



PRODUCT CATALOG



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DATA I/O CORPORATION

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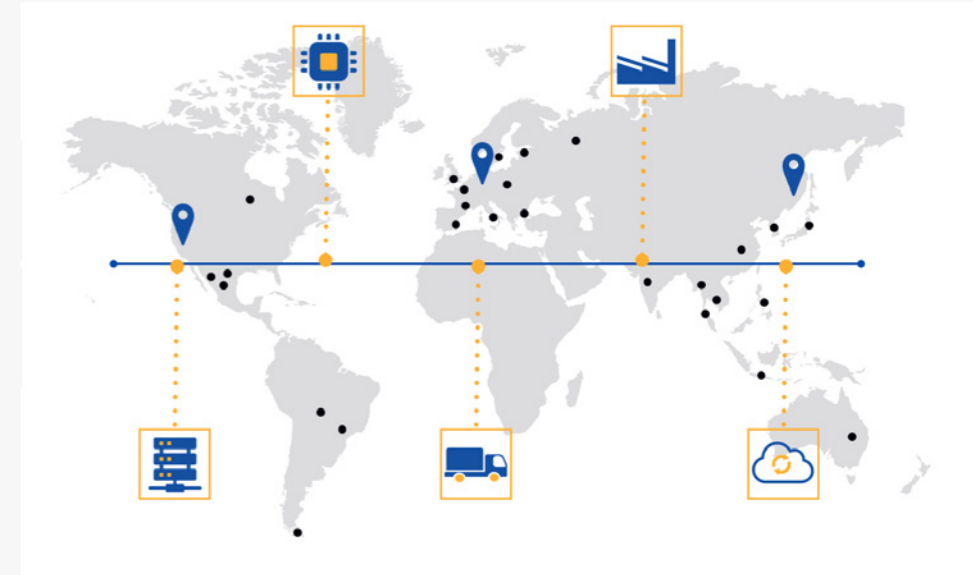
DATA I/O AT A GLANCE

What We Do

- Semiconductor Device Programming Equipment
- Security Deployment as-a-Service

Solutions

We deliver the most secure and efficient systems to deploy firmware, data and secrets into high-volume electronics manufacturing.



Data I/O Advantage

High Performance & Flexibility

- Fast and scalable family of PSV programming systems
- Tens of thousands of devices supported
- Simple, scalable and cost-effective security provisioning solutions with SentiX®

Continuous Innovation

- True hardware-based security provisioning for IoT and automotive applications
- 10x performance gains over 5 years
- Largest R&D investment in the programming industry

Quality

- ISO 9001:2015 certification for all manufacturing locations
- Proven programming technology trusted by global automotive and medical electronic device manufacturers
- Production yields up to 99.8%

Value

- Extensible programming systems future-proof your investment
- Global service and support
- Lowest total cost of programming

<p>DAIO</p> <p>NASDAQ</p>	<p>1972</p> <p>FOUNDED</p>
<p>100</p> <p>EMPLOYEES</p> <p>HQ IN REDMOND, WA</p> <p>OFFICES IN MUNICH, GERMANY</p> <p>AND SHANGHAI, CHINA</p>	<p>1.5B</p> <p>DEVICES PROGRAMMED ANNUALLY</p>
<p>>470</p> <p>AUTOMATED PROGRAMMING SYSTEMS GLOBALLY</p>	<p>>40</p> <p>COUNTRIES WITH SALES & SERVICE</p>

OUR CUSTOMERS

Data I/O brings the world's electronic products to life

Data I/O serves the world's leading electronics manufacturers and programming centers. Our customers rely on Data I/O to correctly program and secure their IP during manufacturing cost-effectively. Data I/O offers programming solutions to meet industry requirements.



AUTOMOTIVE ELECTRONICS

Trusted by 8 out of the top 9 and 18 out of the top 20 automotive electronics suppliers to program braking systems, digital instrument clusters, advanced driver assist systems, and more.



INDUSTRIAL CONTROLS & IOT

Securing IoT devices to protect supply chains, revenue, and user data for industrial controls, consumer electronics and automotive applications.



PROGRAMMING CENTERS

Flexible and scalable solutions to maximize value added programming and generate revenue.



WIRELESS & CONSUMER ELECTRONICS

Bringing to life the world's coffee makers, wearable devices, and home goods with flexible, scalable and fast programming solutions.



MEDICAL DEVICES

Trusted to program FDA Class I and Class II devices including ventilators, diagnostics equipment and glucometers.



CONTRACT MANUFACTURERS / EMS

Flexible programming systems & revenue generating security provisioning as-a-service.



