

how [ powerful focused predictable fast mobile ] can you dream?  
big

how

how

## do dreams become reality?

As the complexity of electronic design increases and time-to-market windows get smaller, Cadence Design Systems, Inc. is uniquely positioned to assist customers in meeting their design challenges, reducing risk, and increasing their competitive edge. ▶ How? Through the most comprehensive array of design software in the world. Our world-class technology provides customers with a complete set of software solutions to meet their most demanding design needs. In addition, Cadence® provides customers with proven methodologies to improve overall design productivity. For customers facing critical time-to-market windows and the need to leverage their design teams better, or for customers who may not have design resources, Cadence offers the world's largest independent design services organization. ▶ No matter what the technology challenge, Cadence has a solution. Whether designing a microprocessor, a circuit board, or an entire system, Cadence can leverage the breadth of our entire technology and services portfolio to help customers bring their products to market. ▶ Our customers dream big. Cadence helps make those dreams reality.



# how powerful

*“At Infineon Technologies we recognize the powerful combination of Cadence’s technologies and services. When we standardized on a Cadence flow for designing our full custom and mixed-signal chips, we also found the ideal source for continual support—Cadence Methodology Services. When*

*Cadence releases new technology, these experts make sure to introduce it in such a way that our design environment is continually optimized for our specific needs.*

*“We have increased designer productivity and are producing higher quality parts and delivering them to the market faster than before. In fact, Infineon Smart Power*

*products recently received the DaimlerChrysler Golden Pentastar award for outstanding product quality.”*

**HARALD  
SCHMIDT-HABICH  
CAD Manager for  
Smart Power,  
Infineon Technologies**



How powerful can a design environment become? With the right combination of technologies and services, so powerful that Cadence has become Infineon's virtual CAD department for Smart Power.



How focused can a semiconductor company become? With Cadence Design Services, so focused that marketing and sales become the only core competencies necessary for success.

# how focused

*“The fabless semiconductor model is the springboard to success for many companies that cannot afford the time and capital outlay required for chip manufacturing infrastructure. At MUSIC Semiconductors, we are pioneering the natural extension to the fabless model—the lean semiconductor business model.*

*By trusting product design, prototyping, and pre-production to the design services experts at Cadence Design Systems, we have the flexibility to*

*move into new product areas quickly, such as multi-layer switching chips for integrated networking, while focusing exclusively on our major strengths—marketing and sales.*

*“As a mid-size company with multiple products, we could employ the traditional design model. We chose instead to partner with Cadence because they bring us access to state-of-the-art equipment, techniques, and intellectual property, while minimizing our up-front expenditures. We can undertake bigger projects and introduce more products that reach the market far more rapidly, since we have no need to*

*hire, train, and equip our own design staff. With an abundance of talent in all design specialties, and a willingness to quickly augment or redirect resources to meet changing requirements, Cadence is the ideal virtual product development organization for MUSIC. We are growing faster and achieving ROI sooner by concentrating on marketing and sales, the keys to success in today’s market.”*

**DAVE WALLS**  
**President,**  
**MUSIC Semiconductors, Inc.**





*“At Philips Semiconductors, our pioneering use of modularity and IP-Reuse has helped us become a global leader in multimedia and other fields of the electronics industry. Now we’re partnering with Cadence to take modularity and reuse to the next level with Cadence’s Cierito™ virtual component co-design (VCC) environment. VCC is planned to become an important element of our new system-level design methodology focused on reusing hardware and software intellectual property.*

*“By using VCC’s performance modeling techniques, we are creating libraries of reusable blocks that have known, high-fidelity performance estimates. Armed with this advanced understanding of blocks’ performance characteristics, our designers can assess partitioning decisions and make choices of IP far earlier in the design process than ever before, at the system level. By modeling overall system performance, they can proceed with confidence that their decisions are positively affecting achievement of performance goals. Product developments will have fewer design iterations and products will reach the market faster than ever. Our first results are so encouraging that we*

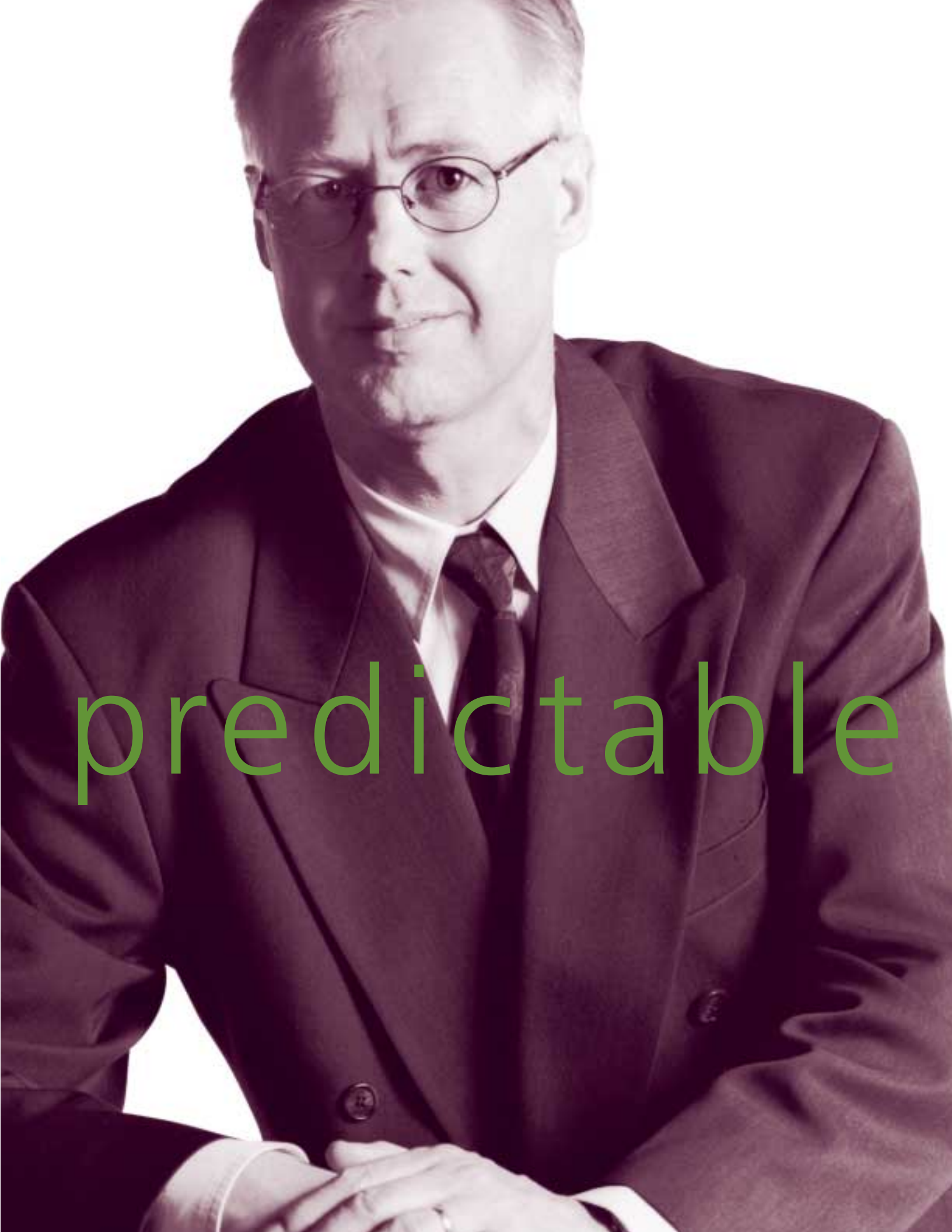
*are now deploying VCC methodology on one of our highest profile projects, the Nexperia Digital Video Platform, one of our Silicon System Platforms, whose system-chips will power the next generation of digital convergence appliances for the home.”*

**MARINUS VAN LIER**  
Design Technology Group,  
Philips Semiconductors B.V.

# how

**How predictable can IP performance become? With VCC, decision-making can be elevated to the system level.**





predictable



# how fast

How fast can  
Cadence Design  
Services fulfill an  
urgent need?  
Just show them  
the goal line!

*“When we conceived the Scanz Scannor, a device that would revolutionize pro football’s instant replay and many other applications, we knew that it had to be developed quickly, from scratch. With no in-house design capability of our own, we turned the job over to our virtual product development organization, Cadence Design Services. Cadence architected the system and performed electronic design; software development; industrial, mechanical, and support infrastructure design; overall systems integration; and introduction to manufacturing. They combined state-of-the-art electronics, a color*

*LCD screen and multifunctional controls, and made it all tough enough to withstand the pounding of a football game in rainy or sub-zero weather.*

*“Ninety-seven days later, we held the working prototype unit in our hands—the world’s first (and currently only) mobile wireless-enabled video replay device for sports officiating. Most experienced design teams take nine to eighteen months for a job that big. Now, thanks to Cadence, we’re poised to service multiple monitoring and surveillance applications, such as sports officiating, industrial, casino, and campus security. But most importantly, the consumer version will provide access to live, global sports, news, and entertainment events. The Scanz Scannor has been successfully tested at many live professional sporting events. Instant replay is only the beginning.”*

**DAVID BREIN**  
Chairman and CEO,  
Scanz Communications



*“At Nokia, we have a vision of putting the Internet into everyone’s pocket. To turn that vision into reality, we cooperate with world-class companies that share our vision and have complementary competencies. This network of partners is working closely with our own strong research and development community to introduce innovative products and solutions for the mobile information age.*”

# how mobile

*“We selected Cadence as a design services partner for wireless basestation products because of our track record of design services projects. Our designers around the world will jointly develop future Nokia products. Cadence offers essentials for success in this new*

*partnering approach: a global presence, competent design services resources, technical competencies, a visionary design services strategy, and the willingness to invest in the future of the cooperation.”*

**ADEL HATTAB**  
**Head of Global Partnership Management, Radio Access Systems Division, Nokia Networks**





How mobile will  
Internet access  
become? The  
Internet will be just  
as mobile as the  
people who use it.

## Selected Financial Data

<i>(in thousands except per share amounts)</i>	1999	1998	1997
Revenue	\$ 1,093,303	\$ 1,320,180	\$ 1,036,773
Net income*	\$ 78,396	\$ 275,206	\$ 207,371
Net income per share—			
assuming dilution*	\$ 0.31	\$ 1.07	\$ 0.85
Net income (loss)	\$ (14,075)	\$ 25,124	\$ 165,122
Net income (loss) per share—			
assuming dilution	\$ (0.06)	\$ 0.10	\$ 0.68
Cash, cash equivalents, and short-term investments	\$ 118,758	\$ 249,477	\$ 336,429
Total assets	\$ 1,459,659	\$ 1,481,916	\$ 1,153,247
Stockholders' equity	\$ 986,149	\$ 947,830	\$ 821,363

\*Note: Excludes unusual items, amortization of acquired intangibles, changes in accounting method, and the effects of IMS.

# how

## we are helping our customers succeed

**Q | The electronics revolution is literally changing our lives, and the foundation of the world's economy. How is Cadence participating in this revolution?**

**A |** First, let's look at the state of electronics today versus where we were five years ago. In 1995, mobile phones were heavy to carry and ran out of battery life in just a few hours. Most electronic devices were confined to the home or office because a wired connection was required. People carried around bulky organizers and wrote out paper checks to pay their bills.

Today, everything has changed. Devices are smaller, lighter, more powerful, and above all, more mobile—and these trends will only accelerate in the months and years ahead. The key lies in the intelligence that's built into the chips that power today's wireless electronic consumer devices, a high percentage of which are designed with the world-class software and services offered by Cadence. Entire new businesses are thriving today that didn't even exist five years ago. Cadence is at the heart of these new businesses. New markets, new business models, and new technologies mean that customers require more of our technologies, software, and services than ever before.

**Q | What key market events occurred in 1999?**

**A |** In 1999 the semiconductor industry began to recover. Japan and Asia showed promising activity. Electronics companies faced increased competitive pressures, and began to focus more on core competencies. Start-up companies and established companies alike began using design services organizations to help engineer products.



**Ray Bingham,  
President and  
Chief Executive  
Officer**



Cadence not only delivered leading-edge technology and products to the market—we changed the way we do business to better help our customers get their products to market faster. We put into place a new subscription licensing model that offers customers easier access to new technology, and results in revenue being recognized over the life of the contract. As a result, our revenue and profits were suppressed during the year, with revenue declining 17 percent, and earnings per share declining 71 percent. But our core business continues to be strong. In fact, despite lower reported revenue, we had our largest bookings quarter ever in the fourth quarter.

**Q | You say you've changed the way you do business. Why?**

**A |** Cadence customers are in the midst of an electronics revolution. They're facing tremendous pressures that are changing the way they do business. Consumers are driving this revolution. They're demanding new products at a time when suppliers simply can't find enough engineers to get products to market quickly enough. Time-to-market is more critical than ever because the first product of its kind to hit the shelves is likely to become the long-term winner in its market. Brand new technologies are necessary to make the

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**Time-to-market is more critical than ever because the first product of its kind to hit the shelves is likely to become the long-term winner in its market. That's where Cadence's unique value enters the picture.**

quantum leaps required, along with brand new skills to use those technologies properly. High on that list is system-on-a-chip (SOC) technology. But designing an SOC is extremely difficult. It takes a lot more than great software tools. It takes designers with special skills and highly refined methodologies custom-built around the tools to meet their specific needs. That's where Cadence's unique value enters the picture.

We provide three ingredients—design software and hardware emulation tools, methodologies, and design services—to form complementary solutions, just in time to meet the demands of the revolution that's occurring in both design technology and the market itself. As a result, whatever product a customer can dream up, and whatever gaps might exist in the customer's own ability to fulfill that dream, Cadence can put together the right combination of tools and services to make that dream reality.

Our customer base is broadening from a traditional stronghold in semiconductors to encompass, to a much greater degree, suppliers of complete, integrated electronic systems—companies that make cell phones, network routers, and a host of other products that include a lot more than just semiconductors. These, along with the many start-ups who have joined our customer base, are the companies that have the most to gain from the electronics revolution. They are most in need of complete solutions that include new tools, new skills and new resources, because they can't risk a learning curve. They need to hit the ground running, and that takes the ready-for-market expertise we have in our tools and services offerings.



**We're emphasizing a focus on the customer—and an obsession with their success. Achieving customer satisfaction with the necessary combination of products and services is our overriding goal.**

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To me, that's what is so exciting about our future. Only Cadence is in a position to provide these complete solutions. We have the widest range of tools in the electronic design automation (EDA) industry, and the largest and most experienced staff of methodology and design services experts. We're the only complete solutions provider in the industry, and we are determined to assist in making our customers' dreams become reality. The components of the Cadence strategy—leading-edge design automation software and world-class professional services—were both significantly enhanced in 1999.

To take advantage of the specific opportunities available today, we're emphasizing a focus on the customer—and an obsession with their success. Achieving customer satisfaction with the necessary combination of products and services is our overriding goal—and it starts with truly understanding our customers and their needs. To that end, I created an Office of Customer Advocacy, designed to ensure unfiltered feedback directly to me and the rest of senior management, which in turn permits us to focus our attention directly on our customers' real needs.

**Q | How does this new business approach position Cadence with your customers?**

**A |** With the unique combination of our technology and services, we can adapt to any customer's business model. For example, we assist consumer product suppliers who are outsourcing pieces of the design process that do not represent a core competence or do not differentiate their products. Their challenge is time to market. Whatever they require to shorten intervals, we can provide resources to match that need.

Start-ups and other small companies face a different challenge. They have fewer resources and want a fast, low-risk solution that minimizes up-front expenditures. Several such companies elected in 1999 to use our design services organization as their virtual product development organization.

Other companies may have all the capable designers they need, but want an already developed design environment that includes both tools and methodologies. In some cases, they also want someone to manage that environment for them. We're in position to help there, too. Some of the largest companies in the world's electronics business count on Cadence to keep their flows up to date and running smoothly on a continuing basis, and have been doing so for years.

At the other end of this spectrum lie much smaller companies with smaller needs, but who still benefit from the highly efficient design environments we create for them; even if it's a single chip designer's workspace.

Still other companies, such as large, experienced chip and computer manufacturers, know that their core competence lies in design. They know how to build their own design environments. What they need are leading-edge tools. We provide those resources as well.

**Q | Speaking of tools and methodologies, what is Cadence doing on that front?**

**A |** Along with more complex systems and chips, there are five major challenges facing our customers. Cadence's unique combination of high-powered tools and methodologies are designed to meet these challenges:

► **AUTOMATING SYSTEM-LEVEL DESIGN.** Design issues like power, speed, and size used to be analyzed by hand. They now need to be automated at high levels of abstraction, to provide customers much-needed breakthroughs in productivity. We worked for more than two years with companies such as Motorola, Philips Semiconductors, Hitachi, BMW, and STMicroelectronics to develop Certo virtual component co-design, or VCC. This highly critical technology was rolled out in 1999, and will reach full fruition in 2000 with the addition of links-to-implementation. VCC promises to define a new class of EDA technology.

► **SOLVING THE TIMING CLOSURE PROBLEM.** As digital designs get more complex and manufacturing processes shrink, design teams need much more sophisticated synthesis and place-and-route tools to achieve their design targets. Cadence SP&R is the first unified synthesis/place-and-route system that solves this problem for both logic and physical design teams. SP&R consists of PKS physical synthesis and Silicon Ensemble™ PKS optimization place-and-route. Both tools use our PKS technology for concurrent logical and physical optimization, and both use the same synthesis, placement, routing, and timing engines for perfect front-to-back correlation.

► **AUTOMATING CUSTOM PHYSICAL DESIGN (ACPD).** Custom physical design has become a significant bottleneck with the merging of analog and digital functionality into a single IC. Our application of tools and methodology automates many tedious and time-consuming custom IC layout tasks. The Cadence ACPD solution reduces the time to complete these critical tasks by 80 to 95%—reducing to days what previously took many weeks.

► **VERIFYING DESIGNS OF LARGER, MORE COMPLEX CHIPS.** That means more software simulation and hardware-based simulation of the largest chips—solutions like the Affirma™ NC simulator software system and the Quickturn™ emulation system. Our Affirma verification cockpit not only provides the most powerful verification engines but, by putting them all in a single environment, we're also making them much easier to use.

► **AS CHIPS AND SYSTEMS BECOME MORE COMPLEX, HIGH-SPEED PRINTED CIRCUIT BOARDS BECOME EVEN MORE CRITICAL.** Our acquisition of Orcad® brings with it a large installed base, a proven PC-based environment, and a foundation for us to build a complete web-based model for design. We also introduced critical enhancements to our core SPECCTRA® line, all of which resulted in an upturn in our PCB design revenues.

**Q | Is the Internet an important part of your 2000 strategy?**

**A |** Yes, we're seizing the power of the Internet to extend the reach and value of our solutions to customers. The Internet is a phenomenon that is creating endless potential for

new ways of delivering our products and services to serve customers. We've put functionality, such as Internet-based component selection and parts requests, into PCB design flows for our methodology services customers. Every new Internet feature we implement triggers new ideas for utilizing the power of the Internet to improve customer productivity. We have a number of strategies in place that will enable us not only to participate in, but literally to drive the Internet wave.

**Q | You mentioned that Cadence can become a customer's virtual product design organization. How do you do that?**

**A |** Cadence has the largest independent design services organization in the world. We not only fill the gaps for customers—in core competence or bandwidth—we do it with world-class designers who are experts at virtually every design discipline customers require. Design Services has demonstrated how Cadence can participate in the growing information age

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## **Design Services has demonstrated how Cadence can participate in the growing information age electronics market, not only as a software provider, but also as an ever-more-important design partner.**

electronics market, not only as a software provider, but also as an ever-more-important design partner. Focused on the high-growth wireless and wired communications, information appliance, and industrial electronics industries, we are attacking markets with tremendous untapped potential. We recently announced a deal with Nokia to provide design services for Nokia's basestation products. The relationship between Cadence and Nokia has already resulted in \$10 million in design work for Cadence on Nokia basestation products.

**Q | What results have you seen?**

**A |** Customers have responded positively to the changes we've made. Our relationships have been strengthened, and satisfaction with the results we are delivering has greatly improved. The strongest testament lies with the customers' results themselves. New products from industry leaders have come to market or are in the works, thanks to Cadence technology and services.

**Q | Any final thoughts as you look to the future?**

**A |** I am proud of our ability to make decisions that have positioned us to usher in a new era in the electronic design industry. I feel confident in reporting our successful evolution on many fronts within the company, and look forward to seeing the continued fruits of our efforts in 2000. I believe Cadence remains the best-positioned company in the world to leverage the vast explosion of demand for electronics. Our strategies, products, and services are all aligned to provide our customers the fastest route to success in developing their products. In 1999 we took the necessary steps to further position ourselves for growth in 2000 and beyond. We continue to believe that the best way to serve our shareholders well is to serve our customers well. As always, we thank our shareholders for their continued support and look forward to leveraging the opportunities that lie ahead.

## **Corporate Information**

### **INDEPENDENT PUBLIC**

#### **ACCOUNTANTS**

Arthur Andersen LLP  
333 West San Carlos Street  
San Jose, California 95110

#### **TRANSFER AGENT**

For information regarding stock ownership, stock certificates, share transfers, change of address, stock splits, and tax basis questions, please contact our transfer agent in writing at ChaseMellon Shareholder Relations, Post Office Box 3315, South Hackensack, New Jersey 07606; by phone at 800.356.2017, or by e-mail at: [shrrelations@chase Mellon.com](mailto:shrrelations@chase Mellon.com)

#### **FORM 10-K**

A copy of the Company's Form 10-K, as filed with the Securities and Exchange Commission for the year ended January 1, 2000, is available without charge either by written request from Cadence Design Systems, Inc., Investor Relations, 2655 Seely Avenue, San Jose, California 95134, or electronic request through the investor relations area of the Company's website at [www.cadence.com](http://www.cadence.com).

### **ANNUAL MEETING**

The Cadence Design Systems, Inc., Annual Meeting of Stockholders will be held May 24, 2000, at 10:00 am at the Company's executive offices, located at 2655 Seely Avenue, San Jose, California.

### **QUARTERLY EARNINGS**

#### **ANNOUNCEMENTS**

You will easily find our quarterly earnings announcements, along with other financial reports and information, on the Internet in the investor relations area of our website at [www.cadence.com](http://www.cadence.com). Copies of these reports can also be requested electronically from the website.

### **INVESTOR RELATIONS**

For further information on our Company, please contact Cadence Investor Relations in writing at Cadence Design Systems, Inc., Investor Relations, 2655 Seely Avenue, San Jose, California 95134; by phone at 877.236.5972; or by e-mail at: [investor\\_relations@cadence.com](mailto:investor_relations@cadence.com).

## **Board of Directors**

### **DONALD L. LUCAS**

Chairman,  
Cadence Design Systems, Inc.  
Private Venture Capital Investor

### **H. RAYMOND BINGHAM**

President and Chief Executive  
Officer,  
Cadence Design Systems, Inc.

### **CAROL BARTZ**

Chief Executive Officer and  
Chairman,  
Autodesk, Inc.

### **DR. LEONARD Y. LIU**

President of ASE Group and  
Chief Executive Officer,  
ASE Test Limited and Universal  
Scientific Industrial Co. Ltd.

### **DR. ALBERTO SANGIOVANNI- VINCENTELLI**

Professor of Electrical Engineering  
and Computer Science,  
University of California, Berkeley

### **GEORGE M. SCALISE**

President,  
Semiconductor Industry  
Association

### **DR. JOHN B. SHOVEN**

Director, Stanford Institute for  
Economic Policy Research,  
Stanford University

### **ROGER S. SIBONI**

President, Chief Executive  
Officer and Director,  
E.piphany, Inc.

## **Corporate Officers**

### **H. RAYMOND BINGHAM**

President and  
Chief Executive Officer

### **JAKE BUURMA**

Senior Vice President,  
Research and Development

### **DAVID DEMARIA**

Senior Vice President,  
Worldwide Marketing

### **ADRIAAN LIGTENBERG**

Senior Vice President and  
General Manager,  
iDesign Environment Group

### **R.L. SMITH McKEITHEN**

Senior Vice President,  
General Counsel and Secretary

### **WILLIAM PORTER**

Senior Vice President and  
Chief Financial Officer

### **MATTHEW THOMPSON**

Senior Vice President,  
Worldwide Sales

### **ROBERT WIEDERHOLD**

Senior Vice President and  
General Manager,  
Worldwide Design Services

### **ROBERT PROMM**

Vice President and  
Corporate Controller

## Corporate Offices

### CORPORATE HEADQUARTERS

Cadence  
2655 Seely Avenue  
San Jose, California 95134  
408.943.1234  
www.cadence.com

### DOMESTIC OFFICES

Tempe, Arizona 480.413.9550	San Jose, California 408.914.6000	Schaumburg, Illinois 847.619.6600	Fishkill, New York 914.897.2738
Berkeley, California 510.647.2800	Santa Barbara, California 805.571.1200	Columbia, Maryland 410.290.1999 410.290.2800	Cary, North Carolina 919.380.3900
Cupertino, California 408.366.6966	Sunnyvale, California 408.730.9555	Chelmsford, Massachusetts 978.667.8811 978.441.4300	Beaverton, Oregon 503.439.3100
El Segundo, California 310.414.1300	Boulder, Colorado 303.440.8636	Arden Hills, Minnesota 651.766.3100	Portland, Oregon 503.671.9500
Irvine, California 949.788.6080 949.752.8451	Broomfield, Colorado 303.464.6500	Rochester, Minnesota 507.289.8008	Allentown, Pennsylvania 610.398.6300
Mountain View, California 650.964.1200	Fort Collins, Colorado 970.282.4443	Ridgeland, Mississippi 601.206.1011	Austin, Texas 512.349.1100
Napa, California 707.265.6100	Melbourne, Florida 407.674.2400	New Providence, New Jersey 908.898.2400	Dallas, Texas 972.233.4900
Pleasanton, California 408.895.3202	Orlando, Florida 407.650.3500	Red Bank, New Jersey 732.450.0901	Bellevue, Washington 425.451.2360
San Diego, California 858.618.2800	Atlanta, Georgia 770.353.5888		

### INTERNATIONAL OFFICES

Antwerpen, Belgium 011.323.244.1848	Kowloon, Hong Kong 011.852.2377.7111	Rome, Italy 011.39.6.68807923	Seoul, South Korea 011.82.2.3770.0770
Richmond, B.C., Canada 604.303.1600	Bangalore, India 011.91.80.2283652	Vimercate, Italy 011.39.39.6899857	Stockholm, Sweden 011.468.632.2900
Ottawa, Ontario, Canada 613.828.5626	New Delhi, India 011.91.11.6922260	Osaka, Japan 011.81.63.11.73.71	Hsin-Chu City, Taiwan 011.886.3.577.8951
Helsinki, Finland 011.358.9.6811.340	Noida, India 011.91.11.84562842	Shin-Yokohama, Japan 011.81.45.475.6330	Taipei, Taiwan 011.886.22.769.8250
Paris, France 011.33.1.34.88.53.00	Dublin, Ireland 011.353.1.805.4300	Moscow, Russia 011.7.095.153.0551	Bracknell, United Kingdom 011.44.1344.360333
Sophia-Antipolos, France 011.33.4.92.28.28.92	Herzlia, Israel 011.972.9.9511.799	Livingston, Scotland 011.44.150.659.5000	Cambridge, United Kingdom 011.44.1223.421025
Munich, Germany 011.49.89.45630	Milan, Italy 011.39.02.57558.1	Singapore, Singapore 011.65.567.8600	

1999 Form 10-K

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**UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION**  
Washington, D.C. 20549

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**FORM 10-K**

(Mark One)

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

For the fiscal year ended January 1, 2000

OR

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

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

Commission file number 1-10606

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**CADENCE DESIGN SYSTEMS, INC.**

(Exact name of registrant as specified in its charter)

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

**77-0148231**  
(IRS Employer  
Identification No.)

**2655 Seely Avenue, Building 5, San Jose, California 95134**  
(Address of Principal Executive Offices, including Zip Code)

**(408)943-1234**

(Registrant's Telephone Number, including Area Code)

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

**Common Stock, \$.01 par value per share**  
(Title of Each Class)

**New York Stock Exchange**  
(Names of Each Exchange on which Registered)

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

**None**

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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 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 the Registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K.

Aggregate market value of the voting stock held on March 3, 2000 by non-affiliates of the registrant: \$5,014,367,568

Number of shares of common stock outstanding at March 3, 2000: 244,603,296

**DOCUMENTS INCORPORATED BY REFERENCE**

Portions of the definitive proxy statement for the 2000 Annual Meeting to be held on May 24, 2000, are incorporated by reference into Part III hereof.

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**CADENCE DESIGN SYSTEMS, INC.**  
**1999 FORM 10-K ANNUAL REPORT**

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## PART I.

### **Item 1. Business**

Certain statements contained in this Annual Report on Form 10-K, including, without limitation, statements containing the words “believes,” “anticipate,” “estimates,” “expects,” “intends,” and words of similar import, constitute forward-looking statements within the meaning of the Private Securities Reform Act of 1995. Actual results could vary materially from those expressed in these statements. Readers are referred to “Marketing and Sales,” “Research and Development,” “Competition,” “Proprietary Technology,” “Manufacturing,” and “Factors That May Affect Future Results” sections contained herein, which identify important risk factors that could cause actual results to differ from those contained in the forward-looking statements.

#### **Overview**

Cadence Design Systems, Inc., or Cadence, provides comprehensive software and other technology and offers design and methodology services for the product development requirements of the world’s leading electronics companies. Cadence licenses its leading-edge electronic design automation, or EDA, software and hardware technology and provides a range of services to companies throughout the world to help its customers optimize their product development processes. Cadence is a supplier of end-to-end products and services, which are used by companies to design and develop complex chips and electronic systems including semiconductors, computer systems and peripherals, telecommunications and networking equipment, mobile and wireless devices, automotive electronics, consumer products, and other advanced electronics.

Cadence was formed as a Delaware corporation as a result of the merger of SDA Systems, Inc. into ECAD, Inc. in May 1988. Cadence’s executive offices are located at 2655 Seely Avenue, Building 5, San Jose, California 95134, and its telephone number at that location is (408) 943-1234.

#### **Electronic Design Automation**

The worldwide electronics industry is experiencing rapid growth in both the business-to-business and consumer products segments. The cost of producing complex chips have decreased, and these lower prices have accelerated growth of the consumer products segment due to the increased use in consumer products, such as home appliances and personal computers, automotive products, entertainment products and games, and personal communication and organization devices, which include complex chips and electronics components, once only contained in business-to-business products. This industry development presents challenges for developers of electronic products, where time-to-market, cost, performance, quality, reliability, size, and the need for product diversity become critical in a fast-paced and volatile industry.

The electronics industry is faced with a continuing escalation in complexity of electronic devices. The major trends responsible for the increasing complexity of designing and manufacturing electronic devices are as follows:

- The size of features such as wires, transistors, and contacts on chips is shrinking due to advances in semiconductor manufacturing processes. Process feature sizes refer to the width of the transistors and the width and spacing of the interconnect on the chip. Feature size is normally identified by the headline transistor length, which is shrinking from 0.35 microns to 0.18 microns and below. This is commonly referred to in the semiconductor industry as the migration to deep submicron and represents a major challenge for all levels of the semiconductor industry from design and design automation to design of manufacturing equipment and the manufacturing process itself. Shrinkage of transistor length to such infinitesimal proportions (for reference, the diameter of the period at the end of this sentence is approximately 400 microns) is challenging fundamental laws of physics and chemistry.

- The ability to design very large chips, in particular integration of entire electronic systems onto a single chip instead of a circuit board (a process that is referred to in the industry as system-on-a-chip, or SOC), increases the complexity of managing a design that at the lowest level is represented by billions of shapes on the fabrication mask. In addition, systems typically incorporate microprocessors and digital signal processors that are programmed with software, requiring simultaneous design of the silicon chip and the related embedded software on the chip.

These trends are posing major new challenges for electronics designers. The shift to deep sub-micron means that many physical effects that could previously be ignored by designers must now be considered during the design process. The challenge of formulating extremely large chip designs means that new approaches to managing complexity and abstraction are required. These challenges are being addressed in a number of ways, including revamping old design methodologies, introducing new EDA tools and technologies to design environments, and adopting a SOC style of design to take advantage of silicon manufacturing capabilities.

### **The Complex Chip and Electronics System Design and Development Process**

The electronic design process involves describing the behavioral, architectural, functional, and structural attributes of an integrated circuit or electronic system. The process commences with the designer describing the product's overall system architecture on a very general level. This general description is then refined into a series of increasingly detailed descriptions to meet predetermined design specifications, simulating the design at each level to identify defects. The refinements are generally made using automated tools that read one description represented by a computer file and write another more detailed computer file, guided by input from the designer. The lowest level of description provides the manufacturing data required by the semiconductor foundry to create the masks and test programs needed to build functioning chips.

In practice, problems may be found at one level that can only be resolved by revising a higher level description. This process, often referred to as iteration, slows the overall design process.

