

DIView

Recipe management

朱明杰 杨阳

2020/04/24



Outline

- Recipe overview
- Recipe configuration
- Use of formula
- Recipe script

Purpose

After this chapter, you will learn...

- ... Basic operation and management of recipes
- ... The function of recipes and their scripts

Outline

- **Recipe overview**
- Recipe configuration
- Use of formula
- Recipe script

➤ What is recipe?

- In industrial production, a recipe is a prescription that provides a method for the product's ingredients and a proportion of materials used.
- In the DIAView configuration software is a collection of parameter values corresponding to variables in the production process. In the DIAView configuration software, you can view and maintain recipes through the **"Recipe Browser"** control, which is simple and efficient.



- Recipe overview
- **Recipe configuration**
- Use of formula
- Recipe script

➤ Recipe browser

	RecipeItemName	Flour(g)	Suger(g)	Egg(g)	Water(g)	Vanilla(g)	Redbean(g)
1	VanillaCake	50	10	10	30	20	0
2	RedBeanCake	10	10	30	0	20	50

Recipe Name:Recipe0

 All Detail about the selected recipe

 Change, switch columns and rows

 Add, Edit, Delete recipes

 Left: import recipe from xls
Right: export xls into recipe

 Switch between recipes

 Save the recipe browser to image

 Save the recipe changes

 Left: Write Recipe into Var.
Right: Write Var. into Recipe

➤ Recipe configuration

Recipe overview

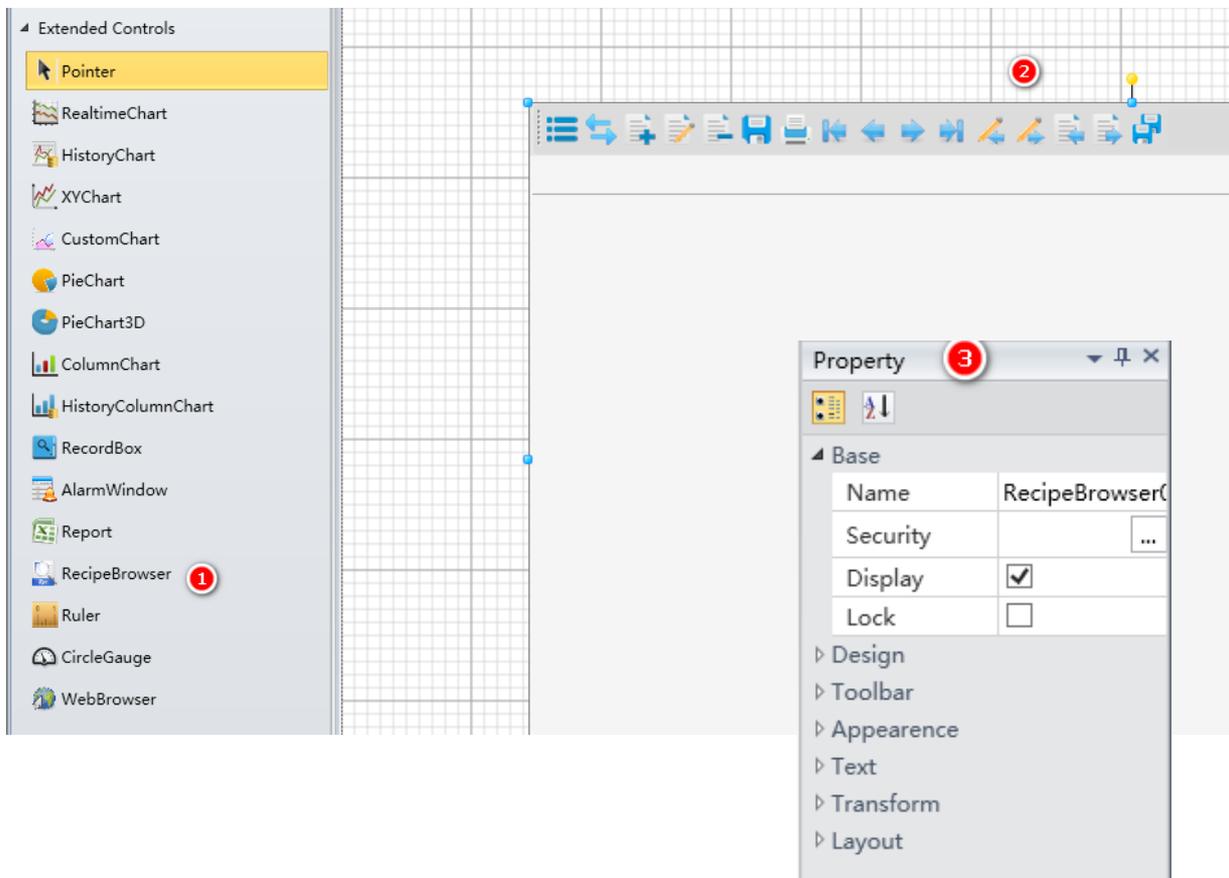
+ Add element ▾ Insert element ✖ Delete element Add item Insert item Delete item 📄 Import 📄 Export						
	Name	RecipeType	Associated variables	Description	VanillaCake	RedBeanCake
1	Flour	Analog	Var.Variable1	High quality flour	50	50
2	Suger	Analog	Var.Variable2	Crystal sugar	10	10

