COGNEX CORP
Form 10-K
February 28, 2007

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UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549
FORM 10-K

(Mark One)

þ **Annual report pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2006 or**

o **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	**04-2713778**
(State or other jurisdiction of incorporation or organization)	*(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:

Title of Each Class	Name of Exchange on Which Registered
Common Stock, par value $.002 per share	The NASDAQ Stock Market LLC

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

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

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

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 þ No o

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K is not contained herein, and will not be contained, to the best of 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. o

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, or a non-accelerated filer. See definition of acclerated filer and large accelerated filer in Rule 12b-2 of the Exchange Act (Check one):
Large accelerated filer þ Accelerated filer o Non-accelerated filer o

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

Aggregate market value of voting stock held by non-affiliates of the registrant
as of July 2, 2006: $1,081,957,000
$.002 par value common stock outstanding as of February 25, 2007: 44,465,706 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, 2006. Portions of such Proxy Statement are incorporated by reference in Part III of this report. Portions of the registrant s Annual Report to Shareholders for the year ended December 31, 2006 are incorporated by reference in Part I and Part II of this report.

COGNEX CORPORATION ANNUAL REPORT ON
FORM 10-K FOR THE YEAR ENDED DECEMBER 31, 2006
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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 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 IA of this Annual Report on Form 10-K. The Company cautions readers not to place undue reliance upon any such forward-looking statements, which speak only as of the date made. The Company disclaims any obligation to subsequently revise forward-looking statements to reflect the occurrence of anticipated or unanticipated events or circumstances after the date such statements are made.

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, or computers that can see, which are used to automate a wide range of manufacturing processes where vision is required. Machine vision is important for applications in which human vision is inadequate to meet requirements for 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 automate the manufacture of discrete items, such as semiconductor chips, cellular phones, and light bulbs, 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 the 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 approximately 87% of total revenue in 2006.

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, machine vision technology emerged, providing manufacturing equipment with the gift of sight. The Company believes that virtually every manufacturer that makes products in an automated process can achieve better quality and manufacturing efficiency by using machine vision.

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Machine vision systems combine cameras with intelligent software to collect images and then answer questions about these images, such as:

Question	Description	Example
GUIDANCE		
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.
IDENTIFICATION		
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.
INSPECTION		
How good is it?	Inspecting an object for flaws or defects.	Inspecting the paper that US currency is printed on.
GAUGING		
What size is it?	Determining the dimensions of an object.	Determining the diameter of a bearing prior to final assembly.

Machine Vision Market

Cognex serves a wide array of customers around the world that use the Company s products to replace human vision in a variety of industrial applications. While machine vision systems were first widely embraced by manufacturers of electronic components who needed this technology to produce computer chips with decreasing geometries, advances in technology and easy-to-use interfaces have made machine vision available to a broader range of users. Today, the Company s products are at work solving vision applications in many industries, including semiconductors, electronics, automotive, food and beverage, healthcare, pharmaceuticals, and high-speed inspection of materials, such as paper and metals.

The Company s current customers can be classified into three primary markets: the semiconductor and electronics capital equipment market, the discrete factory automation market, and the surface inspection market. Semiconductor and electronics capital equipment manufacturers purchase Cognex machine vision systems and integrate them into the capital equipment that they manufacture and then sell to their customers in the semiconductor and electronics industries that either make computer chips or make printed circuit boards containing computer chips. Although the Company sells to original equipment manufacturers (OEMs) in a number of industries, these semiconductor and electronics OEMs have historically been large consumers of the Company s products. Sales to semiconductor and electronics capital equipment manufacturers represented approximately 32% of the Company s total revenue in 2006.

Discrete manufacturers in the factory automation area include a wide array of manufacturers who use machine vision for applications in a variety of industries, including the automotive, consumer electronics, food and beverage, healthcare, pharmaceutical, and aerospace industries. These manufacturers purchase Cognex machine vision systems and install them directly on their production lines. These customers, who typically have limited computer programming or machine vision experience, purchase Cognex products from the Company s direct sales force, from a distributor, or from a system integrator or machine builder that is experienced in machine vision technology. System integrators are hired by end users to help them develop a vision application for their production line, whereas machine builders are hired by end users to build a complete, custom machine that incorporates machine vision. Sales to discrete factory automation customers represented approximately 55% of the Company s total revenue in 2006.

Surface inspection customers are manufacturers of materials processed in a continuous fashion, such as paper, metals, plastics, and nonwovens. These customers need sophisticated machine vision to detect

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and classify defects in the surfaces of those materials as they are being processed at high speeds. Surface inspection sales represented approximately 13% of the Company s total revenue in 2006.

Business Strategy

The Company s goal is to expand its position as a leading worldwide supplier of machine vision systems for factory automation by offering a complete family of machine vision products to a broad base of manufacturers.

Semiconductor and electronics equipment manufacturers have historically been large consumers of the Company s products. Over the past few years, however, the Company has diversified its customer base beyond the semiconductor and electronics capital equipment sector. Demand from these capital equipment manufacturers is highly cyclical, with periods of investment followed by temporary downturns. At its revenue peak in 2000, sales to semiconductor and electronics capital equipment manufacturers represented approximately 61% of the Company s total revenue, compared to approximately 32% in 2006.

The Company believes that long-term, sustained revenue growth will come from a broad base of manufacturers outside of the semiconductor and electronics capital equipment manufacturer sector. Accordingly, the Company has invested in expanding its product offerings to its discrete factory automation customers, who demand a wide range of easy-to-use products of varying capability and price, and in developing a strong worldwide sales and support infrastructure.

In May 2005, the Company completed its largest acquisition to date when it purchased DVT Corporation. In recent years, the Company has expanded its product line by adding low-cost, easy-to-use vision sensors. However, reaching the many prospects for these products in factories around the world requires a large third-party distribution channel to supplement the Company s own direct end-user sales force. With the acquisition of DVT Corporation, the Company immediately gained a worldwide network of distributors, all fully trained in selling and supporting machine vision products. The Company believes that it can accelerate its growth in the rapidly developing discrete factory automation market by selling its expanding line of low-cost, easy-to-use products, including the acquired DVT vision sensors, through this worldwide distribution channel.

