

DATA I/O CORP  
Form 10-K  
March 28, 2017

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

(Mark One)

**FORM 10-K**

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

For the fiscal year ended **December 31, 2016**

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 185<sup>th</sup> 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  
Common Stock (No Par Value)

Name of each exchange on which registered  
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 ☒

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 ☒

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes ☒ No ☐

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (§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 ☒ 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. ☒

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 ☒

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

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

by non-affiliates on the registrant as of June 30, 2016:

\$17,867,842

Shares of Common Stock, no par value, outstanding as of March 17, 2017:

8,048,516

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the registrant's Proxy Statement relating to its May 18, 2017 Annual Meeting of Shareholders are incorporated into Part III of this Annual Report on Form 10-K.

**DATA I/O CORPORATION**  
**FORM 10-K**  
**For the Fiscal Year Ended December 31, 2016**

**INDEX**

Part I		<u>Page</u>
Item 1.	Business	3
Item 1A.	Risk Factors	10
Item 1B.	Unresolved Staff Comments	17
Item 2.	Properties	17
Item 3.	Legal Proceedings	18
Item 4.	Mine Safety Disclosures	18
 Part II		
Item 5.	Market for Registrant’s Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities	18
Item 6.	Selected Financial Data	18
Item 7.	Management’s Discussion and Analysis of Financial Condition and Results of Operations	19
Item 7A.	Quantitative and Qualitative Disclosures About Market Risk	26
Item 8.	Financial Statements and Supplementary Data	26
Item 9.	Changes in and Disagreements with Accountants on Accounting and Financial Disclosure	45
Item 9A.	Controls and Procedures	45
Item 9B.	Other Information	45
 Part III		

Item 10.	Directors, Executive Officers and Corporate Governance	46
Item 11.	Executive Compensation	46
Item 12.	Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters	46
Item 13.	Certain Relationships and Related Transactions and Director Independence	47
Item 14.	Principal Accounting Fees and Services	47
Part IV		
Item 15.	Exhibits, Financial Statement Schedules	48
Item 16.	Form 10-K Summary	52
Signatures		53

## **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 memory, 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 secure content delivery. Programmable devices are used in products such as automobile electronics, smartphones, HDTV, tablets and gaming systems. Our solutions, some of which include 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, consumer electronics and Internet of Things ("IoT") and their programming center partners, wireless and 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, increase supply chain security 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, shrinking device packages, increased demands for security, 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, and increasing demands for supply chain security, the focus has shifted in many cases from the number and type of devices to the number and type of bits per device to be programmed. With expected growth in IoT applications, the business opportunity for this market differentiates on quality, security and automation.

Some of our automated programming systems integrate both data programming, and automated handling functions into a single product solution. Moving forward, we anticipate integrating security provisioning as well. 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.





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 Lumen™ X programmer won the Global Technology Award at Productronica in November 2015 and the Circuits Assembly NPI award in March 2016. In 2016, approximately 78% 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 \$62,000 to \$456,000 and our manual systems have list selling prices ranging from \$9,500 to \$23,000. 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, PSV5000 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.

<b>Sales Percentage of Total Sales Breakdown by Type</b>			
<b>Sales Type</b>	<b>2016</b>	<b>2015</b>	<b>Drivers</b>
Equipment Sales	66%	65%	Capacity, Process improvement, Technology
Adapter Sales	25%	25%	Capacity utilization, New customer products
Software and Maintenance Sales	9%	10%	Installed base, Added capabilities
<b>Total</b>	<b>100%</b>	<b>100%</b>	

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)	<ul style="list-style-type: none"> <li>• Fast program and verify speeds</li> <li>• Up to 112 programming sites</li> <li>• Up to 2000 devices per hour throughput</li> <li>• Supports LumenX and FlashCORE III programmers</li> <li>• Supports multiple media types</li> <li>• Supports quality options – fiber laser marking, 3D coplanarity</li> </ul>	<ul style="list-style-type: none"> <li>• Managed and secure programming</li> <li>• High throughput for high density Flash programming</li> <li>• High flexibility with respect to I/O options (tray, tape, tube), marking/labeling and vision for coplanarity inspection</li> </ul>
RoadRunner & RoadRunner3 Series Handlers:  In-line, (Automated)	<ul style="list-style-type: none"> <li>• ConneX Factory Integration Software &amp; other Software</li> <li>• Just-in-time in-line programming</li> <li>• Direct integration with placement machine supporting SIPLACE, Fuji NXT, Panasonic, Universal/Genesis and Assembleon</li> <li>• Factory Integration Software</li> <li>• Supports FlashCORE III programmers</li> </ul>	<ul style="list-style-type: none"> <li>• Dramatic reduction in inventory carrying and rework costs</li> <li>• “Zero” footprint</li> <li>• Rapid return on investment (“ROI”) typically realized in a matter of months</li> <li>• Integration with factory systems</li> </ul>

Products	Key Features	Customer Benefits
LumenX Programmer	<ul style="list-style-type: none"> <li>• Extensible architecture for fast program, verify and download speeds</li> <li>• Large file size support</li> <li>• Secure Job creation</li> <li>• 8 sockets with tool-less changeover with single socket adapters</li> </ul>	<ul style="list-style-type: none"> <li>• Managed and secure programming</li> <li>• Fast setup and job changeover</li> <li>• Highest yield and low total cost of programming</li> <li>• High performance</li> <li>• Validate designs before moving down the firmware supply chain</li> <li>• Unmatched ease of use in manual production systems</li> <li>• Universal programmer</li> </ul>
FlashPAK III programmer: (Non-Automated)	<ul style="list-style-type: none"> <li>• Scalability</li> <li>• Network control via Ethernet</li> <li>• Stand-alone operation or PC compatible</li> <li>• Parallel programming</li> <li>• Breadth of device coverage</li> </ul>	
Sprint/Unifamily programmers: Off-line, Low Volume and Engineering (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			EMS Contract Manufacturers	Programming Centers
	Automotive Electronics	OEMs IoT, Industrial, Consumer Electronics	Wireless		
<b>Notable end customers</b>	Delphi, Bosch, Alpine, Visteon, Kostal, Harman Becker,	Square D, Siemens, Danfoss, Philips, Schneider, Endress+Hauser, Pilz, Insta,	LG, TCL, Blackberry, Sony, HTC, ZTE	Pegatron, Flextronics, Jabil, Wistron, Sanmina SCI, Foxconn, Leysys, Calcomp	Arrow, Avnet, BTV, HTV, CPS, EPS, Elmittech, Noa(Toshiba)

	Denso, Continental, Panasonic, Magna, Magnetti Marelli	Carrier, Microsoft, Sony, Amazon, UTC			
<b>Business drivers</b>	Safety, navigation and infotainment devices, increased electronic content to support autonomous driving, security	Higher functionality driven by increasing electronic content. Shift from analog to connected intelligent devices, security	Applications, features & functionality of converged devices, large memories, security	Acquisition of OEM factories, production contract wins	Value-added services, logistics, security
<b>Programming equipment drivers</b>	Process improvement and simplification, new product rollouts, growing file sizes, quality control and traceability, security	Process improvement and simplification as well as new product rollouts, security	Rollout of new products that incorporate higher functionality, more memory and new technology	New contracts from OEMs, programming solutions specified by OEMs	Capacity utilization of their installed base of equipment, small parts handling, security

<b>Buying criteria</b>	Quality, reliability, configuration control, traceability, global support, intellectual property protection	Quality, reliability, configuration control, traceability, security	Throughput, technical capability to support evolving technology, global support, intellectual property protection, robust algorithms, low cost	Lowest equipment procurement cost, global support	Flexibility, lowest life-cycle cost-per programmed-part, low changeover time; use of multiple vendors provides negotiating leverage, device support availability
------------------------	---	---	--	---	--

Our solutions address the programming of devices. Semiconductor devices are a large, growing market, both in terms of devices and bits programmed. We believe that our sales are driven by many of the same forces that propel the semiconductor industry. We sell to the same firms that buy the semiconductors. When their business grows, they buy more semiconductors which, in turn, require additional programming equipment to maintain production speeds or program new device technologies, driving demand for our products or alternative programming methods.

Our device programming solutions currently target two high growth, high volume markets: automotive electronics and IoT systems including Industrial and Consumer devices.

We have derived estimates of the size of the pre-programming served available market that our programming systems address. In 2015, we believed this market was expected to double during the period from 2015-2020 based on BI Intelligence estimates of IoT Unit Growth and key automotive electronics forecasts. These forecasts include: Global Automotive Infotainment Operating System Sales Forecast by IHS Automotive, showing unit growth doubling over four years, as well as OEM Light Vehicle ADAS (Advanced Driver Assist Systems) Spend by Strategy Analytics for spending growth projected by year through 2021. While we have not updated our market model this year, the continued strong order demand in 2016, particularly in Automotive Electronics, is consistent with the 2015 model. Based on these market forecasts and assuming sustained capital spending in our other pre-programming market sectors, we believe we are well-positioned for growth.

#### Growth drivers for automotive electronics

- Consumers desire advanced car features requiring higher levels of sophistication including infotainment products (audio, radio, dashboard displays, navigation and wireless connectivity) as well as increased safety features and optimized engine functionality

- Increasing numbers and size of microcontrollers per vehicle
- Proliferation of programmable microcontrollers to support the next-generation electronic car systems
- Increasing use of high-density flash to provide memory for advanced applications that require programming
- Increasing complexity to support autonomous vehicles
- Increasing need for security solutions for a secure supply chain and lifecycle firmware integrity

Growth drivers for IoT: including industrial and consumer devices

- Securely controlling groups of connected devices through a secure supply chain and lifecycle firmware integrity
- Adding intelligence and processing into devices
- Connecting previously unconnected devices to networks and the internet (such as intelligent thermostats and lighting)
- Emergence of new devices and applications (such as wearables)

During 2016, we sold products to over 300 customers throughout the world. The following customers represented greater than 10% of sales in the applicable year:

2016 Four customers, Data Copy Limited, our distributor in China, Arrow, Bosch and BTV, accounted for approximately 16%, 13%, 11% and 10% of net sales respectively. Arrow and BTV are Programming Centers and Bosch is an Automotive Electronics OEM.

2015 One customer, Data Copy Limited, our distributor in China, accounted for approximately 15% of net sales.

2014 One customer, Data Copy Limited, our distributor in China, accounted for approximately 12% of net sales.

The following customers represented greater than 10% of our consolidated accounts receivable balance as of December 31 of the applicable year:

2016 Three customers accounted for greater than 10% of our consolidated accounts receivable balance at December 31, 2016: Bosch and Arrow our direct customers, and Data Copy Limited, our distributor in China, represented 30%, 16% and 14% of that balance, respectively.

2015 Four customers accounted for greater than 10% of our consolidated accounts receivable balance at December 31, 2015: Data Copy Limited, our distributor in China, LeChamp, our distributor in south-east Asia, and Flextronics and Arrow, our direct customers, represented 24%, 13%, 12% and 11% of that balance, respectively.

2014 No customers represented greater than 10% of our consolidated accounts receivable.

## **Geographic Markets and Distribution**

We market and sell our products through a combination of direct sales, internal telesales and indirect sales representatives and distributors. We continually evaluate our sales channels against our evolving markets and customers and realign them as necessary to ensure that we reach our existing and potential customers in the most effective and efficient manner possible.

### **U.S. Sales**

We market our products throughout the U.S. using a variety of sales channels, including our own field sales management personnel, independent sales representatives and direct telesales. Our U.S. independent sales representatives obtain orders on an agency basis, with shipments made directly to the customer by us. Net sales in the United States for 2016, 2015 and 2014 were (in millions) \$2.9, \$2.2 and \$2.1, respectively. Some of our customer's orders delivered internationally are heavily influenced by U.S. sales based efforts.

## International Sales

International sales represented approximately 88%, 90% and 90% of net sales in 2016, 2015, and 2014, respectively. We make foreign sales through our wholly-owned subsidiaries in Germany and China, as well as through independent distributors and sales representatives located in 47 other countries. Our independent foreign distributors purchase our products for resale and we generally recognize the sale at the time of shipment to the distributor. As with U.S. sales representatives, sales made by international sales representatives are on an agency basis, with sales made directly to the customer by us.

Net international sales for 2016, 2015, and 2014 were (in millions) \$20.5, \$19.8 and \$19.8, respectively. We determine international sales by the international geographic area into which the products are sold and delivered, and include not only sales by foreign subsidiaries but also export sales from the U.S. to our foreign distributors and to our representatives' customers. International sales do not include transfers between Data I/O and our foreign subsidiaries. Export sales are subject to U.S. Department of Commerce regulations. We have not, however, experienced difficulties to date as a result of these requirements. We have not made sales to Iran or any Iranian governmental entities or any other blacklisted companies or countries.

Fluctuating exchange rates and other factors beyond our control, such as international monetary stability, tariff and trade policies and U.S. and foreign tax and economic policies, may affect the level and profitability of international sales. We cannot predict the effect of such factors on our business, but we try to consider and respond to changes in these factors, particularly as the majority of our costs are U.S. based while the vast majority of our sales are international.

## **Competition**

The competition in the programming systems market is highly fragmented with a small number of organizations selling directly competitive solutions and a large number of smaller organizations offering less expensive solutions. In particular, low cost automated solutions have gained market share in recent years, where the competition is primarily based on price. Typically, their equipment meets a "good enough" standard, but with reduced quality, traceability, security and other software features such as factory integration software. Many of these competitors compete on a regional basis, with local language and support.





In addition, we compete with multiple substitute forms of device programming including “home grown” solutions. Programming after device placement may be done with In System Programming (“ISP”). Some automotive products may also be programmed over the air (“OTA”). IoT devices may also be programmed with ISP or OTA. In addition, new security devices may be required to be programmed using device-specific programmers developed by the semiconductor manufacturer.

While we are not aware of any published industry market information covering the programming systems market, according to our internal analysis of competitors’ revenues, we believe we continue to be the largest competitor in the programming systems equipment market and have been gaining market share especially with our new products.

### **Manufacturing, Raw Materials and Backlog**

We strive to manufacture and provide the best solutions for advanced programming. We primarily assemble and test our products at our principal facilities in Redmond, Washington and Shanghai, China. We outsource our circuit board manufacturing and fabrication. We use a combination of standard components, proprietary custom integrated circuits (“ICs”) and fabricated parts manufactured to our specifications. Most components used are available from a number of different suppliers and subcontractors but certain items, such as some handler and programmer subassemblies, custom integrated circuits, hybrid circuits and connectors, are purchased from single sources. We believe that additional sources can be developed for present single-source components without significant difficulties in obtaining supplies. We cannot be sure that single-source components will always continue to be readily available. If we cannot develop alternative sources for these components, or if we experience deterioration in relationships with these suppliers, there may be price increases, minimum order quantities, costs associated with integrating alternatively sourced parts, and delays or reductions in product introductions or shipments, which may materially adversely affect our operating results.

In accordance with industry practices, generally all orders are subject to cancellation prior to shipment without penalty, except for contracts calling for custom configuration. To date, such cancellations have not had a material effect on our sales volume. To meet customers’ delivery requirements, we manufacture certain products based upon a combination of backlog and anticipated orders. Most orders are scheduled for delivery within 1 to 90 days after receipt of the order. Our backlog of pending orders was approximately \$3,200,000, \$700,000, and \$1,900,000 as of December 31, 2016, 2015, and 2014, respectively. The size of backlog at any particular date is not necessarily a meaningful indicator of the trend of our business.

## **Research and Development**

We believe that continued investment in research and development is critical to our future success. We continue to develop new technologies and products and enhance existing products. Future growth is, to a large extent, dependent upon the timely development and introduction of new products, as well as the development of algorithms to support the latest programmable devices. Where possible, we may pursue partnerships and other strategic relationships to add new products, capabilities and services. We are currently focusing our research and development efforts on strategic growth markets, including automotive electronics and the IoT. We are developing technology to securely program new categories of semiconductors, including Secure Elements, Authentication Chips, and Secure Microcontrollers. We plan to deliver new programming technology and automated handling systems for managed and secure programming in the manufacturing environment. We also continue to focus on increasing our capacity and responsiveness for new device support requests from customers and programmable integrated circuit manufacturers by revising and enhancing our internal processes and tools. Our research and development efforts have resulted in the release of significant new products and product enhancements over the past several years.

