

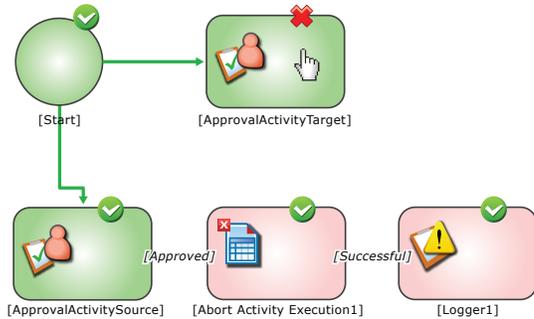
Wonderware Skelta BPM

Business Process and Workflow Management for Industrial Operations

Wonderware Skelta BPM is advanced business process management and workflow software with direct integration to industrial processes, systems and automated assets for industrial operations process and procedure management. The sophisticated Business Process Management (BPM) application enables companies to Model, Execute, Analyze and Improve processes to drive higher levels of productivity, collaboration and innovation.



Wonderware Skelta BPM Features



With Wonderware Skelta BPM, companies can institutionalize work processes that manage normal, unscheduled or disruptive events within their operations environment. This industrial business process and workflow application benefits Operations, Maintenance, Engineering, Quality, Environmental, and Health & Safety departments.



PRODUCT AT A GLANCE

- Digitize your operating procedures and processes that include people, equipment and/or systems
- Automate and ensure consistent execution of standardized work processes.
- Document and measure processes for continuous improvement opportunities
- Integrate and synchronize plant or enterprise systems.
- Extend the value of Schneider Electric software applications such as Wonderware System Platform, MES, InBatch, Avantis Enterprise Asset Management, as well as SimSci ROMEo and PRO/II.

BUSINESS VALUE

- Increase efficiency, accountability, and consistency of operational activities
- Improve cross-functional collaboration
- Reduce cost of regulatory compliance
- Preserve process and best practices knowledge.

Increasing Productivity

Automating manual processes and proliferating best practices, eliminating paperwork and manual error-prone procedures, coordinating people and systems to effectively accomplish simple or complex tasks. Notifications and easy to use data entry forms through multiple secure communication channels speed up task responses and decision making in mission critical processes.

Providing ownership-driven innovation

Employing a model-driven approach that empowers non-IT users and business stakeholders to visually compose processes, monitor and measure the performance, quickly improve processes and adapt changes.

Enabling knowledge management

Digitize Standard Operating Procedures (SOPs), Good Manufacturing Practices (GMPs) and work instructions to ensure and document that company policies and procedures are being executed in a consistent and compliant manner.

Capturing best practices in electronic workflows protects the knowledge of an aging workforce and mitigates risks associated with manual processes.

Wonderware Skelta BPM Solution Scenarios

BPM Enabled Applications

Work processes in industrial facilities span across many different departments with a wide range of personnel involved. These processes typically include:

- Operations and Production related activities
- Quality related activities
- Warehouse and Logistics related activities
- Maintenance and inspections related activities
- Environmental, Health & Safety related activities

Some of these processes are embedded in commercial off-the-shelf applications and custom applications. People-driven processes are generally employed to fill the “white space” that exists between the applications. This landscape creates a significant obstacle that organizations need to overcome in an effort to drive higher levels of productivity, agility and innovation.

Wonderware Skelta BPM enables organizations to Model, Execute, Analyze and Improve processes to effectively coordinate required people and systems to accomplish specific business objectives and to standardize processes for improved horizontal and vertical integration and enterprise wide collaboration. The software has been designed to seamlessly integrate and collaborate with existing hardware and plant and enterprise software applications in industrial manufacturing, production, utilities or infrastructure operations.

Wonderware Skelta BPM’s scalability supports any solution size, ranging from workflow management for a plant small team up to automating any number of business processes in the enterprise.

