

**UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION**

**Washington, D.C. 20549**

---

**FORM 10-Q**

---

**[X] QUARTERLY REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

**For the Quarterly Period ended June 30, 2004**

**or**

**[ ] TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

**For the transition period from \_\_\_\_\_ to \_\_\_\_\_**

**Commission File Number 000-31311**

---

**PDF SOLUTIONS, INC.**

(Exact name of Registrant as Specified in its Charter)

---

**Delaware**  
(State or Other Jurisdiction of  
Incorporation or Organization)

**333 West San Carlos Street, Suite 700**  
**San Jose, California**  
(Address of Principal Executive Offices)

**25-1701361**  
(I.R.S. Employer  
Identification No.)

**95110**  
(Zip Code)

**(408) 280-7900**

(Registrant's Telephone Number, Including Area Code)

Indicate by check mark whether the Registrant: (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Act of 1934 during the preceding 12 months (or for such shorter period that the Registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days.

Yes  No

Indicate by check mark whether the registrant is an accelerated filer (as defined in Rule 12b-2 of the Exchange Act)

Yes  No

The number of shares outstanding of the Registrant's Common Stock as of August 4, 2004 was 25,393,983.

---

---

TABLE OF CONTENTS

	<u>Page</u>
<b>PART I</b>	
<b>FINANCIAL INFORMATION</b>	
Item 1. Financial Statements	
<a href="#">Unaudited Consolidated Balance Sheets</a>	2
<a href="#">Unaudited Consolidated Statements of Operations</a>	3
<a href="#">Unaudited Consolidated Statements of Cash Flows</a>	4
<a href="#">Notes to Unaudited Consolidated Financial Statements</a>	5
Item 2. <a href="#">Management's Discussion and Analysis of Financial Condition and Results of Operations</a>	13
Item 3. <a href="#">Quantitative and Qualitative Disclosures About Market Risk</a>	32
Item 4. <a href="#">Controls and Procedures</a>	33
<b>PART II</b>	
<b>OTHER INFORMATION</b>	
Item 1. <a href="#">Legal Proceedings</a>	34
Item 2. <a href="#">Changes in Securities and Use of Proceeds</a>	34
Item 3. <a href="#">Defaults on Senior Securities</a>	34
Item 4. <a href="#">Submission of Matters to a Vote of Security Holders</a>	34
Item 5. <a href="#">Other Information</a>	35
Item 6. <a href="#">Exhibits and Reports on Form 8-K</a>	36
<b>SIGNATURES</b>	37
<b>INDEX TO EXHIBITS</b>	
<a href="#">EXHIBIT 31.1</a>	
<a href="#">EXHIBIT 31.2</a>	
<a href="#">EXHIBIT 32.1</a>	
<a href="#">EXHIBIT 32.2</a>	

**PDF SOLUTIONS, INC.**  
**CONSOLIDATED BALANCE SHEETS (UNAUDITED)**  
**(In thousands, except per share amounts)**

	<u>June 30, 2004</u>	<u>December 31, 2003</u>
<b>ASSETS</b>		
Current assets:		
Cash and cash equivalents	\$ 42,472	\$ 39,110
Accounts receivable, net of allowances of \$254 in 2004 and \$504 in 2003	11,736	11,869
Prepaid expenses and other current assets	2,346	2,614
Deferred tax assets	1,549	1,808
Total current assets	58,103	55,401
Property and equipment, net	3,550	4,110
Goodwill	40,590	40,548
Intangible assets, net	18,910	22,906
Other assets	1,020	1,002
Total assets	<u>\$ 122,173</u>	<u>\$ 123,967</u>
<b>LIABILITIES AND STOCKHOLDERS' EQUITY</b>		
Current liabilities:		
Accounts payable	\$ 1,726	\$ 835
Accrued compensation and related benefits	1,900	1,952
Other accrued liabilities	1,531	1,485
Other acquisition obligations	1,049	1,880
Taxes payable	3,817	2,871
Deferred revenue	3,649	3,300
Billings in excess of recognized revenue	1,320	465
Total current liabilities	14,992	12,788
Long-term liabilities	307	287
Deferred tax liabilities	2,011	4,340
Total liabilities	<u>17,310</u>	<u>17,415</u>
Stockholders' equity:		
Preferred stock, \$0.00015 par value, 5,000 shares authorized, no shares issued and outstanding in 2004 and 2003	—	—
Common stock, \$0.00015 par value, 75,000 shares authorized: shares issued and outstanding 25,379 in 2004 and 25,432 in 2003	4	4
Additional paid-in-capital	131,185	129,568
Treasury stock at cost, 307 shares in 2004 and none in 2003	(2,942)	—
Deferred stock-based compensation	(298)	(688)
Notes receivable from stockholders	(1,469)	(3,025)
Accumulated deficit	(21,665)	(19,361)
Accumulated other comprehensive income	48	54
Total stockholders' equity	<u>104,863</u>	<u>106,552</u>
Total liabilities and stockholders' equity	<u>\$ 122,173</u>	<u>\$ 123,967</u>

*See notes to consolidated financial statements*

## PDF SOLUTIONS, INC.

**CONSOLIDATED STATEMENTS OF OPERATIONS (UNAUDITED)**  
(In thousands, except per share amounts)

	Three Months Ended		Six Months Ended	
	June 30, 2004	June 30, 2003	June 30, 2004	June 30, 2003
<b>Revenue:</b>				
Design-to-silicon-yield solutions	\$13,513	\$ 8,034	\$25,208	\$16,142
Gain share	1,656	2,056	2,637	3,015
Total revenue	<u>15,169</u>	<u>10,090</u>	<u>27,845</u>	<u>19,157</u>
<b>Cost and expenses:</b>				
Cost of design-to-silicon-yield solutions:				
Direct costs of design-to-silicon-yield solutions	5,369	3,514	9,723	6,958
Amortization of acquired core technology	1,327	124	2,677	165
Research and development	4,822	4,370	10,040	8,702
Selling, general and administrative	3,622	2,953	7,419	5,615
Stock-based compensation amortization*	292	329	547	978
Amortization of other acquired intangible assets	410	—	820	—
Total costs and expenses	<u>15,842</u>	<u>11,290</u>	<u>31,226</u>	<u>22,418</u>
Loss from operations	(673)	(1,200)	(3,381)	(3,261)
Interest and other income, net	138	345	291	720
Loss before taxes	(535)	(855)	(3,090)	(2,541)
Tax benefit	(75)	(179)	(788)	(531)
Net loss	<u>\$ (460)</u>	<u>\$ (676)</u>	<u>\$ (2,302)</u>	<u>\$ (2,010)</u>
Net loss per share:				
Basic and diluted	<u>\$ (0.02)</u>	<u>\$ (0.03)</u>	<u>\$ (0.09)</u>	<u>\$ (0.09)</u>
Weighted average common shares:				
Basic and diluted	<u>25,337</u>	<u>22,614</u>	<u>25,319</u>	<u>22,551</u>
* Stock-based compensation amortization:				
Cost of design-to-silicon-yield solutions	\$ 9	\$ 86	\$ 37	\$ 216
Research and development	274	155	476	563
Selling, general and administrative	9	88	34	199
	<u>\$ 292</u>	<u>\$ 329</u>	<u>\$ 547</u>	<u>\$ 978</u>

*See notes to consolidated financial statements*

**PDF SOLUTIONS, INC.**  
**CONSOLIDATED STATEMENTS OF CASH FLOWS (UNAUDITED)**  
**(In thousands)**

	Six Months Ended	
	June 30, 2004	June 30, 2003
Operating activities:		
Net loss	\$ (2,302)	\$ (2,010)
Adjustments to reconcile net loss to net cash provided by (used in) operating activities:		
Depreciation and amortization	1,281	983
Stock-based compensation	390	978
Amortization of acquired intangible assets	3,496	165
Deferred taxes	(2,070)	(66)
Changes in operating assets and liabilities:		
Accounts receivable	133	1,340
Prepaid expenses, other current assets and other assets	250	(784)
Accounts payable	891	871
Accrued compensation and related benefits	(52)	767
Accrued liabilities	(283)	(278)
Deferred revenue	349	(2,333)
Taxes payable	946	(1,152)
Billings in excess of recognized revenue	855	(332)
Net cash provided by (used in) operating activities	<u>3,884</u>	<u>(1,851)</u>
Investing activities:		
Purchases of property and equipment	(721)	(903)
Business acquired in purchase transaction, net of cash acquired	—	(2,640)
Net cash used in investing activities	<u>(721)</u>	<u>(3,543)</u>
Financing activities:		
Exercise of stock options	928	41
Proceeds from employee stock purchase plan	689	543
Collection of notes receivable from stockholders	1,556	373
Repurchase of common stock	(2,942)	—
Principal payments on long-term obligations	(24)	(8)
Net cash provided by financing activities	<u>207</u>	<u>949</u>
Effect of exchange rate changes on cash and cash equivalents	(8)	28
Net increase (decrease) in cash and cash equivalents	3,362	(4,417)
Cash and cash equivalents, beginning of period	39,110	71,490
Cash and cash equivalents, end of period	<u>\$42,472</u>	<u>\$67,073</u>
Supplemental disclosure of cash flow information —		
Cash paid during the period for:		
Taxes	<u>\$ 267</u>	<u>\$ 720</u>
Interest	<u>\$ —</u>	<u>\$ 1</u>

*See notes to consolidated financial statements*

PDF SOLUTIONS, INC.

NOTES TO UNAUDITED CONSOLIDATED FINANCIAL STATEMENTS

1. BASIS OF PRESENTATION

The interim unaudited consolidated financial statements included herein have been prepared by PDF Solutions, Inc. (the “Company”), without audit, pursuant to the rules and regulations of the Securities and Exchange Commission (“SEC”), specifically instructions to Form 10-Q and Article 10 of Regulation S-X. Certain information and footnote disclosures normally included in annual financial statements prepared in accordance with accounting principles generally accepted in the United States of America have been condensed or omitted. The unaudited interim consolidated financial statements reflect, in the opinion of management, all adjustments necessary, (consisting only of normal recurring adjustments) to present a fair statement of results for the interim periods presented. The operating results for any interim period are not necessarily indicative of the results that may be expected for other interim periods or the full fiscal year. The accompanying unaudited consolidated financial statements should be read in conjunction with the audited consolidated financial statements in the Company’s Annual Report on Form 10-K/A for the year ended December 31, 2003.

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. Certain amounts from prior years have been reclassified to conform to current-year presentation. These reclassifications did not change previously reported total assets, liabilities, stockholders’ equity or net loss.

*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 because the Company uses the cost-to-cost percentage of completion method of contract accounting. Actual results could differ from these estimates.

*Stock-Based Compensation*

The Company accounts for stock-based compensation in accordance with the provisions of Accounting Principles Board (“APB”) Opinion No. 25 *Accounting for Stock Issued to Employees* (“APB No. 25”), and complies with the disclosure provisions of Statement of Financial Accounting Standards (“SFAS”) No. 123, *Accounting for Stock-Based Compensation*, (“SFAS No. 123”) as amended by SFAS No. 148, *Accounting for Stock-Based Compensation — Transition and Disclosures*. 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 its related interpretations under the fair value based method.

