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

**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 December 31, 2002**

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 0-17869**

**COGNEX CORPORATION**

*(Exact name of registrant as specified in its charter)*

**Massachusetts**  
*(State or other jurisdiction of  
incorporation or organization)*

**04-2713778**  
*(I.R.S. Employer  
Identification No.)*

**One Vision Drive  
Natick, Massachusetts 01760-2059  
(508) 650-3000**

*(Address, including zip code, and telephone number,  
including area code, of principal executive offices)*

**Securities registered pursuant to Section 12(b) of the Act:**  
**None**

**Securities registered pursuant to Section 12(g) of the Act:**  
**Common Stock, par value \$.002 per share**

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. ☐

Indicate by check mark whether the registrant is an accelerated filer (as defined in Rule 12b-2 of the Act). Yes ☒ No ☐

Aggregate market value of voting stock held by non-affiliates of the registrant as of June 28, 2002: \$790,039,000

\$.002 par value common stock outstanding as of February 23, 2003: 46,921,916 shares

Documents incorporated by reference:

The registrant intends to file a Definitive Proxy Statement pursuant to Regulation 14A within 120 days of the end of the fiscal year ended December 31, 2002. Portions of such Proxy Statement are incorporated by reference in Part III of this report. Portions of the registrant's Annual Report to Stockholders for the year ended December 31, 2002 are incorporated by reference in Part I, Part II, and Part III of this report.

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**COGNEX CORPORATION ANNUAL REPORT ON  
FORM 10-K FOR THE YEAR ENDED DECEMBER 31, 2002**

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## PART I

This Annual Report on Form 10-K contains forward-looking statements within the meaning of the Federal Securities Laws. Readers can identify these forward-looking statements by the Company's use of the words "expects," "anticipates," "estimates," "believes," "projects," "intends," "plans," "will," "may," "shall," and similar words and other statements of a similar sense. The Company's future results may differ materially from current results and from those projected in the forward-looking statements as a result of known and unknown risks and uncertainties. Readers should pay particular attention to considerations described in the section captioned "Risk Factors," appearing in Part I — Item I of this Annual Report on Form 10-K.

### Item 1. *Business*

#### Corporate Profile

Cognex® Corporation ("Cognex" or the "Company," each of which includes, unless the context indicates otherwise, Cognex Corporation and its subsidiaries) was incorporated in Massachusetts in 1981. Its corporate headquarters are located at One Vision Drive, Natick, Massachusetts 01760 and its telephone number is (508) 650-3000.

The Company designs, develops, manufactures, and markets machine vision systems that are used to automate a wide range of manufacturing processes. These systems consist of sophisticated image analysis software and high-speed, special-purpose computers (vision engines) which, when connected to a video camera, interpret video images and generate information about them.

Machine vision systems are used in a variety of industries including the semiconductor, electronics, automotive, packaging, medical, consumer products, paper, and metals industries. Machine vision is important for applications in which human vision is inadequate to meet requirements for repeatability, feature size, accuracy, or speed, or in instances where substantial cost savings are obtained through the reduction of direct labor or improved product quality. Today, many types of manufacturing equipment require machine vision because of the increasing demands for speed and accuracy in manufacturing processes, as well as the decreasing feature size of items being manufactured.

The Company has two operating divisions: the Modular Vision Systems Division (MVSD), based in Natick, Massachusetts, and the Surface Inspection Systems Division (SISD), based in Alameda, California. MVSD designs, develops, manufactures, and markets modular vision systems that are used to control the manufacturing of discrete items, such as semiconductor chips, cellular phones, and medical instruments, by locating, identifying, inspecting, and measuring them during the manufacturing process. SISD designs, develops, manufactures, and markets surface inspection vision systems that are used to inspect surfaces of materials processed in a continuous fashion, such as paper, metals, plastics, and non-wovens, to ensure there are no flaws or defects on the surfaces. Historically, MVSD has been the source of the majority of the Company's revenue, representing 79% of total revenue in 2002.

#### What is Machine Vision?

Since the beginning of the Industrial Revolution, human vision has played an indispensable role in the process of manufacturing products. Human eyes did what no machines could do themselves: locating and positioning work, tracking the flow of parts, and inspecting output for quality and consistency. Today, however, the requirements of many manufacturing processes have surpassed the limits of human eyesight. Manufactured items often are produced too quickly or with tolerances too small to be analyzed by the human eye.

In response to manufacturers' needs, a new technology known as "machine vision" emerged, providing manufacturing equipment with the gift of sight. In a typical machine vision application, a video camera positioned on the production line captures an image of the part to be inspected and sends the image to the

machine vision computer. The computer then uses sophisticated image analysis software to extract information from the image and generate decisions about the image, such as:

<u>Question</u>	<u>Description</u>	<u>Example</u>
<u><b>GUIDANCE</b></u>		
Where is it?	Determining the exact physical location and orientation of an object.	Determining the position of a printed circuit board so that a robot can automatically be guided to insert electronic components.
<u><b>IDENTIFICATION</b></u>		
What is it?	Identifying an object by analyzing its shape or by reading a serial number.	Identifying the serial number on an automotive airbag so that it can be tracked and processed correctly through manufacturing.
<u><b>INSPECTION</b></u>		
How good is it?	Inspecting an object for flaws or defects.	Inspecting the paper that US currency is printed on.
<u><b>GAUGING</b></u>		
What size is it?	Determining the dimensions of an object.	Determining the diameter of a bearing prior to final assembly.

Once the machine vision system has processed the image and performed any necessary analysis, the result is then communicated to other equipment on the factory floor, such as an industrial controller, a robotic arm, a deflector that removes the part from the line, a positioning table that moves the part, or alternatively, to a computer file for analysis or subsequent process control. This process is repeated for each part on the production line, or continuously for process material, as it moves into position in front of the video camera. Machine vision systems can perform tasks quickly enough to keep pace with machines that process thousands of parts or material feet per minute, thus increasing both quality and productivity.

### **The Machine Vision Market**

The machine vision market consists of two customer types: Original Equipment Manufacturers (OEMs) and end users. OEMs are companies that build standard products sold as capital equipment to end users. These customers, most of whom are in the semiconductor and electronics industries, have the technical expertise to build Cognex's programmable, board-level machine vision systems directly into their products, which are then sold to end users.

End users are companies that manufacture products, such as spark plugs, cellular telephones, surgical staples, metals, and paper. While they may purchase capital equipment containing machine vision or hire a system integrator to build an inspection system, many end users choose to purchase machine vision systems and install them directly on their production lines to inspect products and control the manufacturing process. Unlike OEMs and system integrators, these customers typically have limited computer programming or machine vision experience.

The Company includes system integrators in its definition of end users. System integrators are companies that create complete, automated inspection solutions for end users. For example, they combine lighting, conveyors, robotics, machine vision, and other components to produce custom inspection systems for various applications. Because system integrators encounter a broad range of automation problems, they purchase a variety of Cognex products, from general-purpose systems to application-specific systems tailored to solve particular manufacturing tasks.

## **Business Strategy**

The Company's goal is to expand its position as a leading worldwide supplier of machine vision systems for factory automation. Within the factory automation market, the Company has historically focused primarily on those industries where machine vision has become essential, either from a regulatory, economic, or manufacturing complexity standpoint, for controlling the manufacturing process to ensure high quality and/or reduce manufacturing costs.