During 2016, 2015, and 2014, we made expenditures for research and development of (in millions) \$5.1, \$4.7, and \$4.7, respectively, representing 21.6%, 21.4%, and 21.5% of net sales, respectively. Research and development costs are generally expensed as incurred.

## **Patents, Copyrights, Trademarks and Licenses**

We rely on a combination of patents, copyrights, trade secrets and trademarks to protect our intellectual property, as well as product development and marketing skill, to establish and protect our market position. We continue to apply for and add new patents to our patent portfolio as we develop strategic new technologies.

We attempt to protect our rights in proprietary software, including LumenX software, Flashcore software, TaskLink software, ConneX™ smart programming software, Factory Integration software and other software products, by retaining the title to and copyright of the software and documentation, by including appropriate contractual restrictions on use and disclosure in our licenses, and by requiring our employees to execute non-disclosure agreements. Our software products are not typically sold separately from sales of programming systems. However, on those occasions where software is sold separately, revenue is recognized when a sales agreement exists, delivery has occurred, the fee is fixed or determinable, and collectability is reasonably assured.

Because of the rapidly changing technology in the semiconductor, electronic equipment and software industries, portions of our products might possibly infringe upon existing patents or copyrights, and we may be required to obtain licenses or discontinue the use of the infringing technology. We believe that any exposure we may have regarding possible infringement claims is a reasonable business risk similar to that assumed by other companies in the electronic equipment and software industries. However, any claim of infringement, with or without merit, could be costly and a diversion of management's attention, and an adverse determination could adversely affect our reputation, preclude us from offering certain products, and subject us to substantial liability. As of December 31, 2016, there were no pending actions regarding infringement claims.

## **Employees**

As of December 31, 2016, we had a total of 91 employees, of which 43 were located outside the U.S. and 8 of which were part time. We also utilize independent contractors for specialty work, primarily in research and development, and utilize temporary workers to adjust capacity to fluctuating demand and for special projects. Many of our employees are highly skilled and our continued success will depend in part upon our ability to attract and retain employees who can be in great demand within the industry. None of our employees are represented by a collective bargaining unit and we believe relations with our employees are favorable. In foreign countries we have employment agreements or, in China, the Shanghai Foreign Services Co., Ltd. ("FSCO") labor agreement.

## **Environmental Compliance**

Our facilities are subject to numerous laws and regulations concerning the discharge of materials or otherwise relating to the environment. Compliance with environmental laws has not had, nor is it expected to have, a material effect on our capital expenditures, financial position, results of operations or competitive position.

## Executive Officers of the Registrant

Set forth below is certain information concerning the executive officers of Data I/O as of March 17, 2017:

<u>Name</u>	<u>Age</u>	<u>Position</u>
Anthony Ambrose	55	President and Chief Executive Officer
Joel S. Hatlen	58	Vice President and Chief Financial Officer
		Secretary and Treasurer
Rajeev Gulati	53	Chief Technology Officer, Vice President of Engineering

Anthony Ambrose joined Data I/O in October 2012 and is our President and Chief Executive Officer. He was appointed to the Board of Directors of Data I/O in October 2012. Prior to Data I/O, Anthony was Owner and Principal of Cedar Mill Partners, LLC, a strategy consulting firm. Until 2011, he was Vice President and General Manager at RadiSys Corporation, a leading provider of embedded wireless infrastructure solutions, where he led three product divisions and worldwide engineering. Until 2007, he was general manager and held several other progressively responsible positions at Intel Corporation, where he led development and marketing of standards based telecommunications platforms, and grew the industry standard server business to over \$1B in revenues. He is a member of the EvergreenHealth Foundation Board of Trustees. Mr. Ambrose has a Bachelors of Science in Engineering from Princeton University.

Joel S. Hatlen joined Data I/O in September 1991 and has been our Vice President, Chief Financial Officer, Secretary and Treasurer since January 1998. He served as Chief Accounting Officer since February 1997 and served as Corporate Controller from December 1993 to December 1997. Previously, he was Tax Manager and Senior Tax Accountant. From September 1981 until joining Data I/O, Joel was employed by Ernst & Young LLP as a Certified Public Accountant, where his most recent position was Senior Manager. Joel holds a Masters in Taxation from Golden Gate University and a Bachelors in Business Administration in Accounting from Pacific Lutheran University.



Rajeev Gulati joined Data I/O in July 2013 and is our Chief Technology Officer and Vice President of Engineering. Prior to Data I/O, Rajeev served as Director of Software Engineering for AMD responsible for tools, compiler strategy and execution from 2006 to 2013. He has an extensive background in software, systems and applying technology to develop new markets. Previously, he served as Director of Strategy and Planning at Freescale from 2004 to 2006; as Director of Embedded Products at Metrowerks (acquired by Motorola) from 2000 to 2004 and Director of Compilers, Libraries & Performance Tools from 1997 to 2000; and engineering and programmer positions at Apple Computer, IBM and Pacific-Sierra Research. Rajeev holds a Master of Science in Electrical & Computer Engineering from the University of Texas, Austin and a BE in Electrical Engineering from Delhi College of Engineering, New Delhi.

## **Item 1A. Risk Factors**

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

*Our disclosure and analysis in this Annual Report contains some forward-looking statements. Forward-looking statements include our current expectations or forecasts of future events. The reader can identify these statements by the fact that they do not relate strictly to historical or current facts. In particular, these include statements relating to future action, prospective products, expected market growth, new technologies, foreign operations, future performance or results of current and anticipated products, sales efforts, expenses, outcome of contingencies, impact of regulatory requirements and financial results.*

*Any or all of the forward-looking statements in this Annual Report or in any other public statement made may turn out to be wrong. They can be affected by inaccurate assumptions we might make, or known or unknown risks and uncertainties can affect these forward-looking statements. Many factors -- for example, product competition and product development -- will be important in determining future results. Moreover, neither Data I/O nor anyone else assumes responsibility for the accuracy and completeness of these forward-looking statements. Actual future results may materially vary.*

*We undertake no obligation to publicly update any forward-looking statements after the date of this Annual Report, whether as a result of new information, future events or otherwise. The reader should not unduly rely on our forward-looking statements. The reader is advised, however, to consult any future disclosures we make on related subjects in our 10-Q, 8-K and 10-K reports to the SEC and press releases. Also, note that we provide the following cautionary discussion of risks, uncertainties and possible inaccurate assumptions relevant to our business. These are factors that we think could cause our actual results to differ materially from expected and historical results. Other factors besides those listed here could*

*also adversely affect us. This discussion is permitted by the Private Securities Litigation Reform Act of 1995.*

**RISK FACTORS:**

**NEW PRODUCTS OR SERVICES**

We may pursue new product or service initiatives that develop more slowly and/or to a lesser extent than expected

In order to lead in new and potentially lucrative market opportunities, for example in securing programmable devices, circuit boards and electronic systems, we must invest ahead of others while the market is developing and uncertain. If these markets develop more slowly than planned, then we may not achieve our expected return on investment in new technologies and this may affect the results of our existing business.

We may pursue business acquisitions that could impair our financial position and profitability.

We may pursue acquisitions of complementary technologies, product lines or businesses. Future acquisitions may include risks, such as:

- burdening management and our operating teams during the integration of the acquisition
- diverting management's attention from other business concerns



- failing to successfully integrate or monetize the acquired products or technologies
- lack of acceptance of the acquired products by our sales channels or customers
- entering markets where we have no or limited prior experience
- potential loss of key employees of the acquired company
- additional burden of support for an acquired programmer architecture

Future acquisitions may also impact our financial position. For example, we may use significant cash or incur debt, which would weaken our balance sheet, or issue additional shares, potentially diluting existing shareholders. We may also capitalize goodwill and intangible assets acquired, the amortization or impairment of which would reduce our profitability. We cannot guarantee that future acquisitions will improve our business or operating results.

Delays in development, introduction and shipment of new products or services may result in a decline in sales or increased costs.

We develop new engineering and automated programming systems and services. Significant technological, supplier, manufacturing or other problems may delay the development, introduction or production of these products or services.

For example, we may encounter these problems:

- technical problems in the development of a new programming system platform or the robotics for new automated handling systems
- inability to hire qualified personnel or turnover in existing personnel
- delays or failures to perform by us or third parties involved in our development projects
- development of new products or services that are not accepted by the market

These problems may result in a delay or decline in sales or increased costs.

Failure to adapt to technology trends in our industry may impact our competitiveness and financial results.

Product and service technology in our industry evolves rapidly, making timely product innovation essential to success in the marketplace. Introducing products and services with improved technologies or features may render our existing products obsolete and unmarketable. Technological advances and trends that may negatively impact our business include:

- new device package types, densities, chip interfaces and technologies requiring hardware and software changes in order to be programmed by our products, particularly certain segments of the high density flash memory markets where after placement programming is recommended by the semiconductor manufacturers
- reduction in semiconductor process geometries for certain Multi Level Cell (MLC) and Triple Level Cell (TLC) NAND and eMMC FLASH memories impact the product data retention through Surface Mount Technology (SMT) reflow or X-ray inspection. Improper SMT process control can negatively impact the end customer's ability to successfully program devices prior to placement in manufacturing. This can cause them to change their programming methods away from pre-programming to post placement programming techniques, including ISP. Data I/O is working with semiconductor manufacturers to develop best practices to minimize the impact of reflow and potential concerns about X-ray induced data loss.
- electronics equipment manufacturing practices, such as widespread use of in-circuit programming or downloading
- adoption of proprietary security and programming protocols and additional security capabilities and requirements
- customer software platform preferences different from those on which our products operate
- customer adoption of newer semiconductor device technologies such as UFS memory or device interface methods such as PCI, particularly if these technologies are adopted by automotive electronics, IoT or wireless customers
- more rigid industry standards, which would decrease the value-added element of our products and support services

If we cannot develop products or services in a timely manner in response to industry changes, or if our products or services do not perform well, our business and financial condition may be adversely affected. Also, our new products or services may contain defects or errors that give rise to product liability claims against us or cause our products to fail to gain market acceptance. Our future success depends on our ability to successfully compete with other technology firms in attracting and retaining key technical personnel.

Failure to adapt to increasing automotive electronics customer requirements

Quality standards and business requirements by our automotive electronics customers, driven in turn by their automotive manufacturer customers, may demand processes, and certifications at a higher level than we currently are structured to provide. For example, we may be required to meet the ISO 9001 standard with certified audits or other quality standards. In addition, contractual provisions may expose us to greater potential liability and costs and we may be required to provide higher service levels than we currently provide. If we cannot adapt to these industry requirements or manage these contractual provisions, our business may be adversely affected.

If we are unable to protect our intellectual property, we may not be able to compete effectively or operate profitably.

We rely on patents, copyrights, trade secrets and trademarks to protect our intellectual property, as well as product development and marketing skill to establish and protect our market position. We attempt to protect our rights in proprietary software products, including our user interface, product firmware, software module options and other software products by retaining the title to and copyright of the software and documentation, by including appropriate contractual restrictions on use and disclosure in our licenses, and by requiring our employees to execute non-disclosure agreements.

Because of the rapidly changing technology in the semiconductor, electronic equipment and software industries, portions of our products might possibly infringe upon existing patents or copyrights, and we may be required to obtain licenses or discontinue the use of the infringing technology. We believe that any exposure we may have regarding possible infringement claims is a reasonable business risk similar to that assumed by other companies in the electronic equipment and software industries. However, any claim of infringement, with or without merit, could be costly and a diversion of management's attention, and an adverse determination could adversely affect our reputation, preclude us from offering certain products, and subject us to substantial liability.

We may face increased competition and may not be able to compete successfully with current and future competitors.

Technological advances have reduced the barriers of entry into the programming systems market. We expect competition to increase from both established and emerging companies. If we fail to compete successfully against current and future sources of competition, our

profitability and financial performance will be adversely impacted.

### **THIRD PARTY RELATIONSHIPS**

If we do not develop and enhance our relationships with security partners, our business may be adversely affected and we may not be able to timely develop new and cost effective managed and secure programming solutions.

As we enter new areas in managed and secure programming, we need to complement our skills and expertise with partners' expertise in security. Some of these partners may be early stage companies that are operating with more limited capital and/or management expertise than established firms. If our partners are unable to develop and deliver solutions that we need to integrate into our managed and secure programming solutions, our product might be delayed and we might have to locate alternate partners and suppliers or develop the technology ourselves.

If we do not develop and enhance our relationships with semiconductor manufacturers, our business may be adversely affected.

We work closely with most semiconductor manufacturers to ensure that our programming systems comply with their requirements. In addition, many semiconductor manufacturers recommend our managed and secure programming systems for use by users of their programmable devices. These working relationships enable us to keep our programming systems product lines up to date and provide end-users with broad and current programmable device support. As technology changes occur that could limit the effectiveness of pre-placement programming, particularly for very small high density NAND, e-MMC and UFS devices, certain semiconductor manufacturers may not recommend or may not continue recommending our programming systems for these devices. Our business may be adversely affected if our relationships with semiconductor manufacturers deteriorate. Consolidation within the semiconductor industry may also impact us. As we develop more security solutions, we will need to partner more deeply with semiconductor manufacturers.

Our reliance on a small number of suppliers may result in a shortage of key components, which may adversely affect our business, and our suppliers may experience financial difficulties which could impact their ability to service our needs.

Certain parts used in our products are currently available from either a single supplier or from a limited number of suppliers. Our small relative level of business means we frequently lack influence and significant purchasing power. If we cannot develop alternative sources of these components, if sales of parts are discontinued by the supplier, if we experience deterioration in our relationship with these suppliers, or if these suppliers require financing, which is not available, there may be delays or reductions in product introductions or shipments, which may materially adversely affect our operating results.

Because we rely on a small number of suppliers for certain parts, we are subject to possible price increases by these suppliers. Also, we may be unable to accurately forecast our production schedule. If we underestimate our production schedule, suppliers may be unable to meet our demand for components. This delay in the supply of key components may have a materially adverse effect on our business. For suppliers who discontinue parts, we may be required to make lifetime purchases covering future requirements. Over estimation of demand or excessive minimum order quantities will lead to excess inventories that may become obsolete.

Certain of our sockets, parts, subassemblies and boards are currently manufactured to our specifications by third-party foreign contract manufacturers and we are sourcing certain parts or options from foreign manufacturers. We may not be able to obtain a sufficient quantity of these products if and when needed or the quality of these parts or options may not meet our standards, which may result in lost sales.

If we are unable to attract and retain qualified third-party distributors and representatives, our business may be adversely affected.

We have an internal sales force and also utilize third-party distributors and representatives. Therefore, the financial stability of these distributors and representatives is important. Their ability to operate, timely pay us, and to acquire any necessary financing may be affected by the current economic climate. Highly skilled professional engineers use most of our products. To be effective, third-party distributors and representatives must possess significant technical, marketing, customer relationships and sales resources and must devote their resources to sales efforts, customer education, training and support. These required qualities limit the number of potential third-party distributors and representatives. Our business will suffer if we cannot attract and retain a sufficient number of qualified third-party distributors and representatives to market our products.

## **MARKET CONDITIONS**

A decline in economic and market conditions may result in delayed or decreased capital spending and delayed or defaulted payments from our customers.

Our business is highly impacted by capital spending plans and other economic cycles that affect the users and manufacturers of integrated circuits. These industries are highly cyclical and are characterized by rapid technological change, short product life cycles and fluctuations

in manufacturing capacity and pricing and gross margin pressures. As we experienced in recent prior years, our operations may in the future reflect substantial fluctuations from period-to-period as a consequence of these industry patterns, general economic conditions affecting the timing of orders from major customers, and other factors affecting capital spending. In a difficult economic climate it may take us longer to receive payments from our customers and some of our customers' business may fail, resulting in non-payment. Our market growth forecasts and related business decisions may be wrong. These factors could have a material adverse effect on our business and financial condition.

Our international operations may expose us to additional risks that may adversely affect our business.

