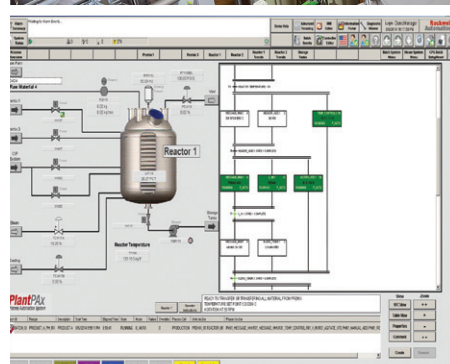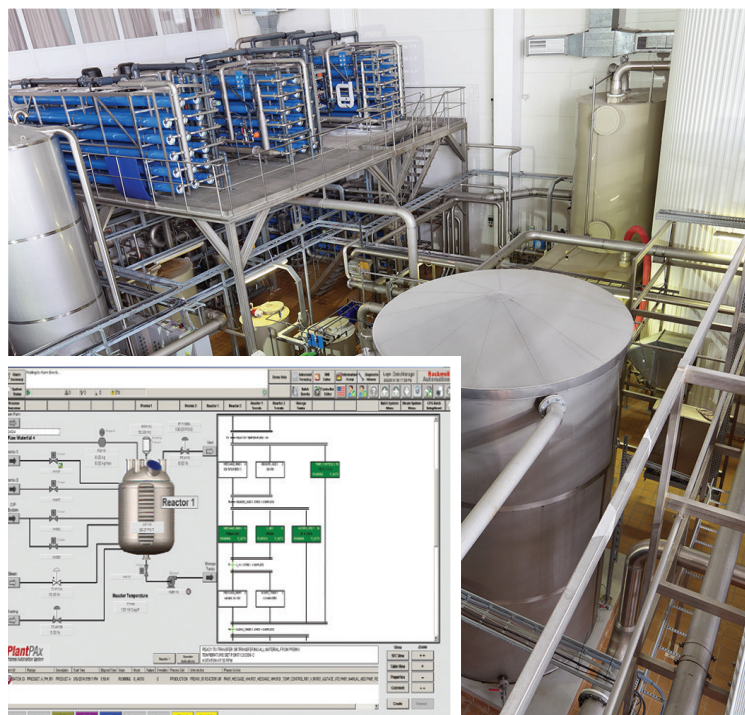# FactoryTalk® Batch Software Suite

FactoryTalk Batch
FactoryTalk eProcedure
FactoryTalk Batch Material Manager

PlantPAx
Process Automation System
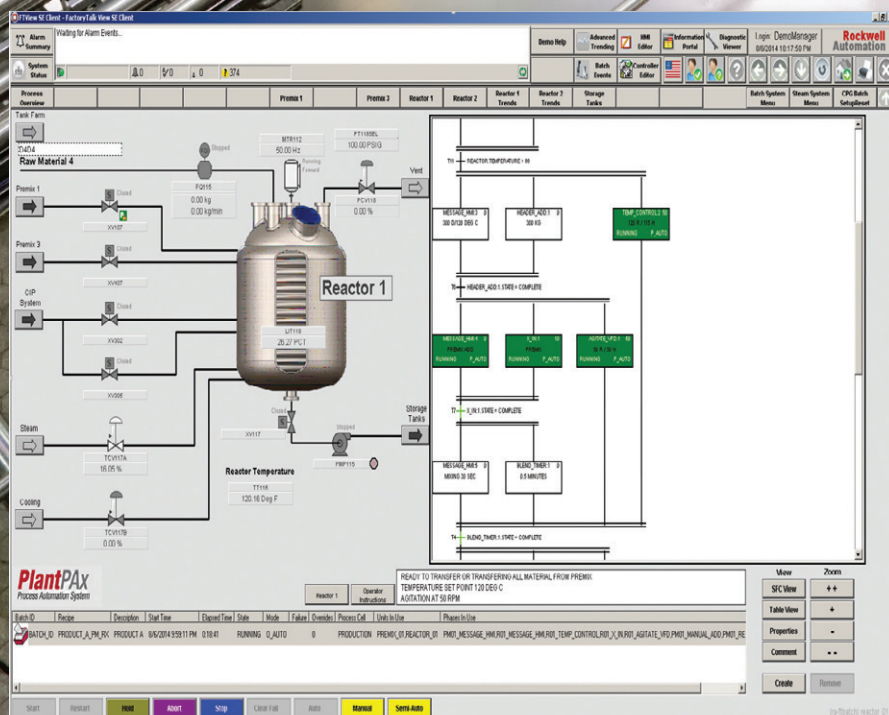
LISTEN.
THINK.
SOLVE.®