Emphasizing high value-added products and applications is important to the Company's strategy because not every segment of the machine vision market offers opportunity for sustained profitability. The Company believes high value-added is realized in the Company's products in several ways. The primary value-added is derived from offering unique vision software algorithms that solve challenging problems better than competing products. The other major mode of realizing high value-added is by offering products that are complete solutions to known problems, incorporating all of the necessary vision software, applications software, hardware, video cameras, and electro-optics. Both modes of realizing high value-added require the Company to maintain an industry-leading level of investment in research, development, and engineering.

Within the factory automation market, the Company has tailored its product offerings to match the characteristics of its two customer types: OEMs and end users. Historically, OEMs have been the source of the majority of the Company's revenue. However, the Company believes that end users have the potential in the long term to generate more revenue than OEMs. Consequently, the Company has invested in developing and acquiring products that meet the needs of end users and in developing a strong worldwide direct sales and support infrastructure. The Company will continue to invest in both customer types, defending its strong position in the OEM market while expanding in the end-user market. In 2002, approximately 67% of the Company's revenue came from end-user customers.

The Company has historically pursued a global business strategy, investing in building a strong direct presence in North America, Japan, Europe, and Southeast Asia. In all of these regions, the Company is acknowledged to be a leading machine vision supplier. The Company intends to continue to invest in the expansion of direct sales and support in these regions. In 2002, approximately 60% of the Company's revenue came from customers based outside of the United States.

The Company's business strategy includes selective expansion into other machine vision applications through the internal development of new products, as well as the acquisition of businesses and technologies. Since 1995, the Company has completed seven business acquisitions, most of which were targeted at expanding the Company's presence in the worldwide end-user marketplace. The Company plans to continue to seek opportunities to expand its product line, customer base, and technical talent through acquisitions in the machine vision industry. In particular, the Company will look for opportunities to acquire technologies that complement its product line or provide the Company with an enhanced market presence around the world.

## **Products**

### ***In-Sight Vision Sensors***

The Company is now firmly positioned in the fast-growing market for vision sensors with its In-Sight™ product line. Vision sensors are machine vision systems that combine a video camera, software, vision processor, and input/output capability in a low-cost, compact, easy-to-use package designed for a number of general purpose vision tasks. The In-Sight product line provides Cognex's industry-leading machine vision technology in a choice of affordable platforms that do not require programming skills or a PC to deploy.

In early 2002, the Company added three new models to the In-Sight family of vision sensors, bringing the total number of In-Sight products to nine. The In-Sight 4000 Series consists of three models, the In-Sight 4000 high performance vision sensor providing fast frame rates and accelerated vision tool performance, the In-Sight 4001, a high resolution version of the 4000, and the In-Sight 4100, a compact, remote head camera version of the 4000.

The In-Sight 1000 Series are general-purpose vision sensors with built-in ethernet networking capability for remotely managing, monitoring, and controlling vision activity. The In-Sight 1000 combines a video camera, software, and processing in a single, compact unit. The In-Sight 1000C includes the same features as the In-Sight 1000, with the added ability to inspect and sort parts based on their color.

The first In-Sight products, the In-Sight 2000 and In-Sight 3000, are general-purpose vision sensors designed for part location, identification, measurement, and assembly verification tasks. Both products feature a rugged vision processing unit and separate video camera.

In-Sight is sold primarily to end users located in North America, Japan, Europe, and Southeast Asia in a wide range of general manufacturing industries, such as medical devices, automotive parts, disposable consumer goods, and electronic components.

### *PC-based Vision Systems*

The Company's PC-based vision systems combine the power and flexibility of advanced programming with the simplicity of a graphical programming environment. These systems offer high-speed image acquisition, processing, and system flexibility featuring PatMax®, high-accuracy object location software that can locate objects that vary in size and orientation or whose appearance is degraded.

### *MVS-8000 Product Family*

The MVS-8000™ product family of programmable machine vision systems combines Cognex's unique algorithms with Intel's MMX instruction set. The MVS-8100 Series features PCI bus-mastering frame grabbers for high-speed image transfer from the video camera to the host PC for processing and display. The MVS-8200 Series of embedded CPU machine vision systems enables all vision processing to occur on-board, freeing the PC to perform other tasks.

Cognex also designs, develops, manufactures, and markets the CDC-100™, a small, high-resolution digital Complementary Metal-Oxide Semiconductor (CMOS) camera designed specifically for machine vision applications, and the CDC-50 standard format digital camera. Both cameras are designed for use with the MVS-8100D digital frame grabber. These products, in combination with Cognex's vision software, provide a complete, tightly integrated solution to the Company's customers.

The MVS-8000 product family is sold to OEMs located in North America, Japan, Europe, and Southeast Asia who integrate the machine vision systems into capital equipment for the semiconductor and electronics industries. These machine vision systems are also sold to system integrators located in North America, Japan, Europe, and Southeast Asia who integrate the vision systems into capital equipment for the factory floor in a broad range of industries.

### *VisionPro Product Family*

In early 2002, the Company introduced VisionPro®, an Active X-based vision system that combines Cognex machine vision technology with quick and powerful application development. These PC-based systems offer the flexibility of an advanced programming language with the simplicity of graphical prototyping, speeding time-to-market for OEMs, system integrators, and advanced manufacturing engineers. VisionPro's powerful software, combined with Cognex MVS-8100 series frame grabbers, provide a complete vision system to solve demanding applications.

In late 2002, the company expanded the functionality of the VisionPro systems with the addition of new high-performance software tools. The new tools include a suite of geometric measurement tools for gauging parts and a data analysis tool for quick and easy statistical analysis of vision tool results.

The VisionPro product family is sold to OEM's and end users located in North America, Japan, Europe, and Southeast Asia in a wide range of industries.



### *Checkpoint Family*

Checkpoint® is a family of PC-based vision systems for complex precision guidance, gauging, and defect inspection applications. Checkpoint features a graphical user interface and requires some knowledge of programming and machine vision to configure a vision application. Deployment of Checkpoint on the factory floor requires the services of trained system integrators to mechanically and electrically integrate Checkpoint into production lines.

Checkpoint is sold primarily to end users located in North America, Japan, Europe, and Southeast Asia in a wide range of industries.

### *Application-Specific Systems*

*In-Sight 1700™* is a compact vision sensor for identifying and tracking semiconductor wafers through the manufacturing process by reading 2D matrix, alphanumeric, and bar codes on wafers. The In-Sight 1701 model, introduced in July 2002, is an enhanced version of the In-Sight 1700 wafer reader, offering the most advanced optics technology ever available for reading identification scribes on wafers.

*TIS-8000™ Tire Identification System* and *WIS-8000™ Wheel Identification System*, introduced in September 2002, are high-performance identification systems for automatically identifying tires and wheels by their unique characteristics. The systems ensure the presence of correct tires or wheels at any point in the manufacturing or assembly process.

*FiberInspect™* is a machine vision system specifically designed to automatically detect and measure scratches, cracks, and spots that form during the fiber end polishing process.

*CapInspect™* and *LabelInspect™* are application-specific tools for In-Sight vision sensors that solve common packaging applications such as verifying that the cap is on a bottle, that the bottle is filled to the correct level, and that the label is in the correct place.

