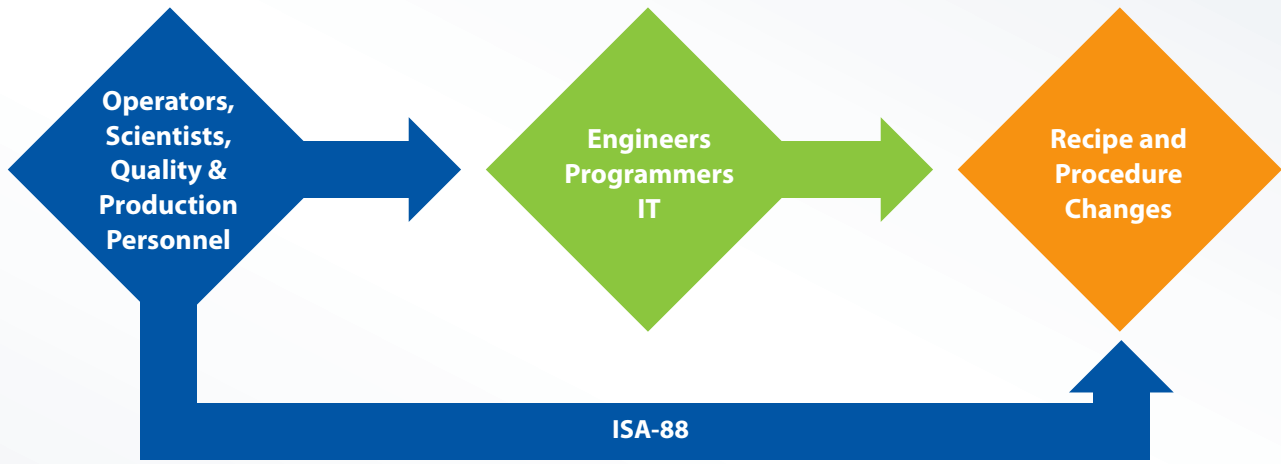




FlexBatch®
ISA-88 Batch Management Software





ISA-88: The Shortest Path to Recipe Changes

FlexBatch® integrates recipe management with the manufacturing process by making the automation procedure part of the recipe. Developers, engineers and production staff can quickly develop and modify documented recipes, and immediately schedule them for production. Batch cycle times and life-cycle automation costs are reduced, recipes can be modified using class object libraries, and new and existing products are brought to market faster and at a lower cost, giving you strategic and financial advantages over your competitors.

Designed in accordance with the ISA-88 standard for batch control, FlexBatch reduces dependence on Control Engineers. It empowers recipe developers, and operations staff to make recipe, procedure and equipment changes via intuitive graphical tools. Production staff can create, modify, and manage batches or execute library procedures to overcome process upsets. They will not need a control engineer to adjust a batch in production or be stymied by difficult to understand programming at 3:00 a.m. All of which means a more nimble, responsive, and profitable process.

Empower Production Staff to:

- ◆ Quickly develop, scale-up and produce new products
- ◆ Adjust and adapt products to new customer demands
- ◆ Easily schedule and change production
- ◆ Allocate/De-allocate plant equipment on-the-fly
- ◆ Experiment with new recipes
- ◆ Create and execute campaigns
- ◆ Pre-schedule batches/campaigns
- ◆ Automatic batch sequencing
- ◆ Selection of equipment at run time

FlexBatch Delivers:

- ◆ Shorter time to first batch
- ◆ Increased throughput
- ◆ Increase production yield
- ◆ Faster changeover times
- ◆ Improved equipment utilization
- ◆ Lower engineering costs
- ◆ Reuse of software



