DATA SHEET

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Valor IoT Manufacturing Analytics
Delivering Product Performance Intelligence In a Global Value Chain

Valor IoT Manufacturing Analytics is a big-data business-intelligence analytic platform for higher manufacturing performance, by providing greater visibility into equipment, products, and supply-chain performance. It can easily identify and monitor production and supplier issues, prevent costly recalls, spot emerging trends, and solve quality problems faster.

Benefits

- Improves asset management with accurate, real-time utilization and overall equipment effectiveness (OEE)
- Helps capture and investigate complete material and process traceability data for PCBs and assemblies using big-data, high-availability storage
- Optimizes operation and labor by measuring and analyzing how resources are spent, and tracking WIP in real-time
- Ensures quality and drives improvement by identifying and analyzing processes defects and material and process failures
- Increases design-to-manufacturing efficiency by detecting factors affecting yield and areas for improvement

Overview

Valor® IoT Manufacturing Analytics is designed specifically for the PCB manufacturing industry, providing PCB manufacturing executives, line managers, and manufacturing engineers with crucial information needed to deliver quality products on time. With Valor IoT Manufacturing Analytics, you can eliminate waste, while improving asset utilization, first-pass yield, and defects per million opportunities (DPMO) quickly and intuitively. It starts by providing access to rich data sources from the Valor shop-floor modules and then combines data for high-value intelligence, using a tight integration with other Valor solutions in your factory. It includes information on all manufacturing sites, lines, and machine performance and utilization. Calculated OEE dashboards, drill-down capabilities, and trend analysis is also included. Dashboards, alerts, and automated reports make it easy to analyze total traceability, quality, and equipment/material utilization.

Use Valor IoT Manufacturing Analytics to identify which problems to solve and which orders solve them.

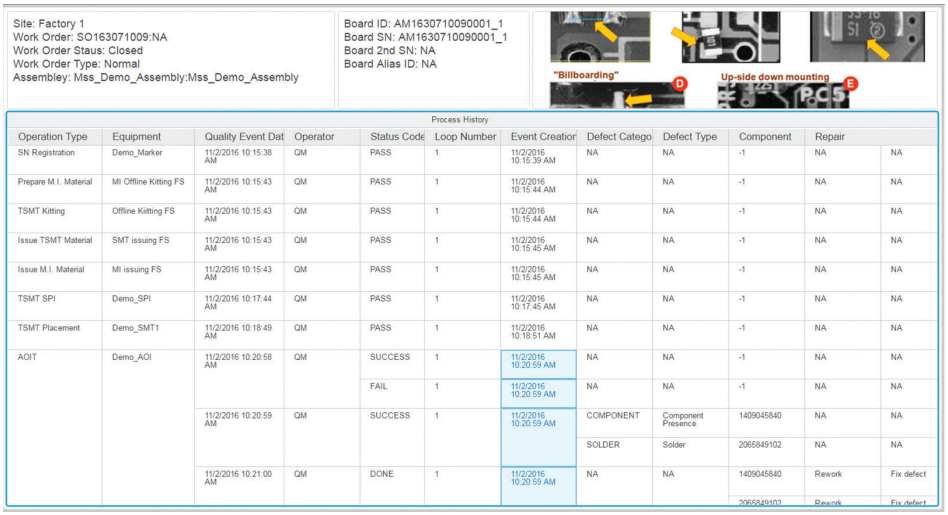
Easily track a customer's work order as the production moves through the factory, and make sure you are meeting due dates with ease.

Improve Order Fulfilment

With Valor IoT Manufacturing Analytics, you can easily track each customer's work orders as the product moves through the factory, next to a display of current status of delivery against the due date. This allows you to identify bottlenecks in the production flow and share these web-based reports through a secure environment.

Increase Manufacturing Process Quality

Make rich KPI calculations such as yield, FPY, NFF, defects, and DPMO at each process inspection or test station, regardless of the mix of printed circuit assembly models in production. Trend analysis and decision support is also available, to determine root cause and make calculated decisions. You can instantly trigger customizable alerts (e.g., pop-up, email, mobile, etc.), and automatically generate quality reports on intervals you determine to correct problems quickly. These interactive reports are quickly and easily generated with a simple drag-and-drop selection of dimensions and measures, and an integration into unlimited data providers. Using Valor IoT Manufacturing Analytics reports, you ultimately reduce time and resources spent on troubleshooting and wrong identification of problems. Measurement reports on test results include pass/fail data that is available for process. These reports are tightly integrated with a powerful analytic model for advanced calculations, measuring your manufacturing process and quality.