The Company adopted the disclosure-only provisions of SFAS No. 123, and accordingly, no expense has been recognized for options granted to employees under the various stock plans. The Company amortizes deferred stock-based compensation on the graded vesting method over the vesting periods of the applicable stock purchase rights and stock options, generally four years. The graded vesting method provides for vesting of portions of the overall awards at interim dates and results in greater vesting in earlier years than the straight-line method. Had compensation expense been determined for employee awards based on the fair value at the grant date for the awards, consistent with the provisions of SFAS No. 123, the Company’s pro forma net loss and pro forma net loss per share would be as follows (in thousands, except per share data):

[Table of Contents](#)

	Three Months Ended June 30,		Six Months Ended June 30,	
	2004	2003	2004	2003
Net loss as reported:	\$ (460)	\$ (676)	\$(2,302)	\$(2,010)
Add: stock-based employee compensation expense included in reported net loss under APB No. 25	292	329	547	751
Deduct: total employee stock-based compensation determined under fair value based method for all awards, net of related tax effects	(1,263)	(2,968)	(2,694)	(4,896)
Pro forma net loss	<u>\$(1,431)</u>	<u>\$(3,315)</u>	<u>\$(4,449)</u>	<u>\$(6,155)</u>
Basic and diluted net loss per share:				
As reported:				
Basic and diluted	<u>\$ (0.02)</u>	<u>\$ (0.03)</u>	<u>\$ (0.09)</u>	<u>\$ (0.09)</u>
Pro forma basic and diluted:				
Basic and diluted	<u>\$ (0.06)</u>	<u>\$ (0.15)</u>	<u>\$ (0.18)</u>	<u>\$ (0.27)</u>

During the three months ended June 30, 2004, the Company recorded \$157,000 in compensation expense associated with the acceleration of vesting of certain options to a former employee of the Company. The compensation expense reflected the intrinsic value of such options at the time of acceleration. Additionally, during the six months ended June 30, 2003, the Company recorded \$227,000 in compensation expense for the fair value of options granted to two non-employees associated with 45,000 common shares granted under the 2001 Stock Plan. Such options were granted at an exercise price of \$7.59 per share, the fair market value on the grant date, and were fully vested at the date of grant and contained restrictions on when such shares could be sold. Such options were valued, using the Black-Scholes option pricing model with the following weighted average assumptions: contractual life of 5 years; risk-free interest rate of 4.14%; volatility of 80%; and no dividends during the expected term.

## 2. ACQUISITIONS

### *IDS Software Systems*

On September 24, 2003, the Company completed its acquisition of IDS Software Systems, Inc ("IDS"). IDS, a privately held company, that developed and licensed yield management software applications and services dedicated to the semiconductor industry to enable customers to monitor manufacturing data and identify areas for yield improvement. The acquisition of IDS provides the Company's customers with greater capabilities for managing product yield improvement through the use of the acquired technology and services. The aggregate purchase price was \$51.0 million which included payments of cash of \$23.0 million, the issuance of 2.0 million shares of PDF common stock valued at \$25.0 million, the assumption of vested stock options valued at \$1.7 million and acquisition costs of \$1.3 million. In connection with the acquisition, \$1.0 million in cash and 400,000 shares of common stock have been held in escrow as security against certain financial contingencies. Cash payments held in escrow, less any amounts deducted to satisfy contingencies, will be released no later than the 24-month anniversary following the completion of the acquisition. Fifty percent of the shares held in escrow, less any amounts deducted to satisfy contingencies, shall be released upon the 12-month anniversary of the acquisition and the remaining shares shall be released upon the 24-month anniversary of the acquisition. The fair value of the Company's common stock was determined based on the average closing price per share of the Company's common stock over a 5-day period beginning two trading days before and ending two trading days after the amended terms of the acquisition were agreed to and announced (September 3, 2003). The fair value of the options assumed was calculated as of September 24, 2003, based on the Black-Scholes options pricing model. The acquisition was accounted for using the purchase method of accounting in accordance with SFAS No. 141, *Business Combinations* ("SFAS No. 141"), and accordingly the Company's consolidated financial statements from September 24, 2003 include the impact of the acquisition.

[Table of Contents](#)

The allocation of the purchase price for this acquisition, as of the date of the acquisition, is as follows (in thousands, except amortization period):

<b>Allocation of Purchase Price</b>	<b>Amortization Period (Years)</b>	<b>Amount</b>
Fair value of tangible assets		\$ 950
Fair value of intangible assets:		
Brand name	4	2,000
Contract backlog	1	700
Backlog renewals	4	900
Customer relationships	4	800
Non-compete covenant	4	60
Core technology	4	16,800
In-process research and development	N/A	800
Goodwill	N/A	40,059
Total assets acquired		63,069
Deferred tax liability		(8,708)
Accrued liabilities		(1,744)
Deferred revenue under maintenance obligations		(976)
Accounts payable		(629)
Total liabilities assumed		(12,057)
Total consideration, net		\$ 51,012

The acquisition was accounted for as a purchase transaction, and accordingly, the assets and liabilities of IDS were recorded at their estimated fair values at the date of the acquisition. With the exception of the goodwill and acquired in-process research and development (“IPR&D”), the identified intangible assets will be amortized on a straight-line basis over their estimated useful lives, with a weighted average life of approximately four years. The acquired IPR&D technology was immediately expensed because technological feasibility had not been established and no future alternative use exists. In assessing IDS’s IPR&D projects, the key characteristics of the products under development were considered as well as future prospects, the rate at which technology changes, product life cycles, and the projects’ stages of development. The IPR&D technology write-off is included as a component of operating expenses in the consolidated statement of operations. The fair value of IPR&D, as well as the fair value of the identifiable intangible assets, was determined, in part, by an independent third party appraiser through established valuation techniques.

The acquisition of IDS was structured as a tax-free acquisition. Therefore, the difference between the recognized fair values of the acquired net assets and their historical tax base are not deductible for tax purposes. A deferred tax liability has been recognized for the difference between the assigned fair values of intangible assets for book purposes and the tax basis of such assets.

During the year ended December 31, 2003, the Company recorded a non-cash adjustment of \$172,000, relating to the reversal of excess accruals for acquisition-related expenses. Such adjustment resulted in a reduction of goodwill. During the six months ended June 30, 2004, the Company recorded a non-cash adjustment of \$42,000 relating to a change in estimate on abandoned leased facilities assumed during the acquisition. This adjustment resulted in an increase in goodwill.

The following unaudited pro forma consolidated financial data represents the combined results of operations as if IDS had been combined with the Company at the beginning of the respective period. This pro forma financial data includes the straight line amortization of intangibles over their respective estimated useful lives and excludes the write-off of IPR&D (in thousands):

	Three Months Ended June 30,	Six Months Ended June 30,
	2003	2003
Revenue	\$ 11,698	\$ 21,499
Pro forma net loss	(1,341)	(4,779)
Pro forma net loss per share – basic and diluted	\$ (0.05)	\$ (0.19)

These results do not purport to be indicative of what would have occurred had the acquisition been made as of the beginning of the respective periods or the results of operations which may occur in future periods.

### **WaferYield**

On May 31, 2003 the Company acquired WaferYield, Inc., (“WaferYield”) a privately held company, which primarily included WaferYield’s proprietary shot map WAMA™ technology and related business. The WAMA product offering is designed to optimize semiconductor wafer shot maps to help semiconductor companies achieve greater yield and net die per wafer, higher stepper throughput and reduced probe test costs. The acquisition added to the Company’s product offering and its capabilities in enabling semiconductor companies to improve yield and performance of integrated circuits or ICs. The aggregate purchase price was \$4.1 million, which included cash payments of \$2.6 million and the recognition of \$1.5 million in other liabilities associated with future payments that were contingent upon the attainment of certain revenue performance objectives. Such revenue performance objectives could have resulted in future payments of up to \$5.0 million. There were no other assets or liabilities assumed in connection with the acquisition. During the three months ended June 30, 2004, the Company agreed to pay \$1.0 million to settle the future incentive agreement. As a result of this settlement, the remaining \$4.0 million under the original agreement is no longer payable. Upon final determination of this liability, the Company reduced its core technology intangible asset by \$500,000 reflecting the difference between the incentive amount paid and the related liability recorded in connection with the acquisition. The entire purchase price has been allocated to core technology, which is being amortized over an estimated useful life of 4 years. The acquisition has been accounted for using the purchase method of accounting in accordance with SFAS No. 141, and accordingly, the Company’s consolidated financial statements from May 31, 2003 include the impact of the acquisition. Pro forma results of operations have not been presented because the effect of the acquisition was not material to the Company. Amortization expense associated with acquired core technology recognized in connection with the acquisition is anticipated to be approximately \$900,000 annually.

### **3. RECENT ACCOUNTING PRONOUNCEMENTS**

In October 2003, the Emerging Issues Task Force (“EITF”) reached a consensus on its tentative conclusions for EITF Issue No. 03-05, *Applicability of SOP 97-2 to Non-Software Deliverables in an Arrangement Containing More-Than Incidental Software* (“EITF No. 03-05”). EITF No. 03-05 provides that software deliverables are within the scope of SOP 97-2 as are non-software deliverables. The Company was required to adopt this consensus for fiscal periods beginning after August 2003. The adoption of EITF No. 03-05 did not have an effect on the Company’s financial position and results of operations.

The Financial Accounting Standards Board (“FASB”) issued Financial Interpretation No. (“FIN”) 46, *Consolidation of Variable Interest Entities* (“FIN 46”), in January 2003, and a revised interpretation of FIN 46 (“FIN 46-R”) in December 2003. FIN 46 requires certain variable interest entities to be consolidated by the primary beneficiary of the entity if the equity investors in the entity do not have the characteristics of a controlling financial interest or do not have sufficient equity at risk for the entity to finance its activities without additional subordinated financial support from other parties. The adoption of FIN 46-R did not have an impact on the Company’s financial position, results of operations or cash flows.

In December 2003, the Staff of the SEC issued Staff Accounting Bulletin (“SAB”) No. 104, *Revenue Recognition* (“SAB No. 104”), which supercedes SAB No. 101, *Revenue Recognition in Financial Statements* (“SAB No. 101”). SAB No. 104’s primary purpose is to rescind accounting guidance contained in SAB No. 101 related to multiple-element revenue arrangements and to rescind the SEC’s *Revenue Recognition in Financial Statements Frequently Asked Questions and Answers* issued with SAB No. 101. The adoption of SAB No. 104 did not have an effect on the Company’s financial position and results of operations.

[Table of Contents](#)**4. 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 \$1.8 million and \$2.0 million at June 30, 2004 and December 31, 2003, respectively.