International sales represented approximately 88%, 90% and 90% of net sales in 2016, 2015, and 2014, respectively. We expect that international sales will continue to be a significant portion of our net revenue. International sales may fluctuate due to various factors, including:

- fluctuations in foreign currency exchange rates because 88% of our sales are to international markets, volatile exchange rates may also impact our competitiveness and margins
- economic uncertainty related to the European sovereign debt situation
- migration of manufacturing to low cost geographies
- unexpected changes in regulatory requirements
- tariffs and taxes
- Bi-lateral and Multi-lateral trade agreements
- difficulties in staffing and managing foreign operations
- longer average payment cycles and difficulty in collecting accounts receivable
- compliance with applicable export licensing requirements and the Foreign Corrupt Practices Act
- product safety and other certification requirements
- difficulties in integrating foreign and outsourced operations
- civil unrest, political and economic instability

Because we have customers located throughout the world, we have significant foreign receivables. We may experience difficulties in collecting these amounts as a result of payment practices of certain foreign customers, economic uncertainty and regulations in foreign countries, the availability and reliability of foreign credit information, and potential difficulties in enforcing collection terms.

The European Union and European Free Trade Association ("EU") has established certain electronic emission and product safety requirements ("CE"). As applicable, our products currently meet these requirements; however, failure to obtain either a CE certification or a waiver for any product may prevent us from marketing that product in Europe. The EU also has directives concerning the Reduction of Hazardous Substances ("RoHS") and we believe we are classified within the EU RoHS Directive category list as Industrial Monitoring and Control Equipment (category 9), which is out of scope until the enforcement date of July 2017. We believe all current products meet the RoHS directives. Failure to meet applicable directives or qualifying exemptions may prevent us from marketing certain products in Europe or other

territories with similar requirements.

We have subsidiaries in Germany, China, Hong Kong, Brazil and Canada and large balances of cash are in our foreign subsidiaries. Our business and financial condition is sensitive to currency exchange rates and any restrictions imposed on their currencies including restrictions on repatriations of cash. Any repatriation of cash could result in tax costs and corresponding deferred tax assets with related tax valuation allowances. Currency exchange fluctuations in these countries may adversely affect our investment in our subsidiaries.

## **OPERATIONS**

Quarterly fluctuations in our operating results may adversely affect our stock price.

Our operating results tend to vary from quarter to quarter. Our revenue in each quarter substantially depends upon orders received within that quarter. Conversely, our expenditures are based on investment plans and estimates of future revenues. We may, therefore, be unable to quickly reduce our spending if our revenues decline in a given quarter. As a result, operating results for that quarter will suffer. Our results of operations for any one quarter are not necessarily indicative of results for any future periods.

Other factors, which may cause our quarterly operating results to fluctuate, include:



- increased competition
- timing of new product announcements and timing of development expenditures
- product or service releases and pricing changes by us or our competitors
- market acceptance or delays in the introduction of new products or services
- production constraints
- quality issues
- labor or material constraints
- timing of significant orders
- timing of installation or customer acceptance requirements
- sales channel mix of direct vs. indirect distribution
- civil unrest, war or terrorism
- health issues (such as the outbreak of a virus impacting workers or travel)
- customers' budgets
- adverse movements in exchange rates, interest rates or tax rates
- cyclical and seasonal nature of demand for our customers' products
- general economic conditions in the countries where we sell products
- expenses and delays obtaining authorizations in setting up new operations or locations
- facilities relocations

Due to any of the foregoing factors, it is possible that in some future quarters, our operating results will be below expectations of analysts and investors.

We have a history of operating losses and may be unable to generate enough revenue to achieve and maintain profitability.

We have incurred operating losses in two of the last five years and three of the last ten years. We operate in a cyclical industry. We will continue to examine our level of operating expense based upon our projected revenues. Any planned increases in operating expenses may result in losses in future periods if projected revenues are not achieved. As a result, we may need to generate greater revenues than we have recently in order to maintain profitability. However, we cannot provide assurance that our revenues will continue to increase and our business strategies may not be successful, resulting in future losses.

The loss of key employees may adversely affect our operations.

We have employees located in the U.S., Germany and China. We also utilize independent contractors for specialty work, primarily in research and development, and utilize temporary workers to adjust capacity to fluctuating demand. Many of our employees are highly skilled and our continued success will depend in part upon our ability to attract and retain employees who can be in great demand within the industry. None of our employees are represented by a collective bargaining unit and we believe relations with our employees are favorable, though no assurance can be made that this will be the case in the future. In China, our workers are “leased” with the arrangements made under the “FSCO” labor agreement and we could be adversely affected if we were unable to continue that arrangement.

We may need to raise additional capital and our future access to capital is uncertain.

Our past revenues have sometimes been, and our future revenues may again be, insufficient to support the expense of our operations and any expansion of our business. We may therefore need additional equity or debt capital to finance our operations. If we are unable to generate sufficient cash flows from operations or to obtain funds through additional debt, lease or equity financing, we may have to reduce some or all of our development and sales and marketing efforts and limit the expansion of our business.

We believe that we have sufficient cash or working capital available under our operating plan to fund our operations and capital requirements through at least the next one-year period. In the event we may require additional cash for U.S. operations or other needs, it may cause the potential repatriation of cash from the \$5.6 million held in our foreign subsidiaries. Although we have no current repatriation plans, there may be tax, legal and other impediments to any repatriation actions. Our working capital may be used to fund possible losses, business growth, project initiatives, share repurchases and business development initiatives including acquisitions, which could reduce our liquidity and result in a requirement for additional cash before that time. Any substantial inability to achieve our current business plan could have a material adverse impact on our financial position, liquidity, or results of operations and may require us to reduce expenditures and/or seek additional financing.

Therefore, we may seek additional funding through public or private debt or equity financing or from other sources. We have no commitments for additional financing, and given a potential future unfavorable economic climate and our financial results, we may experience difficulty in obtaining funding on favorable terms, if at all. Any financing we obtain may contain covenants that restrict our freedom to operate our business or may require us to issue securities that have rights, preferences or privileges senior to our Common Stock and may dilute your ownership interest.

Our stock price may be volatile and, as a result, you may lose some or all of your investment.

The stock prices of technology companies tend to fluctuate significantly. We believe factors such as announcements of new products or services by us or our competitors and quarterly variations in financial results and outlook may cause the market price of our Common Stock to fluctuate substantially. In addition, overall volatility in the stock market, particularly in the technology company sector, is often unrelated to the operating performance of companies. If these market fluctuations continue in the future, they may adversely affect the price of our Common Stock.

Cyber security breaches or terrorism could result in liabilities or costs as well as damage to or loss of our data or customer access to our website and information systems. The collection, storage, transmission, use and disclosure of user data and personal information, if accessed improperly, could give rise to liabilities or additional costs as a result of laws, governmental regulations and evolving views of personal privacy rights.

Cyber security breaches or terrorism could result in the exposure or theft of private or confidential information as well as interrupt our business, including denying customer access to our website and information systems. We transmit, and in some cases store, end-user data, including personal information. In jurisdictions around the world, personal information is becoming increasingly subject to legislation and regulations intended to protect consumers' privacy and security. The interpretation of privacy and data protection laws and regulations regarding the collection, storage, transmission, use and disclosure of such information in some jurisdictions is unclear and evolving. These laws may be interpreted and applied in conflicting ways from country to country and in a manner that is not consistent with our current data protection practices. Complying with these varying international requirements could cause us to incur additional costs and change our business practices. Because our services are accessible in many foreign jurisdictions, some of these jurisdictions may claim that we are required to comply with their laws, even where we have no local entity,

employees or infrastructure. We could be forced to incur significant expenses if we were required to modify our products, our services or our existing security and privacy procedures in order to comply with new or expanded regulations.

## **REGULATORY REQUIREMENTS**

Failure to comply with increasing regulatory requirements may adversely affect our stock price and business.

As a public company, we are subject to numerous governmental and stock exchange requirements, with which we believe we are in compliance. Our failure to meet regulatory requirements and exchange listing standards may result in actions such as: the delisting of our stock, impacting our stock's liquidity; SEC enforcement actions; and securities claims and litigation.

The Sarbanes-Oxley Act of 2002 and the Securities and Exchange Commission (SEC) have requirements that we may fail to meet or we may fall out of compliance with, such as the internal controls auditor attestation required under Section 404 of the Sarbanes-Oxley Act of 2002, with which we are not currently required to comply as we are a smaller reporting company. We assume that we will continue to have the status of a smaller reporting company based on the aggregate market value of the voting and non-voting shares held as of June 30, 2016. If we fail to achieve and maintain the adequacy of our internal controls, as such standards are modified, supplemented or amended from time to time, we may not be able to ensure that we can conclude on an ongoing basis that we have effective internal controls over financial reporting in accordance with Section 404 of the Sarbanes-Oxley Act of 2002. Moreover, effective internal controls, particularly those related to revenue recognition, are necessary for us to produce reliable financial reports and are important to help prevent financial fraud. If we cannot provide reliable financial reports or prevent fraud, our business and operating results could be harmed, investors could lose confidence in our reported financial information, and the trading price of our stock could drop significantly.

While we have policies and procedures in place designed to prevent corruption and bribery, because our business is significantly international, violations of the Foreign Corrupt Practices Act (FCPA) could have a significant adverse effect on our business due to the disruption and distraction of an investigation, financial penalties and criminal penalties.

Government regulations regarding the use of "conflict" minerals could adversely affect our prospects and results of operations.

Regulatory requirements regarding disclosure of our use of "conflict" minerals mined from the Democratic Republic of Congo and adjoining countries could affect the sourcing and availability of minerals used in the manufacture of certain products. Although we do not buy raw materials, manufacture, or produce any electronic equipment using conflict minerals directly, some components provided by our suppliers and contained in our products contain conflict minerals. Our goal is for our products to be conflict free. As a result, there may only be a limited pool of suppliers who provide conflict free metals, and we cannot assure you that we will be able to obtain products in sufficient quantities or at competitive prices. Single source suppliers may not respond or respond negatively regarding conflict mineral sourcing and we may be unable to find alternative sources to replace them. Also, because our supply chain is complex, we may face reputational challenges with our customers and other stakeholders if we are unable to sufficiently verify the origins for all metals used in the products that we sell. Further, if we are unable to comply with the new laws or regulations or if our efforts to comply with new laws, regulations and standards differ from the activities intended by regulatory or governing bodies due to ambiguities related to practice, regulatory authorities may initiate legal proceedings against us. We may need to incur additional costs and invest additional resources, including management's time, in order to comply with the new regulations and anticipated additional reporting and disclosure obligations.

**Item 1B. Unresolved Staff Comments**

None.

**Item 2. Properties**

During the second quarter of 2015, we amended our lease agreement for the Redmond, Washington headquarters facility effective July 8, 2015. The amended lease resulted in our headquarters relocating to a nearby building, extending the term through April 2021, lowering the square footage to approximately 20,460, providing lease inducement incentives and lowering the rental rate. The lease commitment of approximately \$1.7 million will be paid over the term of the lease. As a result of this lease amendment, the remaining balance of the restructure liability relating to the lease of approximately \$120,000 was incorporated into our deferred rent liability in July 2015. The lease base annual rental payments during 2016 and 2015 were approximately \$200,000 and \$296,000, respectively.

In addition to the Redmond facility, approximately 24,000 square feet is leased at two foreign locations, including our sales, service, operations and engineering office located in Shanghai, China, and our German sales, service and engineering office located in Munich, Germany.

We renewed our lease agreement for what is now our former Shanghai, China facility, effective June 15, 2015, extending the term through December 31, 2015. Operations continued in this facility through January 31, 2016. In October 2015, we signed a lease agreement for a new facility located in Shanghai, China which was effective November 1, 2015 and extends through October 31, 2021. The new lease approximately doubled our space to 19,400 square feet at approximately 54% of the prior lease rental rate. The lease base annual rental payments during 2016 and 2015 were approximately \$233,000 and \$324,000, respectively.

During the fourth quarter of 2016, we signed a lease agreement for a new facility located in Munich, Germany which is effective March 1, 2017 and extends through February 28, 2022. The new lease will slightly increase our space to 4,895 square feet at approximately the same cost per square foot as the current lease. The lease base annual rental payments during 2016 and 2015 were both approximately \$61,000.

**Item 3. Legal Proceedings**

From time to time, we may be involved in litigation relating to claims arising out of our operations in the normal course of business. As of December 31, 2016, we were not a party to any legal proceedings or aware of any indemnification agreement claims, the adverse outcome of which in management's opinion, individually or in the aggregate, would have a material adverse effect on our results of operations or financial position.

**Item 4. Mine Safety Disclosures**

Not Applicable.

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

The following table shows, for the periods indicated, the high and low price information for our Common Stock as reported by the NASDAQ Capital Market (NASDAQ symbol is DAIO). The closing price was \$4.18 on December 31, 2016.

	<u>Period</u>	<u>High</u>	<u>Low</u>
2016	Fourth Quarter	\$4.40	\$3.39
	Third Quarter	3.95	2.39
	Second Quarter	2.70	2.07
	First Quarter	2.80	2.03
2015	Fourth Quarter	\$3.20	\$2.34
	Third Quarter	3.62	2.26
	Second Quarter	3.80	2.85
	First Quarter	3.75	3.01

The approximate number of shareholders of record as of March 17, 2017 was 468.

Except for special cash dividend of \$4.15 per share paid on March 8, 1989, we have not paid cash dividends on our Common Stock and do not anticipate paying regular cash dividends in the foreseeable future.

No sales of unregistered securities were made by us during the periods ended December 31, 2016 and 2015.

See Item 12 for the Equity Compensation Plan Information.

## **ISSUER PURCHASES OF EQUITY SECURITIES**

On February 24, 2016, our Board of Directors approved a share repurchase program with provisions to buy back up to \$1 million of our stock during the period from March 2, 2016 through March 31, 2017. The program was established with a 10b5-1 plan under the Exchange Act to provide flexibility to make purchases throughout the period. For the year ended December 31, 2016, 80,345 shares of stock have been repurchased at an average price of \$2.36 for a total of \$189,360 plus \$1,649 in commissions and charges. No shares were repurchased during the fourth quarter.

### **Item 6. Selected Financial Data**

Not applicable.



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

### **Forward-Looking Statements**

This Annual Report on Form 10-K includes forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. This Act provides a "safe harbor" for forward-looking statements to encourage companies to provide prospective information about themselves as long as they identify these statements as forward-looking and provide meaningful cautionary statements identifying important factors that could cause actual results to differ from the projected results. All statements other than statements of historical fact made in this Annual Report on Form 10-K are forward-looking. In particular, statements herein regarding economic outlook, industry prospects and trends; future results of operations or financial position; future spending; breakeven revenue point; expected market growth; market acceptance of our newly introduced or upgraded products or services; development, introduction and shipment of new products or services; changing foreign operations; and any other guidance on future periods are forward-looking statements. Forward-looking statements reflect management's current expectations and are inherently uncertain. Although we believe that the expectations reflected in these forward-looking statements are reasonable, we cannot guarantee future results, levels of activity, performance, achievements, or other future events. Moreover, neither Data I/O nor anyone else assumes responsibility for the accuracy and completeness of these forward-looking statements. We are under no duty to update any of these forward-looking statements after the date of this Annual Report. The Reader should not place undue reliance on these forward-looking statements. The following discussions and the section entitled "Risk Factors – Cautionary Factors That May Affect Future Results" describes some, but not all, of the factors that could cause these differences.

### **OVERVIEW**

We continued our focus on managing the core programming business for growth and profitability, while developing and enhancing products to drive future revenue and earnings growth. Our challenge continues to be operating in a cyclical and rapidly evolving industry environment. We are continuing our efforts to balance industry changes, business geography shifts, exchange rate volatility, increasing costs and strategic investments in our business with the level of demand and mix of business we expect. We continue to manage our costs carefully and execute strategies for cost reduction.

We are focusing our research and development efforts in our strategic growth markets, namely automotive electronics and IoT new programming technologies, secure supply chain solutions, automated programming systems and their enhancements for the manufacturing environment and software. We are currently focusing our research and development efforts on strategic growth markets, including automotive electronics and IoT. We are developing technology to securely program new categories of semiconductors, including Secure Elements, Authentication Chips, and Secure Microcontrollers. We plan to deliver new programming technology and automated handling systems for managed and secure programming in the manufacturing environment. We continue to focus on extending the capabilities and support for our product lines and supporting the latest semiconductor devices, including NAND Flash, e-MMC, UFS and microcontrollers on our newer products.

Our customer focus has been on strategic high volume manufacturers in key market segments like automotive electronics, IoT, industrial controls, consumer electronics and wireless as well as programming centers.