Operation Type	Equipment	Quality Event Dat	Operator	Status Code	Loop Number	Event Creatior	Defect Catego	Defect Type	Component	Repair	
SN Registration	Demo_Marker	11/2/2016 10:15:38 AM	QM	PASS	1	11/2/2016 10:15:39 AM	NA	NA	-1	NA	NA
Prepare M.I. Material	MI Offline Kitting FS	11/2/2016 10:15:43 AM	QM	PASS	1	11/2/2016 10:15:44 AM	NA	NA	-1	NA	NA
TSMT Kitting	Offline Kitting FS	11/2/2016 10:15:43 AM	QM	PASS	1	11/2/2016 10:15:44 AM	NA	NA	-1	NA	NA
Issue TSMT Material	SMT issuing FS	11/2/2016 10:15:43 AM	QM	PASS	1	11/2/2016 10:15:45 AM	NA	NA	-1	NA	NA
Issue M.I. Material	MI issuing FS	11/2/2016 10:15:43 AM	QM	PASS	1	11/2/2016 10:15:45 AM	NA	NA	-1	NA	NA
TSMT SPI	Demo_SPI	11/2/2016 10:17:44 AM	QM	PASS	1	11/2/2016 10:17:45 AM	NA	NA	-1	NA	NA
TSMT Placement	Demo_SMT1	11/2/2016 10:18:49 AM	QM	PASS	1	11/2/2016 10:18:51 AM	NA	NA	-1	NA	NA
AOIT	Demo_AOI	11/2/2016 10:20:58 AM	QM	SUCCESS	1	11/2/2016 10:20:59 AM	NA	NA	-1	NA	NA
				FAIL	1	11/2/2016 10:20:59 AM	NA	NA	-1	NA	NA
		11/2/2016 10:20:59 AM	QM	SUCCESS	1	11/2/2016 10:20:59 AM	COMPONENT	Component Presence	1409045840	NA	NA
							SOLDER	Solder	2065849102	NA	NA
		11/2/2016 10:21:00 AM	QM	DONE	1	11/2/2016 10:20:59 AM	NA	NA	1409045840	Rework	Fix defect
									2065849102	Rework	Fix defect

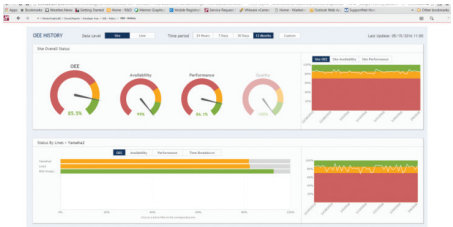
Valor IoT Manufacturing Analytics helps achieve full PCB and assembly traceability, including materials, process data, tests results, and repairs measurement data, in a full assembly hierarchal story.

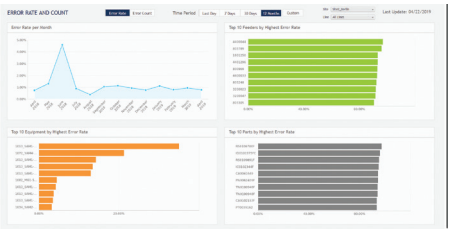
Instant Traceability Reports

Valor IoT Manufacturing Analytics helps achieve full PCB and assembly traceability, including materials, process data, tests results, and repairs measurement data, in a full assembly hierarchal story. Achieve compliance with customer requirements by setting up an automated report for traceability, based on the PCB ID number or component lot code/date code/reel ID. This minimized recall exposure to only the effected product.

Reports are based on three specific data streams: asset utilization (based on machine performance data), materials (traceability, consumption, and waste), and quality (based on results from automated test, inspection, repair stations, and WIP points). When all three data streams are included in the product configuration, there is a substantial increase in value.

Use these reports to compare quality between material suppliers, provided on each component reference designators on the PCB assembly. Complex reports are generated quickly by having the data preprocessed in data warehouse OLAP cubes, making it accessible on demand.



