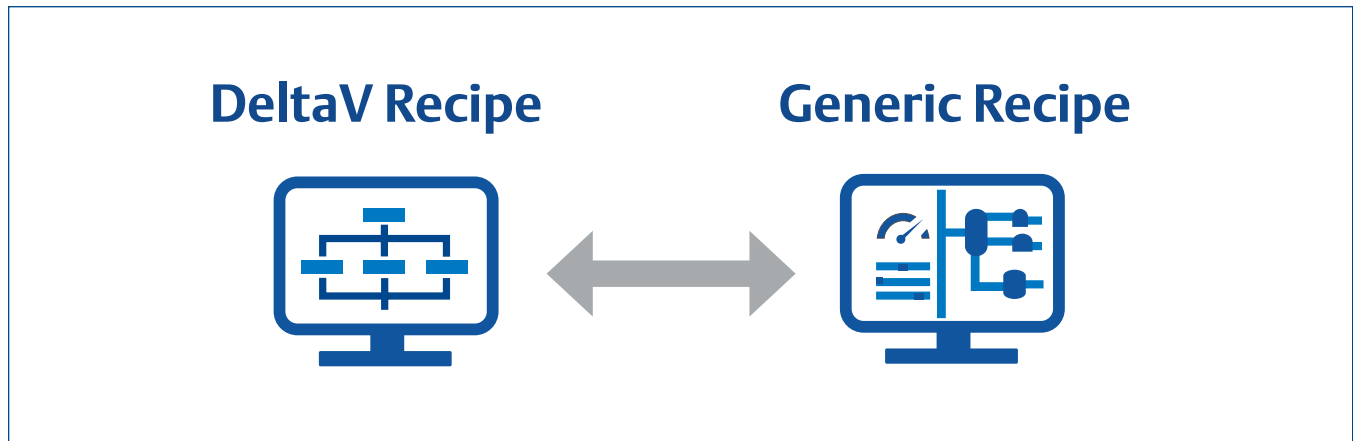# Recipe Exchange

DeltaV Recipe

Generic Recipe

Recipe Exchange provides an open interface for the import/export of DeltaV™ recipes.

- Open interface for import/export of DeltaV™ recipes using XML schema

- Supports all recipe levels

- Formula data may be imported independently or with recipes

- Service-Oriented Architecture Web Service enables easy integration to assign recipes and initiate downloads

Introduction

Recipe Exchange provides an open, programmatic interface to the DeltaV™ recipe management system. The Recipe Exchange interface is based on an XML schema that provides the ability to programmatically import and export DeltaV recipes.
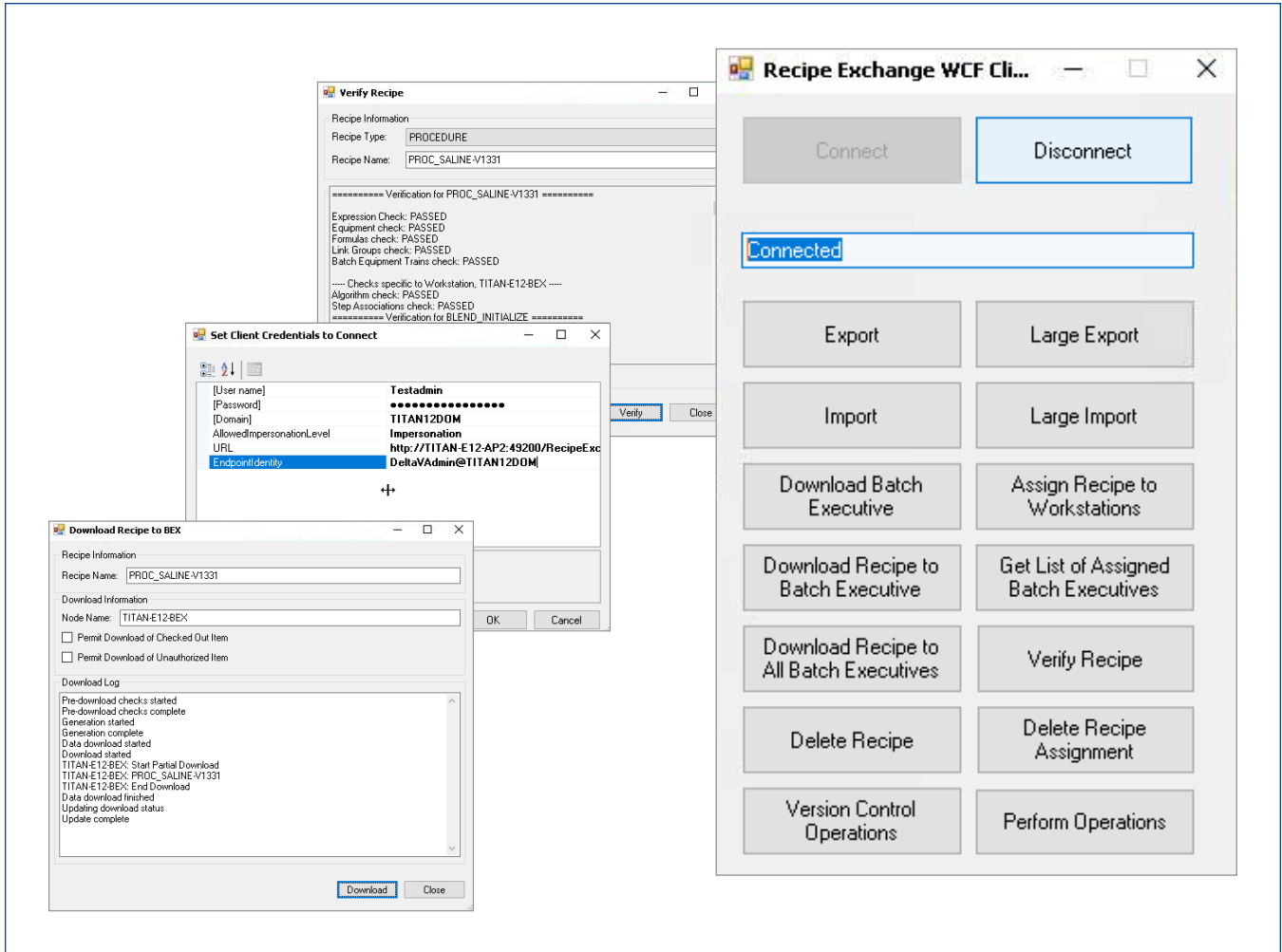
Benefits

