Batch Procedure

MES BUILT ON IGNITION®

The Batch Procedure Module adds batch processing, continuous processing, and general procedure control, based on the ISA-88 Standard, to the Ignition® Platform. Recipe management is simplified by combining sequence control with parameter values in an intuitive graphical user interface. Real-time data collection of batch details provides analysis and electronic batch records.

Graphical Recipe Editor

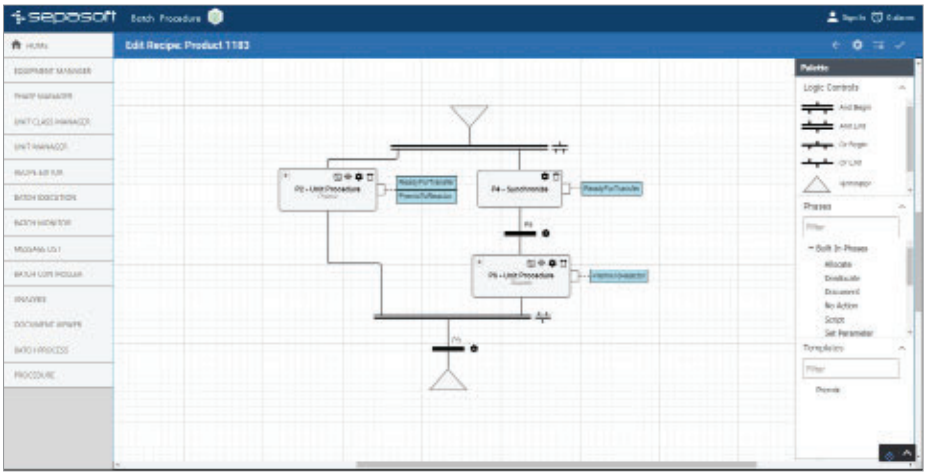
Simply edit recipes on one user-friendly screen using modern drag-and-drop technology. With less system training and development labor required, Recipe Authors and Operations staff can more easily focus on the product.

Separation of Recipes & Equipment Control

Empower Recipe Authors and Control Systems Engineers to specialize in their independent roles. With the separation of Recipes and Equipment Control, the cost of engineering and training is lowered throughout the life cycle of the manufacturing process.

Golden Batch Comparison (coming soon)

Target the optimal recipe ("Golden Batch") by examining which factors result in the most successful outcome. With access to large amounts of high-quality data, both effective processes and problematic events can be traced back to specific batches.



Batch Graphical Recipe Editor

Features

ISA-88 Industry Standard
Reusable Templates
User Prompts/Message Handling
WIP Inventory
E-Signatures
Electronic Batch Records
Custom Parameter Calculations
System Health
Synchronize Across MES Servers
Easy Automatic Data Collection

Supported Operating Systems

Windows Server 2016/2019/2022
Windows 10, 11
macOS (10.16+)
Linux (Support for popular distributions, tested with Ubuntu 20.04)
Other Java SE enabled OSes*

Supported Databases

Microsoft® SQL Server
MySQL
Oracle
Postgres

Requirements

Ignition® Core Modules
Java SE 8+ (server)
Java SE 6, 7, 8, or 9 (client)
Quad-core processor (32- or 64-bit)
8GB RAM
10GB free HD space

*Ignition® is compatible with any Java-enabled operating system. Full support is only offered for listed operating systems.

Built On Ignition by Inductive automation

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Controlled Execution Point

Guide execution with defined points that allow operators or logic to pause, resume, or redirect a batch as needed. Maintain control over real-world variability while keeping processes consistent and traceable.

Built-In Script Phases

Define custom phase logic directly within the recipe when standard phases are not enough. Keep custom batch behavior inside the batch engine instead of moving logic to PLCs, middleware, or external code.

Reusable Templates

Unit procedures or operations can be templated and reused for faster and easier development of recipes. Using this functionality, less time is spent on avoidable and repetitive configuration tasks.

Batch Procedure Use Cases

Control ISA-88 batch processes, manufacturing procedure-driven workflows, and hybrid processes in one toolset. Simplify maintenance and lower the total cost of ownership with a unified solution that easily fits into different types of protocols and workflows.

Batch Formulas

Flexibly manage Batch Recipe variations, enabling material and settings adjustments without altering core process logic. Simple modifications like color change can be effortlessly implemented and saved for future use.