Allen-Bradley • Rockwell Software

Rockwell Automation

Rockwell Automation batch software empowers you to:

- *Standardize product definitions*
- *Improve product quality*
- *Simplify product development and time to market*
- *Journal all procedure related activities*
- *Speed up system deployment*
- *Reduce implementation cost and risk*

Rockwell Automation Batch Software Suite

The Rockwell Automation batch software suite, enables you to develop batch control systems that support your flexible production needs. It provides:

- **Operators** the view to effectively control the process
- **Production** the information to understand what's happening on the plant floor
- **Recipe authors** an environment to easily build and manage recipes
- **Management** the information needed to make sound business decisions
- **Quality** the information needed to improve processes and meet compliance requirements
- **Maintenance** the tools required to quickly diagnose problems
- **System designers** the tools to support modular batch automation using industry standards
- **Engineers** the ability to seamlessly connect the software to the control system

The FactoryTalk® Batch software suite provides you with a flexible batch control system. It allows you to specify procedures and enforce their execution. Additionally, the software collects and stores activity information, which is easily accessible through standard batch reports. This scalable, class-based system can be used to manage the automated and manual activities of a single unit, as well as large processes that require multi-unit coordination.

NEW Batch Software Features Include:

- Security authority identifier to protect your intellectual property
- Recipe release to production approval workflow
- Recipe versioning
- Event archiver and standard batch reports

Contents

Batch Software

Recipe Management and Procedural Control

Our batch software provides efficient, predictable batch processing, consistency between batches, and generation of event information during batch runs. The development tools enable you to define equipment capabilities and allow you to build product recipes against that defined equipment capability. These activities simplify the development of each batch control system. Our batch software brings all facets of batch automation and process management together, providing the most comprehensive batch management software available.

Equipment Editor
Define Your Equipment Capabilities
Our batch software leverages the ISA88.01 physical model hierarchy to configure the capabilities of the processing equipment (add materials, heat, agitate, etc.). Using the graphical interface in the Equipment Editor, you use templates to create and maintain information about your process equipment. Once you've defined the equipment capabilities, information is available to all other components.

Recipe Editor
Define Your Product Recipes
The Batch Recipe Editor exposes the capabilities of the equipment to the recipe author, which are then used to configure all recipes without requiring controller changes. It provides a simple way to configure, organize and store recipe information according to the ISA88.01 procedural model.

Recipes are built hierarchically and consist of procedures, unit procedures, operations and phases. Recipes also include descriptive information, formula information, equipment requirements, and the procedures used to make the batch.

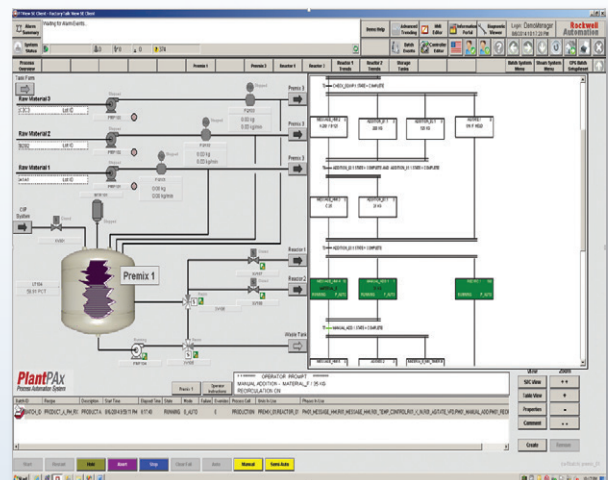### Batch Server
Manage Your Batch Operations
The Batch Server is the engine that runs the batch software. It allocates resources, supports system failure recovery, and provides communication functions. It gathers and stores production information into the Batch Event Journal for reporting and archiving.