#### *Behavioral and Architectural Definition—the System Level*

A natural evolution of EDA is a top-down design approach known as electronic systems design automation. The highest level of description of the electronic system is referred to as the system level. Increasingly the complexity of the system design and the need to start embedded software development before the chip design is complete. This level consists of two components, the behavioral definition and the architectural definition. The behavioral definition is a description of what the system should do, without any determination as to how it is to be implemented. The architectural definition is a detailed description of the particular implementation of the behavior for the chip that is being designed.

#### *The Design Description—the RTL Level*

Based on overall system architecture, the designer creates a design description using a variety of techniques, including block diagrams, equations and special design description languages referred to as hardware description languages. The key description of a chip in current methodology is the register-transfer level, known as the RTL level. RTL level designs are described in hardware description languages, almost always VHDL or Verilog<sup>®</sup> languages. If the system design is done informally, then this is the level at which the designer first enters the design manually. If the system design is done more formally then some or all of the RTL may be automatically generated by a design tool from the system level description.

The RTL level is verified for correctness by reading the RTL description into a simulation program and making changes to the inputs to the system. The simulator then automatically calculates the effect of those input changes on the entire system and writes out the output changes from the system. The designer

can then manually inspect these output changes, or use more automated approaches, to verify that the system behaves as intended. This process is known as functional verification.

#### *Structural Design and Simulation—Gate Level*

The next lower level of electronics system design has historically been the gate level. Before an integrated circuit or printed circuit board can be manufactured, general design descriptions must be reduced to detailed structural plans in which the engineer specifically defines components, their interconnections, and associated physical properties. At this stage in the process, the design is further described as a network of interconnected standard cells, the small building blocks of silicon from a library, along with larger cells such as memories and microprocessors. Structural designs may be created manually or generated from the RTL level description using an automated process called logic synthesis. A database containing the design's electrical characteristics, interconnections, and specific design rules is automatically created and used as the foundation for subsequent design steps.

In order to identify design errors before manufacturing, the gate level is verified to match the RTL level description either using simulation, or increasingly by static techniques such as equivalence checking and static timing analysis used in large designs, that prove that the various circuits in the design are adequately fast. Simulation enables electronic product designers to quickly explore design alternatives, which can be performed at different levels of design abstraction. A designer is then able to verify the conceptual, structural, and performance aspects of the design.

#### *Physical Design and Verification—Layout Level*

When the design is determined to be functionally correct, the designer generates a non-graphical description, called a netlist, that details the design components and interconnections. This netlist becomes the blueprint for the physical design of the electronic system or chip. After development of the netlist, the physical design team determines the layout of the system or chip. At this stage of the process, the design is further described in terms of where each standard cell or larger cell is to be placed on the chip, along with the patterns of metal interconnect to be used on the chip to join them together electrically. The process by which this description is created from the netlist is known as place and route. The ideal layout will yield the optimum combination of performance, size, and cost.

Once this process is completed, physical verification tools are used to provide a final check of the design implementation before products are released to manufacturing. Accuracy in this process is essential for avoiding costly production runs of faulty parts. This step-by-step process has now evolved into a concurrent process as the next generation of physical design and verification products have entered the EDA market. In the latest design flows, synthesis, where the RTL description is transformed into a netlist, and place and route, where the netlist is transformed into layout, are done at the same time, reflecting an evolution of EDA into a more concurrent process.

### **Cadence's Electronic Design Automation Tools**

Cadence offers a broad spectrum of EDA software tools and hardware that apply to one or more steps in the complex chip and electronics system design process described above. These tools provide a variety of functions, including system-level design; logic design, simulation, emulation, and verification; physical implementation, verification, and analysis; and printed circuit board design.

#### *System-Level Design—Behavioral and Architectural Definition*

System-level design allows the system architect to design at the highest levels of abstraction, allows customers to test their designs early in the design process, and enables customers to automate interactions between the architect and the chip designer. Cadence's Cierito™ virtual component co-design toolset, or

VCC, analyzes behavioral and architectural definitions. Specifically, VCC analyzes a particular architecture for implementation of a behavioral definition, such as desired electronic functions, and provides feedback on design performance. Once a particular architecture is chosen, VCC output can be used to create or verify the RTL level of the design, and the embedded software within it. The Cadence Cierto signal processing worksystem toolset provides system-level design for a number of specific application areas, including wired and wireless communications and multimedia. Virtual component co-design and signal processing worksystem are part of the Cadence Cierto product line.

### *Physical Implementation, Verification, and Analysis*

#### *Layout Level*

The Envisia Silicon Ensemble™ ultra place and route tools are one of Cadence's most successful product lines. During 1999, Cadence released Envisia Silicon Ensemble tools with signal integrity, a tool designed to eliminate signal and reliability problems as process feature sizes get smaller. These chip components get smaller as the electronics industry evolves from .25 micron to .18 micron geometries.

Cadence's custom layout portfolio is anchored by the Virtuoso® product family, which includes tools for basic layout editing, design compaction, layout synthesis, and device-level editing. The Virtuoso automated custom physical design flow significantly increases customer productivity of custom design layout by automating some of the process.

Cadence's analog and mixed-signal design solutions consist of the Spectre® circuit simulation family and the Affirma™ analog circuit design environment. These products are used for creating the complex transistor interconnect structures required for mixed-signal design and verifying through simulation that the structures provide the correct behavior and performance.

The Cadence Dracula®, Diva®, and Vampire® verification tools, which comprise the Cadence Assura™ product line, provide integral solutions for automated and interactive physical and batch verification, meaning the running of a program over a period of time. This product line enables electronic product designers to perform a final check of their designs before products are released to manufacturing.

#### *Deep Submicron Implementation*

The Cadence Envisia product line provides a broad solution for design planning, synthesis and placement and routing of deep submicron design. The Envisia product line includes specialized technology to deal with complex challenges such as timing convergence, crosstalk, and signal integrity. Envisia Silicon Ensemble is a place and route tool that takes gate-level descriptions, or gate-level descriptions plus placement information, and produces the layout level description. The latest version of Envisia, Silicon Ensemble signal integrity, takes account of various problems with deep submicron process technology by altering the description to avoid potential signal integrity issues.

#### *Printed Circuit Board Design and Packaging*

The Cadence Allegro® and SPECCTRA® product lines offer broad capability for the layout of standard printed circuit boards and advanced component packaging. In 1999, Cadence acquired OrCAD, Inc., a printed circuit board designer that focused on the shrink-wrap segment of the market.

### *Logic Design, Simulation, and Verification*

#### *RTL Level Design*

Some of Cadence's most successful products are its simulation tools. NC-simulator, NC-Verilog, and NC-VHDL comprise Cadence's family of digital simulators that are used for the functional verification of designs described in Verilog, VHDL or both. They can operate at the behavioral level, RTL level, and

gate-level. The older Verilog-XL product is still available. The Cadence Spectre® circuit simulator is used to verify designs at the transistor level, particularly for analog design. The Affirma analog circuit design environment is often used in conjunction with the Spectre products. These simulators provide customers with the high simulation performance needed for functional verification of today's most complex designs.

In 1999, Cadence acquired Quickturn Design Systems, Inc. Cadence's product line obtained with the Quickturn acquisition consists of CoBALT™ and Mercury™ products, which provide high-performance hardware-emulation, and SpeedSim™ simulator, which provides high-performance cycle-based simulation compatible with the CoBALT design-style. Through custom hardware implementations, these products provided extremely high-performance emulation of a design.

### *Gate Level*

Cadence's products for formally verifying correctness of circuits include the Affirma equivalence checker and Affirma Formalcheck for model-checking. The equivalence checker can verify representations of the same design at different levels, in particular the RTL level versus gate level. The Cadence Affirma design and verification product line include logic, analog, and mixed-signal design analysis and verification. Affirma products can predict the behavior of designs in a short cycle time. Affirma products are used by numerous application-specific integrated circuit, or ASIC, vendors and support more than 185 ASIC libraries.

In 1999, Cadence acquired Design Acceleration Inc., or DAI. DAI's transaction-based verification and debugging environment is integrated with Affirma simulators and offered as Cadence's verification cockpit suite of tools.

The Cadence Envisia Ambit® synthesis tool is a high-performance high-capacity synthesis tool that enables users to synthesize an RTL-level description to a netlist that produces lower level gate-level descriptions optimized to meet the timing required by the designer. The physically knowledgeable synthesis, or PKS, feature to Envisia synthesis concurrently performs synthesis, placement, and estimated routing, enabling one-pass timing closure. One-pass timing closure refers to the ability of the product not to require a loop back between the place and route tool, such as the Silicon Ensemble tools, and the synthesis tool, such as Envisia Ambit synthesis, once the timing is determined to be accurate. Envisia synthesis tools also include a high-performance static timing analyzer.

### *Alanza Group*

Cadence partners with other design automation vendors to deliver technology to Cadence's customers. Through the Alanza Group programs, customers, including other EDA companies, can more easily integrate their products and technologies with those of other EDA vendors. This enables customers to mix and match third-party and proprietary tools to specifically meet a customer's EDA needs. Today, more than 125 companies have integrated their tools with Cadence software.

## **Services**

Cadence offers to electronic product developers a portfolio of services within the categories of Methodology Services, which are consulting services, and Design Services.

### *Methodology Services*

The Cadence Methodology Services group offers a variety of services to help customers solve their electronic design challenges. The Methodology Services group assists customers in developing and deploying world-class design methodologies. The Methodology Services team works to improve a customer's overall design productivity by leveraging Cadence's cumulative experience and knowledge of industry "best practices." This is accomplished in a variety of ways, from training customers on the full range of features available in each software tool to custom methodology implementations that ensure that



customers have optimized the deployment of Cadence tools within their unique environments. Additionally, Methodology Services provides more comprehensive services, such as complete design process re-engineering services and the creation, maintenance, and management of a customer's complete design environment.

### *Design Services*

Through its Design Services group, Cadence designs for its customers complete electronic devices, or assists its customers in their design of electronic system components, such as chips, or complete electronic systems. When developers of electronic content lack the resources, desire, or experience to do all of their own design work, where time to market is critical and they lack the capability to meet their timelines or when they need to keep their internal engineers focused on other higher-priority design activities, the Cadence Design Services group helps customers by doing design work for them.

Cadence offers a variety of design services for projects across all aspects of analog/mixed signal integrated circuit and block design realization, including foundry/process selection and testing from prototype to production. Design Services focuses on four major high growth areas: wireless communications, wired communications, information appliances, and industrial electronics.

### **Support Services**

Cadence's Maintenance group offers standard product support services, including product updates, telephone, and Internet-based support. Cadence also offers custom support services, which may include one or more of its standard support services plus account technical management, application and educational services, and metrics reporting. Through the metrics reporting service purchased by customers, Cadence measures how well Cadence is responding to, and resolving, customer inquiries and problems associated with the use of Cadence products.

### **Marketing and Sales**

Cadence generally uses a direct sales force consisting of sales people and applications engineers to license its products and market its consulting and design services to prospective customers. Applications engineers provide technical pre-sales as well as post-sales support for the software products. Cadence's Methodology Services group provides on-site capabilities to assist customers in improving their productivity with Cadence's and other EDA suppliers' products, and Cadence's Design Services team performs actual design work on behalf of or in conjunction with customers. Due to the complexity of EDA products and the electronic design process in general, the selling cycle is generally long, with three to six months or longer being typical. During the sales cycle, Cadence's direct sales force generally provides technical presentations, product demonstrations, and on-site customer evaluations of Cadence software. Cadence also uses traditional marketing approaches to promote its products and services, including advertising, direct mail, telemarketing, trade shows, public relations, and the Internet.

Cadence markets and supports its products and services internationally (except in Japan) primarily through its subsidiaries and various distributors. Following a reorganization of Cadence's distribution channel in Japan in 1997, Cadence licenses its products through Innotech Corporation, in which Cadence is approximately a 16% stockholder as of March 1, 2000. Cadence markets its consulting and design services in Japan through a wholly-owned subsidiary.

Revenue from international sources, including Japan, was \$566.5 million for 1999, \$643.6 million for 1998, and \$527.2 million for 1997, or approximately 52%, 49%, and 51%, respectively, of total revenue. See "Notes to Consolidated Financial Statements" for a summary of revenue by geographic area. Prices for international customers are quoted from a local currency international price list. The list is prepared based on the U.S. dollar price list but reflects the higher cost of doing business outside the U.S. International customers are invoiced in the local currency or U.S. dollars using current exchange rates.

Recent economic uncertainty and the weakening of foreign currencies in certain parts of the Asia-Pacific region has had, and may continue to have, a seriously harmful effect on Cadence's revenue and operating results.

Fluctuations in the rate of exchange between the U.S. dollar and the currencies of countries other than the U.S. in which Cadence conducts business could seriously harm its business, operating results, and financial condition. For example, if there is an increase in the rate at which a foreign currency exchanges into U.S. dollars, it will take more of the foreign currency to equal a specified amount of U.S. dollars than before the rate increase. If Cadence prices its products and services in the foreign currency, it will receive less in U.S. dollars than it did before the rate increase went into effect. If Cadence prices its products and services in U.S. dollars, an increase in the exchange rate will result in an increase in the price for Cadence's products and services compared to those products of its competitors that are priced in local currency. This could result in Cadence's prices being uncompetitive in markets where business is transacted in the local currency. Cadence's international operations may also be subject to other risks, including:

- The adoption and expansion of government trade restrictions;
- Volatile foreign exchange rates and currency conversion risks;
- Limitations on repatriation of earnings;
- Reduced protection of intellectual property rights in some countries;
- Recessions in foreign economies;
- Longer receivables collection periods and greater difficulty in collecting accounts receivable;
- Difficulties in managing foreign operations;
- Political and economic instability;
- Unexpected changes in regulatory requirements;
- Tariffs and other trade barriers; and
- U.S. government licensing requirements for export, as licenses can be difficult to obtain.

Cadence expects that revenue from its international operations will continue to account for a significant portion of its total revenue.

Exposure to foreign currency transaction risk can arise when transactions are conducted in a currency different from the functional currency of a Cadence subsidiary. A subsidiary's functional currency is the currency in which it primarily conducts its operations, including product pricing, expenses, and borrowings. Cadence uses foreign currency forward exchange contracts and purchases foreign currency put options to help protect against currency exchange risks. These forward contracts and put options allow Cadence to buy or sell specific foreign currencies at specific prices on specific dates. Increases or decreases in the value of Cadence's foreign currency transactions are partially offset by gains and losses on these forward contracts and put options. Although Cadence attempts to reduce the impact of foreign currency fluctuations, significant exchange rate movements may hurt Cadence's results of operations as expressed in U.S. dollars.

Foreign currency exchange risk occurs for some of Cadence's foreign operations whose functional currency is the local currency. The primary effect of foreign currency translation on Cadence's results of operations is a reduction in revenue from a strengthening U.S. dollar, offset by a smaller reduction in expenses. Exchange rate gains and losses on the translation into U.S. dollars of amounts denominated in foreign currencies are included as a separate component of stockholders' equity and reflected losses of \$2.5 million in 1999, \$1.4 million in 1998, and \$6 million in 1997.



On January 1, 1999, 11 member countries of the European Union adopted the Euro as their common legal currency and established fixed conversion rates between their sovereign currencies and the Euro. Transactions can be made in either the sovereign currencies or the Euro until January 1, 2002, when the Euro must be used exclusively. Currently, only electronic transactions may be conducted using the Euro. Cadence believes that its internal systems and financial institution vendors are capable of handling the Euro conversion and Cadence is in the process of examining current marketing and pricing policies and strategies that may be affected by conversion to the Euro. The cost of this effort is not expected to materially harm Cadence's results of operations or financial condition. However, Cadence cannot assure you that all issues related to the Euro conversion have been identified and that any additional issues would not materially harm Cadence's results of operations or financial condition. For example, the conversion to the Euro may have competitive implications on Cadence's pricing and marketing strategies and Cadence may be at risk to the extent its principal European suppliers and customers are unable to deal effectively with the impact of the Euro conversion. Cadence has not yet completed its evaluation of the impact of the Euro conversion on its functional currency designations.

### **Research and Development**

Cadence's investment in research and development was \$244.9 million in 1999, \$224.5 million in 1998, and \$182.3 million in 1997, prior to capitalizing software development costs of \$25.7 million, \$21.7 million, and \$15.1 million, respectively. See "Notes to Consolidated Financial Statements" for a more complete description of Cadence's capitalization of certain software development costs.

Among the primary areas that Cadence's research addresses are SOC design, the design of silicon devices in the deep submicron range, high-speed board design, architectural-level design, high-performance logic verification technology, and hardware/software co-design. The industries in which Cadence competes experience rapid technology developments, changes in industry standards, changes in customer requirements, and frequent new product introductions and improvements. If Cadence is unable to respond quickly and successfully to these developments and changes, Cadence may lose its competitive position and its products or technologies may become uncompetitive or obsolete. In order to compete successfully, Cadence must develop or acquire new products and improve its existing products and processes on a schedule that keeps pace with technological developments in its industries. Cadence must also be able to support a range of changing computer software, hardware platforms, and customer preferences. There is no guarantee that Cadence will be successful in this regard.

Cadence's advanced research and development group, Cadence Laboratories, is committed to new technological development. This group is chartered with identifying and developing prototype technologies in emerging design areas that will offer substantially improved alternatives to current EDA solutions.

### **Competition**

The electronic design automation product market and the commercial electronic design and methodology services industries are highly competitive. If Cadence is unable to compete successfully in these industries, it could seriously harm Cadence's business, operating results, and financial condition. To compete in these industries, Cadence must identify and develop innovative and cost competitive EDA products and market them in a timely manner. It must also gain industry acceptance for its design and methodology services and offer better strategic concepts, technical solutions, prices and response time, or a combination of these benefits, than those of other design companies and the internal design departments of electronics manufacturers. Cadence cannot assure you that it will be able to compete successfully in these industries. Factors that could affect Cadence's ability to succeed include:

- The development of competitive EDA products and design and methodology services could result in a shift of customer preferences away from Cadence's products and services and significantly decrease revenue;

- The electronics design and methodology services industries are relatively new and electronics design companies and manufacturers are only beginning to purchase these services from outside vendors;
- The pace of technology change demands continuous technological development to meet the requirements of next-generation design challenges; and
- There are a significant number of current and potential competitors in the EDA industry and the cost of entry is low.

In the electronic design automation products industry, Cadence currently competes with a number of large companies, including Avant! Corporation, Mentor Graphics Corporation, Synopsys, Inc., and Zuken-Redac, and numerous small companies. Cadence also competes with manufacturers of electronic devices that have developed or have the capability to develop their own EDA products. Many manufacturers of electronic devices may be reluctant to purchase services from independent vendors such as Cadence because they wish to promote their own internal design departments. In the electronics design and methodology services industries, Cadence competes with numerous electronic design and consulting companies as well as with the internal design capabilities of electronics manufacturers. Other electronics companies and management consulting firms continue to enter the electronics design and methodology services industries.

### **Proprietary Technology**

Cadence's success depends, in part, upon its proprietary technology. Many of Cadence's products include software or other intellectual property licensed from third parties, and Cadence may have to seek new or renew existing licenses for this software and other intellectual property in the future. Cadence's design services business also requires it to license the software or other intellectual property of third parties. Cadence's failure to obtain for its use software or other intellectual property licenses or other intellectual property rights on favorable terms, or the need to engage in litigation over these licenses or rights, could seriously harm Cadence's business, operating results, and financial condition.

Also, Cadence generally relies on patents, copyrights, trademarks, and trade secret laws to establish and protect its proprietary rights in technology and products. Despite precautions Cadence may take to protect its intellectual property, Cadence cannot assure you that third parties will not try to challenge, invalidate or circumvent these patents. Cadence also cannot assure you that the rights granted under its patents will provide it with any competitive advantages, patents will be issued on any of its pending applications, or future patents will be sufficiently broad to protect Cadence's technology. Furthermore, the laws of foreign countries may not protect Cadence's proprietary rights in those countries to the same extent as U.S. law protects these rights in the U.S.

Cadence cannot assure you that its reliance on licenses from or to third parties, or patent, copyright, trademark, and trade secret protection, will be enough to be successful and profitable in the industries in which Cadence competes. There are numerous patents in the EDA industry and new patents are being issued at a rapid rate. It is not always economically practicable to determine in advance whether a product or any of its components infringes the patent rights of others. As a result, from time to time, Cadence may be forced to respond to or prosecute intellectual property infringement claims to protect its rights or defend a customer's rights. These claims, regardless of merit, could consume valuable management time, result in costly litigation, or cause product shipment delays, all of which could seriously harm Cadence's business, operating results, and financial condition. In settling these claims, Cadence may be required to enter into royalty or licensing agreements with the third parties claiming infringement. These royalty or licensing agreements, if available, may not have terms acceptable to Cadence. Being forced to enter into a license agreement with unfavorable terms could seriously harm Cadence's business, operating results, and financial condition.

## **Manufacturing**

Cadence's software production operations consist of configuring the proper version of a product, outsourcing the recording of the product on magnetic tape or CD-ROM, and producing customer-unique access keys allowing customers to use licensed products. User manuals and other documentation are generally available on CD-ROM, but are occasionally supplied in hard copy format.

Cadence performs final assembly and test of its emulation products in San Jose, California. Subcontractors manufacture all major subassemblies, including all individual printed circuit boards and custom integrated circuits, and supply them to Cadence for qualification and testing prior to their incorporation into the assembled product.

Cadence has generally been able to obtain adequate manufacturing supplies in a timely manner from existing sources or, where necessary, from alternative sources of supply. However, a reduction or interruption in supply or a significant increase in the price of one or more components would adversely affect Cadence's business, operating results, and financial condition and could damage customer relationships.

## **Employees**

As of February 29, 2000, Cadence employed approximately 5,000 persons, with approximately 2,850 in sales, services, marketing, support and manufacturing activities, 1,400 in product development and 750 in management, administration and finance. None of Cadence's employees is represented by a labor union, and Cadence has experienced no work stoppages. Cadence believes that its employee relations are good.

## **Factors That May Affect Future Results**

The following risk factors and other information included in this Annual Report on Form 10-K should be carefully considered. The risks and uncertainties described below are not the only ones we face. Additional risks and uncertainties not presently known to us or that we currently deem immaterial also may impair our business operations. If any of the following risks actually occur, our business, operating results, and financial condition could be materially negatively affected.

### ***Cadence lacks long-term experience in its electronics design and methodology services business***

Cadence has no long-term experience in offering electronics design and methodology services and therefore may not be as experienced in this business as others. The market for these services is relatively new and rapidly evolving. Cadence's failure to succeed in these services businesses may seriously harm Cadence's business, operating results, and financial condition.

### ***The success of Cadence's electronic design and methodology services businesses depends on many factors that are beyond its control***

In order to be successful with its electronics design and methodology services, Cadence must overcome several factors that are beyond its control, including the following:

- *Many service contracts generally represent large amounts of revenue.* Cadence's electronics design and methodology services contracts generally represent a relatively large amount of revenue per order. Therefore, the loss of individual orders could seriously hurt Cadence's revenue and operating results.
- *Cadence's cost of service personnel is high and reduces gross margin.* Gross margin represents the difference between the amount of revenue from the sale of services and Cadence's cost of providing those services. Cadence must pay high salaries to professional services personnel to attract and retain them. This results in a lower gross margin than the gross margin in Cadence's software

business. In addition, the high cost of training new services personnel or not fully utilizing these personnel can significantly lower gross margin.

Additionally, a substantial portion of these service contracts are fixed-price contracts. This means that the customer pays a fixed price that has been agreed upon ahead of time, no matter how much time or how many resources Cadence must devote to perform the contract. If Cadence's cost in performing the services consistently and significantly exceeds the amount the customer has agreed to pay, it could seriously harm Cadence's business, operating results, and financial condition.

***Cadence obtains key components for its hardware products from a limited number of suppliers***

Cadence depends on several suppliers for certain key components and board assemblies used in its hardware-based emulation products. Cadence's inability to develop alternative sources or to obtain sufficient quantities of these components or board assemblies could result in delays or reductions in product shipments. In particular, Cadence currently relies on Xilinx, Inc. and Taiwan Semiconductor Manufacturing Corporation for the supply of key integrated circuits and on IBM for the hardware components for both Cadence's CoBALT™ product and Mercury Design Verification System™. With regard to the Mercury Design Verification System™, IBM recently replaced Cadence's previous supplier. IBM is currently providing the assembly services for several Mercury components on a contractual basis. Other disruptions in supply may also occur. If there were such a reduction or interruption, Cadence's results of operations would be seriously harmed. Even if Cadence can eventually obtain these components from alternative sources, a significant delay would result in Cadence's ability to deliver products.

***Fluctuations in quarterly results of operations could hurt Cadence's business and the market price of its stock***

Cadence has experienced, and may continue to experience, varied quarterly operating results. Various factors affect Cadence's quarterly operating results and some of them are not within Cadence's control, including the mix of products and services sold, the mix of licenses used to sell products and the timing of significant orders for its software products by customers. Quarterly operating results are affected by the mix of products sold because there are significant differences in margins from the sale of hardware and software products and products and services. For example, based on a three-year average in 1998 Cadence had realized gross margins on software product sales of approximately 90% but realized gross margins of approximately 60% on hardware product sales and 30% on its performance of services. In 1999, realized gross margins decreased to approximately 87% for software products and increased to approximately 72% for hardware products and to 35% for services. In addition, Cadence's quarterly operating results are affected by the mix of licenses entered into in connection with the sale of software products. Cadence has three basic licensing models: perpetual, fixed-term, and subscription. Perpetual and fixed-term licenses recognize a larger portion of the revenue at the beginning of the license period and subscription licenses recognize revenue ratably over each quarter of the term of the license. If Cadence customers purchase more software products pursuant to a subscription agreement in any one quarter, the operating results for that quarter may be lower than that of comparable quarters in which perpetual and fixed-term licenses were used for more software product transactions. Finally, Cadence's quarterly operating results are affected by the timing of significant orders for its software products because a significant number of contracts for software products are in excess of \$5 million. The failure to close a contract for the sale of one or more orders of Cadence's software products could seriously harm its quarterly operating results.

Cadence's hardware products typically have a lengthy sales cycle, during which Cadence may expend substantial funds and management effort without any assurance that a sale will result. Sales of Cadence's hardware products depend, in significant part, upon the decision of the prospective customer to commence a project for the design and development of complex computer chips and systems. Such projects often require significant commitments of time and capital. Cadence's hardware sales may be delayed if customers delay commencement of projects. Lengthy hardware sales cycles subject Cadence to a number

of significant risks over which Cadence has little or no control, including inventory obsolescence and fluctuations in quarterly operating results.

In addition, Cadence bases its expense budgets partially on its expectations of future revenue. However, it is difficult to predict revenue levels or growth. Revenue levels that are below Cadence's expectations could seriously hurt Cadence's business, operating results, and financial condition. If revenue or operating results fall short of the levels expected by public market analysts and investors, the trading price of Cadence common stock could decline dramatically. Also, because of the timing of large orders and its customers' buying patterns, Cadence may not learn of revenue shortfalls, earnings shortfalls or other failures to meet market expectations until late in a fiscal quarter, which could cause even more immediate and serious harm to the trading price of Cadence common stock.

Because Cadence has no long-term experience providing services, it believes that quarter-to-quarter comparisons of its results of operations may not be meaningful. Therefore, stockholders should not view Cadence's historical results of operations as reliable indicators of its future performance.

***Cadence expects to acquire other companies and may not successfully integrate them or the companies it recently acquired***

Cadence has acquired other businesses before and may do so again. While Cadence expects to analyze carefully all potential transactions before committing to them, Cadence cannot assure you that any transaction that is completed will result in long-term benefits to Cadence or its stockholders, or that Cadence's management 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 Cadence acquires another business, it could seriously harm Cadence's business, operating results, and financial condition:

- Difficulties in combining previously separate businesses into a single unit;
- The substantial diversion of management's attention from day-to-day business when negotiating these transactions and then integrating an acquired business;
- The discovery after the acquisition has been completed of liabilities assumed from the acquired business;
- The failure to realize anticipated benefits such as cost savings and revenue enhancements;
- The failure to retain key personnel of the acquired business; and
- Difficulties related to assimilating the products of an acquired business in, for example, distribution, engineering, and customer support areas;

***Failure to obtain export licenses could harm Cadence's business***

Cadence must comply with U.S. Department of Commerce regulations in shipping its software products and other technologies outside the U.S. Although Cadence has not had any significant difficulty complying with these regulations so far, any significant future difficulty in complying could harm Cadence's business, operating results, and financial condition.

***Cadence's failure to attract, train, motivate, and retain key employees may harm its business***

Competition for highly skilled employees is intense. Cadence's business depends on the efforts and abilities of its senior management, its research and development staff, and a number of other key management, sales, support, technical, and services personnel. Cadence's failure to attract, train, motivate, and retain such employees would impair its development of new products, its ability to provide design and methodology services and the management of its businesses. This would seriously harm Cadence's business, operating results, and financial condition.

***Anti-takeover defenses in Cadence's charter, by laws, and under Delaware law could prevent an acquisition of Cadence or limit the price that investors might be willing to pay for Cadence common stock***

Provisions of the Delaware General Corporation Law that apply to Cadence and its Certificate of Incorporation could make it difficult for another company to acquire control of Cadence. For example:

- Section 203 of the Delaware General Corporation Law generally prohibits a Delaware corporation from engaging in any business combination with a person owning 15% or more of its voting stock, or who is affiliated with the corporation and owned 15% or more of its voting stock at any time within three years prior to the proposed business combination, for a period of three years from the date the person became a 15% owner, unless specified conditions are met.
- Cadence's Certificate of Incorporation allows Cadence's Board of Directors to issue, at any time and without stockholder approval, preferred stock with such terms as it may determine. No shares of preferred stock are currently outstanding. However, the rights of holders of any Cadence preferred stock that may be issued in the future may be superior to the rights of holders of its common stock.
- Cadence has a rights plan, commonly known as a "poison pill," which would make it difficult for someone to acquire Cadence without the approval of Cadence's Board of Directors.

All or any one of these factors could limit the price that certain investors would be willing to pay for shares of Cadence common stock and could delay, prevent or allow Cadence's Board of Directors to resist an acquisition of Cadence, even if the proposed transaction was favored by a majority of Cadence's independent stockholders.

**Item 2. Properties**

Cadence's headquarters are located in San Jose, California, and Cadence owns the related land and buildings. Additionally, Cadence owns buildings and land in India and Scotland. The total square footage of Cadence's owned buildings is approximately 984,000 square feet.

Cadence leases additional facilities for its sales offices in the U.S. and various foreign countries, and its research and development and design services facilities in California and other states and in foreign countries including Scotland, India, Canada, the United Kingdom, and Japan.

Cadence believes that these facilities and the undeveloped land it owns adjacent to its current headquarters are adequate for its current needs and that suitable additional or substitute space will be available as needed to accommodate any expansion of Cadence's operations.

**Item 3. Legal Proceedings**

From time to time Cadence is involved in various disputes and litigation matters that arise in the ordinary course of business. These include disputes and lawsuits related to intellectual property, licensing, contract law, distribution arrangements, and employee relations matters.

Cadence filed a complaint in the U.S. District Court for the Northern District of California on December 6, 1995 against Avant! Corporation and certain of its employees for misappropriation of trade secrets, copyright infringement, conspiracy, and other illegal acts.

On January 16, 1996, Avant! filed various counterclaims against Cadence and Joseph B. Costello, Cadence's former President and Chief Executive Officer, and with leave of the court, on January 29, 1998, filed a second amended counterclaim. The second amended counterclaim alleges, *inter alia*, that Cadence and Mr. Costello had cooperated with the Santa Clara County, California, District Attorney and initiated and pursued its complaint against Avant! for anticompetitive reasons, engaged in wrongful activity in an attempt to manipulate Avant!'s stock price, and utilized certain pricing policies and other acts to unfairly



compete against Avant! in the marketplace. The second amended counterclaim also alleges that certain Cadence insiders engaged in illegal insider trading with respect to Avant!'s stock. Cadence and Mr. Costello believe that they have meritorious defenses to Avant!'s claims, and each intends to defend such action vigorously. By an order dated July 13, 1996, the court bifurcated Avant!'s counterclaim from Cadence's complaint and stayed the counterclaim pending resolution of Cadence's complaint. The counterclaim remains stayed.

In an order issued on December 19, 1997, as modified on January 26, 1998, the District Court entered a preliminary injunction barring Avant! from any further infringement of Cadence's copyrights in Design Framework II software, or selling, licensing or copying such product derived from Design Framework II, including, but not limited to, Avant!'s ArcCell products. On December 7, 1998, the District Court issued a further preliminary injunction, which enjoined Avant! from selling its Aquarius product line. Cadence posted a \$10 million bond in connection with the issuance of the preliminary injunction. On July 30, 1999, the U.S. Court of Appeals for the Ninth Circuit affirmed the preliminary injunction.

By an order dated July 22, 1997, the District Court stayed most activity in the case pending in that court and ordered Avant! to post a \$5 million bond in light of related criminal proceedings pending against Avant! and several of its executives.

