PDF SOLUTIONS INC
Form 10-K
March 16, 2010

Table of Contents

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

Form 10-K

(Mark One)

ý **ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

For the fiscal year ended December 31, 2009

or

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

For the transition period from to
000-31311
(Commission file number)

PDF SOLUTIONS, INC.

(Exact name of registrant as specified in its charter)

Delaware	**25-1701361**
(State or other jurisdiction of Incorporation or organization)	(I.R.S. Employer Identification No.)
333 West San Carlos Street, Suite 700 San Jose, California	**95110**
(Address of Registrant's principal executive offices)	(Zip Code)

(408) 280-7900
(Registrant's telephone number, including area code)

Securities registered pursuant to Section 12(b) of the Act:

Title of Class	Name of Each Exchange on Which Registered
Common Stock, $0.00015 par value	The NASDAQ Stock Market LLC

Securities registered pursuant to Section 12(g) of the Act:

None

Indicate by check mark if the registrant is a well-known seasoned issuer (as defined in Rule 405 of the Securities Act). Yes o No ý

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act. Yes o No ý

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 ý No o

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (§ 232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). Yes o No o

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K is not contained herein, and will not be contained, to the best of registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K. ý

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or a smaller reporting company. See the definitions of "large accelerated filer," "accelerated filer" and "smaller reporting company" in Rule 12b-2 of the Exchange Act. (Check one):

Large accelerated filer o	Accelerated filer o	Non-accelerated filer o (Do not check if a smaller reporting company)	Smaller reporting company ý

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Act). Yes o No ý

The aggregate market value of the voting stock held by non-affiliates of the Registrant was approximately $48.5 million as of the last business day of the Registrant's most recently completed second quarter, based upon the closing sale price on the NASDAQ Global Market reported for such date. Shares of Common Stock held by each officer and director and by each person who owns 10% or more of the outstanding Common Stock have been excluded in that such persons may be deemed to be affiliates. This determination of affiliate status is not necessarily a conclusive determination for other purposes.

There were 26,965,998 shares of the Registrant's Common Stock outstanding as of March 5, 2010.

DOCUMENTS INCORPORATED BY REFERENCE

Part III incorporates certain information by reference from the definitive Proxy Statement for our Annual Meeting of Stockholders expected to be held on May 18, 2010.

Table of Contents

TABLE OF CONTENTS

Table of Contents

PART I

This Annual Report on Form 10-K, particularly in Item 1 "Business" and Item 7 "Management's Discussion and Analysis of Financial Condition and Results of Operations," includes forward-looking statements within the meaning of Section 27A of the Securities Act of 1933 (the "Securities Act") and Section 21E of the Securities Exchange Act of 1934, as amended (the "Exchange Act"). These statements include, but are not limited to, statements concerning: expectations about the effectiveness of our business and technology strategies; expectations regarding stock market and global economic trends; expectations regarding previous and future acquisitions; current semiconductor industry trends; expectations of the success and market acceptance of our intellectual property and our solutions; expectations concerning recent completed acquisitions; expectations that our cash, cash equivalents and cash generated from operations will satisfy our business requirements for the next twelve months; expectations of our future liquidity requirements; and our ability to obtain additional financing when needed. Our actual results could differ materially from those projected in the forward-looking statements as a result of a number of factors, risks and uncertainties discussed in this Form 10-K, especially those contained in Item 1A of this Form 10-K. The words "may," "anticipate," "plan," "continue," "could," "projected," "expect," "believe," "intend," and "assume," the negative of these terms and similar expressions are used to identify forward-looking statements. All forward-looking statements and information included herein is given as of the filing date of this Form 10-K with the Securities and Exchange Commission ("SEC") and based on information available to us at the time of this report and future events or circumstances could differ significantly from these forward-looking statements. Unless required by law, we undertake no obligation to update publicly any such forward-looking statements.

The following information should be read in conjunction with the Consolidated Financial Statements and notes thereto included in this Annual Report on Form 10-K. All references to fiscal year apply to our fiscal year that ends on December 31.

Item 1. *Business*

Business Overview

PDF Solutions is a leading provider of infrastructure technologies and services to lower the cost of integrated circuit ("IC") design and manufacturing, enhance time to market, and improve profitability by addressing design and manufacturing interactions from product design to initial process ramps to mature manufacturing operations. Our technologies and services target the entire "process life cycle," which is the term we have coined for the time from the design of an IC through volume manufacturing of that IC. Our solutions combine proprietary software, physical intellectual property ("IP") in the form of cell libraries for IC designs, test chips, an electrical wafer test system, proven methodologies, and professional services. We analyze yield loss mechanisms to identify, quantify, and correct the issues that cause yield loss. Our analysis drives IC design and manufacturing improvements to enable our customers to optimize the technology development process, to increase initial yield when an IC design first enters a manufacturing line, to increase the rate at which yield improves, and to minimize excursions and process variability that cause yield loss throughout mass production. The result of successfully implementing our solutions is the creation of value that can be measured based on improvements to our customers' actual yield. Through our gainshare performance incentives component, we have aligned our financial interests with the yield and performance improvements realized by our customers, and we receive revenue based on this value. Our technologies and services have been sold to leading integrated device manufacturers, fabless semiconductor companies, and foundries.

The key benefits of our solutions to our customers are:

Faster Time to Market. Our solutions are designed to accelerate our customers' time-to-market and increase product profitability. Our solutions, which can predict and improve product yield even before IC product design is complete, transform the traditional design-to-silicon sequence into a primarily concurrent process, thereby shortening our customers' time-to-market. Systematically

Table of Contents

incorporating knowledge of the integration of the design and manufacturing processes into our software modules and physical IP enables our customers to introduce products with higher initial yields faster. Our solutions are designed to decrease design and process iterations and reduce our customers' up-front costs, and thus provide our customers with early-mover advantages such as increased market share and higher selling prices.

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

Increased Manufacturing Efficiencies. Our solutions for product design, product introduction, yield ramp, and process control are designed to allow our customers to achieve a higher yield at mass production and therefore a lower cost of goods sold. In addition, our solutions, which also include fault detection and classification ("FDC") software, are designed to provide our customers with the ability to proactively monitor process health to avoid potential yield problems.

Our long-term business objective is to maximize IC yield by providing the industry standard in technologies and services for the Process Life Cycle. To achieve this objective, we intend to:

Expand Strategic Relationships. We intend to continue to extend and enhance our relationships with companies at various stages of the design-to-silicon process, such as process licensors, manufacturing and test equipment vendors, electronic design automation vendors, silicon IP providers, semiconductor foundries, and contract test and assembly houses. For example, an agreement with International Business Machines Corporation ("IBM") to develop an IC design platform to mitigate the effects of escalating design and manufacturing process complexity at the 32-, 28-, and 22-nanometer (nm) dimensions enables us to layer our *pd*BRIX -based platform on top of IBM's world class manufacturing process so it can be used by a broad set of manufacturers and fabless firms.

Extend Our Technology Leadership Position. We intend to extend our technology leadership position by leveraging our experienced engineering staff and codifying the knowledge that we acquire in our solution implementations. For example, we continue to expand and develop new technology that leverages our Characterization Vehicle® (CV®) methodology to embed test structures on product wafers. This provides valuable insight regarding product yield loss during mass production with minimal or no increase in test time and non-product wafers. In addition, we selectively acquire complementary businesses and technologies to increase the scope of our solutions.

Leverage Our Gainshare Performance Incentives Business Model. We intend to continue expanding the gainshare performance incentives component of our customer contracts. We believe this approach allows us to form collaborative and longer-term relationships with our customers by aligning our financial success with that of our customers. Working closely with our customers on their core technologies that implement our solutions, with a common focus on their business results, provides direct and real-time feedback for continual improvement of our solutions. We believe that we will generate expanded relationships with customers that engage us on terms that include a significant gainshare performance incentive component.

Focus on Key IC Product Segments and High-Growth Adjacent Markets. We intend to focus our solutions on high-volume, high-growth IC product segments such as system-on-a-chip, memory,

Table of Contents

CMOS image sensor, and high-performance central processing units. As a result, we will continue to expand our solutions for technology drivers such as low-k dielectrics, high-k metal gates, immersion lithography, double patterning, SOI, copper, and 300mm wafer fabs, which are all still somewhat new and are relatively complex manufacturing technologies. We believe that these product segments are particularly attractive because they include complex IC design and manufacturing processes where processed silicon is costly and yield is critical. In addition, we have expanded our efforts to penetrate high growth adjacent markets, such as photovoltaic manufacturing. We are leveraging our yield management system and FDC technology to create products that meet the needs of manufacturing customers in the rapidly growing solar markets.

Industry Background

Rapid technological innovation, with increasingly shorter product life cycles, now fuels the economic growth of the semiconductor industry. IC companies historically ramped production slowly, produced at high volume once products gained market acceptance, and slowly reduced production volume when price and demand started to decrease near the end of the products' life cycles. Now, companies often need to be the first to market and the first to sell the most volume when a product is first introduced so that they have performance and pricing advantages over their competition, or else they lose market opportunity and revenue. Increased IC complexity and compressed product lifecycles create significant challenges to achieve competitive initial yields and optimized performance. For example, it is not uncommon for an initial manufacturing run to yield only 20%, which means that 80% of the ICs produced are wasted. Yield improvement and performance optimization are critical drivers of IC companies' financial results because they typically lead to cost reduction and revenue generation concurrently, causing a leveraged effect on profitability.

Technology and Intellectual Property Protection

We have developed proprietary technologies for yield simulation, analysis, loss detection, and improvement. The foundation for many of our solutions is our CV infrastructure ("CV*i*") that enables our customers to characterize the manufacturing process, and establish fail-rate information needed to calibrate manufacturing yield models, prioritize yield improvement activities and speed-up process learning-cycles. Our CV*i* includes proprietary Characterization Vehicle® test chips, including designs of experiments and layout designs, and a proprietary and patented highly parallel electrical functional and parametric-test system, comprised of hardware and software designed to provide an order-of-magnitude reduction in the time required to test our Characterization Vehicle® test chips. In addition, our technology embodies many algorithms, which we have developed over the course of many years, and which are implemented in our products including *data*POWER®, pdCV , mæstria®, and pdBRIX , among others. Further, our IP includes methodologies that our implementation teams use as guidelines to drive our customers' use of our CV® test chips and technologies, quantify the yield-loss associated with each process module and design block, simulate the impact of changes to the design and/or to the manufacturing process, and analyze the outcome of executing such changes. We continually enhance our core technologies through the codification of knowledge that we gain in our solution implementations.

Our future success and competitive position rely to some extent upon our ability to protect these proprietary technologies and IP, and to prevent competitors from using our systems, methods, and technologies in their products. To accomplish this, we rely primarily on a combination of contractual provisions, confidentiality procedures, trade secrets, and patent, copyright, mask work, and trademark laws. We license our products and technologies pursuant to non-exclusive license agreements that impose restrictions on customers' use. In addition, we seek to avoid disclosure of our trade secrets, including requiring employees, customers, and others with access to our proprietary information to execute confidentiality agreements with us and restricting access to our source code. We also seek to protect our software, documentation, and other written materials under trade secret and copyright laws. As of

Table of Contents

December 31, 2009, we held 42 U.S. patents. We intend to prepare additional patent applications when we feel it is necessary. Characterization Vehicle®, Circuit Surfer®, CV®, *dataPOWER*®, mæstria®, ModelWare®, Optissimo®, pdFasTest®, pDfx®, PDF Solutions®, Proxecco®, the PDF Solutions logo, Yield Ramp Simulator®, and YRS® are registered trademarks of PDF Solutions, Inc. or its subsidiaries, and Design-to-Silicon-Yield ₫*P*-bitMAP ₫*P*-Defect ₫*P*-Mining ₫*P*-probeMAP ₫*P*-shotMAP ₫*P*-SSA ₫*P*-Variability Analysis ₫*P*-VUE , *dP*-WorkFlow , pdBRIX , pdCV , and YA-FDC are our common law trademarks.

Products and Services

Our solutions consist of integration engineering services, proprietary software, and other technologies designed to address our customers' specific manufacturing and design issues.

Services and Solutions

Manufacturing Process Solutions ("MPS"). The IC manufacturing process typically involves four sequential phases: research and development to establish unit manufacturing processes, such as units for the metal CMP or lithography processes; integration of these unit processes into functional modules, such as metal or contact modules; a yield ramp of lead products through the entire manufacturing line; and volume manufacturing of all products through the life of the process. We offer solutions targeted to each of these phases designed to accelerate the efficiency of yield learning by shortening the learning cycle, learning more per cycle, and reducing the number of silicon wafers required. Our targeted offerings include:

Process R&D: Our process R&D solutions are designed to help customers increase the robustness of their manufacturing processes by characterizing and reducing the variability of unit processes and device performance with respect to layout characteristics within anticipated process design rules.

Process Integration and Yield Ramp: Our process integration and yield ramp solutions are designed to enable our customers to more quickly ramp the yield of new products early in the manufacturing process by characterizing the process-design interactions within each key process module, simulating product yield loss by process module, and prioritizing quantitative yield improvement by design block in real products.

Volume Manufacturing Solutions ("VMS"). Our volume manufacturing solutions are designed to enable our customers to extend our yield ramp services through the life of the process by continuing to collect test data and equipment signals during production and improving yield while reducing the overhead of manufacturing separate test wafers. They enable the customer to collect test data and equipment signals during production to improve yield while simultaneously reducing the overhead of manufacturing. Our dataPOWER® software modules allow customers to perform rapid yield signature detection, characterization, and diagnosis. Our mæstria® and YA-FDC process control software offerings enable our customers to monitor and control process signals to detect and diagnose yield loss related to equipment performance.

Design-for-Manufacturability ("DFM") Solutions. Our DFM solutions are designed to enable our customers to optimize yields, improve parametric performance, and reduce product ramp time by integrating manufacturability considerations into the design cycle before a design is sent to the mask shop to more quickly and cost-effectively manufacture IC products. We target these solutions to customers' requirements by providing the following:

Logic DFM Solutions: Logic DFM solutions include software, IP, and services designed to make yield improvements by trading off density or performance, for example, in the logic portions of an IC design. Our software helps designers optimize the yield of the logic portion by using process-

Table of Contents

specific yield models and technology files that include yield enhanced extensions to IP design building block elements.

Circuit Level DFM Solutions: Circuit level DFM solutions include software and services designed to anticipate the effects of process variability during analog/mixed signal/RF circuit design to optimize the manufacturability of each block given a pre-characterized manufacturing process.

Memory DFM Solutions: Memory DFM solutions include software and services designed to optimize the memory redundancy and bit cell usage given a pre-characterized manufacturing process.

pdBRIX Physical IP Solutions: pdBRIX physical IP solutions include software, IP and services for identifying and developing a set of layout patterns which we refer to as Templates that are optimized to a given manufacturing process and target product application. These Templates serve as the building blocks for design organizations to construct standard cell libraries and larger physical IP blocks which we refer to as Bricks. This solution includes mapping software for inserting these into a design flow.

Products

Our Manufacturing Process, Volume Manufacturing, and DFM solutions incorporate the use of various elements of our software products and other technologies, depending on the customers' needs. Our software products and other technologies include the following:

Characterization Vehicle® Infrastructure. Our test chip design engineers develop a design of experiments ("DOEs") to determine how IC design building blocks interact with the manufacturing process. Our CV software utilizes the DOE, as well as a library of building blocks that we know has potential yield and performance impact, to generate CV test chip layouts. Our CV infrastructure includes:

CV® Test Chips. Our family of proprietary test chip products is run through the manufacturing process with intentional process modifications to explore the effects of potential process improvements given natural manufacturing variations. Our custom-designed CV test chips are optimized for our test hardware and analysis software and include DOEs tuned to each customer's process. Our full-reticle short-flow CV test chips provide a fast learning cycle for specific process modules and are fully integrated with third-party failure analysis and inspection tools for complete diagnosis to root cause. Our Scribe CV® products are inserted directly on customers' product wafers and collect data from product wafers about critical layers.

pdCV Analysis Software. Our proprietary software accumulates data from our CV test chips, enabling models of the performance effects of process variations on these design building blocks to be generated for use with our Yield Ramp Simulator software.

pdFasTest® Electrical Wafer Test System. Our proprietary system enables fast defect characterization of manufacturing processes. This automated system provides parallel functional testing, thus minimizing the time required to perform millions of electrical measurements to test our CV test chips.

Yield Ramp Simulator® (YRS®) Software. Our YRS software analyzes an IC design to compute its systematic and random yield loss. YRS software allows design attribute extraction and feature-based yield modeling. YRS software takes as input a layout that is typically in industry standard format and proprietary yield models generated by running and testing our CV test chips. YRS software is designed to estimate the yield loss due to optical proximity effects, etch micro-loading, dishing in CMP, and other basic process issues.

Table of Contents

Circuit Surfer® Software. Our Circuit Surfer software estimates the parametric performance yield and manufacturability of analog/mixed-signal/RF blocks in a design, such as RF transmission, PLLs/DLLs and logic critical paths. Using our Circuit Surfer software, a design engineer is able to estimate how manufacturing process variations will impact circuit performance and yield and then optimizes the circuit to reduce or eliminate the impact of those variations.

pdBRIX Platform. Our pdBRIX platform includes software for identifying and developing a set of physical IP building blocks that are tailored to a given manufacturing process and target product application. This platform also includes mapper software for inserting these physical IP building blocks into a traditional design flow.

dataPOWER® YMS Platform. Our *data*POWER YMS platform collects yield data, loads and stores it in an integrated database and allows product engineers to identify and analyze production yield issues using proprietary yield analysis software tools. *data*POWER software contains powerful visualization and reporting tools, including web-based access through the *dP*-Monitor module included in the core product in the newest release, which are flexible to address customers' requirements. Our YMS platform is designed to handle very large data sets, to efficiently improve productivity, yield and time-to-market at our customers' sites. Optional modules extend the base platform to enable defect analysis (*dP*-Defect), memory analysis (*dP*-bitMAP), spatial signature analysis (*dP*-SSA), data-mining (*dP*-Mining), optimization of die on the wafer (*dP*-shotMAP), and probe-head optimization (*dP*-probeMAP), and web-based access (*dP*-VUE).

mæstria® FDC Software. Our mæstria product provides FDC capabilities to rapidly identify sources of process variations and manufacturing excursions by monitoring equipment parameters through proprietary data collection and analysis features.

