

Recipe

Mini-Lab

Requirements

- MP3300iec Demo
 - Auto Screen is functional

Lab Overview

This lab document will guide the participant through the following steps:

- I. Define the Recipe (15 min)
- II. Create the Recipe Screen (15 min)
- III. Verify Operation - Use the Recipe (15 min)

Lab Goal

- Recipe screen will allow selection of several production mode parameter sets



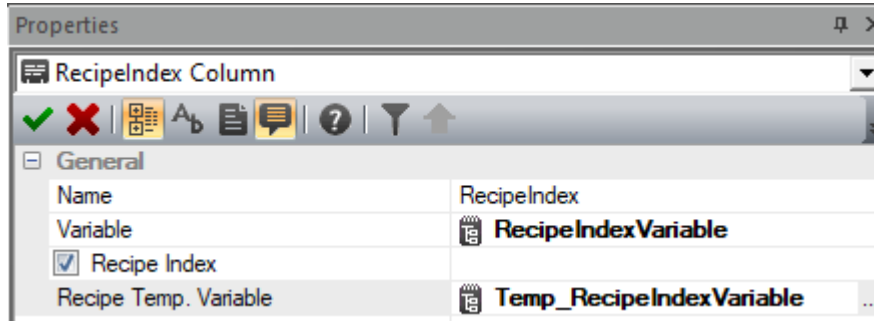
I. Define the Recipe

A. Add a new recipe

1. Project Explorer → Data Loggers and Recipes → right click “Add a new recipe”
2. Set Name `WidgetRecipes` in properties

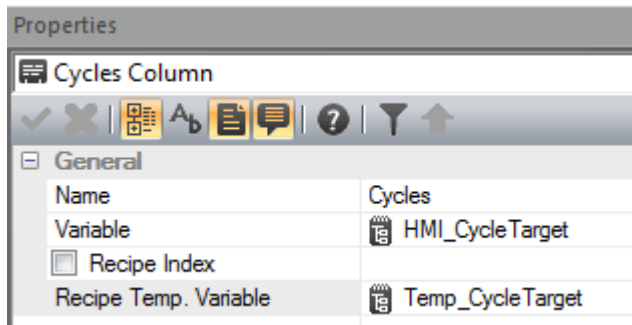
B. Define recipe index properties

1. Expand the recipe in Project Explorer → Data Loggers and Recipes → RecipeIndex → properties
2. Variable: Add a new variable named **RecipeIndexVariable** with datatype=string (right-click to change datatype)
3. Recipe Temp. Variable: Add a new variable named **Temp_RecipeIndexVariable** with datatype = string



C. Define recipe variables

1. In Project Explorer, right-click the recipe → add a new column
2. Name the column according to the input data in the Auto screen
 - i. ex: “Cycles”
3. Assign the MPiec variable from which to record the data
 - i. ex: **HMI_CycleTarget**
 - ii. note the datatype
4. Assign a local HMI variable for Recipe Temp. Variable with same datatype and similar name
 - i. ex: **Temp_CycleTarget**



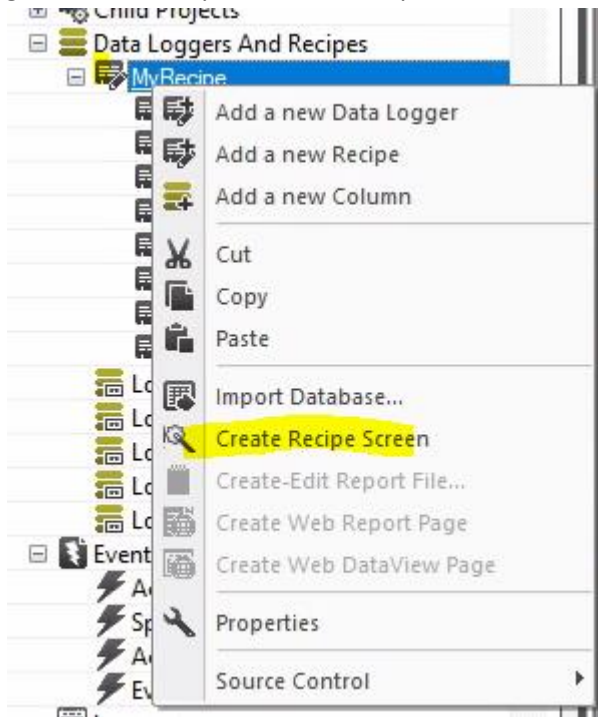
5. Repeat for each column of the recipe “ingredient list” in the training project
 - i. MoveVel
 - ii. AccDec
 - iii. X_MoveABSPos
 - iv. Y_MoveABSPos
 - v. Z_MoveABSPos
 - vi. Delay