On September 7, 1999, the District Court ruled on the parties' Motions for Summary Adjudication, and granted in part, and denied in part, each party's motion regarding the scope of a June 6, 1994 Release Agreement between the parties. The Court held that Cadence's copyright infringement claim against Avant! is not barred by the release and that Cadence may proceed on that claim. The Court also held that Cadence's trade secret claim based on Avant!'s use of Cadence's Design Framework II source code is barred by the release. The Ninth Circuit has agreed to hear both parties' appeal from the District Court's order. The trial date has been vacated pending a decision on the appeal. Cadence intends to pursue its claims against Avant! vigorously.

On April 30, 1999, Cadence and several of its officers and directors were named as defendants in a lawsuit filed in the U.S. District Court for the Northern District of California, entitled Spett v. Cadence Design Systems, et al., civil action no. C 99-2082. The action was brought on behalf of a class of stockholders who purchased Cadence common stock between November 4, 1998 and April 20, 1999, and alleges violations of Sections 10(b) and 20(a) of the Securities Exchange Act of 1934. The lawsuit arises out of Cadence's announcement of its first quarter 1999 financial results. Management intends to vigorously defend these claims.

In February 1998, Aptix Corporation and Meta Systems, Inc. filed a lawsuit against Quickturn Design Systems, Inc. in the U.S. District Court for the Northern District of California. In this lawsuit, entitled Aptix Corporation and Meta Systems, Inc. v. Quickturn Design Systems, Aptix and Meta Systems allege infringement by Quickturn of a U.S. patent owned by Aptix and licensed to Meta. Quickturn named Mentor Graphics Corporation as a party to this suit and filed a counterclaim requesting the District Court to declare the Aptix patent to be unenforceable based on inequitable conduct during the prosecution of the patent. The case is set for trial in late 2000.

On July 21, 1999, Mentor filed suit against Quickturn in the U.S. District Court for the District of Delaware, alleging patent infringement involving Quickturn's Mercury hardware emulation systems. The complaint seeks a permanent injunction and unspecified damages. Cadence intends to vigorously defend these claims. On July 22, 1999, Quickturn and Cadence filed a complaint against Mentor and Meta asking for declaratory relief in the U.S. District Court for the Northern District of California. The action brought by Mentor in Delaware has been transferred to California for consolidation with Quickturn's declaratory judgment action.

On February 25, 2000, Cadence and several of its officers were named as defendants in a lawsuit filed in the U.S. District Court for the Northern District of California, entitled Maxick v. Cadence Design

Systems, Inc. File No. C 00 0658PJH. The action was brought on behalf of a class of shareholders of OrCAD, Inc., and alleges violations of Section 14(d)(7) of the Securities Exchange Act of 1934, as amended, and Rule 14d-10 thereunder. The lawsuit arises out of Cadence's acquisition of OrCAD, which was completed in August 1999. Management believes the action is without merit and intends to vigorously defend it.

Management believes that the ultimate resolution of the disputes and litigation matters discussed above will not have a material adverse effect on Cadence's business, operating results, or financial condition.

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

None

**Executive Officers Of Cadence Design Systems, Inc.**

The executive officers of Cadence are as follows:

<u>Name</u>	<u>Age</u>	<u>Positions and Offices</u>
H. Raymond Bingham . . . .	54	President, Chief Executive Officer, and Director
Adriaan Ligtenberg . . . . .	44	Senior Vice President, Methodology Services
R.L. Smith McKeithen . . .	56	Senior Vice President, General Counsel, and Secretary
William Porter . . . . .	45	Senior Vice President and Chief Financial Officer
Matthew Thompson . . . . .	41	Senior Vice President, Worldwide Strategic Sales
Robert Wiederhold . . . . .	40	Senior Vice President, Worldwide Design Services Group
Robert A. Promm . . . . .	48	Vice President and Corporate Controller

Executive officers are appointed by the Board of Directors and serve at the discretion of the Board.

H. RAYMOND BINGHAM has served as President and Chief Executive Officer of Cadence since April 1999. Mr. Bingham has been a director of Cadence since November 1997. From 1993 to April 1999, Mr. Bingham served as Executive Vice President and Chief Financial Officer of Cadence. Prior to joining Cadence, Mr. Bingham was Executive Vice President and Chief Financial Officer of Red Lion Hotels and Inns, an owner operator of a chain of hotels, for eight years. Mr. Bingham is a director of Legato Systems, Inc., Onyx Software Corporation, TenFold Corporation, and Chairman of Integrated Measurement Systems, Inc.

ADRIAAN LIGTENBERG joined Cadence in September 1999 as Senior Vice President, Methodology Services. He was the CEO of A3Ventures, a strategic consulting and investment company from 1997 to 1999. Prior to that, he was at AT&T Bell Laboratories from 1984 to 1989 where he led the image system group. From 1990 to 1997, he was the founder of Storm Technology Limited, a software company specializing in the client/server and inter/intranet development environments. From 1989 to 1990, he was a co-founder of C-Cube Microsystems, Inc. He was also an associate professor of Electrical Engineering at Princeton University and was the holder of the Computer Architecture Chair of the University of Amsterdam.

R.L. SMITH MCKEITHEN joined Cadence in 1996 as Vice President, General Counsel, and Secretary and became Senior Vice President, General Counsel, and Secretary in 1998. From 1994 to 1996, he served as Vice President, General Counsel, and Secretary of Strategic Mapping, Inc. From 1988 to 1994, he served as Vice President, General Counsel, and Secretary of Silicon Graphics, Inc.



WILLIAM PORTER joined Cadence in 1994 as Vice President, Corporate Controller, and Assistant Secretary and became Senior Vice President and Chief Financial Officer in May 1999. From 1988 to 1994, Mr. Porter served as Technical Accounting and Reporting Manager and most recently as Controller of Cupertino Operations with Apple Computer, Inc., a personal computer company.

MATTHEW THOMPSON joined Cadence in 1994 as Vice President, Strategic Sales and became Senior Vice President, Worldwide Strategic Sales in 1998. Mr. Thompson has more than 10 years of sales and management experience. Prior to joining Cadence in 1994, he held various positions with Electronic Data Systems Corporation, most recently as Vice President of Sales for the EDS High Tech Business Unit.

ROBERT WIEDERHOLD joined Cadence in 1996 as Vice President and General Manager of the Deep Submicron Business Unit and became Senior Vice President of Cadence Worldwide Design Services Group in July 1998. From 1994 to 1996, he served as Executive Vice President, Chief Operating Officer, and Director of High Level Design Systems, Inc. From 1985 to 1994, he held various positions with Cadence, most recently as Vice President, Marketing for the Systems Divisions.

ROBERT A. PROMM joined Cadence in December 1999 as Vice President, Corporate Controller. From November 1997 to December 1999, Mr. Promm served as Vice President, Corporate Controller of Kaiser Foundation Health Plan, Inc. Prior to November 1997, Mr. Promm held several positions with Apple Computer, Inc., most recently as Vice President, Financial Controller.

**PART II.**

**Item 5. Market for the Registrant's Common Equity and Related Stockholder Matters**

Cadence common stock is traded on the New York Stock Exchange under the symbol CDN. Cadence has never declared or paid any cash dividends on its common stock in the past, and does not plan to pay cash dividends in the foreseeable future. As of March 14, 2000, Cadence had approximately 1,990 registered stockholders and estimates that it had approximately 43,466 beneficial owners of its common stock.

The following table sets forth the high and low sales price for Cadence common stock for each calendar quarter in the two-year period ended January 1, 2000:

	<u>High</u>	<u>Low</u>
<b>1999:</b>		
First Quarter . . . . .	\$34.13	\$21.63
Second Quarter . . . . .	\$26.63	\$10.63
Third Quarter . . . . .	\$16.75	\$ 9.19
Fourth Quarter . . . . .	\$24.06	\$13.31
<b>1998:</b>		
First Quarter . . . . .	\$37.44	\$22.75
Second Quarter . . . . .	\$38.00	\$27.63
Third Quarter . . . . .	\$31.13	\$20.69
Fourth Quarter . . . . .	\$30.63	\$19.19

## Item 6. Selected Financial Data

	Five fiscal years ended January 1, 2000				
	1999	1998	1997	1996	1995
	(In thousands, except per share amounts)				
Revenue . . . . .	\$1,093,303	\$1,320,180	\$1,036,773	\$888,642	\$654,302
Unusual items(1) . . . . .	\$ 59,301	\$ 263,595	\$ 48,010	\$100,543	\$ —
Income (loss) from operations . . . . .	\$ (12,750)	\$ 89,488	\$ 223,706	\$116,212	\$130,765
Income (loss) before cumulative effect of change in accounting method(2) . . . . .	\$ (14,075)	\$ 25,124	\$ 177,398	\$ 48,441	\$111,077
Net income (loss)(3) . . . . .	\$ (14,075)	\$ 25,124	\$ 165,122	\$ 48,441	\$111,077
Net income (loss) per share—assuming dilution . . . . .	\$ (0.06)	\$ 0.10	\$ 0.68	\$ 0.21	\$ 0.48
Total assets . . . . .	\$1,459,659	\$1,481,916	\$1,153,247	\$875,754	\$505,738
Long-term obligations . . . . .	\$ 25,024	\$ 136,380	\$ 1,599	\$ 20,292	\$ 4,240

- (1) Unusual items are as follows for each of the fiscal years 1999, 1998, 1997, and 1996. There were no unusual items in 1995:

	1999	1998	1997	1996
	(In thousands)			
Write-off of acquired in-process technology . . . . .	\$20,700	\$194,100	\$ 9,328	\$ 95,700
Asset impairment . . . . .	19,891	—	3,065	2,724
Restructuring charges . . . . .	13,274	69,495	24,128	2,119
Merger costs . . . . .	8,436	—	11,489	—
Litigation settlement . . . . .	(3,000)	—	—	—
	<u>\$59,301</u>	<u>\$263,595</u>	<u>\$48,010</u>	<u>\$100,543</u>

- (2) Income (loss) before cumulative effect of change in accounting method in 1997 excluded a \$12.3 million charge, net of taxes of \$5.3 million, for reengineering project costs that had been previously capitalized by Cadence associated with its implementation of enterprise-wide information systems.
- (3) Net income (loss) included a \$9.2 million and \$13.6 million after tax gain on the sale of stock of a subsidiary in 1997 and 1995, respectively.

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

The following discussion should be read in conjunction with the five-year summary of selected financial data and the Consolidated Financial Statements and notes thereto included elsewhere herein. All references to years represent fiscal years unless otherwise noted. Except for the historical information contained herein, the following discussion contains forward-looking statements based on current expectations that involve certain risks and uncertainties. Cadence's actual results could differ materially from those discussed herein. Factors that could cause actual results or performance to differ materially or contribute to such differences include, but are not limited to, those discussed below in "Disclosures about Market Risk", and "Liquidity and Capital Resources".

### Overview

Cadence Design Systems, Inc., or Cadence, provides comprehensive software and other technology and offers design and methodology services for the product development requirements of the world's leading electronics companies. Cadence licenses its leading-edge electronic design automation, or EDA, software and hardware technology and provides a range of services to companies throughout the world to

help its customers optimize their product development processes. Cadence is a supplier of end-to-end products and services, which are used by companies to design and develop complex chips and electronic systems including semiconductors, computer systems and peripherals, telecommunications and networking equipment, mobile and wireless devices, automotive electronics, consumer products, and other advanced electronics.

In December 1999, Cadence acquired all of the outstanding stock of Diablo Research Company LLC for cash and assumed all outstanding stock options of Diablo. Diablo was a high-technology engineering services firm with expertise in wireless communication, global positioning satellite solutions, and data transfer and home automation markets. The total purchase price was \$39.9 million and the acquisition was accounted for as a purchase.

In August 1999, Cadence acquired OrCAD, Inc., a supplier of computer-aided engineering and computer-aided design software and services for the printed circuit board industry, for cash. Cadence acquired all of the outstanding stock of OrCAD and assumed all outstanding stock options. The purchase price was \$131.4 million and the acquisition was accounted for as a purchase.

In May 1999, Cadence completed its merger with Quickturn Design Systems, Inc. Quickturn designed, manufactured, sold, and supported hardware and software products that verify the design of computer chips and electronic systems. Cadence acquired all of the outstanding shares of Quickturn common stock in a tax-free, stock-for-stock transaction for approximately 24.6 million shares of Cadence common stock. The acquisition was accounted for as a pooling-of-interests. In addition, Cadence assumed all outstanding stock options and warrants of Quickturn. All prior period consolidated financial statements were restated as if the merger took place at the beginning of such periods, in accordance with required pooling of interests accounting and disclosures.

In January 1999, Cadence acquired Design Acceleration, Inc., or DAI, a supplier of design verification technology used in system-on-a-chip, or SOC, design. Cadence acquired all of the outstanding stock of DAI for approximately 0.6 million shares of Cadence common stock and \$2.9 million of cash. The total purchase price was \$25.7 million and the acquisition was accounted for as a purchase.

In September 1998, Cadence acquired all of the outstanding stock of Ambit Design Systems, Inc. for cash. Ambit was a leading developer of design automation technology used in SOC design. The total purchase price was \$255 million and the acquisition was accounted for as a purchase.

In September 1998, Cadence acquired the Bell Labs' Integrated Circuit Design Automation Group of Lucent Technologies Inc., or BLDA, for cash. BLDA was a design automation development organization that focused on the complex verification challenges companies face when designing integrated circuits and next-generation SOC. The total purchase price was \$58 million and the acquisition was accounted for as a purchase.

In March 1998, Cadence acquired all of the outstanding stock of Excellent Design, Inc., or EXD, for cash. EXD provided application-specific integrated circuit, or ASIC, and SOC design and library development. The total purchase price was \$40.9 million and the acquisition was accounted for as a purchase.

In February 1998, Cadence acquired all of the outstanding stock of Symbionics Group Limited for approximately 1 million shares of Cadence common stock and \$21.3 million of cash. Symbionics provided product development design services to leading electronics manufacturers. The total purchase price was \$46.1 million and the acquisition was accounted for as a purchase.

In June 1997, pursuant to an asset purchase agreement among Quickturn, Synopsys, Inc., and Arkos Design, Inc., Quickturn acquired from Synopsys certain assets relating to Synopsys emulation business, including all the outstanding common stock of Arkos, for approximately 0.5 million shares of Quickturn common stock and \$5 million of cash. The total purchase price was \$16.7 million and the acquisition was accounted for as a purchase.

In May 1997, Cadence merged with Cooper & Chyan Technology, Inc., or CCT, whose software products were used to design sophisticated integrated circuits and high-speed printed circuit boards. In connection therewith, Cadence issued approximately 22.8 million shares of common stock. The merger was accounted for as a pooling of interests. All prior period consolidated financial statements were restated as if the merger took place at the beginning of such periods, in accordance with required pooling of interests accounting and disclosures.

In February 1997, Quickturn merged with SpeedSim, Inc., a provider of simulation software for the verification of digital logic designs. Quickturn acquired all of the outstanding shares of SpeedSim common stock in a tax-free, stock-for-stock transaction for approximately 2.8 million shares of Quickturn common stock. The acquisition was accounted for as a pooling of interests. In addition, Quickturn assumed all outstanding stock options of SpeedSim. All prior period consolidated financial statements were restated as if the merger took place at the beginning of such periods, in accordance with required pooling of interests accounting and disclosures.

In February 1997, Cadence and its subsidiary, Integrated Measurement Systems, Inc., or IMS, sold to the public 1.7 million shares of IMS common stock, of which approximately 1 million shares were sold by Cadence, netting Cadence approximately \$18.6 million in cash. As a result of the offering and sale of shares by Cadence, Cadence's ownership interest in IMS decreased to approximately 37% in 1997 from approximately 55% in 1996. Accordingly, Cadence changed the accounting for its investments in IMS from consolidation to the equity method of accounting in fiscal 1997. The likelihood of such transactions in the future is dependent upon the state of the financial markets as well as liquidity and other considerations of each of Cadence and IMS. IMS manufactures and markets verification systems used in testing prototype ASICs.

## Results of Operations

### *Revenue*

	1999	1998	1997	% Change	
				99/98	98/97
		(In millions)			
Product . . . . .	\$ 505.4	\$ 760.5	\$ 618.4	(34)%	23%
Services . . . . .	294.9	265.2	168.8	11%	57%
Maintenance . . . . .	293.0	294.5	249.6	(1)%	18%
Total revenue . . . . .	<u>\$1,093.3</u>	<u>\$1,320.2</u>	<u>\$1,036.8</u>	(17)%	27%

### *Sources of Revenue as a Percent of Total Revenue*

	1999	1998	1997
Product . . . . .	46%	58%	60%
Services . . . . .	27%	20%	16%
Maintenance . . . . .	27%	22%	24%

Product revenue decreased \$255.1 million in 1999, when compared to 1998, primarily due to the implementation of Cadence's new software subscription licensing model during the third quarter of 1999 and to a lesser extent a decrease in sales volume of Cadence's software products. These decreases were partially offset by an increase in emulation hardware product revenue in the same periods and the favorable impact of foreign currency exchange rate differences, primarily the Japanese yen. Revenue associated with software products under subscription licenses is recognized ratably over the license period because the agreements allow customers to exchange licensed products for unspecified future technology.

The decrease in sales volume of products was attributable primarily to lower sales of integrated circuit implementation products, which include place and route and physical design and verification tools.

Product revenue increased \$142.1 million in 1998, when compared to 1997, primarily due to increased customer sales volume of place and route and physical design product tools used to design deep submicron integrated circuits. This increase was partially offset by a decrease in emulation hardware product revenue in the same period. Total product revenue in 2000 is expected to increase from 1999 and return to year-over-year growth in the second quarter of 2000. However, there can be no assurance that this expectation will prove accurate and actual results may differ materially.

Services revenue increased \$29.7 million in 1999 and \$96.4 million in 1998, when compared to each prior year, which were primarily attributable to an increase in Cadence's design and methodology services engagements. Increases in design services revenue were due to general increases in each of the four major areas, with the most significant increase in the wireless communications area.

Maintenance revenue remained relatively flat in 1999 compared to 1998. Maintenance revenue increased \$44.9 million in 1998, when compared to 1997, primarily due to continued growth of the installed customer base and the renewal of maintenance and support contracts.

***Revenue by Geography***

	<u>1999</u>	<u>1998</u>	<u>1997</u>	<u>% Change</u>	
				<u>99/98</u>	<u>98/97</u>
		(In millions)			
Domestic . . . . .	\$ 526.8	\$ 676.6	\$ 509.6	(22)%	33%
International . . . . .	566.5	643.6	527.2	(12)%	22%
Total revenue . . . . .	<u>\$1,093.3</u>	<u>\$1,320.2</u>	<u>\$1,036.8</u>	(17)%	27%

***Revenue by Geography as a Percent of Total Revenue***

	<u>1999</u>	<u>1998</u>	<u>1997</u>
Domestic . . . . .	48%	51%	49%
International . . . . .	52%	49%	51%

International revenue decreased \$77.1 million in 1999, when compared to 1998, primarily due to decreases in product revenue in all international regions resulting from the implementation of Cadence's new subscription licensing model during the third quarter of 1999. The decrease in international product revenue was partially offset by an increase in services revenue in all international regions, except Asia.

The increase in international revenue in 1998 of \$116.4 million, when compared to 1997, was primarily due to increased sales volume of Cadence's products and services in Europe and of Cadence's services in Japan, partially offset by a decrease in product sales volume in Japan. To a lesser extent, revenue growth in 1998 was also due to additional maintenance and support contracts in Asia and Canada.

Other differences in the rate of revenue growth over the years presented and as compared geographically are primarily due to fluctuations in sales and resulting sales volume of place and route and physical design products and for Cadence's design and methodology services offerings.

Foreign currency exchange rates positively affected reported revenue by \$16.2 million in 1999, primarily due to the strengthening of the Japanese yen in relation to the U.S. dollar. Foreign currency exchange rates negatively affected reported revenue by \$15.4 million in 1998 primarily due to the weakening of the Japanese yen in relation to the U.S. dollar. Additional information about revenue by geographic areas can be found under "Segment Reporting" in the Notes to Consolidated Financial Statements.

### *Cost of Revenue*

	1999	1998	1997	% Change	
				99/98	98/97
	(in millions)				
Product . . . . .	\$ 79.5	\$ 77.5	\$ 74.2	3%	4%
Services . . . . .	\$191.8	\$188.8	\$117.4	2%	61%
Maintenance . . . . .	\$ 53.6	\$ 52.4	\$ 34.0	2%	54%

### *Cost of Revenue as a Percent of Related Revenue*

	1999	1998	1997
Product . . . . .	16%	10%	12%
Services . . . . .	65%	71%	70%
Maintenance . . . . .	18%	18%	14%

Cost of product revenue includes costs of production personnel, packaging and documentation, royalties, and amortization of capitalized software development costs for software products. Manufacturing costs associated with hardware emulation system products include materials, labor, and overhead.

Cost of product revenue increased \$2 million or 3% in 1999 when compared to 1998. The increase was primarily due to increases in manufacturing expenses associated with emulation system products, the acquisition of OrCAD in 1999, and amortization of capitalized software development costs. These costs were offset partially by inventory obsolescence charges of \$5.7 million associated with the introduction of the Mercury Design Verification System recorded in 1998, reductions in purchased software amortization, and third-party royalty expenses. Cost of product revenue increased \$3.3 million or 4% in 1998 compared to 1997. The increase was primarily due to increases in amortization of capitalized software development costs and third-party royalty expenses, partially offset by manufacturing cost savings for hardware emulation systems due to the availability of less expensive and more efficient components. The manufacturing cost savings exclude the impact of \$2.6 million for the write-off of Arkos purchased inventory and a \$2 million inventory obsolescence charge caused by an anticipated shorter product life cycle for the System Realizer emulation product replaced by Arkos product technology.

Because the majority of Cadence's cost of software product revenue does not vary significantly with changes in revenue, product gross margin decreased in 1999 when compared to 1998, due primarily to lower sales of software products and the introduction of the new subscription licensing model during the third quarter of 1999. Product gross margin in 1999 also declined due to a higher proportion of hardware revenue with lower gross margins than software product revenue.

Cost of services revenue includes costs associated with providing services to customers, primarily salaries and costs to recruit, develop and retain personnel, and costs to maintain the infrastructure necessary to manage a services organization. Cost of services revenue increased \$3 million or 2% in 1999, when compared to 1998, due primarily to increases in amortization of purchased software and Japan methodology services outside commission costs, offset partially by a decrease in employee related costs, including incentive pay, associated primarily with Cadence's 1998 restructuring plans and lower revenues. Cost of services revenue increased \$71.4 million or 61% in 1998, compared to 1997. This increase was due to investments made to increase services capacity, primarily due to the addition of services professionals.

The increase in services gross margins to 35% in 1999 as compared to 29% in 1998, was due primarily to increased utilization of services capacity and the management of expenses. Services gross margins decreased to 29% in 1998 as compared to 30% in 1997, primarily due to increased services capacity that was not fully utilized. Services gross margins have been and may continue to be adversely affected by the cost of integrating new services professionals as well as Cadence's inability to fully utilize these resources.



In addition, services gross margins may continue to be adversely affected by Cadence's inability to achieve operating efficiencies with its resources when implementing a growing number of services offerings.

Cost of maintenance revenue includes the cost of customer services, such as hot-line and on-site support, production personnel, packaging, and documentation of maintenance updates. Cost of maintenance revenue in absolute dollars and as a percent of related revenue remained relatively flat in 1999 when compared to 1998. Cost of maintenance revenue increased \$18.4 million or 54% in 1998, when compared to 1997, primarily due to the investment in a new centralized customer response center and increased support levels on a per customer basis.

#### *Amortization of Acquired Intangibles*

	<u>1999</u>	<u>1998</u>	<u>1997</u>
	(in millions)		
Amortization of acquired intangibles . . . . .	\$61.8	\$18.5	\$2.5

#### *Amortization of Acquired Intangibles as a Percent of Total Revenue*

	<u>1999</u>	<u>1998</u>	<u>1997</u>
Amortization of acquired intangibles . . . . .	6%	1%	0%

Amortization of acquired intangibles increased \$43.3 million in 1999, when compared to 1998, primarily due to the 1999 acquisitions of OrCAD and DAI, and a full year's amortization related to Cadence's 1998 acquisitions of Ambit, BLDA, EXD, and Symbionics. Amortization of acquired intangibles increased \$16 million in 1998, when compared to 1997, primarily due to Cadence's 1998 acquisitions. For additional information regarding these acquisitions see below under "In-Process Technology."

#### *Operating Expenses*

	<u>1999</u>	<u>1998</u>	<u>1997</u>	<u>% Change</u>	
	(In millions)			<u>99/98</u>	<u>98/97</u>
Marketing and sales . . . . .	\$354.2	\$340.3	\$299.8	4%	14%
Research and development . . . . .	\$219.2	\$202.8	\$167.2	8%	21%
General and administrative . . . . .	\$ 86.7	\$ 86.8	\$ 69.9	0%	24%

#### *Operating Expenses as a Percent of Total Revenue*

	<u>1999</u>	<u>1998</u>	<u>1997</u>
Marketing and sales . . . . .	32%	26%	29%
Research and development . . . . .	20%	15%	16%
General and administrative . . . . .	8%	7%	7%

#### **Marketing and Sales**

The increase in marketing and sales expenses of \$13.9 million for 1999, when compared to 1998, was primarily due to an increase in sales support costs, the acquisition of OrCAD, and marketing program costs, partially offset by lower employee-related costs, resulting from Cadence's 1998 restructuring plans, lower employee training and education costs, and travel costs. Foreign currency exchange rates negatively affected marketing and sales expenses by \$4.6 million in 1999, when compared to 1998, primarily due to the strengthening of the Japanese yen in relation to the U.S. dollar. The increase in marketing and sales expenses of \$40.5 million in 1998, when compared to 1997, was primarily attributable to an increase in employee-related expenses resulting from increased headcount and commissions, a higher level of pre-sale



activities, and an increase in consulting and outside services costs. These increases were partially offset by the weakening of certain foreign currencies, primarily the Japanese yen, in relation to the U.S. dollar which favorably affected marketing and sales expenses by approximately \$6.4 million in 1998 when compared to 1997.

### Research and Development

Cadence's expenses in research and development, prior to the reduction for capitalization of software development costs, was \$244.9 million for 1999, \$224.5 million for 1998, and \$182.3 million for 1997, representing 22% of total revenue for 1999, 17% for 1998, and 18% for 1997. Cadence capitalized software development costs of approximately \$25.7 million for 1999, \$21.7 million for 1998, and \$15.1 million for 1997, which represented approximately 10% of total research and development expenditures for 1999, 10% for 1998, and 8% for 1997. The increase in capitalized software development costs in each of these three years resulted primarily from general increases in new product development.

The increase in net research and development expenses of \$16.4 million for 1999, when compared to 1998, was primarily attributable to higher employee-related costs due to increases in headcount from Cadence's acquisitions of OrCAD in 1999 and the acquisitions of Ambit and BLDA in the third quarter of 1998, partially offset by increased capitalization of software development expenses. The increase of \$35.6 million in 1998, when compared to 1997, was primarily attributable to higher employee-related costs due to increases in headcount, facility-related costs, consulting and other services, and management information systems costs. The amount of capitalized software development costs in any given period may vary depending on the exact nature of the development performed.

### General and Administrative

General and administrative expenses remained relatively flat in 1999 when compared to 1998. General and administrative expenses increased \$16.9 million in 1998, when compared to 1997, primarily as a result of increases in bad debt expense, and legal and advisory fees incurred in connection with the unsolicited tender offer by Mentor Graphics Corporation, and increases in consulting and outside services costs.

### Unusual Items

Described below are unusual item charges in 1999, 1998, and 1997.

	<u>1999</u>	<u>1998</u>	<u>1997</u>
	(in millions)		
Write-off of acquired in-process technology . . . . .	\$20.7	\$194.1	\$ 9.3
Asset impairment . . . . .	19.9	—	3.1
Restructuring charges . . . . .	13.3	69.5	24.1
Merger costs . . . . .	8.4	—	11.5
Litigation settlement . . . . .	(3.0)	—	—
	<u>\$59.3</u>	<u>\$263.6</u>	<u>\$48.0</u>

#### *In-Process Technology*

In August 1999, Cadence acquired OrCAD, Inc., a supplier of computer-aided engineering and computer-aided design software and services for the printed circuit board industry, for cash. Cadence acquired all of the outstanding stock of OrCAD and assumed all outstanding OrCAD stock options. The purchase price was \$131.4 million and the acquisition was accounted for as a purchase.

Upon consummation of the OrCAD acquisition, Cadence immediately charged to expense \$11.8 million representing acquired in-process technology that had not yet reached technological feasibility and had

no alternative future use. See “Notes to Consolidated Financial Statements.” The value assigned to acquired in-process technology was determined by identifying research projects in areas for which technological feasibility has not been established. The value was determined by estimating the costs to develop the acquired in-process technology into commercially viable products, estimating the resulting net cash flows from such projects, and discounting the net cash flows back to their present value. The discount rate included a factor that took into account the uncertainty surrounding the successful development of the acquired in-process technology. Certain acquired in-process technology was commercially viable in 1999 and other acquired in-process technology is expected to become commercially viable in 2000. Expenditures to complete this acquired in-process technology are expected to total approximately \$2.3 million. These estimates are subject to change, given the uncertainties of the development process, and no assurance can be given that deviations from these estimates will not occur. Additionally, these projects will require maintenance research and development after they have reached a state of technological and commercial feasibility.

At the time of its acquisition by Cadence, OrCAD’s in-process research and development projects in the schematic entry area were related to the development of an online component catalog and a new schematic design entry interface. In-process research and development projects in the simulation area were related to a rearchitecture of the simulation engine and replacement of the simulation engine. Additional features under development included randomized expressions and no selection limits. The nature of the efforts to complete these projects relate, in varying degrees, to the completion of all planning, designing, prototyping, verification, and testing activities that are necessary to establish that the proposed technologies meet their design specifications including functional, technical, and economic performance requirements.

The net cash flows resulting from the projects underway at OrCAD used to value the purchased research and development were based on management’s estimates of revenue, cost of revenue, research and development costs, selling, general and administrative costs, and income taxes from such projects. The revenue projections were based on the potential market size that the projects address, Cadence’s ability to gain market acceptance in these segments, and the life cycle of this in-process technology.

Estimated total revenue from the acquired in-process technology is expected to peak in 2001 and decline rapidly thereafter as other new products are expected to enter the market. In addition, a portion of the anticipated revenue had been attributed to enhancements of the base technology under development, and had been excluded from net cash flow calculations. Existing technology was valued at \$10.8 million. The net cash flows generated from the acquired in-process technology are expected to reflect earnings before interest, taxes, and depreciation of approximately 32% of the sales generated from in-process technology. However, there can be no assurance that these assumptions will prove accurate, or that Cadence will realize the anticipated benefit of the acquisition.

The discount of the net cash flows to their present value was based on the weighted average cost of capital, or WACC. The WACC calculation produces the average required rate of return of an investment in an operating enterprise, based on the required rates of return from investments in various areas of the enterprise. The rate used to discount the net cash flows from purchased in-process technology was 22%. The discount rate is sometimes higher than the WACC due to the inherent uncertainties in the estimates, including the uncertainty surrounding the successful development of the acquired in-process technology, the useful life of such technology, the profitability levels of such technology, if any, and the uncertainty of technological advances, all of which are unknown at this time.

As evidenced by its continued support for these projects, management believes that Cadence will successfully complete each of the major OrCAD research and development programs. However, there is risk associated with the completion of these projects and there is no assurance that any of them will be either technologically or commercially successful. If these projects are not successfully developed, future

revenue, and profitability of Cadence may be materially adversely affected. Additionally, the value of other intangible assets acquired may become impaired.

To date, OrCAD's results have not differed significantly from the forecast assumptions. In addition, Cadence's research and development expenditures since the acquisition have not differed materially from expectations. Revenue contribution from the acquired technology falls within an acceptable range of plans in its role in Cadence's suite of design systems and tools. The risks associated with this research and development are still considered high and no assurance can be made that these products will meet market expectations.

In January 1999, Cadence acquired DAI, a supplier of design verification technology used in SOC design. Cadence acquired all of the outstanding stock of DAI for approximately 0.6 million shares of Cadence common stock and \$2.9 million of cash. The total purchase price was \$25.7 million and the acquisition was accounted for as a purchase.

Upon consummation of the DAI acquisition, Cadence immediately charged to expense \$8.9 million representing acquired in-process technology that had not yet reached technological feasibility and had no alternative future use. See "Notes to Consolidated Financial Statements." The value assigned to acquired in-process technology was determined by identifying research projects in areas for which technological feasibility has not been established. The value was determined by estimating the costs to develop the acquired in-process technology into commercially viable products, estimating the resulting net cash flows from such projects, and discounting the net cash flows back to their present value. The discount rate included a factor that took into account the uncertainty surrounding the successful development of the acquired in-process technology. Certain acquired in-process technology under development at the time of acquisition was initially expected to become commercially viable in 1999, but has since been delayed to 2000 and 2001. Expenditures to complete this in-process technology are expected to total approximately \$1.5 million. These estimates are subject to change, given the uncertainties of the development process, and no assurance can be given that deviations from these estimates will not occur. Additionally, these projects will require expenditures for additional research and development after they have reached a state of technological and commercial feasibility.

