

Using Recipes

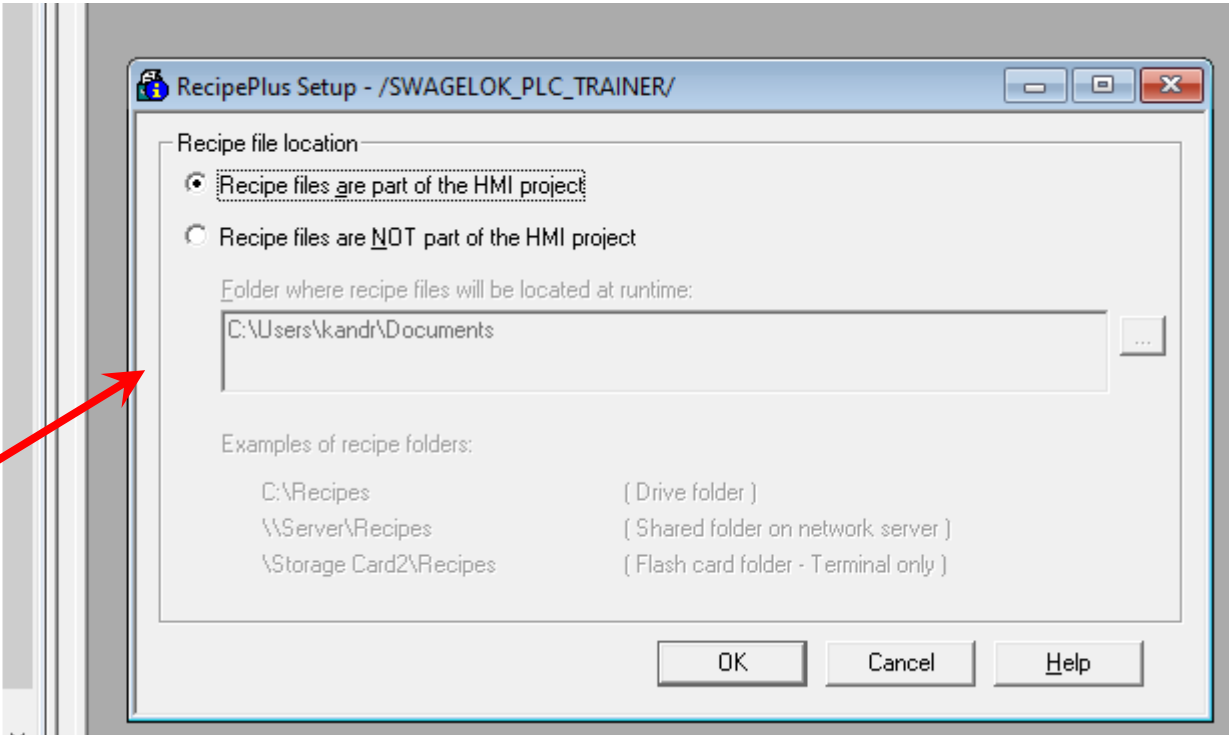
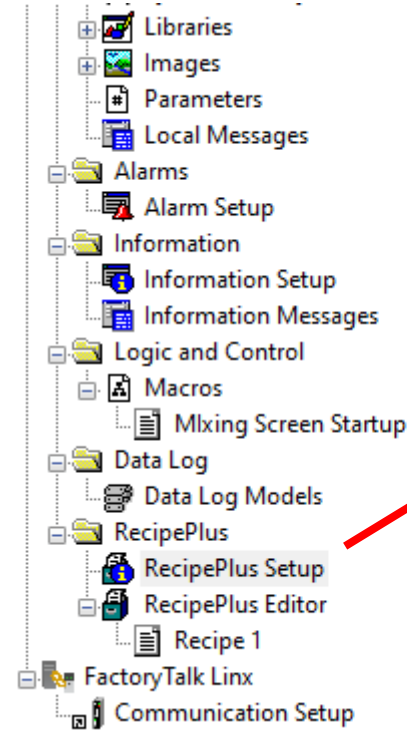
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