED, UNLESS THE SALE IS SO EXEMPT.

[Signature Page Follows]

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The parties have executed this Agreement as of the date first set forth above.

COMPANY:

PDF SOLUTIONS, Inc.

By: \_\_\_\_\_

Name: \_\_\_\_\_

(print)

Title:

-----  
PURCHASER:

<<Optionee>>

-----  
(Signature)

-----  
(Print Name)

Address:

-----  
I, \_\_\_\_\_, spouse of <<Optionee>>, have read and hereby approve the foregoing Agreement. In consideration of the Company's granting my spouse the right to purchase the Shares as set forth in the Agreement, I hereby agree to be bound irrevocably by the Agreement and further agree that any community property or similar interest that I may have in the Shares shall hereby be similarly bound by the Agreement. I hereby appoint my spouse as my attorney-in-fact with respect to any amendment or exercise of any rights under the Agreement.

-----  
Spouse of <<Optionee>>

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ATTACHMENT A

ASSIGNMENT SEPARATE FROM CERTIFICATE

FOR VALUE RECEIVED and pursuant to that certain Early Exercise Notice and Restricted Stock Purchase Agreement between the undersigned ("Purchaser") and PDF Solutions, Inc. (the "Company") dated \_\_\_\_\_, \_\_\_\_\_ (the "Agreement"), Purchaser hereby sells, assigns and transfers unto the Company \_\_\_\_\_ (\_\_\_\_\_) shares of the Common Stock of the Company, standing in Purchaser's name on the books of the Company and represented by Certificate No. \_\_\_\_\_, and does hereby irrevocably constitute and appoint \_\_\_\_\_ to transfer said stock on the books of the Company with full power of substitution in the premises. THIS ASSIGNMENT MAY ONLY BE USED AS AUTHORIZED BY THE AGREEMENT AND THE ATTACHMENTS THERETO.

Dated: \_\_\_\_\_, 20\_\_.

Signature:

-----  
<<Optionee>>

-----  
Spouse of <<Optionee>> (if applicable)

Instruction: Please do not fill in any blanks other than the signature line. The purpose of this assignment is to enable the Company to exercise its Repurchase Option set forth in the Agreement without requiring additional signatures on the part of Purchaser.

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ATTACHMENT B

ACKNOWLEDGMENT AND STATEMENT OF DECISION
REGARDING SECTION 83(b) ELECTION

The undersigned (which term includes the undersigned's spouse), a purchaser of \_\_\_\_\_ shares of Common Stock of PDF Solutions, Inc., a California corporation (the "Company") by exercise of an option (the "Option") granted pursuant to the Company's 1997 Stock Plan (the "Plan"), hereby states as follows:

1. The undersigned acknowledges receipt of a copy of the Plan relating to the offering of such shares. The undersigned has carefully reviewed the Plan and the option agreement pursuant to which the Option was granted.

2. The undersigned either [check and complete as applicable]:

(a) \_\_\_\_\_ has consulted, and has been fully advised by, the undersigned's own tax advisor, \_\_\_\_\_, whose business address is \_\_\_\_\_, regarding the federal, state and local tax consequences of purchasing shares under the Plan, and particularly regarding the advisability of making elections pursuant to Section 83(b) of the Internal Revenue Code of 1986, as amended (the "Code") and pursuant to the corresponding provisions, if any, of applicable state law; or

(b) \_\_\_\_\_ has knowingly chosen not to consult such a tax advisor.

3. The undersigned hereby states that the undersigned has decided [check as applicable]:

(a) \_\_\_\_\_ to make an election pursuant to Section 83(b) of the Code, and is submitting to the Company, together with the undersigned's executed Early Exercise Notice and Restricted Stock Purchase Agreement, an executed form entitled "Election Under Section 83(b) of the Internal Revenue Code of 1986;" or

(b) \_\_\_\_\_ not to make an election pursuant to Section 83(b) of the Code.

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4. Neither the Company nor any subsidiary or representative of the Company has made any warranty or representation to the undersigned with respect to the tax consequences of the undersigned's purchase of shares under the Plan or of the making or failure to make an election pursuant to Section 83(b) of the Code or the corresponding provisions, if any, of applicable state law.

Date:

----- <<Optionee>>

Date:

----- Spouse of <<Optionee>>

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ATTACHMENT C

ELECTION UNDER SECTION 83(b)
OF THE INTERNAL REVENUE CODE OF 1986

The undersigned taxpayer hereby elects, pursuant to Section 83(b) of the Internal Revenue Code, to include in taxpayer's gross income or alternative

minimum taxable income, as applicable, for the current taxable year, the amount of any income that may be taxable to taxpayer in connection with taxpayer's receipt of the property described below:

- 1. The name, address, taxpayer identification number and taxable year of the undersigned are as follows:

NAME OF TAXPAYER: <<Optionee>>

NAME OF SPOUSE:

ADDRESS:

IDENTIFICATION NO. OF TAXPAYER:

IDENTIFICATION NO. OF SPOUSE:

TAXABLE YEAR:

- 2. The property with respect to which the election is made is described as follows:

\_\_\_\_\_ shares of the Common Stock of PDF Solutions, Inc., a California corporation (the "Company").

- 3. The date on which the property was transferred is:

- 4. The property is subject to the following restrictions:

Repurchase option at cost in favor of the Company upon termination of taxpayer's employment or consulting relationship.

- 5. The fair market value at the time of transfer, determined without regard to any restriction other than a restriction which by its terms will never lapse, of such property is: \$

- 6. The amount (if any) paid for such property: \$

The undersigned has submitted a copy of this statement to the person for whom the services were performed in connection with the undersigned's receipt of the above-described property. The transferee of such property is the person performing the services in connection with the transfer of said property.

The undersigned understands that the foregoing election may not be revoked except with the consent of the Commissioner.

Date:

<<Optionee>>

Date:

Spouse of <<Optionee>>

RECEIPT AND CONSENT

The undersigned hereby acknowledges receipt of a photocopy of Certificate No. \_\_\_\_\_ for \_\_\_\_\_ shares of Common Stock of PDF Solutions, Inc. (the "Company").

The undersigned further acknowledges that the Secretary of the Company, or his or her designee, is acting as escrow holder pursuant to the Early Exercise Notice and Restricted Stock Purchase Agreement Purchaser has previously entered into with the Company. As escrow holder, the Secretary of the Company, or his or her designee, holds the original of the aforementioned certificate issued in the undersigned's name.

Date:

-----  
<<Optionee>>

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EXHIBIT B

PDF SOLUTIONS, INC.

1997 STOCK PLAN

EXERCISE NOTICE AND RESTRICTED STOCK PURCHASE AGREEMENT

This Agreement ("Agreement") is made as of \_\_\_\_\_, by and between PDF Solutions, Inc., a California corporation (the "Company"), and <<Optionee>> ("Purchaser"). To the extent any capitalized terms used in this Agreement are not defined, they shall have the meaning ascribed to them in the 1997 Stock Plan.

1. EXERCISE OF OPTION. Subject to the terms and conditions hereof, Purchaser hereby elects to exercise his or her option to purchase \_\_\_\_\_ shares of the Common Stock (the "Shares") of the Company under and pursuant to the Company's 1997 Stock Plan (the "Plan") and the Stock Option Agreement dated \_\_\_\_\_ (the "Option Agreement"). The purchase price for the Shares shall be \$<<ExercisePrice>> per Share for a total purchase price of \$\_\_\_\_\_. The term "Shares" refers to the purchased Shares and all securities received in replacement of the Shares or as stock dividends or splits, all securities received in replacement of the Shares in a recapitalization, merger, reorganization, exchange or the like, and all new, substituted or additional securities or other properties to which Purchaser is entitled by reason of Purchaser's ownership of the Shares.

2. TIME AND PLACE OF EXERCISE. The purchase and sale of the Shares under this Agreement shall occur at the principal office of the Company simultaneously with the execution and delivery of this Agreement in accordance with the provisions of Section 2(b) of the Option Agreement. On such date, the Company will deliver to Purchaser a certificate representing the Shares to be purchased by Purchaser (which shall be issued in Purchaser's name) against payment of the purchase price therefor by Purchaser by (a) check made payable to the Company, (b) cancellation of indebtedness of the Company to Purchaser, (c) delivery of shares of the Common Stock of the Company in accordance with Section 3 of the Option Agreement, (d) delivery of a promissory note in the form attached as Exhibit C to the Option Agreement (or in any form acceptable to the Company), or (e) a combination of the foregoing. If Purchaser delivers a promissory note as partial or full payment of the purchase price, Purchaser will also deliver a Pledge and Security Agreement in the form attached as Exhibit D to the Option Agreement (or in any form acceptable to the Company).

3. LIMITATIONS ON TRANSFER. In addition to any other limitation on transfer created by applicable securities laws, Purchaser shall not assign, encumber or dispose of any interest in the Shares except in compliance with the provisions below and applicable securities laws.

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(a) RIGHT OF FIRST REFUSAL. Before any Shares held by Purchaser or any transferee of Purchaser (either being sometimes referred to herein as the "Holder") may be sold or otherwise transferred (including transfer by gift or operation of law), the Company or its assignee(s) shall have a right of first refusal to purchase the Shares on the terms and conditions set forth in this

Section 3(a) (the "Right of First Refusal").

(i) NOTICE OF PROPOSED TRANSFER. The Holder of the Shares shall deliver to the Company a written notice (the "Notice") stating: (i) the Holder's bona fide intention to sell or otherwise transfer such Shares; (ii) the name of each proposed purchaser or other transferee ("Proposed Transferee"); (iii) the number of Shares to be transferred to each Proposed Transferee; and (iv) the terms and conditions of each proposed sale or transfer. The Holder shall offer the Shares at the same price (the "Offered Price") and upon the same terms (or terms as similar as reasonably possible) to the Company or its assignee(s).

(ii) EXERCISE OF RIGHT OF FIRST REFUSAL. At any time within 30 days after receipt of the Notice, the Company and/or its assignee(s) may, by giving written notice to the Holder, elect to purchase all, but not less than all, of the Shares proposed to be transferred to any one or more of the Proposed Transferees, at the purchase price determined in accordance with subsection (iii) below.

(iii) PURCHASE PRICE. The purchase price ("Purchase Price") for the Shares purchased by the Company or its assignee(s) under this Section 3(b) shall be the Offered Price. If the Offered Price includes consideration other than cash, the cash equivalent value of the non-cash consideration shall be determined by the Board of Directors of the Company in good faith.

(iv) PAYMENT. Payment of the Purchase Price shall be made, at the option of the Company or its assignee(s), in cash (by check), by cancellation of all or a portion of any outstanding indebtedness of the Holder to the Company (or, in the case of repurchase by an assignee, to the assignee), or by any combination thereof within 30 days after receipt of the Notice or in the manner and at the times set forth in the Notice.

(v) HOLDER'S RIGHT TO TRANSFER. If all of the Shares proposed in the Notice to be transferred to a given Proposed Transferee are not purchased by the Company and/or its assignee(s) as provided in this Section 3(b), then the Holder may sell or otherwise transfer such Shares to that Proposed Transferee at the Offered Price or at a higher price, provided that such sale or other transfer is consummated within 60 days after the date of the Notice and provided further that any such sale or other transfer is effected in accordance with any applicable securities laws and the Proposed Transferee agrees in writing that the provisions of this Section 3 shall continue to apply to the Shares in the hands of such Proposed Transferee. If the Shares described in the Notice are not transferred to the Proposed Transferee within such period, or if the Holder proposes to change the price or other terms to make them more favorable to the Proposed Transferee, a new Notice shall be given to the Company, and the Company and/or its assignees shall again be offered the Right of First Refusal before any Shares held by the Holder may be sold or otherwise transferred.

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(vi) EXCEPTION FOR CERTAIN FAMILY TRANSFERS. Anything to the contrary contained in this Section 3(b) notwithstanding, the transfer of any or all of the Shares during Purchaser's lifetime or on Purchaser's death by will or intestacy to Purchaser's Immediate Family (as defined below) or a trust for the benefit of Purchaser's Immediate Family shall be exempt from the provisions of this Section 3(b). "Immediate Family" as used herein shall mean spouse, lineal descendant or antecedent, father, mother, brother or sister. In such case, the transferee or other recipient shall receive and hold the Shares so transferred subject to the provisions of this Section, and there shall be no further transfer of such Shares except in accordance with the terms of this Section 3.

(b) INVOLUNTARY TRANSFER.

(i) COMPANY'S RIGHT TO PURCHASE UPON INVOLUNTARY TRANSFER. In the event, at any time after the date of this Agreement, of any transfer by operation of law or other involuntary transfer (including divorce or death, but excluding, in the event of death, a transfer to Immediate Family as set forth in Section 3(b)(vi) above) of all or a portion of the Shares by the record holder thereof, the Company shall have the right to purchase all of the Shares transferred at the greater of the purchase price paid by Purchaser pursuant to

this Agreement or the Fair Market Value of the Shares on the date of transfer. Upon such a transfer, the person acquiring the Shares shall promptly notify the Secretary of the Company of such transfer. The right to purchase such Shares shall be provided to the Company for a period of 30 days following receipt by the Company of written notice by the person acquiring the Shares.

(ii) PRICE FOR INVOLUNTARY TRANSFER. With respect to any stock to be transferred pursuant to Section 3(c)(i), the price per Share shall be a price set by the Board of Directors of the Company that will reflect the current value of the stock in terms of present earnings and future prospects of the Company. The Company shall notify Purchaser or his or her executor of the price so determined within 30 days after receipt by it of written notice of the transfer or proposed transfer of Shares. However, if the Purchaser does not agree with the valuation as determined by the Board of Directors of the Company, the Purchaser shall be entitled to have the valuation determined by an independent appraiser to be mutually agreed upon by the Company and the Purchaser and whose fees shall be borne equally by the Company and the Purchaser.

(c) ASSIGNMENT. The right of the Company to purchase any part of the Shares may be assigned in whole or in part to any shareholder or shareholders of the Company or other persons or organizations; provided, however, that an assignee, other than a corporation that is the parent or a 100% owned subsidiary of the Company, must pay the Company, upon assignment of such right, cash equal to the difference between the original purchase price and fair market value, if the original purchase price is less than the fair market value of the Shares subject to the assignment.

(d) RESTRICTIONS BINDING ON TRANSFEREES. All transferees of Shares or any interest therein will receive and hold such Shares or interest subject to the provisions of this Agreement, including, insofar as applicable, the Repurchase Option. Any sale or transfer of the Shares shall be void unless the provisions of this Agreement are satisfied.

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(e) TERMINATION OF RIGHTS. The Right of First Refusal granted the Company by Section 3(a) above and the option to repurchase the Shares in the event of an involuntary transfer granted the Company by Section 3(b) above shall terminate upon the first sale of Common Stock of the Company to the general public pursuant to a registration statement filed with and declared effective by the Securities and Exchange Commission under the Securities Act of 1933, as amended (the "Securities Act"). Upon termination of the Right of First Refusal described in Section 3(a) above, a new certificate or certificates representing the Shares not repurchased shall be issued, on request, without the legend referred to in Section 6(a)(ii) herein and delivered to Purchaser.

4. INVESTMENT AND TAXATION REPRESENTATIONS. In connection with the purchase of the Shares, Purchaser represents to the Company the following:

(a) Purchaser is aware of the Company's business affairs and financial condition and has acquired sufficient information about the Company to reach an informed and knowledgeable decision to acquire the Shares. Purchaser is purchasing the Shares for investment for his or her own account only and not with a view to, or for resale in connection with, any "distribution" thereof within the meaning of the Securities Act.

(b) Purchaser understands that the Shares have not been registered under the Securities Act by reason of a specific exemption therefrom, which exemption depends upon, among other things, the bona fide nature of Purchaser's investment intent as expressed herein.

(c) Purchaser understands that the Shares are "restricted securities" under applicable U.S. federal and state securities laws and that, pursuant to these laws, Purchaser must hold the Shares indefinitely unless they are registered with the Securities and Exchange Commission and qualified by state authorities, or an exemption from such registration and qualification requirements is available. Purchaser acknowledges that the Company has no obligation to register or qualify the Shares for resale. Purchaser further acknowledges that if an exemption from registration or qualification is available, it may be conditioned on various requirements including, but not



limited to, the time and manner of sale, the holding period for the Shares, and requirements relating to the Company which are outside of the Purchaser's control, and which the Company is under no obligation and may not be able to satisfy.

(d) Purchaser understands that Purchaser may suffer adverse tax consequences as a result of Purchaser's purchase or disposition of the Shares. Purchaser represents that Purchaser has consulted any tax consultants Purchaser deems advisable in connection with the purchase or disposition of the Shares and that Purchaser is not relying on the Company for any tax advice.

#### 5 RESTRICTIVE LEGENDS AND STOP-TRANSFER ORDERS.

(a) LEGENDS. The certificate or certificates representing the Shares shall bear the following legends (as well as any legends required by applicable state and federal corporate and securities laws):

- (i) THE SHARES REPRESENTED BY THIS CERTIFICATE HAVE NOT BEEN REGISTERED UNDER THE

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SECURITIES ACT OF 1933, AND HAVE BEEN ACQUIRED FOR INVESTMENT AND NOT WITH A VIEW TO, OR IN CONNECTION WITH, THE SALE OR DISTRIBUTION THEREOF. NO SUCH SALE OR DISTRIBUTION MAY BE EFFECTED WITHOUT AN EFFECTIVE REGISTRATION STATEMENT RELATED THERETO OR AN OPINION OF COUNSEL IN A FORM SATISFACTORY TO THE COMPANY THAT SUCH REGISTRATION IS NOT REQUIRED UNDER THE SECURITIES ACT OF 1933.

- (ii) THE SHARES REPRESENTED BY THIS CERTIFICATE MAY BE TRANSFERRED ONLY IN ACCORDANCE WITH THE TERMS OF AN AGREEMENT BETWEEN THE COMPANY AND THE STOCKHOLDER, A COPY OF WHICH IS ON FILE WITH THE SECRETARY OF THE COMPANY.

(b) STOP-TRANSFER NOTICES. Purchaser agrees that, in order to ensure compliance with the restrictions referred to herein, the Company may issue appropriate "stop transfer" instructions to its transfer agent, if any, and that, if the Company transfers its own securities, it may make appropriate notations to the same effect in its own records.

(c) REFUSAL TO TRANSFER. The Company shall not be required (i) to transfer on its books any Shares that have been sold or otherwise transferred in violation of any of the provisions of this Agreement or (ii) to treat as owner of such Shares or to accord the right to vote or pay dividends to any purchaser or other transferee to whom such Shares shall have been so transferred.

6. NO EMPLOYMENT RIGHTS. Nothing in this Agreement shall affect in any manner whatsoever the right or power of the Company, or a Parent or Subsidiary of the Company, to terminate Purchaser's employment or consulting relationship, for any reason, with or without cause.

7. MARKET STANDOFF AGREEMENT. In connection with the initial public offering of the Company's securities and upon request of the Company or the underwriters managing such underwritten offering of the Company's securities, Purchaser agrees not to sell, make any short sale of, loan, grant any option for the purchase of, or otherwise dispose of any securities of the Company (other than those included in the registration) without the prior written consent of the Company or such underwriters, as the case may be, for such period of time (not to exceed 180 days) from the effective date of such registration as may be requested by the Company or such managing underwriters and to execute an agreement reflecting the foregoing as may be requested by the underwriters at the time of the Company's initial public offering.

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8. MISCELLANEOUS.

(a) GOVERNING LAW. This Agreement and all acts and transactions pursuant hereto and the rights and obligations of the parties hereto shall be governed, construed and interpreted in accordance with the laws of the State of California, without giving effect to principles of conflicts of law.

(b) ENTIRE AGREEMENT; ENFORCEMENT OF RIGHTS. This Agreement sets forth the entire agreement and understanding of the parties relating to the subject matter herein and merges all prior discussions between them. No modification of or amendment to this Agreement, nor any waiver of any rights under this Agreement, shall be effective unless in writing signed by the parties to this Agreement. The failure by either party to enforce any rights under this Agreement shall not be construed as a waiver of any rights of such party.

(c) SEVERABILITY. If one or more provisions of this Agreement are held to be unenforceable under applicable law, the parties agree to renegotiate such provision in good faith. In the event that the parties cannot reach a mutually agreeable and enforceable replacement for such provision, then (i) such provision shall be excluded from this Agreement, (ii) the balance of the Agreement shall be interpreted as if such provision were so excluded and (iii) the balance of the Agreement shall be enforceable in accordance with its terms.

(d) CONSTRUCTION. This Agreement is the result of negotiations between and has been reviewed by each of the parties hereto and their respective counsel, if any; accordingly, this Agreement shall be deemed to be the product of all of the parties hereto, and no ambiguity shall be construed in favor of or against any one of the parties hereto.

(e) NOTICES. Any notice required or permitted by this Agreement shall be in writing and shall be deemed sufficient when delivered personally or sent by telegram or fax or 48 hours after being deposited in the U.S. mail, as certified or registered mail, with postage prepaid, and addressed to the party to be notified at such party's address as set forth below or as subsequently modified by written notice.

(f) COUNTERPARTS. This Agreement may be executed in two or more counterparts, each of which shall be deemed an original and all of which together shall constitute one instrument.

(g) SUCCESSORS AND ASSIGNS. The rights and benefits of this Agreement shall inure to the benefit of, and be enforceable by the Company's successors and assigns. The rights and obligations of Purchaser under this Agreement may only be assigned with the prior written consent of the Company.

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The parties have executed this Agreement as of the date first set forth above.

COMPANY:

PDF SOLUTIONS, INC.

By:

-----

Name:

-----

(print)

Title:

-----

Address:

-----

-----

PURCHASER:

<<Optionee>>

-----  
(Signature)

-----  
(Print Name)

Address: -----  
-----

I, \_\_\_\_\_, spouse of <<Optionee>>, have read and hereby approve the foregoing Agreement. In consideration of the Company's granting my spouse the right to purchase the Shares as set forth in the Agreement, I hereby agree to be bound irrevocably by the Agreement and further agree that any community property or similar interest that I may have in the Shares shall hereby be similarly bound by the Agreement. I hereby appoint my spouse as my attorney-in-fact with respect to any amendment or exercise of any rights under the Agreement.

-----  
Spouse of <<Optionee>>

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EXHIBIT C

PROMISSORY NOTE

\$ \_\_\_\_\_ San Jose, California  
\_\_\_\_\_, 2000

For value received, the undersigned promises to pay PDF Solutions, Inc., a California corporation (the "Company"), at its principal office the principal sum of \$ \_\_\_\_\_ with interest from the date hereof at a rate of \_\_\_\_\_% per annum, compounded annually, on the unpaid balance of such principal sum. Such accrued interest shall be due and payable on each annual interest compounding date, and such principal shall be due and payable on \_\_\_\_\_.

If the undersigned's employment or consulting relationship with the Company is terminated prior to payment in full of this Note, this Note shall be immediately due and payable.

Principal and interest are payable in lawful money of the United States of America. AMOUNTS DUE UNDER THIS NOTE MAY BE PREPAID AT ANY TIME WITHOUT INTEREST OR PENALTY.

Should suit be commenced to collect any sums due under this Note, such sum as the Court may deem reasonable shall be added hereto as attorneys' fees. The makers and endorsers have severally waived presentment for payment, protest, notice of protest and notice of nonpayment of this Note.

This Note, which is full recourse, is secured by a pledge of certain shares of Common Stock of the Company and is subject to the terms of a Pledge and Security Agreement between the undersigned and the Company of even date herewith.

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<<Optionee>>

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EXHIBIT D

PLEDGE AND SECURITY AGREEMENT

This Pledge and Security Agreement (the "Agreement") is entered into this \_\_\_\_ day of \_\_\_\_\_ by and between PDF Solutions, Inc., a California corporation (the "Company") and <<Optionee>> ("Purchaser").

RECITALS

In connection with Purchaser's exercise of an option to purchase certain shares of the Company's Common Stock (the "Shares") pursuant to an Option Agreement dated \_\_\_\_\_ between Purchaser and the Company, Purchaser is delivering a promissory note of even date herewith (the "Note") in full or partial payment of the exercise price for the Shares. The company requires that the Note be secured by a pledge of the Shares or the terms set forth below.

AGREEMENT

In consideration of the Company's acceptance of the Note as full or partial payment of the exercise price of the Shares, and for other good and valuable consideration, the receipt of which is hereby acknowledged, the parties hereto agree as follows:

1. The Note shall become payable in full upon the voluntary or involuntary termination or cessation of employment of Purchaser with the Company, for any reason, with or without cause (including death or disability).

2. Purchaser shall deliver to the Secretary of the Company, or his or her designee (hereinafter referred to as the "Pledge Holder"), all certificates representing the Shares, together with an Assignment Separate from Certificate in the form attached to this Agreement as Attachment A executed by Purchaser and by Purchaser's spouse (if required for transfer), in blank, for use in transferring all or a portion of the Shares to the Company if, as and when required pursuant to this Agreement. In addition, if Purchaser is married, Purchaser's spouse shall execute the signature page attached to this Agreement.

3. As security for the payment of the Note and any renewal, extension or modification of the Note, Purchaser hereby grants to the Company a security interest in and pledges with and delivers to the Company Purchaser's Shares (sometimes referred to herein as the "Collateral").

4. In the event that Purchaser prepays all or a portion of the Note, in accordance with the provisions thereof, Purchaser intends, unless written notice to the contrary is delivered to the Pledge Holder, that the Shares represented by the portion of the Note so repaid, including annual interest thereon, shall continue to be so held by the Pledge Holder, to serve as independent collateral for the outstanding portion of the Note for the purpose of commencing the holding period set forth in Rule 144(d) promulgated under the Securities Act of 1933, as amended (the "Securities Act").

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5. In the event of any foreclosure of the security interest created by this Agreement, the Company may sell the Shares at a private sale or may repurchase the Shares itself. The parties agree that, prior to the establishment of a public market for the Shares of the Company, the securities laws affecting sale of the Shares make a public sale of the Shares commercially unreasonable. The parties further agree that the repurchasing of such Shares by the Company, or by any person to whom the Company may have assigned its rights under this Agreement, is commercially reasonable if made at a price determined by the Board of Directors in its discretion, fairly exercised, representing what would be the fair market value of the Shares reduced by any limitation on transferability, whether due to the size of the block of shares or the restrictions of applicable securities laws.

6. In the event of default in payment when due of any indebtedness under the Note, the Company may elect then, or at any time thereafter, to exercise all rights available to a secured party under the California Commercial Code including the right to sell the Collateral at a private or public sale or repurchase the Shares as provided above. The proceeds of any sale shall be applied in the following order:

(a) To the extent necessary, proceeds shall be used to pay all reasonable expenses of the Company in enforcing this Agreement and the Note, including, without limitation, reasonable attorney's fees and legal expenses incurred by the Company.

(b) To the extent necessary, proceeds shall be used to satisfy any remaining indebtedness under Purchaser's Note.

(c) Any remaining proceeds shall be delivered to Purchaser.

7. Upon full payment by Purchaser of all amounts due under the Note, Pledge Holder shall deliver to Purchaser all Shares in Pledge Holder's possession belonging to Purchaser, and Pledge Holder shall thereupon be discharged of all further obligations under this Agreement; provided, however, that Pledge Holder shall nevertheless retain the Shares as escrow agent if at the time of full payment by Purchaser said Shares are still subject to a Repurchase Option in favor of the Company.

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The parties have executed this Pledge and Security Agreement as of the date first set forth above.

COMPANY:

PDF SOLUTIONS, Inc.

By:

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Name:

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(print)

Title:

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PURCHASER:

<<Optionee>>

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(Signature)

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(Print Name)

Address:

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ATTACHMENT A

ASSIGNMENT SEPARATE FROM CERTIFICATE

FOR VALUE RECEIVED and pursuant to that certain Pledge and Security Agreement between the undersigned ("Purchaser") and PDF Solutions, Inc., dated \_\_\_\_\_, (the "Agreement"), Purchaser hereby sells, assigns and transfers unto \_\_\_\_\_ (\_\_\_\_\_) shares of the Common Stock of PDF Solutions, Inc., standing in Purchaser's name on the books of said corporation represented by Certificate No. \_\_\_ herewith and hereby irrevocably appoints \_\_\_\_\_ to transfer said stock on the books of

the within-named corporation with full power of substitution in the premises.  
THIS ASSIGNMENT MAY ONLY BE USED AS AUTHORIZED BY THE AGREEMENT.

Dated: \_\_\_\_\_

Signature:

\_\_\_\_\_  
<<Optionee>>

\_\_\_\_\_  
Spouse of <<Optionee>> (if applicable)

Instruction: Please do not fill in any blanks other than the signature line. The purpose of this assignment is to perfect the security interest of the Company pursuant to the Agreement.

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RECEIPT

The undersigned hereby acknowledges receipt of Certificate No. \_\_\_\_\_ for \_\_\_\_\_ shares of Common Stock of PDF Solutions, Inc.

Dated: \_\_\_\_\_

\_\_\_\_\_  
<<Optionee>>

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RECEIPT AND CONSENT

The undersigned hereby acknowledges receipt of a photocopy Certificate No. \_\_\_\_\_ purchaser for \_\_\_\_\_ shares of Common Stock of PDF Solutions, Inc. (the "Company").

The undersigned further acknowledges that the Secretary of the Company, or his or her designee, is acting as Pledge Holder pursuant to the Pledge and Security Agreement Purchaser has previously entered into with the Company. As Pledge Holder, the Secretary of the Company, or his or her designee, holds the original of the aforementioned certificate issued in the undersigned's name.

Dated: \_\_\_\_\_

\_\_\_\_\_  
<<Optionee>>

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RECEIPT

PDF Solutions, Inc. (the "Company") hereby acknowledges receipt of a check in the amount of \$\_\_\_\_\_ given by <<Optionee>> as consideration for Certificate No. \_\_\_\_\_ for \_\_\_\_\_ shares of Common Stock of PDF Solutions, Inc.

Dated: \_\_\_\_\_

PDF Solutions, Inc.

By: \_\_\_\_\_

Name: \_\_\_\_\_  
(print)

Title: \_\_\_\_\_

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PDF SOLUTIONS, INC.

NOTICE OF GRANT OF STOCK PURCHASE RIGHTS

<<Optionee>>

You have been granted an option to purchase Common Stock ("Common Stock") of PDF Solutions, Inc. (the "Company") as follows:

Board Approval Date:	<<BoardApprovDate>>
Vesting Commencement Date:	<<VestingCommenceDate>>
Exercise Price Per Share:	\$<<ExercisePrice>>
Total No. Purchase Rights Granted:	<<NoofShares>>
Total Purchase Price:	\$<<TotalExercisePrice>>
Vesting Schedule:	<<Vesting>>
Termination Period:	This Option may be exercised for 60 days after termination of employment or consulting relationship.

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By your signature and the signature of the Company's representative below, you and the Company agree that this option is granted under and governed by the terms and conditions of the Restricted Stock Purchase Agreement, which is attached and made a part of this document.

<<OPTIONEE>>: PDF SOLUTIONS, INC.:

By: \_\_\_\_\_

-----  
Signature

P. S. Melman, CFO  
-----

-----  
Print Name

Print Name and Title

-----  
Address

-----  
Address

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1997 STOCK PLAN

This Restricted Stock Purchase Agreement (the "Agreement") is made as of \_\_\_\_\_, 2000 by and between PDF Solutions, Inc., a California corporation (the "Company"), and <<Optionee>> ("Purchaser") pursuant to the Company's 1997 Stock Plan. To the extent any capitalized terms used in this Agreement are not defined, they shall have the meaning ascribed to them in the 1997 Stock Plan.

1. SALE OF STOCK. Subject to the terms and conditions of this Agreement, on the Purchase Date (as defined below) the Company will issue and sell to Purchaser, and Purchaser agrees to purchase from the Company, <<NoofShares>> shares of the Company's Common Stock (the "Shares") at a purchase price of \$<<ExercisePrice>> per Share for a total purchase price of \$<<TotalExercisePrice>>. The per share purchase price of the Shares shall be not less than 85% of the Fair Market Value of the Shares as of the date of offer of the Shares to Purchaser, or, in the case of any person owning stock representing more than 10% of the total combined voting power of all classes of stock of the Company (or any affiliated company), the per share price shall be not less than 100% of the Fair Market Value of the Shares on such date. The term "Shares" refers to the purchased Shares and all securities received in replacement of or in connection with the Shares pursuant to stock dividends or splits, all securities received in replacement of the Shares in a recapitalization, merger, reorganization, exchange or the like, and all new, substituted or additional securities or other properties to which Purchaser is entitled by reason of Purchaser's ownership of the Shares.

2. PURCHASE. The purchase and sale of the Shares under this Agreement shall occur at the principal office of the Company simultaneously with the execution of this Agreement by the parties, or on such other date as the Company and Purchaser shall agree (the "Purchase Date"). On the Purchase Date, the Company will deliver to Purchaser a certificate representing the Shares to be purchased by Purchaser (which shall be issued in Purchaser's name) against payment of the purchase price therefor by Purchaser by (a) check made payable to the Company, (b) cancellation of indebtedness of the Company to Purchase, (c) delivery of a promissory note in the form attached as Exhibit A to this Agreement (or in any form acceptable to the Company), or (d) by a combination of the foregoing. If Purchaser delivers a promissory note as partial or full payment of the purchase price, Purchaser shall also deliver a Pledge and Security Agreement in the form attached as Exhibit B to this Agreement (or in any form acceptable to the Company).

3. LIMITATIONS ON TRANSFER. In addition to any other limitation on transfer created by applicable securities laws, Purchaser shall not assign, encumber or dispose of any interest in the Shares while the Shares are subject to the Company's Repurchase Option (as defined below). After any Shares have been released from such Repurchase Option, Purchaser shall not assign, encumber or dispose of any interest in such Shares except in compliance with the provisions below and applicable securities laws.

(a) REPURCHASE OPTION.

(i) In the event of the voluntary or involuntary termination of Purchaser's employment or consulting relationship with the Company for any reason (including death or disability), with or without cause, the Company shall upon the date of such termination (the "Termination Date") have an irrevocable, exclusive option (the "Repurchase Option") for a period of 60 days from such date to repurchase all or any portion of the Shares held by Purchaser as of the Termination Date which have not yet been released from the Company's Repurchase Option at the original purchase price per Share specified in Section 1 (adjusted for any stock splits, stock dividends and the like).

(ii) The Repurchase Option shall be exercised by the Company by written notice to Purchaser or Purchaser's executor and, at the Company's option, (A) by delivery to Purchaser or Purchaser's executor with such notice of a check in the amount of the purchase price for the Shares being purchased, or (B) in the event Purchaser is indebted to the Company, by cancellation by the Company of an amount of such indebtedness equal to the purchase price for the Shares being repurchased, or (C) by a combination of (A) and (B) so that the combined payment and cancellation of indebtedness equals such purchase price. Upon delivery of such notice and payment of the purchase price in any of the ways described above, the Company shall become the legal and beneficial owner of



the Shares being repurchased and all rights and interest therein or related thereto, and the Company shall have the right to transfer to its own name the number of Shares being repurchased by the Company, without further action by Purchaser.

(iii) One hundred percent (100%) of the Shares shall initially be subject to the Repurchase Option. The Shares shall begin to be released from the Repurchase Option on the Vesting Commencement Date. 1/24th of the total number of Shares shall be released from the Repurchase Option each month thereafter on the Monthly Vesting Date (as set forth in the signature page of this Agreement), until all Shares are released from the Repurchase Option. Fractional shares shall be rounded to the nearest whole share.

(b) RIGHT OF FIRST REFUSAL. Before any Shares held by Purchaser or any transferee of Purchaser (either being sometimes referred to herein as the "Holder") may be sold or otherwise transferred (including transfer by gift or operation of law), the Company or its assignee(s) shall have a right of first refusal to purchase the Shares on the terms and conditions set forth in this Section 3(b) (the "Right of First Refusal").

(i) NOTICE OF PROPOSED TRANSFER. The Holder of the Shares shall deliver to the Company a written notice (the "Notice") stating: (A) the Holder's bona fide intention to sell or otherwise transfer such Shares; (B) the name of each proposed purchaser or other transferee ("Proposed Transferee"); (C) the number of Shares to be transferred to each Proposed Transferee; and (D) the terms and conditions of each proposed sale or transfer. The Holder shall offer the Shares at the same price (the "Offered Price") and upon the same terms (or terms as similar as reasonably possible) to the Company or its assignee(s).

(ii) EXERCISE OF RIGHT OF FIRST REFUSAL. At any time within thirty (30) days after receipt of the Notice, the Company and/or its assignee(s) may, by giving written notice to the Holder, elect to purchase all, but not less than all, of the Shares proposed to be transferred to any one or more of the Proposed Transferees, at the purchase price determined in accordance with subsection (iii) below.

(iii) PURCHASE PRICE. The purchase price ("Purchase Price") for the Shares purchased by the Company or its assignee(s) under this Section 3(b) shall be the Offered Price. If the Offered Price includes consideration other than cash, the cash equivalent value of the non-cash consideration shall be determined by the Board of Directors of the Company in good faith.

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(iv) PAYMENT. Payment of the Purchase Price shall be made, at the option of the Company or its assignee(s), in cash (by check), by cancellation of all or a portion of any outstanding indebtedness of the Holder to the Company (or, in the case of repurchase by an assignee, to the assignee), or by any combination thereof within 30 days after receipt of the Notice or in the manner and at the times set forth in the Notice.

(v) HOLDER'S RIGHT TO TRANSFER. If all of the Shares proposed in the Notice to be transferred to a given Proposed Transferee are not purchased by the Company and/or its assignee(s) as provided in this Section 3(b), then the Holder may sell or otherwise transfer such Shares to that Proposed Transferee at the Offered Price or at a higher price, provided that such sale or other transfer is consummated within 60 days after the date of the Notice and provided further that any such sale or other transfer is effected in accordance with any applicable securities laws and the Proposed Transferee agrees in writing that the provisions of this Section 3 shall continue to apply to the Shares in the hands of such Proposed Transferee. If the Shares described in the Notice are not transferred to the Proposed Transferee within such period, or if the Holder proposes to change the price or other terms to make them more favorable to the Proposed Transferee, a new Notice shall be given to the Company, and the Company and/or its assignees shall again be offered the Right of First Refusal before any Shares held by the Holder may be sold or otherwise transferred.

(vi) EXCEPTION FOR CERTAIN FAMILY TRANSFERS. Anything to the contrary contained in this Section 3(b) notwithstanding, the transfer of any or all of the Shares during Purchaser's lifetime or on Purchaser's death by will or

intestacy to Purchaser's Immediate Family or a trust for the benefit of Purchaser's Immediate Family shall be exempt from the provisions of this Section 3(b). "Immediate Family" as used herein shall mean spouse, lineal descendant or antecedent, father, mother, brother or sister. In such case, the transferee or other recipient shall receive and hold the Shares so transferred subject to the provisions of this Section, and there shall be no further transfer of such Shares except in accordance with the terms of this Section 3.

(c) INVOLUNTARY TRANSFER.

(i) COMPANY'S RIGHT TO PURCHASE UPON INVOLUNTARY TRANSFER.

In the event, at any time after the date of this Agreement, of any transfer by operation of law or other involuntary transfer (including death or divorce, but excluding a transfer to Immediate Family as set forth in Section 3(b)(vi) above) of all or a portion of the Shares by the record holder thereof, the Company shall have an option to purchase all of the Shares transferred at the greater of the purchase price paid by Purchaser pursuant to this Agreement or the Fair Market Value of the Shares on the date of transfer. Upon such a transfer, the person acquiring the Shares shall promptly notify the Secretary of the Company of such transfer. The right to purchase such Shares shall be provided to the Company for a period of thirty (30) days following receipt by the Company of written notice by the person acquiring the Shares.

(ii) PRICE FOR INVOLUNTARY TRANSFER. With respect to any stock to be transferred pursuant to Section 3(c)(i), the price per Share shall be a price set by the Board of Directors of the Company that will reflect the current value of the stock in terms of present earnings and future prospects of the Company. The Company shall notify Purchaser or his or her

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executor of the price so determined within thirty (30) days after receipt by it of written notice of the transfer or proposed transfer of Shares. However, if the Purchaser does not agree with the valuation as determined by the Board of Directors of the Company, the Purchaser shall be entitled to have the valuation determined by an independent appraiser to be mutually agreed upon by the Company and the Purchaser and whose fees shall be borne equally by the Company and the Purchaser.

(d) ASSIGNMENT. The right of the Company to purchase any part of the Shares may be assigned in whole or in part to any stockholder or stockholders of the Company or other persons or organizations; provided, however, that an assignee, other than a corporation that is the parent or a 100% owned subsidiary of the Company, must pay the Company, upon assignment of such right, cash equal to the difference between the original purchase price and Fair Market Value, if the original purchase price is less than the Fair Market Value of the Shares subject to the assignment.

(e) RESTRICTIONS BINDING ON TRANSFEREES. All transferees of Shares or any interest therein will receive and hold such Shares or interest subject to the provisions of this Agreement, including, insofar as applicable, the Company's option to repurchase under Section 3(a). Any sale or transfer of the Company's Shares shall be void unless the provisions of this Agreement are met.

(f) TERMINATION OF RIGHTS. The right of first refusal granted the Company by Section 3(b) above and the option to repurchase the Shares in the event of an involuntary transfer granted the Company by Section 3(c) above shall terminate upon the first sale of Common Stock of the Company to the general public pursuant to a registration statement filed with and declared effective by the Securities and Exchange Commission under the Securities Act of 1933, as amended (the "Securities Act"). Upon termination of the Right of First Refusal and the expiration or exercise of the Repurchase Option, a new certificate or certificates representing the Shares not repurchased shall be issued, on request, without the legend referred to in Section 6(a)(ii) herein and delivered to Purchaser.

4. ESCROW OF UNVESTED SHARES. For purposes of facilitating the enforcement of the provisions of Section 3 above, Purchaser agrees, immediately upon receipt of the certificate(s) for the Shares subject to the Company's Repurchase Option described in Section 3(a), to deliver such certificate(s), together with an Assignment Separate from Certificate in the form attached to this Agreement as Exhibit C executed by Purchaser and by Purchaser's spouse (if

required for transfer), in blank, to the Secretary of the Company, or the Secretary's designee, to hold such certificate(s) and Assignment Separate from Certificate in escrow and to take all such actions and to effectuate all such transfers and/or releases as are in accordance with the terms of this Agreement. Purchaser hereby acknowledges that the Secretary of the Company, or the Secretary's designee, is so appointed as the escrow holder with the foregoing authorities as a material inducement to make this Agreement and that said appointment is coupled with an interest and is accordingly irrevocable. Purchaser agrees that said escrow holder shall not be liable to any party hereof (or to any other party). The escrow holder may rely upon any letter, notice or other document executed by any signature purported to be genuine and may resign at any time. Purchaser agrees that if the Secretary of the Company, or the Secretary's designee, resigns as escrow holder for any or no reason, the Board of Directors of the Company shall have

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the power to appoint a successor to serve as escrow holder pursuant to the terms of this Agreement.

5. INVESTMENT AND TAXATION REPRESENTATIONS. In connection with the purchase of the Shares, Purchaser represents to the Company the following:

(a) Purchaser is aware of the Company's business affairs and financial condition and has acquired sufficient information about the Company to reach an informed and knowledgeable decision to acquire the securities. Purchaser is purchasing these securities for investment for his or her own account only and not with a view to, or for resale in connection with, any "distribution" thereof within the meaning of the Securities Act.

(b) Purchaser understands that the securities have not been registered under the Securities Act by reason of a specific exemption therefrom, which exemption depends upon, among other things, the bona fide nature of Purchaser's investment intent as expressed herein.

(c) Purchaser further acknowledges and understands that the Shares are "restricted securities" under applicable U.S. federal and state securities laws and that, pursuant to these laws, Purchaser must hold the Shares indefinitely unless they are registered with the Securities and Exchange Commission and qualified by state authorities, or an exemption from such registration and qualification requirements is available. Purchaser acknowledges that the Company has no obligation to register or qualify the Shares for resale. Purchaser further acknowledges that if an exemption from registration or qualification is available, it may be conditioned on various requirements including, but not limited to, the time and manner of sale, the holding period for the Shares, and requirements relating to the Company which are outside of Purchaser's control, and which the Company is under no obligation and may not be able to satisfy.

(d) Purchaser understands that Purchaser may suffer adverse tax consequences as a result of Purchaser's purchase or disposition of the Shares. Purchaser represents that Purchaser has consulted any tax consultants Purchaser deems advisable in connection the purchase or disposition of the Shares and that Purchaser is not relying on the Company for any tax advice.

6. RESTRICTIVE LEGENDS AND STOP-TRANSFER ORDERS.

(a) LEGENDS. The certificate or certificates representing the Shares shall bear the following legends (as well as any legends required by applicable state and federal corporate and securities laws):

(i) THE SECURITIES REPRESENTED HEREBY HAVE NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933 (THE "ACT") AND MAY NOT BE OFFERED, SOLD OR OTHERWISE TRANSFERRED, PLEDGED OR HYPOTHECATED UNLESS AND UNTIL REGISTERED UNDER THE ACT OR, IN THE OPINION OF COUNSEL IN FORM AND SUBSTANCE SATISFACTORY TO THE ISSUER OF THESE

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SECURITIES, SUCH OFFER, SALE OR TRANSFER, PLEDGE OR  
HYPOTHECATION IS IN COMPLIANCE THEREWITH.

- (ii) THE SHARES REPRESENTED BY THIS CERTIFICATE ARE SUBJECT TO CERTAIN RESTRICTIONS ON TRANSFER AND RIGHT OF FIRST REFUSAL OPTIONS HELD BY THE ISSUER OR ITS ASSIGNEE(S) AS SET FORTH IN THE RESTRICTED STOCK PURCHASE AGREEMENT BETWEEN THE ISSUER AND THE ORIGINAL HOLDER OF THESE SHARES, A COPY OF WHICH MAY BE OBTAINED AT THE PRINCIPAL OFFICE OF THE ISSUER. SUCH TRANSFER RESTRICTIONS AND RIGHT OF FIRST REFUSAL ARE BINDING ON TRANSFEREES OF THESE SHARES.

(b) STOP-TRANSFER NOTICES. Purchaser agrees that, in order to ensure compliance with the restrictions referred to herein, the Company may issue appropriate "stop transfer" instructions to its transfer agent, if any, and that, if the Company transfers its own securities, it may make appropriate notations to the same effect in its own records.

(c) REFUSAL TO TRANSFER. The Company shall not be required (i) to transfer on its books any Shares that have been sold or otherwise transferred in violation of any of the provisions of this Agreement or (ii) to treat as owner of such Shares or to accord the right to vote or pay dividends to any purchaser or other transferee to whom such Shares shall have been so transferred.

7. NO EMPLOYMENT RIGHTS. Nothing in this Agreement shall affect in any manner whatsoever the right or power of the Company, or a parent or subsidiary of the Company, to terminate Purchaser's employment, for any reason, with or without cause.

8. SECTION 83(b) ELECTION. Purchaser understands that Section 83(a) of the Internal Revenue Code of 1986, as amended (the "Code"), taxes as ordinary income the difference between the amount paid for the Shares and the Fair Market Value of the Shares as of the date any restrictions on the Shares lapse. In this context, "restriction" means the right of the Company to buy back the Shares pursuant to the Repurchase Option set forth in Section 3(a) of this Agreement. Purchaser understands that Purchaser may elect to be taxed at the time the Shares are purchased, rather than when and as the Repurchase Option expires, by filing an election under Section 83(b) (an "83(b) Election") of the Code with the Internal Revenue Service within 30 days from the date of purchase. Even if the Fair Market Value of the Shares at the time of the execution of this Agreement equals the amount paid for the Shares, the election must be made to avoid income under Section 83(a) in the future. Purchaser understands that failure to file such an election in a timely manner may result in adverse tax consequences for Purchaser. Purchaser further understands that an additional copy of such election form should be filed with his or her federal income tax return for the calendar year in which the date of this Agreement falls. Purchaser acknowledges that the foregoing is only a summary of the effect of United

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States federal income taxation with respect to purchase of the Shares hereunder, and does not purport to be complete. Purchaser further acknowledges that the Company has directed Purchaser to seek independent advice regarding the applicable provisions of the Code, the income tax laws of any municipality, state or foreign country in which Purchaser may reside, and the tax consequences of Purchaser's death.

Purchaser agrees that he will execute and deliver to the Company with this executed Agreement a copy of the Acknowledgment and Statement of Decision Regarding Section 83(b) Election (the "Acknowledgment"), attached hereto as Exhibit D. Purchaser further agrees that Purchaser will execute and submit with the Acknowledgment a copy of the 83(b) Election, attached hereto as Exhibit E, if Purchaser has indicated in the Acknowledgment his or her decision to make such an election.

9. MARKET STANDOFF AGREEMENT. In connection with the initial public offering of the Company's securities and upon request of the Company or the underwriters managing any underwritten offering of the Company's securities, Purchaser agrees not to sell, make any short sale of, loan, grant any option for the purchase of, or otherwise dispose of any Shares (other than those included

in the registration) without the prior written consent of the Company or such underwriters, as the case may be, for such period of time (not to exceed 180 days) from the effective date of such registration as may be requested by the Company or such managing underwriters and to execute an agreement reflecting the foregoing as may be requested by the underwriters at the time of the Company's initial public offering.

11. MISCELLANEOUS.

(a) GOVERNING LAW. This Agreement and all acts and transactions pursuant hereto and the rights and obligations of the parties hereto shall be governed, construed and interpreted in accordance with the laws of the State of California, without giving effect to principles of conflicts of law.

(b) ENTIRE AGREEMENT; ENFORCEMENT OF RIGHTS. This Agreement sets forth the entire agreement and understanding of the parties relating to the subject matter herein and merges all prior discussions between them. No modification of or amendment to this Agreement, nor any waiver of any rights under this Agreement, shall be effective unless in writing signed by the parties to this Agreement. The failure by either party to enforce any rights under this Agreement shall not be construed as a waiver of any rights of such party.

(c) SEVERABILITY. If one or more provisions of this Agreement are held to be unenforceable under applicable law, the parties agree to renegotiate such provision in good faith. In the event that the parties cannot reach a mutually agreeable and enforceable replacement for such provision, then (i) such provision shall be excluded from this Agreement, (ii) the balance of the Agreement shall be interpreted as if such provision were so excluded and (iii) the balance of the Agreement shall be enforceable in accordance with its terms.

(d) CONSTRUCTION. This Agreement is the result of negotiations between and has been reviewed by each of the parties hereto and their respective counsel, if any; accordingly,

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this Agreement shall be deemed to be the product of all of the parties hereto, and no ambiguity shall be construed in favor of or against any one of the parties hereto.

(e) NOTICES. Any notice required or permitted by this Agreement shall be in writing and shall be deemed sufficient when delivered personally or sent by telegram or fax or forty-eight (48) hours after being deposited in the U.S. mail, as certified or registered mail, with postage prepaid, and addressed to the party to be notified at such party's address as set forth below or as subsequently modified by written notice.

(f) COUNTERPARTS. This Agreement may be executed in two or more counterparts, each of which shall be deemed an original and all of which together shall constitute one instrument.

(g) SUCCESSORS AND ASSIGNS. The rights and benefits of this Agreement shall inure to the benefit of, and be enforceable by the Company's successors and assigns. The rights and obligations of Purchaser under this Agreement may only be assigned with the prior written consent of the Company.

(h) CALIFORNIA CORPORATE SECURITIES LAW. THE SALE OF THE SECURITIES WHICH ARE THE SUBJECT OF THIS AGREEMENT HAS NOT BEEN QUALIFIED WITH THE COMMISSIONER OF CORPORATIONS OF THE STATE OF CALIFORNIA AND THE ISSUANCE OF THE SECURITIES OR THE PAYMENT OR RECEIPT OF ANY PART OF THE CONSIDERATION THEREFOR PRIOR TO THE QUALIFICATION IS UNLAWFUL, UNLESS THE SALE OF SECURITIES IS EXEMPT FROM QUALIFICATION BY SECTION 25100, 25102 OR 25105 OF THE CALIFORNIA CORPORATIONS CODE. THE RIGHTS OF ALL PARTIES TO THIS AGREEMENT ARE EXPRESSLY CONDITIONED UPON THE QUALIFICATION BEING OBTAINED, UNLESS THE SALE IS SO EXEMPT.

[Signature Page Follows]

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The parties have executed this Agreement as of the date first set forth above.

PDF SOLUTIONS, INC.

By: \_\_\_\_\_

Title: \_\_\_\_\_

Address:  
333 West San Carlos Street, Suite 700  
San Jose, CA 95110

PURCHASER:

<<Optionee>>

\_\_\_\_\_  
(Signature)

Address:  
\_\_\_\_\_  
\_\_\_\_\_

Monthly Vesting  
Date: \_\_ of each month

I, \_\_\_\_\_, spouse of <<Optionee>>, have read and hereby approve the foregoing Agreement. In consideration of the Company's granting my spouse the right to purchase the Shares as set forth in the Agreement, I hereby agree to be irrevocably bound by the Agreement and further agree that any community property or other such interest shall be similarly bound by the Agreement. I hereby appoint my spouse as my attorney-in-fact with respect to any amendment or exercise of any rights under the Agreement.

\_\_\_\_\_  
Spouse of <<Optionee>>

EXHIBIT A  
PROMISSORY NOTE

\$ \_\_\_\_\_, California  
\_\_\_\_\_, 2000

For value received, the undersigned promises to pay PDF Solutions, Inc., a California corporation (the "Company"), at its principal office the principal sum of \$ \_\_\_\_\_ with interest from the date hereof at a rate of \_\_\_\_\_% per annum, compounded semiannually, on the unpaid balance of such principal sum. Such principal and interest shall be due and payable on the fourth anniversary of the date of this note.

If the undersigned's employment or consulting relationship with the Company is terminated prior to payment in full of this Note, this Note shall be immediately due and payable.

Principal and interest are payable in lawful money of the United States

of America. AMOUNTS DUE UNDER THIS NOTE MAY BE PREPAID AT ANY TIME WITHOUT INTEREST OR PENALTY.

Should suit be commenced to collect any sums due under this Note, such sum as the Court may deem reasonable shall be added hereto as attorneys' fees. The makers and endorsers have severally waived presentment for payment, protest, notice of protest, and notice of nonpayment of this Note.

This Note, which is full recourse, is secured by a pledge of certain shares of Common Stock of the Company and is subject to the terms of a Pledge and Security Agreement between the undersigned and the Company of even date herewith.