During runtime, the Batch Server is continuously journaling all actions to one or multiple disk drives so that you can fully recover in the event of a control system failure. Batch Server also supports cold and warm booting to recover batches from their last known state.

Batch View
View and Control Your Batch Process
The standard human interface to our system is the Batch View. Through the Batch View options, you initiate recipes, control batches and access all FactoryTalk information. You can command and monitor batches from the Batch List window, a table view, or from the Sequential Function Charts of the selected batch. The Batch View can be used stand-alone or the individual Batch View components can be added directly into container applications, such as HMIs, web browsers or Visual Basic programs.

eProcedure

Process Management for Manual Operations

The eProcedure software automates manual procedures using an interactive, web-based interface to sequence and document your manufacturing operations. eProcedure provides the consistency of automated controls in manual operations. Use eProcedure to guide operators through manual activity or add links to production documents such as operating procedures, material safety data sheets, and equipment maintenance manuals. Enforce signoffs when required to meet 21CFR part 11 compliance.
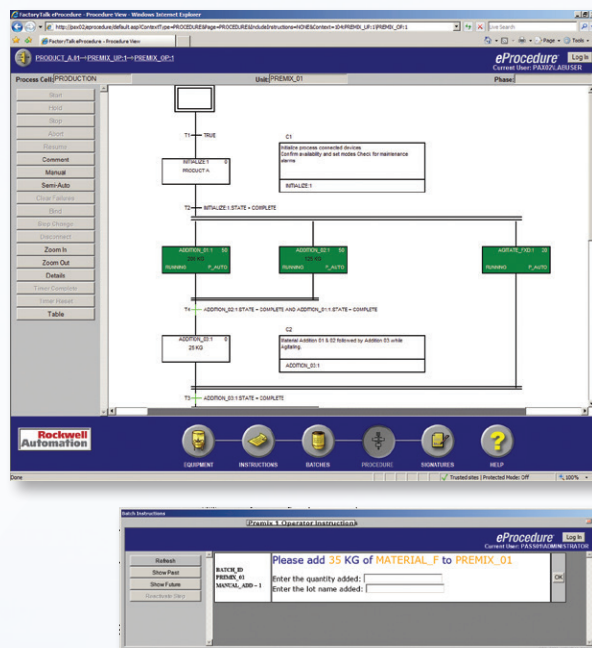
Leverage an Interactive Web-Based Design

The eProcedure software allows you to interact with batches from remote computers using Microsoft® Internet Explorer. With eProcedure, you no longer need to write processing information on a piece of paper for submission. You can enter the data directly into your workstation. The data is directly stored in an electronic batch record and is available for reporting.

Integrate Manual Work Instructions into Your Automated Process

The eProcedure software can be implemented in a completely manual manufacturing facility or in a partially automated facility by using all manual phases or a combination of manual and automated phases within a single recipe. Regardless of the state of automation, the implementation process is the same. With eProcedure, your paper-based operating procedures are no longer required.