Modular, Flexible & Efficient Batch Automation

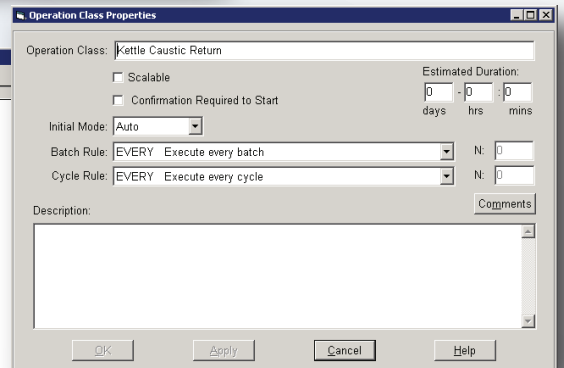
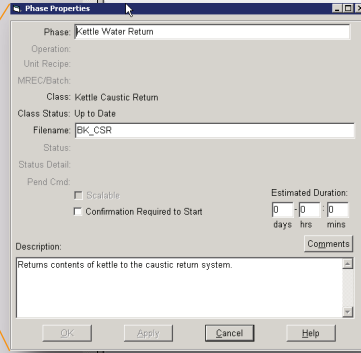
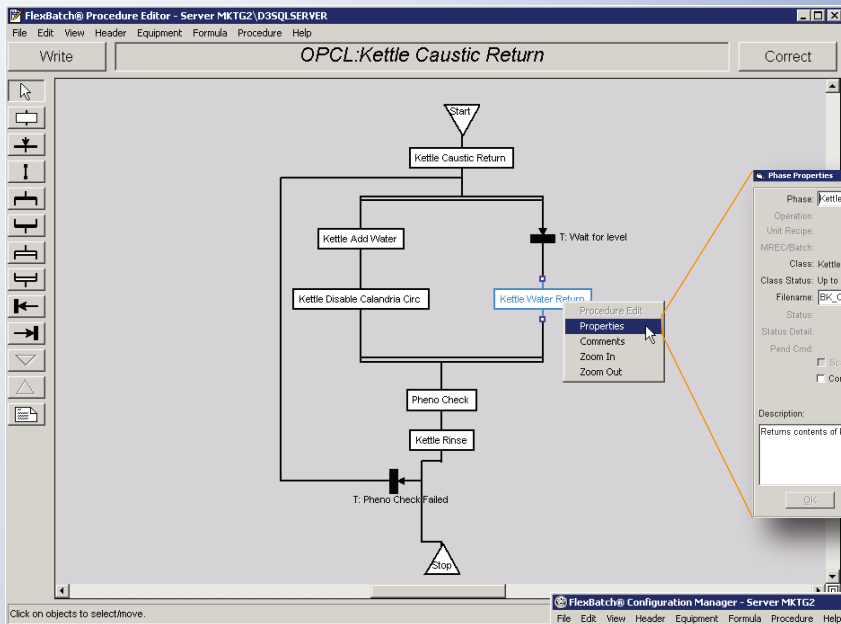
To simplify the creation, maintenance and documentation of procedures, FlexBatch® uses the same graphical editor to create Procedure Charts for all aspects of production. FlexBatch extends the capability defined in ISA-88 with the ability to define complex transitions between entities, which greatly simplifies or eliminates much controller programming.

The recipe developer can create phase and operation classes and store them in libraries. These are the reusable objects which the recipe developer inserts graphically into procedures.

Meanwhile, the control engineer can define the plant equipment and the equipment connections within FlexBatch. The actual phases are created using D/3® development tools.

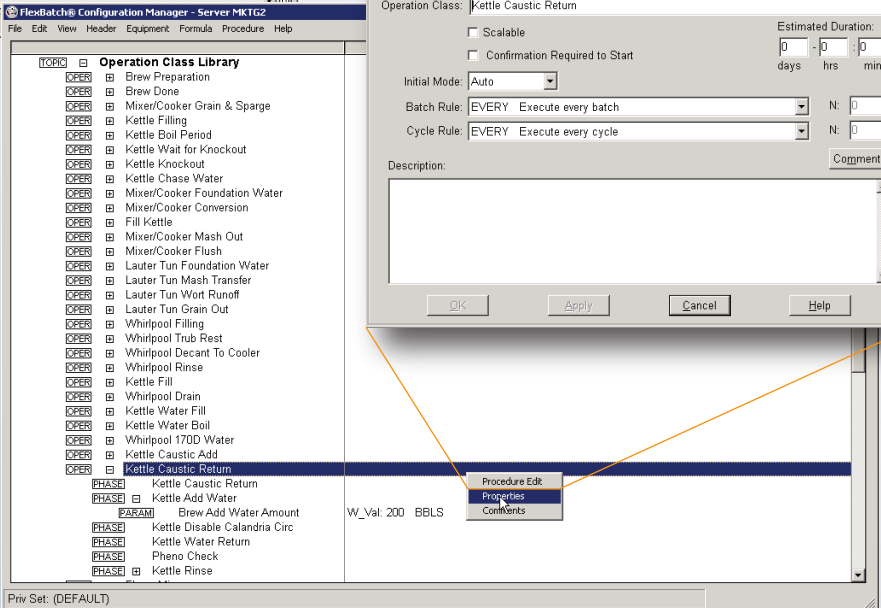
This modular approach to creating recipes and phases saves time, reduces testing and errors, and simplifies validation. Because procedures are part of the recipes, producing or modifying a recipe is simple and virtually error free.