-----  
<<Optionee>>

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#### EXHIBIT B

#### PLEDGE AND SECURITY AGREEMENT

This Pledge and Security Agreement (the "Agreement") is entered into this day of \_\_\_\_\_, 2000 by and between PDF Solutions, Inc., a California corporation (the "Company") and <<Optionee>> ("Purchaser").

#### RECITALS

In connection with Purchaser's purchase of certain shares of the Company's Common Stock (the "Shares") pursuant to a Restricted Stock Purchase Agreement dated \_\_\_\_\_, 2000 between Purchaser and the Company, Purchaser is delivering a promissory note of even date herewith (the "Note") in full or partial payment of the exercise price for the Shares. The Company requires that the Note be secured by a pledge of the Shares on the terms set forth below.

#### AGREEMENT

In consideration of the Company's acceptance of the Note as full or partial payment of the exercise price of the Shares, and for other good and valuable consideration, the receipt of which is hereby acknowledged, the parties hereto agree as follows:

1. The Note shall become payable in full upon the voluntary or involuntary termination or cessation of employment of Purchaser with the Company, for any reason, with or without cause (including death or disability).

2. Purchaser shall deliver to the Secretary of the Company, or his or her designee (hereinafter referred to as the "Pledge Holder"), all certificates representing the Shares, together with an Assignment Separate from Certificate in the form attached to this Agreement as Attachment A executed by Purchaser and by Purchaser's spouse (if required for transfer), in blank, for use in transferring all or a portion of the Shares to the Company if, as an when required pursuant to this Agreement. In addition, if Purchaser is married, Purchaser's spouse shall execute the signature page attached to this Agreement.

3. As security for the payment of the Note and any renewal, extension or modification of the Note, Purchaser hereby grants to the Company a security interest in and pledges with and delivers to the Company Purchaser's Shares (sometimes referred to herein as the "Collateral").

4. In the event that Purchaser prepays all or a portion of the Note, in accordance with the provisions thereof, Purchaser intends, unless written notice to the contrary is delivered to the Pledge Holder, that the Shares represented by the portion of the Note so repaid, including annual interest thereon, shall continue to be so held by the Pledge Holder, to serve as independent collateral for the outstanding portion of the Note for the purpose of commencing the holding period set forth in Rule 144(d) promulgated under the Securities Act of 1933, as amended (the "Securities Act").

5. In the event of any foreclosure of the security interest created by this Agreement, the Company may sell the Shares at a private sale or may repurchase the Shares itself. The parties agree that, prior to the establishment of a public market for the Shares of the Company, the securities laws affecting sale of the Shares make a public sale of the Shares commercially unreasonable. The parties further agree that the repurchasing of such Shares by the Company, or by any person to whom the Company may have assigned its rights under this Agreement, is commercially reasonable if made at a price determined by the Board of Directors in its discretion, fairly exercised, representing what would be the fair market value of the Shares reduced by any limitation on transferability, whether due to the size of the block of shares or the restrictions of applicable securities laws.

6. In the event of default in payment when due of any indebtedness under the Note, the Company may elect than, or at any time thereafter, to exercise all rights available to a secured party under the California commercial Code including the right to sell the Collateral at a private or public sale or repurchase the Shares as provided above. The proceeds of any sale shall be applied in the following order:

(a) To the extent necessary, proceeds shall be used to pay all reasonable expenses of the Company in enforcing this Agreement and the Note, including, without limitation, reasonable attorney's fees and legal expenses incurred by the Company.

(b) To the extent necessary, proceeds shall be used to satisfy any remaining indebtedness under Purchaser's Note.

(c) Any remaining proceeds shall be delivered to Purchaser.

7. Upon full payment by Purchaser of all amounts due under the Note, Pledge Holder shall deliver to Purchaser all Shares in Pledge Holder's possession belonging to Purchaser, and Pledge Holder shall thereupon be discharged of all further obligations under this Agreement; provided, however, that Pledge Holder shall nevertheless retain the Shares as escrow agent if at the time of full payment by Purchaser said Shares are still subject to a Repurchase Option in favor of the Company.

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The parties have executed this Pledge and Security Agreement as of the date first set forth above.

COMPANY:

PDF SOLUTIONS, Inc.

By:

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Name:

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(print)

Title:

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Address:

333 West San Carlos Street, Suite 700  
San Jose, CA 95110

PURCHASER:

<<Optionee>>

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(Signature)



Address:

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ATTACHMENT A

ASSIGNMENT SEPARATE FROM CERTIFICATE

FOR VALUE RECEIVED and pursuant to that certain Pledge and Security Agreement between the undersigned ("Purchaser") and PDF Solutions, Inc., dated \_\_\_\_\_, 2000 (the "Agreement"), Purchaser hereby sells, assigns and transfers unto \_\_\_\_\_ (\_\_\_\_\_) shares of the Common Stock of PDF Solutions, Inc., standing in Purchaser's name on the books of said corporation represented by Certificate No. \_\_\_ herewith and hereby irrevocably appoints \_\_\_\_\_ to transfer said stock on the books of the within-named corporation with full power of substitution in the premises. THIS ASSIGNMENT MAY ONLY BE USED AS AUTHORIZED BY THE AGREEMENT.

Dated: \_\_\_\_\_

Signature:

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<<Optionee>>

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Spouse of <<Optionee>> (if applicable)

Instruction: Please do not fill in any blanks other than the signature line. The purpose of this assignment is to perfect the security interest of the Company pursuant to the Agreement.

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EXHIBIT C

ASSIGNMENT SEPARATE FROM CERTIFICATE

FOR VALUE RECEIVED and pursuant to that certain Restricted Stock Purchase Agreement between the undersigned ("Purchaser") and PDF Solutions, Inc., dated \_\_\_\_\_ 2000 (the "Agreement"), Purchaser hereby sells, assigns and transfers unto \_\_\_\_\_ (\_\_\_\_\_) shares of the Common Stock of PDF Solutions, Inc., standing in Purchaser's name on the books of said corporation represented by Certificate No. \_\_\_ herewith and does hereby irrevocably constitute and appoint \_\_\_\_\_ to transfer said stock on the books of the within-named corporation with full power of substitution in the premises. THIS ASSIGNMENT MAY ONLY BE USED AS AUTHORIZED BY THE AGREEMENT AND THE EXHIBITS THERETO.

Dated: \_\_\_\_\_

Signature:

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<<Optionee>>

-----  
Spouse of <<Optionee>> (if applicable)

Instruction: Please do not fill in any blanks other than the signature line. The purpose of this assignment is to enable the Company to exercise its repurchase option set forth in the Agreement without requiring additional signatures on the part of Purchaser.

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EXHIBIT D

ACKNOWLEDGMENT AND STATEMENT OF DECISION  
REGARDING SECTION 83(b) ELECTION

The undersigned (which term includes the undersigned's spouse), a purchaser of <<NoofShares>> shares of Common Stock of PDF Solutions, Inc., a California corporation (the "Company") by exercise of stock purchase right (the "Right"), hereby states as follows:

1. The undersigned has carefully reviewed the stock purchase agreement pursuant to which the Right was granted.
2. The undersigned either [check and complete as applicable]:
  - (a) \_\_\_\_ has consulted, and has been fully advised by, the undersigned's own tax advisor, \_\_\_\_\_, whose business address is \_\_\_\_\_, regarding the federal, state and local tax consequences of purchasing these shares, and particularly regarding the advisability of making elections pursuant to Section 83(b) of the Internal Revenue Code of 1986, as amended (the "Code") and pursuant to the corresponding provisions, if any, of applicable state law; or
  - (b) \_\_\_\_ has knowingly chosen not to consult such a tax advisor.
3. The undersigned hereby states that the undersigned has decided [check as applicable]:
  - (a) \_\_\_\_ to make an election pursuant to Section 83(b) of the Code, and is submitting to the Company, together with the undersigned's executed Restricted Stock Purchase Agreement, an executed form entitled "Election Under Section 83(b) of the Internal Revenue Code of 1986;" or
  - (b) \_\_\_\_ not to make an election pursuant to Section 83(b) of the Code.
4. Neither the Company nor any subsidiary or representative of the Company has made any warranty or representation to the undersigned with respect to the tax consequences of the undersigned's purchase of shares or of the making or failure to make an election pursuant to Section 83(b) of the Code or the corresponding provisions, if any, of applicable state law.

Date:

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<<Optionee>>

Date:

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Spouse of <<Optionee>>

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EXHIBIT E

ELECTION UNDER SECTION 83(b)  
OF THE INTERNAL REVENUE CODE OF 1986

The undersigned taxpayer hereby elects, pursuant to Section 83(b) of the

Internal Revenue Code, to include in taxpayer's gross income for the current taxable year, the amount of any compensation taxable to taxpayer in connection with taxpayer's receipt of the property described below:

1. The name, address, taxpayer identification number and taxable year of the undersigned are as follows:

NAME OF TAXPAYER: <<Optionee>>

NAME OF SPOUSE: \_\_\_\_\_

ADDRESS: \_\_\_\_\_  
\_\_\_\_\_

IDENTIFICATION NO. OF TAXPAYER: \_\_\_\_\_

IDENTIFICATION NO. OF SPOUSE: \_\_\_\_\_

TAXABLE YEAR: \_\_\_\_\_

2. The property with respect to which the election is made is described as follows:

<<NoofShares>> shares of the Common Stock (the "Shares"), \$0.0001 par value, of PDF Solutions, Inc., a California corporation (the "Company").

3. The date on which the property was transferred is: \_\_\_\_\_

4. The property is subject to the following restrictions:

Repurchase option at cost in favor of the Company upon termination of taxpayer's employment or consulting relationship.

5. The fair market value at the time of transfer, determined without regard to any restriction other than a restriction which by its terms will never lapse, of such property is: \$ \_\_\_\_\_.

6. The amount (if any) paid for such property: \$ \_\_\_\_\_.

The undersigned has submitted a copy of this statement to the person for whom the services were performed in connection with the undersigned's receipt of the above-described property. The transferee of such property is the person performing the services in connection with the transfer of said property.

The undersigned understands that the foregoing election may not be revoked except with the consent of the Commissioner.

Date: \_\_\_\_\_  
\_\_\_\_\_ <<Optionee>>

Date: \_\_\_\_\_  
\_\_\_\_\_ Spouse of <<Optionee>>

PDF SOLUTIONS, INC.

2000 STOCK PLAN

EFFECTIVE AS OF [DATE OF INITIAL PUBLIC OFFERING], 2000

PDF SOLUTIONS, INC.

2000 STOCK PLAN

EFFECTIVE AS OF [DATE OF INITIAL PUBLIC OFFERING], 2000

#### SECTION 1. INTRODUCTION.

The Company's Board of Directors adopted the PDF Solutions, Inc. 2000 Stock Plan on [DATE], 2000 (the "Adoption Date"), and the Company's stockholders approved the Plan on [APPROVAL DATE]. The Plan is effective on the date of our initial public offering.

The purpose of the Plan is to promote the long-term success of the Company and the creation of shareholder value by offering Key Employees an opportunity to acquire a proprietary interest in the success of the Company, or to increase such interest, and to encourage such selected persons to continue to provide services to the Company and to attract new individuals with outstanding qualifications.

The Plan seeks to achieve this purpose by providing for Awards in the form of Stock Purchase Rights granting Restricted Stock and Options which may be Incentive Stock Options or Nonstatutory Stock Options.

The Plan shall be governed by, and construed in accordance with, the laws of the State of Delaware (except its choice-of-law provisions). Capitalized terms shall have the meaning provided in Section 2 unless otherwise provided in this Plan or the applicable Stock Option Agreement or Restricted Stock Agreement.

#### SECTION 2. DEFINITIONS.

(a) "AFFILIATE" means any entity other than a Subsidiary, if the Company and/or one or more Subsidiaries own not less than 50% of such entity. For purposes of determining an individual's "Service," this definition shall include any entity other than a Subsidiary, if the Company, a Parent and/or one or more Subsidiaries own not less than 50% of such entity.

(b) "AWARD" means any award of an Option or Stock Purchase Right under the Plan.

(c) "BOARD" means the Board of Directors of the Company, as constituted from time to time.

(d) "CHANGE IN CONTROL" except as may otherwise be provided in a Stock Option Agreement or Restricted Stock Agreement, means the occurrence of any of the following:

(i) The consummation of a merger or consolidation of the Company with or into another entity or any other corporate reorganization, if more than 50% of the combined voting power of the continuing or surviving entity's securities outstanding immediately after such merger, consolidation or other reorganization is owned by persons who were not stockholders of the Company immediately prior to such merger, consolidation or other reorganization;

(ii) The sale, transfer or other disposition of all or substantially all of the Company's assets;

(iii) A change in the composition of the Board, as a result of which fewer than one-half of the incumbent directors are directors who either (i) had been directors of the Company on the date 24 months prior to the date of the event that may constitute a Change in Control (the "original directors") or (ii) were elected, or nominated for election, to the Board with the affirmative votes of at least a majority of the aggregate of the original directors who were still in office at the time of the election or nomination and the directors whose election or nomination was previously so approved;

(iv) Any transaction as a result of which any person becomes the "beneficial owner" (as defined in Rule 13d-3 under the Exchange Act), directly or indirectly, of securities of the Company representing at least 20% of the total voting power represented by the Company's then outstanding voting securities. For purposes of this Paragraph (iii), the term "person" shall have the same meaning as when used in sections 13(d) and 14(d) of the Exchange Act but shall exclude:

(A) A trustee or other fiduciary holding securities under an employee benefit plan of the Company or a subsidiary of the Company;

(B) A corporation owned directly or indirectly by the stockholders of the Company in substantially the same proportions as their ownership of the common stock of the Company; and

(C) The Company; or

(v) A complete liquidation or dissolution of the Company.

(e) "CODE" means the Internal Revenue Code of 1986, as amended.

(f) "COMMITTEE" means a committee consisting of one or more members of the Board that is appointed by the Board (as described in Section 3) to administer the Plan.

(g) "COMMON STOCK" means the Company's common stock.

(h) "COMPANY" means PDF Solutions, Inc.

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(i) "CONSULTANT" means an individual who performs bona fide services to the Company, a Parent, a Subsidiary or an Affiliate other than as an Employee or Director or Non-Employee Director.

(j) "DIRECTOR" means a member of the Board who is also an Employee.

(k) "DISABILITY" means that the Key Employee is unable to engage in any substantial gainful activity by reason of any medically determinable physical or mental impairment which can be expected to result in death or which has lasted or can be expected to last for a continuous period of not less than 12 months.

(l) "EMPLOYEE" means any individual who is a common-law employee of the Company, a Parent, a Subsidiary or an Affiliate.

(m) "EXCHANGE ACT" means the Securities Exchange Act of 1934, as amended.

(n) "EXERCISE PRICE" means, in the case of an Option, the amount for which a Share may be purchased upon exercise of such Option, as specified in the applicable Stock Option Agreement.

(o) "FAIR MARKET VALUE" means the market price of Shares, determined by the Committee as follows:

(i) If the Shares were traded on a stock exchange on the date in question, then the Fair Market Value shall be equal to the last trading price reported by the applicable composite transactions report for such date;

(ii) If the Shares were traded over-the-counter on the date in question and were classified as a national market issue, then the Fair Market Value shall be equal to the last trading price quoted by the NASDAQ system for such date;

(iii) If the Shares were traded over-the-counter on the date in question but were not classified as a national market issue, then the Fair Market Value shall be equal to the mean between the last reported representative bid and asked prices quoted by the NASDAQ system for such date; and

(iv) If none of the foregoing provisions is applicable, then the Fair Market Value shall be determined by the Committee in good faith on such basis as it deems appropriate.

Whenever possible, the determination of Fair Market Value by the Committee shall be based on the prices reported in the Wall Street Journal. Such determination shall be conclusive and binding on all persons.

(p) "GRANT" means any grant of an Award under the Plan.

(q) "INCENTIVE STOCK OPTION" or "ISO" means an incentive stock option described in Code section 422(b).

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(r) "KEY EMPLOYEE" means an Employee, Director, Non-Employee Director or Consultant who has been selected by the Committee to receive an Award under the Plan.

(s) "NON-EMPLOYEE DIRECTOR" means a member of the Board who is not an Employee.

(t) "NONSTATUTORY STOCK OPTION" or "NSO" means a stock option that is not an ISO.

(u) "OPTION" means an ISO or NSO granted under the Plan entitling the Optionee to purchase Shares.

(v) "OPTIONEE" means an individual, estate or other entity that holds an Option.

(w) "PARENT" means any corporation (other than the Company) in an unbroken chain of corporations ending with the Company, if each of the corporations other than the Company owns stock possessing fifty percent (50%) or more of the total combined voting power of all classes of stock in one of the other corporations in such chain. A corporation that attains the status of a Parent on a date after the adoption of the Plan shall be considered a Parent commencing as of such date.

(x) "PARTICIPANT" means an individual or estate or other entity that holds an Award.

(y) "PLAN" means this PDF Solutions, Inc. 2000 Stock Incentive Plan as it may be amended from time to time.

(z) "RESTRICTED STOCK" means a Share awarded under the Plan pursuant to a Stock Purchase Right.

(aa) "RESTRICTED STOCK AGREEMENT" means the agreement described in Section 8 evidencing Restricted Stock that may be purchased following the Award of a Stock Purchase Right.

(bb) "SECURITIES ACT" means the Securities Act of 1933, as amended.

(cc) "SERVICE" means service as an Employee, Director, Non-Employee Director or Consultant.

(dd) "SHARE" means one share of Common Stock.

(ee) "STOCK OPTION AGREEMENT" means the agreement described in Section 6 evidencing each Grant of an Option.

(ff) "STOCK PURCHASE RIGHT" means the right to acquire Restricted Stock pursuant to Section 8.

(gg) "SUBSIDIARY" means any corporation (other than the Company) in an unbroken chain of corporations beginning with the Company, if each of the corporations other than the last corporation in the unbroken chain owns stock possessing fifty percent (50%) or

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more of the total combined voting power of all classes of stock in one of the other corporations in such chain. A corporation that attains the status of a Subsidiary on a date after the adoption of the Plan shall be considered a Subsidiary commencing as of such date.

(hh) "10-PERCENT SHAREHOLDER" means an individual who owns more than ten percent (10%) of the total combined voting power of all classes of outstanding stock of the Company, its Parent or any of its subsidiaries. In determining stock ownership, the attribution rules of section 424(d) of the Code shall be applied.

### SECTION 3. ADMINISTRATION.

(a) COMMITTEE COMPOSITION. A Committee appointed by the Board shall administer the Plan. The Board shall designate one of the members of the Committee as chairperson. If no Committee has been approved, the entire Board shall constitute the Committee. Members of the Committee shall serve for such period of time as the Board may determine and shall be subject to removal by the Board at any time. The Board may also at any time terminate the functions of the Committee and reassume all powers and authority previously delegated to the Committee.

With respect to officers or directors subject to Section 16 of the Exchange Act, the Committee shall consist of those individuals who shall satisfy the requirements of Rule 16b-3 (or its successor) under the Exchange Act with respect to Awards granted to persons who are officers or directors of the Company under Section 16 of the Exchange Act. Notwithstanding the previous sentence, failure of the Committee to satisfy the requirements of Rule 16b-3 shall not invalidate any Awards granted by such Committee.

The Board may also appoint one or more separate committees of the Board, each composed of one or more directors of the Company who need not qualify under Rule 16b-3, who may administer the Plan with respect to Key Employees who are not considered officers or directors of the Company under Section 16 of the Exchange Act, may grant Awards under the Plan to such Key Employees and may determine all terms of such Awards.

Notwithstanding the foregoing, the Board shall constitute the Committee and shall administer the Plan with respect to all Awards granted to Non-Employee Directors.

(b) AUTHORITY OF THE COMMITTEE. Subject to the provisions of the Plan,

the Committee shall have full authority and discretion to take any actions it deems necessary or advisable for the administration of the Plan. Such actions shall include:

- (i) selecting Key Employees who are to receive Awards under the Plan;
- (ii) determining the type, number, vesting requirements and other features and conditions of such Awards;
- (iii) interpreting the Plan; and
- (iv) making all other decisions relating to the operation of the Plan.

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The Committee may adopt such rules or guidelines, as it deems appropriate to implement the Plan. The Committee's determinations under the Plan shall be final and binding on all persons.

(c) INDEMNIFICATION. Each member of the Committee, or of the Board, shall be indemnified and held harmless by the Company against and from (i) any loss, cost, liability, or expense that may be imposed upon or reasonably incurred by him or her in connection with or resulting from any claim, action, suit, or proceeding to which he or she may be a party or in which he or she may be involved by reason of any action taken or failure to act under the Plan or any Stock Option Agreement or Restricted Stock Agreement, and (ii) from any and all amounts paid by him or her in settlement thereof, with the Company's approval, or paid by him or her in satisfaction of any judgment in any such claim, action, suit, or proceeding against him or her, provided he or she shall give the Company an opportunity, at its own expense, to handle and defend the same before he or she undertakes to handle and defend it on his or her own behalf. The foregoing right of indemnification shall not be exclusive of any other rights of indemnification to which such persons may be entitled under the Company's Certificate of Incorporation or Bylaws, by contract, as a matter of law, or otherwise, or under any power that the Company may have to indemnify them or hold them harmless.

#### SECTION 4. ELIGIBILITY.

(a) GENERAL RULES. Only Employees, Directors, Non-Employee Directors and Consultants shall be eligible for designation as Key Employees by the Committee.

(b) INCENTIVE STOCK OPTIONS. Only Key Employees who are common-law employees of the Company, a Parent or a Subsidiary shall be eligible for the grant of ISOs. In addition, a Key Employee who is a 10-Percent Shareholder shall not be eligible for the grant of an ISO unless the requirements set forth in section 422(c)(5) of the Code are satisfied.

(c) NON-EMPLOYEE DIRECTOR OPTIONS. Non-Employee Directors shall also be eligible to receive Options as described in this Section 4(c) from and after the date the Board has determined to implement this provision.

(i) Each eligible Non-Employee Director elected or appointed after the effective date of the Company's initial public offering shall automatically be granted an NSO to purchase 30,000 Shares (subject to adjustment under Section 9) as a result of his or her initial election or appointment as a Non-Employee Director. Upon the conclusion of each regular annual meeting of the Company's stockholders following his or her initial appointment, each eligible Non-Employee Director who will continue serving as a member of the Board and who received an initial grant thereafter shall receive an NSO to purchase 7,500 Shares (subject to adjustment under Section 9). All NSOs granted pursuant to this Section 4 shall vest and become exercisable provided the individual is serving as a director of the Company as of the vesting date as follows: 25% one year



from the date of grant, then in 36 equal monthly installments commencing on the date one month and one year after the date of grant.

(ii) All NSOs granted to Non-Employee Directors under this Section 4(c) shall become exercisable in full in the event of Change in Control with respect to the Company.

(iii) The Exercise Price under all NSOs granted to a Non-Employee Director under this Section 4(c) shall be equal to one hundred percent (100%) of the Fair Market Value of a Share of Common Stock on the date of grant, payable in one of the forms described in Section 7.

(iv) All NSOs granted to a Non-Employee Director under this Section 4(c) shall terminate on the earlier of:

- (1) The 10th anniversary of the date of grant; or
- (2) The date ninety (90) days after the termination of such Non-Employee Director's service for any reason.

#### SECTION 5. SHARES SUBJECT TO PLAN.

(a) BASIC LIMITATION. The stock issuable under the Plan shall be authorized but unissued Shares or treasury Shares. The aggregate number of Shares reserved for Awards under the Plan shall not exceed 3,000,000 Shares.

(b) ANNUAL ADDITION. Beginning with the first fiscal year of the Company beginning after the Effective Date, on the first day of each fiscal year, Shares will be added to the Plan equal to the lesser of (i) 3,000,000 Shares, (ii) five percent (5%) of the outstanding shares in the last day of the prior fiscal year, or (iii) such lesser number of Shares as may be determined by the Board in its sole discretion.

(c) ADDITIONAL SHARES. If Awards are forfeited or terminate for any other reason before being exercised, then the Shares underlying such Awards shall again become available for Awards under the Plan.

(d) LIMITS ON OPTIONS. No Key Employee shall receive Options to purchase Shares during any fiscal year covering in excess of 1,000,000 Shares, or 3,000,000 Shares in the first fiscal year of a Key Employee's employment with Company.

(e) LIMITS ON STOCK PURCHASE RIGHTS. No Key Employee shall receive an Award of Stock Purchase Rights during any fiscal year covering in excess of 500,000 Shares, or

1,000,000 Shares in the first fiscal year of a Key Employee's employment with Company.

#### SECTION 6. TERMS AND CONDITIONS OF OPTIONS.

(a) STOCK OPTION AGREEMENT. Each Grant under the Plan shall be evidenced by a Stock Option Agreement between the Optionee and the Company. Such Option shall be subject to all applicable terms and conditions of the Plan and may be subject to any other terms and conditions that are not inconsistent with the Plan and that the Committee deems appropriate for inclusion in a Stock Option Agreement. The provisions of the various Stock Option Agreements entered into under the Plan need not be identical. A Stock Option Agreement may provide that new Options will be granted automatically to the Optionee when he or she exercises the prior Options. The Stock Option Agreement shall also specify whether the Option is an ISO or an NSO.

(b) NUMBER OF SHARES. Each Stock Option Agreement shall specify the number of Shares that are subject to the Option and shall provide for the adjustment of such number in accordance with Section 9.

(c) EXERCISE PRICE. An Option's Exercise Price shall be established by the Committee and set forth in a Stock Option Agreement. The Exercise Price of an ISO shall not be less than 100% of the Fair Market Value (110% for 10-Percent Shareholders) of a Share on the date of Grant. In the case of an NSO, a Stock Option Agreement may specify an Exercise Price that varies in accordance with a predetermined formula while the NSO is outstanding.

(d) EXERCISABILITY AND TERM. Each Stock Option Agreement shall specify the date when all or any installment of the Option is to become exercisable. The Stock Option Agreement shall also specify the term of the Option; provided that the term of an ISO shall in no event exceed ten (10) years from the date of Grant. An ISO that is granted to a 10-Percent Shareholder shall have a maximum term of five (5) years. No Option can be exercised after the expiration date provided in the applicable Stock Option Agreement. A Stock Option Agreement may provide for accelerated exercisability in the event of the Optionee's death, disability or retirement or other events and may provide for expiration prior to the end of its term in the event of the termination of the Optionee's service. A Stock Option Agreement may permit an Optionee to exercise an Option before it is vested, subject to the Company's right of repurchase over any Shares acquired under the unvested portion of the Option (an "early exercise"), which right of repurchase shall lapse at the same rate the Option would have vested had there been no early exercise. In no event shall the Company be required to issue fractional Shares upon the exercise of an Option.

(e) MODIFICATIONS OR ASSUMPTION OF OPTIONS. Within the limitations of the Plan, the Committee may modify, extend or assume outstanding options or may accept the cancellation of outstanding options (whether granted by the Company or by another issuer) in return for the grant of new Options for the same or a different number of Shares

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and at the same or a different Exercise Price. The foregoing notwithstanding, no modification of an Option shall, without the consent of the Optionee, alter or impair his or her rights or obligations under such Option.

(f) TRANSFERABILITY OF OPTIONS. Except as otherwise provided in the applicable Stock Option Agreement and then only to the extent permitted by applicable law, no Option shall be transferable by the Optionee other than by will or by the laws of descent and distribution. Except as otherwise provided in the applicable Stock Option Agreement, an Option may be exercised during the lifetime of the Optionee only or by the guardian or legal representative of the Optionee. No Option or interest therein may be assigned, pledged or hypothecated by the Optionee during his lifetime, whether by operation of law or otherwise, or be made subject to execution, attachment or similar process.

(g) NO RIGHTS AS STOCKHOLDER. An Optionee, or a transferee of an Optionee, shall have no rights as a stockholder with respect to any Common Stock covered by an Option until such person becomes entitled to receive such Common Stock by filing a notice of exercise and paying the Exercise Price pursuant to the terms of such Option.

(h) RESTRICTIONS ON TRANSFER. Any Shares issued upon exercise of an Option shall be subject to such rights of repurchase, rights of first refusal and other transfer restrictions as the Committee may determine. Such restrictions shall apply in addition to any restrictions that may apply to holders of Shares generally and shall also comply to the extent necessary with applicable law.

(a) GENERAL RULE. The entire Exercise Price of Shares issued upon exercise of Options shall be payable in cash at the time when such Shares are purchased, except as follows:

(i) In the case of an ISO granted under the Plan, payment shall be made only pursuant to the express provisions of the applicable Stock Option Agreement. The Stock Option Agreement may specify that payment may be made in any form(s) described in this Section 7.

(ii) In the case of an NSO granted under the Plan, the Committee may in its discretion, at any time accept payment in any form(s) described in this Section 7.

(b) SURRENDER OF STOCK. To the extent that this Section 7(b) is applicable, payment for all or any part of the Exercise Price may be made with Shares which have already been owned by the Optionee for such duration as shall be specified by the Committee. Such Shares shall be valued at their Fair Market Value on the date when the new Shares are purchased under the Plan.

(c) PROMISSORY NOTE. To the extent that this Section 7(c) is applicable, payment for all or any part of the Exercise Price may be made with a full-recourse promissory note.

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(d) OTHER FORMS OF PAYMENT. To the extent that this Section 7(d) is applicable, payment may be made in any other form that is consistent with applicable laws, regulations and rules.

#### SECTION 8. TERMS AND CONDITIONS FOR AWARDS OF STOCK PURCHASE RIGHTS.

(a) TIME, AMOUNT AND FORM OF AWARDS. Awards under this Section 8 may be granted in the form of Stock Purchase Rights pursuant to which Restricted Stock will be awarded to a Key Employee. Such Rights may also be awarded in combination with NSOs, and such an Award may provide that the Restricted Stock will be forfeited in the event that the related NSOs is exercised.

(b) AGREEMENTS. Each Award of a Stock Purchase Right under the Plan shall be evidenced by a Restricted Stock Agreement between the Participant and the Company. Such Awards shall be subject to all applicable terms and conditions of the Plan and may be subject to any other terms and conditions that are not inconsistent with the Plan and that the Committee deems appropriate for inclusion in the applicable Agreement. The provisions of the various Agreements entered into under the Plan need not be identical.

(c) PAYMENT FOR RESTRICTED STOCK. Restricted Stock may be issued pursuant to the Award of a Stock Purchase Right with or without cash consideration under the Plan.

(d) VESTING CONDITIONS. Each Award of Restricted Stock shall become vested, in full or in installments, upon satisfaction of the conditions specified in the applicable Agreement. An Agreement may provide for accelerated vesting in the event of the Participant's death, Disability or retirement or other events.

(e) ASSIGNMENT OR TRANSFER OF RESTRICTED STOCK. Except as provided in Section 13, or in a Restricted Stock Agreement, or as required by applicable law, an Award granted under this Section 8 shall not be anticipated, assigned, attached, garnished, optioned, transferred or made subject to any creditor's process, whether voluntarily, involuntarily or by operation of law. Any act in violation of this Section 8(e) shall be void. However, this Section 8(e) shall not preclude a Participant from designating a beneficiary who will receive any outstanding Restricted Stock in the event of the Participant's death, nor shall it preclude a transfer of Restricted Stock by will or by the laws of descent and distribution.

(f) TRUSTS. Neither this Section 8 nor any other provision of the Plan

shall preclude a Participant from transferring or assigning Restricted Stock to (a) the trustee of a trust that is revocable by such Participant alone, both at the time of the transfer or assignment and at all times thereafter prior to such Participant's death, or (b) the trustee of any other trust to the extent approved in advance by the Committee in writing. A transfer or assignment of Restricted Stock from such trustee to any person other than such Participant shall be permitted only to the extent approved in advance by the Committee in writing, and Restricted Stock held by such trustee shall be subject to all of the conditions and

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restrictions set forth in the Plan and in the applicable Restricted Stock Agreement, as if such trustee were a party to such Agreement.

(g) VOTING AND DIVIDEND RIGHTS. The holders of Restricted Stock acquired pursuant to a Stock Purchase Right awarded under the Plan shall have the same voting, dividend and other rights as the Company's other stockholders. A Restricted Stock Agreement, however, may require that the holders of Restricted Stock invest any cash dividends received in additional Restricted Stock. Such additional Restricted Stock shall be subject to the same conditions and restrictions as the Award with respect to which the dividends were paid. Such additional Restricted Stock shall not reduce the number of Shares available under Section 5.

#### SECTION 9. PROTECTION AGAINST DILUTION.

(a) ADJUSTMENTS. In the event of a subdivision of the outstanding Shares, a declaration of a dividend payable in Shares, a declaration of a dividend payable in a form other than Shares in an amount that has a material effect on the price of Shares, a combination or consolidation of the outstanding Shares (by reclassification or otherwise) into a lesser number of Shares, a recapitalization, reorganization, merger, liquidation, spin-off or a similar occurrence, the Committee shall make such adjustments as it, in its reasonable discretion, deems appropriate in order to prevent the dilution or enlargement of rights hereunder in one or more of:

(i) the number of Shares available for future Awards and the per person Share limits under Section 5;

(ii) the number of Shares covered by each outstanding Award; or

(iii) the Exercise Price under each outstanding Option.

(b) PARTICIPANT RIGHTS. Except as provided in this Section 9, a Participant shall have no rights by reason of any issue by the Company of stock of any class or securities convertible into stock of any class, any subdivision or consolidation of shares of stock of any class, the payment of any stock dividend or any other increase or decrease in the number of shares of stock of any class.

#### SECTION 10. EFFECT OF A CHANGE IN CONTROL.

(a) MERGER OR REORGANIZATION. In the event that the Company is a party to a merger or other reorganization, outstanding Awards shall be subject to the agreement of merger or reorganization. Such agreement may provide, without limitation, for the assumption of outstanding Awards by the surviving corporation or its parent, for their continuation by the Company (if the Company is a surviving corporation), for accelerated vesting or for their cancellation with or without consideration.

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(b) ACCELERATION. Except as otherwise provided in the applicable Stock Option Agreement or Restricted Stock Agreement, in the event that a

Change in Control occurs with respect to the Company and the applicable agreement of merger or reorganization provides for assumption or continuation of Awards pursuant to Section 10(a), no acceleration of vesting shall occur. In the event that a Change in Control occurs with respect to the Company and there is no assumption or continuation of Awards pursuant to Section 10(a), all Awards shall vest and become immediately exercisable.

#### SECTION 11. LIMITATIONS ON RIGHTS.

(a) RETENTION RIGHTS. Neither the Plan nor any Award granted under the Plan shall be deemed to give any individual a right to remain an employee, consultant or director of the Company, a Parent, a Subsidiary or an Affiliate. The Company and its Parents and Subsidiaries and Affiliates reserve the right to terminate the Service of any person at any time, and for any reason, subject to applicable laws, the Company's Certificate of Incorporation and Bylaws and a written employment agreement (if any).

(b) STOCKHOLDERS' RIGHTS. A Participant shall have no dividend rights, voting rights or other rights as a stockholder with respect to any Shares covered by his or her Award prior to the issuance of a stock certificate for such Shares. No adjustment shall be made for cash dividends or other rights for which the record date is prior to the date when such certificate is issued, except as expressly provided in Section 9.

(c) REGULATORY REQUIREMENTS. Any other provision of the Plan notwithstanding, the obligation of the Company to issue Shares under the Plan shall be subject to all applicable laws, rules and regulations and such approval by any regulatory body as may be required. The Company reserves the right to restrict, in whole or in part, the delivery of Shares pursuant to any Award prior to the satisfaction of all legal requirements relating to the issuance of such Shares, to their registration, qualification or listing or to an exemption from registration, qualification or listing.

#### SECTION 12. WITHHOLDING TAXES.

(a) GENERAL. A Participant shall make arrangements satisfactory to the Company for the satisfaction of any withholding tax obligations that arise in connection with his or her Award. The Company shall not be required to issue any Shares or make any cash payment under the Plan until such obligations are satisfied.

(b) SHARE WITHHOLDING. If a public market for the Company's Shares exists, the Committee may permit a Participant to satisfy all or part of his or her withholding or income tax obligations by having the Company withhold all or a portion of any Shares that otherwise would be issued to him or her or by surrendering all or a portion of any Shares that he or she previously acquired. Such Shares shall be valued at their Fair Market Value on the date when taxes otherwise would be withheld in cash. Any payment of taxes by assigning Shares to the Company may be subject to restrictions, including, but

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not limited to, any restrictions required by rules of the Securities and Exchange Commission.

#### SECTION 13. DURATION AND AMENDMENTS.

(a) TERM OF THE PLAN. The Plan, as set forth herein, shall become effective on the date of its adoption by the Board, subject to the approval of the Company's stockholders. No Options shall be exercisable until such stockholder approval is obtained. In the event that the stockholders fail to approve the Plan within twelve (12) months after its adoption by the Board, any Awards made shall be null and void and no additional Awards shall be made. The Plan shall terminate on the date

that is ten (10) years after its adoption by the Board and may be terminated on any earlier date pursuant to Section 13(b).

(b) RIGHT TO AMEND OR TERMINATE THE PLAN. The Board may amend or terminate the Plan at any time and for any reason. The termination of the Plan, or any amendment thereof, shall not affect any Award previously granted under the Plan. No Awards shall be granted under the Plan after the Plan's termination. An amendment of the Plan shall be subject to the approval of the Company's stockholders only to the extent required by applicable laws, regulations or rules.

GRANT NO. \_\_\_\_\_

PDF SOLUTIONS, INC.

2000 STOCK PLAN

INCENTIVE STOCK OPTION AGREEMENT

PDF Solutions, Inc. (the "Company"), hereby grants an Option to purchase shares of its common stock (the "Shares") to the Optionee named below. The terms and conditions of the Option are set forth in this cover sheet, in the attachment and in the Company's 2000 Stock Plan (the "Plan").

Date of Option Grant: \_\_\_\_\_, 2000

Name of Optionee: \_\_\_\_\_

Optionee's Social Security Number: \_\_\_\_-\_\_\_\_-\_\_\_\_

Number of Shares Covered by Option: \_\_\_\_\_

Exercise Price per Share: \$\_\_\_\_.\_\_\_\_

Vesting Start Date: \_\_\_\_\_, 2000

Vesting Schedule:

Subject to all the terms of the attached Agreement, your right to purchase Shares under this Option vests as to ONE-FOURTH (1/4) of the total number of Shares covered by this Option, as shown above, on the one-year anniversary of the Vesting Start Date. Thereafter, the number of Shares which you may purchase under this Option shall vest at the rate of ONE-FORTY-EIGHTH (1/48) per month on the 1st day of each of the THIRTY-SIX (36) MONTHS following the month of the one-year anniversary of the Vesting Start Date. The resulting aggregate number of vested Shares will be rounded to the nearest whole number. No additional Shares will vest after your Service has terminated for any reason.

BY SIGNING THIS COVER SHEET, YOU AGREE TO ALL OF THE TERMS AND CONDITIONS DESCRIBED IN THE ATTACHED AGREEMENT AND IN THE PLAN, A COPY OF WHICH IS ALSO ENCLOSED.

Optionee: \_\_\_\_\_  
(Signature)

Company: \_\_\_\_\_  
(Signature)

Title: \_\_\_\_\_

Attachment

PDF SOLUTIONS, INC.

2000 STOCK PLAN

STOCK OPTION AGREEMENT

THE PLAN AND  
OTHER AGREEMENTS

The text of the Plan is incorporated in this Agreement by reference. Certain capitalized terms used in this Agreement are defined in the Plan.

This Agreement and the Plan constitute the entire understanding between you and the Company regarding this Option. Any prior agreements, commitments or negotiations concerning this Option are superseded.

INCENTIVE STOCK OPTION

This Option is intended to be an Incentive Stock Option under section 422 of the Internal Revenue Code and will be interpreted accordingly. If you cease to be an employee of the Company, a Subsidiary or of a Parent but continue to provide Service, this Option will be deemed a Nonstatutory Stock Option on the 90th day after you cease to be an employee. In addition, to the extent that all or part of this Option exceeds the \$100,000 rule of section 422(d) of the Code, this Option or the lesser excess part will be treated as a Nonstatutory Stock Option.

VESTING

This Option is only exercisable before it expires and then only with respect to the vested portion of the Option. This Option will vest according to the Vesting Schedule on the attached cover sheet.

TERM

Your Option will expire in any event at the close of business at Company headquarters on the day before the 10th anniversary of the Date of Option Grant, as shown on the cover sheet. Your Option will expire earlier if your Service terminates, as described below.

REGULAR TERMINATION

If your Service terminates for any reason, other than death, Disability or Cause, as defined below, then your Option will expire at the close of business at Company headquarters on the 90th day after your termination date.

TERMINATION FOR  
CAUSE

If your Service is terminated for Cause, as determined by the Board in its sole discretion, then you shall immediately forfeit all rights to your Option and the Option shall immediately expire. For purposes of this Agreement, "Cause" shall mean the termination of your Service due to your commission of any act of fraud, embezzlement or dishonesty; any unauthorized use

or disclosure of confidential information or trade secrets of the Company (or any Parent, Subsidiary or Affiliate); or any other intentional misconduct adversely affecting the business or affairs of the Company (or any Parent, Subsidiary or Affiliate) in a material manner. This definition shall not restrict in any way the Company's or any Parent's, Subsidiary's or Affiliate's right to discharge you for any other reason, nor shall this definition be deemed to be inclusive of all the acts or omissions which constitute "cause"

for purposes other than this Agreement.

DEATH

If your Service terminates because of your death, then your Option will expire at the close of business at Company headquarters on the date twelve (12) months after the date of death. During that twelve (12) month period, your estate or heirs may exercise the vested portion of your Option.

DISABILITY

If your Service terminates because of your Disability, then your Option will expire at the close of business at Company headquarters on the date twelve (12) months after your termination date.

LEAVES OF ABSENCE

For purposes of this Option, your Service does not terminate when you go on a bona fide leave of absence that was approved by the Company in writing, if the terms of the leave provide for continued Service crediting, or when continued Service crediting is required by applicable law. However, your Service will be treated as terminating ninety (90) days after you went on leave, unless your right to return to active work is guaranteed by law or by a contract. Your Service terminates in any event when the approved leave ends unless you immediately return to active work.

The Company determines which leaves count for this purpose, and when your Service terminates for all purposes under the Plan.

NOTICE OF EXERCISE

When you wish to exercise this Option, you must notify the Company by filing the proper "Notice of Exercise" form at the address given on the form. Your notice must specify how many Shares you wish to purchase. Your notice must also specify how your Shares should be registered (in your name only or in your and your spouse's names as community property or as joint tenants with right of survivorship). The notice will be effective when it is received by the Company.

If someone else wants to exercise this Option after your death,

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that person must prove to the Company's satisfaction that he or she is entitled to do so.

Form of Payment

When you submit your notice of exercise, you must include payment of the Exercise Price for the Shares you are purchasing. Payment may be made in one (or a combination) of the following forms:

- Cash, your personal check, a cashier's check or a money order.
- Shares which have already been owned by you for more than six months and which are surrendered to the Company. The value of the Shares, determined as of the effective date of the Option exercise, will be applied to the Exercise Price.



- To the extent a public market for the Shares exists as determined by the Company, by delivery (on a form prescribed by the Company) of an irrevocable direction to a securities broker to sell Shares and to deliver all or part of the sale proceeds to the Company in payment of the aggregate Exercise Price.

Withholding Taxes

You will not be allowed to exercise this Option unless you make acceptable arrangements to pay any withholding or other taxes that may be due as a result of the Option exercise or sale of Shares acquired under this Option.

Restrictions on Exercise and Resale

By signing this Agreement, you agree not to exercise this Option or sell any Shares acquired under this Option at a time when applicable laws, regulations or Company or underwriter trading policies prohibit exercise, sale or issuance of Shares. The Company will not permit you to exercise this Option if the issuance of Shares at that time would violate any law or regulation. The Company shall have the right to designate one or more periods of time, each of which shall not exceed one hundred eighty (180) days in length, during which this Option shall not be exercisable if the Company determines (in its sole discretion) that such limitation on exercise could in any way facilitate a lessening of any restriction on transfer pursuant to the Securities Act or any state securities laws with respect to any issuance of securities by the Company, facilitate the registration or qualification of any securities by the Company under the Securities Act or any state securities laws, or facilitate the perfection of any exemption from the registration or qualification requirements of the Securities Act or any applicable state securities laws for the issuance or transfer of

any securities. Such limitation on exercise shall not alter the vesting schedule set forth in this Agreement other than to limit the periods during which this Option shall be exercisable.

If the sale of Shares under the Plan is not registered under the Securities Act, but an exemption is available which requires an investment or other representation, you shall represent and agree at the time of exercise that the Shares being acquired upon exercise of this Option are being acquired for investment, and not with a view to the sale or distribution thereof, and shall make such other representations as are deemed necessary or appropriate by the Company and its counsel.

The Company's Right of First Refusal

In the event that you propose to sell, pledge or otherwise transfer to a third party any Shares acquired under this Agreement, or any interest in such Shares, the Company shall have the "Right of First Refusal" with respect to all (and not less than all) of such Shares. If you desire to transfer Shares acquired under this Agreement, you must give a written

"Transfer Notice" to the Company describing fully the proposed transfer, including the number of Shares proposed to be transferred, the proposed transfer price and the name and address of the proposed transferee.

The Transfer Notice shall be signed both by you and by the proposed new transferee and must constitute a binding commitment of both parties to the transfer of the Shares. The Company shall have the right to purchase all, and not less than all, of the Shares on the terms of the proposal described in the Transfer Notice (subject, however, to any change in such terms permitted in the next paragraph) by delivery of a notice of exercise of the Right of First Refusal within thirty (30) days after the date when the Transfer Notice was received by the Company. The Company's rights under this subsection shall be freely assignable, in whole or in part.

If the Company fails to exercise its Right of First Refusal within thirty (30) days after the date when it received the Transfer Notice, you may, not later than ninety (90) days following receipt of the Transfer Notice by the Company, conclude a transfer of the Shares subject to the Transfer Notice on the terms and conditions described in the Transfer Notice. Any proposed transfer on terms and conditions different from those described in the Transfer Notice, as well as any subsequent proposed transfer by you, shall again be subject to the Right of First Refusal and shall require compliance with the procedure described in the paragraph above. If the Company

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exercises its Right of First Refusal, the parties shall consummate the sale of the Shares on the terms set forth in the Transfer Notice within sixty (60) days after the date when the Company received the Transfer Notice (or within such longer period as may have been specified in the Transfer Notice); provided, however, that in the event the Transfer Notice provided that payment for the Shares was to be made in a form other than lawful money paid at the time of transfer, the Company shall have the option of paying for the Shares with lawful money equal to the present value of the consideration described in the Transfer Notice.

The Company's Right of First Refusal shall inure to the benefit of its successors and assigns and shall be binding upon any transferee of the Shares.

The Company's Right of First Refusal shall terminate in the event that Shares are listed on an established stock exchange or is quoted regularly on the NASDAQ National Market.

Right of Repurchase

Following termination of your Service for any reason, the Company shall have the right to purchase all of those Shares that you have or will acquire under this Option. If the Company

exercises its right to purchase such Shares, the purchase price shall be the Fair Market Value of those Shares on the date of purchase as determined by the Board of Directors and shall be paid in cash. The Company will notify you of its intention to purchase such Shares, and will consummate the purchase within the period established by applicable law. The Company's right of repurchase shall terminate in the event that the Share's are listed on an established stock exchange or is quoted regularly on the NASDAQ National Market.

Transfer of Option

Prior to your death, only you may exercise this Option. You cannot transfer or assign this Option. For instance, you may not sell this Option or use it as security for a loan. If you attempt to do any of these things, this Option will immediately become invalid. You may, however, dispose of this Option in your will.

Regardless of any marital property settlement agreement, the Company is not obligated to honor a notice of exercise from your spouse, nor is the Company obligated to recognize your spouse's interest in your Option in any other way.

Retention Rights

Your Option or this Agreement does not give you the right to be retained by the Company (or any Parent or any Subsidiaries or Affiliates) in any capacity. The Company (or any Parent and

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any Subsidiaries or Affiliates) reserves the right to terminate your Service at any time and for any reason.

Stockholder Rights

You, or your estate or heirs, have no rights as a stockholder of the Company until a certificate for your Option's Shares has been issued. No adjustments are made for dividends or other rights if the applicable record date occurs before your stock certificate is issued, except as described in the Plan.

Adjustments

In the event of a stock split, a stock dividend or a similar change in the Company stock, the number of Shares covered by this Option and the exercise price per Share may be adjusted (and rounded down to the nearest whole number) pursuant to the Plan. Your Option shall be subject to the terms of the agreement of merger, liquidation or reorganization in the event the Company is subject to such corporate activity.

Legends

All certificates representing the Shares issued upon exercise of this Option shall, where applicable, have endorsed thereon the following legends:

"THE SHARES REPRESENTED BY THIS CERTIFICATE ARE SUBJECT TO CERTAIN RESTRICTIONS ON TRANSFER AND OPTIONS TO PURCHASE SUCH SHARES SET FORTH IN AN AGREEMENT BETWEEN THE COMPANY AND THE REGISTERED HOLDER, OR HIS OR HER PREDECESSOR IN INTEREST. A COPY

OF SUCH AGREEMENT IS ON FILE AT THE PRINCIPAL OFFICE OF THE COMPANY AND WILL BE FURNISHED UPON WRITTEN REQUEST TO THE SECRETARY OF THE COMPANY BY THE HOLDER OF RECORD OF THE SHARES REPRESENTED BY THIS CERTIFICATE."

"THE SHARES REPRESENTED HEREBY HAVE NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED, AND MAY NOT BE SOLD, PLEDGED, OR OTHERWISE TRANSFERRED WITHOUT AN EFFECTIVE REGISTRATION THEREOF UNDER SUCH ACT OR AN OPINION OF COUNSEL, SATISFACTORY TO THE COMPANY AND ITS COUNSEL, THAT SUCH REGISTRATION IS NOT REQUIRED."

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Applicable Law

This Agreement will be interpreted and enforced under the laws of the State of California.

By signing the cover sheet of this Agreement, you agree to all of the terms and conditions described above and in the Plan.

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GRANT NO. \_\_\_\_\_

PDF SOLUTIONS, INC.

2000 STOCK PLAN

NONSTATUTORY STOCK OPTION AGREEMENT

PDF Solutions, Inc. (the "Company"), hereby grants an Option to purchase shares of its common stock (the "Shares") to the Optionee named below. The terms and conditions of the Option are set forth in this cover sheet, in the attachment and in the Company's 2000 Stock Plan (the "Plan").

Date of Option Grant: \_\_\_\_\_, 2000

Name of Optionee: \_\_\_\_\_

Optionee's Social Security Number: \_\_\_\_-\_\_\_\_-\_\_\_\_\_

Number of Shares Covered by Option: \_\_\_\_\_

Exercise Price per Share: \$\_\_\_\_.\_\_\_\_

Vesting Start Date: \_\_\_\_\_, 2000

Vesting Schedule:

Subject to all the terms of the attached Agreement, your right to purchase Shares under this Option vests as to one-fourth (1/4) of the total number of Shares covered by this Option, as shown above, on the one-year anniversary of the Vesting Start Date. Thereafter, the number of Shares which you may purchase under this Option shall vest at the rate of one-forty-eighth (1/48) per month on the 1st day of each of the thirty-six (36) months following the month of the one-year anniversary of the Vesting Start Date. The resulting aggregate number of vested Shares will be rounded to the nearest whole number.

No additional Shares will vest after your Service has terminated for any reason.

BY SIGNING THIS COVER SHEET, YOU AGREE TO ALL OF THE TERMS AND CONDITIONS DESCRIBED IN THE ATTACHED AGREEMENT AND IN THE PLAN, A COPY OF WHICH IS ALSO ENCLOSED.

Optionee: \_\_\_\_\_  
(Signature)

Company: \_\_\_\_\_  
(Signature)

Title: \_\_\_\_\_

PDF SOLUTIONS, INC.

2000 STOCK PLAN

NONSTATUTORY STOCK OPTION AGREEMENT

THE PLAN AND  
OTHER AGREEMENTS

The text of the Plan is incorporated in this Agreement by reference. Certain capitalized terms used in this Agreement are defined in the Plan.

This Agreement and the Plan constitute the entire understanding between you and the Company regarding this Option. Any prior agreements, commitments or negotiations concerning this Option are superseded.

NONSTATUTORY STOCK OPTION

This Option is not intended to be an Incentive Stock Option under section 422 of the Internal Revenue Code and will be interpreted accordingly.

VESTING

This Option is only exercisable before it expires and then only with respect to the vested portion of the Option. This Option will vest according to the Vesting Schedule on the attached cover sheet.

TERM

Your Option will expire in any event at the close of business at Company headquarters on the day before the 10th anniversary of the Date of Option Grant, as shown on the cover sheet. Your Option will expire earlier if your Service terminates, as described below.

REGULAR TERMINATION

If your Service terminates for any reason, other than death, Disability or Cause, as defined below, then your Option will expire at the close of business at Company headquarters on the 90th day after your termination date.

TERMINATION FOR  
CAUSE

If your Service is terminated for Cause, as determined by the Board in its sole discretion, then you shall immediately forfeit all rights to your Option and the Option shall immediately expire. For purposes of this Agreement, "Cause" shall mean the termination of your Service due to your commission of any act of fraud, embezzlement or dishonesty; any unauthorized use or disclosure of confidential information or trade secrets of the Company (or any Parent, Subsidiary or Affiliate); or any other intentional misconduct adversely affecting the business or affairs of the

Company (or any Parent, Subsidiary or Affiliate) in a material manner. This definition shall not restrict in any way the Company's or any Parent's, Subsidiary's or Affiliate's

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right to discharge you for any other reason, nor shall this definition be deemed to be inclusive of all the acts or omissions which constitute "cause" for purposes other than this Agreement.

DEATH

If your Service terminates because of your death, then your Option will expire at the close of business at Company headquarters on the date twelve (12) months after the date of death. During that twelve (12) month period, your estate or heirs may exercise the vested portion of your Option.

DISABILITY

If your Service terminates because of your Disability, then your Option will expire at the close of business at Company headquarters on the date twelve (12) months after your termination date.

LEAVES OF ABSENCE

For purposes of this Option, your Service does not terminate when you go on a bona fide leave of absence that was approved by the Company in writing, if the terms of the leave provide for continued Service crediting, or when continued Service crediting is required by applicable law. Your Service terminates in any event when the approved leave ends unless you immediately return to active work.