*In-Sight 1010™* is a compact, standalone, ethernet-ready vision sensor designed specifically for reading 2D matrix and linear bar codes on parts.

*SMD 4™* guides the placement of surface mount devices onto printed circuit boards and other assemblies.

*BGA II™* inspects ball grid array devices for missing, misplaced, or improperly formed solder balls.

*Fiducial Finder II™* locates fiducial or alignment marks on printed circuit boards for automatic printed circuit board alignment.

*DisplayInspect®* inspects the small, high-resolution displays commonly found on cellular phones, pagers, medical test instruments, and other electronic devices.

Application-specific systems are targeted to OEM's and end users located in North America, Japan, Europe, and Southeast Asia in a wide range of industries, depending upon the application.

### *Surface Inspection Systems*

The SmartView® surface/web inspection system provides reliable detection, identification, and visualization of defects on products which are manufactured in a continuous process. The SmartView system provides greyscale imaging capability to visualize the defects, as well as a high-quality snapshot of the inspected surface or web. The SmartView system is a modular and scalable system on a Microsoft Windows-based platform that enables the Company to expand into more complex vision applications in the paper, metals, plastics, and nonwovens industries.

In 2002, the Company expanded the data access capabilities of the SmartView system. Expanded open data access ensures real-time inspection control and data access between the SmartView system and business, production, and quality systems in the mill. Further, it provides flexible, remote access to inspection data from mill information systems and other third-party production data management applications. By leveraging these

enhanced capabilities, the SmartView system gives users greater control of their processes by providing increased access to the data they need, when and where they need it.

SmartView is sold primarily to end users located in North America, Japan, Europe, and Southeast Asia in the paper, metals, plastics, and nonwovens industries.

### **Research, Development, and Engineering**

The Company engages in research, development, and engineering (R, D & E) to enhance its existing products and to develop new products and functionality to meet market opportunities. In addition to internal research and development efforts, the Company intends to continue its strategy of gaining access to new technology through strategic relationships and acquisitions where appropriate. The Company considers its on-going efforts in R, D & E to be a key component of its strategy.

At December 31, 2002, the Company employed 156 professionals in R, D & E, most of whom are software developers. The Company's R, D & E expenses totaled \$25,630,000, \$30,094,000, and \$33,341,000, or 22%, 21%, and 13% of revenue, in 2002, 2001, and 2000, respectively.

### **Manufacturing**

The Company's MVSD manufacturing organization utilizes a turnkey operation whereby the majority of component procurement, subassembly, final assembly, and initial testing are performed under agreement by third-party contract manufacturers. After the completion of initial testing, the contract manufacturers deliver the products to the Company's Natick, Massachusetts facility for final testing, quality control, and shipment to the customer. The products provided by the contract manufacturers are manufactured using specified components and assembly and test documentation created and controlled by the Company. From time to time, the Company will procure large quantities of end-of-life components for strategic purposes that will not be consumed within one year. Certain components are presently available only from a single source.

During 2001, the Company began to transition the contract manufacturing for the majority of its MVSD products from a vendor located in Massachusetts to a vendor located in Europe. This transition was completed in 2002.

The Company's SISD products are manufactured at its Alameda, California facility, with the exception of the frames on which the cameras are mounted. The manufacturing process at the Alameda facility consists of system design, configuration management and control, component procurement, and subassembly. After the completion of subassembly at the Alameda facility, some of the systems are delivered to the Company's Kuopio, Finland facility where the frames are manufactured. The manufacturing process at the Kuopio facility consists of system integration with the frames, final testing, quality control, and shipment to the customer. Certain products are manufactured by third-party contract manufacturers using documentation created and controlled by the Company. Certain components are presently available only from a single source.

### **Sales and Service**

The Company markets its MVSD and SISD products primarily through a direct sales force in North America, Japan, Europe, and Southeast Asia. At December 31, 2002, the Company's direct sales force consisted of 182 professionals, including sales and application engineers. The majority of the Company's sales force holds engineering or science degrees. Sales engineers call directly on targeted accounts and coordinate the activity of the application engineers. They focus on potential customers that represent possible volume purchases and long-term relationships.

Sales to customers based outside of the United States represented approximately 60% of revenue in 2002, compared to 63% of revenue in 2001 and 69% in 2000. One customer based in Japan, Fuji America Corporation, accounted for approximately 10% of revenue in 2000. No customer accounted for greater than 10% of revenue in 2002 or 2001. Although international sales may from time to time be subject to federal technology export regulations, to date the Company has not suffered delays or prohibitions in sales to any of its foreign customers. Financial information about segments and geographic areas may be found in the Notes to



the Consolidated Financial Statements, appearing on pages 41 and 42 of the Annual Report to Stockholders for the year ended December 31, 2002, which is Exhibit 13 hereto, and is incorporated herein by reference.

The Company's MVSD service offerings include vision solutions consulting services, technical support, educational services, and product services. The Company's vision solutions consulting group provides services that range from a specific area of functionality to a completely integrated machine vision application. The technical support group consists of a team of vision experts ready to respond to questions that may arise while customers are deploying a Cognex machine vision system. The educational services group offers a variety of product courses that are available at the Company's offices worldwide, at customer facilities, and on computer-based tutorials, video, and the Internet. The product services group offers a variety of software and hardware maintenance programs that provide updates on the latest software releases and new software vision tools.

The Company's SISD service offerings include installation services and technical support. The installation services group supervises the physical installation of the hardware at the customer location, configures the software application to detect the customer's defects, validates that the entire integrated system with the peripheral components is functioning according to the specifications, and performs operator training. The technical support group provides post-installation system, application, and service parts support.

### **Intellectual Property**

Because the Company relies on the technical expertise, creativity, and knowledge of its personnel, it utilizes patent, trademark, copyright, and trade secret protection to safeguard its competitive position. At December 31, 2002, the Company had obtained 146 patents on various innovations in the field of machine vision technology and had more than 120 patent applications pending. In addition, the Company makes use of non-disclosure agreements with customers, suppliers, employees, and consultants. The Company attempts to protect its intellectual property by restricting access to its proprietary information by a combination of technical and internal security measures. There can be no assurance, however, that any of the above measures will be adequate to protect the proprietary technology of the Company. Effective patent, trademark, copyright, and trade secret protection may be unavailable in certain foreign countries.

The Company's trademark and servicemark portfolio includes various registered marks, including but not limited to Cognex®, PatMax®, VisionPro®, Checkpoint®, DisplayInspect®, and SmartView®, as well as many common-law marks, including but not limited to, In-Sight™, MVS-8000™, and CDC-100™. In addition, the Company has sought and obtained a number of trademark registrations outside of the United States. All third-party brand names, servicemarks, and trademarks referenced in this document are the property of their respective owners.

The Company's software products are protected by various security schemes and are primarily licensed to customers pursuant to a license agreement that restricts the use of the products to the customer's purposes, as well as imposes strict limitations on the customer's use of the Company's trade secret, proprietary, and other confidential business information to which the customer may have access. The Company has made portions of the source code available to certain customers under very limited circumstances and for restricted uses. If the source code is released to a customer, the customer is required by contract to maintain its confidentiality and, in general, to use the source code solely for internal purposes or for maintenance.