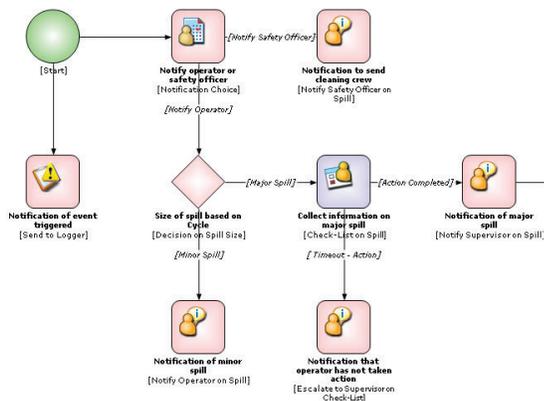
Let’s take a look at how Wonderware Skelta BPM can add value to your existing application landscape.

Production Process Supervision Applications

- **Operator Alarm Response Management:** Guide operators through a series of actions to resolve a particular alarm condition. If necessary, collaborate with other resources or escalate to a supervisor to assist in resolving the alarm condition.
- **Electronic Work Instructions:** Guide operators through standardized and validated processes that have been established by the organization for common activities such as, product changeover, material staging, machine setup, line shutdown, plant startup, etc.



Wonderware Skelta BPM can be the foundation for an ISA-95 aware operation, ensuring Production, Maintenance, Quality and Inventory Operations seamlessly interoperate and share critical data.



Wonderware Skelta BPM

Solution Scenarios (continued)

Manufacturing Operations Applications

- **Specification Change Management:** When a specification change has been requested by a user, the system would submit the request to the appropriate resources (e.g. Operations, Process Engineering), enforce the decision making process, communicate the decision back to the stakeholders, and update the appropriate specification management applications (PLM, ERP and/or MES).
- **Positive QA Release:** After a production order or lot has been completed, the system would compile data from the appropriate data sources, highlight information that is out-of-spec or requires resolution, and coordinate any reviews or additional actions required for the selected disposition (e.g. release to distribution, hold for QA review).
- **QA Hold Resolution:** After a QA hold has been issued against material by an operator, the system would coordinate the appropriate resources (e.g. QA, Operations) to review the issue, as well as coordinate any reviews or additional actions required for the selected disposition (e.g. remove hold, rework).
- **Quality Operations:** When a Quality sample is required for a particular process, the system would prompt the operator for the sample, collect the sample data, send the sample data readings to the Quality application, receive the sample results and coordinate any additional actions required based on the sample results (e.g. continue batch, place batch on hold).
- **Model-Driven Business Rule Management:** Leverage the visual modeling capability of Wonderware Skelta BPM to eliminate the custom script or code used for defining classic MES (Manufacturing Execution System) business rules.

ERP (Enterprise Resource Planning) Applications

- **Material Receiving and Inspection:** When raw materials are received by a customer, the system would enforce the QA sampling plan defined for the product and vendor, highlight information that is out-of-spec or requires resolution, and coordinate any reviews or additional actions required to complete the receiving and inspection process prior to submitting the information to the ERP application.
- **Master Data Approval:** When master data is changed in the ERP application, the system would coordinate the appropriate resources (e.g. QA, Process Engineering) to review the change, potentially capture additional information required to make the change at the plant (e.g. effective date, qualified production lines), enforce the plant-level signoff process, and update the appropriate applications (e.g. LIMS, MES, Quality) on the plant floor.
- **Production Order Download Synchronization:** When bulk production orders are downloaded to the plants within an enterprise, the system would apply plant specific business rules to break down the bulk orders into manufacturing orders that look at the capacity constraints of a particular plant.
- **Production Order Reconciliation:** When production orders have been completed on the plant floor, the system would compile of all the production records associated with the order (e.g. production, consumption, labor records) from the MES application, coordinate the resources required to review the production records (e.g. Production Supervisor, Shift Supervisor), highlight inconsistencies with the data, capture any changes made to the data, and send the reconciled information to the ERP application.

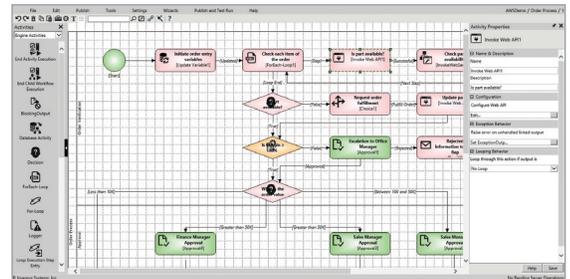
Wonderware Skelta BPM Features

Wonderware Skelta BPM Components

Wonderware Skelta BPM is a web application with a HTML5-based, platform neutral user interface for use within a web browser on workstations and mobile devices. Its process design and workflow task execution components are seamlessly embedded into Wonderware System Platform, and may also be embedded into third-party commercial applications or custom applications for a comprehensive workflow solution.