The Company determines which leaves count for this purpose, and when your Service terminates for all purposes under the Plan.

NOTICE OF EXERCISE

When you wish to exercise this Option, you must notify the Company by filing the proper "Notice of Exercise" form at the address given on the form. Your notice must specify how many Shares you wish to purchase. Your notice must also specify how your Shares should be registered (in your name only or in your and your spouse's names as community property or as joint tenants with right of survivorship). The notice will be effective when it is received by the Company.

If someone else wants to exercise this Option after your death, that person must prove to the Company's satisfaction that he or she is entitled to do so.

FORM OF PAYMENT

When you submit your notice of exercise, you must include payment of the Exercise Price for the Shares you are purchasing. Payment may be made in one (or a combination) of the following forms:

- Cash, your personal check, a cashier's check or a money

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order.

- Shares which have already been owned by you for more than six months and which are surrendered to the Company. The value of the Shares, determined as of the effective date of the Option exercise, will be applied to the Exercise Price.
- To the extent a public market for the Shares exists as determined by the Company, by delivery (on a form prescribed by the Company) of an irrevocable direction to a securities broker to sell Shares and to deliver all or part of the sale proceeds to the Company in payment of the aggregate exercise price.

#### WITHHOLDING TAXES

You will not be allowed to exercise this Option unless you make acceptable arrangements to pay any withholding or other taxes that may be due as a result of the Option exercise or sale of Shares acquired under this Option.

#### RESTRICTIONS ON EXERCISE AND RESALE

By signing this Agreement, you agree not to exercise this Option or sell any Shares acquired under this Option at a time when applicable laws, regulations or Company or underwriter trading policies prohibit exercise, sale or issuance of Shares. The Company will not permit you to exercise this Option if the issuance of Shares at that time would violate any law or regulation. The Company shall have the right to designate one or more periods of time, each of which shall not exceed one hundred eighty (180) days in length, during which this Option shall not be exercisable if the Company determines (in its sole discretion) that such limitation on exercise could in any way facilitate a lessening of any restriction on transfer pursuant to the Securities Act or any state securities laws with respect to any issuance of securities by the Company, facilitate the registration or qualification of any securities by the Company under the Securities Act or any state securities laws, or facilitate the perfection of any exemption from the registration or qualification requirements of the Securities Act or any applicable state securities laws for the issuance or transfer of any securities. Such limitation on exercise shall not alter the vesting schedule set forth in this Agreement other than to limit the periods during which this Option shall be exercisable.

If the sale of Shares under the Plan is not registered under the Securities Act, but an exemption is available which requires an investment or other representation, you shall represent and agree at the time of exercise that the Shares being acquired upon exercise of this Option are being acquired for investment,

and not with a view to the sale or distribution thereof, and shall make such

other representations as are deemed necessary or appropriate by the Company and its counsel.

THE COMPANY'S  
RIGHT OF FIRST REFUSAL

In the event that you propose to sell, pledge or otherwise transfer to a third party any Shares acquired under this Agreement, or any interest in such Shares, the Company shall have the "Right of First Refusal" with respect to all (and not less than all) of such Shares. If you desire to transfer Shares acquired under this Agreement, you must give a written "Transfer Notice" to the Company describing fully the proposed transfer, including the number of Shares proposed to be transferred, the proposed transfer price and the name and address of the proposed transferee.

The Transfer Notice shall be signed both by you and by the proposed new transferee and must constitute a binding commitment of both parties to the transfer of the Shares. The Company shall have the right to purchase all, and not less than all, of the Shares on the terms of the proposal described in the Transfer Notice (subject, however, to any change in such terms permitted in the next paragraph) by delivery of a notice of exercise of the Right of First Refusal within thirty (30) days after the date when the Transfer Notice was received by the Company. The Company's rights under this subsection shall be freely assignable, in whole or in part.

If the Company fails to exercise its Right of First Refusal within thirty (30) days after the date when it received the Transfer Notice, you may, not later than ninety (90) days following receipt of the Transfer Notice by the Company, conclude a transfer of the Shares subject to the Transfer Notice on the terms and conditions described in the Transfer Notice. Any proposed transfer on terms and conditions different from those described in the Transfer Notice, as well as any subsequent proposed transfer by you, shall again be subject to the Right of First Refusal and shall require compliance with the procedure described in the paragraph above. If the Company exercises its Right of First Refusal, the parties shall consummate the sale of the Shares on the terms set forth in the Transfer Notice within sixty (60) days after the date when the Company received the Transfer Notice (or within such longer period as may have been specified in the Transfer Notice); provided, however, that in the event the Transfer Notice provided that payment for the Shares was to be made in a form other than lawful money paid at the time of transfer, the Company shall have the option of paying for the Shares with

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lawful money equal to the present value of the consideration described in the Transfer Notice.

The Company's Right of First Refusal shall inure to the benefit of its successors and assigns and shall be binding upon any transferee of the Shares.



The Company's Right of First Refusal shall terminate in the event that Shares are listed on an established stock exchange or is quoted regularly on the NASDAQ National Market.

RIGHT OF REPURCHASE

Following termination of your Service for any reason, the Company shall have the right to purchase all of those Shares that you have or will acquire under this Option. If the Company exercises its right to purchase such Shares, the purchase price shall be the Fair Market Value of those Shares on the date of purchase as determined by the Board of Directors and shall be paid in cash. The Company will notify you of its intention to purchase such Shares, and will consummate the purchase within the period established by applicable law. The Company's right of repurchase shall terminate in the event that the Shares are listed on an established stock exchange or is quoted regularly on the NASDAQ National Market.

TRANSFER OF OPTION

Prior to your death, only you may exercise this Option. You cannot transfer or assign this Option. For instance, you may not sell this Option or use it as security for a loan. If you attempt to do any of these things, this Option will immediately become invalid. You may, however, dispose of this Option in your will. Regardless of any marital property settlement agreement, the Company is not obligated to honor a notice of exercise from your spouse, nor is the Company obligated to recognize your spouse's interest in your Option in any other way.

RETENTION RIGHTS

Your Option or this Agreement does not give you the right to be retained by the Company (or any Parent or any Subsidiaries or Affiliates) in any capacity. The Company (or any Parent and any Subsidiaries or Affiliates) reserves the right to terminate your Service at any time and for any reason.

STOCKHOLDER RIGHTS

You, or your estate or heirs, have no rights as a stockholder of the Company until a certificate for your Option's Shares has been issued. No adjustments are made for dividends or other rights if the applicable record date occurs before your stock certificate is issued, except as described in the Plan.

ADJUSTMENTS

In the event of a stock split, a stock dividend or a similar

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change in the Company stock, the number of Shares covered by this Option and the exercise price per Share may be adjusted (and rounded down to the nearest whole number) pursuant to the Plan. Your Option shall be subject to the terms of the agreement of merger, liquidation or reorganization in the event the Company is subject to such corporate activity.

LEGENDS

All certificates representing the Shares issued upon exercise of this Option shall, where applicable, have endorsed thereon the

following legends:

"THE SHARES REPRESENTED BY THIS CERTIFICATE ARE SUBJECT TO CERTAIN RESTRICTIONS ON TRANSFER AND OPTIONS TO PURCHASE SUCH SHARES SET FORTH IN AN AGREEMENT BETWEEN THE COMPANY AND THE REGISTERED HOLDER, OR HIS OR HER PREDECESSOR IN INTEREST. A COPY OF SUCH AGREEMENT IS ON FILE AT THE PRINCIPAL OFFICE OF THE COMPANY AND WILL BE FURNISHED UPON WRITTEN REQUEST TO THE SECRETARY OF THE COMPANY BY THE HOLDER OF RECORD OF THE SHARES REPRESENTED BY THIS CERTIFICATE."

"THE SHARES REPRESENTED HEREBY HAVE NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED, AND MAY NOT BE SOLD, PLEDGED, OR OTHERWISE TRANSFERRED WITHOUT AN EFFECTIVE REGISTRATION THEREOF UNDER SUCH ACT OR AN OPINION OF COUNSEL, SATISFACTORY TO THE COMPANY AND ITS COUNSEL, THAT SUCH REGISTRATION IS NOT REQUIRED."

APPLICABLE LAW

This Agreement will be interpreted and enforced under the laws of the State of California.

BY SIGNING THE COVER SHEET OF THIS AGREEMENT, YOU AGREE TO ALL OF THE TERMS AND CONDITIONS DESCRIBED ABOVE AND IN THE PLAN.

PDF SOLUTIONS, INC.  
2000 EMPLOYEE STOCK PURCHASE PLAN  
(AS ADOPTED ON [DATE], 2000)

SECTION 1  
PURPOSE

PDF Solutions, Inc. hereby establishes the PDF Solutions, Inc. 2000 Employee Stock Purchase Plan, effective as of the Initial Public Offering Date, in order to provide eligible employees of the Company and its participating Subsidiaries with the opportunity to purchase Common Stock through payroll deductions. The Plan is intended to qualify as an employee stock purchase plan under Section 423(b) of the Code.

SECTION 2  
DEFINITIONS

2.1 "1934 Act" means the Securities Exchange Act of 1934, as amended. Reference to a specific Section of the 1934 Act or regulation thereunder shall include such Section or regulation, any valid regulation promulgated under such Section, and any comparable provision of any future legislation or regulation amending, supplementing or superseding such Section or regulation.

2.2 "Board" means the Board of Directors of the Company.

2.3 "Code" means the Internal Revenue Code of 1986, as amended. Reference to a specific Section of the Code or regulation thereunder shall include such Section or regulation, any valid regulation promulgated under such Section, and any comparable provision of any future legislation or regulation amending, supplementing or superseding such Section or regulation.

2.4 "Committee" shall mean the committee appointed by the Board to administer the Plan. Any member of the Committee may resign at any time by notice in writing mailed or delivered to the Secretary of the Company. As of the effective date of the Plan, the Plan shall be administered by the Compensation Committee of the Board.

2.5 "Common Stock" means the common stock of the Company.

2.6 "Company" means PDF Solutions, Inc.

2.7 "Compensation" means a Participant's regular wages. The Committee, in its discretion, may (on a uniform and nondiscriminatory basis) establish a different definition of Compensation prior to an Enrollment Date for all options to be granted on such Enrollment Date.

2.8 "Eligible Employee" means every Employee of an Employer, except (a) any Employee who immediately after the grant of an option under the Plan, would own stock and/or hold outstanding options to purchase stock possessing five percent (5%) or more of the total combined voting power or value of all classes of stock of the Company or of any Subsidiary

of the Company (including stock attributed to such Employee pursuant to Section 424(d) of the Code), or (b) as provided in the following sentence. The Committee, in its discretion, from time to time may, prior to an Enrollment Date for all options to be granted on such Enrollment Date, determine (on a uniform and nondiscriminatory basis) that an Employee shall not be an Eligible Employee if he or she: (1) has not completed at least two years of service since his or her last hire date (or such lesser period of time as may be determined by the Committee in its discretion), (2) customarily works not more than 20 hours per week (or such lesser period of time as may be determined by the Committee in its discretion), or (3) customarily works not more than 5 months per calendar year (or such lesser period of time as may be determined by the Committee in its discretion).

2.9 "Employee" means an individual who is a common-law employee of any Employer, whether such employee is so employed at the time the Plan is adopted or becomes so employed subsequent to the adoption of the Plan.

2.10 "Employer" or "Employers" means any one or all of the Company, and those Subsidiaries which, with the consent of the Board, have adopted the Plan.

2.11 "Enrollment Date" means such dates as may be determined by the Committee (in its discretion and on a uniform and nondiscriminatory basis) from time to time.

2.12 "Grant Date" means any date on which a Participant is granted an option under the Plan.

2.13 "Participant" means an Eligible Employee who (a) has become a Participant in the Plan pursuant to Section 4.1 and (b) has not ceased to be a Participant pursuant to Section 8 or Section 9.

2.14 "Plan" means the PDF Solutions, Inc. 2000 Employee Stock Purchase Plan, as set forth in this instrument and as hereafter amended from time to time.

2.15 "Purchase Date" means such dates as may be determined by the Committee (in its discretion and on a uniform and nondiscriminatory basis) from time to time prior to an Enrollment Date for all options to be granted on such Enrollment Date.

2.16 "Subsidiary" means any corporation in an unbroken chain of corporations beginning with the Company if each of the corporations other than the last corporation in the unbroken chain then owns stock possessing fifty percent (50%) or more of the total combined voting power of all classes of stock in one of the other corporations in such chain.

### SECTION 3 SHARES SUBJECT TO THE PLAN

3.1 Number Available. A maximum of 300,000 shares of Common Stock shall be available for issuance pursuant to the Plan. Beginning with the first fiscal year of the Company beginning after the effective date of the Plan, on the first day of each fiscal year of the Company, Shares will be added to the Plan equal to the lesser of (a) 2% of the outstanding Shares on the last day of the prior fiscal year, (b) 675,000 Shares, or (c) such lesser amount as

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determined by the Board. Shares sold under the Plan may be newly issued shares or treasury shares.

3.2 Adjustments. In the event of any reorganization, recapitalization, stock split, reverse stock split, stock dividend, combination of shares, merger, consolidation, offering of rights or other similar change in the capital structure of the Company, the Board may make such adjustment, if any, as it deems appropriate in the number, kind and purchase price of the shares available for purchase under the Plan and in the maximum number of shares subject to any option under the Plan.

### SECTION 4 ENROLLMENT

4.1 Participation. Each Eligible Employee may elect to become a Participant by enrolling or re-enrolling in the Plan effective as of any Enrollment Date. In order to enroll, an Eligible Employee must complete, sign and submit to the Company an enrollment form in such form, manner and by such deadline as may be specified by the Committee from time to time (in its discretion and on a nondiscriminatory basis). Any Participant whose option expires and who has not withdrawn from the Plan automatically will be re-enrolled in the Plan on the Enrollment Date immediately following the Purchase Date on which his or her option expires. Any Participant whose option has not expired and who has not withdrawn from the Plan automatically will be deemed to be un-enrolled from the Participant's current option and be enrolled

as of a subsequent Enrollment Date if the price per Share on such subsequent Enrollment Date is lower than the price per Share on the Enrollment Date relating to the Participant's current option.

4.2 Payroll Withholding. On his or her enrollment form, each Participant must elect to make Plan contributions via payroll withholding from his or her Compensation. Pursuant to such procedures as the Committee may specify from time to time, a Participant may elect to have withholding equal to a whole percentage from 1% to 10% (or such lesser, or greater, percentage that the Committee may establish from time to time for all options to be granted on any Enrollment Date). A Participant may elect to increase or decrease his or her rate of payroll withholding by submitting a new enrollment form in accordance with such procedures as may be established by the Committee from time to time. A Participant may stop his or her payroll withholding by submitting a new enrollment form in accordance with such procedures as may be established by the Committee from time to time. In order to be effective as of a specific date, an enrollment form must be received by the Company no later than the deadline specified by the Committee, in its discretion and on a nondiscriminatory basis, from time to time. Any Participant who is automatically re-enrolled in the Plan will be deemed to have elected to continue his or her contributions at the percentage last elected by the Participant.

#### SECTION 5 OPTIONS TO PURCHASE COMMON STOCK

5.1 Grant of Option. On each Enrollment Date on which the Participant enrolls or re-enrolls in the Plan, he or she shall be granted an option to purchase shares of Common Stock.

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5.2 Duration of Option. Each option granted under the Plan shall expire upon the conclusion of the option's offering period which will end on the earliest to occur of (a) the completion of the purchase of shares on the last Purchase Date occurring within 27 months of the Grant Date of such option, (b) such shorter option period as may be established by the Committee from time to time prior to an Enrollment Date for all options to be granted on such Enrollment Date, or (c) the date on which the Participant ceases to be such for any reason. Until otherwise determined by the Committee for all options to be granted on an Enrollment Date, the period referred to in clause (b) in the preceding sentence shall mean the period from the applicable Enrollment Date through the last business day prior to the immediately following Enrollment Date.

5.3 Number of Shares Subject to Option. The number of shares available for purchase by each Participant under the option will be established by the Committee from time to time prior to an Enrollment Date for all options to be granted on such Enrollment Date.

5.4 Other Terms and Conditions. Each option shall be subject to the following additional terms and conditions:

(a) payment for shares purchased under the option shall be made only through payroll withholding under Section 4.2;

(b) purchase of shares upon exercise of the option will be accomplished only in accordance with Section 6.1;

(c) the price per share under the option will be determined as provided in Section 6.1; and

(d) the option in all respects shall be subject to such other terms and conditions (applied on a uniform and nondiscriminatory basis), as the Committee shall determine from time to time in its discretion.

#### SECTION 6 PURCHASE OF SHARES

6.1 Exercise of Option. Subject to Section 6.2, on each Purchase Date, the funds then credited to each Participant's account shall be used to purchase whole shares of Common Stock. Any cash remaining after whole shares of Common Stock have been purchased shall be carried forward in the Participant's

account for the purchase of shares on the next Purchase Date. The price per Share of the Shares purchased under any option granted under the Plan shall be eighty-five percent (85%) of the lower of:

(a) the closing price per Share on the NASDAQ National Market System on the business day preceding the Grant Date for such option; or

(b) the closing price per Share on the NASDAQ National Market System on the Purchase Date;

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provided, however, that with respect to any Grant Date under the Plan that coincides with the date of the final prospectus for the initial public offering of the Common Stock, the price in clause (a) above shall be the price per Share at which shares of Common Stock are initially offered for sale to the public by the Company's underwriters in such offering.

6.2 Delivery of Shares. As directed by the Committee in its sole discretion, shares purchased on any Purchase Date shall be delivered directly to the Participant or to a custodian or broker (if any) designated by the Committee to hold shares for the benefit of the Participants. As determined by the Committee from time to time, such shares shall be delivered as physical certificates or by means of a book entry system.

6.3 Exhaustion of Shares. If at any time the shares available under the Plan are over-enrolled, enrollments shall be reduced proportionately to eliminate the over-enrollment. Such reduction method shall be "bottom up," with the result that all option exercises for one share shall be satisfied first, followed by all exercises for two shares, and so on, until all available shares have been exhausted. Any funds that, due to over-enrollment, cannot be applied to the purchase of whole shares shall be refunded to the Participants (without interest thereon).

#### SECTION 7 WITHDRAWAL

7.1 Withdrawal. A Participant may withdraw from the Plan by submitting a completed enrollment form to the Company. A withdrawal will be effective only if it is received by the Company by the deadline specified by the Committee (in its discretion and on a uniform and nondiscriminatory basis) from time to time. When a withdrawal becomes effective, the Participant's payroll contributions shall cease and all amounts then credited to the Participant's account shall be distributed to him or her (without interest thereon).

#### SECTION 8 CESSATION OF PARTICIPATION

8.1 Termination of Status as Eligible Employee. A Participant shall cease to be a Participant immediately upon the cessation of his or her status as an Eligible Employee (for example, because of his or her termination of employment from all Employers for any reason). As soon as practicable after such cessation, the Participant's payroll contributions shall cease and all amounts then credited to the Participant's account shall be distributed to him or her (without interest thereon). If a Participant is on a Company-approved leave of absence, his or her participation in the Plan shall continue for so long as he or she remains an Eligible Employee and has not withdrawn from the Plan pursuant to Section 7.1.

#### SECTION 9 DESIGNATION OF BENEFICIARY

9.1 Designation. Each Participant may, pursuant to such uniform and nondiscriminatory procedures as the Committee may specify from time to time, designate one or more Beneficiaries to receive any amounts credited to the Participant's account at the time of his or her death. Notwithstanding any contrary provision of this Section 9, Sections 9.1 and 9.2 shall

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be operative only after (and for so long as) the Committee determines (on a uniform and nondiscriminatory basis) to permit the designation of Beneficiaries.

9.2 Changes. A Participant may designate different Beneficiaries (or may revoke a prior Beneficiary designation) at any time by delivering a new designation (or revocation of a prior designation) in like manner. Any designation or revocation shall be effective only if it is received by the Committee. However, when so received, the designation or revocation shall be effective as of the date the designation or revocation is executed (whether or not the Participant still is living), but without prejudice to the Committee on account of any payment made before the change is recorded. The last effective designation received by the Committee shall supersede all prior designations.

9.3 Failed Designations. If a Participant dies without having effectively designated a Beneficiary, or if no Beneficiary survives the Participant, the Participant's Account shall be payable to his or her estate.

#### SECTION 10 ADMINISTRATION

10.1 Plan Administrator. The Plan shall be administered by the Committee. The Committee shall have the authority to control and manage the operation and administration of the Plan.

10.2 Actions by Committee. Each decision of a majority of the members of the Committee then in office shall constitute the final and binding act of the Committee. The Committee may act with or without a meeting being called or held and shall keep minutes of all meetings held and a record of all actions taken by written consent.

10.3 Powers of Committee. The Committee shall have all powers and discretion necessary or appropriate to supervise the administration of the Plan and to control its operation in accordance with its terms, including, but not by way of limitation, the following discretionary powers:

(a) To interpret and determine the meaning and validity of the provisions of the Plan and the options and to determine any question arising under, or in connection with, the administration, operation or validity of the Plan or the options;

(b) To determine any and all considerations affecting the eligibility of any employee to become a Participant or to remain a Participant in the Plan;

(c) To cause an account or accounts to be maintained for each Participant;

(d) To determine the time or times when, and the number of shares for which, options shall be granted;

(e) To establish and revise an accounting method or formula for the Plan;

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(f) To designate a custodian or broker to receive shares purchased under the Plan and to determine the manner and form in which shares are to be delivered to the designated custodian or broker;

(g) To determine the status and rights of Participants and their Beneficiaries or estates;

(h) To employ such brokers, counsel, agents and advisers, and to obtain such broker, legal, clerical and other services, as it may deem necessary or appropriate in carrying out the provisions of the Plan;

(i) To establish, from time to time, rules for the performance of its powers and duties and for the administration of the Plan;

(j) To adopt such procedures and subplans as are necessary or

appropriate to permit participation in the Plan by employees who are foreign nationals or employed outside of the United States;

(k) To delegate to any one or more of its members or to any other person, severally or jointly, the authority to perform for and on behalf of the Committee one or more of the functions of the Committee under the Plan.

10.4 Decisions of Committee. All actions, interpretations, and decisions of the Committee shall be conclusive and binding on all persons, and shall be given the maximum possible deference allowed by law.

10.5 Administrative Expenses. All expenses incurred in the administration of the Plan by the Committee, or otherwise, including legal fees and expenses, shall be paid and borne by the Employers, except any stamp duties or transfer taxes applicable to the purchase of shares may be charged to the account of each Participant. Any brokerage fees for the purchase of shares by a Participant shall be paid by the Company, but fees and taxes (including brokerage fees) for the transfer, sale or resale of shares by a Participant, or the issuance of physical share certificates, shall be borne solely by the Participant.

10.6 Eligibility to Participate. No member of the Committee who is also an employee of an Employer shall be excluded from participating in the Plan if otherwise eligible, but he or she shall not be entitled, as a member of the Committee, to act or pass upon any matters pertaining specifically to his or her own account under the Plan.

10.7 Indemnification. Each of the Employers shall, and hereby does, indemnify and hold harmless the members of the Committee and the Board, from and against any and all losses, claims, damages or liabilities (including attorneys' fees and amounts paid, with the approval of the Board, in settlement of any claim) arising out of or resulting from the implementation of a duty, act or decision with respect to the Plan, so long as such duty, act or decision does not involve gross negligence or willful misconduct on the part of any such individual.

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#### SECTION 11 AMENDMENT, TERMINATION, AND DURATION

11.1 Amendment, Suspension, or Termination. The Board, in its sole discretion, may amend or terminate the Plan, or any part thereof, at any time and for any reason. If the Plan is terminated, the Board, in its discretion, may elect to terminate all outstanding options either immediately or upon completion of the purchase of shares on the next Purchase Date, or may elect to permit options to expire in accordance with their terms (and participation to continue through such expiration dates). If the options are terminated prior to expiration, all amounts then credited to Participants' accounts which have not been used to purchase shares shall be returned to the Participants (without interest thereon) as soon as administratively practicable.

11.2 Duration of the Plan. The Plan shall commence on the date specified herein, and subject to Section 11.1 (regarding the Board's right to amend or terminate the Plan), shall remain until December 31, 2010.

#### SECTION 12 GENERAL PROVISIONS

12.1 Participation by Subsidiaries. One or more Subsidiaries of the Company may become participating Employers by adopting the Plan and obtaining approval for such adoption from the Board. By adopting the Plan, a Subsidiary shall be deemed to agree to all of its terms, including (but not limited to) the provisions granting exclusive authority (a) to the Board to amend the Plan, and (b) to the Committee to administer and interpret the Plan. An Employer may terminate its participation in the Plan at any time. The liabilities incurred under the Plan to the Participants employed by each Employer shall be solely the liabilities of that Employer, and no other Employer shall be liable for benefits accrued by a Participant during any period when he or she was not employed by such Employer.



12.2 Inalienability. In no event may either a Participant, a former Participant or his or her Beneficiary, spouse or estate sell, transfer, anticipate, assign, hypothecate, or otherwise dispose of any right or interest under the Plan; and such rights and interests shall not at any time be subject to the claims of creditors nor be liable to attachment, execution or other legal process. Accordingly, for example, a Participant's interest in the Plan is not transferable pursuant to a domestic relations order.

12.3 Severability. In the event any provision of the Plan shall be held illegal or invalid for any reason, the illegality or invalidity shall not affect the remaining parts of the Plan, and the Plan shall be construed and enforced as if the illegal or invalid provision had not been included.

12.4 Requirements of Law. The granting of options and the issuance of shares shall be subject to all applicable laws, rules, and regulations, and to such approvals by any governmental agencies or securities exchanges as the Committee may determine are necessary or appropriate.

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12.5 Compliance with Rule 16b-3. Any transactions under this Plan with respect to officers (as defined in Rule 16a-1 promulgated under the 1934 Act) are intended to comply with all applicable conditions of Rule 16b-3. To the extent any provision of the Plan or action by the Committee fails to so comply, it shall be deemed null and void, to the extent permitted by law and deemed advisable by the Committee. Notwithstanding any contrary provision of the Plan, if the Committee specifically determines that compliance with Rule 16b-3 no longer is required, all references in the Plan to Rule 16b-3 shall be null and void.

12.6 No Enlargement of Employment Rights. Neither the establishment or maintenance of the Plan, the granting of options, the purchase of shares, nor any action of any Employer or the Committee, shall be held or construed to confer upon any individual any right to be continued as an employee of the Employer nor, upon dismissal, any right or interest in any specific assets of the Employers other than as provided in the Plan. Each Employer expressly reserves the right to discharge any employee at any time, with or without cause.

12.7 Apportionment of Costs and Duties. All acts required of the Employers under the Plan may be performed by the Company for itself and its Subsidiaries, and the costs of the Plan may be equitably apportioned by the Committee among the Company and the other Employers. Whenever an Employer is permitted or required under the terms of the Plan to do or perform any act, matter or thing, it shall be done and performed by any officer or employee of the Employers who is thereunto duly authorized by the Employers.

12.8 Construction and Applicable Law. The Plan is intended to qualify as an "employee stock purchase plan" within the meaning of Section 423(b) of the Code. Any provision of the Plan which is inconsistent with Section 423(b) of the Code shall, without further act or amendment by the Company or the Committee, be reformed to comply with the requirements of Section 423(b). The provisions of the Plan shall be construed, administered and enforced in accordance with such Section and with the laws of the State of California (excluding California's conflict of laws provisions).

12.9 Captions. The captions contained in and the table of contents prefixed to the Plan are inserted only as a matter of convenience, and in no way define, limit, enlarge or describe the scope or intent of the Plan nor in any way shall affect the construction of any provision of the Plan.

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OFFICE LEASE

METROPOLITAN LIFE INSURANCE COMPANY,  
a New York corporation,  
Landlord

and

P.D.F. SOLUTIONS,  
a California corporation,  
Tenant

DATED AS OF: April 1, 1996

RIVER PARK OFFICE TOWERS  
GENERAL LEASE

In consideration of the rents and covenants hereinafter set forth, the Landlord named in Article B of Section I hereby leases to the Tenant named in Article C of Section I, and Tenant hereby hires from Landlord, the Demised Premises described in Article F of Section I of this Lease upon the conditions set forth below, and it is agreed that each of the terms, covenants, provisions and agreements hereinafter specified shall be a condition.

SECTION I - LEASE TERMS

ARTICLE

- A. Date of Lease: April 1, 1996
- B. Landlord: Metropolitan Life Insurance Company, a New York corporation
- C. Tenant: P.D.F. Solutions, a California corporation
- D. Trade Name (if any): N/A
- E. Guarantor (if any): N/A
- F. Demised Premises (Section II, Article 1): The Demised Premises is located on the south side of the sixth floor, as depicted on Exhibit A of the Lease, of the building (the "Building") whose present street address is 333 West San Carlos Street, at the intersection of West San Carlos Street and Woz Way, in the City of San Jose, State of California. For purposes of this Lease, "Business Center" shall mean the Building, the parking garage, plaza and other improvements on the real property bounded by the Guadalupe River, West San Carlos Street, Woz Way and Park Avenue located in the City of San Jose, and if constructed, a second office tower on such real property.
- G. Lease Term (Addendum): Three (3) years with the actual dates determined as follows:
  - Projected Commencement Date: April 15, 1996
  - Commencement Date: See Addendum
  - Expiration Date: The last day of the thirty-six (36) month period which begins on the Commencement Date.
- H. Base Annual Rent (Section II, Article 1): Base Annual Rent is payable in Monthly Installments for months 1 through 18 of the Term equal to Five Thousand Seven Hundred Thirteen Dollars and Fifty Cents (\$5,713.50) per month and for months 19 through 36 of the Term equal to Six Thousand Six Dollars and Fifty Cents (\$6,006.50).
- I. Use of Premises (Section II, Article 2): general office use
- J. Address for Notice to Landlord (Section II, Article 27):

To Landlord: Metropolitan Life Insurance Company  
101 Lincoln Centre Drive, 6th Floor  
Foster City, California 94404  
Attention: Vice President  
Real Estate Investments

with copy to: Office of Building Manager  
333 West San Carlos  
San Jose, California 95110

K. Base Taxes & Operating Costs Amount (Section II, Article 28): Amount of Taxes and Operating Costs for Calendar Year 1996.

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L. Tenant's Share of Any Increase Over Base Taxes and Operating Costs Amount (Section II, Article 28): 1.0055%. It is conclusively agreed that for all calculations and purposes of the Lease, that at Commencement Date the following are conclusively presumed: Rentable Area of Building: 291,403 square feet; Rentable Area of Demised Premises: 2,930 square feet; and Usable Area of the Demised Premises: 2,570 square feet. For all calculations and purposes of this Lease, as a negotiated matter, and notwithstanding any provision of this Lease to the contrary it is further conclusively agreed that Rentable Area of the Demised Premises has been calculated as the amount equal to 1.14 times the Usable Area of the Demised Premises.

M. Security Deposit (Section II, Article 30 and Addendum): Five Thousand Seven Hundred Thirteen Dollars and Fifty Cents (\$5,713.50).

N. Broker(s) (Section II, Article 35):

Broker's Address: CB Commercial Real Estate Group, Inc.  
226 Airport Parkway, Suite 150  
San Jose, CA 95110-1091

Cooperating Broker: BT Commercial  
3350 West Bayshore, Suite 100  
Palo Alto, CA 94303

O. Condition of Demised Premises: See Addendum

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- Exhibit C - Confirmation of Lease Term Dates
- Exhibit D - Rules and Regulations
- Exhibit E - Negotiation Space

Addendum

SECTION II - OFFICE LEASE PROVISIONS

DEMISED PREMISES, TERM, RENT

Demised Premises

1.1. Upon and subject to the terms, covenants and conditions hereinafter set forth, Landlord hereby leases to Tenant and Tenant hereby hires from Landlord the Demised Premises comprising the area substantially as shown on the floor plan or plans that have been signed by Landlord and Tenant and that are attached hereto as Exhibit A.

1.2. Tenant shall have the right, for the benefit of Tenant and its employees, suppliers, customers and invitees, to the non-exclusive use of all areas and facilities outside the Demised Premises and within the exterior boundary line of the Business Center that are provided and designated by Landlord from time to time for the general non-exclusive use of Landlord, Tenant and the other tenants of RiverPark and their respective employees, suppliers, shippers, customers and invitees, including public areas in the Building, the link building and the parking garage, loading and unloading areas, drives, walkways, roadways, trash areas, plaza areas and landscaped areas (herein called "Common Areas").

1.3. Tenant and its employees may lease space in the parking garage located at the business center upon such terms and conditions as may be available from time to time from the operation thereof.

Term

1.4. The Demised Premises are leased for the Term to commence on the Commencement Date and end on the Expiration Date, unless the Term shall sooner terminate as hereinafter provided.

## Rent

1.5. Tenant shall pay to Landlord during the Term the Base Annual Rent, which sum shall be payable by Tenant in equal consecutive Monthly Installments on or before the first day of each month, in advance at the address specified for Landlord in the Lease Terms, or such other place as Landlord shall designate, without any prior demand therefor and without any abatement, deduction or setoff whatsoever. If the Commencement Date should occur on a day other than the first day of a calendar month, or the Expiration Date should occur on a day other than the last day of a calendar month, then the rental for such fractional month shall be prorated on a daily basis based upon a thirty (30) day calendar month. In addition to the Base Annual Rent, Tenant shall pay the amount of any rental adjustments and additional payments as and when hereinafter provided in this Lease.

1.6. Intentionally Omitted.

1.7. Notwithstanding any other provisions of this Lease, any installment of Base Annual Rent or additional charges not paid to Landlord when due hereunder, shall bear interest from the date due or from the date of expenditure by Landlord for the account of Tenant, until the same have been fully paid, at a rate (the "Default Rate") that is equal to the lesser of (i) two percent (2%) above the highest prime lending rate or reference rate published or reported from time to time by Bank of America N.T. & S.A. at its San Francisco headquarters, adjusted monthly on the first day of each month, such adjustment to be effective for the following month, and (ii) the highest rate permitted by law. The highest prime lending rate or reference rate referred to in this section 1.7 may or may not be the lowest rate of interest charged by Bank of America N.T. & S.A. The payment of such interest shall not constitute a waiver of any default by Tenant hereunder.

## OCCUPANCY

2.1. Tenant shall use and occupy the Demised Premises for the purpose set forth in Article I of Section 1 and for no other purpose. The character of the occupancy of the Demised Premises, as restricted by this Article and as further restricted by Articles 3 and 15 and any of the Rules and Regulations attached to this Lease, or hereafter adopted, is an additional consideration and inducement for the granting of this Lease.

2.2. The manner in which the Common Areas are maintained and operated and the expenditures therefor shall be at the sole discretion of Landlord, and the use of such areas and facilities shall be subject to such Rules and Regulations, including, without limitation, the provisions of any covenants, conditions and restrictions affecting the Business Center, as Landlord shall make from time to time. Landlord shall not be responsible for the nonperformance of any such Rules and Regulations or covenants, conditions and restrictions by any other tenant or occupant of the Business Center.

2.3. The purpose of the attached Exhibit A is only to show the approximate location of the Demised Premises in the Building, and such Exhibit A is not meant to constitute an agreement as to the specific location of the Common Areas or the elements thereof or of the accessways to the Demised Premises or the Business Center. Landlord hereby reserves the right, at any time and from time to time, to (a) make alterations in or additions to the Business Center, including, without limitation, constructing new buildings, changes in the location, size, shape and number of driveways, entrances, parking spaces, parking areas, loading and unloading areas, landscaped areas and walkways, (b) close temporarily any of the Common Areas for maintenance purposes as long as reasonable access to the Demised Premises remains available, (c) designate property outside the Business Center to be part of the Common Areas, (d) use the Common Areas while engaged in making alterations in or additions or repairs to the Business Center, and (e) change the arrangement and location of entrances or passageways, corridors, stairs, toilets and other public parts of the Building. Tenant agrees that no diminution of light, air or view by any structure that may be erected in the Business Center after the Lease Date shall entitle Tenant to any reduction of Base Annual Rent or result in any liability of Landlord to Tenant.

2.4. Landlord reserves the right, from time to time, to grant such easements, rights and dedications as Landlord deems necessary or desirable, and to cause the recordation or parcel maps and covenants, conditions and restrictions affecting the Business Center, as long as such easements, rights, dedications, maps and covenants, conditions and restrictions do not unreasonably interfere with the use of the Demised Premises by Tenant. At Landlord's request,

Tenant shall join in the execution of any of the aforementioned documents. The Building and the Business Center may be known by any name that Landlord may choose, which name may be changed from time to time in Landlord's sole discretion.

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2.5. Tenant shall not permit or allow any vehicles that belong to or are controlled by Tenant or Tenant's employees, suppliers, shippers, customers or invitees to be loaded or parked in areas other than the parking garage and those designated by Landlord for such activities. If Tenant permits or allows any of the prohibited activities described in this Section 2.5, Landlord shall have the right, in addition to all other rights and remedies that it may have under this Lease, to remove or tow away the vehicle involved without prior notice to Tenant and the cost thereof shall be paid to Landlord within ten (10) days after notice from Landlord to Tenant.

#### ASSIGNMENT, MORTGAGE, SUBLETTING

3.1. Tenant shall not assign or hypothecate this Lease or any interest herein or sublet the Demised Premises or any part thereof, or permit the use of the Demised Premises by any party other than Tenant without the written consent of Landlord first being obtained, which consent will not be unreasonably withheld provided that: (1) Tenant has requested in writing Landlord's consent thereto at least thirty (30) days prior to such proposed subletting or assignment; (2) the proposed subtenant or assignee is engaged in a business which, and the use of Demised Premises will be used in a manner which, is in keeping with the then character and nature of all other tenancies in the Building; (3) the use to be made of the Demised Premises by the proposed subtenant or assignee does not conflict with any so-called "exclusive" then in favor of, or for any use which is the same as that stated in any percentage lease to, any other tenant of the Building or Business Center, and such use would not be prohibited by any other portion of this Lease (including, but not limited to, any Rules and Regulations then in effect), or under applicable law; (4) the proposed subtenant or assignee is a reputable party of reasonable financial worth and stability in light of the responsibilities involved and does not impose a greater load upon Building and Business Center services (such as elevator, janitorial and security services) than imposed by Tenant; (5) sublease or assignment requires payment of the same rent and other amounts as required of Tenant hereunder with respect to the space being sublet or assigned and in no event less than is then being offered by Landlord for similar space in the Building under leases then being negotiated; (6) Tenant shall have provided Landlord with reasonable proof of (2), (3), (4) and (5); and (7) Tenant is not in default hereunder at the time it makes its request for such consent or at the time the assignment or sublet is to take effect. If Tenant is a corporation or a partnership, the transfer of fifty percent (50%) or more of the beneficial ownership interest of the corporate stock or in the partnership of Tenant, as the case may be, shall constitute an assignment hereunder for which such consent is required. Nor may Tenant assign this Lease or sublet the Demised Premises or any portion thereof to any corporation which controls, is controlled by or is under common control with Tenant, or to any corporation resulting from merger, consolidation with Tenant, or to any person or entity which acquires all the assets as a going concern of the business of Tenant that is being conducted on the Demised Premises without the written consent of Landlord, which consent shall not be unreasonably withheld provided that conditions (2), (3), (4), (5), (6) and (7) above, have been complied with. Landlord shall have fifteen (15) days after it has received all the information it requires pursuant to this Section 3.1 to enable it to decide whether or not its consent may be reasonably withheld, to advise Tenant of its decision. Any of the foregoing acts without such consent shall be void, and, at the option of Landlord, shall terminate this Lease. No consent by Landlord shall release Tenant from any of Lessee's obligations hereunder or be deemed to be a consent to any subsequent or further assignment, hypothecation, subletting or third party use. In order for any assignment or sublease to be binding on Landlord, Tenant must deliver to Landlord, promptly after execution thereof, an executed copy of such sublease or assignment. This Lease shall not be assigned, nor shall any interest herein be assignable, as to the interest of Tenant, by operation of law without the written consent of Landlord, which consent shall not be unreasonably withheld provided that conditions (1), (2), (3), (4), (5), (6) and (7), above, have been complied with.

3.2. Landlord and Tenant agree that one-half of any sums or other economic consideration received by Tenant as a result of such assignment or subletting (other than the rental or other payments received which are attributable to the

amortization over the term of this Lease of the cost of building non-standard leasehold improvements to the assigned or sublet portion of the Demises Premises paid for by Tenant) whether denominated rentals under the assignment or sublease or otherwise, which exceed in the aggregate the total sums which Tenant is obligated to pay Landlord under this Lease prorated to reflect obligations allocable to that portion of the Demised Premises subject to such assignment or sublease) shall be payable to Landlord as additional rent under this Lease without affecting or reducing any other obligation of Tenant hereunder.

3.3. Regardless of Landlord's consent, no subletting or assignment shall release Tenant of Tenant's obligation or alter the primary liability of Tenant to pay the rental and to perform all other obligations to be performed by Tenant hereunder. The acceptance of rental by Landlord from any other person shall not be deemed to be a waiver by Landlord of any provision hereof. Consent to one assignment or subletting shall not be deemed consent to any subsequent assignment or subletting. In the event of default by any assignee or successor of Tenant, in the performance of any of the terms hereof, Landlord may proceed directly against Tenant without the necessity of exhausting remedies against said assignee or successor. Landlord may consent to subsequent assignments or subletting of this Lease or amendment or modifications to this Lease with assignees of Tenant, and without notifying Tenant or a successor of Tenant, and without obtaining its or their consent thereto and such action shall not relieve Tenant of liability under this Lease.

3.4. In the event Tenant shall assign or sublet the Demised Premises, request the consent of Landlord to any assignment or subletting, or if Tenant shall request the consent of Landlord for any act that Tenant proposes to do, then Tenant shall pay Landlord's reasonable attorneys' fees and expenses incurred in connection therewith.

#### ALTERATIONS

4.1. Tenant shall make no alterations, decorations, additions or improvements in or to the Demised Premises without Landlord's prior written consent (which shall not be unreasonably withheld), and then only by contractors or mechanics approved in advance in writing by Landlord and only upon such conditions as Landlord may impose. Tenant shall submit such information as Landlord shall require, including, without limitation (i) plans and specifications, (ii) evidence of insurance coverage in such types and amounts and from such insurers as Landlord deems satisfactory and (iii) all permits and licenses required in connection with such work. All such work shall be done at Tenant's sole cost and expense at such times and in such manner as Landlord may from time to time designate. All work done by Tenant shall be performed in full compliance with all laws, rules, orders, ordinances, directions, regulations and requirements of all governmental agencies, offices, departments, bureaus and boards having jurisdiction, and in full compliance with the rules, orders, directions, regulations and requirements of the Insurance Services Office and of any similar body. Before commencing any work, Tenant shall (a) give Landlord at least fifteen (15) days' written notice of the proposed commencement of such work in order to give Landlord an opportunity to prepare, post and record such notice as may be permitted by law to protect Landlord from having its interest in the Demised Premises or the Building made subject to a mechanic's lien, and (b) shall secure, at Tenant's own cost and expense, a completion and lien indemnity

bond, satisfactory in form, content, amount and the identity of the issuer to Landlord, for said work. Any mechanic's lien filed against the Demised Premises or against the Building or the Business Center for Work claimed to have been done for, or materials claimed to have been furnished to Tenant, shall be discharged by Tenant, by bond or otherwise, within ten (10) days after the filing thereof, at the cost and expense of Tenant. Should Tenant fail to remove any such lien within ten (10) days after the filing thereof, Landlord may, in addition to any other remedies, record a bond pursuant to Section 3143 of the Civil Code of the State of California (or any successor provision) and all amounts incurred by Landlord in so doing shall become immediately due and payable by Tenant to Landlord. All alterations, decorations, additions, or improvements upon the Demised Premises, made by either party, including, without limiting the generality of the foregoing, all panelling, partitions, railings, mezzanine floors, galleries and the like, shall, unless Landlord elects otherwise (which election shall be made by giving a notice pursuant to the provisions of Article 27 not less than thirty (30) days prior to the expiration, or thirty (30) days after any other termination, of this Lease or any renewal or

extensions thereof), become the property of Landlord, and shall remain upon, and be surrendered with the Demised Premises, as a part thereof, at the end of the Term. If Tenant shall remove any property from the Demised Premises, Tenant shall repair or, at Landlord's option, shall pay to Landlord the cost of repairing any damage arising from such removal. Tenant shall not install any machine or equipment (other than normal and customary office machines and equipment in quantities normal for space in the Building of similar size to the Demised Premises which causes noise, heat, cold or vibration to be transmitted to the structure of the Building without Landlord's prior written consent, which consent may be conditioned on such terms as Landlord may require.

#### REPAIRS

5.1. Tenant shall take good care of the Demised Premises and fixtures therein and, subject to the provisions of Article 4 hereof, shall, except for ordinary wear and tear, make all repairs in and about the Demised Premises necessary to preserve them in good order and condition, which repairs shall be in quality and class equal to the original work. Landlord, however, shall repair the Building plumbing, heating, ventilating or air conditioning and electrical systems and make structural repairs within the Demised Premises arising from ordinary wear and tear or through causes over which Tenant has no control, except as otherwise provided in this Lease. Landlord may repair, at the expense of Tenant, all damage or injury to the Demised Premises, or to the Building and its fixtures, appurtenances or equipment or to any of the areas used in connection with the operation of the Building, done by Tenant or Tenant's agents, servants, employees, contractors, visitors or licensees or caused by moving property of Tenant in or out of the Building, or by installation or removal of furniture or other property, or resulting from fire, heating, ventilating or air conditioning unit or system, short circuits, overflow or leakage of water, steam, gas, sewer gas, sewage or odors, or by frost or by bursting or leaking of pipes or plumbing works, or gas, or from any other cause, due to the carelessness, negligence, or improper conduct of Tenant or Tenant's agents, servants, employees, contractors, visitors or licensees. Landlord shall have the right to replace, at the expense of Tenant, any and all plate and other glass damaged or broken from any cause whatsoever in or about the Demised Premises unless caused by or due to the sole negligence of Landlord, Landlord's agents, servants or employees. Except as provided in Article 10 hereof, there shall be no allowance to Tenant for a diminution of rental value, and no liability on the part of Landlord by reason of inconvenience, annoyance or injury to business arising from the making of, or the failure to make, any repairs, alterations, decorations, additions or improvements in or to any portion of the Building or any of the areas used in connection with the operation thereof, or the Demised Premises, or in or to fixtures, appurtenances or equipment, or by reason of the act or neglect of Tenant or any other tenant or occupant of the Building; and in no event shall Landlord be responsible for any incidental or consequential damages arising or alleged to have arisen from any of the foregoing matters. Tenant hereby waives all rights under the provisions of Sections 1932, 1933, 1941 and 1942 of the Civil Code of the State of California and all rights under any law in existence during the Term of this Lease authorizing a tenant to make repairs at the expense of a landlord or to terminate a lease upon the complete or partial destruction of the leased premises.

#### REQUIREMENTS OF LAW

6.1. Tenant, at Tenant's expense shall comply with all laws, rules, orders, ordinances, directions, regulations and requirements of federal, state, county and municipal authorities pertaining to Tenant's use of the Demised Premises and with the recorded covenants, conditions and restrictions affecting the Business Center, and with any direction of any public officer or officers, pursuant to law, which shall impose any duty upon Landlord or Tenant with respect to the use or occupation of the Demised Premises, and shall not do or permit to be done, any act or thing upon the Demised Premises, which Tenant has been notified will invalidate or be in conflict with any insurance policy covering the Building or any of the areas used in connection with the operation thereof or its fixtures, appurtenances or equipment or the property located therein, and shall not do or permit to be done, any act or thing upon the Demised Premises which shall or might subject Landlord to any liability or responsibility for injury to any person or persons or to any property by reason of any business or operation being carried on upon the Demised Premises or for any other reason, and Tenant hereby indemnifies and holds harmless Landlord from and against any such liability or responsibility. Tenant shall not place a load upon any floor of the Demised Premises exceeding the floor load per square foot area which such floor was designed to carry and which is allowed by law. Business machines and mechanical equipment shall be placed and maintained by



Tenant at Tenant's expense in settings sufficient in Landlord's judgment to absorb and prevent vibration, noise and annoyance.

#### INSURANCE

6.2. Tenant shall comply with all rules, orders, directions, regulations and requirements of the Department of Insurance or any other similar body, and shall not do, or permit anything to be done, in or upon the Demised Premises, or bring or keep anything therein, which shall increase the rates of any insurance on the Building or any of the areas used in connection with the operation thereof or its fixtures, appurtenances or equipment or on property located therein. If by reason of failure of Tenant to comply with the provisions of this Article, any insurance rate shall at any time be higher than it otherwise would be, then Tenant shall reimburse Landlord for that part of all such premiums thereafter paid by Landlord which shall have been charged because of such violation by Tenant and shall make such reimbursement upon the first day of the month following such outlay by Landlord.

#### SUBORDINATION, GROUND LEASES, MORTGAGES

##### SUBORDINATION

7.1. This Lease is subject and subordinate to (i) all ground or underlying leases, mortgages and deeds of trust which now affect the real property of which the Demised Premises forms a part or affect the ground or underlying leases, (ii) all renewals, modifications, consolidations, replacements and extensions thereof, and (iii) any ground or underlying leases,

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mortgages, or deeds of trust which may thereafter affect the real property of which the [illegible] premises forms a part or affect the ground or underlying leases, without the necessity of executing any instrument to effectuate such subordination. Notwithstanding the preceding sentence, Tenant, or Tenant's successors-in-interest, will execute and deliver upon the demand of Landlord any and all instruments desired by Landlord evidencing such subordination in the manner requested by Landlord. Landlord is hereby irrevocably appointed and authorized as agent and attorney-in-fact of Tenant to execute and deliver all such subordination instruments in the event Tenant fails to execute and deliver said instruments within five (5) days after written request therefor. Said power of attorney is coupled with an interest and is therefore irrevocable during the Term of this Lease, including any renewal or extension periods.

##### GROUND LEASES

7.2. Tenant agrees that, at the option of the landlord under any ground lease now or hereafter affecting the real property of which the Demised Premises forms a part, Tenant shall attorn to said landlord in the event of the termination or cancellation of such ground lease and if requested by said landlord, enter into a new lease with said landlord (or a successor ground lessee designated by said landlord) for the balance of the term then remaining hereunder upon the same terms and conditions as those herein provided.

##### MORTGAGES

7.3. In the event of foreclosure or exercise of power of sale under any mortgage or deed of trust now or hereafter affecting the real property of which the Demised Premises forms a part, the holder of any such mortgage or deed of trust (or purchaser at any sale pursuant thereto) shall have the option (a) supplementing this Article, to require Tenant to attorn to such holder or purchaser, and to enter into a new lease with such holder or purchaser (as Landlord) for the balance of the term then remaining hereunder upon the same terms and conditions as those herein provided, or (b) notwithstanding this Article, to elect that this Lease become or remain, as the case may be, superior to said mortgage or deed of trust.

7.4. Tenant shall, upon request by any such holder or purchaser, execute and deliver any and all instruments desired by such holder or purchaser evidencing the superiority of this Lease to any said mortgage or deed of trust.

7.5. In the event that Landlord or any such holder at any time requests that this Article contain different language to the same general effect, Tenant agrees to promptly execute and deliver an amendment of this Lease memorializing

the same.

#### RULES AND REGULATIONS

8.1. Tenant and Tenant's agents, servants, employees, contractors, visitors and licensees shall observe faithfully and comply strictly with the Rules and Regulations attached hereto and made a part hereof, and such other and further reasonable Rules and Regulations as Landlord or Landlord's agents may from time to time adopt. Notice of any additional Rules or Regulations shall be given in such manner as Landlord may elect. Landlord shall not be liable to Tenant for violation of any of said Rules and Regulations, or the breach of any term, covenant, condition, provision or agreement in any lease, by any other tenant or other party in the Building or in the Business Center.

#### LIABILITY AND INDEMNIFICATION

9.1. Tenant agrees to indemnify Landlord against and save Landlord harmless from and against any and all loss, cost, liability, damage and expense, including, without limitation, penalties, fines and counsel fees, incurred in connection with or arising from any cause whatsoever in, on or about the Demised Premises, including, without limiting the generality of the foregoing, (a) any default by Tenant in the observance or performance of any of the terms, covenants or conditions of this Lease on Tenant's part to be observed or performed, (b) the use or occupancy or manner of use or occupancy of the Demised Premises by Tenant or any person claiming through or under Tenant, or of the employees, suppliers, shippers, customers or invitees of Tenant or any such other person, in, on or about the Demised Premises, the Building or the Business Center, whether prior to, during, or after the expiration of the Term including, without limitation, any act, omissions or negligence in the making or performing of any alterations. Tenant further agrees to indemnify Landlord, Landlord's agents, and the lessor or lessors under all ground or underlying leases, against and hold them harmless from any and all loss, cost liability, damage and expense including, without limitation, counsel fees, incurred in connection with or arising from any claims by any persons by reason of injury to persons or damage to property occasioned by any use, occupancy, condition, occurrence, happening, act, omission or negligence referred to in the preceding sentence.

9.2. Landlord shall not be responsible for or liable to Tenant for any loss or damage that may be occasioned by or through the acts or omissions of persons occupying adjoining premises or any part of the premises adjacent to or connected with the Demised Premises or any part of the Building or Business Center or for any loss or damage resulting to Tenant or its property from burst, stopped or leaking water, gas, sewer or steam pipes, falling plaster, dampness, or for any damage to or loss of property within the Demised Premises from any causes whatsoever, including theft, latent defects in the Building, the Business Center or the Demised Premises. Tenant shall give Landlord prompt notice in case of fire or accidents in the Demised Premises or in the Building or of defects therein or in the fixtures or equipment.

9.3. Except where a longer or shorter period is specifically provided for in this Lease for a particular expenditure, Tenant shall pay to Landlord, within ten (10) days after delivery by Landlord to Tenant of bills or statements therefor, (a) sums equal to all expenditures made and monetary obligations incurred by Landlord including, without limitation, expenditures made and obligations incurred for reasonable counsel fees and expenses, in connection with the remedying by Landlord of Tenant's defaults; (b) sums equal to all losses, costs, liabilities, damages and expenses referred to in Section 9.1; and (c) sums equal to all expenditures made and monetary obligations incurred by Landlord, including, without limitation, expenditures made and obligations incurred for reasonable counsel fees and expenses, in collecting or attempting to collect the Base Annual Rent, any additional charges or any other sum of money accruing under this Lease or in enforcing or attempting to enforce any rights of Landlord under this Lease or pursuant to law. Tenant's obligations under this Article 9 shall survive the expiration or sooner termination of the term.