**5. NET LOSS PER SHARE**

Basic net loss per share is computed by dividing net loss by the weighted-average common shares outstanding for the period (excluding outstanding stock options and shares subject to repurchase). Diluted net loss per share reflects the weighted-average common shares outstanding plus the potential effect of dilutive securities which are convertible into common shares (using the treasury stock method), except in cases where the effect would be anti-dilutive. The following is a reconciliation of the numerators and denominators used in computing basic and diluted net loss per share (in thousands, except per share data):

	Three Months Ended June 30,		Six Months Ended June 30,	
	2004	2003	2004	2003
Net loss	\$ (460)	\$ (676)	\$ (2,302)	\$ (2,010)
Shares:				
Weighted average common shares outstanding	25,401	23,131	25,431	23,130
Weighted average common shares outstanding subject to repurchase	(64)	(517)	(112)	(579)
Weighted average shares used in computation – basic and diluted	25,337	22,614	25,319	22,551
Net loss per share – basic and diluted	\$ (0.02)	\$ (0.03)	\$ (0.09)	\$ (0.09)

For the three month periods ended June 30, 2004 and 2003, the calculation of diluted net loss per share does not include, respectively, 735,000 and 575,000 outstanding stock options and 64,000 and 517,000 shares of common stock subject to repurchase as the effect would be anti-dilutive for the periods presented. For the six month periods ended June 30, 2004 and 2003, the calculation of diluted net loss per share does not include, respectively, 980,000 and 386,000 outstanding stock options and 112,000 and 579,000 shares of common stock subject to repurchase as the effect would be anti-dilutive for the periods presented.

[Table of Contents](#)

**6. COMPREHENSIVE LOSS**

The components of comprehensive loss are as follows (in thousands):

	Three Months Ended June 30,		Six Months Ended June 30,	
	2004	2003	2004	2003
Net loss	\$ (460)	\$ (676)	\$ (2,302)	\$ (2,010)
Foreign currency translation adjustments	(8)	14	(8)	28
Comprehensive loss	<u>\$ (468)</u>	<u>\$ (662)</u>	<u>\$ (2,310)</u>	<u>\$ (1,982)</u>

**7. GOODWILL AND PURCHASED INTANGIBLE ASSETS**

On January 1, 2002, the Company adopted SFAS No. 142, *Goodwill and Other Intangible Assets* ("SFAS No. 142"). SFAS No. 142 requires goodwill to be tested for impairment under certain circumstances, written down when impaired, and requires purchased intangible assets other than goodwill to be amortized over their useful lives unless these lives are determined to be indefinite. Upon the adoption of SFAS No. 142 the Company ceased amortization of goodwill with a net book value totaling \$662,000, which included \$192,000 of acquired workforce intangibles, net of related deferred tax liabilities which were reclassified to goodwill pursuant to the requirements of SFAS No. 142.

The following table provides information relating to the intangible assets and goodwill contained within the Company's consolidated balance sheets as of June 30, 2004 and December 31, 2003 (in thousands):

	June 30, 2004			
	Cost	Purchase Price Adjustments	Accumulated Amortization	Net Carrying Amount
Goodwill	<u>\$41,282</u>	<u>\$ (130)</u>	<u>\$ (562)</u>	<u>\$ 40,590</u>
Acquired identifiable intangibles:				
Acquired core technology	\$21,602	\$ (500)	\$ (5,285)	\$ 15,817
Brand name	2,000	—	(417)	1,583
Other acquired intangibles	2,460	—	(950)	1,510
Total	<u>\$26,062</u>	<u>\$ (500)</u>	<u>\$ (6,652)</u>	<u>\$ 18,910</u>

[Table of Contents](#)

	December 31, 2003			
	Cost	Purchase Price Adjustments	Accumulated Amortization	Net Carrying Amount
Goodwill	\$41,282	\$ (172)	\$ (562)	\$ 40,548
Acquired identifiable intangibles:				
Acquired core technology	\$21,602	\$ —	\$ (2,609)	\$ 18,993
Brand name	2,000	—	(167)	1,833
Other acquired intangibles	2,460	—	(380)	2,080
Total	\$26,062	\$ —	\$ (3,156)	\$ 22,906

As required by SFAS No. 142, the Company performed its transitional impairment test of goodwill as of January 1, 2002, at which time the Company determined that the carrying value of goodwill had not been impaired. SFAS No. 142 also requires that goodwill be tested for impairment on an annual basis and more frequently in certain circumstances. Accordingly, the Company has selected December 31, to perform the annual testing requirements. As of December 31, 2003, the Company completed its annual testing requirements and determined that the carrying value of goodwill had not been impaired.

The Company expects that annual amortization of acquired intangible assets to be as follows (in thousands):

Year Ending December 31,	Amount
2004 (remaining six months)	\$ 3,118
2005	6,004
2006	6,004
2007	3,784
Total	\$18,910

## 8. CUSTOMER AND GEOGRAPHIC INFORMATION

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

Customer	Three Months Ended June 30,		Six Months Ended June 30,	
	2004	2003	2004	2003
A	18%	28%	19%	25%
C	14%	18%	11%	17%
G	13%	16%	13%	15%
H	—	15%	—	16%
I	6%	9%	4%	10%
J	8%	8%	13%	6%

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

Customer	June 30, 2004	December 31, 2003
A	26%	25%
C	11%	20%
J	11%	18%
M	10%	—

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

	Three Months Ended June 30,		Six Months Ended June 30,	
	2004	2003	2004	2003
Asia	\$10,742	\$ 7,583	\$17,466	\$13,342
United States	3,265	2,369	7,943	4,323
Europe	1,162	138	2,436	1,492
Total	<u>\$15,169</u>	<u>\$10,090</u>	<u>\$27,845</u>	<u>\$19,157</u>

As of June 30, 2004 and December 31, 2003, long-lived assets related to PDF Solutions GmbH (formerly AISS), located in Germany, totaled \$847,000 and \$863,000, respectively, of which \$659,000 and \$718,000, respectively, relates to acquired intangibles and goodwill. The majority of the Company's remaining long-lived assets are in the United States.

## 9. STOCK REPURCHASE PROGRAM

In February 2003, the Board of Directors approved a program to repurchase up to \$10.0 million of the Company's common stock in the open market. The Company did not repurchase any shares of its common stock under the program during the year ended December 31, 2003 or during the three months ended March 31, 2004. During the three months ended June 30, 2004, the Company repurchased 307,300 shares of its common stock at an average price of \$9.58 per share for a total cost of \$2.9 million. Under this authorization, the Company may continue to make additional stock repurchases from time to time, depending on market conditions, stock price and other factors. At June 30, 2004, \$7.1 million remained available under the program to repurchase additional shares.

## **Item 2. Management's Discussion and Analysis of Financial Condition and Results of Operations.**

### **Forward-Looking Statements**

The following discussion of our financial condition and results of operations contains forward-looking statements within the meaning of Section 27A of the Securities Act of 1933 and Section 21E of the Securities Exchange Act of 1934. These statements relate to future events or our future financial performance. In some cases, you can identify forward-looking statements by terminology such as "may", "will", "should", "expect", "plan", "anticipate", "believe", "estimate", "predict", "potential" or "continue", the negative effect of terms like these or other comparable terminology. These statements are only predictions. These statements involve known and unknown risks and uncertainties and other factors that may cause actual events or results to differ materially. All forward-looking statements included in this document are based on information available to us on the date of filing, and we assume no obligation to update any such forward-looking statements. In evaluating these statements, you should specifically consider various factors, including the risks outlined under the caption "Certain Risks Which May Affect Our Future Results" set forth at the end of this Item 2 and set forth at the end of Item 7 in our Annual Report on Form 10-K for the year ended December 31, 2003, as amended. We caution investors that our business and financial performance are subject to substantial risks and uncertainties.

### **Overview**

Our technologies and services enable semiconductor companies to improve the yield and performance of integrated circuits, or ICs, by integrating the design and manufacturing processes. We believe that our solutions improve a semiconductor company's time-to-market, yield and ultimately product profitability. Our solutions combine proprietary manufacturing process simulation software, yield and performance modeling software, design-for-manufacturability software, test chips, a proprietary electrical wafer test system, yield and performance enhancement methodologies, yield management systems, and professional services. We analyze yield loss mechanisms to identify, quantify and correct the issues that cause yield loss, as an integral part of the IC design process. This drives IC design and manufacturing improvements that enable our customers to have higher initial yields and achieve and exceed targeted IC yield and performance throughout 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. The result of implementing our solutions is the creation of value that can be measured based on improvements to our customers' actual yield. We align our financial interests with the yield and performance improvements realized by our customers, and receive revenue based on this value. To date, we have sold our technologies and services to semiconductor companies including leading integrated device manufacturers, fabless semiconductor companies and foundries.

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 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 AISS, now operating as PDF Solutions, GmbH, which continues to develop software and provide development services to the semiconductor industry. In July 2001, we completed the initial public offering of our common stock. In 2003, we further enhanced our product and service offerings through the acquisitions of IDS and WaferYield.

### **Industry Trend**

Demand for consumer electronics continues to drive technological innovation as the need for products which have greater performance, lower power consumption, reduced costs and smaller size continues to grow with each new product generation. To meet this demand, IC manufacturers and designers are constantly challenged to improve the overall performance of ICs by designing and manufacturing ICs with more embedded applications to create greater functionality. As a result, in 2003 and the first half of 2004 more and more companies expanded or advanced their design and manufacturing processes to develop and produce deep submicron ICs containing component sizes measured at 130 nanometers and below. As this trend continues, companies will continually be challenged to improve process capabilities to optimally produce ICs with minimal systematic and yield loss, which is driven by the lack of compatibility between the design and its respective manufacturing process. Historically,

## [Table of Contents](#)

yield loss was predominantly the result of random contamination, or defect-limited yield, within the IC manufacturing process. We believe as volume production of deep submicron ICs continues to grow, the difficulties of integrating IC designs with their respective processes will create a greater need for products and services that address the performance yield loss issues the semiconductor industry is facing today and will face in the future.

### **Financial Highlights**

We continued to see greater adoption of our products and services through the expansion of our customer base both domestically and internationally. Financial highlights for the three months ended June 30, 2004 were as follows:

- Revenue for the three months ended June 30, 2004 totaled \$15.2 million, a quarterly high, and our 6th quarter of sequential revenue increases. This represents an increase of 50% from revenue of \$10.0 million reported for the three months ended June 30, 2003. For the three months ended June 30, 2004, three customers each contributed over 10% of revenue and together accounted for 45% of total revenue compared to four customers each contributing over 10% of revenue and together accounting for 77% of total revenue for the three months ended June 30, 2003. Such statistics support our broadening customer base and less reliance on a few large customers.
- Net loss of \$460,000 for the three months ended June 30, 2004, decreased from a net loss of \$676,000 for the three months ended June 30, 2003. The net loss for three months ended June 30, 2004 included amortization of acquired core technology and intangible assets of \$1.7 million and stock-based compensation amortization of \$292,000 while the net loss for the three months ended June 30, 2003 included amortization of acquired core technology and intangible assets of \$124,000 and stock based compensation amortization of \$329,000. The increase in revenue and controlled expenses were the primary reasons for the improvement in profitability.
- Net loss per share decreased to \$0.02 for the three months ended June 30, 2004 from \$0.03 for the three months ended June 30, 2003.