At the time of its acquisition by Cadence, DAI had several significant research and development projects in process that were intended to provide a next generation environment for design verification and analysis. These efforts included the development of a highly automated approach for high-level test bench creation and analysis, which Cadence expects to become commercially viable in 2000, a waveform viewer capable of supporting analog and mixed signal designs, which Cadence expects to become commercially viable in 2001, and a tool designed to analyze verification code coverage at the transactional level which was commercially viable in 1999. The nature of the efforts to complete these in-process research and development projects relate, in varying degrees, to the completion of all planning, designing, prototyping, verification, and testing activities that are necessary to establish that the proposed in-process technologies meet their design specifications, which include functional, technical, and economic performance requirements.

The net cash flows generated by the projects underway at DAI used to value the acquired in-process technology, were based on management's estimates of revenue, cost of revenue, research and development costs, selling, general and administrative costs, and income taxes from such projects. The revenue projections were based on the potential market size for which these projects address, Cadence's ability to gain market acceptance for these projects, and the life cycle of this in-process technology.

Estimated total revenue from the acquired in-process technology is expected to peak in 2001 through 2002 and decline rapidly thereafter as other new products are expected to enter the market. In addition, a portion of the anticipated revenue has been attributed to enhancements of the base technology under development, and has been excluded from net cash flow calculations. Existing technology was valued at \$11.4 million. The net cash flows generated from the acquired in-process technology are expected to reflect

earnings before interest, taxes, and depreciation of approximately 60% of the sales generated from in-process technology. However, there can be no assurance that these assumptions will prove accurate, or that Cadence will realize the anticipated benefits of this acquisition.

The discount applied to the net cash flows to calculate the present value of such net cash flows was based on the WACC. The rate used to discount the net cash flows from purchased in-process technology was 22%.

As evidenced by its continued support for these projects, management believes Cadence will successfully complete each of these DAI projects. However, there is risk associated with the completion of these projects and there is no assurance that any of them will be either technologically or commercially successful. If these projects are not successfully developed, Cadence's business, operating results, and financial condition may be harmed. In addition, the value of other intangible assets acquired may become impaired.

To date, DAI's results have not differed significantly from the forecasted assumptions. In addition, Cadence's research and development expenditures since the acquisition have not differed materially from expectations. Revenue contribution from the acquired technology falls within an acceptable range of plans in its role in Cadence's suite of design systems and tools. The risks associated with the research and development are still considered high and no assurance can be made that these future products will meet market expectations.

In September 1998, Cadence acquired all of the outstanding stock of Ambit for cash. Ambit was a leading developer of design automation technology used in SOC design. The total purchase price was \$255 million and the acquisition was accounted for as a purchase.

Upon consummation of the Ambit acquisition, Cadence immediately charged to expense \$106.5 million representing acquired in-process technology that had not yet reached technological feasibility and had no alternative future use. See "Notes to Consolidated Financial Statements." The value was determined by estimating the costs to develop the acquired in-process technology into commercially viable products, estimating the resulting net cash flows from such projects, and discounting the net cash flows back to their present value. The discount rate included a factor that took into account the uncertainty surrounding the successful development of the acquired in-process technology. The acquired in-process technology was commercially viable in 1999, with the exception of one module, called Datapath Compiler, which is expected to become commercially viable by early 2001. BuildGates 3.0 and Physically Knowledgeable Synthesis were commercially viable in 1999. Expenditures to complete all in-process technology are expected to total approximately \$15 million. Additionally, these projects will require maintenance research and development after they have reached a state of technological and commercial feasibility.

At the time of its acquisition by Cadence, Ambit was working on several significant research and development projects that were intended to provide the next generation version of its existing product, BuildGates 2.2. The nature of the efforts to complete the next generation version of BuildGates relate to the completion of all planning, designing, prototyping, verification, and testing activities that are necessary to establish that the proposed technologies meet their design specifications, including functional, technical, and economic performance requirements.

Cadence expects Ambit's creation of a fundamentally new approach to synthesis in deep submicron and in SOC to create the opportunity for additional consulting services revenue through the creation of an integrated, next generation version of BuildGates.

In September 1998, Cadence acquired BLDA for cash. BLDA was a design automation development organization that focused on the complex verification challenges companies face when designing integrated circuits and next-generation SOC. The total purchase price was \$58 million and the acquisition was accounted for as a purchase.

Upon consummation of the BLDA acquisition, Cadence immediately charged to expense \$30.3 million representing acquired in-process technology that had not yet reached technological feasibility and had no alternative future use. See “Notes to Consolidated Financial Statements.” The value was determined by estimating the costs to develop the acquired in-process technology into commercially viable products, estimating the resulting net cash flows from such projects, and discounting the net cash flows back to their present value. The discount rate includes a factor that takes into account the uncertainty surrounding the successful development of the acquired in-process technology. The acquired in-process technology is expected to become commercially viable in 2000. Expenditures to complete this in-process technology are expected to total approximately \$5 million. These estimates are subject to change, given the uncertainties of the development process, and deviations from these estimates may occur. Additionally, these projects will require maintenance research and development after they have reached a state of technological and commercial feasibility.

BLDA’s in-process research and development projects were related to its Formalcheck and Clover technologies. BLDA had two major enhancements underway for Formalcheck. This effort was expected to yield a revenue-generating product in 2000. BLDA’s research and development related to Clover involved the design and development of new Design Rule Checking and Parasitic Extraction tools, which were expected to substantially improve the performance and functionality of the technology. This effort was completed in 1999. The nature of the efforts to complete the next generation version of Formalcheck and Clover relate to the completion of all planning, designing, prototyping, verification, and testing activities that are necessary to establish that the proposed technologies meet their design specifications, including functional, technical, and economic performance requirements.

As evidenced by its continued support for these projects, management believes Cadence is well positioned to successfully complete each of the major research and development programs. However, there is risk associated with the completion of these projects and there is no assurance that any of them will be either technologically or commercially successful.

The net cash flows resulting from the projects underway at Ambit and BLDA used to value the purchased research and development were based on management’s estimates of revenue, cost of revenue, research and development costs, selling, general and administrative costs, and income taxes from such projects. The revenue projections are based on the potential market size that the projects address, Cadence’s ability to gain market acceptance for these projects, and the life cycle of this in-process technology.

Estimated total revenue from the acquired in-process technology is expected to peak in 2003 through 2004 and decline rapidly in 2005 and 2006 as other new products enter the market. In addition, a portion of the anticipated revenue has been attributed to enhancements of the base technology under development, and has been excluded from net cash flow calculations. Existing technology was valued at \$50.3 million in connection with the Ambit acquisition and \$23.2 million in connection with the BLDA acquisition. There can be no assurance that these assumptions will prove accurate, or that Cadence will realize the anticipated benefit of the acquisitions. The net cash flows generated from the acquired in-process technology are expected to reflect earnings before interest, taxes, and depreciation of approximately 38% to 49% of the sales generated from this in-process technology.

The discount of the net cash flows to their present value was based on the WACC. The discount rates used to discount the net cash flows from acquired in-process technology were 28% for Ambit and 25% for BLDA. These discount rates reflect the uncertainty surrounding the successful development of the acquired in-process technology, the useful life of such technology, the profitability levels of such technology, if any, and the uncertainty of technological advances, all of which are unknown at this time.

If these projects are not successfully developed, Cadence’s business, operating results, and financial condition may be negatively affected. In addition, the value of other intangible assets acquired may become impaired.



To date, Ambit's and BLDA's results have not differed significantly from the forecasted assumptions. Cadence's research and development expenditures since the acquisitions have not differed materially from expectations. The risks associated with the research and development are still considered high and no assurance can be made that upcoming products will meet market expectations.

In March 1998, Cadence acquired all of the outstanding stock of EXD. EXD provided application-specific integrated circuit, or ASIC, and SOC design and library development. The total purchase price was \$40.9 million in cash and the acquisition was accounted for as a purchase.

Upon consummation of the EXD acquisition, Cadence immediately charged to expense \$28.4 million representing acquired in-process technology that had not yet reached technological feasibility and had no alternative future use. See "Notes to Consolidated Financial Statements." The value was determined by estimating the costs to develop the acquired in-process technology into commercially viable products, estimating the resulting net cash flows from such projects and discounting the net cash flows back to their present value. The discount rate included a factor that took into account the uncertainty surrounding the successful development of the acquired in-process technology. The in-process projects were expected to be commercially viable on dates ranging from the end of 1998 through 2000. However, the progression of these projects became impaired in the fourth quarter of 1999 as discussed further below.

At the time of its acquisition by Cadence, EXD had several significant research and development projects in process that, if successful, would have represented the introduction of new products and technologies to meet future market needs. These efforts included the development of new tools for library generation, delay calculation, memory compilation, and semiconductor intellectual property technology. These new technologies were intended to be fully supportive of deep submicron design functions, which are a critical market requirement. The nature of the efforts required to complete these research and development projects relate, to varying degrees, to the completion of all planning, designing, prototyping, verification, and testing activities that are necessary to establish that the proposed technologies meet their design specifications, including functional, technical, and economic performance requirements.

The successful completion of the EXD acquired in-process projects has been impaired and as a result differed significantly from the forecasted assumptions. In the fourth quarter of 1999, Cadence recorded a \$13.3 million asset impairment charge. This asset impairment charge resulted from reduced Japanese market opportunities and the loss of key EXD employees resulting in diminished cash flow projections. Cadence entered into certain support agreements with external parties to provide support for EXD software tools previously sold to Cadence customers. The fair value of the EXD acquired intangibles was based on an evaluation of the present value of their estimated expected future cash flows, discounted at 16%.

In February 1998, Cadence acquired all of the outstanding stock of Symbionics for approximately 1 million shares of Cadence common stock and \$21.3 million of cash. Symbionics provided product development design services to leading electronics manufacturers. The total purchase price was \$46.1 million and the acquisition was accounted for as a purchase.

Upon consummation of the Symbionics acquisition, Cadence immediately charged to expense \$28.5 million representing acquired in-process technology that had not yet reached technological feasibility and had no alternative future use. See "Notes to Consolidated Financial Statements." The value was determined by estimating the costs to develop the acquired in-process technology into commercially viable products, estimating the resulting net cash flows from such projects and discounting the net cash flows back to their present value. The discount rate included a factor that took into account the uncertainty surrounding the successful development of the acquired in-process technology. The in-process projects were commercially viable by the end of 1999. Expenditures to complete these projects did not exceed \$6 million.

At the time of its acquisition by Cadence, Symbionics was working on several significant research and development projects that, if successful, would meet future market needs. These efforts involve digital television, wireless home networking, cellular roaming and digital voice technologies, which were intended to ensure the long-term success and survival of the organization. The nature of the efforts required to complete the research and development projects relate, to varying degrees, to the completion of all planning, designing, prototyping, verification, and testing activities that are necessary to establish that the proposed technologies meet their design specifications, including functional, technical, and economic performance requirements.

The net cash flows resulting from the projects which were underway at Symbionics used to value the acquired in-process technology at the time of acquisition were based on management's estimates of revenue, cost of revenue, research and development costs, selling, general and administrative costs, and income taxes from such projects. The revenue projections are based on the potential market size that the projects address, Cadence's ability to gain market acceptance in these segments and the life cycle of this in-process technology.

Estimated total revenue at the time of acquisition from the acquired in-process technology is expected to peak in 2001 and 2002 and decline rapidly thereafter as other new products enter the market. In addition, a portion of the anticipated revenue has been attributed to enhancements of the base technology under development, and has been excluded from net cash flow calculations. Existing technology was valued at \$6 million. There can be no assurance that these assumptions will prove accurate, or that Cadence will realize the anticipated benefit of the acquisition. The net cash flows generated from the acquired in-process technology are expected to reflect earnings before interest and taxes are estimated to be approximately 39% for the sales generated from Symbionics' in-process technology.

The discount applied to the net cash flows to calculate their present value was based on the WACC at the time of acquisition. The discount rates used to discount the net cash flows from the acquired in-process technology range from 22.5% to 27.5%. The discount rates are sometimes higher than the WACC due to the inherent uncertainties in the estimates, including the uncertainty surrounding the successful development of the acquired in-process technology, the useful life of such technology, the profitability levels of such technology, if any, and the uncertainty of technological advances, all of which are unknown at this time.

In 1997, Cadence wrote off \$9.3 million of acquired in-process technology associated with its acquisitions of Synthesia AB, Advanced Microelectronics, and Arkos. These costs reflected in-process technology that had not reached technological feasibility and, in management's opinion, had no probable alternative future use.

#### *Asset Impairment*

In 1999, Cadence incurred charges totaling \$19.9 million in asset impairment charges. Of this amount, \$13.3 million represented asset impairment of acquired intangibles from the EXD acquisition. This asset impairment charge resulted from reduced Japanese market opportunities and the loss of key EXD employees resulting in diminished cash flow projections. Cadence entered into certain support agreements with external parties to provide support for EXD software tools previously sold to Cadence customers. The fair value of the EXD acquired intangibles was based on an evaluation of the present value of the estimated expected future cash flows, discounted at 16%. The remaining \$6.6 million in asset impairment charges were incurred in connection with the cancellation of an information technology services contract with a third-party, the abandonment of capitalized software development costs associated with certain Cadence products that will no longer be sold, and the abandonment of certain third-party software licenses that will no longer be used by Cadence's design services business.

In 1997, Cadence wrote-off capitalized software development costs of \$3.1 million for products developed by Cadence that were replaced by CCT products or by license of replacement technology.

The impairment losses recorded were the amounts by which the carrying amounts of the intangible assets exceeded their fair market values.

### *Restructuring*

In 1999, Cadence recorded \$13.3 million of restructuring charges which consisted of \$11.3 million to terminate approximately 100 employees and \$2 million to downsize and close excess facilities. Cadence's restructuring plans were primarily aimed at reducing costs after Cadence merged with Quickturn, further restructuring of Cadence's services business in Japan, and severance resulting from the resignation of Cadence's former Chief Executive Officer. Severance costs include severance benefits, notice pay, and outplacement services. All terminations and termination benefits were communicated to the affected employees prior to year-end and all remaining severance benefits are expected to be paid in 2000.

Facilities consolidation charges of \$2 million were incurred in connection with the closure of 15 Quickturn facilities, including \$1 million to close duplicate and excess facilities and \$1 million of abandonment costs for the related leasehold improvements. Closure and exit costs include payments required under lease contracts, less any applicable sublease income, after the properties were abandoned, lease buyout costs, restoration costs associated with certain lease arrangements, and costs to maintain facilities during the period after abandonment. Asset related costs written-off consist of leasehold improvements of facilities that were abandoned and whose estimated fair market value is zero. As of January 1, 2000, approximately 80% of the 15 Quickturn sites had been vacated. Noncancelable lease payments on vacated facilities will be paid out through 2003.

In 1998, Cadence recorded \$69.5 million of restructuring charges primarily associated with Cadence's worldwide restructuring plan announced in the second half of 1998. Cadence's restructuring plans and associated costs consisted of \$36.9 million to terminate approximately 700 employees, \$29.9 million to downsize and close excess facilities, and \$2.7 million of other restructuring expenses. Cadence's restructuring plan was primarily aimed at reducing the cost of excess personnel and capacity in its services business. A discussion about Cadence's gross margin trends for its services business can be found under "Cost of Revenue" within this section. Severance costs included severance benefits, notice pay, and outplacement services. In 1998, approximately \$10.1 million of these costs resulted from the acceleration of stock options vesting under employment agreements. All terminations and termination benefits were communicated to the affected employees prior to year-end and all remaining severance benefits were substantially paid in 1999.

Facilities consolidation charges of \$29.9 million were incurred in connection with the closure of 58 sales and engineering facilities, including \$16.7 million to downsize and close facilities and \$13.2 million in abandonment costs for the related leasehold improvements. Closure and exit costs included payments required under lease contracts, less any applicable sublease income, after the properties were abandoned, lease buyout costs, restoration costs associated with certain lease arrangements, and costs to maintain facilities during the period after abandonment. Asset related costs written-off consist of leasehold improvements of facilities that were abandoned and whose estimated fair market value is zero. As of January 1, 2000, substantially all of the 58 sites had been vacated. Noncancelable lease payments on vacated facilities will be paid out through 2008.

Cadence also recorded \$2.7 million of other restructuring charges consisting primarily of cancellation fees associated with certain vendor and conference arrangements and abandoned software.

In 1997, Cadence recorded restructuring charges of \$24.1 million. These charges relate to restructuring plans primarily aimed at reducing costs after Cadence merged with CCT and acquired HLDS. Cadence's restructuring plans and associated costs consisted of \$11.9 million to terminate approximately 230 employees, \$4.4 million to close duplicate and excess facilities, and \$3.7 million of other expenses associated with the business combinations. Also included in the restructuring costs were professional fees of \$4.1 million for financial advisors, attorneys, and accountants related to the international restructuring



program. The remaining severance balances were paid out in 1998 and all facilities were vacated. Noncancelable lease payments on vacated facilities will be paid out through 2000.

Liabilities for excess facilities and other restructuring charges are included in accrued and other long-term liabilities while severance and benefits liabilities are included in payroll and payroll related accruals. Actual amounts of termination benefits, facilities and other restructuring related payments can be found in Notes to Consolidated Financial Statements under "Restructuring."

#### *Merger Costs*

In connection with acquisitions in 1999 and 1997, Cadence charged to expense Quickturn merger costs of \$8.4 million and CCT and SpeedSim merger costs of \$11.5 million, representing professional fees for financial advisors, attorneys, and accountants.

#### *Litigation Settlement*

In 1999, Cadence and Mentor announced the settlement of a patent infringement action pending in the U.S. District Court for the District of Oregon. As a result, the Court entered a judgment declaring that certain Quickturn patents are valid, enforceable, and were infringed by Mentor's sale of SimExpress products in the U.S. Mentor is permanently enjoined from producing, marketing, or selling SimExpress emulation systems in the U.S. In connection with the settlement, Mentor paid Cadence \$3 million.

#### **Other Income, net**

Other income, net for 1999, 1998, and 1997 is as follows:

	<u>1999</u>	<u>1998</u>	<u>1997</u>
	(In millions)		
Interest income . . . . .	\$ 5.4	\$13.5	\$20.9
Minority interest income (expense) . . . . .	0.1	(0.2)	(0.3)
Equity income (loss) from investments . . . . .	0.1	(0.9)	1.9
Gain on sale of stock of subsidiary . . . . .	—	—	13.1
Other expense, net . . . . .	(0.3)	(0.9)	(3.3)
Gain (loss) on foreign exchange . . . . .	(0.6)	2.8	(1.1)
Interest expense . . . . .	<u>(3.3)</u>	<u>(3.7)</u>	<u>(2.8)</u>
Total other income, net . . . . .	<u>\$ 1.4</u>	<u>\$10.6</u>	<u>\$28.4</u>

Other income, net decreased \$9.2 million and \$17.8 million in 1999 and 1998, respectively, when compared to each prior year. The reductions were primarily attributable to interest income reductions in 1999 and 1998 of \$8.1 million and \$7.4 million, respectively, when compared to each prior year, which were primarily due to lower average cash and investment balances due in part to the payments made for acquisitions. Additionally, in February 1997, Cadence and IMS sold to the public 1.7 million shares of IMS common stock at \$20.75 per share, of which 1 million shares were sold by Cadence, netting Cadence \$18.6 million in cash. In connection with this transaction, Cadence recorded a pre-tax realized gain of \$13.1 million, which is included in other income, net in the consolidated statements of operations which further reduced other income, net in 1998. Cadence also recorded in 1998 a \$2.3 million unrealized gain, net of deferred taxes, which represented Cadence's proportionate share of IMS' equity as a result of IMS' sale of stock. This unrealized gain is reflected in the consolidated statements of stockholders' equity. The likelihood of such transactions in the future is dependent upon the state of the financial markets, as well as liquidity and other considerations of each of Cadence and IMS.

The loss on foreign exchange increased in 1999, when compared to 1998, due to the expense of option premiums in relation to Cadence's hedging program. The gain on foreign exchange increased in 1998,

when compared to 1997, due to favorable exchange rate movements for Asian currencies, primarily the Japanese yen. Other expense in 1999, 1998, and 1997 was due primarily to investment losses from a venture capital partnership.

### Income Taxes

The provision for income taxes and the effective tax rates for 1999, 1998, and 1997 are as follows:

	<u>1999</u>	<u>1998</u>	<u>1997</u>
	(Dollars in millions)		
Provision for income taxes(1) . . . . .	\$ 2.7	\$74.9	\$69.4
Effective tax rate . . . . .	(23.7)%	74.9%	29.6%

(1) Includes tax benefit in 1997 of \$5.3 million on cumulative effect of change in accounting method.

At January 1, 2000, Cadence had total net deferred tax assets of approximately \$53.6 million. Realization of the deferred tax assets will be dependent on generating sufficient taxable income prior to the expiration of certain net operating loss and tax credit carryforwards. The net valuation allowance increased by \$11.4 million in 2000 due to the uncertainty of certain foreign subsidiaries generating sufficient taxable income to realize certain foreign deferred tax assets. Although realization is not assured, management believes that it is more likely than not that the net deferred tax assets will be realized. The amount of the net deferred tax assets, however, could be reduced or increased in the near term if actual facts, including the estimate of future taxable income, differ from those estimated.

The effective tax rate includes the write-off of acquired in-process technology of approximately \$20.7 million for 1999, \$194.1 million for 1998, and \$9.3 million for 1997. The effective tax rates, excluding the write-off of acquired in-process technology, were 28.9% for 1999, 28.4% for 1998, and 28.5% for 1997.

### Change in Accounting Method

In November 1997, the Emerging Issues Task Force of the Financial Accounting Standards Board issued Ruling 97-13 "Accounting for Costs Incurred in Connection with a Consulting Contract or an Internal Project That Combines Business Process Reengineering and Information Technology Transformation," which requires companies to expense costs incurred for business process reengineering projects. As a result, Cadence recorded a \$12.3 million charge in 1997, net of taxes of \$5.3 million, as a cumulative effect of change in accounting method for reengineering project costs that had been previously capitalized by Cadence associated with its implementation of enterprise-wide information systems.

### Disclosures About Market Risk

#### *Interest Rate Risk*

Cadence's exposure to market risk for changes in interest rates relates primarily to its investment portfolio and long-term debt obligations. While Cadence is exposed with respect to interest rate fluctuations in many of the world's leading industrialized countries, Cadence's interest income and expense is most sensitive to fluctuations in the general level of U.S. interest rates. In this regard, changes in U.S. interest rates affect the interest earned on Cadence's cash and cash equivalents, short-term and long-term investments, and interest paid on its long-term debt obligations as well as costs associated with foreign currency hedges.

Cadence invests in high quality credit issuers and, by policy, limits the amount of its credit exposure to any one issuer. As stated in its policy, Cadence's first priority is to reduce the risk of principal loss. Consequently, Cadence seeks to preserve its invested funds by limiting default risk, market risk, and reinvestment risk. Cadence mitigates default risk by investing in only high quality credit securities that it believes to be low risk and by positioning its portfolio to respond appropriately to a significant reduction in

a credit rating of any investment issuer or guarantor. The portfolio includes only marketable securities with active secondary or resale markets to ensure portfolio liquidity.

In October 1998, Cadence entered into a senior unsecured credit facility, referred to as the 1998 Facility, with a syndicate of banks that allows Cadence to borrow up to \$355 million. As amended in September and November of 1999, the 1998 Facility is divided between a \$177.5 million two year revolving credit facility, or the Two Year Facility, and a \$177.5 million 364-day revolving credit facility convertible into a one year term loan, or the 364-Day Facility. The Two Year Facility expires on September 29, 2001. The 364-Day Facility will either expire on September 27, 2000, be converted to a one year term loan with a maturity date of September 27, 2001, or, at the request of Cadence and with the agreement of the bank group, be renewed for an additional one year. Cadence has the option to pay interest based on LIBOR plus a spread of between 1.25% and 1.50%, based on a pricing grid tied to a financial covenant, or the higher of the Federal Funds Rate plus 0.50% or the prime rate. As a result, Cadence's interest rate expenses associated with this borrowing will vary with market rates. In addition, commitment fees are payable on the unutilized portions of the Two Year Facility at rates between 0.23% and 0.30% based on a pricing grid tied to a financial covenant and on the unutilized portion of the 364-Day Facility at a fixed rate of 0.18%. The 1998 Facility contains certain financial and other covenants.

The table below presents the carrying value and related weighted average interest rates for Cadence's investment portfolio and its long-term debt obligations. All highly liquid investments with an original maturity of three months or less at the date of purchase are considered to be cash equivalents; investments with original maturities between three and 12 months are considered to be short-term investments. Investments with original maturities greater than 12 months are considered non-current assets. As of January 1, 2000, substantially all of Cadence's investments have maturities less than 12 months. The carrying value approximated fair value at January 1, 2000.

	Carrying Value <u>(in millions)</u>	Average Interest Rate <u></u>
Investment Securities:		
Short-term investments—fixed rate . . . . .	\$ 7.4	5.48%
Long-term investments—fixed rate . . . . .	<u>2.0</u>	6.63%
Total short-term and long-term securities . . . . .	9.4	5.72%
Cash equivalents—fixed rate . . . . .	9.6	4.84%
Cash equivalents—variable rate . . . . .	<u>50.3</u>	5.29%
Total interest bearing instruments . . . . .	<u>\$69.3</u>	5.29%
Long-term Debt:		
Revolving credit facility . . . . .	<u>\$20.0</u>	8.11%

*Interest Rate Swap Risk*

Cadence entered into a 4.8% fixed interest rate-swap in connection with its accounts receivable financing program to modify the interest rate characteristics of the receivables sold to a financing institution on a non-recourse basis. At January 1, 2000, the notional amount payable was \$17.3 million which will be amortized in quarterly installments of approximately \$2.2 million through October 2001. The estimated fair value at January 1, 2000 was \$0.3 million.

*Foreign Currency Risk*

Cadence's operations include transactions in foreign currencies and, as such, Cadence benefits from a weaker dollar and is adversely affected by a stronger dollar relative to major currencies worldwide.

Accordingly, the primary effect of foreign currency transactions on Cadence's results of operations is a reduction in revenue from a strengthening U.S. dollar, offset by a smaller reduction in expenses.

Cadence enters into foreign currency forward exchange contracts and purchases foreign currency put options with financial institutions primarily to protect against currency exchange risks associated with existing assets and liabilities and probable but not firmly committed transactions, respectively. Forward contracts are not accounted for as hedges and, therefore, the unrealized gains and losses are recognized in other income, net in advance of the actual foreign currency cash flows with the fair value of these forward contracts being recorded as accrued liabilities.

Cadence purchases put options to hedge the currency exchange risks associated with probable but not firmly committed transactions. Probable but not firmly committed transactions consist of revenue from Cadence's products and maintenance contracts in a currency other than the functional currency. These transactions are made through Cadence's subsidiaries in Ireland and Japan. The premium costs of the put options are recorded in other current assets while the gains and losses are deferred and recognized in income in the same period as the hedged transaction. Gains and losses on accounting hedges realized before the settlement date of the related hedged transaction are also generally deferred and recognized in income in the same period as the hedged transaction. Cadence does not use forward contracts and put options for trading purposes. Cadence's ultimate realized gain or loss with respect to currency fluctuations will depend on the currency exchange rates and other factors in effect as the forward contracts and put options mature.

The table below provides information as of January 1, 2000 about Cadence's forward contracts and put options. The information is provided in U.S. dollar equivalent amounts. The table presents the notional amounts, at contract exchange rates, and the weighted average contractual foreign currency exchange rates. These forward contracts matured prior to January 15, 2000. The put options mature prior to September 30, 2000.

	<u>Notional Amount</u>	<u>Average Contract Rate</u>
	<u>(In millions)</u>	
Forward Contracts:		
Japanese yen . . . . .	\$ 80.1	104.71
British pound sterling . . . . .	54.5	1.65
Euro . . . . .	29.5	1.08
Canadian dollars . . . . .	8.3	1.47
Swedish krona . . . . .	2.9	8.09
Hong Kong dollars . . . . .	2.8	7.78
Singapore dollars . . . . .	1.6	1.66
	<u>\$179.7</u>	
Estimated fair value . . . . .	<u>\$ (2.5)</u>	
Put Options:		
Japanese yen . . . . .	<u>\$ 27.8</u>	107.99
Estimated fair value . . . . .	<u>\$ 0.3</u>	

While Cadence actively manages its foreign currency risks on an ongoing basis, there can be no assurance that Cadence's foreign currency hedging activities will substantially offset the impact of fluctuations in currency exchange rates on its results of operations, cash flows, and financial position. On a net basis, foreign currency fluctuations did have a material impact on Cadence's results of operations and financial position during the year ended January 1, 2000. The realized gain (loss) on the forward contracts as they matured was not material to the consolidated operations of Cadence.

### Equity Price Risk

As part of its authorized repurchase program, Cadence has sold put warrants and purchased call options through private placements. The put warrants, if exercised, would entitle the holder to sell shares of Cadence common stock to Cadence at a specified price. Similarly, the call options entitle Cadence to buy shares of Cadence common stock at a specified price.

Cadence repurchases shares of its common stock under stock repurchase programs for issuance under its Employee Stock Purchase Plan, or ESPP, and its 1997 Stock Option Plan, referred to as the 1997 Plan and its 2000 Stock Option Plan adopted in January 2000. As part of these repurchase programs, Cadence has purchased and will purchase call options or has sold and will sell put warrants. These transactions may result in sales of a large number of shares and consequent decline in the market price of Cadence common stock. Cadence's stock repurchase program includes the following characteristics:

- Call options allow Cadence to buy shares of its common stock on a specified day at a specified price. If the market price of the stock is greater than the exercise price of a call option, Cadence will typically exercise the option and receive shares of its stock. If the market price of the common stock is less than the exercise price of a call option, Cadence typically will not exercise the option.
- Call option issuers may accumulate a substantial number of shares of Cadence common stock in anticipation of Cadence's exercising its call option and may dispose of these shares if and when Cadence fails to exercise its call option. This could cause the market price of Cadence common stock to fall.
- Put warrants allow the holder to sell to Cadence shares of Cadence common stock on a specified day at a specified price. Cadence has the right to settle the put warrants with shares of Cadence common stock valued at the difference between the exercise price and the fair value of the stock at the date of exercise.
- Depending on the exercise price of the put warrants and the market price of Cadence common stock at the time of exercise, settlement of the put warrants with Cadence common stock could cause Cadence to issue a substantial number of shares to the holder of the put warrant. The holder may sell these shares in the open market, which could cause the price of Cadence common stock to fall.
- Put warrant holders may accumulate a substantial number of shares of Cadence common stock in anticipation of exercising their put warrants and may dispose of these shares if and when they exercise their put warrants and Cadence issues shares in settlement of their put warrants. This could also cause the market price of Cadence common stock to fall.

The table below provides information at January 1, 2000 about Cadence's outstanding put warrants and call options. The table presents the contract amounts and the weighted average strike prices. The put warrants and call options expired in February 2000 and Cadence had the contractual ability to settle the options prior to their maturity.

	<u>2000</u> <u>Maturity</u>	<u>Estimated</u> <u>Fair Value</u>
	(Shares and contract amounts in millions)	
Put Warrants:		
Shares . . . . .	1.6	
Weighted average strike price . . . . .	\$13.08	
Contract amount . . . . .	\$ 21.1	\$ 0.1
Call Options:		
Shares . . . . .	1.3	
Weighted average strike price . . . . .	\$13.33	
Contract amount . . . . .	\$ 16.7	\$13.6

## **Year 2000 Update**

Cadence has completed all of its Year 2000 projects as scheduled significantly reducing the uncertainty of significant Year 2000 interruptions. To date, Cadence's products, business systems, and operations have not experienced any significant Year 2000 related problems. Cadence is not aware that any of its major customers or third-party suppliers have experienced significant Year 2000 related problems.

To address Year 2000 issues, Cadence initiated a program designed to address the most critical Year 2000 items that would affect Cadence's products, its business systems, and the operations of its research and development, finance, sales, manufacturing, and human resources functions. Cadence also worked with critical suppliers and customers to determine that such suppliers' and customers' operations and the products and services are Year 2000 capable or to monitor their progress towards Year 2000 capability.

Cadence's Year 2000 efforts included a program to inventory, assess, remediate, and test the Year 2000 capability of its products. As a result of those efforts, Cadence verified that the most current release of Cadence's software products, as set forth in the Year 2000 Software Compliance List, which is available on Cadence's web site, were Year 2000 Compliant. Cadence uses the term Year 2000 Compliant to mean that the software will not: (A) cease to perform due solely to a change in date to or after January 1, 2000, or (B) generate incorrect or ambiguous data or results with respect to same-century and/or multi-century formulas, functions, date values, and date data interfaces. Cadence does not believe that customers are using a significant amount of products that are not determined to be Year 2000 Compliant.

Year 2000 related costs to resolve the readiness issues are not expected to exceed \$13 million throughout the term of the project. Cadence expects this project to be completed in 2000.

