ANNUAL REPORT

2016

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Dear Fellow Shareholders,

Fiscal 2016 did not achieve expectations. Revenues of $1.181 billion were down five percent from the fiscal 2015 record, and non-GAAP earnings per share of $1.55 were down 12 percent from the fiscal 2015 record of $1.77 per share.

However, there were several positives in the year:

- Non-GAAP operating margins of 20.2 percent - achieving our target;
- Automotive customer bookings increased over 20 percent compared to fiscal 2015;
- A ten percent increase in the quarterly dividend.

Fiscal 2016 - A Challenging Semiconductor Business Environment

Several factors combined to make the past fiscal year especially challenging, particularly in the latter part of the year.

While our Calibre®, Questa®, and Tessent® products continue to be technology and industry leaders, overall demand was adversely impacted in fiscal 2016 by a difficult semiconductor business environment. The semiconductor industry, our largest single market, experienced no growth, declining chip prices and an unprecedented level of industry consolidation. Approximately 80 percent of all of our renewals in fiscal 2016 were semiconductor companies versus system customers. This was an abnormally high percentage for Mentor® and it negatively impacted results. In contrast to our typical growth rate of 20 to 25 percent, overall growth in the annualized run rate of our top ten renewals was only ten percent in fiscal 2016. Top semiconductor customer renewal values were below the ten percent growth level.

Emulation, which has been a growth engine for Mentor in recent years, experienced a decline in bookings and revenues in fiscal 2016. One reason was constrained capital budgets for semiconductor companies, the largest user segment for emulation. Another factor was new competitive product offerings. New products had a delaying effect on our emulation business and resulted in extended evaluation durations. In short, we experienced greater emulation competition in fiscal 2016, particularly at the 350 million gates and below design size.

Looking ahead, the Veloce®2 emulator is a compelling hardware platform with footprint, power consumption, reliability and scaling advantages. In February of 2016 we announced three unique software-based applications to run on the Veloce platform – Veloce Deterministic ICE, Veloce DFT and Veloce FastPath. These new applications improve design debug visibility, accelerate design-for-test verification and increase verification speed on large system-on-chip designs. We expect the combination of our competitive hardware and our strong applications to result in improved emulation results in fiscal 2017.

System customers' demand, which typically accounts for about half of any given year's value of renewals, was healthy, with system customer renewal growth well above our customary 20 to 25 percent contract value growth rate. Nevertheless, in fiscal 2016 only one system company made our top ten revenue transactions list. This is in contrast to fiscal years 2015 and 2014 when several system companies were in the top 10 revenue list. In terms of numbers of companies, system customers, ranging from consumer to industrial, telecom, medical, computer and transportation and other markets are far more pervasive and out-number semiconductor customers by approximately twenty to one at Mentor. The fiscal 2017 renewal portfolio is more consistent with our 50/50 bookings split between system and semiconductor companies.

Transportation

Transportation products and services continue to be a bright spot for Mentor. The adoption of advanced electronic design capabilities in transportation, particularly automotive, continues. For the second year in a row, automotive bookings exceeded 20 percent growth, and, over the past five years, automotive bookings have grown at a 20 percent compound annual growth rate. Transportation accounts have increased to 15 to 20 percent of total bookings for us in recent years. Customers range from developers of mil/aero and aviation platforms, to large truck, off-road and agriculture equipment, rail and, most importantly, automotive. We have grown Mentor's transportation solutions portfolio to be one of the broadest in the technical software market – ranging from printed circuit board design, to wiring harness design and optimization, network design and integration, embedded software, in-vehicle infotainment and increasingly, engineering services.

Automotive growth is being driven by original equipment manufacturers (OEMs) and tier one suppliers who have qualified, often after a lengthy and extensive evaluation, Mentor's transportation design tools, embedded software and design services. In fiscal 2016, eight of the top ten wire harness suppliers generated bookings for Mentor. Three of the top five have standardized on our Capital® wire harness design product. Additionally, General Motors is basing all new platform wire harness designs on Mentor's Capital product. Automotive engineering services bookings grew over 90 percent in fiscal 2016. This is after growing over 75 percent in fiscal 2015. In fiscal 2016 one of the leading European premium automotive OEMs selected Mentor to develop the electronics system architecture for a major car platform that will generate tens of millions of dollars of revenues for us over the next four years.

Mentor's transportation franchise is strong, with the adoption of our technology still in the early stages.

Use of Capital

Mentor's fiscal 2016 cash from operations increased 65 percent to a record $229 million. We continue to use our capital in a balanced and judicious manner. This includes targeted acquisitions, the payment of a quarterly cash dividend and the repurchase of Mentor shares. During fiscal 2016 we repurchased 4.5 million shares at an average price of $18.78 per share. After the end of the fiscal year, on February 25, 2016, Mentor repurchased 8.1 million shares from our then largest shareholder at a price of $18.12 per share. These share repurchases, which meaningfully reduced shares outstanding, were completed using cash on hand. We currently have approximately $90 million available under our existing share repurchase authorization.

Strategic Direction

While the semiconductor industry is likely to grow in low to mid-single digits in the near term, Mentor is well positioned having strategically invested over many years to build the EDA industry's leading position in systems, particularly aerospace and automotive. The systems industry is entering a new phase of electronic design growth as it must address rapidly increasing electronic complexity as well as expanding safety, security, environmental and performance requirements. We believe systems companies will follow a growth path similar to that of the semiconductor industry when it adopted electronic design automation to cope with growing integrated circuit complexity over the past three decades. Our strong position with both semiconductor and system capabilities positions Mentor uniquely in technical software to capitalize on the emerging growth needs for electronic design tools and services in the systems marketplace.

We wish to thank our employees who have driven the success of Mentor Graphics, our customers for their confidence in our products and services, and our fellow shareholders. We look forward to growth and shareholder value creation in fiscal year 2017.

<table>
<tr><td>Gregory K. Hinckley

President</td><td>Walden C. Rhines

Chairman and CEO</td></tr>
</table>

For a reconciliation of GAAP to non-GAAP figures presented in this letter, see supplemental financial information following the 10-K.

This letter contains forward looking statements. For a summary of risk factors associated with the Company see Item 1A – Risk Factors in the 10-K.

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UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM 10-K

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

For the fiscal year ended January 31, 2016

Commission file number 1 – 34795

MENTOR GRAPHICS CORPORATION

(Exact name of registrant as specified in its charter)

Oregon	**93-0786033**
(State or other jurisdiction of incorporation or organization)	(IRS Employer Identification No.)
8005 SW Boeckman Road	**97070-7777**
Wilsonville, Oregon	(Zip Code)
(Address of principal executive offices)	

Registrant's telephone number, including area code (503) 685-7000

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

Title of each class	Name of each exchange on which registered
Common Stock, without par value	NASDAQ Global Select Market

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 ☒ No ☐

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 ☐ No ☒

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 Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes ☒ No ☐

Indicate by check mark whether the registrant 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 during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). Yes ☒ No ☐

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 in any amendment to this Form 10-K. ☒

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 ☒ Accelerated Filer ☐ Non-accelerated filer ☐ (Do not check if a smaller reporting company) Smaller reporting company ☐

Indicate by check mark whether the Registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes ☐ No ☒

The aggregate market value of the voting stock held by non-affiliates of the registrant was approximately $3,041,069,523 on July 31, 2015 based upon the last price of the Common Stock on that date reported in The NASDAQ Global Select Market. On March 16, 2016, there were 106,930,507 shares of the registrant's Common Stock outstanding.

DOCUMENTS INCORPORATED BY REFERENCE

Document	Part of Form 10-K into which incorporated
Portions of the 2016 Proxy Statement	Part III

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Item 1. Business.

This Form 10-K contains forward-looking statements that involve risks and uncertainties. Actual results may differ materially from the forward-looking statements. Factors that could cause or contribute to such differences include, but are not limited to, those set forth under Part I, Item 1A. "Risk Factors."

GENERAL

Mentor Graphics Corporation is a technology leader in electronic design automation (EDA). We provide software and hardware design solutions, as well as complementary consulting and customer support services, that enable our customers to develop better electronic products faster and more cost effectively. We market our products and services worldwide, primarily to large companies in the communications, computer, consumer electronics, semiconductor, networking, multimedia, military and aerospace, and transportation industries.

The electronic components and systems that our customers create and test with our products include integrated circuits (ICs), printed circuit boards (PCBs), field programmable gate arrays (FPGAs), embedded systems and software, and wire harness systems. Our products are used in the design and development of a diverse set of electronic products, including transportation electronics, internet of things (IoT) platforms and systems, computers, medical devices, industrial electronics, manufacturing systems, and wireless communications infrastructure. As silicon manufacturing process geometries shrink, our customers are creating entire electronic systems on a single IC. These devices are called a system-on-chip (SoC). This trend has become relevant to the everyday consumer as consumer electronics have become smaller, more portable and more sophisticated.

We were incorporated in Oregon in 1981, and our common stock is traded on The NASDAQ Global Select Market under the symbol "MENT." Our corporate headquarters are located at 8005 S.W. Boeckman Road, Wilsonville, Oregon 97070-7777. The telephone number at that address is (503) 685-7000. Our website address is www.mentor.com. We have approximately 85 offices worldwide. Electronic copies of our reports filed with the Securities and Exchange Commission (SEC) are available through our website as soon as reasonably practicable after the reports are filed with the SEC. Our Director Code of Ethics, Standards of Business Conduct, Guidelines for Corporate Disclosure, Corporate Governance Guidelines, and our Audit, Compensation, and Nominating and Corporate Governance Committee Charters are also posted on our website.

PRODUCTS

Our products enable engineers to overcome increasingly complex electronic design challenges by improving the accuracy of complex designs and shrinking product time-to-market schedules. A hardware design process is typically as follows:

- Electrical engineers begin the design process by describing and specifying the architectural, behavioral, functional, and structural characteristics of an IC, FPGA, PCB, or electronic system and its components.
- Engineers then create the component designs according to stated specifications.
- Engineers verify the design to reveal defects and then modify the component's design until it is correct and meets the previously stated specifications.
- Engineers assemble components and test the components and the entire system.
- The system then goes to production. During the manufacturing process, engineers work to identify defective parts and improve yields. "Yields" refers to the percentage of functional ICs on a silicon wafer or functional PCBs compared to the total of those manufactured.

We segregate revenues into five categories of similar products and services including: Scalable Verification, IC Design to Silicon, Integrated System Design, New and Emerging Products, and Services and Other. Each category, except Services and Other, includes both product and support revenues. Additional information is provided in Part II, Item 7. "Management's Discussion and Analysis of Financial Condition and Results of Operations."

We have a worldwide support organization to meet our customers' needs for technical support, training, and optimization services. Most of our customers enter into support contracts that deliver regular software updates with the latest improvements, technical assistance from experienced experts, access to a self-service support site, and participation in our interactive communities.

Scalable Verification

The Mentor Graphics® Scalable Verification™ tools allow engineers to verify that their complex IC and FPGA designs function as intended by simulating and debugging the design. Functional errors are a leading cause of design revisions that slow down an electronic system's time-to-market and reduce its profitability.

The Questa® scalable verification platform includes support for hardware description languages, including System Verilog, simulation, and new methodologies including assertions, use of verification intellectual property (IP), test benches, and formal verification methods. The Questa platform is used for verification of systems and ICs including application-specific integrated circuits (ASICs), SoCs, and FPGAs.

Along with digital simulation products, we offer analog/mixed-signal simulation tools. Analog/mixed signal ICs are found in virtually all electronic products today, from mobile phones to smart TVs, from hybrid electric cars to fitness bands. Our analog/mixed-signal simulation tools enable our customers to simulate and verify both the functionality and performance of complex circuits before mass production. Our Analog FastSPICE™ platform includes nanometer (nm, by definition one-billionth of a meter) circuit simulation, an analog characterization environment and device noise analysis. Other analog/mixed signal simulation products we offer include the Eldo® and ADVance MS for classical analog/mixed-signal design.

We provide hardware emulation systems, such as our Veloce® product family, which allow users to create high-performance functional and logical equivalent models of actual electronic circuits to verify the function and timing of those circuits. Hardware emulation systems typically run complex electronic circuits 100 times to 1,000 times faster than software simulation tools. Emulation is also used when software operating systems are embedded within circuits and there is a need for hardware/software verification and debugging. Our Veloce product allows customers to verify complex designs containing up to two billion logic gates.

IC Design to Silicon

Shrinking geometries in ICs in the nanometer era and increasing design sizes have enabled ever increasing functionality on a single IC. Today's most advanced ICs are being produced in a 16 nm process with ongoing test chips produced at 10 nm and below. Nanometer process geometries cause design challenges in the creation of ICs which are not present at larger geometries. As a result, nanometer process technologies, used to deliver the majority of today's ICs, are the product of careful design and precision manufacturing. The increasing complexity and smaller size geometries within ICs have changed how those responsible for the physical layout of an IC design deliver their design to the IC manufacturer or foundry. In older technologies, this handoff was a relatively simple layout database check when the design went to manufacturing. Now it is a multi-step process where the layout database is checked and modified so the design can be manufactured with cost-effective yields of ICs.

To address these challenges, we offer the Calibre® tool family, which is the standard for most of the world's largest integrated device manufacturers and foundries:

- The Calibre physical verification tool suite, Calibre® DRC and Calibre® LVS-H™, helps ensure that a particular IC layout accurately corresponds to the original schematic or circuit diagram of the design and conforms to stringent manufacturing rules at wafer fabricators where ICs are manufactured.
- The Calibre® xRC™ and xACT™ products, transistor-level extraction and device modeling tools, compute the values of detailed circuit parameters including interconnect resistances, capacitances, and inductances to enable customers to more accurately simulate the performance of a design before it is manufactured.
- The Calibre Resolution Enhancement Technology (RET) tools allow wafer foundries to manipulate the light used to create ICs to make structures on the IC that are finer than would be possible with conventional exposures. The Calibre family of optical proximity correction (OPC), RET, and mask data preparation tools enable higher yields in semiconductor manufacturing. The Calibre® OPCverify™ tool is used to check and report the effectiveness of mask pattern corrections against wafer manufacturing specifications. The Calibre® RET tools continue to be extended to provide computational patterning capabilities for process technology nodes from 130 nm to 7 nm.
- In the Design For Manufacturing (DFM) area, the Calibre® LFD™ product can help customers produce higher yields at nanometer process geometries where variations in manufacturing can cause yield reductions. The Calibre® CMPAnalyzer tool allows customers to model the expected planarity (i.e., thickness variation) of ICs and identify where modifications to the layout will improve a chip's flatness. This helps prevent manufacturing defects and reduces variations in performance from one chip to the next. The Calibre® MPCpro™ product is a solution for systematic errors introduced by e-beam lithography and mask etching processes built on Calibre® OPCpro™ technology for optical process correction. Our Calibre® nmMPC™ product provides optimizations specifically developed for e-beam mask writers. New correction and modeling capabilities improve mask linearity and uniformity for advanced nodes, especially for smaller feature sizes.
- The Calibre® PERC™ tool checks the electrical design of an IC. It is used in verifying the completeness of electrostatic discharge protection circuitry which affects both manufacturing yield and the long-term reliability of an IC.

Our Tessent® suite of integrated silicon test products are used to test a design's logic and memories after manufacturing to ensure that a manufactured IC is functioning correctly. Our suite of tools includes scan insertion, boundary scan, automatic test pattern generation, logic and memory built-in self-test, and our patented Tessent® TestKompress® product for EDT™ (Embedded Deterministic Test). A suite of test analysis products is also available that leverages test data and layout-aware diagnosis capabilities for silicon debug and yield analysis.

For customers designing ICs at advanced nodes, we offer the Olympus-SoC™ place and route product. The Olympus-SoC system comprehensively addresses the performance, capacity, time-to-market, power, and variability challenges encountered at the leading-edge process geometries. The Olympus-SoC place and route solution is a physical design implementation tool which performs design planning, placement, physical synthesis, clock tree synthesis, routing, power optimization, and manufacturability closure. The Olympus-SoC tool is architected to handle the complex multi-patterning and FinFET requirements at advanced process technologies. The Calibre® InRoute™ design and verification platform enables designers to increase their productivity by invoking Calibre tools within the Olympus-SoC place and route environment.

We also offer the Oasys-RTL™ synthesis tool to include register-transfer level (RTL) synthesis in our digital implementation flow. The Oasys-RTL solution helps SoC and ASIC design teams to realize improved quality of results and faster turnaround time for complex SoCs, ASICs, and IP blocks. The Oasys-RTL tool's "placement first" synthesis methodology and integrated RTL floorplanning capability enable physical backend issues to be analyzed and addressed at RTL stages before hand-off to back-end groups for physical design implementation.

In fiscal year 2016 we acquired the Tanner EDA tool suite, which facilitates the design, layout, and verification of analog/mixed signal and MEMS (micro-electro-mechanical systems).

Integrated System Design

As ICs grow in complexity and function and PCB fabrication technology advances to include embedded components and high-density interconnect layers within the PCB, the design of PCBs is becoming increasingly complex. This complexity can be a source of design bottlenecks and slower time to market.

Our PCB-FPGA Systems Design software products support the PCB design process from schematic entry, where the electronic circuit is defined by engineers, through physical layout of the PCB, and provide digital output data for manufacturing, assembly, and test. Most types of designs, including analog, radio frequency, and high-speed digital and mixed signal, are supported by our PCB design tools. We have specific integrated software tool flows for process management, component library creation, signal and power integrity analysis, simulation, and verification of the PCB design:

- The Xpedition® Series product line is our principal PCB design family of products and is used by larger enterprise customers for PCB design flows from system design definition to manufacturing execution.
- Our HyperLynx® product line offers a complete suite of analysis and verification software that meets the needs of PCB engineers at every point in the PCB design flow including tools for power integrity, thermal analysis, electromagnetic design/verification, analog simulation, and package modeling.
- We also offer the “ready to use” PADS® product line which provides a lower cost Windows-based PCB design and layout solution for individual design engineers and small teams.
- The XtremePCB™ tool offers a method for simultaneous design where multiple designers can edit the same design at the same time and view each other’s edits in real-time.

Our Valor® Division offers a line of products for DFM and manufacturing execution systems. Valor’s solutions target three key segments in the PCB manufacturing market: design of the physical layout of the PCB, fabrication of the bare PCB, and assembly of PCB components.

Our Mechanical Analysis Division provides simulation software and consultancy services to reduce costs, eliminate design mistakes, and accelerate and optimize designs involving heat transfer and fluid flow before physical prototypes are built. Our FloEFD™ product is a three-dimensional computational fluid dynamics and heat transfer analysis tool that is embedded into mechanical computer-aided design systems to help design engineers conduct computational fluid dynamics analysis throughout the product’s life cycle. Our FloTHERM® three-dimensional computational fluid dynamics software predicts airflow and heat transfer in and around electronic equipment, including effects of conduction, convection, and radiation to enable engineers to create virtual models of electronic equipment, perform thermal analysis, and test design modifications before physical prototypes are built. This product line also includes the Flowmaster® one-dimensional computational fluid dynamics analysis software, which is used by thermo-fluid system engineers to model and analyze the fluid mechanics and pipe flow in complex systems. Finally, we offer the MicReD® T3Ster® advanced transient temperature measurement system, which enables thermal testing and characterization of electronics components, PCBs, and sub-systems, and the MicReD® Power Tester™ 1500A, which tests the reliability of electronic power components increasingly used in industries such as automotive and transportation, including hybrid and electrical vehicles and trains, and renewable energy applications such as wind turbines.

New and Emerging Products

We provide specialized software tools for the design, analysis, and documentation of the complex electrical systems found in automotive, aerospace, and other transportation platforms. Electronic features constitute an increasingly high proportion of the value of automobiles and airplanes. These tools also support the design, costing, and manufacturing process modeling of wire harnesses.

Our Embedded Systems Division provides runtime software, customizable reference hardware, design tools, and professional engineering services that enable our customers to build secure embedded systems utilizing heterogeneous multi-core and multi-operating system platforms. Our embedded software solutions are used in automotive, industrial, mobile, medical, aerospace, IoT and consumer electronics markets. Our automotive solutions are used in advanced driver assistance systems, telematics, automotive networking, and driver information, where we supply commercial Linux platforms for in-vehicle-infotainment.

Services and Other

Mentor Consulting, our professional services division, is comprised of a worldwide team of consulting professionals. We provide services such as business process design, methodology development, enterprise integration, and large scale deployment. These services accelerate the deployment and adoption of Mentor Graphics’ technologies to help our customers improve their cost, quality, and time to market. The services provided to customers are concentrated around our Calibre, Questa, Veloce, Tessent, Xpedition, and system design products.

PLATFORMS

Our software products are available on UNIX, Windows, and LINUX platforms in a broad range of price and performance levels. Customers purchase platforms from leading workstation and personal computer suppliers.

MARKETING AND CUSTOMERS

Our sales and marketing emphasizes large corporate account penetration in the communications, computer, consumer electronics, semiconductor, networking, multimedia, military and aerospace, and transportation industries. We license our products worldwide through our direct sales force, distributors, and sales representatives. Revenues outside of North America accounted for 57% of total revenues for fiscal year 2016, 55% for fiscal year 2015, and 56% for fiscal year 2014. We enter into foreign currency exchange contracts in an effort to mitigate the impact of foreign currency fluctuations. See “Geographic Revenues Information” in Part II, Item 7. “Management’s Discussion and Analysis of Financial Condition and Results of Operations” and the footnotes to our financial statements included in Part II, Item 8. “Financial Statements and Supplementary Data” for more information.

We are not dependent on any single customer and no single customer accounted for more than 10% of our consolidated net revenue during any of the last three fiscal years. We have traditionally experienced some seasonal fluctuations of orders, with orders typically stronger in the fourth quarter of each year. Due to the complexity of our products, the selling cycle can be six months or longer. During the selling cycle our account managers, application engineers, and technical specialists make technical presentations and product demonstrations to the customer. At some point during the selling cycle, our products may also be loaned to customers for on-site evaluation. We primarily ship our software products to customers electronically, and all software products are generally shipped within 180 days after receipt of an order and a substantial portion of quarterly shipments tend to be made in the last month of each quarter. We license our products and some third-party products pursuant to end-user license agreements.

BACKLOG

Our backlog of firm orders was approximately $109 million as of January 31, 2016 compared to $142 million as of January 31, 2015. This backlog includes software products and emulation hardware systems requested for delivery within six months, and professional services and training requested for delivery within one year. We do not track backlog for support services. The January 31, 2016 backlog of orders is expected to be delivered before the end of our fiscal year ending January 31, 2017.

MANUFACTURING OPERATIONS

Our software manufacturing operations primarily consist of reproduction of our technical software, printing of documentation, and assembly. Mentor Graphics (Ireland) Limited, our wholly owned subsidiary, either manufactures or contracts with third-parties to manufacture our products and distributes these tangible products worldwide through our established sales channels. Our line of emulation products, which has a large hardware component, is manufactured principally in the United States (U.S.) on an outsourced basis. See the discussion in Note 19. “Segment Reporting” in Part II, Item 8. “Financial Statements and Supplementary Data” for further detail of the location of property, plant, and equipment.

PRODUCT DEVELOPMENT

Our research and development is focused on continued improvement of our existing products and the development of new products. During the years ended January 31, 2016 and January 31, 2015 we expensed $381 million related to product research and development compared to $349 million for fiscal year 2014. We also seek to expand existing product offerings and pursue new lines of business through acquisitions. During the years ended January 31, 2016 and January 31, 2015 we amortized purchased technology of $7 million compared to $4 million for fiscal year 2014. Our future success depends on our ability to develop or acquire competitive new products that satisfy customer requirements.

COMPETITION

The markets for our products are characterized by price competition, rapid technological advances in application software, and new market entrants. The EDA industry tends to be labor intensive rather than capital intensive. This means that the number of actual and potential competitors is significant. While our two principal competitors are large companies with extensive capital and marketing resources, we also compete with small companies with little capital but innovative ideas. Our principal competitors are Cadence Design Systems, Inc. (Cadence) and Synopsys, Inc. (Synopsys).

We believe the main competitive factors affecting our business are breadth and quality of application software and hardware, product integration, ability to respond to technological change, quality of a company’s sales force, price, size of the installed base, level of customer support, and professional services. We can give no assurance, however, that we will have financial resources, marketing, distribution and service capability, depth of key personnel, or technological knowledge to compete successfully in our markets.

EMPLOYEES

We employed approximately 5,700 people full time as of January 31, 2016. Our future success will depend in part on our ability to attract and retain employees. None of our U.S. employees are covered by collective bargaining agreements. Employees in some jurisdictions outside the U.S. are represented by local or national union organizations. We continue to have satisfactory employee relations.

PATENTS AND LICENSES

We regard our products as proprietary and protect our rights in our products and technology in a variety of ways. We currently hold approximately 1,200 patents on inventions embodied in our products or that are otherwise relevant to EDA technology. In addition, we have approximately 260 patent applications pending in the U.S. and abroad. While we believe the patent applications relate to patentable technology, we cannot predict whether any patent will issue on a pending application, nor can we assure that any patent can be successfully defended.

We also rely on contractual and technical safeguards to protect our proprietary rights in our products. We typically include restrictions on disclosure, use, and transferability in our license agreements with customers and other parties. In addition, we use our trademark, copyright, and trade secret rights to protect our interests in our products and technology.

Some of our products include software or other IP licensed from other parties. We also license software from other parties for internal use. We may have to seek new licenses or renew these licenses in the future.

EXECUTIVE OFFICERS OF THE REGISTRANT

The following are the executive officers of Mentor Graphics Corporation:

Name	Position	Age
Walden C. Rhines	Chairman of the Board and Chief Executive Officer	69
Gregory K. Hinckley	President, Chief Financial Officer, and Director	69
Michael Ellow	Senior Vice President, World Trade	52
Brian Derrick	Vice President, Corporate Marketing	52
Richard P. Trebing	Vice President, Finance and Chief Accounting Officer	60
Dean Freed	Vice President, General Counsel, and Secretary	57

The executive officers are elected by our Board of Directors annually. Officers hold their positions until they resign, are terminated, or their successors are elected. There are no arrangements or understandings between the officers or any other person pursuant to which officers were elected. There are no family relationships among any of our executive officers or directors.

Dr. Rhines has served as our Chairman of the Board and Chief Executive Officer since 2000. Dr. Rhines served as our Director, President, and Chief Executive Officer from 1993 to 2000. Dr. Rhines is currently a director of Qorvo, Inc., a semiconductor manufacturer, and GlobalLogic Inc., a privately held software development services company.

Mr. Hinckley has served as our President, Chief Operating Officer, and Director since 2000. Mr. Hinckley has served as our Chief Financial Officer since 2008. His primary responsibilities include the operations aspect of our corporate centers, sales, and research and development divisions. Mr. Hinckley is a director of SI Bone, Inc., a privately held medical device company. Mr. Hinckley served as a director of Super Micro Computer, Inc., a server board, chassis, and server systems supplier from 2009 to 2015 and as a director of Intermec, Inc., a provider of integrated systems solutions from 2004 to 2013.

Mr. Ellow joined Mentor Graphics in March 2014 with our acquisition of Berkeley Design Automation, where he had been Vice President of Global Sales since September 2011. He was promoted to the position of Senior Vice President, World Trade, in August 2014. From 1997 to 2010 he held various management positions at Cadence Design Systems overseeing sales in North America, Europe and India, including the position of Corporate Vice President, North American Sales.

Mr. Derrick has served as our Vice President, Corporate Marketing since 2002. From 2000 to 2001, he was Vice President and General Manager of our Physical Verification Division.

Mr. Trebing was promoted to the position of Vice President of Finance in September 2015 and has served as our Chief Accounting Officer since December 2011. He previously served as our Corporate Controller from 2011 to 2015 and Director of Finance for Operations from 1999 to 2011.

Mr. Freed has served as our Vice President, General Counsel, and Secretary since 1995.

Item 1A. Risk Factors.

The forward-looking statements contained under "Outlook for Fiscal Year 2017" in Part II, Item 7., "Management's Discussion and Analysis of Financial Condition and Results of Operations" and all other statements contained in this report that are not statements of historical fact including without limitation statements containing the words "believes," "expects," "projections," and words of similar meaning, constitute forward-looking statements that involve a number of risks and uncertainties that are difficult to predict. Moreover, from time to time, we may issue other forward-looking statements. Forward-looking statements regarding financial performance in future periods, including the statements under "Outlook for Fiscal Year 2017", do not reflect potential impacts of mergers or acquisitions or other significant transactions or events that have not been announced as of the time the statements are made. Actual outcomes and results may differ materially from what is expressed or forecast in forward-looking statements. We disclaim any obligation to update forward-looking statements to reflect future events or revised expectations. Our business faces many risks, and set forth below are some of the factors that could cause actual results to differ materially from the results expressed or implied by our forward-looking statements. Forward-looking statements should be considered in light of these factors.

Weakness in the United States and international economies may harm our business.

Our revenue levels are generally dependent on the level of technology capital spending, which includes worldwide expenditures for electronic design automation (EDA) software, hardware, and consulting services. Periods of economic uncertainty arising out of concerns such as weakness in the European Union relating to debt issues or political instability, slowing growth in China, and the continuing weakness of the Japanese economy can adversely affect our customers. In addition, an unusual consolidation is occurring in the semiconductor industry worldwide. As a result, customers may postpone decisions to license or purchase our products, reduce their spending, or be less able or willing to make payment obligations, any of which could adversely affect our business. In addition, significant customer payment defaults or bankruptcies could materially harm our business.

We are subject to the cyclical nature of the integrated circuit and electronics systems industries.