In May 2006, the Company acquired AssistWare Technology, Inc., a developer of Lane Departure Warning Systems, and entered the emerging market for machine vision systems in vehicles. These highly-specialized sensors are installed in vehicles, ranging from long-haul trucks to passenger cars, where they provide driver assistance by constantly analyzing the vehicle s external environment and warning the driver of potentially dangerous situations. AssistWare s Lane Departure Warning System uses machine vision technology to watch the road ahead and alert drivers if they unintentionally leave their lane or if their driving pattern becomes erratic. The Company believes that entering this new commercial market for machine vision systems is an important strategic move to diversify into areas outside of the factory floor.

The Company intends to continue to defend its strong position in the semiconductor and electronics capital equipment sector, while selectively expanding into new industrial and commercial machine vision applications through the internal development of new products, as well as the acquisition of businesses and technologies.

Products

Cognex offers a full range of machine vision products designed to meet customer needs at virtually any stage of the manufacturing process and virtually any capability/price point.

Vision Sensors

The Company believes it is firmly positioned in the fast-growing market for vision sensors with its In-Sight® and DVT® product lines. Vision sensors are machine vision systems that combine a digital camera, software, vision processor, and input/output capability in a low-cost, compact, easy-to-use package. These general-purpose vision sensors are designed to be easily programmed to perform a

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wide range of vision tasks including part location, identification, measurement, assembly verification, and robotic guidance.

In 2006, the Company expanded the In-Sight 5000 series to include remote-head vision sensors and new software tools to address vision robotic applications, while continuing to increase processing power in a rugged, industrial-grade package that meets high standards for shock, vibration, and dust and wash-down protection. The DVT product line introduced three new models in 2006 to address the low-cost, full-function vision sensor market.

Vision sensors are sold to end users, distributors, system integrators, and machine builders located in North America, Japan, Europe, and Southeast Asia in a wide range of general manufacturing applications, such as automotive parts and assembly, consumer packaged goods, electronic components, medical devices, and pharmaceuticals.

Expert Sensors

Unlike general-purpose vision sensors that can be programmed to solve a wide variety of vision tasks, Cognex s sensor products are designed to deliver very simple, low-cost solutions for specific sensor problems. Because of their low price and ease of use, the Company expects to solve many new manufacturing problems with its Checker® series of products.

In 2004, the Company introduced Checker 101, designed to detect the presence or absence of product features. Checker detects or inspects parts by understanding what they look like, providing high reliability and eliminating many of the drawbacks of traditional photoelectric sensors. In 2005, the Company introduced Checker 101E, which expands Checker s capability to include the tracking and rejecting of parts. This capability provides significant value to the customer since it eliminates the need for other industrial equipment, providing higher ease of use and a lower cost solution.

Checker is predominantly sold through the Company s distribution network to end users located in North America, Japan, Europe, and Southeast Asia in a wide range of general manufacturing industries.

ID Products

The Company s industrial ID products are designed to quickly and reliably read codes (e.g. one-dimensional bar codes on labels or two-dimensional marks on parts) that have been applied or directly marked on discrete items during the manufacturing process. These image-based products provide industry-leading read rates on parts regardless of the speed of the production line, marking method (i.e. pin stamped, etched, printed, or otherwise), or part material (i.e. paper, metal, plastic, glass, etc.). Manufacturers of goods ranging from automotive suppliers to pharmaceutical items to aircraft components to medical devices are increasingly looking to direct part mark (DPM) identification to ensure the appropriate manufacturing processes are performed in the correct sequence on the right parts. In addition, DPM can be used to create a history of the part from the beginning of its life to the end, and for use in supply chain management and repair.

In 2006, the Company introduced the DataMan 7500 Series DPM hand-held readers for part traceability. The DataMan 7500 reads everything from the most challenging marks on parts to the easiest printed bar codes. These rugged, self-contained readers incorporate IDMax decoding software and UltraLight® illumination system to optimally illuminate and read marks on any part surfaces.

In early 2007, the Company introduced the DataMan 100 fixed-mount readers. The DataMan 100 is smaller than a flip phone. Its all-in-one design includes integrated illumination, aiming, and optics and can provide six-sigma read rates at line speeds up to 45 parts per second. Like the DataMan 7500, this product also incorporates IDMax to read the most difficult direct marked parts. The DataMan 100 features a rugged aluminum housing that provides protection against dust and water, making it ideal for anything from the highest speed document handling machine to the most difficult marks on an automotive assembly line.

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Industrial ID products are sold to end users, distributors, system integrators, and machine builders located in North America, Japan, Europe, and Southeast Asia in a broad range of industries, such as automotive, pharmaceuticals, aerospace, and medical devices.

The Company s wafer ID products are designed to quickly and reliably read codes (e.g. one- or two-dimensional bar codes or human-readable characters) that have been laser scribed onto semiconductor wafers. These products are sold to OEMs and integrated into semiconductor manufacturing and handling equipment. They read codes on wafers under a variety of challenging process conditions so that semiconductor manufacturers can track individual wafers through every step of the process, ensuring full traceability and closed-loop process feedback.

In 2006, the Company launched a new series of high-performance wafer readers based on a new generation of microprocessors. The In-Sight 1721 and 1722 wafer readers offer fast and powerful wafer identification. The 1721 uses fab-safe red LED lighting, while the 1722 is a specialized infrared reader designed to read wafers despite the newest ultra-thin photoresist coatings.

Wafer ID products are predominantly sold to OEMs located in North America, Japan, Europe, and Southeast Asia in the semiconductor industry.

PC-Based Vision Systems

The Company sells a full range of PC-based vision systems that combine the vision power of Cognex s most advanced vision tools with the processing power of high-speed PCs, provide the flexibility to choose from the widest range of contemporary analog and digital cameras for image acquisition, and facilitate seamless integration of vision into capital equipment.

These products offer the most extensive suite of patented and unique vision software tools featuring PatMax®, high-accuracy pattern location software that can locate objects that vary in size and orientation or whose appearance is degraded; PatFlex®, which enables a vision system to locate a pattern, or read or verify a code on curved objects, or warped, wrinkled, or lumpy packages; and PatInspect®, which can accurately detect extremely small or subtle manufacturing defects.