YA-FDC Service and Software Platform. YA-FDC allows online modeling to create real-time virtual measurements of final product attributes during processing. These models enable optimization decisions for process control, process adjustments, PM scheduling, tool corrective actions, and wafer dispatching. The real-time decision-making based on the models is designed to reduce product variability and cost simultaneously.

With the exception of *data*POWER, mæstria and pdBRIX, the primary distribution method for our software and technologies is through our manufacturing process solutions although, we have in the past and may in the future separately license these and other technologies. Though *data*POWER, mæstria and pdBRIX are primarily licensed separately, they may also be distributed within our Design-to-Silicon-Yield solutions.

Customers

Our current customers are primarily integrated device manufacturers ("IDMs"), but also include fabless semiconductor design companies and foundries. Our customers' targeted product segments vary significantly, including microprocessors, memory, graphics, image sensor solutions, and communications. We believe that the adoption of our solutions by such companies for usage in a wide range of products validates the application of our Design-to-Silicon-Yield solutions to the broader semiconductor market.

IBM, Toshiba Corporation ("Toshiba"), and Chartered Semiconductor Manufacturing ("Chartered") represented 19%, 17%, and 11%, respectively, of our revenues for the year ended December 31, 2009. Toshiba and IBM represented 18% and 16%, respectively, of our revenues for the year ended December 31, 2008. Toshiba and IBM represented 19% and 16%, respectively, of our revenues for the year ended December 31, 2007. No other customer accounted for 10% or more of our revenues in 2009, 2008 and 2007.

Table of Contents

Sales and Marketing

Our sales strategy is to pursue targeted accounts through a combination of our direct sales force, sales representatives in some local markets, and strategic alliances. For sales in the United States, we rely on our direct sales team, which primarily operates out of our San Jose, California headquarters. In Europe, Japan, and Korea, we primarily use our direct sales team. In Taiwan, we use a combination of our direct sales team and a local sales representative, J.I.T. International Co., Ltd. In Singapore, Malaysia, and Indonesia, we use Kromax South Asia PTE LTD, a local sales representative. We expect to continue to establish strategic alliances with process licensors, vendors in the electronic design automation software, capital equipment for IC production, silicon IP and mask-making software segments to create and take advantage of sales channel and co-marketing opportunities.

After we are engaged by a customer and early in the solution implementation, our engineers seek to establish relationships in the organization and gain an understanding of our customers' business issues. Our direct sales and solution implementation teams combine their efforts to deepen our customer relationships by expanding our penetration across the customer's products, processes and technologies. This close working relationship with the customer has the added benefit of helping us identify new product areas and technologies in which we should next focus our research and development efforts.

In the year ended December 31, 2009, we derived 66% of our revenues from customers based in Asia compared to 55% in both of the years ended December 31, 2008 and 2007. In the year ended December 31, 2009, 27% of our revenues were derived from customers located in the United States as compared to 27% and 31%, respectively, in the years ended December 31, 2008 and 2007. Additional discussion regarding the risks associated with international operations can be found under Item 1A, "Risk Factors".

See our "Notes to Consolidated Financial Statements", included under Part II, Item 8. "Financial Statements and Supplementary Data" for additional geographic information.

Research and Development

Our research and development focuses on developing and introducing new proprietary technologies, software products and enhancements to our existing solutions. We use a rapid-prototyping paradigm in the context of the customer engagement to achieve these goals. We have made, and expect to continue to make, substantial investments in research and development. The complexity of our Design-to-Silicon-Yield technologies requires expertise in physical IC design and layout, transistor design and semiconductor physics, semiconductor process integration, numerical algorithms, statistics and software development. We believe that our team of engineers will continue to advance our market and technological leadership. We conduct in-house training for our engineers in the technical areas, as well as focusing on ways to enhance client service skills. At any given time, about one quarter of our research and development engineers are operating in the field, partnered with solution implementation engineers in a deliberate strategy to provide direct feedback between technology development and customer needs. Our research and development expenses were $19.8 million, $34.0 million and $36.1 million in 2009, 2008 and 2007, respectively.

Competition

The semiconductor industry is highly competitive and driven by rapidly changing design and process technologies, evolving standards, short product life cycles, and decreasing prices. While the market for process-design integration technologies and services is in its early stages, it is quickly evolving and we expect market competition to continue to develop and increase. We believe the solution to address the needs of IC companies requires a unified system of yield models, design analysis software, CV test chips, physical IP creation, process control software, and yield management software. Currently, we are the only provider of comprehensive commercial solutions for integrating design and manufacturing processes. We face indirect competition from internal groups at IC companies that use an incomplete set of components

Table of Contents

not optimized to accelerate process-design integration. Some providers of yield management software, inspection equipment, electronic design automation, or design IP may seek to broaden their product offerings and compete with us.

We face competition for some of the point applications of our solutions including some of those used by the internal groups at IC companies. Specifically there are several suppliers of yield management and/or prediction systems, such as KLA-Tencor, MKS Instruments, Inc. ("MKS") (through its acquisition of Yield Dynamics, Inc.), Mentor Graphics (through its acquisition of Ponte Solutions), Synopsys, Inc. ("Synopsys"), and process control software, such as Applied Materials, Inc. (through its acquisition of the software division of Brooks Automation, Inc.), BISTel Inc., and Trancom Technology, Inc., and MKS. ARM Ltd. and Virage Logic Corporation provide standard cells in the physical IP space and Tela provides software for standard cell synthesis, each of which could compete with our pdBRIX solution. In addition, Synopsys now appears to offer directly competing DFM solutions, while other EDA suppliers provide alternative DFM solutions that may compete for the same budgetary funds.

We believe the principal factors affecting competition in our market include demonstrated results and reputation, strength of core technology, ability to create innovative technology, and ability to implement solutions for new technology and product generations. We believe that our solutions compete favorably with respect to these factors.

Employees

As of December 31, 2009, we had 306 employees worldwide, including 171 on client service teams, 75 in research and development, 29 in sales and marketing, and 31 in general and administrative functions. Of these employees, 143 are located in the US, 112 in Asia, and 51 in Europe. Worldwide, we had 375 employees as of December 31, 2008 and 382 as of December 31, 2007.

None of our employees are represented by a labor union. Our employees in France and Italy are subject to collective bargaining agreements in those countries. We believe our relationship with our employees is good.

Executive Officers

The following table and notes set forth information about our current executive officers as of March 15, 2010.

Name	Age	Position
John K. Kibarian, Ph.D.	46	President, Chief Executive Officer, and Director
Joy E. Leo	49	Chief Administration Officer
Keith A. Jones	39	Chief Financial Officer and Vice President, Finance(1)
David A. Joseph	56	Chief Strategy Officer
Cees Hartgring, Ph.D.	56	Vice President, Client Services and Sales
Kimon Michaels, Ph.D.	43	Vice President, Design for Manufacturability, and Director

(1) As reported in a Current Report on Form 8-K filed by us on March 5, 2010, Mr. Jones resigned as our Chief Financial Officer and Vice President, Finance on March 1, 2010, to be effective on March 17, 2010 following the filing of this Annual Report.

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

Table of Contents

Joy E. Leo has served as Chief Administration Officer since July 2008. Prior to joining PDF, Ms. Leo served as Senior Vice President, Chief Financial Officer and Secretary for Credence Systems Corporations, now known as LTX-Credence, a provider of focused, cost-optimized ATE solutions. Ms. Leo served as Vice President of Finance and Administration, Chief Financial Officer and Secretary for Artisan Components, Inc., now known as ARM Holdings PLC. Ms. Leo also served as Vice President of Finance and Administration and Chief Financial Officer for IMP, Inc., as Vice President of Finance, Operations and Administration for Innomedia Incorporated, and Vice President and Chief Financial Officer for Philips Components, a multi-billion dollar division of Royal Philips Electronics N.V. Ms. Leo received a B.A. in Business Administration and Finance from the University of Utah.

Keith A. Jones has served as Chief Financial Officer and Vice President, Finance since January 2006. Mr. Jones served as Director of Finance and SEC Compliance from July 2003 to December 2005. Prior to joining PDF, Mr. Jones served as Assistant Controller for Interwoven, Inc., a provider of enterprise content management solutions, and as Controller for eTime Capital, Inc., a financial software applications company. Prior to that, Mr. Jones served in various positions at Deloitte & Touche LLP, most recently as an Audit Manager. Mr. Jones received a B.S. in Business Administration from California State University, Fresno and is a Certified Public Accountant.

David A. Joseph has served as Chief Strategy Officer since April 2003. Mr. Joseph served as Executive Vice President Sales, Marketing, and Business Development from August 2001 through March 2003, as Vice President, Products and Methods from July 1999 through August 2001 and as Vice President, Business Development from November 1998 through June 1999. Prior to joining PDF, Mr. Joseph served KLA-Tencor, a semiconductor manufacturing company, in various positions, including Japan Business Manager, Vice President Customer Satisfaction and General Manager of Yield Analysis Software. Mr. Joseph received a B.S. in Mathematical Science from Stanford University.

Cees Hartgring, Ph.D., has served as Vice President, Client Services and Sales since June 2007. Dr. Hartgring served as Vice President and General Manager, Manufacturing Process Solutions from January 2004 through May 2007, as Vice President, Worldwide Sales and Strategic Business Development from April 2003 through December 2003 and as Vice President of Sales from September 2002 through March 2003. Prior to joining PDF, Dr. Hartgring served as President and Chief Executive Officer of Trimedia Technologies, a Philips Semiconductor spinout. Dr. Hartgring also held various executive positions at Philips Semiconductor, most recently as Vice President and General Manager of the Trimedia business unit. Dr. Hartgring received an undergraduate degree from the Technical University Delft and an M.S.E.E. and a Ph.D. in Electrical Engineering and Computer Science from the University of California at Berkeley.

Kimon Michaels, Ph.D., one of our founders, has served as Vice President, Design for Manufacturability since June 2007. Dr. Michaels served as Vice President, Field Operations for Manufacturing Process Solutions from January 2006 through May 2007, and has been a Director since November 1995. From March 1993 through December 2005, he served in various vice presidential capacities. He also served as Chief Financial Officer from November 1995 to July 1998. Dr. Michaels received a B.S. in Electrical Engineering, an M.S. E.C.E. and a Ph.D. E.C.E. from Carnegie Mellon University.

Available Information

We file or furnish various reports, such as registration statements, periodic and current reports, proxy statements and other materials with the SEC. Our Internet website address is www.PDF.com. You may obtain, free of charge on our Internet website, copies of our annual reports on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K, and amendments to those reports filed or furnished pursuant to Section 13(a) or 15(d) of the Exchange Act, as soon as reasonably practicable after we electronically file such material with, or furnish it to, the SEC. The information we post is intended for

Table of Contents

reference purposes only; none of the information posted on our website is part of this report or incorporated by reference herein.

In addition to the materials that are posted on our website, you may read and copy any materials we file with the SEC at the SEC's Public Reference Room at 100 F Street, NE, Washington, DC 20549-0120. You may obtain information on the operation of the Public Reference Room by calling the SEC at 1-800-SEC-0330. The SEC also maintains a Web site (http://www.sec.gov) that contains reports, proxy and information statements and other information regarding issuers, such as us, that file electronically with the SEC.

Item 1A. Risk Factors.

The semiconductor market is volatile and unpredictable, which limits our ability to forecast our business and could negatively impact our results of operations.

The semiconductor industry experienced significant challenges in 2008 and 2009 as a result of the decline in the macroeconomic environment. As a provider to global semiconductor companies, we are subject to business cycles, the timing, length and volatility of which can be difficult to predict. The semiconductor industry historically has been cyclical due to sudden changes in customers' manufacturing capacity requirements and spending, which depend in part on capacity utilization, demand for customers' integrated circuit ("IC") products, inventory levels relative to demand, and access to affordable capital. These changes have affected the timing and amounts of customers' purchases and investments in our Design-to-Silicon-Yield solutions, and continue to affect our sales, operating expenses and net income. If we are not able to make adjustments to our business quickly to appropriately align our cost structure with prevailing market conditions in periods of low demand, or if we do not have sufficient resources to meet customers' demands in periods of high demand, results could be negatively impacted and could differ greatly from our expectations.

We generate a large percentage of our revenues from a limited number of customers, so decreased volumes at any one of these customers, or 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 year ended December 31, 2009, three customers accounted for 47% of our revenues, with IBM representing 19%, Toshiba representing 17%, and Chartered representing 11%. In the year ended December 31, 2008, two customers accounted for 34% of our revenues, with Toshiba representing 18% and IBM representing 16%. We could lose a customer due to its decision not to engage us on future process nodes, its decision not to develop its own future process node, or as a result of industry consolidation. 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.

If semiconductor designers and manufacturers do not continue to adopt, or they significantly delay adoption of, our Design-to-Silicon-Yield solutions, our revenues will suffer.

If semiconductor designers and manufacturers do not continue to adopt our Design-to-Silicon-Yield solutions, both as currently comprised and as we may offer them in the future, our revenues will decline. We may not be successful if we do not continue to enter into agreements with existing customers and new customers that cover a larger number of IC products and processes. If we do not develop new customer relationships with companies that are integrated device manufacturers ("IDMs"), fabless semiconductor companies, and foundries, as well as system manufacturers, the market acceptance of our solutions will

Table of Contents

suffer. Factors that may limit adoption of our Design-to-Silicon-Yield solutions by semiconductor companies include:

- our existing and potential customers' delay in their adoption of the next process technology;
- IDMs of logic ICs discontinuing or significantly cutting back their investment in the development of new process technology as a result of a shift to a model of outsourcing a larger proportion, or all, of the mass production of their ICs;
- our inability to keep pace with the rapidly evolving technologies and equipment used in the semiconductor design and manufacturing processes;
- our customers' failure to achieve satisfactory yield improvements using our Design-to-Silicon-Yield solutions;
- fewer processes being developed at our customers and, therefore, a reduction in the potential impact our solutions can add across at any single customers; and
- our inability to develop, market, or sell effective solutions that are outside of our traditional logic focus of manufacturing process solutions.

Our business is subject to risks associated with the ongoing financial crisis and weak global economy.

The severe tightening of the credit markets, turmoil in the financial markets, and weakened global economy which began in 2008 deteriorated in early 2009, and may not improve or could even worsen in 2010, contributed to slowdowns in the semiconductor industry, which impacts our ability to make sales. The markets for semiconductors depend largely on consumer spending. Economic uncertainty exacerbates negative trends in consumer spending and may cause some of our customers to delay or refrain altogether from entering into new engagements, licensing new or additional software products, or renewing maintenance and support for existing licensed software at historical levels. This will negatively affect our revenues. Difficulties in obtaining capital and deteriorating market conditions may also lead to the inability of some customers to obtain affordable financing for other purchases, which could tie up funds otherwise budgeted for purchases of our solutions and technologies. Customers with liquidity issues may also lead to additional bad debt expense. Further, these conditions and uncertainty about future economic conditions make it challenging for us to forecast our operating results, make business decisions, and identify the risks that may affect our business, financial condition and results of operations. If we are not able to timely and appropriately adapt to changes resulting from the difficult macroeconomic environment, our business, financial condition, and results of operations may be significantly negatively affected.

Revenues from our gainshare performance incentives is dependent on factors outside of our control, including the volume of ICs that our customers are able to sell to their customers.

Our gainshare performance incentives fee component ties the profits of our customers to our own. Through this component, revenues for a particular product is largely determined by the volume of that product that our customer is able to sell to its customers, which is outside of our control. Decreased demand for semiconductor products decreases the volume of products our customers are able to sell, which directly decreases our gainshare performance incentives revenues. Important factors that could cause demand for semiconductor products to negatively fluctuate include:

- changes in business and economic conditions, including the current downturn in the semiconductor industry and the overall economy; and
- decreases in consumer confidence caused by changes in market conditions, including changes in the credit market.

Table of Contents

Also, our customers may unilaterally decide to implement changes to their manufacturing processes during the period that is covered by gainshare performance incentives, which could negatively affect yield results. 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, or sustain significant volume manufacturing during the time we receive gainshare performance incentives, revenues from such customers 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 thus any of our related gainshare performance incentives, in the other product.

We may not be able to effectively implement our restructuring plans, and our restructuring plans may not result in the expected benefits on our planned schedule, or at all, which could negatively impact our future results of operations.

During the year ended December 31, 2008, we have implemented restructuring plans in an effort to align our cost structure with expected revenue. We may not be able to successfully complete and realize the expected benefits of our restructuring plans, such as improvements in operating margins and cash flows, in the restructuring periods contemplated or at all. The restructuring plans may involve higher costs or a longer timetable than we currently anticipate, mainly due to the timing and execution of some plans and programs subject to local labor law requirements, and consultation with appropriate work councils. Our inability to realize these benefits may result in an inefficient business structure that could negatively impact our results of operations. We also expect our restructuring plans to cause us to incur substantial costs related to severance and other employee-related costs. Our restructuring plans may also subject us to litigation risks and expenses. In addition, our restructuring plans may have other consequences, such as attrition beyond our planned reduction in workforce or a negative impact on employee morale, and our competitors may seek to gain a competitive advantage over us. The restructuring plans could also cause our remaining employees to be less productive, which in turn may negatively affect our revenue and other operating results in the future.

If we do not effectively manage, support, and safeguard our worldwide information systems, and integrate recent and planned growth, our business strategy may fail.

We have experienced in the past, and may experience in the future, interruptions in our information systems on which our global operations depend. Further, we may face attempts by others to gain unauthorized access through the Internet to our information technology systems or IP, which we may be unable to prevent. We could be unaware of an incident or its magnitude and effects until after it is too late to prevent it and the damage it may cause. The theft or unauthorized use or publication of our trade secrets and other confidential business information as a result of such an incident could negatively affect our competitive position, the value of our investment in product or research and development, and third parties might assert against us or our customers claims related to resulting losses of confidential or proprietary information or end-user data and/or system reliability. In any such event, our business could be subject to significant disruption, and we could suffer monetary and other losses, including reputational harm. Further, intentional hacking of, interference with physical damage to, failure of, or digital damage (such as significant viruses or worms) to, our information systems could disrupt and delay time-sensitive services or computing operations that we perform for our customers, which could negatively impact our business results and reputation. In addition, we must frequently expand our internal information system to meet increasing demand in storage, computing and communication. Our internal information system 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 effectively and accurately,

Table of Contents

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.