## **cRITICAL aCCOUNTING pOLICY jUDGMENTS AND eSTIMATES**

The preparation of financial statements in accordance with accounting principles generally accepted in the United States of America requires that we make estimates and judgments, which affect the reported amounts of assets, liabilities, revenues and expenses, and related disclosures of contingent assets and liabilities. On an on-going basis, we evaluate our estimates, including those related to sales returns, bad debts, inventories, intangible assets, income taxes, warranty obligations, restructuring charges, contingencies such as litigation and contract terms that have multiple elements and other complexities typical in the capital equipment industry. We base our estimates on historical experience and other assumptions that we believe are reasonable under the circumstances. Actual results may differ from these estimates under different assumptions or conditions.

We believe the following critical accounting policies affect the more significant judgments and estimates used in the preparation of our financial statements:

**Revenue Recognition:** We recognize revenue at the time the product is shipped. We have determined that our programming equipment has reached a point of maturity and stability such that product acceptance can be assured by testing at the factory prior to shipment and that the installation meets the criteria to be considered a separate element. These systems are standard products with published product specifications and are configurable with standard options. The evidence that these systems could be deemed as accepted was based upon having standardized factory production of the units, results from batteries of tests of product performance to our published specifications, quality inspections and installation standardization, as well as past product operation validation with the customer and the

history provided by our installed base of products upon which the current versions were based.

The revenue related to products requiring installation that is perfunctory is recognized at the time of shipment. Installation that is considered perfunctory includes any installation that can be performed by other parties, such as distributors, other vendors, or in most cases the customers themselves. This takes into account the complexity, skill and training needed as well as customer expectations regarding installation.

We enter into multiple deliverables arrangements that arise during the sale of a system that includes an installation component, a service and support component and a software maintenance component. We allocate the value of each element based on relative selling prices. Relative selling price is based on the selling price of the standalone system. For the installation and service and support components, we use what we charge to distributors who perform these components. For software maintenance components, we use what we charge for annual software maintenance renewals after the initial year the system is sold. Revenue is recognized on the system sale based on shipping terms, installation revenue is recognized after the installation is performed, and hardware service and support and software maintenance revenue is recognized ratably over the term of the agreement, typically one year.

When we sell software separately, we recognize software revenue upon shipment provided that only inconsequential obligations remain on our part and substantive acceptance conditions, if any, have been met.

We recognize revenue when persuasive evidence of an arrangement exists, shipment has occurred, the price is fixed or determinable, the buyer has paid or is obligated to pay, collectability is reasonably assured, substantive acceptance conditions, if any, have been met, the obligation is not contingent on resale of the product, the buyer's obligation would not be changed in the event of theft, physical destruction or damage to the product, the buyer acquiring the product for resale has economic substance apart from us and we do not have significant obligations for future performance to directly bring about the resale of the product by the buyer. We establish a reserve for sales returns based on historical trends in product returns and estimates for new items.

We transfer certain products out of service from their internal use and make them available for sale. The products transferred are our standard products in one of the following areas: service loaners, rental or test units; engineering test units; or sales demonstration equipment. Once transferred, the equipment is sold by our regular sales channels as used equipment inventory. These product units often involve refurbishing and an equipment warranty, and are conducted as sales in our normal and ordinary course of business. The transfer amount is the product unit's net book value and the sale transaction is accounted for

as revenue and cost of goods sold.

**Allowance for Doubtful Accounts:** We base the allowance for doubtful accounts receivable on our assessment of the collectability of specific customer accounts and the aging of accounts receivable. If there is deterioration of a major customer's credit worthiness or actual defaults are higher than historical experience, our estimates of the recoverability of amounts due to us could be adversely affected.

**Inventory:** Inventories are stated at the lower of cost or market. Adjustments are made to standard cost, which approximates actual cost on a first-in, first-out basis. We estimate reductions to inventory for obsolete, slow-moving, excess and non-salable inventory by reviewing current transactions and forecasted product demand. We evaluate our inventories on an item by item basis and record inventory adjustments accordingly. If there is a significant decrease in demand for our products, uncertainty during product line transitions, or a higher risk of inventory obsolescence because of rapidly changing technology and customer requirements, we may be required to increase our inventory adjustments and our gross margin could be adversely affected.

**Warranty Accruals:** We accrue for warranty costs based on the expected material and labor costs to fulfill our warranty obligations. If we experience an increase in warranty claims, which are higher than our historical experience, our gross margin could be adversely affected.

**Tax Valuation Allowances:** Given the uncertainty created by our loss history, as well as the ongoing uncertain economic outlook for our industry and capital and geographic spending, we expect to continue to limit the recognition of net deferred tax assets and accounting for uncertain tax positions and maintain the tax valuation allowances. At the current time, we expect, therefore, that reversals of the tax valuation allowance will take place only as we are able to take advantage of the underlying tax loss or other attributes in carry forward. The transfer pricing and expense or cost sharing arrangements are complex areas where judgments, such as the determination of arms-length arrangements, can be subject to challenges by different tax jurisdictions.

Share-based Compensation: We account for share-based awards made to our employees and directors, including employee stock option awards and restricted stock unit awards, using the estimated grant date fair value method of accounting. For options, we estimate the fair value using the Black-Scholes valuation model and an estimated forfeiture rate, which requires the input of highly subjective assumptions, including the option's expected life and the price volatility of the underlying stock. The expected stock price volatility assumption was determined using the historical volatility of our common stock. Changes in the subjective assumptions required in the valuation model may significantly affect the estimated value of the awards, the related stock-based compensation expense and, consequently, our results of operations. Restricted stock unit awards are valued based on the average of the high and low price on the date of the grant. For both options and restricted awards, expense is recognized as compensation expense on the straight-line basis. Employee Stock Purchase Plan ("ESPP") shares were issued under provisions that do not require us to record any equity compensation expense.

**Results of Operations:****Net Sales**

Net sales by product line (in thousands)	2016	Change	2015
Automated programming systems	\$18,274	9.5%	\$16,692
Non-automated programming systems	5,139	(3.5%)	5,325
Total programming systems	\$23,413	6.3%	\$22,017
Net sales by location (in thousands)	2016	Change	2015
United States	\$2,936	31.7%	\$2,229
% of total	12.5%		10.1%
International	\$20,477	3.5%	\$19,788
% of total	87.5%		89.9%

Net sales for the year ended December 31, 2016 grew approximately 6.3% to \$23.4 million compared to 2015. On a regional basis, net sales increased approximately 9.0% in Asia and 13.0% in the Americas, while net sales in Europe were approximately the same compared to 2015. Automated system sales grew approximately 9.5%, while non-automated system sales declined approximately 3.5% compared to 2015, reflecting the continuing trend toward automation. We expect to continue to see increases in automated system sales. On a product basis, sales increased primarily due to sales of our PSV and Roadrunner product families, offset in part, by declines in the PS, FLX, FlashPak and legacy (Unifamily and Sprint) product lines compared to 2015.

Order bookings were \$26.9 million for 2016 up approximately 33.0% compared to \$20.3 million in 2015. Backlog at December 31, 2016 and 2015 was \$3.2 million and \$0.7 million, respectively. Deferred revenue was \$1.9 million on December 31, 2016 compared to \$1.0 million December 31, 2015.

**Gross Margin**

(in thousands)	2016	Change	2015
Gross margin	\$12,868	11.5%	\$11,544

Percentage of net sales	55.0%	52.4%
-------------------------	-------	-------

Gross margin as a percentage of sales for the year ended December 31, 2016 was 55.0%, compared to 52.4% in 2015. The improved gross margin as a percent of sales was primarily due to a favorable product mix as well as higher order volume.

## Research and Development

(in thousands)	2016	Change	2015
Research and development	\$5,065	7.7%	\$4,701
Percentage of net sales	21.6%		21.4%

Research and development ("R&D") expense increased \$364,000 for the year ended December 31, 2016 compared to 2015. The increase was primarily related to higher recruiting and related compensation and benefits, intellectual property patent filings, and depreciation costs offset in part by lower R&D material costs.

We believe it is essential to invest in R&D to significantly enhance our existing products and to create new products as markets develop and technologies change. In addition to product development, a significant part of R&D spending is on creating software and support for new devices introduced by the semiconductor companies. We are currently focusing our research and development efforts on strategic growth markets, including automotive electronics and IoT. We are developing technology to securely program new categories of semiconductors, including Secure Elements, Authentication Chips, and Secure Microcontrollers. We plan to deliver new programming technology and automated handling systems for managed and secure programming in the manufacturing environment and extending the capabilities and support for our programmer architecture. Our R&D spending fluctuates based on the number, type, and the development stage of our product initiatives and projects.



**Selling, General and Administrative**

	2016	Change	2015
(in thousands)			
Selling, general & administrative	\$6,376	9.0%	\$5,850
Percentage of net sales	27.2%		26.6%

Selling, General and Administrative (“SG&A”) expenses increased \$526,000 for the year ended December 31, 2016 compared to 2015. The increase was primarily related to higher employee related costs, commissions, accounts receivable reserve and legal fees, offset in part by one-time expense of our Redmond headquarters move in 2015 and lower travel, trade show events and rent.

**Interest**

	2016	Change	2015
(in thousands)			
Interest income	\$44	(58.1%)	\$105

Interest income was lower for the year ended December 31, 2016 compared to 2015, primarily due to both lower invested cash balances and lower interest rates.

**Income Taxes**

	2016	Change	2015
(in thousands)			
Income tax (expense) benefit	(\$36)	*	\$5
* not meaningful			

Income tax expense increased by \$42,000 for the year ended December 31, 2016 compared to 2015, primarily resulting from U.S. alternative minimum income tax as well as foreign subsidiary income tax versus foreign subsidiary refunds in 2015.

The effective tax rate differed from the statutory tax rate primarily due to the effect of valuation allowances, as well as foreign taxes. We have a valuation allowance of \$11.2 million and \$11.7 million as of December 31, 2016 and 2015, respectively. Our deferred tax assets and valuation allowance have been reduced by approximately \$226,000 and \$210,000 associated with the requirements of accounting for uncertain tax positions as of December 31,

2016 and 2015, respectively. Given the uncertainty created by our loss history, as well as the ongoing uncertain economic outlook for our industry as well as capital and geographic spending, we expect to continue to limit the recognition of net deferred tax assets and accounting for uncertain tax positions and maintain the tax valuation allowances.

## **GAIN ON SALE OF ASSETS**

During the year, we sold non-core and excess internet domain addresses, resulting in a non-operating gain of \$140,000 net of commissions. Blocks of these were purchased for nominal amounts in the early days of the internet and were expensed at that time. Continued similar sales are planned in 2017.

## **Inflation and changes in Foreign currency exchange rates**

Sales and expenses incurred by foreign subsidiaries are denominated in the subsidiary's local currency and translated into U.S. Dollar amounts at average rates of exchange during the year. We recognized foreign currency transaction gains and (losses) of \$81,000 and (\$176,000) in 2016 and 2015, respectively. The transaction gains or losses resulted primarily from translation adjustments to foreign inter-company accounts and U.S. Dollar accounts held by foreign subsidiaries and sales by our German subsidiary to certain customers, which were invoiced in U.S. Dollars. Because approximately 88.0% of our sales are to international markets, volatile exchange rates may also impact our competitiveness and margins.

**Financial Condition:****Liquidity and Capital Resources**

	2016	Change	2015
(in thousands)			
Working capital	\$14,573	\$750	\$13,823

At December 31, 2016, our principal sources of liquidity consisted of existing cash and cash equivalents. Our working capital increased by \$0.7 million for the year ended December 31, 2016 to \$14.6 million primarily due to the net income for the year offset in part by growth of accounts receivable & inventory. Our current ratio was 3.3 and 4.1 for December 31, 2016 and 2015, respectively.

For the year ended December 31, 2016, our cash position increased \$303,000 primarily resulting from net income for the year, offset in part by investing activities and repurchases of stock under the share repurchase program.

Although we have no significant external capital expenditure plans currently, we expect that we will continue to make capital expenditures to support our business. We plan to increase our investment on internally developed equipment used for services, rentals, sales demonstration and test equipment as we develop and release new products. Capital expenditures are expected to be funded by existing and internally generated funds or lease financing.

As a result of our significant product development, customer support, selling and marketing efforts, we have required substantial working capital to fund our operations. In 2016 and recent years, we have managed balancing profitable operations, while addressing rising costs and foreign exchange rate challenges. This included geographic shifts in our operations, optimized real estate usage strategies and differentiated product development and cost strategies.

We believe that we have sufficient cash or working capital available under our operating plan to fund our operations and capital requirements through at least the next one year period. We may require additional cash for U.S. operations, which could cause potential repatriation of cash from the \$5.6 million held in our foreign subsidiaries. Although we have no current

repatriation plans, there may be tax and other impediments to any repatriation actions. Our working capital may be used to fund possible losses, business growth, project initiatives, share repurchases and business development initiatives including acquisitions, which could reduce our liquidity and result in a requirement for additional cash before that time. Any substantial inability to achieve our current business plan could have a material adverse impact on our financial position, liquidity, or results of operations and may require us to reduce expenditures and/or seek additional financing.

### **OFF-balance sheet arrangements**

Except as noted in the accompanying consolidated financial statements in Note 6, "Operating Lease Commitments" and Note 7, "Other Commitments", we had no off-balance sheet arrangements.

### **Share repurchase programs**

On February 24, 2016, our Board of Directors approved a share repurchase program with provisions to buy back up to \$1 million of our stock during the period from March 2, 2016 through March 31, 2017. The program was established with a 10b5-1 plan under the Exchange Act to provide flexibility to make purchases throughout the period. For the year ended December 31, 2016, 80,345 shares of stock have been repurchased at an average price of \$2.36 for a total of \$189,360 plus \$1,649 in commissions and charges.

No stock repurchase programs were in effect during the twelve month period ending December 31, 2015.

The following is a summary of share repurchase activity under the plan through December 31, 2016:

Repurchases by Month	Total Number of Shares Purchased	Average Price Paid per Share	Total Number of Shares Purchased as Part of Publicly Announced Repurchase Program	Approximate Dollar Value of Shares that May Yet Be Purchased under the Program
March 2016	42,515	\$2.26	42,515	\$903,161
April 2016	8,480	\$2.35	8,480	\$883,064
May 2016	7,650	\$2.52	7,650	\$863,602
June 2016	15,200	\$2.45	15,200	\$826,078
July 2016	6,500	\$2.61	6,500	\$808,991
Total	80,345	\$2.36	80,345	

### **Non-Generally accepted accounting principles (GAAP) FINANCIAL Measures**

Earnings Before Interest, Taxes, Depreciation, and Amortization ("EBITDA") and Adjusted EBITDA excluding equity compensation (a non-cash item) are set forth below. Non-GAAP financial measures should not be considered a substitute for, or superior to, measures of financial performance prepared in accordance with GAAP. We believe that these non-GAAP financial measures provide meaningful supplemental information regarding our results and facilitate the comparison of results. A reconciliation of net income to EBITDA and adjusted EBITDA follows:

	Year Ended December 31, 2016	2015
(in thousands)		
Net Income	\$1,656	\$927
Interest (income)	(44)	(105)
Taxes	36	(5)
Depreciation & amortization	602	542
EBITDA earnings	\$2,250	\$1,359
Equity compensation	520	435
Adjusted EBITDA earnings excluding equity compensation	\$2,770	\$1,794

## **NEW ACCOUNTING PRONOUNCEMENTS**

In March 2016, the FASB issued ASU 2016-09, Compensation-Stock Compensation (ASU 2016-09), "Improvements to Employee Share-Based Payment Accounting". ASU 2016-09 requires excess tax benefits to be recognized in the statement of operations as an income tax expense and is applied prospectively by means of a cumulative-effect adjustment of excess tax benefits from equity in the period of adoption. The standard establishes an alternative practical expedient for estimating the expected term of an award by recognizing the effects of forfeitures in compensation cost when the forfeitures occur. Adoption of the alternative practical expedient is applied prospectively on an entity-wide basis. The standard requires that amounts paid to a taxing authority on the employee's behalf as a result of directly withholding shares for tax-withholding purposes are to be presented on a retrospective basis as a financing activity on the statement of cash flows. The standard becomes effective beginning January 1, 2017. We are in the process of evaluating the impact of adoption on our consolidated financial statements.