#### DAMAGE OR DESTRUCTION AND MUTUAL WAIVER OF SUBROGATION

10.1. Destruction. If the Premises or any portion of the Building or the Project necessary for Tenant's use of the Premises or for the conduct of

Tenant's business at the Premises shall be damaged or rendered untenable or unusable by fire, earthquake, act of God, the elements or other cause, the damage shall be repaired by and at the expense of Landlord, to the extent of insurance proceeds received by Landlord as provided in Section 10.3.2 and to the extent then permitted by law, to substantially the same condition existing prior to such damage, if either (i) such repairs can, in Landlord's good faith estimate, be completed within one year after the date of such damage, or (ii) neither Landlord nor Tenant exercises its respective rights to terminate the Lease under Section 10.1.

10.2. Termination Rights. As soon as reasonably possible following the occurrence of any damage described in Section 10.1 and in no event later than ninety (90) days after such damage, Landlord shall notify Tenant of Landlord's good faith estimate of time required for such repair or, if Landlord has determined to demolish the Building, of such determination to demolish. Notwithstanding any provision herein to the contrary, if Landlord's good faith estimate of the time required to repair the Premises is in excess of one year after the date of such damage or if Landlord has determined to demolish the Building, either Landlord or Tenant may elect to terminate this Lease by written notice to the other party and thereupon the Lease Term shall expire by lapse of time upon (i) if Tenant has not then vacated the Premises, the tenth (10th) business day after such notice is given, and Tenant, on such tenth (10th) business day, shall vacate the Premises and surrender the same to Landlord or, (ii) if Tenant has already vacated the Premises, the day Tenant completed its vacation of the Premises and ceased using the Premises or any part thereof. If Landlord so elects to terminate this Lease, Landlord shall do so by written notice to Tenant of Landlord's election to terminate, delivered to Tenant no later than sixty (60) days after delivery to Tenant of the notice containing Landlord's estimate of the period required for completion of such repair. If Tenant elects to terminate this Lease, Tenant shall do so, if at all, by written notice to Landlord delivered to Landlord no later than thirty (30) days after delivery of Landlord's notice stating that the estimated time period for such repair is in excess of one year.

### 10.3. Repair by Landlord

10.3.1. In the event Landlord either shall elect to repair or is required to repair under Section 10.1 the Project, Building or the Premises (or any combination thereof) after any of the destruction or damage described in Section 10.1, the destruction or damage shall be repaired by and at the expense of Landlord (except as provided in Section 10.3.2 below), this Lease shall continue in full force and effect and, until such repairs shall be completed, the Base Annual Rent and Tenant's Share of Taxes and Operating Costs shall be apportioned according to the part of the Premises which is tenantable or used by Tenant; provided however, to the extent such partial damage is due to the fault or neglect of Tenant or Tenant's agents, employees, contractors, licensees, visitors, guests or invitees, then there shall be no apportionment or abatement of Base Annual Rent or Tenant's share of Taxes and Operating Costs, unless Landlord is reimbursed for such abatement of Base Annual Rent and Taxes and Operating Costs pursuant to any rental insurance policies that Landlord may, in its sole discretion, elect to carry.

10.3.2. Notwithstanding anything contained in this Article 10 to the contrary, in no event shall Landlord be required to spend for any repair, replacement or reconstruction of the Premises, the Building or the Project an amount greater than the sum of (i) the insurance proceeds (less any costs of collection thereof) actually received by Landlord as a result of the fire or other casualty causing such loss, damage or destruction plus (ii) any portion of the deductible amount under such policy which has been collected as a portion of Operating Costs. In no event shall Landlord be required to replace Alterations to the Premises made by Tenant. No liability of Landlord shall accrue for delay which may arise by reason of adjustment of insurance on the part of Landlord or Tenant, for delay on account of labor disputes, or any other cause beyond Landlord's reasonable control.

10.4. Damage Near End of Term. Notwithstanding anything to the contrary contained in this Lease, if any damage or destruction to the Premises which prevents Tenant from occupying same or materially interferes with the conduct of Tenant's business should occur during the last year of the Lease Term (as it may be extended pursuant to this Lease), and if, in Landlord's good faith judgment, the portion of the Lease Term which would remain after the repair of any such damage or destruction (including such period of time required to adjust and settle any insurance claims) would be less than one year, then Landlord shall so notify Tenant within thirty (30) days after the date of such damage or destruction and either party may terminate this Lease by written

notice given to the other party within sixty (60) days after the date of such damage or destruction and thereupon the Lease Term shall expire by lapse of time upon (i) if Tenant has not then vacated the Premises, the tenth (10th) business day after such notice is given, and Tenant, on such tenth (10th) business day, shall vacate the Premises and surrender the same to Landlord or, (ii) if Tenant has already vacated the Premises, the day Tenant completed its vacation of the Premises and ceased using the Premises or any part thereof.

10.5. The provisions of this Lease, including this Article 10, constitute an express agreement between Landlord and Tenant with respect to any and all damage to, or destruction of, all or any part of the Demised Premises, the Building or any other portion of the Business Center, and any statute or regulation of the State of California, including, without limitation Section 1932(2) and 1933(4) of the California Civil Code, with respect to any rights or obligations concerning damage or destruction in any absence of an express agreement between the parties, and any similar statute or regulation, now or hereafter in effect, shall have no application to this Lease or to any damage to or destruction of all or any part of the Demised Premises, the Building or any other portion of the Business Center.

10.6. Notwithstanding the provisions of this Article, Landlord waives any and all rights of recovery against Tenant for or arising out of damage to or destruction of the Building, or the Demised Premises, from causes then included under standard fire and extended coverage insurance policies or endorsements, whether or not such damage or destruction shall have been caused by the negligence of Tenant, its agents, servants, employees, contractors, visitors or licensees, but only to the extent that Landlord's insurance policies then in force permit such waiver and only to the extent of insurance proceeds actually received by Landlord for such damage or destruction. Tenant waives any and all rights of recovery against Landlord for or arising out of damage to or destruction of any property of Tenant, from causes then included under standard fire and extended coverage insurance policies or endorsements, whether or not caused by the negligence of Landlord, its agents, servants, employees, contractors, visitors or licensees, but only to the extent that Tenant's insurance policies then in force permit such waiver. Landlord and Tenant represent that their present insurance policies now in force permit such waiver.

10.7. If at any time during the term of this Lease either party shall give no less than five (5) days prior notice to the other certifying that any insurance carrier which shall have issued any such policy covering any of the property above mentioned shall refuse to consent to the aforesaid waiver of subrogation, or if such carrier shall consent to such waiver only upon the payment of an additional premium (and such additional premium is not paid by the other party hereto), if such carrier shall revoke a

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consent previously given or shall cancel or threaten to cancel any policy previously issued and the full force and effect, because of such waiver of subrogation, then, in any such events, the waiver in this Article shall thereupon be of no further force and effect as to the loss, damage or destruction covered by such policy; provided, however, that if at any time thereafter such consent shall be obtained therefore without an additional premium from any existing or substitute insurance carrier, the waiver hereinabove provided for shall again become effective.

EMINENT DOMAIN

11.1 If the whole or any part of the Demised Premises shall be taken or

condemned for all or any portion of the Term by any competent authority for any public or quasi-public use or purpose, or transferred by agreement in connection with such public or quasi-public use or purpose with or without any condemnation action proceeding being instituted, then, and in either such event, the Term of this Lease shall, at the option of the Landlord, terminate as of the date when the possession of the part so taken shall be required for such use or purpose, and without apportionment of the award, such that the entire award is paid to Landlord. The then current rental, however, shall in any such case be apportioned. Tenant hereby expressly assigns to Landlord any award which may be made in taking or condemnation as therein provided, together with any and all rights of Tenant now or hereafter arising in or to the same or any part thereof.

11.2 Nothing contained herein shall be deemed to give Landlord any interest in, or to require Tenant to Assign to Landlord, any award made to Tenant specifically for its relocation expenses, the taking of personal property and fixtures belonging to Tenant, or the interruption of or damage to Tenant's business if such award is made separately to Tenant and not as part of the damages recoverable by Landlord.

11.3 If all or any portion of the Demised Premises is condemned or otherwise taken for public or quasi-public use of a limited period of time, this Lease shall remain in full force and effect and Tenant shall continue to perform all terms, conditions and covenants of this Lease. Tenant shall be entitled to receive the entire award made in connection with any such temporary condemnation or other taking.

11.4 Landlord may, without any obligation to Tenant, agree to sell and/or convey to the condemnor the Demised Premises, the Building, the Business Center or any portion thereof sought by the condemnor, free from this Lease and the rights of Tenant hereunder, without first requiring that any action or proceeding be instituted or, if instituted, pursued to a judgment.

#### SERVICES

#### ELEVATORS, HEATING, VENTILATING, AIR CONDITIONING, ELECTRICITY, WATER, AND CLEANING

12.1 Landlord shall (a) provide automatic elevator facilities on normal business days from 7:30 a.m. to 6:00 p.m. (excluding weekends), and have one elevator available at all other times; (b) on normal business days from 7:30 a.m. to 6:00 p.m. (excluding weekends), and at other times for a reasonable additional charge to be fixed by Landlord, ventilate the Demised Premises and furnish heating or air conditioning when in the judgment of Landlord it may be required for the comfortable occupancy of the Demised Premises. Tenant agrees to keep and cause to be kept closed all doors from the Demised Premises, and Tenant agrees to cooperate fully at all times with Landlord and to abide by all regulations and requirements which Landlord may prescribe for the proper functioning and protection of the heating, ventilating and air conditioning system. Tenant shall not install or use in the Demised Premises any equipment which would generate heat so as to adversely affect the heating, ventilating and air conditioning system. Landlord, throughout the Term of this Lease, shall have free access to any and all mechanical installations of Landlord or Tenant, including, but not limited to, air conditioning, fan, ventilating and machine rooms, telephone rooms and electrical closets. Tenant agrees that there shall be no construction of partitions or other obstructions which might interfere with Landlord's free access thereto, or interfere with the moving of Landlord's equipment to or from the enclosures containing said installations. Tenant further agrees that neither Tenant, nor its agents, servants, employees, contractors, visitors or licensees shall at any time enter the said enclosures or tamper with, adjust, touch or otherwise in any manner affect Landlord's said mechanical installations; (c) provide electricity for "Landlord's Standard" lighting and normal office business machines (not including computers or electronic data processing or ancillary equipment) purposes only. Tenant agrees not to use any apparatus or device in, or upon, or about the Demised Premises which may in any way increase the amount of such electricity usually furnished or supplied to the Demised Premises and Tenant further agrees not to connect any apparatus or device to the wires, conduits or pipes, or other means by which such electricity is supplied, for the purpose of using additional or unusual amounts of electricity without the prior written consent of Landlord. If Tenant uses the same to excess or follows a regular practice of using electricity beyond the normal business hours of 7:30 a.m. to 6:00 p.m. on normal business days (excluding weekends), Landlord shall have the right to estimate from time to time (both retroactively and prospectively) the amount that Tenant should pay on account thereof, and Tenant, after notice by Landlord of such

estimate or revised estimate, agrees to pay such amount on the first day of each calendar month thereafter or, if such estimate be made during the last month of the term or after its expiration, promptly upon demand by Landlord. At all times Tenant's use of electric current shall never exceed the capacity of the feeders to the Building or the risers or wiring installation. Tenant shall not install or use or permit the installation or use in the Demised Premises, of any computer or electronic data processing or ancillary equipment or any other electrical apparatus designed to operate on electrical current in excess of 110 volts and 5 amps per machine, without the prior written consent of Landlord; (d) furnish water for drinking and lavatory purposes only, but if Tenant requires, uses or consumes water for any purpose in addition to ordinary drinking and lavatory purposes, of which fact Tenant constitutes Landlord to be the sole judge, Landlord may install a water meter and thereby measure Tenant's water consumption for all purposes. Tenant shall pay Landlord for the Cost of the meter and the cost of the installation thereof, and throughout the duration of Tenant's occupancy Tenant shall keep said meter and installation equipment in good working order and repair at Tenant's own cost and expense, in default of which Landlord may cause such meter and equipment to be replaced or repaired and collect the cost thereof from Tenant. Tenant agrees to pay for water consumed as shown on said meter as and when bills are rendered and on default in making such payments Landlord may pay such charges and collect the same from Tenant; (e) cause the Demised Premises to be kept clean, provided the same are used exclusively as ordinary desk-type offices and are kept reasonably in order by Tenant, and, if to be kept clean by Tenant, no one other than persons approved in advance in writing by Landlord shall be permitted to enter the Demised Premises for such purposes. If the Demised Premises or any part thereof is not used exclusively as ordinary desk-type offices, the Demised Premises shall be kept clean and in order by Tenant, at Tenant's expense, and to the satisfaction of Landlord, and by persons approved in advance in writing by Landlord. Tenant shall pay to Landlord the cost of removal of any of Tenant's refuse and rubbish, to the extent that the same exceeds the refuse and rubbish usually attendant upon the use of the Demised Premises exclusively as ordinary desk-type offices.

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12.2. Tenant shall at all times maintain at its own cost and expense all plumbing facilities and equipment attached thereto within the Demised Premises in good order, condition and repair to the satisfaction of Landlord. Tenant hereby indemnifies Landlord against any and all claims, liabilities, losses, damages, costs and expenses whatsoever (including, but not limited to, attorneys' fees and expenses) whether suffered by Landlord or other occupants or persons in the Building, the Business Center or any of the areas used in connection with the operation thereof arising out of the matters referred to in this subsection, unless caused by or due to the sole negligence of landlord, Landlord's agents, servants or employees. Landlord shall not be obligated to clean or provide supplies for any such plumbing facilities or equipment attached thereto, and if the rooms in which any such facilities or equipment are located require cleaning in excess of that normally provided by Landlord for ordinary desk-type office space, Tenant shall, at Tenant's expense, cause any such excess cleaning to be performed only by a contractor approved in advance in writing by Landlord. Landlord hereby reserves the right, without limiting the generality of the foregoing, to require that any such cleaning be performed by Landlord's regular cleaning contractor for the Building. Nothing herein contained shall be construed to confer upon Tenant the right to install any plumbing facilities without the prior written consent of Landlord.

12.3. Landlord reserves the right to stop service of the elevator, plumbing, heating, ventilating, air conditioning and electric or other mechanical systems, or cleaning services, when necessary, by reason of accident or emergency or for inspection, repairs, alterations, decorations, additions or improvements, which in the judgment of Landlord are desirable or necessary to be made, until same shall have been completed, and shall have no responsibility or liability for failure to supply any of such services in such instance.

#### ACCESS TO PREMISES

13.1. Tenant shall permit Landlord to use and maintain pipes and conduits in and through the Demised Premises. Landlord and Landlord's agents shall have the right to enter the Demised Premises at all times, to examine the same and to make such repairs, alterations, decorations, additions and improvements as Landlord may deem necessary or desirable, and Landlord shall be allowed to take

all material into and upon the Demised Premises that may be required therefor without the same constituting an eviction of tenant in whole or in part, and subject to the provisions of Article 10, the Base Annual Rent reserved shall in no wise abate while said repairs, alterations, decorations, additions or improvements are being made, by reason of inconvenience, annoyance or injury to the business of Tenant because of the prosecution of any such work, or otherwise. Landlord and Landlord's agents are expressly granted permission to show the Demised Premises at any reasonable time to prospective tenants, mortgagees, purchasers, lessees of the Building and other persons with a business interest therein. If, during the last month of the Term, Tenant shall have removed all or substantially all of Tenant's property therefrom, Landlord may immediately enter and alter, renovate and redecorate the Demised Premises, without elimination or abatement of rent or other compensation and such acts shall have no effect upon this Lease. Landlord and Landlord's agents shall also have the right to enter the Demised Premises to supply janitorial service and any other service to be provided by Landlord to Tenant hereunder, and to post notices of non-responsibility. If Tenant shall not be personally present to open and permit an entry into the Demised Premises, at any time, when for any reason an entry therein shall be necessary or permissible hereunder (including at the time of any emergency as perceived by Landlord or Landlord's agents), Landlord or Landlord's agents may enter the same by a master key, or may forcibly enter the same, without rendering Landlord or such agents liable therefor (if during such entry Landlord or Landlord's agents shall accord reasonable care to Tenant's property), and without in any manner affecting the obligations, terms, covenants, conditions, provisions or agreements of this Lease. Nothing herein contained, however, shall be deemed or construed to impose upon Landlord any obligations, responsibility or liability whatsoever, for the care, supervision or repair of the Business Center or any part thereof, other than as otherwise provided in this Lease.

#### TENANT'S INSURANCE

14.1. Tenant shall carry at its expense and maintain in force during the Term the following insurance:

(a) Comprehensive General Liability Insurance (including protective liability coverage on operations of independent contractors engaged in construction and also blanket contractual liability insurance) on an "occurrence" basis for the benefit of Tenants and Landlord as named Insureds against claims for "personal injury" liability including, without limitation, bodily injury, death or property damage liability with a limit of not less than Five Million Dollars (\$5,000,000). In the event of "personal injury" to any number of persons or of damages to property arising out of any one "occurrence"; such insurance may be furnished under a "primary" policy and an "umbrella" policy, provided that it is primary insurance and not excess over or contributory with any insurance in force for Landlord;

(b) Insurance against loss or damage by fire and such other risks and hazards as are insurable under present and future standard forms of fire and extended coverage insurance policies to the personal property, furniture, furnishings and fixtures belonging to Tenant located in the Demised Premises for not less than 100% of the actual replacement value thereof. Such insurance shall provide for a waiver of the Insurer's right of subrogation against Landlord;

(c) Worker's Compensation and Employer's Liability Insurance (as required by state law); and

(d) Such other insurance as may be required by Landlord in connection with the Demised Premises or Tenant's activities in the Business Center so long as such insurance is not unique to this Lease.

14.2. All such insurance (except the insurance required pursuant to Section 14.1(c) shall name Landlord as an additional Insured, shall be effected under policies issued by Insurers, shall be in forms and for amounts approved by Landlord and shall provide that Landlord shall receive thirty (30) days written notice from the Insurer prior to any cancellation or change of coverage.

14.3 Tenant shall deliver policies of such Insurance or Certificates thereof to Landlord on or before the Commencement Date, and thereafter at least thirty (30) days before the expiration date of expiring policies; and in the event Tenant shall fail to procure such insurance, or to deliver such policies or certificates, Landlord may, at its option, procure same for the account of Tenant, and the cost thereof shall be paid to Landlord as Additional Charges

within ten (10) days after delivery to Tenant of bills therefor. Nothing contained in this Article 14 shall be construed as a limitation of Tenant's liability hereunder.

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CERTIFICATE OF OCCUPANCY

15.1. Tenant shall not at any time use or occupy the Demised Premises in violation of the certificates of occupancy issued for the Building or the Demised Premises and in the event that any department of the City or County in which the Building is located, or the State of California shall hereafter at any time contend or declare that the Demised Premises are used for a purpose which is in violation of such certificate or certificates of occupancy, Tenant shall, upon five (5) day's notice from Landlord or any governmental agency immediately discontinue such use of the Demised Premises. Failure by Tenant to discontinue such use after such notice shall be considered a default under this Lease and Landlord shall have the right to terminate this Lease immediately, and in addition thereto shall have the right to exercise any and all rights and privileges and remedies given to Landlord by and pursuant to the provisions of Article 18 hereof. The statement in this Lease of the nature of the business to be conducted by Tenant in the Demised Premises shall not be deemed or construed to constitute a representation or guaranty by Landlord that such business is lawful or permissible or will continue to be lawful or permissible under any certificate of occupancy issued for the Building, or otherwise permitted by law.

LIFE-SAFETY SYSTEMS

16.1. If there now is or shall be installed in the Building a sprinkler system, heat or smoke detection system or any other so-called life-safety system and any such system or any of its appliances shall be damaged or injured or not in proper working order by reason of any act or omission of Tenant, Tenant's agents, servants, employees, contractors, visitors or licensees, Tenant shall forthwith restore the same to good working condition; and if any bureau, department or official of the state, county or city government, of any governmental authority having jurisdiction, requires or recommends that any changes, modifications, alterations, or additional equipment be made or supplied in or to any such system by reason of Tenant's business, or the location of partitions, trade fixtures, or other contents of the Demised Premises, or if any such changes, modifications, alterations or additional equipment become necessary to prevent the imposition of a penalty or charge against the full allowance for any such system in the insurance rate as fixed by the applicable state authority, or by any insurance company, Tenant shall, at Tenant's expense, promptly make and supply such changes, modifications, alterations or additional equipment.

BANKRUPTCY

17.1. If at any time prior to the date herein fixed as the commencement of the Term of this Lease, there shall be filed by or against Tenant in any court pursuant to any statute either of the United States or of any State a petition in bankruptcy or insolvency or for reorganization or for the appointment of a receiver or trustee or conservator of all or a portion of Tenant's property, or if Tenant makes a general assignment for the benefit of creditors, this Lease shall ipso facto be cancelled and terminated and in such event neither Tenant nor any person claiming through or under Tenant or by virtue of any statute or by an order of any court shall be entitled to possession of the Demised Premises and Landlord, in addition to the other rights and remedies given by subsection 17.3 hereof or by virtue of any other provision in this Lease contained or by virtue of any statute or rule of law, may retain as damages any rent, security deposit or monies received by it from Tenant or others on behalf of Tenant.

17.2. If at the date fixed as the commencement of the Term of this Lease or if at any time during the Term, there shall be filed by or against Tenant in any court pursuant to any statute either of the United States or of any State a petition in bankruptcy or insolvency or for reorganization or for the appointment of a receiver or trustee or conservator of all or a portion of Tenant's property, or if Tenant makes a general assignment for the benefit of creditors, this Lease, at the option of Landlord exercised within a reasonable time after notice of the happening of any one or more of such events, may be cancelled and terminated and in such event neither Tenant nor any person claiming through or under Tenant or by virtue of any statute or of an order of any court shall be entitled to possession or to remain in possession of the



Demised Premises but shall forthwith quit and surrender the Demised Premises, and Landlord, in addition to the other rights and remedies granted by subsection 17.3 hereof or by virtue of any other provision in this Lease contained or by virtue of any statute or rule of law, may retain as damages any rent, security, deposit or monies received by it from Tenant or others on behalf of Tenant.

17.3. In the event of the termination of this Lease pursuant to subsections 17.1, or 17.2 of this Article, Landlord shall be entitled to the same rights and remedies as those set forth in subsections 18.4 and 18.5 and in Article 21 of this Lease.

17.4. In the event of the occurrence of any of those events specified in this Article, if Landlord shall not choose to exercise, or by law shall not be able to exercise, its rights hereunder to terminate this Lease upon the occurrence of such events, then, in addition to any other rights of Landlord hereunder or by law (i) Landlord shall not be obligated to provide Tenant with any of the services specified in Article 12, unless Landlord has received compensation in advance for such services, and the parties agree that Landlord's estimate of the compensation required with respect to such services shall control, and (ii) neither Tenant, as debtor-in-possession, nor any trustee or other person (hereinafter collectively called the "Assuming Tenant") shall be entitled to assume this Lease unless, on or before the date of such assumption, the Assuming Tenant (x) cures, or provides adequate assurance that the latter will promptly cure, any existing default under this Lease (y) compensates, or provides adequate assurance that the Assuming Tenant will promptly compensate Landlord for any pecuniary loss (including, without limitation, attorneys' fees and disbursements) resulting from such default, and (z) provides adequate assurance of future performance under this Lease, it being covenanted and agreed by the parties that, for such purposes, any cure or compensation shall be effected by the immediate payment of any monetary default or any required compensation, or the immediate correction or bonding of any non-monetary default, any "adequate assurance" of such cure or compensation shall be effected by the establishment of an escrow fund for the amount at issue or by bonding and "adequate assurance" of future performance shall be effected by the establishment of an escrow fund for the amount at issue or by bonding, it being covenanted and agreed by Landlord and Tenant that the foregoing provision was a material part of the consideration for this Lease.

#### DEFAULT

18.1. It shall, at Landlord's option, be deemed a breach of and default under this Lease if (1) Tenant defaults (a) in the making of any payments of money as and when due and payable pursuant to this Lease provided, that Tenant will be forgiven once in every twelve (12) month period beginning on the Commencement Date if one Monthly Installment is paid after the first day of a calendar month but prior to the fifth calendar day of such month, or (b) in fulfilling any other term, covenant, condition, provision or agreement of this Lease if said default under this clause (b) continues to exist at the expiration of ten (10) days after notice thereof given by Landlord to Tenant or (2) the Demised Premises becomes vacant or deserted or (3) Tenant shall cease to occupy the Demised Premises which includes any absence by Tenant from the Demised Premises for five (5) business days

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or longer while in default under any provision of this Lease, or shall remove substantially all of Tenant's furniture therefrom or (4) Tenant shall fail to move into or take possession of the Demised Premises within fifteen (15) days after the commencement of the Term or (5) any execution or attachment shall be issued against Tenant or any of tenant's property or (6) the Demised Premises shall be taken or occupied or attempted to be taken or occupied by someone other than Tenant or (7) Tenant shall default with respect to any other lease between [a] Landlord and Tenant or [b] any parent company or subsidiary company or affiliate or agent of Landlord, and Tenant or (8) Tenant assigns or otherwise transfers substantially all of the assets used in connection with the business conducted in the Demised Premises.

18.2. In the event that Landlord elects, pursuant to subsection 18.1 of this Article, to declare a breach of this Lease, then Landlord shall have the right to give Tenant three (3) days' notice of intention to end the Term of this Lease and thereupon, at the expiration of said three (3) days, the Term of this Lease shall expire as fully and completely as if that day were the day herein definitely fixed for the expiration of the Term hereof and Tenant shall

then quit and surrender the Demised Premises as aforesaid, Landlord shall have the right, without notice to re-enter the Demised Premises either by force or otherwise and dispossess Tenant and the legal representatives of Tenant and all other occupants of the Demised Premises by unlawful detainer or other summary proceedings, or otherwise, and remove their effects and regain possession of the Demised Premises (but Landlord shall not be obligated to effect such removal) and Tenant hereby waives service of notice of intention to re-enter or to institute legal proceedings to that end. Any notice given under subsection 18.1, 18.2 or 18.3 shall be in lieu of, and not in addition to, any notice required under section 1161 of the State of California Code of Civil Procedure regarding unlawful detainer actions.

18.3. In the event of any breach of this Lease by Tenant (and regardless of whether or not Tenant has abandoned the Demised Premises), this Lease shall not terminate unless Landlord, at Landlord's option, elects at any time when Tenant is in breach of this Lease to terminate Tenant's right to possession as provided in subsection 18.2 of this Article or, at Landlord's further option, by the giving of any notice (including, but not limited to, any notice preliminary or prerequisite to the bringing of legal proceedings in unlawful detainer) terminates Tenant's right to possession. For so long as this Lease continues in effect, Landlord may enforce all of Landlord's rights and remedies under this Lease, including the right to recover all rent as it becomes due hereunder. For the purposes of this subsection, the following shall not constitute termination of Tenant's right to possession: (1) acts of maintenance or preservation or efforts to relet the Demised Premises, or (2) the appointment of a receiver upon initiative of Landlord to protect Landlord's interest under this Lease.

18.4. In the event of termination of this Lease or termination of Tenant's right to possession (as a result of Tenant's breach of this Lease or pursuant to Article 17), Landlord shall have:

(1) The right to remove any and all persons and property from the Demised Premises, with or without legal process, and pursuant to such rights and remedies as the laws of the State of California shall then provide or permit, but Landlord shall not be obligated to effect such removal. Said property may, at Landlord's option, be stored or otherwise dealt with as provided within this Lease or as such laws may then provide or permit, including, but not limited to, the right of Landlord to sell or otherwise dispose of the same or to store the same, or any part thereof, in a warehouse or elsewhere at the expense and risk of and for the account of Tenant.

(2) The rights and remedies provided by the California Civil Code Section 1951.2 to recover from Tenant upon termination of the Lease:

(i) the worth at the time of award of the unpaid rent and other charges which had been earned at the time of termination;

(ii) the worth at the time of award of the amount by which the unpaid rent and other charges which would have been earned after termination until the time of award exceeds the amount of such rental loss that Tenant proves could have been reasonably avoided;

(iii) subject to Subdivision (c) of the California Civil Code Section 1951.2, the worth at the time of award of the amount by which the unpaid rent and other charges for the balance of the Term after the time of award exceeds the amount of rental loss that Tenant proves could be reasonably avoided; and

(iv) any other amount necessary to compensate Landlord for all the detriment proximately caused by Tenant's failure to perform its obligations under this Lease or which in the ordinary course of things would be likely to result therefrom. The "worth" at the time of award of the amounts referred to in clauses (i) and (ii) of this Section shall be computed by allowing interest at the Default Rate. The worth at the time of the award of the amount referred to in clause (ii) of this Section shall be computed by discounting such amount at the discount rate of the Federal Reserve Bank of San Francisco at the time of award plus 1%.

(3) The rights and remedies provided by California Civil Code Section 1951.4, which allows Landlord to continue this Lease in effect and to enforce all of its rights and remedies under this Lease, including

the right to recover rent and additional charges as they become due, for as long as Landlord does not terminate Tenant's right to possession, provided however if Landlord elects to exercise its remedies described in this subsection and Landlord does not terminate this Lease, and if Tenant requests Landlord's consent to an assignment of this Lease or a sublease of the Demised Premises at such time as Tenant is in default, Landlord shall not unreasonably withhold its consent to such assignment or sublease.

(4) To enforce, to the extent permitted by the laws of the State of California then in force and effect, any other rights or remedies set forth in this Lease or otherwise applicable hereto by operation of law or contract.

18.5. In the event of a breach or threatened breach by Tenant of any of the terms, covenants, conditions, provisions or agreements of this Lease, Landlord shall additionally have the right of injunction and Tenant agrees to pay the premium for any bond and court costs required in connection with such injunction. Mention in this Lease of any particular remedy shall not preclude Landlord from any other remedy, at law or in equity.

18.6. Tenant hereby expressly waives any and all rights of redemption granted by or under any present or future law or decision in the event of Tenant's being evicted or dispossessed for any cause, or in the event of Landlord's obtaining

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possession of the Demised Premises, by ??? of the violation by Tenant of any of the terms, covenants, conditions, provisions or agreements of this Lease, or otherwise.

#### FEES AND EXPENSES

19.1 If Tenant shall default in the performance of any obligation on Tenant's part to be performed under this Lease, Landlord may immediately, or at any time thereafter, without notice, perform the same for the account of Tenant. If Landlord at any time is compelled to pay or elects to pay any sum of money or do any act which will require the payment of any sum of money (including, but not limited to, employment of attorneys or incurring of costs), by reason of the failure of Tenant to comply with any term, covenant, condition, provision or agreement thereof, or if Landlord is compelled to incur or elects to incur any expense (including, but not limited to, reasonable attorneys' fees and expenses and court costs in instituting, prosecuting or defending any action or proceeding, whether or not such action or proceeding proceeds to judgment) by reason of any default of Tenant hereunder, the sum or sums so paid or incurred by Landlord with interest thereon at the Default Rate from the date incurred shall be due from Tenant to Landlord promptly upon demand by Landlord.

#### NO REPRESENTATIONS BY LANDLORD

20.1 Neither Landlord nor landlord's agents have many any representations or promises with respect to the Business Center, Building or the Demised Premises except as herein expressly set forth. The taking of possession of the Demised Premises by Tenant shall be conclusive evidence, as against Tenant, that Tenant accepts the same in its then "as is" condition and that the Demised Premises, the Building and the Business Center were in good and satisfactory condition at the time such possession was so taken.

#### END OF TERM

21.1 Upon the expiration or other termination of the Term, Tenant shall quit and surrender to Landlord the Demised Premises, broom clean, in as good order, condition and repair as it now is or may hereafter be placed, ordinary wear excepted. Tenant shall remove all property of Tenant, as directed by Landlord. Any property left on the Demised Premises at the expiration or other termination of this Lease, or after the happening of any of the events of default set forth in Article 18, may, at the option of Landlord, either be deemed abandoned or be placed in storage at a public warehouse in the name of and for the account of and at the expense and risk of Tenant or otherwise disposed of by Landlord in the manner provided by law. Tenant expressly releases Landlord of and from any and all claims and liability for damage to or destruction or loss of property left by Tenant upon the Demised Premises at the

expiration or other termination of this Lease and Tenant hereby indemnifies landlord from and against any and all claims and liability with respect thereto. If Tenant holds over after the Term with the consent of Landlord, express or implied, such tenancy shall be from month to month only and shall not be a renewal hereof, and Tenant shall pay the rent and all the other charges at the same rate as herein provided and also comply with all of the terms, covenants, conditions, provisions and agreements of this Lease for the time during which Tenants holds over. If Tenant holds over after the Term without the consent of Landlord and shall fail to vacate the Demised Premises after the expiration or sooner termination of this Lease for any cause or after Tenant's right to occupy same ceases, thereafter, and notwithstanding anything to the contrary contained elsewhere in this Lease, Tenant shall be liable to Landlord for the use and occupancy of the Demised Premises in an amount agreed to be two times the monthly installment of Base Annual Rent, and all the other charges as provided in this Lease for the last month of the Term. If the Demised Premises are not surrendered at the end of the Term, Tenant shall be additionally responsible to Landlord for all damage (including, but not limited to, the loss of rent) which Landlord shall suffer by reason thereof, and Tenant hereby indemnifies Landlord from and against all claims made by any succeeding tenant against Landlord, resulting from delay by Landlord in delivering possession of the Demised Premises to such succeeding tenant. Tenant's obligation to observe or perform all of the terms, covenants, conditions, provisions and agreements of this Article shall survive the expiration or other termination of this Lease.

#### QUIET POSSESSION

22.1 Landlord covenants and agrees with Tenant that upon Tenant's paying Base Annual Rent and all other charges and observing and performing all of the terms, covenants, conditions, provisions and agreements of this Lease on Tenant's part to be observed or performed, Tenant shall have quiet possession of the Demised Premises for the Term subject, however, to the terms of this Lease and of any ground leases, underlying leases, mortgages and deeds of trust now or from time to time hereafter affecting all or any portion of the Building or any of the areas used in connection with the operation of the Building.

22.2 Any diminution or shutting off of light, air or view by any structure which may be erected on the Business Center or on lands adjacent thereto shall in no way affect this Lease or impose any liability on Landlord.

#### LANDLORD'S WORK AND FAILURE TO GIVE POSSESSION

23.1 Landlord will perform the work and make the installations in the Demised Premises substantially as set forth in the Work Letter attached hereto as Exhibit B (the "Landlord's Work").

23.2 If Landlord shall be unable to give possession of Demised Premises on the Commencement Date by reason of the fact that the Demised Premises are located in a building being constructed and which has not been sufficiently completed to make the Demised Premises ready for occupancy or by reason of the fact that a certificate of occupancy has not been procured or for any other reason, or if the Building is not in course of construction and Landlord is unable to give possession of the Demised Premises on the Commencement Date of the Term hereof by reason of the holding over of any tenant or tenants or for any other reason, or if Landlord's Work is not completed, any such delay resulting therefrom shall be deemed excused and Landlord shall not be subject to any liability for the failure to give possession on said date. Under such circumstances the rent reserved and covenanted to be paid herein shall not commence until possession of the Demised Premises is given or the Demised Premises is available for occupancy by Tenant, as fixed in a notice given by Landlord to Tenant, unless such delay is the fault of Tenant. No such failure to give possession on the Commencement Date of the Term shall in anywise affect or impair the validity of this Lease or the obligations of Tenant hereunder, nor shall the same be construed in anywise to extend the Expiration Date. If permission is given to Tenant to enter into the possession of the Demised Premises or to occupy premises other than the Demised Premises prior to the date specified as the Commencement Date of the Term, such occupancy shall be deemed to be under all the terms, covenants, conditions, provisions, and agreements of this Lease, including without limitation,

Tenant hereby agreeing to pay Base Annual Rent and other charges at the same rate as though the term of this Lease had commenced.

TERMINATION, NO WAIVER, NO ORAL CHANGE

24.1. In the event that this Lease terminates for any reason (including, but not limited to, termination by Landlord) prior to its stated Expiration Date, such termination will effect the termination of any and all agreements for the extension of this Lease (whether expressed in an option, exercised or not, or collateral document or otherwise); any right herein contained on the part of Landlord to terminate this Lease shall continue during any extension hereof; any option on the part of Tenant herein contained for an extension hereof shall not be deemed to give Tenant any option for a further extension beyond the first extended term. Interruption or curtailment of any services shall not constitute a constructive or partial eviction or entitle Tenant to any abatement of rent or any compensation (including, but not limited to, compensation for annoyance, inconvenience or injury to business). No act or thing done by Landlord or Landlord's agents during the Term shall be deemed an acceptance of a surrender of the Demised Premises, and no agreement to accept such surrender shall be valid unless in writing signed by Landlord. No employee of Landlord or of Landlord's agents shall have any power to accept the keys of the Demised Premises prior to the termination of this Lease. The failure of Landlord to seek redress for violation of, or to insist upon the strict performance of any term, covenant, condition, provision or agreement of this Lease, or any of the Rules and Regulations attached to this Lease or hereafter adopted by Landlord, shall not prevent a subsequent act, which would have originally constituted a violation, from having all the force and effect of an original violation. The receipt by Landlord of rent with knowledge of the breach of any term, covenant, condition, provision or agreement of this Lease, shall not be deemed a waiver of such breach. The failure of Landlord to enforce any of the Rules and Regulations attached to this Lease, or hereafter adopted, against Tenant or any other tenant in the Building or in the Business Center shall not be deemed a waiver of any such Rule and Regulation. No provision of this Lease shall be deemed to have been waived by Landlord, unless such waiver be in writing signed by Landlord. No payment by Tenant or receipt by Landlord of a lesser amount than the Monthly Installment shall be deemed to be other than on account of the earliest stipulated rent, nor shall any endorsement or statement on any check or any letter accompanying any check or payment as rent be deemed an accord and satisfaction, and Landlord may accept such check or payment without prejudice to Landlord's right to recover the balance of such rent or pursue any other remedy in this Lease provided. This Lease, including all exhibits, riders and addenda attached hereto, contains the entire agreement between the parties, and recites the entire consideration given and accepted by the parties. Any agreement hereafter made shall be ineffective to change, modify, waive or discharge it in whole or in part unless such agreement is in writing and signed by the party against whom enforcement of the change, modification, waiver or discharge is sought.

WAIVER OF TRIAL BY JURY AND OBJECTION TO VENUE

25.1. THE RESPECTIVE PARTIES HERETO HEREBY WAIVE TRIAL BY JURY AND ANY OBJECTION TO VENUE IN SANTA CLARA COUNTY IN ANY ACTION, PROCEEDING OR COUNTER-CLAIM BROUGHT BY EITHER OF THE PARTIES HERETO AGAINST THE OTHER ON ANY MATTER WHATSOEVER ARISING OUT OF OR IN ANY WAY CONNECTED WITH THIS LEASE, THE RELATIONSHIP OF LANDLORD AND TENANT, TENANT'S USE OR OCCUPANCY OF THE DEMISED PREMISES, OR ANY CLAIM OF INJURY OR DAMAGE, OR THE ENFORCEMENT OF ANY REMEDY UNDER ANY STATUTE, EMERGENCY OR OTHERWISE.

INABILITY TO PERFORM

26.1. This Lease and obligation of Tenant to pay rent hereunder and to keep, observe and perform all of the other terms, covenants, conditions, provisions and agreements of this Lease on the part of the Tenant to be kept, observed or performed shall in no wise be affected, impaired or excused because Landlord is unable to fulfill any of its obligations under this Lease or to supply, or is delayed or curtailed in supplying any service expressly or impliedly to be supplied or is unable to make, or is delayed or curtailed in making, any repairs, alterations, decorations, additions or improvements, or is unable to supply, or is delayed or curtailed in supplying any equipment or fixtures. If Landlord is prevented, delayed or curtailed from so doing by reason of any cause beyond Landlord's reasonable control, including, but not limited to, acts of God, strike or labor troubles, fuel or energy shortages, governmental preemption or curtailment in connection with a national emergency or in connection with any rule, order, guideline or regulation of any department or governmental agency by reason of the conditions of supply and

demand which have been or are affected by a war or other emergency. Any such prevention, delay or curtailment shall be deemed excused and Landlord shall not be subject to any liability resulting therefrom. Tenant waives and releases its right to terminate this Lease under Section 1932(1) of the California Civil Code or under any similar law or statute now or hereafter in effect.

26.2. Landlord shall not be deemed to be in default in the performance of any obligation required to be performed by it hereunder unless and until it has failed to perform such obligation within thirty (30) days after written notice by Tenant to Landlord specifying the nature of Landlord's failure to perform such obligation; provided, however, that if the nature of Landlord's obligation is such that more than thirty (30) days are required for its performance, then Landlord shall not be deemed to be in default if it shall commence such performance within such thirty (30) days period and thereafter shall prosecute the same to completion. All rights to cure provided to Landlord under this Section 26.2 shall also be accorded to any mortgagee or beneficiary under a deed of trust encumbering the Building or the Business Center. Landlord shall not be liable for any injury or damage to persons or property resulting from loss, theft, fire, explosion, falling plaster, cessation or variation or shortage or interruption of services or utilities, steam, gas, electricity, earthquake, acts of God, rain or water dampness from any source or any other cause whatsoever, without limiting the generality of the foregoing, in no event shall Landlord be liable for damages by reason of loss of profits, business interruptions or other incidental or consequential damages.

#### BILLS AND NOTICES

27.1 Except as otherwise in this Lease provided, a bill, statement, consent, notice or communication which Landlord may desire or be required to give to Tenant, shall be deemed sufficiently given or rendered if in writing, delivered to Tenant personally or sent by registered or certified mail addressed to Tenant at the Building or at the last known residence address or business address of Tenant or left at the Demised Premises addressed to Tenant, and the time of the rendition of such bill or statement and of the giving of such consent, notice or communication shall be deemed to be the time when the same is delivered to Tenant, mailed, or left at the Demised premises as herein provided. Any notice, request, demand or communication by Tenant to Landlord must be in writing and served by registered or certified mail (postage fully prepaid), addressed to Landlord, at the address set forth in Article J of Section I, or at such other address as Landlord shall designate by notice given as herein provided

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and the time of the giving or such notice, request, demand or communication shall be deemed to be the time when the same is mailed as herein provided. If Tenant is notified of the identity and address of Landlord's mortgagee or beneficiary under a deed of trust, or ground or underlying lessor, Tenant shall give such party notice of any default by Landlord hereunder by registered or certified mail and such party shall have a reasonable opportunity to cure such default before Tenant's exercising any remedy available to it. Copies of notices to Tenant shall be sent by certified mail addressed as set forth in Article J of Section I.

#### INCREASE OF TAXES AND OPERATING COSTS

28.1. If, in any Computation Year during the term of this Lease, Taxes (as hereinafter defined) and Operating Costs (as hereinafter defined) shall be increased above the amount of Base Taxes and Operating Costs Amount specified in Article K of Section I of this Lease, the Base Annual Rent shall be increased by Tenant's Share specified in Article L of Section I of this Lease of the amount of any such increase in Taxes and Operating Costs.

#### 28.2. Definitions.

(1) "Computation Year" shall mean each twelve (12) consecutive month period commencing January 1 of each year during the Term, provided that Landlord, upon notice to Tenant, may change the Computation Year from time to time to any other twelve (12) consecutive month period and, in the event of any such change, Tenant's Share of Taxes and Operating Costs shall be equitably adjusted for the Computation Years involved in any such change.

(2) Tenant's Share has been computed by dividing the Rentable Area of

the Demised Premises by the total Rentable Area of the Building and, in the event that either the Rentable Area of the Demised Premises or the total Rentable Area of the Building is changed, Tenant's Share will be appropriately adjusted by Landlord, which adjustment shall be conclusive and binding on Tenant and, as to the Computation Year in which such change occurs, for purposes of this Article 28, Tenant's Share shall be determined on the basis of the number of days during such Computation Year at each such percentage.

(3) "Taxes" shall mean taxes and assessments upon or with respect to the Building and the areas used in connection with the operation of the Building imposed by Federal, State or local governments or governmental assessment districts, but shall not include income, franchise, capital stock, estate, or inheritance taxes, but shall include gross receipts taxes, special assessments and other business taxes. If, because of any change in the method of taxation of real estate, any tax or assessment is imposed upon Landlord or upon the owner of the land and/or the Building and/or other areas of the Business Center or the rents or income therefrom, in substitution for or in lieu of any tax or assessment which would otherwise be a real estate tax or assessment subject matter, or with respect to any subject matter which was during fiscal year 1985-1986 the subject of a real estate tax or assessment such other tax or assessment shall be deemed to be included in taxes. Taxes shall also include legal fees, costs and disbursements incurred in connection with proceedings to contest or reduce Taxes. If any Taxes are specially assessed by reason of the occupancy or activities of one or more tenants and not the occupancy or activities of the tenants as a whole, such taxes shall be allocated by Landlord to the Tenant or Tenants whose occupancy or activities brought about such assessment. In case there shall be a reduction of the assessed valuation for any tax year which affects the Taxes in any year for which a rent adjustment shall have been made, the rent adjustment shall be recalculated on the basis of the revised assessed valuation and Landlord will credit against the rent next becoming due from Tenant such sums as may be due to Tenant by reason of the recalculation, less the expenses incurred in effecting such reduction. In no event shall the amount of any such credit be in excess of the amount rent increase actually paid to Landlord by Tenant for the period covered by such credit as a result of an increase in Taxes.

(4) "Operating Costs" shall mean the aggregate amount of (a) wage and labor costs applicable to the persons engaged in the management, operation, maintenance, overhaul or repair of the Building and the Business Center and the areas used in connection with the operation of the Building and the Business Center whether they be employed by Landlord or by an independent contractor with whom Landlord shall have contracted or may contract for such services; any increase or decrease in the hours of employment or the number of paid holidays or vacation days, social security taxes, unemployment insurance taxes and the cost (if any) of providing disability, hospitalization, medical, welfare, pension, retirement or other benefits applicable with respect to such employees, shall correspondingly affect the wage and labor costs, and (b) costs of utilities; fuel, building supplies and materials; service and management contracts; water and sewer charges; janitorial services; security; labor; parking expenses; utilities surcharges, or any other costs levied, assessed or imposed by, or at the direction of, or resulting from statutes or regulations or interpretations thereof, promulgated by any federal, state, regional, municipal or local government authority in connection with the use or occupancy of the Building and the Business Center, or the parking facilities servicing the Building; costs incurred in the management of the Building, Building management, office rental, a management fee, air conditioning; waste disposal; heating; ventilating; elevator maintenance; supplies; materials; equipment; tools; repair and maintenance of the structural portions of the Building, including the plumbing, heating, ventilating, air-conditioning and electrical systems installed or furnished by Landlord; and maintenance, costs, and upkeep of all parking and common areas, rental of personal property used in maintenance and management; costs and expenses of gardening and landscaping; maintenance of signs; personal property taxes levied on or attributable to personal property used in connection with the entire Building, including the Common Areas; and costs and expenses of repairs, resurfacing, repairing, maintenance, painting, lighting, cleaning, refuse removal, security and similar items; appropriate reserves; and the Common Area maintenance charge obligations allocated to the Building and the Business Center including Tenant's allocable share of assessments for the maintenance of the Business Center and the common areas, and for any increase in (i) the rent payable under any ground lease now or hereafter

affecting the real property of which Demised Premises forms a part or (ii) the interest payable with respect to any permanent financing now or hereafter affecting the Building which increase results not from a refinancing but solely from a provision for such increase in the applicable loan documents; and (c) alterations to the Building or the Business Center or the areas used in connection with the operation of the Building for life-safety systems or energy conservation or to effect economies in operations and maintenance of the Building or the Business Center, or other capital improvements or replacements (together with all costs, and interest thereon at a rate equal to 2% over the highest prime lending rate or reference rate published or reported from time to time by Bank of America N.T. & S.A. at its San Francisco Headquarters in effect from time to time [but in no event in excess of the maximum rate of interest permitted by law], paid or incurred in connection with any such alterations or other capital improvements or replacements) all amortized over their useful life except that any such costs (and the interest thereon) paid or incurred in connection with

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alterations or replacements for energy conservation may be amortized at a yearly rate equal to the savings realized during such period as a result of such alteration or replacement, and (d) the cost of fire, extended coverage, boiler, sprinkler, public liability, property damage, rent, earthquake and other insurance and the deductible portion of any insured loss otherwise covered by such insurance, and (e) the cost of legal, accounting, consulting fees and permits, certificates and licenses required in connection with the Building or the Business Center and (f) such other items as are now or hereafter customarily included in the cost of managing, operating, maintaining, overhauling and repairing the Building, the Business Center and the areas used in connection with the operation of the Building in accordance with now or hereafter accepted accounting or management principles or practices. The highest prime lending or reference rate referred to in this Section 28.2 may not be the lowest rate of interest charged by Bank of America N.T.&S.A.

28.3. Statements for Tenants and Payments. Tenant shall pay to Landlord as additional charges one twelfth (1/12) of Tenant's Share of the increase in Taxes and Operating Costs for each Computation Year, in advance, in an amount estimated by Landlord and billed by Landlord to Tenant; provided that Landlord shall have the right initially to determine monthly estimates and to revise such estimate from time to time. With reasonable promptness after Landlord has received the tax bills and other operating cost support for any Computation Year, Landlord shall furnish Tenant with a statement (herein called "Landlord's Statement") showing a comparison of the Base Taxes and Operating Costs Amount to the amount of Taxes and Operating Costs for such Computation Year, and Tenant's Share of the increase in Taxes and Operating Costs. If the actual increase in Taxes and Operating Costs for such Computation Year exceed the estimated Taxes and Operating Costs paid by Tenant for such Computation Year, Tenant shall pay to Landlord the difference between the amount paid by Tenant and the actual increase in Taxes and Operating Costs within fifteen (15) days after the receipt of Landlord's Statement, and if the total amount paid by Tenant for any such Computation Year shall exceed the actual increase in Taxes and Operating Costs for such Computation Year, such excess shall be credited against the next installments of Taxes and Operating Costs due from Tenant to Landlord hereunder.

28.4. Adjustment for Partial Years. If the Commencement Date shall occur on a date other than the first day of a Computation Year, Tenant's Share of Taxes and Operating Costs for the Computation Year in which the Commencement Date occurs shall be in the proportion that the number of days from and including the Commencement Date to and including the last day of the Computation Year in which the Commencement Date occurs bears to 365. Similarly, if the Expiration Date shall occur on a date other than the last day of a Computation Year, Tenant's Share of Taxes and Operating Costs for the Computation Year in which the Expiration Date occurs shall be in the proportion that the number of days from and including the first day of the Computation Year in which the Expiration Date occurs bears to 365. Notwithstanding the foregoing, Landlord may, pending the determination of the amount of Taxes and Operating Costs for such partial Computation Year, furnish Tenant with statements or estimated increases in Taxes and in Operating Costs, and Tenant's Share of each thereof for such partial Computation Year. Within fifteen (15) days after receipt of such estimated statement, Tenant shall remit to Landlord, as Additional Charges, the amount of Tenant's Share of such Taxes and Operating



Costs. After such Taxes and Operating Costs have been finally determined and Landlord's Statement has been furnished to Tenant pursuant to this Article, and if there shall have been an underpayment of Tenant's Share of Taxes and Operating Costs, Tenant shall remit the amount of such underpayment to Landlord within fifteen (15) days after receipt of such statements, and if there shall have been an overpayment, Landlord shall remit the amount of any such overpayment to Tenant within fifteen (15) days after the issuance of such statements.

28.5. Occupancy and Fractional Year. For purposes of comparison to Base Taxes and Operating Costs, there shall be added to the actual Taxes and Operating Costs for any period during which the Building is less than 100% occupied those additional expenses (of the type set forth in paragraphs 2 and 4 of subsection 28.2 of this Article) which Landlord determines it would have so incurred had the Building been 100% occupied during any such period. Furthermore, for purposes of comparison to Base Taxes and Operating Costs, in any comparative statement covering less than a full Computation Year there shall be added to the actual Taxes and Operating Costs for the period covered by the comparative statement those additional expenses (of the type set forth in this Article) which Landlord determines it would have so incurred had the Building been 100% occupied during the full Computation Year.

#### FOOD, BEVERAGE AND ODORS

29.1. Tenant shall not prepare any food nor do any cooking (other than occasional light meals prepared for guests and employees via a microwave oven or stove top facility installed pursuant to plans and specifications approved in writing by Landlord), conduct any restaurant, luncheonette or cafeteria for the sale or service of food or beverages to its employees or to others, or cause or permit any odors of cooking or other processes, or any unusual or objectionable odors to emanate from the Demised Premises. Tenant shall not install or permit the installation or use of any vending machine or permit the delivery of any food or beverage to the Demised Premises except by such persons and in such manner as are approved in advance in writing by Landlord.

#### SECURITY

30.1. Tenant has deposited with Landlord the sum Specified in Article M of Section I as security for the faithful performance and observance by Tenant of all of the terms, covenants, conditions, provisions, and agreements of this Lease. Tenant shall not be entitled to interest on such security deposit and Landlord shall not be obligated to hold such deposit as a separate fund, but may commingle it with other funds. In the event Tenant defaults in respect of any of the terms, covenants, conditions, provisions or agreements of this Lease, including, but not limited to, the payment of rent or other sums due hereunder, Landlord may use, apply or retain the whole or any part of the security so deposited to the extent required for the payment of any rent or any other sums as to which Tenant is in default or for any sum which Landlord may expend or may be required to expend by reason of Tenant's default in respect of any of the terms, covenants, conditions, provisions or agreements of this Lease, including, but not limited to, any damages or deficiency in the reletting of the Demised Premises, whether such damages or deficiency accrued before or after summary proceedings or other re-entry by Landlord. Tenant, on demand by Landlord, will forthwith replenish the security or any portion thereof so used or applied by Landlord. In the event that Tenant shall fully and faithfully comply with all of the terms, covenants, conditions, provisions and agreements of this Lease, the security, without interest, shall be returned to Tenant promptly after the date fixed as the end of this Lease but only after delivery of entire possession of the Demised Premises to Landlord. In the event of a sale of the land and/or Building or leasing of the land and/or the entire Building, or the sale of such leasehold, Landlord shall have the right to transfer the security to the transferee or lessee and Landlord shall thereupon be released by Tenant from all liability for the return of such security; and in the event of such transfer of security, Tenant shall look to the new Landlord solely for the return of said security; and the provisions hereof shall apply to every transfer or assignment made of the security to a new landlord. Tenant shall not assign or encumber or attempt

to assign or encumber the security deposited herein and neither Landlord nor its successors or assigns shall be bound by any such assignment, encumbrance nor by any purported transfer thereof by operation of law. In the event of the

termination of any ground lease or foreclosure of any fee or leasehold mortgage or deed of trust (or conveyance in lieu thereof) now or hereafter affecting the real property of which the Demised Premises forms a part, Tenant shall look to the new landlord for the return of said security only if said security is actually transferred to said new landlord.