INDUSTRY PARTNERS

Strong partnerships with industry leaders

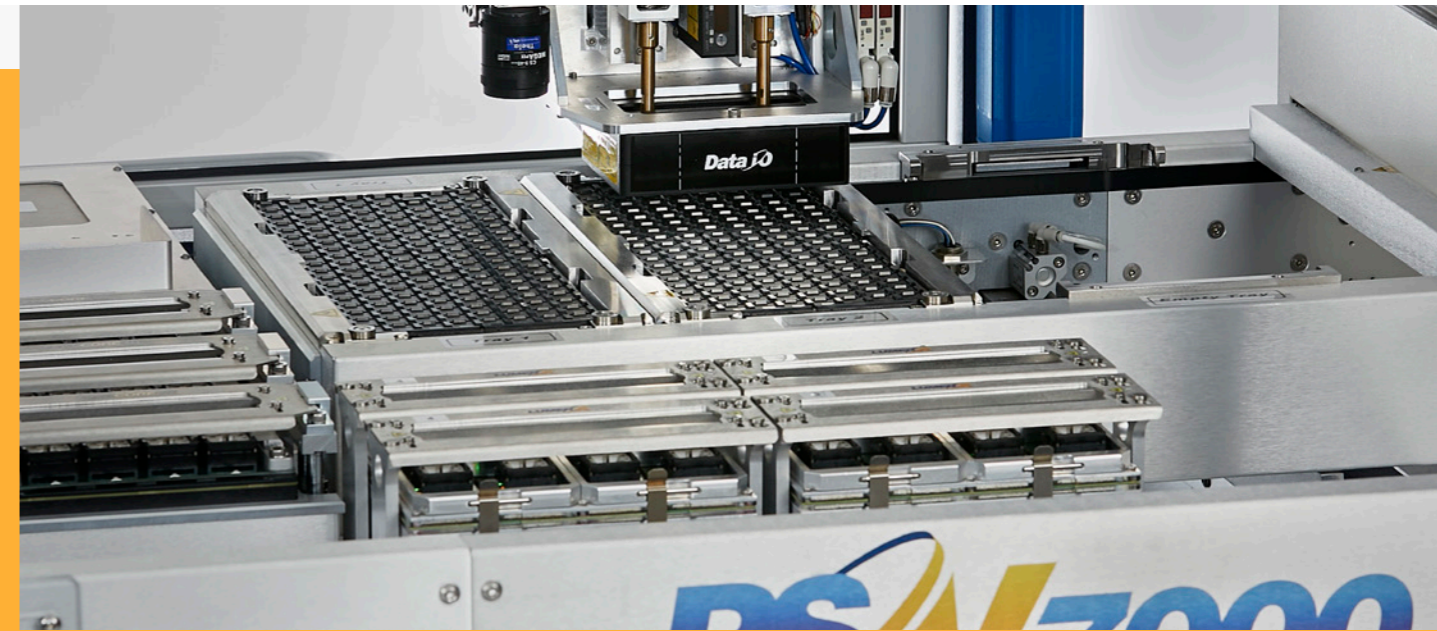
New technology is rapidly driving changes to our customer's programming requirements. Data I/O collaborates closely with leading silicon vendors, industry experts and customers to support the latest semiconductor devices and publish best practices.

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arm	GlobalSign	MICROCHIP	RENESAS	TEXAS INSTRUMENTS
BROADCOM	infineon	Microsemi	SAMSUNG	Western Digital.
CYPRESS	Kingston	Micron	SILICON LABS	winbond
digicert	KIOXIA	Mxic	SK hynix	WIS@key
FUJITSU	LATTICE SEMICONDUCTOR	NXP		

PROGRAMMING SYSTEMS OVERVIEW

PSV AUTOMATED PROGRAMMING SYSTEM FAMILY

Data I/O's PSV family delivers high performance, configuration flexibility and the lowest total cost of ownership to meet the most demanding production requirements.



Manual Programmers

Data I/O offers manual and automated programming systems that help our customers transition seamlessly from New Product Introduction (NPI) and first article builds to full scale mass production. Data I/O's manual programmers share the same programming core as our automated systems, supporting dispersed supply chains where first article build happens in one geography and volume production happens in another.



LUMENX® Desktop

- Up to 8 single socket adapters
- Support for eMMC, SD, SPI NOR, UFS, Secure Elements and Microcontrollers
- Job creation from desktop to the PSV7000, PSV5000 and SentiX for a seamless transition from first article to production



FLASHPAK III

- Up to 4 sockets
- Universal Device Support
- Ergonomic design
- Network FlashPAK III programmers together



FLASHCORE Desktop

- Up to 4 sockets
- Ideal for seamless job transfer from NPI to production for FlashCORE programming Jobs
- Same User Interface for PSV systems

	PSV2800	PSV3500	PSV5000	PSV7000
Target Customer	High Volume / Low Mix Dedicated	Low Volume Entry Level Automation High Mix	Medium Volume Entry Level Automation Large File Sizes	High Volume / High Mix Small Parts / Large File Sizes
UPH	3000	700	1300	2000
Socket Capacity	6 FlashCORE III for 24 sockets	2 FlashCORE III for 8 sockets 1 LumenX for 8 sockets	6 FlashCORE III for 24 sockets 5 LumenX for 40 sockets	24 FlashCORE III for 96 sockets 14 LumenX for 112 sockets
Small devices	2mm x 3mm	2mm x 4mm	2mm x 3mm	1.5mm x 1.5mm
Media I/O	Tape In & Tape Out	Tape/Tray/Tube	Tape /Tray / Tube	Tape / Tray / Tube
Marking	Ink-Dot Marking	Fiber Laser Ink-Dot Marking	Fiber Laser Ink-Dot Marking	Fiber Laser Ink-Dot Marking
Inspection		2D Tape Out Inspection	2D Tape Out inspection	3D Coplanarity 2D Tape Out
Integrated Ionizers	2	3	3	2
Upgrade to SentiX Security Deployment as-a-Service	No	No	Yes	Yes



PSV2800

PERFORMANCE. RELIABILITY. VALUE.

The PSV2800 delivers ultra-fast performance with industry-leading reliability for dedicated high-volume applications at the lowest total cost of ownership.

SPECIFICATIONS

Throughput	3000 parts per hour
Pick and Place Method	Four-probe
Alignment	Precisor
Device Handling Size	2mm x 3mm to 21.5mm x 21.5mm
Socket Capacity	Up to 6 FlashCORE III for 24 sockets
Package Support	SO, SOIC, SON, WSON, MLP, QFN, MLF, LAP SSOP, TSOP, TSSOP, CSP, BGA, uBGA

FLEXIBLE MEDIA I/O

Tape Input	Tape In supporting 8/12/16/24/32mm tape widths
Tape Output	Data I/O designed TR6 supports 8mm to 44mm tape widths

MARKING, INSPECTION, OPTIONS

Ink Dot Marking	Ink Dot Marker is compatible with the Data I/O TR6 Tape Out. Supports dot marking in multiple ink colors for parts as small as 4mm x 4mm
2D Tape Out Inspection	Provides laser mark inspection and device orientation verification at the tape out
Ionizers	Integrate ionizers to provide rapid elimination of static electricity (ESD) throughout the workspace



PSV3500

PERFORMANCE. RELIABLE. AFFORDABLE.

The PSV3500 is a cost-effective entry point for high-quality automated device programming for low-volume applications. The PSV3500 delivers trusted performance at a great value with high-quality, automated programming.