Numerous users of the Company's products have received notice of patent infringement from the Lemelson Medical, Educational, & Research Foundation, Limited Partnership (the "Partnership") alleging that their use of the Company's products infringes certain patents transferred to the Partnership by the late Jerome H. Lemelson. Certain of these users have notified the Company that, in the event it is subsequently determined that their use of the Company's products infringes any of the Partnership's patents, they may seek indemnification from the Company for damages or expenses resulting from this matter. Cognex disclaims liability with respect to such indemnification requests. The Company does not believe its products infringe any valid and enforceable claims of the Partnership's patents. Furthermore, the Partnership has stated that it is not the Company's products that infringe the Partnership's patents, but rather the use of those products by certain of the Company's customers.

In July 1998, the Partnership filed a lawsuit against 26 semiconductor device manufacturers asserting infringement upon numerous Lemelson patents including certain machine vision patents. Several of the defendants are users of the Company's products that were purchased primarily from the Company's OEM customers whose equipment incorporates such products. As a result of this action and the continuing assertions against other current and potential Cognex customers, the Company decided to initiate action against the Partnership in order to preserve its right to sell machine vision products without the threat of legal action against the Company or its customers. Accordingly, on September 23, 1998, the Company filed a complaint against the Partnership seeking a declaration that Lemelson's machine vision patents are invalid, unenforceable, and not infringed by either Cognex or by any users of Cognex products. The complaint was served on the Partnership on October 14, 1998. After the judge in Massachusetts ruled that Massachusetts was not the proper jurisdiction, the Company refiled in Reno, Nevada on September 27, 1999 in the United States District Court, District of Nevada.

The trial against the Partnership began on November 18, 2002 in Las Vegas, Nevada, and ended on January 17, 2003. Post-trial activities are scheduled to conclude by May 16, 2003, with a decision expected before the end of 2003.

The Company cannot predict the outcome of the litigation with the Partnership or any similar litigation that may arise in the future, or the effect of such litigation on the financial results of the Company.

### **Compliance with Environmental Provisions**

The Company's capital expenditures, earnings, and competitive position are not materially affected by compliance with federal, state, and local environmental provisions which have been enacted or adopted to regulate the distribution of materials into the environment.

### **Competition**

The Company competes with other vendors of machine vision systems, the internal engineering efforts of the Company's current or prospective customers, and the manufacturers of image processing systems. Any of these competitors may have greater financial and other resources than the Company. Although the Company considers itself to be one of the leading machine vision companies in the world, reliable estimates of the machine vision market and the number of competitors are not available.

The primary competitive factors affecting the choice of a machine vision system include vendor reputation, product functionality and performance (e.g. speed, accuracy, and reliability) under real-world operating conditions, flexibility, programmability, and the availability of application support from the vendor. More recently, ease-of-use has become a competitive factor and product price has become a more significant factor with respect to simpler guidance and gauging applications. The Company competes with low-cost smart camera and vision sensor solutions being introduced by various competitors on the basis of superior performance and price, rather than on price alone, through its In-Sight product line.

### **Backlog**

At December 31, 2002, the Company's backlog totaled \$25,992,000, compared to \$15,984,000 at December 31, 2001. Backlog reflects purchase orders for products scheduled for shipment primarily within three months. The level of backlog at any particular date is not necessarily indicative of future revenue of the Company. Certain of the Company's end-user products, primarily the In-Sight product line, typically ship within one week of when the order is booked. In addition, delivery schedules may be extended and orders may be canceled at any time subject to certain cancellation penalties.

### **Employees**

At December 31, 2002, the Company employed 622 persons, including 285 in sales, marketing, and service activities; 156 in research, development, and engineering; 70 in manufacturing and quality assurance; and 111 in information technology, finance, and administration. Of the Company's 622 employees, 213 are

based outside of the United States. None of the Company's employees are represented by a labor union and the Company has experienced no work stoppages. The Company believes that its employee relations are good.

## **Risk Factors**

### ***Economic Conditions***

The Company's revenue is dependent upon the capital spending trends of manufacturers in a number of industries and regions. These spending levels are, in turn, impacted by global economic conditions. The Company's recent operating results have been materially adversely affected as a result of unfavorable economic conditions and reduced capital equipment spending, primarily in the semiconductor and electronics industries, but also in other general manufacturing industries. If economic conditions do not improve or if they deteriorate further, the Company's operating results could continue to be materially adversely affected.

### ***Industry Concentration***

In 2002, approximately 44% of the Company's revenue was derived from customers directly or indirectly related to the semiconductor and electronics industries. This concentration has been as high as 78% in the past five years depending upon business trends in these industries. The semiconductor and electronics industries are highly cyclical and have historically experienced periodic downturns, which have often had a severe effect on demand for production equipment that incorporates the Company's products. For the foreseeable future, the Company's operating results will continue to be dependent upon the capital expenditures in these industries, which, in turn, are largely dependent upon the market demand for products containing integrated circuits. While the Company's long-term strategy is designed to diversify beyond the semiconductor and electronics industries, the Company's operating results in the foreseeable future could be significantly and adversely affected by a continued slowdown in either of these industries.

### ***International Operations***

In 2002, approximately 60% of the Company's revenue was derived from customers located outside of the United States. The Company anticipates that international sales will continue to account for a significant portion of its revenue. The Company intends to continue to expand its operations outside of the United States and to enter additional international markets, which will require significant management attention and financial resources. The Company's operations are subject to the risks inherent in international sales, including, but not limited to, various regulatory requirements, transportation delays, difficulties in staffing and managing foreign sales operations, and potentially adverse tax consequences. In addition, fluctuations in foreign currency exchange rates may render the Company's products less competitive relative to local product offerings, or could result in significant exchange rate losses if not properly hedged. The Company is also subject to the political risks inherent in international operations and their impact on the global economy, including economic disruption from acts of war or terrorism, particularly in the aftermath of the terrorist attacks of September 11, 2001. Any of these factors could have a material adverse effect on the Company's operating results.

### ***Dependence Upon Principal Customers***

In 2002, the Company's top five customers accounted for 10% of total revenue, compared to 15% in 2001 and 29% in 2000. In recent years, the Company's expansion into the end-user marketplace has reduced its reliance upon the revenue from any one of its larger OEM customers. Nevertheless, the loss of, or significant curtailment of purchases by, any one or more of these customers could have a material adverse effect on the Company's operating results.

### ***Dependence Upon Key Suppliers***

At present, the majority of the Company's proprietary MVSD vision hardware is manufactured by third-party contractors. The Company's reliance on outside contractors involves several risks including limited control by the Company over quality and delivery schedules. The failure by one or more of these contract

manufacturers to deliver quality product in a timely manner could significantly and adversely affect the Company's operating results. In addition, a variety of components used in the Company's products are only available from a single source. The announcement by a single-source supplier of a last-time component buy could result in a significant amount of inventory purchases, that in turn, could lead to an increased risk of inventory obsolescence. An interruption in, termination of, or material change in the purchase terms of any single-source components could have a material adverse effect on the Company's operating results.