Purchases of our products and services are highly dependent upon new design projects initiated by customers in the integrated circuit (IC) and electronics systems industries. These industries are highly cyclical and are subject to constant and rapid technological change, rapid product obsolescence, price erosion, evolving standards, short product life cycles, and wide fluctuations in product supply and demand. The increasing complexity of ICs and resulting increase in costs to design and manufacture ICs have in recent years led to fewer design starts, which could reduce demand for our products. In addition, the IC and electronics systems industries regularly experience significant downturns, often connected with, or in anticipation of, maturing product cycles within such companies or a decline in general economic conditions. These downturns could cause diminished demand for our products and services.

Our business could be negatively impacted as a result of merger and acquisition activity by our customers.

Like many industries, the semiconductor and electronics industries are subject to mergers, acquisitions and divestitures, and our customers or parts of their business may acquire or be acquired by other customers. Merger and acquisition activity in the semiconductor industry was unusually strong during 2015. This activity appears to be the result of semiconductor companies, experiencing slower sales in their existing market segments, desiring to broaden the scope of their businesses and to spread the rising costs of product development and use of advanced technologies across a larger organization. Increasing consolidation could result in fewer customers in these industries or the loss of some customers to competitors, or reduced customer spending on software and services due to redundancies or stronger customer negotiating power, which could have an adverse effect on our business and future revenues.

Our forecasts of our revenues and earnings outlook may be inaccurate.

Our revenues, particularly new hardware and software license revenues, are difficult to forecast. We use a "pipeline" system, a common industry practice, to forecast revenues and trends in our business. Sales personnel monitor the status of potential business and estimate when a customer will make a purchase decision, the dollar amount of the sale, and the products or services to be sold. These estimates are aggregated periodically to generate a sales pipeline. Our pipeline estimates may prove to be unreliable either in a particular quarter or over a longer period of time, in part because the "conversion rate" of the pipeline into contracts can be very difficult to estimate and requires management judgment. A variation in the conversion rate could cause us to plan or budget incorrectly and materially adversely impact our business or our planned results of operations. In particular, a slowdown in customer spending or weak economic conditions generally can reduce the conversion rate in a particular quarter as purchasing decisions are delayed, reduced in amount, or canceled. The conversion rate can also be affected by the tendency of some of our customers to postpone negotiating the terms of a transaction until the end of a fiscal quarter anticipating they will obtain more favorable terms. This may result in failure to agree to terms within the fiscal quarter and cause expected revenue to slip into a subsequent quarter.

Our business could be impacted by fluctuations in quarterly results of operations due to customer seasonal purchasing patterns, the timing of significant orders, and the mix of licenses, products, and services purchased by our customers.

We have experienced, and may continue to experience, varied quarterly operating results. Various factors affect our quarterly operating results and some of these are not within our control, including customer demand and the timing of significant orders. We typically experience seasonality in demand for our products due to the purchasing cycles of our customers, with revenues in the fourth quarter generally being the highest. If planned contract renewals are delayed or the average size of renewed contracts is smaller than we anticipate, we could fail to meet our own and investors' expectations, which could have a material adverse impact on our stock price.

Our revenues are also affected by the mix of transaction types in which we recognize revenues in different ways as required by accounting rules: as payments become due and payable, on a cash basis, ratably over the license term, or at the beginning of the license term. A shift in the license mix toward increased ratable, due and payable, and/or cash-based revenue recognition could result in increased deferral of revenues to future periods and would decrease current revenues, which could result in us not meeting near-term revenue expectations.

The gross margin on our software is greater than that for our emulation hardware systems, software support, and professional services. Therefore, our gross margin may vary as a result of the mix of products and services sold. We also have a significant amount of fixed or relatively fixed costs, such as employee costs and purchased technology amortization, and costs which are committed in advance and can only be adjusted periodically. As a result, a small failure to reach planned revenues would likely have a relatively large negative effect on resulting earnings. If anticipated revenues do not materialize as expected, our gross margin and operating results could be materially adversely impacted.

We face intense price competition in the EDA industry.

Price competition in the EDA industry is intense, which can lead to, among other things, price reductions, longer selling cycles, lower product margins, loss of market share, and additional working capital requirements. If our competitors offer significant discounts on certain products, we may need to lower our prices or offer other favorable terms to compete successfully. Any such changes would likely reduce margins and could materially adversely impact our operating results. Any broad-based changes to our prices and pricing policies could cause new license and service revenues to decline or be delayed as the sales force implements and our customers adjust to the new pricing policies. Some of our competitors may bundle certain software or hardware products with other more desirable products at low prices or no marginal cost for promotional purposes as a long-term pricing strategy, or engage in predatory pricing. These practices could significantly reduce demand for our products or limit our pricing.

We currently compete primarily with two large companies: Synopsys, Inc. (Synopsys) and Cadence Design Systems, Inc. (Cadence). We also compete with smaller companies with focused product portfolios and manufacturers of electronic devices and semiconductor equipment that have acquired or internally developed their own EDA products.

Our hardware emulation products are complex, and if we cannot successfully manage this complexity, the results of our emulation business may be adversely affected.

Designing, developing, and introducing new emulation products is a complicated process. The development process for our emulation products requires a high level of innovation. After the development phase, we must be able to forecast customer demand and manufacture next generation products in sufficient volumes to meet this demand and do so in a cost effective manner. Our manufacturing model, in which our emulation products generally are not built until after customer orders have been forecast, may from time to time experience delays in delivering products to customers in a timely manner. These delays could cause our customers to purchase emulation products from our competitors. Customers may also delay purchases of existing products in anticipation of our next generation product releases or those of our competitors. We may be unable to minimize this impact by anticipating and managing the addition of, and transition to, new generations of emulation hardware. Conversely, if we manufacture emulation products in anticipation of future sales which do not timely occur, we may hold excess inventory with associated risks of product obsolescence.

We may experience difficulty in manufacturing our emulation hardware.

We currently use one manufacturer to assemble our hardware emulation products and purchase some components from a single supplier. We may be exposed to delays in production and delivery of our emulation products due to delays in receiving components or manufacturing constraints; components rejected that do not meet our standards; components with latent defects; low yields of ICs, subassemblies, or printed circuit boards (PCBs); or other delays in the manufacturing process. For single source parts we purchase for our emulation products, there can be no assurance that if a supplier cannot deliver, a second source can be found on a timely basis. Our reliance on sole suppliers may also result in reduced control over product pricing and quality. Natural disasters such as weather or earthquakes may adversely affect the supply of components, sub-assemblies or shipment of final products.

We may have to replace emulation components under warranty or under support contracts.

Our emulation hardware products are complex and despite pre-shipment testing, some defects may only appear after the products are put into use under operating conditions, including longer-term, continuous use at high capacities. As a result, customers may experience failures requiring us to replace components under warranty or as part of our customer support obligations, thus increasing our costs and reducing availability of components for other sales.

Foreign currency fluctuations may have an adverse impact on our operating results.

We typically generate more than half of our revenues from customers outside the United States (U.S.) and we generate approximately 35% of our expenses outside the U.S. While most of our international sales are denominated in U.S. dollars, our international operating expenses are typically denominated in foreign currencies. Significant changes in currency exchange rates, particularly in the Japanese yen and the euro, could have an adverse impact on our operating results.

Our international operations involve risks that could increase our expenses, adversely affect our operating results, and require increased time and attention of our management.

Our international operations subject us to risks in addition to those we face in our domestic operations, including longer receivable collection periods; issues relating to complying with complex customs regulations and paying customs duties and value added taxes; changes in a specific country's or region's economic or political conditions; trade protection measures; trade sanctions, such as those imposed on Russia by the U.S. and the European Union; local labor laws; import or export licensing requirements; anti-corruption, anti-bribery, and other similar laws; loss or modification of exemptions for taxes and tariffs; limitations on repatriation of earnings; and difficulties with licensing and protecting our intellectual property (IP) rights. If we violate laws related to our business, we could be subject to penalties, fines, or other sanctions and could be prohibited or restricted from doing business in one or more countries.

Integrated circuit and printed circuit board technology evolves rapidly.

The complexity of ICs, PCBs, and electrical systems continues to rapidly increase. In response to this increasing complexity, new design tools and methodologies must be invented or acquired quickly to remain competitive. If we fail to quickly respond to new technological developments, our products could become obsolete or uncompetitive, which could materially adversely impact our business.

Errors or defects in our products and services could expose us to liability.

Our customers use our products and services in designing and developing products that involve a high degree of technological complexity and have unique specifications. Due to the complexity of the systems and products with which we work, some of our products can be adequately tested only when put to full use in the marketplace. As a result, our customers or their end users may discover errors or defects in our software, or the products or systems designed with or manufactured using our software may not operate as expected. Errors or defects could result in:

- Loss of current customers and market share, and loss of or delay in revenue;
- Failure to attract new customers or achieve market acceptance;
- Diversion of development resources to resolve problems resulting from errors or defects;
- Disputes with customers relating to such errors or defects, which could result in litigation or other concessions; and
- Increased support or service costs.

In addition, we include limited amounts of third-party technology in our products and we rely on those third parties to provide support services to us. Failure of those third parties to provide necessary support services could materially adversely impact our business.

Long sales cycles and delay in customer completion of projects make the timing of our revenues difficult to predict.

We have a long sales cycle. A lengthy customer evaluation and approval process is generally required due to the complexity and expense associated with our products and services. Consequently, we may incur substantial expenses and devote significant management effort and expense to develop potential relationships that do not result in agreements or revenues and may prevent us from pursuing other opportunities. Purchases of our products and services are sometimes discretionary and may be delayed if customers postpone approval or commencement of projects due to budgetary constraints, internal acceptance review procedures, timing of budget cycles, or timing of competitive evaluation processes. Long sales cycles for our hardware products may subject us to risks over which we have limited control, including insufficient, excess, or obsolete inventory, variations in inventory valuation, and fluctuations in quarterly operating results.

Any loss of our leadership position in certain categories of the EDA market could harm our business.

The industry in which we compete is characterized by very strong leadership positions in specific categories of the EDA market. For example, one company may have a large percentage of sales in the physical verification category of the market while another may have a similarly strong position in mixed-signal simulation. These strong leadership positions can be maintained for significant periods of time as the software is difficult to master and customers are disinclined to make changes once their employees, as well as others in the industry, have developed familiarity with a particular software product. For these reasons, much of our profitability arises from niche areas in which we are the leader. Conversely, it is difficult for us to achieve significant profits in niche areas where other companies are the leaders. If for any reason we lose our leadership position in an important niche, our business could be materially adversely impacted.

Conflict minerals regulations may adversely impact our ability to conduct our business.

The Securities and Exchange Commission (SEC) has adopted disclosure rules for companies that use conflict minerals (commonly referred to as tantalum, tin, tungsten, and gold) in their products, with substantial supply chain verification requirements if the materials come from, or could have come from, the Democratic Republic of the Congo or adjoining countries. Implementing these requirements could affect the sourcing, availability, and pricing of materials used in our hardware products as well as the companies we use to manufacture our products and their components. As a result, there may only be a limited pool of suppliers who provide conflict-free metals, and we cannot provide assurance that we will be able to obtain products in sufficient quantities or at competitive prices. The costs of complying with these laws could adversely affect our current or future business.

Pre-announcing products may adversely impact current sales.

We or our competitors sometimes pre-announce or provide “road maps” of the expected availability of new hardware or software products or product features. Such pre-announcements, whether offered by the pre-announcing company or its competitors, can result in customers canceling or deferring orders for currently offered products anticipating that currently offered products may be uncompetitive or lacking in features or performance. We believe the expected release of a competitor’s emulation product in 2015 may have resulted in the deferral of orders for our emulation products. In the case of hardware products, slowing sales may cause inventories to increase or become obsolete, resulting in the need to discount or reduce production of current products.

We derive a substantial portion of our revenues from relatively few product groups.

We derive a substantial portion of our revenues from sales of relatively few product groups and related support services. As a result, any factor adversely affecting sales of these products, including product release cycles, market acceptance, product competition, performance and reliability, reputation, price competition, and economic and market conditions, could harm our operating results.

Accounting rules governing revenue recognition are complex and periodically change.

The accounting rules governing revenue recognition are complex and are revised periodically. In May 2014, the Financial Accounting Standards Board (FASB) issued Accounting Standards Update (ASU) No. 2014-09, *Revenue from Contracts with Customers (Topic 606),* which supersedes nearly all existing revenue recognition guidance under U.S. generally accepted accounting principles (GAAP). This rule is based on the principle that the amount of revenue recognized should reflect the consideration an entity expects to receive for goods and services provided to customers. The rule defines a five step process for revenue recognition, making it possible for more judgment and estimation within the revenue recognition process than is required under existing U.S. GAAP. Currently, we will be required to implement this guidance in the first quarter of fiscal year 2019. The standard permits the use of either a retrospective or cumulative effect transition method. We have not yet selected a transition method, nor have we determined the effect of the standard on our ongoing financial reporting. Implementation of this new standard could have a significant effect on our reported financial results.

We may have additional tax liabilities.

Significant judgments and estimates are required in determining the provision for income taxes including the determination of research and development incentives and other credits and other tax liabilities worldwide. Our tax expense may be impacted if our intercompany transactions, which are required to be computed on an arm’s-length basis, are successfully challenged by tax authorities. The application of transfer pricing involves subjectivity, with a variety of application between countries. Transfer pricing disputes are especially common in certain countries, and on specific types of transactions such as business and IP transfers and management fees, and are increasingly resulting in litigation. Additionally, our tax expense could be impacted if a tax authority successfully asserted that we, or one of our subsidiaries, has a taxable presence in a country where a member of our group is not currently filing. Increasingly, tax authorities are asserting that foreign companies have unreported taxable presences, and various authorities are either evaluating or adjusting their laws and practices to lower the threshold for a taxable presence in conjunction with the Organisation for Economic Co-operation and Development’s (OECD) Base Erosion and Profit Shifting (BEPS) Project.

Our tax expense could also be impacted by the applicability of withholding taxes on software licenses, services, and related intercompany transactions in certain jurisdictions. In determining the adequacy of income taxes, we assess the likelihood of adverse outcomes that could result if our tax positions were challenged by the Internal Revenue Service (IRS) and other local or foreign tax authorities. The tax authorities in many of the countries where we do business regularly examine our income and other tax returns, and the ultimate outcome of these tax audits or other examinations cannot be predicted with certainty.

In addition, U.S. income taxes and foreign withholding taxes have not been provided for on undistributed earnings of certain of our non-U.S. subsidiaries to the extent that such earnings are considered to be indefinitely reinvested in the operations of those subsidiaries. A change in our decision concerning the amount of historical foreign earnings not considered indefinitely reinvested could increase our effective tax rate.

Forecasting our income tax rate is complex and subject to uncertainty.

The computation of income tax expense (benefit) is complex as it is based on the laws of numerous taxing jurisdictions and requires significant judgment on the application of complicated rules governing accounting for tax provisions under U.S. GAAP. Income tax expense (benefit) for interim quarters is based on a forecast of our global tax rate, including a separate determination for entities, if any, with losses for which no tax benefit is obtained. This forecast contains numerous assumptions and includes forward looking financial projections, such as the expectations of profit and loss by jurisdiction. Various items cannot be accurately forecast and future events may be treated as discrete to the period in which they occur.

Our income tax rate can be materially impacted, for example, by the geographical mix of our profits and losses; changes in our business, such as internal restructuring and acquisitions; changes in tax laws and accounting guidance, and other regulatory, legislative or judicial developments; tax audit determinations; changes in our tax positions; changes in our intent and capacity to permanently reinvest foreign earnings; changes to our transfer pricing practices; tax deductions attributed to equity compensation; and changes in our valuation allowance for deferred tax assets. For these reasons, our overall global tax rate may be materially different from our forecast.

Certain tax policy efforts, including the OECD's BEPS Project, the European Commission's state aid investigations, and other initiatives could have a material effect on the taxation of international businesses, particularly companies with global IP and supply chain structures, and companies which publish software. Furthermore, many of the countries where we are subject to taxes, including the U.S., are independently evaluating their tax policy and we may see significant changes in legislation and regulations concerning taxation. Certain countries, such as the United Kingdom with its Diverted Profits Tax, have already enacted legislation which could affect international businesses, and other countries have become more aggressive in their approach to audits and enforcement of their applicable tax laws. Such changes, to the extent they are brought into tax legislation, regulations, policies, or practices, could increase our effective tax rates in various countries where we have operations and our overall tax rate could be materially affected, impacting our operating results, cash flows and financial condition.

There are limitations on the effectiveness of controls.

We do not expect that disclosure controls or internal control over financial reporting will prevent all errors and all fraud or that our policies and procedures can prevent all violations of the law by our employees, contractors, or agents. A control system, no matter how well designed and operated, can provide only reasonable, not absolute, assurance that the control system's objectives will be met. Further, the design of a control system must reflect the fact that there are resource constraints and the benefits of controls must be considered relative to their costs. Because of the inherent limitations in all control systems, no evaluation of controls can provide absolute assurance that our control system will detect all errors and instances of fraud, if any, or prevent our employees, contractors, or agents from breaching or circumventing our policies or violating laws and regulations. Failure of our control systems to prevent error and fraud or violations of the law could materially adversely impact us.

We are subject to changing corporate governance regulations that impact compliance costs and risks of noncompliance.

Rules and regulations set out by various governmental and self-regulatory organizations in the U.S. such as the SEC, NASDAQ, the Financial Industry Regulatory Authority, and the FASB, as well as in other worldwide locations where we operate, are continually evolving in scope and complexity which makes compliance increasingly difficult and uncertain. The increase in costs to develop awareness and comply with such evolving rules and regulations as well as any risk of noncompliance could adversely impact us.

We may not realize revenues as a result of our investments in research and development.

We incur substantial expense to develop new products. Research and development activities are often performed over long periods of time. These efforts may not result in successful product offerings because of changes in market conditions, competitive product offerings, advancements in technology or our failure to successfully develop products based on that research and development activity. As a result, we could realize little or no revenues related to our investment in research and development.

We may acquire other companies and may not successfully integrate them.

We have acquired numerous businesses and are frequently in discussions with potential acquisition candidates, and we may acquire other businesses in the future. While we generally analyze potential transactions before committing to them, we cannot provide assurance that any completed transaction will result in long-term benefits to us or our shareholders or that we will be able to manage the acquired businesses effectively. In addition, growth through acquisition involves a number of risks. If any of the following events occurs after we acquire another business, it could materially adversely impact us:

- Difficulties in combining previously separate businesses into a single unit;
- The substantial diversion of management's attention from ongoing business when integrating the acquired business;
- The failure to realize anticipated benefits, such as cost savings and increases in revenues;
- The failure to retain key personnel of the acquired business;
- Difficulties related to assimilating the products of an acquired business in, for example, distribution, engineering, and customer support areas;
- Unanticipated costs;
- Unanticipated liabilities or litigation in connection with or as a result of an acquisition, including claims from terminated employees, customers, or third parties;
- Adverse impacts on existing relationships with suppliers and customers; and
- Failure to understand and compete effectively in markets in which we have limited experience.

Acquired businesses may not perform as projected, which could result in impairment of acquisition-related intangible assets. Additional challenges include integration of sales channels, training and education of the sales force for new product offerings, integration of product development efforts, integration of systems of internal controls, and integration of information systems. Accordingly, in any acquisition there will be uncertainty as to the achievement and timing of projected synergies, cost savings, and sales levels for acquired products. All of these factors could impair our ability to forecast, meet revenues and earnings targets, and effectively manage our business for long-term growth.

Our competitors may acquire technology or other companies that impact our business.

Our competitors may acquire technology or companies offering competing or complementary product offerings which could adversely impact our ability to compete. A competitor may be able to deliver better or broader product offerings, offer better pricing, or otherwise make it more desirable for our customers to buy more of the tools in their design flow after the acquisition. In addition, our competitors may purchase companies or technology that we had an interest in acquiring, which could limit our expansion into certain market segments. Similarly, our competitors may purchase companies or technology on which we have a dependency resulting from our having bundled the acquired software with our products for licensing to customers or our use of the acquired software in our research and development environment.

Customer payment defaults could adversely affect our timing of revenue recognition.

We use fixed-term license agreements as standard business practices with customers we believe are creditworthy. These multi-year, multi-element term license agreements have payments spread over the license term and are typically about three years in length for semiconductor companies and about four years in length for IC foundries and military and aerospace companies. The complexity of these agreements tends to increase the risk of non-collectibility from customers that can arise for a variety of reasons including ability to pay, product dissatisfaction, and disputes. If we are unable to collect under these agreements, our results of operations could be materially adversely impacted. We have a history of successfully collecting under the original payment terms of fixed-term license agreements without making concessions on payments, products, or services. If we no longer had a history of collecting without providing concessions on the terms of the agreements, U.S. GAAP would require revenue to be recognized as the payments become due and payable over the license term. This change could have a material adverse impact on our near-term results.

We may not adequately protect our proprietary rights or we may fail to obtain software or other intellectual property licenses.

Our success depends, in large part, upon our proprietary technology. We generally rely on patents, copyrights, trademarks, trade secret laws, licenses, and restrictive agreements to establish and protect our proprietary rights in technology and products. Despite precautions we take to protect our IP, we cannot provide assurance that third parties will not try to challenge, invalidate, or circumvent these protections. The companies in the EDA industry, as well as entities and persons outside the industry, continue to obtain patents at a rapid rate. We cannot predict if any of these patents will cover any of our products. In addition, many of these entities have substantially larger patent portfolios than we have. As a result, we may on occasion be forced to engage in costly patent litigation to protect our rights or defend our customers' rights. We may also need to settle these claims on terms that are unfavorable; such settlements could result in the payment of significant damages or royalties, or force us to stop selling or redesign one or more products. We cannot provide assurance that the rights granted under our patents will provide us with any competitive advantage, that patents will be issued on any of our pending applications, or that future patents will be sufficiently broad to protect our technology. In addition, recent U.S. court decisions have substantially weakened the enforceability of patents for software-related inventions, which make up a large portion of our patent portfolio. Furthermore, the laws of foreign countries may not protect our proprietary rights in those countries to the same extent as U.S. law protects these rights in the U.S. In addition, despite the actions we take to limit piracy, other parties regularly illegally copy and use our products, which results in lost revenue.

Some of our products include software or other IP licensed from third parties, and we may have to seek new licenses or renew existing licenses for software and other IP in the future. Failure to obtain software or other IP licenses or rights from third parties on favorable terms could materially adversely impact us.

Alice court ruling could have a negative effect on the validity of some of our U.S. patents.

On June 19, 2014, the U.S. Supreme Court issued a significant decision in *Alice Corp. Pty. Ltd. v. CLS Bank Int'l*, in which the Court tightened the standard for patentability of software inventions. The Court stated that if a person has an idea so abstract that it cannot be patented, simply tying it to a "generic computer cannot transform a patent-ineligible abstract idea into a patent-eligible invention." The Court further stated that tying the abstract idea to "purely functional and generic" hardware would, similarly, not make the idea patentable. Many commentators believe the *Alice* decision is another in a line of cases intended to limit the validity of poor quality software patents. In any event, the *Alice* decision will provide accused infringers of software patents new arguments to challenge the validity of such patents. At this time, the effects of the *Alice* decision are still being assessed by patent holders, attorneys, the U.S. Patent and Trademark Office and courts. The *Alice* decision and related U.S. Supreme Court decisions could potentially have a negative effect on the validity of some of our U.S. patents.

Intellectual property infringement actions may harm our business.

Patent holders are making increasing efforts to monetize their patent portfolios. IP infringement claims against us directly, or where we contractually must defend our customers, could result in costly litigation and consume significant time of employees and management. In addition, IP litigation could harm our business, due to damage awards, payment of legal fees, an obligation to refund license fees to a customer or forgo receipt of future customer payments, the need to license technology on what might be unfavorable business terms, injunctions that could stop or delay future shipments, or the need to redesign our technology. For example, we are currently engaged in patent infringement litigation in Japan, California, and Oregon involving Emulation and Verification Engineering S.A., EVE-USA, Inc., and Synopsys. Further information regarding these lawsuits is contained in Part I, Item 3. "Legal Proceedings".

Our use of open source software could negatively impact our ability to sell our products and may subject us to unanticipated obligations.

The products, services or technologies we acquire, license, provide or develop may incorporate or use open source software. We monitor and restrict our use of open source software in an effort to avoid unintended consequences, such as reciprocal license grants, patent retaliation clauses, and the requirement to license our products at no cost. Nevertheless, we may be subject to unanticipated obligations regarding our products which incorporate open source software.

Our failure to attract and retain key employees may harm us.

We depend on the efforts and abilities of our senior management, our research and development staff, and a number of other key management, sales, support, technical, and services personnel. Competition for experienced, high-quality personnel is intense, and we cannot provide assurance that we can continue to recruit and retain such personnel. Our failure to hire and retain such personnel could impair our ability to develop new products and manage our business effectively.

We have global sales and research and development offices in parts of the world that are not as politically stable as the United States.

We have global sales and research and development offices, some of which are in parts of the world that are not as politically stable as the U.S. In particular, approximately 15% of our workforce, and a larger percentage of our engineers, are located in our offices in Israel, Egypt, Pakistan, Armenia, and Russia which may be subject to disruption or closure from time to time. As a result, we may face a greater risk of business interruption as a result of potential unrest, terrorist acts, or military conflicts than businesses located domestically. This could have a material adverse effect on product delivery and our research and development operations.

Our business is subject to the risk of natural disasters.

We have sales and research and development offices worldwide which may be adversely affected by weather, earthquakes, or other natural disasters. If a natural disaster occurs at or near any of our offices, our operations may be interrupted, which could adversely impact our business and results of operations. In addition, if a natural disaster impacts a significant number of our customers, our business and results of operations could be adversely impacted.

If our information technology security measures are breached, our information systems may be perceived as being insecure, which could harm our business and reputation.

Our products and services involve the storage and transmission of proprietary information owned by us and our customers. We have sales and research and development offices throughout the world. Our operations are dependent upon the connectivity of our operations worldwide. Despite our security measures, our information technology and infrastructure may be vulnerable to breach by cyber-attacks, errors or malicious actions by employees or contractors, or other disruptions that could result in unauthorized disclosure of sensitive information and could significantly interfere with our business operations. Breaches of our security measures could expose us to a risk of loss or misuse of this information, adverse publicity, violations of privacy laws, and litigation. Because techniques used to obtain unauthorized access or to sabotage information systems change frequently and generally are not recognized until launched against a target, we may be unable to anticipate these techniques or to implement adequate preventive measures. In addition, with the use of “cloud” services in our business, despite our attempts to validate the security of such services, proprietary information may be misappropriated by third parties. If there is an actual or perceived breach of our security, or the security of one of our vendors, the market perception of the effectiveness of our security measures could be harmed and we could suffer damage to our reputation or our business, or lose existing customers and lose our ability to obtain new customers.

Our revolving credit facility has financial and non-financial covenants, and default of any covenant could materially adversely impact us.

Our bank revolving credit facility imposes operating restrictions on us in the form of financial and non-financial covenants. Financial covenants include adjusted quick ratio, tangible net worth, leverage ratio, senior leverage ratio, and minimum cash and accounts receivable ratio. If we were to fail to comply with the financial covenants and did not obtain a waiver from our lenders, we would be in default under the revolving credit facility and our lenders could terminate the facility and demand immediate repayment of all outstanding loans under the revolving credit facility. The declaration of an event of default could have a material adverse effect on our financial condition. We could also find it difficult to obtain other bank lines or credit facilities on comparable terms.

We have a substantial level of indebtedness.

As of January 31, 2016, we had $291.6 million of outstanding indebtedness, which includes principal of $253.0 million of 4.00% Convertible Subordinated Debentures due 2031 (4.00% Debentures), $ 5.2 million in other notes payable, and $33.4 million in short-term borrowings. This level of indebtedness among other things could:

- Make it difficult for us to satisfy payment obligations on our debt;
- Make it difficult for us to incur additional indebtedness or obtain any necessary financing in the future for working capital, capital expenditures, debt service, acquisitions, or general corporate purposes;
- Limit our flexibility in planning for or reacting to changes in our business;
- Reduce funds available for use in our operations;
- Make us more vulnerable in the event of a downturn in our business; and
- Place us at a possible competitive disadvantage relative to less leveraged competitors and competitors that have greater access to capital resources.

We may also be unable to borrow funds as a result of an inability of financial institutions to lend due to restrictive lending policies and/or institutional liquidity concerns.

Our 4.00% Debentures are convertible under certain circumstances at a conversion price as of January 31, 2016 of $20.08 per share (as adjusted for the effect of cash dividends and other applicable items). These circumstances include the market price of our common stock exceeding 120% of the conversion price, or $24.09 per share as of January 31, 2016, for at least 20 of the last 30 trading days of the previous fiscal quarter. If any of the holders elect to convert their debentures, we are required to pay cash for at least the principal amount of any converted debentures and cash or shares for the excess of the value of the converted shares over the principal amount. If holders of a significant amount of our 4.00% Debentures elect to convert, we could have difficulty paying the amount due upon conversion, which would have a material adverse impact on our liquidity and financial condition. However, the market value of the 4.00% Debentures has exceeded and likely will continue to exceed the value that would be received on conversion, and we believe it is unlikely at this time that a significant amount of our 4.00% Debentures would be converted, if conversion were available.

If we experience a decline in revenues, we could have difficulty paying amounts due on our indebtedness. Any default under our indebtedness could have a material adverse impact on our business, operating results, and financial condition.

Our stock price could become more volatile, and your investment could lose value.

All of the factors discussed in this "Risk Factors" section could affect our stock price. The timing of announcements in the public market regarding new products, product enhancements, or technological advances by our competitors or us, and any announcements by us or by our competitors of acquisitions, major transactions, or management changes could also affect our stock price. Our stock price is subject to speculation in the press and the analyst community, changes in recommendations or earnings estimates by financial analysts, changes in investors' or analysts' valuation measures for our stock, our credit ratings, and market trends unrelated to our performance. A significant drop in our stock price could also expose us to the risk of securities class actions lawsuits, which could result in substantial costs and divert management's attention and resources, which could adversely affect our business.