PC-based vision is sold both 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, as well as to end users, system integrators, and machine builders located in North America, Japan, Europe, and Southeast Asia in a wide range of industries within the factory automation market.

VisionPro Product Family

VisionPro® facilitates rapid application development and installation of integrated PC vision solutions, speeding time to market for OEMs, system integrators, machine builders, and advanced manufacturing engineers. VisionPro s easy-to-use application development software offers both the power and flexibility of advanced programming and the simplicity of a graphical programming environment. VisionPro s extensive suite of patented vision tools enables solving the most challenging machine vision applications. VisionPro works with both Cognex MVS-8000® Series frame grabbers and with direct connect FireWire PC systems.

MVS-8000 Product Family

The MVS-8000 family of programmable machine vision systems provides industrial-grade fast and reliable image capture and vision processing for the most demanding machine vision applications. Designed for high throughput, the 8000 series frame grabbers support the widest range of high-speed and high-resolution digital and analog acquisition, including CameraLink, area scan, linescan, color, and multi-camera acquisition.

Application Specific PC-based Vision Systems

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The Company offers a variety of application-specific systems that combine Cognex PC-based hardware and software to create a solution that is tailored to the particular requirements of certain vision applications. A partial list of application-specific vision systems is as follows:

ProofRead with *OCVMax* and *IDMax* is a complete system for ensuring label accuracy and product traceability for the pharmaceutical, food and beverage, and personal care industries.

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

SMD 4® guides the placement of surface mount devices onto printed circuit boards and other assemblies, as well as inspects parts prior to placement. *BGA II*® inspects ball grid array devices for missing, misplaced, or improperly formed solder balls. *PMI* inspects probe marks after electrical testing of wafers to detect damage to bond pads or indicate damaged probe cards.

Application-specific systems are targeted to OEMs, system integrators, machine builders, and end users located in North America, Japan, Europe, and Southeast Asia in a wide range of industries, depending upon the application.

Commercial Products

The Company s commercial products currently serve two major market areas:

1) Automotive and Truck market for vehicle-based driver assist vision sensors that enhance vehicle safety and driver convenience, and

2) Building Automation and Security market for vision-based people sensing and counting.

In the Automotive and Truck market, the Company sells the SafeTRAC Lane Departure Warning System, a vision sensor that watches the roadway directly ahead of the vehicle and alerts the driver if the vehicle crosses out of its lane without first activating a turn signal. SafeTRAC also warns the driver if they are exhibiting symptoms of drowsiness, so that they can stop and get rest. SafeTRAC is currently sold to commercial truck fleets located in North America.

In the Building Automation and Security market, the Company sells the CPS-1000 People Sensor , a vision sensor designed for door security that detects, counts, and monitors the direction of motion of people as they pass through an access-controlled doorway. The CPS-1000 utilizes Cognex s existing vision software, as well as patented 2D and 3D vision technology that Cognex developed specifically for people sensing applications. The CPS-1000 is currently sold to OEMs located in North America.

Surface Inspection Systems

The SmartView® surface and web inspection system provides reliable detection, classification, and visualization of defects and monitoring of surface quality on products that are manufactured in a continuous process. The SmartView system provides grey-scale imaging capability to visualize the defects, as well as a high-quality snapshot of the surface or web. Most advanced open data access capabilities embedded into the SmartView system ensure real-time inspection control and data access between the SmartView system and other control, business, production, and quality systems in the mill. 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.

SmartView is sold primarily to end users located in North America, Japan, Europe, and Southeast Asia in the paper, metals, plastics, and nonwovens industries. In addition, SmartView is sold to end users located in Europe and Asia in the paper industry through an OEM relationship with Honeywell International, Inc.

Research, Development, and Engineering

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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, 2006, the Company employed 175 professionals in R,D&E, most of whom are software developers. The Company s R,D&E expenses totaled $32,607,000, $27,640,000, and $27,063,000, or approximately 13%, 13%, and 14% of revenue, in 2006, 2005, and 2004, respectively. 2006 R,D&E expenses included $3,627,000 of stock-based compensation expense that was not recorded in 2005 or 2004.

Manufacturing

The Company s MVSD products, with the exception of its DVT product line, are manufactured utilizing a turnkey operation whereby the majority of component procurement, 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 Cork, Ireland facility for programming and quality control. For the DVT product line, components are procured by the Company, delivered to a contract manufacturer for assembly and initial testing, and returned to the Company s Duluth, Georgia facility for programming and quality control. The contract manufacturers use 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.

The Company s SISD products are manufactured at its Alameda, California facility, with the exception of the frames on which the cameras and the lights used to illuminate the web 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 and lights are manufactured. The manufacturing process at the Kuopio facility consists of system integration, final testing, and quality control. Certain products are manufactured by third-party contract manufacturers using documentation created and controlled by the Company.

Sales and Service

The Company sells its MVSD products through a worldwide direct sales force that focuses on the development of strategic accounts that generate or are expected to generate significant sales volume for the Company. Orders from direct customers currently ship from the Company s Cork, Ireland facility. The Company s easy-to-use vision sensors are also sold through a worldwide distribution network. Orders from distributors currently ship from the Company s Duluth, Georgia facility. The Company s SISD products are primarily sold through a worldwide direct sales force and ship from either the Company s Alameda, California or Kuopio, Finland facility.

At December 31, 2006, the Company s sales force consisted of 244 professionals, including sales engineers, application engineers, and distribution management personnel. Sales engineers call directly on targeted accounts and coordinate the activity of the application engineers. The majority of the Company s sales force holds engineering or science degrees.

Sales to customers based outside of the United States represented approximately 65% of total revenue in 2006, compared to approximately 63% in 2005 and approximately 69% in 2004. No customer accounted for greater than 10% of revenue in 2006, 2005, or 2004. Although international sales may from time to time be subject to federal technology export regulations, to date the Company has not suffered significant 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

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pages 49 and 50 of the Annual Report to Shareholders for the year ended December 31, 2006, which is attached as Exhibit 13 hereto, and is incorporated herein by reference.