Although Cadence has successfully modified its products and business systems, there may still be undetected failures or defects associated with Year 2000 functions. The failure to correct a material Year 2000 problem could result in an interruption in, or a failure of, certain normal business activities or operations of Cadence. The reasonably likely worst case scenario associated with Cadence products for a Year 2000 problem is that a customer project could be delayed for a short period of time before the problem can be identified and remediated by Cadence's support process.

## **Liquidity and Capital Resources**

At January 1, 2000, Cadence's principal sources of liquidity consisted of \$118.8 million of cash and cash equivalents and short-term investments, as compared with \$249.5 million at January 2, 1999, and \$336.4 million at January 3, 1998, and the 1998 Facility. As of January 1, 2000, Cadence had outstanding borrowings of \$20 million under the Two Year Facility. Cadence had no outstanding borrowings under the 364-Day Facility.

Cash provided by operating activities decreased \$100 million to \$127 million in the year ended January 1, 2000 as compared to the year ended January 2, 1999, primarily due to a decrease in net income before unusual items, decreases in accounts payable and accrued liabilities, and income taxes payable, partially offset by increases in depreciation and amortization, receivables, installment contract receivables, and deferred revenue. Cash provided by operating activities increased \$32.5 million to \$227 million for the year ended January 2, 1999 as compared to the year ended January 3, 1998. The increase was primarily due to increases in net income before unusual items, depreciation and amortization, deferred income taxes, and prepaid expenses and other, partially offset by decreases in receivables, installment contract receivables, and accounts payable and accrued liabilities.

At January 1, 2000, Cadence had net working capital of \$58.4 million, as compared with \$294.3 million at January 2, 1999. The primary reasons for the decrease were decreases in short-term investments of \$33 million, cash and cash equivalents of \$97.7 million, accounts receivable of \$57.1 million, increases in accounts payable and accrued liabilities of \$23 million, and a deferred revenue increase of \$45.3 million, partially offset by a decrease in income taxes payable of \$21.2 million. The increase in accounts payable



and accrued liabilities was primarily attributable to bonus and commissions payments to be paid in early 2000, accounts payable to vendor accruals and accrued consulting services, offset partially by reductions in restructure related accruals.

In addition to its short-term investments, Cadence's primary investing activities consisted of acquisitions and the related acquired intangibles, purchases of property, plant, and equipment, capitalization of software development costs, and venture capital partnership investments, which combined represented \$306.8 million at January 1, 2000, \$591.3 million at January 2, 1999, and \$132.7 million at January 3, 1998 of cash used for investing activities.

In connection with the consummation of the merger with Quickturn, Cadence rescinded its stock repurchase program, with the exception of continued systematic stock repurchases under its seasoned stock repurchase programs for Cadence's 1997 Plan and ESPP. In 1999, the Board of Directors approved a 10,000,000 share expansion of Cadence's existing seasoned systematic repurchase program to meet the share issuance requirements of Cadence's 1997 Plan. In February 2000, the Board of Directors approved a 15,000,000 share increase for stock repurchases. This increase included authorization to repurchase 5,000,000 shares on a systematic basis to meet share issuance requirements of Cadence's newly adopted 2000 Non-Statutory Stock Option Plan and authorization to repurchase 10,000,000 shares on a non-systematic basis to be used for general corporate purposes. Cadence is now authorized to repurchase an aggregate of 13,000,000 shares for the 1997 Plan, 5,000,000 for its 2000 Plan, 13,400,000 shares for the ESPP, and 10,000,000 shares for general corporate purposes.

Cadence sells put warrants and purchased call options through private placements. See "Notes to Consolidated Financial Statements." At January 1, 2000, Cadence had a maximum potential obligation related to put warrants to buy back 1.6 million shares of its common stock at an aggregate price of approximately \$21.1 million. These put warrants expired in February 2000. Subsequently, Cadence has sold put warrants entitling the holder to sell to Cadence 7.6 million shares of its common stock at an aggregate price of approximately \$159.8 million and purchased call options entitling Cadence to purchase 5.8 million shares of its common stock at an aggregate price of approximately \$121.6 million. The put warrants and call options expire at various dates through November 2000 and Cadence has the contractual ability to settle the put warrants and call options prior to their maturity. Cadence has the ability to settle these put warrants with stock and, therefore, no amount was classified out of stockholders' equity in Cadence's consolidated balance sheets.

As part of its overall investment strategy, Cadence has become a limited partner in a venture capital fund and is committed to invest up to \$100 million. As of January 1, 2000, Cadence had contributed approximately \$33.2 million to this partnership for venture funding, which is reflected in other assets in the accompanying consolidated balance sheets, net of operating losses.

In October 1998, Cadence entered into a senior unsecured credit facility, referred to as the 1998 Facility, with a syndicate of banks that allows Cadence to borrow up to \$355 million. As amended in September and November of 1999, the 1998 Facility is divided between a \$177.5 million two year revolving credit facility, or the Two Year Facility, and a \$177.5 million 364-day revolving credit facility convertible into a one year term loan, or the 364-Day Facility. The Two Year Facility expires on September 29, 2001. The 364-Day Facility will either expire on September 27, 2000, be converted to a one year term loan with a maturity date of September 27, 2001, or, at the request of Cadence and with the agreement of the bank group, be renewed for an additional one year. Cadence has the option to pay interest based on LIBOR plus a spread of between 1.25% and 1.50%, based on a pricing grid tied to a financial covenant, or the higher of the Federal Funds Rate plus 0.50% or the prime rate. As a result, Cadence's interest rate expenses associated with this borrowing will vary with market rates. In addition, commitment fees are payable on the unutilized portions of the Two Year Facility at rates between 0.23% and 0.30% based on a pricing grid tied to a financial covenant and on the unutilized portion of the 364-Day Facility at a fixed rate of 0.18%. The 1998 Facility contains certain financial and other covenants.



Cadence anticipates that current cash and short-term investment balances, cash flow from operations, and the remaining amounts available under the 1998 Facility will be sufficient to meet its working capital and capital requirements on a short-and long-term basis.

### New Accounting Standards

In June 1998, the FASB issued SFAS No. 133, "Accounting for Derivative Instruments and Hedging Activities." SFAS No. 133 establishes accounting and reporting standards requiring that every derivative instrument be recorded in the balance sheet as either an asset or liability measured at its fair value. It requires that changes in the derivative's fair value be recognized currently in earnings unless specific hedge accounting criteria are met and that a company must formally document, designate, and assess the effectiveness of transactions that receive hedge accounting. In June 1999, SFAS No. 137, "Accounting for Derivative Instruments and Hedging Activities—Deferral of the Effective Date of FASB Statement No. 133," was issued. The statement defers the effective date of SFAS No. 133 until the first quarter of fiscal 2001. Cadence has not yet determined the effect SFAS No. 133 will have on its financial position, results of operations, or cash flows.

In December 1999, the Securities and Exchange Commission issued Staff Accounting Bulletin, or SAB, No. 101, "Revenue Recognition." SAB 101 provides guidance on the recognition, presentation, and disclosure of revenue in financial statements and is effective for the first quarter of Fiscal 2000. Cadence has not yet determined the effect SAB 101 will have on its financial position or results of operations.

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

The information required by Item 7A is incorporated by reference from the section entitled "Disclosures About Market Risk" found in Item 7 "Management's Discussion and Analysis of Financial Condition and Results of Operations."

### Item 8. Financial Statements and Supplementary Data

The financial statements required by Item 8 are submitted as a separate section of this Annual Report on Form 10-K. See Item 14.

### Summary Quarterly Data—Unaudited

	1999				1998			
	4th	3rd	2nd	1st	4th	3rd	2nd	1st
Revenue . . . . .	\$268,022	\$225,897	\$264,193	\$335,191	\$376,472	\$334,184	\$315,736	\$293,788
Cost of revenue . . . . .	\$ 82,734	\$ 81,577	\$ 81,838	\$ 78,694	\$ 81,521	\$ 83,991	\$ 83,288	\$ 69,892
Amortization of acquired intangibles . . . . .	\$ 19,385	\$ 16,833	\$ 12,856	\$ 12,714	\$ 11,671	\$ 3,114	\$ 2,884	\$ 803
Income (loss) from operations(1) . . . . .	\$(32,020)	\$(53,783)	\$(4,347)	\$ 77,400	\$ 64,210	\$(70,195)	\$ 78,924	\$ 16,549
Net income (loss) . . . . .	\$(22,484)	\$(41,446)	\$(3,007)	\$ 52,862	\$ 47,569	\$(80,453)	\$ 59,962	\$(1,954)
Net income (loss) per share—diluted . . . . .	\$ (0.09)	\$ (0.17)	\$ (0.01)	\$ 0.20	\$ 0.19	\$ (0.34)	\$ 0.23	\$ (0.01)

(1) Income (loss) from operations for 1999 and 1998 included certain unusual item charges of \$59.3 million and \$263.6 million, respectively, which follow:

	4th	3rd	2nd	1st
<b>1999:</b>				
Write-off of acquired in-process technology . . . . .	\$ —	\$ 11,800	\$ —	\$ 8,900
Asset impairment . . . . .	13,290	—	3,510	3,091
Restructuring charges . . . . .	—	371	10,703	2,200
Merger costs . . . . .	—	—	8,436	—
Litigation settlement . . . . .	—	—	(3,000)	—
	<u>\$13,290</u>	<u>\$ 12,171</u>	<u>\$19,649</u>	<u>\$14,191</u>
<b>1998:</b>				
Write-off of acquired in-process technology . . . . .	\$ —	\$137,200	\$ —	\$56,900
Restructuring charges . . . . .	44,705	20,833	—	3,957
	<u>\$44,705</u>	<u>\$158,033</u>	<u>\$ —</u>	<u>\$60,857</u>

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

None.

### **PART III.**

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

The information required by Item 10 as to directors is incorporated by reference from the sections entitled “Election of Directors” and “Compliance with the Reporting Requirements of Section 16(a)” in Cadence’s definitive Proxy Statement for its 2000 annual stockholders’ meeting to be held on May 24, 2000.

The executive officers of Cadence are listed at the end of Part I of this Annual Report on Form 10-K.

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

The information required by Item 11 is incorporated by reference from the section entitled “Director and Executive Compensation” in Cadence’s definitive Proxy Statement for its 2000 annual stockholders’ meeting to be held on May 24, 2000.

#### **Item 12. Security Ownership of Certain Beneficial Owners and Management**

The information required by Item 12 is incorporated by reference from the section entitled “Security Ownership of Certain Beneficial Owners and Management” in Cadence’s definitive Proxy Statement for its 2000 annual stockholders’ meeting to be held on May 24, 2000.

#### **Item 13. Certain Relationships and Related Transactions**

The information required by Item 13 is incorporated by reference from the section entitled “Certain Transactions” in Cadence’s definitive Proxy Statement for its 2000 annual stockholders’ meeting to be held on May 24, 2000.

**PART IV.**

**Item 14. Exhibits, Financial Statements, Schedules, and Reports on Form 8-K**

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(a) 1. <u>Financial Statements:</u>	
• Report of Independent Public Accountants . . . . .	49
• Report of PricewaterhouseCoopers LLP, Independent Accountants . . . . .	50
• Consolidated Balance Sheets at January 1, 2000 and January 2, 1999 . . . . .	51
• Consolidated Statements of Operations for the three fiscal years ended January 1, 2000 . . . . .	52
• Consolidated Statements of Stockholders' Equity for the three fiscal years ended January 1, 2000 . . . . .	53
• Consolidated Statements of Cash Flows for the three fiscal years ended January 1, 2000 . . . . .	54
• Notes to Consolidated Financial Statements . . . . .	55
(a) 2. <u>Financial Statement Schedules:</u>	
II. Valuation and Qualifying Accounts and Reserves . . . . .	86
All other schedules are omitted because they are not required or the required information is shown in the financial statements or notes thereto.	
(a) 3. <u>Exhibits:</u>	
The following exhibits are filed with this Annual Report on Form 10-K:	

<u>Exhibit Number</u>	<u>Exhibit Title</u>
2.01	Agreement and Plan of Merger, dated as of December 8, 1998 among the Registrant, Quickturn Design Systems, Inc. and CDSI Acquisition, Inc. as amended on December 16, 1998 and January 4, 1999 (incorporated by reference to Exhibit 2.01 to the Registrant's Form 8-K filed on 12/10/98, as amended by Forms 8-K/A filed on 12/22/98, 1/6/99, and 5/20/99. The Disclosure Schedules related to the Merger Agreement have been omitted but will be provided to the Commission upon its request pursuant to Item 601 (b)(2) of Regulation S-K (the 1999 Form S-4).
3.01	(a) The Registrant's Certificate of Ownership and Merger as filed with the Secretary of State of the State of Delaware on June 1, 1988 (incorporated by reference to Exhibit 3.02(c) to the Registrant's Form S-1 Registration Statement (No. 33-23107) filed on July 18, 1988 (the 1988 Form S-1)).  (b) The Registrant's Certificate of Designation of Series A Junior Participating Preferred Stock, as amended on February 1, 2000, as filed with the Secretary of State of the State of Delaware on June 8, 1989 (incorporated by reference to Exhibit 3A to the Registrant's Current Report on Form 8-K (No. 0-15867) filed on June 12, 1989 (the 1989 Form 8-K) and amended by Exhibit 4.01 to this Form 10-K).  (c) The Registrant's Certificate of Designation of Series A Convertible Preferred Stock as filed with the Secretary of State of the State of Delaware on December 30, 1991 (incorporated by reference to Exhibit 3.01(f) from the Registrant's Form 10-K for the year ended December 31, 1991).

Exhibit  
Number

Exhibit Title

- (d) The Registrant's Certificate of Amendment of Certificate of Incorporation as filed with the Secretary of State of the State of Delaware on May 13, 1998 (incorporated by reference to Exhibit 3.01(i) to the Registrant's Form 10-Q for the quarter ended July 4, 1998 (the 1998 Second Quarter Form 10-Q)).
- (e) The Registrant's Restated Certificate of Incorporation as filed with the Secretary of State of the State of Delaware on May 13, 1998 (incorporated by reference to Exhibit 3.01(j) to the 1998 Second Quarter Form 10-Q).
- 3.02 The Registrant's Bylaws, as currently in effect (incorporated by reference to Exhibit 3.02 to the 1987 Form S-1 and as amended by Exhibit 3-b to the 1989 Form 8-K and Exhibit 3.01 to the Registrant's Form 10-Q for the quarter ended April 3, 1999).
- 4.01 Specimen Certificate of the Registrant's Common Stock (incorporated by reference to Exhibit 4.01 to the Registrant's Form S-4 Registration Statement (No. 33-43400) filed October 17, 1991).
- 4.02 Amended and Restated Rights Agreement, dated as of February 1, 2000, between the Registrant and ChaseMellon Shareholder Services, L.L.C. which includes as exhibits thereto the Certificate of Designation for the Series A Junior Participating Preferred Stock, the form of Rights Certificate, and the Summary of Rights to Purchase Preferred Shares.
- 10.01 The Registrant's 1987 Stock Option Plan, as amended and restated on February 23, 1998 (incorporated by reference to the Registrant's Preliminary Proxy Statement filed on March 16, 1998 (the 1998 Preliminary Proxy Statement)).
- 10.02 Form of Stock Option Agreement and Form of Stock Option Exercise Request, as currently in effect under the Registrant's 1987 Stock Option Plan (incorporated by reference to Exhibit 4.01 to the Registrant's Form S-8 Registration Statement (No. 33-22652) filed on June 20, 1988).
- 10.03 The Registrant's 1988 Directors Stock Option Plan, as amended, including the Stock Option Grant and Form of Stock Option Exercise Notice and Agreement (the first document is incorporated by reference to Exhibit 4.02 to the Registrant's Form S-8 Registration Statement (No. 33-53913) filed on May 31, 1994 (the 1994 Form S-8) and the latter two documents are incorporated by reference to Exhibit 10.08-10.10 to the 1988 Form S-1).
- 10.04 The Registrant's 1993 Directors Stock Option Plan including the Form of Stock Option Grant (incorporated by reference to Exhibit 10.04 of the 1994 Form S-8).
- 10.05 The Registrant's 1995 Directors Stock Option Plan including the Form of Stock Option Grant (incorporated by reference to Exhibit 10.05 to the Registrant's Form 10-K for the fiscal year ended December 30, 1995 (the 1995 Form 10-K)).
- 10.06 The Registrant's 1990 Employee Stock Purchase Plan, as amended on March 4, 1997 (incorporated by reference to Exhibit 10.07 to the Registrant's Form 10-K for the fiscal year ended December 28, 1996).
- 10.07 The Registrant's Senior Executive Bonus Plan for 1995 (incorporated by reference to Exhibit 10.08 of the Registrant's Form 10-K for the fiscal year ended December 31, 1994 (the 1994 Form 10-K)).
- 10.08 The Registrant's Senior Executive Bonus Plan for 1996 (incorporated by reference to Exhibit 10.08 to the 1995 Form 10-K).
- 10.09 The Registrant's Senior Executive Bonus Plan (previously the Chief Executive Officer Bonus Plan for 1996), as amended January 1, 1998 (incorporated by reference to the 1998 Preliminary Proxy Statement).

<u>Exhibit Number</u>	<u>Exhibit Title</u>
10.10	The Registrant's Deferred Compensation Plan for 1994 (incorporated by reference to Exhibit 10.09 to the 1994 Form 10-K).
10.11	The Registrant's 1996 Deferred Compensation Venture Investment Plan (incorporated by reference to Exhibit 10.11 to the 1995 Form 10-K).
10.12	Amended and Restated Lease, dated June 29, 1989, by and between River Oaks Place Associates (ROPA), a California limited partnership, and the Registrant, for the Registrant's offices at 555 River Oaks Parkway, San Jose, California (incorporated by reference to Exhibit 10.14 to the Registrant's Form 10-K (No. 1-10606) for the year ended December 31, 1990 (the 1990 Form 10-K)).
10.13	Lease, dated June 29, 1989, by and between ROPA and the Registrant for the Registrant's offices at 575 River Oaks Parkway, San Jose, California (incorporated by reference to Exhibit 10.16 to the 1990 Form 10-K).
10.14	Lease, dated June 29, 1989, by and between ROPA and the Registrant for the Registrant's offices at 535 and 545 River Oaks Parkway, San Jose, California (incorporated by reference to Exhibit 10.17 to the 1990 Form 10-K).
10.15	Lease, dated December 19, 1988, by and among the Richard T. Peery and John Arrillaga Separate Trusts and Valid Logic Systems Incorporated (Valid) (which merged into the Registrant) for the Registrant's offices at 2835 North First Street, San Jose, California (incorporated by reference to Exhibit 10.18 to the Form 10-K (No. 0-11974) for Valid for the fiscal year ended December 30, 1990).
10.16	The 1993 Non-Statutory Stock Option Plan (incorporated by reference to Exhibit 4.05 to the 1994 Form S-8).
10.17	Consulting agreement, dated October 26, 1993, with Alberto Sangiovanni-Vincentelli (incorporated by reference to Exhibit 10.29 to the Registrant's Form 10-Q for the second quarter ended June 30, 1994).
10.18	The Registrant's amended and restated 401(k) Plan (incorporated by reference to Exhibit 10.29 of the Registrant's Form 10-Q for the first quarter ended March 30, 1996 (the 1996 First Quarter Form 10-Q)).
10.19	Amendment, dated May 3, 1996 to Registrant's 1993 Non-Statutory Stock Option Plan (incorporated by reference to Exhibit 10.30 to the 1996 First Quarter Form 10-Q).
10.20	Amendment, dated August 2, 1996 to the Registrant's 1993 Non-Statutory Stock Option Plan, (incorporated by reference to Exhibit 10.39 to the 1996 Second Quarter Form 10-Q).
10.21	Amendment Number 1, dated May 31, 1996, (incorporated by reference to Exhibit 10.40 to the 1996 Second Quarter Form 10-Q), to Lease Agreement for the Registrant's offices at 555 River Oaks Parkway, San Jose, California, by and between ROPA and the Registrant (incorporated by reference to Exhibit 10.14 to the 1990 Form 10-K).
10.22	Amendment Number 2, dated May 31, 1996, (incorporated by reference to Exhibit 10.41 to the 1996 Second Quarter Form 10-Q), to Lease Agreement for the Registrant's offices at 555 River Oaks Parkway, San Jose, California, by and between ROPA and the Registrant (incorporated by reference to Exhibit 10.14 to the 1990 Form 10-K).
10.23	Amendment Number 1, dated May 31, 1996, (incorporated by reference to Exhibit 10.42 to the 1996 Second Quarter Form 10-Q), to Lease Agreement for the Registrant's offices at 575 River Oaks Parkway, San Jose, California, by and between ROPA and the Registrant (incorporated by reference to Exhibit 10.16 to the 1990 Form 10-K).

<u>Exhibit Number</u>	<u>Exhibit Title</u>
10.24	Amendment Number 2, dated May 31, 1996, (incorporated by reference to Exhibit 10.43 to the 1996 Second Quarter Form 10-Q), to Lease Agreement for the Registrant's offices at 575 River Oaks Parkway, San Jose, California, by and between ROPA and the Registrant (incorporated by reference to Exhibit 10.16 to the 1990 Form 10-K).
10.25	Amendment Number 1, dated May 31, 1996, (incorporated by reference to Exhibit 10.44 to the 1996 Second Quarter Form 10-Q), to Lease Agreement for the Registrant's offices at 535 and 545 River Oaks Parkway, San Jose, California, by and between ROPA and the Registrant (incorporated by reference to Exhibit 10.17 to the 1990 Form 10-K).
10.26	Amendment Number 2, dated May 31, 1996, (incorporated by reference to Exhibit 10.45 to the 1996 Second Quarter Form 10-Q), to Lease Agreement for the Registrant's offices at 535 and 545 River Oaks Parkway, San Jose, California, by and between ROPA and the Registrant (incorporated by reference to Exhibit 10.17 to the 1990 Form 10-K).
10.27	Distribution Agreement, dated April 28, 1997, among Cadence Design Systems (Ireland) Ltd., Cadence Design Systems K.K., and Cadence Design Systems (Japan) B.V. (incorporated by reference to Exhibit 10.48 to the Registrant's Form 10-Q for the second quarter ended June 28, 1997).
10.28	CCT 1993 Equity Incentive Plan, Form of Equity Incentive Plan Stock Option Agreement, Form of Exercise of Equity Incentive Plan Stock Option and Form of Equity Incentive Plan Stock Option Exercise Agreement (incorporated by reference to Exhibit 10.49 to the Registrant's Form S-4 Registration Statement (No. 333-16779) filed on November 27, 1996).
10.29	Employment Agreement, dated October 19, 1997, between the Registrant and John R. Harding (incorporated by reference to Exhibit 10.41 to the Registrant's Form 10-K for the Fiscal year ended January 3, 1998 (the 1997 Form 10-K)).
10.30	Indemnity Agreement, dated October 19, 1997, by and between the Registrant and John R. Harding (incorporated by reference to Exhibit 10.44 to the 1997 Form 10-K).
10.31	Letter Agreement, dated December 5, 1997, between the Registrant and Joseph B. Costello (incorporated by reference to Exhibit 10.42 to the 1997 Form 10-K).
10.32	Form of Executive Severance Agreement (incorporated by reference to Exhibit 10.43 to the 1997 Form 10-K).
10.33	Revolving Credit Agreement, dated September 30, 1998, by and between ABN-AMRO Bank and the Registrant (incorporated by reference to Exhibit 10.45 from the Registrant's Form 10-Q for the third quarter ended October 3, 1998 (the 1998 Third Quarter Form 10-Q)).
10.34	Amendment, dated October 16, 1998, to the Revolving Credit Agreement, by and between ABN-AMRO Bank and the Registrant (incorporated by reference to Exhibit 10.46 from the 1998 Third Quarter Form 10-Q).
10.35	Agreement and Plan of Reorganization, dated September 3, 1998, by and among the Registrant, Ambit Design Systems, Inc., and Adirondack Transaction Corp. (incorporated by reference to Exhibit 2.01 to the Registrant's Current Report on Form 8-K originally filed on September 30, 1998).
10.36	Consulting Agreement, dated March 8, 1999, between the Registrant and George M. Scalise.
10.37	Executive Termination and Release Agreement dated May 24, 1999, between Cadence and John R. Harding (incorporated by reference to Exhibit 10.48 from the Registrant's Form 10-Q for the second quarter ended July 3, 1999 (the 1999 Second Quarter Form 10-Q)).



<u>Exhibit Number</u>	<u>Exhibit Title</u>
10.38	The Registrant's 1995 Directors Stock Option Plan, as amended May 5, 1999 (incorporated by reference to Exhibit 10.49 from the 1999 Second Quarter Form 10-Q).
10.39	The Registrant's 1990 Employee Stock Purchase Plan, as amended May 5, 1999 (incorporated by reference to Exhibit 10.50 from the 1999 Second Quarter Form 10-Q).
10.40	Employment Agreement, dated September 16, 1999, between the Registrant and H. Raymond Bingham (incorporated by reference to Exhibit 10.51 from the Registrant's Form 10-Q for the third quarter ended October 2, 1999 (the 1999 Third Quarter Form 10-Q)).
10.41	Consulting Agreement, dated July 1999, between the Registrant and Alberto Sangiovanni-Vincentelli (incorporated by reference to Exhibit 10.52 from the 1999 Third Quarter Form 10-Q).
10.42	Amendment, dated September 27, 1999, to the Revolving Credit Agreement, by and between ABN-AMRO Bank and the Registrant (incorporated by reference to Exhibit 10.53 from the 1999 Third Quarter Form 10-Q).
10.43	Amendment, dated November 3, 1999, to the Revolving Credit Agreement, by and between ABN-AMRO Bank and the Registrant (incorporated by reference to Exhibit 10.54 from the 1999 Third Quarter Form 10-Q).
10.44	Design Acceleration, Inc. 1994 Stock Option Plan (incorporated by reference to Exhibit 99 to the Registrant's Form S-8 Registration Statement (No. 333-71717) originally filed on February 3, 1999).
10.45	Quickturn Design Systems, Inc. 1988 Stock Option Plan, as amended, (incorporated by reference to Exhibit 99.1 to the Registrant's Form S-8 Registration Statement (No. 333-69589) filed on June 7, 1999).
10.46	Pi Design Systems, Inc. 1990 Stock Option Plan, as amended, (incorporated by reference to Exhibit 99.2 to the Registrant's Form S-8 Registration Statement (No. 333-69589) filed on June 7, 1999).
10.47	Quickturn Design Systems, Inc. 1992 Key Executive Stock Option Plan, as amended, (incorporated by reference to Exhibit 99.3 to the Registrant's Form S-8 Registration Statement (No. 333-69589) filed on June 7, 1999).
10.48	Quickturn Design Systems, Inc. 1993 Employee Qualified Stock Purchase Plan, as amended, (incorporated by reference to Exhibit 99.4 to the Registrant's Form S-8 Registration Statement (No. 333-69589) filed on June 7, 1999).
10.49	Quickturn Design Systems, Inc. 1994 Outside Director Stock Option Plan (incorporated by reference to Exhibit 99.7 to the Registrant's Form S-8 Registration Statement (No. 333-69589) filed on June 7, 1999).
10.50	Quickturn Design Systems, Inc. 1996 Supplemental Stock Plan, as amended, (incorporated by reference to Exhibit 99.5 to the Registrant's Form S-8 Registration Statement (No. 333-69589) filed on June 7, 1999).
10.51	Quickturn Design Systems, Inc. 1997 Stock Option Plan, as amended, (incorporated by reference to Exhibit 99.6 to the Registrant's Form S-8 Registration Statement (No. 333-69589) filed on June 7, 1999).
10.52	SpeedSim, Inc. 1995 Incentive and Nonqualified Stock Option Plan (incorporated by reference to Exhibit 99.8 to the Registrant's Form S-8 Registration Statement (No. 333-69589) filed on June 7, 1999).
10.53	OrCAD, Inc. 1991 Non-Qualified Stock Option Plan (incorporated by reference to Exhibit 99.1 to the Registrant's Form S-8 Registration Statement (No. 333-85591) filed on August 19, 1999).



<u>Exhibit Number</u>	<u>Exhibit Title</u>
10.54	OrCAD, Inc. 1995 Stock Option Plan (incorporated by reference to Exhibit 99.2 to the Registrant's Form S-8 Registration Statement (No. 333-85591) filed on August 19, 1999).
10.55	OrCAD, Inc. Amended 1995 Stock Incentive Plan (incorporated by reference to Exhibit 99.3 to the Registrant's Form S-8 Registration Statement (No. 333-85591) filed on August 19, 1999).
10.56	Form of Indemnity Agreement between the Registrant and Key Executives and Board of Directors of the Registrant.
10.57	Form of Executive Retention Agreement between the Registrant and Key Executives of the Registrant.
10.58	Diablo Research Company LLC 1997 Stock Option Plan (incorporated by reference to Exhibit 99.1 to the Registrant's Form S-8 Registration Statement (No. 333-93609) filed on December 24, 1999).
10.59	Diablo Research Company LLC 1999 Stock Option Plan (incorporated by reference to Exhibit 99.2 to the Registrant's Form S-8 Registration Statement (No. 333-93609) filed on December 24, 1999).
10.60	The Registrant's 2000 Non-Statutory Equity Incentive Plan (incorporated by reference to Exhibit 99.1 to the Registrant's Form S-8 Registration Statement filed on March 27, 2000).
21.01	Subsidiaries of the Registrant.
23.01	Consent of Arthur Andersen LLP.
23.02	Consent of PricewaterhouseCoopers LLP.
27.01	Financial data schedule for the year ended January 1, 2000.
27.02	Financial data schedule for the periods ended January 3, 1998, January 2, 1999, April 4, 1998, July 4, 1998, and October 3, 1998.
27.03	Financial data schedule for the period ended April 3, 1999.

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

On December 10, 1998 and as amended on December 22, 1998, January 6, 1999, May 20, 1999, and June 15, 1999, the Registrant filed a Current Report on Form 8-K reporting Cadence's agreement to acquire Quickturn Design Systems, Inc., a Delaware corporation, and amendments to this agreement.

On May 6, 1999, the Registrant filed a Current Report on Form 8-K reporting Cadence's press release announcing its first quarter 1999 results and announcing the appointment of H. Raymond Bingham to the position of President and Chief Executive Officer.

On May 26, 1999 and as amended on June 15, 1999, the Registrant filed a Current Report on Form 8-K reporting the completion of Cadence's agreement to acquire Quickturn Design Systems, Inc., a Delaware corporation.

(c) *Exhibits:*

Cadence hereby files as part of this Form 10-K the Exhibits listed in Item 14. (a) 3 above.

(d) *Financial Statement Schedule:*

See Item 14. (a) 2 of this Form 10-K.

## REPORT OF INDEPENDENT PUBLIC ACCOUNTANTS

To the Stockholders and Board of Directors of Cadence Design Systems, Inc.:

We have audited the accompanying consolidated balance sheets of Cadence Design Systems, Inc. (a Delaware corporation) and subsidiaries as of January 1, 2000 and January 2, 1999, and the related consolidated statements of operations, stockholders' equity, and cash flows for each of the three years in the period ended January 1, 2000. These financial statements and the schedule referred to below are the responsibility of Cadence's management. Our responsibility is to express an opinion on these financial statements and schedule based on our audits. We did not audit the financial statements of Quickturn Design Systems, Inc., for the years ended December 31, 1998 and 1997, a company acquired during 1999 in a transaction accounted for as a pooling of interests, as discussed in Acquisitions in the Notes to the Consolidated Financial Statements. Such statements are included in the consolidated financial statements of Cadence Design Systems, Inc. and reflect total revenues of eight percent and eleven percent of the related consolidated totals for the years ended January 2, 1999 and January 3, 1998. These statements were audited by other auditors whose report has been furnished to us and our opinion, insofar as it relates to amounts included for Quickturn Design Systems, Inc., is based solely upon the report of the other auditors.

We conducted our audits in accordance with generally accepted auditing standards. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the consolidated 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 and the report of other auditors provide a reasonable basis for our opinion.

In our opinion, based on our audits and the report of the other auditors, the financial statements referred to above present fairly, in all material respects, the financial position of Cadence Design Systems, Inc. and subsidiaries as of January 1, 2000 and January 2, 1999, and the results of their operations and their cash flows for each of the three years in the period ended January 1, 2000, in conformity with generally accepted accounting principles.

As explained in Cumulative Change in Accounting Method in the Notes to Consolidated Financial Statements, effective November 1997, Cadence changed its method of accounting for costs incurred for business process reengineering projects.

Our audits were made for the purpose of forming an opinion on the basic financial statements taken as a whole. The schedule listed in Item 14. (a) 2. is presented for purposes of complying with the Securities and Exchange Commission's rules and is not part of the basic financial statements. This schedule has been subjected to the auditing procedures applied in the audit of the basic financial statements and, in our opinion, fairly states in all material respects the financial data required to be set forth therein in relation to the basic financial statements taken as a whole.