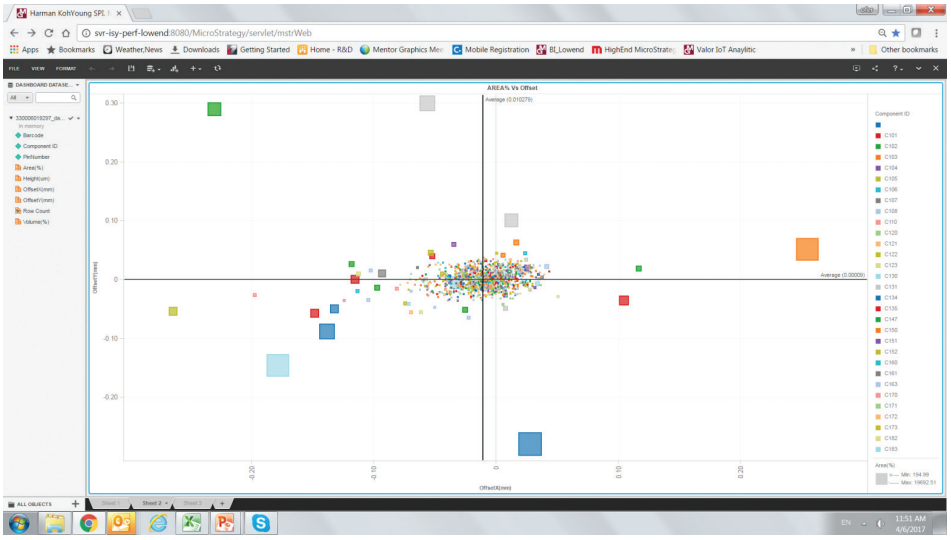


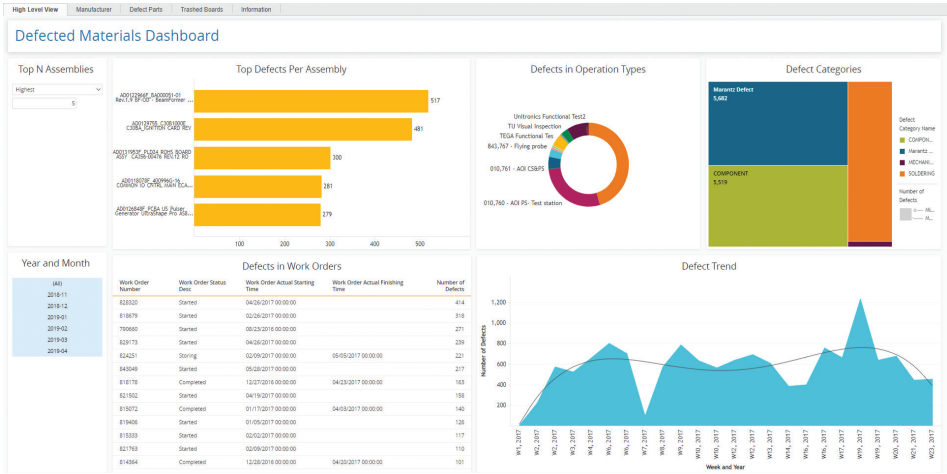
Using Valor IoT Manufacturing Analytics reports, you ultimately reduce time and resources spent on troubleshooting and wrong identification of the problem.

Advanced Analytic Capabilities

Valor IoT Manufacturing Analytics leverages an advanced Microstrategy analytic platform to provide a sophisticated, yet simple way to generate and analyze large amounts of data as quickly as a blink of an eye. When drilling for insights, you get an intuitive display of results using graphs and detailed text listings of search results. Individual rows can be selected for further investigation and analysis. Each drill down brings you closer to truly understanding the data connections.

- **Global Sharing —** All reports and dashboards can be saved and shared with others. Now everyone, from suppliers and manufacturer managers to the engineering and customer service, can use intelligence to improve products and performance.
- **Secure Supplier —** Valor IoT Manufacturing Analytics provides a secure supplier access, allowing OEMs to have visibility into all manufacturing data, WIP traceability, and quality results.
- **Enterprise Solution —** A multi-site data collection and consolidation option is available, with corporate-level reporting and site drill-down capabilities.





Valor IoT Manufacturing Analytics leverages an advanced Micro-strategy analytic platform to provide users with a sophisticated, yet simple way to generate and analyze large amounts of data as quickly.

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