

# Recipe Exchange

The screenshot displays the DeltaV Recipe Studio interface. On the left, a tree view shows the recipe structure for 'DEMO\_LOCK\_PARAM'. The central area features a flowchart starting with 'START', leading to 'BEGIN PROCEDURE EXECUTION', which then branches into three parallel 'UP\_FILL\_FEED\_TK' steps (TK:1, TK:2, TK:3), followed by a 'WAIT UNTIL FEED TANKS' step. On the right, a vertical stack of four blue boxes with white text labels the hierarchy: 'Procedure' (top), 'Unit Procedure', 'Operation', and 'Phase' (bottom). Below the flowchart is a table of parameters.

Parameter	Description	HIGH MAT
AGITATE_TIME	Agitation Time	15
MAT1_AMOUNT	Amount of Feed Tank 1 Material to Charge to Prep Tank	144.000000
MAT2_AMOUNT	Amount of Feed Tank 2 Material to Charge to Prep Tank	20.000000
MAT3_AMOUNT	Amount of Feed Tank 3 Material to Charge to Prep Tank	20.000000
OPER_PROMPTS	Issue Prompt for Agitation Time	<0>
PREP_TK	Name of Prep Tank Being Used	<0>
SYNCODE	Indicates Whether Syncode is Being Used or Not	<False>
TK1_LEVEL	Feed Tank 1 Fill Level	<700.000000
TK2_LEVEL	Feed Tank 2 Fill Level	<450.000000
TK3_LEVEL	Feed Tank 3 Fill Level	<450.000000
WTR_AMOUNT	Amount of Water to Charge to Prep Tank	100

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.