### ***Product Quality***

If flaws in either the design or manufacture of the Company's products were to occur, the Company could experience a rate of failure in its products that could result in significant delays in shipment and material repair or replacement costs. While the Company engages in extensive product quality programs and processes, including actively monitoring and evaluating the quality of its component suppliers and contract manufacturers, there can be no assurance that these actions will be sufficient to avoid a product failure rate that results in substantial delays in shipment, significant repair or replacement costs, or potential damage to the Company's reputation, any of which could have a material adverse effect on the Company's operating results.

### ***Dependence Upon Key Personnel***

The Company is highly dependent upon the management and leadership of Robert J. Shillman, President, Chief Executive Officer, and Chairman of the Board of Directors of the Company, as well as other members of the Company's senior management team, many of whom would be difficult to replace. Although the Company has retained other experienced and qualified senior managers, the loss of certain key personnel could have a material adverse effect on the Company. The Company's continued growth and success also depends upon its ability to attract and retain skilled employees and on the ability of its officers and key employees to effectively manage the growth of the Company through the implementation of appropriate management information systems and internal controls.

### ***Forecast Accuracy***

In recent years, the Company has expanded its presence in the end-user marketplace, which accounted for approximately 67% of the Company's revenue in 2002, compared to 56% in 2001 and 37% in 2000. The Company's end-user business typically operates with a relatively short backlog and production plans are based on internal forecasts of customer demand. Due to these factors, the Company has in the past, and may again in the future, fail to accurately forecast demand, in terms of both volume and configuration for either our legacy or next-generation products. This has led to, and may again in the future lead to, an increased risk of inventory obsolescence and resulting charges.

### ***Technological Change***

The market for the Company's products is characterized by rapidly changing technology. Accordingly, the Company believes that its future success will depend upon its ability to develop or acquire new products with improved price/performance and introduce them to the marketplace in a timely manner. There can be no assurance that the Company will be able to introduce and market new products successfully and respond effectively to technological changes or new product introductions by competitors. The inability to keep pace with the rapid rate of technological change in the high-technology marketplace could have a material adverse effect on the Company's operating results.

### ***Intellectual Property***

The Company relies heavily on its proprietary software technology and hardware designs, as well as the technical expertise, creativity, and knowledge of its personnel. Although the Company uses a variety of methods to protect its intellectual property, it relies most heavily on patent, trademark, copyright, and trade secret protection, as well as non-disclosure agreements with customers, suppliers, employees, and consultants. The Company attempts to protect its intellectual property by restricting access to its proprietary information

by a combination of technical and internal security measures. There can be no assurance, however, that any of these measures will be adequate to protect the proprietary technology of the Company, that any patents issued to the Company will not be challenged, invalidated, or circumvented, or that the rights granted thereunder will provide competitive advantages to the Company. Any such adverse circumstances could have a material effect on the Company's operating results. Readers should refer to the section captioned "Intellectual Property," appearing in Item I of this Annual Report on Form 10-K.

### ***Litigation***

From time to time, the Company may be subject to various claims and lawsuits by competitors, customers, or other parties arising in the ordinary course of business, including lawsuits charging patent infringement. Such matters can be time-consuming, divert management's attention and resources, and cause the Company to incur significant expenses. Furthermore, there can be no assurance that the results of any of these actions will not have a material adverse effect on the Company's operating results.

### ***Competition***

The Company competes with other vendors of machine vision systems, the internal engineering efforts of the Company's current or prospective customers, and the manufacturers of image processing systems. Any of these competitors may have greater financial and other resources than the Company. In recent years, ease-of-use and product price have become significant competitive factors in the end-user marketplace. The Company competes with low-cost smart camera and vision sensor solutions being introduced by various competitors on the basis of superior performance and price, rather than on price alone, through its In-Sight product line. There can be no assurance that the Company will be able to compete successfully in the future or that the Company's investments in research and development, marketing, and service activities will prove sufficient to enable the Company to maintain its competitive advantage. In addition, competitive pressures could lead to price erosion that could materially and adversely affect the Company's operating results. Readers should refer to the section captioned "Competition," appearing in Item 1 of this Annual Report on Form 10-K.

### ***Acquisitions***

The Company's business strategy includes selective expansion into other machine vision applications through the acquisition of businesses and technologies. Since 1995, the Company has completed seven business acquisitions. The Company plans to continue to seek opportunities to expand its product line, customer base, and technical talent through acquisitions in the machine vision industry. Acquisitions involve numerous risks, including, but not limited to, diversion of management's attention from other operational matters, the inability to realize expected synergies resulting from the acquisition, failure to commercialize purchased technology, and the impairment of acquired intangible assets resulting from technological obsolescence or lower-than-expected cash flows from the acquired assets. Acquisitions are inherently risky and the inability to effectively manage these risks could have a material adverse effect on the Company's operating results.

### ***Stock Price Volatility***

The price of the Company's common stock has historically experienced significant volatility due to fluctuations in the Company's revenue and earnings, changes in the market's expectations for the Company's growth, overall equity market conditions, conditions relating to the market for technology stocks, general economic conditions, and other factors unrelated to the Company's operations. The stock markets have experienced extreme price volatility in recent years. This volatility has had a substantial effect on the market prices of securities issued by many technology companies, often for reasons unrelated to the operating results of the specific company.



## Available Information

The Company maintains a website on the World Wide Web at [www.cognex.com](http://www.cognex.com). The Company makes available, free of charge, on its website in the section captioned “Investors — Annual Reports” its Annual Report on Form 10-K, Quarterly Reports on Form 10-Q, Current Reports on Form 8-K, and amendments to those reports filed or furnished pursuant to Section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended, as soon as reasonably practicable after such reports are electronically filed with, or furnished to, the SEC. The Company’s reports filed with, or furnished to, the SEC are also available at the SEC’s website at [www.sec.gov](http://www.sec.gov). Information contained on the Company’s website is not a part of, or incorporated by reference into, this Annual Report on Form 10-K.

## Item 2: *Properties*

In 1994, the Company purchased and renovated a 100,000 square-foot building located in Natick, Massachusetts that serves as its corporate headquarters. In 1997, the Company completed construction of a 50,000 square-foot addition to this building.

In 1995, the Company purchased an 83,000 square-foot office building adjacent to its corporate headquarters. The building is currently largely occupied with tenants who have lease agreements that expire at various dates through 2004, at which point the Company may take occupancy of the building. The Company uses a portion of the space for storage of its inventory.

In 1997, the Company purchased a three and one-half acre parcel of land situated on Vision Drive, adjacent to the Company’s corporate headquarters. This land is being held for future expansion.

## Item 3: *Legal Proceedings*

To the Company’s knowledge, there are no pending legal proceedings, other than as described in the section captioned “Intellectual Property,” appearing in Item I of this Annual Report on Form 10-K, which are material to the Company, to which it is a party, or to which any of its property is subject. From time to time, however, the Company may be subject to various claims and lawsuits by competitors, customers, or other parties arising in the ordinary course of business, including lawsuits charging patent infringement. There can be no assurance as to the outcome of any of this litigation.

## Item 4: *Submission of Matters to a Vote of Security Holders*

There were no matters submitted during the fourth quarter of the year ended December 31, 2002 to a vote of security holders through solicitation of proxies or otherwise.