It typically takes us a long time to sell our unique solutions to new customers and into new markets, and that can result in uncertainty and delays in generating revenues.

Our gainshare performance incentives business model is unique and our Design-to-Silicon-Yield solutions are often unfamiliar to new customers. This results in a lengthier sales cycle compared to some of our competitors 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 gainshare performance incentives 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 revenues to fall short of expectations. By way of example, one of the industries that we have recently targeted that we believe would greatly benefit from our yield management system and FDC technology is the rapidly growing solar panel industry. Our efforts to leverage our products in this industry may not be successful. Further, ongoing negotiations and evaluation projects with photovoltaic manufacturers may not result in significant revenues for us if we are unable to close new engagements in these markets on terms favorable to us, in a timely manner, or at all, or if we are unable to successfully deliver our products and services to such markets.

Our stock price may be volatile, and our common stock could decline in value, increasing potential dilution to our stockholders, or we may be delisted from the NASDAQ Global Market.

Our stock price has fluctuated widely during the last few years, from a low closing price of $0.97 per share during March 2009 to a high closing price of $19.36 per share during April 2006. This significant reduction in our stock price negatively impacts our ability to raise equity capital in the public markets and increases the cost to us, as measured by dilution to our existing shareholders, of equity financing. In addition, the reduced stock price also increases the cost to us, in terms of dilution, of using our equity for employee compensation or for acquisitions of other businesses. Additionally, in order for our common stock to continue to be quoted on the NASDAQ Global Market ("NASDAQ"), we must satisfy various listing maintenance standards established by NASDAQ, including, among other things, the general requirement that our stock price consistently trades at or above $1.00 per share and that the total market value of our common stock exceed $50,000,000. We have had in the past, and may have again in the future, periods when our stock does not trade at, or the market value of our common stock has been below, the levels required by NASDAQ rules. If we were to be delisted from the NASDAQ and move to an alternative market, which may be less efficient and less broad-based, we may have difficulty accessing capital markets for additional funding, and the ability of our stockholders to sell any of our common stock at all would be severely, if not completely, limited, which could cause our stock price to decline further. Delisting could also have other negative results, including the potential loss of confidence by employees, the loss of institutional investor interest, and fewer business development opportunities. Also, significant volatility in the stock price could be followed by a securities class action lawsuit, which could result in substantial costs and a diversion of our management's attention and resources.

If we fail to protect our intellectual property ("IP") 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 contractual, patent, copyright, trademark, and trade secret protection. Our pending patent applications

Table of Contents

may not result in issued patents, and even if issued, they may not be sufficiently broad to protect our proprietary technologies. Litigation may be necessary from time to time to enforce our IP 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.

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. 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.

If we are not able to attract, retain, motivate, and strategically locate talented employees, including some key executives, our business may suffer.

Our success and competitiveness depend on our ability to attract, retain, motivate, and strategically locate in our offices around the globe talented employees, including some of our key executives. Achieving this objective may be difficult due to many factors, including fluctuations in global economic and industry conditions, changes in our management or leadership, the hiring practices at our competitors or customers, cost reduction activities, and the effectiveness of our compensation programs, including equity-based programs. Further, we have had, and expect to continue to have, difficulty in obtaining visas permitting entry for some of our employees that are foreign nationals into the United States, and delays in obtaining visas permitting entry into other key countries, 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. If we do not successfully attract, retain, and motivate key employees, including key executives, we may be unable to realize our business objectives and our operating results may suffer.

Competition in the market for yield improvement solutions and increased integration between IC design and manufacturing may intensify in the future, which could impede 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 and could lead to increased pricing pressure. Our current and potential customers may choose to develop their own solutions internally, particularly if we are slow in deploying our solutions or improving them to meet market needs. Many of these companies have the financial and technical capability to develop their own solutions. Also, competitors may be able to operate 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 and some direct competition from providers of yield management or prediction software such as KLA-Tencor, MKS Instruments, Inc. ("MKS"), and Synopsys, Inc., and process control software, such as Applied Materials, Inc., BISTel Inc., and Trancom Technology, Inc., and MKS. Further, ARM Ltd. and Virage Logic Corporation provide standard cells in the physical IP space and Tela provides software for standard cell synthesis, each of which could compete with our pdBRIX solution. In

Table of Contents

addition, electronic design automation suppliers provide alternative DFM solutions that may compete for the same budgetary funds. Some providers of yield management software or inspection equipment may seek to broaden their product offerings and compete with us. 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 change the pricing environment or 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 that could negatively impact our revenue.

We have in the past expanded our non-U.S. operations and may in the future continue such expansion by establishing overseas subsidiaries, offices, or contractor relationships in locations, if and when, deemed appropriate by our management. Thus, the success of our business is subject to risks inherent in doing business internationally, including in particular:

- some of our key engineers and other personnel are foreign nationals and they may have difficulty gaining access to the United States and other countries in which our customers or our offices may be located and it may be difficult for us to recruit and retain qualified technical and managerial employees in foreign offices;

- 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, increasing the difficulty of managing multiple, remote locations performing various development, quality assurance, and yield ramp analysis projects;

- compliance with, inconsistencies among, and unexpected changes in, a wide variety of foreign laws and regulatory environments with which we are not familiar, including, among other issues, with respect to employees, protection of our IP, and a wide variety of operational regulations and trade and export controls under domestic, foreign, and international law;

- 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 revenues is denominated in U.S. dollars;

- quarantine, private travel limitation, or business disruption in regions affecting our operations, stemming from actual, imminent or perceived outbreak of human pandemic or contagious disease;

- in the event a larger portion of our revenues becomes denominated in foreign currencies, we would be subject to a potentially significant exchange rate risk; and

- economic or political instability, including but not limited to armed conflict, terrorism, interference with information or communication of networks or systems, and the resulting disruption to economic activity and business operations.

Table of Contents

Revenues generated from customers in Asia accounted for 66% of our revenues in the year ended December 31, 2009 and 55% for the year ended December 31, 2008. Thus, in Asia, in particular, we face the following additional risks:

- a downturn in Asian economies which could limit our ability to retain existing customers and attract new ones in Asia; and
- if the U.S. dollar increases in value relative to local currencies, including for example, the Japanese Yen, the cost of our solutions will be more expensive to existing and potential local customers and therefore less competitive.

In the Middle East, we use a number of professionals located in Ramallah, Palestine, who provide various software-related development, quality assurance, maintenance, and other technical support services for certain of our software products. The political uncertainty surrounding the region could disrupt these service providers and thus negatively affect the range of services we are able to provide or our cost for such services.

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 declined significantly during 2008 and early 2009, and may continue to decline if we fail to meet expectations about our revenues or expenses.

Measurement of our gainshare performance incentives requires data collection and is subject to customer agreement, which can result in uncertainty and cause quarterly results to fluctuate.

We can only recognize revenue based on gainshare performance incentives 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 revenue attributable to our gainshare performance incentives could cause all of the associated revenue to be delayed until the next quarter. Since we currently have only a few large customers and we are relying on gainshare performance incentives as a significant component of our total revenues, 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, including perpetual and term-based licenses, can adversely affect the amount and timing of our total revenues.

Our long-term success is largely dependent upon our ability to structure our future customer contracts to include a larger gainshare performance incentives component relative to the fixed fee component. We typically recognize the fixed fee component earlier than the gainshare performance incentives component so if we are successful in increasing the gainshare performance incentives 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. 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 as a result of the change in our contracts. If we fail to meet contractual acceptance criteria on time or at all,

Table of Contents

the total revenues we receive under a contract could be delayed or decline. Further, if we mix term-based licenses with perpetual licenses, it will impact the timing of the recognition of revenue from that customer. In addition, by increasing the gainshare performance incentives 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 revenues will be lower than expected and fluctuate significantly from period to period.

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

We have experienced losses in the fiscal year ended December 31, 2009, and in the past. We may not achieve, and thereafter maintain, profitability if our revenue increases more slowly than we expect or if it decreases. 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 significantly reduce our operating results below expectations. Our accumulated deficit was $130.1 million as of December 31, 2009. 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 and stock-based compensation.

As a result, if we do not significantly increase revenues to reach or maintain profitability on a quarterly or annual basis, our stock price could decline. We may be subject to additional impairment of our long-lived assets.

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

We have sought in the past, and may seek in the future, to establish and maintain strategic relationships with industry leaders at each stage of the IC design and manufacturing processes. This requires us to expend significant resources and to commit a significant amount of management's time and attention, although any such relationship may not be successful. If we are unable to enter into strategic relationships with these companies, we will not be as effective at modeling existing technologies or at keeping ahead of the 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.

Inadvertent disclosure of our customers' confidential information could result in costly litigation and cause us to lose existing and potential customers.

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

Table of Contents

Our technologies could infringe the IP 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 or damage our customer's property, 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, and 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 remedy these problems, which could reduce margins and result in the diversion of technical and other resources from our other development efforts.

Failing to maintain the effectiveness of our internal controls over financial reporting could impede our ability to provide accurate and timely financial information, which could cause our investors to lose confidence in the accuracy and completeness of our financial reports and could cause our stock price to decline.

We identified a material weakness in connection with the evaluation of the effectiveness of our internal control over financial reporting pursuant to Section 404 of the Sarbanes-Oxley Act ("Section 404") as of December 31, 2009. In the future, our management may identify additional deficiencies regarding the design and operating effectiveness of our system of internal control. We may not be able to remediate such deficiencies in time to meet the continuing reporting deadlines imposed by Section 404 and the costs of remediation may be substantial. A material weakness in our internal controls could result in a material misstatement not being prevented or detected, which could result in the need for a restatement of past periods. Moreover, our independent registered public accounting firm may continue to deem that we did not maintain, in all material respects, effective internal control over financial reporting if we are unable to remediate deficiencies on a timely basis. If we are unable at any time to assert that we maintain effective internal controls, our investors could lose confidence in the accuracy and completeness of our financial reports and our stock price could decline.

We may not be able to raise necessary funds to support our growth or execute our strategy.

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 necessary funds on terms favorable to us, or at all.

Table of Contents

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

Our success in realizing the strategic benefits, the timing of this realization, and growth opportunities to be gained from acquiring technology or companies and incorporating into PDF the operations of previously acquired businesses, including Fabbrix, Inc. ("Fabbrix"), a U.S. company, acquired in May 2007, and Triant Holdings, Inc. and Triant Technologies (2005) Inc. ("Triant"), both Canadian companies acquired in October 2008, depend upon our ability to successfully identify the technology or company, negotiate favorable terms, close the related transaction in a timely manner, and integrate those businesses or assets. We may be unable to identify suitable acquisition or investment candidates at reasonable prices or on reasonable terms, or consummate future acquisitions or investments at all or in a timely manner, each of which could slow our growth strategy. Further, the integration of acquired businesses or assets is a complex, costly and time-consuming process. The difficulties of combining our existing operations associated with acquired businesses or assets include:

consolidating research and development operations;

integrating 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.

Changes in effective tax rates could negatively affect our operating results.

We conduct our business globally and, as a result, are subject to taxation in the United States and foreign countries. Our future tax rates could be affected by numerous factors, including changes in tax laws or the interpretation of such tax laws and changes in accounting policies. Our filings are subject to reviews or audit by the Internal Revenue Service and state, local and foreign taxing authorities. We cannot be sure that any final determination in an audit would not be materially different than the treatment reflected in our historical income tax provisions and accruals. If additional taxes are assessed as a result of an audit, there could be a significant negative effect on our income tax provision and our operating results in the period or periods for which that determination is made.

The uncertainty in the credit markets might impact the value of certain auction-rate securities we have and we might have to record impairment charges in the future.

Credit concerns in the capital markets have significantly reduced our ability to liquidate auction-rate securities that we classify as non-current investment securities on our balance sheet. The liquidity of the securities has been reduced by the uncertainty in the credit markets and the exposure of these securities to the financial condition of bond insurance companies. All auction-rate securities we hold have been failing to sell at auction since February 2008 due to an insufficient number of bidders. We reviewed the value of these securities for impairment as of December 31, 2009, concluded that these securities were temporarily impaired, and have recorded an unrealized loss of $282,000 as a component of accumulated other comprehensive income. In future periods, the estimated fair value of our auction-rate securities could decline further based on market conditions, which could result in additional impairment and could result in the need to classify such impairment as other than temporary, this resulting in a charge to operations.

Item 1B. ***Unresolved Staff Comments***

None.

Table of Contents

Item 2. ***Properties***

Our principal executive offices are located in San Jose, California where we lease approximately 39,300 square feet under a lease that expires in August 2013. We lease other sales offices and laboratory spaces in Pennsylvania, Texas, and New Hampshire in the United States. In addition, we have offices in France, Germany, Italy, China, Japan, Korea, Singapore, and Taiwan with an aggregate of square footage of approximately 34,600 square feet each under various leases that expire at different times through 2013. We believe our existing facilities and those in negotiation are adequate to meet our current needs and are being utilized consistently with our past practice.

Item 3. ***Legal Proceedings***

Philip Steven Melman filed a complaint against us and our Chief Executive Officer on December 7, 2009 in the Superior Court for Santa Clara County. In the complaint, Mr. Melman alleges wrongful discharge based on discrimination, fraud, breach of contract and similar theories, in connection with the termination of Mr. Melman's employment with us. The complaint seeks compensatory and punitive damages, any other available remedies, as well as attorney's fees and costs. We believe the complaint is without merit and intend to vigorously oppose it.

Global Software Services, Inc., a Palestinian corporation ("GSSI"), filed a complaint against us on February 16, 2010 in the Superior Court for Santa Clara County. In the complaint, GSSI alleges that we failed to pay GSSI amounts owed under a Professional Services Agreement pursuant to which GSSI was providing software-related development and support services to us. In addition, GSSI alleges that we interfered with GSSI's business relationships and employee relationships and that we engaged in unfair business practices in violation of Business & Professions Code Section 17200. The complaint seeks compensatory and punitive damages, disgorgement and restitution, injunctive relief and any other available equitable remedies, as well as attorney's fees and costs. We believe the complaint is without merit and intend to vigorously oppose it.

In addition, from time to time, we are subject to various other legal proceedings and claims that arise in the ordinary course of business. In the case of each claim against us, we record a contingent liability when the probable outcome of such claim can be reasonably assessed. In management's opinion, the probable outcome of each current claim against us cannot be reasonably estimated. Also, in management's opinion, the ultimate resolution of these claims will not materially impact our financial statements.

Item 4. ***Reserved***

Table of Contents

PART II

Item 5. ***Market For Registrant's Common Equity, and Related Stockholder Matters and Issuer Purchases of Equity Securities***

Our common stock trades on the NASDAQ Global Market under the symbol "PDFS". As of February 25, 2010, we had approximately 188 stockholders of record and the closing price of our common stock was $4.12 per share as reported by the NASDAQ Global Market. The number of stockholders of record does not include individuals whose stock is in nominee or "street name" accounts through brokers.

The following table sets forth for the periods indicated the high and low closing sale prices for our common stock as reported by the NASDAQ Global Market:

2009	**High**	**Low**
First Quarter	$ 1.82	$ 0.97
Second Quarter	$ 2.75	$ 1.54
Third Quarter	$ 3.60	$ 2.17
Fourth Quarter	$ 4.11	$ 3.18

2008	**High**	**Low**
First Quarter	$ 9.01	$ 4.70
Second Quarter	$ 6.24	$ 4.30
Third Quarter	$ 6.79	$ 4.55
Fourth Quarter	$ 5.41	$ 1.41

The following graph compares the cumulative total stockholder return data for our stock since December 31, 2004 to the cumulative return over such period of (i) The NASDAQ Composite Index and (ii) the RDG Technology Composite Index. The graph assumes that $100 was invested on December 31, 2004. The graph further assumes that such amount was initially invested in the Common Stock of the Company at a per share price of $16.11 (closing price on December 31, 2004) and that of any dividends were reinvested. This performance graph is not "soliciting material," is not deemed filed with the SEC and is not to be incorporated by reference in any filing by us under the Securities Act or the Exchange Act whether made before or after the date hereof and irrespective of any general incorporation language in any such filing. The stock price performance on the following graph is not necessarily indicative of future stock price performance.

Table of Contents

COMPARISON OF 5 YEARS CUMULATIVE TOTAL RETURNS*
Among PDF Solutions, Inc., The NASDAQ Composite Index
And The RDG Technology Composite Index

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*
$100 invested on 12/31/04 in stock or index-including reinvestment of dividends.
Fiscal year ended December 31.

Table of Contents

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 Exchange Act) of our common stock during the fourth quarter ended December 31, 2009 (in thousands except per share amounts):

ISSUER PURCHASES OF EQUITY SECURITIES

Period	Total Number of Shares Purchased	Average Price Paid per Share	Total Number of Shares Purchased as Part of Publicly Announced Plans or Programs(1)	Approximate Dollar Value of Shares that May Yet Be Purchased Under the Plans or Programs(1)
Month #1 (October 1, 2009 through October 31, 2009)		$		$ 1,467
Month #2 (November 1, 2009 through November 30, 2009)	54	3.32	54	$ 1,467
Month #3 (December 1, 2009 through December 31, 2009)				$ 1,287
Total	54	$ 3.32	54	

(1) On March 26, 2003, our Board of Directors approved a share repurchase program to purchase up to $10.0 million of our outstanding common stock. The program was completed in August 2007 with 988,000 shares repurchased at the average price of $10.12 per share. On October 29, 2007, the Board of Directors approved a new program to repurchase up to an additional $10.0 million of the Company's common stock on the open market. The right to repurchase stock under this program will expire on October 29, 2010. As of December 31, 2009, 2.6 million shares were repurchased at the average price of $3.41 per share under this program and $1.3 million remained available for repurchases.

Dividend Policy

No cash dividends were declared or paid in 2009 or 2008. We currently intend to retain all available funds to finance future internal growth and product development and therefore do not anticipate paying any cash dividends on our common stock for the foreseeable future.