Material Manager

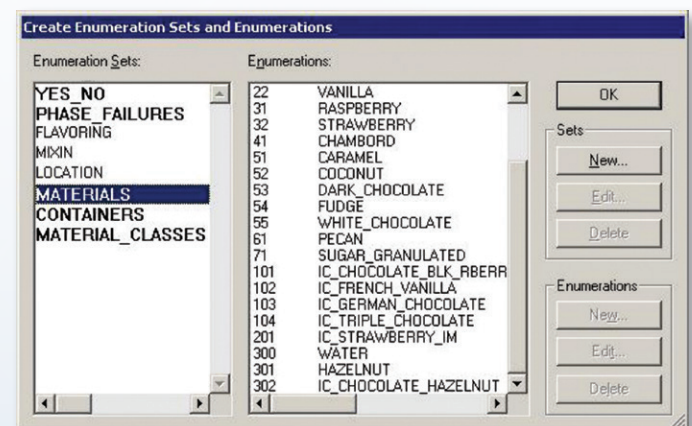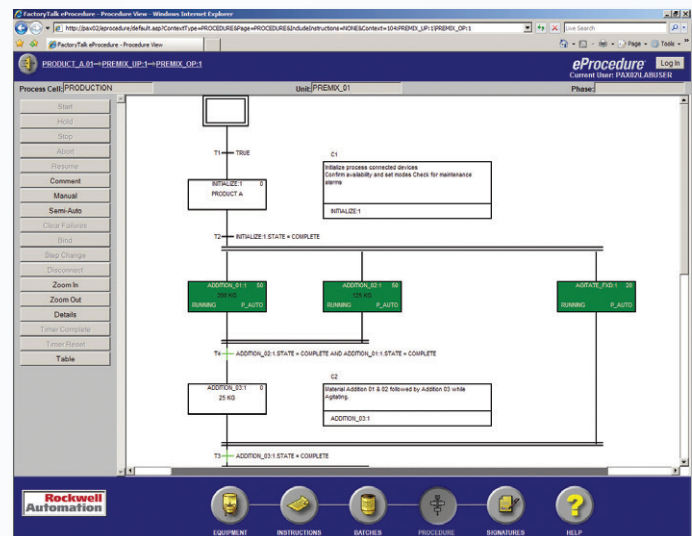## Material Management for Batch Operations

Material Manager brings just-in-time material management to batch execution systems, allowing more effective management of materials and recipes. Material Manager provides plant-level material management and tracking, and integrates with company-wide inventory management systems. It complements ERP-level resource management by collecting the detailed material and equipment tracking information needed for optimizing your supply chain and e-business fulfillment.

Define Your Inventory

The Material Editor provides an interface to help you define material definitions, which consist of material, lot, sublot, container, and storage location data. During a batch run, information about available containers can be presented to the operator for selection decisions. After a batch is run, quantities consumed or distributed are updated in the material database for use in inventory tracking.

Integrate Material Management into Your Product Definitions

Material-based recipes allow you to define recipes in terms of materials used, not just by plant equipment. A material-based recipe uses material-enabled phases, which are configured in the Equipment Editor and stored in the area model. Material-enabled phases support the specification of a material as a means to find appropriate equipment and select that equipment in a recipe.

FactoryTalk Batch Software Suite Additional Features and Capabilities

PhaseManager™: Preferred Integration with Logix Controllers

FactoryTalk Batch integrates with Logix PhaseManager, which embeds the ISA88 phase state model directly in a Logix-based controller. PhaseManager provides a structure to streamline the creation and implementation of phase logic.

XML Support: Extend Your Connectivity

The Batch Equipment Editor can read, import, and export XML area model files, following the S88-S95 schemes. This makes it possible for the Batch Equipment Editor to be integrated into third-party editors or editing procedures.

Batch Simulator: Test Your Recipes

You can test recipes against plant configurations without running them in the plant using the Batch Simulator.

Security and Auditing: Secure Your Environment

The security capabilities within our batch software can be customized to meet the most demanding requirements. New security authority identifier helps protect your intellectual property. Auditing provides you with a detailed audit trail of user changes to the area model and recipe data made from the Batch Equipment and Recipe Editors. In addition, secure what can be released to production with the ability to enforce signoffs prior to releasing a recipe.

Batch Archiver: Send Data to a Database

The Batch Archiver option collects data from your electronic event journals and stores it in an OBDC-compliant relational database, such as SQL. Each batch is recorded in a separate file that contains a complete record of all activity for both manual and automated workflow.

