

### Data collection, historian and workflow automation software

## Smart monitoring and real-time synchronization of equipment and processes

SyncOperations software, powered by Savigent<sup>®</sup> gives manufacturers the power to monitor and synchronize data from all equipment and processes in real-time. In gathering and analyzing data from machine-level and enterprise systems, the software delivers actionable information to improve flow and the ability to instantly track performance, availability, and quality.

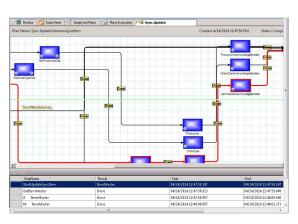
SyncOperations software is the sum of two key components: A workflow design engine and a data historian. These components are enabled by a software architecture that creates a common framework for accessing, analyzing, and distributing data to and from multiple sources. Through SyncOperations, data from disparate systems is pulled out of the shadows and brought into the historian to be collected and analyzed in aggregate.

- Collect and analyze data across multiple machines and systems.
- Provide a single, common environment for easier data access and management.
- Flexible drag-and-drop workflow design tools.

The SyncOperations data historian stores both event and process data to provide context for smart monitoring of machines and equipment. Management and engineering can quickly pinpoint process, machine, and quality problems and identify

all variables impacted, analyze the discrete cycles running during an event, and view machine logs for granular detail. The data historian not only helps to quickly assess problems, but provides information to drive continuous improvement initiatives over time.





# Automated Workflow Engine

• **Customize your workflow** to meet business process needs.

• Automate Standard Operating Procedures into responsive and dynamic events.

#### Dynamic Data Historian

• Aggregate data from any source.

• Support continuous improvement and overall equipment effectiveness (OEE) by tracking performance, availability and quality in real-time.

• Quickly drill-down into the data to find the root cause of an issue when integrated with SyncView<sup>™</sup>.

### **Powerful Insight**

• Includes all enterprise data to pinpoint where quality problems happen with machines, materials, products, and processes.

• Smart monitoring of machines and equipment identifies repair and maintenance issues.

• Compare machine tags to production events to diagnose trends and performance issues.

Drag-and-drop to create custom manual or automated workflows.



#### How It Works

SyncOperations<sup>™</sup> software provides a common environment for collecting and analyzing data from multiple machines and systems. It not only offers breadth and depth of actionable information to improve flow, but provides an easier path for distributing execution capabilities across other enterprise systems. Quickly scale your networked manufacturing environment by connecting new machines, systems, and facilities through SyncOperations.

Events and actions are orchestrated within an intuitive graphical environment and custom workflows are developed through drag-and-drop technology. SyncOperations uses a resource-tree structure to help navigate complex facility layouts and visualize the machines and systems connected through each layer of manufacturing.

- Process engineers can monitor the entire machine-level landscape to identify process issues and OEE for quality improvements.
- Continuous improvement teams drill down into event-based data easily for more instant, actionable insight to eliminate waste.
- Manufacturing leaders benefit from an easily configured, graphical environment to drive operational excellence and meet business goals.

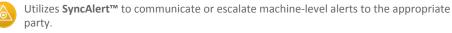
SyncOperations is installed on site to connect and synchronize data from all machine and enterprise systems in real-time. The information gained is used to improve flow, and empower your demand-driven manufacturing decisions.

#### SyncOperations and the Synchrono Demand-Driven **Manufacturing Platform**

The Synchrono® Demand-Driven Manufacturing Platform enables the real-time visual factory of the future, synchronizing your workforce, methods, machines, materials and information. As part of the integrated Synchrono Demand-Driven Manufacturing Platform, SyncOperations:



Synchronizes with **SyncManufacturing™** to pull real-time completion and consumption data from machines and to notify scheduling and execution when a machine has a disruption.





Integrates with SyncKanban<sup>™</sup> to give you a detailed view into your value stream, exposing waste so your continuous improvement crew can eliminate it.



Connects with **SyncView™** to collect and analyze machine-level and workflow data to pre-empt issues by making action plans visible organization-wide.

#### Aggregate information from all systems and machines

- Composite application development capabilities enable flexible workflow design.
- Generate custom, time-phased charts and tables.
- Create automated communications triggered by events.
- Gain visibility for both engineering and product level diagnostics.
- Ensure workflow and alert ticket responses are in compliance with **Standard Operating Procedures.**
- Provide unparalleled levels of traceability.
- Implemented on premise to collect machine-level information.