SPECIFICATIONS

Throughput	700 parts per hour
Pick and Place Method	Single-probe
Alignment	Upward looking camera
Device Handling Size	2mm x 4mm to 42.5mm x 42.5mm
Socket Capacity	2 FlashCORE III for 8 sockets, 1 LumenX for 8 sockets
Package Support	PLCC, SOIC, SON, WSON, SSOP, CSP, BGA, uBGA, FPGA, QFP, TQFP, TSOP, PoP, DIP

FLEXIBLE MEDIA I/O

Static Trays	Supports up to three manual trays. Static trays can be configured for blank, programmed and reject devices
Single Input Automated Tray Stacker	Supports 20 JEDEC Trays
Tape Input	Hover Davis Tape-in supporting 8mm to 44mm tape widths
Tape Output	Data I/O designed TR6 supports 8mm to 44mm tape widths
Tape Rewind	Rewind empty carrier tape onto take-up reel
Tube Input & Tube Output	Tube feeder motor controllers and custom tooling for Tube In and Tube Out support

MARKING, INSPECTION, OPTIONS

Fiber Laser Marking	High precision laser marking system marks one device at a time
Ink Dot Marking	Ink Dot Marker is compatible with the Data I/O TR6 Tape-out. Supports dot marking in multiple ink colors for parts as small as 4x4mm
2D Tape-out Inspection	Provides laser mark inspection and device orientation verification at the tape out
Ionizers	Integrate up to 3 self-regulating ionizers to provide rapid elimination of static electricity (ESD) throughout the workspace



PSV5000

EFFICIENT. RELIABLE. AFFORDABLE.

The PSV5000 is a cost-effective entry point for high performance automated device programming. The PSV5000 delivers trusted performance, flexibility and reliability at an affordable price.

SPECIFICATIONS

Throughput	1300 parts per hour
Pick and Place Method	Single-probe
Alignment	Upward looking camera
Device Handling Size	2mm x 3mm to 42.5mm x 42.5mm
Socket Capacity	Up to 6 FlashCORE III for 24 sockets, up to 5 LumenX for 40 sockets
Package Support	PLCC, SOIC, SON, WSON, SSOP, CSP, BGA, uBGA, FPGA, QFP, TQFP, TSOP, PoP, MLP, QFN, MLF, LAP

FLEXIBLE MEDIA I/O

Static Trays	Supports up to three static trays. Static trays can be configured for blank, programmed and reject devices
Single Input Automated Tray Feeder	Supports 20 JEDEC Trays
Tape Input	Tape-in supporting 8/12/16/24/32/44/56mm tape widths
Tape Output	Data I/O designed TR6 supports 8mm to 44mm adjustable tape widths
Tape Rewind	Rewind empty carrier tape onto take-up reel
Tube Input & Tube Output	Tube feeder motor controllers and custom tooling for Tube In and Tube Out support

MARKING, INSPECTION, OPTIONS

Fiber Laser Marking	High precision laser marking system marks one device at a time
Ink Dot Marking	Ink Dot Marker is compatible with the Data I/O TR6 Tape-out. Supports dot marking in multiple ink colors for parts as small as 4mm x 4mm
2D Tape-out Inspection	Provides laser mark inspection and device orientation verification at the tape out
Ionizers	Integrate ionizers to provide rapid elimination of static electricity (ESD) throughout the workspace
Upgrade to a SentiX Security Deployment Platform	Provision secrets and security objects into silicon devices to protect IoT products <ul style="list-style-type: none"> Integrates FIPS 140-2 Level 3 compliant HSM SentiX Product Creator tool suite as-a-Service Model



PSV7000

VELOCITY. VERSATILITY. VALUE.

The world's premier automated programming system with the speed, flexibility, small parts handling & fast changeover to support complex jobs.

SPECIFICATIONS

Throughput	2000 parts per hour
Pick and Place Method	Dual probe
Alignment	Alignment on-the-fly (laser based)
Device Handling Size	1.5mm x 1.5mm to 32mm x 32mm
Socket Capacity	Up to 24 FlashCORE III for 96 sockets Up to 14 LumenX for 112 sockets
Package Support	PLCC, SOIC, SON, WSON, SSOP, CSP, BGA, uBGA, FPGA, QFP, TQFP, TSOP, PoP, DIP, WLCSP, CSP
Other	SSD for fast file download RAID system configuration Ergonomic design for easy access Zero mechanical changeover with concurrently installed options Speed Factor: Optimize performance up to 24% for leadless devices under certain conditions

FLEXIBLE MEDIA I/O

Static Trays	Supports up to two static trays. Static trays can be configured for blank, programmed and reject devices
Dual Input Automated Tray Stacker	Supports 20 JEDEC Trays Delivers two full trays of blank devices into the work area. Keeps programmed and unprogrammed devices in separate trays
Tape Input	Tape In supporting 8mm to 56mm tape widths
Tape Output	Data I/O designed TR6 supports 8mm to 44mm tape widths
Tape Rewind	Rewind empty carrier tape onto take-up reel
Tube Input & Tube Output	Tube feeder motor controllers and custom tooling for Tube In and Tube Out support

MARKING, INSPECTION, OPTIONS

Fiber Laser Marking	High precision laser marking system marks two devices simultaneously
3D Coplanarity	Three dimensional measurements with accuracy down to 7 microns for QFP, TSOP, J-Lead, BGA and CSP devices
2D Tape-out Inspection	Provides laser mark inspection and device orientation verification at the tape out
Ionizers	Integrate 2 self-monitoring ionizers to provide rapid elimination of static electricity (ESD) throughout the workspace
NexTeach Pro	Automated JOB teaching of XYZR measurements and coordinates with the touch of a button.
Upgrade to a SentiX Security Deployment Platform	Provision secrets and security objects into silicon devices to protect IoT products. <ul style="list-style-type: none"> Integrates FIPS 140-2 Level 3 compliant HSM SentiX Product Creator tool suite as-a-Service Model

SENTRIX®

SECURITY DEPLOYMENT PLATFORM

OEMs Care About Strong Device Security for IoT Applications

Original Equipment Manufacturers (OEMs) require robust hardware and software security for IoT devices to protect their brand and meet regulatory, data privacy and safety requirements. The best design approach is to build hardware-based security into their products.



BRAND PROTECTION



IP PROTECTION



REGULATION



SUPPLY CHAIN INTEGRITY

SentriX Security Deployment Platform Benefits

The SentriX® security deployment service offers a cost-effective and flexible security provisioning process resulting in additional revenue generating services that can be offered to OEMs.



