DATA I/O CORP
Form 10-K
March 28, 2016

UNITED STATES

SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

(Mark One)   **FORM 10-K**

(X)   **ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE**

SECURITIES EXCHANGE ACT OF 1934

For the fiscal year ended **December 31, 2015**

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: **0-10394**
DATA I/O CORPORATION
(Exact name of registrant as specified in its charter)

Washington	91-0864123
(State or other jurisdiction of incorporation)	(I.R.S. Employer Identification No.)

6645 185th Ave NE, Suite 100, Redmond, Washington, 98052
(425) 881-6444
(Address, including zip code, of registrant's principle executive offices and telephone number,
including area code)

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

Title of each class	Name of each exchange on which registered
Common Stock (No Par Value)	Nasdaq Capital Market

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

None

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

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

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 X No __

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

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K (§229.405 of this chapter) is not contained herein and will not be contained, to the best of registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K. _X_

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

 Large accelerated filer __ Accelerated filer __ Non-accelerated filer __ Smaller reporting company X

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

Aggregate market value of voting and non-voting common equity held

by non-affiliates on the registrant as of June 30, 2015:

$25,317,395

Shares of Common Stock, no par value, outstanding as of March 24, 2016:

7,905,748

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the registrant's Proxy Statement relating to its May 24, 2016 Annual Meeting of Shareholders are incorporated into Part III of this Annual Report on Form 10-K.

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DATA I/O CORPORATION

FORM 10-K
For the Fiscal Year Ended December 31, 2015

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PART I

Item 1. Business

This Annual Report on Form 10-K and the documents incorporated herein by reference contain forward-looking statements based on current expectations, estimates and projections about Data I/O Corporation's industry, management's beliefs and certain assumptions made by management. See "Management's Discussion and Analysis of Financial Condition and Results of Operations – Forward Looking Statements."

General

Data I/O Corporation ("Data I/O", "We", "Our", "Us") is a global market leader for advanced programming and associated intellectual property management solutions used in the manufacturing of flash, microcontrollers, and flash-memory-based intelligent devices. Data I/O® designs, manufactures and sells programming systems for electronic device manufacturers, specifically targeting high growth areas such as high-volume users of flash memory and microcontrollers. Most electronic products today incorporate one or more programmable semiconductor devices that contain data and operating instructions essential for the proper operation of the product.

Our mission is to deliver high-value systems, software and services to the expanding programmable semiconductor market by providing a software-rich programming platform for content delivery. Programmable devices are used in products such as automobile electronics, smartphones, HDTV, tablets and gaming systems. Our solutions, some of which include associated intellectual property management, secure content management and process control capabilities, enable us to address the demanding requirements of the electronic device market, where applications and intellectual property protection are essential to our customer's success. Our largest customers are heavy users of programmable semiconductor devices and include original equipment manufacturers ("OEMs") in automotive electronics, wireless, consumer electronics and the Internet of Things ("IoT") and their electronic manufacturing service ("EMS") contract manufacturers.

Data I/O was incorporated in the State of Washington in 1969 and its business was founded in 1972.

Industry Background

We enable companies to improve productivity and reduce costs by providing device programming solutions that allow our customers to take intellectual property (large design and data files) and protect and program it into memory, microcontroller and logic devices quickly and cost-effectively. We also provide services related to hardware support, system installation and repair, and device programming. Companies that design and manufacture products utilizing programmable electronic devices, ranging from automobiles to cell phones, purchase programming solutions from us. Trends of increasing device densities and customers increasing their software content file sizes, combined with the increasing numbers of intelligent devices such as automotive electronics and IoT applications, are driving demand for our solutions.

Traditionally, our programming market opportunity focused on the number of semiconductor devices to be programmed, but because of the rapid increase in the density of devices, the focus has shifted in many cases from the number of devices to the number of bits per device to be programmed. With expected growth in IoT applications, the business opportunity for this market differentiates on quality and automation with increasing focus on security and very small devices.

Our automated programming systems integrate both programming and handling functions into a single product solution. Quality conscious customers, particularly those in high-volume manufacturing and programming, continue to drive this portion of our business.

Products

In order to accommodate the expanding variety and quantities of programmable devices being manufactured today, we offer multiple solutions for the numerous types of device mix and volume usage by our customers in the various market segments and applications. We work closely with leading manufacturers of programmable devices to develop our products to meet the requirements of a particular device. Our newer products are positioned and recognized as some of the most advanced programming equipment and associated intellectual property management solutions.