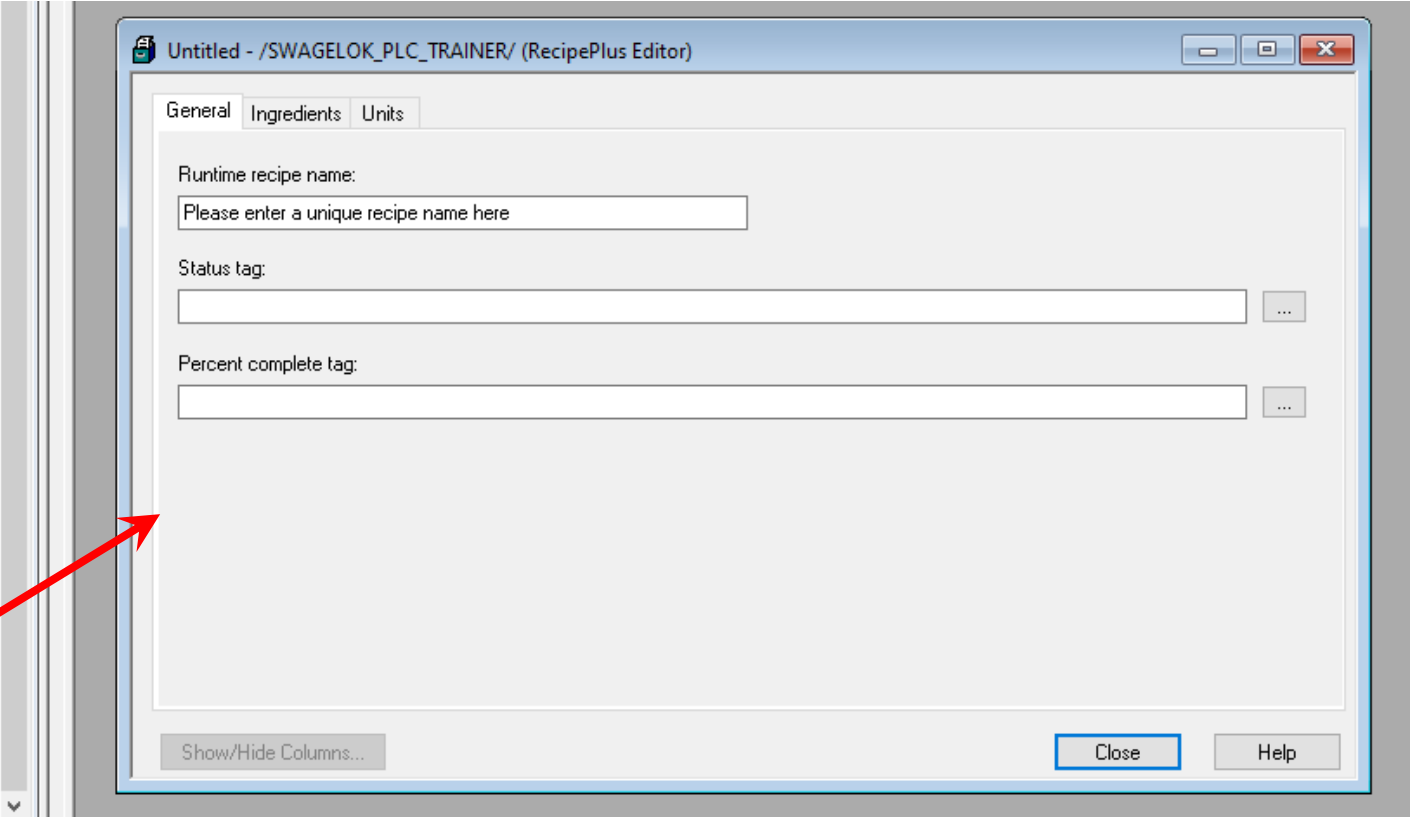
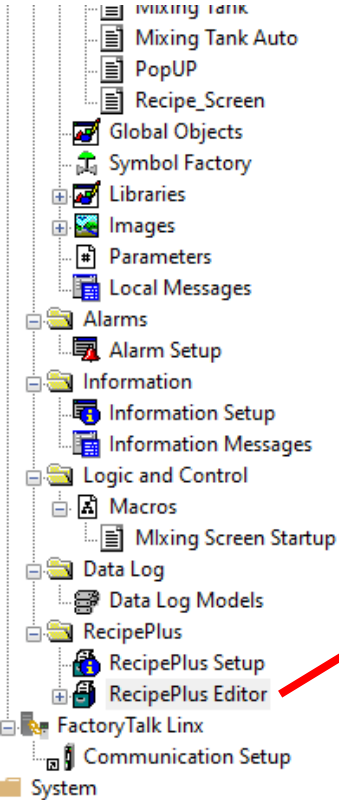
Set up RecipePlus