The Company s MVSD service offerings include maintenance and support, training, and consulting services. Maintenance and support programs include hardware support programs that entitle customers to have failed product repaired, as well as software support programs that provide customers with application support and software updates on the latest software releases. Training services include 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 Company provides consulting services that range from a specific area of functionality to a completely integrated machine vision application.

The Company s SISD service offerings include maintenance and support and training services similar to those provided by MVSD, as well as installation services. 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.

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 maintain its competitive position and protect its proprietary rights in its products and technology. While its intellectual property rights are important to its success, the Company believes that its business as a whole is not materially dependent on any particular patent, trademark, copyright, or other intellectual property right.

At December 31, 2006, the Company had been granted, or owned by assignment, approximately 247 patents issued in the field of machine vision technology and had 189 patent applications pending. The Company has used, registered, or applied to register a number of trademark registrations in the United States and in other countries. The Company s trademark and servicemark portfolio includes various registered marks, including but not limited to, Cognex®, DVT®, In-Sight®, Checker®, PatMax®, VisionPro®, and SmartView®, as well as many common-law marks, including but not limited to, DataMan™, IDMax™, and Proofread™.

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 machine vision market is highly fragmented and the Company s competitors vary depending upon market segment, geographic region, and application niche. The Company s competitors are typically other vendors of machine vision systems and manufacturers of image processing systems and sensors. In addition, in the semiconductor and electronics capital equipment market, the Company competes with the internal engineering efforts of current or prospective customers. Also, in the DPM identification market, the Company competes with manufacturers of automatic identification 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 Company s ability to compete depends upon its ability to design, manufacture, and sell high-quality products, as well as its ability to develop new products that meet evolving customer requirements. The primary competitive factors affecting the choice of a machine vision system include vendor reputation, product functionality and performance, ease of use, price, and post-sales support. The importance of each of these factors varies depending upon the specific customer s needs.

Backlog

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At December 31, 2006, the Company s backlog totaled $36,783,000, compared to $33,069,000 at December 31, 2005. Backlog reflects purchase orders for products scheduled for shipment primarily within three months at MVSD and primarily within six months at SISD. The level of backlog at any particular date is not necessarily indicative of future revenue of the Company. The Company s vision sensors 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, 2006, the Company employed 760 persons, including 375 in sales, marketing, and service activities; 175 in research, development, and engineering; 97 in manufacturing and quality assurance; and 113 in information technology, finance, and administration. Of the Company s 760 employees, 300 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.

Available Information

The Company maintains a website on the World Wide Web at www.cognex.com. The Company makes available, free of charge, on its website in the section captioned Investors SEC FiIings 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. 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 1A. RISK FACTORS

The risks and uncertainties described below are not the only ones that we face. Additional risks and uncertainties that we are unaware of, or that we currently deem immaterial, also may become important factors that affect our company in the future. If any of these risks were to occur, our business, financial condition, or results of operations could be materially and adversely affected. This section includes or refers to certain forward-looking statements; you should read the explanation of the qualifications and limitations on such forward-looking statements found in the section captioned Management s Discussion and Analysis of Financial Condition and Results of Operations, appearing on page 15 of the Annual Report to Shareholders for the year ended December 31, 2006, which is attached as Exhibit 13 hereto, and is incorporated herein by reference.

Unless the context otherwise requires, the words Cognex, we, our, us, and our company refer to Cognex Corpora and its consolidated subsidiaries.

Unfavorable changes in economic conditions and capital spending may negatively impact our operating results.

Our revenue is dependent upon the capital spending trends of manufacturers in a number of industries, including, but not limited to, the semiconductor, electronics, automotive, and steel industries. These spending levels are, in turn, impacted by global economic conditions. Our operating results have been materially adversely affected in the past, and could be materially adversely affected in the future, as a result of unfavorable economic conditions and reduced capital spending by manufacturers worldwide.

Downturns in the semiconductor and electronics industries may adversely affect our business.

In 2006, approximately 32% of our revenue was derived from semiconductor and electronics capital equipment manufacturers. This concentration was as high as 61% in 2000 during its revenue peak. 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

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our products. While we have been successful in diversifying our business beyond OEM customers who serve the semiconductor and electronics industries, our business is still impacted by capital expenditures in these industries, which, in turn, are dependent upon the market demand for products containing computer chips. As a result, our operating results in the foreseeable future could be significantly and adversely affected by a slowdown in either of these industries.

Economic, political, and other risks associated with international sales and operations could adversely affect our business and operating results.

In 2006, approximately 65% of our revenue was derived from customers located outside of the United States. We anticipate that international sales will continue to account for a significant portion of our revenue. We intend to continue to expand our operations outside of the United States and may enter additional international markets, which will require significant management attention and financial resources. As a result, our operations are subject to the risks inherent in international sales, including, among other things:

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 our products less competitive relative to local product offerings, or could result in significant foreign currency losses if not properly hedged. We are 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 our operating results.

Fluctuations in foreign exchange rates could materially affect our reported results.

We face exposure to adverse movements in foreign currency exchange rates as a significant portion of our revenue, expenses, assets, and liabilities are denominated in currencies other than the functional currencies of our company. In certain instances, we utilize derivative instruments to hedge against foreign currency fluctuations. These contracts are used to reduce our risk associated with foreign currency exchange rate changes, as the gains or losses on the derivative are intended to offset the losses or gains on the underlying exposure. We do not engage in foreign currency speculation. The success of our foreign currency risk management program depends upon forecasts of transaction activity denominated in various currencies. To the extent that these forecasts are overstated or understated during periods of currency volatility, we could experience unanticipated foreign currency gains or losses that could have a material impact on our results of operations. In addition, our failure to identify new exposures and hedge them in a timely manner may result in material foreign currency gains or losses.

The loss of a large customer could have an adverse effect on our operating results.

In 2006, our top five customers accounted for approximately 11% of total revenue. Our expansion into the factory automation marketplace has reduced our reliance upon the revenue from any one of our larger OEM customers. Nevertheless, the loss of, or significant curtailment of purchases by, any one or more of our larger customers could have a material adverse effect on our operating results.

The failure of a key supplier to deliver quality product in a timely manner or our inability to obtain components for our products could adversely affect our operating results.