Financial highlights for the six months ended June 30, 2004 were as follows:

- Revenue for the six months ended June 30, 2004 totaled \$27.8 million, an increase of 45%, from \$19.2 million reported for to the six months ended June 30, 2003. For the six months ended June 30, 2004, four customers each contributed over 10% of revenue and together accounted for 56% of total revenue compared to five customers each contributing over 10% of revenue and together accounting for 83% of total revenue for the six months ended June 30, 2003. Such statistics support our broadening customer base and less reliance on a few large customers.
- Net loss of \$2.3 million for the six months ended June 30, 2004, increased from a net loss of \$2.0 million for the six months ended June 30, 2003. The net loss for three months ended June 30, 2004 included amortization of acquired core technology and intangible assets of \$3.5 million and stock-based compensation amortization of \$547,000 while the net loss for the three months ended June 30, 2003 included amortization of acquired core technology and intangible assets of \$165,000 and stock based compensation amortization of \$978,000. The increase in revenue and controlled expenses were the primary reasons for the improvement in profitability.
- Net loss per share remained consistent at \$0.09 for both the six months ended June 30, 2004 and 2003.
- Cash increased \$3.4 million, to \$42.5 million, during the six months ended June 30, 2004. Net cash provided by operating activities and used in investing activities for the six months ended June 30, 2004 totaled \$3.9 million and \$721,000, respectively. Net cash provided by financing activities for the six months ended June 30, 2004 totaled \$207,000. During the three months ended June 30, 2004, we used

## [Table of Contents](#)

\$2.9 million to repurchase 307,300 shares of our own common stock at an average price of \$9.58. This cash used in investing activities was more than offset by cash provided by collection of notes receivable from shareholders, the exercise of stock options and proceeds from the employee stock purchase plan.

### **Acquisitions**

On May 31, 2003, we completed our acquisition of WaferYield, which primarily included WaferYield's proprietary shot map WAMA™ technology and related business. The WAMA product offering is designed to optimize semiconductor wafer shot maps to help semiconductor companies achieve greater yield and net die per wafer, higher stepper throughput and reduced probe test cost. We believe that the acquisition added to our product offering and our capabilities in enabling semiconductor companies to improve yield and performance of ICs. The aggregate purchase price was \$4.1 million, which included cash payments of \$2.6 million and the recognition of \$1.5 million in other liabilities associated with future payments that are contingent upon the attainment of certain revenue performance objectives. Such revenue performance objectives could have resulted in future payments of up to \$5.0 million. During the three months ended June 30, 2004, the Company agreed to pay \$1.0 million to settle the future incentive agreement. As a result of this settlement, the remaining \$4.0 million under the original agreement is no longer payable. Upon final determination of this liability, the Company reduced its core technology intangible asset by \$500,000 reflecting the difference between the incentive amount paid and the related liability recorded in connection with the acquisition.

On September 24, 2003, we completed our acquisition of IDS. IDS developed and licensed yield management software applications and provided services to enable customers to efficiently gather, retrieve and analyze manufacturing data, identifying areas for yield improvement. We believe that our acquisition of IDS provides our customers with greater capabilities for managing product yield improvement through the use of the acquired technology and services. The aggregate purchase price was \$51.0 million which included the payment in cash of \$23.0 million, the issuance of 2.0 million shares of our common stock valued at \$25.0 million, the assumption of stock options valued at \$1.7 million and acquisition costs of \$1.3 million. In connection with the acquisition, \$1.0 million in cash and 400,000 shares of common stock have been held in escrow as security against certain financial contingencies. Cash payments held in escrow, less any amounts deducted to satisfy contingencies, will be released no later than the 24-month anniversary following the completion of the acquisition. Fifty percent of the shares held in escrow, less any amounts deducted to satisfy contingencies, shall be released upon the 12-month anniversary of the acquisition and the remaining shares shall be released upon the 24-month anniversary of the acquisition. In connection with the acquisition, we recorded \$39.9 million in goodwill, net of subsequent adjustments related to certain accruals recognized in the acquisition. Goodwill reflects the excess of the purchase paid over the identifiable assets assumed in the acquisition.

It is our strategic objective to provide industry standard technologies and services to integrate IC designs and manufacturing processes. With over 30 semiconductor companies as customers and an installed base of over 1000 dataPOWER users, the acquisition of IDS not only provides us with future revenue streams through the existing product offerings while strengthening the technology available to our professional services teams, but also positions us to establish a de-facto standard for yield management systems in the semiconductor industry. The acquisition broadens our reach into fabrication facilities, providing visibility, analysis capability and data collection from assembly and test equipment on a standardized platform from which we can offer additional standard PDF applications. We believe that the collective technology base will also create a substantial market opportunity to address the needs of product engineers who, in our opinion, represent a largely underserved segment, since they are not normally within the organizations served either by the equipment or electronic design automation companies. Nonetheless, the needs of the product engineer, and the financial impact of their work, are dramatically increasing with the further disaggregation of the industry combined with increasing product-specific yield and performance sensitivities at advanced technology nodes. We believe the IDS acquisition allows us, in the longer term, to provide products and services to fulfill this need.

### **Critical Accounting Policies**

Financial Reporting Release No. 60 requires all companies to include a discussion of critical accounting policies or methods used in the preparation of financial statements. The notes to the consolidated financial statements should be read in conjunction with the audited consolidated financial statements in the Company's Annual Report on Form 10-K for the year ended December 31, 2003 which includes a summary of the significant

## [Table of Contents](#)

accounting policies and methods used in the preparation of our consolidated financial statements. The following is a brief discussion of the more significant accounting policies and methods that we use.

### **General**

Our discussion and analysis of our financial condition and results of operations are based on our consolidated financial statements, which have been prepared in conformity with accounting principles generally accepted in the United States of America. Our preparation of these consolidated financial statements requires us to make estimates and assumptions that affect the reported amounts of assets and liabilities, the disclosure of contingent assets and liabilities at the dates of the financial statements and the reported amounts of revenues and expenses during the reporting periods. We base our estimates on historical experience and on various other assumptions that we believe to be reasonable under the circumstances. The most significant estimates and assumptions relate to revenue recognition, software development costs, recoverability of goodwill and acquired intangible assets, estimated useful lives of acquired intangibles and the realization of deferred tax assets. Actual amounts may differ from such estimates under different assumptions or conditions.

### **Revenue Recognition**

We derive revenue from two sources: Design-to-Silicon-Yield solutions and gain share. We recognize revenue in accordance with the provisions of American Institute of Certified Public Accountants Statement of Position (“SOP”) No. 81-1, *Accounting for Performance of Construction-Type and Certain Production-Type Contracts* and SOP No. 97-2, *Software Revenue Recognition*, as amended.

*Design-to-Silicon-Yield Solutions* — Design-to-Silicon-Yield solutions revenue is derived from solution implementations, software licenses and software support and maintenance. Revenue recognition for each element of Design-to-Silicon Yield solutions is as follows:

*Solution Implementations* — We generate a significant portion of our revenue from fixed-price contracts delivered over a specific period of time. These contracts require the accurate estimation of the cost to perform obligations and the overall scope of each engagement. 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. 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 revisions become known and can be estimated. If we do not accurately estimate the resources required or the scope of work to be performed, or do not manage the projects properly within the planned period of time or satisfy our obligations under contracts, resulting contract margins could be materially different than those anticipated when the contract was executed. Any such reductions in contract margin could have a material negative impact on our operating results.

On occasion, we have licensed our software products as a component of our fixed price solutions implementations. In such instances, the software products are licensed to the customer over the specified term of the agreement with support and maintenance to be provided over the license term. Under these arrangements, where vendor-specific objective evidence of fair value (“VSOE”) does not exist to allocate a portion of the total fee to the undelivered elements, revenue is recognized ratably over the term of the agreement. Costs incurred under these arrangements are deferred and recognized in proportion to revenue recognized under these arrangements.

*Software Licenses and Support and Maintenance* — We have also licensed our software products separate from our solution implementation services. In such cases revenue is recognized under the residual method when (i) persuasive evidence of an arrangement exists, (ii) delivery has occurred, (iii) the fee is fixed and determinable, (iv) collectibility is probable and the arrangement does not require services that are essential to the functionality of the software. When arrangements include multiple elements such as support and maintenance, consulting (other than for our fixed price solution implementations), installation and training services, revenue is allocated to each element of a transaction based upon its fair value as determined by our VSOE. VSOE is generally established for maintenance based upon negotiated renewal rates while VSOE for consulting, installation and training services is established based upon our customary pricing for such services when sold separately. Revenue from support and maintenance services is recognized ratably over the term of the support and maintenance contract, generally one year, while revenue from consulting, installation and training services is recognized as the services are performed.

## [Table of Contents](#)

When VSOE does not exist to allocate a portion of the total fee to the undelivered elements revenue is recognized ratably over the term of the underlying element for which VSOE does not exist. No revenue has been recognized under arrangements with extended payment terms in excess of amounts due. If the arrangement includes services that are determined to be essential to the functionality of the software, then the entire fee, less amounts allocated to support and maintenance, are recognized using the cost-to-cost percentage of completion method of contract accounting.

**Gain Share** — Gain share revenue represents profit sharing and performance incentives earned based upon our customers reaching certain defined operational levels. Upon achieving such operational levels, we receive either a fixed fee and/or variable fee based on the units sold by the customer. Due to the uncertainties surrounding attainment of such operational levels, we recognize gain share revenue (to the extent of completion of the related solution implementation contract) upon receipt of performance reports or other related information from our customers supporting the determination of amounts and probability of collection. Our continued receipt of gain share revenue is dependent on many factors which are outside our control, including among others, continued production of the related ICs by our customers, sustained yield improvements by our customers and our ability to enter into new Design-to-Silicon-Yield solutions contracts containing gain share provisions.

### **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 we believe our current process for developing software is essentially completed concurrently with the establishment of technological feasibility, no costs have been capitalized to date.

### **Goodwill and Acquired Intangible Assets**

As of June 30, 2004, we had \$59.5 million of goodwill and intangible assets. In assessing the recoverability of our goodwill and intangible assets, we must make assumptions regarding estimated future cash flows and other factors. If these estimates or their related assumptions change in the future, we may be required to record impairment charges for these assets. We evaluate goodwill for impairment pursuant to the provisions of SFAS No. 142, *Goodwill and Other Intangible Assets*. As of December 31, 2003, we completed our annual testing requirements and determined that the carrying value of goodwill had not been impaired.

We are currently amortizing our acquired intangible assets over estimated useful lives of periods ranging from 1 to 4 years, which is based on the estimated period of benefit to be delivered from such assets. However, a decrease in the estimated useful lives of such assets will cause additional amortization expense or an impairment of such asset in future periods.

### **Realization of Deferred Tax Assets**

Realization of deferred tax assets is dependent on our ability to generate future taxable income and utilize tax-planning strategies. We have recorded a deferred tax asset in the amount that is more likely than not to be realized based on current estimations and assumptions. We evaluate the need for a valuation allowance on an annual basis. Any resulting changes to the valuation allowance will result in an adjustment to income in the period the determination is made.