- **Add Element:** Add a recipe ingredient, the newly added recipe ingredient is displayed in the ingredient list in the recipe editing area
- **Insert Element:** Insert a recipe ingredient, the newly inserted recipe ingredient is displayed above the inserted recipe ingredient
- **Delete Element:** Delete a recipe ingredient
- **Add Item:** Add a formula item, the newly added formula item is displayed in the ingredient list in the formula editing area
- **Insert Element:** Insert a formula item, the newly inserted formula item is displayed in front of the inserted formula item
- **Delete Element:** Delete a recipe item
- **Import:** Import external recipe configuration files to improve recipe configuration efficiency
- **Export:** Recipe configuration information can be exported as an excel file, supporting xls and xlsx formats
- **Save:** Save recipe configuration

- Recipe overview
- Recipe configuration
- **Use of formula**
- Recipe script

➤ How to create a recipe browser?

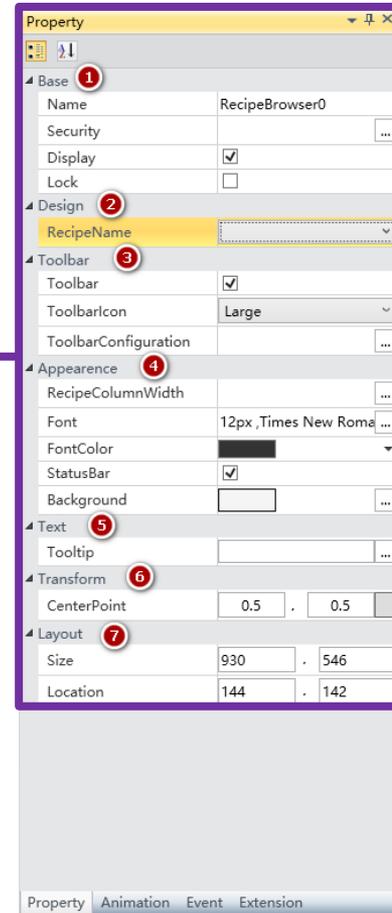
- ① Click on the recipe in the toolbar
- ② Drag to the desired position on the canvas
- ③ Configure recipe properties



The screenshot illustrates the steps to create a recipe browser in a software environment. On the left, the 'Extended Controls' panel lists various widgets, with 'RecipeBrowser' highlighted and marked with a red circle '1'. The central canvas shows a toolbar with a red circle '2' indicating the 'RecipeBrowser' icon being dragged to a position on the grid. On the right, the 'Property' window is open, showing the configuration for the 'RecipeBrowser' widget, with a red circle '3' highlighting the window title. The 'Property' window displays the following table:

Property	
Base	
Name	RecipeBrowserC
Security	...
Display	<input checked="" type="checkbox"/>
Lock	<input type="checkbox"/>
Design	
Toolbar	
Appearance	
Text	
Transform	
Layout	

- ① **Base:**
Basic properties, the same as other control graphics
- ② **Design:**
Design and set the recipe bound to the pe browser
- ③ **Toolbar :**The toolbar contains whether to display the toolbar, toolbar configuration and toolbar size display
- ④ **Appearance :**
Appearance can design formula color font background, etc.
- ⑤ **Text:**
Recipe prompt text information
- ⑥ **Transform:**
Contains the center point of the recipe control
- ⑦ **Layout:**
The size and position of the formula in the canvas can be adjusted by numerical values



The screenshot shows the 'Property' window for a 'RecipeBrowser0' control. The window is divided into several sections, each with a red circled number corresponding to the list on the left:

- Base (1):** Name: RecipeBrowser0, Security: ..., Display: , Lock:
- Design (2):** RecipeName: [dropdown menu]
- Toolbar (3):** Toolbar: , ToolbarIcon: Large, ToolbarConfiguration: ...
- Appearance (4):** RecipeColumnWidth: ..., Font: 12px, Times New Roma ..., FontColor: [black swatch], StatusBar: , Background: [white swatch], ...
- Text (5):** Tooltip: [text field], ...
- Transform (6):** CenterPoint: 0.5 . 0.5
- Layout (7):** Size: 930 . 546, Location: 144 . 142

At the bottom of the window, there are tabs for 'Property', 'Animation', 'Event', and 'Extension'.