In February 2016, the FASB issued ASU 2016-02, “Leases” (ASU 2016-02). ASU 2016-02 requires lessees to recognize almost all leases on the balance sheet as a right-of-use asset and a lease liability and requires leases to be classified as either an operating or a finance type lease. The standard excludes leases of intangible assets or inventory. Early adoption of the standard is allowed. The standard becomes effective beginning January 1, 2019. We are in the process of evaluating the impact of adoption on our consolidated financial statements.

In May 2014, the FASB issued ASU 2014-09, “Revenue from Contracts with Customers” (ASU 2014-09). ASU 2014-09 provides companies with a single model for accounting for revenue arising from contracts with customers and supersedes current revenue recognition guidance, including industry-specific revenue guidance. The core principle of the model is to recognize revenue when control of the goods or services transfers to the customer, as opposed to recognizing revenue when the risks and rewards transfer to the customer under the existing revenue guidance. In August 2015, the FASB issued ASU 2015-14, “Revenue from Contracts with Customers” (ASU 2015-14), deferring the effective date of the new revenue recognition standard by one year and now takes effect for public entities in fiscal years beginning after December 15, 2017. We currently expect to adopt the revenue standards as of January 1, 2018, utilizing the modified retrospective transition method. The new standard may, in certain circumstances, impact the timing of when revenue is recognized for product shipped, and the timing and classification of certain sales incentives. We have begun to evaluate the potential impact of the adoption on our consolidated financial statements, but at this time the impact is unknown. We will expand our evaluation to identify all our revenue streams and determine when each source of revenue meets the five requirements for revenue recognition. We will monitor updated guidance on adopting this new standard.

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

Not applicable.

#### **Item 8. Financial Statements and Supplementary Data**

See pages 27 through 44.

**report of Independent REGISTERED PUBLIC ACCOUNTING FIRM**

Board of Directors and Stockholders

Data I/O Corporation

We have audited the accompanying consolidated balance sheets of Data I/O Corporation (a Washington corporation) and subsidiaries (the "Company") as of December 31, 2016 and 2015, and the related consolidated statements of operations, comprehensive income (loss), stockholders' equity, and cash flows for each of the two years in the period ended December 31, 2016. Our audits of the basic consolidated financial statements included the financial statement schedule listed in the index appearing under Item 15 (Schedule II). These financial statements and financial statement schedule are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements and financial statement schedule based on our audits.

We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. We were not engaged to perform an audit of the Company's internal control over financial reporting. Our audits included consideration of internal control over financial reporting as a basis for designing audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control over financial reporting. Accordingly, we express no such opinion. An audit also includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of Data I/O Corporation and subsidiaries as of December 31, 2016 and 2015, and the results of their operations and their cash flows for each of the two years in the period ended December 31, 2016 in conformity with accounting principles generally accepted in the United States of America. Also, in our opinion, the related financial statement schedule, when considered in relation to the basic consolidated financial statements taken as a whole, presents fairly, in all material respects, the information set forth therein.

/s/GRANT THORNTON LLP

Seattle, Washington  
March 28, 2017





**DATA I/O CORPORATION**  
**CONSOLIDATED BALANCE SHEETS**  
(in thousands, except share data)

	<b>December 31, 2016</b>	<b>December 31, 2015</b>
<b>ASSETS</b>		
CURRENT ASSETS:		
Cash and cash equivalents	\$11,571	\$11,268
Trade accounts receivable, net of allowance for doubtful accounts of \$96 and \$43, respectively	4,725	2,790
Inventories	4,059	3,705
Other current assets	483	577
<b>TOTAL CURRENT ASSETS</b>	<b>20,838</b>	<b>18,340</b>
Property, plant and equipment – net	1,875	1,237
Other assets	63	63
<b>TOTAL ASSETS</b>	<b>\$22,776</b>	<b>\$19,640</b>
<b>LIABILITIES AND STOCKHOLDERS' EQUITY</b>		
CURRENT LIABILITIES:		
Accounts payable	\$1,428	\$1,250
Accrued compensation	2,208	1,689
Deferred revenue	1,926	1,038
Other accrued liabilities	703	540
<b>TOTAL CURRENT LIABILITIES</b>	<b>6,265</b>	<b>4,517</b>
Long-term other payables	479	429
<b>COMMITMENTS</b>	<b>-</b>	<b>-</b>
<b>STOCKHOLDERS' EQUITY</b>		
Preferred stock - Authorized, 5,000,000 shares, including 200,000 shares of Series A Junior Participating Issued and outstanding, none	-	-
Common stock, at stated value - Authorized, 30,000,000 shares Issued and outstanding, 8,015,746 shares as of December 31, 2016 and 7,943,720 shares as of December 31, 2015	19,204	19,051
Accumulated (deficit)	(3,360)	(5,016)
Accumulated other comprehensive income	188	659
<b>TOTAL STOCKHOLDERS' EQUITY</b>	<b>16,032</b>	<b>14,694</b>

TOTAL LIABILITIES AND STOCKHOLDERS' EQUITY	\$22,776	\$19,640
--	----------	----------

*See notes to consolidated financial statements*

**DATA I/O CORPORATION**  
**CONSOLIDATED STATEMENTS OF OPERATIONS**  
(in thousands, except per share amounts)

	<b>For the Years Ended December 31,</b>	
	<b>2016</b>	<b>2015</b>
Net Sales	\$23,413	\$22,017
Cost of goods sold	10,545	10,473
Gross margin	12,868	11,544
Operating expenses:		
Research and development	5,065	4,701
Selling, general and administrative	6,376	5,850
Total operating expenses	11,441	10,551
Operating income	1,427	993
Non-operating income (expense):		
Interest income	44	105
Gain on sale of assets	140	-
Foreign currency transaction gain (loss)	81	(176)
Total non-operating income (expense)	265	(71)
Income before income taxes	1,692	922
Income tax (expense) benefit	(36)	5
Net income	\$1,656	\$927
Basic earnings per share	\$0.21	\$0.12
Diluted earnings per share	\$0.20	\$0.12
Weighted-average basic shares	7,968	7,907
Weighted-average diluted shares	8,132	8,054

*See notes to consolidated financial statements*

**DATA I/O CORPORATION**  
**CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME (LOSS)**  
**(in thousands)**

	<b>For the Years Ended December 31,</b>	
	<b>2016</b>	<b>2015</b>
Net Income	\$1,656	\$927
Other comprehensive income:		
Foreign currency translation (loss)	(471)	(451)
Comprehensive income	\$1,185	\$476

**DATA I/O CORPORATION**  
**CONSOLIDATED STATEMENT OF STOCKHOLDERS' EQUITY**  
(in thousands, except share amounts)

	Common Stock		Retained	Accumulated	Total
	Shares	Amount	Earnings (Deficit)	and Other Comprehensive Income (Loss)	Stockholders' Equity
<b>Balance at December 31, 2014</b>	7,861,141	\$18,704	(\$5,943)	\$1,110	\$13,871
Stock options exercised	1,360	(2)	-	-	(2)
Stock awards issued, net of tax withholding	77,226	(83)	-	-	(83)
Issuance of stock through:					
Employee Stock Purchase Plan	3,993	12	-	-	12
Share-based compensation	-	420	-	-	420
Net income	-	-	927	-	927
Other comprehensive income (loss)	-	-	-	(451)	(451)
<b>Balance at December 31, 2015</b>	7,943,720	\$19,051	(\$5,016)	\$659	\$14,694
Stock options exercised	30,948	(81)			(81)
Repurchased shares	(80,345)	(191)			(191)
Stock awards issued, net of tax withholding	118,737	(87)	-	-	(87)
Issuance of stock through:					
Employee Stock Purchase Plan	2,686	6	-	-	6
Share-based compensation	-	506	-	-	506
Net income	-	-	1,656	-	1,656
Other comprehensive income (loss)	-	-	-	(471)	(471)
<b>Balance at December 31, 2016</b>	8,015,746	\$19,204	(\$3,360)	\$188	\$16,032

**DATA I/O CORPORATION**  
**CONSOLIDATED STATEMENTS OF CASH FLOWS**  
(in thousands)

	<b>For the Years Ended December 31,</b>	
	<b>2016</b>	<b>2015</b>
<b>CASH FLOWS FROM OPERATING ACTIVITIES:</b>		
Net income	\$1,656	\$927
Adjustments to reconcile net income to net cash provided by (used in) operating activities:		
Depreciation and amortization	602	542
Gain on sale of assets	(140)	-
Equipment transferred to cost of goods sold	882	192
Share-based compensation	520	435
Net change in:		
Trade accounts receivable	(2,051)	1,204
Inventories	(452)	645
Other current assets	73	(169)
Accrued cost of business restructuring	-	(66)
Accounts payable and accrued liabilities	869	20
Deferred revenue	951	(652)
Other long-term liabilities	48	289
Net cash provided by operating activities	2,958	3,367
<b>CASH FLOWS FROM INVESTING ACTIVITIES:</b>		
Purchases of property, plant and equipment	(2,122)	(1,045)
Net proceeds from sale of assets	140	-
Cash (used in) investing activities	(1,982)	(1,045)
<b>CASH FLOWS FROM FINANCING ACTIVITIES:</b>		
Proceeds from issuance of common stock, net of tax withholding	(163)	(73)
Repurchase of common stock	(191)	-
Cash provided by (used in) financing activities	(354)	(73)
Increase/(decrease) in cash and cash equivalents	622	2,249
Effects of exchange rate changes on cash	(319)	(342)
Cash and cash equivalents at beginning of period	11,268	9,361
Cash and cash equivalents at end of period	\$11,571	\$11,268
<b>Supplemental disclosure of cash flow information:</b>		
Cash paid during the period for:		
Income Taxes	\$7	(\$13)
<i>See notes to consolidated financial statements</i>		





## **DATA I/O CORPORATION**

### **NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**

#### **NOTE 1 – SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES**

##### Nature of Operations

Data I/O Corporation (“Data I/O”, “We”, “Our”, “Us”) designs, manufactures and sells programming systems used by designers and manufacturers of electronic products. Our programming system products are used to program integrated circuits (“ICs” or “devices” or “semiconductors”) with the specific unique data necessary for the ICs contained in various products, and are an important tool for the electronics industry experiencing growing use of programmable ICs. Customers for our programming system products are located around the world, primarily in the Far East, Europe and the Americas. Our manufacturing operations are currently located in Redmond, Washington, United States and Shanghai, China.

##### Principles of Consolidation

The consolidated financial statements include the accounts of Data I/O Corporation and our wholly-owned subsidiaries. Intercompany accounts and transactions have been eliminated in consolidation.

##### Use of Estimates

The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America (“U.S. GAAP”) requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements, and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates.

Significant estimates include:

- Revenue Recognition
- Allowance for Doubtful Accounts
- Inventory
- Warranty Accruals
- Tax Valuation Allowances
- Share-based Compensation

#### Foreign Currency Translation

Assets and liabilities of foreign subsidiaries are translated at the exchange rate on the balance sheet date. Revenues, costs and expenses of foreign subsidiaries are translated at average rates of exchange prevailing during the year. Translation adjustments resulting from this process are charged or credited to stockholders' equity, net of taxes recognized. Realized and unrealized gains and losses resulting from the effects of changes in exchange rates on assets and liabilities denominated in foreign currencies are included in non-operating expense as foreign currency transaction gains and losses.

#### Cash and Cash Equivalents

All highly liquid investments purchased with an original maturity of 90 days or less are considered cash equivalents. We maintain our cash and cash equivalents with major financial institutions in the United States of America, which are insured by the Federal Deposit Insurance Corporation (FDIC), and foreign jurisdictions. Deposits in U.S. banks exceed the FDIC insurance limit. We have not experienced any losses on our cash and cash equivalents. Cash and cash equivalents held in foreign bank accounts, primarily China, Germany and Canada, totaled (in millions) \$5.6 at December 31, 2016 and \$6.2 at December 31, 2015.

#### Fair Value of Financial Instruments

Certain financial instruments are carried at cost on the consolidated balance sheets, which approximates fair value due to their short-term, highly liquid nature. These instruments include cash and cash equivalents, accounts receivable, accounts payable and accrued expenses, and other short-term liabilities.



### Accounts Receivable

The majority of our accounts receivable are due from companies in the electronics manufacturing industries. Credit is extended based on an evaluation of a customer's financial condition and, generally, collateral is not required. Accounts receivable are typically due within 30 to 60 days and are stated at amounts due from customers net of an allowance for doubtful accounts. Accounts receivable outstanding longer than the contractual payment terms are considered past due. We determine the allowance by considering a number of factors, including the length of time trade accounts receivable are past due, the industry and geographic payment practices involved, our previous bad debt experience, the customer's current ability to pay their obligation to us, and the condition of the general economy and the industry as a whole. We write off accounts receivable when they become uncollectible, and payments subsequently received on such receivables are credited to the allowance for doubtful accounts. Interest may be accrued, at the discretion of management and according to our standard sales terms, beginning on the day after the due date of the receivable. However, interest income is subsequently recognized on these accounts either to the extent cash is received, or when the future collection of interest and the receivable balance is considered probable by management.

### Inventories

Inventories are stated at the lower of cost or market with cost being the currently adjusted standard cost, which approximates cost on a first-in, first-out basis. We estimate changes to inventory for obsolete, slow-moving, excess and non-salable inventory by reviewing current transactions and forecasted product demand. We evaluate our inventories on an item by item basis and record an adjustment (lower of cost or market) accordingly.

### Property, Plant and Equipment

Property, plant and equipment, including leasehold improvements, are stated at cost and depreciation is calculated over the estimated useful lives of the related assets or lease terms on the straight-line basis. We depreciate substantially all manufacturing and office equipment over periods of three to seven years. We depreciate leasehold improvements over the remaining portion of the lease or over the expected life of the asset if less than the remaining term of the lease.

We regularly review all of our property, plant and equipment for impairment whenever events or changes in circumstances indicate that the carrying value may not be recoverable. If the

total of future undiscounted cash flows is less than the carrying amount of these assets, an impairment loss, if any, based on the excess of the carrying amount over the fair value of the assets, is recorded. Based on this evaluation, no impairment was noted for property, plant and equipment for the years ended December 31, 2016 and 2015.

### Patent Costs

We expense external costs, such as filing fees and associated attorney fees, incurred to obtain initial patents, but capitalize acquired patents as intangible assets. We also expense costs associated with maintaining and defending patents subsequent to their issuance.

### Income Taxes

Income taxes are computed at current enacted tax rates, less tax credits using the asset and liability method. Deferred taxes are adjusted both for items that do not have tax consequences and for the cumulative effect of any changes in tax rates from those previously used to determine deferred tax assets or liabilities. Tax provisions include amounts that are currently payable, changes in deferred tax assets and liabilities that arise because of temporary differences between the timing of when items of income and expense are recognized for financial reporting and income tax purposes, and any changes in the valuation allowance caused by a change in judgment about the reliability of the related deferred tax assets. A valuation allowance is established when necessary to reduce deferred tax assets to amounts expected to be realized.

### Share-Based Compensation

All stock-based compensation awards are measured based on estimated fair values on the date of grant and recognized as compensation expense on the straight-line single-option method. Our share-based compensation is reduced for estimated forfeitures at the time of grant and revised as necessary in subsequent periods if actual forfeitures differ from those estimates.

### Revenue Recognition



We recognize revenue at the time the product is shipped. We have determined that our programming equipment has reached a point of maturity and stability such that product acceptance can be assured by testing at the factory prior to shipment and that the installation meets the criteria to be considered a separate element. These systems are standard products with published product specifications and are configurable with standard options. The evidence that these systems could be deemed as accepted was based upon having standardized factory production of the units, results from batteries of tests of product performance to our published specifications, quality inspections and installation standardization, as well as past product operation validation with the customer and the history provided by our installed base of products upon which the current versions were based.

The revenue related to products requiring installation that is perfunctory is recognized at the time of shipment. Installation that is considered perfunctory includes any installation that can be performed by other parties, such as distributors, other vendors, or in most cases the customers themselves. This takes into account the complexity, skill and training needed as well as customer expectations regarding installation.

We enter into multiple deliverables arrangements that arise during the sale of a system that includes an installation component, a service and support component and a software maintenance component. We allocate the value of each element based on relative selling prices. Relative selling price is based on the selling price of the standalone system. For the installation and service and support components, we use what we charge to distributors who perform these components. For software maintenance components, we use what we charge for annual software maintenance renewals after the initial year the system is sold. Revenue is recognized on the system sale based on shipping terms, installation revenue is recognized after the installation is performed, and hardware service and support and software maintenance revenue is recognized ratably over the term of the agreement, typically one year.