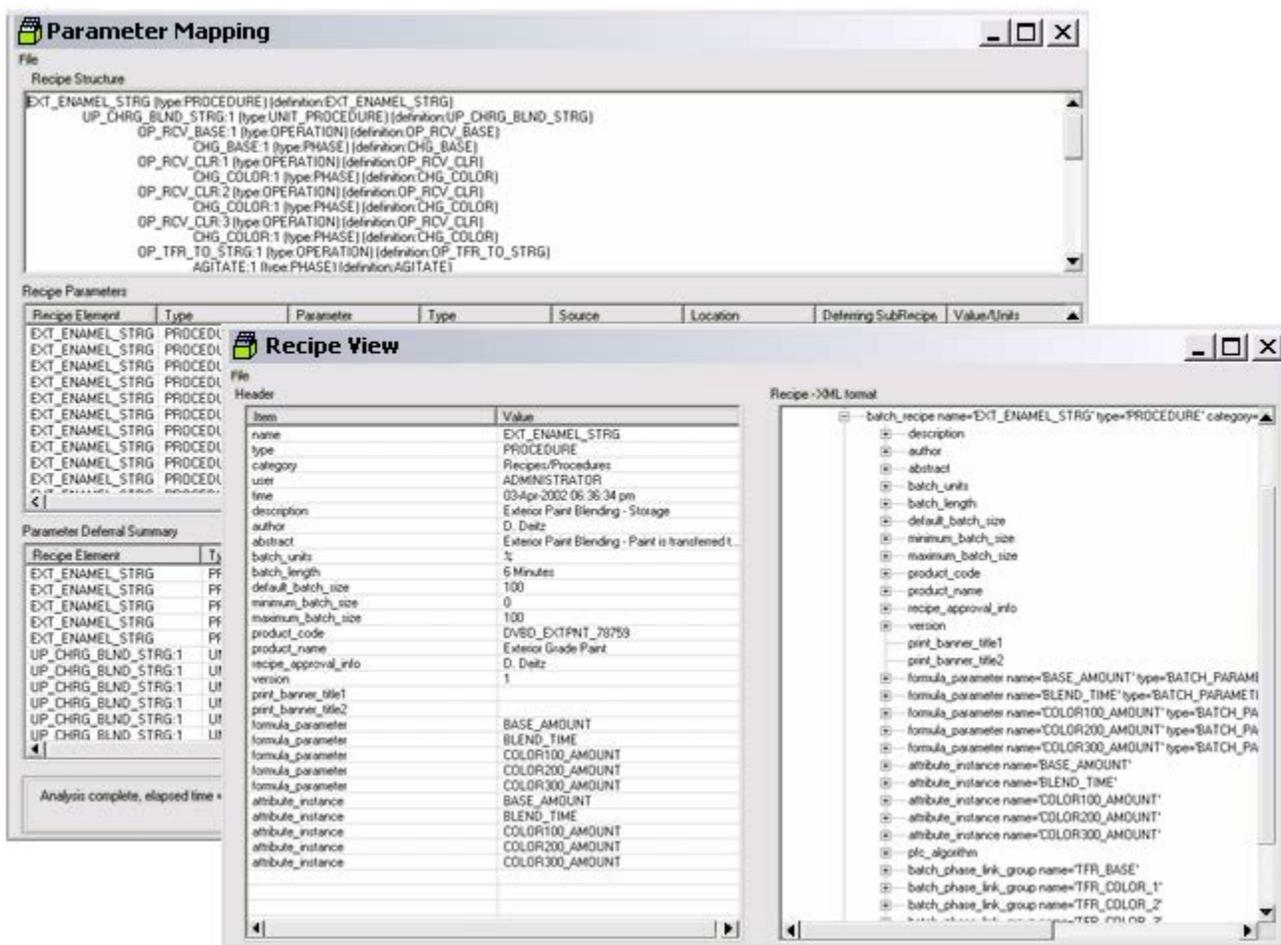
**Benefits**

**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.



Example application developed using provided XML schema.

### 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.

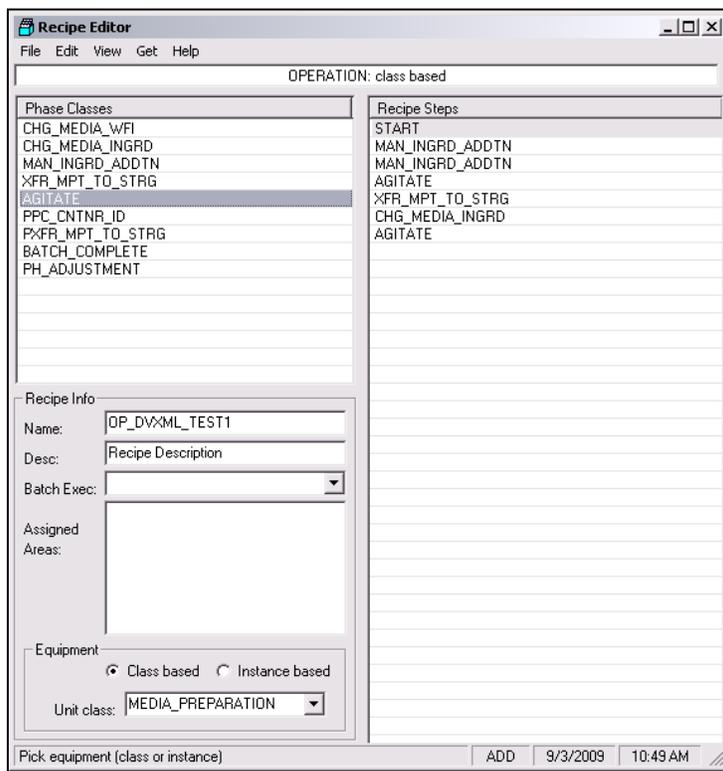
### Programming Considerations

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.

### System Compatibility

The Recipe Exchange Service-Oriented Architecture Web Service is compatible with DeltaV v10.3 and later.



Allows users to develop tools for importing recipes created by other systems.

## Ordering Information

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

Description	Model Number		
	pre-v9.3	v9.3 through v11.3	v12.3 and later
DeltaV Professional Batch*	VE2236Sxxxxx	VE2240Sxxxxx	VE2249Syyyyy

Where xxxxx is equal to the total number of batch DSTs in the system. xxxxx is available from 250 to 30,000 DSTs in 250-DST increments.

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 Basic Batch, DeltaV Advanced Batch, and DeltaV Professional Batch product data sheets.

## Related Products

- **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.
- **Batch Analytics.** Detects faults and predicts end of batch quality *in real time* using multi-variate models based on historical batch data.
- **Recipe Studio.** Powerful yet simple to use application for graphically configuring recipes (with formulas) for successful batch production.

- **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.
- **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

- A DeltaV ProfessionalPLUS Station on a system licensed at the Professional Batch level.

To locate a sales office near you, visit our website at:

[www.EmersonProcess.com/DeltaV](http://www.EmersonProcess.com/DeltaV)

Or call us at:

Asia Pacific: 65.6777.8211

Europe, Middle East: 41.41.768.6111

North America, Latin America: +1 800.833.8314 or  
+1 512.832.3774

For large power, water, and wastewater applications

contact Power and Water Solutions at:

[www.EmersonProcess-powerwater.com](http://www.EmersonProcess-powerwater.com)

Or call us at:

Asia Pacific: 65.6777.8211

Europe, Middle East, Africa: 48.22.630.2443

North America, Latin America: +1 412.963.4000

© Emerson Process Management 2013. All rights reserved. For Emerson Process Management trademarks and service marks, go to: <http://www.emersonprocess.com/home/news/resources/marks.pdf>.

The contents of this publication are presented for informational purposes only, and while every effort has been made to ensure their accuracy, they are not to be construed as warranties or guarantees, express or implied, regarding the products or services described herein or their use or applicability. All sales are governed by our terms and conditions, which are available on request. We reserve the right to modify or improve the design or specification of such products at any time without notice.