- A recipe is a set of numeric and string data values (ingredients) that can be downloaded to their associated tags at the data source.
- Each ingredient has a pre-set data value assigned to it.
- The set of data values for all the ingredients in a recipe is called a **data set**.
- The set of numeric and string tags assigned to the ingredients in the recipe is called a **tag set**.
- The ingredients, data sets, and tag sets are stored together in a recipe file.

RecipePlus Setup



RecipePlus Editor



RecipePlus Editor

Recipe 1 - /SWAGELOK_PLC_TRAINER/ (RecipePlus Editor)

General Ingredients Units

Runtime recipe name:
Reactor Recipe

Status tag:
StatusTag

Percent complete tag:
PercentCompleteTag

Show/Hide Columns...

Tags - /SWAGELOK_PLC_TRAINER/

Tag

Name: Conveyor_Box_Display_Time

Type: Analog

Description:

Minimum: 0 Scale: 1

Maximum: 10000 Offset: 0 Data Type: Long Integer

Data Source

Type: Device Memory

Address: [PLC]Box_Display_Timer.PRE

Search For:	Tag Name	Type	Description
	1 Conveyor_Box_Display_Time	Analog	
	2 Min_Tag	Analog	Minimum tag setting
	3 Min_Temp_Tag	Analog	
	4 PercentCompleteTag	Analog	
	5 Reactor_Temp_Set_point	Analog	
	6 Reactor_Temp_Tag	Analog	
	7 StatusTag	Analog	

RecipePlus Editor – Data Sets

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Different Sets of
Values for
Ingredients
(Recipes)

The screenshot shows the RecipePlus Editor window titled "Recipe 1 - /SWAGELOK_PLC_TRAINER/ (RecipePlus Editor)". It has three tabs: "General", "Ingredients", and "Units". The "Ingredients" tab is active, displaying a table with the following data:

#	Ingredient	Type	Min	Max	(Data Set) Data Set 1	(Data Set) Data Set 2	(Tag Set) Tag Set 1
1	% of Mat'l A	Number	0	100	60	35	::[PLC]Progra
2	% of Mat'l B	Number	0	100	40	65	::[PLC]Progra
3	Set Reaction Temp	Number	72	150	80	85	::[PLC]Progra
4		Number					

At the bottom of the window, there are three buttons: "Show/Hide Columns...", "Close", and "Help".