Our business could be negatively affected as a result of actions of activist shareholders.

Responding to actions by activist shareholders can be costly and time-consuming, disrupting our operations, and diverting the attention of management and our employees. The perceived uncertainties as to our future direction may result in the loss of potential business opportunities, and may make it more difficult to attract and retain qualified personnel and business partners.

Ability to pay dividends.

We currently declare and pay quarterly cash dividends on our common stock. Any future payment of cash dividends will depend upon our financial condition, earnings, available cash, cash flow, and other factors our board of directors deems relevant. Our revolving credit facility contains certain financial and other covenants, including a limit on the aggregate amount we can pay for dividends and repurchases of our stock over the term of the facility of $200 million plus 70% of our cumulative net income for periods ending after February 1, 2016. In addition, our board may decrease or discontinue payment of dividends at any time, which could cause the market price of our stock to decline.

Item 1B. Unresolved Staff Comments.

None.

Item 2. Properties.

We own seven buildings on 43 acres of land in Wilsonville, Oregon, occupying approximately 390,000 square feet in those buildings as our corporate headquarters. We also own an additional 65 acres of undeveloped land adjacent to our headquarters. Most administrative functions and a significant amount of our domestic research and development operations are located at the Wilsonville site. We own four buildings totaling approximately 277,000 square feet in Fremont, California, three of which are occupied and house research and development, sales, and administrative staff. The fourth Fremont building was purchased in November 2014 to accommodate business expansion and is currently unoccupied. We own two buildings totaling approximately 46,000 square feet in Shannon, Ireland which house information technology and administrative staff.

We lease additional space in Longmont, Colorado; Arcadia, California; Redmond, Washington; Huntsville and Mobile, Alabama; Novi, Michigan; and Marlborough and Waltham, Massachusetts where some of our domestic research and development takes place; and in various locations throughout the United States and in other countries, primarily for sales and customer service operations. Additional research and development is done in locations outside the United States including locations in Armenia, Chile, Egypt, France, Germany, Hungary, India, Israel, Morocco, Pakistan, Poland, Romania, Russia, Taiwan, and the United Kingdom. We believe that we will be able to renew or replace our existing leases as they expire and that our current facilities will be adequate through at least the year ending January 31, 2017.

Item 3. Legal Proceedings.

From time to time we are involved in various disputes and litigation matters that arise in the ordinary course of business. These include disputes and lawsuits relating to intellectual property rights, contracts, distributorships, and employee relations matters. Periodically, we review the status of various disputes and litigation matters and assess our potential exposure. When we consider the potential loss from any dispute or legal matter probable and the amount or the range of loss can be estimated, we accrue a liability for the estimated loss. Legal proceedings are subject to uncertainties, and the outcomes are difficult to predict. Because of such uncertainties, we base accruals on the best information available at the time. As additional information becomes available, we reassess the potential liability related to pending claims and litigation matters and may revise estimates. We believe that the outcome of current litigation, individually and in the aggregate, will not have a material effect on our results of operations.

In some instances, we are unable to reasonably estimate any potential loss or range of loss. The nature and progression of litigation can make it difficult to predict the impact a particular lawsuit will have. There are many reasons why we cannot make these assessments, including, among others, one or more of the following: a proceeding being in its early stages; damages sought that are unspecific, unsupportable, unexplained or uncertain; discovery not having been started or being incomplete; the complexity of the facts that are in dispute; the difficulty of assessing novel claims; the parties not having engaged in any meaningful settlement discussions; the possibility that other parties may share in any ultimate liability; and/or the often slow pace of litigation.

In December 2012, Synopsys, Inc. (Synopsys) filed a lawsuit claiming patent infringement against us in federal district court in the Northern

District of California, alleging that our Veloce® family of products infringed four Synopsys United States (U.S.) patents. In January 2015, the court issued a summary judgment order in our favor invalidating all asserted claims of three of the Synopsys patents. In June 2015, the U.S. Patent and Trademark Office ruled that the claims of the remaining patent asserted against us by Synopsys are unpatentable. This case is no longer on the court's docket for trial. Synopsys has appealed the decision by the district court.

In June 2013, Synopsys also filed a claim against us in federal district court in Oregon, similarly alleging that our Veloce family of products infringed two additional Synopsys U.S. patents. These claims have been dismissed.

We believe these lawsuits were filed in response to patent lawsuits we filed in 2010 and 2012 against Emulation and Verification Engineering S.A. and EVE-USA, Inc. (together EVE), which Synopsys acquired in October 2012.

On October 10, 2014, the jury in our patent lawsuit filed in the federal district court in Oregon found that one of our patents – U.S. Patent No. 6,240,376 – was infringed by EVE and Synopsys. As part of the verdict, the jury awarded us damages of approximately $36 million as well as certain royalties. As of January 31, 2016, nothing has been included in our financial results for this award. Synopsys has filed an appeal.

On March 12, 2015, the Oregon court granted our request for a permanent injunction against future sales of Synopsys emulators containing infringing technology.

In December 2010, we filed a patent lawsuit against EVE in Tokyo district court, which seeks compensatory damages and an injunction against the sale of EVE emulation products. The technical trial for the Japanese litigation was held in October 2014. In May 2015, the court issued a preliminary verdict of non-infringement. We have appealed that verdict.

We do not have sufficient information upon which to determine that a loss in connection with these matters is probable, reasonably possible, or estimable, and thus no liability has been established nor has a range of loss been disclosed.

Item 4. Mine Safety Disclosures.

Not applicable.

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

Our common stock trades on The NASDAQ Global Select Market under the symbol "MENT." The following table sets forth for the periods indicated the high and low sales prices for our common stock, as reported by The NASDAQ Global Select Market, and the dividends paid per share:

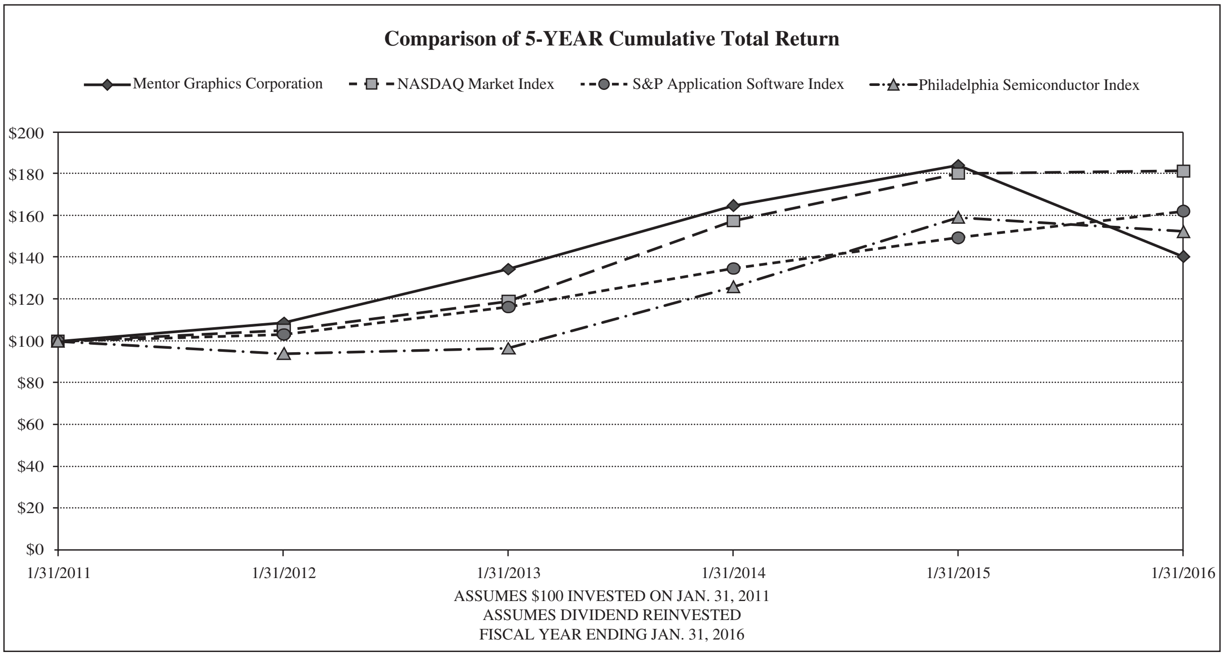
Quarter ended	April 30	July 31	October 31	January 31
Fiscal Year 2016				
High Price	$25.43	$27.38	$27.54	$28.09
Low Price	$22.72	$23.42	$21.94	$16.10
Dividends Paid	$0.055	$0.055	$0.055	$0.055

Quarter ended	April 30	July 31	October 31	January 31
Fiscal Year 2015				
High Price	$23.10	$22.20	$22.73	$23.79
Low Price	$19.14	$19.73	$18.25	$20.58
Dividends Paid	$0.050	$0.050	$0.050	$0.050

As of March 16, 2016, we had 392 stockholders of record.

Our revolving credit facility includes a limit on the amount we can pay for dividends and repurchases of our stock. For more information regarding our credit facility, see Note 6. "Short-Term Borrowings" in Part II, Item 8. "Financial Statements and Supplementary Data."

The following graph compares the cumulative 5-year total stockholder return on our common stock relative to the cumulative total return of the S&P Application Software Index, the NASDAQ Market Index and the Philadelphia Semiconductor Index.



Note: The stock price shown on the above graph is not necessarily indicative of future performance.

	Period Ending					
Company/Market/Peer Group	**1/31/2011**	**1/31/2012**	**1/31/2013**	**1/31/2014**	**1/31/2015**	**1/31/2016**
Mentor Graphics Corporation	$100.00	$108.87	$134.46	$164.89	$184.06	$140.51
NASDAQ Market Index	$100.00	$105.26	$119.08	$157.58	$180.20	$181.47
S&P Application Software Index	$100.00	$103.22	$116.30	$134.76	$149.51	$162.24
Philadelphia Semiconductor Index	$100.00	$ 94.04	$ 96.55	$126.06	$159.29	$152.45

The table below sets forth information regarding our repurchases of our common stock during the three months ended January 31, 2016:

Period	**Total number of shares purchased**	**Average price paid per share**	**Total number of shares purchased as part of publicly announced programs**	**Maximum dollar value of shares that may yet be purchased under the programs**
November 1 – November 30, 2015	717,543	$18.82	717,543	$151,493,355
December 1 – December 31, 2015	3,099,299	17.97	3,099,299	$ 95,788,010
January 1 – January 31, 2016	306,406	18.89	306,406	$ 90,000,045
Total	4,123,248	$18.19	4,123,248	

On June 12, 2014, we announced a share repurchase program approved by our Board of Directors, authorizing the repurchase of up to $200 million of our common stock over a three-year period.

We repurchased 8.1 million shares of common stock for $146.1 million on February 25, 2016. This repurchase was excluded from our share repurchase program noted above. See Note 21. “Subsequent Events” in Part II, Item 8. “Financial Statements and Supplementary Data.” for additional disclosure.

Item 6. Selected Financial Data.

In thousands, except percentages and per share data

Year ended January 31,	2016	2015	2014	2013	2012
Statement of Operations Data					
Total revenues	$1,180,988	$1,244,133	$1,156,373	$1,088,727	$1,014,638
Operating income	$ 136,745	$ 187,811	$ 183,040	$ 161,633	$ 112,192
Net income attributable to Mentor Graphics shareholders	$ 96,277	$ 147,139	$ 155,258	$ 138,736	$ 83,872
Gross profit percent	84%	84%	84%	83%	83%
Operating income as a percent of revenues	12%	15%	16%	15%	11%
Per Share Data					
Net income per share attributable to Mentor Graphics shareholders(1):					
Basic	$ 0.83	$ 1.28	$ 1.33	$ 1.20	$ 0.76
Diluted	$ 0.81	$ 1.26	$ 1.29	$ 1.17	$ 0.74
Weighted average number of shares outstanding:					
Basic	116,701	114,635	113,671	110,998	110,138
Diluted	119,263	117,078	116,702	114,017	112,915
Dividends paid	$ 0.22	$ 0.20	$ 0.18	$ –	$ –

As of January 31,	2016	2015	2014	2013	2012
Balance Sheet Data					
Cash, cash equivalents, and short-term investments	$ 334,826	$ 230,281	$ 297,312	$ 223,783	$ 146,499
Working capital(2)	$ 475,157	$ 423,764	$ 418,170	$ 292,175	$ 192,545
Property, plant, and equipment, net	$ 182,092	$ 170,737	$ 160,165	$ 162,402	$ 148,019
Total assets(2)	$2,064,364	$2,046,008	$1,900,144	$1,740,368	$1,544,807
Short-term borrowings and current portion of notes payable	$ 33,449	$ 7,228	$ 9,590	$ 5,964	$ 15,966
Long-term portion of notes payable, deferred revenue, long-term, and other noncurrent liabilities(2)	$ 320,625	$ 318,252	$ 288,384	$ 282,366	$ 295,529
Noncontrolling interest with redemption feature	$ –	$ 13,372	$ 15,479	$ 12,698	$ 9,266
Stockholders' equity	$1,320,429	$1,272,854	$1,185,294	$1,033,479	$ 866,074

(1) We have increased the numerator of our earnings per share calculation by $258 for the year ended January 31, 2016 and $121 for the year ended January 31, 2015 for the adjustment to decrease the noncontrolling interest with redemption feature to its calculated redemption value, recorded directly to retained earnings. We have decreased the numerator of our earnings per share calculation by $4,486 for the year ended January 31, 2014 and $5,272 for the year ended January 31, 2013 for the adjustment to increase the noncontrolling interest with redemption feature to its calculated redemption value, recorded directly to retained earnings.

(2) Reclassifications were made to amounts previously reported for fiscal years 2015, 2014, 2013 and 2012, to conform to the current period presentation. These reclassifications were made as a result of our adoption of Accounting Standards Update 2015-03, Interest – Imputation of Interest (Subtopic 835-30), Simplifying the Presentation of Debt Issuance Costs. See additional discussion of the reclassification in Note 2. "Summary of Significant Accounting Policies" in Part II, Item 8. "Financial Statements and Supplementary Data."

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

Unless otherwise indicated, numerical references are in millions, except for percentages, per share data, and conversion rate data.

OVERVIEW

The following discussion should be read in conjunction with the consolidated financial statements and notes included elsewhere in this Form 10-K. Certain of the statements below contain forward-looking statements. These statements are predictions based upon our current expectations about future trends and events. Actual results could vary materially as a result of certain factors, including but not limited to, those expressed in these statements. In particular, we refer you to the risks discussed in Part I, Item 1A. "Risk Factors" and in our other Securities and Exchange Commission filings, which identify important risks and uncertainties that could cause our actual results to differ materially from those contained in the forward-looking statements.

We urge you to consider these factors carefully in evaluating the forward-looking statements contained in this Form 10-K. All subsequent written or spoken forward-looking statements attributable to our company or persons acting on our behalf are expressly qualified in their entirety by these cautionary statements. The forward-looking statements included in this Form 10-K are made only as of the date of this Form 10-K. We do not intend, and undertake no obligation, to update these forward-looking statements.

THE COMPANY

We are a supplier of electronic design automation (EDA) tools – advanced computer software and emulation hardware systems used to automate the design, analysis, and testing of complex electro-mechanical systems, electronic hardware, and embedded systems software in electronic systems and components. We market our products and services worldwide, primarily to large companies in the communications, computer, consumer electronics, semiconductor, networking, military and aerospace, multimedia, and transportation industries. Through the diversification of our customer base among these various customer markets, we attempt to reduce our exposure to fluctuations within each market. We sell and license our products through our direct sales force and a channel of distributors and sales representatives. In addition to our corporate offices in Wilsonville, Oregon, we have sales, support, research and development, and professional service offices worldwide.

We generally focus on products and design platforms where we have or believe we can attain leading market share. Part of this approach includes developing new applications and exploring new markets where EDA companies have not generally participated. We believe this strategy leads to a more diversified product and customer mix and can help reduce the volatility of our business and our risk as a creditor, while increasing our potential for growth.

We derive system and software revenues primarily from the sale of term software license contracts, which are typically three to four years in length. We generally recognize revenue for these arrangements upon product delivery at the beginning of the license term. Larger enterprise-wide customer contracts, which are approximately 50% or more of our system and software revenue, drive the majority of our period-to-period revenue variances. We identify term licenses where collectibility is not probable and recognize revenue on those licenses when cash is received. Ratable license revenues primarily include short-term term licenses as well as other term licenses where we provide the customer with rights to unspecified or unreleased future products. For these reasons, the timing of large contract renewals, customer circumstances, and license terms are the primary drivers of revenue changes from period to period, with revenue changes also being driven by new contracts and additional purchases under existing contracts, to a lesser extent.

The EDA industry is competitive and is characterized by very strong leadership positions in specific segments of the EDA market. These strong leadership positions can be maintained for significant periods of time as the software can be difficult to master and customers are disinclined to make changes once their employees, as well as others in the industry, have developed familiarity with a particular software product. For these reasons, much of our profitability arises from areas in which we are the leader. We expect to continue our strategy of developing high quality tools with number one market share potential, rather than being a broad-line supplier with undifferentiated product offerings. This strategy allows us to focus investment in areas where customer needs are greatest and where we have the opportunity to build significant market share.

Our products and services are dependent to a large degree on new design projects initiated by customers in the integrated circuit (IC) and electronics system industries. These industries can be cyclical and are subject to constant and rapid technological change, rapid product obsolescence, price erosion, evolving standards, short product life cycles, wide fluctuations in product supply and demand, and industry consolidation. Furthermore, extended economic downturns can result in reduced funding for development due to downsizing and other business restructurings. These pressures are offset by the need for the development and introduction of next generation products once an economic recovery occurs.

KNOWN TRENDS AND UNCERTAINTIES IMPACTING FUTURE RESULTS OF OPERATIONS

Our revenue has historically fluctuated quarterly and has generally been the highest in the fourth quarter of our fiscal year due to our customers' corporate calendar year-end spending trends and the timing of contract renewals.

Ten accounts make up approximately 45% of our receivables, including both short and long-term balances. We have not experienced and do not presently expect to experience collection issues with these customers.

Net of reserves, we have no receivables greater than 60 days past due (net of cash based revenue invoices), and continue to experience no difficulty in factoring our high quality receivables.

Bad debt expense recorded for the year ended January 31, 2016 was not material. However, we do have exposures within our receivables portfolio to customers with weak credit ratings. These receivable balances do not represent a material portion of our portfolio but could have a material adverse effect on earnings in any given quarter, should significant additional allowances for doubtful accounts be necessary.

Bookings during fiscal year 2016 decreased approximately 15% compared to fiscal year 2015 primarily due to fewer large contract renewals. Bookings are the value of executed orders during a period for which revenue has been or will be recognized within six months for software products and emulation hardware systems, and professional services and training requested for delivery within one year. Ten customers accounted for approximately 40% of total bookings for fiscal year 2016 and fiscal year 2015. The number of new customers for fiscal year 2016 decreased slightly compared to fiscal year 2015.

PRODUCT DEVELOPMENT

During the year ended January 31, 2016, we continued to execute our strategy of focusing on technical challenges encountered by customers, as well as building upon our well-established product families. We believe that customers, faced with leading-edge design challenges in creating new products, generally choose the best EDA products in each category to build their design environment. Through both internal development and strategic acquisitions, we have focused on areas where we believe we can build a leading market position or extend an existing leading market position.

We believe that the development and commercialization of EDA software tools is generally a three to five year process with limited customer adoption and sales in the first years of tool availability. Once tools are adopted, however, their life spans tend to be long. During the year ended January 31, 2016, we introduced new products and upgrades to existing products.

CRITICAL ACCOUNTING POLICIES

We base our discussion and analysis of our financial condition and results of operations upon our consolidated financial statements which have been prepared in accordance with United States (U.S.) generally accepted accounting principles. The preparation of these financial statements requires us to make estimates and judgments that affect the reported amounts of assets, liabilities, and contingencies as of the date of the financial statements and the reported amounts of revenues and expenses during the reporting periods. We evaluate our estimates on an on-going basis. We base our estimates on historical experience, current facts, and on various other assumptions that we believe to be reasonable under the circumstances, the results of which form the basis for making judgments about the carrying values of assets and liabilities and the recording of revenue, costs, and expenses that are not readily apparent from other sources. As future events and their effects cannot be determined with precision, actual results could differ from those estimates.

We believe that the accounting for revenue recognition, valuation of trade accounts receivable, income taxes, business combinations, goodwill, intangible assets, and long-lived assets, special charges, and stock-based compensation are the critical accounting estimates and judgments used in the preparation of our consolidated financial statements. For further discussion of our significant accounting policies, see Note 2. "Summary of Significant Accounting Policies" in Part II, Item 8. "Financial Statements and Supplementary Data."

Revenue Recognition

We report revenue in two categories based on how revenue is generated: (i) system and software and (ii) service and support.

System and software revenues – We derive system and software revenues from the sale of licenses of software products and emulation and other hardware systems, including finance fee revenues from our long-term installment receivables resulting from product sales. We primarily license our products using two different license types:

1. Term licenses – We use this license type primarily for software sales. This license type provides the customer with the right to use a fixed list of software products for a specified time period, typically three to four years, with payments spread over the license term, and does not provide the customer with the right to use the products after the end of the term. Term license arrangements may allow the customer to share products between multiple locations and remix product usage from the fixed list of products at regular intervals during the license term. We generally recognize product revenue from term license arrangements upon product delivery and start of the license term. In a term license agreement where we provide the customer with rights to unspecified or unreleased future products, we recognize revenue ratably over the license term.

2. Perpetual licenses – We use this license type for software and emulation hardware system sales. This license type provides the customer with the right to use the product in perpetuity and typically does not provide for extended payment terms. We generally recognize product revenue from perpetual license arrangements upon product delivery assuming all other criteria for revenue recognition have been met.

We include finance fee revenues from the accretion of the discount on long-term installment receivables in system and software revenues.

Service and support revenues – We derive service and support revenues from software and hardware post-contract maintenance or support services and professional services, which include consulting, training, and other services. We recognize support services revenue ratably over the service term. We record professional services revenue as the services are provided to the customer.

We determine whether product revenue recognition is appropriate based upon the evaluation of whether the following four criteria have been met:

1. Persuasive evidence of an arrangement exists – Generally, we use either a customer signed contract or qualified customer purchase order as evidence of an arrangement for both term and perpetual licenses. For professional service engagements, we generally use a signed professional services agreement and a statement of work to evidence an arrangement. Sales through our distributors are evidenced by an agreement governing the relationship, together with binding purchase orders from the distributor on a transaction-by-transaction basis.

2. Delivery has occurred – We generally deliver software and the corresponding access keys to customers electronically. Electronic delivery occurs when we provide the customer access to the software. We may also deliver the software on a digital versatile disc (DVD). With respect to emulation hardware systems,

we transfer title to the customer upon shipment. Our software license and emulation hardware system agreements generally do not contain conditions for acceptance.

3. Fee is fixed or determinable – We assess whether a fee is fixed or determinable at the outset of the arrangement, primarily based on the payment terms associated with the transaction. We have established a history of collecting under an original contract with installment terms without providing concessions on payments, products, or services. Additionally, for installment contracts, we determine that the fee is fixed or determinable if the arrangement has a payment schedule that is within the term of the license and the payments are collected in equal or nearly equal installments, when evaluated on a cumulative basis. If the fee is not deemed to be fixed or determinable, we recognize revenue as payments become due and payable.
4. Collectibility is probable – To recognize revenue, we must judge collectibility of the arrangement fees on a customer-by-customer basis pursuant to our credit review process. We typically sell to customers with whom there is a history of successful collection. We evaluate the financial position and a customer's ability to pay whenever an existing customer purchases new products, renews an existing arrangement, or requests an increase in credit terms. For certain industries for which our products are not considered core to the industry or the industry is generally considered troubled, we impose higher credit standards. If we determine that collectibility is not probable based upon our credit review process or the customer's payment history, we recognize revenue as payments are received.

Multiple element arrangements involving software licenses – For multiple element arrangements involving software and other software-related deliverables, vendor-specific objective evidence of fair value (VSOE) must exist to allocate the total fee among all delivered and non-essential undelivered elements of the arrangement. If undelivered elements of the arrangement are essential to the functionality of the product, we defer revenue until the essential elements are delivered. If VSOE does not exist for one or more non-essential undelivered elements, we defer revenue until such evidence exists for the undelivered elements, or until all elements are delivered, whichever is earlier. If VSOE of all non-essential undelivered elements exists but VSOE does not exist for one or more delivered elements, we recognize revenue using the residual method. Under the residual method, we defer revenue related to the undelivered elements based upon VSOE and we recognize the remaining portion of the arrangement fee as revenue for the delivered elements, assuming all other criteria for revenue recognition are met.

We base our VSOE for certain elements of an arrangement upon the pricing in comparable transactions when the element is sold separately. We primarily base our VSOE for term and perpetual support services upon customer renewal history where the services are sold separately. We also base VSOE for professional services and installation services for emulation hardware systems upon the price charged when the services are sold separately.

Multiple element arrangements involving hardware – For multiple element arrangements involving our emulation hardware systems, we allocate revenue to each element based on the relative selling price of each deliverable. In order to meet the separation criteria to allocate revenue to each element we must determine the standalone selling price of each element using a hierarchy of evidence.

The authoritative guidance requires that, in the absence of VSOE or third-party evidence, a company must develop an estimated selling price (ESP). ESP is defined as the price at which the vendor would transact if the deliverable was sold by the vendor regularly on a standalone basis. A company should consider market conditions as well as entity-specific factors when estimating a selling price. We base our ESP for certain elements in arrangements on either costs incurred to manufacture a product plus a reasonable profit margin or standalone sales to similar customers. In determining profit margins, we consider current market conditions, pricing strategies related to the class of customer, and the level of penetration we have with the customer. In other cases, we may have limited sales on a standalone basis to the same or similar customers and/or guaranteed pricing on future purchases of the same item.

Valuation of Trade Accounts Receivable

We maintain allowances for doubtful accounts on trade account receivables and term receivables, long-term for estimated losses resulting from the inability of our customers to make required payments. We regularly evaluate the collectibility of our trade accounts receivable based on a combination of factors. When we become aware of a specific customer's inability to meet its financial obligations, such as in the case of bankruptcy or deterioration in the customer's operating results, financial position, or credit rating, we record a specific reserve for bad debt to reduce the related receivable to the amount believed to be collectible. We also record unspecified reserves for bad debt for all other customers based on a variety of factors including length of time the receivables are past due, the financial health of the customers, the current business environment, and historical experience. If these factors change or circumstances related to specific customers change, we adjust the estimates of the recoverability of receivables resulting in either additional selling expense or a reduction in selling expense in the period such determination is made.

Income Taxes

Deferred tax assets are recognized for deductible temporary differences, net operating loss carryforwards, and credit carryforwards if it is more likely than not that the tax benefits will be realized. We have considered future taxable income and ongoing prudent and feasible tax planning strategies in assessing the need for valuation allowances. We have recorded a valuation allowance to reduce our deferred tax assets to the amount that is more likely than not to be realized. In the event we determine that we are able to realize our deferred tax assets in the future in excess of our net recorded amount, we would reduce the valuation allowance associated with the deferred tax assets in the period the determination was made, which may result in a tax benefit in the statement of income. Also, if we determine that we are not able to realize all or part of our net deferred tax assets in the future, we would record a valuation allowance on the net deferred tax assets which may result in additional tax expense in the period the determination was made.

We are subject to income taxes in the U.S. and in numerous foreign jurisdictions, and in the ordinary course of business, there are many transactions and calculations where the ultimate tax determination is uncertain. While we believe the positions we have taken are appropriate, we have reserves for taxes to address potential exposures involving tax positions that are being challenged or that could be challenged by the tax authorities. We record a benefit on a tax position when we determine that it is more likely than not that the position is sustainable upon examination, including resolution of any related appeals or litigation processes, based on the technical merits of the position. For tax positions that are more likely than not to be sustained, we measure the tax position at the largest amount of benefit that has a greater than 50 percent likelihood of being realized when it is effectively settled. We review the tax reserves as circumstances warrant and adjust the reserves as events occur that affect our potential liability for additional taxes.

Business Combinations

When we acquire businesses, we allocate the purchase price, including the fair value of contingent consideration, to acquired tangible assets and liabilities and acquired identifiable intangible assets. Any residual purchase price is recorded as goodwill. The allocation of the purchase price requires us to make significant estimates in determining the fair value of contingent consideration as well as acquired assets and assumed liabilities, especially with respect to intangible assets and goodwill. These estimates are based on information obtained from management of the acquired companies, our assessment of this information, and historical experience. These estimates can include, but are not limited to, the cash flows that an acquired business is expected to generate in the future, the cash flows that specific assets acquired with that business are expected to generate in the future, the appropriate weighted-average cost of capital, and the cost savings expected to be derived from acquiring an asset. These estimates are inherently uncertain and unpredictable, and if different estimates were used, the purchase price for the acquisition could be allocated to the acquired assets and liabilities differently from the allocation that we have made to the acquired assets and liabilities. In addition, unanticipated events and circumstances may occur that may affect the accuracy or validity of such estimates, and if such events occur, we may be required to adjust the value allocated to acquired assets or assumed liabilities.

We also make significant judgments and estimates when we assign useful lives to the definite lived intangible assets identified as part of our acquisitions. These estimates are inherently uncertain and if we used different estimates, the useful life over which we amortize intangible assets would be different. In addition, unanticipated events and circumstances may occur that may impact the useful life over which we amortize our intangible assets, which would impact our recognition of expense and our results of operations.