When we sell software separately, we recognize software revenue upon shipment provided that only inconsequential obligations remain on our part and substantive acceptance conditions, if any, have been met.

We recognize revenue when persuasive evidence of an arrangement exists, shipment has occurred, the price is fixed or determinable, the buyer has paid or is obligated to pay, collectability is reasonably assured, substantive acceptance conditions, if any, have been met, the obligation is not contingent on resale of the product, the buyer's obligation would not be changed in the event of theft, physical destruction or damage to the product, the buyer acquiring the product for resale has economic substance apart from us and we do not have

significant obligations for future performance to directly bring about the resale of the product by the buyer. We establish a reserve for sales returns based on historical trends in product returns and estimates for new items.

Sales were recorded net of actual sales returns and changes to the associated sales return reserve. Sales return reserves were \$50,000 and \$61,000 at December 31, 2016 and 2015, respectively.

We transfer certain products out of service from their internal use and make them available for sale. The products transferred are our standard products in one of the following areas: service loaners, rental or test units; engineering test units; or sales demonstration equipment. Once transferred, the equipment is sold by our regular sales channels as used equipment inventory. These product units often involve refurbishing and an equipment warranty, and are conducted as sales in our normal and ordinary course of business. The transfer amount is the product unit's net book value and the sale transaction is accounted for as revenue and cost of goods sold.

#### Research and Development

Research and development costs are generally expensed as incurred.

#### Advertising Expense

Advertising costs are expensed as incurred. Total advertising expenses were approximately \$108,000 and \$137,000 in 2016 and 2015, respectively.



### Warranty Expense

We record a liability for an estimate of costs that we expect to incur under our basic limited warranty when product revenue is recognized. Factors affecting our warranty liability include the number of units sold and historical and anticipated rates of claims and costs per claim. We normally provide a warranty for our products against defects for periods ranging from ninety days to one year. We provide for the estimated cost that may be incurred under our product warranties and periodically assess the adequacy of our warranty liability based on changes in the above factors. We record revenues on extended warranties on a straight-line basis over the term of the related warranty contracts. Service costs are expensed as incurred.

### Earnings (Loss) Per Share

Basic earnings (loss) per share exclude any dilutive effects of stock options. Basic earnings (loss) per share are computed using the weighted-average number of common shares outstanding during the period. Diluted earnings per share are computed using the weighted-average number of common shares and common stock equivalent shares outstanding during the period. The common stock equivalent shares from equity awards used in calculating diluted earnings per share were 164,000 and 147,000 for the years ended December 31, 2016 and 2015, respectively. Options to purchase 117,352 and 166,720 shares of common stock were outstanding as of December 31, 2016 and 2015, respectively, but were excluded from the computation of diluted EPS for the period then ended because the options were anti-dilutive.

### Diversification of Credit Risk

Financial instruments, which potentially subject us to concentrations of credit risk, consist primarily of trade receivables. Our trade receivables are geographically dispersed and include customers in many different industries. As of December 31, 2016, three customers accounted for greater than 10% of our consolidated accounts receivable balance: Bosch and Arrow our direct customers, and Data Copy Limited, our distributor in China, represented 30%, 16% and 14% of that balance, respectively. Our consolidated accounts receivable balance as of December 31, 2016 and 2015 includes foreign accounts receivable in the functional currency of our foreign subsidiaries amounting to \$2,554,000 and \$569,000, respectively. We generally do business with our foreign distributors in U.S. Dollars. We believe that risk of loss is significantly reduced due to the diversity of our end-customers and geographic sales areas. We perform on-going credit evaluations of our customers' financial condition and require collateral, such as letters of credit and bank guarantees, or prepayment whenever deemed necessary.

## New Accounting Pronouncements

In March 2016, the FASB issued ASU 2016-09, Compensation-Stock Compensation (ASU 2016-09), "Improvements to Employee Share-Based Payment Accounting". ASU 2016-09 requires excess tax benefits to be recognized in the statement of operations as an income tax expense and is applied prospectively by means of a cumulative-effect adjustment of excess tax benefits from equity in the period of adoption. The standard establishes an alternative practical expedient for estimating the expected term of an award by recognizing the effects of forfeitures in compensation cost when the forfeitures occur. Adoption of the alternative practical expedient is applied prospectively on an entity-wide basis. The standard requires that amounts paid to a taxing authority on the employee's behalf as a result of directly withholding shares for tax-withholding purposes are to be presented on a retrospective basis as a financing activity on the statement of cash flows. The standard becomes effective beginning January 1, 2017. We are in the process of evaluating the impact of adoption on our consolidated financial statements.

In February 2016, the FASB issued ASU 2016-02, "Leases" (ASU 2016-02). ASU 2016-02 requires lessees to recognize almost all leases on the balance sheet as a right-of-use asset and a lease liability and requires leases to be classified as either an operating or a finance type lease. The standard excludes leases of intangible assets or inventory. Early adoption of the standard is allowed. The standard becomes effective beginning January 1, 2019. We are in the process of evaluating the impact of adoption on our consolidated financial statements.

In May 2014, the FASB issued ASU 2014-09, "Revenue from Contracts with Customers" (ASU 2014-09). ASU 2014-09 provides companies with a single model for accounting for revenue arising from contracts with customers and supersedes current revenue recognition guidance, including industry-specific revenue guidance. The core principle of the model is to recognize revenue when control of the goods or services transfers to the customer, as opposed to recognizing revenue when the risks and rewards transfer to the customer under the existing revenue guidance. In August 2015, the FASB issued ASU 2015-14, "Revenue from Contracts with Customers" (ASU 2015-14), deferring the effective date of the new revenue recognition standard by one year and now takes effect for public entities in fiscal years beginning after December 15, 2017. We currently expect to adopt the revenue standards as of January 1, 2018, utilizing the modified retrospective transition method. The new standard may, in certain circumstances, impact the timing of when revenue is recognized for product shipped, and the timing and classification of certain sales incentives. We have begun to evaluate the potential impact of the adoption on our consolidated financial statements, but at this time the impact is unknown. We will expand our evaluation to identify all our revenue streams and determine when each source of revenue meets the five requirements for revenue recognition. We will monitor updated guidance on adopting this new standard.



**NOTE 2 – ACCOUNTS RECEIVABLE, NET**

Receivables consist of the following:

	December 31, 2016	December 31, 2015
(in thousands)		
Trade accounts receivable	\$4,821	\$2,833
Less allowance for doubtful receivables	96	43
Trade accounts receivable, net	\$4,725	\$2,790

Changes in Data I/O's allowance for doubtful accounts are as follow:

	December 31, 2016	December 31, 2015
(in thousands)		
Beginning balance	\$43	\$93
Bad debt expense (reversal)	55	(36)
Accounts written-off	(2)	(14)
Recoveries	-	-
Ending balance	\$96	\$43

**NOTE 3– INVENTORIES**

Inventories consisted of the following components:

	December 31, 2016	December 31, 2015
(in thousands)		
Raw material	\$2,402	\$2,262
Work-in-process	1,226	1,099
Finished goods	431	344
Inventories	\$4,059	\$3,705

**NOTE 4 – PROPERTY, PLANT AND EQUIPMENT, NET**

Property and equipment consisted of the following components:

	December 31, 2016	December 31, 2015
(in thousands)		
Leasehold improvements	\$376	\$77
Equipment	4,449	4,482
Sales demonstration equipment	1,158	1,257

Edgar Filing: DATA I/O CORP - Form 10-K

	5,983	5,816
Less accumulated depreciation	4,108	4,579
Property and equipment, net	\$1,875	\$1,237

37

Total depreciation expense recorded for 2016 and 2015 was \$602,000 and \$542,000, respectively.

## **NOTE 5 – OTHER ACCRUED LIABILITIES**

Other accrued liabilities consisted of the following components:

	December 31, 2016	December 31, 2015
(in thousands)		
Product warranty	\$371	\$368
Sales return reserve	50	61
Other taxes	149	92
Other	133	19
Other accrued liabilities	\$703	\$540

The changes in our product warranty liability for the year ending December 31, 2016 are follows:

	December 31, 2016
(in thousands)	
Liability, beginning balance	\$368
Net expenses	755
Warranty claims	(797)
Accrual revisions	45
Liability, ending balance	\$371

## **NOTE 6 –OPERATING LEASE COMMITMENTS**

We have commitments under non-cancelable operating leases and other agreements, primarily for factory and office space, with initial or remaining terms of one year or more as follows:

For the years ending December 31:

	Operating Leases
(in thousands)	
2017	\$872
2018	878
2019	906
2020	893
2021	484
Thereafter	11
Total	\$4,044

Lease and rental expense was \$927,000 and \$955,000 in 2016 and 2015, respectively. Rent expense is recorded on a straight line basis, over the term of the lease, for leases that contain fixed escalation clauses.

During the second quarter of 2015, we amended our lease agreement for the Redmond, Washington headquarters facility effective July 8, 2015. The amended lease resulted in our headquarters relocating to a nearby building, extending the term through April 2021, lowering the square footage to approximately 20,460, providing lease inducement incentives and lowering the rental rate. The lease commitment of approximately \$1.7 million will be paid over the term of the lease. As a result of this lease amendment, the remaining balance of the restructure liability relating to the lease of approximately \$120,000 was incorporated into our deferred rent liability in July 2015. The lease base annual rental payments during 2016 and 2015 were approximately \$200,000 and \$296,000, respectively.

In addition to the Redmond facility, approximately 24,000 square feet is leased at two foreign locations, including our sales, service, operations and engineering office located in Shanghai, China, and our German sales, service and engineering office located in Munich, Germany.

We renewed our lease agreement for what is now our former Shanghai, China facility, effective June 15, 2015, extending the term through December 31, 2015. Operations continued in this facility through January 31, 2016. In October 2015, we signed a lease agreement for a new facility located in Shanghai, China which was effective November 1, 2015 and extends through October 31, 2021. The new lease approximately doubled our space to 19,400 square feet at approximately 54% of the prior lease rental rate. The lease base annual rental payments during 2016 and 2015 were approximately \$233,000 and \$324,000, respectively.

During the fourth quarter of 2016, we signed a lease agreement for a new facility located in Munich, Germany which is effective March 1, 2017 and extends through February 28, 2022. The new lease will slightly increase our space to 4,895 square feet at approximately the same cost per square foot as the current lease. The lease base annual rental payments during 2016 and 2015 were both approximately \$61,000.

## **NOTE 7 –OTHER COMMITMENTS**

We have purchase obligations for inventory and production costs as well as other obligations such as capital expenditures, service contracts, marketing, and development agreements. Arrangements are considered purchase obligations if a contract specifies all significant terms, including fixed or minimum quantities to be purchased, a pricing structure and approximate timing of the transaction. Most arrangements are cancelable without a significant penalty, and with short notice, typically less than 90 days. At December 31, 2016, the purchase commitments and other obligations totaled \$1,134,000 of which all but \$33,000 are expected to be paid over the next twelve months.

## **NOTE 8 – CONTINGENCIES**

As of December 31, 2016, we were not a party to any legal proceedings or aware of any indemnification agreement claims, the adverse outcome of which in management's opinion, individually or in the aggregate, would have a material adverse effect on our results of operations or financial position.



## **NOTE 9 – STOCK AND RETIREMENT PLANS**

### Stock Option Plans

At December 31, 2016, there were 537,586 shares available for future grant under Data I/O Corporation 2000 Stock Compensation Incentive Plan (“2000 Plan”). At December 31, 2016 there were 840,850 shares of Common Stock reserved for issuance consisting of 600,850 under the 2000 plan and 240,000 under the inducement grant reserves. Pursuant to this 2000 Plan, options are granted to our officers and key employees with exercise prices equal to the fair market value of the Common Stock at the date of grant and generally vest over four years. Options granted under the plans have a maximum term of six years from the date of grant. Stock awards may also be granted under the 2000 Plan. Inducement grants were made in 2012 and 2013. In 2012, inducement grants were made to our chief executive officer consisting of 200,000 options, of which 60,000 were exercised in 2016 and 75,000 restricted shares, of which 18,750 shares were issued in both 2016 and 2015. In 2013, an inducement grant was made to our chief technology officer consisting of 100,000 options. The inducement grants were not made out of the 2000 Plan shares but were made under the terms of the 2000 Plan.

### Employee Stock Purchase Plan

Under the Employee Stock Purchase Plan (“ESPP”), eligible employees may purchase shares of our Common Stock at six-month intervals at 95% of the fair market value on the last day of each six-month period. Employees may purchase shares having a value not exceeding 10% of their gross compensation during an offering period. During 2016 and 2015, a total of 2,686 and 3,993 shares, respectively, were purchased under the plan at average prices of \$2.63 and \$2.90 per share, respectively. At December 31, 2016, a total of 53,687 shares were reserved for future issuance.

### Stock Appreciation Rights Plan

We have a Stock Appreciation Rights ("SAR") Plan under which each director, executive officer or holder of 10% or more of our Common Stock has a SAR with respect to each exercisable stock option. The SAR entitles the SAR holder to receive cash from us for the difference between the market value of the stock and the exercise price of the option in lieu of exercising the related option. SARs are only exercisable following a tender offer or exchange offer for our stock, or following approval by shareholders of Data I/O of any merger, consolidation, reorganization or other transaction providing for the conversion or exchange of more than 50% of the common shares outstanding. As no event has occurred, which would make the SARs exercisable, and no such event is deemed probable, no compensation expense has been recorded under this plan. At December 31, 2016 there were 337,500 SARs outstanding.

### Director Fee Plan

We have a Director Fee Plan, not currently in use, which had provided for payment to directors who are not employees of Data I/O Corporation by delivery of shares of our Common Stock. No shares were issued from the plan for 2016 or 2015 board service and 151,332 shares remain available in the plan as of December 31, 2016.

### Retirement Savings Plan

We have a savings plan that qualifies as a cash or deferred salary arrangement under Section 401(k) of the Internal Revenue Code. Under the plan, participating U.S. employees may defer their pre-tax salary or post-tax salary if Roth is elected, subject to IRS limitations. In fiscal years 2016 and 2015, we contributed one dollar for each dollar contributed by a participant, with a maximum contribution of 4% of a participant's eligible earnings. Our matching contribution expense, net of forfeitures, for the savings plan was approximately \$129,000 and \$174,000 in 2016 and 2015, respectively. Employer matching contributions owed to the plan were \$181,000 and \$178,000 at December 31, 2016 and 2015, respectively.

## **NOTE 10- SHARE-BASED COMPENSATION**

For share-based awards granted, we have recognized compensation expense based on the estimated grant date fair value method. For these awards we have recognized compensation

expense using a straight-line amortization method and reduced for estimated forfeitures. The impact on our results of operations of recording share-based compensation for the year ended December 31, 2016 and 2015 was as follows:

	Year Ended December 31,	
	2016	2015
(in thousands)		
Cost of goods sold	\$13	\$13
Research and development	106	76
Selling, general and administrative	401	346
Total share-based compensation	\$520	\$435
Impact on net income per share:		
Basic	(\$0.07)	(\$0.05)
Diluted	(\$0.06)	(\$0.05)

An immaterial amount of share-based compensation was capitalized into inventory as overhead for the years ended December 31, 2016 and 2015, respectively.

The fair values of share-based awards for employee stock option awards are estimated at the date of grant using the Black-Scholes valuation model. The volatility and expected life of the options used in calculating the fair value of share-based awards may exclude certain periods of historical data that we considered atypical and not likely to occur in future periods. It was not necessary to make weighted average assumptions regarding risk-free rates, volatility factors, expected life of option in years and expected dividend yield to calculate the fair value of options as none were granted during the years ended December 31, 2016 and 2015.

The risk-free interest rate used in the Black-Scholes valuation method is based on the implied yield currently available in U.S. Treasury securities at maturity with an equivalent term. We have not recently declared or paid any dividends and do not currently have plans to do so in the future. The expected term of options represents the period that our stock-based awards are expected to be outstanding and has been determined based on historical weighted average holding periods and projected holding periods for the remaining unexercised shares. Consideration was given to the contractual terms of our stock-based awards, vesting schedules and expectations of future employee behavior. Expected volatility is based on the annualized daily historical volatility of our stock over a representative period.