RecipePlus Editor - UNITS

The screenshot shows the 'Units' tab in the RecipePlus Editor. The table contains the following data:

Unit Name	Data Set	Tag Set
Polymer 1	Data Set 1	Tag Set 1
Polymer 2	Data Set 2	Tag Set 1

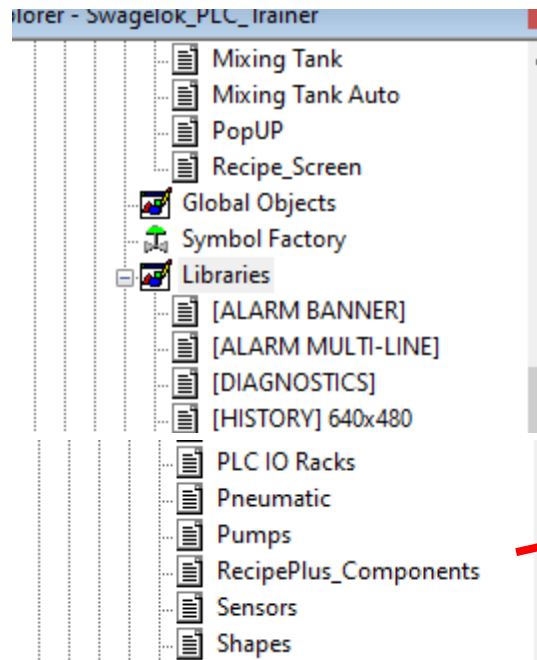
Three red arrows point from text boxes to the table:

- An arrow points from the box "Individual Recipe Names" to the 'Unit Name' column.
- An arrow points from the box "Different ingredients values for each individual recipe" to the 'Data Set' column.
- An arrow points from the box "Same PLC Tags for each individual recipe" to the 'Tag Set' column.

Buttons on the right side of the window include "Insert...", "Edit...", and "Delete". At the bottom, there are buttons for "Show/Hide Columns...", "Close", and "Help".

Recipe Screen – Get from Libraries and copy into a Display that you make

Swagelok



RecipePlus_Components - /SWAGELOK_PLC_TRAINER// (Library)

Recipe Selection

Recipe	Unit
recipe recipe re*	unit unit unit unit
recipe recipe re*	unit unit unit unit
recipe recipe re*	unit unit unit unit
recipe recipe re*	unit unit unit unit
recipe recipe re*	unit unit unit unit
recipe recipe re*	unit unit unit unit
recipe recipe re*	unit unit unit unit
recipe recipe re*	unit unit unit unit
recipe recipe re*	unit unit unit unit
recipe recipe re*	unit unit unit unit

Recipe Status:

Save with errors!

Recipe Buttons

- Download
- Upload
- Upload and Create
- Save
- Restore
- Delete
- Rename

Recipe Table

Ingredient	Current	Recipe	Compare	Tag Name
ingredient	123456	123456	X	tag
ingredient	123456	123456	X	tag
ingredient	123456	123456	X	tag
ingredient	123456	123456	X	tag
ingredient	123456	123456	X	tag
ingredient	123456	123456	X	tag
ingredient	123456	123456	X	tag
ingredient	123456	123456	X	tag
ingredient	123456	123456	X	tag
ingredient	123456	123456	X	tag
recipe : unit : nnnn : nnnn				

Group all objects, then copy and paste into new display

Recipe Display – Scale to fit display & rearrange as desired & enter other buttons as needed

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The screenshot shows a software interface titled "Recipe_Screen - /SWAGELOK_PLC_TRAINER// (Display)". The interface is divided into several sections:

- Top Left:** A list of recipes with columns for "Recipe" and "Unit". The list contains 8 rows of "recipe recipe re*" and "unit unit unit unit".
- Top Center:** A "Recipe Status" section with a green progress bar and a blue box containing the text "Save with errors!".
- Top Right:** A vertical stack of buttons: "Download", "Upload", "Return to Auto Mode Display" (highlighted in blue), "Delete", and "Rename".
- Bottom Section:** A header row with buttons "Upload and Create", "Recipe Table", "Restore", and "Save". Below this is a table with three columns: "Ingredient", "Current", and "Recipe".