Batch Reporting

With nine pre-configured web-based batch reports that leverage data already being collected, this reporting solution can solve your most common batch reporting needs including electronic batch records (EBR), track & trace genealogy, and production exceptions. Create additional custom batch reports quickly and easily from these existing open source templates.

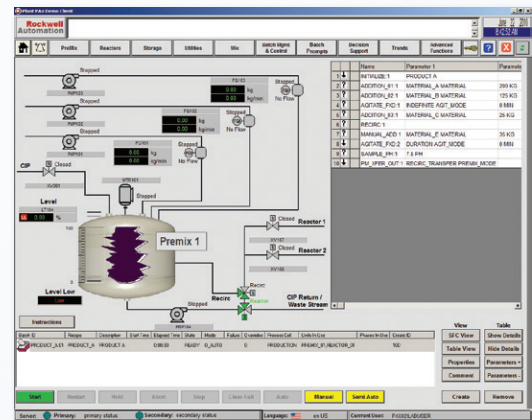Batch Reporting includes the following templates:
- *Batch Reports:* Batch Listing, Batch Summary, Batch Detail
- *Material Reports:* Material Usage, Forward Tracking, Backward Tracing
- *Analysis Reports:* Batch Execution, Duration Comparison, Batch Exceptions

Integrated Batch Visualization

Seamlessly integrate batch control into the operator interface with this solution which offers configurable, pre-engineered FactoryTalk View graphics with embedded Batch View components. Since all graphics are built using standard product features, you can quickly and easily create custom views from existing screens.

Integrated Batch Visualization includes:
- *Full Screen Graphics:* Overview Batch Screen, Line/Unit Batch Screen, eProcedure Batch Screens
- *Pop-up Graphics:* Instructions, Signatures, Prompts, Add Batch
- *Documented Batch API code:* Batch List, Units List, Recipe List, Add Batch, Batch Commands

Solutions & Services

Bringing You a World of Experience

Across industries and processes, companies can leverage our global experience and partner resources to tailor solutions and services capabilities to meet their needs.

Rockwell Automation understands that a profitable, safe and sustainable operation is a primary goal for companies. As a valued partner, we offer industry and technology-specific expertise to address unique production challenges.

Our commitment is to help reduce project risk and provide solutions specific to the companies we support – executed globally and supported locally.
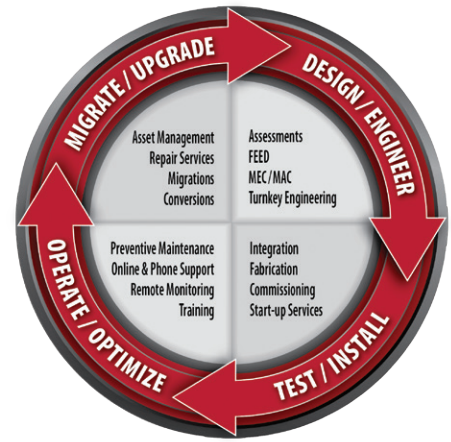
Optimize Operations

We start with an important step often overlooked in today's competitive business world: we listen, to learn about our customers, their issues and their goals – for today, tomorrow and the future. After we understand their unique needs, we draw on our global pool of in-house experience and partner resources to deliver tailored, repeatable, scalable and maintainable solutions.

Protect Your Investment

By leveraging our global infrastructure of support centers and subject matter experts, we're here to help protect our customers automation investment. Beyond providing peace of mind, as we help keep plants running, we'll assess entire operations and recommend the right mix of services to help maximize productivity, optimize plant assets and improve the overall financial performance.

For more information about our batch software suite, **visit www.rockwellsoftware.com. Select Products then FactoryTalk Batch.**

Rockwell Automation, Inc. (NYSE:ROK), the world's largest company dedicated to industrial automation, makes its customers more productive and the world more sustainable. Throughout the world, our flagship Allen-Bradley® and Rockwell Software® product brands are recognized for innovation and excellence.

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