## **A VARINDUSTRIES**

### OPCENTER CONNECT ELECTRONICS

Industrial IoT for Electronics Shop-Floor Data Acquisition & Normalization

Opcenter Connect Electronics gathers live information from every process and machine on the shop floor in PCB assembly to create the Digital Twin of shop-floor performance and to provide an accurate, informative view of the equipment, line, and the entire factory.

Industrial IoT devices provided by Siemens collect real-time data from the equipment on the factory floor and communicate that data with other machines and software systems throughout the factory, enabling the Digital Factory to be fully realized with all the benefits of Digital Manufacturing.

### Why Choose Opcenter Connect Electronics?

## Advanced interfaces for the majority of machines

Industrial IoT devices included in Opcenter can count on robust connections to hundreds of machine models and manual processes. Additional advanced interfaces are frequently added. Additional machines and manual processes are supported through flexible and generic interfaces (sensors, scanners, light towers, etc.).

## Normalizes the data of the whole factory

Opcenter Connect
Electronics normalizes
and enriches the
collected data into a
single standardized
specification,
ODB++Manufacturing,
to be used by company
in-house applications
and third-party solutions
to create a full data flow
between the shop-floor
and enterprise systems.

### Easy to implement and use

**IOpcenter Connect** Electronics guarantees an easy connection between enterprise solutions and the shop floor. It automatically normalizes data into Open Manufacturing Language (ODB++M) and connects new and legacy machines. It is robust, plug-and-play, independent, scalable, cost-effective, easy to deploy, with high data integrity and security.

# Live Shopfloor performance monitoring

Collects real-time event data from machines and processes. It improves asset utilization through bottleneck identification and stops processes automatically based on feeder performances. It uses normalized KPIs for all lines and machines and provides customizable real-time reports and dashboards, including optional BI reporting (OEE, Yield, etc.).



Opcenter Connect Electronics generates performance-based dashboards showing information by machine, line or factory level, including period summary, amount of pick-and-place errors, and general machine information.

#### ODB++M Language with Opcenter Connect Electronics

Opcenter Connect Electronics normalizes and enriches the collected data into a single standardized specification, ODB++Manufacturing.

Using the ODB++Manufacturing software development kit (SDK) provided with the Opcenter Connect Electronics solution, real-time manufacturing data in ODB++Manufacturing format can be used by company in-house applications and third-party solutions to create a full data flow between the shop-floor and enterprise systems.



#### **Industry 4.0**

Internet of Manufacturing



**Supply Chain** 



**Planning** 



**MES** 

Closed-loop feedback systems

> Quality, productivity, performance, flexibility

Opportunity to utilize live shopfloor data in "big data" applications.

Asset utilization, productivity, performance

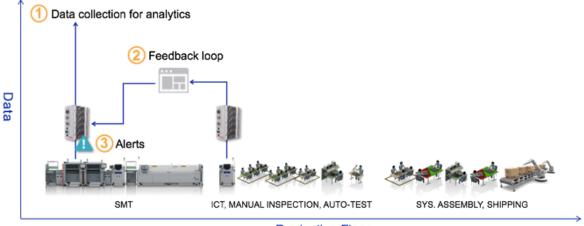
Accurate and live material consumption and spoilage

Inventory accuracy, Just in time logistics, full Precise control and visibility for planning and resource management

Management and automated material traceability decisions based on facts

Process level conformance, compliance and process traceability, pokayoke control

Automated, accurate, timely and precise, active quality management



**Production Floor** 

With its data collection and normalization system, Opcenter Connect Electronics enables your factory to fully realize Digital Manufacturing.