/s/ ARTHUR ANDERSEN LLP

ARTHUR ANDERSEN LLP

San Jose, California

January 21, 2000

(Except for the matters discussed in  
Subsequent Events, as to which the  
date is February 25, 2000)

## REPORT OF PRICEWATERHOUSECOOPERS LLP, INDEPENDENT ACCOUNTANTS

To the Board of Directors and Stockholders  
of Quickturn Design Systems, Inc.:

In our opinion, the consolidated balance sheet as of December 31, 1998 and the related consolidated statements of operations, comprehensive income (loss), stockholders' equity and cash flows for each of the two years in the period ended December 31, 1998 of Quickturn Design Systems, Inc. and its subsidiaries (not presented separately herein) present fairly, in all material respects, the financial position, results of operations and cash flows of Quickturn Design Systems, Inc. and its subsidiaries at December 31, 1998 and for each of the two years in the period ended December 31, 1998, in conformity with generally accepted accounting principles. These financial statements are the responsibility of the Company's management; our responsibility is to express an opinion on these financial statements based on our audits. We conducted our audits of these statements in accordance with generally accepted auditing standards, which 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, assessing the accounting principles used and significant estimates made by management, and evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for the opinion expressed above. We have not audited the consolidated financial statements of Quickturn Design Systems, Inc. for any period subsequent to December 31, 1998.

/s/ PricewaterhouseCoopers LLP

San Jose, California  
January 15, 1999

**CADENCE DESIGN SYSTEMS, INC.**  
**CONSOLIDATED BALANCE SHEETS**  
**January 1, 2000 and January 2, 1999**  
(In thousands, except per share amounts)

	<b>1999</b>	<b>1998</b>
<b>ASSETS</b>		
Current Assets:		
Cash and cash equivalents . . . . .	\$ 111,401	\$ 209,074
Short-term investments . . . . .	7,357	40,403
Receivables, net . . . . .	248,034	305,143
Inventories, net . . . . .	19,872	9,903
Prepaid expenses and other . . . . .	93,248	101,629
Total current assets . . . . .	479,912	666,152
Property, plant, and equipment, net . . . . .	330,409	274,208
Software development costs, net . . . . .	10,692	13,045
Acquired intangibles, net . . . . .	402,154	286,088
Installment contract receivables . . . . .	84,160	100,529
Other assets . . . . .	152,332	141,894
	<b>\$1,459,659</b>	<b>\$1,481,916</b>
<b>LIABILITIES AND STOCKHOLDERS' EQUITY</b>		
Current Liabilities:		
Notes payable and current portion of capital leases . . . . .	\$ 3,924	\$ 1,273
Accounts payable and accrued liabilities . . . . .	265,518	242,524
Income taxes payable . . . . .	—	21,241
Deferred revenue . . . . .	152,116	106,786
Total current liabilities . . . . .	421,558	371,824
Long-Term Liabilities:		
Long-term debt and capital leases . . . . .	25,024	136,380
Minority interest liability . . . . .	41	377
Other long-term liabilities . . . . .	26,887	25,505
Total long-term liabilities . . . . .	51,952	162,262
Commitments and Contingencies		
Stockholders' Equity:		
Preferred stock—\$0.01 par value; authorized 400 shares in 1999 and 1998, none issued or outstanding . . . . .	—	—
Common stock and capital in excess of \$0.01 par value		
Authorized: 600,000 shares		
Issued: 253,768 shares in 1999 and 247,371 in 1998		
Outstanding: 243,328 shares in 1999 and 237,212 in 1998 . . . . .	857,960	817,978
Treasury stock at cost: 10,440 shares in 1999 and 10,159 in 1998 . . . . .	(240,748)	(219,417)
Retained earnings . . . . .	344,247	358,322
Accumulated other comprehensive income (loss) . . . . .	24,690	(9,053)
Total stockholders' equity . . . . .	986,149	947,830
	<b>\$1,459,659</b>	<b>\$1,481,916</b>

The accompanying notes are an integral part of these consolidated financial statements.

**CADENCE DESIGN SYSTEMS, INC.**  
**CONSOLIDATED STATEMENTS OF OPERATIONS**  
**For the three fiscal years ended January 1, 2000**  
**(In thousands, except per share amounts)**

	<u>1999</u>	<u>1998</u>	<u>1997</u>
Revenue:			
Product . . . . .	\$ 505,459	\$ 760,441	\$ 618,340
Services . . . . .	294,916	265,211	168,789
Maintenance . . . . .	292,928	294,528	249,644
Total revenue . . . . .	<u>1,093,303</u>	<u>1,320,180</u>	<u>1,036,773</u>
Costs and Expenses:			
Cost of product . . . . .	79,504	77,513	74,181
Cost of services . . . . .	191,760	188,793	117,407
Cost of maintenance . . . . .	53,579	52,386	34,038
Amortization of acquired intangibles . . . . .	61,788	18,472	2,460
Marketing and sales . . . . .	354,205	340,295	299,829
Research and development . . . . .	219,181	202,810	167,245
General and administrative . . . . .	86,735	86,828	69,897
Unusual items . . . . .	59,301	263,595	48,010
Total costs and expenses . . . . .	<u>1,106,053</u>	<u>1,230,692</u>	<u>813,067</u>
Income (loss) from operations . . . . .	(12,750)	89,488	223,706
Other income, net . . . . .	1,370	10,558	28,390
Income (loss) before provision for income taxes and cumulative effect of change in accounting method . . . . .	(11,380)	100,046	252,096
Provision for income taxes . . . . .	2,695	74,922	74,698
Income (loss) before cumulative effect of change in accounting method . . . . .	(14,075)	25,124	177,398
Cumulative effect of change in accounting method, net of taxes of \$5,261 in 1997 . . . . .	—	—	12,276
Net income (loss) . . . . .	<u>\$ (14,075)</u>	<u>\$ 25,124</u>	<u>\$ 165,122</u>
Basic net income (loss) per share:			
Net income (loss) before cumulative effect of change in accounting method . . . . .	<u>\$ (0.06)</u>	<u>\$ 0.11</u>	<u>\$ 0.82</u>
Net income (loss) . . . . .	<u>\$ (0.06)</u>	<u>\$ 0.11</u>	<u>\$ 0.76</u>
Diluted net income (loss) per share:			
Net income (loss) before cumulative effect of change in accounting method . . . . .	<u>\$ (0.06)</u>	<u>\$ 0.10</u>	<u>\$ 0.73</u>
Net income (loss) . . . . .	<u>\$ (0.06)</u>	<u>\$ 0.10</u>	<u>\$ 0.68</u>
Weighted average common shares outstanding . . . . .	<u>242,037</u>	<u>234,605</u>	<u>216,650</u>
Weighted average common shares outstanding—assuming full dilution . . . . .	<u>242,037</u>	<u>257,862</u>	<u>243,341</u>

The accompanying notes are an integral part of these consolidated financial statements.

**CADENCE DESIGN SYSTEMS, INC.**  
**CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY**  
**For the three fiscal years ended January 1, 2000**  
**(In thousands)**

	Compre- hensive Income (Loss)	Common Stock		Treasury Stock		Retained Earnings	Accumulated Other Compre- hensive Income (Loss)
		Shares	Par Value and Capital In Excess of Par	Shares	Amount		
BALANCE, DECEMBER 28, 1996 . . . . .		279,464	\$711,469	(62,945)	\$(325,637)	\$168,076	\$(1,825)
Purchase of treasury stock . . . . .		—	(720)	(4,592)	(104,526)	—	—
Issuance of common and treasury stock		16,188	70,414	1,167	7,308	—	—
Tax benefits from employee stock transactions . . . . .		—	124,040	—	—	—	—
Retirement of treasury stock in connection with the CCT acquisition .		(22,778)	(32,429)	22,778	32,429	—	—
Common stock and warrants issued in connection with an acquisition . . . . .		636	9,500	—	—	—	—
Treasury stock issued in connection with acquisitions . . . . .		—	—	128	1,755	—	—
Unrealized gain on investment in subsidiary . . . . .		—	2,304	—	—	—	—
Use of treasury stock for common stock dividend . . . . .		(36,725)	(291,636)	36,725	291,386	—	—
Amortization of deferred compensation		—	227	—	—	—	—
Net income . . . . .	\$165,122	—	—	—	—	165,122	—
Unrealized holding gain on marketable securities . . . . .	78	—	—	—	—	—	78
Translation loss . . . . .	(5,972)	—	—	—	—	—	(5,972)
		<u>\$159,228</u>					
BALANCE, JANUARY 3, 1998 . . . . .		236,785	593,169	(6,739)	(97,285)	333,198	(7,719)
Purchase of treasury stock . . . . .		—	—	(6,479)	(172,171)	—	—
Issuance of common and treasury stock		10,586	85,147	1,804	30,400	—	—
Tax benefits from employee stock transactions . . . . .		—	109,713	—	—	—	—
Treasury stock issued in connection with acquisitions . . . . .		—	26,957	1,155	19,639	—	—
Treasury stock issued in connection with warrants exercised . . . . .		—	322	100	—	—	—
Amortization of deferred compensation		—	176	—	—	—	—
Equity adjustments related to acquisitions . . . . .		—	2,494	—	—	—	—
Net income . . . . .	\$ 25,124	—	—	—	—	25,124	—
Unrealized holding gain on marketable securities . . . . .	37	—	—	—	—	—	37
Translation loss . . . . .	(1,371)	—	—	—	—	—	(1,371)
		<u>\$ 23,790</u>					
BALANCE, JANUARY 2, 1999 . . . . .		247,371	817,978	(10,159)	(219,417)	358,322	(9,053)
Purchase of treasury stock . . . . .		—	(2)	(4,585)	(115,832)	—	—
Issuance of common and treasury stock		5,126	(2,562)	3,654	80,466	—	—
Issuance of common stock in connection with warrants exercised . .		1,271	13,340	—	—	—	—
Tax benefits from employee stock transactions . . . . .		—	10,305	—	—	—	—
Treasury stock issued in connection with acquisitions . . . . .		—	2,089	650	14,035	—	—
Amortization of deferred compensation		—	130	—	—	—	—
Equity adjustments related to acquisitions . . . . .		—	16,682	—	—	—	—
Net loss . . . . .	\$(14,075)	—	—	—	—	(14,075)	—
Unrealized holding gain on marketable securities . . . . .	36,249	—	—	—	—	—	36,249
Translation loss . . . . .	(2,506)	—	—	—	—	—	(2,506)
		<u>\$ 19,668</u>					
BALANCE, JANUARY 1, 2000 . . . . .		<u>253,768</u>	<u>\$857,960</u>	<u>(10,440)</u>	<u>\$(240,748)</u>	<u>\$344,247</u>	<u>\$24,690</u>

The accompanying notes are an integral part of these consolidated financial statements.

**CADENCE DESIGN SYSTEMS, INC.**  
**CONSOLIDATED STATEMENTS OF CASH FLOWS**  
**For the three fiscal years ended January 1, 2000**  
**(In thousands)**

	<u>1999</u>	<u>1998</u>	<u>1997</u>
Cash and Cash Equivalents at Beginning of Year . . . . .	\$209,074	\$221,030	\$314,422
Cash Flows from Operating Activities:			
Net income (loss) . . . . .	(14,075)	25,124	165,122
Adjustments to reconcile net income (loss) to cash provided by operating activities:			
Depreciation and amortization . . . . .	163,896	109,105	65,646
Asset impairment and write-off of equipment and non-current assets . . . . .	20,973	357	3,065
Write-off of acquired in-process technology and charges related to Arkos acquisition . . . . .	20,700	194,100	14,859
Provisions for losses on trade accounts receivable . . . . .	9,070	7,687	12,428
Non-cash restructuring charges . . . . .	5,556	13,321	2,347
Write-down of venture capital partnership investments . . . . .	5,500	2,000	2,000
Changes in other long-term liabilities and minority interest . . . . .	1,201	(1,076)	2,691
Gain on sale of stock of subsidiary . . . . .	—	—	(13,061)
Write-off of business process re-engineering costs . . . . .	—	—	17,537
Write-down of inventories . . . . .	—	3,435	6,153
Equity (income) loss from investments . . . . .	(124)	889	(1,934)
Deferred income taxes . . . . .	(1,431)	24,725	(73,584)
Changes in operating assets and liabilities, net of effect of acquired and disposed businesses:			
Receivables . . . . .	(153,662)	(191,641)	(43,180)
Inventories . . . . .	(9,969)	(2,439)	(6,481)
Prepaid expenses and other . . . . .	12,462	21,410	(31,130)
Installment contract receivables . . . . .	57,008	(127,284)	(105,711)
Accounts payable and accrued liabilities . . . . .	(4,139)	34,913	55,102
Income taxes payable . . . . .	(23,438)	123,452	126,559
Deferred revenue . . . . .	37,694	(10,925)	(3,804)
Net cash provided by operating activities . . . . .	<u>127,222</u>	<u>227,153</u>	<u>194,624</u>
Cash Flows from Investing Activities:			
Maturities of short-term investments—held-to-maturity . . . . .	25,990	60,367	37,039
Purchases of short-term investments—held-to-maturity . . . . .	(43)	(35,872)	(82,204)
Maturities and sales of short-term investments—available-for-sale . . . . .	26,349	564,136	144,343
Purchases of short-term investments—available-for-sale . . . . .	(15)	(513,241)	(211,745)
Purchases of property, plant, and equipment . . . . .	(110,444)	(121,395)	(99,957)
Capitalization of software development costs . . . . .	(25,684)	(21,695)	(15,011)
Increase in acquired intangibles and other assets . . . . .	(28,490)	(82,856)	(2,971)
Net proceeds from sale of subsidiary stock . . . . .	—	—	18,582
Investment in venture capital partnership and equity investments . . . . .	(9,144)	(13,037)	(11,887)
Cash effect of business acquisitions and dispositions . . . . .	(133,055)	(352,326)	(2,891)
Sale of put warrants . . . . .	3,609	14,812	19,016
Purchases of call options . . . . .	(3,609)	(14,812)	(19,016)
Net cash used for investing activities . . . . .	<u>(254,536)</u>	<u>(515,919)</u>	<u>(226,702)</u>
Cash Flows from Financing Activities:			
Proceeds from long-term debt . . . . .	267,069	150,000	53
Principal payments on long-term debt and capital leases . . . . .	(378,320)	(17,757)	(25,328)
Proceeds from issuance of common stock . . . . .	91,244	104,763	76,957
Purchases of treasury stock . . . . .	(115,832)	(170,830)	(105,118)
Proceeds from transfer of financial assets in exchange for cash . . . . .	167,680	211,919	—
Net cash provided by (used for) financing activities . . . . .	<u>31,841</u>	<u>278,095</u>	<u>(53,436)</u>
Effect of exchange rate changes on cash . . . . .	(2,200)	(1,285)	(7,878)
Decrease in cash and cash equivalents . . . . .	<u>(97,673)</u>	<u>(11,956)</u>	<u>(93,392)</u>
Cash and Cash Equivalents at End of Year . . . . .	<u>\$111,401</u>	<u>\$209,074</u>	<u>\$221,030</u>

The accompanying notes are an integral part of these consolidated financial statements.



**CADENCE DESIGN SYSTEMS, INC.**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**  
**January 1, 2000**

**CADENCE**

Cadence Design Systems, Inc., or Cadence, provides comprehensive software and other technology and offers design and methodology services for the product development requirements of the world's leading electronics companies. Cadence licenses its leading-edge electronic design automation, or EDA, software and hardware technology and provides a range of services to companies throughout the world to help its customers optimize their product development processes. Cadence is a supplier of end-to-end products and services, which are used by companies to design and develop complex chips and electronic systems including semiconductors, computer systems and peripherals, telecommunications and networking equipment, mobile and wireless devices, automotive electronics, consumer products, and other advanced electronics.

**SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES**

**Principles of Consolidation and Basis of Presentation**

The consolidated financial statements include the accounts of Cadence and its subsidiaries after elimination of intercompany accounts and transactions. Investments in companies in which ownership interests range from 20% to 50% are accounted for using the equity method of accounting. Cadence has one investment with ownership interest less than 20% which is accounted for using the equity method of accounting.

Cadence's fiscal year end is the Saturday closest to December 31. Certain prior year consolidated financial statement balances have been reclassified to conform to the 1999 presentation.

**Use of Estimates**

The preparation of consolidated financial statements in conformity with generally accepted accounting principles requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the consolidated financial statements and the reported amounts of revenue and expenses during the reporting period. Actual results could differ from those estimates.

**Foreign Currency Translation**

Assets and liabilities of foreign subsidiaries, where the functional currency is the local currency, are translated using exchange rates in effect at the end of the period and revenue and costs are translated using average exchange rates for the period. Gains and losses on the translation into U.S. dollars of amounts denominated in foreign currencies are included in net income for those operations whose functional currency is the U.S. dollar, and as a separate component of stockholders' equity for those operations whose functional currency is the local currency.

**Derivative Financial Instruments**

Cadence enters into foreign currency forward exchange contracts and purchases foreign currency put options with financial institutions primarily to protect against currency exchange risks associated with existing assets and liabilities and probable but not firmly committed transactions, respectively. Forward contracts are not accounted for as hedges and, therefore, the unrealized gains and losses are recognized in other income, net, in advance of the actual foreign currency cash flows with the fair value of these forward contracts being recorded in accrued liabilities.

**CADENCE DESIGN SYSTEMS, INC.**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

Cadence purchases put options to hedge the currency exchange risks associated with probable but not firmly committed transactions. Probable but not firmly committed transactions consist of revenue from Cadence's products and maintenance contracts in a currency other than the functional currency. These transactions are made through Cadence's subsidiaries in Ireland and Japan. The premium costs of the put options are recorded in prepaid expenses and other current assets while the gains and losses are deferred and recognized in income in the same period as the hedged transaction. Gains and losses on accounting hedges realized before the settlement date of the related hedged transaction are also generally deferred and recognized in income in the same period as the hedged transaction. Cadence does not use forward contracts and put options for trading purposes. Cadence's ultimate realized gain or loss with respect to currency fluctuations will depend on the currency exchange rates and other factors in effect as the forward contracts and put options mature.

**Revenue Recognition**

Product revenue consists principally of revenue earned under software license agreements and is generally recognized upon shipment of the software if collection of the resulting receivable is probable, the fee is fixed or determinable, and vendor-specific objective evidence exists to allocate the total fee to all delivered and undelivered elements of the arrangement. Revenue associated with software products under subscription licenses is recognized ratably over the license period because the agreements allow customers to exchange licensed products for unspecified future technology. Installment contract receivables result from customer contracts with Cadence's top-rated credit customers. Cadence uses installment contracts as a standard business practice and has a history of successfully collecting under the original payment terms without making concessions on payments, products, or services. Emulation hardware product revenue is recognized upon shipment.

Services revenue consists primarily of revenue received for performing methodology and design services. Fixed-price methodology and design service contracts are accounted for using contract accounting, which is generally the percentage-of-completion method versus the completed-contract method, and time and materials contracts are accounted for on a monthly basis as work is performed. In addition, for small fixed-price-projects, such as training classes and small, standard methodology service engagements of approximately \$10,000 in size, revenue is recognized when the work is completed.

Maintenance revenue consists of fees for providing technical support for software products and software product updates and is recognized ratably over the term of the support agreement.

**Comprehensive Income (Loss)**

Comprehensive income (loss) includes foreign currency translation gains and losses and other unrealized gains and losses that have been previously excluded from net income (loss) and reflected instead in equity. Cadence has reported the components of comprehensive income (loss) on its consolidated statements of stockholders' equity.

**Net Income (Loss) Per Share**

Basic net income (loss) per share is calculated by dividing net income (loss) by the weighted average shares of common stock outstanding during the year, and for diluted net income per share, net income is divided by the weighted average shares of common stock outstanding and potential common shares outstanding during the year. Potential common shares outstanding included in the dilution calculation consist of dilutive shares issuable upon the exercise of outstanding common stock options, warrants, contingent issuances of common stock, and put warrants computed using the treasury stock method. For

**CADENCE DESIGN SYSTEMS, INC.**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

the year in which Cadence had a loss, potential common shares outstanding are excluded from the computation of diluted net loss per share as their effects are anti-dilutive.

**Cash, Cash Equivalents and Short-Term Investments**

Cadence considers all highly liquid debt instruments, including commercial paper, Euro time deposits, repurchase agreements, and certificates of deposit with an original maturity of three months or less to be cash equivalents. Investments with original maturities greater than three months and less than one year are classified as short-term investments. Investments with original maturities greater than one year are classified as long-term investments.

Management determines the appropriate classification of its investments in debt and marketable equity securities at the time of purchase. Debt securities classified as held-to-maturity are stated at amortized cost based on Cadence's positive intent to hold such securities until maturity. The cost of securities sold is determined using the specific identification method when computing realized gains and losses. Securities classified as available-for-sale are stated at fair value, with the unrealized gains and losses reported as a component of stockholders' equity until realized. The amortized cost of debt securities is adjusted for amortization of premiums and accretion of discounts to maturity. Such amortization and accretion is included in other income, net.

**Inventories**

Inventories are stated at the lower of cost (first-in, first-out method) or market. Cadence's inventories include high technology parts and components for complex computer systems that emulate the performance and operation of computer chips and electronic systems. These parts and components may be specialized in nature or subject to rapid technological obsolescence. While Cadence has programs to minimize the required inventories on hand and considers technological obsolescence when estimating required reserves to reduce recorded amounts to market values, it is reasonably possible that such estimates could change in the near term.

**Property, Plant, and Equipment**

Property, plant, and equipment is stated at cost. Depreciation and amortization are provided over the estimated useful lives, using the straight-line method, as follows:

Computer equipment and related software . . . . .	3-8 years
Buildings . . . . .	10-32 years
Leasehold and building improvements . . . . .	Shorter of the lease term or the estimated useful life
Furniture and fixtures . . . . .	3-5 years
Equipment . . . . .	3-5 years

**Software Development Costs and Acquired Intangibles**

Cadence capitalizes software development costs in compliance with SFAS No. 86, "Accounting for the Costs of Computer Software to be Sold, Leased, or Otherwise Marketed." Capitalization of software development costs begins upon the establishment of technological feasibility of the product. Technological feasibility is established at the completion of detail program design and testing. The establishment of technological feasibility and the ongoing assessment of the recoverability of these costs requires considerable judgment by management with respect to certain external factors including, but not limited to,

**CADENCE DESIGN SYSTEMS, INC.**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

anticipated future gross product revenue, estimated economic life, and changes in software and hardware technology. Amortization of capitalized software development costs begins when the products are available for general release to customers and is computed on a straight-line basis over the remaining estimated economic life of the product, which is generally three years.

Acquired intangibles represent purchase price in excess of acquired tangible assets and in-process technology in connection with business combinations accounted for as purchases and are amortized on a straight-line basis over the remaining estimated economic life of the underlying products and technologies (original lives assigned are one to seven years).

It is reasonably possible that the estimates of anticipated future gross revenue, the remaining estimated economic life of the products and technologies, or both, could differ from those used to assess the recoverability of these costs and result in a write-down of the carrying amount or a shortened life of both the software development costs and acquired intangibles in the near term.

**Long-lived Assets**

Cadence reviews long-lived assets, certain identifiable intangibles, and goodwill related to these assets for impairment in accordance with SFAS No. 121, "Accounting for the Impairment of Long-lived Assets and For Long-lived Assets to be Disposed Of."

For assets to be held and used, including acquired intangibles, Cadence initiates its review whenever events or changes in circumstances indicate that the carrying amount of a long-lived asset may not be recoverable. Recoverability of an asset is measured by comparison of its carrying amount to the future undiscounted cash flows that the asset is expected to generate. Any impairment to be recognized is measured by the amount by which the carrying amount of the asset exceeds its fair market value.

Assets to be disposed of and for which management has committed to a plan to dispose of the assets, whether through sale or abandonment, are reported at the lower of carrying amount or fair value less cost to sell.

**Concentrations of Credit Risk**

Financial instruments, including derivative financial instruments, that may potentially subject Cadence to concentrations of credit risk, consist principally of cash investments, short-term investments, long-term investments, accounts receivable, forward contracts and put options, and call options purchased in conjunction with Cadence's stock repurchase program. Cadence's investment policy primarily limits investments to short-term, low-risk instruments. Concentration of credit risk related to accounts receivable is limited, due to the varied customers comprising Cadence's customer base and their dispersion across geographies. Credit exposure related to the forward contracts and the call options is limited to the realized and unrealized gains on these contracts. All financial instruments are executed with financial institutions with strong credit ratings, which minimizes risk of loss due to nonpayment. Cadence has not experienced any losses due to credit impairment related to its financial instruments.

**Accrued Warranty**

Cadence provides an accrual for future warranty costs based on the historical relationship of revenue to warranty costs incurred.

**CADENCE DESIGN SYSTEMS, INC.**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

**New Accounting Standards**

In June 1998, the FASB issued SFAS No. 133, "Accounting for Derivative Instruments and Hedging Activities." SFAS No. 133 establishes accounting and reporting standards requiring that every derivative instrument be recorded in the balance sheet as either an asset or liability measured at its fair value. It requires that changes in the derivative's fair value be recognized currently in earnings unless specific hedge accounting criteria are met and that a company must formally document, designate, and assess the effectiveness of transactions that receive hedge accounting. In June 1999, SFAS No. 137, "Accounting for Derivative Instruments and Hedging Activities—Deferral of the Effective Date of FASB Statement No. 133," was issued. The statement defers the effective date of SFAS No. 133 until the first quarter of fiscal 2001. Cadence has not yet determined the effect SFAS No. 133 will have on its financial position, results of operations, or cash flows.

In December 1999, the Securities and Exchange Commission issued Staff Accounting Bulletin, or SAB, No. 101, "Revenue Recognition." SAB 101 provides guidance on the recognition, presentation, and disclosure of revenue in financial statements and is effective for the first quarter of Fiscal 2000. Cadence has not yet determined the effect SAB 101 will have on its financial position or results of operations.

**CADENCE DESIGN SYSTEMS, INC.**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

**BALANCE SHEET COMPONENTS**

A summary of balance sheet components follows:

	<u>1999</u>	<u>1998</u>
	<u>(In thousands)</u>	
Receivables:		
Accounts receivables . . . . .	\$ 201,951	\$ 196,822
Installment contract receivables—current . . . . .	90,671	131,310
Total receivables . . . . .	<u>292,622</u>	<u>328,132</u>
Less: Allowances . . . . .	<u>(44,588)</u>	<u>(22,989)</u>
Receivables, net . . . . .	<u>\$ 248,034</u>	<u>\$ 305,143</u>
Inventories:		
Raw materials . . . . .	\$ 19,033	\$ 8,798
Work in process . . . . .	839	1,105
Inventories, net . . . . .	<u>\$ 19,872</u>	<u>\$ 9,903</u>
Prepaid Expenses and Other:		
Prepaid expenses and other . . . . .	\$ 61,779	\$ 69,933
Deferred income taxes . . . . .	31,469	31,696
Prepaid expenses and other . . . . .	<u>\$ 93,248</u>	<u>\$ 101,629</u>
Property, Plant, and Equipment:		
Computer equipment and related software . . . . .	\$ 261,696	\$ 223,639
Buildings . . . . .	96,735	46,672
Land . . . . .	64,745	48,485
Leasehold and building improvements . . . . .	61,552	56,516
Furniture and fixtures . . . . .	57,488	48,689
Equipment . . . . .	43,978	41,290
Construction in progress . . . . .	16,761	22,264
Total cost . . . . .	<u>602,955</u>	<u>487,555</u>
Less: Accumulated depreciation and amortization . . . . .	<u>(272,546)</u>	<u>(213,347)</u>
Property, plant, and equipment, net . . . . .	<u>\$ 330,409</u>	<u>\$ 274,208</u>
Software Development Costs:		
Cost . . . . .	\$ 49,298	\$ 39,254
Less: Accumulated amortization . . . . .	<u>(38,606)</u>	<u>(26,209)</u>
Software development costs, net . . . . .	<u>\$ 10,692</u>	<u>\$ 13,045</u>
Acquired Intangibles:		
Goodwill and other intangibles . . . . .	\$ 454,805	\$ 283,287
Purchased software . . . . .	58,199	35,483
Less: Accumulated amortization . . . . .	<u>(110,850)</u>	<u>(32,682)</u>
Acquired intangibles, net . . . . .	<u>\$ 402,154</u>	<u>\$ 286,088</u>
Accounts Payable and Accrued Liabilities:		
Payroll and payroll related accruals . . . . .	\$ 129,174	\$ 125,303
Other accrued liabilities . . . . .	97,902	86,479
Accounts payable . . . . .	38,442	30,742
Accounts payable and accrued liabilities . . . . .	<u>\$ 265,518</u>	<u>\$ 242,524</u>

**CADENCE DESIGN SYSTEMS, INC.**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

**FINANCIAL INSTRUMENTS**

**Investments**

A summary of Cadence's held-to-maturity and available-for-sale investment portfolios follows:

	1999	1998
	(In thousands)	
Held-to-maturity:		
Foreign debt securities . . . . .	\$ 998	\$ 10,080
Corporate debt securities . . . . .	—	11,607
Repurchase agreements . . . . .	—	8,000
Commercial paper . . . . .	—	7,992
U.S. Government notes . . . . .	—	4,999
Total held-to-maturity . . . . .	998	42,678
Available-for-sale:		
Marketable equity securities . . . . .	40,504	—
Corporate debt securities . . . . .	7,163	24,441
Auction rate securities . . . . .	6,000	—
Repurchase agreements . . . . .	5,000	—
Foreign debt securities . . . . .	194	—
U.S. Government notes . . . . .	997	997
State and local municipality notes . . . . .	—	8,248
Total available-for-sale . . . . .	59,858	33,686
Total investment securities . . . . .	60,856	76,364
Less: Cash equivalents . . . . .	(11,000)	(15,992)
Total short-term and long-term investments . . . . .	\$ 49,856	\$ 60,372

The contractual maturities of these investments, excluding marketable equity securities, as of January 1, 2000, were as follows (in thousands):

Due in less than 1 year . . . . .	\$7,357
Due in 1 to 3 years . . . . .	1,995
	\$9,352

Excluding marketable equity securities, the carrying value of cash and cash equivalents, short-term investments, and long-term investments approximate fair value (based on quoted market prices) of such investments. Accordingly, the gross realized and unrealized gains and losses were immaterial for each of the two years. As of January 1, 2000, the unrealized gain on marketable equity securities was \$36.2 million.



**CADENCE DESIGN SYSTEMS, INC.**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

**Financing**

Cadence has entered into agreements whereby it may transfer qualifying accounts receivables, for which Cadence has recognized the related revenue, to certain financing institutions on a non-recourse basis. These transfers are recorded as sales and accounted for in accordance with SFAS No. 125, "Accounting for Transfers and Servicing of Financial Assets and Extinguishments of Liabilities." During the year ended January 1, 2000, Cadence transferred accounts receivable totaling \$167.7 million, which approximated fair value, to financing institutions on a non-recourse basis. Transfers of accounts receivable for cash are reported in Cadence's consolidated statements of cash flows as a financing activity.

**Derivative Financial Instruments**

The following table shows the notional principal and fair value of Cadence's derivative financial instruments as of January 1, 2000 and January 2, 1999:

	1999		1998	
	Notional Principal	Fair Value	Notional Principal	Fair Value
	(In thousands)			
Forward contracts . . . . .	\$73,135	\$(2,530)	\$44,886	\$(2,296)
Put options . . . . .	\$27,779	\$ 323	\$ —	\$ —

The estimates of fair value are based on applicable and commonly used pricing models using prevailing financial market information as of January 1, 2000, and January 2, 1999. As of January 1, 2000, and January 2, 1999, the credit risk associated with the forward contracts and put options was negligible. Although the table above reflects the notional principal and fair value amounts of Cadence's foreign exchange instruments, it does not reflect the gains or losses associated with the underlying exposures and underlying transactions. The amounts ultimately realized upon settlement of these financial instruments, together with the gains and losses on the underlying exposures, will depend on actual market conditions during the remaining life of the instruments.

**ACQUISITIONS**

**Diablo Research Company LLC**

In December 1999, Cadence acquired all of the outstanding stock of Diablo Research Company LLC and assumed all outstanding stock options. Diablo was a high-technology engineering services firm with expertise in wireless communication, global positioning satellite solutions, and data transfer and home automation markets. The total purchase price was \$39.9 million in cash, and the acquisition was accounted for as a purchase. In connection with the acquisition, Cadence acquired net intangibles of \$40.9 million. The results of operations of Diablo and the estimated fair value of the assets acquired and liabilities assumed are included in Cadence's consolidated financial statements from the date of acquisition. Intangibles arising from the Diablo acquisition are being amortized on a straight-line basis over five years.

**OrCAD, Inc.**

In August 1999, Cadence acquired OrCAD, Inc., a supplier of computer-aided engineering and computer-aided design software and services for the printed circuit board industry, for cash. Cadence acquired all of the outstanding stock of OrCAD and assumed all outstanding stock options. The purchase price was \$131.4 million and the acquisition was accounted for as a purchase. In connection with the acquisition, Cadence acquired net intangibles of \$94 million. The results of operations of OrCAD and the

**CADENCE DESIGN SYSTEMS, INC.**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

estimated fair value of the assets acquired and liabilities assumed are included in Cadence's consolidated financial statements from the date of acquisition. Intangibles arising from the OrCAD acquisition are being amortized on a straight-line basis over five years.