A significant portion of our MVSD inventory is manufactured by a third-party contractor. As a result, we are dependent upon this contractor to provide quality product and meet delivery schedules. We engage in extensive product quality programs and processes, including actively monitoring the performance of our third-party manufacturers; however, we may not detect all product quality issues through these programs and processes. In addition, a variety of components used in our products are only available

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from a single source. The announcement by a single-source supplier of a last-time component buy could result in our purchase of a significant amount of inventory 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 our operating results.

Our business could suffer if we lose the services of, or fail to attract, key personnel.

We are highly dependent upon the management and leadership of Robert J. Shillman, our Chief Executive Officer and Chairman of the Board of Directors, as well as other members of our senior management team, including James F. Hoffmaster, our President, who has full responsibility for running our day-to-day operations. Although we have retained many experienced and qualified senior managers, the loss of key personnel could have a material adverse effect on our company. Our continued growth and success also depends upon our ability to attract and retain skilled employees and on the ability of our officers and key employees to effectively manage the growth of our business through the implementation of appropriate management information systems and internal controls.

We have historically used stock options as a key component of our total employee compensation program in order to align employee interests with the interests of our shareholders, provide competitive compensation and benefits packages, and encourage employee retention. Beginning in the first quarter of 2006, Cognex was required to recognize compensation expense for all stock option grants. As a result, we incurred increased compensation costs associated with our stock-based compensation programs. Moreover, difficulties relating to obtaining shareholder approval of stock option plans could result in a reduction in the total number of options available for grant in future periods. Due to these factors, we may find it difficult to attract, retain, and motivate employees, and any such difficulty could materially adversely affect our business.

Our products may contain design or manufacturing defects, which could result in reduced demand, significant delays, or substantial costs.

If flaws in either the design or manufacture of our products were to occur, we could experience a rate of failure in our products that could result in significant delays in shipment and material repair or replacement costs. While we engage in extensive product quality programs and processes, including actively monitoring and evaluating the quality of our component suppliers and contract manufacturers, these actions may not be sufficient to avoid a product failure rate that results in:

substantial delays in shipment,

significant repair or replacement costs, or

potential damage to our reputation,

any of which could have a material adverse effect on our operating results.

Our failure to develop new products and to respond to technological changes could result in the loss of our market share and a decrease in our revenues.

The market for our products is characterized by rapidly changing technology. Accordingly, we believe that our future success will depend upon our ability to develop or acquire new products with improved price/performance and introduce them to the marketplace in a timely manner. We may not be able to introduce and market new products successfully and respond effectively to technological changes or new product introductions by competitors. Our ability to keep pace with the rapid rate of technological change in the high-technology marketplace could have a material adverse effect on our operating results.

Our failure to effectively manage product transitions or accurately forecast customer demand could result in excess or obsolete inventory and resulting charges.

Because the market for our products is characterized by rapid technological advances, we frequently introduce new products with improved hardware performance, additional software features and functionality, or lower cost that may replace existing products. Among the risks associated with the

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introduction of new products are difficulty predicting customer demand and effectively managing inventory levels to ensure adequate supply of the new product and avoid excess supply of the legacy product. In addition, we may strategically enter into non-cancelable commitments with vendors to purchase materials for our products in advance of demand in order to take advantage of favorable pricing or address concerns about the availability of future supplies. Our failure to effectively manage product transitions or accurately forecast customer demand, in terms of both volume and configuration, has led to, and may again in the future lead to, an increased risk of excess or obsolete inventory and resulting charges.

Our failure to properly manage the distribution of our products and services could result in the loss of revenue.

We use a variety of different distribution methods to sell our products and services, including third-party resellers and distributors, as well as direct sales to end users. Successfully managing the interaction of our direct and indirect sales channels to reach various potential customers for our products and services is a complex process. In addition, our reliance upon indirect distribution methods may reduce visibility to demand and pricing issues. Each distribution method has distinct risks and costs, and therefore, our failure to implement the most advantageous balance in the delivery model for our products and services could adversely affect our revenue and profitability.

If we fail to successfully defend our intellectual property, our competitive position and operating results could suffer.

We rely heavily on our proprietary software technology and hardware designs, as well as the technical expertise, creativity, and knowledge of our personnel. Although we use a variety of methods to protect our intellectual property, we rely most heavily on patent, trademark, copyright, and trade secret protection, as well as non-disclosure agreements with customers, suppliers, employees, and consultants. We also attempt to protect our intellectual property by restricting access to our proprietary information by a combination of technical and internal security measures. These measures, however, may not be adequate to:

protect our proprietary technology,

protect our patents from challenge, invalidation, or circumvention, or

ensure that our intellectual property will provide us with competitive advantages.

Any of these adverse circumstances could have a material effect on our operating results. We refer you to the section captioned Intellectual Property, appearing in Part I Item I of this report.

Our company may be subject to costly litigation.

From time to time, we 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. These matters can be time-consuming, divert our management s attention and resources, and cause us to incur significant expenses. Furthermore, the results of any of these actions may have a material adverse effect on our operating results.

Increased competition may result in decreased demand or prices for our products and services.

We compete with other vendors of machine vision systems, the internal engineering efforts of our current or prospective customers, and the manufacturers of image processing systems, automatic identification systems, and sensors. Any of these competitors may have greater financial and other resources than we do. In recent years, ease-of-use and product price have become significant competitive factors in the factory automation marketplace. We may not be able to compete successfully in the future and our investments in research and development, sales and marketing, and service activities may be insufficient to enable us to maintain our competitive advantage. In addition, competitive pressures could lead to price erosion that could materially and adversely affect our operating results. We refer you to the section captioned Competition, appearing in Part I Item 1 of this report.

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Implementation of our acquisition strategy may not be successful, which could affect our ability to increase our revenue or profitability.

We have in the past acquired, and will in the future consider the acquisition of, businesses and technologies in the machine vision industry. Our business may be negatively impacted by risks related to those acquisitions. These risks include, among others:

- the diversion of management s attention from other operational matters,
- the inability to realize expected synergies resulting from the acquisition,
- the failure to retain key customers or employees, 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 our operating results.

Attractive acquisition opportunities may not be available to us.