Goodwill, Intangible Assets, and Long-Lived Assets

We review long-lived assets, including intangible assets with definite lives, for impairment whenever events or changes in circumstances indicate the carrying amount of such assets may not be recoverable. We assess the recoverability of our long-lived assets by determining whether their carrying values are greater than the forecasted undiscounted net cash flows of the related assets. If we determine the assets are impaired, we write down the assets to their estimated fair value. We determine fair value based on forecasted discounted net cash flows or appraised values, depending upon the nature of the assets. Significant management judgment is required in the forecasts of future operating results that are used in the discounted cash flow method of valuation. The estimates we have used are consistent with the plans and estimates that we use to manage our business. It is possible, however, that the plans may change and estimates used may prove to be inaccurate. If our actual results, or the plans and estimates used in future impairment analysis, are lower than the original estimates used to assess the recoverability of these assets, we could incur impairment charges.

We test goodwill and intangible assets with indefinite lives for impairment at least annually and whenever events or changes in circumstances indicate an impairment may exist. In the event that we determine that our goodwill, intangible assets, or other long-lived assets are impaired, we make an adjustment that results in a charge to earnings for the write-down in the period that determination is made.

Special Charges

We record restructuring charges in connection with our plans to better align our cost structure with projected operations in the future. We record restructuring charges in connection with employee rebalances based on estimates of the expected costs associated with severance benefits. If the actual cost incurred exceeds the estimated cost, additional expense is recognized. If the actual cost is less than the estimated cost, a benefit is recognized.

We also record within special charges, expenses incurred related to certain litigation costs that are unusual in nature due to the significance in variability of timing and amount. Special Charges may also include costs associated with acquisitions, excess facility costs and asset related charges.

Stock-Based Compensation

We measure stock-based compensation cost at the grant date, based on the fair value of the award, and recognize the expense on a straight-line basis over the employee's requisite service period. For stock awards that vest fully on any termination of service, there is no requisite service period and consequently we recognize the expense fully in the period in which the award is granted.

We estimate the fair value of purchase rights under our employee stock purchase plans (ESPPs) using a Black-Scholes option-pricing model. The Black-Scholes option-pricing model incorporates several highly subjective assumptions including expected volatility, expected term, expected dividends, and interest rates. The input factors used in the Black-Scholes option-pricing model are based on subjective future expectations combined with management judgment. If we were to modify any awards, additional charges could occur.

In reaching our determination of expected volatility for purchase rights under our ESPPs, we use the historical volatility of our shares of common stock.

We did not issue any options in fiscal years 2016, 2015 and 2014. Our current equity strategy is to grant restricted stock units rather than options in order to ensure that we deliver value to our employees when there is volatility in the market.

RESULTS OF OPERATIONS

Revenues and Gross Profit

Year ended January 31,	2016	Change	2015	Change	2014
System and software revenues	$ 700.6	(12%)	$ 799.1	8%	$ 737.8
System and software gross profit	$ 645.0	(11%)	$ 722.2	8%	$ 668.9
Gross profit percent	92%		90%		91%
Service and support revenues	$ 480.4	8%	$ 445.0	6%	$ 418.6
Service and support gross profit	$ 346.3	9%	$ 317.6	6%	$ 300.4
Gross profit percent	72%		71%		72%
Total revenues	$1,181.0	(5%)	$1,244.1	8%	$1,156.4
Total gross profit	$ 991.3	(5%)	$1,039.8	7%	$ 969.3
Gross profit percent	84%		84%		84%

System and Software

Year ended January 31,	2016	Change	2015	Change	2014
Upfront license revenues	$582.0	(17%)	$704.8	10%	$641.6
Ratable license revenues	118.6	26%	94.3	(2%)	96.2
Total system and software revenues	$700.6	(12%)	$799.1	8%	$737.8

We derive system and software revenues from the sale of licenses of software products and emulation hardware systems, including finance fee revenues from our long-term installment receivables resulting from term product sales. Upfront license revenues consist of perpetual licenses and term licenses for which we recognize revenue upon product delivery at the start of a license term. We identify licenses where collectibility is not probable and recognize revenue on those licenses when cash is received. Ratable license revenues primarily consist of short-term term licenses and finance fees from the accretion of the discount on long-term installment receivables.

Ten customers accounted for approximately 45% of system and software revenues for fiscal year 2016 and 40% of system and software revenues for fiscal years 2015 and 2014. No single customer accounted for 10% of total revenues for fiscal years 2016, 2015, and 2014.

System and software revenues decreased $98.5 in fiscal year 2016 compared to fiscal year 2015. The effect of acquisitions completed in fiscal years 2016 and 2015 on fiscal year 2016 system and software revenues was $7.3. The decrease in system and software revenues was driven by a decrease in software license revenues of approximately $45.0 primarily due to a decrease in the growth percentage of contract renewals during the period. The remaining decrease was primarily due to a decrease in sales of emulation hardware systems.

System and software revenues increased $61.3 in fiscal year 2015 compared to fiscal year 2014. The effect of acquisitions completed in fiscal years 2015 and 2014 on fiscal year 2015 system and software revenues was $13.4. The remaining increase was primarily a result of increased software license revenues driven by timing of contract renewals and additional business with existing customers.

System and software gross profit percentage was higher for fiscal year 2016 compared to fiscal year 2015 primarily due to a more favorable product mix.

Service and Support

We derive service and support revenues from software and hardware post-contract maintenance or support services and professional services, which includes consulting, training, and other services. Professional services are lower margin offerings which are staffed according to fluctuations in demand. Support services operate under a less variable cost structure.

Service and support revenues increased $35.4 in fiscal year 2016 compared to fiscal year 2015. The effect of acquisitions completed in fiscal years 2016 and 2015 on fiscal year 2016 service and support revenues was $11.3. The remaining increase was primarily driven by increased support revenues resulting from an increase in our installed base.

Service and support revenues increased $26.4 in fiscal year 2015 compared to fiscal year 2014. The effect of acquisitions completed in fiscal years 2015 and 2014 on fiscal year 2015 service and support revenues was $11.6. The remaining increase was primarily driven by increased support revenues resulting from an increase in our installed base.

Geographic Revenues Information

Revenues by Geography

Year ended January 31,	2016	Change	2015	Change	2014
North America	$ 503.2	(10%)	$ 559.0	9%	$ 513.2
Europe	254.8	–%	255.9	6%	241.4
Japan	87.2	(1%)	87.7	(23%)	113.8
Pacific Rim	335.8	(2%)	341.5	19%	288.0
Total revenue	$1,181.0	(5%)	$1,244.1	8%	$1,156.4

The decrease in revenues in North America for fiscal year 2016 compared to fiscal year 2015 is due to decreased sales of emulation hardware systems and a decrease in the growth percentage of contract renewals during the period. The decrease in revenues in Japan for fiscal year 2015 compared to fiscal year 2014 is due to the timing of contract renewals. The increase in revenues in the Pacific Rim for fiscal year 2015 compared to fiscal year 2014 is due to the timing of contract renewals and additional business with existing customers.

We recognize additional revenues in periods when the U.S. dollar weakens in value against foreign currencies. Likewise, we recognize lower revenues in periods when the U.S. dollar strengthens in value against foreign currencies. For fiscal year 2016, approximately 30% of European and approximately 75% of Japanese revenues were subject to exchange rate fluctuations as they were booked in local currencies. For fiscal year 2015, approximately 25% of European and approximately 75% of Japanese revenues were subject to exchange rate fluctuations as they were booked in local currencies. For fiscal year 2014, approximately 33% of European and approximately 90% of Japanese revenues were subject to exchange rate fluctuations as they were booked in local currencies.

Foreign currency had an unfavorable impact of $21.1 for fiscal year 2016 compared to fiscal year 2015 primarily as a result of the strengthening of the U.S. dollar against the euro and Japanese yen. Foreign currency had an unfavorable impact of $5.7 for fiscal year 2015 compared to fiscal year 2014 primarily as a result of the strengthening of the U.S. dollar against the Japanese yen.

For additional description of how changes in foreign exchange rates affect our consolidated financial statements, see discussion in Part II, Item 7A., "Quantitative and Qualitative Disclosures About Market Risk–Foreign Currency Risk."

Revenues by Category

We segregate revenues into five categories of similar products and services. Each category includes both product and related support revenues. Revenues for each category as a percent of total revenues are as follows (percentages rounded to the nearest 5%):

Year ended January 31,	2016	2015	2014
Revenues:			
IC Design to Silicon	40%	40%	40%
Scalable Verification	25%	25%	25%
Integrated System Design	20%	20%	20%
New and Emerging Markets	5%	5%	5%
Services and Other	10%	10%	10%
Total revenues	100%	100%	100%

Item 7.

As described in Note 2. "Summary of Significant Accounting Policies," term license arrangements may allow a customer to remix product usage from a fixed list of products at regular intervals during the license term. As a result, actual usage of our products by customers could differ, which could result in the percentages presented above being different.

Operating Expenses

Year ended January 31,	2016	Change	2015	Change	2014
Research and development	$381.4	–%	$381.1	9%	$348.8
Marketing and selling	351.3	(4%)	365.7	7%	342.8
General and administration	73.9	(7%)	79.2	5%	75.5
Equity in earnings of Frontline	(5.8)	2%	(5.7)	39%	(4.1)
Amortization of intangible assets	8.7	6%	8.2	32%	6.2
Special charges	45.1	92%	23.5	39%	16.9
Total operating expenses	$854.6	–%	$852.0	8%	$786.1

Selected Operating Expenses as a Percentage of Total Revenues

Year ended January 31,	2016	2015	2014
Research and development	32%	31%	30%
Marketing and selling	30%	29%	30%
General and administration	6%	6%	7%
Total selected operating expenses	68%	66%	67%

We incur a substantial portion of our operating expenses outside the U.S. in various foreign currencies. We recognize additional operating expense in periods when the U.S. dollar weakens in value against foreign currencies and lower operating expenses in periods when the U.S. dollar strengthens in value against foreign currencies. For fiscal year 2016 compared to fiscal year 2015, we experienced favorable currency movements of $36.5 in total operating expenses, primarily due to movements in the euro, Russian ruble, Japanese yen, and Great British pound. For fiscal year 2015 compared to fiscal year 2014, we experienced favorable currency movements of $6.5 in total operating expenses, primarily due to movements in the Japanese yen, Russian ruble, euro and Indian rupee. The impact of these currency effects is reflected in the movements in operating expenses detailed below.

Research and Development

Research and development expenses increased by $0.3 for fiscal year 2016 compared to fiscal year 2015 and increased by $32.3 for fiscal year 2015 compared to fiscal year 2014. The components of these changes are summarized as follows:

	Change	
Year ended January 31,	2016 vs 2015	2015 vs 2014
Salaries, incentive compensation, and benefits expenses	$(9.2)	$15.0
Expenses associated with acquired businesses	8.1	16.4
Supplies and equipment	2.5	(1.5)
Stock-based compensation	2.2	2.8
Other expenses	(3.3)	(0.4)
Total change in research and development expenses	$ 0.3	$32.3

Marketing and Selling

Marketing and selling expenses decreased by $14.4 for fiscal year 2016 compared to fiscal year 2015 and increased by $22.9 for fiscal year 2015 compared to fiscal year 2014. The components of these changes are summarized as follows:

	Change	
Year ended January 31,	2016 vs 2015	2015 vs 2014
Salaries, incentive compensation, and benefits expenses	$(23.8)	$10.2
Emulation demonstration inventory amortization	7.4	2.1
Expenses associated with acquired businesses	3.3	6.1
Other expenses	(1.3)	4.5
Total change in marketing and selling expenses	$(14.4)	$22.9

General and Administration

General and administration expenses decreased by $5.3 for fiscal year 2016 compared to fiscal year 2015 and increased by $3.7 for fiscal year 2015 compared to fiscal year 2014. The components of these changes are summarized as follows:

	Change	
Year ended January 31,	2016 vs 2015	2015 vs 2014
Salaries, incentive compensation, and benefits expenses	$(6.4)	$0.2
Stock-based compensation	1.7	2.0
Other expenses	(0.6)	1.5
Total change in general and administration expenses	$(5.3)	$3.7

Equity in Earnings of Frontline

We have a 50% interest in a joint venture, Frontline P.C.B. Solutions Limited Partnership (Frontline), which is equally owned by us and Orbotech, Ltd.

Frontline reports on a calendar year basis, therefore, we record our interest in the earnings of Frontline on a one-month lag. The following table presents the summarized financial information of our 50% interest in Frontline for the twelve months ended December 31, 2015, 2014, and 2013:

Year ended December 31,	2015	2014	2013
Mentor Graphics' share of net income	$5.8	$ 5.8	$ 5.5
Amortization of purchased technology and other identified intangible assets	–	(0.1)	(1.4)
Equity in earnings of Frontline	$5.8	$ 5.7	$ 4.1

Purchased technology and other identified intangible assets associated with the Frontline investment were fully amortized during the first quarter of fiscal year 2015.

Special Charges

Year ended January 31,	2016	Change	2015	Change	2014
Voluntary early retirement program	$25.2	–%	$ –	–%	$ –
Employee severance and related costs	13.5	286%	3.5	(20%)	4.4
Litigation costs	4.1	(78%)	18.4	59%	11.6
Other costs	2.3	44%	1.6	78%	0.9
Total special charges	$45.1	92%	$23.5	39%	$16.9

Special charges include expenses incurred related to employee severance, certain litigation costs, acquisitions, excess facility costs, and assets related charges.

We offered the voluntary early retirement program in North America during the three months ended April 30, 2015 and 110 employees elected to participate. The costs presented here are for severance benefits.

Employee severance and related costs include severance benefits and notice pay. These rebalance charges generally represent the aggregate of numerous unrelated rebalance plans which impact several employee groups, none of which is individually material to our financial position or results of operations. We determine termination benefit amounts based on employee status, years of service, and local statutory requirements. We record the charge for estimated severance benefits in the quarter that the rebalance plan is approved.

Litigation costs consist of professional service fees for services rendered, related to patent litigation involving us, Emulation and Verification Engineering S.A. and EVE-USA, Inc. (together EVE), and Synopsys, Inc. regarding emulation technology.

Provision for Income Taxes

Year ended January 31,	2016	Change	2015	Change	2014
Income tax expense	$24.8	10%	$22.6	138%	$9.5
Effective tax rate	21%		13%		6%

In fiscal year 2016, our income before taxes of $118.9 consisted of $144.9 of pre-tax income in foreign jurisdictions and a pre-tax loss of $26.0 in the U.S., reflecting substantial earnings by certain foreign operations, including our Irish subsidiaries, and a higher proportion of our operating expenses and financing costs occurring in the U.S.

Generally, the provision for income taxes is the result of the mix of profits and losses earned in various tax jurisdictions with a broad range of income tax rates, withholding taxes (primarily in certain foreign jurisdictions), changes in tax reserves, the provision for U.S. taxes on undistributed earnings of foreign subsidiaries not deemed to be permanently invested, and the application of valuation allowances on deferred tax assets.

Our effective tax rate was 21% for fiscal year 2016. Our tax expense differs from tax expense computed at the U.S. federal statutory rate primarily due to:

- The benefit of lower tax rates on earnings of foreign subsidiaries;
- Recognition of net operating loss carryforwards, foreign tax credit carryforwards and research and experimentation credit carryforwards for which no tax benefit has been recognized in the U.S.; and
- The application of tax incentives for research and development.

These differences are partially offset by:

- Provision of U.S. income tax on non-permanently reinvested foreign subsidiary earnings to account for the impact of future repatriations;
- Increase in reserves for uncertain tax positions;
- Non-deductible equity compensation expense; and
- Withholding taxes.

The effective tax rate for fiscal year 2016 differs from our effective tax rate for fiscal year 2015 primarily due to a reduction in earnings for fiscal year 2016 that did not generate corresponding tax reductions, either because the earnings reductions occurred in low tax jurisdictions or because they increased our loss in the U.S. for which we did not recognize tax benefits. Our provision for income taxes increased by $2.2 in fiscal year 2016 compared to fiscal year 2015 primarily due to an increase in current foreign tax expense resulting from an increase in uncertain tax positions in fiscal year 2016.

Our tax position in the U.S. could be impacted by the U.S. Tax Court opinion issued on July 27, 2015 in *Altera Corp. v. Commissioner* which invalidates part of a Treasury Regulation requiring stock based compensation to be included in any qualified intercompany cost sharing arrangement. For the year ended January 31, 2016, no impact has been recorded due to the uncertainties with respect to the ultimate resolution of this case. Additionally, we are in the process of determining the impact, if any, the *Altera* opinion would have on our financial statements in future periods should additional information become available.

We determine deferred tax assets and liabilities based on differences between the financial reporting and tax basis of assets and liabilities. In addition, we record deferred tax assets for net operating loss carryforwards and tax credit carryovers. We calculate the deferred tax assets and liabilities using the enacted laws and tax rates that will be in effect when we expect the differences to reverse. A valuation allowance is recorded when it is more likely than not that all or some portion of the deferred tax asset will not be realized. Since 2004, we have determined that it is uncertain whether our U.S. entity will generate sufficient taxable income to apply against certain reversing timing differences and to utilize net operating loss carryforwards, and research and experimentation credit carryforwards before expiration. Accordingly, we recorded a valuation allowance against those deferred tax assets for which realization does not meet the more likely than not standard. We have established valuation allowances related to certain foreign deferred tax assets based on historical losses as well as future expectations in certain jurisdictions. For jurisdictions in which we have valuation allowances, we will continue to evaluate on a periodic basis the likelihood of potential sources of income, including potential repatriations, and the associated realizability of the deferred tax assets.

From January 31, 2015 to January 31, 2016, net deferred tax liabilities increased from $4.7 to $9.8. Gross deferred tax assets increased by $2.1 from January 31, 2015 to January 31, 2016, principally due to the creation of additional tax credits in the U.S. There was a $35.5 increase in deferred tax liabilities from January 31, 2015 to January 31, 2016 and a valuation allowance decrease of $28.4 from January 31, 2015 to January 31, 2016. The changes in both the deferred tax liabilities and the valuation allowance principally related to the amount, and prospective tax thereon, of current year foreign subsidiary earnings treated as not permanently reinvested.

The liability for income taxes associated with net uncertain tax positions was $25.3 as of January 31, 2016 and $19.5 as of January 31, 2015. As of January 31, 2016, within the liability, $0.2 was classified as short-term liabilities in income tax payable in our consolidated balance sheet as we generally anticipate the settlement of these liabilities will require payment of cash within the next twelve months. The remaining $25.1 of income tax associated with uncertain tax positions was classified as a long-term income tax liability. We expect uncertain tax positions of $25.2, if recognized, would favorably affect our effective tax rate.

RECENT ACCOUNTING PRONOUNCEMENTS

In February 2016, the Financial Accounting Standards Board (FASB) issued Accounting Standards Update (ASU) 2016-02, *Leases (Topic 842).* This ASU requires a lessee to recognize in the statement of financial position a liability to make lease payments, and a right-of-use asset representing its right to use the underlying asset for the lease term. We will be required to implement this guidance in the first quarter of fiscal year 2020. Early adoption is permitted. We are currently assessing the impact of this update on our consolidated financial statements.

In September 2015, the FASB issued ASU 2015-16, *Business Combinations (Topic 805), Simplifying the Accounting for Measurement-Period Adjustments.* This ASU eliminates the requirement for an acquirer to retrospectively account for adjustments made to provisional amounts recognized in a business combination. The ASU requires that an acquirer recognize adjustments to provisional amounts identified during the measurement period in the reporting period in which the adjustments are determined. Changes in depreciation, amortization, and any other income effects resulting from the adjustments to provisional amounts, should be computed as of the acquisition date. The ASU requires that an entity present separately, by line item, the amounts included in current-period earnings that would have been recorded in previous reporting periods, if the adjustments to provisional amounts had been recognized on the acquisition date. We will be required to implement this guidance in the first quarter of fiscal year 2017. Early adoption is permitted for financial statements that have not yet been made available for issuance. This update is not expected to have a material impact on our consolidated financial statements.

In April 2015, the FASB issued ASU 2015-05, *Intangibles-Goodwill and Other-Internal-Use Software (Subtopic 350-40), Customer's Accounting for Fees Paid in a Cloud Computing Arrangement.* This ASU provides guidance to customers about whether a cloud computing arrangement includes a software license. If the arrangement includes a software license, the customer would account for fees related to the software license element consistent with accounting for the acquisition of other acquired software licenses. If the arrangement does not contain a software license, the customer would account for the arrangement as a service contract. An arrangement would contain a software license element if both: (i) the customer has the contractual right to take possession of the software at any time during the hosting period without significant penalty; and (ii) it is feasible for the customer to either run the software on its own hardware or contract with another party unrelated to the vendor to host the software. We will be required to implement this guidance in the first quarter of fiscal year 2017. Early adoption is permitted. The standard permits one of two methods of adoption: (i) fully retrospectively; or (ii) prospectively to arrangements entered into, or materially modified, after the effective date. We intend to adopt this ASU prospectively. We are currently assessing the impact of this update on our consolidated financial statements.

In September 2014, the FASB issued ASU 2014-15, *Presentation of Financial Statements – Going Concern: Disclosure of Uncertainties about an Entity's Ability to Continue as a Going Concern.* This ASU provides guidance on management's responsibility in evaluating whether there are conditions or events that raise substantial doubt about the entity's ability to continue as a going concern and to provide related disclosures if required. Evaluation is required every reporting period, including interim periods. We will be required to implement this guidance in the fourth quarter of fiscal year 2017. Early adoption is permitted. This update is not expected to have a material impact on our consolidated financial statements.

In May 2014, the FASB issued ASU 2014-09, *Revenue from Contracts with Customers (Topic 606)*. This ASU is based on the principle that the amount of revenue recognized should reflect the consideration an entity expects to be entitled to in exchange for the transfer of goods and services to customers. This ASU requires disclosures enabling users of financial statements to understand the nature, amount, timing, and uncertainty of revenue and cash flows arising from contracts with customers. This ASU also requires qualitative and quantitative disclosure about customer contracts, significant judgments and changes in judgments, and assets recognized from the costs to obtain or fulfill a contract. We will be required to implement this guidance in the first quarter of fiscal year 2019. Early adoption is permitted beginning in the first quarter of fiscal year 2018. The standard permits one of two methods for adoption: (i) retrospectively to each prior reporting period presented, with the ability to utilize certain practical expedients; or (ii) retrospectively with the cumulative effect of initially applying ASU

2014-09 recognized at the date of initial application, including additional disclosures. We are evaluating the effect that ASU 2014-09 will have on our consolidated financial statements and related disclosures. We have not yet selected a transition method, nor have we determined the effect of the standard on our ongoing financial reporting.

LIQUIDITY AND CAPITAL RESOURCES

Our primary ongoing cash requirements are for product development, operating activities, capital expenditures, repurchases of common stock, dividends, debt service, and acquisition opportunities that may arise. Our primary sources of liquidity are cash generated from operations and borrowings on our revolving credit facility.

We currently have access to sufficient funds for domestic operations and do not anticipate the need to repatriate funds associated with our permanently reinvested foreign earnings for use in U.S. operations. As of January 31, 2016, we had cash totaling $324.3 held by our foreign subsidiaries. A significant portion of our cash held by our foreign subsidiaries is accessible without a significant cash tax cost as the repatriation of foreign earnings will be sheltered from U.S. federal tax by net operating losses and tax credits. To the extent our foreign earnings are not permanently reinvested, we have provided for the tax consequences that would ensue upon their repatriation. In the event funds which are treated as permanently reinvested are repatriated, we will be required to accrue and pay additional taxes to repatriate these funds.

To date, we have experienced no loss or lack of access to our invested cash; however, we can provide no assurances that access to our cash will not be impacted by adverse conditions in the financial markets.

At any point in time, we have significant balances in operating accounts that are with individual third-party financial institutions, which may exceed the Federal Deposit Insurance Corporation insurance limits or other regulatory insurance program limits. We monitor daily the cash balances in our operating accounts and adjust them as appropriate; however, these cash balances could be impacted if the underlying financial institutions fail or are subject to other adverse conditions in the financial markets.

We anticipate that the following will be sufficient to meet our working capital needs on a short-term (twelve months or less) and a long-term (more than twelve months) basis:

- Current cash balances;
- Anticipated cash flows from operating activities, including the effects of selling and financing customer term receivables;
- Amounts available under existing revolving credit facilities; and
- Other available financing sources, such as the issuance of debt or equity securities.

We have experienced no difficulties to date in raising debt. However, capital markets can be volatile, and we cannot assure that we will be able to raise debt or equity capital on acceptable terms, if at all.

Cash Flow Information

Year ended January 31,	2016	2015
Cash provided by operating activities	$228.6	$ 138.2
Cash used in investing activities	$ (53.0)	$(128.8)
Cash used in financing activities	$ (69.9)	$ (69.1)

Operating Activities

Cash flows from operating activities consist of our net income adjusted for certain non-cash items and changes in operating assets and liabilities.

Trade Accounts and Term Receivables

Our cash flows from operating activities are significantly influenced by the payment terms on our license agreements and by our sales of qualifying accounts receivable. Our customers' inability to fulfill payment obligations could adversely affect our cash flow. We monitor our accounts receivable portfolio for customers with low or declining credit ratings and increase our collection efforts when necessary. Trade accounts and term receivables consisted of the following:

As of January 31,	2016	2015
Trade accounts receivable, net	$493.2	$546.6
Term receivables, short-term (included in trade accounts receivable on the balance sheet)	$317.2	$337.6
Term receivables, long-term	$268.7	$301.9
Average days sales outstanding including the short-term portion of term receivables	132	112
Average days sales outstanding in trade accounts receivable, excluding the short-term portion of term receivables	47	43

The increase in the average days sales outstanding, including the short-term portion of term receivables, as of January 31, 2016 was primarily due to a decrease in revenue in the fourth quarter of fiscal year 2016 compared to fiscal year 2015 partially offset by a decrease in accounts receivable as of January 31, 2016 compared to January 31, 2015.

Term receivables are attributable to multi-year term license sales agreements. We include amounts for term agreements that are due within one year in trade accounts receivable, net, on our balance sheet and balances that are due in more than one year in term receivables, long-term. We use term agreements as a standard business practice and have a history of successfully collecting under the original payment terms without making concessions on payments, products, or services. Total term receivables were $585.8 as of January 31, 2016 compared to $639.5 as of January 31, 2015.

We enter into agreements to sell qualifying accounts receivable from time to time to certain financing institutions on a non-recourse basis. We received net proceeds from the sale of receivables of $42.7 for fiscal year 2016 compared to $22.6 for fiscal year 2015. We continue to have no difficulty in factoring receivables and continue to evaluate the economics of the sale of accounts receivable. We have not set a target for the sale of accounts receivables for fiscal year 2017.

Accrued Payroll and Related Liabilities

As of January 31,	2016	2015
Accrued payroll and related liabilities	$73.4	$108.6

The decrease in accrued payroll and related liabilities as of January 31, 2016 compared to January 31, 2015 was primarily due to a decrease in incentive compensation and commissions accrued for fiscal year 2016 compared to fiscal year 2015 related to reduced operating income in fiscal year 2016.

Investing Activities

Cash used in investing activities for fiscal year 2016 primarily consisted of cash paid for capital expenditures and acquisitions of businesses.

Expenditures for property, plant, and equipment were $43.3 for fiscal year 2016 compared to $48.4 for fiscal year 2015. The expenditures for property, plant, and equipment for fiscal year 2016 were primarily a result of spending on information technology and infrastructure improvements within facilities.

During fiscal year 2016, we paid $11.7 for acquisitions of businesses, compared to $84.6 during fiscal year 2015. The fiscal year 2015 total represents cash payments of $46.8 ($45.5, net of cash acquired of $1.3) for the acquisition of Berkeley Design Automation, Inc. and $39.1, net for acquisitions of other businesses. We plan to finance future business acquisitions through cash and possible common stock issuances. The cash expected to be utilized includes cash on hand, cash generated from operating activities, and borrowings on our revolving credit facility.

Financing Activities

For fiscal year 2016, cash used in financing activities consisted primarily of common stock repurchases, the payment of dividends and the purchase of the remaining non-controlling interest of Calypto Design Systems, Inc., offset in part by proceeds from the issuance of common stock and proceeds from our revolving credit facility.

During fiscal year 2016, we paid four quarterly dividends of $0.055 per share of outstanding common stock for a total of $25.6. On March 3, 2016 we announced a quarterly dividend of $0.055 per share of outstanding common stock, payable on March 31, 2016 to shareholders of record as of the close of business on March 10, 2016. Future declarations of quarterly dividends and the establishment of future record and payment dates are subject to the quarterly determination of our Board of Directors.

We currently have a share repurchase program, approved by our Board of Directors, authorizing the repurchase of up to $200.0 of our common stock. During fiscal year 2016, we repurchased 4.5 shares of common stock for $85.0, compared to 3.2 shares of common stock for $70.1 during fiscal year 2015. As of January 31, 2016, $90.0 remains available for repurchase under the program.

The terms of our revolving credit facility limited the combination of the amount of our common stock we can repurchase and the amount of dividends we can pay to $50.0 plus 70% of our cumulative net income for periods after January 31, 2011. An additional $112.0 was available for common stock repurchases or dividend payments under this limit as of January 31, 2016.

We repurchased 8.1 shares of common stock for $146.1 on February 25, 2016. This repurchase was excluded from our share repurchase program noted above. To facilitate this repurchase, effective February 24, 2016 our revolving credit facility was amended to increase the limit on the amount of common stock we can repurchase and dividends we can pay to $200.0 plus 70% of our cumulative net income for periods ending after February 1, 2016. Also to facilitate this repurchase we paid an intercompany dividend on February 23, 2016 from foreign subsidiaries of $150.0. As the earnings associated with these funds were not treated as permanently reinvested, any U.S. tax consequences had already been included in our tax provision in prior periods. See Note 21. “Subsequent Events” in Part II, Item 8. “Financial Statements and Supplementary Data.” for additional disclosure.

During fiscal year 2016 we received proceeds of $25.0 from our revolving credit facility.