Management estimated that \$11.8 million of the purchase price for OrCAD represented acquired in-process technology that had not yet reached technological feasibility and had no alternative future use. Accordingly, this amount was immediately charged to expense in the consolidated statements of operations upon consummation of the acquisition. The value assigned to acquired in-process technology was determined by identifying research projects in areas for which technological feasibility had not been established. The value was determined by estimating the costs to develop the acquired in-process technology into commercially viable products, estimating the resulting net cash flows from such projects, and discounting the net cash flows back to their present value. The discount rate included a factor that took into account the uncertainty surrounding the successful development of the acquired in-process technology. If these projects are not successfully developed, future revenue and profitability of Cadence may be adversely affected. Additionally, the value of other intangible assets acquired may become impaired.

Comparative pro forma financial information has not been presented because the results of operations of Diablo and OrCAD were not material to Cadence's consolidated financial statements, either individually or in the aggregate.

**Quickturn Design Systems, Inc.**

In May 1999, Cadence completed its merger with Quickturn Design Systems, Inc. Quickturn designed, manufactured, sold, and supported hardware and software products that verified the design of computer chips and electronic systems. Cadence acquired all of the outstanding shares of Quickturn common stock in a tax-free, stock-for-stock transaction for approximately 24.6 million shares of Cadence common stock. The acquisition was accounted for as a pooling of interests. In addition, Cadence assumed all outstanding stock options and warrants of Quickturn. All prior period consolidated financial statements were restated as if the merger took place at the beginning of such periods, in accordance with required pooling of interests accounting and disclosures. Revenue and net income (loss) of the separate companies for the period and fiscal years preceding the acquisition were as follows:

	<u>Quarter Ended</u> <u>April 3, 1999</u>	<u>Year Ended</u> <u>January 2, 1999</u>	<u>Year Ended</u> <u>January 3, 1998</u>
	(In thousands)		
<b>Revenue:</b>			
Cadence, as previously reported . . . . .	\$305,234	\$1,216,070	\$ 926,369
Quickturn . . . . .	29,957	104,110	110,404
Combined . . . . .	<u>\$335,191</u>	<u>\$1,320,180</u>	<u>\$1,036,773</u>
<b>Net Income (Loss):</b>			
Cadence, as previously reported . . . . .	\$ 51,778	\$ 31,982	\$ 168,100
Quickturn . . . . .	1,084	(6,858)	(2,978)
Combined . . . . .	<u>\$ 52,862</u>	<u>\$ 25,124</u>	<u>\$ 165,122</u>

**Design Acceleration, Inc.**

In January 1999, Cadence acquired Design Acceleration, Inc., or DAI. DAI was a supplier of design verification technology used in system-on-a-chip design. Cadence acquired all of the outstanding stock of

**CADENCE DESIGN SYSTEMS, INC.**

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

DAI for approximately 0.6 million shares of Cadence common stock and \$2.9 million of cash. The total purchase price was \$25.7 million and the acquisition was accounted for as a purchase. In connection with the acquisition, Cadence acquired net intangibles of \$24.1 million. The results of operations of DAI and the estimated fair value of the assets acquired and liabilities assumed are included in Cadence's consolidated financial statements from the date of acquisition. Intangibles arising from the acquisition are being amortized on a straight-line basis over five years.

Management estimated that \$8.9 million of the purchase price for DAI represented acquired in-process technology that had not yet reached technological feasibility and had no alternative future use. Accordingly, this amount was immediately charged to expense in the consolidated statements of operations upon consummation of the acquisition. The value assigned to acquired in-process technology was determined by identifying research projects in areas for which technological feasibility had not been established. The value was determined by estimating the costs to develop the acquired in-process technology into commercially viable products, estimating the resulting net cash flows from such projects, and discounting the net cash flows back to their present value. The discount rate included a factor that took into account the uncertainty surrounding the successful development of the purchased in-process technology. If these projects are not successfully developed, future revenue, and profitability of Cadence may be adversely affected. Additionally, the value of other intangible assets acquired may become impaired. Comparative pro forma financial information has not been presented because the results of operations of DAI were not material to Cadence's consolidated financial statements.

**Ambit Design Systems, Inc.**

In September 1998, Cadence acquired all of the outstanding stock of Ambit Design Systems, Inc. for cash. The total purchase price was \$255 million and the acquisition was accounted for as a purchase. The results of operations of Ambit and the estimated fair value of the assets acquired and liabilities assumed are included in Cadence's consolidated financial statements from the date of acquisition. Intangibles arising from the acquisition are being amortized on a straight-line basis over seven years.

Management estimated that \$106.5 million of the purchase price represented acquired in-process technology that had not yet reached technological feasibility and had no alternative future use. Accordingly, this amount was immediately charged to expense in the consolidated statement of operations upon consummation of the acquisition. The value assigned to acquired in-process technology was determined by identifying research projects in areas for which technological feasibility had not been established. The value was determined by estimating the costs to develop the acquired in-process technology into commercially viable products, estimating the resulting net cash flows from such projects, and discounting the net cash flows back to their present value. The discount rate included a factor that took into account the uncertainty surrounding the successful development of the acquired in-process technology. If these projects are not successfully developed, future revenue and profitability of Cadence may be adversely affected. Additionally, the value of other intangible assets acquired may become impaired.

**CADENCE DESIGN SYSTEMS, INC.**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

In connection with the acquisition, net assets acquired were as follows:

	(In thousands)
Acquired intangibles, including in-process technology . . . . .	\$308,678
Property, plant, and equipment, net and other non-current assets . . . .	9,333
Cash, receivables, and other current assets . . . . .	8,349
Current liabilities assumed . . . . .	(13,605)
Deferred income taxes . . . . .	(57,765)
Net assets acquired . . . . .	<u>\$254,990</u>

The following table represents unaudited consolidated pro forma financial information as if Cadence and Ambit had been combined as of the beginning of the periods presented. The pro forma data are presented for illustrative purposes only and are not necessarily indicative of the combined financial position or results of operations of future periods or the results that actually would have resulted had Cadence and Ambit been a combined company during the specified periods. The pro forma results include the effects of the amortization of acquired intangible assets and adjustments to the income tax provision. The pro forma combined results exclude acquisition-related charges for acquired in-process technology related to Ambit.

	Fiscal Year Ended	
	January 2, 1999	January 3, 1998
	(In thousands, except per share amounts)	
Revenue . . . . .	<u>\$1,330,996</u>	<u>\$1,039,686</u>
Net income . . . . .	<u>\$ 112,772</u>	<u>\$ 140,610</u>
Net income per share:		
Basic . . . . .	<u>\$ 0.48</u>	<u>\$ 0.65</u>
Diluted . . . . .	<u>\$ 0.44</u>	<u>\$ 0.58</u>

**Bell Labs' Integrated Circuit Design Automation Group**

In September 1998, Cadence acquired Bell Labs' Integrated Circuit Design Automation Group of Lucent Technologies Inc., BLDA, for cash. The total purchase price was \$58.0 million and the acquisition was accounted for as a purchase. The results of operations of BLDA and the estimated fair value of the assets acquired and liabilities assumed are included in Cadence's consolidated financial statements from the date of acquisition. Intangibles arising from the acquisition are being amortized on a straight-line basis over five years.

Management estimated that \$30.3 million of the purchase price represented acquired in-process technology that had not yet reached technological feasibility and had no alternative future use. Accordingly, this amount was immediately charged to expense in the consolidated statements of operations upon consummation of the acquisition. The value assigned to acquired in-process technology was determined by identifying research projects in areas for which technological feasibility had not been established. The value was determined by estimating the costs to develop the acquired in-process technology into commercially viable products, estimating the resulting net cash flows from such projects and discounting the net cash flows back to their present value. The discount rate included a factor that took into account the

## CADENCE DESIGN SYSTEMS, INC.

### NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

uncertainty surrounding the successful development of the acquired in-process technology. If these projects are not successfully developed, future revenue, and profitability of Cadence may be adversely affected. Additionally, the value of other intangible assets acquired may become impaired.

#### **Excellent Design, Inc.**

In March 1998, Cadence acquired all of the outstanding stock of Excellent Design, Inc., EXD, for cash. The total purchase price was \$40.9 million and the acquisition was accounted for as a purchase. The results of operations of EXD and the estimated fair value of the assets acquired and liabilities assumed are included in Cadence's consolidated financial statements from the date of acquisition. Intangibles arising from the acquisition are being amortized on a straight-line basis over five years.

Management estimated that \$28.4 million of the purchase price represented acquired in-process technology that had not yet reached technological feasibility and had no alternative future use. Accordingly, this amount was immediately charged to expense in the consolidated statements of operations upon consummation of the acquisition. The value assigned to acquired in-process technology was determined by identifying research projects in areas for which technological feasibility had not been established. The value was determined by estimating the costs to develop the acquired in-process technology into commercially viable products, estimating the resulting net cash flows from such projects and discounting the net cash flows back to their present value. The discount rate included a factor that took into account the uncertainty surrounding the successful development of the acquired in-process technology. If these projects are not successfully developed, future revenue, and profitability of Cadence may be adversely affected. Additionally, the value of other intangible assets acquired may become impaired. In the fourth quarter of 1999, Cadence recorded asset impairment charges of \$13.3 million. See further discussion at "Asset Impairment."

#### **Symbionics Group Limited**

In February 1998, Cadence acquired all of the outstanding stock of Symbionics Group Limited for approximately 1 million shares of Cadence common stock and \$21.3 million of cash. The total purchase price was \$46.1 million and the acquisition was accounted for as a purchase. The results of operations of Symbionics and the estimated fair value of the assets acquired and liabilities assumed are included in Cadence's consolidated financial statements from the date of acquisition. Intangibles arising from the acquisition are being amortized on a straight-line basis over five years.

Management estimated that \$28.5 million of the purchase price represented acquired in-process technology that had not yet reached technological feasibility and had no alternative future use. Accordingly, this amount was immediately charged to expense in the consolidated statements of operations upon consummation of the acquisition. The value assigned to acquired in-process technology was determined by identifying research projects in areas for which technological feasibility had not been established. The value was determined by estimating the costs to develop the acquired in-process technology into commercially viable products, estimating the resulting net cash flows from such projects and discounting the net cash flows back to their present value. The discount rate included a factor that took into account the uncertainty surrounding the successful development of the acquired in-process technology. If these projects are not successfully developed, future revenue, and profitability of Cadence may be adversely affected. Additionally, the value of other intangible assets acquired may become impaired.

Comparative pro forma financial information has not been presented as the results of operations of BLDA, EXD, and Symbionics were not material to Cadence's consolidated financial statements, either individually or in the aggregate.

**CADENCE DESIGN SYSTEMS, INC.**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

**Advanced Microelectronics**

In October 1997, Cadence acquired certain assets and related business from the Advanced Microelectronics division of the Institute for Technology Development, referred to as Advanced Microelectronics, a non-profit corporation organized to conduct and transfer scientific research into usable high technology for commercial application. This division provided contract engineering services on a time-and-materials basis for the design and development of integrated circuits. The total purchase price was \$2.4 million and the acquisition was accounted for as a purchase. Accordingly, the results of operations of Advanced Microelectronics and the estimated fair value of the assets acquired and liabilities assumed are included in Cadence's consolidated financial statements from the date of acquisition. The excess of purchase price over net assets acquired was \$2.1 million, of which \$1.7 million related to the write-off of in-process technology that had not reached technological feasibility and, in management's opinion, had no probable alternative future use. Comparative pro forma financial information has not been presented as the results of operations of Advanced Microelectronics were not material to Cadence's consolidated financial statements.

**Arkos Design, Inc.**

In June 1997, pursuant to an asset purchase agreement among Quickturn, Synopsys, Inc., and Arkos Design, Inc., Quickturn acquired from Synopsys certain assets relating to Synopsys' emulation business, including all the outstanding common stock of Arkos, for approximately 0.5 million shares of Quickturn common stock and \$5 million of cash. The total purchase price was \$16.7 million and the acquisition was accounted for as a purchase. Accordingly, the results of operations of Arkos and the estimated fair value of the assets acquired and liabilities assumed are included in the consolidated financial statements from the date of acquisition. Intangibles arising from the acquisition are being amortized on a straight-line basis over five years. The excess of purchase price over net assets acquired was \$7.9 million, of which \$2.8 million related to the write-off of in-process technology that had not reached technological feasibility and, in management's opinion, had no probable alternative future use. Comparative pro forma financial information has not been presented as the results of operations of Arkos were not material to Quickturn's consolidated financial statements.

**Cooper & Chyan Technology, Inc.**

In May 1997, Cadence merged with Cooper & Chyan Technology, Inc., or CCT, whose software products were used to design sophisticated integrated circuits and high-speed printed circuit boards. In connection therewith, Cadence issued approximately 22.8 million shares of common stock. The merger was accounted for using the pooling of interests method of accounting. Cadence had restated all prior period consolidated financial statements as if the merger took place at the beginning of such periods, in accordance with required pooling of interests accounting and disclosures. Reconciliation of the current

**CADENCE DESIGN SYSTEMS, INC.**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

consolidated financial statements with previously reported separate company information is presented below:

	1997
	(In thousands)
<b>Revenue</b>	
Cadence . . . . .	\$1,026,297
CCT . . . . .	10,476
Combined and restated . . . . .	\$1,036,773
<b>Net Income (Loss)</b>	
Cadence . . . . .	\$ 166,488
CCT . . . . .	(1,366)
Combined and restated . . . . .	\$ 165,122

**Synthesia AB**

In February 1997, Cadence acquired all of the outstanding stock of Synthesia AB for 115,166 shares of Cadence common stock and cash. The total purchase price was \$4.7 million and the acquisition was accounted for as a purchase. The results of operations of Synthesia and the estimated fair value of the assets acquired and liabilities assumed were included in Cadence's consolidated financial statements from the date of acquisition. In connection with the acquisition, net intangibles of \$5.6 million were acquired, of which \$4.9 million related to the write-off of in-process technology that had not reached technological feasibility and, in management's opinion, had no probable alternative future use. Comparative pro forma financial information has not been presented as the results of operations of Synthesia were not material to Cadence's consolidated financial statements.

**SpeedSim, Inc.**

In February 1997, Quickturn merged with SpeedSim, Inc., a provider of simulation software for the verification of digital logic designs. Quickturn acquired all of the outstanding shares of SpeedSim common stock in a tax-free, stock-for-stock transaction for approximately 2.8 million shares of Quickturn common stock. The acquisition was accounted for as a pooling of interests. In addition, Quickturn assumed all outstanding stock options of SpeedSim. All prior period consolidated financial statements were restated as if the merger took place at the beginning of such periods, in accordance with required pooling of interests accounting and disclosures.

**CREDIT FACILITY AND LONG-TERM DEBT**

In October 1998, Cadence entered into a senior unsecured credit facility, referred to as the 1998 Facility with a syndicate of banks that allows Cadence to borrow up to \$355 million. As amended in September and November of 1999, the 1998 Facility is divided between a \$177.5 million two year revolving credit facility, or the Two Year Facility, and a \$177.5 million 364-day revolving credit facility convertible into a one year term loan, or the 364-Day Facility. The Two Year Facility expires on September 29, 2001. The 364-Day Facility will either expire on September 27, 2000, be converted to a one year term loan with a maturity date of September 27, 2001, or, at the request of Cadence and with the agreement of the bank group, be renewed for an additional one year. Cadence has the option to pay interest based on LIBOR plus a spread of between 1.25% and 1.50%, based on a pricing grid tied to a financial covenant, or the



**CADENCE DESIGN SYSTEMS, INC.**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

higher of the Federal Funds Rate plus 0.50% or the prime rate. As a result, Cadence's interest rate expenses associated with this borrowing will vary with market rates. In addition, commitment fees are payable on the unutilized portions of the Two Year Facility at rates between 0.23% and 0.30% based on a pricing grid tied to a financial covenant and on the unutilized portion of the 364-Day Facility at a fixed rate of 0.18%. The 1998 Facility contains certain financial and other covenants. As of January 1, 2000, Cadence had \$20 million outstanding under the Two Year Facility at a weighted average interest rate of 8.11%.

A summary of long-term debt and capital leases follows:

	<u>1999</u>	<u>1998</u>
	(In thousands)	
Revolving credit facility . . . . .	\$20,000	\$135,000
Capital lease obligations . . . . .	8,948	2,653
Total . . . . .	28,948	137,653
Less: Current portion of capital leases . . . . .	3,924	1,273
Long-term debt and capital leases . . . . .	<u>\$25,024</u>	<u>\$136,380</u>

**COMMITMENTS**

Equipment and facilities are leased under various capital and operating leases expiring at various dates through the year 2017. Certain of these leases contain renewal options. Rental expense was \$25 million, \$25.1 million, and \$18.6 million for 1999, 1998, and 1997, respectively.

At January 1, 2000, future minimum lease payments under capital and operating leases and the present value of the capital lease payments were as follows:

	<u>Capital Leases</u>	<u>Operating Leases</u>
	(In thousands)	
For the years:		
2000 . . . . .	\$4,198	\$ 39,797
2001 . . . . .	2,318	28,867
2002 . . . . .	1,678	25,133
2003 . . . . .	962	19,739
2004 . . . . .	411	13,752
Thereafter . . . . .	—	64,851
Total lease payments . . . . .	9,567	<u>\$192,139</u>
Less: amount representing interest (average interest rate of 5.42%) . . . . .	619	
Present value of lease payments . . . . .	8,948	
Less: current portion . . . . .	3,924	
Long-term portion . . . . .	<u>\$5,024</u>	

The cost of equipment under capital leases included in the consolidated balance sheets as property, plant, and equipment at January 1, 2000 and January 2, 1999 was approximately \$14 million and \$6 million, respectively. Accumulated amortization of the leased equipment at January 1, 2000 and January 2, 1999 was approximately \$5.5 million and \$3.5 million, respectively.

**CADENCE DESIGN SYSTEMS, INC.**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

**CONTINGENCIES**

From time to time Cadence is involved in various disputes and litigation matters that arise in the ordinary course of business. These include disputes and lawsuits related to intellectual property, licensing, contract law, distribution arrangements, and employee relations matters.

Cadence filed a complaint in the U.S. District Court for the Northern District of California on December 6, 1995 against Avant! Corporation and certain of its employees for misappropriation of trade secrets, copyright infringement, conspiracy, and other illegal acts.

On January 16, 1996, Avant! filed various counterclaims against Cadence and Joseph B. Costello, Cadence's former President and Chief Executive Officer, and with leave of the court, on January 29, 1998, filed a second amended counterclaim. The second amended counterclaim alleges, *inter alia*, that Cadence and Mr. Costello had cooperated with the Santa Clara County, California, District Attorney and initiated and pursued its complaint against Avant! for anticompetitive reasons, engaged in wrongful activity in an attempt to manipulate Avant!'s stock price, and utilized certain pricing policies and other acts to unfairly compete against Avant! in the marketplace. The second amended counterclaim also alleges that certain Cadence insiders engaged in illegal insider trading with respect to Avant!'s stock. Cadence and Mr. Costello believe that they have meritorious defenses to Avant!'s claims, and each intends to defend such action vigorously. By an order dated July 13, 1996, the court bifurcated Avant!'s counterclaim from Cadence's complaint and stayed the counterclaim pending resolution of Cadence's complaint. The counterclaim remains stayed.

In an order issued on December 19, 1997, as modified on January 26, 1998, the District Court entered a preliminary injunction barring Avant! from any further infringement of Cadence's copyrights in Design Framework II software, or selling, licensing or copying such product derived from Design Framework II, including, but not limited to, Avant!'s ArcCell products. On December 7, 1998, the District Court issued a further preliminary injunction, which enjoined Avant! from selling its Aquarius product line. Cadence posted a \$10 million bond in connection with the issuance of the preliminary injunction. On July 30, 1999, the U.S. Court of Appeals for the Ninth Circuit affirmed the preliminary injunction.

By an order dated July 22, 1997, the District Court stayed most activity in the case pending in that court and ordered Avant! to post a \$5 million bond in light of related criminal proceedings pending against Avant! and several of its executives.

On September 7, 1999, the District Court ruled on the parties' Motions for Summary Adjudication, and granted in part, and denied in part, each party's motion regarding the scope of a June 6, 1994 Release Agreement between the parties. The Court held that Cadence's copyright infringement claim against Avant! is not barred by the release and that Cadence may proceed on that claim. The Court also held that Cadence's trade secret claim based on Avant!'s use of Cadence's Design Framework II source code is barred by the release. The Ninth Circuit has agreed to hear both parties' appeal from the District Court's order. The trial date has been vacated pending a decision on the appeal. Cadence intends to pursue its claims against Avant! vigorously.

On April 30, 1999, Cadence and several of its officers and directors were named as defendants in a lawsuit filed in the U.S. District Court for the Northern District of California, entitled *Spett v. Cadence Design Systems, et al.*, civil action no. C 99-2082. The action was brought on behalf of a class of stockholders who purchased Cadence common stock between November 4, 1998 and April 20, 1999, and alleges violations of Sections 10(b) and 20(a) of the Securities Exchange Act of 1934. The lawsuit arises out of Cadence's announcement of its first quarter 1999 financial results. Management intends to vigorously defend these claims.

**CADENCE DESIGN SYSTEMS, INC.**

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

In February 1998, Aptix Corporation and Meta Systems, Inc. filed a lawsuit against Quickturn Design Systems, Inc. in the U.S. District Court for the Northern District of California. In this lawsuit, entitled Aptix Corporation and Meta Systems, Inc. v. Quickturn Design Systems, Aptix and Meta Systems allege infringement by Quickturn of a U.S. patent owned by Aptix and licensed to Meta. Quickturn named Mentor Graphics Corporation as a party to this suit and filed a counterclaim requesting the District Court to declare the Aptix patent to be unenforceable based on inequitable conduct during the prosecution of the patent. The case is set for trial in late 2000.

On July 21, 1999, Mentor filed suit against Quickturn in the U.S. District Court for the District of Delaware, alleging patent infringement involving Quickturn's Mercury hardware emulation systems. The complaint seeks a permanent injunction and unspecified damages. Cadence intends to vigorously defend these claims. On July 22, 1999, Quickturn and Cadence filed a complaint against Mentor and Meta asking for declaratory relief in the U.S. District Court for the Northern District of California. The action brought by Mentor in Delaware has been transferred to California for consolidation with Quickturn's declaratory judgment action.

Management believes that the ultimate resolution of the disputes and litigation matters discussed above will not have a material adverse effect on Cadence's business, operating results, or financial condition.

**STOCKHOLDERS' EQUITY**

**Net Income (Loss) per Share**

The following is a reconciliation of the weighted average common shares used to calculate basic net income (loss) per share to the weighted average common and potential common shares used to calculate diluted net income (loss) per share for the years 1999, 1998, and 1997:

	1999	1998	1997
	(In thousands)		
Weighted average common shares used to calculate basic net income			
(loss) per share . . . . .	242,037	234,605	216,650
Options . . . . .	—	22,778	26,304
Puts . . . . .	—	257	58
Warrants and other contingent common shares . . . . .	—	222	329
Weighted average common and potential common shares used to calculate diluted net income (loss) per share . . . . .	242,037	257,862	243,341

Options to purchase 56,181,714 shares of common stock at the weighted average price of \$14.29 per share were outstanding at January 1, 2000, but were not included in the computation of diluted net loss per share because their effect would be antidilutive. These options, expire at various dates through 2009. Warrants to purchase 394,237 shares of common stock at the weighted average prices of \$3.22 and \$23.60 were outstanding at January 1, 2000, but were not included in the computation of diluted loss per share because their effect would be antidilutive. The warrants outstanding expire in February 2000 and June 2003. Put warrants to purchase 1,615,175 shares of common stock at the weighted average price of \$13.08 per share were outstanding at January 1, 2000, but were not included in the computation of diluted loss per share because their effect would be antidilutive. The put warrants outstanding expired in February 2000.

**CADENCE DESIGN SYSTEMS, INC.**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

**Stock Compensation Plans**

*Stock Option Plans*

Cadence's 1997 Non-Statutory Stock Option Plan, referred to as the 1997 Plan, provides for the issuance of non-qualified options to its employees to purchase up to 30,000,000 shares of common stock at an exercise price not less than the fair market value of the stock on the date of grant. Options granted under the 1997 Plan become exercisable over periods up to five years, with, generally, one-fifth of the shares vesting one year from the vesting commencement date with respect to initial grants, and the remaining shares vesting in 48 equal monthly installments. Options under the 1997 Plan generally expire ten years from the date of grant.

Cadence's Employee Stock Option Plan, referred to as the 1987 Plan, provides for the issuance of either incentive or non-qualified options to its employees to purchase up to 71,370,100 shares of common stock at an exercise price not less than fair market value of the stock on the date of grant. Options granted under the 1987 Plan become exercisable over periods of up to five years and generally expire five to ten years from the date of grant.

Cadence's Non-Statutory Stock Option Plan, referred to as the 1993 Non-Statutory Plan, provides for the issuance of non-qualified options to its employees to purchase up to 24,750,000 shares of common stock at an exercise price not less than the fair market value of the stock on the date of grant. Options granted under the 1993 Non-Statutory Plan become exercisable over a four year period, with one-fourth of the shares vesting one year from the vesting commencement date, and the remaining shares vesting in 36 equal monthly installments. Options under the 1993 Non-Statutory Plan generally expire ten years from the date of grant.

Under the Directors' Stock Option Plans, referred to as the Directors' Plans, Cadence may grant non-qualified options to its non-employee directors for up to 2,032,502 shares of common stock at an exercise price not less than the fair market value of the stock on the date of grant. Options granted under the Directors' Plans have terms of up to ten years. Certain of the option grants vest one year from the date of grant, and other option grants vest one-third on the date which is one year from the date of grant and two-thirds ratably over the subsequent two years.

Cadence has assumed certain options granted to former employees of acquired companies, referred to as Acquired Options. The Acquired Options were assumed by Cadence outside of its stock option plans, and all are administered as if issued under their original plans. All of the Acquired Options have been adjusted to effectuate the price conversion under the terms of the Agreements and Plans of Reorganization between Cadence and the companies acquired. The Acquired Options generally become exercisable over a four or five year period and generally expire either five or ten years from the date of grant. No additional options will be granted under any of the acquired companies' plans.

**CADENCE DESIGN SYSTEMS, INC.**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

A summary of the status of all of Cadence's stock option plans as of and during the years ended January 1, 2000, January 2, 1999, and January 3, 1998 follows:

	1999		1998		1997	
	Shares	Weighted Average Exercise Price	Shares	Weighted Average Exercise Price	Shares	Weighted Average Exercise Price
Outstanding at beginning of year . . . .	42,678,756	\$14.07	46,733,239	\$11.28	46,775,913	\$ 6.49
Assumption of acquired companies options . . . . .	2,649,553	\$ 5.78	816,334	\$ 2.83	—	—
Granted . . . . .	25,205,953	\$14.48	13,510,326	\$18.64	18,479,244	\$16.88
Exercised . . . . .	(6,658,815)	\$ 7.64	(11,136,992)	\$ 7.11	(15,698,160)	\$ 3.45
Forfeited . . . . .	(7,693,733)	\$16.50	(7,244,151)	\$14.04	(2,823,758)	\$12.14
Outstanding at end of year . . . . .	<u>56,181,714</u>	\$14.29	<u>42,678,756</u>	\$14.07	<u>46,733,239</u>	\$11.28
Options exercisable at end of year . . .	21,226,714		17,493,945		17,971,289	
Options available for future grant . . .	11,541,925		19,261,461		14,853,922	
Weighted average fair value of options granted during the year . . . \$	9.19		13.52		7.51	

A summary of the status of all of Cadence's stock option plans at January 1, 2000 follows:

Range of Exercise Prices	Options Outstanding			Options Exercisable	
	Number Outstanding at 1/1/2000	Weighted Average Remaining Contractual Life	Weighted Average Exercise Price	Number Exercisable at 1/1/2000	Weighted Average Exercise Price
\$ 0.02-\$ 5.00 . . . . .	4,059,235	3.86	\$ 2.11	3,940,431	\$ 2.12
\$ 5.01-\$10.00 . . . . .	9,383,995	7.13	\$ 7.07	6,326,329	\$ 6.97
\$10.01-\$15.00 . . . . .	23,695,229	8.90	\$13.10	4,890,156	\$13.79
\$15.01-\$20.00 . . . . .	8,632,087	8.22	\$18.13	3,048,771	\$17.61
\$20.01-\$25.00 . . . . .	7,048,881	8.28	\$22.74	2,036,380	\$22.70
\$25.01-\$30.00 . . . . .	3,059,877	8.58	\$27.07	793,965	\$26.19
\$30.01-\$35.00 . . . . .	271,610	8.53	\$33.18	180,389	\$34.06
\$35.01-\$40.00 . . . . .	30,800	8.27	\$35.07	10,293	\$35.07
Total . . . . .	<u>56,181,714</u>			<u>21,226,714</u>	

*Stock Repurchase Plan*

Cadence has authorized two seasoned systematic stock repurchase programs under which it repurchases common stock to satisfy estimated requirements for shares to be issued under its Employee Stock Purchase Plan, or ESPP, and the 1997 Plan. Such repurchases are intended to cover Cadence's expected reissuances under the ESPP and the 1997 Plan for the next 12 months and 24 months, respectively.

As part of its authorized repurchase program, Cadence has sold put warrants through private placements. At January 1, 2000, there were 1.6 million put warrants outstanding that entitle the holder to sell one share of common stock to Cadence on a specified date and at a specified price of \$13.08 per share. Additionally, during this same period, Cadence purchased call options that entitle Cadence to buy one

**CADENCE DESIGN SYSTEMS, INC.**

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

share of common stock at a specified price to satisfy anticipated stock repurchase requirements under Cadence's systematic repurchase programs. At January 1, 2000, Cadence had 1.3 million call options outstanding at a price of \$13.33 per share. The put warrants and call options outstanding at January 1, 2000 are exercisable in February 2000 and Cadence has the contractual ability to settle the options prior to their maturity. At January 1, 2000, the fair value of the call options was approximately \$13.6 million and the fair value of the put warrants was approximately \$0.1 million. The fair value of put warrants and call options was estimated by Cadence's investment bankers.

If exercised, Cadence has the right to settle the put warrants with common stock equal to the difference between the exercise price and the fair value at the date of exercise. Settlement of the put warrants with common stock could cause Cadence to issue a substantial number of shares, depending on the exercise price of the put warrants and the per share fair value of Cadence common stock at the time of exercise. In addition, settlement of put warrants in common stock could lead to the disposition by put warrant holders of shares of Cadence common stock that such holders may have accumulated in anticipation of the exercise of the put warrants or call options, which may adversely affect the price of Cadence common stock. At January 1, 2000, Cadence had the ability to settle these put warrants with common stock and, therefore, no amount was classified out of stockholders' equity in the consolidated balance sheets. The effect of the exercise of these put warrants and call options is reported in the line titled "Purchase of treasury stock" within the consolidated statements of stockholders' equity.

*Employee Stock Purchase Plan*

Under the ESPP, Cadence is authorized to issue up to 23,500,000 shares of common stock to its employees. Under the terms of the ESPP, employees can choose to have up to 12% of their annual base earnings plus bonuses withheld to purchase Cadence common stock. The purchase price of the stock is 85% of the lesser of the fair market value as of the beginning or the end of the offering periods. Under the ESPP, Cadence issued 2,110,222, 1,252,855 and 1,392,136 shares to employees in 1999, 1998, and 1997, respectively. The weighted average purchase price and the weighted average fair value of shares issued in 1999 was \$12.56 and \$16.59, respectively.

In November 1998, Cadence amended its ESPP providing for concurrent 24 month offering periods with a new 24 month offering period starting every six months. Each offering period will be divided into four consecutive six month purchase periods, commencing in February 1999.

*Pro Forma Information*

This information is required to illustrate the financial results of operations as if Cadence had accounted for its grants of employee stock options under the fair value method of SFAS No. 123. The fair value of Cadence's options granted and shares purchased under the ESPP program for years ended January 1, 2000, January 2, 1999, and January 3, 1998 reported below was estimated at the date of grant using a Black-Scholes option pricing model with the following weighted average assumptions assuming a dividend yield of zero for all periods:

	Stock Options		
	1999	1998	1997
Risk-free interest rate . . . . .	5.90%	5.22%	6.20%
Volatility factors of the expected market price of			
Cadence common stock . . . . .	62%	59%	44%
Weighted average expected life of an option . . . . .	5 Years	4 Years	4 Years

**CADENCE DESIGN SYSTEMS, INC.**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

	Employee Stock Purchase Plan		
	1999	1998	1997
Risk-free interest rate, based on weighted average . . . . .	4.95%	5.21%	5.33%
Volatility factors of the expected market price of Cadence common stock . . . . .	62%	59%	44%
Weighted average expected life of ESPP shares . . . . .	0.5 Years	0.5 Years	0.5 Years

The Black-Scholes option valuation model was developed by the financial markets for use in estimating the fair value of traded options that have no vesting restrictions and are fully transferable. In addition, option valuation models require the input of highly subjective assumptions, including the expected stock price volatility. Cadence's options have characteristics significantly different from those of exchange traded options and changes in the subjective input assumptions can materially affect the fair value estimate. In management's opinion, the existing models do not necessarily provide a reliable single measure of the fair value of its stock options granted to its employees.