Our business strategy includes selective expansion into other machine vision applications through the acquisition of businesses and technologies. Since 1995, we have completed several business and technology acquisitions, including the acquisition of DVT Corporation in May 2005 and AssistWare Technology, Inc. in May 2006. We plan to continue to seek opportunities to expand our product line, customer base, distribution network, and technical talent through acquisitions in the machine vision industry. However, we may not have the opportunity to make suitable acquisitions on favorable terms in the future, which could negatively impact the growth of our business. We expect that other companies in the machine vision industry will compete with us to acquire compatible businesses. This competition could increase prices for businesses and technologies that we would likely pursue, and our competitors may have greater resources than we do.

The trading price of our common stock may be volatile.

The price of our common stock has historically experienced significant volatility due to:

- fluctuations in our revenue and earnings,
- changes in the market s expectations for our growth,
- overall equity market conditions,
- conditions relating to the market for technology stocks,
- general economic conditions, and
- other factors unrelated to our 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, such as our company, often for reasons unrelated to the operating results of the specific company.

We may have additional tax liabilities.

We are subject to income taxes in both the United States and numerous foreign jurisdictions. Significant judgment is required in determining our worldwide provision for income taxes. In the ordinary course of our business, there are many transactions and calculations where the ultimate tax determination is uncertain. We are regularly under audit by tax authorities. Although we believe our tax estimates are reasonable, the final determination of tax audits and any related litigation could be materially different than that which is reflected in historical income tax provisions and accruals. Based on the results of an audit or litigation, a material effect on our income tax provision, net income, or cash flows in the period or periods for which that determination is made could result.

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ITEM 1B. UNRESOLVED STAFF COMMENTS

There are no unresolved staff comments as of the date of this report.

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. This building is currently occupied with tenants who have lease agreements that expire at various dates through 2017. The Company also uses a portion of this space for storage and product demonstrations.

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.

The Company also is party to an agreement to purchase land and a 19,000 square-foot building adjacent to its corporate headquarters for $1,700,000, which amount was previously paid by the Company in the form of a deposit. The closing on the purchase of this property, which remains subject to customary closing conditions, is anticipated to occur in 2007. The Company expects to continue to lease this building to its current tenants who have lease agreements that expire at various dates through 2012.

ITEM 3: LEGAL PROCEEDINGS

On March 13, 2006, the Company filed a Declaratory Judgment action in the United States District Court for Minnesota seeking that certain patents being asserted by Acacia Research Corporation and Veritec, Inc., and their respective subsidiaries, be ruled invalid, unenforceable, and/or not infringed by Cognex Corporation. The patent assertions relate to two-dimensional symbology reading; in particular, the defendants have alleged that any company reading a data matrix code infringe the subject patents. Certain defendants in the action have asserted counterclaims against Cognex Corporation, seeking unspecified damages. The litigation is in its early stages and discovery will begin shortly. Cognex Corporation cannot predict the outcome of this matter, and although the Company believes it has a meritorious case, an adverse resolution of this lawsuit could have a material adverse effect on the Company s financial position, liquidity, results of operations, and/or indemnification obligations.

Various other claims and legal proceedings generally incidental to the normal course of business are pending or threatened on behalf of or against Cognex Corporation. While the Company cannot predict the outcome of these matters, in the opinion of management, any liability arising from them will not have a material adverse effect on the Company s financial position, liquidity, or results of operations after giving effect to provisions already recorded.

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, 2006 to a vote of security holders through solicitation of proxies or otherwise.

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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, 2006, all of whom have been employed by the Company in their present or other capacities for no less than the past five years:

Name	Age	Title
Robert J. Shillman	60	Chief Executive Officer and Chairman of the Board of Directors
James F. Hoffmaster	55	President and Chief Operating Officer
Eric Ceyrolle	53	Executive Vice President of Worldwide Sales and Marketing, MVSD
Richard A. Morin	57	Senior Vice President of Finance and Administration, Chief Financial Officer, and Treasurer

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

Other members of the senior management team include the following individuals, all of whom have been employed by the Company in their present or other capacities for no less than the past five years:

Name	Age	Title
Markku Jaaskelainen	52	Senior Vice President and General Manager, SISD
Marilyn Matz	53	Senior Vice President, Semiconductor and Electronics
E. John McGarry	50	Senior Vice President, Research and Development
Akira Nakamura	62	President, Cognex K.K.
Kris Nelson	59	Senior Vice President, Factory Automation
William Silver	53	Senior Vice President and Senior Fellow
Justin Testa	54	Senior Vice President, ID Products and Sensor Products

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PART II

ITEM 5: MARKET FOR REGISTRANT S COMMON EQUITY, RELATED STOCKHOLDER MATTERS AND ISSUER PURCHASES OF EQUITY SECURITIES

Information with respect to this item may be found in the sections captioned Selected Quarterly Financial Data (Unaudited), Stock Performance Graph and Company Information, appearing on pages 57, 58 and 61, respectively, of the Annual Report to Shareholders for the year ended December 31, 2006, which is attached as Exhibit 13 hereto, and is incorporated herein by reference.

The following table sets forth information as of and for the quarter ended December 31, 2006 with respect to the Company s stock repurchase program.

Period of Repurchase	Total Number of Shares Purchased	Average Price Paid Per Share	Total Number of Shares Purchased as Part of Publicly Announced Plans or Programs (1)	Approximate Dollar Value of Shares that May Yet be Purchased under the Plans or Programs
October 2 November 1, 2006				$ 80,587,000
November 2 December 1, 2006	125,787	$ 24.83	125,787	77,464,000
December 2 December 31, 2006	76,384	24.57	76,384	75,587,000
	202,171	$ 24.73	202,171	$ 75,587,000

(1) On July 27, 2006, the Company s Board of Directors authorized the repurchase of up to $100,000,000 of the Company s common stock.

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 56 of the Annual Report to Shareholders for the year ended December 31, 2006, which is attached as 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 15 through 27 of the Annual Report to Shareholders for the year ended December 31, 2006, which is attached as 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 26 and 27 of the Annual Report to Shareholders for the year ended December 31, 2006, which is attached as 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, reports of independent registered public accounting firms, and supplementary data, may be found on pages 28 through 58 of the Annual Report to Shareholders for the year ended December 31, 2006, which is attached as Exhibit 13 hereto, and is incorporated herein by reference.