Ingredient	Current	Recipe
ingredient	123456	123456
ingredient	123456	123456
ingredient	123456	123456
ingredient	123456	123456
ingredient	123456	123456
ingredient	123456	123456
ingredient	123456	123456
ingredient	123456	123456
ingredient	123456	123456
recipe : unit : nnnn : nnnn		

Recipe Screen Running



The screenshot shows a software interface for managing recipes. At the top left, a window title bar reads "Recipe_Screen - /SWAGELOK_PLC_TRAINER// (Display)".

The main interface is divided into several sections:

- Recipe List:** A table with two columns: "Recipe" and "Unit". It contains two entries: "Reactor Recipe" and "Polymer 1", and "Reactor Recipe" and "Polymer 2". The first entry is highlighted in blue. To the right of this list are four arrow keys (up, down, left, right) for navigation.
- Recipe Status:** A section with a "Recipe Status" label and a large empty area below it.
- Control Buttons:** A vertical stack of buttons on the right side: "Download", "Upload", "Return to Auto Mode Display" (highlighted in blue), "Delete", and "Rename".
- Recipe Table:** A table at the bottom with three columns: "Ingredient", "Current", and "Recipe". It has several empty rows. Above the table are buttons for "Upload and Create", "Restore", and "Save".

Download Recipe Values to PLC

Upload Recipe Value currently on PLC

Use these keys to highlight desired recipe (unit)

Click to load/display/restore Recipe Values to Recipe Table

Recipe Screen Running

The screenshot shows a software interface for managing recipes. At the top left, a list of recipes is displayed with columns for 'Recipe' and 'Unit'. Below this, a 'Recipe Status' section shows a green bar and the text 'Restore successful'. To the right, a vertical stack of buttons includes 'Download', 'Upload', 'Return to Auto Mode Display', 'Delete', and 'Rename'. The main part of the screen is a 'Recipe Table' with columns for 'Ingredient', 'Current', and 'Recipe'. Below the table, the current recipe unit is shown as 'Reactor Recipe : Polymer 1 : 3 : 3'.

Recipe	Unit
Reactor Recipe	Polymer 1
Reactor Recipe	Polymer 2

Ingredient	Current	Recipe
% of Mat'l A	35	60
% of Mat'l B	65	40
Set Reaction Temp	85	80

Reactor Recipe : Polymer 1 : 3 : 3

To move these recipe values down to PLC – Download them

Recipe values saved to recipe Unit

Values currently loaded on PLC

Recipe Unit Currently loaded in Recipe Table

Recipe Screen Running

Swagelok

The screenshot shows a software interface for managing recipes. At the top left, a list of recipes is displayed:

Recipe	Unit
Reactor Recipe	Polymer 1
Reactor Recipe	Polymer 2

To the right of this list are several control buttons: Download, Upload, Return to Auto Mode Display, Delete, and Rename. A red box highlights the 'Download' button with the text: "To move these recipe values down to PLC – Download them".

Below the recipe list is a 'Recipe Table' section. It contains a table with the following data:

Ingredient	Current	Recipe
% of Mat'l A	35	60
% of Mat'l B	65	40
Set Reaction Temp	85	80

Annotations for the 'Recipe Table' include:

- A red box pointing to the 'Recipe' column with the text: "Recipe values saved to recipe Unit".
- A red box pointing to the 'Current' column with the text: "Values currently loaded on PLC".
- A red box pointing to the bottom of the table with the text: "Recipe Unit Currently loaded in Recipe Table".

Other interface elements include a 'Restore successful' message, a 'Recipe Status' indicator, and buttons for 'Upload and Create', 'Restore', and 'Save'.

After Downloading, click “Restore” to see values in Table

Swagelok

The screenshot shows a software interface for managing recipes. At the top, a window titled "Recipe_Screen - /SWAGELOK_PLC_TRAINER// (Display)" contains a list of recipes:

Recipe	Unit
Reactor Recipe	Polymer 1
Reactor Recipe	Polymer 2

Below the list, a "Recipe Status" section shows a green progress bar and a "Restore successful" message. To the right are buttons for "Download", "Upload", "Return to Auto Mode Display", "Delete", and "Rename".