Commercial Flexibility

- Available as a turnkey security deployment system
- Available as an upgrade to a Data I/O PSV7000 or PSV5000 programming system



Ecosystem

- Largest ecosystem of silicon partners for security deployment
- Leverage large and growing catalog of supported devices



Ease of Use

- Intuitive software tools for design to production collaboration
- Software tools are white label and can be branded
- Pre-configured security use cases



Device Security Expertise

- SentriX software abstracts the complexities of modern silicon security programming models, saving your specialized development teams valuable time
- Data I/O customer engineers are leading experts in the usage and deployment of silicon device security and are available to assist your security product definition



Scalability

- Use for low-volume prototyping or high-volume production
- Integrated with Data I/O automated high-volume programmers

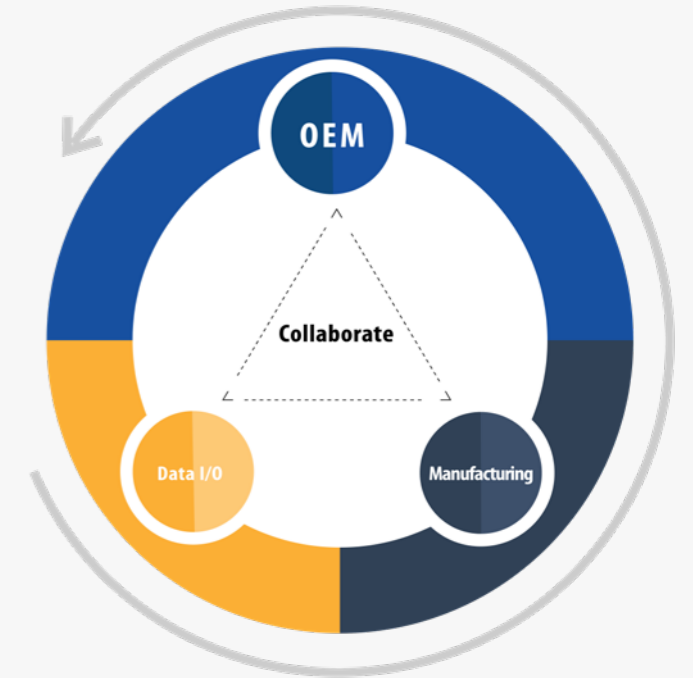
SIMPLIFYING IoT SECURITY

Define, provision and deploy robust IoT device programming system, easy-to-use tools and a flexible commercial model.

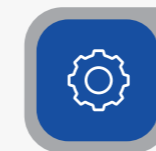
SentriX Product Creator™ A Powerful Collaboration Tool

Streamline your security development and collaborate with your design and manufacturing teams and data partners.

- Imports keys and certificates needed for selected use cases
- Enables OEM security profile definition for production
- Protects OEM secrets by wrapping them to the production equipment HSM

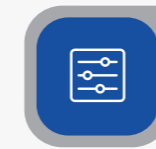


Data I/O Supports Two Security Deployment Models:



SENTRIX GO™*

Easy-to-use
Supports most common use cases
Moderate flexibility
Suitable for high or low-volume



CUSTOM

Powerful collaboration tool
Supports complex provisioning
High flexibility
Suitable for high-volume

* Use cases based on device functionality but include device ID, cloud on-boarding, secure boot, authenticity verification, access control and static data.

SENTRIX[®] HOW IT WORKS

Integrated security definition and programming job management software tools bridge the gap between design and production. Securely provision devices in manufacturing during a pre-board placement process (pre-programming) with SentiX. Post-production reports and certificates provide complete traceability.



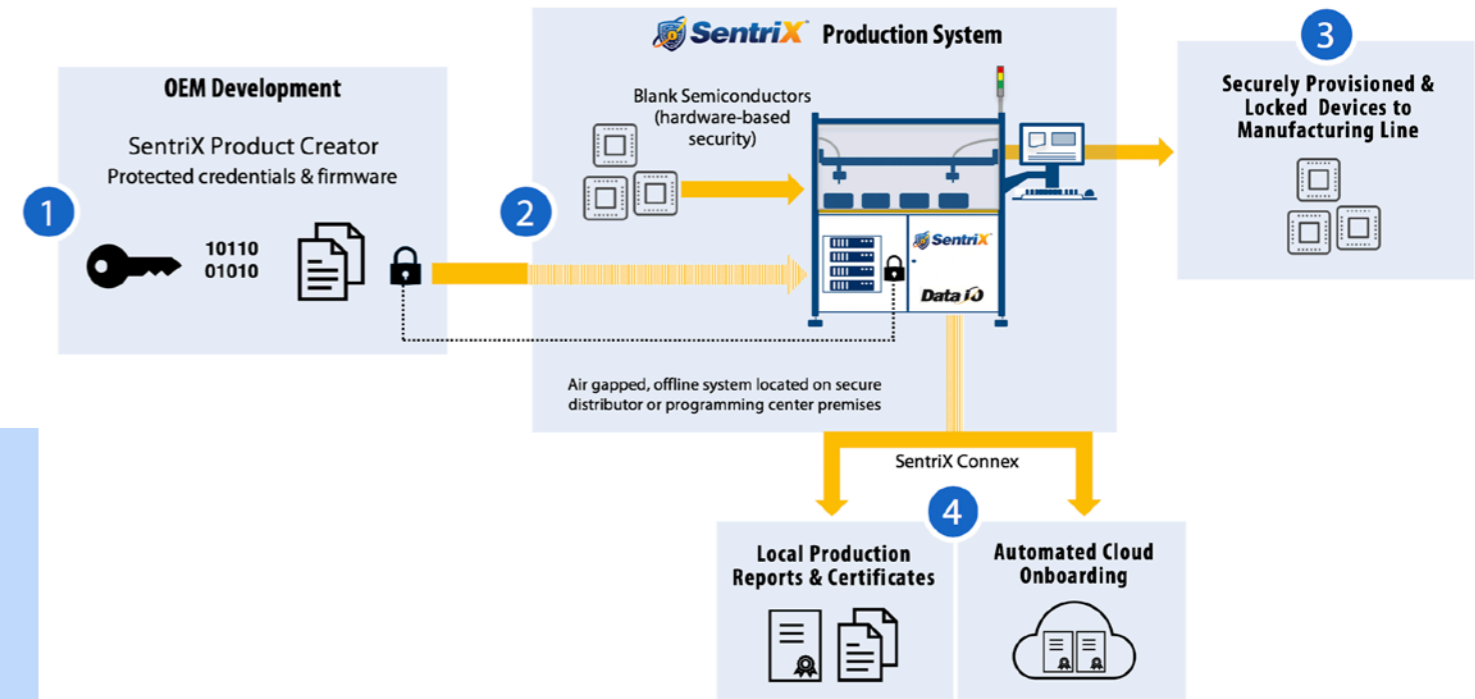
SentiX Security Deployment Platform Benefits