[Table of Contents](#)

**Results of Operations**

The following table sets forth, for years indicated, the percentage of total revenue represented by the line items reflected in our consolidated statements of operations:

	Three Months Ended June 30,		Six Months Ended June 30,	
	2004	2003	2004	2003
<b>Revenue:</b>				
Design-to-silicon-yield solutions	89%	80%	91%	84%
Gain share	11	20	9	16
Total revenue	100	100	100	100
<b>Cost and expenses:</b>				
Cost of design-to-silicon-yield solutions:				
Direct costs of design-to-silicon-yield solutions	35	35	35	36
Amortization of acquired core technology	9	1	9	1
Research and development	32	43	36	46
Selling, general and administrative	24	30	27	29
Stock-based compensation amortization	2	3	2	5
Amortization of other acquired intangible assets	3	—	3	—
Total costs and expenses	105	112	112	117
Loss from operations	(5)	(12)	(12)	(17)
Interest and other income, net	1	3	1	4
Loss before taxes	(4)	(9)	(11)	(13)
Tax benefit	(1)	(2)	(3)	(3)
Net loss	(3)%	(7)%	(8)%	(10)%

**Comparison of the Three Months Ended June 30, 2004 and 2003**

Revenue	Three Months Ended June 30,			Three Months Ended June 30,		
	2004	2003	\$ Change	% Change	2004 % of Revenue	2003 % of Revenue
<b>(In thousands, except for %'s)</b>						
Design-to-silicon-yield solutions	\$13,513	\$ 8,034	\$5,479	68%	89%	80%
Gain share	1,656	2,056	(400)	(19)%	11%	20%
Total	\$15,169	\$10,090	\$5,079	50%	100%	100%

**Design-to-Silicon-Yield Solutions.** Design-to-Silicon-Yield solutions revenue is derived from solution implementations, software licenses and software support and maintenance. The increase in Design-to-Silicon-Yield solutions revenue of \$5.5 million for the three months ended June 30, 2004 compared to the three months ended June 30, 2003 was attributable to a greater number of solution implementations as well as an increase in sales of our software applications and related implementation services primarily from new products obtained in our acquisition of IDS.

**Gain Share.** Gain share revenue represents profit sharing and performance incentives earned based upon our customers reaching certain defined operational levels. Gain share revenue decreased approximately \$400,000 for the three months ended June 30, 2004 compared to the three months ended June 30, 2003. The decrease in gain share revenue was primarily attributable to the continued transition of older gain share contracts whose gain share periods had expired coupled with lower initial production volumes by our customers at new technology nodes. Our gain share revenue may continue to fluctuate from period to period. Our continued receipt of gain share revenue is dependent on many factors which are outside our control, including among others, continued production of ICs by our customers, sustained yield improvements by our customers and our ability to enter into new Design-to-Silicon-Yield solutions contracts containing gain share provisions.

[Table of Contents](#)

Cost of Design-to-Silicon Yield Solutions	Three Months Ended June 30,			Three Months Ended June 30,		
	2004	2003	\$ Change	% Change	2004 % of Revenue	2003 % of Revenue
<b>(In thousands, except for %'s)</b>						
Direct costs of design-to-silicon- yield solutions	\$ 5,369	\$ 3,514	\$ 1,855	53%	35%	35%
Amortization of acquired core technology	1,327	124	1,203	970%	9%	1%
Total	\$ 6,696	\$ 3,638	\$ 3,058	84%	44%	36%

*Direct Costs of Design-to-Silicon-Yield Solutions.* Direct costs of Design-to-Silicon-Yield solutions consist of material, labor and overhead costs associated with solution implementations. Costs include purchased material, employee compensation and benefits, travel, facilities-related costs and the cost of utilizing sub-contractors, when such service is required. The increase in the direct costs of Design-to-Silicon-Yield solutions of \$1.9 million for the three months ended June 30, 2004 compared to the three months ended June 30, 2003 was primarily attributable to increased personnel costs and the use of sub-contractors necessary to support our increased Design-to-Silicon-Yield Solutions implementations including software implementation services. If we do not accurately estimate the resources required or the scope of work to be performed, or we do not manage the projects properly within the planned period of time or satisfy our obligations under contracts, resulting contract margins could be materially different than those anticipated when the contract was executed. Any such reductions in contract margin could have a material negative impact on our operating results.

*Amortization of Acquired Core Technology.* The increase in amortization of acquired core technology of \$1.2 million for the three months ended June 30, 2004 compared to the three months ended June 30, 2003 was primarily attributable to the recognition and amortization of acquired core technology associated with our acquisitions of IDS and WaferYield during 2003. We anticipate amortization of acquired core technology to be \$2.5 million for the remaining six months in 2004, \$5.1 million in 2005, \$5.1 million in 2006 and \$3.1 million in 2007.

Research and Development	Three Months Ended June 30,			Three Months Ended June 30,		
	2004	2003	\$ Change	% Change	2004 % of Revenue	2003 % of Revenue
<b>(In thousands, except for %'s)</b>						
Research and development	\$ 4,822	\$ 4,370	\$ 452	10%	32%	43%

*Research and Development.* Research and development expenses consist primarily of personnel-related costs to support product development activities, including compensation and benefits, outside development services, travel and facilities cost allocations. The increase in research and development expenses of \$452,000 for the three months ended June 30, 2004 compared to the three months ended June 30, 2003 was primarily due to increased personnel-related expenses, a result of our acquisitions of IDS and WaferYield. We anticipate that we will continue to commit considerable resources to research and development in the future and that these expenses may increase in absolute dollars.

Selling, General and Administrative	Three Months Ended June 30,			Three Months Ended June 30,		
	2004	2003	\$ Change	% Change	2004 % of Revenue	2003 % of Revenue
<b>(In thousands, except for %'s)</b>						
Selling, general and administrative	\$ 3,622	\$ 2,953	\$ 669	23%	24%	29%

*Selling, General and Administrative.* Selling, general and administrative expenses consist primarily of compensation and benefits for sales, marketing and general and administrative personnel in addition to outside sales commissions, legal and accounting services, marketing communications, travel and facilities cost allocations. The increase in selling, general and administrative expenses of \$669,000 for the three months ended June 30, 2004 compared to the three months ended June 30, 2003 was primarily due to an increase in outside sales commissions

[Table of Contents](#)

and legal fees, partially offset by a reduction in our allowance for doubtful accounts. We expect that selling, general and administrative expenses will increase in absolute dollars to support increased selling and administrative efforts in the future as we expand our operations to support our growing customer base.

	Three Months Ended June 30,			Three Months Ended June 30,		
	2004	2003	\$ Change	% Change	2004 % of Revenue	2003 % of Revenue
<b>Stock-Based Compensation Amortization</b>						
<b>(In thousands, except for %'s)</b>						
Stock-based compensation amortization	\$ 292	\$ 329	\$ (37)	(11)%	2%	3%

*Stock-Based Compensation Amortization.* The Company amortizes deferred stock-based compensation to expense under Accounting Principles Board Opinion No. 25 *Accounting for Stock Issued to Employees*, using the graded vesting method which results in higher amortization expense during the initial period following the respective option grants. The decrease in stock-based compensation amortization of \$37,000 for the three months ended June 30, 2004 compared to the three months ended June 30, 2003 was primarily due to the effects of the graded vesting method of amortization which results in higher amortization expense during the initial periods following the respective option grants, partially offset by stock-based compensation expense associated with unvested stock options assumed in connection with our acquisition of IDS and the recognition of compensation expense of \$158,000 associated with the acceleration of vesting of certain options to a former employee. We anticipate amortization of stock-based compensation to continue to decrease in future periods.

	Three Months Ended June 30,			Three Months Ended June 30,		
	2004	2003	\$ Change	% Change	2004 % of Revenue	2003 % of Revenue
<b>Amortization of Other Acquired Intangible Assets</b>						
<b>(In thousands, except for %'s)</b>						
Amortization of Other Acquired Intangible Assets	\$ 410	\$ —	\$ 410	—	3%	—%

*Amortization of Other Acquired Intangible Assets.* Amortization of other acquired intangible assets increased \$410,000 for the three months ended June 30, 2004 compared to the three months ended June 30, 2003, as a result of the recognition and amortization of acquired other intangible assets associated with our acquisition of IDS. There was no such intangible assets recorded in the comparable period in 2003. We anticipate amortization of these other acquired intangible assets to continue to decrease in future periods.

	Three Months Ended June 30,			Three Months Ended June 30,		
	2004	2003	\$ Change	% Change	2004 % of Revenue	2003 % of Revenue
<b>Interest and Other Income, net</b>						
<b>(In thousands, except for %'s)</b>						
Interest and Other Income, net	\$ 138	\$ 345	\$ (207)	(60)%	1%	3%

*Interest and Other Income, Net.* The decrease in interest and other income, net of \$207,000 for the three months ended June 30, 2004 compared to the three months ended June 30, 2003 was primarily due to interest earned on lower average cash and cash equivalent balances resulting from payments in connection with the acquisitions of WaferYield and IDS, coupled with lower interest rates on such short-term investments.

	Three Months Ended June 30,			Three Months Ended June 30,		
	2004	2003	\$ Change	% Change	2004 % of Revenue	2003 % of Revenue
<b>Tax Benefit</b>						
<b>(In thousands, except for %'s)</b>						
Benefit for Income Taxes	\$ (75)	\$ (179)	\$ (104)	(58)%	(1)%	(2)%

[Table of Contents](#)

*Tax Benefit.* The decrease in tax benefit for the three months ended June 30, 2004 compared to the three months ended June 30, 2003 was primarily due to a reduced loss before taxes coupled with a change in the overall effective tax rate for the period, as a result of the projected improvement in income before taxes for fiscal year 2004.

**Comparison of the Six Months Ended June 30, 2004 and 2003**

Revenue	Six Months Ended June 30,			Six Months Ended June 30,		
	2004	2003	\$ Change	% Change	2004 % of Revenue	2003 % of Revenue
<b>(In thousands, except for %'s)</b>						
Design-to-silicon-yield solutions	\$25,208	\$16,142	\$9,066	56%	91%	84%
Gain share	2,637	3,015	(378)	(13)%	9%	16%
Total	<u>\$27,845</u>	<u>\$19,157</u>	<u>\$8,688</u>	<u>45%</u>	<u>100%</u>	<u>100%</u>

*Design-to-Silicon-Yield Solutions.* The increase in Design-to-Silicon-Yield solutions revenue of \$9.1 million for the six months ended June 30, 2004 compared to the six months ended June 30, 2003 was attributable to a greater number of solution implementations as well as an increase in sales of our software applications and related implementation services primarily from new products obtained in our acquisition of IDS.

*Gain Share.* Gain share revenue decreased \$378,000 for the six months ended June 30, 2004 compared to the six months ended June 30, 2003. The decrease in gain share revenue was primarily attributable to the continued transition of older gain share contracts whose gain share periods had expired coupled with lower initial production volumes by our customers at new technology nodes. Our gain share revenue may continue to fluctuate from period to period. Our continued receipt of gain share revenue is dependent on many factors which are outside our control, including among others, continued production of ICs by our customers, sustained yield improvements by our customers and our ability to enter into new Design-to-Silicon-Yield solutions contracts containing gain share provisions.

Cost of Design-to-Silicon Yield Solutions	Six Months Ended June 30,			Six Months Ended June 30,		
	2004	2003	\$ Change	% Change	2004 % of Revenue	2003 % of Revenue
<b>(In thousands, except for %'s)</b>						
Direct costs of design-to-silicon-yield solutions	\$ 9,723	\$6,958	\$2,765	40%	35%	36%
Amortization of acquired core technology	2,677	165	2,512	1,522%	9%	1%
Total	<u>\$12,400</u>	<u>\$7,123</u>	<u>\$5,277</u>	<u>74%</u>	<u>44%</u>	<u>37%</u>

*Direct Costs of Design-to-Silicon-Yield Solutions.* The increase in the direct costs of Design-to-Silicon-Yield solutions of \$2.8 million for the six months ended June 30, 2004 compared to the six months ended June 30, 2003 was primarily attributable to increased personnel costs and the use of sub-contractors necessary to support our increased Design-to-Silicon-Yield Solutions implementations.