Other factors affecting liquidity and capital resources

4.00% Convertible Subordinated Debentures due 2031

In April 2011, we issued $253.0 of 4.00% Convertible Subordinated Debentures due 2031 (4.00% Debentures). Interest on the 4.00% Debentures is payable semi-annually in April and October.

Each one thousand dollars in principal amount of the 4.00% Debentures is convertible, under certain circumstances, into 49.8058 shares of our common stock (equivalent to a conversion price of $20.08 per share). The events that permit conversion are described in Note 7. “Notes Payable” in Part II, Item 8. “Financial Statements and Supplementary Data.”

Upon conversion of any 4.00% Debentures, a holder will receive:

(i) Cash for the lesser of the principal amount of the 4.00% Debentures that are converted or the value of the converted shares; and

(ii) Cash or shares of common stock, at our election, for the excess, if any, of the value of the converted shares over the principal amount.

If any one of the conversion events occurs, the 4.00% Debentures become convertible and the net balance of the 4.00% Debentures is classified as a current liability in our consolidated balance sheet. The classification of the 4.00% Debentures as current or long-term in the consolidated balance sheet is evaluated at each balance sheet date and may change from quarter to quarter depending on whether any of the conversion conditions are met. As of January 31, 2016, none of the conditions allowing the holders of the 4.00% Debentures to convert the 4.00% Debentures into shares of our common stock were met.

The 4.00% Debentures were convertible during the second half of fiscal year 2016. During the three months ended October 31, 2015 a minimal number of holders requested conversion. If all of the holders of the 4.00% Debentures had elected to convert their debentures, we would have been required to make cash payments of at least $253.0 prior to the maturity of the 4.00% Debentures. The market value of the 4.00% Debentures exceeds and will likely continue to exceed the value that would be received upon conversion. Because of this, we do not expect that significant holders would elect to convert if conversion conditions are met again in the future.

We believe that current cash balances, cash generated from our operating activities in future periods, access to our revolving credit facility, as well as additional financing arrangements will be sufficient to service any conversion of the 4.00% Debentures; however, future changes in our cash position; cash flows from operating, investing and financing activities; general business levels; and our access to additional financing, may impact our ability to settle the amount payable to the holders of any 4.00% Debentures that are converted.

We may redeem some or all of the 4.00% Debentures for cash on or after April 5, 2016 at the following redemption prices expressed as a percentage of principal, plus any accrued and unpaid interest:

Period	Redemption Price
Beginning on April 5, 2016 and ending on March 31, 2017	101.143%
Beginning on April 1, 2017 and ending on March 31, 2018	100.571%
On April 1, 2018 and thereafter	100.000%

The holders, at their option, may redeem the 4.00% Debentures for cash on April 1, 2018, April 1, 2021, and April 1, 2026, and in the event of a fundamental change in the company. In each case, the repurchase price will be 100% of the principal amount of the 4.00% Debentures plus any accrued and unpaid interest.

For further information on the 4.00% Debentures, see Note 7. “Notes Payable” in Part II, Item 8. “Financial Statements and Supplementary Data.”

Revolving Credit Facility

We have a syndicated, senior, unsecured, revolving credit facility with a maximum borrowing capacity of $125.0, which expires on January 9, 2020. Our interest rate on the facility is variable, and our interest expense associated with borrowings under this revolving credit facility will vary with market interest rates. Additionally, commitment fees can vary as they are payable on the unused portion of the revolving credit facility at rates between 0.30% and 0.40%.

As of January 31, 2016 we have borrowings of $25.0 against the revolving credit facility. There were no borrowings against the revolving credit facility during fiscal year 2015.

This revolving credit facility contains certain financial and other covenants, including a limit on the aggregate amount we can pay for dividends and repurchases of our stock over the term of the facility.

We were in compliance with all financial covenants as of January 31, 2016. If we fail to comply with the financial covenants and do not obtain a waiver from our lenders, we would be in default under the revolving credit facility and our lenders could terminate the facility and demand immediate repayment of all outstanding loans under the revolving credit facility.

For further information on our revolving credit facility, see Note 6. “Short-Term Borrowings” in Part II, Item 8. “Financial Statements and Supplementary Data.”

OFF-BALANCE SHEET ARRANGEMENTS

We do not have off-balance sheet arrangements, financings, or other similar relationships with unconsolidated entities or other persons, also known as special purpose entities. In the ordinary course of business, we lease certain real properties, primarily field sales offices, research and development facilities, and equipment.

CONTRACTUAL OBLIGATIONS

We are contractually obligated to make the following payments as of January 31, 2016:

	Payments due by period				
	Total	Less than 1 year	1-3 years	3-5 years	More than 5 years
Notes payable	$258.1	$ –	$ 2.0	$ 3.2	$252.9
Interest on debt	153.5	10.1	20.3	20.2	102.9
Other liabilities (1)	12.8	2.7	3.5	0.3	6.3
Other borrowings	33.4	33.4	–	–	–
Operating leases	74.1	20.2	27.7	17.5	8.7
Total contractual obligations	$531.9	$66.4	$53.5	$41.2	$370.8

(1) Our balance sheet as of January 31, 2016 includes additional long-term taxes payable of $29.0 related to uncertain income and other tax positions for which the timing of the ultimate resolution is uncertain. At this time, we are unable to make a reasonably reliable estimate of the timing of any cash settlement with the respective tax authorities and the total amount of taxes payable. The timing of such tax payments may depend on the resolution of current and future tax examinations which cannot be estimated. As a result, this amount is not included in the above table.

OUTLOOK FOR FISCAL YEAR 2017

We expect revenues for the first quarter of fiscal year 2017 to be approximately $220 with a loss per share for the same period of approximately ($0.12). For the full fiscal year 2017, we expect revenues to be approximately $1,215 with earnings per share of approximately $1.22.

Item 7A. Quantitative and Qualitative Disclosures About Market Risk.

Unless otherwise indicated, all numerical references are in millions, except interest rates and contract rates.

INTEREST RATE RISK

We are exposed to interest rate risk primarily through our investment portfolio, short-term borrowings and notes payable. We do not use derivative financial instruments for speculative or trading purposes.

We place our investments in instruments that meet high quality credit standards, as specified in our investment policy. The policy also limits the amount of credit exposure to any one issuer and type of instrument. We do not expect any material loss with respect to our investment portfolio.

The table below presents the carrying amount and related weighted-average fixed interest rates for our investment portfolio. The carrying amount approximates fair value as of January 31, 2016.

Principal (notional) amounts in United States dollars	Carrying Amount	Average Fixed Interest Rate
Cash equivalents – fixed rate	$260.1	0.37%

We have convertible subordinated debentures with a principal balance of $253.0 outstanding with a fixed interest rate of 4.00% as of January 31, 2016 and January 31, 2015. Generally, interest rate changes for fixed rate debt affect the fair value of the debt but do not affect future earnings or cash flow.

We have a syndicated, senior, unsecured, revolving credit facility, which expires on January 9, 2020. Borrowings under the revolving credit facility are permitted to a maximum of $125.0. Our interest rate on the facility is variable, and our interest expense associated with borrowings under this revolving credit facility will vary with market interest rates. As of January 31, 2016 we had an outstanding balance of $25.0 against this revolving credit facility compared to no outstanding balance as of January 31, 2015. Generally, interest rate changes for variable interest rate debt do not affect fair value, but do affect future earnings and cash flow. For further information on our revolving credit facility, see Note 6. "Short-Term Borrowings" in Part II, Item 8. "Financial Statements and Supplementary Data."

We had other short-term borrowings of $0.9 outstanding as of January 31, 2016 and $1.3 as of January 31, 2015 with variable rates based on market indexes.

FOREIGN CURRENCY RISK

We transact business in various foreign currencies and have established a program to hedge certain foreign currency forecasted transactions and exposures from existing assets and liabilities. Our derivative instruments consist of short-term foreign currency exchange contracts, with a duration period of a year or less. We enter into contracts with counterparties that are major financial institutions and, as such we do not expect material losses as a result of defaults by our counterparties. We do not hold or issue derivative financial instruments for speculative or trading purposes.

We enter into foreign currency forward contracts to protect against currency exchange risk associated with expected future cash flows. Our practice is to hedge a majority of our existing material foreign currency transaction exposures, which generally represent the excess of expected euro denominated expenses over expected euro denominated revenues, and the excess of Japanese yen denominated revenues over expected Japanese yen denominated expenses. We also enter into foreign currency forward contracts to protect against currency exchange risk associated with existing assets and liabilities.

The following table provides volume information about our foreign currency forward program. The information provided is in U.S. dollar equivalent amounts. The table presents the gross notional amounts, at contract exchange rates, and the weighted average contractual foreign currency exchange rates. These forward contracts mature within the next twelve months.

As of January 31,	2016		2015	
	Gross Notional Amount	Weighted Average Contract Rate	Gross Notional Amount	Weighted Average Contract Rate
Forward Contracts:				
Euro	$ 41.5	0.92	$ 36.5	0.87
Indian rupee	31.6	67.96	14.4	62.10
Japanese yen	28.6	118.09	21.6	117.77
Israeli shekel	19.3	3.95	13.0	3.95
British pound	11.0	0.70	14.7	0.66
Korean won	10.0	1,214.17	3.9	1,078.50
Taiwan dollar	4.7	33.58	11.4	31.53
Chinese yuan	4.6	6.60	10.0	6.14
Other (1)	22.0	–	19.8	–
Total forward contracts	$173.3		$145.3	

(1) Other includes currencies which are the Swiss franc, Danish krone, Armenian dram, Swedish krona, Norwegian krone, Polish zloty, Russian ruble, Hungarian forint, Chilean peso, Romania new leu and Singapore dollar.

Item 8. Financial Statements and Supplementary Data.

Mentor Graphics Corporation
Consolidated Statements of Income

Year ended January 31,	2016	2015	2014
In thousands, except per share data			
Revenues:			
System and software	$ 700,621	$ 799,151	$ 737,790
Service and support	480,367	444,982	418,583
Total revenues	1,180,988	1,244,133	1,156,373
Cost of revenues:			
System and software	48,330	69,811	65,288
Service and support	134,025	127,403	118,221
Amortization of purchased technology	7,303	7,099	3,598
Total cost of revenues	189,658	204,313	187,107
Gross profit	991,330	1,039,820	969,266
Operating expenses:			
Research and development	381,440	381,125	348,817
Marketing and selling	351,344	365,688	342,799
General and administration	73,853	79,193	75,543
Equity in earnings of Frontline	(5,849)	(5,653)	(4,092)
Amortization of intangible assets	8,716	8,166	6,230
Special charges	45,081	23,490	16,929
Total operating expenses	854,585	852,009	786,226
Operating income:	136,745	187,811	183,040
Other income (expense), net	1,612	(777)	(520)
Interest expense	(19,428)	(19,276)	(19,452)
Income before income tax	118,929	167,758	163,068
Income tax expense	24,753	22,581	9,510
Net income	94,176	145,177	153,558
Less: Loss attributable to noncontrolling interest	(2,101)	(1,962)	(1,700)
Net income attributable to Mentor Graphics shareholders	$ 96,277	$ 147,139	$ 155,258
Net income per share:			
Basic	$ 0.83	$ 1.28	$ 1.33
Diluted	$ 0.81	$ 1.26	$ 1.29
Weighted average number of shares outstanding:			
Basic	116,701	114,635	113,671
Diluted	119,263	117,078	116,702
Cash dividends declared per common share	$ 0.22	$ 0.20	$ 0.18

See accompanying notes to consolidated financial statements.

Mentor Graphics Corporation
Consolidated Statements of Comprehensive Income

Year ended January 31,	2016	2015	2014
In thousands			
Net income	$ 94,176	$ 145,177	$ 153,558
Other comprehensive loss, net of tax:			
Cash flow hedges:			
Change in unrealized gain (loss) on derivative instruments	234	(283)	1,653
Less: reclassification adjustment for net gain (loss) included in net income	312	(283)	1,599
Net change	(78)	–	54
Change in accumulated translation adjustment	(8,947)	(30,360)	(6,790)
Change in pension liability, net of tax expense (benefit) of $25, $(161), $72	(166)	(285)	135
Other comprehensive loss	(9,191)	(30,645)	(6,601)
Comprehensive income	84,985	114,532	146,957
Less amounts attributable to the noncontrolling interest:			
Net loss	(2,101)	(1,962)	(1,700)
Change in accumulated translation adjustment	22	45	(5)
Comprehensive loss attributable to the noncontrolling interest	(2,079)	(1,917)	(1,705)
Comprehensive income attributable to Mentor Graphics shareholders	$ 87,064	$ 116,449	$ 148,662

See accompanying notes to consolidated financial statements.

Mentor Graphics Corporation
Consolidated Balance Sheets

As of January 31,	2016	2015
In thousands		
Assets		
Current assets:		
Cash and cash equivalents	$ 334,826	$ 230,281
Trade accounts receivable, net of allowance for doubtful accounts of $3,826 as of January 31, 2016 and $4,217 as of January 31, 2015	493,209	546,622
Other receivables	23,120	20,984
Inventory	24,762	22,512
Prepaid expenses and other	22,550	21,405
Deferred income taxes	–	23,490
Total current assets	898,467	865,294
Property, plant, and equipment, net	182,092	170,737
Term receivables	268,657	301,862
Goodwill	606,842	599,929
Intangible assets, net	37,446	45,577
Other assets	70,860	62,609
Total assets	$2,064,364	$2,046,008
Liabilities and Stockholders' Equity		
Current liabilities:		
Short-term borrowings	$ 33,449	$ 7,228
Accounts payable	16,740	12,687
Income taxes payable	3,966	5,994
Accrued payroll and related liabilities	73,371	108,553
Accrued and other liabilities	37,059	47,728
Deferred revenue	258,725	259,340
Total current liabilities	423,310	441,530
Notes payable (Note 7)	240,076	227,386
Deferred revenue	18,303	21,251
Income tax liability	25,116	19,279
Other long-term liabilities	37,130	50,336
Total liabilities	743,935	759,782
Commitments and contingencies (Note 9)		
Noncontrolling interest with redemption feature	–	13,372
Stockholders' equity:		
Common stock, no par value, 300,000 shares authorized as of January 31, 2016 and January 31, 2015; 114,934 shares issued and outstanding as of January 31, 2016 and 115,790 shares issued and outstanding as of January 31, 2015	818,683	832,612
Retained earnings	522,846	451,901
Accumulated other comprehensive loss	(21,100)	(11,887)
Noncontrolling interest	–	228
Total stockholders' equity	1,320,429	1,272,854
Total liabilities and stockholders' equity	$2,064,364	$2,046,008

See accompanying notes to consolidated financial statements.

Mentor Graphics Corporation
Consolidated Statements of Cash Flows

Year ended January 31,	2016	2015	2014
In thousands			
Operating Cash Flows:			
Net income	$ 94,176	$ 145,177	$153,558
Adjustments to reconcile net income to net cash provided by operating activities:			
Depreciation of property, plant, and equipment	36,449	34,336	34,563
Amortization of intangible assets, debt costs and other	24,973	23,710	17,891
Stock-based compensation	40,497	35,807	29,350
Deferred income taxes	5,055	9,265	8,550
Changes in other long-term liabilities	(804)	876	(3,708)
Equity in income of unconsolidated entities, net of dividends received	(455)	507	1,290
Other	(696)	85	(11)
Changes in operating assets and liabilities, net of effect of acquired businesses:			
Trade accounts receivable, net	49,751	(90,404)	(43,811)
Prepaid expenses and other	(13,558)	(16,348)	(17,774)
Term receivables, long-term	31,672	(34,808)	(21,285)
Accounts payable and accrued liabilities	(39,956)	2,481	4,473
Income taxes receivable and payable	3,767	1,442	(10,487)
Deferred revenue	(2,275)	26,082	(2,896)
Net cash provided by operating activities	228,596	138,208	149,703
Investing Cash Flows:			
Proceeds from the sales and maturities of short-term investments	–	4,124	3,112
Purchases of short-term investments	–	–	(7,820)
Proceeds from sale of building	2,068	–	–
Purchases of property, plant, and equipment	(43,336)	(48,366)	(30,761)
Acquisitions of businesses and other intangible assets, net of cash acquired	(11,700)	(84,596)	(20,906)
Net cash used in investing activities	(52,968)	(128,838)	(56,375)
Financing Cash Flows:			
Proceeds from issuance of common stock	32,807	29,990	53,013
Repurchase of common stock	(85,000)	(70,053)	(49,995)
Tax benefit from share options exercised	217	280	386
Dividends paid	(25,590)	(22,911)	(20,398)
Net increase (decrease) in short-term borrowing	1,190	(2,660)	3,748
Proceeds from line of credit	25,000	–	–
Repayments of other borrowings	(7,268)	(3,659)	(7,762)
Purchase of remaining noncontrolling interest in majority owned subsidiaries	(11,270)	–	–
Proceeds (payments) for the sale of subsidiary shares from (to) noncontrolling interest	7	(41)	–
Net cash used in financing activities	(69,907)	(69,054)	(21,008)
Effect of exchange rate changes on cash and cash equivalents	(1,176)	(3,357)	(2,781)
Net change in cash and cash equivalents	104,545	(63,041)	69,539
Cash and cash equivalents at the beginning of the period	230,281	293,322	223,783
Cash and cash equivalents at the end of the period	$334,826	$ 230,281	$293,322

See accompanying notes to consolidated financial statements.

Mentor Graphics Corporation
Consolidated Statements of Stockholders' Equity

	Common Stock		Retained Earnings	Accumulated Other Comprehensive Income (Loss)	Noncontrolling Interest	Total Stockholders' Equity	Noncontrolling Interest with Redemption Feature
	Shares	Amount					
In thousands							
Balance as of January 31, 2013	112,902	$810,902	$197,178	$ 25,399	$ –	$1,033,479	$ 12,698
Net income (loss)			155,258			155,258	(1,700)
Other comprehensive loss				(6,596)		(6,596)	(5)
Adjustment of noncontrolling interest to redemption value			(4,486)			(4,486)	4,486
Dividends			(20,398)			(20,398)	
Stock issued under stock awards and stock purchase plans	5,618	53,013				53,013	
Stock repurchased	(2,593)	(49,995)				(49,995)	
Stock-based compensation expense		29,350				29,350	
Stock withheld for taxes	(205)	(4,717)				(4,717)	
Tax benefit associated with the exercise of stock options		386				386	
Balance as of January 31, 2014	115,722	$838,939	$327,552	$ 18,803	$ –	$1,185,294	$ 15,479
Net income (loss)			147,139		29	147,168	(1,991)
Other comprehensive income (loss)				(30,690)	(1)	(30,691)	46
Recognition of noncontrolling interest					200	200	
Adjustment of noncontrolling interest to redemption value			121			121	(121)
Dividends			(22,911)			(22,911)	
Stock issued under stock awards and stock purchase plans	3,349	29,990				29,990	331
Stock repurchased	(3,174)	(70,053)				(70,053)	(372)
Stock-based compensation expense		35,807				35,807	
Stock withheld for taxes	(107)	(2,351)				(2,351)	
Tax benefit associated with the exercise of stock options		280				280	
Balance as of January 31, 2015	115,790	$832,612	$451,901	$(11,887)	$ 228	$1,272,854	$ 13,372
Net income (loss)			96,277		(42)	96,235	(2,059)
Other comprehensive income (loss)				(9,213)	(4)	(9,217)	26
Adjustment of noncontrolling interest to redemption value			258			258	(258)
Purchase of remaining noncontrolling interest in majority owned subsidiaries					(182)	(182)	(11,088)
Debt conversion		(13)				(13)	
Dividends			(25,590)			(25,590)	
Stock issued under stock awards and stock purchase plans	3,767	32,807				32,807	7
Stock repurchased	(4,526)	(85,000)				(85,000)	
Stock-based compensation expense		40,497				40,497	
Stock withheld for taxes	(97)	(2,437)				(2,437)	
Tax benefit associated with the exercise of stock options		217				217	
Balance as of January 31, 2016	114,934	$818,683	$522,846	$(21,100)	$ –	$1,320,429	$ –

See accompanying notes to consolidated financial statements.

Mentor Graphics Corporation
Notes to Consolidated Financial Statements

All numerical dollar and share references are in thousands, except for per share data.

1. Nature of Operations

We are a supplier of electronic design automation systems — advanced computer software and emulation hardware systems used to automate the design, analysis, and testing of complex electro-mechanical systems, electronic hardware, and embedded systems software in electronic systems and components. We market our products and services worldwide, primarily to large companies in the communications, computer, consumer electronics, semiconductor, networking, multimedia, military and aerospace, and transportation industries. We sell and license our products through our direct sales force and a channel of distributors and sales representatives. We were incorporated in Oregon in 1981 and our common stock is traded on The NASDAQ Global Select Market under the symbol "MENT." In addition to our corporate offices in Wilsonville, Oregon, we have sales, support, software development, and professional service offices worldwide.

2. Summary of Significant Accounting Policies

Principles of Consolidation

The consolidated financial statements include our financial statements and those of our wholly-owned and majority-owned subsidiaries. All intercompany accounts and transactions have been eliminated in consolidation.

We do not have off-balance sheet arrangements, financings, or other similar relationships with unconsolidated entities or other persons, also known as special purpose entities. In the ordinary course of business, we lease certain real properties, primarily field sales offices, research and development facilities, and equipment, as described in Note 9. "Commitments and Contingencies."

Foreign Currency Translation

Local currencies are the functional currencies for our foreign subsidiaries except for certain subsidiaries in Ireland, Singapore, Egypt, and the Netherlands Antilles where the United States (U.S.) dollar is used as the functional currency. We translate assets and liabilities of foreign operations, excluding certain subsidiaries in Ireland, Singapore, Egypt, and the Netherlands Antilles to U.S. dollars at current rates of exchange and revenues and expenses using weighted average rates. We include foreign currency translation adjustments in stockholders' equity as a component of accumulated other comprehensive income. We maintain the accounting records for certain subsidiaries in Ireland, Singapore, Egypt, and the Netherlands Antilles in the U.S. dollar and accordingly no translation is necessary. We include foreign currency transaction gains and losses as a component of other income (expense), net.

Use of Estimates

U.S. generally accepted accounting principles require management to make estimates and assumptions that affect the reported amount of assets, liabilities, and contingencies at the date of the financial statements and the reported amounts of revenues and expenses during the reporting periods. Such estimates include revenue recognition, valuation of trade accounts receivable, income taxes, business combinations, goodwill, intangible assets, long-lived assets, special charges, and stock-based compensation. These estimates and assumptions are based on our best judgment. We evaluate our estimates and assumptions on an ongoing basis using historical experience and other factors, including the current economic environment, which we believe to be reasonable under the circumstances. We adjust estimates and assumptions as facts and circumstances dictate. Actual results could differ from these estimates. Any changes in estimates will be reflected in the financial statements in future periods.

Investments

We classify investments with original maturities of 90 days or less as cash equivalents. Short-term investments include certificates of deposit with original maturities in excess of 90 days and less than one year at the time of purchase.

Long-term investments, included in other assets on the accompanying consolidated balance sheets, include investments with maturities in excess of one year from the balance sheet date and equity securities. We determine the appropriate classification of our investments at the time of purchase. For investments in equity securities, we use the equity method of accounting when our investment gives us the ability to exercise significant influence over the operating and financial policies of the investee. Under the equity method, we currently record our share of earnings or losses as a component of other income (expense), net, equal to our proportionate share of the earnings or losses of the investee. Investments in equity securities of private companies without a readily determinable fair value, where we do not exercise significant influence over the investee, are recorded using the cost method of accounting, carrying the investment at historical cost. We periodically evaluate the fair value of all investments to determine if an other-than-temporary decline in value has occurred.

Investment in Frontline

We have a 50% interest in a joint venture, Frontline P.C.B. Solutions Limited Partnership (Frontline), a provider of engineering software solutions for the printed circuit board industry. We use the equity method of accounting for Frontline, which results in reporting our investment as one line within other assets in the consolidated balance sheet and our share of earnings as one line in the consolidated statement of income. Frontline reports on a calendar year basis, therefore, we record our interest in the earnings of Frontline on a one-month lag.

Although we do not exert control, we actively participate in regular and periodic activities with respect to Frontline such as budgeting, business planning, marketing, and direction of research and development projects. Accordingly, we have included our interest in the earnings of Frontline as a component of operating income.

Property, Plant, and Equipment, Net

We state property, plant, and equipment at cost and capitalize expenditures for additions to property, plant, and equipment. We expense maintenance and repairs, which do not improve or extend the life of the respective asset, as incurred. We compute depreciation on a straight-line basis as follows:

	Estimated Useful Lives (in years)
Buildings	40
Land improvements	20
Computer equipment and furniture	3 - 5
Leasehold improvements [1]	3 - 10

[1] Amortized over the shorter of the lease term or estimated life.

A summary of property, plant, and equipment, net is as follows:

As of January 31,	2016	2015
Computer equipment and furniture	$ 351,982	$ 334,817
Buildings and building equipment	115,312	110,854
Land and improvements	21,489	21,650
Leasehold improvements	41,906	38,035
Property, plant, and equipment, gross	530,689	505,356
Less: accumulated depreciation and amortization	(348,597)	(334,619)
Property, plant, and equipment, net	$ 182,092	$ 170,737

Goodwill and Intangible Assets

Goodwill represents the excess of the aggregate purchase price over the fair value of the net tangible assets and other intangible assets acquired in our business combinations. Goodwill is not amortized, but is tested for impairment annually and as necessary if changes in facts and circumstances indicate that the fair value of our reporting unit may be less than the carrying amount. We operate as a single reporting unit for purposes of goodwill evaluation. We completed our annual goodwill impairment test as of January 31, 2016, 2015, and 2014. For purposes of assessing the impairment of goodwill, we estimated the fair value of our reporting unit using its market capitalization as the best evidence of fair value and compared that fair value to the carrying value of our reporting unit. Our reporting unit passed this step of the goodwill analysis. There were no indicators of impairment to goodwill during fiscal years 2016, 2015, and 2014 and accordingly, no impairment charges were recognized during these fiscal periods.

Intangible assets, net primarily includes purchased technology, in-process research and development, backlog, tradenames, and customer relationships acquired in our business combinations. We review long-lived assets, including intangible assets with definite lives, for impairment whenever events or changes in circumstances indicate the carrying amount of these assets may not be recoverable. We assess the recoverability of our long-lived assets by determining whether the carrying values of the asset groups are greater than the forecasted undiscounted net cash flows of the related asset group. If we determine the assets are impaired, we write down the assets to their estimated fair value. We determine fair value based on forecasted discounted net cash flows or appraised values, depending upon the nature of the assets. In the event we determine our long-lived assets are impaired, we would make an adjustment resulting in a charge for the write-down in the period that the determination was made. There were no indicators of impairment to long-lived assets during fiscal years 2016, 2015, and 2014 and accordingly, no impairment charges were recognized during these fiscal periods.

We amortize purchased technology over three to five years to system and software cost of revenues and other intangible asset costs generally over two to five years to operating expenses. We amortize capitalized in-process research and development (resulting from acquisitions) upon completion of projects to cost of revenues over the estimated useful life of the technology. Alternatively, if we abandon a project, in-process research and development costs are expensed to operating expense when that determination is made.

Total purchased technology and other intangible asset amortization expense was as follows:

Year ended January 31,	2016	2015	2014
Purchased technology and other intangible asset amortization expense	$16,019	$15,265	$9,828

As of January 31, 2016, the carrying value of goodwill and intangible assets was as follows:

As of January 31,	2016	2015
Goodwill	$ 606,842	$ 599,929
Purchased technology and in-process research and development, gross	$ 158,102	$ 155,124
Less: accumulated amortization	(138,375)	(131,143)
Purchased technology and in-process research and development, net	$ 19,727	$ 23,981
Other intangible assets, gross	$ 105,162	$ 100,384
Less: accumulated amortization	(87,443)	(78,788)
Other intangible assets, net	$ 17,719	$ 21,596

The following table summarizes goodwill activity:

Balance as of January 31, 2014	$549,044
Acquisitions	57,476
Earnouts	13
Foreign exchange	(6,604)
Balance as of January 31, 2015	$599,929
Acquisitions	8,500
Foreign exchange	(1,587)
Balance as of January 31, 2016	$606,842

We estimate the aggregate amortization expense related to purchased technology and other intangible assets will be as follows:

Fiscal years ending January 31,	
2017	$12,889
2018	11,316
2019	9,559
2020	3,077
2021	548
Thereafter	57
Aggregate amortization expense	$37,446

Noncontrolling Interest with Redemption Feature

In September 2015 we exercised our call option to purchase the remaining noncontrolling interest of Calypto Design Systems, Inc. for $11,088. After this transaction, we own 100% of Calypto Design Systems, Inc. We had been party to an agreement that provided us a call option to acquire the noncontrolling interest, and provided the noncontrolling interest holders a put option to sell their interests to us, at prices based on formulas defined in the agreement.

Prior to our purchase, the noncontrolling interest was adjusted for the redemption feature based on the put option price formula and presented on the consolidated balance sheet under the caption "Noncontrolling interest with redemption feature." Because the exercise of the put option was outside of our control, we presented this interest outside of stockholders' equity.

The noncontrolling interest with redemption feature was recognized at the greater of:

i. The calculated redemption feature put value as of the balance sheet date; or
ii. The initial noncontrolling interest value adjusted for the noncontrolling interest holders' share of:
    a. cumulative impact of net income (loss); and
    b. other changes in accumulated other comprehensive income.

Increases (or decreases to the extent they offset previous increases) in the calculated redemption feature put value were recorded directly to retained earnings as if the balance sheet date were also the redemption date. Changes in the redemption feature put value also resulted in an adjustment to net income attributable to shareholders in the calculation of basic and diluted net income per share.

The results of the majority-owned subsidiary were presented in our consolidated results with an adjustment reflected on the face of our statement of income and the face of our statement of comprehensive income for the noncontrolling investors' interest in the results of the subsidiary.