Open interface for import/export of DeltaV recipes using XML schema. The recipe exchange XML schema gives you the freedom to create and maintain flexible recipe management tools for the import/export of DeltaV recipes.

Supports all recipe levels. Recipes, including procedures, unit procedures, operations, and formulas are supported.

Formula data may be imported independently or with recipes. The recipe exchange XML schema allows formula data to be imported independently or with recipes. For example, large and complex formulas can be created or edited with other applications and then imported into DeltaV.

Service-Oriented Architecture Web Service enables easy integration to assign recipes and initiate downloads. The Recipe Exchange SOA Web Service provides the ability to programmatically assign recipes and initiate the download to one or more Batch Executives.

Sample applications that can be created and customized.

Product Description

Recipe Exchange provides you with everything you need to build your own recipe development and management tools. Development time is reduced with the provided XML schema and SOA Web Service.

This allows you to use other productivity enhancing or custom application tools for creating DeltaV recipes (procedures, unit procedures, operations, & formulas). For example, by creating your own recipe management tool, you can import recipes created by a batch process modeling package directly into DeltaV.

Some customers prefer to develop general recipes that are equipment independent for use at different manufacturing sites. Using your recipe management tools, the general recipes could be imported at specific sites and customized to meet their needs, reducing the overall recipe development effort. Recipes could also be shared among different sites.

Recipe Exchange provides an SOA Web Service to programmatically assign recipes and initiate the download to one or more Batch Executives. For example, an MES or ERP system could be programmed to assign and download recipes based on production requirements.

Programming Considerations

Remember that any external recipe management application that you construct will ultimately need to supply the same data as the vendor's does. This may impact the scope and effort required to develop your recipe management application. The ability of your organization to undertake a software development project should be considered.

Moving recipes between different systems and manufacturing sites may create a variety of new validation issues that should be evaluated.

Example of exchanging recipe information with Syncade.

Ordering Information

Recipe Exchange is included in the following DeltaV Batch software suite:

Description	Model number
DeltaV Professional Batch	VE2236Sxxxxx
	VE2240Sxxxxx
	VE2249Syyyyy

Where yyyyy is equal to the total number of class-based Unit Modules configured under Process Cells in the system.
Yyyyy is available in sizes of 2 Units, 5 Units, 10 Units, 20 Units, 30 Units, 50 Units, 75 Units, 100 Units, 150 Units, 300 Units, and >300 Units.

*For additional information on the DeltaV Batch software suites, refer to the DeltaV Batch Software Suites product data sheet.

Related Products

■ **DeltaV Batch Software Suites.** Basic, Advanced, and Professional Batch software suites provide the DeltaV Batch software needed to operate, historize, and integrate your systems.

■ **Advanced Unit Management Software.** Provides class-based Unit Modules and aliasing to make developing unit-relative equipment strategies simple.

■ **Recipe Studio.** Powerful yet simple to use application for graphically configuring recipes (with formulas) for successful batch production.

■ **Batch Executive.** The batch engine which coordinates all batch processing activity, creates detailed batch history records and schedules recipes and resources.

■ **Batch Historian.** Automatically collects and stores batch recipe execution data from the DeltaV Batch Executive and process alarm and event data from the DeltaV Event Chronicle.

■ **Campaign Manager.** Creates and manages a campaign by specifying the recipe, formula, equipment, and number of batches that are to be run within the campaign. A Service-Oriented Architecture Web Service is available to enable production-scheduling packages to initiate the creation of campaigns in the DeltaV system.

■ **Batch Analytics.** Detects faults and predicts end of batch quality in real time using multi-variate models based on historical batch data.

■ **Batch Redundancy.** Enables redundant DeltaV Batch capabilities for the Batch Executive and Campaign Manager, including automatic switchover to protect your batch operations from disruptions.

■ **DeltaV Discovery.** Provides control and monitoring of Life Science laboratory applications in a single DeltaV workstation.

■ **DeltaV Live.** Emerson's modern, built-for-purpose operator interface. DeltaV Live delivers a high performance HTML5-based operations experience and simplified graphics configuration, all in an intuitive and customizable format with out-of-the-box simplicity.

■ **DeltaV Operate.** High performance operator graphics, trends and alarms offered in standard operating layouts and utilizing system-wide built-in security.

■ **Syncade™ Smart Operations Management Suite.** A new class of real-time production management software, provides an easy, flexible, integrated solution that increases plant performance by efficiently managing plant materials and equipment, coordinating production operations, improving quality operations and integrating plant information.

Prerequisites

- One ProfessionalPLUS Station is required for each DeltaV system. Refer to the ProfessionalPLUS Station Software Suite Product Data Sheet.

- The Advanced Unit Management software control license is required. Refer to the Advanced Unit Management Software Product Data Sheet.

- A minimum of 1 DeltaV Batch Executive is required. Refer to the Batch Executive Product Data Sheet for details.

- The DeltaV Professional Software suite is required. Please refer to the Batch Software Suite Product Data Sheet.

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