SIEMENS

SIMATIC IT Line Monitoring System

Improve performance, increasing flexibility and responsiveness

Plant information visible and available instantly

Key Takeaways
- Higher responsiveness
- Production Efficiency
- Operational cost control
- Real time view for better decision support
- Plant reliability
- Low project risk and faster/ easier ROI calculation

SIMATIC IT, the Manufacturing Execution System from Siemens, includes a Line Monitoring module.

With this 'step-in' module it is possible to monitor plant floor performance, blending real-time and transactional systems, for at line visibility & control.

This line monitoring capability allows manufacturers to improve their production efficiency, to optimize their production performance and reporting, to decrease line inefficiencies and last but not least to increase at the same time product yields.

Line Monitoring within SIMATIC IT allows automatic and real-time collection of production relevant data directly from the factory floor.

SIMATIC IT Line Monitoring System (LMS 2.0) is easy to implement, flexible and scalable yet configurable.

This standard software product can be applied starting at the machine level by OEMs, or grow into a multiple line intelligence system for overall equipment effectiveness, reporting, at the same time linking the production process to the business management.

Manufacturers can grow their installation easily in size, installing different systems to manage different production lines, giving the possibility to extend the functional capabilities to a full Manufacturing Execution System (MES) managing all production workflows through the SIMATIC IT Framework.

Moreover, using a native OPC Client/ Server standard connection, manufacturers can easily recollect information from the SIMATIC automation products in the spirit of Siemens 'Totally Integrated Automation', but also manage the integration with any kind of device or PLC, depending on the automation installation in place.

Answers for industry.

What it offers:

Using process information and reports from SIMATIC IT LMS 2.0, the manufacturing team can understand through real-time data the capabilities and perfomances, as such also improve performance, increase flexibility and responsiveness – and when needed even change product runs or lines on demand.

In particular the following features are available:
- Plant floor monitoring and controlling (through WinCC 7.2 SCADA station for data presentation)
- Down Time management and analysis (DTM/OEE)
- Reporting (centralized functions)
- Collection and archiving of all process values
- Scalability over functions up to a full MES
- Easy contextualization between realtime data and work orders information
- Contextualization of production information together with downtime and real time data coming from the field operators.

Key Functionalities

Monitoring & WINCC 7.2 Integration
- Visual representation of the production line status via WinCC 7.2 screens
- Real Time data monitoring integrated with KPIs and historical data visualization through seamless navigation between SIMATIC IT LMS 2.0 pages and WinCC 7.2 screens
- Data collected locally are sent to the centralized Server for global reporting, data analysis and long term archiving

OEE (Overall Equipment Effectiveness)
SIMATIC IT LMS 2.0, delivers the strength of a real time calculation engine together with in depth analysis support by means of a rich graphical user interface for operators and supervisors.

Its main functionalities are:
- Calculation of standard and custom KPIs
- Downtime management and analysis support
- Line operator level production monitoring and manual input
- Active and corrective actions
- Line supervisor "in time" analysis
- Data contextualization with MES production data
- Support for root cause analysis calculation provided by Data Engine
- Shop floor and ERP integration

SIMATIC IT LMS 2.0 enables high plant availability, performance, and quality.

SIMATIC IT Reporting Framework 2.1
SIMATIC IT Reporting Framework 2.1 provides Report Parts, already organized and structured in specific entities (Downtime info, algorithm, shifts, etc.), and can be used to create custom reports with a standard Drag & Drop action and quickly parameterized.

The provided Report Parts are used inside the following Microsoft standard tools: Reporting Services, Report Builder or Excel.

Different levels (Production Manager, Maintenance manager, Plant Managers, etc.) can easily generate different reports based on different analysis requirements The historical database is based on the Microsoft SQL Server.

SIMATIC IT Reporting Framework2.1 can easily be extended with the advanced data analysis functionalities provided by SIMATIC IT Intelligence Suite.