*Amortization of Acquired Core Technology.* The increase in amortization of acquired core technology of \$2.5 million for the six months ended June 30, 2004 compared to the six months ended June 30, 2003 was primarily attributable to the recognition and amortization of acquired core technology associated with our acquisitions of IDS and WaferYield during 2003.

[Table of Contents](#)

	Six Months Ended June 30,			Six Months Ended June 30,		
	2004	2003	\$ Change	% Change	2004 % of Revenue	2003 % of Revenue
<b>Research and Development</b>						
<b>(In thousands, except for %'s)</b>						
Research and development	\$10,040	\$8,702	\$1,338	15%	36%	46%

*Research and Development.* The increase in research and development expenses of \$1.3 million for the six months ended June 30, 2004 compared to the six months ended June 30, 2003 was primarily due to increased personnel-related expenses, primarily a result of our acquisitions of IDS and WaferYield and to further advance our technology solutions through new research and development initiatives. We anticipate that we will continue to commit considerable resources to research and development in the future and that these expenses may increase in absolute dollars.

	Six Months Ended June 30,			Six Months Ended June 30,		
	2004	2003	\$ Change	% Change	2004 % of Revenue	2003 % of Revenue
<b>Selling, General and Administrative</b>						
<b>(In thousands, except for %'s)</b>						
Selling, general and administrative	\$7,419	\$5,615	\$1,804	32%	27%	29%

*Selling, General and Administrative.* The increase in selling, general and administrative expenses of \$1.8 million in for the six months ended June 30, 2004 compared to the six months ended June 30, 2003 was primarily due to increases in employee and outside sales commissions, personnel-related expenses and legal and accounting service fees, partially offset by a reduction in our allowance for doubtful accounts.

	Six Months Ended June 30,			Six Months Ended June 30,		
	2004	2003	\$ Change	% Change	2004 % of Revenue	2003 % of Revenue
<b>Stock-Based Compensation Amortization</b>						
<b>(In thousands, except for %'s)</b>						
Stock-based compensation amortization	\$ 547	\$ 978	\$ (431)	(44)%	2%	5%

*Stock-Based Compensation Amortization.* The decrease in stock-based compensation amortization of \$431,000 for the six months ended June 30, 2004 compared to the six months ended June 30, 2003 was primarily due to the effects of the graded vesting method of amortization which results in higher amortization expense during the initial periods following the respective option grants, partially offset by stock-based compensation expense associated with unvested stock options assumed in connection with our acquisition of IDS and the recognition of compensation expense of \$158,000 associated with the acceleration of vesting of certain options to a former employee.

	Six Months Ended June 30,			Six Months Ended June 30,		
	2004	2003	\$ Change	% Change	2004 % of Revenue	2003 % of Revenue
<b>Amortization of Other Acquired Intangible Assets</b>						
<b>(In thousands, except for %'s)</b>						
Amortization of Other Acquired Intangible Assets	\$ 820	\$ —	\$ 820	—	3%	—%

*Amortization of Other Acquired Intangible Assets.* Amortization of other acquired intangible assets increased \$820,000 for the six months ended June 30, 2004 compared to the six months ended June 30, 2003, as a result of the recognition and amortization of acquired other intangible assets associated with our acquisition of IDS. There was no such intangible assets recorded in the comparable period in 2003.

[Table of Contents](#)

	Six Months Ended June 30,			Six Months Ended June 30,		
	2004	2003	\$ Change	% Change	2004 % of Revenue	2003 % of Revenue
<b>Interest and Other Income, net</b>						
<b>(In thousands, except for %'s)</b>						
Interest and Other Income, net	\$ 291	\$ 720	\$ (429)	(60)%	1%	4%

*Interest and Other Income, Net.* The decrease in interest and other income, net of \$429,000 for the six months ended June 30, 2004 compared to the six months ended June 30, 2003 was primarily due to interest earned on lower average cash and cash equivalent balances, coupled with lower interest rates on such short-term investments.

	Six Months Ended June 30,			Six Months Ended June 30,		
	2004	2003	\$ Change	% Change	2004 % of Revenue	2003 % of Revenue
<b>Tax Benefit</b>						
<b>(In thousands, except for %'s)</b>						
Benefit for Income Taxes	\$ (788)	\$ (531)	\$ (257)	(48)%	(3)%	(3)%

*Tax Benefit.* The increase in tax benefit of \$257,000 for the six months ended June 30, 2004 compared to the six months ended June 30, 2003 was primarily due to an increase in net loss before taxes and the expected realization of certain tax credits.

**Liquidity and Capital Resources**

Net cash provided by operating activities was \$3.9 million for the six months ended June 30, 2004 compared to net cash used by operating activities of \$1.9 for the six months ended June 30, 2003. After adjusting the net loss of \$2.3 million by the amortization of acquired intangible assets of \$3.5 million, depreciation and amortization of \$1.3 million, stock-based compensation of \$390,000, and the change in deferred taxes of \$2.1 million, our adjusted results provided approximately \$796,000 in cash. Net cash was also provided by decreases in accounts receivable of \$133,000, prepaid expenses, other current assets and other assets of \$250,000 and increases in accounts payable of \$891,000, billings in excess of revenue of \$855,000, taxes payable of \$946,000 and deferred revenue of \$349,000, offset by decreases in accrued liabilities of \$283,000 and accrued compensation and related benefits of \$52,000. The decrease in accounts receivable was due to improved collections. The increase in accounts payable was the result of increases in general expenditures to support the growth of the business. The increase in billings in excess of revenue was due to the timing of billing installments specified in certain customer contracts. The increase in taxes payable was primarily due to the decline in net loss before taxes and an increase in foreign withholding taxes. The decrease in prepaid expenses, other current assets and other assets was primarily the result of a decrease in prepaid insurance.

Net cash used in investing activities was \$721,000 for the six months ended June 30, 2004 compared to \$3.5 million for the six months ended June 30, 2003. Net cash used in purchases of property and equipment remained relatively flat from year to year while net cash used in investing activities during the six months ended June 30, 2003 included \$2.6 million paid in connection with our acquisition of WaferYield.

Net cash provided by financing activities was \$207,000 for the six months ended June 30, 2004 compared to \$949,000 for the six months ended June 30, 2003. The increase was primarily the result of repayment of employee notes receivable of \$1.6 million, cash proceeds from the exercise by employees of stock options under the 2001 Stock Plan of \$928,000 and proceeds from the employee stock purchase plan of \$689,000, partially offset by the repurchase of 307,300 shares of our common stock at a average purchase price of \$9.58 per share for a total cost of \$2.9 million.

As of June 30, 2004, our working capital was \$43.1 million, compared with \$42.6 million as of December 31, 2003. Cash and cash equivalents as of June 30, 2004 were \$42.5 million compared to \$39.1 million as of December 31, 2003, an increase of \$3.4 million. Increases in cash were primarily attributable to operating activities. We expect to experience growth in our overall expenses, in order to execute our business plan. As a result, we anticipate that our overall expenses, as well as planned capital expenditures, may constitute a material use of our cash resources. In addition, we may use cash resources to fund potential investments in, or acquisitions of, complementary products, technologies or businesses. We believe that our existing cash resources and anticipated

## [Table of Contents](#)

funds from operations will satisfy our cash requirements to fund our operating activities, capital expenditures and other obligations for at least the next twelve months. However, in the event that during such period, or thereafter, we are not successful in generating sufficient cash flows from operations we may need to raise additional capital through private or public financings, strategic relationships or other arrangements, which may not be available to us on acceptable terms or at all.

We do not have any off-balance sheet arrangements, investments in special purpose entities or undisclosed borrowings or debt, other than operating leases on our facilities. Additionally, we have not entered into any derivative contracts. As of June 30, 2004, we had no foreign currency contracts outstanding.

We lease our facilities under operating lease agreements that expire at various dates through 2012. The following table represents our future minimum annual lease payments (in thousands):

<b>Year Ending December 31,</b>	<b>Amount</b>
2004 (remaining six months)	\$ 1,401
2005	2,475
2006	2,423
2007	2,424
2008	776
Thereafter	<u>1,681</u>
Total	<u>\$11,180</u>

### **Recent Accounting Pronouncements**

In October 2003, the EITF reached a consensus on its tentative conclusions for EITF Issue No. 03-05, *Applicability of SOP 97-2 to Non-Software Deliverables in an Arrangement Containing More-Than Incidental Software* ("EITF No. 03-05"). EITF No. 03-05 discusses that software deliverables are within the scope of SOP 97-2 as are non-software deliverables. We are required to adopt this consensus for fiscal periods beginning after August 2003. The adoption of EITF No. 03-05 did not have an effect on our financial position and results of operations.

The Financial Accounting Standards Board ("FASB") issued Financial Interpretation Number ("FIN") 46, *Consolidation of Variable Interest Entities* ("FIN 46"), in January 2003, and a revised interpretation of FIN46 ("FIN 46-R") in December 2003. FIN 46 requires certain variable interest entities to be consolidated by the primary beneficiary of the entity if the equity investors in the entity do not have the characteristics of a controlling financial interest or do not have sufficient equity at risk for the entity to finance its activities without additional subordinated financial support from other parties. The adoption of FIN46-R did not have an impact on our financial position, results of operations or cash flows.

In December 2003, the Staff of the Securities and Exchange Commission ("SEC") issued Staff Accounting Bulletin ("SAB") No. 104, *Revenue Recognition* ("SAB No. 104"), which supercedes SAB No. 101, *Revenue Recognition in Financial Statements* ("SAB No. 101"). SAB No. 104's primary purpose is to rescind accounting guidance contained in SAB No. 101 related to multiple-element revenue arrangements and to rescind the SEC's *Revenue Recognition in Financial Statements Frequently Asked Questions and Answers* issued with SAB No. 101. The adoption of SAB No. 104 did not have an effect on our financial position and results of operations.

### **CERTAIN RISKS WHICH MAY AFFECT OUR FUTURE RESULTS**

***If semiconductor designers and manufacturers do not continue to adopt our Design-to-Silicon-Yield solutions, we may be unable to increase or maintain our revenue.***

If semiconductor designers and manufacturers do not continue to 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 IC products and processes. To be successful, we will need to continue to enter into agreements covering a larger number of IC products and processes with existing customers and new customers. Our existing customers are primarily large integrated device manufacturers, or IDMs. We target as new customers additional IDMs, fabless semiconductor companies and foundries, as well as system manufacturers. Factors that may limit adoption of our Design-to-Silicon-Yield solutions by semiconductor companies include:

## [Table of Contents](#)

- our customers' failure to achieve satisfactory yield improvements using our Design-to-Silicon-Yield solutions;
- a decrease in demand for semiconductors generally or the demand for deep submicron semiconductors failing to grow as rapidly as expected;
- 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' reluctance to understand and accept our innovative gain share fee component; and
- our customers' concern about our ability to keep highly competitive information confidential.