Table of Contents

Item 6. ***Selected Financial Data.***

The following selected consolidated financial information has been derived from the audited consolidated financial statements. The information set forth below is not necessarily indicative of results of future operations and should be read in conjunction with Item 7. "Management's Discussion and Analysis of Financial Condition and Results of Operations" and the consolidated financial statements and notes to those statements included therein and in Part IV of this Form 10-K.

	Year Ended December 31,				
	2009	2008(3)(4)	2007(2)	2006(1)	2005
	(In thousands, except per share amounts)				
Consolidated Statements of Operations Data:					
Revenues:					
Design-to-silicon-yield solutions	$ 32,662	$ 55,113	$ 70,376	$ 56,156	$ 62,038
Gainshare performance incentives	15,776	18,924	24,087	20,028	11,890
Total revenues	48,438	74,037	94,463	76,184	73,928
Cost of design-to-silicon-yield solutions:					
Direct costs of design-to-silicon-yield solutions	22,779	29,111	32,470	27,627	24,612
Amortization and impairment of acquired technology	1,439	6,012	5,148	5,270	5,064
Total cost of design-to-silicon-yield solutions	24,218	35,123	37,618	32,897	29,676
Gross profit	24,220	38,914	56,845	43,287	44,252
Operating expenses:					
Research and development	19,773	33,994	36,074	27,613	22,204
Selling, general and administrative	16,561	21,778	24,891	19,814	16,146
Amortization of other acquired intangible assets	349	893	3,422	1,459	940
Restructuring charges	4,512	3,401			
Impairment on goodwill and other acquired intangible assets		66,830			
Write-off of in-process research and development				800	
Total operating expenses	41,195	126,896	64,387	49,686	39,290
Income (loss) from operations	(16,975)	(87,982)	(7,542)	(6,399)	4,962
Interest and other income, net	237	353	1,891	2,827	1,658
Income (loss) before taxes	(16,738)	(87,629)	(5,651)	(3,572)	6,620
Income tax provision (benefit)	753	8,099	(2,724)	(3,133)	96
Net income (loss)	$ (17,491)	$ (95,728)	$ (2,927)	$ (439)	$ 6,524
Net income (loss) per share:					
Basic	$ (0.66)	$ (3.48)	$ (0.10)	$ (0.02)	$ 0.25
Diluted	$ (0.66)	$ (3.48)	$ (0.10)	$ (0.02)	$ 0.24
Weighted average common shares:					
Basic	26,377	27,514	28,066	26,885	25,983
Diluted	26,377	27,514	28,066	26,885	27,473

For the years ended December 31, 2009, 2008, 2007, and 2006, the consolidated statements of operations included stock-based compensation expense as required by the new accounting standard we adopted at the beginning of 2006 of $4.3 million, $7.2 million,

$8.2 million and $7.4 million, respectively.

Table of Contents

For the years ended December 31, 2009, 2008, 2007, and 2006, the income tax provision (benefit) included income tax benefit from stock-based compensation.

	December 31,				
	2009	2008(3)(4)	2007(2)	2006(1)	2005
	(In thousands)				
Consolidated Balance Sheets Data:					
Cash and cash equivalents	$ 34,899	$ 31,686	$ 35,315	$ 36,451	$ 60,506
Short-term investments		9,051	9,949	16,402	
Working capital	45,186	56,331	72,456	66,586	68,534
Total assets	63,477	79,627	179,351	168,857	139,892
Total stockholders' equity	45,887	59,770	156,470	148,219	122,681

(1) In October 2006, we completed our acquisition of all the outstanding stock of Si Automation S.A. ("SiA"). SiA developed and licensed fault detection and classification ("FDC") software applications and services. The aggregate purchase price of $36.6 million included the payment in cash of $25.5 million, the issuance of 699,000 shares of PDF common stock valued at $9.4 million and acquisition costs of $1.7 million.

(2) In May 2007, we completed our acquisition of all the outstanding stock of Fabbrix. Fabbrix developed DFM software applications. The aggregate purchase price of $6.2 million included the payment in cash of $2.7 million, the issuance of 272,000 shares of PDF common stock valued at $2.9 million and acquisition costs of $674,000.

(3) In October 2008, we completed our acquisition of substantially all of the assets of Triant. Triant developed and licensed FDC software applications and services. The aggregate purchase price of $1.9 million included the payment in cash of $1.6 million and acquisition costs of $312,000.

(4) In the fourth fiscal quarter of 2008, the Company recorded an impairment of goodwill and intangible assets of $70.3 million, of which $3.4 million was recorded within "cost of design-to-silicon-yield solutions".

Item 7. *Management's Discussion and Analysis of Financial Condition and Results of Operations*

Overview

We analyze our customers' IC design and manufacturing processes to identify, quantify, and correct the issues that cause yield loss to improve our customers' profitability by improving time-to-market, increasing yield and reducing total design and manufacturing costs. We package our solutions in various ways to meet our customers' specific business and budgetary needs, each of which provides us various revenue streams. We receive a mix of fixed fees and variable, performance-based fees for the vast majority of our Yield Improvement Solutions. The fixed fees are typically reflective of the length of time and the resources needed to characterize a customer's manufacturing process and receive preliminary results of proposed yield improvement suggestions. The variable fee, or what we call gainshare, usually depends on our achieving certain yield targets by a deadline. Variable fees are currently typically tied to wafer volume on the node size of the manufacturing facility where we performed the yield improvement. We receive license fees and service fees for related installation, integration, training, and maintenance and support services for our software that we license on a stand-alone basis.

History

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

Table of Contents

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, under the term 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. AISS now operates as PDF Solutions, GmbH, a German company, 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 enhanced our product and service offerings, including increased software applications, through the acquisitions of IDS and WaferYield. In 2006, we further complemented our technology offering by acquiring SiA and adding its FDC software capabilities to our integrated solution. In 2007, we increased our IP solutions portfolio, particularly in logic design technology, through the acquisition of Fabbrix. In 2008, we solidified our market leading position in the FDC software market, particularly in Korea, and now provide complementary technology to our mæstria product through the acquisition of certain assets of Triant.

Industry Trend

Subject to the current general economic downturn, demand for consumer electronics and communications devices continues to drive technological innovation in the semiconductor industry as the need for products with greater performance, lower power consumption, reduced costs and smaller size continues to grow with each new product generation. In addition, advances in computing systems and mobile devices have fueled demand for higher capacity memory chips. To meet these demands, IC manufacturers and designers are constantly challenged to improve the overall performance of their ICs by designing and manufacturing ICs with more embedded applications to create greater functionality while lowering cost per transistor. As a result, both logic and memory manufacturers have migrated to more and more advanced manufacturing nodes, capable of integrating more devices with higher performance, higher density, and lower power. As this trend continues, companies will continually be challenged to improve process capabilities to optimally produce ICs with minimal random and systematic yield loss, which is driven by the lack of compatibility between the design and its respective manufacturing process. We believe that as volume production of deep submicron ICs continues to grow, the difficulties of integrating IC designs with their respective processes and ramping new manufacturing processes will create a greater need for products and services that address the yield loss and escalating cost issues the semiconductor industry is facing today and will face in the future.

Financial Highlights

The semiconductor industry is currently experiencing significant challenges, and it is unclear when a turnaround may occur. As a result of this downturn, some of our customers faced financial challenges in fiscal 2008 and 2009 and may continue to face such challenges in fiscal 2010. The current economic downturn has contributed to the substantial reduction in our revenue and could continue to harm our business, operating results and financial condition.

We plan operating expense levels primarily based on forecasted revenue levels. To partially offset the impact of our expected decrease in revenues, we have implemented cost savings initiatives, including reducing headcount and other discretionary spending. During the year ended December 31, 2009, we continued to implement restructuring plans to improve our operating results and to align our cost structure with expected revenues.

The following were our financial highlights for the year ended December 31, 2009.

Total revenues were $48.4 million, which was a decrease of $25.6 million, or 35%, compared to the year ended December 31, 2008. Design-to-Silicon-Yield solutions revenues were $32.7 million, which was a decrease of $22.5 million, or 41%, from the year ended December 31, 2008. The decrease in Design-to-Silicon-Yield solutions revenues was primarily the result of lower bookings,

Table of Contents

as customers have delayed purchases for capacity expansion and investment in leading-edge technology. The dramatic downturn in the semiconductor industry combined with weakness in worldwide economies has been the primary contributors to this reduction. Gainshare performance incentives revenues were $15.8 million, which was a decrease of $3.1 million, or 17%, from the year ended December 31, 2008. The decrease in revenues from gainshare performance incentives was primarily the result of reduced volumes in customer manufacturing facilities.

Net loss for the year ended December 31, 2009 was $17.5 million, compared to a net loss of $95.7 million for the year ended December 31, 2008. The decrease in net loss was primarily attributable to an impairment on goodwill and intangible assets and the establishment of a valuation allowance against deferred tax assets during the year ended December 31, 2008, and decreases in operating expenses as a result of our cost control efforts, partially offset by significant decreases in revenues.

Net loss per basic and diluted share was $0.66 for the year ended December 31, 2009 compared to $3.48 for the year ended December 31, 2008, a decrease in net loss of $2.82 per basic and diluted share.

Cash, cash equivalents and investments decreased $5.8 million to $35.6 million during the year ended December 31, 2009, primarily due to our operating loss during the period.

Acquisitions

On October 7, 2008, we completed the acquisition of substantially all of the assets of Triant's FDC business, excluding certain receivables, but including certain customer contracts and technologies. Triant developed and licensed FDC software applications and services dedicated to the semiconductor industry to enable customers to rapidly identify sources of process variations and manufacturing excursions. This acquisition creates additional opportunities for our leading process control solutions within the installed customer base, including leading semiconductor, flat panel display, and wafer manufacturers. Total cost for the acquisition was $1.9 million, which included $1.6 million in cash and $312,000 in acquisition costs. Pursuant to the terms of the acquisition, $374,000 in cash was held in escrow as security against certain financial and other contingencies. The cash held in escrow, less amounts deducted to satisfy contingencies was required to be released following the statutory notice to creditors associated with Triant's liquidation and wind up process. The escrow was released to Triant in February 2009. In connection with the acquisition, we recorded $1.7 million of identifiable intangible assets with a weighted average life of 3.4 years and $147,000 of goodwill. The consolidated financial statements include the results of Triant since the date of acquisition.

On December 31, 2008, we completed our annual goodwill impairment test. In addition, due to the continued decline within the semiconductor industry brought on by the deteriorating global economic environment, we anticipated further declines in our future operational results. As a result, we determined these factors, among others, to be impairment indicators which triggered the necessity of an impairment analysis for our long-lived assets. These tests also included the goodwill and certain intangible assets recognized as part of the acquisition of Triant. This determination relating to our Triant acquisition was in part made after several public announcements were issued by a key customer of Triant's, regarding its own financial outlook and anticipated capital expenditure spending levels; which in turn caused us to revise our projected revenue from what had been expected at the date of the acquisition.

Critical Accounting Policies

Note 1 of "Notes to Consolidated Financial Statements" includes a summary of the significant 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.

Table of Contents

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 based 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 revenues from two sources: Design-to-Silicon-Yield Solutions, which include Services and Software Licenses, and Gainshare Performance Incentives.

Design-to-Silicon-Yield Solutions Revenues that are derived from Design-to-Silicon-Yield solutions comes from services and software licenses. We recognize revenue for each element of Design-to-Silicon-Yield solutions as follows:

Services We generate a significant portion of our Design-to-Silicon-Yield solutions revenues from fixed-price solution implementation service contracts delivered over a specific period of time. These contracts require accurate estimation of cost to perform obligations and the overall scope of each engagement. Revenues under contracts for solution implementation services are recognized as services are performed using the cost-to-cost percentage of completion method of contract accounting. Losses on solution implementation contracts are recognized in the period when they become evident. 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 contracts were executed. Any such reductions in contract margin could have a material negative impact on our operating results.

On occasion, we license our software products as a component of our fixed price service contracts. In such instances, the software products are licensed to customers over a 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") exists for the support and maintenance element, the support and maintenance revenue is recognized separately over the term of the supporting period. The remaining fee is recognized as services are performed using the cost-to-cost percentage of completion method of contract accounting. VSOE for maintenance, in these instances, is generally established based upon a negotiated renewal rate. Under arrangements where software products are licensed as a component of its fixed-price service contract and where VSOE does not exist to allocate a portion of the total fixed-price to the undelivered elements, revenue is recognized for the total fixed-price as the lesser of either the percentage of completion method of contract accounting or ratably over the longer of either the term of the agreement or the support period.

Revenues from related support and maintenance services are recognized ratably over the term of the support and maintenance contract, generally one year, while revenues from consulting, installation, and training services are recognized as services are performed. When bundled with software licenses in multiple element arrangements, support and maintenance, consulting (other than

Table of Contents

for our fixed price solution implementations), installation, and training revenues are allocated to each element of a transaction based upon its fair value as determined by our VSOE. VSOE for maintenance is generally established based upon negotiated renewal rates while VSOE for consulting, installation, and training is established based upon our customary pricing for such services when sold separately.

Software Licenses We also license our software products separately from our integrated solution implementations. For software license arrangements that do not require significant modification or customization of the underlying software, software license revenue is recognized under the residual method when (1) persuasive evidence of an arrangement exists, (2) delivery has occurred, (3) the fee is fixed or determinable, (4) collectability is probable, and (5) 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, revenue is allocated to each element of a transaction based upon its fair value as determined by our VSOE and such services are recorded as services revenues. VSOE for maintenance is generally established 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. Revenues for software licenses with extended payment terms are not recognized in excess of amounts due. For software license arrangements that require significant modification or customization of the underlying software, the software license revenues are recognized as services are performed using the cost-to-cost percentage of completion method of contract accounting, and such revenues are recorded as services revenue.

Gainshare Performance Incentives When we enter into a contract to provide yield improvement services, the contract usually includes two components: (1) a fixed fee for performance by us of services delivered over a specific period of time; and (2) a gainshare performance incentives component where the customer may pay a variable fee, usually after the fixed fee period has ended. Revenues derived from gainshare performance incentives represent profit sharing and performance incentives earned based upon our customers reaching certain defined operational levels established in related solution implementation service contracts. Gainshare performance incentives periods are usually subsequent to the delivery of all contractual services and therefore have no cost to us. Due to the uncertainties surrounding attainment of such operational levels, we recognize gainshare performance incentives revenues (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. Gainshare performance incentives revenues are 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 provisions for gainshare performance incentives.

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. 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.

Intangible Assets

As of December 31, 2009 and 2008, the recorded value of our intangible assets was $3.0 million and $4.7 million, respectively. In assessing the valuation and recoverability of our long-lived assets assets, we must make assumptions regarding estimated future cash flows to be derived from the acquired assets. If these estimates or their related assumptions change in the future, we may be required to record

Table of Contents

impairment charges for these assets, which would have a material adverse effect on our operating results. During the fourth fiscal quarter of 2008, we observed impairment indicators, relating to our long-lived assets, including the trading of our common stock below our book value and a further deterioration in the semiconductor industry brought on by the deteriorating global economic environment which triggered the necessity of an impairment test for our long-lived assets as of December 31, 2008. We assessed the recoverability of our long-lived assets by comparing the carrying value of those long-lived assets to the undiscounted cash flows of each asset group. The analysis indicated that the carrying value of certain assets exceeded the undiscounted cash flows. As such, we determined that certain acquired intangible assets were impaired. We measured the amount of impairment by calculating the amount by which the carrying value of the intangible assets exceeded their estimated fair values, which were based on projected discounted future net cash flows. As a result of this impairment analysis, we recorded an impairment charge of $6.3 million during the fourth fiscal quarter of 2008. During the year ended December 31, 2009, there were no indicators of impairment related to our intangible assets.

We are currently amortizing our acquired intangible assets over estimated useful lives of one to seven years, which are based on the estimated period of benefit to be derived from such assets. However, a decrease in the estimated useful lives of such assets would cause additional amortization expense or an impairment of such assets in future periods.

Income Taxes

We must assess the likelihood that our deferred tax assets will be recovered from future taxable income and, to the extent we believe that recovery is not likely, we must establish a valuation allowance. Changes in the net deferred tax assets, less offsetting valuation allowance, in a period are recorded through the income tax provision in the consolidated statements of operations. For the year ended December 31, 2009, we concluded that a valuation allowance was required based on our evaluation and weighting of the positive and negative evidence. See Note 10 to the consolidated financial statements for further discussion. If, in the future, we determine that these deferred tax assets are more likely than not to be realized, a release of all or part, of the related valuation allowance could result in a material income tax benefit in the period such determination is made.

Stock-Based Compensation

Stock-based compensation is estimated at the grant date based on the award's fair value and is recognized on a straight-line basis over the vesting periods of the applicable stock purchase rights and stock options, generally four years. As stock-based compensation expense recognized is based on awards ultimately expected to vest, it has been reduced for estimated forfeitures. Forfeitures are estimated at the time of grant and revised, if necessary, in subsequent periods if actual forfeitures differ from those estimates.

We have elected to use the Black-Scholes-Merton option-pricing model, which incorporates various assumptions including volatility, expected life and interest rates. The expected volatility is based on the historical volatility of our common stock over the most recent period commensurate with the estimated expected life of stock options. The expected life of an award is based on historical experience and on the terms and conditions of the stock awards granted to employees. The interest rate assumption is based upon observed Treasury yield curve rates appropriate for the expected life of stock options.

Recent Accounting Pronouncements and Accounting Changes

See our Note 1, "Business and Significant Accounting Policies" of "Notes to Consolidated Financial Statements" included under Part IV, Item 15 of this Form 10-K for a description of recent accounting pronouncements and accounting changes, including the expected dates of adoption and estimated effects, if any, on our consolidated financial statements.