For purposes of pro forma disclosures, the estimated fair value of the options is amortized over the options' vesting period. Cadence applies Accounting Principles Board Opinion No. 25 and related Interpretations in accounting for its plans. Had Cadence's fixed stock option and employee stock purchase plans been accounted for under SFAS No. 123, net income (loss) and net income (loss) per share would have been adjusted to the following pro forma amounts:

	1999	1998	1997
	(In thousands, except per share amounts)		
Net income (loss):			
As reported . . . . .	<u>\$ (14,075)</u>	<u>\$ 25,124</u>	<u>\$165,122</u>
Pro forma . . . . .	<u>\$(127,954)</u>	<u>\$(57,569)</u>	<u>\$120,977</u>
Basic net income (loss) per share:			
As reported . . . . .	<u>\$ (0.06)</u>	<u>\$ 0.11</u>	<u>\$ 0.76</u>
Pro forma . . . . .	<u>\$ (0.53)</u>	<u>\$ (0.25)</u>	<u>\$ 0.56</u>
Diluted net income (loss) per share:			
As reported . . . . .	<u>\$ (0.06)</u>	<u>\$ 0.10</u>	<u>\$ 0.68</u>
Pro forma . . . . .	<u>\$ (0.53)</u>	<u>\$ (0.25)</u>	<u>\$ 0.50</u>

The effects of applying SFAS No. 123 on pro forma disclosures of net income (loss) and net income (loss) per share for 1999, 1998, and 1997 are not likely to be representative of the pro forma effects on net income (loss) and net income (loss) per share in future years.

**Warrants**

At January 1, 2000, Cadence had warrants outstanding to purchase 254,237 and 140,000 shares of Cadence common stock at \$23.60 and \$3.22 per share, respectively. The warrants for 254,237 shares expired in February 2000. The warrant for 140,000 shares expires in June 2003 and can be exercised at any time in increments of not less than 50,000 shares.



**CADENCE DESIGN SYSTEMS, INC.**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

**Reserved for Future Issuance**

At January 1, 2000, Cadence had reserved the following shares of authorized but unissued common stock for future issuance:

	Shares
Employee stock option plans . . . . .	66,073,969
ESPP . . . . .	7,058,788
Director stock option plans . . . . .	1,642,170
Put warrants . . . . .	1,615,175
Warrants . . . . .	394,237
Other option agreements . . . . .	7,500
	76,791,839

**Stockholder Rights Plan**

In February 1996, Cadence adopted a new stockholder rights plan to protect its stockholders' rights in the event of a proposed or actual acquisition of 15% or more of the outstanding shares of Cadence common stock. As part of this plan, each share of Cadence common stock carries a right to purchase one one-thousandth (1/1000) of a share of Series A Junior Participating Preferred Stock, referred to as a Right, par value \$0.01 per share, of Cadence at a price of \$240 per one one-thousandth of a share, subject to adjustment. The Rights are subject to redemption at the option of the Board of Directors at a price of \$0.01 per Right until the occurrence of certain events. The Rights expire on February 20, 2006. As of February 1, 2000, Cadence has changed its Rights agent.

**CUMULATIVE EFFECT OF CHANGE IN ACCOUNTING METHOD**

In November 1997, the FASB Emerging Issues Task Force issued Ruling 97-13 "Accounting for Costs Incurred in Connection with a Consulting Contract or an Internal Project That Combines Business Process Reengineering and Information Technology Transformation," which requires companies to expense costs incurred for business process reengineering projects. As a result, Cadence recorded a \$12.3 million charge in 1997, net of income taxes of \$5.3 million, as a cumulative effect of change in accounting method for reengineering project costs that had been previously capitalized by Cadence associated with its implementation of enterprise-wide information systems. This change in accounting method reduced basic net income per share and diluted net income per share for 1997 by \$0.06 and \$0.05, respectively.

**CADENCE DESIGN SYSTEMS, INC.**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

**INCOME TAXES**

The provision for income taxes consisted of the following components:

	<u>1999</u>	<u>1998</u>	<u>1997</u>
	(In thousands)		
Current:			
Federal . . . . .	\$ 16,391	\$ 68,854	\$107,251
State . . . . .	1,771	14,925	16,137
Foreign . . . . .	10,376	27,979	19,633
Total current . . . . .	<u>28,538</u>	<u>111,758</u>	<u>143,021</u>
Deferred (prepaid):			
Federal . . . . .	(22,074)	(37,257)	(68,633)
State . . . . .	(5,486)	(6,958)	(3,667)
Foreign . . . . .	1,717	7,379	(1,284)
Total deferred (prepaid): . . . . .	<u>(25,843)</u>	<u>(36,836)</u>	<u>(73,584)</u>
Total provision for income taxes . . . . .	<u>\$ 2,695</u>	<u>\$ 74,922</u>	<u>\$ 69,437</u>

Income (loss) before income taxes included income of approximately \$11.5 million for 1999, \$1.6 million for 1998, and \$144.8 million for 1997, from Cadence's foreign subsidiaries. The provision for income taxes is net of the benefit of operating loss carryforwards totaling \$28.3 million for 1999, \$3.9 million for 1998, and \$3.6 million for 1997.

The provision for income taxes differs from the amount estimated by applying the statutory federal income tax rate to income (loss) before income taxes as follows:

	<u>1999</u>	<u>1998</u>	<u>1997</u>
	(In thousands)		
Provision computed at the federal statutory rate . .	\$ (3,983)	\$ 35,017	\$ 82,401
State income tax, net of federal tax effect . . . . .	(539)	7,125	9,498
Amortization of acquired intangibles . . . . .	(11,429)	1,020	706
Write-off of in-process technology . . . . .	7,245	46,615	—
Foreign income tax at a higher (lower) rate . . . . .	3,014	(21,604)	(25,501)
Acquisition costs . . . . .	2,952	(2,679)	6,005
Foreign withholding taxes . . . . .	—	1,110	5,049
Foreign tax credit . . . . .	—	(1,110)	(5,049)
Research and development tax credit . . . . .	(5,219)	(6,891)	(4,925)
Change in valuation allowance . . . . .	11,429	15,371	(1,714)
Other . . . . .	(775)	948	2,967
Provision for income taxes . . . . .	<u>\$ 2,695</u>	<u>\$ 74,922</u>	<u>\$ 69,437</u>
Effective tax rate . . . . .	<u>(23.7)%</u>	<u>74.9%</u>	<u>29.6%</u>

The provision for income taxes in 1997 includes a tax benefit of \$5.3 million on cumulative effect of change in accounting method.

**CADENCE DESIGN SYSTEMS, INC.**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

The components of deferred tax assets and liabilities consisted of the following:

	<u>1999</u>	<u>1998</u>
	<u>(In thousands)</u>	
Deferred Tax Assets:		
Intangibles . . . . .	\$ 53,625	\$ 30,290
Accruals and reserves . . . . .	34,939	22,027
Accrued intercompany royalty . . . . .	33,685	37,430
Tax credits . . . . .	24,238	22,827
Sales returns and allowances . . . . .	20,865	19,890
Net operating losses . . . . .	12,241	16,631
Depreciation and amortization . . . . .	10,293	15,521
Restructure reserves . . . . .	10,069	12,920
Other . . . . .	15,294	9,110
	<u>215,249</u>	<u>186,646</u>
Valuation allowance—provision for income taxes . . . . .	(21,105)	(9,676)
Valuation allowance—equity and intangibles . . . . .	<u>(19,853)</u>	<u>(5,695)</u>
Net deferred tax assets . . . . .	<u>174,291</u>	<u>171,275</u>
Deferred Tax Liabilities:		
Intangibles . . . . .	(85,856)	(58,928)
Other . . . . .	(17,577)	(9,744)
Accrued intercompany royalty . . . . .	(9,624)	(10,694)
Capitalized software . . . . .	<u>(7,570)</u>	<u>(7,483)</u>
Total deferred tax liabilities . . . . .	<u>(120,627)</u>	<u>(86,849)</u>
Total net deferred tax assets . . . . .	<u>\$ 53,664</u>	<u>\$ 84,426</u>

Cadence provides for U.S. income taxes on the earnings of foreign subsidiaries unless they are considered permanently invested outside of the U.S. At January 1, 2000, the cumulative amount of earnings upon which U.S. income taxes have not been provided are approximately \$127.3 million. At January 1, 2000, the unrecognized deferred tax liability for these earnings was approximately \$45.1 million.

The net valuation allowance increased by \$25.6 million in 1999. The increase in valuation allowance—provision for income taxes of \$11.4 million is due to the uncertainty of certain foreign subsidiaries generating sufficient taxable income to realize certain foreign deferred tax assets. The increase in valuation allowance—equity and intangibles of \$14.2 million is due to the uncertainty of domestic entities generating sufficient taxable income, including the deduction for stock options to realize certain domestic deferred tax assets. This portion of the valuation allowance, identified in the above table as “valuation allowance—equity and intangibles”, if realizable, may reduce other intangibles and may not be available to offset future provision for income taxes.

The remaining net operating loss carryforwards will expire at various dates from 2000 through 2019 and federal tax credit carryforwards will expire at various dates from 2000 through 2014.

**CADENCE DESIGN SYSTEMS, INC.**

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

A dispute between Cadence and the Internal Revenue Service regarding \$15.6 million in tax credits for the tax years 1989 through 1991 was settled during 1999 with no material adjustments to the returns as originally filed.

**EMPLOYEE BENEFIT PLAN**

Cadence maintains 401(k) savings plans to provide retirement benefits through tax deferred salary deductions for all its domestic employees. Cadence may make discretionary contributions, as determined by the Board of Directors, which cannot exceed a percentage of the annual aggregate salaries of those employees eligible to participate. Cadence made total contributions to the plans of \$3.9 million, \$4.2 million, and \$3.8 million for 1999, 1998, and 1997, respectively.

In January 2000, Cadence amended its 401(k) plan to provide that Cadence will match contributions with 50% of every dollar contributed, up to a contribution level of 6% of the salaries of those employees who participate in the 401(k) plan.

**STATEMENT OF CASH FLOWS**

The supplemental cash flow information for 1999, 1998, and 1997 follows:

	1999	1998	1997
	(In thousands)		
Cash Paid During the Year for:			
Interest . . . . .	\$ 2,975	\$ 3,181	\$ 1,507
Income taxes (including foreign withholding tax) . . . . .	\$25,330	\$ 12,091	\$ 16,391
Non-Cash Investing and Financing Activities:			
Capital lease obligations incurred for equipment . . . . .	\$ 7,727	\$ 1,505	\$ 2,570
Common and treasury stock issued for acquisitions . . . . .	\$21,201	\$ 28,971	\$ 9,500
Unrealized holding gain on marketable securities . . . . .	\$36,249	\$ 37	\$ 78
Write-off of unearned deferred compensation . . . . .	\$ —	\$ 83	\$ —
Tax benefits from employee stock transactions . . . . .	\$10,305	\$109,713	\$124,040

**INTEGRATED MEASUREMENT SYSTEMS, INC.**

In February 1997, Cadence and its subsidiary, Integrated Measurement Systems, Inc., or IMS, sold to the public 1.7 million shares of IMS common stock, of which approximately 1 million shares were sold by Cadence, netting Cadence approximately \$18.6 million in cash. As a result of the offering and sale of shares by Cadence, Cadence's ownership interest in IMS decreased to approximately 37% from approximately 55%. Accordingly, Cadence changed the accounting for its investment in IMS from consolidation to the equity method of accounting in fiscal 1997. The likelihood of such transactions in the future is dependent upon the state of the financial markets as well as liquidity and other considerations of each of Cadence and IMS. IMS manufactures and markets verification systems used in testing prototype ASICs.

**CADENCE DESIGN SYSTEMS, INC.**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

**UNUSUAL ITEMS AND RESTRUCTURING**

Described below are unusual items and restructuring charges in 1999, 1998, and 1997:

	<u>1999</u>	<u>1998</u>	<u>1997</u>
	(In thousands)		
Write-off of acquired in-process technology . . . . .	\$20,700	\$194,100	\$ 9,328
Asset impairment . . . . .	19,891	—	3,065
Restructuring charges . . . . .	13,274	69,495	24,128
Merger costs . . . . .	8,436	—	11,489
Litigation settlement . . . . .	(3,000)	—	—
Total unusual items . . . . .	<u>\$59,301</u>	<u>\$263,595</u>	<u>\$48,010</u>

**In-Process Technology**

Described below are the write-offs of acquired in-process technology charges in 1999, 1998, and 1997:

	<u>1999</u>	<u>1998</u>	<u>1997</u>
	(In thousands)		
OrCAD . . . . .	\$11,800	\$ —	\$ —
DAI . . . . .	8,900	—	—
Ambit . . . . .	—	106,500	—
BLDA . . . . .	—	30,300	—
Symbionics . . . . .	—	28,500	—
EXD . . . . .	—	28,400	—
Other . . . . .	—	400	—
Synthesis AB . . . . .	—	—	4,900
Arkos . . . . .	—	—	2,728
Advanced Microelectronics . . . . .	—	—	1,700
Total write-offs of acquired in-process technology . . .	<u>\$20,700</u>	<u>\$194,100</u>	<u>\$9,328</u>

These acquired in-process technology charges represent in-process technology that had not reached technological feasibility and had no probable alternative future use. See “Management’s Discussion and Analysis of Financial Conditions and Results of Operations—In-Process Technology.”

*Asset Impairment*

In 1999, Cadence incurred charges totaling \$19.9 million in asset impairment charges. Of this amount, \$13.3 million represented asset impairment of acquired intangibles from the EXD acquisition. This asset impairment charge resulted from reduced Japanese market opportunities and the loss of key EXD employees resulting in diminished cash flow projections. Cadence entered into certain support agreements with external parties to provide support for EXD software tools previously sold to Cadence customers. The fair value of the EXD acquired intangibles was based on an evaluation of the present value of the estimated expected future cash flows, discounted at 16%. The remaining \$6.6 million in asset impairment charges were incurred in connection with the cancellation of an information technology services contract with a third-party, the abandonment of capitalized software development costs associated with certain Cadence products that will no longer be sold, and the abandonment of certain third-party software licenses that will no longer be used by Cadence’s design services business.

**CADENCE DESIGN SYSTEMS, INC.**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

In 1997, Cadence wrote-off capitalized software development costs of \$3.1 million for products developed by Cadence that were replaced by CCT products or by license of replacement technology.

The impairment losses recorded were the amounts by which the carrying amounts of the intangible assets exceeded their fair market values.

*Restructuring*

In 1999, Cadence recorded \$13.3 million of restructuring charges which consisted of \$11.3 million to terminate approximately 100 employees and \$2 million to downsize and close excess facilities. Cadence's restructuring plans were primarily aimed at reducing costs after Cadence merged with Quickturn, further restructuring of Cadence's services business in Japan, and severance resulting from the resignation of Cadence's former Chief Executive Officer. Severance costs include severance benefits, notice pay, and outplacement services. All terminations and termination benefits were communicated to the affected employees prior to year-end and all remaining severance benefits are expected to be paid in 2000.

Facilities consolidation charges of \$2 million were incurred in connection with the closure of 15 Quickturn facilities, including \$1 million to close duplicate and excess facilities and \$1 million of abandonment costs for the related leasehold improvements. Closure and exit costs include payments required under lease contracts, less any applicable sublease income after the properties were abandoned, lease buyout costs, restoration costs associated with certain lease arrangements, and costs to maintain facilities during the period after abandonment. Asset related costs written off consist of leasehold improvements of facilities that were abandoned and whose estimated fair market value is zero. As of January 1, 2000, approximately 80% of the 15 Quickturn sites had been vacated. Noncancelable lease payments on vacated facilities will be paid out through 2003.

In 1998, Cadence recorded \$69.5 million of restructuring charges primarily associated with Cadence's worldwide restructuring plan in the second half of 1998. Cadence's restructuring plans and associated costs consisted of \$36.9 million to terminate approximately 700 employees, \$29.9 million to downsize and close excess facilities, and \$2.7 million of other restructuring expenses. Cadence's restructuring plan was primarily aimed at reducing the cost of excess personnel and capacity in its services business. Severance costs included severance benefits, notice pay, and outplacement services. In 1998, approximately \$10.1 million of these costs resulted from the acceleration of stock options vesting under employment agreements. All terminations and termination benefits were communicated to the affected employees prior to year-end and all remaining severance benefits were substantially paid in 1999.

Facilities consolidation charges of \$29.9 million were incurred in connection with the closure of 58 sales and engineering facilities, including \$16.7 million to downsize and close facilities and \$13.2 million in abandonment costs for the related leasehold improvements. Closure and exit costs included payments required under lease contracts, less any applicable sublease income after the properties were abandoned, lease buyout costs, restoration costs associated with certain lease arrangements, and costs to maintain facilities during the period after abandonment. Asset related costs written-off consist of leasehold improvements of facilities that were abandoned and whose estimated fair market value is zero. As of January 1, 2000, substantially all of the 58 sites had been vacated. Noncancelable lease payments on vacated facilities will be paid out through 2008.

Cadence also recorded \$2.7 million of other restructuring charges consisting primarily of cancellation fees associated with certain vendor and conference arrangements and abandoned software.

In 1997, Cadence recorded restructuring charges of \$24.1 million. These charges relate to restructuring plans primarily aimed at reducing costs after Cadence merged with CCT and acquired HLDS.

**CADENCE DESIGN SYSTEMS, INC.**

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

Cadence's restructuring plans and associated costs consisted of \$11.9 million to terminate approximately 230 employees, \$4.4 million to close duplicate and excess facilities, and \$3.7 million of other expenses associated with the business combinations. Also included in the restructuring costs were professional fees of \$4.1 million for financial advisors, attorneys, and accountants related to the international restructuring program. The remaining severance balances were paid out in 1998 and all facilities were vacated. Noncancelable lease payments on vacated facilities will be paid out through 2000.

Liabilities for excess facilities and other restructuring charges are included in accrued and other long-term liabilities, while severance and benefits liabilities are included in payroll and payroll related accruals. The following table summarizes the Company's restructuring activity during fiscal years 1999, 1998, and 1997:

	<u>Severance and Benefits</u>	<u>Excess Facilities</u>	<u>Other Restructuring</u>	<u>Assets</u>	<u>Total</u>
	(In thousands)				
Balance, December 28, 1996	\$ 655	\$ 1,072	\$ —	\$ —	\$ 1,727
1997 restructuring charges	11,895	2,102	7,784	2,347	24,128
Non-cash charges	—	—	—	(2,347)	(2,347)
Cash charges	<u>(10,263)</u>	<u>(536)</u>	<u>(5,273)</u>	—	<u>(16,072)</u>
Balance, January 3, 1998	2,287	2,638	2,511	—	7,436
1998 restructuring charges	36,860	16,749	2,718	13,168	69,495
Non-cash charges	(10,095)	(1,364)	—	(1,862)	(13,321)
Cash charges	<u>(15,937)</u>	<u>(3,527)</u>	<u>(3,016)</u>	<u>(2)</u>	<u>(22,482)</u>
Balance, January 2, 1999	13,115	14,496	2,213	11,304	41,128
1999 restructuring charges	11,271	978	—	1,025	13,274
Reclassifications	(515)	179	501	(165)	—
Non-cash charges	(356)	(813)	(241)	(4,543)	(5,953)
Cash charges	<u>(15,502)</u>	<u>(8,376)</u>	<u>(2,047)</u>	<u>(1,760)</u>	<u>(27,685)</u>
Balance, January 1, 2000	<u>\$ 8,013</u>	<u>\$ 6,464</u>	<u>\$ 426</u>	<u>\$ 5,861</u>	<u>\$ 20,764</u>

*Merger Costs*

In connection with the acquisitions in 1999 and 1997, Cadence charged to expense Quickturn merger costs of \$8.4 million and CCT and SpeedSim merger costs of \$11.5 million, respectively, representing professional fees for financial advisors, attorneys, and accountants.

*Litigation Settlement*

In 1999, Cadence and Mentor announced the settlement of a patent infringement action pending in the U.S. District Court for the District of Oregon. As a result, the Court entered a judgment declaring that certain Quickturn patents are valid, enforceable, and were infringed by Mentor's sale of SimExpress products in the U.S. Mentor is permanently enjoined from producing, marketing or selling SimExpress emulation systems in the U.S. In connection with the settlement, Mentor paid Cadence \$3 million.



**CADENCE DESIGN SYSTEMS, INC.**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

**OTHER INCOME, NET**

Other income, net components for 1999, 1998, and 1997 follows:

	<u>1999</u>	<u>1998</u>	<u>1997</u>
	(In thousands)		
Interest income . . . . .	\$ 5,406	\$13,501	\$20,922
Minority interest income (expense) . . . . .	125	(256)	(353)
Equity income (loss) from investments . . . . .	124	(889)	1,934
Gain on sale of stock of subsidiary . . . . .	—	—	13,061
Other expense, net . . . . .	(389)	(872)	(3,239)
Gain (loss) on foreign exchange . . . . .	(600)	2,809	(1,155)
Interest expense . . . . .	<u>(3,296)</u>	<u>(3,735)</u>	<u>(2,780)</u>
Total other income, net . . . . .	<u>\$ 1,370</u>	<u>\$10,558</u>	<u>\$28,390</u>

**SEGMENT REPORTING**

In 1998, Cadence adopted Statement of Financial Accounting Standards, or SFAS, No. 131, “Disclosures about Segments of an Enterprise and Related Information.” Under SFAS No. 131, operating segments are defined as components of an enterprise about which separate financial information is available that is evaluated regularly by the chief operating decision maker when deciding how to allocate resources and when assessing performance. Cadence currently has three operating segments: Products, Services, and Maintenance. Cadence’s chief operating decision making group is the Executive Staff, which includes Cadence’s President and Chief Executive Officer and his senior staff.

Cadence’s business activities are organized on the basis of three operating segments. The Products segment designs and licenses to customers a variety of electronic design automation products. The Services segment offers methodology and design services either to assist companies in developing electronic designs or to assume responsibility for the design effort when customers wish to outsource this work. The Maintenance segment is primarily a technical support organization, and maintenance agreements are offered to customers either as part of our product license agreements or separately. Cadence’s organizational structure reflects this segmentation and segments have not been aggregated for purposes of this disclosure.

Segment income from operations is defined as gross margin under generally accepted accounting principles and excludes operating expenses (marketing and sales, research and development, and general and administrative), unusual items, other income, net, and income taxes. Profitability information about Cadence’s segments is available only to the extent of gross margin by segment, and operating expenses and other income and expense items are managed on a functional basis. There are no differences between the accounting policies used to measure profit and loss for segments and those used on a consolidated basis. Revenue is defined as revenue from external customers with no intersegment revenue or expenses.

Cadence’s management does not identify or allocate its assets, including capital expenditures, by operating segment. Accordingly, assets are not being reported by segment because the information is not available by segment and is not reviewed by Cadence’s Executive Staff to make decisions about resources to be allocated among the segments or to assess their performance. Depreciation and amortization is allocated among the segments in order to determine each segments’ gross margin.

**CADENCE DESIGN SYSTEMS, INC.**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

The following tables present information about reported segments for the years ended January 1, 2000, January 2, 1999, and January 3, 1998:

	<u>Product</u>	<u>Services</u>	<u>Maintenance</u>	<u>Other</u>	<u>Total</u>
	(In thousands)				
1999:					
Revenue . . . . .	\$505,459	\$294,916	\$292,928	\$ —	\$1,093,303
Cost of revenue . . . . .	79,504	191,760	53,579	—	324,843
Amortization of acquired intangibles . . . . .	55,962	5,826	—	—	61,788
Gross margin . . . . .	369,993	97,330	239,349	—	706,672
Marketing and sales . . . . .	—	—	—	(354,205)	(354,205)
Research and development . . . . .	—	—	—	(219,181)	(219,181)
General and administrative . . . . .	—	—	—	(86,735)	(86,735)
Unusual items . . . . .	—	—	—	(59,301)	(59,301)
Other income, net . . . . .	—	—	—	1,370	1,370
Income (loss) before provision for income taxes and cumulative effect of change in accounting method . . . . .	<u>\$369,993</u>	<u>\$ 97,330</u>	<u>\$239,349</u>	<u>\$(718,052)</u>	<u>\$ (11,380)</u>
Depreciation and amortization . . . . .	<u>\$ 85,919</u>	<u>\$ 21,987</u>	<u>\$ 2,280</u>	<u>\$ 53,710</u>	<u>\$ 163,896</u>
1998:					
Revenue . . . . .	\$760,441	\$265,211	\$294,528	\$ —	\$1,320,180
Cost of revenue . . . . .	77,513	188,793	52,386	—	318,692
Amortization of acquired intangibles . . . . .	14,800	3,672	—	—	18,472
Gross margin . . . . .	668,128	72,746	242,142	—	983,016
Marketing and sales . . . . .	—	—	—	(340,295)	(340,295)
Research and development . . . . .	—	—	—	(202,810)	(202,810)
General and administrative . . . . .	—	—	—	(86,828)	(86,828)
Unusual items . . . . .	—	—	—	(263,595)	(263,595)
Other income, net . . . . .	—	—	—	10,558	10,558
Income (loss) before provision for income taxes and cumulative effect of change in accounting method . . . . .	<u>\$668,128</u>	<u>\$ 72,746</u>	<u>\$242,142</u>	<u>\$(882,970)</u>	<u>\$ 100,046</u>
Depreciation and amortization . . . . .	<u>\$ 40,537</u>	<u>\$ 16,297</u>	<u>\$ 2,307</u>	<u>\$ 49,964</u>	<u>\$ 109,105</u>
1997:					
Revenue . . . . .	\$618,340	\$168,789	\$249,644	\$ —	\$1,036,773
Cost of revenue . . . . .	74,181	117,407	34,038	—	225,626
Amortization of acquired intangibles . . . . .	2,424	36	—	—	2,460
Gross margin . . . . .	541,735	51,346	215,606	—	808,687
Marketing and sales . . . . .	—	—	—	(299,829)	(299,829)
Research and development . . . . .	—	—	—	(167,245)	(167,245)
General and administrative . . . . .	—	—	—	(69,897)	(69,897)
Unusual items . . . . .	—	—	—	(48,010)	(48,010)
Other income, net . . . . .	—	—	—	28,390	28,390
Income (loss) before provision for income taxes and cumulative effect of change in accounting method . . . . .	<u>\$541,735</u>	<u>\$ 51,346</u>	<u>\$215,606</u>	<u>\$(556,591)</u>	<u>\$ 252,096</u>
Depreciation and amortization . . . . .	<u>\$ 22,184</u>	<u>\$ 8,411</u>	<u>\$ 1,880</u>	<u>\$ 33,171</u>	<u>\$ 65,646</u>

Internationally, excluding Japan, Cadence markets and supports its products and services primarily through its subsidiaries and various distributors. Following a reorganization of Cadence's distribution channel in Japan in 1997, Cadence licenses its products through Innotech Corporation, in which Cadence is an approximately 18% stockholder. Cadence markets its methodology and design services in Japan through a wholly-owned subsidiary.

**CADENCE DESIGN SYSTEMS, INC.**

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

Revenues are attributed to geographic areas based on the country in which the customer is domiciled. In 1999, 1998, and 1997, no one customer accounted for more than 10% of total revenues. Long-lived assets are attributed to geographic areas based on the country where the assets are located.

The following table presents a summary of revenues and long-lived assets by geographic region for years ended January 1, 2000, January 2, 1999, and January 3, 1998:

	1999		1998		1997	
	Revenues	Long-Lived Assets	Revenues	Long-Lived Assets	Revenues	Long-Lived Assets
North America:						
United States . . . . .	\$ 526,824	\$273,542	\$ 676,567	\$233,050	\$ 509,557	\$191,720
Other . . . . .	25,853	3,843	36,710	3,995	17,977	2,164
Total North America . . . . .	552,677	277,385	713,277	237,045	527,534	193,884
Europe:						
United Kingdom . . . . .	94,037	37,250	85,010	21,349	40,988	2,644
Germany . . . . .	38,839	860	54,953	1,328	53,449	1,357
Other . . . . .	122,736	3,231	130,630	4,180	100,666	3,111
Total Europe . . . . .	255,612	41,341	270,593	26,857	195,103	7,112
Japan and Asia:						
Japan . . . . .	223,425	5,079	261,239	2,381	253,511	2,083
Asia . . . . .	61,589	6,604	75,071	7,925	60,625	5,460
Total Japan and Asia . . . . .	285,014	11,683	336,310	10,306	314,136	7,543
	\$1,093,303	\$330,409	\$1,320,180	\$274,208	\$1,036,773	\$208,539

**SUBSEQUENT EVENTS**

In January 2000, Cadence's Board of Directors approved the 2000 Non-Statutory Stock Option Plan, referred to as the 2000 Plan which provides for the issuance of non-qualified options to its employees to purchase up to 10,000,000 shares of Cadence common stock at an exercise price not less than the fair market value of the common stock on the date of grant. Options granted under the 2000 Plan become exercisable over periods up to four years, with, generally, one-fourth of the shares vesting one year from the vesting commencement date with respect to initial grants, and the remaining shares vesting in 36 equal monthly installments. Options under the 2000 Plan generally expire ten years from the date of grant.

In February 2000, the Board of Directors approved a 15,000,000 share increase for stock repurchases. This increase included authorization to repurchase 5,000,000 shares on a systematic basis to meet share issuance requirements of Cadence's newly adopted 2000 Plan and authorization to repurchase 10,000,000 shares on a non-systematic basis to be used for general corporate purposes. Cadence is now authorized to repurchase an aggregate of 13,000,000 shares for the 1997 Plan, 5,000,000 for the 2000 Plan, 13,400,000 shares for the ESPP, and 10,000,000 shares for general corporate purposes.

On February 25, 2000, Cadence and several of its officers were named as defendants in a lawsuit filed in the U.S. District Court for the Northern District of California, entitled Maxick v. Cadence Design Systems, Inc. File No. C 00 0658PJH. The action was brought on behalf of a class of shareholders of OrCAD, Inc., and alleges violations of Section 14(d)(7) of the Securities Exchange Act of 1934, as amended, and Rule 14d-10 thereunder. The lawsuit arises out of Cadence's acquisition of OrCAD, which was completed in August 1999. Management believes the action is without merit and intends to vigorously defend it.

**CADENCE DESIGN SYSTEMS, INC.**  
**VALUATION AND QUALIFYING ACCOUNTS AND RESERVES**  
(In thousands)

**Schedule II**

<u>Description</u>	<u>Balance at Beginning of Period</u>	<u>Additions</u>		<u>Deductions(1)</u>	<u>Balance at End of Period</u>
		<u>Charged to Costs and Expenses</u>	<u>Charged to Other Accounts(2)</u>		
Deducted from asset accounts:					
Provisions for losses on trade accounts receivable and sales returns:					
Year Ended January 1, 2000 . . . . .	\$22,989	\$9,070	\$33,963	\$(21,434)	\$44,588
Year Ended January 2, 1999 . . . . .	\$26,080	\$7,687	\$ 3,314	\$(14,092)	\$22,989
Year Ended January 3, 1998 . . . . .	\$13,695	\$ 438	\$27,467	\$(15,520)	\$26,080

(1) Uncollectible accounts written-off, net of recoveries, and sales returns allowance offset against revenues.

(2) Sales returns allowance offset against revenue.

## SIGNATURES

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

CADENCE DESIGN SYSTEMS, INC.

/s/ H. RAYMOND BINGHAM

H. Raymond Bingham  
*President and Chief Executive Officer*

Dated: March 24, 2000

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

<u>Name/Title</u>	<u>Date</u>
<u>/s/ H. RAYMOND BINGHAM</u> H. Raymond Bingham <i>President, Chief Executive Officer, and Director</i> <i>(Principal Executive Officer)</i>	March 24, 2000
<u>/s/ WILLIAM PORTER</u> William Porter <i>Senior Vice President and</i> <i>Chief Financial Officer</i> <i>(Principal Financial Officer and Principal</i> <i>Accounting Officer)</i>	March 24, 2000

## ADDITIONAL DIRECTORS

<u>Name/Title</u>	<u>Date</u>
<u>/s/ DONALD L. LUCAS</u> Donald L. Lucas	March 24, 2000
<u>/s/ CAROL BARTZ</u> Carol Bartz	March 24, 2000
<u>/s/ DR. LEONARD Y. W. LIU</u> Dr. Leonard Y. W. Liu	March 24, 2000
<u>/s/ DR. ALBERTO SANGIOVANNI-VINCENTELLI</u> Dr. Alberto Sangiovanni-Vincentelli	March 24, 2000
<u>/s/ GEORGE M. SCALISE</u> George M. Scalise	March 24, 2000
<u>/s/ DR. JOHN B. SHOVEN</u> Dr. John B. Shoven	March 24, 2000
<u>/s/ ROGER SIBONI</u> Roger Siboni	March 24, 2000



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Skyn Kynaston and Marc Norberg.





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