- Security and programming job management software
- Import keys, certificates and data needed for OEM use cases
- Securely wrap OEM keys to production equipment HSM
- Intuitive tools for OEMs and production facilities
- Complete traceability solution
- High capacity and small parts handling

SentiX Technical Highlights

The SentiX security deployment process eliminates roadblocks to building secure products.

- Integrated FIPS 140-2 compliant HSM
- Uses public key infrastructure (PKI) and offers certificate authority (CA) choice
- Secure provisioning up to 1,000 parts per hour
- Pre-manufacturing assembly security deployment
- Authenticates parts
- Cryptographic protection of secrets and firmware
- Supports silicon hardware Roots-of-Trust
- Works with encrypted firmware
- Supports internal or external signing key generation
- Programs firmware and data in addition to security deployment
- Air gapped and works offline



Security Requires Collaboration with Ecosystem Partners

Data I/O collaborates with leading companies throughout the electronics design and manufacturing supply chain to enable SentiX Security Deployment Platform. Together Data I/O and our partners secure mission critical applications.



DATA I/O SECURITY PARTNERS

SentiX Deployments



Silicon Partners



Technology Partners



SENTRIX APPLICATIONS

Automotive & Transportation

Automotive and logistics technology OEM use a secure root-of-trust and identity to protect user data and maintain privacy.

Consumer & Home Automation

Smart locks, connected white goods and other consumer devices protect OEM IP and meet customer usage requirements by using low power hardware security-based microcontrollers.

Industrial & Smart City

Smart meter and connected industrial controls OEMs are mandated by government regulations to support strong security to protect revenue and meet regulations.

Medical

Medical device OEMs require strong IC authentication at the hardware level to support highest product quality and prevent counterfeit components.

PROGRAMMING & ADAPTER TECHNOLOGY

Unrivalled Performance and Reliability

At the core of Data I/O's programming systems is our programmer technology:


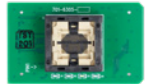


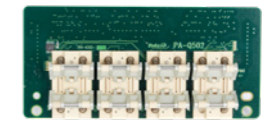

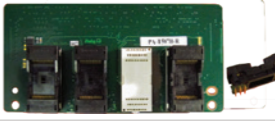
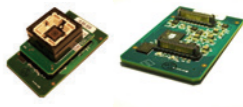
FlashCORE III

The industry's most trusted universal programming engine with tens of thousands of devices supported.

LumenX

Ultra-fast programming delivering revolutionary performance for high-density Flash Memory, SPI Nor, security ICs and microcontrollers. LumenX's architecture is extensible to support future device technologies protecting your investment.

	FLASHCORE III	LUMENX
Read / Write Speeds	20 MBytes / sec	Up to 160 MBytes / sec with TurboBoost
File Size Support	Up to 32 GBytes	Up to 256 GBytes & extensible up to 512 GBytes
Download Speed	10 MBytes / sec	50 MBytes / sec
Optimized Algorithms	Yes	Yes
Device Technology Supported	Flash Memory: NOR, NAND, MCP, MMC, eMMC, SD, MoviNAND, OneNAND, iNAND, Serial Flash, EEPROM, EPROM Microcontrollers Logic Devices: CPLDs, FPGAs PLDs	eMMC 4.41 – 5.1, SPI NOR, UFS 2.0, 2.1, 3.0, 3.1, Secure Elements, Microcontrollers
Security Provisioning		Yes
Multi Image Support	Yes with Data Mapper Software Application	Yes
Number of Sockets	4 sockets per adapter / programmer	8 single socket adapters per programmer
Job Creation Application	TaskLink for Windows	LumenX Software

	FLASHCORE III	LUMENX
Standard <ul style="list-style-type: none"> 5,000 insertions / socket for BGA 10,000 insertions / socket for TSOP, WLCSP, QFP, QFN & MLF Supports: BGA, CSP, SO, TSOP, QFN, USON, QFP, PLCC, DIP Typical yields 97% 		
Medium Insertion Count (MIC) <ul style="list-style-type: none"> Up to 50,000 insertions per socket Supports: BGA, CSP, SO, QFN, USON 		
High Insertion Count (HIC) <ul style="list-style-type: none"> Up to 250,000 insertions Supports: BGA, CSP, WLCSP, SO TSOP, QFN, USON, QFP Removable sockets Typical yields ~99.8% Lowest cost per programmed device at US \$0.01 		
Recepticalized Adapters <ul style="list-style-type: none"> Easy replacement of individual sockets Supports: BGA, QFN, FAP, MLP, WSON, SO SSOP, TSSOP, TSOP 		LumenX single socket technology minimizes adapter replacement costs
UFS Interface Boards <ul style="list-style-type: none"> Single socket interface boards to support UFS programming on LumenX 		UFS support is only available on LumenX programmers 

SOCKET TYPE	STANDARD BURN-IN SOCKET*	MEDIUM INSERTION SOCKET	HIGH INSERTION SOCKET
Device Package	BGA, WLCSP QFP, TSOP, QFN, MLF	BGA, QFP, TSOP, MLF, WLCSP	BGA, WLCSP QFP, TSOP, QFN, MLF
Insertions per Socket (Mechanical Life Cycle)	5,000 10,000	50,000	250,000 125,000
Cost Per Device (US\$)	\$0.04-\$0.08	~\$0.025	~\$0.01
Programming Applications	Low to medium volume	Medium to high volume	High volume
Typical Yield	97%	98.5%	99.8%

*Standard adapter insertion count may vary depending on socket type. Please contact Data I/O for additional information.