Income Taxes

We use the asset and liability method of accounting for income taxes. Under this method, we recognize deferred income taxes for the future tax consequences attributable to temporary differences between the financial statement carrying amounts and tax balances of existing assets and liabilities. We calculate deferred tax assets and liabilities using enacted laws and tax rates that will be in effect when we expect the differences to reverse and be applied to taxable income in the years in which those temporary differences are expected to be recovered or settled. The effect on deferred taxes of a change in tax rates is recognized in income in the period that includes the enactment date. Deferred tax assets are recognized for deductible temporary differences, net operating loss carryforwards, and credit carryforwards if it is more likely than not that the tax benefits will be realized. Deferred tax assets are not recorded, however, in the following circumstances:

- A deferred tax asset is not recorded for net operating loss carryforwards created by excess tax benefits from the exercise of stock options. To the extent we achieve a reduction in the amount of tax that would be payable due to the utilization of such net operating loss carryforwards or otherwise, we may increase stockholders' equity. The historical and current deferred tax assets related to excess tax benefits from stock option exercises are excluded in the presentation of our financial results.
- Deferred tax assets are not recorded to the extent they are attributed to uncertain tax positions.

For deferred tax assets that cannot be recognized under the more-likely-than-not-standard, we have established a valuation allowance. In the event we determine that we are able to realize our deferred tax assets in the future in excess of our net recorded amount, we would reverse the valuation allowance associated with the deferred tax assets in the period the determination was made. Also, if we determine that we are not able to realize all or part of our net deferred tax assets in the future, we would record a valuation allowance on the net deferred tax assets with a corresponding increase in expense in the period the determination was made.

We are subject to income taxes in the U.S. and in numerous foreign jurisdictions, and in the ordinary course of business, there are many transactions and calculations where the ultimate tax determination is uncertain. While we believe the positions we have taken are appropriate, we have reserves for taxes to address potential exposures involving tax positions that are being challenged or that could be challenged by the tax authorities. We record a benefit on a tax position when we determine that it is more likely than not that the position is sustainable upon examination, including resolution of any related appeals or litigation processes, based on the technical merits of the position. For tax positions that are more likely than not to be sustained, we measure the tax position at the largest amount of benefit that has a greater than 50 percent likelihood of being realized when it is effectively settled. We review the tax reserves as circumstances warrant and adjust the reserves as events occur that affect our potential liability for additional taxes.

Business Combinations

For each business we acquire, the excess of the fair value of the consideration transferred over the fair value of the net tangible assets acquired and net tangible liabilities assumed is allocated to various identifiable intangible assets and goodwill. Identifiable intangible assets typically consist of purchased technology and customer-related intangibles, which amortize to expense over their useful lives. Goodwill, representing the excess of the purchase consideration over the fair value of net tangible and identifiable intangible assets, is not amortized. See additional discussion in Note 4. "Business Combinations."

Derivative Financial Instruments

We are exposed to fluctuations in foreign currency exchange rates and have established a foreign currency hedging program to hedge certain foreign currency forecasted transactions and exposures from existing assets and liabilities. Our derivative instruments consist of foreign currency exchange contracts. By using derivative instruments, we subject ourselves to credit risk. If a counterparty fails to fulfill its performance obligations under a derivative contract, our credit risk will equal the fair value of the derivative instrument. Generally, when the fair value of our derivative contracts is a net asset, the counterparty owes us, thus creating a receivable risk. We minimize counterparty credit risk by entering into derivative transactions with major financial institutions and, as such, we do not expect material losses as a result of default by our counterparties. We execute foreign currency transactions in exchange-traded or over-the-counter markets for which quoted prices exist. We do not hold or issue derivative financial instruments for speculative or trading purposes.

To manage the foreign currency volatility, we aggregate exposures on a consolidated basis to take advantage of natural offsets. The primary exposures are the Japanese yen, where we are in a long position, and the euro, where we are in a short position. Most large European revenue contracts are denominated and paid to us in U.S. dollars while our European expenses, including substantial research and development operations, are paid in local currency causing a short position in the euro. In addition, we experience greater inflows than outflows of Japanese yen as almost all Japanese-based customers contract and pay us in Japanese yen. While these exposures are aggregated on a consolidated basis to take advantage of natural offsets, substantial exposures remain.

To partially offset the net exposures in the euro and the Japanese yen, we enter into foreign currency exchange contracts of less than one year which are designated as cash flow hedges. Any gain or loss on Japanese yen contracts is classified as product revenue when the hedged transaction occurs while any gain or loss on euro contracts is classified as operating expense when the hedged transaction occurs.

We use an income approach to determine the fair value of our foreign currency contracts and record them at fair value utilizing observable market inputs at the measurement date. We report the fair value of derivatives in other receivables, if the balance is an asset, or accrued liabilities, if the balance is a liability, in the consolidated balance sheet. The accounting for changes in the fair value of a derivative depends upon whether it has been designated in a hedging relationship and on the type of hedging relationship. To qualify for designation in a hedging relationship, specific criteria must be met and the appropriate documentation maintained. Hedging relationships, if designated, are established pursuant to our risk management policy and are initially and regularly evaluated to determine whether they are expected to be, and have been, highly effective hedges. We formally document all relationships between foreign currency exchange contracts and hedged items as well as our risk management objectives and strategies for undertaking various hedge transactions.

All hedges designated as cash flow hedges are linked to forecasted transactions and we assess, both at inception of the hedge and on an ongoing basis, the effectiveness of the foreign currency exchange contracts in offsetting changes in the cash flows of the hedged items. We report the effective portions of the net gains or losses on these foreign currency exchange contracts as a component of accumulated other comprehensive income in stockholders' equity. Accumulated other comprehensive income associated with hedges of forecasted transactions is reclassified to the consolidated statement of income in the same period the forecasted transaction occurs or the hedge is no longer effective. We expect substantially all of the hedge balance in accumulated other comprehensive income to be reclassified to the consolidated statement of income within the next twelve months.

We enter into foreign currency exchange contracts to offset the earnings impact relating to the variability in exchange rates on certain short-term monetary assets and liabilities denominated in non-functional currencies. We do not designate these foreign currency contracts as hedges. The change in fair value of these derivative instruments is reported each period in other income (expense), net, in our consolidated statement of income.

Revenue Recognition

We report revenue in two categories based on how revenue is generated: (i) system and software and (ii) service and support.

System and software revenues – We derive system and software revenues from the sale of licenses of software products and emulation and other hardware systems, including finance fee revenues from our long-term installment receivables resulting from product sales. We primarily license our products using two different license types:

1. Term licenses – We use this license type primarily for software sales. This license type provides the customer with the right to use a fixed list of software products for a specified time period, typically three to four years, with payments spread over the license term, and does not provide the customer with the right to use the products after the end of the term. Term license arrangements may allow the customer to share products between multiple locations and remix product usage from the fixed list of products at regular intervals during the license term. We generally recognize product revenue from term license arrangements upon product delivery and start of the license term. In a term license agreement where we provide the customer with rights to unspecified or unreleased future products, we recognize revenue ratably over the license term.

2. Perpetual licenses – We use this license type for software and emulation hardware system sales. This license type provides the customer with the right to use the product in perpetuity and typically does not provide for extended payment terms. We generally recognize product revenue from perpetual license arrangements upon product delivery assuming all other criteria for revenue recognition have been met.

We include finance fee revenues from the accretion of the discount on long-term installment receivables in system and software revenues. Finance fees were approximately 2.0% of total revenues for fiscal years 2016, 2015, and 2014.

Service and support revenues – We derive service and support revenues from software and hardware post-contract maintenance or support services and professional services, which include consulting, training, and other services. We recognize support services revenue ratably over the service term. We record professional services revenue as the services are provided to the customer.

We determine whether product revenue recognition is appropriate based upon the evaluation of whether the following four criteria have been met:

1. Persuasive evidence of an arrangement exists – Generally, we use either a customer signed contract or qualified customer purchase order as evidence of an arrangement for both term and perpetual licenses. For professional service engagements, we generally use a signed professional services agreement and a statement of work to evidence an arrangement. Sales through our distributors are evidenced by an agreement governing the relationship, together with binding purchase orders from the distributor on a transaction-by-transaction basis.

2. Delivery has occurred – We generally deliver software and the corresponding access keys to customers electronically. Electronic delivery occurs when we provide the customer access to the software. We may also deliver the software on a digital versatile disc (DVD). With respect to emulation hardware systems, we transfer title to the customer upon shipment. Our software license and emulation hardware system agreements generally do not contain conditions for acceptance.

3. Fee is fixed or determinable – We assess whether a fee is fixed or determinable at the outset of the arrangement, primarily based on the payment terms associated with the transaction. We have established a history of collecting under an original contract with installment terms without providing concessions on payments, products, or services. Additionally, for installment contracts, we determine that the fee is fixed or determinable if the arrangement has a payment schedule that is within the term of the license and the payments are collected in equal or nearly equal installments, when evaluated on a cumulative basis. If the fee is not deemed to be fixed or determinable, we recognize revenue as payments become due and payable.

4. Collectibility is probable – To recognize revenue, we must judge collectibility of the arrangement fees on a customer-by-customer basis pursuant to our credit review process. We typically sell to customers with whom there is a history of successful collection. We evaluate the financial position and a customer's ability to pay whenever an existing customer purchases new products, renews an existing arrangement, or requests an increase in credit terms. For certain industries for which our products are not considered core to the industry or the industry is generally considered troubled, we impose higher credit standards. If we determine that collectibility is not probable based upon our credit review process or the customer's payment history, we recognize revenue as payments are received.

Multiple element arrangements involving software licenses – For multiple element arrangements involving software and other software-related deliverables, vendor-specific objective evidence of fair value (VSOE) must exist to allocate the total fee among all delivered and non-essential undelivered elements of the arrangement. If undelivered elements of the arrangement are essential to the functionality of the product, we defer revenue until the essential elements are delivered. If VSOE does not exist for one or more non-essential undelivered elements, we defer revenue until such evidence exists for the undelivered elements, or until all elements are delivered, whichever is earlier. If VSOE of all non-essential undelivered elements exists but VSOE does not exist for one or more delivered elements, we recognize revenue using the residual method. Under the residual method, we defer revenue related to the undelivered elements based upon VSOE and we recognize the remaining portion of the arrangement fee as revenue for the delivered elements, assuming all other criteria for revenue recognition are met.

We base our VSOE for certain elements of an arrangement upon the pricing in comparable transactions when the element is sold separately. We primarily base our VSOE for term and perpetual support services upon customer renewal history where the services are sold separately. We also base VSOE for professional services and installation services for emulation hardware systems upon the price charged when the services are sold separately.

Multiple element arrangements involving hardware – For multiple element arrangements involving our emulation hardware systems, we allocate revenue to each element based on the relative selling price of each deliverable. In order to meet the separation criteria to allocate revenue to each element we must determine the standalone selling price of each element using a hierarchy of evidence.

The authoritative guidance requires that, in the absence of VSOE or third-party evidence, a company must develop an estimated selling price (ESP). ESP is defined as the price at which the vendor would transact if the deliverable was sold by the vendor regularly on a standalone basis. A company should consider market conditions as well as entity-specific factors when estimating a selling price. We base our ESP for certain elements in arrangements on either costs incurred to manufacture a product plus a reasonable profit margin or standalone sales to similar customers. In determining profit margins, we consider current market conditions, pricing strategies related to the class of customer, and the level of penetration we have with the customer. In other cases, we may have limited sales on a standalone basis to the same or similar customers and/or guaranteed pricing on future purchases of the same item.

Software Development Costs
We capitalize software development costs beginning when a product's technological feasibility has been established by either completion of a detail program design or completion of a working model of the product and ending when a product is available for general release to customers. The period between the achievement of technological feasibility and the general release of our products has historically been of short duration. As a result, those capitalizable software development costs are insignificant and have been charged to research and development expense in all periods in the accompanying consolidated statements of income.

We did not capitalize any acquired developed technology during fiscal years 2016 and 2015. We capitalized $3,698 of acquired developed technology during fiscal year 2014.

Advertising Costs
We expense all advertising costs as incurred. Advertising expense is included in marketing and selling expense in the accompanying consolidated statement of income as follows:

Year ended January 31,	2016	2015	2014
Advertising expense	$3,683	$2,985	$2,654

Special Charges
We record restructuring charges in connection with our plans to better align our cost structure with projected operations in the future. We record restructuring charges in connection with employee rebalances based on estimates of the expected costs associated with severance benefits. If the actual cost incurred exceeds the estimated cost, additional expense is recognized. If the actual cost is less than the estimated cost, a benefit is recognized.

We also record within special charges, expenses incurred related to certain litigation costs that are unusual in nature due to the significance in variability of timing and amount. Special Charges may also include costs associated with acquisitions, excess facility costs and asset related charges. See additional discussion in Note 15. "Special Charges."

Net Income Per Share

We compute basic net income per share using the weighted average number of common shares outstanding during the period. We compute diluted net income per share using the weighted average number of common shares and potentially dilutive common shares outstanding during the period. Potentially dilutive common shares consist of restricted stock units, common shares issuable upon exercise of employee stock options, purchase rights from employee stock purchase plans (ESPPs), and common shares issuable upon conversion of the convertible subordinated debentures using the treasury stock method, if dilutive. Net income used to compute basic and diluted net income per share is increased or reduced for the adjustment of the noncontrolling interest with redemption feature to its calculated redemption value. See additional discussion in Note 13. "Net Income Per Share."

Accounting for Stock-Based Compensation

We measure stock-based compensation cost at the grant date, based on the fair value of the award, and recognize the expense on a straight-line basis over the employee's requisite service period. For options and stock awards that vest fully on any termination of service, there is no requisite service period and consequently we recognize the expense fully in the period in which the award is granted. We present the excess tax benefit from the exercise of stock options as a financing activity in the statement of cash flows when the benefit is utilized.

We have elected to compute the timing of excess tax benefits from the exercise of stock options on the "with-and-without" approach. Under this approach, we do not record an excess tax benefit until such time as a cash tax benefit is recognized. Further, we include the impact of these excess tax benefits in the calculation of indirect tax attributes, such as the research and development credit and the domestic manufacturing deduction. We compute the pool of excess tax benefits available to offset any future shortfalls in the tax benefits actually realized on exercises of stock options as a single pool for employees and non-employees.

See a further description of how we estimate the fair value of stock options and purchase rights under our ESPPs in Note 11. "Employee Stock and Savings Plans."

Transfer of Financial Assets

We finance certain software license agreements with customers through the sale, assignment, and transfer of the future payments under those agreements to financing institutions on a non-recourse basis. We retain no interest in the transferred receivable. We record the transfers as sales of the related accounts receivable when we are considered to have surrendered control of the receivables. The gain or loss on the sale of receivables is included in general and administration in operating expenses in our consolidated statement of income. The gain or loss on the sale of receivables consists of two components: (i) the discount on sold receivables, which is the difference between the undiscounted balance of the receivables, and the net proceeds received from the financing institution and (ii) the unaccreted interest on the sold receivables. We impute interest on the receivables based on prevailing market rates and record this as a discount against the receivable. See additional details in Note 5. "Term Receivables and Trade Accounts Receivable ."

New Accounting Pronouncements

In November 2015, the Financial Accounting Standards Board (FASB) issued Accounting Standards Update (ASU) 2015-17, *Income Taxes (Topic 740), Balance Sheet Classification of Deferred Taxes.* This ASU requires that deferred tax assets and liabilities be classified as noncurrent in a statement of financial position. We adopted this guidance as of January 31, 2016 on a prospective basis. Adoption of this guidance did not have a material impact on our consolidated financial statements. See additional details in Note 8. "Income Taxes".

In April 2015, the FASB issued ASU 2015-03, *Interest – Imputation of Interest (Subtopic 835-30), Simplifying the Presentation of Debt Issuance Costs*. ASU 2015-03 requires that debt issuance costs be presented in the balance sheet as a direct deduction from the carrying amount of the debt liability, consistent with debt discounts. ASU 2015-03 is effective for fiscal years beginning after December 15, 2015, and is to be applied retrospectively, with early adoption permitted. We early adopted ASU 2015-03 in the fourth quarter of fiscal year 2016, resulting in the reclassification of unamortized debt issuance costs related to our 4.00% Convertible Subordinated Debentures (4.00% Debentures) from an asset position to a liability position, as a reduction of our long-term debt. The amount reclassified in total was $3,014 as of January 31, 2015. Adoption of this guidance did not have a material impact on our financial statements. The reclassification of our previously issued fiscal year 2015 consolidated balance sheet was made to conform to the current period presentation. The amounts in our fiscal year 2015 consolidated balance sheet have been reclassified as follows:

As of January 31, 2015	As Originally Reported	As Reclassified
Prepaid expenses and other	$ 22,357	$ 21,405
Other assets	$ 64,671	$ 62,609
Notes payable	$230,400	$227,386

In April 2014, the FASB issued ASU 2014-08, *Reporting Discontinued Operations and Disclosures of Disposals of Components of an Entity*. This ASU states that only disposals of components of an entity representing a strategic shift in operations that have or will have a major impact on operations and financial results will be presented as discontinued operations. This update requires the assets and liabilities of a discontinued operation to be presented separately in the statement of financial position for the current year and all prior periods presented. ASU 2014-08 is to be applied prospectively. We adopted this new guidance beginning February 1, 2015. Adoption of this new guidance did not have a material impact on our financial statements.

3. Fair Value Measurement

The following table presents information about financial liabilities measured at fair value on a recurring basis as of January 31, 2016:

	Fair Value	Level 1	Level 2	Level 3
Contingent consideration	$3,749	$–	$–	$3,749

The following table presents information about financial liabilities measured at fair value on a recurring basis as of January 31, 2015:

	Fair Value	Level 1	Level 2	Level 3
Contingent consideration	$4,563	$–	$–	$4,563

The FASB's authoritative guidance for the hierarchy of valuation techniques is based on whether the inputs to those valuation techniques are observable or unobservable. Observable inputs reflect market data obtained from independent sources. Unobservable inputs reflect our market assumptions. The fair value hierarchy consists of the following three levels:

- Level 1 – Quoted prices for identical instruments in active markets;
- Level 2 – Quoted prices for similar instruments in active markets, quoted prices for identical or similar instruments in markets that are not active, and model-derived valuations whose significant inputs are observable; and
- Level 3 – One or more significant inputs to the valuation model are unobservable.

In connection with certain acquisitions, payment of a portion of the purchase price is contingent typically upon the acquired business' achievement of certain revenue goals. The short-term portion of the total recorded contingent consideration is included in accrued and other liabilities and the long-term portion of the total recorded contingent consideration is included in other long-term liabilities on our consolidated balance sheet. The following table summarizes the total recorded contingent consideration:

As of January 31,	2016	2015
Contingent consideration, short-term	$1,460	$1,515
Contingent consideration, long-term	2,289	3,048
Total contingent consideration	$3,749	$4,563

We have estimated the fair value of our contingent consideration as the present value of the expected payments over the term of the arrangements. The fair value measurement of our contingent consideration as of January 31, 2016 encompasses the following significant unobservable inputs:

Unobservable Inputs	Range
Total estimated contingent consideration	$1,464 - $4,422
Discount rate	9.5% - 16.0%
Timing of cash flows (in years)	0 - 3

Changes in the fair value of our contingent consideration are primarily driven by changes in the estimated amount and timing of payments, resulting from changes in the forecasted revenues of the acquired businesses. Significant changes in any of the inputs in isolation could result in a fluctuation in the fair value measurement of contingent consideration. Changes in fair value are recognized in special charges in our consolidated statement of income in the period in which the change is identified.

The following table summarizes contingent consideration activity:

Balance as of January 31, 2014	$ 4,571
New contingent consideration	1,450
Payments	(1,589)
Changes in fair value	(11)
Interest accretion	142
Balance as of January 31, 2015	$ 4,563
New contingent consideration	–
Payments	(1,525)
Changes in fair value	586
Interest accretion	125
Balance as of January 31, 2016	$ 3,749

The following table summarizes the fair value and carrying value of our 4.00% Debentures:

As of January 31,	2016	2015
Fair value of 4.00% Debentures	$255,487	$310,173
Carrying value of 4.00% Debentures	$234,888	$227,386

We based the fair value of our 4.00% Debentures on the quoted market price at the balance sheet date. Our notes are not actively traded and the quoted market price is derived from observable inputs including our stock price, stock volatility, and interest rate (Level 2). We believe the carrying value of Other Notes Payable of $5,188 at January 31, 2016 approximated fair value. Of the total carrying value of notes payable, none was classified as current on our consolidated balance sheet as of January 31, 2016 and January 31, 2015. See additional discussion of notes payable in Note 7. "Notes Payable."

The carrying amounts of cash equivalents, trade accounts receivable, net, term receivables, short-term borrowings, accounts payable, and accrued liabilities approximate fair value because of the short-term nature of these instruments or because amounts have been appropriately discounted.

4. Business Combinations

Acquisitions during the twelve months ended January 31, 2016

Acquisitions for the year ended January 31, 2016 consisted of two privately-held companies, both of which were accounted for as business combinations. These acquisitions were not material individually or in the aggregate.

Acquisitions during the twelve months ended January 31, 2015

	Total Consideration	Net Tangible Assets Acquired	Identifiable Intangible Assets Acquired	Goodwill
Berkeley Design Automation, Inc.	$ 51,303	$2,335	$24,770	$24,198
Other	49,315	876	15,160	33,279
Total	$100,618	$3,211	$39,930	$57,477

On March 20, 2014, we acquired for cash all of the outstanding common shares of Berkeley Design Automation, Inc. (BDA), a leader in nanometer analog/mixed-signal and radio frequency circuit verification. The acquisition of BDA aligns with our goal to deliver technologies with superior performance and automation for the growing challenges of analog/mixed-signal verification. The total cash consideration consisted of $46,832 paid during the twelve months ended January 31, 2015 and a deferred payment valued at $4,471.

The identified intangible assets acquired consisted of purchased technology with a fair value of $11,200 and other intangibles with a fair value of $13,570. The fair values of the identified intangible assets were valued using an income approach with significant unobservable inputs (Level 3). The significant unobservable inputs include annual revenue derived from each identified intangible asset and a selected discount rate of 15%. We are amortizing purchased technology to cost of revenues over five years and other intangibles to operating expenses over two to five years. The goodwill created by the transaction is not deductible for tax purposes. Key factors that make up the goodwill created by the transaction include expected synergies from the combination of operations and products and the knowledge and experience of the acquired workforce.

Other acquisitions for the twelve months ended January 31, 2015 consisted of four privately-held companies which were accounted for as business combinations. These acquisitions were not material individually or in the aggregate.

The separate results of operations for the acquisitions during the twelve months ended January 31, 2015 were not material, individually or in the aggregate, compared to our overall results of operations and accordingly pro forma financial statements of the combined entities have been omitted.

5. Term Receivables and Trade Accounts Receivable

We have long-term installment receivables that are attributable to multi-year, multi-element term license sales agreements. Balances for term agreements that are due within one year of the balance sheet date are included in trade accounts receivable, net and balances that are due more than one year from the balance sheet date are included in term receivables, long-term. We discount the total product portion of the agreements to reflect the interest component of the transaction. We amortize the interest component of the transaction to system and software revenues over the period in which payments are made and balances are outstanding, using the effective interest method. We determine the discount rate at the outset of the arrangement based upon the current credit rating of the customer. We reset the discount rate periodically considering changes in prevailing interest rates but do not adjust previously discounted balances.

Trade accounts receivable and term receivable balances were as follows:

As of January 31,	2016	2015
Trade accounts receivable	$176,021	$208,996
Term receivables, short-term	$317,188	$337,626
Term receivables, long-term	$268,657	$301,862

Trade accounts receivable include billed amounts whereas term receivables, short-term are comprised of unbilled amounts. Term receivables, short term represent the portion of long-term installment agreements that are due within one year of the balance sheet date. Billings for term agreements typically occur thirty days prior to the contractual due date, in accordance with individual contract installment terms. Term receivables, long-term represent unbilled amounts which are scheduled to be billed beyond one year from the balance sheet date.

We perform a credit risk assessment of all customers using the Standard & Poor's (S&P) credit rating as our primary credit-quality indicator. The S&P credit ratings are based on the most recent S&P score available at the time of assessment. For customers that do not have an S&P credit rating, we base our credit risk assessment on results provided in the customer's most recent financial statements at the time of assessment. We determine whether or not to extend credit to these customers based on the results of our internal credit assessment, thus mitigating our risk of loss.

The credit risk assessment for our long-term receivables was as follows:

As of January 31,	2016	2015
S&P credit rating:		
AAA+ through BBB-	$195,764	$192,430
BB+ and lower	22,520	31,939
	218,284	224,369
Internal credit assessment	50,373	77,493
Total long-term term receivables	$268,657	$301,862

We maintain allowances for doubtful accounts on trade accounts receivable and term receivables, long-term for estimated losses resulting from the inability of our customers to make required payments. We regularly evaluate the collectibility of our trade accounts receivable based on a combination of factors. When we become aware of a specific customer's inability to meet its financial obligations, such as in the case of bankruptcy or deterioration in the customer's operating results, financial position, or credit rating, we record a specific reserve for bad debt to reduce the related receivable to the amount believed to be collectible. We also record unspecified reserves for bad debt for all other customers based on a variety of factors including length of time the receivables are past due, the financial health of customers, the current business environment, and historical experience. If these factors change or circumstances related to specific customers change, we adjust the recoverability estimates of the receivables, resulting in either additional selling expense or a reduction in selling expense in the period the determination is made.

We reduced our allowance for doubtful accounts during the year ended January 31, 2015 by $1,691, to reflect a change in estimate of our unspecified reserves resulting from sustained low write-off experience and strong collections. The adjustment was recorded in marketing and selling expense in our statement of income.

The following shows the change in allowance for doubtful accounts for the years ended January 31, 2016, 2015, and 2014:

Allowance for doubtful accounts	Beginning balance	Expense adjustment	Other deductions (1)	Ending balance
Year ended January 31, 2016	$4,217	$(349)	$ (42)	$3,826
Year ended January 31, 2015	$5,469	$(988)	$(264)	$4,217
Year ended January 31, 2014	$5,331	$ 517	$(379)	$5,469

(1) Specific account write-offs and foreign exchange.

We enter into agreements to sell qualifying accounts receivable from time to time to certain financing institutions on a non-recourse basis. Amounts collected from customers on accounts receivable previously sold on a non-recourse basis to financial institutions are included in short-term borrowings on the balance sheet. These amounts are remitted to the financial institutions in the month following quarter-end.

We sold the following receivables to financing institutions on a non-recourse basis and recognized the following gain on the sale of those receivables:

Year ended January 31,	2016	2015	2014
Net proceeds	$42,661	$22,572	$22,943
Trade receivables, short-term	16,344	12,715	11,705
Term receivables, long-term	27,770	10,461	11,912
Total receivables sold	44,114	23,176	23,617
Discount on sold receivables	(1,453)	(604)	(674)
Unaccreted interest on sold receivables	2,723	922	890
Gain on sale of receivables	$ 1,270	$ 318	$ 216

6. Short-Term Borrowings

Short-term borrowings consisted of the following:

As of January 31,	2016	2015
Senior revolving credit facility	$25,000	$ —
Collections of previously sold accounts receivable	7,568	5,917
Other borrowings	881	1,311
Short-term borrowings	$33,449	$7,228

We have a syndicated, senior, unsecured, revolving credit facility, which expires on January 9, 2020.

The revolving credit facility has a maximum borrowing capacity of $125,000. As stated in the revolving credit facility, we have the option to pay interest based on:

(i) London Interbank Offered Rate (LIBOR) with varying maturities commensurate with the borrowing period we select, plus a spread of between 2.00% and 2.50% based on a pricing grid tied to a financial covenant, or

(ii) A base rate plus a spread of between 1.00% and 1.50%, based on a pricing grid tied to a financial covenant.

As a result of these interest rate options, our interest expense associated with borrowings under this revolving credit facility will vary with market interest rates.

Commitment fees are payable on the unused portion of the revolving credit facility at rates between 0.30% and 0.40% based on a pricing grid tied to a financial covenant.

The revolving credit facility contains certain financial and other covenants, including the following:

- Our adjusted quick ratio (ratio of the sum of cash and cash equivalents, short-term investments, and net current receivables to total current liabilities) shall not be less than 1.00;
- Our tangible net worth (stockholders' equity less goodwill and other intangible assets) must exceed the calculated required tangible net worth as defined in the credit agreement;
- Our leverage ratio (ratio of total liabilities less subordinated debt to the sum of subordinated debt and tangible net worth) shall be less than 2.00;
- Our senior leverage ratio (ratio of total debt less subordinated debt to the sum of subordinated debt and tangible net worth) shall not be greater than 0.90; and
- Our minimum cash and accounts receivable ratio (ratio of the sum of cash and cash equivalents, short-term investments, and 42.0% of net current accounts receivable, to outstanding credit agreement borrowings) shall not be less than 1.25.

The revolving credit facility limited the aggregate amount we could pay for dividends and repurchases of our stock over the term of the facility to $50,000 plus 70% of our cumulative net income for periods after January 31, 2011. As of January 31, 2016, $112,038 was available for common stock repurchases or dividend payments under this limit. As described in Note 21, "Subsequent Events", on February 24, 2016 the revolving credit facility was amended to increase the limit on the aggregate amount we can pay for dividends and repurchases of our common stock to $200,000 plus 70% of our cumulative net income for periods ending after February 1, 2016.

We were in compliance with all financial covenants as of January 31, 2016. If we fail to comply with the financial covenants and do not obtain a waiver from our lenders, we would be in default under the revolving credit facility and our lenders could terminate the facility and demand immediate repayment of all outstanding loans under the revolving credit facility.