Dynamic Dashboards

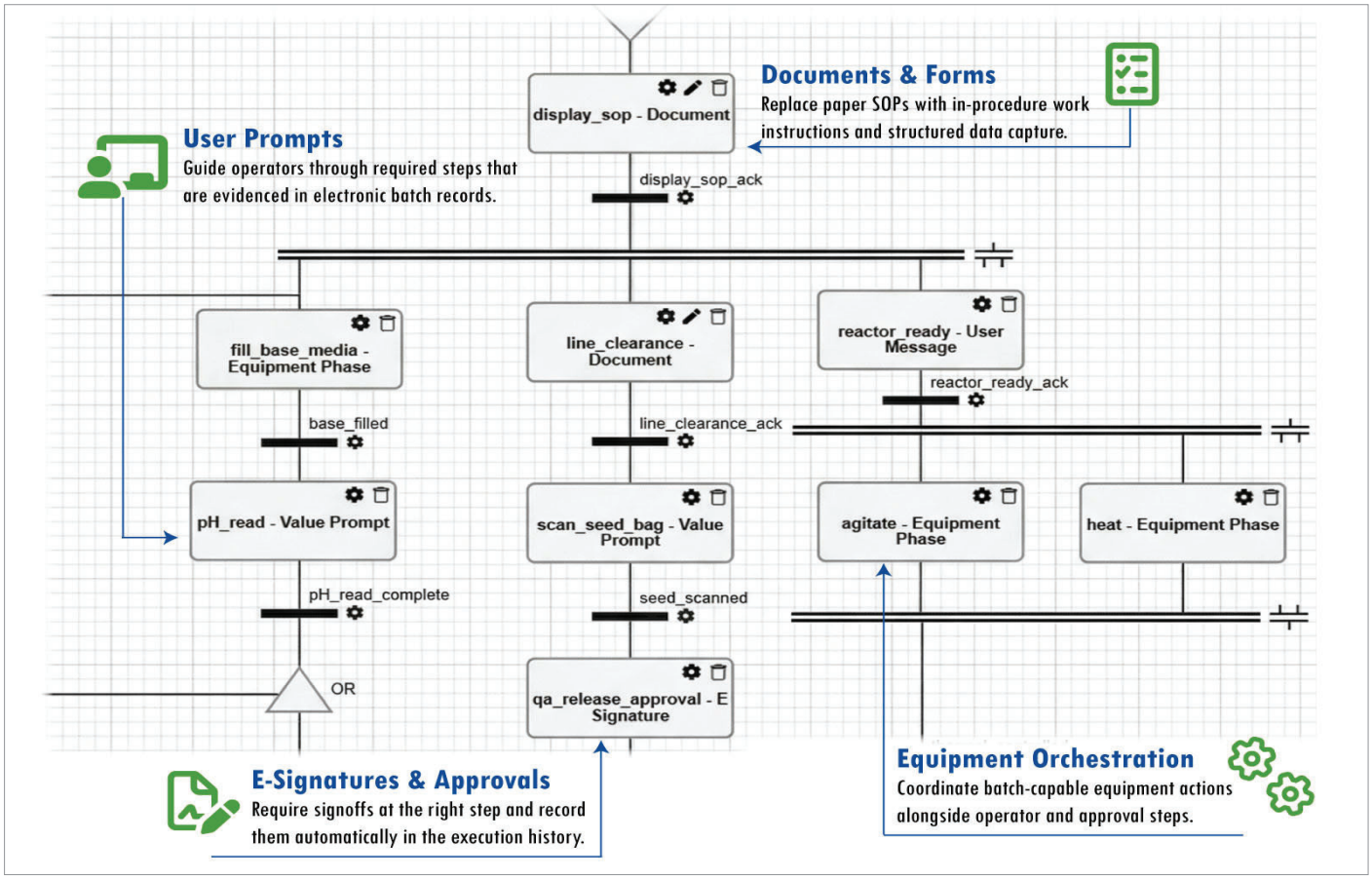
Share meaningful information using real-time custom dashboards tailored to the needs of your company.