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Our PSV7000 Automated Programming System has continued to be adopted in the marketplace, in particular for automotive electronics customers, and has previously won the Global Technology Award at Productronica, the Circuits Assembly NPI Award and the EM Asia Innovation Award. Our PSV3000 Automated Programming System, developed for the local Asian automation market, was introduced in July 2014 and has previously won the Global Technology Award for Device Programming at SMTA International, the EM Asia Innovation Award and the SMT China Vision Award. Our PSV5000 automated programming system, which replaces our PS388 system with a more integrated solution at a lower cost, was introduced in April 2015. Our LumenX^{TM} programmer won the Global Technology Award at Productronica in November 2015 and the Circuits Assembly NPI award in March 2016. In 2015, approximately 69% of our capital equipment sales came from PSV family and LumenX™ which were introduced over the last 3 years.

Our programming solutions include a broad range of products, systems, modules and accessories, grouped into two general categories: automated programming systems and manual programming systems. We provide two categories of automated programming systems: off-line and in-line. Our automated systems have list selling prices ranging from $61,000 to $390,000 and our manual systems have list selling prices ranging from $9,500 to $27,000. Our common programming platform, FlashCORE™, and our universal job setup tool, Tasklink™ for Windows®, are available in each family of our automated programming systems and in FlashPAK™, our manual programming system. Our newest programming technology, LumenX™, is available on our PSV7000 and as a standalone manual programmer. In addition, we provide device support and service on all of our products. Device support is a critical aspect of our business and consists of writing software algorithms for devices and developing socket adapters to hold and connect to the device for programming.

Our products have both an upfront solution sale and recurring revenue elements. Adapters are a consumable item and software and maintenance are typically recurring under annual subscription contracts. We experienced a larger percentage of capital equipment sales in 2015 compared to 2014, which we believe was primarily due to a rebound in capital spending.

Sales Percentage of Total Sales Breakdown by Type

Sales Type	2015	2014	Drivers
Equipment Sales	65%	60%	Capacity, Process improvement, Technology
Adapter Sales	25%	28%	Capacity utilization, New customer products
Software and Maintenance Sales	10%	12%	Installed base, Added capabilities
Total	**100%**	**100%**	

The table below presents our main products and the key features that benefit our customers:

Products	Key Features	Customer Benefits
PSV Handlers: Off-line (Automated)	• Fast program and verify speeds • Up to 114 programming sites • Up to 2000 devices per hour throughput • Supports LumenX™ and FlashCORE III programmers • Supports multiple media types • Supports quality options – fiber laser marking, 3D coplanarity • Factory Integration Software & other Software	• Managed and secure programming • High throughput for high density Flash programming • High flexibility with respect to I/O options (tray, tape, tube), marking/labeling and vision for coplanarity inspection
RoadRunner & RoadRunner3 Series Handlers: In-line, (Automated)	• Just-in-time in-line programming • Direct integration with placement machine supporting SIPLACE, Fuji NXT, Panasonic, Universal/Genesis and Assembleon • Factory Integration Software • Supports FlashCORE III programmers	• Dramatic reduction in inventory carrying and rework costs • "Zero" footprint • Rapid return on investment ("ROI") typically realized in a matter of months • Integration with factory systems

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Products	Key Features	Customer Benefits
LumenX™ Programmer	• Extensible architecture for fast program, verify and download speeds	• Managed and secure programming
	• Large file size support	• Fast setup and job changeover
	• Secure Job creation	• Highest yield and low total cost of programming
	• 8 sockets with tool-less changeover with single socket adapters	
FlashPAK III programmer:	• Scalability	• Validate designs before moving down the firmware supply chain
	• Network control via Ethernet	
(Non-Automated)	• Stand-alone operation or PC compatible	• Unmatched ease of use in manual production systems
	• Parallel programming	
Sprint/Unifamily programmers: Off-line, Low Volume and Engineering	• Breadth of device coverage	• Universal programmer
(Non-Automated)		
(Legacy Equipment)		

Customers/Markets

We sell our solutions to customers worldwide, many of whom are world-class manufacturers of electronic devices used in a broad range of industries, as described in the following table:

Customer Types

	Automotive Electronics	OEMs IoT, Industrial, Consumer Electronics	Wireless	EMS Contract Manufacturers	Programming Centers
Notable end customers	Delphi, Bosch, Alpine, Visteon, Kostal, Harman Becker, Denso, Continental, Panasonic,	Square D, Siemens, Danfoss, Philips, Schneider, Endress+Hauser, Pilz, Insta, Carrier, Microsoft,			

Magna, Magnetti Marelli

Sony, Amazon, UTC