7. Notes Payable

Notes payable consist of the following:

As of January 31,	2016	2015
4.00% Debentures	$234,888	$227,386
Other	5,188	–
Notes payable	$240,076	$227,386

Our 4.00% Debentures are due in 2031, but we may be required to repay them earlier under the conversion and redemption provisions described below.

Annual maturities of our notes payable are scheduled as follows:

Fiscal years ending January 31,	
2019	$ 2,000
2020	3,188
Thereafter	252,957
Total	$258,145

4.00% Debentures

In April 2011, we issued $253,000 of 4.00% Debentures in a private placement pursuant to the Securities and Exchange Commission Rule 144A under the Securities Act of 1933. Interest on the 4.00% Debentures is payable semi-annually in April and October. The 4.00% Debentures are unsecured obligations.

Each one thousand dollars in principal amount of the 4.00% Debentures is currently convertible, under certain circumstances, into 49.8058 shares of our common stock (equivalent to a conversion price of $20.08 per share). The initial conversion rate for the 4.00% Debentures was 48.6902 shares of our common stock for each one thousand dollars in principal amount (equivalent to a conversion price of $20.54 per share). The conversion rate is adjusted because we declare and pay quarterly cash dividends, beginning in the first quarter of fiscal year 2014.

The 4.00% Debentures are convertible, under certain circumstances, into shares of our common stock at the conversion rate noted above. The circumstances for conversion include:

- The market price of our common stock exceeding 120% of the conversion price, or $24.09 per share as of January 31, 2016, for at least 20 of the last 30 trading days in the previous fiscal quarter;
- A call for redemption of the 4.00% Debentures;
- Specified distributions to holders of our common stock;
- If a fundamental change, such as a change of control, occurs;
- During the two months prior to, but not on, the maturity date; or
- The market price of the 4.00% Debentures declining to less than 98% of the value of the common stock into which the 4.00% Debentures are convertible.

Upon conversion of any 4.00% Debentures, a holder will receive:

(i) Cash for the lesser of the principal amount of the 4.00% Debentures that are converted or the value of the converted shares; and

(ii) Cash or shares of common stock, at our election, for the excess, if any, of the value of the converted shares over the principal amount.

During the fiscal quarter ended October 31, 2015, the 4.00% Debentures were convertible at the option of the holder as the market price of our common stock exceeded 120% of the conversion price for at least 20 of the last 30 trading days of the previous quarter. Holders of $43 principal amount of 4.00% Debentures requested conversion during the fiscal quarter ended October 31, 2015, and were paid the conversion value fully in cash during the following quarter. As of January 31, 2016, none of the conditions allowing the holders of the 4.00% Debentures to convert the 4.00% Debentures into shares of our common stock were met. The determination of whether or not the 4.00% Debentures are convertible is performed at each balance sheet date and may change from quarter to quarter.

If a holder elects to convert their 4.00% Debentures in connection with a fundamental change in the company that occurs prior to April 5, 2016, the holder will also be entitled to receive a make whole premium upon conversion in some circumstances.

We may redeem some or all of the 4.00% Debentures for cash on or after April 5, 2016 at the following redemption prices expressed as a percentage of principal, plus any accrued and unpaid interest:

Period	Redemption Price
Beginning on April 5, 2016 and ending on March 31, 2017	101.143%
Beginning on April 1, 2017 and ending on March 31, 2018	100.571%
On April 1, 2018 and thereafter	100.000%

The holders, at their option, may redeem the 4.00% Debentures for cash on April 1, 2018, April 1, 2021, and April 1, 2026, and in the event of a fundamental change in the company. In each case, our repurchase price will be 100% of the principal amount of the 4.00% Debentures plus any accrued and unpaid interest.

The 4.00% Debentures contain a conversion feature allowing for settlement of the debt in cash upon conversion, therefore we separately account for the implied liability and equity components of the 4.00% Debentures. The principal amount, unamortized debt discount, unamortized debt issuance costs, net carrying amount of the liability component, and carrying amount of the equity component of the 4.00% Debentures are as follows:

As of January 31,	2016	2015
Principal amount	$252,957	$253,000
Unamortized debt discount	(16,007)	(22,600)
Unamortized debt issuance costs	(2,062)	(3,014)
Net carrying amount of the liability component	$234,888	$227,386
Equity component, net of debt issuance costs	$ 42,518	$ 42,531

The unamortized debt discount and debt issuance costs amortize to interest expense using the effective interest method through March 2018.

We recognized the following amounts in interest expense in the consolidated statement of operations related to the 4.00% Debentures:

Year ended January 31,	2016	2015	2014
Interest expense at the contractual interest rate	$10,117	$10,120	$10,120
Amortization of debt discount	$ 6,593	$ 6,139	$ 5,715
Amortization of debt issuance costs	$ 952	$ 952	$ 952

The effective interest rate on the 4.00% Debentures was 7.25% for fiscal years 2016, 2015, and 2014.

Other Notes Payable

In February 2015, we issued a subordinated note payable as part of a business combination. The principal amount of $3,188 was outstanding as of January 31, 2016. The note bears interest at a rate of 4.0% and is due in full on February 25, 2019.

In September 2015, we issued a subordinated note payable as part of a business combination. The principal amount of $2,000 was outstanding as of January 31, 2016. The note bears interest at a rate of 4.0% and is due in full on September 8, 2018.

8. Income Taxes

Domestic and foreign pre-tax income was as follows:

Year ended January 31,	2016	2015	2014
Domestic	$ (25,971)	$ (2,991)	$ (754)
Foreign	144,900	170,749	163,822
Total pre-tax income	$118,929	$167,758	$163,068

The provision for income taxes was as follows:

Year ended January 31,	2016	2015	2014
Current:			
Federal	$ 734	$ (223)	$ (366)
State	199	444	355
Foreign	17,994	13,677	6,585
Total current	18,927	13,898	6,574
Deferred:			
Federal and state	4,402	7,687	1,333
Foreign	1,424	996	1,603
Total deferred	5,826	8,683	2,936
Total provision for income taxes	$24,753	$22,581	$9,510

Actual income tax expense is different from that which would have been computed by applying the statutory U.S. federal income tax rate to our income before income tax. A reconciliation of income tax expense as computed at the U.S. federal statutory income tax rate to the provision for income taxes is as follows:

Year ended January 31,	2016	2015	2014
Federal tax, at statutory rate	$ 41,626	$ 58,725	$ 57,074
State tax, net of federal benefit	(60)	900	355
Impact of international operations including withholding taxes and other reserves	7,143	(27,042)	(46,632)
Repatriation of foreign subsidiary earnings	354	21,969	20,367
Foreign tax credits	(2,382)	(5,143)	(5,489)
Tax credits (excluding foreign tax credits)	(11,539)	(8,089)	(12,571)
Amortization of deferred charge	(167)	1,168	(2,311)
Change in valuation allowance	(21,055)	(26,443)	(5,929)
Stock-based compensation expense	3,402	2,929	2,593
Non-deductible meals and entertainment	1,177	1,238	1,087
Other, net	6,254	2,369	966
Provision for income taxes	$ 24,753	$ 22,581	$ 9,510

The tax effects of temporary differences and carryforwards, which gave rise to significant portions of deferred tax assets and liabilities, were as follows:

As of January 31,	2016	2015
Deferred tax assets:		
Reserves and allowances	$ 12,954	$ 11,188
Accrued expenses not currently deductible	12,446	21,475
Stock-based compensation expense	8,259	6,988
Net operating loss carryforwards	24,138	34,618
Tax credit carryforwards	87,443	74,235
Purchased technology and other intangible assets	4,219	3,047
Deferred revenue	4,541	2,002
Other, net	8,394	6,762
Total gross deferred tax assets	162,394	160,315
Less valuation allowance	(63,554)	(91,956)
Deferred tax assets	98,840	68,359
Deferred tax liabilities:		
Intangible assets	(13,163)	(12,976)
Undistributed foreign earnings	(87,390)	(50,163)
Convertible debt	(6,322)	(8,918)
Depreciation of property, plant, and equipment	(1,715)	(997)
Deferred tax liabilities	(108,590)	(73,054)
Net deferred tax liabilities	$ (9,750)	$ (4,695)

For fiscal year 2016, all deferred tax assets and liabilities are presented in our balance sheet in other assets and other long-term liabilities respectively. For fiscal year 2015, only long-term deferred tax assets and liabilities are presented in our balance sheet in other assets and other long-term liabilities, respectively.

We early adopted ASU 2015-17, *Income Taxes (Topic 740), Balance Sheet Classification of Deferred Taxes,* effective January 31, 2016 on a prospective basis. This ASU requires that deferred tax assets and liabilities be classified as noncurrent in a statement of financial position. No prior periods were retrospectively adjusted.

As of January 31, 2016, we had the following foreign and U.S. Federal and state carryforwards for income tax return purposes:

Credit or carryforward	As of January 31, 2016	Expiration
Federal credits and carryforwards:		
Research and experimentation credit carryforward	$ 88,987	Fiscal years 2019 -2036
Net operating loss carryforward	$120,030	Fiscal years 2020 - 2036
Foreign tax credits	$ 19,433	Fiscal years 2017- 2026
Alternative minimum tax credits	$ 2,682	No expiration
Childcare credits	$ 1,843	Fiscal years 2023- 2036
State income tax credits and carryforwards:		
Net operating loss carryforward	$202,389	Fiscal years 2017- 2036
Research and experimentation	$ 21,842	Fiscal years 2017- 2031
Miscellaneous	$ 1,038	Various
Foreign net operating loss carryforwards	$ 20,093	Generally indefinite

Tax attributes created by, and associated with, excess tax benefits from the exercise of stock options are not recorded as deferred tax assets. To the extent such attributes are utilized, we may increase stockholders' equity. Our deferred tax assets related to net operating loss carryforwards created by excess tax benefits from stock options have been reduced by $48,591 as of January 31, 2016 and $43,206 as of January 31, 2015.

The decrease in the valuation allowance largely resulted from accrual of a U.S. deferred tax liability on fiscal year 2016 foreign earnings that are not permanently reinvested and may be repatriated in the future.

We have determined the amounts of our valuation allowances based on our estimates of taxable income by jurisdiction in which we operate over the periods in which the related deferred tax assets will be recoverable. We determined it is not more-likely-than-not that our U.S. entities will generate sufficient taxable income to offset reversing deductible timing differences and to fully utilize carryforward tax attributes. Accordingly, we recorded a valuation allowance against those deferred tax assets for which realization does not meet the more-likely-than-not standard. Similarly, there is a valuation allowance on our state deferred tax assets due to the same uncertainties regarding future taxable U.S. income. We determine valuation allowances related to certain foreign deferred tax assets based on historical losses as well as future expectations in certain jurisdictions.

We have not provided for U.S. income taxes on the undistributed earnings of our foreign subsidiaries to the extent they are considered permanently re-invested outside the U.S. As of January 31, 2016, the cumulative amount of earnings upon which U.S. income taxes have not been provided is approximately $461,438. Determination of the amount of unrecognized deferred U.S. income tax liability on permanently re-invested earnings is not practicable. Where the earnings of our foreign subsidiaries are not treated as permanently reinvested, we have accrued for U.S. income taxes on those earnings in our tax provision.

On December 18, 2015, the President of the U.S. signed into law The Protecting Americans from Tax Hikes (PATH) Act of 2015 which permanently reinstated the research tax credit retroactive to January 1, 2015. As a result of the new legislation, the Company recognized a benefit in the fourth quarter of fiscal year 2016 related to one month of fiscal year 2015 and twelve months of fiscal year 2016.

We are subject to income taxes in the U.S. and in numerous foreign jurisdictions. In the ordinary course of business, there are many transactions and calculations where the ultimate tax determination is uncertain. The statute of limitations for adjustments to our historic tax obligations will vary from jurisdiction to jurisdiction. In some cases it may be extended or be unlimited. Furthermore, net operating loss and tax credit carryforwards may be subject to adjustment after the expiration of the statute of limitations of the year such net operating losses and tax credits originated. Our larger jurisdictions generally provide for a statute of limitation from three to five years. For U.S. federal income tax purposes, the tax years which remain open for examination are fiscal years 2013 and forward, although net operating loss and credit carryforwards from all years are subject to examination and adjustment for three years following the year in which utilized. We are currently under examination in various jurisdictions. The examinations are in different stages and timing of their resolution is difficult to predict. The statute of limitations remains open for years on and after fiscal year 2012 in Ireland, fiscal year 2011 in Japan, fiscal year 2009 in India and fiscal year 2012 in Israel.

We have reserves for taxes to address potential exposures involving tax positions that are being challenged or that could be challenged by the tax authorities even though we believe the positions we have taken are appropriate. We believe our tax reserves are adequate to cover potential liabilities. We review the tax reserves as circumstances warrant and adjust the reserves as events occur that affect our potential liability for additional taxes. It is often difficult to predict the final outcome or timing of resolution of any particular tax matter. Various events, some of which cannot be predicted, such as clarification of tax law by administrative or judicial means, may occur and would require us to increase or decrease our reserves and effective tax rate. It is reasonably possible that existing unrecognized tax benefits may decrease from $0 to $3,000 due to settlements or expiration of the statute of limitations within the next twelve months. To the extent that uncertain tax positions resolve in our favor, it could have a positive impact on our effective tax rate. A portion of our reserves, which could settle or expire within the next twelve months, may result in deferred tax assets subject to a valuation allowance for which no benefit would be recognized. Income tax-related interest and penalties were an expense of $1,717 for the year ended January 31, 2016, an expense of $884 for the year ended January 31, 2015 and a benefit of $1,710 for the year ended January 31, 2014.

The below schedule shows the gross changes in unrecognized tax benefits associated with uncertain tax positions for the years ending January 31, 2016 and 2015:

Unrecognized tax benefits as of January 31, 2014	$31,321
Gross increases – tax positions in prior period	7,022
Gross decreases – tax positions in prior period	(279)
Gross increases – tax positions in current period	4,904
Settlements	(126)
Lapse of statute of limitations	(2,709)
Cumulative translation adjustment	(362)
Unrecognized tax benefits as of January 31, 2015	$39,771
Gross increases – tax positions in prior period	6,548
Gross decreases – tax positions in prior period	(1,702)
Gross increases – tax positions in current period	6,509
Settlements	–
Lapse of statute of limitations	(1,125)
Cumulative translation adjustment	(1,327)
Unrecognized tax benefits as of January 31, 2016	$48,674

The ending balances of unrecognized tax benefits represent the gross amount of exposure in individual jurisdictions and do not reflect any additional benefits expected to be realized if such positions were not sustained, such as the federal deduction that could be realized if an unrecognized state deduction was not sustained. The ending gross balances exclude accrued interest and penalties related to such positions of $9,817 as of January 31, 2016 and $8,366 as of January 31, 2015. We expect that $25,162 of our unrecognized tax benefits, if recognized, would favorably affect our effective tax rate.

9. Commitments and Contingencies

Leases

We lease a majority of our field sales offices and research and development facilities under non-cancelable operating leases. In addition, we lease certain equipment used in our research and development and marketing and selling activities.

Rent expense under operating leases was as follows:

Year ended January 31,	2016	2015	2014
Rent expense	$27,040	$28,114	$27,240

Future minimum lease payments under all non-cancelable operating leases are approximately as follows:

Fiscal years ending January 31,	Lease Payments
2017	$20,204
2018	15,600
2019	12,086
2020	9,761
2021	7,680
Thereafter	8,724
Total	$74,055

Indemnifications

Our license and services agreements generally include a limited indemnification provision for claims from third parties relating to our intellectual property (IP). The indemnification is generally limited to the amount paid by the customer, a multiple of the amount paid by the customer, or a set cap. As of January 31, 2016, we were not aware of any material liabilities arising from these indemnification obligations.

Legal Proceedings

From time to time we are involved in various disputes and litigation matters that arise in the ordinary course of business. These include disputes and lawsuits relating to IP rights, contracts, distributorships, and employee relations matters. Periodically, we review the status of various disputes and litigation matters and assess our potential exposure. When we consider the potential loss from any dispute or legal matter probable and the amount or the range of loss can be estimated, we accrue a liability for the estimated loss. Legal proceedings are subject to uncertainties, and the outcomes are difficult to predict. Because of such uncertainties, we base accruals on the best information available at the time. As additional information becomes available, we reassess the potential liability related to pending claims and litigation matters and may revise estimates. We believe that the outcome of current litigation, individually and in the aggregate, will not have a material effect on our results of operations.

In some instances, we are unable to reasonably estimate any potential loss or range of loss. The nature and progression of litigation can make it difficult to predict the impact a particular lawsuit will have. There are many reasons why we cannot make these assessments, including, among others, one or more of the following: a proceeding being in its early stages; damages sought that are unspecific, unsupportable, unexplained or uncertain; discovery not having been started or being incomplete; the complexity of the facts that are in dispute; the difficulty of assessing novel claims; the parties not having engaged in any meaningful settlement discussions; the possibility that other parties may share in any ultimate liability; and/or the often slow pace of litigation.

In December 2012, Synopsys, Inc. (Synopsys) filed a lawsuit claiming patent infringement against us in federal district court in the Northern District of California, alleging that our Veloce® family of products infringed four Synopsys U.S. patents. In January 2015, the court issued a summary judgment order in our favor invalidating all asserted claims of three of the Synopsys patents. In June 2015, the U.S. Patent and Trademark Office ruled that the claims of the remaining patent asserted against us by Synopsys are unpatentable. This case is no longer in the court's docket for trial. Synopsys has appealed the decision by the district court.

In June 2013, Synopsys also filed a claim against us in federal district court in Oregon, similarly alleging that our Veloce family of products infringed two additional Synopsys U.S. patents. These claims have been dismissed.

We believe these lawsuits were filed in response to patent lawsuits we filed in 2010 and 2012 against Emulation and Verification Engineering S.A. and EVE-USA, Inc. (together EVE), which Synopsys acquired in October 2012.

On October 10, 2014, the jury in our patent lawsuit filed in the federal district court in Oregon found that one of our patents – U.S. Patent No. 6,240,376 – was infringed by EVE and Synopsys. As part of the verdict, the jury awarded us damages of approximately $36 million as well as certain royalties. As of January 31, 2016, nothing has been included in our financial results for this award. Synopsys has filed an appeal.

On March 12, 2015, the Oregon court granted our request for a permanent injunction against future sales of Synopsys emulators containing infringing technology.

In December 2010, we filed a patent lawsuit against EVE in Tokyo district court, which seeks compensatory damages and an injunction against the sale of EVE emulation products. The technical trial for the Japanese litigation was held in October 2014. In May 2015, the court issued a preliminary verdict of non-infringement. We have appealed that verdict.

We do not have sufficient information upon which to determine that a loss in connection with these matters is probable, reasonably possible, or estimable, and thus no liability has been established nor has a range of loss been disclosed.

10. Stockholders' Equity

Dividends

The following table summarizes dividends declared since the beginning of fiscal year 2015:

Declaration Date	Record Date	Payment Date	Per Share Amount	Total Amount
Fiscal Year 2017				
3/3/2016	3/10/2016	3/31/2016	$0.055	
Fiscal Year 2016				
11/19/2015	12/15/2015	1/4/2016	$0.055	$6,326
8/20/2015	9/10/2015	9/30/2015	$0.055	$6,491
5/22/2015	6/10/2015	6/30/2015	$0.055	$6,389
2/26/2015	3/10/2015	3/31/2015	$0.055	$6,383
Fiscal Year 2015				
11/20/2014	12/10/2014	1/2/2015	$ 0.05	$5,743
8/21/2014	9/10/2014	9/30/2014	$ 0.05	$5,697
5/22/2014	6/10/2014	6/30/2014	$ 0.05	$5,693
2/27/2014	3/10/2014	3/31/2014	$ 0.05	$5,778

Future declarations of quarterly dividends and the establishment of future record and payment dates are subject to the quarterly determination of our Board of Directors.

11. Employee Stock and Savings Plans

Stock Options Plans and Stock Plans

Our 2010 Omnibus Incentive Plan (Incentive Plan) is administered by the Compensation Committee of our Board of Directors and permits accelerated vesting of outstanding options, restricted stock units, restricted stock awards, and other equity incentives upon the occurrence of certain changes in control of our company. Stock options and time-based restricted stock units under the Incentive Plan are generally expected to vest over four years. Stock options have an expiration date of ten years from the date of grant and an exercise price no less than the fair market value of the shares on the date of grant. Performance-based restricted stock units vest after three years and include goals for operating income margin. The source of shares issued under the Incentive Plan is new shares. We have not issued any options since fiscal year 2013. Our current equity strategy is to grant restricted stock units rather than options to ensure that we deliver value to our employees when there is volatility in the market.

As of January 31, 2016, a total of 4,181 shares of common stock were available for future grant under the Incentive Plan.

The following table summarizes restricted stock unit activity (including the target number of shares awarded for performance-based restricted stock units):

	Restricted Stock Units	Weighted Average Grant Date Fair Value	Weighted Average Remaining Contractual Term (Years)	Aggregate Intrinsic Value
Nonvested as of January 31, 2015	4,246	$19.63		
Granted	1,711	$24.10		
Vested	(1,586)	$17.35		
Forfeited	(254)	$19.95		
Nonvested as of January 31, 2016	4,117	$22.35	1.62	$71,561

The following table summarizes the fair value of restricted stock units vested:

Year ended January 31,	2016	2015	2014
Total fair value of restricted stock units vested	$27,527	$22,874	$17,736

Stock options outstanding, the weighted average exercise price, and transactions involving stock options are summarized as follows:

	Options Outstanding	Weighted Average Exercise Price	Weighted Average Remaining Contractual Terms (Years)	Aggregate Intrinsic Value
Balance as of January 31, 2015	3,152	$ 9.73		
Granted	–	$ –		
Exercised	(639)	$ 9.79		
Forfeited	(26)	$16.20		
Expired	(16)	$ 8.26		
Balance as of January 31, 2016	2,471	$ 9.66	3.98	$19,085
Options exercisable as of January 31, 2016	2,395	$ 9.42	3.90	$19,058
Options vested as of January 31, 2016 and options expected to vest after January 31, 2016	2,471	$ 9.66	3.98	$19,085

The total intrinsic value of options exercised and cash received from options exercised was as follows:

Year ended January 31,	2016	2015	2014
Intrinsic value	$9,440	$4,601	$26,769
Cash received	$6,260	$4,636	$38,830

Employee Stock Purchase Plans

We have an ESPP for U.S. employees and an ESPP for certain foreign subsidiary employees. The ESPPs provide for six month offerings commencing on January 1 and July 1 of each year with purchases on June 30 and December 31 of each year. Each eligible employee may purchase up to six thousand shares of stock on each purchase date at prices no less than 85% of the lesser of the fair market value of the shares on the offering date or on the purchase date. As of January 31, 2016, 3,620 shares remain available for future purchase under the ESPPs.

The following table summarizes shares issued under the ESPPs and other associated information:

Year ended January 31,	2016	2015	2014
Shares issued under the ESPPs	1,538	1,389	1,554
Cash received for the purchase of shares under the ESPPs	$26,511	$25,642	$23,895
Weighted average purchase price per share	$ 17.24	$ 18.47	$ 15.38

Stock-Based Compensation Expense

The fair value of restricted stock units is the market value as of the grant date reduced by the value of expected dividends payable on our common stock prior to vesting.

The fair value of the purchase rights under our ESPPs is determined using a Black-Scholes option-pricing model. The Black-Scholes option-pricing model incorporates several highly subjective assumptions including expected volatility, expected term, and interest rates. The expected volatility for the purchase rights for our ESPPs is based on the historical volatility of our shares of common stock. The expected term for the purchase rights for our ESPPs is the 6 month offering period. The risk-free interest rate for periods within the contractual life of the purchase rights under our ESPPs is based on the U.S. Treasury yield curve in effect at the time of the grant.

The weighted average grant date fair values are summarized as follows:

Year ended January 31,	2016	2015	2014
Restricted stock units granted	$24.10	$21.52	$22.42
ESPP purchase rights	$ 5.08	$ 4.81	$ 4.30

The fair value calculations for ESPPs used the following assumptions:

Year ended January 31,	2016	2015	2014
Risk-free interest rate	0.08% - 0.31%	0.05% - 0.09%	0.09% - 0.14%
Dividend yield (range)	0.8% - 1.2%	0.8% - 0.9%	0.0% - 1.0%
Dividend yield (weighted average)	0.9%	0.8%	0.5%
Expected life (in years)	0.5	0.5	0.5
Volatility (range)	23% - 36%	22% - 23%	22% - 33%
Volatility (weighted average)	25%	22%	29%

The following table summarizes stock-based compensation expense included in the results of operations and the tax benefit associated with the exercise of stock options:

Year ended January 31,	2016	2015	2014
Cost of revenues:			
Service and support	$ 2,607	$ 2,304	$ 1,992
Operating expense:			
Research and development	16,207	14,027	11,182
Marketing and selling	9,623	9,103	7,777
General and administration	12,060	10,373	8,399
Equity plan-related compensation expense	$40,497	$35,807	$29,350
Tax effect of the exercise of stock options	$ 217	$ 280	$ 386

As of January 31, 2016, we had $73,099 in unrecognized compensation cost related to nonvested restricted stock units which is expected to be recognized over a weighted average period of 1.4 years and $386 in unrecognized compensation cost related to nonvested options which is expected to be recognized over a weighted average period of 0.4 years.

Employee Savings Plan

We have an employee savings plan (the Savings Plan) that qualifies as a deferred salary arrangement under Section 401(k) of the Internal Revenue Code. Under the Savings Plan, participating U.S. employees may defer a portion of their pretax earnings, up to the Internal Revenue Service annual contribution limit. We currently match 50% of eligible employee's contributions, up to a maximum of 6% of the employee's earnings. Employer matching contributions vest over five years, 20% for each year of service completed. Our matching contributions to the Savings Plan were as follows:

Year ended January 31,	2016	2015	2014
Employer matching contribution	$8,930	$8,190	$7,708

12. Incentive Stock Rights

On June 24, 2010, our Board of Directors adopted an Incentive Stock Purchase Rights Plan and declared a dividend distribution of one right for each outstanding share of common stock, payable to holders of record on July 6, 2010. The rights would become exercisable if a person or group acquired or commenced a tender offer to acquire a set threshold of our outstanding common stock. The plan was subsequently amended in 2011 and 2013 to extend its termination date and make certain other changes.

On June 30, 2015, the Plan expired in accordance with its terms.

13. Net Income Per Share

We compute basic net income per share using the weighted average number of common shares outstanding during the period. We compute diluted net income per share using the weighted average number of common shares and potentially dilutive common shares outstanding during the period. Potentially dilutive common shares consist of common shares issuable upon vesting of restricted stock units, exercise of stock options and ESPP purchase rights, and conversion of the 4.00% Debentures using the treasury stock method.

The following provides the computation of basic and diluted net income per share:

Year ended January 31,	2016	2015	2014
Net income attributable to Mentor Graphics shareholders	$ 96,277	$147,139	$155,258
Adjustment to redemption value of noncontrolling interest with redemption feature	258	121	(4,486)
Adjusted net income attributable to Mentor Graphics shareholders	$ 96,535	$147,260	$150,772
Weighted average common shares used to calculate basic net income per share	116,701	114,635	113,671
Employee stock options, restricted stock units and employee stock purchase plan	2,562	2,443	3,031
Weighted average common and potential common shares used to calculate diluted net income per share	119,263	117,078	116,702
Net income per share attributable to Mentor Graphics shareholders:			
Basic net income per share	$ 0.83	$ 1.28	$ 1.33
Diluted net income per share	$ 0.81	$ 1.26	$ 1.29

We have adjusted the numerator of our basic and diluted earnings per share calculation for the adjustment of the noncontrolling interest with redemption feature to its calculated redemption value, recorded directly to retained earnings.

The effect of the conversion of the 4.00% Debentures was anti-dilutive for the twelve months ended January 31, 2016, 2015 and 2014 and therefore excluded from the computation of diluted net income per share. The conversion feature of the 4.00% Debentures, which allows for settlement in cash or a combination of cash and common stock, is further described in Note 7. "Notes Payable."

The following details adjustments to net income excluded from the computation of diluted net income:

Year ended January 31,	2016	2015	2014
Adjustment for convertible debt interest, net of tax to be forfeited upon conversion of 4.00% Debentures	$2,074	$2,075	$2,075

The following details shares excluded from the computation of diluted net income:

Year ended January 31,	2016	2015	2014
Shares of common stock for restricted stock units	–	18	566
Shares of common stock for stock options	–	14	518
Shares of common stock for ESPP purchase rights	–	887	111
Shares of common stock for convertible debt	2,046	612	–
Total anti-dilutive shares excluded	2,046	1,531	1,195

These restricted stock units, stock options, ESPPs, and convertible debt were determined to be anti-dilutive as a result of applying the treasury stock method.

14. Accumulated Other Comprehensive Loss

The following table summarizes the components of accumulated other comprehensive loss, net of tax:

As of January 31,	2016	2015
Foreign currency translation adjustment	$(21,013)	$(12,044)
Unrealized gain (loss) on derivatives	(36)	42
Pension liability	(51)	115
Total accumulated other comprehensive loss	$(21,100)	$(11,887)

For fiscal years 2016, 2015, and 2014, amounts reclassified to net income from accumulated other comprehensive loss related to cash flow hedges are included in the Consolidated Statements of Comprehensive Income. There were no significant amounts reclassified to net income from accumulated other comprehensive loss related to foreign currency translation adjustment or pension plans.

15. Special Charges

The following is a summary of the components of the special charges:

Year ended January 31,	2016	2015	2014
Voluntary early retirement program	$25,232	$ –	$ –
Employee severance and related costs	13,496	3,535	4,392
Litigation costs	4,118	18,408	11,597
Other costs, net	2,235	1,547	940
Total special charges	$45,081	$23,490	$16,929

Special charges generally include expenses incurred related to employee severance, certain litigation costs, acquisitions, excess facility costs, and asset related charges.