#### CARE OF FLOOR AND WINDOW COVERINGS

31.1. Supplementing Articles 5 and 21, Tenant shall take care of any and all floor and window coverings installed at any time in any portion of the Demised Premises, and Tenant shall make, as and when needed, all repairs in and to the said coverings and shampoo and/or clean any of said coverings as necessary to preserve them in good order, condition and appearance by persons approved by the Landlord. Upon the expiration or other termination of the Term of this Lease, Tenant shall surrender the said coverings to Landlord in as good order, condition and repair as they were upon the installation thereof, ordinary wear excepted. Supplementing Article 12, Landlord shall vacuum any carpets periodically.

#### MARGINAL NOTES

32.1. The marginal notes and headings are inserted only as a matter of convenience and for reference and in no way define, limit or describe the scope or intent of this Lease nor do they in any way affect this Lease.

#### DEFINITIONS

33.1. The term "office," or "offices," wherever used in this Lease, shall not be construed to mean premises used as a store or stores, for the sale, display or storage at any time, of goods, wares or merchandise of any kind, or as a shop, or for manufacturing or for any purpose contrary to Rule and Regulation No. 14. The term "Landlord" as used in this Lease means only the owner or the mortgagee in possession or grantee in possession under a deed of trust, or the owner of the Lease of the Building and/or other portions of the Business Center for the time being, so that in the event of any sale or sales of said land, the Building, the Lease, or in the event of a lease of said land and/or Building, the same Landlord shall be and hereby is entirely freed and relieved of all covenants and obligations of Landlord hereunder, and it shall be deemed and construed, without further agreement between the parties or their successors-in-interest or between the parties and the purchaser or the lessee of the Building that such successor(s)-in-interest or such purchaser or lessee has assumed and agreed to carry out any and all covenants and obligations of Landlord hereunder. The words "re-enter" and "re-entry" as used in this Lease are not restricted to their technical legal meaning.

#### LANDLORD'S APPROVAL

34.1. The review, approval, inspection or examination by Landlord of any item to be reviewed, approved, inspected or examined by Landlord under the terms of this Lease or the Exhibits or any addenda or riders attached hereto shall not constitute the assumption of any responsibility by Landlord for either the accuracy or sufficiency or any such item or the quality or suitability of such item for its intended use. Any such review, approval, inspection or examination by Landlord is for the sole purpose of protecting Landlord's interests in the Building and the Business Center and under this Lease, and no third parties, including, without limitation, Tenant or any person or entity claiming through or under Tenant, or the contractors, agents, servants, employees, visitors or licensees of Tenant or any such person or entity, shall have any rights hereunder.

#### BROKERAGE

35.1. Tenant represents and warrants that the broker or brokers specified in Article N of Section I was (were) the sole broker or brokers who negotiated and brought about the consummation of this Lease, and that no discussions or negotiations were had with any other broker concerning the leasing of the Demised Premises. Based on the foregoing representation and warranty, Landlord has agreed to pay any and all commission or compensation due to said broker or brokers in connection with the consummation of this Lease. Tenant agrees to indemnify and defend Landlord against and hold Landlord harmless from any claims of brokerage commissions arising out of any discussions or negotiations allegedly had by Tenant with any other broker in connection with the Building and the Demised Premises.

#### BINDING EFFECT

36.1. All of the terms, conditions, provisions and agreements of this Lease shall be deemed to be covenants. The covenants contained in this Lease shall bind and inure to the benefit of Landlord and Tenant and their respective legal representatives and successors, and, except as otherwise provided in this Lease, their assigns.

#### MISCELLANEOUS

37.1. This Lease is offered to Tenant for signature by Tenant and this Lease shall not be binding upon Landlord unless and until such time as Landlord shall have executed and delivered the same.

37.2. Tenant shall not at any time prior to or during the term hereof, either directly or indirectly, use any contractors, labor or materials whose use would create any difficulty with other contractors or labor engaged by Tenant or by Landlord or by others in the construction, maintenance or operation of the Demised Premises or the Building or the Business Center.

37.3. If a partnership or more than one legal person is at any time Tenant, (1) each general partner and each legal person is jointly and severally liable for the keeping, observing and performing of all of the terms, covenants, conditions, provisions and agreements of this Lease to be kept, observed or performed by Tenant, and (2) the term "Tenant" as used in this Lease shall mean and include each of them jointly and severally and the act of or notice from, or notice or refund to, or the signature of, any one or more of them, with respect to this Lease, including, but not limited to, any renewal, extension, expiration, termination or modification of this Lease, shall be binding upon each and all of the persons executing this Lease as Tenant with the same force and effect as if each and all of them had so acted or so given or received such notice or refund or so signed.

37.4. In addition to the Base Annual rent and other charges to be paid by Tenant hereunder, Tenant shall reimburse Landlord, upon demand, for any and all taxes payable by Landlord (other than net income taxes) whether or not now customary

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or within the contemplation of the parties thereto: (1) upon, allocable to, or measured base rent payable hereunder, including without limitation, any gross receipts tax or excise tax levied by any governmental or taxing body with respect to the receipt of such rent, or (2) upon or with respect to the Possession, leasing, operation, management, maintenance, alteration, repair, use or occupancy by Tenant of the Demised Premises or any portion thereof; or (3) upon the measured value of Tenant's personal property located in the Business property located in the Demised Premises or in any storeroom, garage or any other place in the Demised Premises or the Building or the Business Center, of the areas used in connection with the operation of the Building, it being the intention of Landlord and Tenant that, to the extent possible, such personal property taxes shall be billed to and paid directly by Tenant; or (4) upon this transaction. Taxes paid by Tenant pursuant to this Section 37.4 shall not be included in any computation pursuant to Article 28.

37.5. This Lease shall be governed by and construed in accordance with California law.

37.6. In the event any term, covenant, condition, provision or agreement herein contained is held to be invalid or void by any court of competent jurisdiction, the invalidity of any such term, covenant, condition, provision or agreement shall in no way affect any other term, covenant, condition, provision or agreement herein contained.

37.7. Landlord shall not be obligated to provide or maintain any security patrol or security system. However, if Landlord elects to provide such patrol or system, the cost thereof shall be included in Operating Costs as defined in Article 28. Landlord shall not be responsible for the quality of any such patrol or system which may be provided hereunder or for damage or injury to Tenant, its employees, invitees or others due to the failure, action or inaction of such patrol or system.

37.8. Any basement storage space or other storage space at any time demised to Tenant hereunder shall be used exclusively for storage.

Notwithstanding any other provision of this Lease to the contrary, (1) only such ventilation and heating will be furnished by Landlord as will, in Landlord's judgment, be adequate for use of said space for storage, (2) no cleaning, water or air conditioning will be furnished therefore, and (3) only such electricity will be furnished thereto, as will, in Landlord's judgment, be adequate to light said space as storage space.

37.9. Time is of the essence with respect to the performance of each and every provision of this Lease to be performed by Tenant.

37.10. Neither this Lease, nor any notice nor memorandum regarding the terms hereof, shall be recorded by Tenant. Any such unauthorized recording shall give Landlord the right to declare a breach of this Lease and pursue the remedies provided herein. Tenant agrees to execute and acknowledge, at the request of Landlord, a short form of this Lease in recordable form.

37.11. If the name of Tenant or any successor or assign shall be changed during the term of this Lease, such party shall promptly notify Landlord thereof, which notice shall be accompanied by a certified copy of the document effecting such change of name.

37.12. Tenant shall at any time and from time to time upon not less than ten (10) days' prior notice from Landlord execute, acknowledge and deliver to Landlord a statement in writing certifying to those facts for which certification has been requested by Landlord or any current or prospective purchaser, mortgagee (or beneficiary under a deed of trust) or underlying lessor, including, without limitation (a) that this Lease is unmodified and in full force and effect (or, if modified, adequately identifying such modification and certifying that this Lease, as so modified, is in full force and effect) and (b) the dates to which the Base Annual Rent, additional payments and other charges are paid and (c) whether or not there is any default by Landlord or Tenant in the performance of any term, covenant, condition, provision or agreement contained in this Lease and further whether or not there are any setoffs, defenses or counterclaims against enforcement of the obligations to be performed under this Lease and, if there are, specifying each such default, setoff, defense or counterclaim. Any such statement may be conclusively relied upon by any prospective purchaser or lessee or encumbrancer of the Demised Premises or of all or any portion of the Building or the Business Center. Tenant's failure to deliver such statement within such time shall be deemed a statement that this Lease is in full force and effect, without modification except as may be represented by Landlord, that there are no uncured defaults in Landlord's performance, and that not more than one month's Base Annual Rent has been paid in advance.

37.13. In consideration of the benefits accruing hereunder, Tenant and all successors and assigns covenant and agree that, in the event of any actual or alleged failure, breach or default hereunder by Landlord:

(a) The sole and exclusive remedy shall be against the Landlord's interest in the Building;

(b) No partners of Landlord (or the general or limited partners of such partners) shall be sued or named as a party in any suit or action (except as may be necessary to secure jurisdiction of the partnership);

(c) No service of process shall be made against any partners of Landlord (except as may be necessary to secure jurisdiction of the partnership);

(d) No partners of Landlord shall be required to answer or otherwise plead to any service of process;

(e) No judgment will be taken against any partners of Landlord or the general or limited partners of such partners;

(f) Any judgment taken against any partner of Landlord may be vacated and set aside at any time nunc pro tunc;

(g) No writ of execution will ever be levied against the assets of any partner of Landlord (or the assets of any general or limited partners of any partner of Landlord);

(h) a deficit in the capital account of any partner or joint venturer (if the holder of Landlord's interests hereunder is a partnership or joint venture) shall not be considered an asset of such partnership or joint venture; and

(i) These covenants and agreements are enforceable both by Landlord and also by any partner of Landlord.

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37.14. The rights of Tenant hereunder in and to the Common Areas shall at all time be subject to the rights of Landlord and other tenants of Landlord who use the same in common with Tenant, and it shall be the duty of Tenant to keep all of the Common Areas free and clear of any obstructions created or permitted by Tenant or resulting from Tenant's operation and to permit the use of any of the Common Areas only for normal parking and ingress and egress by the Invitees of Tenant to and from the Building. If, in the opinion of Landlord, unauthorized persons are using the Common Areas by reason of the presence of Tenant in the Demised Premises, Tenant, upon demand of Landlord, shall correct such situation by appropriate action or proceedings against all such unauthorized persons. Nothing herein shall affect the right of Landlord at any time to remove any such unauthorized persons from said areas or to prevent the use of any of said areas by unauthorized persons.

37.15. If, as a result of any governmental rule or regulation, Landlord imposes a curtailment of services or equipment in the Business Center, the Demised Premises or the Building, Tenant shall comply therewith and shall be liable to Landlord for any surcharge imposed for any violation by Tenant.

37.16. If Tenant is at any time in default in the payment of any sum of money pursuant to the terms, covenants, conditions, provisions or agreements of this Lease or pursuant to any order now or hereafter placed by Tenant with Landlord (including, without limitation, charges for any materials or services or construction work furnished to Tenant by Landlord) with respect to the Demised Premises over and above or in addition to or in lieu of the Base Annual Rent (or any installment thereof), Landlord shall have all the remedies as in the case of default by Tenant in the payment of an Installment of the Base Annual Rent.

37.17. If Tenant signs as a corporation or a partnership, each of the persons executing this Lease on behalf of Tenant does hereby covenant and warrant that Tenant is a duly authorized and existing entity, that Tenant has and is qualified to do business in California, that Tenant has full right and authority to enter into this Lease, and that each and every person signing on behalf of Tenant is authorized to do so. Upon Landlord's request, Tenant shall provide Landlord with evidence satisfactory to Landlord confirming the foregoing covenants and warranties, which may include an opinion of counsel for Tenant, if Landlord so requires.

37.18. If, in connection with obtaining construction, interim or permanent financing for the Building and/or the Business Center, the lender shall request reasonable modifications in this Lease as a condition to such financing. Tenant will not unreasonably withhold, delay or defer its consent thereto, provided that such modifications do not increase the obligations of Tenant hereunder or materially adversely affect the leasehold interest hereby created or Tenant's rights hereunder.

37.19. In the event that either Landlord or Tenant fails to perform any of its obligations under this Lease or in the event a dispute arises concerning the meaning or interpretation of any provision of this Lease, the basis of the dispute shall be settled by judicial proceedings and the defaulting party or the party not prevailing in such dispute, as the case may be, shall pay any and all costs and expenses incurred by the other party in enforcing or establishing its rights hereunder, including, without limitation, court costs and attorneys' fees and expenses.

37.20. Landlord reserves the right to cause Tenant to relocate from the Demised Premises to a comparable space ("Relocation Space") within the Building at any time upon reasonable written notice to Tenant (not in excess of sixty (60) days). Any such relocation shall be entirely at the expense of Landlord or the third party tenant replacing Tenant in the Demised Premises. Such relocation shall not terminate or otherwise affect or modify this Lease except that from and after the date of such relocation, the "Demised Premises" shall refer to the Relocation Space into which Tenant has been moved, rather than the original Demised Premises as herein defined.

37.21. During the Term of this Lease, Tenant and Tenant's employees shall have the use of a portion of the Common Area designated by Landlord as a recreation facility ("Recreation Facility") provided by Landlord from time to time for the general use of the tenants in the Building, and any equipment and other facilities provided by Landlord therein ("Equipment"), during such times as Landlord, in its sole discretion, shall elect to make said Recreation Facility and Equipment available for the use of tenants of the Building and their employees. The use of the Recreation Facility and the Equipment shall be subject to such Rules and Regulations as Landlord may from time to time promulgate in accordance with this Lease; provided, however, that Landlord shall in no event be obligated to make available the Recreation Facility and/or Equipment and shall have the right to discontinue the Recreation Facility and/or the use of Equipment by Tenant or its employees at anytime without prior notice to Tenant. Landlord shall not be obligated to provide any supervision of, or instruction in the use of the Recreation Facility and/or Equipment by Tenant and its employees, and on or prior to the Commencement Date and on a regular basis thereafter, Tenant shall advise each of its employees that Landlord is not providing any such supervision or instruction. Tenant and Tenant's employees, by their use of the Recreation Facility and/or Equipment, assumes all risk of damage to property and injury to persons resulting in any manner therefrom, and releases and waives any and all claims, damages, liabilities and/or causes of action Tenant may have against Landlord, its contractors, agents and employees arising in any manner out of (i) the use of the Recreation Facility and/or Equipment by Tenant or its employees or (ii) the repair and maintenance of the Recreation Facility and/or the Equipment, including any claims, damages, liabilities or causes of action directly or indirectly resulting from any negligent act or omission of Landlord, its agents, contractors or employees. Tenant shall circulate to each of its employees and shall post in a conspicuous place on the Demised Premises such notices regarding the availability and use of the Recreation Facility and Equipment, Rules and Regulations governing such use, the absence of supervision of or instruction in such use and the release and waiver of claims, liabilities or causes of action as Landlord shall from time to time provide to Tenant. Tenant shall also cause to be affixed and to remain affixed to each key to the Recreation Facility furnished by Landlord to Tenant for the use of Tenant's employees such notices as Landlord shall from time to time provide to Tenant.

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37.22. TENANT SPECIFICALLY ACKNOWLEDGES THAT THIS LEASE CONTAINS CERTAIN WAIVERS OF CERTAIN STATUTORY RIGHTS AND CERTAIN LIMITATIONS ON DAMAGES AND THAT TENANT HAS AGREED THERETO.

Any rider, exhibit or addendum annexed hereto is made a part hereof.

IN WITNESS WHEREOF, Landlord and Tenant have respectively executed this Lease as of the day and year first above written.

"Landlord"

"Tenant"

METROPOLITAN LIFE INSURANCE  
COMPANY, a New York corporation

PDF SOLUTIONS  
a California corporation

By: /s/ EDWARD J. HAYES

By: /s/ JOHN K. KIBARIAN

Print Name: Edward J. Hayes

Print Name: John K. Kibarian

Title: Assistant Vice President

Title: President

By: /s/ KIMON W. MICHAELS

Print Name: Kimon W. Michaels

Title: Vice President & CFO

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## DEMISED PREMISES

[FLOOR PLAN]

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EXHIBIT A - Page 1

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## EXHIBIT B

WORK LETTER AND CONSTRUCTION AGREEMENT  
(Allowance)

This agreement (the "Work Letter") supplements the Lease dated as of April 1, 1996 executed concurrently herewith by METROPOLITAN LIFE INSURANCE COMPANY, a New York corporation, as Landlord, and P.D.F. SOLUTIONS, a California corporation, as Tenant (the "Lease").

## 1. Design Matters.

1.1. Landlord, through its architects and/or space planners ("Landlord's Architect"), shall prepare the Design Documents (defined below) and the Construction Drawings (defined below), as they may be modified as provided herein, in accordance with the design specified by Tenant and reasonably approved by Landlord.

1.2. Tenant shall be responsible for the suitability for the Tenant's needs and business of the design and function of all Tenant Improvements (defined below). Tenant, at its own expense, shall devote such time and provide such instructions as may be necessary to enable Landlord to complete the matters described below and to obtain:

(a) By March 29, 1996 Tenant's written approval of the Design Documents approved in writing by Tenant; and

(b) By April 2, 1996 Tenant's written approval of a nonbinding preliminary estimate ("Landlord's Preliminary Estimate") provided by Landlord of the cost of the Tenant Improvements shown on the Construction Drawings.

(c) By April 5, 1996 Tenant's written approval of the Construction Drawings approved in writing by Tenant; and

1.3. Certain Definitions. The following definitions shall apply for purposes of this Work Letter:

(a) "Design Documents" shall mean layout plans and specifications for the real property improvements to be constructed by Landlord in the Demised Premises which are the final product of the preliminary space planning and which include, among other things, the location of all partitions, doors, HVAC (heating, ventilating and air conditioning systems) distribution, ceiling systems, light fixtures, plumbing installations, electrical installations and outlets, telephone outlets and other installations required by Tenant, as well as wall finishes and floor coverings, in sufficient detail for Landlord to commence preparation of the Construction Drawings (defined below);

(b) "Construction Drawings" shall mean the final architectural and engineering plans and specifications for the real property improvements to be constructed by Landlord in the Demised Premises in sufficient detail to be submitted for governmental approvals and building permits and to serve as the detailed construction drawings and specifications for the contractor, and shall include among other things, the location of all partitions, doors, HVAC (heating, ventilating and air conditioning systems) distribution, ceiling systems, light fixtures, plumbing installations, electrical installations and outlets, telephone outlets and other installations required by Tenant, as well as wall finishes and floor coverings; and

(c) All real property improvements, to be constructed by Landlord as

shown on the Construction Drawings, as they may be modified as provided herein, shall be defined as "Tenant Improvements," and the construction and installation of such Tenant Improvements is sometimes referred to herein or in the Lease as "Landlord's Work".

## 2. Construction; Landlord's Contribution; Tenant Improvement Costs.

2.1. Construction; Landlord's Contribution. Landlord shall complete the construction of the Tenant Improvements in a good and workmanlike manner, up to a maximum cost to Landlord of Twenty-Two Thousand Eight Hundred Fifty Dollars (\$22,850) ("Landlord's Maximum Contribution"). Landlord shall provide Tenant with a credit to its monthly installments of rent in the amount of any portion of Landlord's Maximum Contribution that is not applied by Landlord to the construction of the Improvements or any other costs to be paid for by Landlord from Landlord's Maximum Contribution. In no event shall the aggregate of (i) the amount of such rent credit, plus (ii) the cost of the Improvements and any other costs to be paid for

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by Landlord from Landlord's Maximum Contribution, exceed (iii) the amount of Landlord's Maximum Contribution. If and only if required by applicable code, Landlord shall pay the cost of constructing a fire wall extension on the perimeter walls of the Premises.

2.2. Tenant Improvement Costs. The cost of the Tenant Improvements ("Tenant Improvement Costs") to be paid by Landlord from, but not in excess of, Landlord's Maximum Contribution shall include:

- (a) The costs of Landlord's Architect and any other consultants retained by Landlord in connection with the preparation of Design Documents and Constructions Drawings, and engineering costs associated with completion of the State of California energy utilization calculations under Title 24 legislation;
- (b) All costs of obtaining from the City of San Jose and any other governmental authority building and occupancy permits, if any;
- (c) All costs of interior design and finish schedule plans and specifications including as-built drawings;
- (d) All direct and indirect costs of procuring, installing and constructing the Tenant Improvements, including, without limitation: (i) the construction fee for overhead and profit and the cost of all on-site supervisory and administrative staff, office, equipment and temporary services rendered or provided by Landlord's contractor in connection with construction of the Tenant Improvements and (ii) the cost of any services or utilities made available by Landlord and a construction supervision fee payable to Landlord of three percent (3%) of the total amount of the contract with Landlord's contractor; and
- (e) All fees payable to Landlord's architectural and engineering firm if it is required by Tenant to redesign any portion of the Tenant Improvements following Tenant's approval of the Construction Drawings.
- (f) Installation of two 3.5 ton HVAC units.

In no event shall the Tenant Improvement Costs include (i) any costs of procuring or installing in the Demised Premises any trade fixtures, equipment, furniture, furnishings, telephone equipment or other personal property ("Personal Property") to be used in the Demised Premises by Tenant, and the cost of such Personal Property shall be paid by Tenant, or (ii) any costs or expenses of any consultants retained by Tenant with respect to design, procurement, installation or construction of improvements or installations, whether real or personal property, for the Demised Premises.

2.3. Limitations of Landlord's Obligations. Upon Substantial Completion of the Tenant Improvements, Landlord shall have no further obligation to



construct improvements or construct modifications to or changes in the Tenant Improvements or, except as provided in Paragraph 2.3 of the Addendum, to complete or repair the Tenant Improvements.

3. Costs of Tenant Improvements in Excess of Landlord's Maximum Contribution. As soon as reasonably available after completion of the Construction Drawings, Landlord shall notify Tenant in writing of the costs, if any, of the Tenant Improvements in excess of the Landlord's Maximum Contribution (such notification shall be referred to as "Landlord's Cost Statement"). Within five (5) days after receipt of Landlord's Cost Statement, Tenant shall, in writing, give Landlord authorization to complete the Tenant Improvements in accordance with the Construction Drawing, and to the extent that there remain any costs of the Tenant Improvements in excess of the Landlord's Maximum Contribution, Tenant shall accompany said authorization with a good check made payable to the order of Landlord in the amount of the excess cost authorized by Tenant of the Tenant Improvements over Landlord's Maximum Contribution. In such authorization, Tenant may, pursuant to Section 4, request a Change Order (defined below) to the approved Construction Drawings to reduce or delete all or part of such excess costs, but any delay in completion of the Demised Premises resulting from such request for a Change Order or from the changes so made or necessitated shall be chargeable as Tenant Delay as provided in Section 5. If such written authorization and check (if applicable) are not received by Landlord, Landlord shall not be obligated to commence work on the Demised Premises and any resulting delay in the completion of the Demised Premises shall be chargeable against Tenant as Tenant Delay as provided in Section 5 of this Work Letter.

4. Changes. If Tenant shall request any change, addition or alteration in the approved Construction Drawings, Landlord shall promptly give Tenant a written estimate of (a) the cost of engineering and design services and the construction contractor services to prepare a change order (the "Change Order") in accordance with such request, (b) the cost of work to be performed pursuant to such Change Order, and (c) the time delay expected because of such requested Change Order. Within three (3) business days following Tenant's receipt of the foregoing written estimate, Tenant shall notify Landlord in writing whether it approves such written estimate. If Tenant approves such written estimate and if such cost is in excess of Landlord's Maximum

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Contribution, Tenant shall accompany such approval with a good check made payable to the order of Landlord in the amount of the estimated cost of preparing the Change Order and performing the work thereto, and the foregoing shall constitute Landlord's authorization to proceed. If such written authorization, and check if required, are not received by Landlord within such three (3) business day period, Landlord shall not be obligated to prepare the Change Order or perform any work in connection therewith. Upon completion of the work of the Change Order and submission of the final cost thereof by Landlord to Tenant, Tenant shall promptly pay to Landlord any such additional amounts in excess of Landlord's Maximum Contribution.

5. Tenant Delay. If the completion of the Tenant Improvements in the Demised Premises is delayed (i) at the request of the Tenant, (ii) by Tenant's failure timely to comply with the provisions of this Work Letter, (iii) without limiting the generality of the immediately preceding Subsection (ii), by Tenant's failure timely to approve, pursuant to Section 1.2, Construction Drawings which are consistent with the Design Documents or by Tenant's request for change, addition or alteration in the Construction Drawings which is not consistent with the Design Documents, (iv) by all changes or alterations in the work ordered by Tenant or by extra work ordered by Tenant, or (v) because Tenant chooses to have additional work performed by Landlord, then Tenant shall be responsible for all costs and any expenses occasioned by such delay including, without limitation, any costs and expenses attributable to increases in labor or materials; and each such event shall be a "Tenant Delay" and as provided in Paragraph 2.1 of the Addendum, for purposes of establishing the commencement of Tenant's obligations under the Lease which have not commenced prior to Substantial Completion, including, without limitation, the commencement of Tenant's obligation to pay Rent, the date on which such obligations commence shall be advanced one day for each day of Tenant Delay.

6. Defined Terms. Capitalized terms used in this Work Letter and not

otherwise defined, other than terms capitalized in the ordinary course of punctuation, shall, unless otherwise specified herein, have the same meanings and definitions set forth in the Lease.

7. Force And Effect. The terms and conditions of this Work Letter supplement the Lease and shall be construed to be a part of the Lease and shall be deemed incorporated in the Lease by this reference. Should any inconsistency arise between this Work Letter and the Lease as to the specific matters which are the subject of this Work Letter, the terms and conditions of this Work Letter shall control.

IN WITNESS WHEREOF, the parties hereto have executed this Work Letter as of the date first set forth in the Lease.

TENANT:

LANDLORD:

P.D.F. SOLUTIONS,  
a California corporation

METROPOLITAN LIFE INSURANCE  
COMPANY, a New York corporation

By: /s/ JOHN K. KIBARIAN

By: /s/ EDWARD J. HAYES

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John K. Kibarian  
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Edward J. Hayes  
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Print Name  
Its: President  
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Print Name  
Its: Assistant Vice President  
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By: /s/ KIMON W. MICHAELS

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Kimon W. Michaels  
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Print Name  
Its: Vice President & CFO  
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EXHIBIT C

CONFIRMATION OF LEASE TERM DATES

THIS MEMORANDUM is made on May 1, 1996, between METROPOLITAN LIFE INSURANCE COMPANY, a New York corporation ("Landlord"), and P.D.F. SOLUTIONS, a California corporation ("Tenant"), who entered into a lease dated for reference as of April 1, 1996, covering certain premises located at RiverPark Towers, San Jose, California, as more particularly described in the Lease. All capitalized terms, if not defined hereto, shall be defined as they are defined in the Lease.

1. The parties to this Memorandum hereby agree that the date of April 5, 1996 is the "Commencement Date" of the Term.

2. Tenant hereby confirms the following:

(a) That it has accepted possession of the Premises pursuant to the terms of the Lease;

(b) That Landlord has fulfilled all of its duties of an inducement nature;

(c) That the Lease has not been modified, altered or amended, except as follows:

N/A  
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(d) That there are no offsets or credits against rentals, nor has any security deposit been paid except as provided by the Lease Terms; and

(e) That the Lease is in full force and effect.

3. This Memorandum, each and all of the provisions hereof, shall inure to the benefit, of bind, as the case may require, the parties hereto, and their respective heirs, successors, and assigns subject to the restrictions upon assignment and subletting contained in the Lease.

TENANT: P.D.F. SOLUTIONS  
a California corporation

By: /s/ JOHN K. KIBERIAN  
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Print Name: John K. Kiberian  
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Its:  
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LANDLORD: METROPOLITAN LIFE INSURANCE COMPANY,  
a New York corporation

By: /s/ [ILLEGIBLE]  
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Print Name:  
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Its:  
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EXHIBIT D  
TO  
RIVERPARK I OFFICE LEASE  
BETWEEN  
METROPOLITAN LIFE INSURANCE COMPANY  
AS LANDLORD  
AND  
PDF SOLUTIONS  
AS TENANT  
A CALIFORNIA CORPORATION  
RULES AND REGULATIONS

1. No sidewalks, entrance passages, courts, elevators, vestibules, stairways, corridors of halls shall be obstructed or encumbered by Tenant or used for any purpose other than ingress and egress to and from the Demised Premises or the Building, and if the Demised Premises is situated on the ground floor of the Building, Tenant shall further, at Tenant's own expense, keep the sidewalks and curb directly in front of the Demised Premises clean and free from rubbish.

2. No awning or other projection shall be attached to the outside walls or windows of the Building without the prior written consent of Landlord. No curtains, blinds, shades, drapes or screens shall be attached to or hung in, or used in connection with any window or door of the Demised Premises without the prior written consent of Landlord. Such awnings, projections, curtains, blinds, shades, drapes, screens and other fixtures must be of a quality, type, design, color, material and general appearance approved by Landlord and shall be

attached in the manner approved by Landlord. All electrical fixtures hung in offices or spaces along the perimeter of the Demised Premises must be fluorescent, of a quality, type, design, bulb color, size and general appearance approved by Landlord.

3. No sign, advertisement, notice or other lettering shall be exhibited, inscribed, painted or affixed by Tenant on any part of the outside or inside of the Demised Premises or of the Building without the prior written consent of Landlord. In the event of the violation of the foregoing by Tenant, Landlord may remove same without the prior written consent of Tenant. In the event of the violation of the foregoing by Tenant, Landlord may remove same without any liability and may charge the expense incurred by such removal to Tenant. Interior signs on doors and directory tablet shall be inscribed, painted or affixed for Tenant by Landlord at the expense of Tenant and shall be of a quality, quantity, type, design, color, size, style, composition, material, location and general appearance acceptable to Landlord.

4. The sashes, sash doors, skylights, windows, and doors that reflect or admit light or air into the halls, passageways or other public places in the Building shall not be covered or obstructed by Tenant, nor shall any bottles, parcels, or other articles be placed on the window sills or in the public portions of the Building.

5. No showcases or other articles shall be put in front of or affixed to any part of the exterior of the Building, nor placed in public portions thereof without the prior written consent of Landlord.

6. The water and wash closets and other plumbing fixtures shall not be used for any purposes other than those for which they were constructed, and no sweepings, rubbish, rags or other substances shall be thrown therein. All damages resulting from any misuse of the fixtures shall be borne by Tenant to the extent that Tenant or Tenant's agents, servants, employees, contractors, visitors or licensees shall have caused the same.

7. Tenant shall not mark, paint, drill, into or in any way deface any part of the Demised Premises or the Building. No boring, cutting or stringing of wires shall be permitted, except with the prior written consent of Landlord, and as Landlord may direct.

8. No animal or bird of any kind shall be brought into or kept in or about the Demised Premises of the Building.

9. Prior to leaving the Demised Premises for the day, Tenant shall draw or lower window coverings and extinguish all lights.

10. Tenant shall not make, or permit to be made, any unseemly or disturbing noises or disturb or interfere with occupants of the Building or neighboring buildings or premises or those having business with them. Tenant shall not throw anything out of the doors, windows or skylights or down the passageway.

11. Neither Tenant nor any of Tenant's agents, servants, employees, contractors, visitors or licensees shall at any time bring or keep upon the Demised Premises any inflammable, combustible or explosive fluid, chemical or substance except to the extent such are needed for Tenant's equipment.

12. No additional locks, bolts or mail slots of any kind shall be placed upon any of the doors or windows by Tenant, nor shall any change be made in existing locks or the mechanism thereof. Tenant must, upon the termination of the tenancy restore to Landlord all keys of stores, offices and toilet rooms, either furnished to, or otherwise procured by Tenant and in the event of the loss of any keys so furnished, Tenant shall pay to Landlord the cost thereof.

13. All removals, or the carrying in or out of any safes, freight, furniture, fixtures, bulky matter or heavy equipment of any description must take place during the hours which Landlord or its agents may determine from time to time. Landlord reserves the right to prescribe the weight and position of all

safes, which must be placed upon two-inch thick plank strips to distribute the weight. The moving of safes, freight, furniture, fixtures, bulky matter or heavy equipment of any kind must be made upon previous notice to the Superintendent of the Building and in a manner and at times prescribed by him, and the persons employed by Tenant for such work are subject to Landlord's prior approval. Landlord reserves the right to inspect all safes, freight or other bulky articles to be brought into the Building and to exclude from the Building all safes, freight or other bulky articles which violate any of these Rules and Regulations or the lease of which these Rules and Regulations are a part.

14. Tenant shall not occupy or permit any portion of the Demised Premises to be occupied as an office that is not generally consistent with the character and nature of all other tenancies in the Building, or is (a) for an employment agency, a public stenographer or typist, a labor union office, a physician's or dentist's office, a dance or music studio, a school, a beauty salon or barber shop, the business for of photographic or multilith or multigraph reproductions or offset printing (not precluding using any part of the Demised Premises for photographic multilith or multigraph reproductions solely in connection with Tenant's own business and/or activities), a restaurant or bar, an establishment for the sale of confectionery or soda or beverages or sandwiches or ice cream or baked goods, an establishment for the preparation or dispensing or consumption of food or beverages (of any kind) in any manner whatsoever, or as a news or cigar stand, or as a radio or television or recording studio, theater or exhibition hall, for manufacturing, for the storage of merchandise or for the sale of merchandise, goods or property of any kind at auction, or for lodging, sleeping or for any immoral purpose, or for any business which would tend to generate a large amount of foot traffic in or about the Building or the land upon which it is located, or any of the areas used in the operation of the Building, including, but not limited to, any use (i) for a banking, trust company, depository, guarantee, or safe deposit business, other than administrative or executive offices and in no event "retail" activities, i.e., activities which would tend to materially increase the number of visitors to the Demised Premises (ii) as a savings bank, or as savings and loan association, or as a loan company, other than administrative or executive offices and in no event "retail" activities, i.e., activities which would tend to materially increase the number of visitors to the Demised Premises (iii) for the sale of travelers checks, money orders, drafts, foreign exchange or letters of credit or for the receipt of money for transmission, provided that occasional sales or receipts incidental to the uses permitted by (i) and (ii) above shall be permitted (iv) a government office or foreign embassy or consulate, or (v) tourist or travel bureau, or (b) a use which conflicts with any so-called "exclusive" then in favor of, or is for any use the same as that stated in any percentage lease to another tenant of the Building or the Business Center, or (c) a use which would be prohibited by any other portion of this Lease (including, but not limited to, any Rules and Regulations then in effect) or in violation of law. Tenant shall not engage or pay any employees on the Demised Premises, except those actually working for Tenant on the Demised Premises nor shall Tenant advertise for laborers giving an address at the Demised Premises.

15. Tenant shall not purchase spring water, towels, janitorial or maintenance or other like service from any company or persons not approved by Landlord. Landlord shall approve a sufficient number of sources of such services to provide Tenant with reasonable selection, but only in such instances and to such extent as Landlord in its judgement shall consider consistent with security and proper operation of the Building.

16. Landlord shall have the right to prohibit any advertising or business conducted by Tenant referring to the Building or the Business Center which, in Landlord's opinion, tends to impair the reputation of the Building or its desirability as a first class building for offices, or the Business Center, and upon notice from Landlord, Tenant shall refrain from or discontinue such advertising.

17. Landlord reserves the right to exclude from the Building between the hours of 6:00 p.m. and 8:00 a.m. all days, and at all hours on Saturdays, Sundays and legal holidays, all persons who do not present a pass to the Building issued by Landlord. Landlord may furnish passes to Tenant so that Tenant may validate and issue same. Tenant shall safeguard said passes and shall be responsible for all acts of persons in or about the Building who possess a pass issued to Tenant.

18. Tenant's contractors shall, while in the Building or elsewhere in the Business Center be subject to and under the control and direction of the Manager of the Building (but not as agent or servant of said Manager or of Landlord).

19. If the Demised Premises is or becomes infested with vermin as a result of the use of any misuse or neglect of the Demised Premises by Tenant, its agents, servants, employees, contractors, visitors or licensees, Tenant shall forthwith at Tenant's expense cause the same to be exterminated from time to time to the satisfaction of Landlord and shall employ such licensed exterminators as shall be approved in writing in advance by Landlord.

20. The requirements of Tenant will be attended to only upon application at the office of the Building. Building personnel shall not perform any work or do anything outside of their regular duties, unless under special instructions from the office of the Landlord.

21. Canvassing, soliciting and peddling in the Building or in the Business Center are prohibited and Tenant shall cooperate to present the same.

22. No water cooler, air conditioning unit or system or other apparatus shall be installed or used by Tenant without the written consent of Landlord.

23. There shall not be used in any space, or in the public halls, plaza areas or lobbies or the Building, or elsewhere in the Business Center, either by Tenant or by jobbers or others, in the delivery or receipt of merchandise, any hand trucks or dollars, except those equipped with rubber tires and side guards.

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24. Tenant. Tenant's agents, servants, employees, contractors, licensees or visitors shall not park any vehicles in any driveways, service entrances, or areas posted "No Parking."

25. Tenant shall install and maintain, at Tenant's sole cost and expense, an adequate visibly marked (at all times properly operational) fire extinguisher next to any duplicating or photocopying machine or similar heat producing equipment, which may or may not contain combustible material, in the Demised Premises.

26. Tenant shall keep its window coverings closed during any period of the day when the sun is shining directly on the windows on the Demised Premises.

27. Tenant shall not use the name of the Building for any purpose other than as the address of the business to be conducted by Tenant in the Demised Premises, nor shall Tenant use any picture of the Building in its advertising, stationery or in any other manner without the prior written permission of Landlord. Landlord expressly reserves the right at any time to change said name without in any manner being liable to Tenant therefor.

28. Tenant shall not store any motor vehicle within the parking garage. Tenant's parking rights are limited to the use of parking spaces for short term parking of up to twenty-four (24) hours, of motor vehicle utilized in the normal and regular daily travel to and from the Building. Tenants who wish to park a motor vehicle for longer than a 24-hour period shall notify the Property Manager for the Building and consent to such long term parking will be granted for periods up to two weeks. Any motor vehicles parked without the prior written consent of the Property Manager for the Building for longer than a 24-hour period shall be deemed stored in violation of this rule and regulation and shall be towed away and stored at the owner's expense or disposed of as provided by law.

29. Smoking is prohibited in the Building.

30. Tenant and Tenant's employees shall have the right to use any recreation facility or athletic club provided by Landlord for the general use of the tenant in the Building provided that Tenant and Tenant's employees will execute any documents required by Landlord from time to time which releases Landlord from all liabilities arising from the use of such facilities by Tenant or Tenant's employees except to the extent that such liability arises from Landlord's gross negligence or intentional wrongdoing. An example of such a document is attached hereto as Exhibit 1. Said recreation facility or athletic club shall be available to tenants during such time as Landlord, in its sole discretion, shall elect.

ADDENDUM TO RIVER PARK OFFICE TOWERS GENERAL LEASE  
 between METROPOLITAN LIFE INSURANCE COMPANY,  
 a New York corporation, as Landlord, and  
 P.D.F. SOLUTIONS,  
 a California corporation, as Tenant

Paragraph 1. Part of Lease; Defined Terms; Conflict. This Addendum (the "Addendum") forms a part of that certain lease referenced above and entered into concurrently herewith (the "Lease") and is being entered into as an additional consideration for this Lease. Capitalized terms used in this Addendum and not otherwise defined, other than terms capitalized in the ordinary course of punctuation, shall, unless otherwise specified herein, have the same meanings and definitions set forth in the Lease. In the event of any conflict or inconsistency between the terms, covenants and conditions of this Addendum and any other terms, covenants and conditions of the Lease as to the specific matters which are the subject of this Addendum, the terms, covenants and conditions of this Addendum shall control.

Paragraph 2. Term/Construction of Demised Premises. Section 1.4 and Articles 20 and 23 of the Lease are hereby deleted and the following provisions are hereby added:

2.1 Term. The Demised Premises are hereby leased for a term (the "Term") to commence upon the date (the "Commencement Date") of Substantial Completion (as defined below) of the Demised Premises and to end upon the Expiration Date (as defined in Article G of Section I), provided, however; that notwithstanding any provision of the foregoing to the contrary, the Commencement Date shall (i) be advanced to before the date of Substantial Completion by one day for each day of Tenant Delay as defined in the Work Letter and Construction Agreement between Landlord and Tenant dated of even date herewith, a form of which is set forth as Exhibit B hereto (the "Work Letter") for purposes of establishing the Commencement Date and commencement of Tenant's obligations under the Lease which have not previously commenced, including without limitation its obligation to pay Rent and (ii) occur no later than upon Tenant's commencement of business operations in any part of the Demised Premises. Landlord and Tenant estimate that Substantial Completion will occur on March 1, 1996. Should the Commencement Date be a date other than the Projected Commencement Date, Landlord and Tenant shall promptly execute a Confirmation of Lease Term in the form set forth as Exhibit C hereto, but the failure of either or both to do so shall not affect the establishment of the Commencement Date.

2.2 Construction of Demised Premises; Substantial Completion

2.2.1 Landlord shall perform the work and make the installations in the Demised Premises substantially as set forth in the Work Letter (the "Landlord's Work"). Landlord's Work shall be performed by Landlord's general contractor. Other than Landlord's Work as described in the Work Letter, Landlord has no obligation to improve, alter, repair or remodel the Demised Premises. All such installations shall immediately become and remain the property of Landlord.

2.2.2 "Substantial Completion" shall mean, and the Demised Premises shall be deemed "Substantially Complete", when the governmental entity responsible for issuing certificates of occupancy or equivalent occupancy approvals has issued the same or has provided Landlord with all documents or occupancy approvals (written or oral) which are customarily given prior to the actual delivery of a certificate of occupancy, whichever first occurs. Substantial Completion shall be deemed to have occurred notwithstanding a requirement to complete "punchlist" or similar minor corrective work.

2.2.3 If Landlord shall be unable to give possession of the Demised Premises on the Projected Commencement Date by reason of the fact that the Demised Premises is not Substantially Complete, or for any other reason, and such delay resulting therefrom shall be deemed excused and Landlord shall not be subject to any liability for the failure to give possession on said date.

Under such circumstances, unless such delay results from Tenant Delay (as defined in the Work Letter) or is otherwise caused by activities of Tenant, its agents, its representatives or its contractors at the Business Center, neither the Term nor Tenant's obligation to pay Monthly Installments (as defined below) shall commence until possession of the Demised Premises is given or the Demised Premises is available for occupancy by Tenant, as fixed in a notice given by Landlord to Tenant. No such failure to give possession on the Projected Commencement Date shall in any way affect or impair the validity of this Lease or the obligations of Tenant hereunder, nor shall the same be construed in any way to extend the Expiration Date.

2.3 Acceptance by Tenant. Neither Landlord nor Landlord's representatives have made any representations or promises with respect to the Business Center, Building or the Demised Premises except as herein expressly set forth. Tenant acknowledges and agrees: (a) that Tenant has been afforded ample

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opportunity to inspect the Demised Premises and the Building, and has investigated their condition to the extent Tenant desires to do so, including their environmental condition, and (b) that Landlord has no obligation to remodel or to make any repairs, alterations or improvements to the Demised Premises or the Building or to remediate any condition therein, except as expressly provided in the Lease. The taking of possession of the Demised Premises by Tenant shall be conclusive evidence, as against Tenant, that Tenant accepts the same in its then "AS IS" condition and that the Demised Premises, the Building and the Business Center were in good and satisfactory condition at the time such possession was so taken subject to: (i) completion of items listed on a written punchlist mutually agreed upon by Landlord and Tenant, and (ii) latent defects in any portion of Landlord's Work reported to Landlord in writing within sixty (60) days after the Commencement Date. As Tenant's sole right and remedy, and as Landlord's sole obligation, with respect to such punchlist items and latent defects, Landlord shall, with reasonable diligence, cause such items to be completed or corrected at its own expense; Landlord shall have no responsibility, liability, duty to indemnify, defend or hold Tenant harmless from any damages, losses, claims, liabilities, awards or actions related, directly or indirectly, to such items. For purposes of this Paragraph 2.3 latent defects shall not include any defects which were readily apparent at the time the punchlist was delivered to Landlord. Notwithstanding the foregoing, Landlord's obligation with respect to latent defects shall not apply to equipment, materials or items specified by Tenant, but Landlord shall assign to Tenant Landlord's interest in any warranty from a subcontractor regarding such equipment or material after Tenant's written request for same. Landlord makes no representation or warranty regarding the Building security, and Landlord reserves the right to change the security system at any time and from time to time at Landlord's sole discretion.

PARAGRAPH 3. PARKING. Supplementing Section 1.3 of the Lease, during the Term Tenant shall be entitled to rent parking spaces for a maximum of seven (7) passenger cars in those portions of the garage designated by Landlord from time to time for parking on an unassigned basis. Such rental shall be on a month to month basis at the prevailing rates, as such rates may change from time to time. Such parking may be provided through self parking, assisted parking, valet service or some combination thereof in Landlord's sole and absolute discretion. The "prevailing rates" are base rates then being charged by Landlord to other tenants for similar parking rights without consideration of any discounts. Landlord's current prevailing rate for unassigned parking is Seventy-Five Dollars (\$75) per space per month, and Landlord's current prevailing rate for reserved parking ranges from One Hundred Twenty Dollars (\$120) to One Hundred Thirty Dollars (\$130) per space per month.

PARAGRAPH 4. TENANT'S INSURANCE. Notwithstanding anything in Article XIV of the Lease to the contrary, the Comprehensive General Liability insurance carried by Tenant shall have a limit of liability of not less than Three Million Dollars (\$3,000,000).

PARAGRAPH 5. INTENTIONALLY OMITTED.

PARAGRAPH 6. SIGNAGE. Tenant shall be entitled to place its name in the Building directory, in Building standard form and subject to Landlord's approval, in the main lobby of the Building at Landlord's sole cost and expense.



PARAGRAPH 7. INTENTIONALLY OMITTED.

PARAGRAPH 8. PROHIBITION OF HAZARDOUS MATERIALS. Section 2.1 of the Lease is hereby amended by adding after the first sentence and before the second sentence thereof the following provision:

"Tenant shall not use, generate, handle, manufacture, produce, store, release, discharge or dispose of, on, under, in or about the Business Center or Demised Premises, or transport to or from the Business Center or Demised Premises any hazardous materials, or allow any person claiming through or under Tenant or the employees, suppliers, shippers, customers or invitees of Tenant to do any of the foregoing, except for the ordinary use and incidental storage of small and insignificant amounts of substances packaged in containers for consumer or business office use and for regular and ordinary use in common business office machines, provided the same do not constitute, give rise to, or create any substantial risk of any occurrence, condition or event as a consequence of which pursuant to any environmental law: (i) Tenant, Landlord, or any owner, occupant or person having any interest in the Demised Premises or the Business Center shall be liable, or (ii) the Premises or the Business Center shall be subject to any legal restriction on use, ownership or transferability."

PARAGRAPH 9. LIMITATION OF WAIVER AND INDEMNITY. Article 9 of the Lease is hereby amended by adding the following as Section 9.4 of the Lease:

"Any waiver of claims against Landlord and/or indemnification of Landlord pursuant to the terms of this Lease, including, without limitation, the terms of this Article 9, shall in no event be deemed to apply to Landlord's fraud, willful injury to the person or property of another or violation of any law, whether willful or negligent, to the extent such waiver or indemnity would violate California Civil Code Section 1668."

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Paragraph 10. Americans With Disabilities Act & Waste Management Requirements. Section 6.1 of the Lease is hereby amended by adding at the end thereof the following:

"Without limiting the generality of the foregoing, Tenant shall, at Tenant's sole cost and expense, take all proper and necessary action to cause the Demised Premises to be maintained, used and occupied in compliance with the Americans With Disabilities Act of 1990, as amended from time to time. Without limiting the generality of the foregoing, Tenant further covenants and agrees to comply, at Tenant's sole cost and expense, with all laws, rules, regulations and guidelines now or hereafter made applicable to the Demised Premises by government or other public authorities respecting the disposal of waste, trash, garbage and other matter (liquid or solid), generated by Tenant, its employees, agents, contractors, invitees, licensees, guests and visitors, the disposal of which is not otherwise the express obligation of Landlord under this Lease, including, but not limited to, laws, rules, regulations and guidelines respecting recycling and other forms of reclamation (all of which are herein collectively referred to as "Waste Management Requirements"). Tenant covenants and agrees to comply, at Tenant's sole cost and expense, with all rules and regulations established by Landlord to enable Landlord from time to time to comply with Waste Management Requirements applicable to Landlord (i) as owner of the Demised Premises or Building and (ii) in performing Landlord's obligations under this Lease, if any."

Paragraph 11. Late Charge on Late Payments. Tenant acknowledges that the late payment of rent or any other sum due from Tenant will cause Landlord to incur costs not contemplated by this Lease, the exact amount of such costs being extremely difficult and impractical to fix. Such costs include, without limitation, "processing and accounting charges, late charges that may be imposed on Landlord by the terms of any encumbrance, or by the terms of any notes secured by any encumbrance, covering the Demised Premises and the cost of money used by Landlord in place of such rent or other sum. Therefore, if any installment of rent or other sum due from Tenant is not received by Landlord

within four (4) days after the date on which the same is due, Tenant shall pay to Landlord, as additional rent, without necessity or prior notice or demand, an additional sum of five percent (5%) of said installment of rent or other amount as a late charge. Such late charge shall be considered and be due, on the fifth (5th) day after the due date of the amount to which it applies. The parties agree that this late charge represents a fair and reasonable estimate of the costs that Landlord will incur by reason of late payment by Tenant. Acceptance of any late charges shall not constitute a waiver of Tenant's default with respect to the overdue amount, or prevent Landlord from exercising any of the rights and remedies available to Landlord under this Lease or under law or equity.

IN WITNESS WHEREOF, the parties hereto have executed and delivered this Addendum as of the date of the Lease.

TENANT:	LANDLORD:
P.D.F. SOLUTIONS, a California corporation	METROPOLITAN LIFE INSURANCE COMPANY, a New York corporation
By: /s/ JOHN K. KIBARIAN ----- Print Name: John K. Kibarian ----- Its: President -----	By: /s/ EDWARD J. HAYES ----- Print Name: Edward J. Hayes ----- Its: Assistant Vice President -----
By: /s/ KIMON W. MICHAELS ----- Print Name: Kimon W. Michaels ----- Its: Vice President & CFO -----	

AMENDMENT TO OFFICE LEASE

This Amendment to Office Lease ("Amendment") is entered into, and dated for reference purposes, as of February 10, 1997 by and between METROPOLITAN LIFE INSURANCE COMPANY, a New York corporation (herein referred to as "Landlord"), as Landlord, and P.D.F. SOLUTIONS, a California corporation, as Tenant (herein referred to as "Tenant"), with reference to the following facts:

RECITALS

A. Landlord and Tenant entered into that certain written lease (the "Lease"), including without limitation the Addendum thereto, dated for reference purposes as of April 1, 1996 for certain premises (the "Existing Premises") known as Suite 625 on the sixth floor of that building whose present street address is 333 West San Carlos Street in the City of San Jose, State of California in the project known as RiverPark, or referred to sometimes as the Business Center, all as more particularly described in the Lease.

B. Landlord and Tenant now desire to expand the size of the Demised Premises, provide for construction of certain alterations in connection therewith and modify and amend the Lease in certain other respects, all as more particularly provided herein.

NOW, THEREFORE, in consideration of the foregoing, and of the mutual covenants set forth herein and of other good and valuable consideration, the receipt and adequacy of which we hereby acknowledged, the parties hereto agree as follows:

Section 1. Defined Terms. All capitalized terms not otherwise defined herein have the meanings set forth in the Lease unless the context clearly requires otherwise.

Section 2. Confirmation of Term. Landlord and Tenant acknowledge and agree that notwithstanding any provision of the Lease to the contrary, the Commencement Date of the Term of this Lease was April 15, 1996 and the Expiration Date of the current Term of this Lease is April 14, 1999.

Section 3. Expansion Space A. Landlord hereby leases to Tenant and Tenant hereby hires from Landlord Expansion Space A (defined below) upon and subject to all of the terms, covenants and conditions of the Lease except as expressly provided herein. "Expansion Space A" is located on the sixth floor of the Building as shown hatched on Exhibit A to this Amendment. Landlord and Tenant hereby agree that (a) Expansion Space A is conclusively presumed to be 1,772 square feet of Rentable Area, and (b) Landlord shall deliver possession of Expansion Space A to Tenant promptly after execution of this Amendment and, upon such delivery, Expansion Space A is made a part of the Demised Premises and the Demised Premises shall conclusively be presumed to be 4,702 square feet of Rentable Area and all references to the Demised Premises shall thereafter mean the Existing Premises plus Expansion Space A, provided however, Base Annual Rent and Tenant's Share of increases over Base Taxes and Operating Costs Amount shall be due with respect to Expansion Space A starting on the Expansion Space A Commencement Date, which is the later of (i) the date of delivery of possession to Tenant or (ii) February 15, 1997.

Section 4. Condition of Existing Premises & Expansion Space A. Notwithstanding any provision of the Lease to the contrary, neither Landlord nor Landlord's agents have made any representations or promises with respect to Expansion Space A, the Existing Premises, the Building or the Business Center except as herein expressly set forth. Tenant hereby acknowledges and agrees that (a) it has been in occupancy of the Existing Premises and has inspected Expansion Space A, and (b) Expansion Space A is hereby leased and accepted as being in satisfactory condition and in the condition in which Landlord is obligated to deliver it without any obligation of Landlord to repaint, recarpet, remodel, improve or alter it or to provide Tenant any allowance therefor, except as provided in the immediately following Section.