Create Phases & Operations



Create Operations graphically with the Procedure Editor.

Organize Phases and Operations in Class Libraries and assign valid equipment with the Configuration Manager.



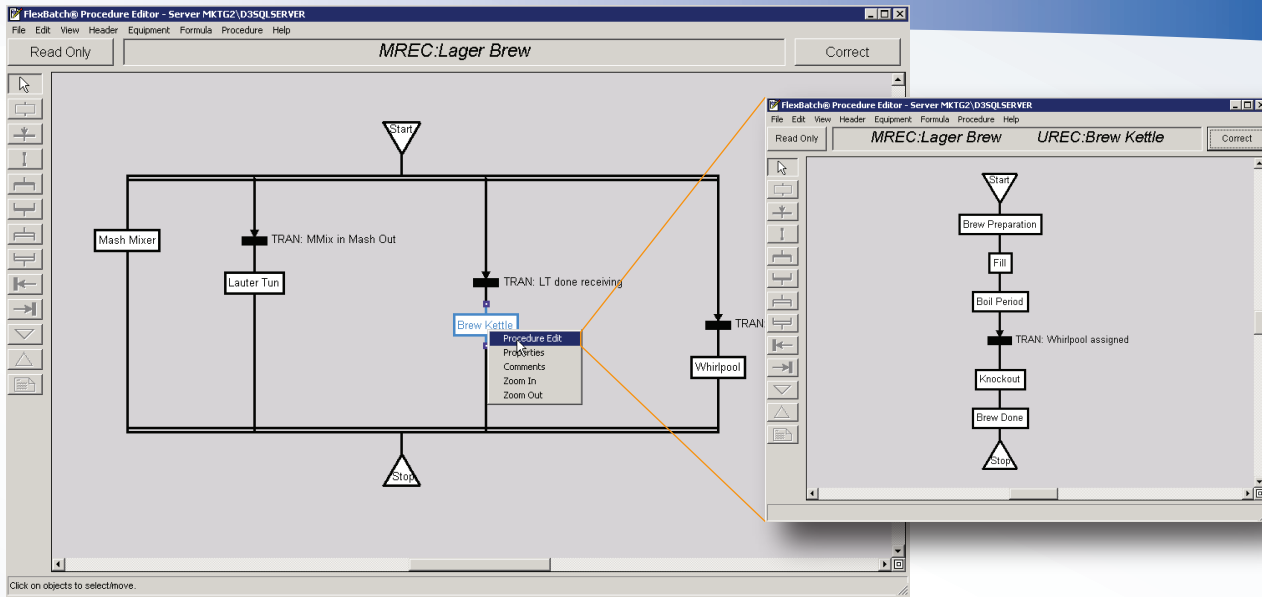
Modify On-The-Fly

At any point during recipe development and execution, personnel can modify:

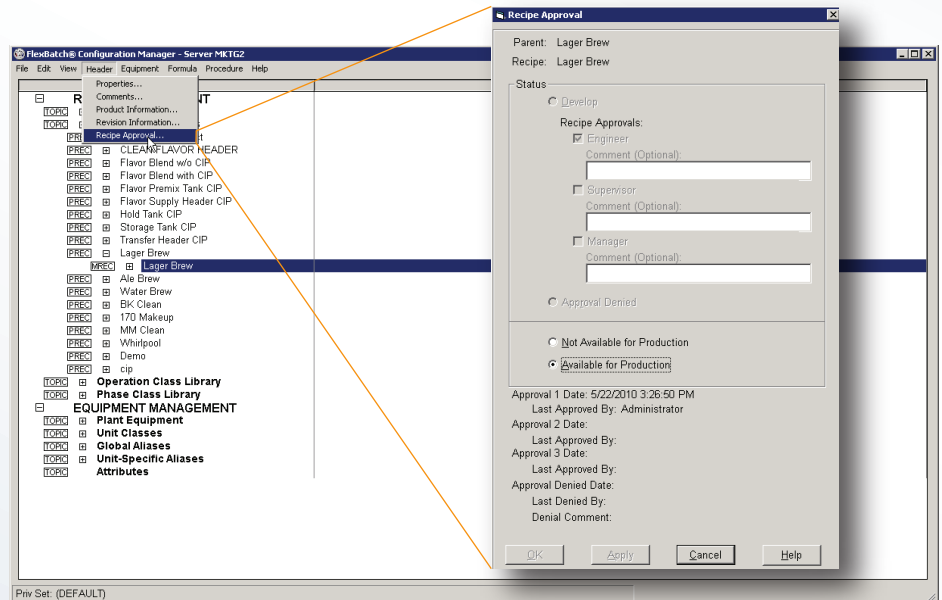
- ◆ Recipe Parameters (ex: Amount of enzyme to add)
- ◆ Recipe Procedure (ex: Don't use agitator for this batch)
- ◆ Schedule (ex: Make 10 batches instead of 5)
- ◆ Batch Start Rules (ex: Start batch after a certain operation completes)
- ◆ Equipment Utilization (ex: Only use Kettle 2 for this batch)
- ◆ Scale Batch Amount (ex: 500kg instead of 200kg)

and more...

Assemble Recipes, Campaigns & Batches



Assemble Unit Recipes into Master Recipes using the Procedure Editor.



Approve Recipes and make them available to production.

Execute & Manage Batches

The screenshot shows the FlexBatch Production Display Schedule View. The main window displays a table of batches with columns for Camp/Batch/Urec, Status, Start Time, End Time, Recipe, Size, Quantit., Mode, Pend. C., Batch N., and Status Detail. A 'Campaign Properties' dialog box is open on the right, showing details for Campaign C-422, including its status (Running), mode (Auto), and start rule (Start When Enabled). The dialog also includes options for Production Type, Confirmation Required to Start, and fields for Parent, Recipe, and Quantity.

Create Campaigns, Schedule Batches and Adjust Properties with the Control, Schedule and Production views.

The screenshot shows the FlexBatch Production Display Control View. The main window displays a table of unit recipes for Batch B-3528, including columns for Camp/Batch/Urec, Alert, Status, Recipe, and Unit Recipes. The unit recipes are organized into sections: Mash Mixer, Lauter Tun, Brew Kettle, and Whirlpool. Each section contains a list of tasks and their status (e.g., Completed, Running, Auto). The 'Whirlpool' section shows tasks like 'Whirlpool D...', 'Whirlpool F...', and 'Whirlpool F...'. The 'Operator Controls' at the bottom include buttons for Start, Hold, Continue, and Abandon, along with a Scope dropdown set to 'Control View' and a Batch Filter set to 'Demo'.

Other NovaTech Products and Services



D/3® DCS

Open, configurable, and highly reliable, the D/3® Distributed Control System (DCS) provides continuous and batch process automation worldwide. The D/3 DCS combines state-of-the-art features like Online Upgrades with a guaranteed migration path unmatched by any other process automation supplier.



Education and Training

Educational Services provides a full range of on-site, online and classroom courses for NovaTech and Microsoft products, and OSHA Safety Compliance. D/3 and MCSE Certified trainers, with decades of instruction experience, lead hands-on classes at your facility or at any of our training centers.



Orion Automation Platform

Orion serves energy management and protocol emulation roles in process facilities by integrating legacy, proprietary, or unsupported PLCs and other equipment into the D/3 or other control system via Modbus TCP.



Conductor™

Conductor Energy Asset Management Solutions provide real-time, comprehensive process energy information – including energy costs, emissions, and asset utilization – through customizable Key Performance Indicator (KPI) smartboards. Advanced Process Control from AspenTech smoothes energy demand profiles and increases yields.



How Can We Help?

For more detailed information on NovaTech products, services, or customer references, contact the NovaTech representative in your area, email info@novatechweb.com or call us at **800.253.3842**

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◆ Diamonds indicate regional training center locations.