User-Defined Batch Parameters

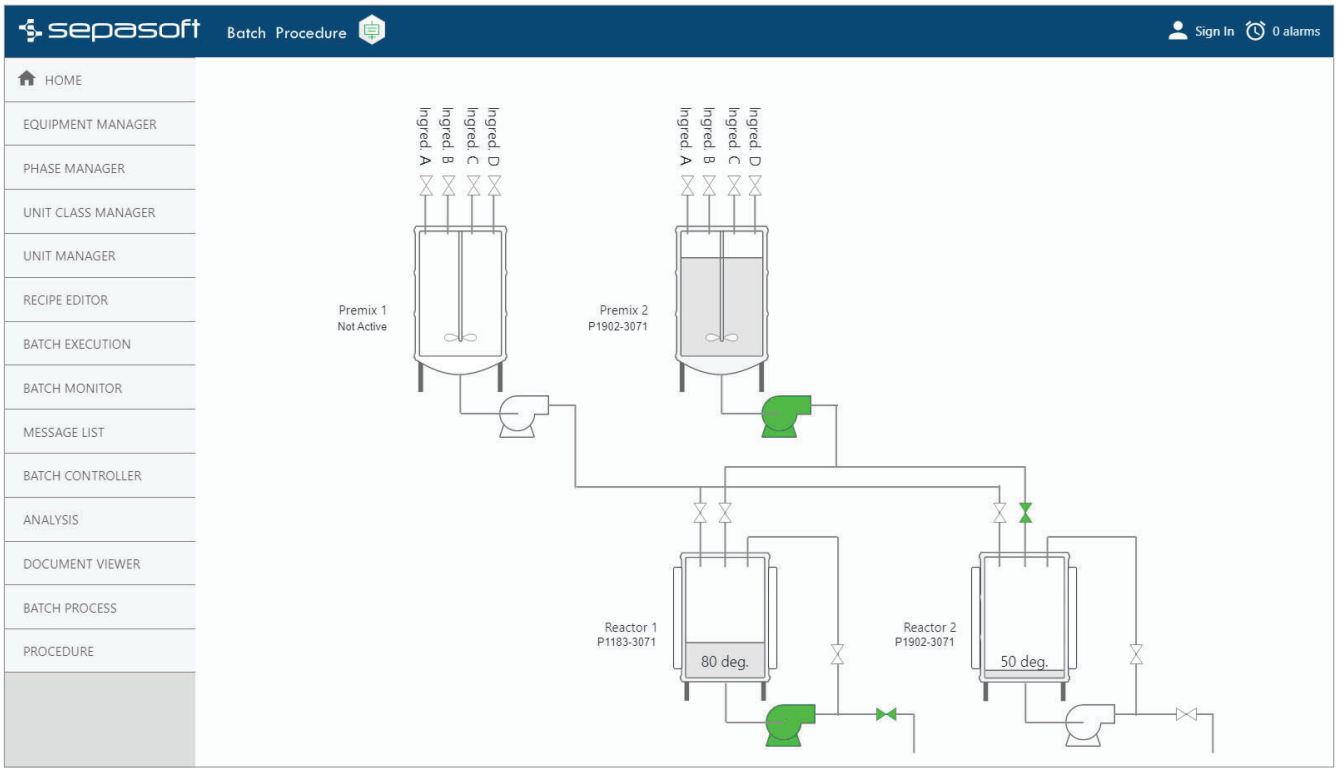
Create custom parameters to properly reflect your organization's batch process. Define the tag type, custom calculations, data types, minimum/maximum values, and more.

Evidenced Operator Steps

Require operators to complete guided actions, enter required information, and provide approvals at the appropriate point in the recipe. Capture each step as part of the batch record to support consistency, accountability, and compliance.



Combine equipment phases, procedural logic, and manual tasks in one workflow



Real-Time Batch Status

Real-Time Batch Status

Enable operators to easily check the status of a batch without an SFC (PFC) chart. With less navigation and drill-down required to monitor a batch, operators can focus on production.

Reusable Equipment Classes

Standardize equipment capabilities by defining phases such as heating, mixing, transferring, or agitating once within a reusable Unit Class. Apply that class across similar units to reduce repetitive configuration and keep recipe setup more consistent.

Built-In User Defined Type (UDT) Interface

Streamline configuration and minimize error with access to a built-in UDT interface. Map a UDT to field equipment once, and every instance of this UDT will be automatically configured going forward.

Best-in-Class HMI

Sepasoft Batch is built for Ignition, so operators can monitor batch status, complete procedure steps, and interact with equipment directly from Ignition HMI screens without a separate HMI solution or extensive custom tag mapping.

Unlimited Units per Server License

Expand your batch implementation on a licensed server without purchasing additional unit, line, or recipe licenses as your operation grows.

Electronic Signatures

Promote accountability and compliance within your manufacturing process by evidencing approvals with electronic signatures. Incorporate any number of e-signatures from various roles into your batch recipe to ensure that approvals are properly documented for historical record.

Electronic Batch Records

Ensure that critical procedures are followed and automatically documented to evidence the results of each process step. These details are saved into electronic batch records and easily viewed alongside quality and traceability data documents.

Easy Ad-Hoc Analysis

Pinpoint the source of quality issues and inconsistency with customizable ah-hoc analysis, allowing users to select unique combinations of data values, filters, groupings, and orders. Analyze unlimited amounts of past production data to identify trends and carry forward successful practices to future operations and scheduling.

Multiple Transfer Methods

Choose from multiple material transfer methods to best reflect existing equipment in the field. With the ability to run different recipes on each unit, the Batch Procedure Module easily adapts to your organization's existing processes.