Section 5. Remodeling; Allowance. Landlord and Tenant acknowledge and agree that notwithstanding any provisions of the Lease to the contrary: (a) Tenant may desire to do certain repainting, recarpeting, remodeling, improvement or alteration of Expansion Space A and/or the Demised Premises, in connection with the addition of Expansion Space A to the Demised Premises; (b) that any such work may be done by Tenant as Alterations within the meaning of Article 4 of the Lease and pursuant to provisions of the Lease applicable to Alterations, provided, however, so long as the aggregate cost of the Alterations is less than Landlord's Maximum Contribution (defined below) Tenant shall not be required to obtain a completion and lien indemnity bond for such work; (c) such work shall be at Tenant's sole cost and expense except to the extent of "Landlord's Maximum Contribution" which is an amount up to a maximum of Six Thousand Dollars (\$6,000.00) to reimburse Tenant for the actual costs of design and construction of such Alterations, which shall be payable within 30 days after the later of final completion of the Alterations and Landlord's receipt of full, final, unconditional lien releases, and reasonable substantiation of costs incurred by Tenant, with respect to the Alterations; and (d) Tenant shall pay Landlord (which amount Landlord may deduct and retain from such Landlord's Maximum

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Contribution) a fee for monitoring such construction and work by Tenant equal to the out of pocket construction monitoring fee payable by Landlord to the company serving as Building manager.

Section 6. Delay in Delivery of Possession. If landlord shall be unable to give possession of Expansion Space A by February 15, 1997 by reason of the following: (i) the holding over or retention of possession of any tenant, tenants or occupants, or (ii) for any other reason, then Landlord shall not be subject to any liability for the failure to give possession on said date. Under such circumstances rent with respect to Expansion Space A shall not commence until it is made available to Tenant by Landlord, and no such failure to give possession shall affect the validity of this Amendment, the Lease or the obligations of the Tenant under either. If Landlord does not deliver possession of Expansion Space A until later than February 15, 1997, then within thirty (30) days after such delivery, Landlord and Tenant shall enter into an agreement (which is attached hereto as Exhibit B) confirming such date. If Tenant fails to enter into such agreement, then the commencement date of Tenant's obligations with respect to Expansion Space A shall be the date designated by Landlord in such agreement.

Section 7. Base Annual Rent for Remaining Term Commencing Upon Expansion

Space A Commencement Date. Notwithstanding any provision of the Lease to the contrary, the amount of Monthly Installments of Base Annual Rent due and payable by Tenant for the entire Demised Premises, including Expansion Space A, accruing on and after the Expansion Space A Commencement Date ("E.S.A.C.D."), is as follows:

Period from/to -----	Monthly -----
E.S.A.C.D. - 04/14/97	\$ 9,523.30
04/15/97 - 10/14/97	\$ 9,700.50
10/15/97 - 04/14/98	\$ 9,993.50
04/15/98 - 04/15/99	\$10,170.70

Provided that Tenant is not in default under the Lease, Landlord shall give Tenant a credit of Three Thousand Eight Hundred and Nine Dollars and Eighty Cents (\$3,809.80) against the Base Annual Rent otherwise payable by Tenant for the first month after the Expansion Space A Commencement Date.

Section 8. Base Year; Tenant's Share of Taxes and Operating Costs. Notwithstanding any provision of the Lease to the contrary, for purposes of calculating Tenant's Share of Taxes and Operating Costs in excess of the Base Taxes and Operating Costs Amount accruing on and after the delivery of Expansion Space A for the entire Demised Premises, including Expansion Space A, Tenant's Share as used in Article L of Section 1 - Lease Terms is increased to a total of 1.6136% and it is conclusively agreed for purposes of the Lease that the Rentable Area of the Demised Premises is 4,702 square feet, the Usable Area of the Demised Premises is 4,124 square feet, the Rentable Area of the Building is 291,403 square feet, and such amounts have been calculated based upon an agreed and negotiated load factor of fourteen percent (14%) (that is, the Rentable Area of the Demised Premises has been calculated as 1.14 times the Usable Area of the Demised Premises) and such negotiated load factor shall not be binding as to calculation of rentable area of any space which may subsequently be added to the Demised Premises.

Section 9. Parking. Notwithstanding any provision of the Lease to the contrary, for the period from and after delivery of Expansion Space A, the maximum number of parking spaces to which Tenant is entitled is eleven (11) unassigned spaces for the Demised Premises, including Expansion Space A, and Tenant shall pay Landlord for such spaces at the prevailing rate from and after the Expansion Space A Commencement Date.

Section 10. Time of Essence. Without limiting the generality of any other provision of the Lease, time is of the essence to each and every term and condition of this Amendment.

Section 11. Brokers. Notwithstanding any other provision of the Lease to the contrary, Landlord and Tenant each warrants that it has had no dealings with any real estate broker or agent in connection with this Amendment except for the broker listed below, and it knows of no other real estate broker or agent who is entitled to a commission in connection with this Amendment. Landlord agrees to pay any commission to which the broker listed below is entitled in connection with this Amendment pursuant to Landlord's written agreement with such broker. Tenant agrees to indemnify and defend Landlord and hold Landlord harmless from any claims for brokerage commissions arising out of any discussion allegedly had by Tenant with any broker not listed below. The referenced broker is CB Commercial Real Estate Group, Inc.

Section 12. Attorney's Fees. Each party to this Amendment shall bear its own attorneys' fees and costs incurred in connection with the discussions preceding, negotiations for and documentation of this Amendment. In the event that either Landlord or Tenant fails to perform any of its obligations under this Amendment or in the event a dispute arises concerning the meaning or interpretation of any provision of this Amendment, the basis of the dispute shall be settled by judicial proceedings and the defaulting party or the party not prevailing in such dispute, as the case may be, shall pay all costs and

expenses for legal representation, including, without limitation, expert witness fees.

Section 13. Entire Agreement; Amendment. The Lease, as amended by this Amendment constitutes the full and complete agreement and understanding between the parties hereto and shall supersede all prior communications, representations, understandings or agreements, if any, whether oral or written, concerning the subject matter contained in the Lease as so amended, and no provision of the Lease as so amended may be modified, amended, waived or discharged, in whole or in part, except by a written instrument executed by all of the parties hereto.

Section 14. Effect of Headings. The titles or headings of the various Sections hereof are intended solely for convenience and are not intended and shall not be deemed to or in any way be used to modify, explain or place any construction upon any of the provisions of this Amendment.

Section 15. Authority. Each person executing this Amendment represents and warrants that he or she is duly authorized and empowered to execute it, and does so as the act of and on behalf of the party indicated below.

Section 16. Force and Effect. Except as modified by this Amendment, the terms and provisions of the Lease are hereby ratified and confirmed and shall remain in full force and effect. Should any inconsistency arise between this Amendment and the Lease as to the specific matters which are the subject of this Amendment, the terms and conditions of this Amendment shall control. This Amendment shall be construed to be a part of the Lease and shall be deemed incorporated in the Lease by this reference.

Section 17. Counterparts. This Amendment may be executed in duplicates or counterparts, or both, and such duplicates or counterparts together shall constitute but one original of the Amendment. Each duplicate and counterpart shall be equally admissible in evidence, and each original shall fully bind each party who has executed it.

IN WITNESS WHEREOF, the parties hereto have executed this Amendment as of the date first set forth above.

TENANT: P.D.F. SOLUTIONS,  
a California corporation  
  
By: /s/ JOHN KIBARIAN  
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Print Name: John Kibarian  
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Its: President  
-----  
(Print Title)

LANDLORD: METROPOLITAN LIFE INSURANCE COMPANY,  
a New York corporation  
  
By: /s/ EDWARD J. HAYES  
-----  
Print Name: Edward J. Hayes  
-----  
Its: Assistant Vice President  
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(Print Title)

EXHIBIT B

COMMENCEMENT DATE AGREEMENT

METROPOLITAN LIFE INSURANCE COMPANY, a New York corporation ("Landlord"), and P.D.F. SOLUTIONS, a California corporation ("Tenant"), have entered into a certain Amendment to Office Lease, which Amendment is dated as of February 10, 1997 (the "Amendment", and the lease, as amended, is referred to as the "Lease").

WHEREAS, Landlord and Tenant wish to confirm and memorialize the Expansion Space A Commencement Date as provided for in Section 6 of the Amendment;

NOW, THEREFORE, in consideration of the foregoing and the mutual covenants contained herein and in the Amendment, Landlord and Tenant agree as follows:

1. Unless otherwise defined herein, all capitalized terms shall have the same meaning ascribed to them in the Amendment and the Lease.

2. The Expansion Space A Commencement Date (as defined in the Amendment) is \_\_\_\_\_.

3. (intentionally omitted)

4. Tenant hereby confirms the following:

(a) that it has accepted possession of Expansion Space A pursuant to the terms of the Amendment;

(b) (intentionally omitted); and

(c) that the Lease is in full force and effect.

5. Except as expressly modified hereby, all terms and provisions of the Lease are hereby ratified and confirmed and shall remain in full force and effect and binding on the parties hereto.

6. The Lease and this Expansion Space A Commencement Date Agreement contain all of the terms, covenants, conditions and agreements between the Landlord and the Tenant relating to the subject matter herein. No prior other agreements or understandings pertaining to such matters are valid or of any force and effect.

TENANT: P.D.F. SOLUTIONS,  
a California corporation

By: /s/ John Kiborian  
-----

Print Name: John Kiborian  
-----

Its: President  
-----  
(Print Title)

LANDLORD: METROPOLITAN LIFE INSURANCE COMPANY,  
a New York corporation

By: \_\_\_\_\_

Print Name: \_\_\_\_\_

Its: \_\_\_\_\_  
(Print Title)

EXHIBIT C

COMMENCEMENT DATE AGREEMENT

METROPOLITAN LIFE INSURANCE COMPANY, a New York corporation ("Landlord"), and P.D.F. SOLUTIONS, a California corporation ("Tenant"), have entered into a certain Amendment to Office Lease, which Amendment is dated February 10, 1997 (the "Amendment", and, as amended, the "Lease").

WHEREAS, Landlord and Tenant wish to confirm and memorialize the Expansion Space A Commencement Date as provide for in Section 4 of the Amendment;

NOW, THEREFORE, in consideration of the foregoing and the mutual covenants contained herein and the Amendment, Landlord and Tenant agree as follows:

1. Unless otherwise defined herein, all capitalized terms shall have the same meaning ascribed to them in the Amendment and the Lease.

2. The Expansion Space A Commencement Date (as defined in the Amendment) is March 24, 1997.

3. (intentionally omitted)

4. Tenant hereby confirms the following:

- (a) that it has accepted possession of Expansion Space A pursuant to the terms of the Amendment;
- (b) that the Landlord Work is Substantially Complete; and
- (c) that the Lease is in full force and effect.

5. Except as expressly modified hereby, all terms and provisions of the Lease are hereby ratified and confirmed and shall remain in full force and effect and binding on the parties hereto.

6. The Lease and this Expansion Space A Commencement Date Agreement contain all of the terms, covenants, conditions and agreements between the Landlord and the Tenant relating to the subject matter herein. No prior other agreements or understandings pertaining to such matters are valid or of any force and effect.

TENANT: P.D.F. SOLUTIONS  
a California corporation

By: /s/ John K. Kiborian  
-----

Print Name: John K. Kiborian  
-----

Its: President  
-----  
(Print Title)

LANDLORD: METROPOLITAN LIFE INSURANCE COMPANY,  
a New York corporation

By: /s/ Edward J. Hares  
-----

Print Name: Edward J. Hares  
-----

Its: Assistant Vice President  
-----  
(Print Title)

SECOND AMENDMENT TO OFFICE LEASE

This Second Amendment to Office Lease ("Amendment") is entered into, and dated for reference purposes, as of July 11, 1997 by and between METROPOLITAN LIFE INSURANCE COMPANY, a New York corporation (herein referred to as "Metropolitan" or "Landlord"), as Landlord, and P.D.F. SOLUTIONS, a California corporation (herein referred to as "Tenant"), with reference to the following facts:

RECITALS

A. Landlord and Tenant entered into that certain written lease (the "Lease"), including without limitation the Addendum thereto, dated for reference purposes as of April 1, 1996 for certain premises (the "Demised Premises") known as Suite 625 on the sixth floor of that building whose present street address is 333 West San Carlos Street in the City of San Jose, State of California in the project known as RiverPark, or referred to sometimes as the Business Center, all as more particularly described in the Lease.

B. Landlord and Tenant entered into that certain written amendment (the "First Amendment"), dated for reference purposes as of February 10, 1997, which added 1,772 square feet of Rentable Area on the sixth floor of the Building, and thereby increased the size of the Demised Premises to 4,702 square feet of Rentable Area as it exists upon execution of this Amendment (the "Existing Premises").

C. Landlord and Tenant desire to provide for (i) the lease to Tenant of Expansion Space A (defined below) for the extended term specified herein; (ii) Tenant's vacation and surrender of the Existing Premises upon substantial completion of Expansion Space A; and (iii) other amendments of the Lease; all subject to all of the conditions, terms, covenants and agreements provided in this Amendment.

NOW, THEREFORE, in consideration of the foregoing, and of the mutual covenants set forth herein and of other good and valuable consideration, the receipt and adequacy of which are hereby acknowledged, the parties hereto agree as follows:

Section 1. Defined Terms. All capitalized terms not otherwise defined herein have the meanings set forth in the Lease unless the context clearly requires otherwise. Any references in this Amendment to the "Project" shall mean the Business Center.

Section 2. Lease of Expansion Space A.

(a) Definition of Expansion Space A. "Expansion Space A" means that part of the twelfth floor of the Building as shown hatched on Exhibit A to this Amendment. Landlord and Tenant hereby agree that the area of Expansion Space A in the aggregate is conclusively presumed to be 8,602 square feet of Rentable Area and 7,545 square feet of Usable Area.

(b) General Terms of Lease. Landlord hereby leases to Tenant and Tenant hereby hires from Landlord Expansion Space A upon and subject to all of the terms, covenants and conditions of the Lease except as expressly provided herein.

(c) Delivery of Possession; Commencement Date & Term. Notwithstanding any provision of the Lease to the contrary, Landlord shall deliver possession of Expansion Space A to Tenant promptly after execution of this Amendment by both parties for purposes of any design and construction desired by Tenant in Expansion Space A (the "Delivery Date"). Upon such delivery, Expansion Space A becomes a part of the Demised Premises, upon and subject to all of the terms, covenants and conditions of the Lease except as expressly provided herein. The term of the lease of Expansion Space A (the "Space A Term") shall commence (the "Space A Commencement Date" or "SACD") upon the earlier of (a) thirty (30) days after execution of this Amendment by both Tenant and Landlord or (b) Tenant's substantial completion of any construction desired by Tenant prior to Tenant's initial occupancy, and shall continue for a term of sixty (60) months thereafter. Within thirty (30) days following the occurrence of the SACD, Landlord and Tenant shall enter into an agreement (which is attached hereto as



Exhibit B) confirming such date. If Tenant fails to enter into such agreement, then the SACD shall be the date designated by Landlord in such agreement.

(d) As Is Condition; Alterations by Tenant; Allowance.

(i) Notwithstanding any provision of the Lease to the contrary, Tenant acknowledges and agrees that: (aa) Tenant has been afforded ample opportunity to inspect Expansion Space A and the Building, and has investigated their condition to the extent Tenant desires to do so; (bb) Tenant is leasing Expansion Space A in its "As Is" condition; (cc) no representation regarding the condition of Expansion Space A or the Building has been made by or on behalf of Landlord; and (dd) Landlord has no obligation to remodel or to make any repairs, alterations or improvements in connection with Tenant's initial occupancy, and Landlord has no obligation to provide Tenant any allowance for any work in connection with Expansion Space A, except to the extent provided in Subsection (d)(v) below.

(ii) Notwithstanding any provision of the Lease to the contrary, Landlord and Tenant acknowledge and agree that: (aa) Tenant may desire to do certain repainting, recarpeting, remodeling, improvement or alteration of Expansion Space A in connection with its initial occupancy; (bb) that any such work may be done by Tenant as Tenant alterations within the meaning of Article 4 of the Lease (referred to in

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this Amendment as "Tenant Alterations") and pursuant to provisions of the Lease applicable to Tenant Alterations; (cc) such work, including all design, plan review, obtaining all approvals and permits, construction and delivery to Landlord of plans and specifications (including final as-built plans and specifications of the Tenant Alterations, and if requested by Landlord, an as-built mylar and one digitized set of the plans and specifications), shall be at Tenant's sole cost and expense, except to the extent provided in Subsection (d)(v) below; and (ee) if the aggregate cost of the Tenant Alterations does not exceed Landlord's Maximum Contribution, Tenant shall not be obligated to provide a completion and lien indemnity bond for such work.

(iii) Tenant may select the general contractor to construct the Tenant Alterations in Expansion Space A from an approved list of contractors provided by Landlord.

(iv) Tenant shall be responsible for the suitability for the Tenant's needs and business of the design and function of all such Tenant Alterations and for their construction in compliance with all laws, rules, orders, ordinances, directions, regulations and requirements pertaining to Expansion Space A and Tenant's use thereof, as applicable and as interpreted at the time of construction of the Tenant Alterations, including all building codes and the Americans With Disabilities Act of 1990, as amended (the "ADA"). Tenant, through its architects and/or space planners ("Tenant's Architect"), shall prepare all architectural plans and specifications, and engineering plans and specifications, for the real property improvements to be constructed by Tenant in Expansion Space A in sufficient detail to be submitted for approval by Landlord pursuant to Article 4 of the Lease and to be submitted by Tenant for governmental approvals and building permits and to serve as the detailed construction drawings and specifications for the contractor, and shall include, among other things, all partitions, doors, HVAC (heating, ventilating and air conditioning systems) distribution, ceiling systems, light fixtures, plumbing installations, electrical installations and outlets, telephone installations and outlets, any other installations required by Tenant, fire and life-safety systems, wall finishes and floor coverings, whether to be newly installed or requiring changes from the As-Is condition of Expansion Space A as of the date of execution of this Amendment. Tenant shall be responsible for the oversight, supervision and construction of all Tenant Alterations in compliance with this Lease, including compliance with all Law as applicable and as interpreted at the time of construction.

(v) Landlord's Maximum Contribution means an amount up to a maximum of Thirty Thousand One Hundred and Eighty Dollars (\$30,180.00). Landlord's Maximum Contribution shall be used solely to reimburse Tenant for the actual costs of design, space planning and working drawings, services for electrical, mechanical, plumbing and structural engineering services, plan review, obtaining all approvals and permits, licenses, fees, construction management and construction of Tenant Alterations, which shall be payable as provided below. In

no event shall the Landlord's Maximum Contribution be used to reimburse any costs of designing, procuring or installing in the Demised Premises any trade fixtures, movable equipment, furniture, furnishings, telephone equipment, cabling for any of the foregoing, or other personal property (collectively "Personal Property" for purposes of this Amendment) to be used in the Demised Premises by Tenant, and the cost of such Personal Property shall be paid by Tenant. Landlord's Maximum Contribution shall be paid to Tenant within thirty (30) days after the later of final completion of the Tenant Work and Landlord's receipt of (i) a certificate of occupancy (if applicable), (ii) final as-built plans and specifications of the Tenant Alterations (if requested by Landlord, including an as-built mylar and one digitized set of the plans and specifications), (iii) full, final, unconditional lien releases from all contractors and subcontractors, and (iv) reasonable substantiation of costs incurred by Tenant with respect to the Tenant Alterations. Tenant must prior to May 31, 1998 submit written application with the items required above for disbursement or reimbursement for any reimbursable costs out of the Landlord's Maximum Contribution, and to the extent of any funds for which application has not been made prior to that date or if and to the extent that the reimbursable costs of the Tenant Work are less than the amount of Landlord's Maximum Contribution, then Landlord shall retain the unapplied or unused balance of the Landlord's Maximum Contribution and shall have no obligation or liability to Tenant with respect to such excess.

(e) Monthly Installments of Base Annual Rent Commencing Upon Expansion Space A Commencement Date. Notwithstanding any provision of the Lease to the contrary, in addition to rent payable for any other part of the Demised Premises not yet vacated and surrendered pursuant to other provisions of this Amendment, Monthly Installments of Base Annual Rent due and payable (in the manner required under the Lease for Monthly Installments of Base Annual Rent) by Tenant for Expansion Space A, accruing on and after the SACD and monthly thereafter for the Space A Term shall be as follows:

Period from/through -----	Monthly Installment -----	Rate/Month/sq. ft. of Rentable Area -----
SACD - Month 12	\$21,505.00	\$2.50
Month 13 - Month 60	\$26,881.25	\$3.125

(f) Base Year; Tenant's Share of Operating Expenses & of Tax Expenses. Notwithstanding any provision of the Lease to the contrary, with respect to Expansion Space A Tenant shall pay Tenant's Share of Taxes and Operating Costs in excess of the Base Taxes and Operating costs Amount accruing on and after the SACD, and for such purposes the Base Taxes & Operating Costs Amount is agreed to be the amount of Taxes and Operating Costs for calendar year 1998 and Tenant's Share is conclusively agreed to be a total of 2.9391%. For purposes of the foregoing calculation of Tenant's Share, it is conclusively agreed

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that the Rentable Area of the Building is 291,403 square feet, that such area and the Rentable Area and Usable Area of the Demised Premises have been calculated based upon an agreed and negotiated load factor of fourteen percent (14%) (that is, the Rentable Area of the Demised Premises has been calculated as 1.14 times the Usable Area of the Demised Premises) and such negotiated loan factor shall not be binding as to calculation of rentable area of any space which may subsequently be added to the Demised Premises.

(g) Parking. Notwithstanding any provision of the Lease to the contrary, on and after the SACD, Tenant shall have the right to use on an unassigned basis twenty-one (21) parking spaces and for such right shall pay Landlord, as additional Rent in the same manner as for payment of Monthly Installments of Base Annual Rent, a total per month (prorated for any partial month(s) during such period) calculated at Landlord's prevailing rate for unassigned spaces.

Section 3. Surrender of Existing Premises.

(a) Surrender Date. On or before 11:59 p.m. of the date (the "Surrender Date") which is five (5) days after Tenant's substantial completion of Expansion Space A, Tenant shall vacate and deliver to Landlord exclusive

possession of the Existing Premises pursuant to the same provisions and requirements of the Lease as would apply to surrender of the Demised Premises upon expiration of the Lease. Tenant shall deliver to Landlord any plans and specifications, maintenance records, warranties, permits, approvals and licenses pertaining to the Existing Premises or to any improvements remaining thereon, or to both (but not pertaining to Tenant's business conducted therein) in the possession of Tenant.

(b) Obligations Until Surrender; Proration. All of the terms, covenants, agreements and conditions of the Lease remain in full force and effect with respect to the Existing Premises through the Surrender Date. Tenant must continue to pay all monetary obligations, including, without limitation, Monthly Installments of Base Annual Rent, Tenant's Share of Taxes and Operating Costs and any additional rent and charges as they become due and payable under the Lease applicable to the Existing Premises through and including the Surrender Date. As of 11:59 p.m. on the Surrender Date, the surrender of the Existing Premises will be deemed effective and the monetary obligations with respect to the Existing Premises must be prorated, billed and payable in the manner provided in the Lease, in the same manner as would apply if the term of the Lease expired on the Surrender Date with respect to the Existing Premises. Notwithstanding any provision of the foregoing to the contrary, provided that on or before the Surrender Date Tenant vacates and delivers possession of the Existing Premises in the condition required by the Lease and is not in default under the Lease, Landlord agrees that the amount of Monthly Installment of Base Annual Rent and Tenant's Share of Taxes and Operating Costs paid by Tenant allocable to the Existing Premises for the period from the date of Substantial Completion of Landlord's Work in Expansion Space A through the Surrender Date will be credited toward payment of Tenant's Rent for Expansion Space A.

(c) Effect on Lease After Surrender Date. After the Surrender Date, the Lease shall continue in full force and effect for the remainder of the term of the Lease upon and subject to all of the terms and provisions of the Lease, as amended by this Amendment, including, without limitation, the following modifications of the Lease:

(i) the Existing Premises shall cease to be a part of the Demised Premises and Tenant shall have no right to possession, use or lease of the Existing Premises or any options or other rights with respect to the Existing Premises unless and except as provided in this Amendment; and

(ii) the regular Monthly Installment of Base Annual Rent and Tenant's Share of Taxes and Operating Costs allocable to the Existing Premises shall no longer accrue with respect to the Existing Premises.

(d) Holding Over. In the event that Tenant fails timely to vacate and deliver exclusive possession of the Existing Premises to Landlord by the Surrender Date as required under this Amendment and the Lease, then:

(i) Tenant shall be deemed to be holding over with respect to the Existing Premises without the express written consent of the Landlord and shall be liable to Landlord for rent at the holdover rate provided in the Lease and shall indemnify Landlord against loss or liability resulting from any delay of Tenant in not surrendering the Existing Premises on the Surrender Date, including, but not limited to, any amounts required to be paid to third parties who were to have occupied the Existing Premises and any attorneys' fees related thereto; and

(ii) such failure shall constitute an event of default and a breach of the Lease, without any grace period, notice from Landlord or period to cure.

(e) No Release. Notwithstanding any provision of the foregoing to the contrary, neither this Amendment nor the acceptance by Landlord on the Existing Premises shall in any way:

(i) be deemed to excuse or release Tenant from any obligation or liability with respect to the Existing Premises (including, without limitation, any obligation or liability under provisions of

the Lease to indemnify, defend and hold harmless Landlord or other parties, or with respect to any breach or breaches of the Lease) which obligation or liability (i) first arises on or prior to the date on which Tenant delivers to Landlord possession of the Existing Premises or (ii) arises out of or is incurred in connection with events or other matters which took place on or prior to such date, or

(ii) affect any obligation under the Lease which by its terms is to survive the expiration or sooner termination of the Lease.

Section 4. Moving Costs. Tenant acknowledges and agrees that it is responsible for, at Tenant's sole cost and expense, moving out of the Existing Premises, and any moving or reinstallation in Expansion Space A of furnishings, moveable partitions, moveable work stations, equipment, personal property and trade fixtures belonging to Tenant, and that Landlord has no responsibility for the foregoing.

Section 5. Additional Method of Delivering of Notices. Article 27 of the Lease is hereby amended to provide that an additional method of sending notices which either party desires or is required to give the other is via reputable overnight national delivery service maintaining records of receipts, delivery and attempts at delivery.

Section 6. Time of Essence. Without limiting the generality of any other provision of the Lease, time is of the essence to each and every term and condition of this Amendment.

Section 7. Brokers. Notwithstanding any other provision of the Lease to the contrary, Tenant represents and warrants to Landlord that CB Commercial is the sole broker who negotiated and brought about the consummation of this Amendment and that no discussions or negotiations were had with any other broker concerning this Amendment. Based on the foregoing representation and warranty, Landlord has agreed to pay any commission or fee owed to such broker in connection with this Amendment pursuant to Landlord's agreement between Landlord and such broker. Tenant hereby indemnifies and agrees to protect, defend and hold Landlord harmless from and against any claims of brokerage commissions arising out of any discussions or negotiations allegedly had by Tenant with any other broker in connection with the Building and the Demised Premises. The foregoing obligations of Tenant shall survive the expiration or sooner termination of the Lease.

Section 8. Attorneys' Fees. Each party to his Amendment shall bear its own attorneys' fees and costs incurred in connection with the discussions preceding, negotiations for and documentation of this Amendment. In the event any party brings any suit or other proceeding with respect to the subject matter or enforcement of this Amendment, the prevailing party (as determined by the court, agency or other authority before which such suit or proceeding is commenced) shall, in addition to such other relief as may be awarded, be entitled to recover attorneys' fees, expenses and costs of investigation as actually incurred, including court costs, expert witness fees, costs and expenses of investigation, and all attorneys' fees, costs and expenses in any such suit or proceeding (including in any action or participation in or in connection with any case or proceeding under the Bankruptcy Code, 11 United States Code Sections 101 et seq., or any successor statutes, in establishing or enforcing the right to indemnification, in appellate proceedings, or in connection with the enforcement or collection of any judgment obtained in any such suit or proceeding).

Section 9. Effect of Headings; Recitals; Exhibits. The titles or headings of the various parts or sections hereof are intended solely for convenience and are not intended and shall not be deemed to or in any way be used to modify, explain or place any construction upon any of the provisions of this Amendment. Any and all Recitals set forth at the beginning of this Amendment are true and correct and constitute a part of this Amendment as if they had been set forth as covenants herein. Exhibits, schedules, plats and riders hereto which are referred to herein are a part of this Amendment.

Section 10. Force and Effect. Except as modified by this Amendment, the terms and provisions of the Lease are hereby ratified and confirmed and shall remain in full force and effect. Should any inconsistency arise between this Amendment and the Lease as to the specific matters which are the subject of this Amendment, the terms and conditions of this Amendment shall control. This Amendment shall be construed to be a part of the Lease and shall be deemed

incorporated in the Lease by this reference.

Section 11. Entire Agreement; Amendment. The Lease as amended by this Amendment constitutes the full and complete agreement and understanding between the parties hereto and shall supersede all prior communications, representations, understandings or agreements, if any, whether oral or written, concerning the subject matter contained in the Lease as so amended, and no provision of the Lease as so amended may be modified, amended, waived or discharged, in whole or in part, except by a written instrument executed by all of the parties hereto.

Section 12. Authority. Each party represents and warrants to the other that it has full authority and power to enter into and perform its obligations under this Amendment, that the person executing this Amendment is fully empowered to do so, and that no consent or authorization is necessary from any third party. Landlord may request that Tenant provide Landlord evidence of Tenant's authority.

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Section 13. Counterparts. This Amendment may be executed in duplicates or counterparts, or both, and such duplicates or counterparts together shall constitute but one Existing of the Amendment. Each duplicate and counterpart shall be equally admissible in evidence, and each Existing shall fully bind each party who has executed it.

IN WITNESS WHEREOF, the parties hereto have executed this Amendment as of the date first set forth above.

TENANT:

PDF SOLUTIONS,  
a California corporation

By: /s/ JOHN K. KIBARIAN

-----  
Print Name: John K. Kibarian  
-----

Title: President & CEO  
-----

(Chairman of Board, President  
or Vice President)

By: /s/ KIMON W. MICHAELS

-----  
Print Name: Kimon W. Michaels  
-----

Title: Vice President & CFO  
-----

(Secretary, Assistant Secretary,  
CFO or Assistant Treasurer)

LANDLORD:

METROPOLITAN LIFE INSURANCE COMPANY,  
a New York corporation

By: /s/ EDWARD J. HAYES

-----  
Print Name: Edward J. Hayes  
-----

Title: Assistant Vice President  
-----

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EXHIBIT A

EXPANSION SPACE A

EXHIBIT B  
COMMENCEMENT DATE AGREEMENT

METROPOLITAN LIFE INSURANCE COMPANY, a New York corporation ("Landlord"), and PDF SOLUTIONS, a California corporation ("Tenant"), have entered into a certain Second Amendment to Office Lease, which Second Amendment is dated as of \_\_\_\_\_, 1998 (the "Amendment"), and the Office Lease, as amended, may be referred to as the ("Lease").

WHEREAS, Landlord and Tenant wish to confirm and memorialize the Expansion Space A Commencement Date as provided for in the Amendment.

NOW THEREFORE, in consideration of the foregoing and the mutual covenants contained herein and in the Amendment, Landlord and Tenant agree as follows:

1. Unless otherwise defined herein, all capitalized terms shall have the same meaning ascribed to them in the Amendment and the Lease.

2. The Expansion Space A Commencement Date, as defined in the Amendment, is \_\_\_\_\_.

3. The Expiration Date of the Lease, as extended by the Amendment, is \_\_\_\_\_.

4. Tenant hereby confirms the following:

- (a) that it has accepted possession of Expansion Space A pursuant to the terms of the Amendment;
- (b) (intentionally omitted);
- (c) that the Lease is in full force and effect.

5. Except as expressly modified hereby, all terms and provisions of the Lease are hereby ratified and confirmed and shall remain in full force and effect and binding on the parties hereto.

6. The Lease and this Expansion Space A Commencement Date Agreement contain all of the terms, covenants, conditions and agreements between the Landlord and the Tenant relating to the subject matter herein. No prior other agreements or understandings pertaining to such matters are valid or of any force and effect.

TENANT: PDF SOLUTIONS  
a California corporation

By: /s/ JOHN K. KIBARIAN  
-----  
Print Name: John K. Kibarian  
-----  
Title: President & CEO  
-----  
(Chairman of Board, President or Vice President)  
Date: 4/8/98  
-----

By: \_\_\_\_\_  
Print Name: \_\_\_\_\_  
Title: \_\_\_\_\_  
(Secretary, Assistant Secretary, CFO or Assistant Treasurer)  
Date: \_\_\_\_\_

LANDLORD: METROPOLITAN LIFE INSURANCE COMPANY,  
a New York corporation

By: \_\_\_\_\_  
Print Name: \_\_\_\_\_  
Title: \_\_\_\_\_  
Date: \_\_\_\_\_

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EXHIBIT B  
COMMENCEMENT DATE AGREEMENT

METROPOLITAN LIFE INSURANCE COMPANY, a New York corporation ("Landlord"), and PDF SOLUTIONS, a California corporation ("Tenant"), have entered into a certain Second Amendment to Office Lease, which Second Amendment is dated as of July 11, 1997 (the "Amendment"), and the Office Lease, as amended, may be referred to as the ("Lease").

WHEREAS, Landlord and Tenant wish to confirm and memorialize the Expansion Space A Commencement Date as provided for in the Amendment.

NOW THEREFORE, in consideration of the foregoing and the mutual covenants contained herein and in the Amendment, Landlord and Tenant agree as follows:

1. Unless otherwise defined herein, all capitalized terms shall have the same meaning ascribed to them in the Amendment and the Lease.
2. The Expansion Space A Commencement Date, as defined in the Amendment, is June 1, 1998.
3. The Expiration Date of the Lease, as extended by the Amendment, is May 31, 2003.
4. Tenant hereby confirms the following:
  - (a) that it has accepted possession of Expansion Space A pursuant to the terms of the Amendment;
  - (b) (intentionally omitted);
  - (c) that the Lease is in full force and effect.
5. Except as expressly modified hereby, all terms and provisions of the Lease are hereby ratified and confirmed and shall remain in full force and effect and binding on the parties hereto.
6. The Lease and this Expansion Space A Commencement Date Agreement contain all of the terms, covenants, conditions and agreements between the Landlord and the Tenant relating to the subject matter herein. No prior other agreements or understandings pertaining to such matters are valid or of any force and effect.

TENANT: PDF SOLUTIONS  
a California corporation

By: /s/ JOHN K. KIBARIAN  
\_\_\_\_\_  
Print Name: John K. Kibarian  
\_\_\_\_\_  
Title: President & CEO  
\_\_\_\_\_  
(Chairman of Board, President or Vice President)  
Date: 6/25/98  
\_\_\_\_\_

By: \_\_\_\_\_

Print Name: \_\_\_\_\_  
Title: \_\_\_\_\_  
(Secretary, Assistant Secretary, CFO or Assistant  
Treasurer)  
Date: \_\_\_\_\_

LANDLORD: METROPOLITAN LIFE INSURANCE COMPANY,  
a New York corporation

By: /s/ EDWARD J. HAYES  
\_\_\_\_\_  
Print Name: Edward J. Hayes  
\_\_\_\_\_  
Title: Assistant Vice President  
\_\_\_\_\_  
Date: 8/24/98  
\_\_\_\_\_

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THIRD AMENDMENT TO OFFICE LEASE

This Third Amendment to Office Lease ("Amendment") is entered into, and dated for reference purposes, as of August 17, 1999 by and between METROPOLITAN LIFE INSURANCE COMPANY, a New York corporation (herein referred to as "Metropolitan" or "Landlord"), as Landlord, and PDF SOLUTIONS, a California corporation (herein referred to as "Tenant"), with reference to the following facts:

RECITALS

A. Landlord and Tenant entered into that certain written lease (the "Original Lease"), including without limitation the Addendum thereto, dated for reference purposes as of April 1, 1996 for certain premises (the "Original Demised Premises") known as Suite 625 on the sixth floor of that building whose present street address is 333 West San Carlos Street in the City of San Jose, State of California in the project known as RiverPark, or referred to sometimes as the Business Center, all as more particularly described in the Lease.

B. Landlord and Tenant entered into that certain written amendment (the "First Amendment"), dated for reference purposes as of February 10, 1997, which added 1,772 square feet of Rentable Area on the sixth floor of the Building, and thereby increased the size of the Original Demised Premises to 4,702 square feet of Rentable Area as it exists upon execution of this Amendment (collectively, the "Former Premises").

C. Landlord and Tenant entered into that certain written amendment (the "Second Amendment") dated for reference purposes as of July 11, 1997, which among other things provided for Tenant's vacation and surrender of the Former Premises, and added Expansion Space A, which is 8,602 square feet of Rentable Area on the twelfth floor of the Building, to the leased Premises. The Original Lease as amended by the First Amendment and Second Amendment shall be known herein as the "Lease".

D. Landlord and Tenant desire to provide for (i) the lease to Tenant of Expansion Space B (defined below) for the extended term specified herein; (ii) Tenant's requirement to vacate and surrender Expansion Space A, but only upon certain conditions relating to the Arthur Andersen Amendment (as hereinafter defined); and (iii) other amendments of the Lease; all subject to all of the conditions, terms, covenants and agreements provided in this Amendment.

NOW, THEREFORE, in consideration of the foregoing, and of the mutual covenants set forth herein and of other good and valuable consideration, the receipt and adequacy of which are hereby acknowledged, the parties hereto agree as follows:

Section 1. Defined Terms. All capitalized terms not otherwise defined herein have the meanings set forth in the Lease unless the context clearly requires otherwise. Any references in this Amendment to the "Project" shall



mean the Business Center.

Section 2. Lease of Expansion Space B.

(a) Definition of Expansion Space B. "Expansion Space B" means the seventh floor of the Building as shown hatched on Exhibit A to this Amendment. Landlord and Tenant hereby agree that the area of Expansion Space B in the aggregate is conclusively presumed to be 19,548 square feet of Rentable Area and 17,607 square feet of Usable Area.

(b) General Terms of Lease. Landlord hereby leases to Tenant and Tenant hereby hires from Landlord Expansion Space B upon and subject to all of the terms, covenants and conditions of the Lease except as expressly provided herein.

(c) Delivery of Possession; Commencement Date & Term. Tenant acknowledges that as of Expansion Space B is presently leased and occupied by Adobe Systems Inc. Notwithstanding any provision of the Lease to the contrary, Landlord shall deliver possession of Expansion Space B to Tenant within five (5) days after the Expansion Space B is vacated and surrendered by Adobe Systems, Inc. for purposes of any design and construction desired by Tenant in Expansion Space B (the "Delivery Date"). Upon such delivery, Expansion Space B becomes a part of the Demised Premises, upon and subject to all of the terms, covenants and conditions of the Lease except as expressly provided herein. The term of the lease of Expansion Space B (the "Space B Term") shall commence (the "Space B Commencement Date" or "SBCD") upon the later of (a) sixty (60) days after the Delivery Date or (b) November 1, 1999, and shall continue for a term of sixty (60) months thereafter. If Landlord does not obtain and tender possession of Expansion Space B by reason of the following: (i) the holding over or retention of possession of any tenant, tenants, or occupants, or (ii) for any other reason, then Landlord shall not be subject to any liability for the failure to give possession on said date, provided that if possession of Expansion Space B is not delivered to Tenant by September 15, 1999, this Amendment shall terminate, at Tenant's option, by written notice to Landlord no later than September 21, 1999, except for those provisions which expressly survive such termination. Except as provided in the immediately preceding sentence, no such failure to give possession shall affect the validity of the Lease, as amended, or the obligations of the Tenant hereunder. Within thirty (30) days following the occurrence of the SBCD, Landlord and Tenant shall enter into an agreement (which is attached hereto as Exhibit B) confirming such date. If Tenant fails to enter into such agreement, then the SBCD shall be the date designated by Landlord in such agreement.

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(d) As Is Condition; Alterations by Tenant; Allowance.

(i) Notwithstanding any provision of the Lease to the contrary, Tenant acknowledges and agrees that: (aa) Tenant has been afforded ample opportunity to inspect Expansion Space B and the Building, and has investigated their condition to the extent Tenant desires to do so; (bb) Tenant is leasing Expansion Space B in its "As Is" condition; (cc) no representation regarding the condition of Expansion Space B or the Building has been made by or on behalf of Landlord; and (dd) Landlord has no obligation to remodel or to make any repairs, alterations or improvements in connection with Tenant's initial occupancy, and Landlord has no obligation to provide Tenant any allowance for any work in connection with Expansion Space B, except to the extent provided in Subsection (d)(v) below.

(ii) Notwithstanding any provision of the Lease to the contrary, Landlord and Tenant acknowledge and agree that: (aa) Tenant may desire to do certain repainting, recarpeting, remodeling, improvement or alteration of Expansion Space B in connection with its initial occupancy; (bb) that any such work may be done by Tenant as Tenant alterations within the meaning of Article 4 of the Lease (referred to in this Amendment as "Tenant Alterations") and pursuant to provisions of the Lease applicable to Tenant Alterations; (cc) such work, including all design, plan review, obtaining all approvals and permits, construction and delivery to Landlord of plans and specifications (including final as-built plans and specifications of the Tenant Alterations, and if requested by Landlord, an as-built mylar and one digitized set of the plans and specifications), shall be at Tenant's sole cost and expense, except to the extent provided in Subsection (d)(v) below; and (dd) if the aggregate cost of the Tenant Alterations does not exceed Landlord's Maximum Contribution, Tenant shall not be obligated to provide a completion and lien indemnity bond for such

work.

(iii) Tenant may select the general contractor to construct the Tenant Alterations in Expansion Space B from an approved list of contractors provided by Landlord.

(iv) Tenant shall be responsible for the suitability for the Tenant's needs and business of the design and function of all such Tenant Alterations and for their construction in compliance with all laws, rules, orders, ordinances, directions, regulations and requirements pertaining to Expansion Space B and Tenant's use thereof, as applicable and as interpreted at the time of construction of the Tenant Alterations, including all building codes and the Americans With Disabilities Act of 1990, as amended (the "ADA"). Tenant, through its architects and/or space planners ("Tenant's Architect"), shall prepare all architectural plans and specifications, and engineering plans and specifications, for the real property improvements to be constructed by Tenant in Expansion Space B in sufficient detail to be submitted for approval by Landlord pursuant to Article 4 of the Lease and to be submitted by Tenant for governmental approvals and building permits and to serve as the detailed construction drawings and specifications for the contractor, and shall include, among other things, all partitions, doors, HVAC (heating, ventilating and air conditioning systems) distribution, ceiling systems, light fixtures, plumbing installations, electrical installations and outlets, telephone installations and outlets, any other installations required by Tenant, fire and life-safety systems, wall finishes and floor coverings, whether to be newly installed or requiring changes from the As-Is condition of Expansion Space B as of the date of execution of this Amendment. Tenant shall be responsible for the oversight, supervision and construction of all Tenant Alterations in compliance with this Lease, including compliance with all Law as applicable and as interpreted at the time of construction.

(v) Landlord's Maximum Contribution means an amount up to a maximum of One Hundred Twenty-three Thousand Two Hundred Forty-nine Dollars (\$123,249.00). Landlord's Maximum Contribution shall be used solely to reimburse Tenant for the actual costs of design, space planning and working drawings, services for electrical, mechanical, plumbing and structural engineering services, plan review, obtaining all approvals and permits, licenses, fees, construction management and construction of Tenant Alterations, which shall be payable as provided below. In no event shall the Landlord's Maximum Contribution be used to reimburse any costs of designing, procuring or installing in the Demised Premises any trade fixtures, movable equipment, furniture, furnishings, telephone equipment, or other personal property (collectively "Personal Property" for purposes of this Amendment) to be used in the Demised Premises by Tenant, except that Landlord's Maximum Contribution may be used to reimburse Tenant's cost of after-hours HVAC charges, and data and voice cabling, and the cost of such Personal Property shall be paid by Tenant. Landlord's Maximum Contribution shall be paid to Tenant within thirty (30) days after the later of final completion of the Tenant Work and Landlord's receipt of (i) a certificate of occupancy (if applicable), (ii) final as-built plans and specifications of the Tenant Alterations (if requested by Landlord, including an as-built mylar and one digitized set of the plans and specifications), (iii) full, final, unconditional lien releases from all contractors and subcontractors, and (iv) reasonable substantiation of costs incurred by Tenant with respect to the Tenant Alterations. Except for reimbursement of Tenant costs of after-hours HVAC charges, Tenant must prior to March 31, 2000 submit written application with the items required above for disbursement or reimbursement for any reimbursable costs out of the Landlord's Maximum Contribution, and to the extent of any funds for which application has not been made prior to that date or if and to the extent that the reimbursable costs of the Tenant Work are less than the amount of Landlord's Maximum Contribution, then Landlord shall retain the unapplied or unused balance of the Landlord's Maximum Contribution and shall have no obligation or liability to Tenant with respect to such excess.

(e) Monthly Installments of Base Annual Rent Commencing Upon Expansion Space B Commencement Date. Notwithstanding any provision of the Lease to the contrary, in addition to rent payable for any other part of Expansion Space A not yet vacated and surrendered pursuant to other provisions of this Amendment, Monthly Installments of Base Annual Rent due and payable (in the manner required under the Lease for Monthly Installments of Base Annual Rent) by Tenant for Expansion Space B, accruing on and after the SBCD and monthly thereafter for the Space B Term shall be as follows:

Period from/through -----	Monthly Installment -----	Rate/Months/sq. ft. of Rentable Area -----
SBCD - Month 12	\$57,666.60	\$2.95
Month 13 - Month 24	\$59,621.40	\$3.05
Month 25 - Month 36	\$61,576.20	\$3.15
Month 37 - Month 48	\$63,531.00	\$3.25
Month 49 - Month 60	\$65,485.80	\$3.35

(f) Base Year; Tenant's Shares of Operating Expenses and Tax Expenses. Notwithstanding any provision of the Lease to the contrary, with respect to Expansion Space B, commencing January 1, 2001, Tenant shall pay Tenant's Shares of Taxes and Operating Costs in excess of the Base Taxes and Operating Costs Amount for calendar year 2000 and Tenant's Share is conclusively agreed to be 6.6370%. For purposes of the foregoing calculation of Tenant's Share, it is conclusively agreed that the Rentable Area of the Building is 294,532 square feet.

(g) Parking. Notwithstanding any provision of the Lease to the contrary, on and after the SBCD, Tenant shall have the right to use on an unassigned basis forty-seven (47) parking spaces and for such right shall pay Landlord, as additional Rent in the same manner as for payment of Monthly Installments of Base Annual Rent, a total per month (prorated for any partial month(s) during such period) calculated at Landlord's prevailing rate for unassigned spaces; provided that Landlord's prevailing rate charged to Tenant shall not be increased at a rate greater than 3.25% per year following the SBCD.

Section 3. Surrender of Existing Premises upon Request of Landlord relating to Arthur Andersen Amendment.

(a) Surrender Date. Tenant acknowledges that Landlord is presently considering negotiating a lease amendment with Arthur Andersen LLP, which amendment would include as a portion of the premises, Expansion Space A ("Arthur Andersen Amendment"). Landlord presently has no obligation or requirement to enter into the Arthur Andersen Amendment. In the event that Landlord enters into the Arthur Andersen Amendment, and Landlord gives notice to Tenant indicating that Tenant is to surrender to Landlord Expansion Space A, then no later than the later of (i) five (5) business days following Landlord's written notice to Tenant with respect to such surrender or (ii) five (5) days after the SBCD, (the "Surrender Date"), Tenant shall vacate and deliver to Landlord exclusive possession of the Expansion Space A pursuant to the same provisions and requirements of the Lease as would apply to surrender of the Demised Premises upon expiration of the Lease. Tenant shall deliver to Landlord any plans and specifications, maintenance records, warranties, permits, approvals and licenses pertaining to the Expansion Space A or to any improvements remaining thereon, or to both (but no pertaining to Tenant's business conducted therein) in the possession of Tenant. In the event that Landlord chooses, in its sole discretion, to not give to Tenant such notice of surrender, Tenant shall continue to lease Expansion Space A pursuant to the terms of the Lease as modified by this Amendment.

(b) Obligations Until Surrender; Proration. All of the terms, covenants, agreements and conditions of the Lease remain in full force and effect with respect to the Expansion Space A through the Surrender Date. Tenant must continue to pay all monetary obligations, including, without limitation, Monthly Installments of Base Annual Rent, Tenant's Share of Taxes and Operating Costs and any additional rent and charges as they become due and payable under the Lease applicable to the Expansion Space A through and including the Surrender Date. As of 11:59 p.m. on the Surrender Date, the surrender of the Expansion Space A will be deemed effective and the monetary obligations with respect to the Expansion Space A must be prorated, billed and payable in the manner provided in the Lease, in the same manner as would apply if the term of the Lease expired on the Surrender Date with respect to the Expansion Space A.

(c) Effect on Lease After Surrender Date. After the Surrender Date, the Lease shall continue in full force and effect for the remainder of the term of the Lease and subject to all of the terms and provisions of the Lease, as amended by this Amendment, including, without limitation, the following modifications of the Lease:

(i) the Expansion Space A shall cease to be a part of the Demised Premises and Tenant shall have no right to possession, use or lease of the Expansion Space A or any options or other rights with respect to the Expansion Space A unless and except as provided in this Amendment; and

(ii) the regular Monthly Installment of Base Annual Rent and Tenant's Shares of Taxes and Operating Costs allocable to the Expansion Space A shall no longer accrue with respect to the Expansion Space A.

(d) Holding Over. In the event that Tenant fails timely to vacate and deliver exclusive possession of the Expansion Space A to Landlord by the Surrender Date as required under this Amendment and the Lease, then:

(i) Tenant shall be deemed to be holding over with respect to the Expansion Space A without the express written consent of the Landlord and shall be liable to Landlord for rent at the holdover rate provided in the Lease and shall indemnify Landlord against loss or liability resulting from any delay of Tenant in not surrendering the Expansion Space A on the Surrender Date, including, but not limited to, any amounts required to be paid to third parties

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who were to have occupied the Expansion Space A and any attorneys' fees related thereto; and

(ii) such failure shall constitute an event of default and a breach of the Lease, without any grace period, notice from Landlord or period to cure.

(e) No Release. Notwithstanding any provision of the foregoing to the contrary, neither this Amendment nor the acceptance by Landlord of the Expansion Space A shall in any way:

(i) be deemed to excuse or release Tenant from any obligation or liability with respect to the Expansion Space A (including, without limitation, any obligation or liability under provisions of the Lease to indemnify, defend and hold harmless Landlord or other parties, or with respect to any breach or breaches of the Lease) which obligation or liability (i) first arises on or prior to the date on which Tenant delivers to Landlord possession of the Expansion Space A or (ii) arises out of or is incurred in connection with events or other matters which took place on or prior to such date, or

(ii) affect any obligation under the Lease which may by its terms is to survive the expiration or sooner termination of the Lease.

Section 4. Moving Costs. Tenant acknowledges and agrees that it is responsible for, at Tenant's sole cost and expense, moving out of the Expansion Space A, and any moving or reinstallation in Expansion Space B of furnishings, moveable partitions, moveable work stations, equipment, personal property and trade fixtures belonging to Tenant, and that Landlord has no responsibility for the foregoing.

Section 5. Security Deposit Increase. Contemporaneous with the execution of this Amendment, Tenant shall pay to Landlord the additional amount of Fifty One Thousand Nine Hundred Fifty Three Dollars and Ten Cents (\$51,953.10), thereby increasing the total Security Deposit to Fifty Seven Thousand Six Hundred Sixty Six Dollars and Sixty Cents (\$57,666.60).

Section 6. Assignment, Mortgage, Subletting.

(a) Subsection 3.1(5) of Section 3.1 of the Original Lease is hereby deleted.

(b) Subsection 3.2 of the Original Lease is deleted in its entirety, and the following substituted therefor:

"Tenant shall pay Landlord on the first day of each month during the term of the sublease or assignment fifty percent (50%) of the amount

by which the sum of all rent and other consideration (direct or indirect) due from the subtenant or assignee for such month exceeds: (i) that portion of the Monthly Installments of Base Annual Rent and rental adjustments due under this Lease for said month which is allocable to the space sublet or assigned; and (ii) the following costs and expenses for the subletting or assignment of such space: (1) brokerage commissions and attorneys' fees and expenses, and (2) the actual costs paid in making any improvements or substitutions in the Demised Premises required by any sublease or assignment pursuant to sound accounting principles. Vacancy period costs and expenses, including rent paid by Tenant during any vacancy, do not qualify as costs or expenses under item (ii) above."

Section 7. Option to Extend.

(i) Landlord hereby grants Tenant a single option to extend the Term of the Lease for an additional period of five (5) years (such period may be referred to as the "Option Term"), as to the entire Demised Premises as it may then exist, upon and subject to the terms and conditions of this Section (the "Option To Extend"), and provided that at the time of exercise of such right: (i) Tenant must be in occupancy of the entire Demised Premises; and (ii) Tenant has a net worth sufficient to allow it to timely honor all of its financial obligations thereunder at the time of the exercise.

(ii) Tenant's election (the "Election Notice") to exercise the Option To Extend must be given to Landlord in writing no earlier than the forty-eight (48th) calendar month following the SBCD, and no later than the last day of the fifty-first (51st) calendar month following the SBCD. If Tenant either fails or elects not to exercise its Option to Extend by not timely giving its Election Notice, then the Option to Extend shall be null and void.

(iii) The Option Term shall commence immediately after the expiration of the term of the Lease specified in Section 2 (c) of this Amendment. Tenant's leasing of the Demised Premises during the Option Term shall be upon and subject to the same terms and conditions contained in the Lease except that (i) the Base Annual Rent and, if applicable, the Base Taxes and Operating Costs Amount shall be amended to equal the "Option Term Rent", defined and determined in the manner set forth in the immediately following Subsection; (ii) Tenant shall accept the Demised Premises in its "as is" condition without any obligation of Landlord to repaint, remodel, repair, improve or alter the Demised Premises or to provide Tenant any allowance therefor; and (iii) there shall be no further option or right to extend the term of the Lease. If Tenant timely and properly exercises the Option To Extend, references in the Lease to the Term shall be deemed to mean the initial Term as extended by the Option Term unless the context clearly requires otherwise.