SOFTWARE APPLICATIONS

Quality Control. Traceability. Integration.

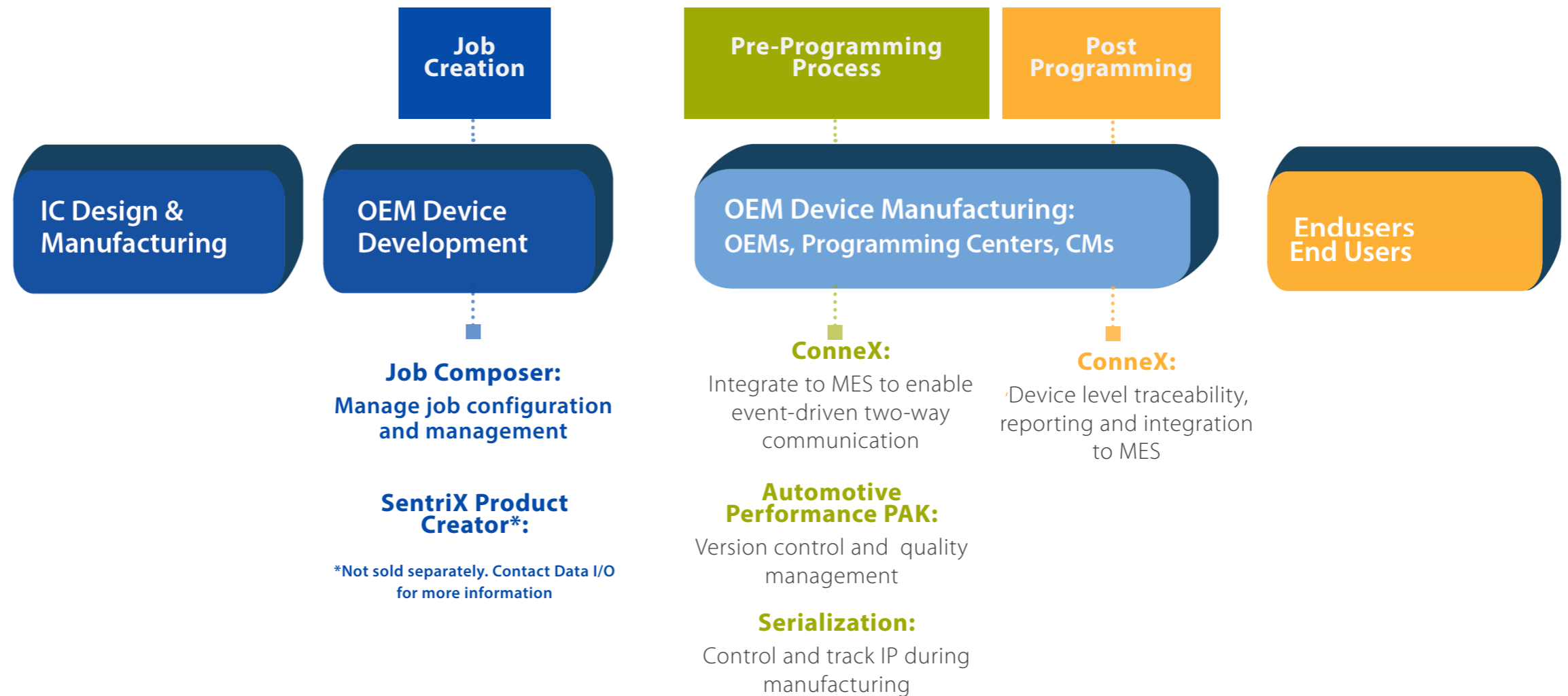
Data I/O offers a variety of software applications to help manage, control and track the programming process in a dispersed supply chain from New Product Introduction (NPI) to volume manufacturing. Data I/O's software applications are designed to deliver the highest quality programming results throughout the device development stages by:

- Minimizing opportunities for human error
- Streamlining job management
- Managing intellectual property