We offered the voluntary early retirement program in North America during the three months ended April 30, 2015 and 110 employees elected to participate. The costs presented here are for severance benefits. All of these costs were paid during the fiscal year ending January 31, 2016.

Employee severance and related costs include severance benefits and notice pay. These rebalance charges generally represent the aggregate of numerous unrelated rebalance plans which impact several employee groups, none of which is individually material to our financial position or results of operations. We determine termination benefit amounts based on employee status, years of service, and local statutory requirements. We record the charge for estimated severance benefits in the quarter that the rebalance plan is approved.

Approximately 86% of the employee severance and related costs for fiscal year 2016 were paid during fiscal year 2016. We expect to pay the remainder during fiscal year 2017. Approximately 90% of the employee severance and related costs for fiscal year 2015 were paid during fiscal year 2015. Costs remaining as of January 31, 2015 were paid in fiscal year 2016. Approximately 80% of the employee severance and related costs for fiscal year 2014 were paid during fiscal year 2014. Costs remaining as of January 31, 2014 were paid in fiscal year 2015. There have been no significant modifications to the amount of these charges.

Litigation costs consist of professional service fees for services rendered, related to patent litigation involving us, EVE, and Synopsys regarding emulation technology.

Accrued special charges are included in accrued and other liabilities and other long-term liabilities in the consolidated balance sheet. The following table shows changes in accrued special charges during the year ended January 31, 2016:

	Accrued special charges as of January 31, 2015	Charges during the year ended January 31, 2016	Payments during the year ended January 31, 2016	Accrued special charges as of January 31, 2016 (1)
Voluntary early retirement program	$ –	$25,232	$(25,232)	$ –
Employee severance and related costs	370	13,496	(11,931)	1,935
Litigation costs	3,406	4,118	(7,213)	311
Other costs	741	2,235	(2,216)	760
Accrued special charges	$4,517	$45,081	$(46,592)	$3,006

(1) The balance of $3,006 represents short-term accrued special charges.

The following table shows changes in accrued special charges during the year ended January 31, 2015:

	Accrued special charges as of January 31, 2014	Charges during the year ended January 31, 2015	Payments during the year ended January 31, 2015	Accrued special charges as of January 31, 2015 (1)
Employee severance and related costs	$1,004	$ 3,535	$ (4,169)	$ 370
Litigation costs	4,855	18,408	(19,857)	3,406
Other costs	1,987	1,547	(2,793)	741
Accrued special charges	$7,846	$23,490	$(26,819)	$4,517

(1) Of the $4,517 total accrued special charges as of January 31, 2015, $252 represents the long-term portion, which primarily includes accrued lease termination fees and other facility costs, net of sublease income and other long-term costs. The remaining balance of $4,265 represents the short-term portion of accrued special charges.

The following table shows changes in accrued special charges during the year ended January 31, 2014:

	Accrued special charges as of January 31, 2013	Charges during the year ended January 31, 2014	Payments during the year ended January 31, 2014	Accrued special charges as of January 31, 2014 (1)
Employee severance and related costs	$2,028	$ 4,392	$ (5,416)	$1,004
Litigation costs	624	11,597	(7,366)	4,855
Other costs	2,889	940	(1,842)	1,987
Accrued special charges	$5,541	$16,929	$(14,624)	$7,846

(1) Of the $7,846 total accrued special charges as of January 31, 2014, $587 represents the long-term portion, which primarily includes accrued lease termination fees and other facility costs, net of sublease income. The remaining balance of $7,259 represents the short-term portion of accrued special charges.

16. Other Income (Expense), Net

Other income (expense), net was comprised of the following:

Year ended January 31,	2016	2015	2014
Interest income	$1,870	$ 1,723	$ 2,360
Foreign currency exchange gain (loss)	199	(1,152)	(1,872)
Other, net	(457)	(1,348)	(1,008)
Other income (expense), net	$1,612	$ (777)	$ (520)

17. Transactions with Customers with Common Board Members

Certain members of our Board of Directors also serve as officers or directors for some of our customers. We had amounts receivable from these customers of $23,498 as of January 31, 2016 and $46,661 as of January 31, 2015. The following table shows revenue recognized from these customers:

Year ended January 31,	2016	2015	2014
Revenue from customers	$25,059	$32,594	$85,037
Percentage of total revenues	2.1%	2.6%	7.4%

18. Supplemental Cash Flow Information

The following provides information concerning supplemental disclosures of cash flow activities:

Year ended January 31,	2016	2015	2014
Cash paid for:			
Interest	$12,094	$11,937	$12,225
Income taxes	$15,103	$11,427	$11,871

During fiscal year 2016 we purchased the remaining noncontrolling interest of Calypto Design Systems, Inc. for $11,088 which is included in net cash used in financing activities in our consolidated statement of cash flows.

19. Segment Reporting

Our Chief Operating Decision Makers (CODMs), which consist of the Chief Executive Officer and the President, review our consolidated results within one operating segment. In making operating decisions, our CODMs primarily consider consolidated financial information accompanied by disaggregated revenue information by geographic region.

We eliminate all intercompany revenues in computing revenues by geographic regions. Revenues related to operations in the geographic areas were:

Year ended January 31,	2016	2015	2014
Revenues:			
United States	$ 488,148	$ 542,229	$ 497,954
Europe	254,827	255,943	241,417
Japan	87,119	87,725	113,796
Pacific Rim	335,833	341,474	287,956
Other	15,061	16,762	15,250
Total revenues	$1,180,988	$1,244,133	$1,156,373

For the year ended January 31, 2015, revenue from Korea was $135,696, or 10.9% of total revenue. This revenue is included in the Pacific Rim region in the table above.

For the years ended January 31, 2016, 2015 and 2014, no single customer accounted for 10% of our total revenues.

Property, plant and equipment, net, related to operations in the geographic areas were:

As of January 31,	2016	2015
Property, plant, and equipment, net:		
United States	$133,432	$127,631
Europe	33,070	31,751
Japan	2,220	882
Pacific Rim	13,191	10,295
Other	179	178
Total property, plant and equipment, net	$182,092	$170,737

20. Quarterly Financial Information – Unaudited

A summary of quarterly financial information follows:

Quarter ended	April 30	July 31	October 31	January 31
Fiscal Year 2016				
Total revenues	$272,143	$281,062	$290,516	$337,267
Gross profit	$223,092	$234,799	$243,627	$289,812
Operating income (loss)	$ (7,663)	$ 39,266	$ 25,688	$ 79,454
Net income (loss) attributable to Mentor Graphics shareholders	$ (9,885)	$ 31,212	$ 14,679	$ 60,271
Net income (loss) per share, basic (1)	$ (0.08)	$ 0.27	$ 0.13	$ 0.52
Net income (loss) per share, diluted (1)	$ (0.08)	$ 0.26	$ 0.12	$ 0.51
Fiscal Year 2015				
Total revenues	$252,151	$260,233	$292,683	$439,066
Gross profit	$194,708	$211,304	$245,142	$388,666
Operating income	$ 1,644	$ 16,912	$ 29,723	$139,532
Net income (loss) attributable to Mentor Graphics shareholders	$ (2,551)	$ 14,172	$ 21,030	$114,488
Net income (loss) per share, basic (1)	$ (0.02)	$ 0.13	$ 0.18	$ 0.98
Net income (loss) per share, diluted (1)	$ (0.02)	$ 0.13	$ 0.18	$ 0.96

(1) We have adjusted the numerator of our basic and diluted earnings per share calculation for the adjustment of the noncontrolling interest with redemption feature to its calculated redemption value, recorded directly to retained earnings, as follows:

Quarter ended	April 30	July 31	October 31	January 31
Fiscal Year 2016	$269	$(144)	$ 133	$ –
Fiscal Year 2015	$667	$ 895	$(267)	$(1,174)

21. Subsequent Events

On February 18, 2016 we entered into an agreement to repurchase 8,060 shares of Mentor Graphics common stock beneficially owned by Carl C. Icahn and certain of his affiliates, at a purchase price of $18.12 per share, the NASDAQ closing price of Mentor Graphics common stock on February 18, 2016. The total purchase price for the shares was $146,050 and was funded from Mentor Graphics cash and cash equivalents on hand. This share repurchase was made outside of the existing share repurchase program. The transaction was completed on February 25, 2016.

In order to facilitate the share repurchase we paid an intercompany dividend on February 23, 2016 from foreign subsidiaries of $150,000.

As the earnings associated with these funds were not treated as permanently reinvested, any U.S. tax consequences had already been included in our tax provision in prior periods.

Also to facilitate this repurchase effective February 24, 2016 our revolving credit facility was amended to increase the limit on the amount of common stock we can repurchase and dividends we can pay from $50,000 plus 70% of our cumulative net income for periods after January 31, 2011 (a total of $112,038 as of January 31, 2016) to $200,000 plus 70% of our cumulative net income for periods ending after February 1, 2016.

Report of Independent Registered Public Accounting Firm

The Board of Directors and Stockholders
Mentor Graphics Corporation:

We have audited the accompanying consolidated balance sheets of Mentor Graphics Corporation and subsidiaries as of January 31, 2016 and 2015, and the related consolidated statements of income, comprehensive income, stockholders' equity, and cash flows for each of the years in the three-year period ended January 31, 2016. These consolidated financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these consolidated financial statements based on our audits.

We conducted our audits in accordance with 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, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of Mentor Graphics Corporation and subsidiaries as of January 31, 2016 and 2015, and the results of their operations and their cash flows for each of the years in the three-year period ended January 31, 2016, in conformity with U.S. generally accepted accounting principles.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), Mentor Graphics Corporation's internal control over financial reporting as of January 31, 2016, based on criteria established in *Internal Control – Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO), and our report dated March 18, 2016 expressed an unqualified opinion on the effectiveness of the Company's internal control over financial reporting.

(signed) KPMG LLP
Portland, Oregon
March 18, 2016

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

None.

Item 9A. Controls and Procedures.

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 Securities Exchange Act of 1934, as amended (the Exchange Act). Our internal control over financial reporting is designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with United States generally accepted accounting principles.

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.

Management assessed the effectiveness of our internal control over financial reporting as of January 31, 2016, and has concluded that our internal control over financial reporting was effective. In making its assessment of internal control over financial reporting, management used the criteria established in Internal Control-Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission.

Our independent registered public accounting firm, KPMG LLP, has audited our internal control over financial reporting as of January 31, 2016, as stated in their report included in this Annual Report on Form 10-K.

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

The Board of Directors and Stockholders
Mentor Graphics Corporation:

We have audited Mentor Graphics Corporation's internal control over financial reporting as of January 31, 2016, based on criteria established in *Internal Control – Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). Mentor Graphics Corporation's management is responsible for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting included in the accompanying Management's Report on Internal Control Over Financial Reporting. Our responsibility is to express an opinion on the Company's internal control over financial reporting based on our 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 effective internal control over financial reporting was maintained in all material respects. Our audit 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 opinion.

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 (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) 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 (3) provide reasonable assurance regarding prevention 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.

In our opinion, Mentor Graphics Corporation maintained, in all material respects, effective internal control over financial reporting as of January 31, 2016, based on criteria established in *Internal Control – Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), the consolidated balance sheets of Mentor Graphics Corporation and subsidiaries as of January 31, 2016 and 2015, and the related consolidated statements of income, comprehensive income, stockholders' equity, and cash flows for each of the years in the three-year period ended January 31, 2016, and our report dated March 18, 2016 expressed an unqualified opinion on those consolidated financial statements.

(signed) KPMG LLP
Portland, Oregon
March 18, 2016

CHANGES IN INTERNAL CONTROL OVER FINANCIAL REPORTING

There has been no change in our internal control over financial reporting that occurred during the last fiscal quarter that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

EVALUATION OF DISCLOSURE CONTROLS AND PROCEDURES

We maintain disclosure controls and procedures, as defined by Exchange Act Rules 13a–15(e) and 15d-15(e), that are designed to ensure that information required to be disclosed in our Exchange Act reports is recorded, processed, summarized, and reported within the time periods specified in the Securities and Exchange Commission's rules and forms, and that such information is accumulated and communicated to our management, including our Chief Executive Officer and Chief Financial Officer, as appropriate, to allow timely decisions regarding required disclosure. In designing and evaluating the disclosure controls and procedures, management recognized that any controls and procedures, no matter how well designed and operated, can provide only reasonable assurance of achieving the desired control objectives, and management necessarily was required to apply its judgment in evaluating the cost-benefit relationship of possible controls and procedures.

We carried out an evaluation, under the supervision and with the participation of our management, including our Chief Executive Officer and our Chief Financial Officer, of the effectiveness of the design and operation of our disclosure controls and procedures as of the end of the period covered by this report. Based on the foregoing, our Chief Executive Officer and Chief Financial Officer concluded that our disclosure controls and procedures were effective at the reasonable assurance level as of the end of the period covered by this report.

Item 9B. Other Information.

None.

Part III

Item 10. Directors, Executive Officers, and Corporate Governance.

The information required by this item concerning our Directors will be included under “Election of Directors” in our 2016 Proxy Statement and is incorporated herein by reference. The information concerning our Executive Officers is included in the section titled “Executive Officers of the Registrant.” The information required by Item 405 of Regulation S-K will be included under “Section 16(a) Beneficial Ownership Reporting Compliance” in our 2016 Proxy Statement and is incorporated herein by reference. The information required by Item 406 of Regulation S-K will be included under “Ethics Policies” in our 2016 Proxy Statement and is incorporated herein by reference. The information required by Items 407(c)(3), 407(d)(4), and 407(d)(5) of Regulation S-K will be included under “Information Regarding the Board of Directors – Board Leadership, Corporate Governance, Board Independence, Committees and Meetings” in our 2016 Proxy Statement and is incorporated herein by reference.

Item 11. Executive Compensation.

The information required by this item will be included under “Director Compensation in Fiscal Year 2016,” “Information Regarding Executive Officer Compensation,” “Compensation Discussion and Analysis,” “Compensation Committee Report,” and “Compensation Risk Assessment” in our 2016 Proxy Statement and is incorporated herein by reference.

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

The information required by this item will be included under “Election of Directors,” “Information Regarding Beneficial Ownership of Principal Shareholders and Management,” and “Equity Compensation Plan Information” in our 2016 Proxy Statement and is incorporated herein by reference.

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

The information required by this item will be included under “Information Regarding the Board of Directors – Board Leadership, Corporate Governance, Board Independence, Committees and Meetings” in our 2016 Proxy Statement and is incorporated herein by reference.

Item 14. Principal Accounting Fees and Services.

The information required by this item will be included under “Independent Auditors” in our 2016 Proxy Statement and is incorporated herein by reference.

Part IV

Item 15. Exhibits, Financial Statement Schedules.

(a) (1) Financial Statements:

The following consolidated financial statements are included in Part II, Item 8. “Financial Statements and Supplementary Data”:

(a) (2) Financial Statement Schedule:

All financial statement schedules have been omitted since they are not required, not applicable, or the information is included in the Consolidated Financial Statements or Notes.

(a) (3) Exhibits

3. A. 1987 Restated Articles of Incorporation, as amended. Incorporated by reference to Exhibit 3.A to the Company’s Quarterly Report on Form 10-Q for the quarter ended July 31, 2014.
   B. Bylaws of the Company. Incorporated by reference to Exhibit 3.1 to the Company’s Current Report on Form 8-K filed on December 27, 2011.
4. A. Credit Agreement dated as of April 26, 2011 between the Company, Bank of America, N.A. as agent and the other lenders. Incorporated by reference to Exhibit 10.1 to the Company’s Current Report on Form 8-K filed on April 27, 2011.
   B. First Amendment to Credit Agreement dated as of May 24, 2013 between the Company, Bank of America, N.A. as agent and other lenders. Incorporated by reference to Exhibit 4.1 to the Company’s Quarterly Report on Form 10-Q for the quarter ended April 30, 2013.
   C. Second Amendment to Credit Agreement dated as of September 30, 2013 between the Company, Bank of America, N.A. as agent and the other lenders. Incorporated by reference to Exhibit 4.1 to the Company’s Quarterly Report on Form 10-Q for the quarter ended October 31, 2013.
   D. Third Amendment to the Credit Agreement dated as of January 9, 2015 between the Company, Bank of America, N.A. as agent and the other lenders. Incorporated by reference to Exhibit 4.D to the Company’s Annual Report on Form 10-K for the fiscal year ended January 31, 2015.
   E. Fourth Amendment to the Credit Agreement dated as of February 24, 2016 between the Company, Bank of America, N.A. as agent and the other lenders.
   F. Indenture dated April 4, 2011 between the Company and Wilmington Trust Company, as Trustee, related to 4.00%

Convertible Subordinated Debentures due 2031. Incorporated by reference to Exhibit 4.1 to the Company's Current Report on Form 8-K filed on April 4, 2011.

10. *A. 2010 Omnibus Incentive Plan, as amended. Incorporated by reference to Exhibit 10.A to the Company's Quarterly Report on Form 10-Q for the quarter ended July 31, 2014.

*B. Form of Restricted Stock Unit Award Agreement for grants of restricted stock units to non-employee directors under our 2010 Omnibus Incentive Plan. Incorporated by reference to Exhibit 10.B to the Company's Quarterly Report on Form 10-Q for the quarter ended July 31, 2014.

*C. Form of Stock Option Agreement for grants of stock options to non-employee directors under our 2010 Omnibus Incentive Plan. Incorporated by reference to Exhibit 10.C to the Company's Quarterly Report on Form 10-Q for the quarter ended July 31, 2010.

*D. Form of Stock Option Agreement Terms and Conditions containing standard terms of stock options granted to our executive officers under our 2010 Omnibus Incentive Plan. Incorporated by reference to Exhibit 10.E to the Company's Annual Report on Form 10-K for the fiscal year ended January 31, 2011.

*E. Form of Stock Option Agreement Terms and Conditions containing standard terms of stock options granted in fiscal years 2009 and 2010 to executive officers under the Company's stock option plans. Incorporated by reference to Exhibit 10.1 to the Company's Quarterly Report on Form 10-Q for the quarter ended April 30, 2009.

*F. Form of Stock Option Agreement Terms and Conditions containing standard terms of stock options granted on October 9, 2007 to executive officers under our stock option plans. Incorporated by reference to Exhibit 10.A to the Company's Quarterly Report on Form 10-Q for the quarter ended October 31, 2007.

*G. Form of Amendment to Nonqualified Stock Options containing additional standard terms of nonqualified stock options granted to executives under the Company's stock option plans. Incorporated by reference to Exhibit 10.B to the Company's Current Report on Form 8-K filed on November 2, 2004.

*H. Form of Performance-Based Restricted Stock Unit Award Agreement Terms and Conditions containing standard terms of performance-based restricted stock units granted to executive officers in fiscal year 2014 under our 2010 Omnibus Incentive Plan. Incorporated by reference to Exhibit 10.A to the Company's Current Report on Form 8-K filed on September 16, 2013.

*I. Form of Performance-Based Restricted Stock Unit Award Agreement Terms and Conditions containing standard terms of performance-based restricted stock units granted to executive officers in fiscal year 2015 under our 2010 Omnibus Incentive Plan. Incorporated by reference to Exhibit 10.A to the Company's Quarterly Report on Form 10-Q for the quarter ended October 31, 2014.

*J Form of Performance-Based Restricted Stock Unit Award Agreement Terms and Conditions containing standard terms of performance-based restricted stock units granted to executive officers in fiscal year 2016 under our 2010 Omnibus Incentive Plan. Incorporated by reference to Exhibit 10.B to the Company's Quarterly Report on Form 10-Q for the quarter ended October 31, 2015.

*K. Form of Restricted Stock Unit Award Agreement Terms and Conditions containing standard terms of time-based restricted stock units granted in fiscal years 2014 and 2015 to executive officers under our 2010 Omnibus Incentive Plan. Incorporated by reference to Exhibit 10.I to the Company's Annual Report on Form 10-K for the fiscal year ended January 31, 2014.

*L. Form of Restricted Stock Unit Award Agreement Terms and Conditions containing standard terms of time-based restricted stock units granted in fiscal year 2016 to executive officers under our 2010 Omnibus Incentive Plan. Incorporated by reference to Exhibit 10.A to the Company's Quarterly Report on Form 10-Q for the quarter ended October 31, 2015.

*M. Executive Variable Incentive Plan. Incorporated by reference to Exhibit 10.A to the Company's Current Report on Form 8-K filed on June 5, 2012.

*N. Form of Indemnity Agreement entered into between the Company and each of its executive officers and current and future directors. Incorporated by reference to Exhibit 10.I to the Company's Quarterly Report on Form 10-Q for the quarter ended July 31, 2008.

*O. Form of Severance Agreement entered into between the Company and each executive officer of the Company. Incorporated by reference to Exhibit 10.A to the Company's Quarterly Report on Form 10-Q for the quarter ended April 30, 2015.

*P. Officer Stock Ownership Policy. Incorporated by reference to Exhibit 10.N to the Company's Annual Report on Form 10-K for the fiscal year ended January 31, 2011.

*Q. Form of Agreement to Policy for Recovery of Incentive Compensation. Incorporated by reference to Exhibit 10.O to the Company's Annual Report on Form 10-K for the fiscal year ended January 31, 2011.

*R. Resignation and Advisory Services Agreement dated as of September 18, 2014 between the Company and L. Don Maulsby. Incorporated by reference to Exhibit 10.P to the Company's Annual Report on Form 10-K for the fiscal year ended January 31, 2015.

S. Stock Purchase Agreement dated February 18, 2016 between the Company and affiliates of Carl C. Icahn (the "Icahn Group"). Incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K filed on February 19, 2016.

21. List of Subsidiaries of the Company.

23. Consent of KPMG, LLP Independent Registered Public Accounting Firm.

31.1 Certification of Chief Executive Officer of Registrant Pursuant to SEC Rule 13a-14(a)/15d-14(a), as Adopted Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.

31.2 Certification of Chief Financial Officer of Registrant Pursuant to SEC Rule 13a-14(a)/15d-14(a), as Adopted Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.

32.	Certification of Chief Executive Officer and Chief Financial Officer of Registrant Pursuant to 18 U.S.C. Section 1350, as Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
101.INS	XBRL Instance Document
101.SCH	XBRL Taxonomy Extension Schema Document
101.CAL	XBRL Taxonomy Extension Calculation Linkbase Document
101.DEF	XBRL Taxonomy Extension Definition Linkbase Document
101.LAB	XBRL Taxonomy Extension Label Linkbase Document
101.PRE	XBRL Taxonomy Extension Presentation Linkbase Document

* Management contract or compensatory plan or arrangement.

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

MENTOR GRAPHICS CORPORATION

Dated: March 18, 2016

By /S/ WALDEN C. RHINES
Walden C. Rhines
Chief Executive Officer

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed by the following persons on behalf of the registrant in the capacities and on the dates indicated.

(1) Principal Executive Officer:

/S/ WALDEN C. RHINES Walden C. Rhines	Chief Executive Officer	March 18, 2016

(2) Principal Financial Officer:

/S/ GREGORY K. HINCKLEY Gregory K. Hinckley	President, Chief Financial Officer	March 18, 2016

(3) Principal Accounting Officer:

/S/ RICHARD P. TREBING Richard P. Trebing	Vice President Finance, Chief Accounting Officer	March 18, 2016

(4) Directors:

/S/ WALDEN C. RHINES Walden C. Rhines	Chairman of the Board	March 18, 2016
/S/ GREGORY K. HINCKLEY Gregory K. Hinckley	Director	March 18, 2016
/S/ KEITH L. BARNES Keith L. Barnes	Director	March 13, 2016
/S/ SIR PETER L. BONFIELD Sir Peter L. Bonfield	Director	March 15, 2016
/S/ PAUL A. MASCARENAS Paul A. Mascarenas	Director	March 13, 2016
/S/ J. DANIEL MCCRANIE J. Daniel McCranie	Director	March 15, 2016
/S/ PATRICK B. MCMANUS Patrick B. McManus	Director	March 14, 2016
/S/ JEFFREY M. STAFEIL Jeffrey M. Stafeil	Director	March 15, 2016

Supplement Financial Information

MENTOR GRAPHICS CORPORATION
UNAUDITED RECONCILIATION OF NON-GAAP ADJUSTMENTS
(In thousands, except earnings per share data)

	Twelve Months Ended January 31,	
	2016	**2015**
GAAP net income attributable to Mentor Graphics shareholders	$ 96,277	$ 147,139
Non-GAAP adjustments:		
Equity plan-related compensation: (1)		
Cost of revenues	2,607	2,304
Research and development	16,207	14,027
Marketing and selling	9,623	9,103
General and administration	12,060	10,373
Acquisition - related items:		
Amortization of purchased assets		
Cost of revenues (2)	7,303	7,099
Amortization of intangible assets (3)	8,716	8,282
Special charges (4)	45,081	23,490
Other income (expense), net (5)	(6)	184
Interest expense (6)	6,593	6,139
Non-GAAP income tax effects (7)	(18,399)	(19,708)
Noncontrolling interest (8)	(638)	(820)
Total of non-GAAP adjustments	89,147	60,473
Non-GAAP net income attributable to Mentor Graphics shareholders	$ 185,424	$ 207,612
GAAP and non-GAAP weighted average shares (diluted)	119,263	117,078
Non-GAAP adjustment	2,046	-
Non-GAAP weighted average shares (diluted)	121,309	117,078
Net income per share attributable to Mentor Graphics shareholders:		
GAAP (diluted)	$ 0.81	$ 1.26
Convertible debt adjustment (9)	0.01	-
Non-GAAP adjustments detailed above	0.73	0.51
Non-GAAP (diluted)	$ 1.55	$ 1.77

(1) Equity plan-related compensation expense is the fair value of all share-based payments to employees for stock options and restricted stock units, and purchases made as a result of the employee stock purchase plans.

(2) Amount represents amortization of purchased technology resulting from acquisitions. Purchased technology is generally amortized over two to five years.

(3) Other identified intangible assets are generally amortized to operating expense over two to five years. Other identified intangible assets include trade names, customer relationships, and backlog resulting from acquisition transactions. The amount presented for the twelve months ended January 31, 2015 also includes $116 of amortization of other identified intangible assets for Frontline, which were fully amortized in the first quarter of fiscal 2015.

(4) *Twelve months ended January 31, 2016:* Special charges consist of (i) $25,232 for severance costs incurred for the voluntary early retirement program, (ii) $13,496 of costs incurred for employee rebalances which include severance benefits and notice pay, (iii) $4,118 for EVE litigation costs, and (iv) $2,235 in other adjustments.

Twelve months ended January 31, 2015: Special charges consist of (i) $18,408 for EVE litigation costs, (ii) $3,535 of costs incurred for employee rebalances which include severance benefits and notice pay, and (iii) $1,547 in other adjustments.

(5) Amount represents (income) loss on an investment accounted for under the equity method of accounting.

(6) Amount represents the amortization of original issuance debt discount.

(7) Non-GAAP income tax expense adjustment reflects the application of our assumed normalized effective 19% tax rate, instead of our GAAP tax rate, to our non-GAAP pre-tax income for the twelve months ended January 31, 2016 and a 17% tax rate for the twelve months ended January 31, 2015.

(8) Adjustment for the impact of amortization of intangible assets, equity plan-related compensation, and income tax expense on noncontrolling interest.

(9) We have increased the numerator of our diluted earnings per share calculation by $2,074 for the twelve months ended January 31, 2016 for the dilutive effect of our convertible debt. Corresponding dilutive shares of 2,046 for the twelve months ended January 31, 2016 are presented in the reconciliation above.

MENTOR GRAPHICS CORPORATION
UNAUDITED RECONCILIATION OF GAAP FINANCIAL MEASURES TO NON-GAAP FINANCIAL MEASURES
(In thousands, except percentages)

Year Ended January 31,	**2016**
GAAP operating income	$ 136,745
Reconciling items to non-GAAP operating income:	
Equity plan-related compensation	40,497
Amortization of purchased technology	7,303
Amortization of other identified intangible assets	8,716
Special charges	45,081
Non-GAAP operating income	$ 238,342
GAAP operating income as a percent of total revenues	11.6%
Non-GAAP adjustments detailed above	8.6%
Non-GAAP operating income as a percent of total revenues	20.2%

BOARD OF DIRECTORS-FY2016

Dr. Walden C. Rhines
Chairman of the Board and Chief Executive Officer,
Mentor Graphics Corporation

Gregory K. Hinckley
President and Chief Financial Officer,
Mentor Graphics Corporation

Keith L. Barnes
Self-employed Business Advisor and Private Investor

Sir Peter L. Bonfield
Self-employed International Business Advisor

Paul A. Mascarenas OBE
Self-employed Business Advisor and Private Investor

J. Daniel McCranie
Self-employed Business Advisor

Patrick B. McManus
Private Investor

Jeffrey M. Stafeil
Executive Vice President and Chief Financial Officer,
Adient (a division of Johnson Controls, Inc.)

Executive Officers

Dr. Walden C. Rhines
Chairman of the Board and Chief Executive Officer

Gregory K. Hinckley
President and Chief Financial Officer

Michael F. Ellow
Senior Vice President,
World Trade

Brian M. Derrick
Vice President,
Corporate Marketing

Dean M. Freed
Vice President,
General Counsel and Secretary

Richard P. Trebing
Vice President and Chief Accounting Officer

Corporate Headquarters
Mentor Graphics Corporation
8005 SW Boeckman Road
Wilsonville, Oregon 97070-7777
United States of America
Phone: 503-685-7000
Fax: 503-685-1202
www.mentor.com

Stock Trading
Mentor Graphics Corporation's common stock is traded on the Nasdaq National Market under the symbol "MENT"

Stock Transfer Agent
American Stock Transfer & Trust Co.
59 Maiden Lane
New York, New York 10038
Phone: 718-921-8293
Fax: 718-921-8334

Investor Relations
For additional financial and company information, contact:
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8005 SW Boeckman Road
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