Aspen Batch Process Developer™

Recipe-based modeling technology for the batch process industries.

aspentech

ABPD

increases productivity, provides error-free communication and improves bottom-line profitability.

ABPD allows you to:

- Scale-up from pilot plant to production
- Evaluate emissions, waste generation, utility loads and costing
- Debottleneck plant capacity
- Determine operational changes

Aspen Batch Process Developer™ (ABPD) is a recipe-based modeling technology used for developing batch processes and generating required documentation — from early route selection to full-scale manufacturing. ABPD facilitates the sharing of information across the company by providing a standard approach for creating and managing process information throughout the development workflow.

The Challenge: Faster Time-to-Market and Optimization of Batch Processes

The batch industries are challenged to efficiently accelerate new product development while maintaining overall costs. As a process evolves from R&D to manufacturing, different work groups will use different process representations to support their decision-making. As a result, communication between these groups is often fragmented with a lack of clarity around important assumptions and observations, which makes the final process more costly and less robust.

ABPD enables efficient collaboration in the batch process development workflow by giving all users access to the same up-to-date information. As a result, the entire process development team is able to design and optimize batch plants faster and accelerate the time-to-market. From route selection to scale-up, to technology transfer, ABPD increases productivity, provides error-free communication and improves bottom-line profitability.

The AspenTech Solution: Optimizing the Process Development Workflow

- **In the laboratory:** Compare process alternatives, evaluate make-versus-buy decisions and select synthetic routes for new molecules. With minimal process information, you can conduct mass balances and obtain quick cost estimates.

- **In early process development:** Screen new processes faster and efficiently during the early stages of process definition to identify the options that are most cost effective.

- **In the pilot plant:** Reduce time-to-market for process scale-up and maximize return on assets for existing pilot plant facilities.

- **In process engineering:** Enable better planning of capacity expansions.

- **In production:** Eliminate bottlenecks, investigate capacity expansions, simulate single or multi-product campaigns, evaluate equipment utilization, and calculate in-plant emission profiles. Validate the process model and then use the validated model to troubleshoot problem batches.

Benefits of using ABPD:

1. Increased productivity in the lab and pilot plant help to:

- Accelerate new product development

- Build a flexible, multi-purpose plant

- Provide consistency in assumptions, data, documentation and results

- Enter data once throughout the entire lifecycle of a project

2. Reduced capital and operating costs help to:

- Cut down on overdesign

- Increase yield, purity and product recovery

- Decrease energy usage, excess solvent usage and waste

- Improve asset utilization

Integrated Solution Delivers Proven Results

Aspen Batch Process Developer is tightly integrated with other aspenONE® products:

- **Aspen Properties®** — The industry standard for thermophysical properties modeling throughout the product and process lifecycle including Aspen Properties, solubility analysis for solvent selection and the Aspen Properties Microsoft Excel® add-in for developing and deploying calculation tools.