PROGRAMMING PROCESS STAGE

DEVICE DEVELOPMENT STAGE

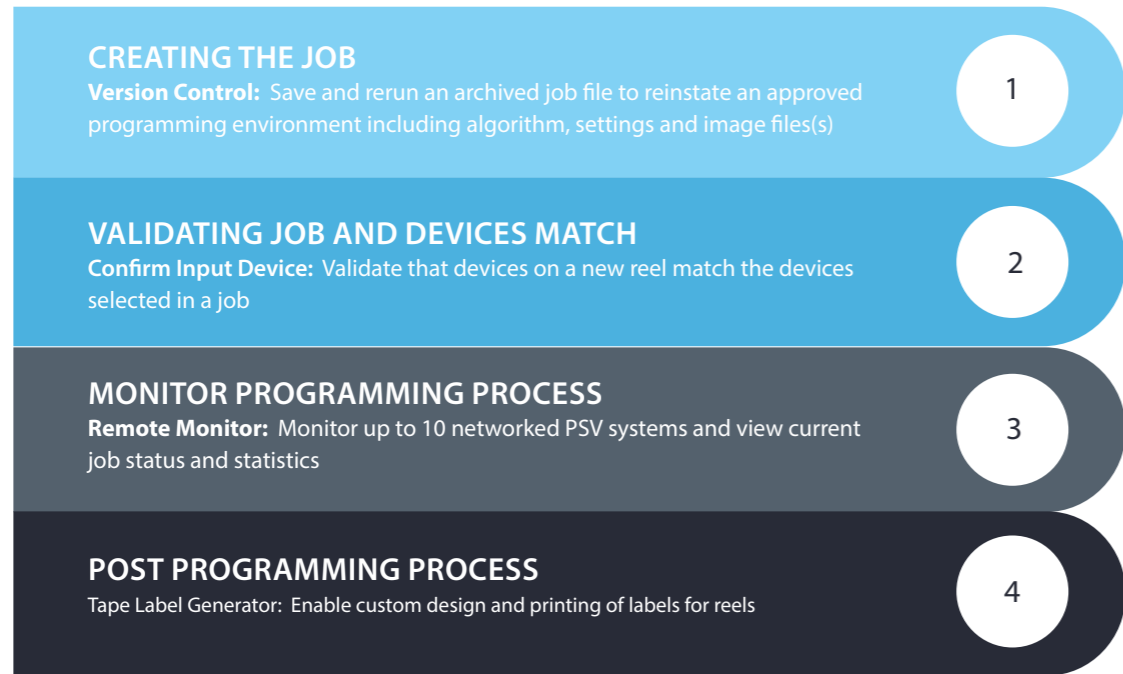
DATA I/O SOFTWARE APPLICATIONS



AUTOMOTIVE PERFORMANCE PAK

A Suite of Software Application to Meet Strict Quality Requirements

Programmable devices continue to play an increasingly important role in mission-critical applications. ABS braking systems, engine control units, glucose monitors, defibrillators, pacemakers, building control systems and more rely on devices to be correctly programmed and free from handling defects to operate properly. Global automotive, medical, and industrial controls electronics manufacturers trust Data I/O to meet their demanding quality requirements.



SERIALIZATION

Protect Intellectual Property and Revenue by Programming Serialized Data Into Only Known Good Programmed Devices

Data I/O offers a comprehensive suite of serialization solutions that manages automatic programming of unique numbers or other dynamic data during the production process. Unique dynamic data can only be programmed once into successfully programmed devices ensuring control over your Intellectual Property. You can always know the precise status of device serialization by reviewing both served and unused serial numbers.

- Control and track serial numbers programmed during manufacturing
- Reuse unused serial numbers
- Track used or skipped serial numbers
- Support for pre-generated files

Additional Software Applications

MISC. SOFTWARE OPTIONS	DESCRIPTION	PROGRAMMER SUPPORTED
Command Line Interface	Minimize operator error by scripting the launch of LumenX jobs to automatically launch without starting the LumenX software	LumenX
Command Line Parameters	Minimize operator error by scripting the launch of FlashCORE jobs to automatically launch without starting TaskLink	FlashCORE III
NAND Bad Block Management	The world's largest library of utilities for managing bad blocks and NAND memory devices. <ul style="list-style-type: none"> • Bad block schemes are available for use in TaskLink with examples of skip bad block, reverse bad block and more • Support for new and customer bad block scheme available 	FlashCORE III

CONNEX

Optimize. Track. Analyze.

Optimize the electronics manufacturing process by enabling integration of device programming into a connected factory

ConneX integrates inputs and outputs between a Data I/O PSV programming system and a connected electronics manufacturing facility to enable traceability, process analysis and two-way communication that improves factory efficiency and quality.

Optimize the programming process with MES integration

- Improve operator efficiency and quality with job commands sent between MES and a PSV system
- Inventory management with Job and media validation
- Real-time reporting with configurable dashboards

Track programming process for comprehensive traceability

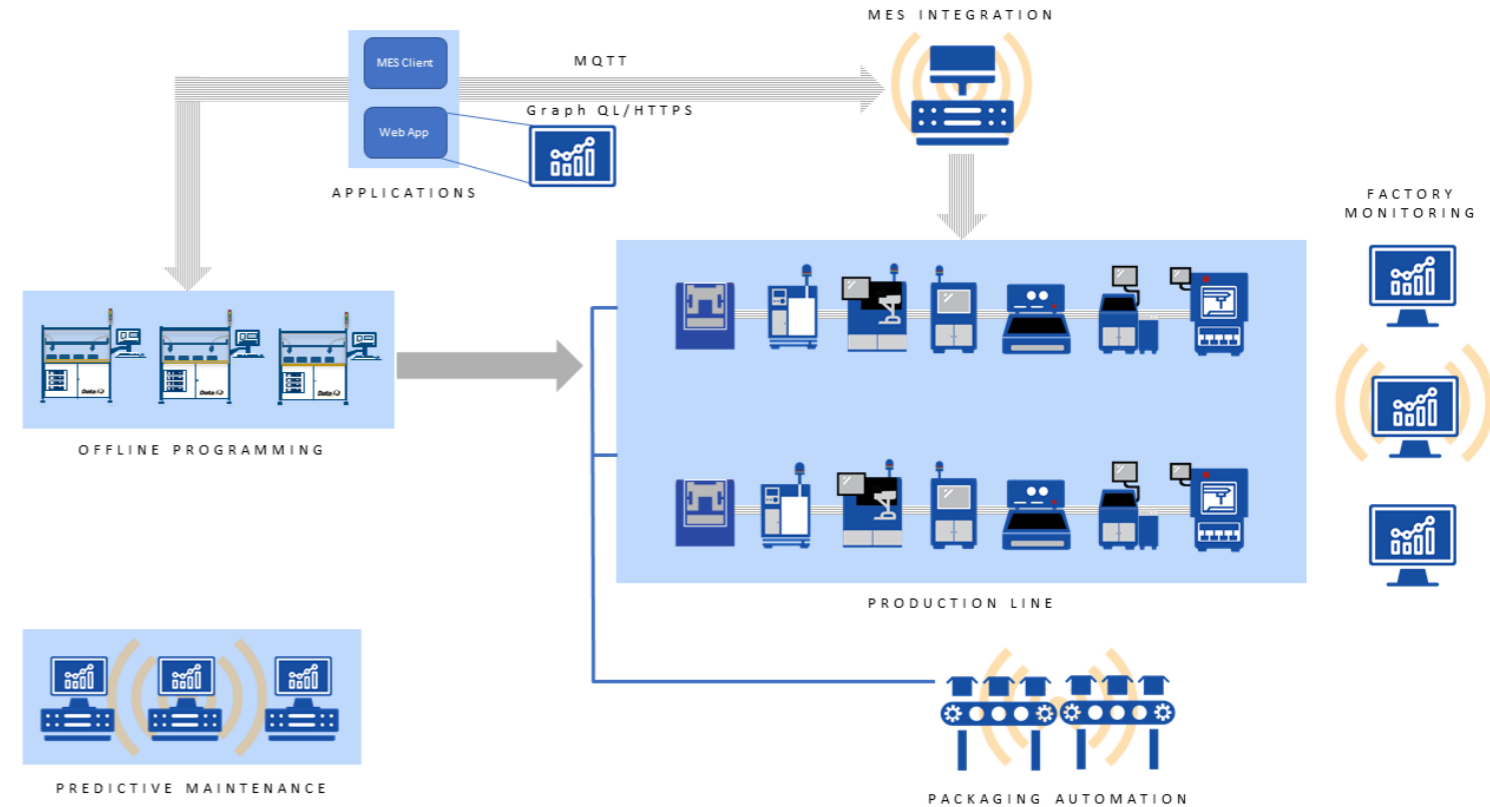
- Device and Job programming statistics reporting
- Error message handling