II. Create the Recipe Screen

A. Check the recipe property "Save as CSV File"

1. WidgetRecipes → Properties → Database options → IMDB Historical Manager → Save as CSV File

B. Right-click the recipe → create recipe screen



1. This automatically-generated recipe screen could be used directly

C. Build the Recipe Screen

1. Copy/paste the buttons from WidgetRecipes to 5_Recipes screen
2. Copy/paste the text labels and EditText-Displays from 1_Auto screen to 5_Recipes screen
 - i. The generated text labels use a Windows CE system font format which cannot be adjusted in Movicon
 - ii. The generated EditText-Displays are not formatted for size, font, min/max, engineering unit
3. Format and align the objects to fit on the 5_Recipes screen
 - i. Use Layout → Object Alignment → Distribute Object Space
 - ii. Use Layout → Set Same...
 - iii. TIP: The order of selection determines the layout order from top to bottom
4. Replace the variable of each EditText-Display with the “Temp” variable
 - i. Refer to the automatically generated WidgetRecipes screen



III. Verify Operation - Use the Recipe

A. Press the Read button

1. Read brings the current data into the recipe screen temp data fields.
2. Change the data in the Auto screen.
3. Notice the data in the recipe screen does not match the Auto screen until after Read

B. Create a new recipe

1. In the drop-down, type a new name for the recipe, ie: "widget 1"
2. Save button writes the recipe data for widget 1

C. Type another recipe name, ie: "widget 2"

1. Change the data in the Auto screen
2. Read and Save

D. Go back to widget 1 and activate

1. Verify the data in the Auto screen matches the recipe

E. Export a recipe to CSV file (semicolon delimited)

1. Export saves the recipe temp data to a file
it is possible to navigate to USB flash drive
Only 1 recipe can be imported/exported at a time
2. Name the file according to the name of the recipe

F. Import a recipe from CSV file

1. Import brings in the csv file data to the temp data fields
2. Delete all the recipes
3. Import the CSV file
4. Enter the name of the recipe and save

End Of Mini-Lab

Troubleshooting Tips

- ☐ Confirm that the recipe variables are the correct datatype
- ☐ Confirm spelling errors using Refactoring Explorer

Certification Checklist

- ☐ Save one recipe by entering data on the recipe screen
- ☐ Save another recipe by import from the auto screen settings
- ☐ Load each recipe
- ☐ Export each recipe to CSV
- ☐ Delete all recipes then import from CSV

- IV. (Optional) Copy over the production data edit boxes from the Auto screen to the recipe screen for easy reference
- V. (Optional) Indicate whether or not the selected recipe matches current production settings
 - A. Dynamic Text or an indicator
 - B. Example below

Select / Enter Recipe

test1

Activate

Save

Delete

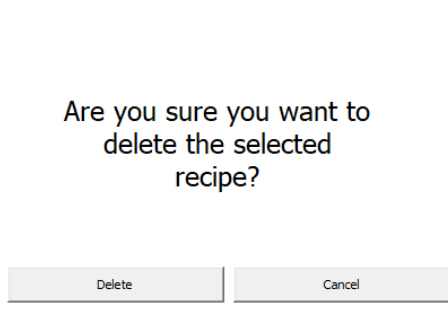
Read

	Recipe	Active
Cycles	4	5
Velocity	10.0 mm/s	10.0 mm/s
Acc/Dec	10 mm/s ²	20 mm/s ²
Pos X	70.0 mm	70.0 mm
Pos Y	110.0 mm	100.0 mm
Pos Z	60.0 mm	60.0 mm
Delay	0.002 s	0.002 s

- VI. (Optional) Prevent the user from changing the data in the temp variables. Instead, user must change the active values and read into the recipe.

VII. (Optional) Create a pop-up confirmation before recipe delete

A. Create a new screen named "Delete Recipe Confirm" (400 x 300)



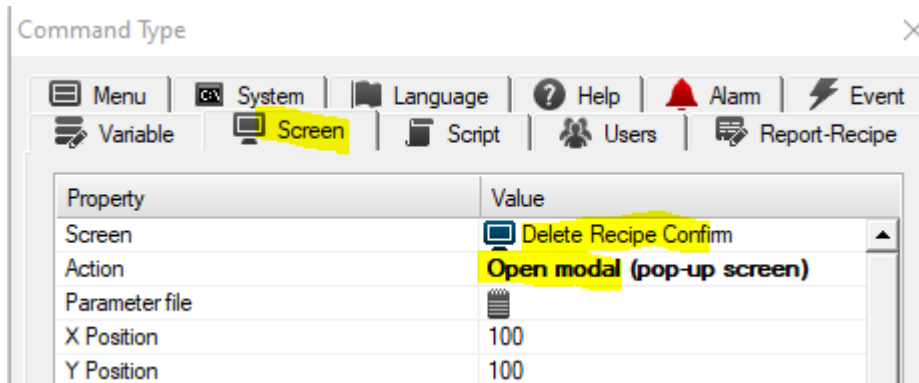
B. Cancel button

1. Execute Command: Screen → Close and Return Back

C. Delete Button

1. Copy/paste the Delete button from the recipe screen
2. Add the command: Screen → Close and Return Back

D. Change the command on the Delete button from the recipe screen to Open modal (pop-up screen)



VIII. (Optional) Try the Recipe Manager (Toolbox → Objects)