Table of Contents

Results of Operations

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

	Years Ended December 31,		
	2009	2008	2007
Revenues:			
Design-to-silicon-yield solutions	67%	74%	74%
Gainshare performance incentives	33	26	26
Total revenues	100	100	100
Cost of design-to-silicon-yield solutions:			
Direct costs of design-to-silicon-yield solutions	47	39	34
Amortization and impairment of acquired technology	3	8	6
Total cost of design-to silicon-yield solutions	50	47	40
Gross profit	50	53	60
Operating expenses:			
Research and development	41	46	38
Selling, general and administrative	34	29	26
Amortization of other acquired intangible assets	1	1	4
Restructuring charges	9	5	
Impairment on goodwill and other acquired intangible assets		90	
Total operating expenses	85	171	68
Loss from operations	(35)	(118)	(8)
Interest and other income, net			2
Loss before taxes	(35)	(118)	(6)
Income tax provision (benefit)	1	11	(3)
Net loss	(36)%	(129)%	(3)%

Years Ended December 31, 2009 and 2008

Revenues	2009	2008	$ Change	% Change	2009 % of Revenues	2008 % of Revenues
	(In thousands, except for percentages)					
Design-to-silicon-yield solutions	$ 32,662	$ 55,113	$ (22,451)	(41)%	67%	74%
Gainshare performance incentives	15,776	18,924	(3,148)	(17)	33	26
Total	$ 48,438	$ 74,037	$ (25,599)	(35)%	100%	100%

Design-to-Silicon-Yield Solutions. Design-to-Silicon-Yield solutions revenues are derived from services (including solution implementations, software support and maintenance, consulting, and training) and software licenses, provided during our customer yield improvement engagements and solution product sales. Design-to-Silicon-Yield solutions revenues decreased $22.5 million for the year ended December 31, 2009 compared to the year ended December 31, 2008, primarily due to a decrease of $13.8 million in fixed fee integrated solutions and a decrease of $8.3 million in software and software related services. The decreases were primarily the result of lower bookings, as customers have delayed purchases for capacity expansion and investment in leading edge technology in anticipation of a significant downturn in

the semiconductor industry. We booked five new fixed-price solution implementation service contracts and two

Table of Contents

extensions to existing service contracts during the year ended December 31, 2009, as compared to seven new service contacts and four extensions to existing service contracts during the year ended December 31, 2008. The dramatic downturn in the semiconductor industry combined with weakness in worldwide economies have been the primary contributors to this shortfall. Our Design-to-Silicon-Yield revenues may fluctuate in the future and are dependent on a number of factors, including the semiconductor industry's acceptance of our products, the timing of purchases by existing customers, and our ability to attract new customers and further penetration of our current customer base.

Gainshare Performance Incentives. Gainshare performance incentives revenues represent profit sharing and performance incentives earned based upon our customer reaching certain defined operational levels. Revenues derived from gainshare performance incentives decreased $3.1 million for the year ended December 31, 2009 compared to the year ended December 31, 2008, primarily due to decreases in wafer volumes at our customers' sites. Revenues from gainshare performance incentives were generated from seven customers and nine engagements for the year ended December 31, 2009 and seven customers and thirteen engagements for the year ended December 31, 2008. Our gainshare performance incentives revenues may continue to fluctuate from period to period. Gainshare performance incentives revenues are dependent on many factors that are outside our control, including among others, consumer demand for our customers' ICs, sustained yield improvements by our customers and our ability to enter into new Design-to-Silicon-Yield solutions contracts containing provisions for gainshare performance incentives.

Cost of Design-to-Silicon-Yield Solutions	2009	2008	$ Change	% Change	2009 % of Revenues	2008 % of Revenues
	(In thousands, except for percentages)					
Direct costs of design-to-silicon-yield solutions	$ 22,779	$ 29,111	$ (6,332)	(22)%	47%	39%
Amortization and impairment of acquired technology	1,439	6,012	(4,573)	(76)	3	8
Total	$ 24,218	$ 35,123	$ (10,905)	(31)%	50%	47%

Costs of Design-to-Silicon-Yield Solutions. Costs of Design-to-Silicon-Yield solutions consist of costs incurred to provide and support our services, costs recognized in connection with licensing our software, and amortization and impairment of acquired technology.

Direct Costs of Design-to-Silicon-Yield Solutions. Direct costs of Design-to-Silicon-Yield solutions consist of services costs and software licenses costs. Services costs consist of material, labor, overhead costs, and stock-based compensation charges associated with solution implementations. Costs include purchased materials, employee compensation and related benefits, travel and facilities-related costs. Software license costs consist of costs associated with licensing third-party software sold in conjunction with our software products and expenses incurred to produce and distribute our product documentation. Direct costs of Design-to-Silicon-Yield Solutions decreased $6.3 million for the year ended December 31, 2009 compared to the year ended December 31, 2008. The decrease was primarily due to a decrease of $2.9 million in domestic personnel expenses, a decrease of $1.4 million in the use of outside services, and a decrease of $984,000 in travel expenses, all as a result of our cost control efforts. The direct costs of Design-to-Silicon-Yield solutions increased as a percentage of revenues in 2009 to 47%, compared to 39% in 2008. Our operating structure is relatively fixed in nature. Although costs had decreased dramatically as the result of cost control efforts, the dramatic decline in revenues as the result of the economic downturn greatly affected our gross margin. 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. We expect the cost of software licenses to fluctuate in the future as a result

Table of Contents

of royalties and license fees paid for third-party applications incorporated in our software products as a result of timing and product mix of such license sales.

Amortization and Impairment of Acquired Technology. Amortization of acquired technology consists of amortization of intangibles acquired as a result of certain business combinations. Amortization of acquired technology decreased $1.2 million for the year ended December 31, 2009 compared to the year ended December 31, 2008, primarily due to certain intangible assets becoming fully amortized. Assuming we acquire no other intangible assets, we anticipate amortization of acquired technology to be $1.3 million in 2010, $626,000 in 2011, and $261,000 in 2012. Impairment of acquired technology consisted of a $3.4 million impairment recognized in the three months ended December 31, 2008. There was no impairment of acquired technology recorded in the year ended December 31, 2009.

Research and Development	2009	2008	$ Change	% Change	2009 % of Revenues	2008 % of Revenues
	(In thousands, except for percentages)					
Research and development	$ 19,773	$ 33,994	$ (14,221)	(42)%	41%	46%

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, facilities cost allocations, and stock-based compensation charges. Research and development expenses decreased $14.2 million for the year ended December 31, 2009 compared to the year ended December 31, 2008, primarily due to a decrease of $5.7 million in expenses at European subsidiaries and a decrease of $5.3 million in domestic personnel expenses, both the results of our cost control efforts. We anticipate our expenses in research and development will fluctuate in absolute dollars from period to period as a result of cost control initiatives and the timing of when we hire new personnel based on the scope and timing of product development projects.

Selling, General and Administrative	2009	2008	$ Change	% Change	2009 % of Revenues	2008 % of Revenues
	(In thousands, except for percentages)					
Selling, general and administrative	$ 16,561	$ 21,778	$ (5,217)	(24)%	34%	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, and stock-based compensation charges. Selling, general and administrative expenses decreased $5.2 million for the year ended December 31, 2009 compared to the year ended December 31, 2008 primarily due to a decrease of $1.5 million in expenses in our European subsidiaries, a decrease of $1.5 million in domestic personnel expenses, and a decrease of $520,000 in legal fees, all as a result of our cost control efforts. We anticipate our selling, general and administrative expenses will fluctuate in absolute dollars from period to period as a result of cost control initiatives and the need to support sales efforts in the future.

Amortization of Other Acquired Intangible Assets	2009	2008	$ Change	% Change	2009 % of Revenues	2008 % of Revenues
	(In thousands, except for percentages)					
Amortization of other acquired intangible assets	$ 349	$ 893	$ (544)	(61)%	1%	1%

Amortization of Other Acquired Intangible Assets. Amortization of other acquired intangible assets consists of the amortization of intangibles acquired as a result of certain business combinations.

Table of Contents

Amortization of other acquired intangible assets for the year ended December 31, 2009 decreased $544,000 compared to the year ended December 31, 2008, primarily the result of certain intangible assets becoming fully amortized. Assuming we acquire no other intangible assets, we anticipate amortization of other acquired intangible assets to be $299,000 in 2010, $204,000 in 2011, $174,000 in 2012, and $105,000 in 2013 and thereafter.

Restructuring Charges	2009	2008	$ Change	% Change	2009 % of Revenues	2008 % of Revenues
	(In thousands, except for percentages)					
Restructuring charges	$ 4,512	$ 3,401	$ 1,111	33%	9%	5%

Restructuring Charges. We announced two restructuring plans in 2008 in light of then-current market conditions, one on April 29, 2008 and the other on October 28, 2008. Restructuring charges related to the plan announced on April 29, 2008 were $1.5 million, primarily consisting of employee severance costs of $1.4 million. All restructuring charges related to the April 29, 2008 restructuring plan were recorded in the year ended December 31, 2008. As of December 31, 2009, we had recorded restructuring charges of $6.4 million related to the plan announced on October 28, 2008, of which $1.9 million was recorded in the year ended December 31, 2008 and $4.5 million was recorded in the year ended December 31, 2009. Of the $6.4 million, $4.4 million was employee severance costs and $1.8 million was facility exit costs.

Impairment on Goodwill and Other Acquired Intangible Assets	2009	2008	$ Change	% Change	2009 % of Revenues	2008 % of Revenues
	(In thousands, except for percentages)					
Impairment on goodwill and other acquired intangible assets	$	$ 66,830	$ (66,830)	(100)%	%	90%

Impairment on Goodwill and Other Acquired Intangible Assets. During the three months ended December 31, 2008, we recognized an impairment of $64.0 million on our goodwill and $2.8 million on our other acquired intangible assets (excluding the impairment of acquired technology), as a result of management's review for potential impairment on the carrying value of such assets due to the deterioration of our operating results and the dramatic downturn in the semiconductor industry combined with weakness in worldwide economies. There was no impairment charge recorded during the year ended December 31, 2009.

Interest and Other Income, Net	2009	2008	$ Change	% Change	2009 % of Revenues	2008 % of Revenues
	(In thousands, except for percentages)					
Interest and other income, net	$ 237	$ 353	$ (116)	(33)%	%	%

Table of Contents

Interest and Other Income, Net. Interest and other income, net, decreased $116,000 for the year ended December 31, 2009 compared to the year ended December 31, 2008, primarily due to decreases in interest income of $834,000 from lower average cash, cash equivalent and investments balances and lower interest rates during the year, partially offset by a loss of $445,000 on the sale of commercial paper from a bankrupt financial institution during the three months ended September 30, 2008, and a gain of $393,000 on debt extinguishment associated with the forgiveness of a loan we assumed at the time of acquisition of Si Automation S.A. during the three months ended September 30, 2009.

Income Tax Provision	2009	2008	$ Change	% Change	2009 % of Revenues	2008 % of Revenues
	(In thousands, except for percentages)					
Income tax provision	$ 753	$ 8,099	$ (7,346)	(91)%	1%	11%

Income Tax Provision. Income tax provision decreased $7.3 million for the year ended December 31, 2009 compared to the year ended December 31, 2008, primarily due to the establishment of a valuation allowance for deferred tax assets for the year ended December 31, 2008. During the three months ended September 30, 2008, a valuation allowance was established for substantially all net deferred tax assets after management concluded that it was more likely than not that, based on the objective evidence available, our net deferred tax assets would not be fully realizable.

Years Ended December 31, 2008 and 2007

Revenues	2008	2007	$ Change	% Change	2008 % of Revenues	2007 % of Revenues
	(In thousands, except for percentages)					
Design-to-silicon-yield solutions	$ 55,113	$ 70,376	$ (15,263)	(22)%	74%	74%
Gainshare performance incentives	18,924	24,087	(5,163)	(21)	26	26
Total	$ 74,037	$ 94,463	$ (20,426)	(22)%	100%	100%

Design-to-Silicon-Yield Solutions. Design-to-silicon-yield solutions revenues decreased $15.3 million for the year ended December 31, 2008 compared to the year ended December 31, 2007, primarily due to a decrease of $7.9 million in fixed fee integrated solutions and a decrease of $7.8 million in revenues from software and software related services. The decreases were primarily the result of lower bookings, as customers delayed purchases for capacity expansion and investment in leading edge technology. We booked seven new fixed-price solution implementation service contracts and four extensions to existing service contracts during the years ended December 31, 2008 and 2007. The dramatic downturn in the semiconductor industry combined with weakness in worldwide economies have been the primary contributors to this shortfall.

Gainshare Performance Incentives. Revenues derived from gainshare performance incentives decreased $5.2 million for the year ended December 31, 2008 compared to the year ended December 31, 2007, primarily due to decreases in wafer volumes at our customers' sites. Revenues from gainshare performance incentives were generated from seven customers and thirteen engagements for the year

Table of Contents

ended December 31, 2008 and seven customers and twelve engagements for the year ended December 31, 2007.

Cost of Design-to-Silicon-Yield Solutions	2008	2007	$ Change	% Change	2008 % of Revenues	2007 % of Revenues
	(In thousands, except for percentages)					
Direct costs of design-to-silicon-yield solutions	$ 29,111	$ 32,470	$ (3,359)	(10)%	39%	34%
Amortization and impairment of acquired technology	6,012	5,148	864	17	8	6
Total	$ 35,123	$ 37,618	$ (2,495)	(7)%	47%	40%

Costs of Design-to-Silicon-Yield Solutions.

Direct Costs of Design-to-Silicon-Yield Solutions. Direct costs of Design-to-Silicon-Yield solutions decreased $3.4 million for the year ended December 31, 2008 compared to the year ended December 31, 2007. The decrease was primarily due to a decrease of $2.5 million in deployment of our pdFasTest products and a decrease of $991,000 in domestic personnel expenses, the result of our cost control efforts. The direct costs of Design-to-Silicon-Yield solutions increased as a percentage of revenues in 2008 to 39% compared to 34% in 2007. The increase was primarily due to the dramatic decrease in revenue in the fourth fiscal quarter of 2008, whereas costs were at the same level as that of prior quarters.

Amortization and Impairment of Acquired Technology. Amortization of acquired technology expense decreased $2.6 million for the year ended December 31, 2008 compared to the year ended December 31, 2007, primarily due to certain intangible assets becoming fully amortized. Impairment of acquired technology consisted of a $3.4 million impairment recognized in the fourth fiscal quarter of 2008.

Research and Development	2008	2007	$ Change	% Change	2008 % of Revenues	2007 % of Revenues
	(In thousands, except for percentages)					
Research and development	$ 33,994	$ 36,074	$ (2,080)	(6)%	46%	38%

Research and Development. Research and development expenses decreased $2.1 million for the year ended December 31, 2008 compared to the year ended December 31, 2007 primarily due to a decrease of $1.6 million in expenses in our French subsidiary and a decrease of $1.5 million in domestic personnel expenses, both the result of our cost control efforts.

Selling, General and Administrative	2008	2007	$ Change	% Change	2008 % of Revenues	2007 % of Revenues
	(In thousands, except for percentages)					
Selling, general and administrative	$ 21,778	$ 24,891	$ (3,113)	(13)%	29%	26%

Selling, General and Administrative. Selling, general and administrative expenses decreased $3.1 million for the year ended December 31, 2008 compared to the year ended December 31, 2007

Table of Contents

primarily due to a decrease of $1.1 million in domestic personnel expenses and a decrease of $834,000 in outside sales commission as a result of our cost control efforts.

Amortization of Other Acquired Intangible Assets	2008	2007	$ Change	% Change	2008 % of Revenues	2007 % of Revenues
	(In thousands, except for percentages)					
Amortization of other acquired intangible assets	$ 893	$ 3,422	$ (2,529)	(74)%	1%	4%

Amortization of Other Acquired Intangible Assets. Amortization of other acquired intangible assets for the year ended December 31, 2008 decreased $2.5 million compared to the year ended December 31, 2007, primarily the result of certain intangible assets becoming fully amortized.

Restructuring Charges	2008	2007	$ Change	% Change	2008 % of Revenues	2007 % of Revenues
	(In thousands, except for percentages)					
Restructuring charges	$ 3,401	$	$ 3,401	N/A	5%	%

Restructuring Charges. Restructuring charges of $3.4 million for the year ended December 31, 2008 related to expenses incurred as a result of the restructuring plans announced on April 29, 2008 and October 28, 2008. Restructuring charges related to the plan announced on April 29, 2008 were $1.5 million, primarily consisting of employee severance costs of $1.4 million. Restructuring charges related to the plan announced on October 28, 2008 were $1.9 million, primarily consisting of facility abandonment costs of $985,000 and employee severance costs of $909,000.

Impairment on Goodwill and Other Acquired Intangible Assets	2008	2007	$ Change	% Change	2008 % of Revenues	2007 % of Revenues
	(In thousands, except for percentages)					
Impairment on goodwill and other acquired intangible assets	$ 66,830	$	$ 66,830	N/A	90%	%

Impairment on Goodwill and Other Acquired Intangible Assets. During the fourth fiscal quarter of 2008, we recognized an impairment of $64.0 million on our goodwill and $2.8 million on our other acquired intangible assets (excluding the impairment of acquired technology), as a result of management's review for potential impairment on the carrying value of such assets due to the deterioration of our operating results and the dramatic downturn in the semiconductor industry combined with weakness in worldwide economies. There was no impairment recorded during the year ended December 31, 2007.

Interest and Other Income, Net	2008	2007	$ Change	% Change	2008 % of Revenues	2007 % of Revenues
	(In thousands, except for percentages)					
Interest and other income, net	$ 353	$ 1,891	$ (1,538)	(81)%	%	2%

Interest and Other Income, Net. Interest and other income, net, decreased $1.5 million for the year ended December 31, 2008 compared to the year ended December 31, 2007, primarily due to decreases in

Table of Contents

interest income from lower average cash, cash equivalent and investments balance and lower interest rates during the period.

Income Tax Provision (Benefit)	2008	2007	$ Change	% Change	2008 % of Revenues	2007 % of Revenues
	(In thousands, except for percentages)					
Income tax provision (benefit)	$ 8,099	$ (2,724)	$ 10,823	(397)%	11%	(3)%

Income Tax Provision (Benefit). Income tax provision was $8.1 million for the year ended December 31, 2008, compared to an income tax benefit of $2.7 million for the year ended December 31, 2007, primarily due to the establishment of a valuation allowance for deferred tax assets in the year ended December 31, 2008. During the three months ended September 30, 2008, a valuation allowance was established for substantially all net deferred tax assets after management concluded that it was more likely than not that, based on the objective evidence available, our net deferred tax assets would not be fully realizable.