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ITEM 9: CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURE

There were no disagreements with accountants on accounting or financial disclosure during 2006 or 2005.

ITEM 9A: CONTROLS AND PROCEDURES

Disclosure Controls and Procedures

As required by Rules 13a-15 and 15d-15 of the Securities Exchange Act of 1934, the Company has evaluated, with the participation of management, including the Chief Executive Officer and the Chief Financial Officer, the effectiveness of its disclosure controls and procedures (as defined in such rules) as of the end of the period covered by this report. Based on such evaluation, the Chief Executive Officer and Chief Financial Officer concluded that such disclosure controls and procedures were effective as of that date. From time to time, the Company reviews its disclosure controls and procedures, 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.

Management s Report on Internal Control over Financial Reporting

Information with respect to this item may be found in the section captioned Report of Management on Internal Control Over Financial Reporting, appearing on page 54 of the Annual Report to Shareholders for the year ended December 31, 2006, which is attached as Exhibit 13 hereto, and is incorporated herein by reference.

Registered Public Accounting Firm s Report on Internal Control Over Financial Reporting

Information with respect to this item may be found in the section captioned Report of Independent Registered Public Accounting Firm on Internal Control Over Financial Reporting, appearing on page 55 of the Annual Report to Shareholders for the year ended December 31, 2006, which is attached as Exhibit 13 hereto, and is incorporated herein by reference.

Changes in Internal Control Over Financial Reporting

There have been no changes in the Company s internal control over financial reporting that occurred during the fourth quarter of the year ended December 31, 2006 that have materially affected, or are reasonably likely to materially affect, the Company s internal control over financial reporting.

ITEM 9B: OTHER INFORMATION

None

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PART III

ITEM 10: DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE

Information with respect to Directors and Executive Officers of the Company required by Item 10 shall be included in the Company s definitive Proxy Statement for the Special Meeting in Lieu of the 2007 Annual Meeting of Shareholders to be held on April 18, 2007 and is incorporated herein by reference. In addition, certain 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 Item 4A of this Annual Report on Form 10-K.

The Company has adopted a Code of Business Conduct and Ethics covering all employees, which is available, free of charge, on the Company s website, www.cognex.com. The Company intends to disclose any amendments to or waivers of the Code of Business Conduct and Ethics on behalf of the Company s Chief Executive Officer, Chief Financial Officer, Controller, and persons performing similar functions on the Company s website.

ITEM 11: EXECUTIVE COMPENSATION

Information with respect to executive compensation required by Item 11 shall be included in the Company s definitive Proxy Statement for the Special Meeting in Lieu of the 2007 Annual Meeting of Shareholders to be held on April 18, 2007 and is incorporated herein by reference.

ITEM 12: SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT AND RELATED STOCKHOLDER MATTERS

Information with respect to security ownership and the other matters required by Item 12 shall be included in the Company s definitive Proxy Statement for the Special Meeting in Lieu of the 2007 Annual Meeting of Shareholders to be held on April 18, 2007 and is incorporated herein by reference.

The following table provides information as of December 31, 2006 regarding shares of common stock that may be issued under the Company s existing equity compensation plans.

Plan Category	Number of securities to be issued upon exercise of outstanding options, warrants, and rights (a)	Weighted-average exercise price of outstanding options, warrants, and rights (b)	Number of securities remaining available for future issuance under equity compensation plans (excluding securities reflected in column (a)) (c)
Equity compensation plans approved by shareholders	11,069,029(1)	$ 26.01	3,623,911(2)
Equity compensation plans not approved by shareholders	255,125(3)	21.20	7,500,000(4)
	11,324,154	$ 25.90	11,123,911

(1)

Includes shares to be issued upon exercise of outstanding options under the Company s 1991 Isys Controls, Inc. Long-Term Equity Incentive Plan, 1993 Stock Option Plan, 1993 Stock Option Plan for Non-Employee Directors, 1998 Stock Incentive Plan, and 1998 Non-Employee Director Stock Option Plan. Does not include purchase rights accruing under the Employee Stock Purchase Plan (ESPP) because the purchase price (and therefore the number of shares to be purchased) will not be determined until the end of the purchase period.

(2) Includes shares remaining available for future issuance under the Company s 1998 Stock Incentive Plan and 1998 Non-Employee Director Stock

Option Plan. Includes 240,235 shares available for future issuance under the ESPP.

(3) Includes shares to be issued upon the exercise of outstanding options under the Company s 2001 Interim General Stock Incentive Plan.

(4) Includes shares remaining available for future issuance under the Company s 2001 General Stock Option Plan.

The 2001 General Stock Option Plan was adopted by the Board of Directors on December 11, 2001 without shareholder 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.

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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 shareholder 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. All 400,000 stock options have been granted under the 2001 Interim General Stock Incentive Plan.

ITEM 13: CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS, AND DIRECTOR INDEPENDENCE

Information with respect to certain relationships and related transactions required by Item 13 shall be included in the Company s definitive Proxy Statement for the Special Meeting in Lieu of the 2007 Annual Meeting of Shareholders to be held on April 18, 2007 and is incorporated herein by reference.

ITEM 14: PRINCIPAL ACCOUNTANT FEES AND SERVICES

Information with respect to principal accountant fees and services required by Item 14 shall be included in the Company s definitive Proxy Statement for the Special Meeting in Lieu of the 2007 Annual Meeting of Shareholders to be held on April 18, 2007 and is incorporated herein by reference.

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PART IV

ITEM 15: EXHIBITS AND FINANCIAL STATEMENT SCHEDULES

(1) Financial Statements

The following consolidated financial statements of Cognex Corporation and the reports of independent public accounting firms relating thereto are included in the Company s Annual Report to Shareholders for the year ended December 31, 2006, which is attached as Exhibit 13 hereto, and are incorporated herein by reference:

Consolidated Statements of Operations for the years ended December 31, 2006, 2005, and 2004

Consolidated Balance Sheets at December 31, 2006 and 2005

Consolidated Statements of Shareholders Equity for the years ended December 31, 2006, 2005, and 2004

Consolidated Statements of Cash Flows for the years ended December 31, 2006, 2005, and 2004

Notes to Consolidated Financial Statements

Reports of Independent Public Accounting Firms

(2) Financial Statement Schedule

Included at the end of this report are the following:

Report of Independent Registered Public Accounting Firm 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, immediately preceding such Exhibits.