The following table summarizes stock option activity under our stock option plans for the twelve months ended December 31:

	2016			2015		
	Options	Weighted-Average Exercise Price	Weighted-Average Remaining Contractual Life in Years	Options	Weighted-Average Exercise Price	
Outstanding at beginning of year	574,000	\$2.97		606,187	\$3.02	
Granted	-	0.00		-	0.00	
Exercised	(130,000)	2.38		(20,625)	3.03	
Cancelled, Expired or Forfeited	(68,000)	4.25		(11,562)	5.39	
Outstanding at end of year	376,000	\$2.95	1.67	574,000	\$2.97	
Vested or expected to vest at the end of the period	375,055	\$2.96	1.67	564,527	\$2.99	
Exercisable at end of year	357,250	\$3.00	1.62	467,126	\$3.19	

The aggregate intrinsic value of outstanding options is \$618,650. This represents the total pretax intrinsic value, based on the closing stock price of \$4.18 at December 31, 2016, which would have been received by award holders had all award holders exercised their stock options that were in-the-money as of that date. The aggregate intrinsic value of awards exercised during the twelve month period ended December 31, 2016 was \$208,148.

Restricted stock award including performance-based stock award activity under our share-based compensation plan was as follows:

	2016		2015	
	Awards	Weighted - Average Grant Date Fair Value	Awards	Weighted - Average Grant Date Fair Value
Outstanding at beginning of year	389,100	\$2.86	320,900	\$2.57
Granted	227,100	2.61	193,800	3.16

Edgar Filing: DATA I/O CORP - Form 10-K

Vested	(148,100)	2.72	(109,250)	2.58
Cancelled	(3,250)	2.73	(16,350)	2.60
Outstanding at end of year	464,850	\$2.78	389,100	\$2.86

The remaining unamortized expected future compensation expense and remaining amortization period associated with unvested option grants and restricted stock awards are:

	December 31, 2016	December 31, 2015
Unamortized future compensation expense	\$1,093,144	\$1,028,961
Remaining weighted average amortization period in years	2.53	2.59

## NOTE 11 – SHARE REPURCHASE PROGRAMS

On February 24, 2016, our Board of Directors approved a share repurchase program with provisions to buy back up to \$1 million of our stock during the period from March 2, 2016 through March 31, 2017. The program was established with a 10b5-1 plan under the Exchange Act to provide flexibility to make purchases throughout the period. For the year ended December 31, 2016, 80,345 shares of stock have been repurchased at an average price of \$2.36 for a total of \$189,360 plus \$1,649 in commissions and charges.

The following is a summary of share repurchase activity under the plan through December 31, 2016:

Repurchases by Month	Total Number of Shares Purchased	Average Price Paid per Share	Total Number of Shares Purchased as Part of Publicly Announced Repurchase Program	Approximate Dollar Value of Shares that May Yet Be Purchased under the Program
March 2016	42,515	\$2.26	42,515	\$903,161
April 2016	8,480	\$2.35	8,480	\$883,064
May 2016	7,650	\$2.52	7,650	\$863,602
June 2016	15,200	\$2.45	15,200	\$826,078
July 2016	6,500	\$2.61	6,500	\$808,991
Total	80,345	\$2.36	80,345	

## NOTE 12– INCOME TAXES

Components of income (loss) before taxes:

(in thousands)	Year Ended December 31,	
	2016	2015
U.S. operations	\$1,401	\$420
Foreign operations	291	502
Total income (loss) before taxes	\$1,692	\$922

Income tax expense (benefit) consists of:

(in thousands)	Year Ended December 31,	
	2016	2015
Current tax expense (benefit)		
U.S. federal	\$25	\$0
State	6	(1)
Foreign	5	(4)
	36	(5)
Deferred tax expense (benefit) – U.S. federal	-	-
Total income tax expense (benefit)	\$36	(\$5)

A reconciliation of our effective income tax and the U.S. federal tax rate is as follows:

(in thousands)	Year Ended December 31,	
	2016	2015
Statutory tax	\$575	\$313
State and foreign income tax, net of federal income tax benefit	64	(105)
Valuation allowance for deferred tax assets	(603)	(213)
Total income tax expense (benefit)	\$36	(\$5)

The tax effects of temporary differences that gave rise to significant portions of the deferred tax assets are presented below:

(in thousands)	Year Ended December 31,	
	2016	2015
Deferred income tax assets:		
Allowance for doubtful accounts	\$17	\$11
Inventory and product return reserves	632	723
Compensation accruals	1,726	1,533
Accrued liabilities	524	311
Book-over-tax depreciation and amortization	93	99
Foreign net operating loss carryforwards	550	809
U.S. net operating loss carryforwards	6,419	6,919
U.S. credit carryforwards	1,287	1,264
	11,248	11,669
Valuation Allowance	(11,248)	(11,669)
Total Deferred Income Tax Assets	\$ -	\$ -



The valuation allowance for deferred tax assets decreased \$421,000 during the year ended December 31, 2016, and decreased \$133,000 during the year ended December 31, 2015. The net deferred tax assets have a full valuation allowance provided due to uncertainty regarding our ability to utilize such assets in future years. This full valuation allowance evaluation is based upon our volatile history of losses and the cyclical nature of our industry and capital spending. Credit carryforwards consist primarily of research and experimental and alternative minimum tax credits with expiration years from 2020 to 2036. U.S. net operating loss carryforwards are \$18,878,000 at December 31, 2016 with expiration years from 2020 to 2036. Utilization of net operating loss and credit carryforwards is subject to certain limitations under Section 382 of the Internal Revenue Code of 1986, as amended.

The gross changes in uncertain tax positions resulting in unrecognized tax benefits are presented below:

	Year Ended December 31, 2016	2015
(in thousands)		
Unrecognized tax benefits, opening balance	\$210	\$197
Prior period tax position increases	-	(3)
Additions based on tax positions related to current year	16	16
Unrecognized tax benefits, ending balance	\$226	\$210

Historically, we have incurred minimal interest expense and no penalties associated with tax matters. We have adopted a policy whereby amounts related to penalties associated with tax matters are classified as general and administrative expense when incurred and amounts related to interest associated with tax matters are classified as interest income or interest expense.

Tax years that remain open for examination include 2013, 2014, 2015 and 2016 in the United States of America. In addition, tax years from 2000 to 2012 may be subject to examination in the event that we utilize the net operating losses and credit carryforwards from those years in our current or future year tax returns.

### **NOTE 13 – SEGMENT AND GEOGRAPHIC INFORMATION**

We consider our operations to be a single operating segment, focused on the design, manufacturing and sale of programming systems used by designers and manufacturers of electronic products.

Major operations outside the U.S. include sales, engineering and service support subsidiaries in Germany as well as in China, which also manufactures some of our products.

The following tables provide summary operating information by geographic area:

(in thousands)	Year Ended December 31,	
	2016	2015
Net sales:		
U.S.	\$2,936	\$2,229
Europe	8,730	8,744
Rest of World	11,747	11,044
	\$23,413	\$22,017
Included in Europe and Rest of World net sales are the following significant balances:		
Germany	\$4,482	\$3,702
China	\$3,824	\$4,682
Operating income (loss):		
U.S.	\$669	\$473
Europe	132	(356)
Rest of World	626	876
	\$1,427	\$993
Identifiable assets:		
U.S.	\$11,346	\$9,441
Europe	4,993	3,128
Rest of World	6,437	7,071
	\$22,776	\$19,640

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

None.

**Item 9A. Controls and Procedures**

(a) Evaluation of disclosure controls and procedures.

Under the supervision and with the participation of our management, including our Chief Executive Officer and Chief Financial Officer, we evaluated the effectiveness of the design and operation of our disclosure controls and procedures (as defined in Rule 13a-15(e) and Rule 15d-15(e) under the Exchange Act) as of the end of the period covered by this report (the "Evaluation Date"). Based upon that evaluation, the Chief Executive Officer and Chief Financial Officer concluded that, as of the Evaluation Date, our disclosure controls and procedures were effective at the reasonable assurance level. Disclosure controls are controls and procedures designed to ensure that information required to be disclosed in our reports filed or submitted under the Exchange Act is recorded, processed, summarized and reported within the time periods specified in the SEC's rules and forms. Disclosure controls are also designed to ensure that such information is accumulated and communicated to our management, including the CEO and CFO, as appropriate to allow timely decisions regarding required disclosure.

(b) Management's Report on Internal Control Over Financial Reporting.

Our management is responsible for establishing and maintaining adequate internal control over financial reporting. Our internal control systems are designed to provide reasonable assurance to the Company's management and board of directors regarding reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. Internal control over financial reporting is defined in Rule 13a-15(f) promulgated under the Exchange Act and includes those policies and procedures that:

(i) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company;

(ii) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and

(iii) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use or disposition of the company's assets that could have a material effect on the financial statements.

All internal controls, no matter how well designed, have inherent limitations. Therefore, even those systems determined to be effective can provide only reasonable assurance with respect to financial statements preparation and presentation.

Our management assessed the effectiveness of the Company's internal control over financial reporting as of December 31, 2016. In making this assessment, we used the criteria set forth by the Committee of Sponsoring Organizations of the Treadway Commission ("COSO") in Internal Control – Integrated Framework (2013). Based on this assessment we concluded that, as of December 31, 2016, our internal control over financial reporting was effective.

This annual report does not include an attestation report of the company's registered public accounting firm regarding internal control over financial reporting. Management's report was not subject to attestation by the company's registered public accounting firm pursuant to the Dodd-Frank Wall Street Reform and Consumer Protection Act, which permanently exempts smaller reporting companies from complying with Section 404(b) of the Sarbanes-Oxley Act of 2002.

(c) Changes in internal controls.

There were no changes made in our internal controls during the period covered by this report that has materially affected or is reasonably likely to materially affect our internal control over financial reporting.

#### **Item 9B. Other Information**

None.



## **PART III**

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

Information regarding the Registrant's directors is set forth under "Election of Directors" in our Proxy Statement relating to our annual meeting of shareholders to be held on May 18, 2017 and is incorporated herein by reference. Such Proxy Statement will be filed within 120 days of our year-end. Information regarding the Registrant's executive officers is set forth in Item 1 of Part I herein under the caption "Executive Officers of the Registrant."

#### **Code of Ethics**

We have adopted a Code of Ethics that applies to all directors, officers and employees of Data I/O, including the Chief Executive Officer and Chief Financial Officer. The key principles of the Code of Ethics are to act legally and with integrity in all work for Data I/O. The Code of Ethics is posted on the corporate governance page of our website at <http://www.dataio.com/Company/InvestorRelations/CorporateGovernance.aspx>. We will post any amendments to our Code of Ethics on our website. In the unlikely event that the Board of Directors approves any sort of waiver to the Code of Ethics for our executive officers or directors, information concerning such waiver will also be posted on our website. In addition to posting information regarding amendments and waivers on our website, the same information will be included in a Current Report on Form 8-K within four business days following the date of the amendment or waiver, unless website posting of such amendments or waivers is permitted by Nasdaq's rules.

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

Information called for by Part III, Item 11, is included in our Proxy Statement relating to our annual meeting of shareholders to be held on May 18, 2017 and is incorporated herein by reference. The information appears in the Proxy Statement under the caption "Executive Compensation." Such Proxy Statement will be filed within 120 days of our year-end.

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

Information called for by Part III, Item 12, is included in our Proxy Statement relating to our annual meeting of shareholders to be held on May 18, 2017 and is incorporated herein by reference. The information appears in the Proxy Statement under the caption "Voting Securities and Principal Holders." Such Proxy Statement will be filed within 120 days of our year end.



Equity Compensation Plan Information

The following table gives information about our Common Stock that may be issued upon the exercise of options and rights under all of our existing equity compensation plans as of December 31, 2016. See Notes 10 and 11 of “Notes to Consolidated Financial Statements.”

	(a) Number of securities to be issued upon the exercise of outstanding options, warrants and rights	(b) Weighted-average exercise price of outstanding options, warrants and rights	(c) Number of securities remaining available for future issuance under equity compensation plans (excluding securities reflected in column (a))
Equity compensation plans approved by the security holders (1)			
(2)	136,425	\$4.71	590,848
Equity compensation plans not approved by the security holders			
(3)	240,000	\$1.96	-
Total	376,425	\$2.96	590,848

(1) Represents shares of our Common Stock issuable pursuant to the Data I/O Corporation 2000 Stock Incentive Compensation Plan, 1982 Employee Stock Purchase Plan and 1996 Director Fee Plan. Table excludes unvested restricted stock awards of 464,850 from the 2000 Plan.

(2) Stock Appreciation Rights Plan (“SAR”) provides that directors, executive officers or holders of 10% or more of our Common Stock have an accompanying SAR with respect to each exercisable option. While the plan has been approved by the security holders, no amounts are included in columns (a), (b), or (c) relating to the SAR.

(3) Represents remaining inducement grants of 140,000 nonqualified stock options to Anthony Ambrose as part of his hiring and inducement grants of 100,000 nonqualified stock options to Rajeev Gulati as part of his hiring.

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

The information required by this item is contained in, and incorporated by reference from, the Proxy Statement for our 2017 Annual Meeting of Shareholders under the caption “Certain Relationships and Related Transactions.”

**Item 14. \_ Principle Accounting Fees and Services**

The information required by this Item with respect to principal accountant fees and services is incorporated by reference to the section captioned “Principal Accountant’s Fees and Services” in the Proxy Statement relating to our annual meeting of shareholders to be held on May 18, 2017. Such Proxy Statement will be filed within 120 days of our year-end.

## **PART IV**

### **Item 15. Exhibits, Financial Statement Schedules**

#### **Executive Compensation Plans and Arrangements**

The following list is a subset of the list of exhibits described below and contains all compensatory plans, contracts or arrangements in which any director or executive officer of Data I/O is a participant, unless the method of allocation of benefits thereunder is the same for management and non-management participants:

- (1) Amended and Restated 1982 Employee Stock Purchase Plan. See Exhibit 10.5.
- (2) Data I/O Corporation Tax Deferral Retirement Plan and Trust with Great West Financial (formerly Orchard Trust Company). See Exhibits 10.15, 10.16, 10.17, 10.30 and 10.31.
- (3) Summary of Amended and Restated Management Incentive Compensation Plan. See Exhibit 10.2.
- (4) Amended and Restated 1983 Stock Appreciation Rights Plan. See Exhibit 10.1.
- (5) Amended and Restated Executive Agreements. See Exhibit 10.8, 10.20, and 10.23.
- (6) 1996 Director Fee Plan. See Exhibit 10.4.
- (7) Data I/O Corporation 2000 Stock Compensation Incentive Plan. See Exhibit 10.6, 10.11, 10.22 and 10.26.

- (8) Form of Option Agreement. See Exhibit 10.7.
- (9) Form of Indemnification Agreement. See Exhibit 10.18.
- (10) Letter Agreement with Anthony Ambrose. See Exhibit 10.21.
- (11) Letter Agreement with Rajeev Gulati. See Exhibit 10.24.
- (12) Form of Restricted Stock Agreement. See Exhibit 10.12.
- (13) Letter Agreement with Joel S. Hatlen. See Exhibit 10.28.
- (14) Form of Executive Agreement. See Exhibit 10.27.
- (15) Form of Restricted Stock Unit Award Agreement. See Exhibit 10.25.

(a) **List of Documents Filed as a Part of This Report:**

Page

(1) **Index to Financial Statements:**

Firm	Report of Independent Registered Public Accounting	27
2015	Consolidated Balance Sheets as of December 31, 2016 and	28

Consolidated Statements of Operations for each of the two years ended  
December 31, 2016 and

December 31,  
2015  
29

Consolidated Statements of Comprehensive Income (Loss) for each of the two  
years ended

December 31, 2016 and December 31,  
2015 30

Consolidated Statements of Stockholders' Equity for each of the two years  
ended

December 31, 2016 and December 31,  
2015 31

Consolidated Statements of Cash Flows for each of the two years ended  
December 31, 2016 and

December 31,  
2015  
32

Notes to Consolidated Financial Statements

33

(2) Index to Financial Statement  
Schedules:

Schedule II – Consolidated Valuation and Qualifying  
Accounts

All other schedules not listed above have been omitted because the required information is included in the consolidated financial statements or the notes thereto, or is not applicable or required.