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(iv) The Option Term Rent shall mean the greater of (i) the Annual Base Rent plus Tenant's then current Tenant's Share of Taxes and Operating Costs in excess of the Base Taxes and Operating Costs Amounts for calendar year 2000 (collectively, "Preceding Rent") or (ii) the "Prevailing Market Rent". As used herein Prevailing Market Rent shall mean the rent and all other monetary payments paid by tenants in connection with the use and occupancy of their premises that are then "market" (such as, for example, charges for after hours HVAC) and escalations, including consumer price increases, that Landlord could obtain from a third party desiring to lease the Demised Premises for a term equal to the Option Term, as second generation space, and commencing when the Option Term is to commence under market leasing conditions; provided however Prevailing Market Rent shall take into account the following: the size, location and floor levels of the Demised Premises; the type and quality of tenant improvements; age and location of the Building; quality of construction of the Building; services to be provided by Landlord or by tenant; and other factors that would be relevant to such a third party in determining what such party would be willing to pay therefor, all based upon comparable class A office buildings in San Jose; provided, however, that Prevailing Market Rent shall be determined without reduction or adjustment for "Tenant Concessions" (as defined below), if any, being offered to prospective new tenants of comparable space. For purposes of the preceding sentence, the term "Tenant Concessions" shall include, without limitation, "free rent", tenant improvement allowances and work, moving allowances, and lease takeovers. The determination of Prevailing Market Rent based upon the foregoing

criteria shall be made by Landlord, in the good faith exercise of Landlord's business judgment. Within thirty (30) days after Tenant's exercise of the Option To Extend, Landlord shall notify Tenant of Landlord's determination of Option Term Rent for the Demised Premises. If, within five (5) days after Landlord notifies Tenant of Landlord's determination of Option Term Rent, Tenant does not accept Landlord's determination, Tenant shall so notify Landlord of Tenant's non-acceptance. Tenant shall then have the opportunity, within a period of twenty (20) days following the date Tenant notifies Landlord of Tenant's non-acceptance, to discuss with and request from Landlord a redetermination of Option Term Rent, with Tenant's acceptance, if any, of a redetermined Option Term Rent to be confirmed in writing during such twenty (20) day period. If Landlord does not offer a redetermined Option Term Rent, or Landlord and Tenant cannot agree upon an Option Term Rent for any reason or no reason whatsoever, then Tenant may notify Landlord no later than the expiration of the twenty (20) day period, that Tenant is rescinding Tenant's exercise of the Option to Extend. Upon such rescission, the Option to Extend shall become null and void. If Tenant does not notify Landlord of its rescission of the exercise of the Option to Extend within such twenty (20) day period, then Tenant shall be deemed to have exercised the Option to Extend at the Option Term Rent originally determined by Landlord, or the agreed-upon redetermined Option Term Rent, as applicable.

(v) This Option to Extend is personal to Pdf Solutions, Inc. and may not be used by, and shall not be transferable or assignable (voluntarily or involuntarily) to any person or entity.

(vi) Upon the occurrence of any of the following events, Landlord shall have the option, exercisable at any time prior to commencement of the Option Term, to terminate all of the provisions of this Section with respect to the Option to Extend, with the effect of canceling and voiding any prior or subsequent exercise so this Option to Extend is of no force or effect:

a. Tenant's failure to timely exercise the Option to Extend in accordance with the provisions of this Section.

b. The existence at the time Tenant exercises the Option to Extend or at the commencement of the Option Term of any default on the part of Tenant under the Lease or of any state of facts which with the passage of time or the giving of notice, or both, would constitute such a default.

c. Tenant's third monetary default under the Lease prior to the commencement of the Option Term, notwithstanding that all such monetary defaults may subsequently be cured.

In the event of Landlord's termination of the Option to Extend pursuant to Section 7 (vi) b. or c., Tenant shall reimburse Landlord for all reasonable costs and expenses Landlord incurs in connection with Tenant's exercise of the Option to Extend including, without limitation, costs and expenses with respect to any brokerage commissions and attorneys' fees, and with respect to the design, construction or making of any tenant improvements, repairs or renovation or with respect to any payment of all or part of any allowance for any of the foregoing.

(vii) Without limiting the generality of any provision of the Lease, time shall be of the essence with respect to all of the provisions of this Section.

Section 8. Time of Essence. Without limiting the generality of any other provision of the Lease, time is of the essence to each and every term and condition of this Amendment.

Section 9. Brokers. Notwithstanding any other provision of the Lease to the contrary, Tenant represents and warrants to Landlord that CB Commercial is the sole broker who negotiated and brought about the consummation of this Amendment and that no discussions or negotiations were had with any other broker concerning this Amendment. Based on the foregoing representation and warranty, Landlord has agreed to pay any commission or fee owed to such broker in connection with this Amendment pursuant to Landlord's agreement between Landlord and such broker. Tenant hereby indemnifies and agrees to protect,

defend and hold Landlord harmless from and against any claims of brokerage commissions arising out of any discussions or negotiations allegedly had by Tenant with any other broker in connection with the Building and the Demised Premises, including Expansion Space B. The foregoing obligations of Tenant shall survive the expiration or sooner termination of the Lease.

Section 10. Attorneys' Fees. Each party to this Amendment shall bear its own attorneys' fees and costs incurred in connection with the discussions preceding, negotiations for and documentation of this Amendment. In the event any party brings any suit or other proceeding with respect to the subject matter or enforcement of this Amendment, the prevailing party (as determined by the court, agency or other authority before which such suit or proceeding is commenced) shall, in addition to such other relief as may be awarded, be entitled to recover attorneys' fees, expenses and costs of investigation as actually incurred, including court costs, expert witness fees, costs and expenses of investigation, and all attorneys' fees, costs and expenses in any such suit or proceeding (including in any action or participation in or in connection with any case or proceeding under the Bankruptcy Code, 11 United States Code Sections 101 et seq., or any successor statutes, in establishing or enforcing the right to indemnification, in appellate proceedings, or in connection with the enforcement or collection of any judgment obtained in any such suit or proceeding).

Section 11. Effect of Headings; Recitals; Exhibits. The titles of headings of the various parts or sections hereof are intended solely for convenience and are not intended and shall not be deemed to or in any way be used to modify, explain or place any construction upon any of the provisions of this Amendment. Any and all Recitals set forth at the beginning of this Amendment are true and correct and constitute a part of this Amendment as if they had been set forth as covenants herein. Exhibits, schedules, plats and riders hereto which are referred to herein are a part of this Amendment.

Section 12. Force and Effect. Except as modified by this Amendment, the terms and provisions of the Lease are hereby ratified and confirmed and shall remain in full force and effect. Should any inconsistency arise between this Amendment and the Lease as to the specific matters which are the subject of this Amendment, the terms and conditions of this Amendment shall control. This Amendment shall be construed to be a part of the Lease and shall be deemed incorporated in the Lease by this reference.

Section 13. Entire Agreement; Amendment. The Lease as amended by this Amendment constitutes the full and complete agreement and understanding between the parties hereto and shall supersede all prior communications, representations, understandings or agreements, if any, whether oral or written, concerning the subject matter contained in the Lease as so amended, and no provision of the Lease as so amended may be modified, amended, waived or discharged, in whole or in part, except by a written instrument executed by all of the parties hereto.

Section 14. Authority. Each party represents and warrants to the other that it has full authority and power to enter into and perform its obligations under this Agreement, that the person executing this Amendment is fully empowered to do so, and that no consent or authorization is necessary from any third party. Landlord may request that Tenant provide Landlord evidence of Tenant's authority.

Section 15. Counterparts. This Amendment may be executed in duplicates or counterparts, or both, and such duplicates or counterparts together shall constitute but one original of the Amendment. Each duplicate and counterpart shall be equally admissible in evidence, and each original shall fully bind each party who has executed it.

IN WITNESS WHEREOF, the parties hereto have executed this Amendment as of the date first set forth above.

TENANT: PDF SOLUTIONS,  
a California corporation

By: /s/ THOMAS F. COBURN

-----  
Print Name: Thomas F. Cobourn  
-----

Title: VP

-----  
(Chairman of Board, President or  
Vice President)

By: /s/ PS MELMAN

-----  
Print Name: PS Melman

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Title: CFO

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Secretary, Assistant Secretary,  
CFO or Assistant Treasurer)

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LANDLORD:

METROPOLITAN LIFE INSURANCE COMPANY,  
a New York corporation

By: /s/ EDWARD J. HAYES

-----  
Print Name: Edward J. Hayes

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Title: Assistant Vice President

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EXHIBIT A  
EXPANSION SPACE B

[FLOORPLAN]

Exhibit A -- Page 1

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EXHIBIT B  
COMMENCEMENT DATE AGREEMENT

METROPOLITAN LIFE INSURANCE COMPANY, a New York corporation ("Landlord"), and  
PDF SOLUTIONS, a California corporation ("Tenant"), have entered into a certain  
Third Amendment to Office Lease, which Third Amendment is dated as of August \_\_,  
1998 (the "Amendment"), and the Office Lease, as amended, may be referred to as  
the ("Lease").

WHEREAS, Landlord and Tenant wish to confirm and memorialize the Expansion  
Space B Commencement Date as provided for in the Amendment.

NOW THEREFORE, in consideration of the foregoing and the mutual covenants  
contained herein and in the Amendment, Landlord and Tenant agree as follows:

1. Unless otherwise defined herein, all capitalized terms shall have the  
same meaning ascribed to them in the Amendment and the Lease.

2. The Expansion Space B Commencement Date, as defined in the Amendment,  
is 11/1/99.

3. The Expiration Date of the Lease, as extended by the Amendment, is  
October 31, 2004.

4. Tenant hereby confirms the following:

(a) that it has accepted possession of Expansion Space B pursuant to  
the terms of the Amendment;



(b) (intentionally omitted);

(c) that the Lease is in full force and effect.

5. Except as expressly modified hereby, all terms and provisions of the Lease are hereby ratified and confirmed and shall remain in full force and effect and binding on the parties hereto.

6. The Lease and this Expansion Space B Commencement Date Agreement contain all of the terms, covenants, conditions and agreements between the Landlord and the Tenant relating to the subject matter herein. No prior other agreements or understandings pertaining to such matters are valid or of any force and effect.

TENANT: PDF SOLUTIONS  
a California corporation

By: /s/ P.S. MELMAN  
-----  
Print Name: P.S. Melman  
-----  
Title: CFO  
-----  
(Chairman of Board, President or Vice President)  
Date: 11/17/99  
-----

By: -----  
Print Name: -----  
-----  
Title: -----  
-----  
(Secretary, Assistant Secretary, CFO or Assistant  
Treasurer)  
Date: -----  
-----

LANDLORD: METROPOLITAN LIFE INSURANCE COMPANY,  
a New York corporation

By: -----  
Print Name: -----  
-----  
Title: -----  
-----  
Date: -----  
-----

## CREDIT AGREEMENT

This Credit Agreement ("Agreement") is made and entered into on July 6, 1999, by and between PDF Solutions, Inc., a California corporation, ("Borrower") and Imperial Bank, a California banking corporation, ("Bank").

Subject to the terms and conditions of this Agreement, any security agreement(s) executed by Borrower in favor of Bank, any note(s) executed by Borrower in favor of Bank, or any other agreements executed in conjunction therewith (collectively, the "Loan Documents"), Bank shall make the loans and or advances (individually a "Loan" and collectively "Loans") referred to below to Borrower.

In consideration of the mutual covenants and conditions hereof, the parties hereto agree as follows:

## 1. AMOUNT AND TERMS OF CREDIT

## 1.01 TERM LOAN COMMITMENT.

(a) COMMITMENT. Subject to all the terms and conditions of this Agreement, Bank hereby agrees to make loans (each a "Term Loan") to Borrower in such amounts as Borrower shall request provided that no Event of Default (as hereafter defined) then has occurred and is continuing at any time from the date hereof through June 30, 2000 (the "Term Availability End Date"), in an aggregate principal amount not to exceed \$500,000 (the "Term Commitment"). Any commitment of Bank, pursuant to the terms of this Agreement, to make Term Loans shall expire on the Term Availability End Date. Term Loans which are repaid by Borrower may not be reborrowed. Borrower promises to pay to Bank the outstanding unpaid principal balance (and all accrued unpaid interest thereon) of the Term Loans in accordance with Section 1.01 (d) hereof.

(b) TERM LOANS. The Term Loans made by Bank to Borrower hereunder shall be evidenced by a single promissory note ( a "Term Note"). When Borrower desires to obtain a Term Loan, Borrower shall notify Bank (which notice shall be signed by an officer of Borrower and shall be irrevocable) to be received no later than 3:00 p.m. Pacific time one (1) Banking Day before the day on which the Term Loan is to be made. The notice shall be signed by an officer of Borrower and include a copy of the invoice for the item to be financed. Term Loans may only be used to purchase equipment, furniture and software (EFS Purchases"). Term Loans made through December 31, 1999, shall be for EFS Purchases made from November 1, 1998, through May 31, 1999, and will be limited to eighty percent (80%) of the invoice amount for such purchases approved from time to time by Bank, less any taxes, shipping and freight charges or discounts, warranty charges, installation expenses and other soft costs. Term Loans made through December 31, 1999, which shall also be for EFS Purchases made after May 31, 1999, will be limited to one hundred percent (100%) of the invoice amount for such EFS Purchases approved from time to time by Bank, less any taxes, shipping and freight charges or discounts, warranty charges, installation expenses and other soft costs. Term Loans made after December 31, 1999, and through June 30, 2000, which shall only be for EFS Purchases made after May 31, 1999, will be limited to one hundred percent (100%) of the invoice amount for such EFS Purchases approved from time to time by Bank, less any taxes, shipping and freight charges or discounts, warranty charges, installation expenses and other soft costs.

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(c) INTEREST PAYMENTS AND RATE. Borrower further promises to pay to Bank from the date of the advance of the initial Term Loan through the Term Loan Maturity Date, on or before the last day of each month, interest on the average daily unpaid balance of each Term Loan during the immediately preceding month at a rate of interest equal to one percent (1.00%) per annum in excess of the Prime Rate as specified below.

(d) PRINCIPAL REPAYMENT. For Term Loans made through December 31, 1999, Borrower further promises to pay to Bank, on or before the last day of each month commencing January 1, 2000, and continuing through December 31, 2002, the outstanding principal balance of each such Term Loan on December 31, 1999, in thirty six (36) equal monthly installments of principal plus interest on the average daily unpaid balance of each Term at the rate of interest and computed in accordance with the immediate preceding Section of this Agreement. For Term Loans made through from January 1, 2000, through June 30, 2000, Borrower further promises to pay to Bank, on or before the last day of each month commencing July 1, 2000, and continuing through December 31, 2002, the outstanding principal balance of each such Term Loan on June 30, 2000, in thirty (30) equal monthly installments of principal plus interest on the average daily unpaid balance of each Term Note at the rate of interest and computed in accordance with the immediate preceding Section of this Agreement.

#### 1.02 REVOLVING CREDIT COMMITMENT.

(a) REVOLVING LINE OF CREDIT. Subject to the terms and conditions of this Agreement, provided that no Event of Default then has occurred and is continuing, Bank shall, upon Borrower's request make advances ("Revolving Loans") to Borrower, for general corporate purposes, in an amount not to exceed \$500,000 (the "Revolving Line of Credit") until June 30, 2000 (the "Revolving Line of Credit Maturity Date"). Revolving Loans may be repaid and reborrowed, provided that all outstanding principal and accrued interest on the Revolving Loans shall be payable in full on the Revolving Line of Credit Maturity Date.

(b) REVOLVING NOTE. The interest rate, principal and interest payments, maturity date and certain other terms of the Revolving Loan will be contained in a promissory note dated the date of this agreement, as such may be amended or replaced from time to time.

#### 1.03 DOMESTIC ASSET BASED LINE OF CREDIT COMMITMENT (ABL LINE OF CREDIT)

(a) LINE OF CREDIT - ACCOUNTS RECEIVABLE BORROWING BASE CONSTRAINED. Subject to all the terms and conditions of this Agreement, provided that no Event of Default then has occurred and is continuing, Bank shall upon Borrower's request, make advances ("ABL Loans") to Borrower, from time to time and in such amounts as Borrower shall request up to an aggregate principal amount outstanding not to exceed:

(1) Seventy Five percent (75%) of Eligible Accounts, not to exceed \$500,000 as such Eligible Accounts may be adjusted from time to time as provided for under 4.15 hereof (the "Borrowing Base") and in no event more than \$500,000 (the "ABL Line of Credit").

If at any time or for any reason, the outstanding principal amount of the ABL Loan Account (as defined below) is greater than the lesser of: (x) the Borrowing Base or (y) the ABL Line of Credit, Borrower shall, upon Bank's request, immediately pay to Bank, in cash, the amount of such excess. Any commitment of Bank, pursuant to the terms of this Agreement, to make ABL Loans shall expire on the ABL Maturity Date (as hereinafter defined), subject to Bank's right to renew said commitment in its sole and absolute discretion at Borrower's request. Any such renewal of said commitment shall not be binding upon Bank unless it is in writing and signed by an officer of Bank. Provided that no Event of Default (as hereinafter defined) has occurred and is continuing, all or any portion of the ABL Loans advanced by Bank which are repaid by Borrower shall be available for reborrowing in accordance with the terms hereof. Borrower promises to pay to Bank the entire outstanding unpaid principal balance (and all accrued unpaid interest thereon) of the ABL Loan Account on the earlier of demand by Bank or June 30, 2000 ("ABL Maturity Date").

(b) LIMITATION ON ADVANCE OF ANY ABL LOANS. Notwithstanding any of the provisions contained in Section 1.03 (a) hereof, prior to initial ABL Loan, a representative of Bank shall have conducted an audit of Borrower's books and records relating to the Accounts and any other Collateral for the ABL Loans and made extracts therefrom, and arranged for verification of the Accounts, directly with the account debtors or otherwise, all with results satisfactory to Bank, the reasonable cost of such audit of which shall be at Borrower's sole expense. Based on Bank's review of such audit, and prior to the advance of an ABL Loan in

accordance with the terms of this Agreement hereof, Bank may adjust the Borrowing Base percentage, in its sole and reasonable discretion, as provided for under Section 4.15 hereof.

(c) LOAN LEDGER ACCOUNT. The amount of each ABL Loan made by Bank to Borrower hereunder shall be debited to the loan ledger account of Borrower maintained by Bank for the ABL Line of Credit (herein called the "ABL Loan Account") and Bank shall credit the ABL Loan Account with all loan repayments in respect thereof made by Borrower. ABL Loans may only be used for general corporate purposes.

(d) ABL LOANS INTEREST. Borrower further promises to pay to Bank from the date of the advance of the initial ABL Loan through the ABL Maturity Date, on or before the thirtieth (30) day of each month, interest on the unpaid balance of the ABL Loan Account at a rate of interest equal to three quarters of one percent (3/4%) per annum in excess of the rate of interest which Bank has announced as its prime lending rate (the "Prime Rate"), which shall vary concurrently with any change in the Prime Rate. Interest shall be computed at the above rate on the basis of the actual number of days during which the principal balance of the ABL Loans are outstanding divided by 360, which shall for interest computation purposes be considered one (1) year.

(e) CERTAIN DEFINITIONS. As used herein the following terms shall have the following meanings:

"Accounts" means any right to payment for goods sold or leased, or rented, or to be sold or to be leased, or to be rented, or for services rendered or to be rendered no matter how evidenced, including accounts receivable, contract rights, chattel paper, instruments, purchase orders, notes, drafts, acceptances, general intangibles and other forms of obligations and receivables.

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"Collateral" means any and all property of Borrower which is assigned or hereafter is assigned to Bank as security or in which Bank now has or hereafter acquires a security interest.

"Eligible Accounts" Eligible Accounts shall only include such Accounts as Bank in its sole discretion shall determine are eligible from time to time. "Eligible Accounts" shall also NOT include any of the following:

(1) All Accounts under which payment is not received within 90 days from any invoice date or 60 days from any due date;

(2) All Accounts against which the account debtor or any other person obligated to make payment thereon asserts any defense, offset, counterclaim or other right to avoid or reduce the liability represented by the Account;

(3) Any Accounts if the account debtor or any other person liable in connection therewith is insolvent, subject to bankruptcy or receivership proceedings or has made an assignment for the benefit of creditors or whose credit standing is unacceptable to Bank and Bank has so notified Borrower.

(4) Account balances over 90 days from invoice date or 60 days past the due date, no more than 90 days from invoice date. Foreign accounts covered by foreign credit insurance or Commercial Letters of Credit that allow more extended terms may be considered on a case by case basis.

(5) Credit balances greater than 90 days from invoice date or 60 days past the due date.

(6) Accounts due from a debtor if 25% or more of the aggregate amount of accounts of such debtor have at that time remained unpaid for more than 90 days from invoice date or 60 days past the due date.

(7) For accounts representing more than 25% of Borrower's total accounts receivable, the balance in excess of the 25% is not eligible. However, Bank may deem, in its sole discretion, the entire amount, or any portion thereof, eligible.

(8) Accounts with respect to international transactions unless insured by an insurance company acceptable to the Bank or covered by letters of credit

issued or confirmed by a bank acceptable to the Bank. Bank, in its sole discretion, may deem as eligible amounts due from major, publicly owned foreign companies.

(9) Accounts with respect to which the account debtor is an officer, director, shareholder, employee, subsidiary or affiliate of Borrower.

(10) Accounts where the account debtor is a seller to Borrower, whereby a potential offset (contra) exists.

(11) Consignment or guaranteed sales.

(12) Bill and hold accounts.

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(13) Collection accounts.

(14) C.O.D. accounts.

(15) Salesmen's accounts for promotional purposes.

(16) All United States Government receivables, unless formally assigned to the Bank.

(17) Accounts representing billings for service or maintenance contracts or for inventory or equipment on rent to the account debtor.

(18) Deferred revenues.

(19) Pre-billings.

(f) REQUESTS FOR ABL LOANS. Requests for ABL Loans hereunder shall be in writing duly executed by Borrower in a form satisfactory to Bank and shall contain a certification setting forth the matters referred to in Section 1, which shall disclose that Borrower is entitled to the amount of loan being requested.

(g) LATE CHARGE. If any installment payment, interest payment, principal payment or principal balance due under the ABL Line of Credit is delinquent twenty (20) or more days, Borrower agrees to pay Bank a late charge in the amount of three percent (3%) of the payment so due and unpaid, in addition to the payment; but nothing in this paragraph is to be construed as any obligation on the part of Bank to accept payment of any payment past due or less than the total unpaid principal balance after maturity. All payments, at Bank's sole discretion, shall be applied first to any late charges owing, then to interest and the remainder, if any, to principal.

(h) DEFAULT RATE. If an Event of Default occurs hereunder, then during the continuance thereof at Bank's option, the interest rate shall be five percent (5%) per year in excess of the rate otherwise applicable.

(i) INTEREST CALCULATIONS. The term "Prime Rate" shall mean the rate that the Bank has announced as its prime rate, which shall vary concurrently with any change in the Prime Rate. Interest based on the Prime Rate shall vary concurrently with any change in the Prime Rate. All interest shall be computed at the rate specified in any note on the basis of the actual number of days during which the principal balance of the corresponding Loans are outstanding divided by 360, which shall for interest computation purposes be considered one (1) year.

1.04 LOAN FEES. In addition to any other amounts due, or to become due, concurrent with the execution hereof, in connection with: (a) the Revolving Line of Credit, Borrower shall pay to Bank a loan fee Zero Dollars (\$0.00), (b) the Term Loan Borrower shall pay to Bank a loan fee in the amount of Fifteen Hundred Dollars (\$1,500.00).

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1.05 DOCUMENTATION FEE, COSTS AND EXPENSES. In addition to any other amounts due, or to become due, concurrently with the execution hereof, Borrower agrees to pay to Bank a documentation fee in the amount of \$250, and all other reasonable costs and expenses incurred by Bank in the preparation of this Agreement, the other Loan Documents and the perfection of any security interest granted to Bank by Borrower.

1.06 COLLATERAL. Borrower shall grant or cause to be granted to Bank a first priority lien on any and all personal property assets of Borrower which is assigned or hereafter is assigned to Bank as security or in which Bank now has or hereafter acquires a security interest or pursuant to the terms of any security agreement, an intellectual property security agreement or otherwise as security for all of Borrower's obligations to Bank, all as may be subject to Section 5.03 herein.

1.07 COLLECTION OF PAYMENTS. Borrower authorizes Bank to collect all interest, fees, costs, and/or expenses due under this Agreement by charging Borrower's demand deposit account number \_\_\_\_\_ with Bank, or any other demand deposit account maintained by Borrower with Bank, for the full amount thereof. Should there be insufficient funds in any such demand deposit account to pay all such sums when due, the full amount of such deficiency shall be immediately due and payable by Borrower. Bank agrees to promptly notify Borrower after any such charge, provided that the failure to give such notice shall not affect the validity of such charge.

## 2. REPRESENTATIONS OF BORROWER

Borrower represents and warrants that:

2.01 EXISTENCE AND RIGHTS. Borrower is a corporation, duly organized and existing and in good standing under the laws of the state of California, Borrower is authorized and in good standing to do business in the state of its incorporation; Borrower has the appropriate powers and adequate authority, rights and franchises to own its property and to carry on its business as now conducted, and is duly qualified and in good standing in each state in which the character of the properties owned by it therein or the conduct of its business makes such qualification necessary; and Borrower has the power and adequate authority to make and carry out this Agreement. Borrower has no investment in any other business entity unless specified in writing to Bank.

2.02 AGREEMENT AUTHORIZED. The execution, delivery and performance of this Agreement and the Loan Documents are duly authorized and do not require the consent or approval of any governmental body or other regulatory authority; are not in contravention of or in conflict with any law or regulation or any term or provision of Borrower's articles of incorporation, or similar document as the case may be, and this Agreement is the valid, binding and legally enforceable obligation of Borrower in accordance with its terms; subject only to bankruptcy, insolvency or similar laws affecting creditors rights generally.

2.03 NO CONFLICT. The execution, delivery and performance of this Agreement and the other Loan Documents are not in contravention of or in conflict with any material agreement, indenture or undertaking to which Borrower is a party or by which it or any of its property may be bound or affected, and do not cause any lien, charge or other encumbrance to be created or imposed upon any such property by reason thereof.

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2.04 LITIGATION. Except as disclosed in writing to bank by Borrower, there is no litigation or other proceeding pending or, to Borrower's knowledge, threatened against or affecting Borrower which if determined adversely to Borrower or its interest would have a material adverse effect on the financial condition of Borrower, and Borrower is not in default with respect to any order, writ, injunction, decree or demand of any court or other governmental or regulatory authority.

2.05 FINANCIAL CONDITION. The balance sheet of Borrower as of December 31, 1998, and the related profit and loss statement for the same period ended as of that date, a copy of which has heretofore been delivered to Bank by Borrower, and all other statements and data submitted in writing by Borrower to Bank in connection with this request for credit are true and correct in all material respects, and said balance sheet truly presents the financial condition of Borrower as of the

date thereof, and has been prepared in accordance with generally accepted accounting principles on a basis consistently maintained. Since such date there have been no material adverse changes in the financial condition or business of Borrower. Borrower has no knowledge of any liabilities, contingent or otherwise, at such date not reflected in said balance sheet, and Borrower has not entered into any special commitments or substantial contracts which are not reflected in said balance sheet, other than in the ordinary and normal course of its business, which may have a materially adverse effect upon its financial condition, operations or business as now conducted.

2.06 TITLE TO ASSETS. Borrower has good title to its assets, and the same are not subject to any liens or encumbrances other than those permitted by Section 5.03 hereof.

2.07 TAX STATUS. Borrower has no liability for any delinquent state, local or federal taxes except such taxes which are being contested in good faith and as to which adequate reserves has been established, and, if Borrower has contracted with any government agency, Borrower has no liability for renegotiation of profits.

2.08 TRADEMARKS, PATENTS. Borrower, as of the date hereof, possesses all necessary trademarks, trade names, copyrights, patents, patent rights, and licenses to conduct its business as now operated, without any known conflict with the valid trademarks, trade names, copyrights, patents and license rights of others.

2.09 REGULATION U. None of the proceeds of any Loan shall be used to purchase or carry margin stock (as defined within Regulation U of the Board of Governors of the Federal Reserve system).

2.10 ERISA. All defined benefit pension plans as defined in the Employees Retirement Income Security Act of 1974, as amended ("ERISA"), of Borrower meet, as of the date hereof, the minimum funding standards of Section 302 of ERISA, and no Reportable Event or Prohibited Transaction as defined in ERISA has occurred with respect to any such plan.

2.11 YEAR 2000 COMPLIANCE. Borrower and its subsidiaries, as applicable, have reviewed the areas within their operations and business which could be adversely affected by, and have developed or are developing a program to address on a timely basis, the Year 2000 Problem and have made related appropriate inquiry of material suppliers and vendors, and based on such review and program, the Year 2000 Problem will not have a material adverse effect upon its financial condition,

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operations or business as now conducted. "Year 2000 Problem" means the possibility that any computer applications or equipment used by Borrower may be unable to recognize and properly perform date sensitive functions involving certain dates prior to and any dates on or after December 31, 1999.

### 3. CONDITIONS PRECEDENT TO LOAN.

Prior to Bank being obligated to make any Loan pursuant to this Agreement, Bank must receive all of the following, each of which must be in form and substance satisfactory to Bank:

3.01 PROMISSORY NOTE(S). Original, executed promissory note(s).

3.02 SECURITY AGREEMENT. Original, executed security agreement(s) covering the personal property collateral securing the Loan(s).

3.03 FINANCING STATEMENT. Financing statement(s) executed by Borrower.

3.04 INSURANCE. Borrower shall have delivered to Bank evidence of insurance coverage required pursuant to that Agreement to Provide Insurance executed by Borrower, in form, substance, amounts, covering risks and issued by companies reasonably satisfactory to Bank, and where required by Bank, with loss payable endorsements in favor of Bank.

3.05 ORGANIZATIONAL DOCUMENTS. Copies of the charter/articles of incorporation,

or similar document as the case may be, of Borrower.

3.06 AUTHORIZATIONS. Certified copies of all action taken by the Borrower to authorize the execution, delivery and performance of the Loan Documents.

3.07 GOOD STANDING. Good standing certificates from the appropriate secretary of state of the state in which Borrower is organized and in each state in which it is required to be qualified to do business.

3.08 ADDITIONAL DOCUMENTS. Such other documents as Bank may reasonably deem necessary.

#### 4. AFFIRMATIVE COVENANTS OF BORROWER

Borrower agrees that so long as it is indebted to Bank, under borrowings, or other indebtedness, or so long as Bank has any obligation to extend credit to Borrower it will, unless Bank shall otherwise consent in writing:

4.01 RIGHTS AND FACILITIES. Maintain and preserve all rights, franchises and other authority adequate for the conduct of its business; maintain its properties, equipment and facilities in good order and repair; conduct its business in an orderly manner without voluntary interruption and, if a corporation or partnership, maintain and preserve its existence.

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4.02 USE OF PROCEEDS. Use the proceeds of the Loans only for purposes specified in Section 1 of this Agreement.

4.03 INSURANCE. Maintain public liability, property damage and workers' compensation insurance and insurance on all its insurable property against fire and other hazards with responsible insurance carriers to the extent usually maintained by similar businesses and/or in the exercise of good business judgment, and as required by that Agreement to Provide Insurance executed by Borrower, with the Bank to be shown as Lenders Loss Payee on such policies.

4.04 TAXES AND OTHER LIABILITIES. Pay and discharge, before the same become delinquent and before penalties accrue thereon, all taxes, assessments and governmental charges upon or against it or any of its properties, and all its other liabilities at any time existing, except to the extent and so long as:

(a) The same are being contested in good faith and by appropriate proceedings in such manner as not to cause any materially adverse effect upon its financial condition or the loss of any right of redemption from any sale thereunder; and

(b) It shall have set aside on its books reserves (segregated to the extent required by generally accepted accounting practice) deemed by it to be adequate with respect thereto.

4.05 RECORDS AND REPORTS. Maintain a standard and modern system of accounting in accordance with generally accepted accounting principles on a basis consistently maintained; permit Bank's representatives to have access to, and to examine its properties, books and records at all reasonable times and upon reasonable notice during normal business hours; and furnish Bank:

(a) MONTHLY FINANCIAL STATEMENT. As soon as available, and in any event within Thirty (30) days after the close of each month, a balance sheet, profit and loss statement and reconciliation of Borrower's capital balance accounts as of the close of such period and covering operations for the portion of Borrower's fiscal year ending on the last day of such period, all in reasonable detail and reasonably acceptable to Bank, in accordance with generally accepted accounting principles on a basis consistently maintained by Borrower and certified by an appropriate officer of Borrower.

(b) ANNUAL FINANCIAL STATEMENT. As soon as available, and in any event within One Hundred Twenty (120) days after and as of the close of each fiscal year of Borrower commencing on fiscal year end December 31, 1999, report of audit of Borrower, all in reasonable detail, unqualified audit by an independent certified public accountant selected by Borrower and reasonably acceptable to



Bank, in accordance with generally accepted accounting principles on a basis consistently maintained by Borrower and certified by an appropriate officer of Borrower;

(c) OFFICER'S CERTIFICATE. Within Thirty (30) days after the end of each month, a certificate of the corporate officer of Borrower, stating that Borrower has performed and observed each and every covenant contained in this Agreement to be performed by it and that no event has occurred and no condition then exists which constitutes an event of default hereunder or would constitute such an Event of Default upon the lapse of time or upon the giving of notice and the lapse of time specified herein; or,

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if any such event has occurred or any such condition exists, specifying the nature thereof [in the form of exhibit 4.05 (c) attached hereto];

(d) AUDIT REPORTS. Promptly after the receipt thereof by Borrower, copies of any detailed audit reports submitted to Borrower by independent accountants in connection with each annual or interim work on the accounts of Borrower made by such accountants;

(e) ACCOUNTS RECEIVABLE AND ACCOUNTS PAYABLE AGINGS. Within 20 days from each month-end, deliver to Bank a detailed accounts receivable aging reconciled to the general ledger of Borrower, a detailed accounts payable aging reconciled to Borrower's general ledger and setting forth the amount of any book overdraft or the amount of checks issued but not sent. All the foregoing will be in a form and with such detail as Bank may reasonably request from time to time.

(f) BORROWING BASE CERTIFICATE. Deliver to Bank, within 20 days from each month-end, a Borrowing Base Certificate including sales and cash receipts in the form of exhibit 4.05(e)-1 attached hereto, and all other required collateral reporting in the form of exhibits 4.05 (e)-2 and exhibit 4.05-(e)-3 attached hereto;

(g) OTHER INFORMATION. Such other information relating to the affairs of Borrower as Bank reasonably may request from time to time.

4.06 QUICK RATIO. Maintain on monthly basis a minimum quick ratio of unrestricted cash plus accounts receivable divided by current liabilities minus deferred revenues derived from maintenance contracts of at least 1.25:1.0 through June 30, 1999, and 1.10:1.0 thereafter.

4.07 LOSS/PROFITABILITY. Maintain on a quarterly basis on a pre-tax basis and defined as operating loss/profit less foreign revenue tax : (a) Maximum loss of no more than \$400,000 for the March '99 quarter; (b) Maximum loss of no more than \$550,000 for the June '99 quarter; (c) Maximum loss of no more than \$300,000 for the September '99 quarter; and (d) Maximum loss of no more than \$250,000 for the December '99 quarter.

4.08 LIQUIDITY RATIO. Maintain on monthly basis a minimum liquidity ratio of unrestricted cash plus seventy percent (70%) of gross accounts receivable divided by outstanding bank debt of at least 1.50:1.0

4.09 LAWS. At all times comply with, or cause to be complied with, all laws, statues, rules, regulations, orders and directions of any governmental authority having jurisdiction over Borrower or Borrower's business the failure of which to comply with would have a material adverse effect upon Borrower's financial condition, operations, or business as now conducted.

4.10 GAAP. Compliance with all financial covenants shall be calculated based on generally accepted accounting principles applied on a consistent basis as maintained by Borrower.

4.11 YEAR 2000 COMPLIANT. Borrower shall perform all acts reasonably necessary to ensure that (a) Borrower and any business in which Borrower holds a substantial interest, and (b) all customers,

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suppliers and vendors whose compliance is likely to be material to Borrower's business, become Year 2000 Compliant in a timely manner. Such acts shall include, without limitation, performing a comprehensive review and assessment of all Borrower's systems and adopting a detailed plan, with itemized budget, for the remediation, monitoring and testing of such systems. As used in this paragraph, "Year 2000 Compliant" shall mean, in regard to any entity, that all software, hardware, firmware, equipment, goods or systems utilized by or material to the business operations or financial condition of such entity, will properly perform date sensitive functions before, during and after the year 2000. Borrower shall, immediately upon request, provide to Agent such certifications or other evidence of Borrower's compliance with the terms of this paragraph as Bank may from time to time reasonably require.

4.12 OPERATING ACCOUNTS. Maintain all primary accounts and banking relationship with the Bank. Maintain, or cause to be maintained, on deposit with Bank, non-interest bearing demand deposit balances sufficient to compensate Bank for all services provided by Bank. Balances shall be calculated after reduction for the reserve requirement of the Federal Reserve Board and uncollected funds. Any deficiencies shall be charged directly to the Borrower on a monthly basis.

4.13 NOTICES. Promptly notify Bank in writing of (i) the occurrence of any Event of Default hereunder or any event which upon notice and lapse of time would be an Event of Default; (ii) all litigation affecting Borrower where the amount is \$50,000 or more; any substantial dispute which may exist between Borrower and any governmental regulatory body or law enforcement authority; any change in Borrower's name or principal place of business; or any other matter which has resulted or might result in a material adverse change in Borrower's financial condition or operations.

4.14 AUDITS. Permit representatives of Bank to conduct audits of Borrower's books and records relating to the Accounts, and other Collateral and make extracts therefrom, with results satisfactory to Bank to be required semi-annually, provided that Bank shall use its best efforts to not interfere with the conduct of Borrower's business, and to the extent possible to arrange for verification of the Accounts directly with the account debtors obligated thereon or otherwise, all under reasonable procedures acceptable to Bank and at Borrower's sole expense; notwithstanding any of the provisions contained in Section 1.03 hereof, Borrower hereby acknowledges and agrees that upon completion of any such audit Bank shall have the right to adjust the Borrowing Base percentage, in its sole and reasonable discretion, based on its review of the results of such collateral audit.

4.15 COVENANTS RELATING TO COLLATERAL. In addition to any covenants in any Loan Document relating to any Collateral the Borrower agrees:

(a) To execute and deliver to Bank such assignments, including Bank's standard forms of Specific or General Assignment covering individual Accounts, notices, financing statements, and other documents and papers as Bank may reasonably require in order to affirm, effectuate or further assure the assignment to Bank of the Collateral or to give any third party, including the account debtors obligated on the Accounts, notice of Bank's interest in the Collateral.

(b) Until Bank exercises its rights to collect the Accounts proceeds pursuant to Section 4.16(e), Borrower will collect with diligence all Borrower's Accounts and Inventory proceeds.

(c) That until Bank exercises its rights to collect the Accounts proceeds pursuant to Section 4.16(e), Borrower may continue its present policies with respect to returned merchandise and adjustments.

(d) To promptly notify Bank of any attachment or other legal process levied against any of the Collateral and any information received by Borrower relative to the Collateral, including the Accounts, the account debtors or other persons obligated in connection therewith, which may in any way affect the value of the Collateral or the rights and remedies of Bank in respect thereto.

(e) To do all acts necessary to maintain, preserve, and protect the

Inventory, keep all Inventory in good condition and repair and not to cause any waste or unusual or unreasonable depreciation thereof.

(f) In the event any unpaid balance of Borrower's Loan Account shall exceed the maximum amount of outstanding Loans to which Borrower is entitled under Section 1 hereof, Borrower shall immediately pay to Bank for credit to Borrower's Loan Account the amount of such excess.

#### 5. NEGATIVE COVENANTS OF BORROWER

Borrower agrees that so long as it is indebted to Bank, or so long as Bank has any obligation to extend credit to Borrower, it will not, without Bank's written consent:

5.01 TYPE OF BUSINESS. Make any substantial change in the character of its business.

5.02 OUTSIDE INDEBTEDNESS. Create, incur, assume or permit to exist any indebtedness for borrowed moneys other than Loans from Bank except (a) obligations now existing as shown in the financial statement dated December 31, 1998, excluding those obligations being refinanced by Bank, (b) sell or transfer, either with or without recourse, any accounts or notes receivable or any moneys due or to become due, (c) indebtedness of Borrower arising from the endorsement of instruments for collection in the ordinary course of business, (d) indebtedness of Borrower for trade accounts payable provided that such accounts arise in the ordinary course of business and no material part of any such account is more than 90 days past due (unless subject to a bona fide dispute and for which adequate reserves have been established), (e) indebtedness of Borrower under purchase money loans and capital leases incurred by Borrower to finance the acquisition of real property, fixtures or equipment provided that such indebtedness is incurred by Borrower not later than 30 days after acquisition of such property and such indebtedness does not exceed the purchase price of the property so financed and (f) other unsecured indebtedness of Borrower provided the aggregate principal amount of all such indebtedness does not exceed \$250,000.

5.03 LIENS AND ENCUMBRANCES. Create, incur, permit to exist, or assume any mortgage, pledge, encumbrance, lien or charge of any kind upon any asset now owned or hereafter acquired by it, other than (a) liens for taxes not delinquent and liens in Bank's favor and other than liens agreed to in writing by Bank, (b) liens existing on the date of this Agreement reflected in the balance sheet of Borrower as of December 31, 1998 delivered to Bank pursuant to Section 2.05, (c) liens of carriers, warehousemen, mechanics, materialmen, vendors, and landlords and other similar liens imposed by law incurred in the ordinary course of business for sums not overdue or being contested in good faith,

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provided that adequate reserves for the payment thereof have been established in accordance with generally accepted accounting principles, (d) deposits under workers' compensation, unemployment insurance and social security laws or to secure the performance of bids, tenders, contracts (other than for the repayment of borrowed money) or leases, or to secure statutory obligations of surety or appeal bonds or to secure indemnity, performance or other similar bonds in the ordinary course of business, (e) zoning restrictions, easements, rights-of-way, title irregularities and other similar encumbrances, which alone or in the aggregate are not substantial in amount and do not materially detract from the value of the property subject thereto or interfere with the ordinary conduct of the business of Borrower, (f) banker's liens and similar liens (including set-off rights) in respect of bank deposits, (g) liens constituting purchase money security interests and (h) liens incurred in connection with capital expenditures otherwise permitted pursuant to Section 5.02 of this Agreement.

5.04 LOANS, INVESTMENTS, SECONDARY LIABILITIES. Make any loans or advances to any person or other entity other than in the ordinary and normal course of its business as now conducted or make any investment in the securities of any person or other entity other than the United States Government; or guarantee or otherwise become liable upon the obligation of any person or other entity, except by endorsement of negotiable instruments for deposit or collection in the ordinary and normal course of its business.

5.05 ACQUISITION OR SALE OF BUSINESS; MERGER OR CONSOLIDATION. Purchase or

otherwise acquire the assets or business of any person or other entity except for transactions with 100% stock purchases or transactions having a total purchase price including not more than \$250,000 in cash in any single fiscal year; or liquidate, dissolve, merge or consolidate, or commence any proceedings therefor; or sell any assets except in the ordinary and normal course of its business as now conducted; or sell, lease, assign, or transfer any substantial part of its business or fixed assets, or any property or other assets necessary for the continuance of its business as now conducted, including without limitation the selling of any property or other asset accompanied by the leasing back of the same.

## 6. EVENTS OF DEFAULT

The occurrence of any of the following events of default ("Events of Default") shall, at Bank's option, terminate Bank's commitment to lend and make all sums of principal and interest then remaining unpaid on all Borrower's indebtedness to Bank immediately due and payable, all without demand, presentment or notice, all of which are hereby expressly waived:

6.01 FAILURE TO PAY. Failure to pay any installment of principal or of interest on any indebtedness of Borrower to Bank within, five (5) days of its due date.

6.02 BREACH OF COVENANT. Failure of Borrower to perform any other term or condition of this Agreement or any Loan Document binding upon Borrower and such failure shall continue for fifteen (15) days after the earlier of (i.) Borrower's written acknowledgement to Bank of such failure or (ii.) Bank's written notice to Borrower of such failure.

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6.03 BREACH OF WARRANTY. Any of Borrower's representations or warranties made herein or any statement or certificate at any time given in writing pursuant hereto or in connection herewith shall be false or misleading in any material respect when made or furnished.

6.04 INSOLVENCY; RECEIVER OR TRUSTEE. Borrower shall become insolvent; or admit its inability to pay its debts as they mature; or make an assignment for the benefit of creditors; or apply for or consent to the appointment of a receiver or trustee for it or for a substantial part of its property or business.

6.05 JUDGMENTS, ATTACHMENTS. Any money judgment in excess of \$100,000, writ or warrant of attachment, or similar process shall be entered or filed against Borrower or any of its assets and shall remain un-vacated, un-bonded or un-stayed for a period of ten (10) days or in any event later than five (5) days prior to the date of any proposed sale thereunder.

6.06 BANKRUPTCY. Bankruptcy, insolvency, reorganization or liquidation proceedings or other proceedings for relief under any bankruptcy law or any law for the relief of debtors shall be instituted by or against Borrower and, if instituted against it, shall not be dismissed within thirty (30) days thereafter.

6.07 CESSATION OF BUSINESS. Borrower shall voluntarily suspend its business.

6.08 ADVERSE CHANGE. Any change which, in the opinion of Bank, is materially adverse to the financial condition of Borrower or any Guarantor; or should Bank, for any reason, believe that the prospect of Borrower's payment or performance hereunder or under any other agreement or instrument with Bank be materially impaired.

6.09 OTHER DEFAULTS. Borrower, or any Guarantor of Borrower's obligations to Bank, shall commit or do or fail to commit or do any act or thing which would constitute an event of default under any of the terms of any other agreement, document or instrument executed or to be executed by it concerning the obligation to pay money and the effect of such failure, event or condition is to cause, or permit the holder or holders thereof to cause, indebtedness of Borrower and its Subsidiaries (other than the Obligations) in an aggregate amount exceeding \$100,000 to become redeemable, due or otherwise payable (whether at scheduled maturity, by required prepayment, upon acceleration or otherwise).

6.10 ADVANCES. Notwithstanding anything to the contrary contained herein, Bank shall have no duty to make advances while any Event of Default exists notwithstanding any cure period provided for herein.

6.11 DEFAULT REMEDIES. In addition to any other right or remedy Bank may have, upon the occurrence and during the continuation of an Event of Default Bank may at any time, without prior notice to Borrower, collect the Accounts and Inventory proceeds and may give notice of assignment to any and all account debtors, and Borrower does hereby make, constitute and appoint Bank its irrevocable, true and lawful attorney with power to receive, open and dispose of all mail addressed to Borrower, to endorse the name of Borrower upon any checks or other evidences of payment that may come into the possession of Bank upon the Accounts or as proceeds of Inventory; to endorse the name of the undersigned upon any document or instrument relating to the Collateral; in its name or otherwise, to

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demand, sue for, collect and give acquittances for any and all moneys due or to become due upon the Accounts; to compromise, prosecute or defend any action, claim or proceeding with respect thereto; and to do any and all things necessary and proper to carry out the purpose herein contemplated.

#### 7. MISCELLANEOUS PROVISIONS

7.01 FAILURE OR INDULGENCE NOT WAIVER. No failure or delay on the part of Bank or any holder of notes issued hereunder, in the exercise of any power, right or privilege hereunder shall operate as a waiver thereof, nor shall any single or partial exercise of any such power, right or privilege preclude other or further exercise thereof or of any other right, power or privilege. All rights and remedies existing under this Agreement or any note(s) issued in connection with a Loan that Bank may make hereunder, are cumulative to, and not exclusive of, any rights or remedies otherwise available.

7.02 COUNTERPARTS; ENTIRE AGREEMENT. This Agreement may be executed by the parties hereto in several counterparts, each of which shall be deemed to be an original and all of which shall constitute together but one and the same agreement. This Agreement, and the other Loan Documents constitute the entire understanding among the parties hereto with respect to the subject matter hereof and supersedes any prior agreements, written or oral, with respect thereto.

7.03 ATTORNEY'S FEES. Borrower will pay promptly to Bank without demand after notice, with interest thereon from the date of demand at the rate applicable to the Loan, reasonable attorneys' fees and all costs and expenses paid or incurred by Bank in collecting or compromising the Loan after the occurrence of an Event of Default, whether or not suit is filed. If suit is brought to enforce any provision of this Agreement, the prevailing party shall be entitled to recover its reasonable attorneys' fees and court costs in addition to any other remedy or recovery awarded by the court.

7.04 ADDITIONAL REMEDIES. The rights, powers and remedies given to Bank hereunder shall be cumulative and not alternative and shall be in addition to all rights, powers and remedies given to Bank by law against Borrower or any other person, including but not limited to Bank's rights of setoff or banker's lien.

7.05 INUREMENT. The benefits of this Agreement shall inure to the successors and assigns of Bank and the permitted successors and assigns of Borrower.

7.06 APPLICABLE LAW. This Agreement and all other agreements and instruments required by Bank in connection therewith shall be governed by and construed according to the laws of the state of California, to the jurisdiction of whose courts the parties hereby agree to submit.

7.07 OFFSET. In addition to and not in limitation of all rights of offset that Bank or other holder of the Loan may have under applicable law, Bank or other holder of any note issued hereunder shall, upon the occurrence of any Event of Default or any event which with the passage of time or notice would constitute such an Event of Default, have the right to appropriate and apply to the payment of the Loan any and all balances, credits, deposits, accounts or monies of Borrower then or thereafter with Bank or other holder, within ten (10) days after the Event of Default, and notice of the occurrence of any Event of Default

by Bank to Borrower.

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7.08 SEVERABILITY. Should any one or more provisions of the Agreement be determined to be illegal or unenforceable, all other provisions nevertheless shall be effective.

7.09 TIME OF THE ESSENCE. Time is hereby declared to be of the essence of this Agreement and of every part hereof.

7.10 ACCOUNTING. All accounting terms shall have the meanings applied under generally accepted accounting principles unless otherwise specified.

7.11 REFERENCE PROVISION.

(a) Other than (i) nonjudicial foreclosure and all matters in connection therewith regarding security interests in real or personal property; or (ii) the appointment of a receiver, or the exercise of other provisional remedies (any and all of which may be initiated pursuant to applicable law), each controversy, dispute or claim between the parties arising out of or relating to this Credit Agreement, any security agreement executed by Borrower in favor of Bank or any note executed by Borrower in favor of Bank or any other agreement or instrument issued in favor of Bank by Borrower (collectively in this Section, the "Agreement") which controversy, dispute or claim is not settled in writing within thirty (30) days after the "Claim Date" (defined as the date on which a party subject to this Agreement gives written notice to all other parties that a controversy, dispute or claim exists), will be settled by a reference proceeding in California in accordance with the provisions of Section 638 et seq. of the California Code of Civil Procedure, or their successor section ("CCP"), which shall constitute the exclusive remedy for the settlement of any controversy, dispute or claim concerning this Agreement, including whether such controversy, dispute or claim is subject to the reference proceeding and except as set forth above, the parties waive their rights to initiate any legal proceedings against each other in any court or jurisdiction other than the Superior Court in the County where the Real Property, if any, is located or Los Angeles County if none (the "Court"). The referee shall be a retired Judge of the Court selected by mutual agreement of the parties, and if they cannot so agree within forty-five (45) days after the Claim Date, the referee shall be promptly selected by the Presiding Judge of the Court (or his representative). The referee shall be appointed to sit as a temporary judge, with all of the powers for a temporary judge, as authorized by law, and upon selection should take and subscribe to the oath of office as provided for in Rule 244 of the California Rules of Court (or any subsequently enacted Rule). Each party shall have one peremptory challenge pursuant to CCP Section 170.6. The referee shall (a) be requested to set the matter for hearing within sixty (60) days after the date of selection of the referee and (b) try any and all issues of law or fact and report a statement of decision upon them, if possible, within ninety (90) days of the Claim Date. Any decision rendered by the referee will be final, binding and conclusive and judgment shall be entered pursuant to CCP Section 644 in any court in the state of California having jurisdiction. Any party may apply for a reference proceeding at any time after thirty (30) days following notice to any other party of the nature of the controversy, dispute or claim, by filing a petition for a hearing and/or trial. All discovery permitted by this Agreement shall be completed no later than fifteen (15) days before the first hearing date established by the referee. The referee may extend such period in the event of a party's refusal to provide requested discovery for any reason whatsoever, including, without limitation, legal objections raised to such discovery or unavailability of a witness due to absence or illness. No party shall be entitled to "priority" in conducting discovery. Depositions may be taken by either party upon seven (7) days written notice, and request for production or inspection of documents shall be responded to within ten (10) days after service. All disputes relating to discovery which cannot

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be resolved by the parties shall be submitted to the referee whose decision shall be final and binding upon the parties. Pending appointment of the referee as provided herein, the Superior Court is empowered to issue temporary and/or

provisional remedies, as appropriate.

(b) Except as expressly set forth in this Agreement, the referee shall determine the manner in which the reference proceeding is conducted including the time and place of all hearings, the order of presentation of evidence, and all other questions that arise with respect to the course of the reference proceeding. All proceedings and hearings conducted before the referee, except for trial, shall be conducted without a court reporter except that when any party so requests, a court reporter will be used at any hearing conducted before the referee. The party making such a request shall have the obligation to arrange for and pay for the court reporter. The costs of the court reporter at the trial shall be borne equally by the parties.

(c) The referee shall be required to determine all issues in accordance with existing case law and the statutory laws of the state of California. The rules of evidence applicable to proceedings at law in the state of California will be applicable to the reference proceeding. The referee shall be empowered to enter equitable as well as legal relief, to provide all temporary and/or provisional remedies and to enter equitable orders that will be binding upon the parties. The referee shall issue a single judgment at the close of the reference proceeding which shall dispose of all of the claims of the parties that are the subject of the reference. The parties hereto expressly reserve the right to contest or appeal from the final judgment or any appealable order or appealable judgment entered by the referee. The parties hereto expressly reserve the right to findings of fact, conclusions of laws, a written statement of decision, and the right to move for a new trial or a different judgment, which new trial, if granted, is also to be a reference proceeding under this provision.