- **Aspen Process Manual™** — A collection of expert systems and design manuals for a wide range of chemical processing equipment.
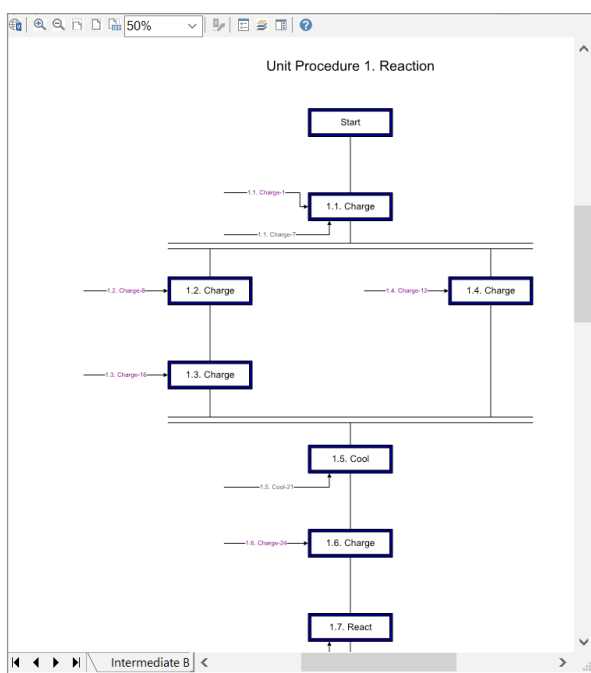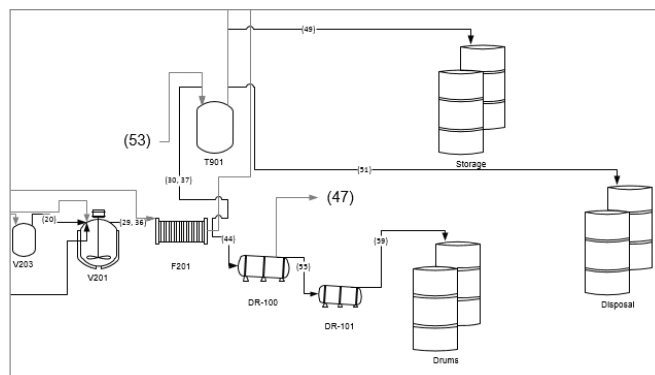

Recipe block diagram (sequential function chart)
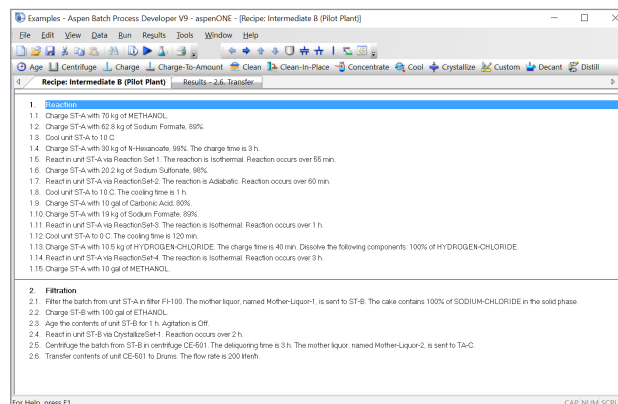
Step-by-step recipe input
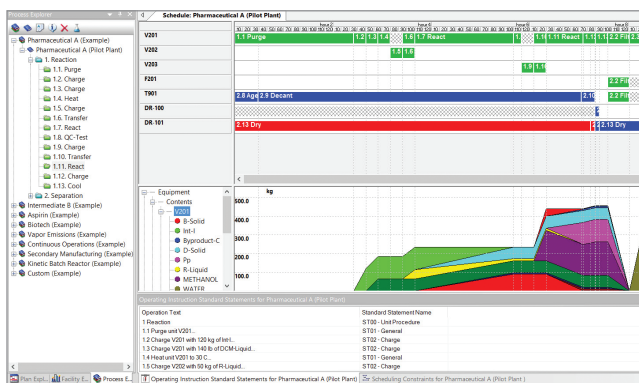
Visual batch schedule: Time profiles for equipment/services utilization and key data

Equipment diagram

Aspen Batch Process Developer documents the process recipe and automates route selection, enabling companies to accelerate R&D and process development. To learn more, please visit the **Aspen Batch Process Developer** product page.

AspenTech is a leading supplier of software that optimizes process manufacturing — for energy, chemicals, engineering and construction, and other industries that manufacture and produce products from a chemical process. With integrated aspenONE® solutions, process manufacturers can implement best practices for optimizing their engineering, manufacturing, and supply chain operations. As a result, AspenTech customers are better able to increase capacity, improve margins, reduce costs, and become more energy efficient. To see how the world's leading process manufacturers rely on AspenTech to achieve their operational excellence goals, visit **www.aspentech.com**.

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