Process Designer

- Intuitive, visual modeling environment for easy process design
- Over 50 out-of-the-box configurable workflow activities
- Processes can be designed and imported from Microsoft® Visio
- Workflow actions secured through itemized security features
- Supports complex branching and decision trees
- BPMN (Business Process Modeling Notation) compliant



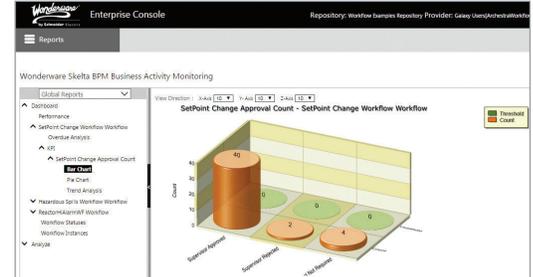
Forms Designer

- Create custom forms to collect and/or visualize data at a particular step in the process
- WYSIWYG (What You See Is What You Get) Editor enables end users to create new forms, or maintain existing forms
- Design friendly canvas with direct drag and drop, and flexible columns width
- Form controls simplify form creation and maintenance
- Automatic and responsive layout adoption and form previews for multiple mobile devices
- Scripting is available to perform more advanced tasks
- Security can be applied to different fields on the form
- Electronic signatures are supported in a form
- Forms can be linked to, or initiate workflows
- Multiple forms can be associated with a particular workflow
- Supports use of Microsoft InfoPath® forms

Wonderware Skelta BPM Features (continued)

Business Activity Monitoring (BAM) & KPIs

- Out-of-the-box activity reporting and activity monitoring views
- Customizable Key Performance Indicators (KPIs)
- Standard out-of-the-box performance analysis
- Associate workflows with BAM events
- Visibility to workflow instances and genealogy
- Proactive alerts of business exceptions and KPI triggers



Communication Channels

- Comprehensive Microsoft Outlook® integration
- Supports web browsers, PDA, email, voice and IM for task delivery and response
- Support for two-way communication on mobile phones
- Extensive API's and web services support



Work Tasks Mobile App

You can now access your Wonderware Skelta BPM tasks while on the move, using your mobile device (Apple iPhone, Apple iPad or Microsoft Windows 8 tablet). Make decisions and take action faster with the Work Tasks mobile application. Use the latest in mobile technology to:

- Update tasks in real-time, keeping critical workflows moving
- Receive useful messages and push notifications on new tasks
- Approve or reject a task
- Provide feedback via Skelta BPM Forms
- Flag a task based on importance



Mobile Application Scenarios

- **Coordinated HACCP or EHS Inspections:** Coordinate appropriate resources, enforce the decision making process, communicate the decision back to the stakeholders, and update the target applications (e.g. Preventative Maintenance (PM) and MES).
- **Operator Driven Reliability Support:** Perform PM tasks on all types of production equipment, and communicate back to the appropriate target applications.
- **Equipment Startup/Changeover/Shutdown Procedures:** Enforce sequencing and synchronization of work tasks and procedures. Provide access to work tasks and work instructions onsite with visibility to current equipment status and setup.

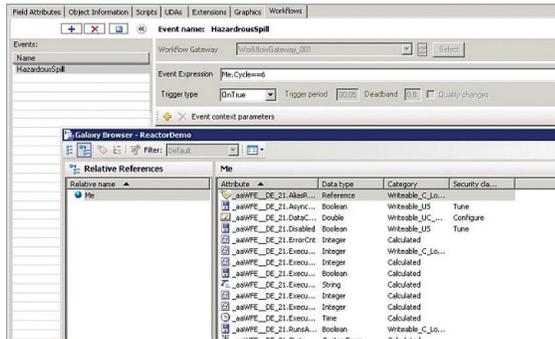


Wonderware Skelta BPM Specifications

Wonderware Skelta BPM is designed to work with your existing software and automation systems infrastructure. Connectors enable integration with common plant and enterprise systems and provide tools to reduce the time needed to implement Wonderware Skelta BPM into applications such as Wonderware operations management and Avantis asset management applications, as well as Microsoft SharePoint.