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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

By: /s/ Robert J. Shillman
Robert J. Shillman
Chief Executive Officer and Chairman of the Board of Directors

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.

Signature	Title	Date
/s/ Robert J. Shillman Robert J. Shillman	Chief Executive Officer and Chairman of the Board of Directors (principal executive officer)	February 28, 2007
/s/ Richard A. Morin Richard A. Morin	Senior Vice President of Finance and Administration, Chief Financial Officer, and Treasurer (principal financial and accounting officer)	February 28, 2007
/s/ Patrick Alias Patrick Alias	Director	February 28, 2007
/s/ Jerald Fishman Jerald Fishman	Director	February 28, 2007
/s/ Anthony Sun Anthony Sun	Director	February 28, 2007
/s/ Reuben Wasserman Reuben Wasserman	Director	February 28, 2007

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COGNEX CORPORATION SCHEDULE II VALUATION AND QUALIFYING ACCOUNTS

Description	Balance at Beginning of Period	Additions Charged to Costs and Expenses	Additions Charged to Other Accounts	Deductions	Other	Balance at End of Period
		(Dollars in thousands)				
Reserve for Uncollectible Accounts:						
2006	$ 2,370	$ 200	$	$ (273)(a)	$ (635)(b)	$ 1,662
2005	2,596			(81)(a)	(145)(b)	2,370
2004	2,613			(167)(a)	150(b)	2,596
Reserve for Inventory Obsolescence:						
2006	$ 13,770	$1,486	$	$(2,647)(c)	$(1,079)(d)	$ 11,530
2005	14,772	1,334		(1,577)(c)	(759)(d)	13,770
2004	17,408	375		(2,206)(c)	(805)(d)	14,772

(a) Specific write-offs

(b) Foreign exchange rate changes; 2006 also includes an $800,000 reversal of previously-established reserves that were not supported by specific uncollectible accounts

(c) Specific write-offs and scrap

(d) Sale of previously reserved inventory

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EXHIBIT INDEX

EXHIBIT NUMBER	
2A	Agreement and Plan of Merger, dated May 9, 2005, by and among Cognex, Tango Acquisition Corp. and DVT Corporation (excluding schedules and exhibits which the registrant agrees to furnish supplementally to the Commission upon request) (incorporated by reference to Exhibit 2.1 of Cognex s Current Report on Form 8-K filed on May 11, 2005 [File No. 0-17869])
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 (incorporated by reference to Exhibit 3A of Cognex s Annual Report on Form 10-K for the year ended December 31, 2002 [File No. 0-17869])
3B	By-laws of the Company, as amended March 16, 1998 (incorporated by reference to Exhibit 3B of Cognex s Annual Report on Form 10-K for the year ended December 31, 2002 [File No. 0-17869])
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 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])
10B	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])
10C	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])
10D	Amendment to the Cognex Corporation 1993 Stock Option Plan for Non-Employee Directors (incorporated by reference to Exhibit 10E of Cognex s Annual Report on Form 10-K for the year ended December 31, 2002 [File No. 0-17869])
10E	Amendment to the Cognex Corporation 1993 Stock Option Plan (incorporated by reference to Exhibit 10F of Cognex s Annual Report on Form 10-K for the year ended December 31, 2002 [File No. 0-17869])
10F	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])
10G	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])
10H	

	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])
10I	Second Amendment to the Cognex Corporation 1998 Stock Incentive Plan (incorporated by reference to Exhibit 10.3 of Cognex s Quarterly Report on Form 10-Q for the quarter ended July 2, 2006 [File No. 0-17869])
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	First Amendment to 2000 Employee Stock Purchase Plan (incorporated by reference to Exhibit 10.2 of Cognex s Quarterly Report on Form 10-Q for the quarter ended July 3, 2005 [File No. 0-17869])
10L	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])

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EXHIBIT NUMBER	
10M	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])
10N	Transition Loan Agreement between James F. Hoffmaster and Cognex Corporation, dated May 24, 2001 (incorporated by reference to Exhibit 10M of Cognex s Annual Report on Form 10-K for the year ended December 31, 2002 [File No. 0-17869])
10O	Termination Agreement between James F. Hoffmaster and Cognex Corporation dated June 4, 2001 (incorporated by reference to Exhibit 10N of Cognex s Annual Report on Form 10-K for the year ended December 31, 2002 [File No. 0-17869])
10P	Form of Stock Option Agreement (Non-Qualified) under 1998 Stock Incentive Plan (incorporated by reference to Exhibit 10.1 of Cognex s Quarterly Report on Form 10-Q for the quarter ended October 3, 2004 [File No. 0-17869])
10Q	Form of Stock Option Agreement (Non-Qualified) under 1998 Non-Employee Director Stock Plan (incorporated by reference to Exhibit 10.2 of Cognex s Quarterly Report on Form 10-Q for the quarter ended October 3, 2004 [File No. 0-17869])
10R	Supplemental Retirement and Deferred Compensation Plan effective April 1, 1995 (incorporated by reference to Exhibit 10P of Cognex s Annual Report on Form 10-K for the year ended December 31, 2004 [File No. 0-17869])
10S	Summary of Annual Bonus Program *
10T	Summary of Director Compensation*
13	Annual Report to Shareholders for the year ended December 31, 2006 (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) *
14	Code of Business Conduct and Ethics as amended March 12, 2004 (incorporated by reference to Exhibit 14 of Cognex s Annual Report on Form 10-K for the year ended December 31, 2004 [File No. 0-17869])
21	Subsidiaries of the registrant *
23.1	Consent of Ernst & Young LLP *
31.1	Certification of Chief Executive Officer*
31.2	Certification of Chief Financial Officer*
32.1	Certification pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 (CEO)**
32.2	Certification pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 (CFO)**

* Filed herewith

** Furnished herewith