

SIMATIC IT XHQ

Operational Intelligence for Real-Time Decision Making

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The future of your business relies on your ability to see the present

With SIMATIC IT XHQ your employees, throughout your organization, can have at their fingertips the information and knowledge to unlock hidden operational performance improvements through web based technology. SIMATIC IT XHQ provides real-time information when it is needed and where it is needed.

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SIMATIC IT XHQ

Operational Intelligence for Real-Time Decision Making

Industry Challenges

In today's world managers at all levels and disciplines within manufacturing are being asked to do more with less. Volatility in markets for raw materials and manufactured products, as well as transportation, environmental, and capacity constraints are placing new stresses on manufacturers. More than ever before, industrial companies have the need to make better informed decisions, as well as provide a faster response to situations as they arise. Thus manufacturers are struggling to make sense of a torrent of data flowing from their automation and information technology systems. In order to realize the full value that can be gained from the capture of this raw data, manufacturers need to have an understanding of the greater significance of the data.

Technology Challenge

Hundreds of computers, thousands of users, millions of records... These are the IT environments in today's manufacturing organizations. The right balance of amount of data and performance to access it is a critical issue. Technology infrastructures need to keep manufacturing operations under control, archiving genealogy records, calculating performance indicators and storing and distributing production reports, but at the same time responding to the virtually unlimited number of users that require this data (in different combination, aggregation and context) to make their decisions in a fast and reliable way.

SIMATIC IT XHQ

SIMATIC IT XHQ provides the tool to enable the decision makers at all levels to make better, faster, more informed decisions to drive the overall performance of the enterprise. As a result of role based web views the same application is shared by the CEO as well as the Manager of Maintenance. SIMATIC IT XHQ provides industrial manufacturers with a means to positively impact the bottom line through timely, better informed decisions about manufacturing operations. It enables plant floor and operations personnel, as well as senior management, to monitor real-time performance against business goals, by providing a common view of all critical business and operational data from disparate sources throughout the enterprise.

Helps Business and Production Personnel to deliver Manufacturing Excellence:

Business decisions

- Up-to-date information on operations performance let Managers take necessary decisions based on e.g. financial impact
- Broad status views of production critical assets let Personnel adapt business plans in real-time and avoid financial losses
- Define actual cost of production versus budget of business

Production decisions

- Define which underperforming assets can be rationalized
- Identify the best and worst performing assets
- Analyze, isolate and improve OEE variances

Operation decisions

- KPIs helps to quickly identify inefficiencies and their possible causes
- Increase proactively the Overall Equipment Efficiency (OEE)
- Performing against production and business targets

SIMATIC IT XHQ Benefits

- Improved decision making process within all plant levels
- A single, coherent view of real time information
- Supports broader access to plant information and KPI & Balanced Scorecard information
- A platform for the identification, capture and replication of best practices across the enterprise
- Means to focus on problem areas with data views and drill downs
- Facilitates remote monitoring & support troubleshooting
- Allows Data access without knowing source application
- Consistent plant-wide metrics
- Personalized role-based content
- Rapidly developed, easily modified
- Developed and supported by non-IT personnel

The background of the entire page is a photograph of an industrial facility, possibly an oil or gas processing plant, silhouetted against a bright orange and yellow sunset sky. The facility includes tall distillation columns and complex piping. The overall color palette is dominated by the warm tones of the sunset and the dark silhouettes of the industrial structures.

SIMATIC IT XHQ Brief Description

Leveraging knowledge of emerging information technologies and factory automation, SIMATIC IT XHQ takes a unique patented approach in delivering an industrial strength information integration environment.

By adopting a non-intrusive approach and lightly tapping into a variety of real-time and diverse back-end data sources including: automation systems, data historians, MES operational databases, ERP and financial accounting systems, laboratory information management systems (LIMS), asset condition monitoring systems, warehouse management systems, and relational databases; information is collected, aggregated, combined with other data, put into role-based context, and presented to users through live, animated views accessible from any PC on the companies intranet or extranet.

SIMATIC IT XHQ solutions are built by combining simple, reusable components and their graphical representations to create a comprehensive information model and rich, intuitive displays.

Information components and their **graphical representations** are **reused** from one unit or plant to the next. Changes to the base definitions are inherited (and automatically updated) wherever the components are used.

This efficiency means even large and complex SIMATIC IT XHQ applications can be **easily maintained** by one or two stewards from the user community with the periodic, but regular, involvement of one IT person.

SIMATIC IT XHQ Product Characteristics

SIMATIC IT XHQ has many characteristics key to the long term success of an Operations Intelligence solution with many unique to the patented SIMATIC IT XHQ product platform.

Designed for the Enterprise with role based security, high availability and multi-site solutions. It supports content localization and integration with enterprise portals.

Engineered for High-end Scalability and Wide Distribution minimizing network bandwidth and CPU loads, maximizing numbers of concurrent users, optimizing inefficient query habits of large user groups. Users are spared the complexities of dedicated user interfaces of narrowly focused applications.

Focused on Minimizing TCO with an unprecedented level of reusability leveraging industry libraries (through patented model-based approach). Changes to components and displays are propagated automatically, while the configuration environment is centrally managed. It is based on a Zero Administration run-time environment. The architecture cleanly separates user, technical/IT and business/domain communities involvement.

Built as a Platform for Solutions with Intelligence Packs that provides out-of-the-box configurable information models and role-based views. It provides powerful extensibility capabilities to allow technical staff to extend solutions (Web services, APIs, toolkits...)

Fully Leverage the Domain and Business Experts through a Model-based approach that facilitates rapid evolution and incremental development of the solution. Users can develop based on standard information models with customization ability to meet their unique requirements.

XHQ Product Components

SIMATIC IT XHQ is a fully web-based platform that is comprised of several major components:

Content Development Tools: Catalog and Component Builder (for defining Information Model), View Builder (development-based view) and Converter (integrated access to SCADA GUIs), Solution Builder (to connect back-end systems + applications).

Industry Content: Intelligent packs for capturing best practices and Industrial "Clip Art" for rich visualizations.

Alert Notification System: For monitoring key performance indicators, personalized for user-roles. E-Mail and SMS notifications, logs and summaries also integrated into SIMATIC IT XHQ views.

Connector toolkit for additional connectivity: Rich set of standard and custom connectors (ODBC, JDBC, MS SQL, Oracle, XML, OPC DA/HDA, DDE, OSI PI, InfoPlus 21, Honeywell PHD, SAP R/3 BAPI, Documentum).

Extensibility: Web services access to integrated information services of SIMATIC IT XHQ, Plug-ins for Microsoft Excel, APIs (application programming interfaces) for extension of SIMATIC IT XHQ applications.

Operations management is provided a wealth of aggregated, integrated information:

- Key operational KPIs
- Daily cost and margin information for the plant
- Production and utilization rates for major units
- Electricity and fuel usage
- Inventory levels of crude and products
- Safety statistics & environmental measures
- Maintenance summary information

A single, coherent view in real-time that enables one to see the current health of operations at a glance ...if something is out of step, in a single click the summary view can be drilled into and disaggregated to investigate the underlying issues

SIMATIC IT XHQ supports deployments with 100,000s of tags; millions of database and business application records; thousands of converted SCADA system graphics; 1000s of users

Find out more:
www.siemens.com/mes-simaticit

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