## Item 4A: *Executive Officers and Other Members of the Management Team of the Registrant*

The following table sets forth the names, ages, and titles of the Company’s executive officers at December 31, 2002:

<u>Name</u>	<u>Age</u>	<u>Title</u>
Robert J. Shillman . . . . .	56	President, Chief Executive Officer, and Chairman of the Board of Directors
Patrick Alias . . . . .	57	Executive Vice President and Director
James Hoffmaster . . . . .	51	Chief Operating Officer and President, MVSD

Messrs. Shillman and Alias have been employed by the Company in their present or other capacities for no less than the past five years.

Mr. Hoffmaster joined the Company in 2001. Prior to joining the Company, Mr. Hoffmaster was the Chief Executive Officer of Fibersense, a Massachusetts-based company specializing in the application of fiber optic technology to gyroscopes and other sensors. Prior to that, Mr. Hoffmaster served as President of Fisher-



Rosemount Systems, a division of Emerson Electric. He holds a Masters of Computer and Information Science degree and a Bachelor of Arts degree in Economics from Cleveland State University.

Executive officers are elected annually by the Board of Directors. There are no family relationships among the directors and the executive officers of the Company.

Other members of the senior management team include the following individuals:

<u>Name</u>	<u>Age</u>	<u>Title</u>
Eric Ceyrolle . . . . .	49	President, Cognex International
Markku Jaaskelainen . . . . .	48	Senior Vice President and General Manager, SISD
Marilyn Matz . . . . .	49	Senior Vice President of Engineering, MVSD
E. John McGarry . . . . .	46	Senior Vice President and General Manager, Portland Operations
Richard Morin . . . . .	53	Senior Vice President of Finance and Administration, Chief Financial Officer, and Treasurer
Akira Nakamura . . . . .	58	President, Cognex K.K.
Kris Nelson . . . . .	55	Senior Vice President of Sales, North America
William Silver . . . . .	49	Senior Vice President of R&D and Chief Technology Officer, MVSD
Justin Testa . . . . .	50	Senior Vice President of Marketing, MVSD

Messrs. Ceyrolle, McGarry, Nelson, Silver, and Testa and Ms. Matz have been employed by the Company in their present or other capacities for no less than the past five years.

Mr. Jaaskelainen joined the Company in 1999. Prior to joining the Company, Mr. Jaaskelainen served as Vice President of Systems Strategy for Honeywell-Measurex Corporation, where he was responsible for overseeing and coordinating all new product development. He holds a Master's degree and Ph.D. in Physics from the University of Jyväskylä, Finland.

Mr. Morin joined the Company in 1999 after ten years as Chief Financial Officer for C&K Components, Inc., an international manufacturer of electronic components and security systems. Mr. Morin also served as Corporate Controller and Vice President of Finance for the Jamesbury Corporation. He holds a Bachelor of Arts degree in Economics and Accounting from The College of the Holy Cross and is a Certified Public Accountant.

Mr. Nakamura joined the Company in 2000 after having served as President of Intergraph Japan, K.K., a worldwide provider of CAD/CAM technology. Prior to that, Mr. Nakamura spent 20 years in sales and sales management at senior levels for IBM Japan. Mr. Nakamura holds a Bachelor of Science degree in Electronic Communication from Tohoku University.

## PART II

### **Item 5: *Market for Registrant's Common Equity and Related Stockholder Matters***

Information with respect to this item may be found in the sections captioned "Selected Quarterly Financial Data (Unaudited)" and "Company Information," appearing on pages 46 and 47 of the Annual Report to Stockholders for the year ended December 31, 2002, which is Exhibit 13 hereto, and is incorporated herein by reference.

The following table provides information as of December 31, 2002 regarding shares of common stock that may be issued under the Company's existing equity compensation plans, including the 1998 Director Plan, the

1998 Stock Incentive Plan, the 2001 General Stock Option Plan, and the 2001 Interim General Stock Incentive Plan.

Plan Category	Equity Compensation Plan Information		Number of Securities Remaining Available for Future Issuance under Equity Compensation Plans (Excluding Securities Reflected in Column (a))
	Number of Securities to be Issued Upon Exercise of Outstanding Options, Warrants, and Rights	Weighted-Average Exercise Price of Outstanding Options, Warrants, and Rights	
	(a)	(b)	(c)
Equity compensation plans approved by shareholders . . . . .	10,381,000	\$22.40	889,699
Equity compensation plans not approved by shareholders . . . . .	<u>0</u>	<u>N/A</u>	<u>7,900,000</u>
	<u>10,381,000</u>	<u>\$22.40</u>	<u>8,789,699</u>

The 2001 General Stock Option Plan was adopted by the Board of Directors on December 11, 2001 without stockholder approval. This plan provides for the granting of nonqualified stock options to any employee who is actively employed by the Company and is not an officer or director of the Company. The maximum number of shares of common stock available for grant under the plan is 7,500,000 shares. All option grants must have an exercise price per share that is no less than the fair market value per share of the Company's common stock on the grant date and must have a term that is no longer than fifteen years from the grant date. No stock options have been granted under the 2001 General Stock Option Plan.

The 2001 Interim General Stock Incentive Plan was adopted by the Board of Directors on July 17, 2001 without stockholder approval. This plan provides for the granting of nonqualified stock options to any employee who is actively employed by the Company and is not an officer or director of the Company. The maximum number of shares of common stock available for grant under the plan is 400,000 shares. All option grants have an exercise price per share that is no less than the fair market value per share of the Company's common stock on the grant date and must have a term that is no longer than fifteen years from the grant date. No stock options have been granted under the 2001 Interim General Stock Incentive Plan.

**Item 6: *Selected Financial Data***

Information with respect to this item may be found in the section captioned "Five-Year Summary of Selected Financial Data," appearing on page 45 of the Annual Report to Stockholders for the year ended December 31, 2002, which is Exhibit 13 hereto, and is incorporated herein by reference.

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

Information with respect to this item may be found in the section captioned "Management's Discussion and Analysis of Financial Condition and Results of Operations," appearing on pages 13 through 22 of the Annual Report to Stockholders for the year ended December 31, 2002, which is Exhibit 13 hereto, and is incorporated herein by reference.

**Item 7A: *Quantitative and Qualitative Disclosures About Market Risk***

Information with respect to this item may be found in the section captioned "Quantitative and Qualitative Disclosures About Market Risk," appearing on pages 21 and 22 of the Annual Report to Stockholders for the year ended December 31, 2002, which is Exhibit 13 hereto, and is incorporated herein by reference.

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

Information with respect to this item, which includes the consolidated financial statements and notes thereto, report of independent accountants, and supplementary data, may be found on pages 23 through 46 of the Annual Report to Stockholders for the year ended December 31, 2002, which is Exhibit 13 hereto, and is incorporated herein by reference.

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

There were no changes in or disagreements with accountants on accounting or financial disclosure during 2002 or 2001.

**PART III****Item 10: *Directors and Executive Officers of the Registrant***

Information with respect to Directors of the Company may be found in the section captioned “Election of Directors,” appearing in the definitive Proxy Statement for the Special Meeting in Lieu of the 2003 Annual Meeting of Stockholders to be held on April 24, 2003. Such information is incorporated herein by reference. Information with respect to Executive Officers of the Company may be found in the section captioned “Executive Officers and Other Members of the Management Team of the Registrant,” appearing in Part I of this Annual Report on Form 10-K.