Analyze to enable real-time data-driven decisions

- Root cause & post process analysis
- Proactive service with predictive analytics
- Preventative maintenance analysis



- REMOTE & PROACTIVE SERVICE
- REALTIME ADJUSTMENT
- POST PROCESS ANALYSIS
- ROOT CAUSE ANALYSIS
- TRACEABILITY
- YIELD TRACKING
- OPERATIONAL REPORTING
- SECURE MANUFACTURING



Example Use Cases ConneX Enables with MQTT APIs

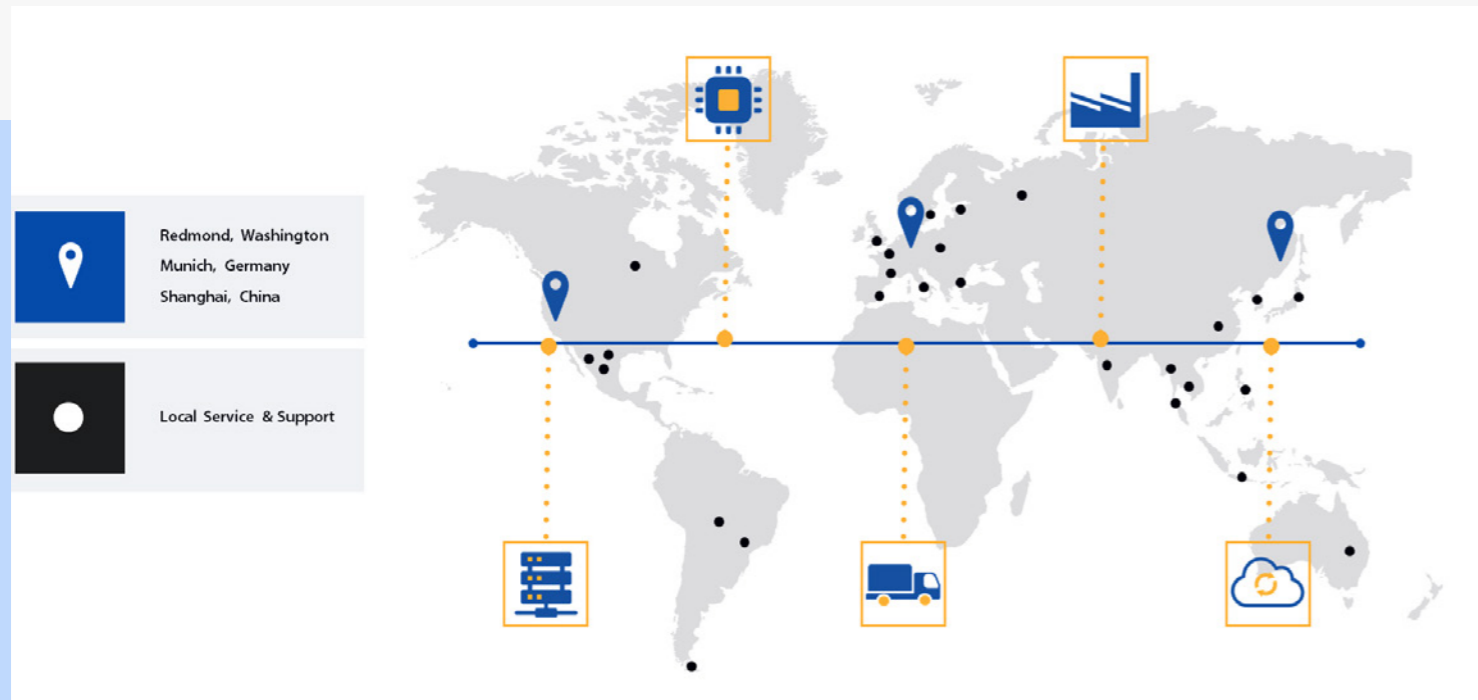
MES Client and Web App receive data from PSV Systems. MQTT is a publish/subscribe open-source messaging protocol enabling event-driven two-way communication between machines.

- Load job
- Remote pause
- Inventory tracking
- Barcode scanning

GraphQL is an open-source framework for data queries that streamlines access to and usage of historical data for data visualization and analysis.

- GraphQL APIs
- Sample GraphQL client applications

GLOBAL SERVICE AND SUPPORT



Award Winning Service

- Data I/O field service engineers located in the USA, Europe and Asia
- Over 60 service and support engineers in over 40 countries
- Remote support, installation and diagnostic capability
- Customer portal to streamline communication with Data I/O's service and support teams



When Time, Quality & Cost Matter

Protect your capital equipment with extended service contracts

	DEVICE SUPPORT CONTRACTS (S/W)	SERVICE PARTS CONTRACTS (H/W ONLY)	FULL SERVICE CONTRACTS (LABOR & H/W)	FULL SERVICE & DEVICE SUPPORT CONTRACTS (H/W & S/W)
PSV Family	x	x	x	x
FlashPAK III	x			x
LumenX Desktop	x			x

	SOFTWARE CONTRACTS	HARDWARE CONTRACTS	SOFTWARE & HARDWARE CONTRACTS	
	Device Support Contract	Service Parts (H/W parts) Contract	Full Service Contract	Full Service & Device Support Contract
S/W & F/W Updates	x			x
Access to Complete Algorithm Library	x			x
Request Support for New Devices (DSR)	x			x
All H/W Parts (except consumables)		x	x	x
All Labor			x	x
Annual Preventative Maintenance (PM)			x	x
Annual Conformance Verification (CV)			x	x



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