(d) In the event that the enabling legislation which provides for appointment of a referee is repealed (and no successor statute is enacted), any dispute between the parties that would otherwise be determined by the reference procedure herein described will be resolved and determined by arbitration. The arbitration will be conducted by a retired judge of the Court, in accordance with the California Arbitration Act, Section 1280 through Section 1294.2 of the CCP as amended from time to time. The limitations with respect to discovery as set forth hereinabove shall apply to any such arbitration proceeding.

7.12 This Agreement may be modified only by a writing signed by all parties hereto.

7.13 NOTICE PROVISION. Unless otherwise provided in this Agreement, all notices or demands by any party relating to this Agreement or any other agreement entered into in connection herewith shall be in writing and (except for financial statements and other informational documents which may be sent by first-class mail, postage prepaid) shall be personally delivered or sent by a recognized overnight delivery service, certified mail, postage prepaid, return receipt requested, or by telefacsimile to Borrower or to Bank, as the case may be, at its addresses set forth below:

If to Borrower:           PDF Solutions, Inc.  
                              333 West San Carlos, Suite 1200  
                              San Jose, CA 95110  
                              Attn: Mr. Steve Melman  
                              FAX: (408) 280-7915

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If to Bank:               Imperial Bank  
                              Emerging Growth Industries Group  
                              2460 Sand Hill Road, Suite 102  
                              Menlo Park, CA 94025  
                              Attn: Mr. Kevin Zeidan  
                              FAX: (650) 233-3020

The parties hereto may change the address at which they are to receive notices hereunder, by notice in writing in the foregoing manner given to the other.

This Agreement is executed on behalf of the parties by duly authorized officers as of the date first above written.

IMPERIAL BANK

PDF SOLUTIONS, INC.

("BANK")

("BORROWER")

By: /s/ KEVIN ZEIDAN

By: /s/ JOHN K. KIBARIAN

Its: Assistant Vice President

Its: President and CEO

By: /s/ P. STEVEN MELMAN

Its: Chief Financial Officer

CREDIT AGREEMENT

This Credit Agreement ("Agreement") is made and entered into on August 12, 1999, by and between PDF Solutions, Inc., a California corporation, ("Borrower") and Imperial Bank, a California banking corporation, ("Bank").

Subject to the terms and conditions of this Agreement, any security agreement(s) executed by Borrower in favor of Bank, any note(s) executed by Borrower in favor of Bank, or any other agreements executed in conjunction therewith (collectively, the "Loan Documents"), Bank shall make the loans and or advances (individually a "Loan" and collectively "Loans") referred to below to Borrower.

In consideration of the mutual covenants and conditions hereof, the parties hereto agree as follows:

1. AMOUNT AND TERMS OF CREDIT

1.01 REVOLVING CREDIT COMMITMENT.

(a) REVOLVING LINE OF CREDIT. Subject to the terms and conditions of this Agreement, provided that no Event of Default (as hereafter defined) then has occurred and is continuing, Bank shall, upon Borrower's request make advances ("Revolving Loans") to Borrower, for general corporate purposes, in an amount not to exceed \$2,500,000 (the "Revolving Line of Credit") until June 30, 2000 (the "Revolving Line of Credit Maturity Date"). Revolving Loans may be repaid and reborrowed, provided that all outstanding principal and accrued interest on the Revolving Loans shall be payable in full on the Revolving Line of Credit Maturity Date.

(b) REVOLVING NOTE. The interest rate, principal and interest payments, maturity date and certain other terms of the Revolving Loan will be contained in a promissory note dated the date of this agreement, as such may be amended or replaced from time to time.

1.02 FOREIGN ASSET BASED LINE OF CREDIT COMMITMENT (FOREIGN ABL LINE OF CREDIT)

(a) LINE OF CREDIT - FOREIGN ACCOUNTS RECEIVABLE BORROWING BASE CONSTRAINED. Subject to all the terms and conditions of this Agreement, provided that no Event of Default then has occurred and is continuing, Bank shall upon Borrower's request, make advances ("Foreign ABL Loans") to Borrower, from time to time and in such amounts as Borrower shall request up to an aggregate principal amount outstanding not to exceed:

- (1) ninety percent (90%) of Eligible Foreign Accounts, not to exceed \$2,500,000 as such Foreign Eligible Accounts may be adjusted from time to time as provided for under 4.15 hereof (the "Foreign Borrowing Base") and in no event more than \$2,500,000 (the "Foreign ABL Line of Credit").

If at any time or for any reason, the outstanding principal amount of the Foreign ABL Loan Account (as defined below) is greater than the lessor of: (x) the Foreign Borrowing Base or (y) the Foreign ABL Line of Credit, Borrower shall, upon Bank's request, immediately pay to Bank, in cash, the amount of such excess. Any commitment of Bank, pursuant to the terms of this Agreement, to make



Foreign ABL Loans shall expire on the Foreign ABL Maturity Date (as hereinafter defined), subject to Bank's right to renew said commitment in its sole and absolute discretion at Borrower's request. Any such renewal of said commitment shall not be binding upon Bank unless it is in writing and signed by an officer of Bank. Provided that no Event of Default (as hereinafter defined) has occurred and is continuing, all or any portion of the Foreign ABL Loans advanced by Bank which are repaid by Borrower shall be available for reborrowing in accordance with the terms hereof. Borrower promises to pay to Bank the entire outstanding unpaid principal balance (and all accrued unpaid interest thereon) of the Foreign ABL Loan Account on the earlier of demand by Bank or June 30, 2000 ("Foreign ABL Maturity Date").

(b) LIMITATION ON ADVANCE OF ANY FOREIGN ABL LOANS. Notwithstanding any of the provisions contained in Section 1.02 (a) hereof, prior to initial Foreign ABL Loan, a representative of Bank shall have conducted an audit of Borrower's books and records relating to the Foreign Accounts and any other Collateral for the Foreign ABL Loans and made extracts therefrom, and arranged for verification of the Foreign Accounts, directly with the account debtors or otherwise, all with results satisfactory to Bank, the reasonable cost of such audit of which shall be at Borrower's sole expense. Based on Bank's review of such audit, and prior to the advance of a Foreign ABL Loan in accordance with the terms of this Agreement hereof, Bank may adjust the Foreign Borrowing Base percentage, in its sole and reasonable discretion, as provided for under Section 4.15 hereof.

(c) LOAN LEDGER ACCOUNT. The amount of each ABL Loan made by Bank to Borrower hereunder shall be debited to the loan ledger account of Borrower maintained by Bank for the ABL Line of Credit (herein called the "ABL Loan Account") and Bank shall credit the ABL Loan Account with all loan repayments in respect thereof made by Borrower. ABL Loans may only be used for general corporate purposes.

(d) ABL LOANS INTEREST. Borrower further promises to pay to Bank from the date of the advance of the initial ABL Loan through the Foreign ABL Maturity Date, on or before the thirtieth (30) day of each month, interest on the unpaid balance of the ABL Loan Account at a rate of interest equal to Three quarters of one percent (3/4%) per annum in excess of the rate of interest which Bank has announced as its prime lending rate (the "Prime Rate"), which shall vary concurrently with any change in the Prime Rate, . Interest shall be computed at the above rate on the basis of the actual number of days during which the principal balance of the ABL Loans are outstanding divided by 360, which shall for interest computation purposes be considered one (1) year.

(e) CERTAIN DEFINITIONS. As used herein the following terms shall have the following meanings:

"Accounts" means any right to payment for goods sold or leased, or rented, or to be sold or to be leased, or to be rented, or for services rendered or to be rendered no matter how evidenced, including accounts receivable, contract rights, chattel paper, instruments, purchase orders, notes, drafts, acceptances, general intangibles and other forms of obligations and receivables.

"Collateral" means any and all property of Borrower which is assigned or hereafter is assigned to Bank as security or in which Bank now has or hereafter acquires a security interest.

"Country Limitation Schedule" means the most recent schedule published by Eximbank and provided to the Borrower by Bank which sets forth on a country by country basis whether and under what conditions Eximbank will provide coverage for the financing of export transactions to countries listed therein.

"Eligible Foreign Accounts" Eligible Foreign Accounts shall only include such Accounts as Bank in its sole discretion shall determine are eligible from time to time. Eligible Foreign Accounts to include Toshiba Corporation (Tokyo, Japan), Sony Corporation (Tokyo, Japan), Vanguard International Semiconductor Group ( subsidiary of Taiwan Semiconductor Manufacturing Corporation), ATI Technologies, Inc. (Ontario, Canada), and Fujitsu Limited (Kawasaki, Japan).

"Eligible Foreign Accounts" shall also NOT include any of the following:

(1) All Accounts under which payment is not received within 90 days from any invoice date or 60 days from any due date;

(2) All Accounts against which the account debtor or any other person obligated to make payment thereon asserts any defense, offset, counterclaim or other right to avoid or reduce the liability represented by the Account;

(3) Any Accounts if the account debtor or any other person liable in connection therewith is insolvent, subject to bankruptcy or receivership proceedings or has made an assignment for the benefit of creditors or whose credit standing is unacceptable to Bank and Bank has so notified Borrower.

(4) All Accounts with respect to which the account debtor is an officer, director, shareholder, employee, subsidiary or affiliate of Borrower.

(5) Salesmen's accounts for promotional purposes.

(6) Accounts with respect to international transactions unless insured by an insurance company acceptable to the Bank or covered by letters of credit issued or confirmed by a bank acceptable to the Bank.

(7) Credit balances greater than 90 days from invoice date or 60 days from due date.

(8) Accounts with terms of greater than 180 days.

(9) U.S. Government receivables, receivables from military buyers or generated by defense articles or services, unless formally assigned to the Bank.

(10) Accounts where the account debtor is a seller to Borrower, whereby a potential offset exists.

(11) Consignment or guaranteed sales.

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(12) Equipment and rental offsets; collection accounts (aged up to 90 days from invoice date or up to 60 days from due date).

(13) Accounts determined to be ineligible pursuant to the Export- Import Bank of the United States ("Eximbank, or the Eximbank Working Capital Program "Instructions" or any other Eximbank guidelines or restrictions.

(14) Receivables from foreign Accounts in countries in which Eximbank is legally prohibited from doing business as set forth in the current Country Limitation Schedule.

(15) Receivables from foreign Accounts in countries where Eximbank coverage is not available for economic reasons, as designated in the Country Limitation Schedule in effect at the time of the related export sale, unless the export sale is supported by an irrevocable letter of credit, confirmed by a bank acceptable to Eximbank.

(16) Accounts denominated in non-U.S. currency, unless pre-approved in writing by Eximbank.

(17) All Accounts that Bank or Eximbank, in its reasonable judgement, deem uncollectible or unacceptable for whatever reason.

(f) REQUESTS FOR FOREIGN ABL LOANS. Requests for Foreign ABL Loans hereunder shall be in writing duly executed by Borrower in a form satisfactory to Bank and shall contain a certification setting forth the matters referred to in Section 1, which shall disclose that Borrower is entitled to the amount of loan being requested.

(g) LATE CHARGE. If any installment payment, interest payment, principal payment or principal balance due under the ABL Line of Credit is delinquent twenty (20) or more days, Borrower agrees to pay Bank a late charge in the amount of three percent (3%) of the payment so due and unpaid, in addition to the payment; but

nothing in this paragraph is to be construed as any obligation on the part of Bank to accept payment of any payment past due or less than the total unpaid principal balance after maturity. All payments, at Bank's sole discretion, shall be applied first to any late charges owing, then to interest and the remainder, if any, to principal.

(h) DEFAULT RATE. If an Event of Default occurs hereunder, then during the continuance thereof at Bank's option, the interest rate shall be five percent (5%) per year in excess of the rate otherwise applicable.

(i) INTEREST CALCULATIONS. The term "Prime Rate" shall mean the rate that the Bank has announced as its prime rate, which shall vary concurrently with any change in the Prime Rate. Interest based on the Prime Rate shall vary concurrently with any change in the Prime Rate. All interest shall be computed at the rate specified in any note on the basis of the actual number of days during which the principal balance of the corresponding Loans are outstanding divided by 360, which shall for interest computation purposes be considered one (1) year.

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1.03 LOAN FEES. In addition to any other amounts due, or to become due, concurrent with the execution hereof, in connection with: (a) the Revolving Line of Credit, Borrower shall pay to Bank a loan fee of Twenty Four Thousand Seven Hundred Fifty Dollars (\$24,750.00).

1.04 DOCUMENTATION FEE, COSTS AND EXPENSES. In addition to any other amounts due, or to become due, concurrently with the execution hereof, Borrower agrees to pay to Bank a documentation fee in the amount of \$250, and all other reasonable costs and expenses incurred by Bank in the preparation of this Agreement, the other Loan Documents and the perfection of any security interest granted to Bank by Borrower.

1.05 COLLATERAL. Borrower shall grant or cause to be granted to Bank a first priority lien on any and all personal property assets of Borrower which is assigned or hereafter is assigned to Bank as security or in which Bank now has or hereafter acquires a security interest or pursuant to the terms of any security agreement, an intellectual property security agreement or otherwise as security for all of Borrower's obligations to Bank, all as may be subject to Section 5.03 herein.

1.06 COLLECTION OF PAYMENTS. Borrower authorizes Bank to collect all interest, fees, costs, and/or expenses due under this Agreement by charging Borrower's demand deposit account number \_\_\_\_\_ with Bank, or any other demand deposit account maintained by Borrower with Bank, for the full amount thereof. Should there be insufficient funds in any such demand deposit account to pay all such sums when due, the full amount of such deficiency shall be immediately due and payable by Borrower. Bank agrees to promptly notify Borrower after any such charge, provided that the failure to give such notice shall not affect the validity of such charge.

## 2. REPRESENTATIONS OF BORROWER

Borrower represents and warrants that:

2.01 EXISTENCE AND RIGHTS. Borrower is a corporation, duly organized and existing and in good standing under the laws of the state of California, Borrower is authorized and in good standing to do business in the state of its incorporation; Borrower has the appropriate powers and adequate authority, rights and franchises to own its property and to carry on its business as now conducted, and is duly qualified and in good standing in each state in which the character of the properties owned by it therein or the conduct of its business makes such qualification necessary; and Borrower has the power and adequate authority to make and carry out this Agreement. Borrower has no investment in any other business entity unless specified in writing to Bank.

2.02 AGREEMENT AUTHORIZED. The execution, delivery and performance of this Agreement and the Loan Documents are duly authorized and do not require the consent or approval of any governmental body or other regulatory authority; are not in contravention of or in conflict with any law or regulation or any term or provision of Borrower's articles of incorporation, or similar document as the case may be, and this Agreement is the valid, binding and legally enforceable

obligation of Borrower in accordance with its terms; subject only to bankruptcy, insolvency or similar laws affecting creditors rights generally.

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2.03 NO CONFLICT. The execution, delivery and performance of this Agreement and the other Loan Documents are not in contravention of or in conflict with any material agreement, indenture or undertaking to which Borrower is a party or by which it or any of its property may be bound or affected, and do not cause any lien, charge or other encumbrance to be created or imposed upon any such property by reason thereof.

2.04 LITIGATION. Except as disclosed in writing to bank by Borrower, there is no litigation or other proceeding pending or, to Borrower's knowledge, threatened against or affecting Borrower which if determined adversely to Borrower or its interest would have a material adverse effect on the financial condition of Borrower, and Borrower is not in default with respect to any order, writ, injunction, decree or demand of any court or other governmental or regulatory authority.

2.05 FINANCIAL CONDITION. The balance sheet of Borrower as of December 31, 1998, and the related profit and loss statement for the same period ended as of that date, a copy of which has heretofore been delivered to Bank by Borrower, and all other statements and data submitted in writing by Borrower to Bank in connection with this request for credit are true and correct in all material respects, and said balance sheet truly presents the financial condition of Borrower as of the date thereof, and has been prepared in accordance with generally accepted accounting principles on a basis consistently maintained. Since such date there have been no material adverse changes in the financial condition or business of Borrower. Borrower has no knowledge of any liabilities, contingent or otherwise, at such date not reflected in said balance sheet, and Borrower has not entered into any special commitments or substantial contracts which are not reflected in said balance sheet, other than in the ordinary and normal course of its business, which may have a materially adverse effect upon its financial condition, operations or business as now conducted.

2.06 TITLE TO ASSETS. Borrower has good title to its assets, and the same are not subject to any liens or encumbrances other than those permitted by Section 5.03 hereof.

2.07 TAX STATUS. Borrower has no liability for any delinquent state, local or federal taxes except such taxes which are being contested in good faith and as to which adequate reserves has been established, and, if Borrower has contracted with any government agency, Borrower has no liability for renegotiation of profits.

2.08 TRADEMARKS, PATENTS. Borrower, as of the date hereof, possesses all necessary trademarks, trade names, copyrights, patents, patent rights, and licenses to conduct its business as now operated, without any known conflict with the valid trademarks, trade names, copyrights, patents and license rights of others.

2.09 REGULATION U. None of the proceeds of any Loan shall be used to purchase or carry margin stock (as defined within Regulation U of the Board of Governors of the Federal Reserve system).

2.10 ERISA. All defined benefit pension plans as defined in the Employees Retirement Income Security Act of 1974, as amended ("ERISA"), of Borrower meet, as of the date hereof, the minimum funding standards of Section 302 of ERISA, and no Reportable Event or Prohibited Transaction as defined in ERISA has occurred with respect to any such plan.

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2.11 YEAR 2000 COMPLIANCE. Borrower and its subsidiaries, as applicable, have reviewed the areas within their operations and business which could be adversely affected by, and have developed or are developing a program to address on a timely basis, the Year 2000 Problem and have made related appropriate inquiry of material suppliers and vendors, and based on such review and program, the Year

2000 Problem will not have a material adverse effect upon its financial condition, operations or business as now conducted. "Year 2000 Problem" means the possibility that any computer applications or equipment used by Borrower may be unable to recognize and properly perform date sensitive functions involving certain dates prior to and any dates on or after December 31, 1999.

### 3. CONDITIONS PRECEDENT TO LOAN.

Prior to Bank being obligated to make any Loan pursuant to this Agreement, Bank must receive all of the following, each of which must be in form and substance satisfactory to Bank:

3.01 PROMISSORY NOTE(s). Original, executed promissory note(s).

3.02 SECURITY AGREEMENT. Original, executed security agreement(s) covering the personal property collateral securing the Loan(s) .

3.03 FINANCING STATEMENT. Financing statement(s) executed by Borrower.

3.04 INSURANCE. Borrower shall have delivered to Bank evidence of insurance coverage required pursuant to that Agreement to Provide Insurance executed by Borrower, in form, substance, amounts, covering risks and issued by companies reasonably satisfactory to Bank, and where required by Bank, with loss payable endorsements in favor of Bank.

3.05 ORGANIZATIONAL DOCUMENTS. Copies of the charter/articles of incorporation, or similar document as the case may be, of Borrower.

3.06 AUTHORIZATIONS. Certified copies of all action taken by the Borrower to authorize the execution, delivery and performance of the Loan Documents.

3.07 GOOD STANDING. Good standing certificates from the appropriate secretary of state of the state in which Borrower is organized and in each state in which it is required to be qualified to do business.

3.08 ADDITIONAL DOCUMENTS. Such other documents as Bank may reasonably deem necessary.

### 4. AFFIRMATIVE COVENANTS OF BORROWER

Borrower agrees that so long as it is indebted to Bank, under borrowings, or other indebtedness, or so long as Bank has any obligation to extend credit to Borrower it will, unless Bank shall otherwise consent in writing:

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4.01 RIGHTS AND FACILITIES. Maintain and preserve all rights, franchises and other authority adequate for the conduct of its business; maintain its properties, equipment and facilities in good order and repair; conduct its business in an orderly manner without voluntary interruption and, if a corporation or partnership, maintain and preserve its existence.

4.02 USE OF PROCEEDS. Use the proceeds of the Loans only for purposes specified in Section 1 of this Agreement.

4.03 INSURANCE. Maintain public liability, property damage and workers' compensation insurance and insurance on all its insurable property against fire and other hazards with responsible insurance carriers to the extent usually maintained by similar businesses and/or in the exercise of good business judgment, and as required by that Agreement to Provide Insurance executed by Borrower, with the Bank to be shown as Lenders Loss Payee on such policies.

4.04 TAXES AND OTHER LIABILITIES. Pay and discharge, before the same become delinquent and before penalties accrue thereon, all taxes, assessments and governmental charges upon or against it or any of its properties, and all its other liabilities at any time existing, except to the extent and so long as:

(a) The same are being contested in good faith and by appropriate proceedings in such manner as not to cause any materially adverse effect upon its financial condition or the loss of any right of redemption from any sale thereunder; and

(b) It shall have set aside on its books reserves (segregated to the extent required by generally accepted accounting practice) deemed by it to be adequate with respect thereto.

4.05 RECORDS AND REPORTS. Maintain a standard and modern system of accounting in accordance with generally accepted accounting principles on a basis consistently maintained; permit Bank's representatives to have access to, and to examine its properties, books and records at all reasonable times and upon reasonable notice during normal business hours; and furnish Bank:

(a) MONTHLY FINANCIAL STATEMENT. As soon as available, and in any event within Thirty (30) days after the close of each month, a balance sheet, profit and loss statement and reconciliation of Borrower's capital balance accounts as of the close of such period and covering operations for the portion of Borrower's fiscal year ending on the last day of such period, all in reasonable detail and reasonably acceptable to Bank, in accordance with generally accepted accounting principles on a basis consistently maintained by Borrower and certified by an appropriate officer of Borrower.

(b) ANNUAL FINANCIAL STATEMENT. As soon as available, and in any event within One Hundred Twenty (120) days after and as of the close of each fiscal year of Borrower commencing on fiscal year end December 31, 1999, report of audit of Borrower, all in reasonable detail, unqualified audit by an independent certified public accountant selected by Borrower and reasonably acceptable to Bank, in accordance with generally accepted accounting principles on a basis consistently maintained by Borrower and certified by an appropriate officer of Borrower;

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(c) OFFICER'S CERTIFICATE. Within Thirty (30) days after the end of each month, a certificate of the corporate officer of Borrower, stating that Borrower has performed and observed each and every covenant contained in this Agreement to be performed by it and that no event has occurred and no condition then exists which constitutes an event of default hereunder or would constitute such an Event of Default upon the lapse of time or upon the giving of notice and the lapse of time specified herein; or, if any such event has occurred or any such condition exists, specifying the nature thereof [in the form of exhibit 4.05 (c) attached hereto];

(d) AUDIT REPORTS. Promptly after the receipt thereof by Borrower, copies of any detailed audit reports submitted to Borrower by independent accountants in connection with each annual or interim work on the accounts of Borrower made by such accountants;

(e) ACCOUNTS RECEIVABLE AND ACCOUNTS PAYABLE AGINGS; Within 20 days from each month-end, deliver to Bank a detailed accounts receivable aging reconciled to the general ledger of Borrower, a detailed accounts payable aging reconciled to Borrower's general ledger and setting forth the amount of any book overdraft or the amount of checks issued but not sent and. All the foregoing will be in a form and with such detail as Bank may reasonably request from time to time.

(f) BORROWING BASE CERTIFICATE AND OTHER COLLATERAL REPORTING REQUIREMENTS. Deliver to Bank, within 20 days from each month-end, a Borrowing Base Certificate including sales and cash receipts in the form of exhibit 4.05(f)-1 attached hereto, and all other required collateral reporting in the form of exhibits 4.05 (f)-2 and exhibit 4.05-(f)-3 attached hereto;

(g) OTHER INFORMATION. Such other information relating to the affairs of Borrower as Bank reasonably may request from time to time.

4.06 QUICK RATIO. Maintain on monthly basis a minimum quick ratio of unrestricted cash plus accounts receivable divided by current liabilities minus deferred revenues derived from maintenance contracts of at least 1.25:1.0 through June 30, 1999, and 1.10:1.0 thereafter.

4.07 LOSS/PROFITABILITY. Maintain on a quarterly basis on a pre-tax basis and defined as operating loss/profit less foreign revenue tax : (a) Maximum loss of no more than \$400,000 for the March '99 quarter; (b) Maximum loss of no more than \$550,000 for the June '99 quarter; (c) Maximum loss of no more than \$300,000 for the September '99 quarter; and (d) Maximum loss of no more than

\$250,000 for the December '99 quarter.

4.08 LIQUIDITY RATIO. Maintain on monthly basis a minimum liquidity ratio of unrestricted cash plus seventy percent (70%) of gross accounts receivable divided by outstanding bank debt of at least 1.50:1.0.

4.09 LAWS. At all times comply with, or cause to be complied with, all laws, statutes, rules, regulations, orders and directions of any governmental authority having jurisdiction over Borrower or Borrower's business the failure of which to comply with would have a material adverse effect upon Borrower's financial condition, operations, or business as now conducted.

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4.10 GAAP. Compliance with all financial covenants shall be calculated based on generally accepted accounting principles applied on a consistent basis as maintained by Borrower.

4.11 YEAR 2000 COMPLIANT. Borrower shall perform all acts reasonably necessary to ensure that (a) Borrower and any business in which Borrower holds a substantial interest, and (b) all customers, suppliers and vendors whose compliance is likely to be material to Borrower's business, become Year 2000 Compliant in a timely manner. Such acts shall include, without limitation, performing a comprehensive review and assessment of all Borrower's systems and adopting a detailed plan, with itemized budget, for the remediation, monitoring and testing of such systems. As used in this paragraph, "Year 2000 Compliant" shall mean, in regard to any entity, that all software, hardware, firmware, equipment, goods or systems utilized by or material to the business operations or financial condition of such entity, will properly perform date sensitive functions before, during and after the year 2000. Borrower shall, immediately upon request, provide to Agent such certifications or other evidence of Borrower's compliance with the terms of this paragraph as Bank may from time to time reasonably require.

4.12 OPERATING ACCOUNTS. Maintain all primary accounts and banking relationship with the Bank. Maintain, or cause to be maintained, on deposit with Bank, non-interest bearing demand deposit balances sufficient to compensate Bank for all services provided by Bank. Balances shall be calculated after reduction for the reserve requirement of the Federal Reserve Board and uncollected funds. Any deficiencies shall be charged directly to the Borrower on a monthly basis.

4.13 NOTICES. Promptly notify Bank in writing of (i) the occurrence of any Event of Default hereunder or any event which upon notice and lapse of time would be an Event of Default; (ii) all litigation affecting Borrower where the amount is \$50,000 or more; any substantial dispute which may exist between Borrower and any governmental regulatory body or law enforcement authority; any change in Borrower's name or principal place of business; or any other matter which has resulted or might result in a material adverse change in Borrower's financial condition or operations.

4.14 AUDITS. Permit representatives of Bank to conduct audits of Borrower's books and records relating to the Accounts, and other Collateral and make extracts therefrom, with results satisfactory to Bank to be required semi-annually, provided that Bank shall use its best efforts to not interfere with the conduct of Borrower's business, and to the extent possible to arrange for verification of the Accounts directly with the account debtors obligated thereon or otherwise, all under reasonable procedures acceptable to Bank and at Borrower's sole expense; Notwithstanding any of the provisions contained in Section 1.02 hereof, Borrower hereby acknowledges and agrees that upon completion of any such audit Bank shall have the right to adjust the Borrowing Base percentage, in its sole and reasonable discretion, based on its review of the results of such collateral audit.

4.15 COVENANTS RELATING TO COLLATERAL. In addition to any covenants in any Loan Document relating to any Collateral the Borrower agrees:

(a) To execute and deliver to Bank such assignments, including Bank's standard forms of Specific or General Assignment covering individual Accounts, notices, financing statements, and other documents and papers as Bank may reasonably require in order to affirm, effectuate or further assure the

assignment to Bank of the Collateral or to give any third party, including the account debtors obligated on the Accounts, notice of Bank's interest in the Collateral.

(b) Until Bank exercises its rights to collect the Accounts proceeds pursuant to Section 4.16 (e), Borrower will collect with diligence all Borrower's Accounts and Inventory proceeds

(c) That until Bank exercises its rights to collect the Accounts proceeds pursuant to Section 4.16 (e), Borrower may continue its present policies with respect to returned merchandise and adjustments.

(d) To promptly notify Bank of any attachment or other legal process levied against any of the Collateral and any information received by Borrower relative to the Collateral, including the Accounts, the account debtors or other persons obligated in connection therewith, which may in any way affect the value of the Collateral or the rights and remedies of Bank in respect thereto

(e) To do all acts necessary to maintain, preserve, and protect the Inventory, keep all Inventory in good condition and repair and not to cause any waste or unusual or unreasonable depreciation thereof.

(f) In the event any unpaid balance of Borrower's Loan Account shall exceed the maximum amount of outstanding Loans to which Borrower is entitled under Section 1 hereof, Borrower shall immediately pay to Bank for credit to Borrower's Loan Account the amount of such excess.

4.16 EXIMBANK AGREEMENT. Comply with all terms of the Export-Import Bank of the United States Working Capital Guarantee Program Borrower Agreement executed by Borrower and acknowledged by Bank ("Eximbank Agreement").

#### 5. NEGATIVE COVENANTS OF BORROWER

Borrower agrees that so long as it is indebted to Bank, or so long as Bank has any obligation to extend credit to Borrower, it will not, without Bank's written consent:

5.01 TYPE OF BUSINESS. Make any substantial change in the character of its business;

5.02 OUTSIDE INDEBTEDNESS. Create, incur, assume or permit to exist any indebtedness for borrowed moneys other than Loans from Bank except (a) obligations now existing as shown in the financial statement dated December 31, 1998, excluding those obligations being refinanced by Bank, (b) sell or transfer, either with or without recourse, any accounts or notes receivable or any moneys due or to become due, (c) indebtedness of Borrower arising from the endorsement of instruments for collection in the ordinary course of business, (d) indebtedness of Borrower for trade accounts payable provided that such accounts arise in the ordinary course of business and no material part of any such account is more than 90 days past due (unless subject to a bona fide dispute and for which adequate reserves have been established), (e) indebtedness of Borrower under purchase money loans and capital leases incurred by Borrower to finance the acquisition of real property, fixtures or equipment provided that such indebtedness is incurred by Borrower not later than 30 days after acquisition of such property and such indebtedness does not exceed the purchase price of the property so financed and (f) other unsecured

indebtedness of Borrower provided the aggregate principal amount of all such indebtedness does not exceed \$250,000.

5.03 LIENS AND ENCUMBRANCES. Create, incur, permit to exist, or assume any mortgage, pledge, encumbrance, lien or charge of any kind upon any asset now owned or hereafter acquired by it, other than (a) liens for taxes not delinquent and liens in Bank's favor and other than liens agreed to in writing by Bank, (b) liens existing on the date of this Agreement reflected in the balance sheet of Borrower as of December 31, 1998 delivered to Bank pursuant to Section 2.05, (c)



liens of carriers, warehousemen, mechanics, materialmen, vendors, and landlords and other similar liens imposed by law incurred in the ordinary course of business for sums not overdue or being contested in good faith, provided that adequate reserves for the payment thereof have been established in accordance with generally accepted accounting principles, (d) deposits under workers' compensation, unemployment insurance and social security laws or to secure the performance of bids, tenders, contracts (other than for the repayment of borrowed money) or leases, or to secure statutory obligations of surety or appeal bonds or to secure indemnity, performance or other similar bonds in the ordinary course of business, (e) zoning restrictions, easements, rights-of-way, title irregularities and other similar encumbrances, which alone or in the aggregate are not substantial in amount and do not materially detract from the value of the property subject thereto or interfere with the ordinary conduct of the business of Borrower, (f) banker's liens and similar liens (including set-off rights) in respect of bank deposits, (g) liens constituting purchase money security interests and (h) liens incurred in connection with capital expenditures otherwise permitted pursuant to Section 5.02 of this Agreement.

5.04 LOANS, INVESTMENTS, SECONDARY LIABILITIES. Make any loans or advances to any person or other entity other than in the ordinary and normal course of its business as now conducted or make any investment in the securities of any person or other entity other than the United States Government; or guarantee or otherwise become liable upon the obligation of any person or other entity, except by endorsement of negotiable instruments for deposit or collection in the ordinary and normal course of its business.

5.05 ACQUISITION OR SALE OF BUSINESS; MERGER OR CONSOLIDATION. Purchase or otherwise acquire the assets or business of any person or other entity except for transactions with 100% stock purchases or transactions having a total purchase price including not more than \$250,000 in cash in any single fiscal year; or liquidate, dissolve, merge or consolidate, or commence any proceedings therefor; or sell any assets except in the ordinary and normal course of its business as now conducted; or sell, lease, assign, or transfer any substantial part of its business or fixed assets, or any property or other assets necessary for the continuance of its business as now conducted, including without limitation the selling of any property or other asset accompanied by the leasing back of the same.

#### 6. EVENTS OF DEFAULT

The occurrence of any of the following events of default ("Events of Default") shall, at Bank's option, terminate Bank's commitment to lend and make all sums of principal and interest then remaining unpaid on all Borrower's indebtedness to Bank immediately due and payable, all without demand, presentment or notice, all of which are hereby expressly waived:

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6.01 FAILURE TO PAY. Failure to pay any installment of principal or of interest on any indebtedness of Borrower to Bank within, five (5) days of its due date.

6.02 BREACH OF COVENANT. Failure of Borrower to perform any other term or condition of this Agreement or any Loan Document binding upon Borrower and such failure shall continue for fifteen (15) days after the earlier of (i.) Borrower's written acknowledgement to Bank of such failure or (ii.) Bank's written notice to Borrower of such failure.

6.03 BREACH OF WARRANTY. Any of Borrower's representations or warranties made herein or any statement or certificate at any time given in writing pursuant hereto or in connection herewith shall be false or misleading in any material respect when made or furnished.

6.04 INSOLVENCY; RECEIVER OR TRUSTEE. Borrower shall become insolvent; or admit its inability to pay its debts as they mature; or make an assignment for the benefit of creditors; or apply for or consent to the appointment of a receiver or trustee for it or for a substantial part of its property or business.

6.05 JUDGMENTS, ATTACHMENTS. Any money judgment in excess of \$ 100,000, writ or warrant of attachment, or similar process shall be entered or filed against Borrower or any of its assets and shall remain un-vacated, un-bonded or un-stayed for a period of ten (10) days or in any event later than five (5) days prior to the date of any proposed sale thereunder.

6.06 BANKRUPTCY. Bankruptcy, insolvency, reorganization or liquidation proceedings or other proceedings for relief under any bankruptcy law or any law for the relief of debtors shall be instituted by or against Borrower and, if instituted against it, shall not be dismissed within thirty (30) days thereafter.

6.07 CESSATION OF BUSINESS. Borrower shall voluntarily suspend its business.

6.08 ADVERSE CHANGE. Any change which, in the opinion of Bank, is materially adverse to the financial condition of Borrower or any Guarantor; or should Bank, for any reason, believe that the prospect of Borrower's payment or performance hereunder or under any other agreement or instrument with Bank be materially impaired.

6.09 OTHER DEFAULTS. Borrower, or any Guarantor of Borrower's obligations to Bank, shall commit or do or fail to commit or do any act or thing which would constitute an event of default under any of the terms of any other agreement, document or instrument executed or to be executed by it concerning the obligation to pay money and the effect of such failure, event or condition is to cause, or permit the holder or holders thereof to cause, indebtedness of Borrower and its Subsidiaries (other than the Obligations) in an aggregate amount exceeding \$100,000 to become redeemable, due or otherwise payable (whether at scheduled maturity, by required prepayment, upon acceleration or otherwise).

6.10 ADVANCES. Notwithstanding anything to the contrary contained herein, Bank shall have no duty to make advances while any event of default exists notwithstanding any cure period provided for herein.

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6.11 DEFAULT REMEDIES. In addition to any other right or remedy Bank may have, upon the occurrence of an Event of Default Bank may at any time, without prior notice to Borrower, collect the Accounts and Inventory proceeds and may give notice of assignment to any and all account debtors, and Borrower does hereby make, constitute and appoint Bank its irrevocable, true and lawful attorney with power to receive, open and dispose of all mail addressed to Borrower, to endorse the name of Borrower upon any checks or other evidences of payment that may come into the possession of Bank upon the Accounts or as proceeds of Inventory; to endorse the name of the undersigned upon any document or instrument relating to the Collateral; in its name or otherwise, to demand, sue for, collect and give acquittances for any and all moneys due or to become due upon the Accounts; to compromise, prosecute or defend any action, claim or proceeding with respect thereto; and to do any and all things necessary and proper to carry out the purpose herein contemplated.

## 7. MISCELLANEOUS PROVISIONS

7.01 FAILURE OR INDULGENCE NOT WAIVER. No failure or delay on the part of Bank or any holder of notes issued hereunder, in the exercise of any power, right or privilege hereunder shall operate as a waiver thereof, nor shall any single or partial exercise of any such power, right or privilege preclude other or further exercise thereof or of any other right, power or privilege. All rights and remedies existing under this Agreement or any note(s) issued in connection with a Loan that Bank may make hereunder, are cumulative to, and not exclusive of, any rights or remedies otherwise available.

7.02 COUNTERPARTS; ENTIRE AGREEMENT. This Agreement may be executed by the parties hereto in several counterparts, each of which shall be deemed to be an original and all of which shall constitute together but one and the same agreement. This Agreement, and the other Loan Documents constitute the entire understanding among the parties hereto with respect to the subject matter hereof and supersedes any prior agreements, written or oral, with respect thereto.

7.03 ATTORNEY'S FEES. Borrower will pay promptly to Bank without demand after notice, with interest thereon from the date of demand at the rate applicable to the Loan, reasonable attorneys' fees and all costs and expenses paid or incurred by Bank in collecting or compromising the Loan after the occurrence of an Event of Default, whether or not suit is filed. If suit is brought to enforce any provision of this Agreement, the prevailing party shall be entitled to recover its reasonable attorneys' fees and court costs in addition to any other remedy

or recovery awarded by the court.

7.04 ADDITIONAL REMEDIES. The rights, powers and remedies given to Bank hereunder shall be cumulative and not alternative and shall be in addition to all rights, powers and remedies given to Bank by law against Borrower or any other person, including but not limited to Bank's rights of setoff or banker's lien.

7.05 INUREMENT. The benefits of this Agreement shall inure to the successors and assigns of Bank and the permitted successors and assigns of Borrower.

7.06 APPLICABLE LAW. This Agreement and all other agreements and instruments required by Bank in connection therewith shall be governed by and construed according to the laws of the state of California, to the jurisdiction of whose courts the parties hereby agree to submit.

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7.07 OFFSET. In addition to and not in limitation of all rights of offset that Bank or other holder of the Loan may have under applicable law, Bank or other holder of any note issued hereunder shall, upon the occurrence of any Event of Default or any event which with the passage of time or notice would constitute such an Event of Default, have the right to appropriate and apply to the payment of the Loan any and all balances, credits, deposits, accounts or monies of Borrower then or thereafter with Bank or other holder, within ten (10) days after the Event of Default, and notice of the occurrence of any Event of Default by Bank to Borrower.

7.08 SEVERABILITY. Should any one or more provisions of the Agreement be determined to be illegal or unenforceable, all other provisions nevertheless shall be effective.

7.09 TIME OF THE ESSENCE. Time is hereby declared to be of the essence of this Agreement and of every part hereof.

7.10 ACCOUNTING. All accounting terms shall have the meanings applied under generally accepted accounting principles unless otherwise specified.

7.11 REFERENCE PROVISION.

(a) Other than (i) nonjudicial foreclosure and all matters in connection therewith regarding security interests in real or personal property; or (ii) the appointment of a receiver, or the exercise of other provisional remedies (any and all of which may be initiated pursuant to applicable law), each controversy, dispute or claim between the parties arising out of or relating to this Credit Agreement, any security agreement executed by Borrower in favor of Bank or any note executed by Borrower in favor of Bank or any other agreement or instrument issued in favor of Bank by Borrower (collectively in this Section, the "Agreement") which controversy, dispute or claim is not settled in writing within thirty (30) days after the "Claim Date" (defined as the date on which a party subject to this Agreement gives written notice to all other parties that a controversy, dispute or claim exists), will be settled by a reference proceeding in California in accordance with the provisions of Section 638 et seq. of the California Code of Civil Procedure, or their successor section ("CCP"), which shall constitute the exclusive remedy for the settlement of any controversy, dispute or claim concerning this Agreement, including whether such controversy, dispute or claim is subject to the reference proceeding and except as set forth above, the parties waive their rights to initiate any legal proceedings against each other in any court or jurisdiction other than the Superior Court in the County where the Real Property, if any, is located or Los Angeles County if none (the "Court"). The referee shall be a retired Judge of the Court selected by mutual agreement of the parties, and if they cannot so agree within forty-five (45) days after the Claim Date, the referee shall be promptly selected by the Presiding Judge of the Court (or his representative). The referee shall be appointed to sit as a temporary judge, with all of the powers for a temporary judge, as authorized by law, and upon selection should take and subscribe to the oath of office as provided for in Rule 244 of the California Rules of Court (or any subsequently enacted Rule). Each party shall have one peremptory challenge pursuant to CCP Section 170.6. The referee shall (a) be requested to set the matter for hearing within sixty (60) days after the date of selection of the referee and (b) try any and all issues of law or fact and report a statement of decision upon them, if possible, within ninety (90) days of the Claim Date. Any

decision rendered by the referee will be final, binding and conclusive and judgment shall be entered pursuant to CCP Section 644 in any court in the state of California having jurisdiction. Any party may apply for a reference proceeding at any time after thirty (30) days following notice to any

other party of the nature of the controversy, dispute or claim, by filing a petition for a hearing and/or trial. All discovery permitted by this Agreement shall be completed no later than fifteen (15) days before the first hearing date established by the referee. The referee may extend such period in the event of a party's refusal to provide requested discovery for any reason whatsoever, including, without limitation, legal objections raised to such discovery or unavailability of a witness due to absence or illness. No party shall be entitled to "priority" in conducting discovery. Depositions may be taken by either party upon seven (7) days written notice, and request for production or inspection of documents shall be responded to within ten (10) days after service. All disputes relating to discovery which cannot be resolved by the parties shall be submitted to the referee whose decision shall be final and binding upon the parties. Pending appointment of the referee as provided herein, the Superior Court is empowered to issue temporary and/or provisional remedies, as appropriate.

(b) Except as expressly set forth in this Agreement, the referee shall determine the manner in which the reference proceeding is conducted including the time and place of all hearings, the order of presentation of evidence, and all other questions that arise with respect to the course of the reference proceeding. All proceedings and hearings conducted before the referee, except for trial, shall be conducted without a court reporter except that when any party so requests, a court reporter will be used at any hearing conducted before the referee. The party making such a request shall have the obligation to arrange for and pay for the court reporter. The costs of the court reporter at the trial shall be borne equally by the parties.

(c) The referee shall be required to determine all issues in accordance with existing case law and the statutory laws of the state of California. The rules of evidence applicable to proceedings at law in the state of California will be applicable to the reference proceeding. The referee shall be empowered to enter equitable as well as legal relief, to provide all temporary and/or provisional remedies and to enter equitable orders that will be binding upon the parties. The referee shall issue a single judgment at the close of the reference proceeding which shall dispose of all of the claims of the parties that are the subject of the reference. The parties hereto expressly reserve the right to contest or appeal from the final judgment or any appealable order or appealable judgment entered by the referee. The parties hereto expressly reserve the right to findings of fact, conclusions of laws, a written statement of decision, and the right to move for a new trial or a different judgment, which new trial, if granted, is also to be a reference proceeding under this provision.

(d) In the event that the enabling legislation which provides for appointment of a referee is repealed (and no successor statute is enacted), any dispute between the parties that would otherwise be determined by the reference procedure herein described will be resolved and determined by arbitration. The arbitration will be conducted by a retired judge of the Court, in accordance with the California Arbitration Act, Section 1280 through Section 1294.2 of the CCP as amended from time to time. The limitations with respect to discovery as set forth hereinabove shall apply to any such arbitration proceeding.

7.12 This Agreement may be modified only by a writing signed by all parties hereto.

7.13 NOTICE PROVISION. Unless otherwise provided in this Agreement, all notices or demands by any party relating to this Agreement or any other agreement entered into in connection herewith shall be in writing and (except for financial statements and other informational documents which may be sent by first-class mail, postage prepaid) shall be personally delivered or sent by a recognized overnight

delivery service, certified mail, postage prepaid, return receipt requested, or by telefacsimile to Borrower or to Bank, as the case may be, at its addresses set forth below:

If to Borrower: PDF Solutions, Inc.  
333 West San Carlos, Suite 1200  
San Jose, CA 95110  
Attn: Mr. Steve Melman  
FAX: (408) 280-7915

If to Bank: Imperial Bank  
Emerging Growth Industries Group  
2460 Sand Hill Road, Suite 102  
Menlo Park, CA 94025  
Attn: Mr. Kevin Zeidan  
FAX: (650) 233-3020

The parties hereto may change the address at which they are to receive notices hereunder, by notice in writing in the foregoing manner given to the other.

This Agreement is executed on behalf of the parties by duly authorized officers as of the date first above written.

IMPERIAL BANK  
("BANK")

PDF SOLUTIONS, INC  
("BORROWER")

By: /s/ KEVIN ZEIDAN  
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By: /s/ JOHN K. KIBARIAN  
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Its: Assistant Vice President

Its: President & CEO

By: /s/ P. STEVEN MELMAN  
-----

Its: Chief Financial Officer

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[IMPERIAL BANK LETTERHEAD]

Date: July 10, 2000

John K. Kibarian, President  
P. Steven Melman, Chief Financial Officer  
PDF SOLUTIONS, INC.  
333 West San Carlos, Ste. 700  
San Jose, CA 95110

Re: LOAN EXTENSION  
Borrower Name: PDF SOLUTIONS, INC.  
Loan Number/Note Number: 00720000268 \$2,500,000 and \$500,000 Credit Lines

Dear Borrower:

Imperial Bank has approved an extension of the above-referenced credit facility to August 31, 2000 from its current maturity as evidenced by that certain note/agreement dated July 6, 1999 as may be or have been modified from time to time.

Except as modified and extended hereby, the existing loan documentation as

amended concerning your obligation remains in full force and effect.

Very truly yours,

/s/ KEVIN ZEIDAN  
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Kevin Zeidan  
Assistant Vice President

Acknowledged and accepted on 6/12/00.  
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PDF SOLUTIONS, INC.

By: /s/ P. STEVEN MELMAN           CFO  
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  Title

By: -----

By: /s/ THOMAS F. COBOURN        VP  
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  Title

By: -----

July 9, 1998

Steven Melman  
7099 Royal Ridge Drive  
San Jose, CA 95120

Dear Steven:

Congratulations! Here is the amended offer letter with the new terms as agreed to by you and John Kibarian.

1. You will participate in the same bonus plan as other PDF professionals. (paragraph 5)
2. There will be no anti-dilution commitment or guarantee.
3. MODIFICATION TO PDF'S STANDARD STOCK OPTION PLAN. You will be subject to the standard PDF stock option agreements. There will be two amendments to this plan to account for termination without cause when there is no change of control of the company, and change of control of the company. For the purposes of your employment, "change of control" is defined as an event where by a party or group of parties, different from those maintaining control today, attains a majority voting right in the company. During your first year of employment, if you are terminated w/o cause, and there is no change of control of the company, you do not vest any stock options. If you are terminated w/o cause any time after your 1st anniversary and there is no change of control, you receive 6 months additional vesting. If there is change of control of PDF, your vesting is accelerated by 24 months regardless of whether your employment is terminated. (Subject to the approval of the board of directors at their next meeting.)
4. SEVERENCE PAY AND BENEFITS  
  
You will receive six months severance including benefits paid out over the normal payroll cycle with the exception of stock options, which are covered under the 3rd clause of this letter if you are terminated without cause at any time.

On behalf of PDF Solutions, Inc., a California corporation (the "Company"), I am pleased to offer you the position of VP of Finance and Administration, Chief Financial Officer of the Company under the terms listed below. You will report initially to John Kibarian and have such responsibilities as determined by that person.

1. Duties. You agree to the best of your ability and experience that you will at all times loyally and conscientiously perform all of the duties and obligations required of and from you pursuant to the express and implicit terms hereof, and to the reasonable satisfaction of the Company. You will comply with all policies of the Company as in effect from time to time. During the term of your employment, you further agree that you will devote all of your business time and attention to the business of the Company, the Company will be entitled to all of the benefits and profits arising from or incident to all such work services and advice, you will not render commercial or professional services of any nature to any person or organization, whether or not for compensation, without the prior written consent of the Company, and you will not directly or indirectly engage or participate in any business that is competitive in any manner with the business of the Company. Nothing in this letter agreement will prevent you from accepting speaking or presentation engagements in exchange for honoraria or from serving on boards of

charitable organizations, or from owning no more than one percent (1%) of the outstanding equity securities of a corporation whose stock is listed on a national stock exchange.

2. Start Date. Subject to fulfillment of any conditions imposed by this letter agreement, you will commence this new position with the Company as follows:
  - A. Two weeks notice to be given to ASC week ending 7/11/98.
  - B. PDF employment and "Start Date" to begin 7/16/98, attending BOD meeting at 3:00 PM., except during the discussion about your offer.
  - C. The period between 7/16/98 and 7/24/98 will be taken as non-paid time off. Paid time and office time will begin on 7/27/98.
3. Proof of Right to Work. For purposes of federal immigration law, you will be required to provide to the Company documentary evidence of your identity and eligibility for employment in the United States. Such documentation must be provided to us within three (3) business days of your date of hire, or our employment relationship with you may be terminated.
4. Base Salary. You will be paid a base salary of \$150,000 per year commencing on your Start Date. Your salary will be payable monthly in accordance with the Company's standard payroll policies (subject to normal required withholding). You will be entitled to ten (10) days paid vacation per year, pro-rated for the remainder of the calendar year from your Start Date. The Company also currently recognizes ten (10) days for paid holidays per calendar year, however, the holidays or number of days may be subject to change.
5. Bonus. You will be eligible to participate in the 1998 bonus plan, in which select employees will receive up to \$20,000. The exact amount is based upon PDF's achievement of revenue targets as well as the employee's individual performance as decided upon by PDF management. There are, of course, no guarantees of what, if any, bonus will be paid in 1998 or any subsequent year.
6. Stock Options. In connection with the commencement of your employment, the Company will recommend that the Board of Directors grant you an option to purchase 300,000 shares (the "Total Option Shares") of the Company's Common Stock with an exercise price equal to the fair market value of the Common Stock on the date of the grant by the Board. Such option will vest over a four year period starting on your Start Date (the date you actually start working) according to the following vesting schedule: 1/4 of the Total Option Shares will be exercisable on the twelve (12) month anniversary of your Start Date and 1/48th of the Total Option Shares will be exercisable on a monthly basis thereafter. Vesting of the options will, of course, depend on your continued employment with the Company. The options will be incentive stock options to the maximum extent permitted by the tax code and will be subject to execution of and the terms of the Company's Stock Option Plan and the Stock Option Agreement to be entered into between you and the Company. The option grant is subject to and will not be effective until approved by the Board.
7. Benefits. Effective on your Start Date, the Company will make available to you the standard medical and dental insurance and other benefits provided to employees of the Company generally.
8. At-Will Employment. By signing below, you acknowledge that your employment at the Company is for an unspecified duration, and neither this letter nor your acceptance thereof constitutes a contract of employment. You acknowledge that your employment will be on an "at-will" basis, which means that the employment relationship may be terminated by you or the Company at any time for any reason or no reason, without further obligation or liability.
9. Confidentiality Information and Invention Assignment Agreement. Your acceptance of this offer and commencement of employment with the Company is contingent upon the execution, and delivery to an officer of the Company, of the Company's Confidential Information and Invention Assignment Agreement, a copy of which is enclosed for your review and execution (the



"Confidentiality Agreement"), prior to or on the Start Date. The Confidentiality Agreement relates to confidential information you gain about PDF's business, technology, and intellectual property as well as information for our customers and the Company's ownership of intellectual property generated while you are employed at PDF. You are required to protect this information to the best of your ability even after your possible termination of employment.

- 10. Confidentiality of Terms. You agree to follow the Company's strict policy that employees must not disclose, either directly or indirectly, any information, including any of the terms of this agreement, regarding salary, bonuses, or stock purchase or option allocations to any person, including other employees of the Company; provided, however, that you may discuss such terms with members of your immediate family and any legal, tax or accounting specialists who provide you with individual legal, tax or accounting advice.

We are all delighted to be able to extend you this offer and look forward to working with you. To indicate your acceptance of the Company's offer, please sign and date this letter in the space provided below and return it to me, along with a signed and dated copy of the Confidentiality Agreement. This letter, together with the Confidentiality Agreement, set forth the terms of your employment with the Company and supersedes any prior representations or any agreements, whether written or oral. This letter may not be modified or amended except by a written agreement, signed by the Company and by you.

THIS OFFER EXPIRES TWO DAYS FROM THE DATE OF THIS LETTER WRITTEN ABOVE.

Very truly yours,  
PDF SOLUTIONS, INC.

By /s/ DR. THOMAS F. COBOURN  
-----  
Dr. Thomas F. Cobourn  
Vice President, PDF/SOLUTIONS, INC

THE FOREGOING TERMS AND CONDITIONS  
ARE HEREBY AGREED TO AND ACCEPTED:

Signed: /s/ P. STEVEN MELMAN  
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Print Name: P. Steven Melman  
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Date: July 10, 1998  
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List of Subsidiaries

Name of Subsidiaries	Jurisdiction of Organization
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PDF Solutions, GmbH PDF Solutions, KK	Germany Japan

## CONSENT OF DELOITTE &amp; TOUCHE LLP

We consent to the use in this Registration Statement of PDF Solutions, Inc. on Form S-1 of our report dated April 3, 2000 (April 27, 2000 as to the first paragraph of Note 2), appearing in the Prospectus, which is part of this Registration Statement, and of our report dated April 3, 2000 relating to the financial statement schedule appearing elsewhere in this Registration Statement.

We also consent to the reference to us under the heading "Experts" in such Prospectus.

DELOITTE & TOUCHE LLP

San Jose, California  
August 7, 2000

CONSENT OF DELOITTE & TOUCHE GmbH

We consent to the use in this Registration Statement of PDF Solutions, Inc. on Form S-1 of our report dated July 26, 2000 (relating to the financial statements of Applied Integrated Systems & Software Entwicklungs-, Produktions- und Vertriebs GmbH as of and for the year ended December 31, 1999).

We also consent to the reference to us under the heading "Experts" in such Registration Statement.

Deloitte & Touche GmbH  
Wirtschaftsprüfungsgesellschaft

Munich, Germany  
August 7, 2000