Enterprise Integration

The Batch Procedure Module is IT-friendly, allowing integration with enterprise resource planning (ERP) and other applications to share data and communicate seamlessly with the entire organization.

Document Management

Securely and easily manage production-related documents to make complex manual processes more repeatable and consistent. Build and distribute documents that operators can fill out and save with batch data for historical record.

Multiple Site Production Data Sync

Improve visibility and reliability throughout the enterprise by easily sharing schedules, production results, and more, across multiple sites and servers. With out-of-the-box functionality, integration labor and custom coding are significantly reduced.

IIoT/MQTT Functionality

Prevent loss of historical data, optimize network bandwidth, and improve security by capitalizing on IIoT with built-in MQTT and OPC/UA support.

Custom Parameter Calculations

Factor your organization's custom requirements into batch parameters with dynamic calculations. Calculate ingredient quantities based on concentration, determine mix time based on humidity or temperature, and much more.

Simplified Validation Process

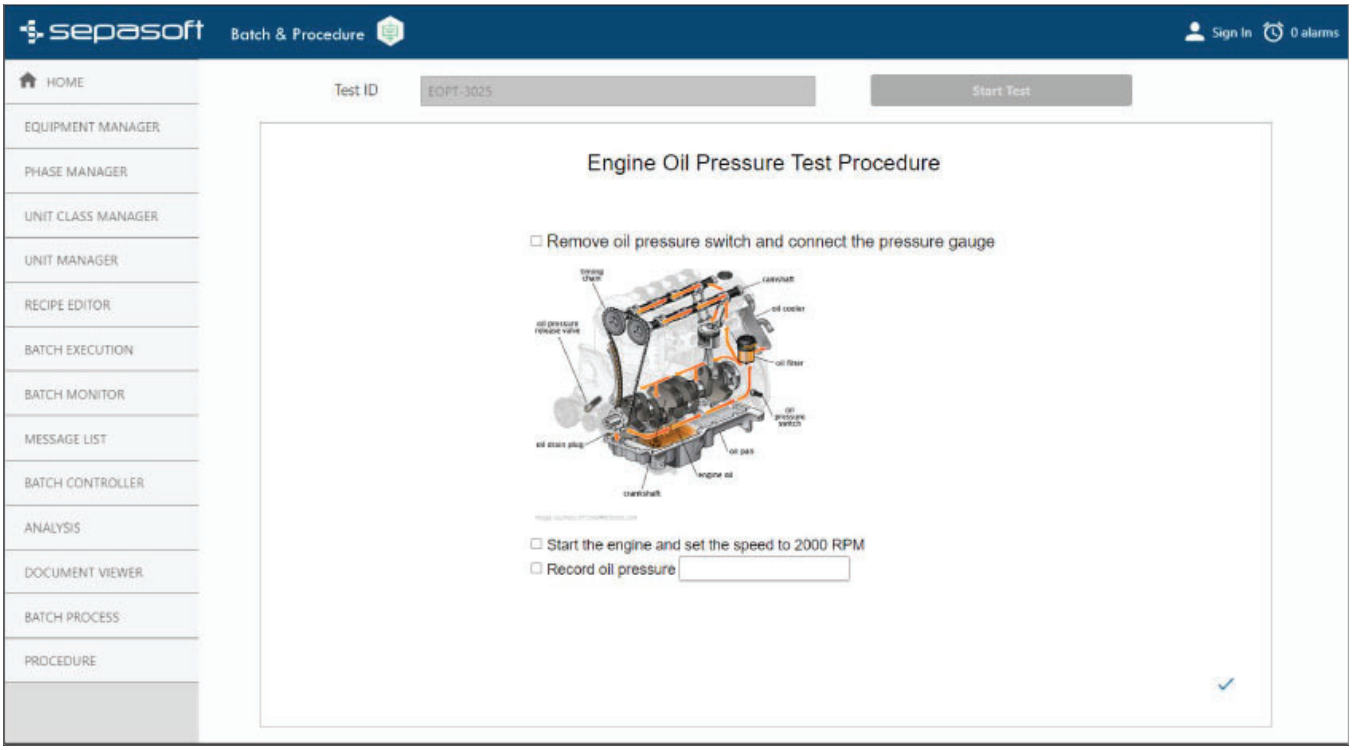
Simplify compliance validation using built-in tools such as versioning and a detailed changelog to target specific validation areas rather than revalidating the total process. All changes made to batch configuration are automatically recorded in a complete audit trail.

Multi-Environment Deployment

Apply system updates in a controlled, staged manner without impacting the running system. Review and validate changes before deployment to reduce risk and maintain consistency across Dev, Test, and Production environments.

Built On Ignition®

Save hours of customization by managing MES, SCADA, HMI, and more on a single platform with a unified operator interface and design tools.



Document Management