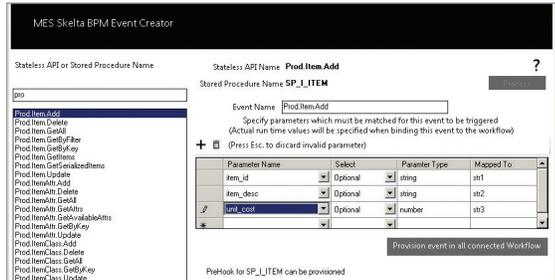
Wonderware System Platform Connector

- Provides configurable read/write and wait-for-event workflow activities for Application Server integration
- Provides access to Enterprise Console from Wonderware Information Server
- Extends standard objects in ArchemstrA® IDE with a workflow tab to configure workflow events
- Enables Wonderware Historian events to invoke workflows
- Provides ArchemstrA graphic templates for task delivery and response
- View and respond to workflow tasks in InTouch for System Platform



Wonderware MES Connector

- Provides configurable workflow activity to transact with Wonderware MES middleware
- Enables MES middleware extensibility hooks to invoke or interact with workflows
- Provides configurable workflow activity to retrieve data from the Wonderware MES database

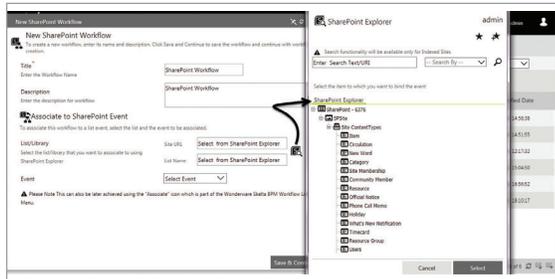


Avantis Enterprise Asset Management (EAM) Connector

- Create new Avantis objects Entities, Work Requests, Work Orders
- Return data from Avantis objects Entities, Work Requests, Work Orders
- Update data in existing Avantis objects

SharePoint Connector

- Provides advanced workflow capability that seamlessly integrates SharePoint with your manufacturing or industrial processes
- Delivers work tasks to SharePoint lists
- Allows initiation of workflows from document libraries, lists and content types
- Offers a rich set of SharePoint Actions that inherit and manipulate SharePoint metadata during a workflow process



Wonderware Skelta BPM Connectors

Operating Systems

Wonderware Skelta BPM software supports the Microsoft Windows platform, including:

- Windows 8.0 and 8.1 Professional or Enterprise Edition (32-Bit and 64-Bit)
- Windows Server 2008 R2 Standard or Enterprise Edition (64-Bit)
- Windows Server 2012 Standard or Data Center Edition (64-Bit)
- Windows Server 2012 R2 Standard or Data Center Edition (64-Bit)

Database Technology

Wonderware Skelta BPM software supports the following databases:

- Microsoft SQL Server 2008 in Standard or Enterprise Edition (32-Bit and 64-Bit)
- Microsoft SQL Server 2008 R2 in Standard or Enterprise Edition (32-Bit and 64-Bit)
- Microsoft SQL Server 2012 in Standard or Enterprise Edition (32-Bit and 64-Bit)
- Microsoft SQL Server 2014 in Standard or Enterprise Edition (32-Bit and 64-Bit)
- Oracle 11g R2

Browsers

Wonderware Skelta BPM software supports the following Browsers:

- Microsoft Internet Explorer, Version 10 and 11 on Windows OS
- Google Chrome, Version 36 on Windows OS
- Mozilla Firefox, Version 31 on Windows OS
- Apple Safari for Mac (support for Inbox and Forms only)

Mobile Devices

Wonderware Skelta BPM software offers apps for the following mobile device platforms:

- Apple iPhone/iPad iOS 7.x
- Windows RT
- Windows 8.0 and 8.1 Professional

For more information on Wonderware Skelta BPM software please contact your local Wonderware distributor, or visit

<http://software.invensys.com/products/wonderware/manufacturing-operations-management/skelta-bpm/>