Liquidity and Capital Resources

Operating Activities

Cash flows from operating activities consist of net loss adjusted for certain non-cash items and changes in assets and liabilities. Net cash used in operating activities was $4.6 million for the year ended December 31, 2009, a change of $12.2 million compared to cash provided by operating activities of $7.6 million for the year ended December 31, 2008, primarily due to lower revenue resulting in less accounts receivable, decreases in accrued compensation and related benefits, and decreases in taxes payable and other accrued liabilities, partially offset by lower accounts payable decrease.

Accounts receivable decreased $5.2 million as of December 31, 2009 compared to December 31, 2008, and decreased $13.6 million as of December 31, 2008 compared to December 31, 2007. The decreases were primarily due to declines in revenue in the years ended December 31, 2009 and 2008. Accrued compensation and related benefits decreased $2.1 million as of December 31, 2009 compared to December 31, 2008 primarily due to paid vacation used in company-wide shutdowns, the result of our cost control efforts. Accrued compensation and related benefits increased $641,000 as of December 31, 2008 compared to December 31, 2007 primarily due to an increase in accrued vacation. Taxes payable and other accrued liabilities increased $240,000 as of December 31, 2009 compared to December 31, 2008, primarily due to an adjustment to the tax liability for uncertain tax positions partially offset by the amortization of deferred rent. Taxes payable and other accrued liabilities increased $5.2 million as of December 31, 2008 compared to December 31, 2007 primarily due to an increase in deferred rent and accrued restructuring costs. Accounts payable decreased $392,000 as of December 31, 2009 compared to December 31, 2008 primarily due to the timing of vendor payments. Accounts payable decreased $2.1 million as of December 31, 2008 compared to December 31, 2007 primarily due to the timing of vendor payments and decreased expenditures, the result of our cost control efforts.

Investing Activities

Cash flows from investing activities consist of proceeds from investment maturities and sales, offset by payments for investments acquired, payments for businesses acquired, and payments for capital expenditures. Net cash provided by investing activities was $8.5 million for the year ended December 31, 2009, a change of $11.4 million compared to net cash used in investing activities of $2.9 million for the year ended December 31, 2008, primarily due to no purchases of investments or businesses during the year ended December 31, 2009, partially offset by lower proceeds from investment maturities and sales. We purchased $27.1 million of investments during the year ended December 31, 2008 while we had no such purchases during the year ended December 31, 2009. We spent $1.6 million in cash to acquire certain

Table of Contents

assets from Triant during the year ended December 31, 2008. Proceeds from investment maturities and sales were $9.1 million during the year ended December 31, 2009 compared to $26.9 million during the year ended December 31, 2008.

Financing Activities

Cash flows from financing activities consist of proceeds from sales of shares through employee equity incentive plans, payments for purchase of treasury stock, and principal payments on long-term obligations. Net cash provided by financing activities was $303,000 for the year ended December 31, 2009, a change of $6.9 million compared to $6.6 million used in financing activities for the year ended December 31, 2008, primarily due to repurchases of 2.2 million shares of our common stock for $6.9 million on the open market during the year ended December 31, 2008.

Liquidity

As of December 31, 2009, our working capital was $45.2 million compared to $56.3 million as of December 31, 2008. Cash, cash equivalents, and short-term investments as of December 31, 2009 were $34.9 million, a decrease of $5.8 million compared to $40.7 million as of December 31, 2008, primarily attributable to our operating loss from operations. 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 repurchase common stock or fund potential investments in, or acquisitions of, complementary products, technologies or businesses. We believe that our existing cash resources and anticipated 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 our 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, particularly in current capital market environment.

As of December 31, 2009, our non-current investments included auction-rate securities with a fair value of $718,000. The auction-rate securities are measured at fair value using significant unobservable inputs (level 3 inputs) and accounted for approximately 3% of total assets that are measured at fair value on a recurring basis. See Note 13 to "Notes to Consolidated Financial Statements" in Part IV, and Item 7A. "Quantitative and Qualitative Disclosures About Market Risk" in Part II and Note 3 to "Notes to Consolidated Financial Statements" in Part IV in this Annual Report on Form 10-K for further discussion.

Off-Balance Sheet Arrangements

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. As of December 31, 2009, other than Euro denominated payables, we had no foreign currency contracts outstanding.

We indemnify certain customers from third-party claims of intellectual property infringement relating to the use of our products. Historically, costs related to these guarantees of indemnification have not been significant. We are unable to estimate the maximum potential impact of these guarantees on our future results of operations.

Table of Contents

Contractual Obligations

The following table summarizes our known contractual obligations (in thousands):

	Payments Due by Period			
Contractual Obligations	**2010**	**2011-2012**	**2013-2014**	**Total**
Debt principal(1)	$ 115	$ 117	$	$ 232
Debt interest	9	3		12
Operating lease obligations	3,046	5,104	1,779	9,929
Total(2)	$ 3,170	$ 5,224	$ 1,779	$ 10,173

(1) Amount represents the repayment of the outstanding portion of a €400,000 loan with a variable interest rate based on the EURIBOR plus 160 basis points.

(2) The contractual obligation table above excludes liabilities for uncertain tax positions of $3.2 million, which are not practicable to assign to any particular years, due to the inherent uncertainty of the tax positions. See Note 10 of "Notes to Consolidated Financial Statements" for further discussion.

Operating lease amounts include minimum rental payments under our operating leases for our office facilities, as well as computers, office equipment, and vehicles that we utilize under lease agreements. These minimum rental payments include payments on those facilities abandoned as part of the restructuring activities. These agreements expire at various dates through 2014.

Item 7A. ***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. Actual results could vary materially as a result of a number of factors.

Interest Rate Risk. As of December 31, 2009, we had cash and cash equivalents of $34.9 million. Cash and cash equivalents consisted of cash and highly liquid money market instruments. 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 100 basis points from the market rates in effect at December 31, 2009 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 interest expense.

As of December 31, 2009, we held auction-rate securities with a par value of $1.0 million. Auction-rate securities are variable rate debt instruments whose interest rates are reset through a "dutch" auction process at regular intervals, typically every 28 days. A portion of these securities are insured by third party bond insurers and are collateralized by student loans guaranteed by governmental agencies and private entities. The liquidity of the securities has been negatively impacted by the uncertainty in the credit markets and the exposure of these securities to the financial condition of bond insurance companies. All auction-rate securities we hold have been failing to sell at auction since February 2008 due to an insufficient number of bidders. We reviewed the value of these securities for impairment as of December 31, 2009, and concluded that these securities were temporarily impaired, and recorded an unrealized loss of $282,000. In future periods, the estimated fair value of our auction-rate securities could decline further based on market conditions, which could result in additional impairment.

Foreign Currency and Exchange Risk. Certain of our payables are denominated in a currency other than the functional currency of the entity. Therefore, a portion of our operating expenditures is subject to

Table of Contents

foreign currency risks. The effect of an immediate 10% adverse change in exchange rates on foreign denominated payables as of December 31, 2009 would result in a loss of approximately $399,000. As of December 31, 2009, we did not have outstanding hedging contracts, although we may enter into such contracts in the future. We intend to monitor our foreign currency exposure. Future exchange rate fluctuations may have a material negative impact on our business.

Item 8. ***Financial Statements and Supplementary Data***

The consolidated financial statements and supplementary data required by this Item 8 are listed in Item 15(a)(1) of this Form 10-K.

Item 9. ***Changes in and Disagreements with Accountants on Accounting and Financial Disclosure***

None.

Item 9A. ***Controls and Procedures***

Evaluation of Disclosure Controls and Procedures

Our management, with the participation of our Chief Executive Officer and Chief Financial Officer, evaluated the effectiveness of our "disclosure controls and procedures" as defined in Exchange Act Rules 13a-15(e) and 15d-15(e) as of December 31, 2009 in connection with the filing of this Annual Report on Form 10-K. Based on that evaluation, our Chief Executive Officer and Chief Financial Officer concluded that, as of December 31, 2009, in light of the material weakness described below, our disclosure controls and procedures were not effective to ensure that information we are required to disclose in reports that we file or submit under the Exchange Act is recorded, processed, summarized and reported within the time periods specified in rules and forms of the SEC and accumulated and communicated to our management as appropriate to allow timely decisions regarding required disclosure.

Management's Report on Internal Control over Financial Reporting

Our management is responsible for establishing and maintaining adequate internal control over financial reporting, as defined in Rules 13a-15(f) and 15d-15(f) under the Exchange Act, for our company. Our management, with the participation of our Chief Executive Officer and Chief Financial Officer, conducted an evaluation of the effectiveness of our internal control over financial reporting as of December 31, 2009. This evaluation was based on the framework established in Internal Control Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission ("COSO").

A material weakness is a deficiency, or a combination of deficiencies, in internal control over financial reporting, such that there is a reasonable possibility that a material misstatement of the Company's annual or interim financial statements will not be prevented or detected on a timely basis.

The following material weakness in internal control over financial reporting existed as of December 31, 2009. We did not maintain effective controls over contract costs related to certain contracts. Specifically, we did not maintain effective controls over the evaluation of certain revenue contracts with respect to the accounting for the related costs to ensure complete and accurate recognition in accordance with accounting principles generally accepted in the United States.

This control deficiency resulted in an audit adjustment to our direct costs of Design-to-Silicon-Yield solutions, prepaid expenses and other current assets, and other non-current asset accounts, which included an out-of-period adjustment relating to the second and third fiscal quarters of 2009 that was recorded during the fourth fiscal quarter of 2009. Additionally, this control deficiency could result in other misstatements of direct costs of Design-to-Silicon-Yield solutions, prepaid expenses and other current assets, and other non-current asset accounts, which would result in a material misstatement of our

Table of Contents

consolidated financial statements that would not be prevented or detected. Accordingly, our management has determined that this control deficiency constitutes a material weakness.

Our company's management concluded that in light of the material weakness described above, our company did not maintain effective internal control over financial reporting as of December 31, 2009 based on the criteria set forth in Internal Control Integrated Framework issued by the COSO.

The effectiveness of our company's internal control over financial reporting as of December 31, 2009 has been audited by PricewaterhouseCoopers LLP, the Company's independent registered public accounting firm, as stated in their report which appears in this Annual Report on Form 10-K.

Management's Plan for Remediation

Our management is in the process of implementing its plan to remediate the material weakness. The remediation plan addresses the design of controls and revision of procedures to ensure appropriate evaluation and recognition of contract costs and includes:

Establishing a periodic review of the Company's accounting policies regarding contract costs relating to certain revenue contracts to ensure such policies are in accordance with generally accepted accounting principles in the United States.

Incorporating consideration of the accounting for contract costs into the Company's existing control procedures to ensure adequate review of revenue contracts.

Hiring personnel with requisite experience and providing ongoing training and supervision in the area of contract cost recognition.

Changes in Internal Control over Financial Reporting

There were no changes in our internal control over financial reporting that occurred during the fiscal quarter ended December 31, 2009 that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

Inherent Limitations

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

Item 9B. ***Other Information.***

During the quarter ended December 31, 2009, we submitted the following matters to our stockholders for approval at our Annual Meeting of Stockholders for the year ended December 31, 2008, which we held on October 7, 2009. At that meeting, the following proposals were adopted by our stockholders by the margins indicated:

Proposals:

1. To elect two (2) Class II nominees to our Board of Directors.

Election of Director	Votes For	Votes Withheld
Lucio L. Lanza Class II Director	13,538,207	9,986,572
Kimon Michaels, Ph.D. Class II Director	14,313,675	9,211,104

Table of Contents

As a result, Mr. Lanza and Dr. Michaels were re-elected as Class II directors of our Board of Directors for a three year term expiring upon the Annual Meeting next following the fiscal year ending December 31, 2011, or until their respective successors have been duly elected and qualified.

2. To ratify the appointment by the Audit and Corporate Governance Committee of Deloitte & Touche LLP as our independent registered public accounting firm for the fiscal year ending December 31, 2009.

Votes for	Votes Against	Votes Abstained	Broker Non-votes
23,294,136	43,085	187,558	0

On November 10, 2009, the Audit and Corporate Governance Committee (the "Audit Committee") of our Board of Directors (the "Board") recommended to our Board the dismissal of Deloitte & Touche LLP ("Deloitte") as our independent registered public accounting firm, which our Board unanimously approved. We then notified Deloitte of the dismissal on November 10, 2009.

During our two most recent fiscal years ended December 31, 2008 and 2007 and the subsequent period through November 10, 2009, we did not have any disagreements (as defined in Item 304 (a) (1) (iv) of Regulation S-K and the related instructions to Item 304 of Regulation S-K) with Deloitte on any matter of accounting principles or practices, financial statement disclosure, or auditing scope or procedure, which disagreements, if not resolved to the satisfaction of Deloitte, would have caused it to make reference to the subject matter of the disagreements in connection with its report. Also during this period, there have been no reportable events as that term is described in Item 304 (a) (1) (v) of Regulation S-K.

As a result of a competitive request for proposal process undertaken by the Audit Committee, on November 10, 2009, the Audit Committee approved PricewaterhouseCoopers LLP ("PWC") as our independent registered public accounting firm for the year ending December 31, 2009. In deciding to select PWC, the Audit Committee reviewed auditor independence issues and existing commercial relationships with PWC and concluded that PWC has no commercial relationship with us that would impair its independence. We did not engage PWC in any prior consultations during our fiscal years ended December 31, 2008 and 2007 or the subsequent period through November 10, 2009 with respect to: (i) the application of accounting principles to a specified transaction, either completed or proposed, or the type of audit opinion that might be rendered on our consolidated financial statements, and neither a written report was provided to us nor oral advice was provided that PWC concluded was an important factor considered by us in reaching a decision as to the accounting, auditing, or financial reporting issue; or (ii) any matter that was the subject of either a disagreement (as defined in Item 304 (a) (1) (iv) of Regulation S-K and the related instructions to Item 304 of Regulation S-K) or a reportable event (as defined in Item 304 (a) (1) (v) of Regulation S-K).

PART III

Pursuant to Paragraph (3) of the General Instructions to Form 10-K, certain of the information required by Part III of this Form 10-K is incorporated by reference from our Proxy Statement as set forth below. The Proxy Statement is expected to be filed within 120 days of December 31, 2009.

Item 10. *Directors and Executive Officers of the Registrant.*

Information with respect to our directors appears in our Proxy Statement under "Proposal No. 1 Election of Directors Nominees for the Board of Directors" and is incorporated herein by reference. Information with respect to our executive officers appears in Part I, Item 1 "Executive Officers" of this Form 10-K.

Table of Contents

Information with respect to compliance with Section 16(a) of the Exchange Act, appears in our Proxy Statement under "Section 16 Beneficial Ownership Reporting Compliance" and is incorporated herein by reference.

Our Board of Directors has adopted a Code of Ethics ("Code of Ethics") which is applicable to our Chief Executive Officer, our Chief Financial Officer and employees of the Company. Our Code of Ethics is available on our website at www.pdf.com, on the investor relations page. You may also request a copy of our Code of Ethics in writing by sending your request to PDF Solutions, Inc., Attention: Investor Relations, 333 West San Carlos Street, Suite 700, San Jose, California 95110. If we make any substantive amendments to the Code of Ethics or grant any waiver, including any implicit waiver, from a provision of the Code of Ethics to our Chief Executive Officer or Chief Financial Officer, we will disclose the nature of such amendment or waiver on our website or in a current report on Form 8-K.

Item 11. ***Executive Compensation.***

The information required by this item is incorporated herein by reference to the section entitled "Compensation of Executive Officers and Other Matters Executive Compensation" in our Proxy Statement.

Item 12. ***Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters.***

The information required by this item is incorporated herein by reference to the section entitled "Security Ownership of Certain Beneficial Owners and Management" in our Proxy Statement.

Item 13. ***Certain Relationships and Related Transactions, and Director Independence.***

The information required by this item is incorporated herein by reference to the section entitled "Certain Relationships and Related Transactions and Directors Independence" in our Proxy Statement.

Item 14. ***Principal Accountant Fees and Services.***

Information with respect to Principal Accountant Fees and Services is incorporated by reference from our Proxy Statement.

Non-Audit Services Provided by Independent Registered Public Accounting Firm

None.

PART IV

Item 15. ***Exhibits and Financial Statement Schedules.***

(a) The following documents are filed as part of this report:

(1) Consolidated Financial Statements and Reports of Independent Registered Public Accounting Firms

See Index to Consolidated Financial Statements.

(2) Schedule II Valuation and Qualifying Accounts

See the Reports of Independent Registered Public Accounting Firms and Schedule II.

(3) Exhibits

The exhibits listed in the accompanying Index to Exhibits are filed or incorporated by reference as part of this Annual Report on Form 10-K.

Table of Contents

PDF SOLUTIONS, INC.

INDEX TO CONSOLIDATED FINANCIAL STATEMENTS

Table of Contents

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

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

In our opinion, the accompanying consolidated balance sheet as of December 31, 2009 and the related consolidated statements of operations, stockholders' equity and comprehensive income (loss), and cash flows for the year then ended present fairly, in all material respects, the financial position of PDF Solutions, Inc. and its subsidiaries at December 31, 2009, and the results of their operations and their cash flows for the year then ended in conformity with accounting principles generally accepted in the United States of America. In addition, in our opinion, the financial statement schedule listed in the index appearing under Item 15(a)(2) for the year ended December 31, 2009 presents fairly, in all material respects, the information set forth therein when read in conjunction with the related consolidated financial statements. Also in our opinion, the Company did not maintain, in all material respects, effective internal control over financial reporting as of December 31, 2009, based on criteria established in Internal Control Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO) because a material weakness in internal control over financial reporting related to the accounting of contract costs for certain revenue contracts existed as of that date. A material weakness is a deficiency, or a combination of deficiencies, in internal control over financial reporting, such that there is a reasonable possibility that a material misstatement of the annual or interim financial statements will not be prevented or detected on a timely basis. The material weakness referred to above is described in Management's Report on Internal Control over Financial Reporting, appearing under Item 9A. We considered this material weakness in determining the nature, timing, and extent of audit tests applied in our audit of the December 31, 2009 consolidated financial statements, and our opinion regarding the effectiveness of the Company's internal control over financial reporting does not affect our opinion on those consolidated financial statements. The Company's management is responsible for these consolidated financial statements and financial statement schedule, for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting included in management's report referred to above. Our responsibility is to express opinions on these financial statements, on the financial statement schedule and on the Company's internal control over financial reporting based on our integrated audit. We conducted our audit in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement and whether effective internal control over financial reporting was maintained in all material respects. Our audit of the financial statements included examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management, and evaluating the overall financial statement presentation. Our audit of internal control over financial reporting included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audit also included performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinions.