The main area features a "Recipe Table" with the following data:

Ingredient	Current	Recipe
% of Mat'l A	60	60
% of Mat'l B	40	40
Set Reaction Temp	80	80

At the bottom, a status bar displays "Reactor Recipe : Polymer 1 : 3 : 3". A red text box with arrows pointing to the 'Current' and 'Recipe' columns contains the text: "After downloading and restore, values match".

To Create a new Recipe Unit, click on “Upload and Create” & enter new name

Swagelok

Recipe Screen - /SWAGelok_PLc_TRAINER// (Display)

Recipe	Unit
Reactor Recipe	Polymer 1
Reactor Recipe	Polymer 2

Enter new unit name:

Unit 1

Upload and Create

Ingredient	Current	Recipe
% of Mat'l A	60	60
% of Mat'l B	40	40
Set Reaction Temp	80	80

Reactor Recipe : Polymer 1 : 3 : 3

Polymer 3

SHF CAP INS SPACE << >> ESC CLR ← ↵

To enter values for new recipe...

Swagelok

The screenshot shows the 'Recipe_Screen' interface. At the top left, a list of recipes is shown with columns for 'Recipe' and 'Unit'. The third item, 'Reactor Recipe Polymer 3', is selected. To the right of this list are navigation arrows. In the center, a 'Recipe Status' section shows a green bar and the text 'Upload and Create successful'. On the right side, there are buttons for 'Download', 'Upload', 'Return to Auto Mode Display', 'Delete', and 'Rename'. Below these, there are buttons for 'Upload and Create', 'Recipe Table', 'Restore', and 'Save'. The 'Recipe Table' is a table with three columns: 'Ingredient', 'Current', and 'Recipe'. The first three rows are filled with data: '% of Mat'l A' (60, 60), '% of Mat'l B' (40, 40), and 'Set Reaction Temp' (80, 80). The bottom of the screen shows 'Reactor Recipe : Polymer 1 : 3 : 3'. A red callout box with arrows pointing to the navigation arrows on the right side of the table contains the text: 'Use arrows to select ingredient, hit enter key and enter value'.

Ingredient	Current	Recipe
% of Mat'l A	60	60
% of Mat'l B	40	40
Set Reaction Temp	80	80

A close-up of a numeric keypad interface. At the top, a display shows the number '55'. Below the display, the text '0 ~ 100' is visible. The keypad consists of a grid of buttons: the first row has 7, 8, 9; the second row has 4, 5, 6; the third row has 1, 2, 3; the fourth row has a decimal point, 0, and a minus sign; the fifth row has ESC, a left arrow, and a right arrow. Two red arrows point from the keypad to the main interface: one points to the right arrow button and the other points to the right side of the 'Recipe Table'.

To save values to recipe unit...

The screenshot shows a software window titled "Recipe_Screen - /SWAGELOK_PLC_TRAINER// (Display)". It features a list of recipes on the left, a "Recipe Status" section in the middle, and a control panel on the right. Below these is a "Recipe Table" with columns for "Ingredient", "Current", and "Recipe". The "Save" and "Restore" buttons are highlighted with red arrows pointing to a text box.

Recipe	Unit
Reactor Recipe	Polymer 1
Reactor Recipe	Polymer 2
Reactor Recipe	Polymer 3

Recipe Status: [Green bar]

Upload and Create successful

Download
Upload
Return to Auto Mode Display
Delete
Rename

Upload and Create Recipe Table Restore Save

Ingredient	Current	Recipe
% of Mat'l A	60	60
% of Mat'l B	40	40
Set Reaction Temp	80	80

Reactor Recipe : Polymer 1 : 3 : 3

Press "Save" then, "Restore".
Download to controller if desired