**Item 11: *Executive Compensation***

Information with respect to this item may be found in the sections captioned “Board of Directors Meetings,” “Compensation/Stock Option Committee Report on Executive Compensation,” “Comparison of Five Year Cumulative Total Returns Performance Graph for Cognex Corporation,” and “Executive Compensation,” appearing in the definitive Proxy Statement for the Special Meeting in Lieu of the 2003 Annual Meeting of Stockholders to be held on April 24, 2003. Such information is incorporated herein by reference.

**Item 12: *Security Ownership and Certain Beneficial Owners and Management***

Information with respect to this item may be found in the sections captioned “Security Ownership of Certain Beneficial Owners” and “Security Ownership of Directors and Officers,” appearing in the definitive Proxy Statement for the Special Meeting in Lieu of the 2003 Annual Meeting of Stockholders to be held on April 24, 2003. Such information is incorporated herein by reference. Information regarding equity compensation plans may be found in Part I — Item 5 of this Annual Report on Form 10-K.

**Item 13: *Certain Relationships and Related Transactions***

Information with respect to this item may be found in the section captioned “Certain Relationships and Related Transactions,” appearing in the definitive Proxy Statement for the Special Meeting in Lieu of the 2003 Annual Meeting of Stockholders to be held on April 24, 2003. Such information is incorporated herein by reference.

**Item 14: *Controls and Procedures***

As required by Rules 13a-15 and 15d-15 of the Securities Exchange Act of 1934, within the 90-day period prior to the filing of this report and under the supervision and with the participation of management, including the Chief Executive Officer and the Chief Financial Officer, the Company has evaluated the effectiveness of the design and operation of its disclosure controls and procedures. Based on such evaluation, the Chief Executive Officer and Chief Financial Officer have concluded that such disclosure controls and procedures are effective in ensuring that material information relating to the Company, including its consolidated subsidiaries, is made known to the certifying officers by others within the Company and its consolidated subsidiaries during the period covered by this report. There were no significant changes in the

Company's internal controls for financial reporting or in other factors that could significantly affect such internal controls subsequent to the date of such evaluation. From time to time, the Company reviews the disclosure controls and procedures, including its internal accounting controls, and may from time to time make changes aimed at enhancing their effectiveness and to ensure that the Company's systems evolve with its business.

## **PART IV**

### **Item 15: *Exhibits, Financial Statement Schedules, and Reports on Form 8-K***

#### **(a) (1) Financial Statements**

The following consolidated financial statements of Cognex Corporation and the report of independent accountants relating thereto are included in the Company's Annual Report to Stockholders for the year ended December 31, 2002, which is Exhibit 13 hereto, and are incorporated herein by reference:

Consolidated Statements of Operations for the years ended December 31, 2002, 2001, and 2000

Consolidated Balance Sheets at December 31, 2002 and 2001

Consolidated Statements of Cash Flows for the years ended December 31, 2002, 2001 and 2000

Consolidated Statements of Stockholders' Equity for the years ended December 31, 2002, 2001, and 2000

Notes to Consolidated Financial Statements

Report of Independent Accountants

#### **(2) Financial Statement Schedule**

Included at the end of this report are the following:

Report of Independent Accountants on the Financial Statement Schedule

Schedule II — Valuation and Qualifying Accounts

Other schedules are omitted because of the absence of conditions under which they are required or because the required information is given in the consolidated financial statements or notes thereto.

#### **(3) Exhibits**

The Exhibits filed as part of this Annual Report on Form 10-K are listed in the Exhibit Index appearing on page 25, immediately preceding such Exhibits.

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

There were no Reports on Form 8-K filed during the fourth quarter of the year ended December 31, 2002.

## SIGNATURES

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

COGNEX CORPORATION

/s/ ROBERT J. SHILLMAN

Robert J. Shillman  
*(President, Chief Executive Officer,  
and Chairman of the Board of Directors)*

March 26, 2003

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

<u>Signature</u>	<u>Title</u>	<u>Date</u>
<u>/s/ ROBERT J. SHILLMAN</u> Robert J. Shillman	President, Chief Executive Officer, and Chairman of the Board of Directors (prin- cipal executive officer)	March 26, 2003
<u>/s/ RICHARD MORIN</u> Richard Morin	Senior Vice President of Finance, Chief Financial Officer, and Treasurer (principal financial and accounting officer)	March 26, 2003
<u>/s/ PATRICK ALIAS</u> Patrick Alias	Executive Vice President and Director	March 26, 2003
<u>/s/ JERALD FISHMAN</u> Jerald Fishman	Director	March 26, 2003
<u>/s/ WILLIAM KRIVSKY</u> William Krivsky	Director	March 26, 2003
<u>/s/ ANTHONY SUN</u> Anthony Sun	Director	March 26, 2003
<u>/s/ REUBEN WASSERMAN</u> Reuben Wasserman	Director	March 26, 2003

## CERTIFICATION

I, Robert J. Shillman, certify that:

1. I have reviewed this Annual Report on Form 10-K of Cognex Corporation;
2. Based on my knowledge, this annual report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this annual report;
3. Based on my knowledge, the financial statements, and other financial information included in this annual report, fairly present in all material respects the financial condition, results of operations, and cash flows of the registrant as of, and for, the periods presented in this annual report;
4. The registrant's other certifying officers and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-14 and 15d-14) for the registrant and we have:
  - a) Designed such disclosure controls and procedures to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this annual report is being prepared;
  - b) Evaluated the effectiveness of the registrant's disclosure controls and procedures as of a date within 90 days prior to the filing date of this annual report (the "Evaluation Date"); and
  - c) Presented in this annual report our conclusions about the effectiveness of the disclosure controls and procedures based on our evaluation as of the Evaluation Date;
5. The registrant's other certifying officers and I have disclosed, based on our most recent evaluation, to the registrant's auditors and the audit committee of registrant's board of directors:
  - a) All significant deficiencies in the design or operation of internal controls which could adversely affect the registrant's ability to record, process, summarize, and report financial data and have identified for the registrant's auditors any material weaknesses in internal controls; and
  - b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal controls; and
6. The registrant's other certifying officers and I have indicated in this annual report whether or not there were significant changes in internal controls or in other factors that could significantly affect internal controls subsequent to the date of our most recent evaluation, including any corrective actions with regard to significant deficiencies and material weaknesses.