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (i) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (ii) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (iii) provide reasonable assurance regarding prevention

Table of Contents

or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

/s/ PricewaterhouseCoopers LLP
San Jose, California
March 16, 2010

Table of Contents

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

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

We have audited the accompanying consolidated balance sheets of PDF Solutions, Inc. and subsidiaries (the "Company") as of December 31, 2008 and 2007, and the related consolidated statements of operations, stockholders' equity and comprehensive income (loss), and cash flows for each of the two years in the period ended December 31, 2008. In connection with our audits of the consolidated financial statements, we have also audited the financial statements schedule for each of the two years in the period ended December 31, 2008, as set forth under Item 15(a)(2). These consolidated financial statements and financial statement schedule are the responsibility of the Company's management. Our responsibility is to express an opinion on these consolidated financial statements and financial statement schedule based on our audits.

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

In our opinion, such consolidated financial statements present fairly, in all material respects, the financial position of PDF Solutions, Inc. and subsidiaries at December 31, 2008 and 2007, and the results of their operations and their cash flows for each of the two years in the period ended December 31, 2008, in conformity with accounting principles generally accepted in the United States of America. Also, in our opinion, such financial statement schedule, when considered in relation to the basic consolidated financial statements taken as a whole, presents fairly, in all material respects, the information set forth therein.

/s/ DELOITTE & TOUCHE LLP
San Jose, California
March 16, 2009

Table of Contents

PDF SOLUTIONS, INC.

CONSOLIDATED BALANCE SHEETS

	December 31,	
	2009	2008
	(In thousands, except par values)	
ASSETS		
Current assets:		
Cash and cash equivalents	$ 34,899	$ 31,686
Short-term investments		9,051
Accounts receivable, net of allowances of $254 in both 2009 and 2008	19,809	24,989
Prepaid expenses and other current assets	3,029	5,147
Total current assets	57,737	70,873
Property and equipment, net	1,573	2,675
Non-current investments	718	718
Intangible assets, net	2,954	4,730
Other non-current assets	495	631
Total assets	$ 63,477	$ 79,627
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current liabilities:		
Current portion of long-term debt	$ 115	$ 370
Accounts payable	959	1,384
Accrued compensation and related benefits	4,438	6,525
Taxes payable and other accrued liabilities	3,502	3,723
Deferred revenues	1,584	1,792
Billings in excess of recognized revenues	1,953	748
Total current liabilities	12,551	14,542
Long-term debt	117	512
Long-term income taxes payable	3,218	3,356
Other non-current liabilities	1,704	1,447
Total liabilities	17,590	19,857
Commitments and contingencies (Note 7)		
Stockholders' equity:		
Preferred stock, $0.00015 par value, 5,000 shares authorized, no shares issued and outstanding		
Common stock, $0.00015 par value, 70,000 shares authorized; shares issued 30,194 in 2009 and 29,339 in 2008; shares outstanding 26,651 in 2009 and 25,923 in 2008	4	4
Additional paid-in capital	194,081	189,132
Treasury stock at cost, 3,543 shares in 2009 and 3,416 shares in 2008	(18,715)	(18,402)
Accumulated deficit	(130,111)	(112,620)
Accumulated other comprehensive income	628	1,656
Total stockholders' equity	45,887	59,770

Total liabilities and stockholders' equity	$ 63,477	$ 79,627

See notes to consolidated financial statements.

Table of Contents

PDF SOLUTIONS, INC.

CONSOLIDATED STATEMENTS OF OPERATIONS

	Year Ended December 31,		
	2009	2008	2007
	(In thousands, except per share amounts)		
Revenues:			
Design-to-silicon-yield solutions	$ 32,662	$ 55,113	$ 70,376
Gainshare performance incentives	15,776	18,924	24,087
Total revenues	48,438	74,037	94,463
Cost of design-to-silicon-yield solutions:			
Direct costs of design-to-silicon-yield solutions	22,779	29,111	32,470
Amortization and impairment of acquired technology	1,439	6,012	5,148
Total cost of design-to-silicon-yield solutions	24,218	35,123	37,618
Gross profit	24,220	38,914	56,845
Operating expenses:			
Research and development	19,773	33,994	36,074
Selling, general and administrative	16,561	21,778	24,891
Amortization of other acquired intangible assets	349	893	3,422
Restructuring charges	4,512	3,401	
Impairment on goodwill and other acquired intangible assets		66,830	
Total operating expenses	41,195	126,896	64,387
Loss from operations	(16,975)	(87,982)	(7,542)
Interest and other income, net	237	353	1,891
Loss before taxes	(16,738)	(87,629)	(5,651)
Income tax provision (benefit)	753	8,099	(2,724)
Net loss	$ (17,491)	$ (95,728)	$ (2,927)
Net loss per share basic and diluted	$ (0.66)	$ (3.48)	$ (0.10)
Weighted average common shares basic and diluted	26,377	27,514	28,066

See notes to consolidated financial statements.

Table of Contents

PDF SOLUTIONS, INC.

CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY AND COMPREHENSIVE INCOME (LOSS)

	Common Stock		Additional Paid-In Capital	Treasury Stock		Accumulated Deficit	Accumulated Other Comprehensive Income (Loss)	Total
	Shares	Amount		Shares	Amount			
				(In Thousands)				
Balances, January 1, 2007	27,948	$ 4	$ 167,323	551	$ (5,549)	$ (13,890)	$ 331	$ 148,219
Exercise of options	182		1,442					1,442
Issuance of common stock in connection with employee stock purchase plan	170		1,490					1,490
Issuance of common stock in connection with acquisition	272		2,874					2,874
Purchases of treasury stock	(639)			639	(5,975)			(5,975)
Stock-based compensation expense			8,229					8,229
Tax benefit related to stock-based compensation expense			208					208
Net loss						(2,927)		
Cumulative translation adjustment, net of tax effect							2,982	
Unrealized gain on investments							3	
Comprehensive income								58
Cumulative effect from adoption of accounting for uncertain tax positions						771		771
Cumulative effect from adoption of accounting for sabbatical leave						(846)		(846)
Balances, December 31, 2007	27,933	4	181,566	1,190	(11,524)	(16,892)	3,316	156,470
Exercise of options	12		63					63
Issuance of common stock in connection with employee stock purchase plan	152		590					590
Purchases of treasury stock	(2,226)			2,226	(6,878)			(6,878)
Issuance of restricted stock	52							
Stock-based compensation expense			7,228					7,228
Deferred tax asset write-off upon expiration of certain stock option awards			(315)					(315)
Net loss						(95,728)		
Cumulative translation adjustment							(1,439)	
Unrealized loss on investments							(221)	
Comprehensive loss								(97,388)
Balances, December 31, 2008	25,923	4	189,132	3,416	(18,402)	(112,620)	1,656	59,770
Issuance of common stock in connection with employee stock purchase plan	450		570					570
Restricted stock grants vested	405							
Purchases of treasury stock	(127)			127	(313)			(313)
Stock-based compensation expense			4,269					4,269
Tax benefit from employee stock plans			110					110
Net loss						(17,491)		
Cumulative translation adjustment							(964)	
Unrealized loss on investments							(64)	
Comprehensive loss								(18,519)
Balances, December 31, 2009	26,651	$ 4	$ 194,081	3,543	$ (18,715)	$ (130,111)	$ 628	$ 45,887

See notes to consolidated financial statements.

53

Table of Contents

PDF SOLUTIONS, INC.

CONSOLIDATED STATEMENTS OF CASH FLOWS

	Year Ended December 31,		
	2009	2008	2007
	(In thousands)		
Operating activities:			
Net loss	$ (17,491)	$ (95,728)	$ (2,927)
Adjustments to reconcile net loss to net cash provided by (used in) operating activities:			
Impairment on goodwill and intangible assets		70,250	
Depreciation and amortization	1,421	1,858	2,070
Stock-based compensation expense	4,269	7,228	8,229
Loss on sale of investment security and property and equipment	152	552	
Amortization of acquired intangible assets	1,788	3,485	8,637
Tax benefit related to stock-based compensation expense			208
Excess tax benefit from stock-based compensation expense			(44)
Deferred taxes		2,566	(5,494)
Purchases of treasury stock in connection with tax withholdings on restricted stock grants	(313)		
Gain on debt extinguishment	(393)		
Changes in operating assets and liabilities, net of effect of acquisition:			
Accounts receivable, net of allowances	5,180	13,593	(10,951)
Prepaid expenses and other assets	1,898	1,254	(510)
Accounts payable	(392)	(2,111)	59
Accrued compensation and related benefits	(2,126)	641	1,182
Taxes payable and other accrued liabilities	240	5,164	999
Deferred revenues	(42)	(1,383)	(546)
Billings in excess of recognized revenues	1,206	195	458
Net cash provided by (used in) operating activities	(4,603)	7,564	1,370
Investing activities:			
Purchases of available-for-sale securities		(27,094)	(26,803)
Maturities and sales of available-for-sale securities	9,054	26,940	33,818
Purchases of property and equipment	(569)	(1,115)	(2,226)
Businesses acquired in purchase transactions, net of cash acquired		(1,604)	(4,586)
Net cash provided by (used in) investing activities	(8,485)	(2,873)	203
Financing activities:			
Exercise of stock options		63	1,442
Proceeds from employee stock purchase plan	570	590	1,490
Purchases of treasury stock		(6,878)	(5,975)
Principal payments on long-term obligations	(267)	(409)	(324)
Principal payments on notes to stockholders			(416)
Excess tax benefit from stock-based compensation expense			44
Net cash provided by (used in) financing activities	303	(6,634)	(3,739)
Effect of exchange rate changes on cash and cash equivalents	(972)	(1,686)	1,030

Net increase (decrease) in cash and cash equivalents	3,213	(3,629)	(1,136)
Cash and cash equivalents, beginning of year	31,686	35,315	36,451
Cash and cash equivalents, end of year	$ 34,899	$ 31,686	$ 35,315
Non-cash investing and financing activities:			
Common stock issued for acquisitions	$	$	$ 2,874
Purchase price adjustments	$	$ 216	$ 9
Supplemental disclosure of cash flow information:			
Cash paid during the year for:			
Income Taxes	$ 1,604	$ 2,421	$ 634
Interest	$ 19	$ 39	$ 48

See notes to consolidated financial statements.

Table of Contents

PDF SOLUTIONS, INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

Years Ended December 31, 2009, 2008 and 2007

1. Business and Significant Accounting Policies

PDF Solutions, Inc. (the "Company" or "PDF"), provides infrastructure technologies and services to improve yield and optimize performance of integrated circuits. The Company's approach includes manufacturing simulation and analysis, combined with yield improvement methodologies to increase product yield and performance.

Basis of Presentation The consolidated financial statements include the accounts of the Company and its wholly-owned subsidiaries after the elimination of all significant intercompany balances and transactions.

Out-of-Period Adjustments In the three months ended December 31, 2009, the Company recorded out-of-period adjustments to reverse a bonus accrual for $462,000, reverse stock-based compensation expense of $580,000 and record contract costs of $760,000 that were incorrectly deferred in previous periods. The correction of these errors resulted in a reduction to the Company's net loss of $282,000 and $672,000 for the quarter and year ended December 31, 2009, respectively. The resulting errors also increased net loss for the year ended December 31, 2008 by $672,000 and reduced net loss for the nine months ended September 30, 2009 by $390,000. Management has assessed the impact of these adjustments and does not believe that these amounts were material, either individually or in the aggregate, to any prior period financial statements, and the impact of correcting these errors in the three months ended December 31, 2009 is not material to the financial statements for the year ended December 31, 2009. As a result, the Company has not restated any prior period amounts.

Significant Estimates The preparation of financial statements in conformity with generally accepted accounting principles in the United States ("U.S. GAAP") requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities, the disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Significant estimates in these financial statements include stock-based compensation expense, allowances for doubtful accounts receivable, estimates for useful lives associated with long-lived assets, asset impairments charges, recoverability of intangible assets, restructuring charges, fair value of net assets held for sale and income taxes and tax valuation allowances. Actual results could differ from those estimates.

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

Concentration of Credit Risk Financial instruments that potentially expose the Company to concentrations of credit risk consist primarily of cash and cash equivalents, investments, and accounts receivable. The Company maintains its cash and cash equivalents and investments with what it considers high credit quality financial institutions.

Table of Contents

PDF SOLUTIONS, INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

Years Ended December 31, 2009, 2008 and 2007

1. Business and Significant Accounting Policies (Continued)

The Company primarily sells its technologies and services to companies in Japan, Europe and North America within the semiconductor industry. As of December 31, 2009, six customers accounted for 77% of the Company's gross accounts receivable and three customers accounted for 47% of the Company's revenues for 2009. As of December 31, 2008, four customers accounted for 52% of the Company's gross accounts receivable and two customers accounted for 34% of the Company's revenues for 2008. Two customers accounted for 35% of the Company's revenues for 2007. See Note 12 for further details. The Company does not require collateral or other security to support accounts receivable. To reduce credit risk, management performs ongoing credit evaluations of its customers' financial condition. The Company maintains allowances for potential credit losses. The allowance for doubtful accounts, which was based on management's best estimates, could be adjusted in the near term from current estimates depending on actual experience. Such adjustments could be material to the consolidated financial statements.

Cash, Cash Equivalents and Short-term Investments The Company considers all highly liquid investments with an original maturity of 90 days or less or investments with a remaining maturity of 90 days or less at the time of purchase to be cash equivalents. Investments with maturities greater than three months and less than one year are classified as short-term investments.

Accounts Receivable Accounts receivable includes amounts that are unbilled at the end of the period. Unbilled accounts receivable are determined on an individual contract basis and were approximately $6.4 million and $10.5 million at December 31, 2009 and 2008, respectively.

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

Computer and equipment	3 years
Software	3 years
Furniture, fixtures, and equipment	5-7 years
Leasehold improvements	Shorter of estimated useful life or term of lease
Assets acquired under capital lease	Shorter of estimated useful life or term of lease

Long-lived Assets The Company's long-lived assets, excluding goodwill, consist of property and equipment and other acquired intangibles. The Company periodically reviews its long-lived assets for impairment. For assets to be held and used, the Company initiates its review whenever events or changes in circumstances indicate that the carrying amount of a long-lived asset group may not be recoverable. Recoverability of an asset group is measured by comparison of its carrying amount to the expected future undiscounted cash flows that the asset group is expected to generate. If it is determined that an asset group is not recoverable, an impairment loss is recorded in the amount by which the carrying amount of the asset group exceeds its fair value. At December 31, 2008, the Company performed a review of long-lived assets and determined that the carrying value of its asset group was not recoverable. Accordingly, the Company recorded an impairment of $6.3 million associated with certain acquired intangible assets. See Note 5 for further discussion.

Table of Contents

PDF SOLUTIONS, INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

Years Ended December 31, 2009, 2008 and 2007

1. Business and Significant Accounting Policies (Continued)

Revenue Recognition The Company derives revenue from two sources: Design-to-Silicon-Yield Solutions, which includes Services and Software Licenses, and Gainshare Performance Incentives.

Design-to-Silicon-Yield Solutions Revenues that are derived from Design-to-Silicon-Yield solutions come from services and software licenses. The Company recognizes revenue for each element of Design-to-Silicon-Yield solutions as follows:

Services The Company generates a significant portion of its Design-to-Silicon-Yield solutions revenue from fixed-price solution implementation service contracts delivered over a specific period of time. These contracts require accurate estimation of costs to perform obligations and the overall scope of each engagement. Revenue under contracts for solution implementation services is recognized as services are performed using the cost-to-cost percentage of completion method of contract accounting. Losses on solution implementation contracts are recognized in the period when they become evident. Revisions in profit estimates are reflected in the period in which the conditions that require the revisions become known and can be estimated.

On occasion, the Company licenses its software products as a component of its fixed-price service contract. In such instances, the software products are licensed to customers over a 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") exists for the support and maintenance element, the support and maintenance revenue is recognized separately over the term of the supporting period. The remaining fee is recognized as services are performed using the cost-to-cost percentage of completion method of contract accounting. VSOE for maintenance, in these instances, is generally established based upon a negotiated renewal rate. Under arrangements where software products are licensed as a component of its fixed-price service contract and where VSOE does not exist to allocate a portion of the total fixed-price to the undelivered elements, revenue is recognized for the total fixed-price as the lesser of either the percentage of completion method of contract accounting or ratably over the longer of either the term of the agreement or the support period.

Revenue from related 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 services are performed. When bundled with software licenses in multiple element arrangements, support and maintenance, consulting (other than for its fixed-price solution implementations), installation, and training revenue is allocated to each element of a transaction based upon its fair value as determined by the Company's VSOE. VSOE for maintenance is generally established based upon negotiated renewal rates while VSOE for consulting, installation, and training services is established based upon the Company's customary pricing for such services when sold separately.

Software Licenses The Company also licenses its software products separately from its integrated solution implementations. For software license arrangements that do not require significant modification or customization of the underlying software, software license revenue is recognized under the residual method when (1) persuasive evidence of an arrangement exists, (2) delivery has occurred, (3) the fee is fixed or determinable, (4) collectability is probable, and (5) the arrangement does not require services that are essential to the functionality of the software. When arrangements

Table of Contents

PDF SOLUTIONS, INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

Years Ended December 31, 2009, 2008 and 2007

1. Business and Significant Accounting Policies (Continued)

include multiple elements such as support and maintenance, consulting (other than for its fixed price solution implementations), installation, and training, revenue is allocated to each element of a transaction based upon its fair value as determined by the Company's VSOE and such services are recorded as services revenue. VSOE for maintenance is generally established based upon negotiated renewal rates while VSOE for consulting, installation, and training services is established based upon the Company's customary pricing for such services when sold separately. Revenue for software licenses with extended payment terms is not recognized in excess of amounts due. For software license arrangements that require significant modification or customization of the underlying software, the software license revenue is recognized as services are performed using the cost-to-cost percentage of completion method of contract accounting, and such revenue is recorded as services revenue.