***Our earnings per share and other key operating results may be unusually high in a given quarter, thereby raising investors' expectations, and then unusually low in the next quarter, thereby disappointing investors, which could cause our stock price to drop.***

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 or an adverse change in any of our large customers' businesses;
- 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 dependent on factors outside of our control, including the volume of integrated circuits, or ICs, our customers are able to sell to their customers.***

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 customers' IC products. Further, our customers may implement changes to their manufacturing processes during the gain share period, which could negatively affect yield results, which is beyond our control. 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 or who makes unplanned changes to their processes. Since we currently work on a small number of large projects, any product that does not achieve commercial viability or a significant increase in yield could significantly reduce our revenue and results of operations below expectations. 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. Further, decreased demand for semiconductor products decreases the volume of products our customers are able to sell, which may adversely affect our gain share revenue.

## [Table of Contents](#)

***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 rely on gain share as a significant component of our total revenue, any delay could significantly harm our quarterly results.

***Changes in the structure of our customer contracts, including the mix between fixed and variable revenue and the mix of elements, can adversely affect the size and timing of our total revenue.***

Our long-term 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. Due to acquisitions and expanded business strategies, the mix of elements in some of our contracts has changed recently and the relative importance of the software component in some of our contracts has increased. We have experienced, and may in the future experience, delays in the expected recognition of revenue associated with generally accepted accounting principles regarding the timing of revenue recognition in multi-element software arrangements, including the effect of acceptance criteria. If we fail to meet contractual acceptance criteria on time or at all, the total revenue we receive under a contract could be delayed or decline. In addition, by increasing the gain share or the software component, we may increase the variability or timing of recognition 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 generate a large percentage of our total revenue from a limited number of customers, so the loss of any one of these customers could significantly reduce our revenue and results of operations below expectations.***

Historically, we have had a small number of large customers for our core Design-to-Silicon-Yield solutions and we expect this to continue in the near term. In the six months ended June 30, 2004, four customers accounted for 56% of our total net revenue, with Toshiba representing 19%, Texas Instruments representing 13%, Matsushita representing 13% and Sony representing 11%, respectively. For the year ending December 31, 2003, Toshiba, Texas Instruments, Matsushita and Sony represented 25%, 8%, 13% and 15% respectively. The loss of any of these customers or a decrease in the sales volumes of their products could significantly reduce our total revenue below expectations. In particular, such a loss could cause significant fluctuations in results of operations because our expenses are fixed in the short term and it takes us a long time to replace customers.

***It typically takes us a long time to sell our unique solutions to new customers, which can result in uncertainty and delays in generating additional revenue.***

Because our gain share business model is unique 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 a 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. 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 nine months or more to reach a signed contract with a customer. Unexpected delays in our sales cycle could cause our revenue to fall short of expectations.

***We have a history of losses, we may incur losses in the future and we may be unable to achieve or subsequently maintain profitability.***

We have experienced losses in the six most recent quarters. 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 in the short term, so any shortfall in anticipated revenue in a given period could

## [Table of Contents](#)

significantly reduce our operating results below expectations. Our accumulated deficit was \$21.7 million as of June 30, 2004. We expect to continue to incur significant expenses in connection with:

- 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 subsequently maintain profitability on a quarterly or annual basis. Any of these factors could cause our stock price to decline.

### ***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. One such downturn commenced during the third quarter of calendar 2000, with no significant upturn to date. 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.

### ***We must continually attract and retain highly talented executives, engineers and research and development personnel or we will be unable to expand our business as planned.***

We will need to continue to hire highly talented executives, engineers and research and development personnel to support our planned growth. We have experienced, and we expect to continue to experience, delays and limitations in hiring and retaining highly skilled individuals with appropriate qualifications. 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. 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 can be intense, especially in Silicon Valley where we are principally based.

### ***If our products, technologies, services and integrated solutions fail to keep pace with the rapid technological changes in the semiconductor industry, we could lose customers and revenue.***

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 products, technologies, services and integrated 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 products, technologies, services and integrated 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, which could adversely affect our operating results.

### ***We intend to pursue additional strategic relationships, which are necessary to maximize our growth, but could substantially divert management attention and resources.***

In order to establish and maintain 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

## [Table of Contents](#)

relationships with these companies, we will not be as effective at modeling existing technologies or at keeping ahead of the technology 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.

***Recent acquisitions may adversely affect our business by diverting management's attention, increasing our expenses or by being more difficult to integrate than expected.***

During 2003, we completed our acquisitions of WaferYield and IDS. Our success in realizing the strategic benefits and growth opportunities to be gained from incorporating the operations of WaferYield and IDS into PDF and the timing of this realization depend upon our successful integration of WaferYield and IDS. The integration of WaferYield and IDS is a complex, costly and time-consuming process. The difficulties of combining our operations associated with these acquisitions include:

- consolidating research and development operations;
- retaining key employees;
- incorporating acquired products and business technology into our existing product lines;
- coordinating effective sales and marketing functions;
- preserving research and development, marketing, customer and other important relationships; and
- minimizing the diversion of management's attention from ongoing business concerns.

***Our operating results could be adversely affected as a result of purchase accounting treatment and the impact of amortization and impairment of intangible assets relating to business combinations.***

In accordance with generally accepted accounting principles, we accounted for our acquisitions of IDS and WaferYield using the purchase method of accounting. Under the purchase method of accounting, we have allocated the cost of the individual assets acquired and liabilities assumed, including various identifiable intangible assets (such as core technology) and in-process research and development, based on their respective fair values at the date of the completion of the business combinations. Intangible assets are required to be amortized prospectively over their estimated useful lives. Any excess of the purchase price over those fair market values will be accounted for as goodwill. We are not required to amortize goodwill against income but will be subject to periodic reviews for impairment. If we are required to record impairment charges, the charge will negatively impact reported earnings in the period of the charge.

***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

## [Table of Contents](#)

products, personnel or technologies of any acquisitions we might make. These difficulties could disrupt our ongoing business, distract our management and employees and increase our expenses.

***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. Also, competitors could establish non-domestic operations with a lower cost structure than our engineering organization, which would give any such competitor's products a competitive advantage over our solutions. There may be other providers of commercial solutions for systematic IC yield and performance enhancement of which we are not aware. We currently face indirect competition from the internal groups at IC companies. Some providers of yield management software or inspection equipment may seek to broaden their product offerings and compete with us. For example, KLA-Tencor has announced adding the use of test structures to one of their inspection product lines. Other companies, such as HPL Technologies which, through its acquisition of Test Chip Technologies, has indicated its intent to further utilize test chips in its product offering, may in the future seek to directly enter our market. 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 direct 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 solutions as a result of the increase in competition.

***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 Asia. Revenue generated from customers in Asia accounted for 63% of total revenue in the six months ended June 30, 2004. During the year ended December 31, 2003 revenue generated from customers in Asia was 70%. We expect that a significant portion of our total future revenue will continue to be derived from companies based in Asia. 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, including the Euro, while virtually all of our revenue is denominated in U.S. dollars;
- in the event a larger portion of our revenue becomes denominated in foreign currencies, we would be subject to a potentially significant exchange rate risk; and
- economic or political instability.

In Japan, in particular, we face the following additional risks:

- any recurrence of an overall downturn in Asian economies could limit our ability to retain existing customers and attract new ones in Asia;

## [Table of Contents](#)

- if the U.S. dollar increases in value relative to the Japanese Yen, the cost of our solutions will be more expensive to existing and potential Japanese customers and therefore less competitive; and
- if any of these risks materialize, we may be unable to continue to market our solutions successfully in international markets.

***We must effectively manage and support our operations and 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 have in the past, and may in the future, experience interruptions in our information systems. Further, physical damage to, failure of, or digital damage (such as significant viruses or worms) to, our information systems could delay time-sensitive services or computing operations that we perform for our customers, which could negatively impact our business results and reputation. We may need to switch to a new accounting system in the near future, which could 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 customers' 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 client service and 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.

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.

***Key executives, including our chief executive officer and our chief strategy officer, 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 our key executives, including John Kibarian, our President and Chief Executive Officer, and David Joseph, our Chief Strategy Officer. If we lose the services of any of our key executives, it could slow execution of our business plan, hinder our product development processes and impair our sales efforts. Searching for replacements could divert 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 our 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

## [Table of Contents](#)

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 or require us to enter into royalty or licensing agreements, which 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, hardware and software tools and the cost of support to remedy any such defects could decrease our revenue and our competitive market share.***

If the software, hardware 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 solutions. Further, the cost of support resources required to remedy any defects in our technologies, hardware or software tools could exceed our expectations. Any actual or perceived defects with our software, hardware 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, hardware or proprietary technologies or enhancements to existing software, hardware or proprietary technologies. Our software, hardware 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, hardware or proprietary technologies contain errors or defects, it could require us to expend significant resources to alleviate these problems, which could reduce margins, and result in the diversion of technical and other resources from our other development efforts.

***Legislative actions, higher insurance cost and potential new accounting pronouncements are likely to cause our general and administrative expenses to increase and impact our future financial position and results of operations.***

In order to comply with the newly adopted Sarbanes-Oxley Act of 2002, as well as proposed changes to listing standards by Nasdaq, and proposed accounting changes by the Securities and Exchange Commission, we may be required to increase our internal controls, hire additional personnel and additional outside legal, accounting and advisory services, all of which will cause our general and administrative costs to increase. Insurers are also likely to increase premiums as a result of the high claims rates incurred over the past year, and so our premiums for our various insurance policies, including our directors' and officers' insurance policies, are likely to increase. Proposed changes in the accounting rules, including legislative and other proposals to account for employee stock options as a compensation expense among others, could materially increase the expenses that we report under generally accepted accounting principles and adversely affect our operating results.

***Change in stock option accounting rules may adversely impact our reported operating results prepared in accordance with generally accepted accounting principles, our stock price and our competitiveness in the employee marketplace.***

Technology companies in general and PDF in particular have a history of depending upon and using broad based employee stock option programs to hire, incentivize and retain employees in a competitive marketplace. Any changes in accounting or income tax rules which would require us to record compensation expense in the statement of operations for employee stock options using the fair value method or changes in existing taxation rules related to stock options would have a significant negative effect on our reported results. Several agencies and entities are considering, and the Financial Accounting Standards Board has announced, proposals to change generally accepted accounting principles in the United States that, if implemented, would require us to record charges to compensation expense for employee stock option grants. Such a change would result in lower reported earnings per share, which may negatively impact our future stock price. In addition, such a change could impact our ability to utilize broad based employee stock plans to reward employees and could result in a competitive disadvantage to us in the employee marketplace.

***Worldwide events may reduce our revenues and harm our business.***

Future political or related events similar or comparable to the September 11, 2001 terrorist attacks, or significant military conflicts or long-term reactions of governments and society to such events, may cause significant delays or reductions in technology purchases or limit our ability to travel to certain parts of the world. In addition, such events have had and may continue to have negative effects on financial markets, including significant price and volume fluctuations in securities markets. If such events continue or escalate, our business and results of operations could be harmed and the market price of our common stock could decline.

***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 will be sufficient to meet our presently anticipated working capital and capital expenditure requirements for at least the next 12 months. However, unanticipated efforts to support more rapid expansion, develop or enhance Design-to-Silicon-Yield solutions, respond to competitive pressures or acquire complementary businesses or technologies could impact our future capital requirements and the adequacy of our available funds. In such event, we may need to raise additional funds through public or private financings, strategic relationships or other arrangements. We may not be able to raise any necessary funds on terms favorable to us, or at all.

**Item 3. Quantitative and Qualitative Disclosures About 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. Our actual results could vary materially as a result of a number of factors.