/s/ ROBERT J. SHILLMAN

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Robert J. Shillman  
*President, Chief Executive Officer, and  
Chairman of the Board of Directors  
(duly authorized officer, principal executive officer)*

Date: March 26, 2003



## CERTIFICATION

I, Richard A. Morin, certify that:

1. I have reviewed this Annual Report on Form 10-K of Cognex Corporation;
2. Based on my knowledge, this annual report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this annual report;
3. Based on my knowledge, the financial statements, and other financial information included in this annual report, fairly present in all material respects the financial condition, results of operations, and cash flows of the registrant as of, and for, the periods presented in this annual report;
4. The registrant's other certifying officers and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-14 and 15d-14) for the registrant and we have:
  - a) Designed such disclosure controls and procedures to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this annual report is being prepared;
  - b) Evaluated the effectiveness of the registrant's disclosure controls and procedures as of a date within 90 days prior to the filing date of this annual report (the "Evaluation Date"); and
  - c) Presented in this annual report our conclusions about the effectiveness of the disclosure controls and procedures based on our evaluation as of the Evaluation Date;
5. The registrant's other certifying officers and I have disclosed, based on our most recent evaluation, to the registrant's auditors and the audit committee of registrant's board of directors:
  - a) All significant deficiencies in the design or operation of internal controls which could adversely affect the registrant's ability to record, process, summarize, and report financial data and have identified for the registrant's auditors any material weaknesses in internal controls; and
  - b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal controls; and
6. The registrant's other certifying officers and I have indicated in this annual report whether or not there were significant changes in internal controls or in other factors that could significantly affect internal controls subsequent to the date of our most recent evaluation, including any corrective actions with regard to significant deficiencies and material weaknesses.

/s/ RICHARD A. MORIN

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Richard A. Morin  
*Senior Vice President of Finance,  
Chief Financial Officer, and Treasurer  
(duly authorized officer, principal financial and  
accounting officer)*

Date: March 26, 2003

## CERTIFICATION

Pursuant to Section 1350 of Chapter 63 of Title 18, United States Code, the undersigned hereby certifies that this report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934 and that the information contained in this report fairly presents, in all material respects, the financial condition and results of operations of the Registrant.

COGNEX CORPORATION

/s/ ROBERT J. SHILLMAN

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Robert J. Shillman  
*(President, Chief Executive Officer,  
and Chairman of the Board of Directors)*  
*(duly authorized officer, principal executive officer)*

March 26, 2003

## CERTIFICATION

Pursuant to Section 1350 of Chapter 63 of Title 18, United States Code, the undersigned hereby certifies that this report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934 and that the information contained in this report fairly presents, in all material respects, the financial condition and results of operations of the Registrant.

COGNEX CORPORATION

/s/ RICHARD A. MORIN

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Richard A. Morin  
*(Senior Vice President Of Finance,  
Chief Financial Officer, and Treasurer)*  
*(duly authorized officer, principal financial and  
accounting officer)*

March 26, 2003

**COGNEX CORPORATION**  
**REPORT OF INDEPENDENT ACCOUNTANTS ON FINANCIAL STATEMENT SCHEDULE**

**To the Board of Directors and Stockholders of Cognex Corporation:**

Our audits of the consolidated financial statements referred to in our report dated January 24, 2003 appearing in the 2002 Annual Report to Stockholders of Cognex Corporation (which report and consolidated financial statements are incorporated by reference in this Annual Report on Form 10-K) also included an audit of the financial statement schedule listed in Item 15(a)(2) of this Form 10-K. In our opinion, this financial statement schedule presents fairly, in all material respects, the information set forth therein when read in conjunction with the related consolidated financial statements.

/s/ PRICEWATERHOUSECOOPERS LLP

Boston, Massachusetts  
January 24, 2003

**COGNEX CORPORATION**  
**SCHEDULE II**  
**VALUATION AND QUALIFYING ACCOUNTS**

Description	Balance at Beginning of Period	Additions		Deductions	Other	Balance at End of Period
		Charged to Costs and Expenses	Charged to Other Accounts			
		(Dollars in thousands)				
Allowance for Doubtful Accounts:						
2002 .....	\$ 2,080	\$ 340	—	\$ (213) (b)	—	\$ 2,207
2001 .....	2,150	190	—	(260) (b)	—	2,080
2000 .....	2,836	275	—	(624) (b)	\$ (337) (d)	2,150
Reserve for Inventory Obsolescence:						
2002 .....	\$19,563	\$ 1,695	\$1,506 (a)	\$ (496) (c)	\$(1,790) (e)	\$20,478
2001 .....	3,709	16,289	—	(435) (c)	—	19,563
2000 .....	3,955	785	—	(1,031) (c)	—	3,709

(a) Settlement of inventory purchase commitments

(b) Specific write-offs

(c) Specific dispositions

(d) Collection of accounts previously reserved

(e) Sale of inventory previously reserved

## EXHIBIT INDEX

### Exhibit Number

- 3A Restated Articles of Organization of Cognex Corporation effective June 27, 1989, as amended April 30, 1991, April 21, 1992, April 25, 1995, April 23, 1996, and May 8, 2000 \*
- 3B By-laws of the Company, as amended March 16, 1998 \*
- 4 Specimen Certificate for Shares of Common Stock (incorporated by reference to Exhibit 4 to the Registration Statement on Form S-1 [Registration No. 33-29020])
- 10A Cognex Corporation 1992 Stock Option Plan for Non-Employee Directors and Clerk (incorporated by reference to Exhibit 4A to the Registration Statement on Form S-8 [Registration No. 33-72636])
- 10B Cognex Corporation 1993 Stock Option Plan for Non-Employee Directors (incorporated by reference to Exhibit 4A to the Registration Statement on Form S-8 [Registration No. 33-81150])
- 10C Cognex Corporation 1993 Stock Option Plan, as amended November 14, 1995 and February 25, 1996 (incorporated by reference to Exhibit 4A to the Registration Statement on Form S-8 [Registration No. 333-04621])
- 10D 1991 Isys Controls, Inc. Long-Term Equity Incentive Plan (incorporated by reference to Exhibit 4A to the Registration Statement on Form S-8 [Registration No. 333-02151])
- 10E Amendment to the Cognex Corporation 1993 Stock Option Plan for Non-Employee Directors \*
- 10F Amendment to the Cognex Corporation 1993 Stock Option Plan \*
- 10G Cognex Corporation 1998 Non-Employee Director Stock Option Plan (incorporated by reference to Exhibit 4.1 to the Registration Statement on Form S-8 [Registration No. 333-60807])
- 10H Cognex Corporation 1998 Stock Incentive Plan (incorporated by reference to Exhibit 4.2 to the Registration Statement on Form S-8 [Registration No. 333-60807])
- 10I First Amendment to the Cognex Corporation 1998 Stock Incentive Plan (incorporated by reference to Exhibit 4.3 to the Registration Statement on Form S-8 [Registration No. 333-60807])
- 10J Cognex Corporation 2000 Employee Stock Purchase Plan (incorporated by reference to Exhibit 4 to the Registration Statement on Form S-8 [Registration No. 333-44824])
- 10K Cognex Corporation 2001 Interim General Stock Incentive Plan (incorporated by reference to Exhibit 4.1 to the Registration Statement on Form S-8 [Registration No. 333-68158])
- 10L Cognex Corporation 2001 General Stock Option Plan (incorporated by reference to Exhibit 4.1 to the Registration Statement on Form S-8 [Registration No. 333-100709])
- 10M Transition Loan Agreement between James F. Hoffmaster and Cognex Corporation, dated May 24, 2001 \*
- 10N Termination Agreement between James F. Hoffmaster and Cognex Corporation dated June 4, 2001 \*
- 13 Annual Report to Stockholders for the year ended December 31, 2002 (which is not deemed to be "filed" except to the extent that portions thereof are expressly incorporated by reference in this Annual Report on Form 10-K) \*
- 21 Subsidiaries of the registrant \*
- 23 Consent of PricewaterhouseCoopers LLP \*

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\* Filed herewith