Gainshare Performance Incentives When the Company enters into a contract to provide yield improvement services, the contract usually includes two components: (1) a fixed fee for performance by the Company of services delivered over a specific period of time; and (2) a gainshare performance incentives component where the customer may pay a variable fee, usually after the fixed fee period has ended. Revenue derived from gainshare performance incentives represents profit sharing and performance incentives earned based upon the Company's customers reaching certain defined operational levels established in related solution implementation service contracts. Gainshare performance incentives periods are usually subsequent to the delivery of all contractual services and therefore have no cost to the Company. Due to the uncertainties surrounding attainment of such operational levels, the Company recognizes gainshare performance incentives revenue (to the extent of completion of the related solution implementation contract) upon receipt of performance reports or other related information from the customer supporting the determination of amounts and probability of collection.

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. Because the Company believes its current process for developing software is essentially completed concurrently with the establishment of technological feasibility, no costs have been capitalized to date.

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

Stock-Based Compensation Stock-based compensation is estimated at the grant date based on the award's fair value and is recognized on a straight-line basis over the vesting periods of the applicable stock purchase rights and stock options, generally four years. As stock-based compensation expense recognized is based on awards ultimately expected to vest, it has been reduced for estimated forfeitures. Forfeitures are estimated at the time of grant and revised, if necessary, in subsequent periods if actual forfeitures differ from those estimates. Cash flows resulting from excess tax benefits for awards accounted are classified as financing cash flows.

The Company has elected to use the Black-Scholes-Merton option-pricing model, which incorporates various assumptions including volatility, expected life and interest rates. The expected volatility is based on the historical volatility of the Company's common stock over the most recent period commensurate with the estimated expected life of the Company's stock options. The expected life of an award is based on historical experience and on the terms and conditions of the stock awards granted to employees. The

Table of Contents

PDF SOLUTIONS, INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

Years Ended December 31, 2009, 2008 and 2007

1. Business and Significant Accounting Policies (Continued)

interest rate assumption is based upon observed Treasury yield curve rates appropriate for the expected life of the Company's stock options.

Income Taxes The Company's provision for income tax comprises its current tax liability and change in deferred tax assets and liabilities. Deferred tax assets and liabilities are recognized for the expected tax consequences of temporary differences between the tax bases of assets and liabilities and their reported amounts in the financial statements using enacted tax rates and laws that will be in effect when the difference is expected to reverse. Valuation allowances are provided to reduce deferred tax assets to an amount that in management's judgment is more likely than not to be recoverable against future taxable income. No U.S. taxes are provided on earnings of non-U.S. subsidiaries, to the extent such earnings are deemed to be permanently invested.

The Company's income tax calculations are based on application of the respective U.S. federal, state or foreign tax laws. The Company's tax filings, however, are subject to audit by the respective tax authorities. Accordingly, the Company recognizes tax liabilities based upon its estimate of whether, and the extent to which, additional taxes will be due when such estimates are more-likely-than-not to be sustained. An uncertain income tax position will not be recognized if it has less than a 50% likelihood of being sustained. To the extent the final tax liabilities are different than the amounts originally accrued, the increases or decreases are recorded as income tax expense or benefit in the consolidated statements of operations.

Net (Loss) Income Per Share Basic net (loss) income per share is computed by using the weighted-average number of common shares outstanding during the period. Diluted net (loss) income per share is computed giving effect to all dilutive potential common shares that were outstanding during the period. Dilutive potential common shares consist of incremental common shares issuable upon exercise of stock options, upon vesting of restricted stock units, contingently issuable shares for all periods and assumed issuance of shares under employee stock purchase plan. No dilutive potential common shares are included in the computation of any diluted per share amount when a loss from continuing operations was reported by the Company.

Foreign Currency Translation The functional currency of the Company's foreign subsidiaries is the local currency for the respective subsidiary. The assets and liabilities are translated at the period-end exchange rate, and statements of operations are translated at the average exchange rate during the year. Gains and losses resulting from foreign currency translations are included as a component of other comprehensive income (loss). Gains and losses resulting from foreign currency transactions are included in the consolidated statement of operations.

Comprehensive Income (Loss) The Company reports, by major components and as a single total, the change in its net assets during the period from nonowner sources. Comprehensive income (loss) is presented within the consolidated statement of stockholders' equity and comprehensive income (loss).

Table of Contents

PDF SOLUTIONS, INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

Years Ended December 31, 2009, 2008 and 2007

1. Business and Significant Accounting Policies (Continued)

Accumulated other comprehensive income as of December 31, 2009 and 2008 is comprised of (in thousands):

	December 31,	
	2009	2008
Unrealized loss on investments	$ (282)	$ (218)
Foreign currency translation adjustments	910	1,874
Accumulated other comprehensive income	$ 628	$ 1,656

Recent Accounting Pronouncements In January 2010, the Financial Accounting Standards Boards ("FASB") issued an amendment to an Accounting Standards Update which requires additional fair value disclosures. This amendment requires disclosures in relation to inputs and valuation techniques used to measure fair value as well as disclosures in relation to significant transfers, beginning in the first quarter of 2010. Additionally, this amendment requires the presentation of disaggregated activity within the reconciliation for fair value measurements using significant unobservable inputs (Level 3), beginning in the first quarter of 2011. We do not expect these new standards to significantly impact our consolidated financial statements.

In October 2009, the FASB issued an Accounting Standards Update on revenue recognition in relation to multiple-deliverable revenue arrangements. This update provides guidance on accounting for multiple-deliverable arrangements to enable vendors to account for products or services (deliverables) separately rather than as a combined unit. The amendments in this update will replace the term fair value in the revenue allocation guidance with selling price to clarify that the allocation of revenue is based on entity-specific assumptions rather than assumptions of a marketplace participant. This update is effective prospectively for revenue arrangements entered into or materially modified in fiscal years beginning on or after June 15, 2010. The Company is currently evaluating the impact, if any, that the adoption of this updated standard will have on its financial results and position.

In October 2009, the FASB issued an Accounting Standards Update on software revenue recognition in relation to revenue arrangements that include software elements. This standard scopes out from software revenue recognition accounting revenue arrangements for tangible products that contain both software and non-software components that function together to deliver the tangible products' essential functionality. It also amends the determination of how arrangement consideration should be allocated to deliverables in a multiple-deliverable revenue arrangement. This update is effective prospectively for revenue arrangements entered into or materially modified in fiscal years beginning on or after June 15, 2010. The Company is currently evaluating the impact, if any, that the adoption of this update will have on its financial results and position.

Accounting Changes Effective January 1, 2009, the Company adopted FASB's Accounting Standards Update for business combinations. This update establishes principles and requirements for how an acquirer of a business recognizes and measures in its financial statements the identifiable assets acquired, the liabilities assumed, any noncontrolling interest in the acquiree, and the goodwill acquired. The update also establishes disclosure requirements to enable the evaluation of the nature and financial effects of the

Table of Contents

PDF SOLUTIONS, INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

Years Ended December 31, 2009, 2008 and 2007

1. Business and Significant Accounting Policies (Continued)

business combination. The adoption of this standard did not have an effect on the Company's financial results and position.

Effective April 1, 2009, the Company adopted FASB's Accounting Standards Update on how to determine fair value when the volume and level of activity for assets or liabilities have significantly decreased and for identifying transactions that are not orderly. The adoption of this accounting standard did not have a material impact on the Company's financial results and position.

Effective April 1, 2009, the Company adopted FASB's Accounting Standards Update on how to account for recognition and presentation of other-than-temporary impairments of debt securities. This update amends the other-than-temporary impairment guidance for debt securities to make the guidance more operational and to improve the presentation and disclosure of other-than-temporary impairments in the financial statements. The adoption of this standard did not have a material impact on the Company's financial results and position.

Effective April 1, 2009, the Company adopted FASB's Accounting Standards Update for disclosures about fair value of financial instruments. This update requires disclosures about the fair value of financial instruments for interim reporting periods of publicly traded companies as well as in annual financial statements. These standards also require those disclosures in summarized financial information in interim reporting periods. The adoption of these standards had no impact on the Company's financial results and position.

Effective June 1, 2009, the FASB issued the Accounting Standards Codification ("Codification") as the source of authoritative accounting principles recognized by the FASB to be applied by nongovernmental entities in the preparation of financial statements in conformity with U.S. GAAP. Rules and interpretive releases of the Securities and Exchange Commission ("SEC") under authority of federal securities laws are also sources of authoritative U.S. GAAP for SEC registrants. All guidance contained in the Codification carries an equal level of authority. The Codification is effective for financial statements issued for interim and annual periods ending after September 15, 2009. The Codification superseded all existing non-SEC accounting and reporting standards. All other non-grandfathered, non-SEC accounting literature not included in the Codification became non-authoritative. The Company has updated its disclosures to conform to the Codification in this Annual Report on Form 10-K.

2. Acquisitions

Triant Holdings, Inc. ("Triant")

On October 7, 2008, the Company completed the acquisition of substantially all of the assets of Triant's fault detection and classification ("FDC") business, excluding certain receivables, but including certain customer contracts and technologies. Triant developed and licensed FDC software applications and services dedicated to the semiconductor industry to enable customers to rapidly identify sources of process variations and manufacturing excursions. This acquisition creates additional opportunities for the Company's FDC business by expanding the existing installed customer base, including leading semiconductor, flat panel display, and wafer manufacturers. Total cost for the acquisition was $1.9 million, which included $1.6 million in cash and $312,000 in acquisition costs. Pursuant to the terms of the acquisition, $374,000 in cash was held in escrow as security against certain financial and other contingencies. The cash held in escrow, less amounts deducted to satisfy contingencies, was required to be

Table of Contents

PDF SOLUTIONS, INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

Years Ended December 31, 2009, 2008 and 2007

2. Acquisitions (Continued)

released following the statutory notice to creditors associated with Triant's liquidation and wind up process. The escrow was released to Triant in February 2009. In connection with the acquisition, the Company recorded $1.7 million of identifiable intangible assets with a weighted average life of 3.4 years and $147,000 of goodwill. The acquisition was accounted for as a business combination using the purchase method of accounting and, accordingly, the Company's consolidated financial statements from October 7, 2008 include the impact of the acquired business.

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

Allocation of Purchase Price	Amortization Period (Years)	Amount
Fair value of tangible assets		$ 135
Fair value of intangible assets:		
Developed / Core technology	2	420
Customer relationships and backlog	0.25-4	1,230
Goodwill	N/A	147
Total assets acquired		1,932
Deferred revenue		(16)
Total liabilities assumed		(16)
Total consideration		$ 1,916

The acquisition was accounted for as a purchase transaction, and accordingly, the assets and liabilities of Triant were recorded at their estimated fair values at the date of the acquisition. With the exception of the goodwill, the identifiable intangible assets are amortized on a straight-line basis over their estimated useful lives, which vary from 0.25 to 4 years, with a weighted average life of 3.4 years. The Company performed its annual impairment assessment on goodwill in the fourth fiscal quarter of 2008 and the entirety of goodwill was impaired, including the carrying value of goodwill in connection with the Triant acquisition. In addition, due to the continued decline within the semiconductor industry brought on by the deteriorating global economic environment, the Company anticipated further declines in its future operational results. As a result, the Company determined these factors, among others, to be impairment indicators which triggered the necessity of an impairment analysis for the Company's long-lived assets. These tests also included the goodwill and certain intangible assets recognized as part of the acquisition of Triant. This determination relating to the Company's Triant acquisition was in part made after several public announcements were issued by a key customer of Triant's, regarding its own financial outlook and anticipated capital expenditure spending levels; which in turn caused the Company to revise its projected revenue from what had been expected at the date of the acquisition.

The following unaudited pro forma consolidated financial data represents the combined results of operations as if Triant had been combined with the Company at the beginning of the respective period.

Table of Contents

PDF SOLUTIONS, INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

Years Ended December 31, 2009, 2008 and 2007

2. Acquisitions (Continued)

This pro forma financial data includes the straight line amortization of intangibles over their respective estimated useful lives (in thousands, except per share data):

	Year Ended December 31, 2008
Revenues	$ 76,029
Net loss	$ (96,734)
Pro forma net loss per share basic and diluted	$ (3.52)
Number of shares used to compute pro forma net loss per share basic and diluted	27,514

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.

3. Investments

The following tables summarize the Company's investments (in thousands):

	December 31, 2009			
	Amortized Cost	Unrealized Holding Gains	Unrealized Holding Losses	Fair Value
Auction-rate securities	$ 1,000	$	$ (282)	$ 718
Included in non-current investments				$ 718

	December 31, 2008			
	Amortized Cost	Unrealized Holding Gains	Unrealized Holding Losses	Market Value
Commercial paper	$ 2,043	$ 4	$	$ 2,047
Agency obligations	6,544	68		6,612
Auction rate securities	1,000		(282)	718
Corporate securities	400		(8)	392
	$ 9,987	$ 72	$ (290)	$ 9,769
Included in short-term investments				$ 9,051
Included in non-current investments				718
Total				$ 9,769

As of December 31, 2009, the Company only held auction-rate securities which were classified as non-current investments. As of December 31, 2008, all short-term investments had a maturity of one year or less. The primary objective of the Company's cash equivalent and investment activities is to preserve capital and maintain liquidity while generating appropriate returns. The Company's investment policy allows for only high-credit-quality securities. The value and liquidity of these securities are affected by

63

Table of Contents

PDF SOLUTIONS, INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

Years Ended December 31, 2009, 2008 and 2007

3. Investments (Continued)

market interest rates generally, as well as the ability of the issuer to make principal and interest payments when due and the normal functioning of the markets in which these securities are traded.

The Company records net unrealized gains or losses on available-for-sale securities in other comprehensive income (loss), which is a component of stockholders' equity. Refer to Note 13 for further discussion on the Company's investments.

4. Property and Equipment

Property and equipment consist of (in thousands):

	December 31,	
	2009	**2008**
Computer equipment	$ 12,057	$ 12,641
Software	3,719	3,388
Furniture, fixtures, and equipment	1,379	1,438
Vehicles		40
Leasehold improvements	928	829
	18,083	18,336
Accumulated depreciation and amortization	(16,510)	(15,661)
	$ 1,573	$ 2,675

Depreciation and amortization expense for years ended December 31, 2009, 2008 and 2007 was $1.5 million, $2.2 million and $2.6 million, respectively.

Table of Contents

PDF SOLUTIONS, INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

Years Ended December 31, 2009, 2008 and 2007

5. Goodwill and Intangible Assets

The following table provides information relating to the intangible assets contained within the Company's consolidated balance sheet as of December 31, 2009 and the intangible assets and goodwill contained within the Company's consolidated balance sheet as of December 31, 2008 (in thousands):

	Amortization Period (Years)	December 31, 2007 Net Carrying Amount	Acquisitions	Purchase Price Adjustments	Amortization	Foreign Currency Translation	Impairment	December 31, 2008 Net Carrying Amount
Goodwill	N/A	$ 65,170	$ 147	$ (216)	$	$ (1,102)	$ (63,999)	$

	Amortization Period (Years)	December 31, 2009 Gross Carrying Amount	Accumulated Amortization	Foreign Currency Translation	December 31, 2009 Net Carrying Amount
Acquired identifiable intangibles:					
Acquired technology	4-5	$ 11,800	$ (9,630)	$	$ 2,170
Brand name	4	510	(452)		58
Customer relationships and backlog	1-6	3,420	(3,061)		359
Patents and applications	7	1,400	(1,074)		326
Other acquired intangibles	4	287	(258)	12	41
Total		$ 17,417	$ (14,475)	$ 12	$ 2,954

	Amortization Period (Years)	December 31, 2008 Gross Carrying Amount	Accumulated Amortization	Foreign Currency Translation	Impairment	December 31, 2008 Net Carrying Amount
Acquired identifiable intangibles:						
Acquired technology	4-5	$ 11,800	$ (4,772)	$	$ (3,420)	$ 3,608
Brand name	4	510	(277)		(104)	129
Customer relationships and backlog	1-6	3,480	(947)		(2,044)	489
Patents and applications	7	1,400	(317)		(683)	400
Other acquired intangibles	4	287	(181)	(2)		104
Total		$ 17,477	$ (6,494)	$ (2)	$ (6,251)	$ 4,730

Intangible asset amortization expense for the years ended December 31, 2009, 2008 and 2007 was $1.8 million, $3.5 million and $8.6 million, respectively.

During the fourth fiscal quarter of 2008, the Company observed impairment indicators relating to their long-lived assets, including the trading of its common stock below its book value, the anticipated future decline in its operational results, and a further deterioration in the semiconductor industry in which the Company operates, which triggered the necessity of impairment test as of December 31, 2008. As such, the Company assessed the recoverability of its long-lived assets by comparing the carrying value of those intangible assets to the undiscounted cash flows of the asset group. The analysis indicated that the carrying value of those assets exceeded the undiscounted cash flows. As such, the

Company determined that certain of the acquired intangible assets were impaired. The Company measured the amount of impairment by calculating the amount by which the carrying value of the assets exceeded their estimated fair values, which were based on projected discounted future net cash flows. As a result of this impairment analysis, the Company recorded an impairment of $6.3 million during the fourth fiscal quarter of 2008.

Table of Contents

PDF SOLUTIONS, INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

Years Ended December 31, 2009, 2008 and 2007

5. Goodwill and Intangible Assets (Continued)

Goodwill is measured and tested for impairment on an annual basis and more frequently in certain circumstances. Accordingly, the Company has selected December 31 as the date to perform the annual testing requirements. The Company performs a two-step testing on goodwill impairment. The first step requires that the Company compare the estimated fair value of its single reporting unit to the carrying value of the reporting unit's net assets, including goodwill. If the fair value of the reporting unit is greater than the carrying value of its net assets, goodwill is not considered to be impaired and no further testing is required. If the fair value of the reporting unit is less than the carrying value of its net assets, the Company is required to complete the second step of impairment test to determine the fair value of goodwill. Impairment is recorded if the carrying value of the goodwill exceeds its fair value. As of both December 31, 2009 and 2008, the recorded value of goodwill was zero.

As discussed in Note 12, the Company considers itself to be in one operating segment. In addition, the Company has determined that its ope