***Interest Rate Risk.*** As of June 30, 2004, we had cash and cash equivalents of \$42.5 million, consisting of cash and highly liquid money market instruments with maturities of 90 days or less. Because of the short maturities of those 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. A hypothetical increase in market interest rates of 10% from the market rates in effect at June 30, 2004 would cause the fair value of these investments to decrease by an immaterial amount which would 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 our German subsidiary PDF Solutions GmbH since the date of its acquisition, have for the most part, 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. There can be no assurance that exchange rate fluctuations will not have a materially negative impact on our business.

**Item 4. Controls and Procedures**

(a) *Evaluation of Disclosure Controls and Procedures.* Our Chief Executive Officer and our Chief Financial Officer, after evaluating the effectiveness of our “disclosure controls and procedures” (as defined in Rules 13a-15(e) and 15d-15(e) of the Securities Exchange Act of 1934, as amended (the “Exchange Act”)) as of the end of the period covered by this Quarterly Report on Form 10-Q, have concluded that our disclosure controls and procedures are effective and designed to ensure that information required to be disclosed by us in the reports we file and submit under the Exchange Act is recorded, processed, summarized and reported within the timeframes specified in the SEC’s rules and forms.

(b) *Changes in Internal Controls Over Financial Reporting.* There were no material changes in our internal controls or to our knowledge, in other factors that could materially affect our internal controls over financial reporting (as defined in Rules 13a-15(f) and 15d-15(f) of the Exchange Act) during the period covered by this Quarterly Report on Form 10-Q.

**PART II — OTHER INFORMATION****Item 1. Legal Proceedings**

Not Applicable.

**Item 2. Changes in Securities and Use of Proceeds**

(d) *Use of Proceeds.* Our first registration statement, filed on Form S-1 (Registration No. 333-43192) related to our initial public offering was declared effective by the SEC on July 26, 2001. There has been no change to the disclosure contained in our report on Form 10-K for the year ended December 31, 2003, as amended, with respect to the use of proceeds generated by our initial public offering.

(e) *Stock Repurchases.* The table below sets forth the information with respect to purchases made by or on behalf of the Company or any “affiliated purchaser” (as the term is defined in Rule 10b-18(a)(3) under the Securities Exchange Act of 1934) of our common stock during the six months ended June 30, 2004:

**ISSUER PURCHASES OF EQUITY SECURITIES**

<b>Period</b>	<b>(a) Total Number of Shares (or Units) Purchased</b>	<b>(b) Average Price Paid Per Share (or Unit)</b>	<b>(c) Total Number of Shares (or Units) Purchased as Part of Publicly Announced Plans or Programs (1)</b>	<b>(d) Maximum Number (or Approximate Dollar Value) of Shares (or Units) that May Yet Be Purchased Under the Plans or Programs(1)</b>
Month #1 (April 1, 2004 through April 30, 2004)	—	—	—	\$ 10,000,000
Month #2 (May 1, 2004 through May 31, 2004)	307,300	\$ 9.58	307,300	\$ 7,058,019
Month #3 (June 1, 2004 through June 30, 2004)	—	—	—	\$ 7,058,019
Total	<u>307,300</u>	<u>\$ 9.58</u>	<u>307,300</u>	

(1) On March 26, 2003, we announced that our Board of Directors had approved a share repurchase program, pursuant to which up to \$10.0 million of our outstanding common stock may be repurchased; the repurchase program has no set expiration or termination date. As of June 30, 2004, 307,300 shares had been repurchased under this program at an average per share price of \$9.58 and approximately \$7.1 million remained available for repurchases.

**Item 3. Defaults on Senior Securities**

Not Applicable.

**Item 4. Submission of Matters to a Vote of Security Holders**

During the quarter ended June 30, 2004, we submitted the following matters to our stockholders for approval at our Annual Meeting of Stockholders held on May 19, 2004 and the following proposals were adopted by our stockholders by the margins indicated:

[Table of Contents](#)

Proposals:

1. To elect two (2) Class III nominees to the Board of Directors.

<b>Election of Director</b>	<b>Votes For</b>	<b>Votes Withheld</b>
John Kibarian — Class III Director	22,715,704	294,883
Susan Billat — Class III Director	22,569,255	441,282

As a result, Mr. Kibarian and Ms. Billat were re-elected as Class III directors of the Registrant for a three year term expiring upon the Annual Meeting next following the fiscal year ending December 31, 2006, or until their respective successors have been duly qualified and elected. Lucio Lanza, Kimon Michaels, B.J. Cassin and Donald L. Lucas continued as directors of the Registrant.

2. To amend the Company's 2001 Stock Plan to increase the annual grant of options to non-employee directors from 10,000 shares per year to 15,000 shares per year.

<b>Votes For</b>	<b>Votes Against</b>	<b>Votes Withheld</b>	<b>Broker Non-votes</b>
11,556,724	8,690,127	271,488	2,492,198

3. To ratify the appointment by the Audit Committee of Deloitte & Touche LLP as the independent auditors of the Company for the fiscal year ending December 31, 2004.

<b>Votes for</b>	<b>Votes Against</b>	<b>Votes Abstained</b>	<b>Broker Non-votes</b>
22,760,156	212,532	37,849	0

**Item 5. Other Information**

Not Applicable.

[Table of Contents](#)

**Item 6. Exhibits and Reports on Form 8-K**

**(a) Exhibits:**

<b>Exhibit Number</b>	<b>Description</b>
3.1	Third Amended and Restated Certificate of Incorporation of PDF Solutions, Inc.**
3.2	Amended and Restated Bylaws of PDF Solutions, Inc.**
4.1	Specimen Stock Certificate**
4.2	Second Amended and Restated Rights Agreement dated July 6, 2001*
31.01	Certification of the President and Chief Executive Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002
31.02	Certification of the Chief Financial Officer and Vice President of Finance and Administration pursuant to Section 302 of the Sarbanes-Oxley Act of 2002
32.01	Certification of the President and Chief Executive Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002***
32.02	Certification the Chief Financial Officer and Vice President of Finance and Administration pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002***

\* Incorporated by reference to PDF's Registration Statement on Form S-1, Amendment No. 7 filed July 9, 2001 (File No. 333-43192).

\*\* Incorporated by reference to PDF's Report on Form 10-Q filed September 6, 2001 (File No. 000-31311).

\*\*\* As contemplated by SEC Release No. 33-8212, these exhibits are furnished with this Quarterly Report on Form 10-Q and are not deemed filed with the Securities and Exchange Commission and are not incorporated by reference in any filing of PDF Solutions, Inc. under the Securities Act of 1933 or the Securities Exchange Act of 1934, whether made before or after the date hereof and irrespective of any general incorporation language in any filings.

**(b) Reports on Form 8-K:**

1. On April 22, 2004, we filed a report on Form 8-K under Items 7 and 12 relating to our financial information for the quarter and year ended March 31, 2004 and certain forward-looking statements relating to our operational results.

**SIGNATURES**

Pursuant to the requirements of the Securities Exchange Act of 1934, the Registrant has duly caused this report to be signed on its behalf by the undersigned thereunto duly authorized.

Date: August 9, 2004

By: /s/ John K. Kibarian

\_\_\_\_\_  
John K. Kibarian  
President and Chief Executive Officer

By: /s/ P. Steven Melman

\_\_\_\_\_  
P. Steven Melman  
Chief Financial Officer and Vice President,  
Finance and Administration

**EXHIBIT INDEX**

<b>Exhibit Number</b>	<b>Description</b>
3.1	Third Amended and Restated Certificate of Incorporation of PDF Solutions, Inc.**
3.2	Amended and Restated Bylaws of PDF Solutions, Inc.**
4.1	Specimen Stock Certificate**
4.2	Second Amended and Restated Rights Agreement dated July 6, 2001*
31.01	Certification of the President and Chief Executive Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002
31.02	Certification of the Chief Financial Officer and Vice President of Finance and Administration pursuant to Section 302 of the Sarbanes-Oxley Act of 2002
32.01	Certification of the President and Chief Executive Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002***
32.02	Certification the Chief Financial Officer and Vice President of Finance and Administration pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002***

\* Incorporated by reference to PDF's Registration Statement on Form S-1, Amendment No. 7 filed July 9, 2001 (File No. 333-43192).

\*\* Incorporated by reference to PDF's Report on Form 10-Q filed September 6, 2001 (File No. 000-31311).

\*\*\* As contemplated by SEC Release No. 33-8212, these exhibits are furnished with this Quarterly Report on Form 10-Q and are not deemed filed with the Securities and Exchange Commission and are not incorporated by reference in any filing of PDF Solutions, Inc. under the Securities Act of 1933 or the Securities Exchange Act of 1934, whether made before or after the date hereof and irrespective of any general incorporation language in any filings.

CERTIFICATIONS

I, John K. Kibarian, certify that:

1. I have reviewed this quarterly report on Form 10-Q of PDF Solutions, Inc.;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the periods covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) for the registrant and have:

a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

b) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

c) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of registrant's board of directors (or persons performing the equivalent functions):

a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

/s/ JOHN K. KIBARIAN

-----  
John K. Kibarian  
President and Chief Executive Officer  
(Principal Executive Officer)

Date: August 9, 2004

CERTIFICATIONS

I, P. Steven Melman, certify that:

1. I have reviewed this quarterly report on Form 10-Q of PDF Solutions, Inc.;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) for the registrant and have:

a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

b) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

c) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of registrant's board of directors (or persons performing the equivalent functions):

a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

/s/ P. STEVEN MELMAN

-----  
P. Steven Melman  
Chief Financial Officer and Vice President  
of Finance and Administration  
(Principal Financial Officer)

Date: August 9, 2004

CERTIFICATION PURSUANT TO  
18 U.S.C. SECTION 1350,  
AS ADOPTED PURSUANT TO  
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

In connection with the Quarterly Report of PDF Solutions, Inc. (the "Company") on Form 10-Q for the quarter ended June 30, 2004 as filed with the Securities and Exchange Commission on August 9, 2004 (the "Report"), I, John K. Kibarian, President and Chief Executive Officer of the Company, certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that, to my knowledge:

(1) The Report fully complies with the requirements of section 13(a) or 15(d) of the Securities Exchange Act of 1934; and

(2) The information contained in the Report fairly presents, in all material respects, the financial condition and result of operations of the Company.

/s/ JOHN K. KIBARIAN

-----  
John K. Kibarian  
President and Chief Executive Officer  
(Principal Executive Officer)

Date: August 9, 2004

CERTIFICATION PURSUANT TO  
18 U.S.C. SECTION 1350,  
AS ADOPTED PURSUANT TO  
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

In connection with the Quarterly Report of PDF Solutions, Inc. (the "Company") on Form 10-Q for the quarter ended June 30, 2004 as filed with the Securities and Exchange Commission on August 9, 2004 (the "Report"), I, P. Steven Melman, Chief Financial Officer and Vice President of Finance and Administration of the Company, certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that, to my knowledge:

(1) The Report fully complies with the requirements of section 13(a) or 15(d) of the Securities Exchange Act of 1934; and

(2) The information contained in the Report fairly presents, in all material respects, the financial condition and result of operations of the Company.

/s/ P. STEVEN MELMAN

-----  
P. Steven Melman  
Chief Financial Officer and Vice President  
of Finance and Administration

Date: August 9, 2004