(3) Index to Exhibits:

### **3 Articles of Incorporation:**

3.1 Data I/O's restated Articles of Incorporation filed November 2, 1987 (Incorporated by reference to Exhibit 3.1 of Data I/O's 1987 Annual Report on Form 10-K (File No. 0-10394)).

3.2 Data I/O's Bylaws as amended and restated as of July 20, 2011 (Incorporated by reference to Data I/O's Current Report on Form 8-K filed July 26, 2011).

3.3 Certification of Designation, Preferences and Rights of Series A Junior Participating Preferred Stock (Incorporated by reference to Exhibit 1 of Data I/O's Registration Statement on Form 8-A filed March 13, 1998 (File No. 0-10394)).

#### **4 Instruments Defining the Rights of Security Holders, Including Indentures:**

4.1 Rights Agreement dated as of April 4, 1998, between Data I/O Corporation and ChaseMellon Shareholder Services, L.L.C. as Rights Agent, which includes: as Exhibit A thereto, the Form of Right Certificate; and, as Exhibit B thereto, the Summary of Rights to Purchase Series A Junior Participating Preferred Stock (Incorporated by reference to Data I/O's Current Report on Form 8-K filed on March 13, 1998).

4.2 Rights Agreement, dated as of March 31, 1988, between Data I/O Corporation and First Jersey National Bank, as Rights Agent, as amended by Amendment No. 1 thereto, dated as of May 28, 1992 and Amendment No. 2 thereto, dated as of July 16, 1997 (Incorporated by reference to Data I/O's Report on Form 8-K filed on March 13, 1998).

4.3 Amendment No. 1, dated as of February 10, 1999, to Rights Agreement, dated as of April 4, 1998, between Data I/O Corporation and ChaseMellon Shareholder Services, L.L.C. as Rights Agent (Incorporated by reference to Exhibit 4.1 of Data I/O's Form 8-A/A dated February 10, 1999).

4.4 Amendment No. 2 to Rights Agreement, dated as of April 3, 2008, between Data I/O Corporation and Computershare (formerly BNY Mellon Investor Services LLC, and ChaseMellon Shareholder Services, L.L.C.). (Incorporated by reference to Exhibit 4.3 of Data I/O's Form 8-K dated April 3, 2008).

4.5 Amendment No. 3 to Rights Agreement, dated as of July 13, 2016, between Data I/O Corporation and Computershare. (Incorporated by reference to Exhibit 4.4 of Data I/O's Form 8-A/A dated July 14, 2016).





## 10 **Material Contracts:**

10.1 Amended and Restated 1983 Stock Appreciation Rights Plan dated February 3, 1993 (Incorporated by reference to Exhibit 10.23 of Data I/O's 1992 Annual Report on Form 10-K (File No. 0-10394)).

10.2 Amended and Restated Management Incentive Compensation Plan dated January 1, 1997 (Incorporated by reference to Exhibit 10.25 of Data I/O's 1997 Annual Report on Form 10-K (File No. 0-10394)).

10.3 Amended and Restated Performance Bonus Plan dated January 1, 1997 (Incorporated by reference to Exhibit 10.26 of Data I/O's 1997 Annual Report on Form 10-K (File No. 0-10394)).

10.4 Amended and Restated Data I/O Corporation 1996 Director Fee Plan (Incorporated by reference to Exhibit 10.32 of Data I/O's 1997 Annual Report on Form 10-K (File No. 0-10394)).

10.5 Amended and Restated 1982 Employee Stock Purchase Plan dated May 16, 2003 (Incorporated by reference to Data I/O's 2003 Proxy Statement dated March 31, 2003).

10.6 Amended and Restated Data I/O Corporation 2000 Stock Compensation Incentive Plan dated May 24, 2006 (Incorporated by reference to Data I/O's 2006 Proxy Statement dated April 6, 2006).

10.7 Form of Option Agreement (Incorporated by reference to Data I/O's 2004 Annual Report on Form 10-K (File No. 0-10394)).

10.8 Amended and Restated Executive Agreement with Joel S. Hatlen dated December 31, 2011 (Incorporated by reference to Data I/O's 2011 Annual Report on Form 10K (File No. 0-10394)).

10.9 Lease, Redmond East Business Campus between Data I/O Corporation and Carr Redmond PLCC dated February 28, 2006 (Incorporated by reference to Data I/O's 2005 Annual Report on Form 10K (File No. 0-10394)).

10.10 Second Amendment to Lease, (Redmond East) between Data I/O Corporation and Arden Realty Limited Partnership, made as of January 31, 2011. (Incorporated by reference to Data I/O's 2010 Annual Report on Form 10-K (File No. 0-10394)).

10.11 Amended and Restated Data I/O Corporation 2000 Stock Compensation Incentive Plan approved May 17, 2011 (Incorporated by reference to Data I/O's 2011 Proxy Statement filed April 5, 2011).

10.12 Form of Restricted Stock Award Agreement (Incorporated by reference to Exhibit 10.29 of Data I/O's June 30, 2006 Quarterly Report on Form 10-Q (File No. 0-10394)).

10.13 Patent Purchase Agreement (Incorporated by reference to Data I/O's Current Report on Form 8-K filed on March 25, 2008)).

10.14 First Amendment to the Patent Purchase Agreement (Incorporated by reference to Data I/O's Current Report on Form 8-K filed on March 25, 2008).

10.15 Great West Financial (formerly Orchard Trust Company) Defined Contribution Prototype Plan and Trust (Incorporated by reference to Data I/O's 2007 Annual Report on Form 10-K (File No. 0-10394)).

10.16 Great West Financial (formerly Orchard Trust Company) Non-standardized 401(k) Plan (Incorporated by reference to Data I/O's 2007 Annual Report on Form 10-K (File No. 0-10394)).

10.17 Great West Financial (formerly Orchard Trust Company) Defined Contribution Prototype Plan and Trust Amendment for Pension Protection Act and Heart Act. (Incorporated by reference to Data I/O's 2009 Annual Report on Form 10-K (File No. 0-10394)).

10.18 Form of Indemnification Agreement. (Incorporated by reference to Data I/O's 2010 Annual Report on Form 10-K (File No. 0-10394)).

10.19 Asset Purchase Agreement dated April 29, 2011, with the Miller Trust, for acquisition of Software Technology (Incorporated by reference to Data I/O's Current Report on Form 8-K filed May 3, 2011 with portions omitted pursuant to a confidential treatment request, and by reference to Data I/O's Form 10-Q filed April 3, 2012, which included the redacted portions that had been made in the original Form 8-K filing).

10.20 Executive Agreement with Anthony Ambrose dated October 25, 2012. (Incorporated by reference to Data I/O's 2012 Annual Report on Form 10-K (File No. 0-10394)).

10.21 Letter Agreement with Anthony Ambrose (Incorporated by reference to Data I/O's Current Report on Form 8-K filed on October 29, 2012).

10.22 Amended and Restated Data I/O Corporation 2000 Stock Compensation Incentive Plan approved May 10, 2012 (Incorporated by reference to Data I/O's 2012 Proxy Statement filed April 3, 2012).

10.23 Executive Agreement with Rajeev Gulati dated July 25, 2013. (Incorporated by reference to Data I/O's 2013 Annual Report on Form 10-K (File No. 0-10394)).

10.24 Letter Agreement with Rajeev Gulati (Incorporated by reference to Data I/O's Current Report on Form 8-K filed on July 31, 2013).

10.25 Form of Restricted Stock Unit Award Agreement (Incorporated by reference to Exhibit 10.29 of Data I/O's March 31, 2014 Quarterly Report on Form 10-Q (File No. 0-10394)).

10.26 Amended and Restated Data I/O Corporation 2000 Stock Compensation Incentive Plan approved April 30, 2014 (Incorporated by reference to Exhibit 10.30 of Data I/O's March 31, 2014 Quarterly Report on Form 10-Q (File No. 0-10394)).

10.27 Form of Executive Agreement (Incorporated by reference to Exhibit 10.31 of Data I/O's June 30, 2014 Quarterly Report on Form 10-Q (File No. 0-10394))

10.28 Letter Agreement with Joel S. Hatlen (Incorporated by reference to Exhibit 10.32 of Data I/O's June 30, 2014 Quarterly Report on Form 10-Q (File No. 0-10394)).

10.29 Third Amendment to Lease, (Redmond East) between Data I/O Corporation and Arden Realty Limited Partnership, made as of June 1, 2015 (Incorporated by reference to Exhibit 10.29 of Data I/O's June 30, 2015 Quarterly Report on Form 10-Q (File No. 0-10394)).

10.30 Great West Financial Adoption Agreement #005 Non-standardized 401(k) Plan  
(Incorporated by reference to Data I/O's 2015 Annual Report on Form 10-K (File No. 0-10394)).

10.31 Great West Financial Adoption Agreement #005 Non-standardized 401(k) Plan  
(Incorporated by reference to Data I/O's 2016 Annual Report on Form 10-K (File No. 0-10394)).

61

10.32 Negotiation Protocol for the Purchase of Data I/O's PSV7000, a supply agreement  
executed July 20, 2016, between Data I/O Corporation and Bosch Car Multimedia Group  
(Incorporated by reference to Exhibit 10.31 of Data I/O's September 30, 2016 Quarterly Report  
on Form 10-Q (File No. 0-10394)).

10.33 Standstill and Voting Agreement, dated as of July 13, 2016, by and among Data I/O  
Corporation, David Kanen and Kanen Wealth Management LLC (Incorporated by reference to  
Data I/O's Current Report on Form 8-K filed on July 14, 2016).

	21.1	Subsidiaries of the	
Registrant			55

23.1	Consent of Independent Registered Public Accounting Firm
	56

### 31 **Certification – Section 302:**

31.1	Chief Executive Officer	
Certification		57

31.2	Chief Financial Officer	
Certification		58

**32 Certification – Section 906:**

32.1	Chief Executive Officer	
Certification		59
32.2	Chief Financial Officer	
Certification		60

**101 Interactive Data Files Pursuant to Rule 405 of Regulation S-T**

**Item 16. Form 10-K Summary**

None.

## 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.

### DATA I/O CORPORATION

(REGISTRANT)

DATED: March 28, 2017  
/s/Anthony Ambrose

By:

Anthony Ambrose

President and Chief Executive Officer

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.

NAME & DATE

TITLE

By: /s/Anthony Ambrose March 28, 2017  
Chief Executive Officer

President and

Anthony Ambrose  
Executive Officer), Director

(Principal

By: /s/Joel S. Hatlen March 28, 2017  
Officer

Chief Financial

Joel S. Hatlen  
President

Vice

Secretary, Treasurer

(Principal Financial and Accounting Officer)

By: /s/Douglas W. Brown March 28, 2017

Director

Douglas W. Brown

By: /s/Brian T. Crowley March 28, 2017

Director

Brian T. Crowley

By: /s/Alan B. Howe March 28, 2017

Director

Alan B. Howe

By: /s/Mark J. Gallenberger March 28, 2017

Director





**DATA I/O CORPORATION****SCHEDULE II – CONSOLIDATED VALUATION AND QUALIFYING ACCOUNTS**

	Balance at Beginning of Period	Charged/ (Credited) to Costs and Expenses	Deductions-Describe	Balance at End of Period
(in thousands)				
Year Ended December 31, 2015:				
Allowance for bad debts	\$93	(\$36)	(\$14) <sup>(1)</sup>	\$43
Year Ended December 31, 2016:				
Allowance for bad debts	\$43	\$55	(\$2) <sup>(1)</sup>	\$96
<sup>(1)</sup> Uncollectable accounts written off, net of recoveries				

**EXHIBIT 21.1**

**DATA I/O CORPORATION**  
**SUBSIDIARIES OF THE REGISTRANT**

The following table indicates the name, jurisdiction of incorporation and basis of ownership of each of Data I/O's subsidiaries:

<b>Name of Subsidiary</b>	<b>State or Jurisdiction of Organization</b>	<b>Percentage of Voting Securities Owned</b>
Data I/O International, Inc.	Washington	100%
RTD, Inc.	Washington	100%
Data I/O FSC International, Inc.	Territory of Guam	100%
Data I/O Canada Corporation	Canada	100%
Data I/O China, Ltd.	Hong Kong, China	100%
Data I/O GmbH	Germany	100%
Data I/O Electronics (Shanghai) Co., Ltd.	China	100%
Data I/O Programação de Sistemas Ltda.	Brazil	100%

**Exhibit 23.1**

**CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM**

We have issued our report dated March 28, 2017, with respect to the consolidated financial statements and schedule included in the Annual Report of Data I/O Corporation on Form 10-K for the year ended December 31, 2016. We consent to the incorporation by reference of said report in the Registration Statements of Data I/O Corporation on Form S-8 (File Nos. 002-76164, 002-86785, 002-98115, 002-78394, 33-95608, 33-66824, 33-42010, 33-26472, 33-54422, 333-20657, 333-55911, 33-02254, 33-03958, 333-107543, 333-81986, 333-48595, 333-121861, 333-151006, 333-166730, and 333-175840) and on Form S-3 (File No. 333-121566).

/s/Grant Thornton LLP

Seattle, Washington  
March 28, 2017

**Exhibit 31.1**

Certification by Chief Executive Officer

Pursuant to 18 U.S.C. Section 1350

As Adopted Pursuant to

Section 302(a) of the Sarbanes-Oxley Act of 2002

I, Anthony Ambrose, certify that:

- 1) I have reviewed this annual report on Form 10-K of Data I/O Corporation;
- 2) Based upon my knowledge, this annual report does not contain any untrue statement of material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this annual report;
- 3) Based on my knowledge, the financial statements, and other financial information included in this annual report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this annual report;
- 4) The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f)) for the registrant and we have:
  - a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this annual report is being prepared;
  - b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
  - c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this annual report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this annual report based on such evaluation; and

d) Disclosed in this annual report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected or is reasonably likely to materially affect, the registrant's internal control over financial reporting.

5) The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of registrant's board of directors (or persons performing the equivalent functions):

a) all significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

b) any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal controls over financial reporting.

Date: March 28, 2017

/s/ Anthony Ambrose

Anthony Ambrose

Chief Executive Officer

(Principal Executive Officer)

**Exhibit 31.2**

Certification by Chief Financial Officer

Pursuant to 18 U.S.C. Section 1350

As Adopted Pursuant to

Section 302(a) of the Sarbanes-Oxley Act of 2002

I, Joel S. Hatlen, certify that:

- 1) I have reviewed this annual report on Form 10-K of Data I/O Corporation;
- 2) Based upon my knowledge, this annual report does not contain any untrue statement of material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this annual report;
- 3) Based on my knowledge, the financial statements, and other financial information included in this annual report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this annual report;
- 4) The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f)) for the registrant and we have:
  - a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this annual report is being prepared;
  - b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purpose in accordance with generally accepted accounting principles;
  - c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this annual report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this annual report based on such evaluation; and

d) Disclosed in this annual report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected or is reasonably likely to materially affect, the registrant's internal control over financial reporting.

5) The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of registrant's board of directors (or persons performing the equivalent functions):

a) all significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

b) any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal controls over financial reporting.

Date: March 28, 2017

/s/ Joel S. Hatlen

Joel S. Hatlen

Chief Financial Officer

(Principal Financial Officer)



**Exhibit 32.1**

Certification by Chief Executive Officer

Pursuant to 18 U.S.C. Section 1350

As Adopted Pursuant to

Section 906 of the Sarbanes-Oxley Act of 2002

In connection with the annual report of Data I/O Corporation (the "Company") on Form 10-K for the period ended December 31, 2016 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Anthony Ambrose, Chief Executive Officer of the Company, certify, that pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that:

- (1) The Report fully complies with the requirements of § 13(a) or 15(d) of the Securities Exchange Act of 1934; and
- (2) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

/s/ Anthony Ambrose

Anthony Ambrose

Chief Executive Officer

(Principal Executive Officer)

Date: March 28, 2017



**Exhibit 32.2**

Certification by Chief Financial Officer

Pursuant to 18 U.S.C. Section 1350

As Adopted Pursuant to

Section 906 of the Sarbanes-Oxley Act of 2002

In connection with the annual report of Data I/O Corporation (the "Company") on Form 10-K for the period ended December 31, 2016 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Joel S. Hatlen, Chief Financial Officer of the Company, certify, that pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that:

- (1) The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and
- (2) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

/s/ Joel S. Hatlen

Joel S. Hatlen

Chief Financial Officer

(Principal Financial Officer)

Date: March 28, 2017