➤ **Example: How to create a Recipe?**

- **Step 1: Create Recipe0** and add element(element means different kind of contents in one recipe)

Name	Recipe Type	Associated Variables	Description
1 Flour	Analog	Var.Recipe1	
2 Egg	Analog	Var.Recipe2	
3 Sugar	Analog	Var.Recipe3	
4 Water	Analog	Var.Recipe4	

- **Step 2: Add item means Add a different recipe, for example, here we added AppleCake & BananaCake, two kinds of recipes.**

Name	Recipe Type	Associated Variables	Description	AppleCake	BananaCake
1 Flour	Analog	Var.Recipe1		10	15
2 Egg	Analog	Var.Recipe2		20	25
3 Sugar	Analog	Var.Recipe3		30	35
4 Water	Analog	Var.Recipe4		40	45

- **The Final step:** Build the completed recipe and recipe browser binding.

Extended Controls-RecipeBrowser

RecipeItemName	Flour	Sugar	Egg	Water
1 AppleCake	10	30	20	40
2 BananaCake	15	35	25	45

Recipe Name:Recipe0 Recipe Item Count : 2 Recipe Element Count : 4

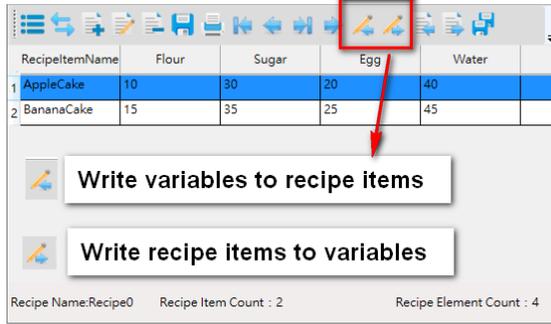
Property

Design

RecipeName Recipe0

Property Animation Event Extension

Recipe Browser at Runtime

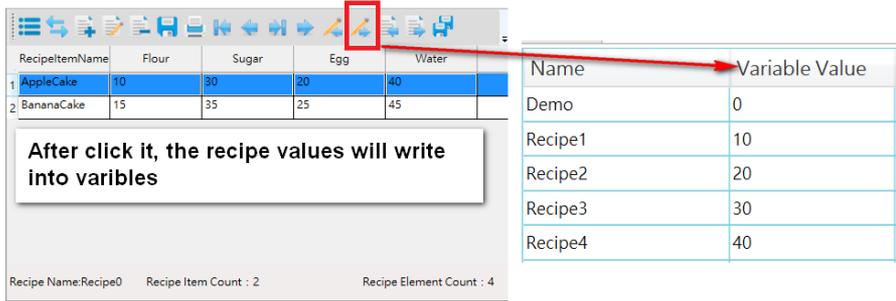


RecipeItemName	Flour	Sugar	Egg	Water
1 AppleCake	10	30	20	40
2 BananaCake	15	35	25	45

Write variables to recipe items

Write recipe items to variables

Recipe Name:Recipe0 Recipe Item Count : 2 Recipe Element Count : 4

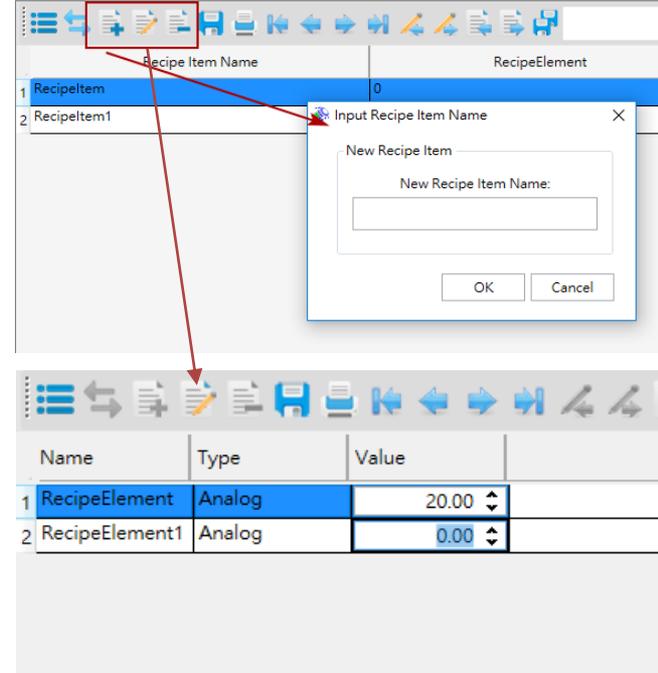


RecipeItemName	Flour	Sugar	Egg	Water
1 AppleCake	10	30	20	40
2 BananaCake	15	35	25	45

After click it, the recipe values will write into variables

Name	Variable Value
Demo	0
Recipe1	10
Recipe2	20
Recipe3	30
Recipe4	40

Recipe Name:Recipe0 Recipe Item Count : 2 Recipe Element Count : 4



RecipeItemName	RecipeElement
1 RecipeItem	0
2 RecipeItem1	

Input Recipe Item Name

New Recipe Item

New Recipe Item Name:

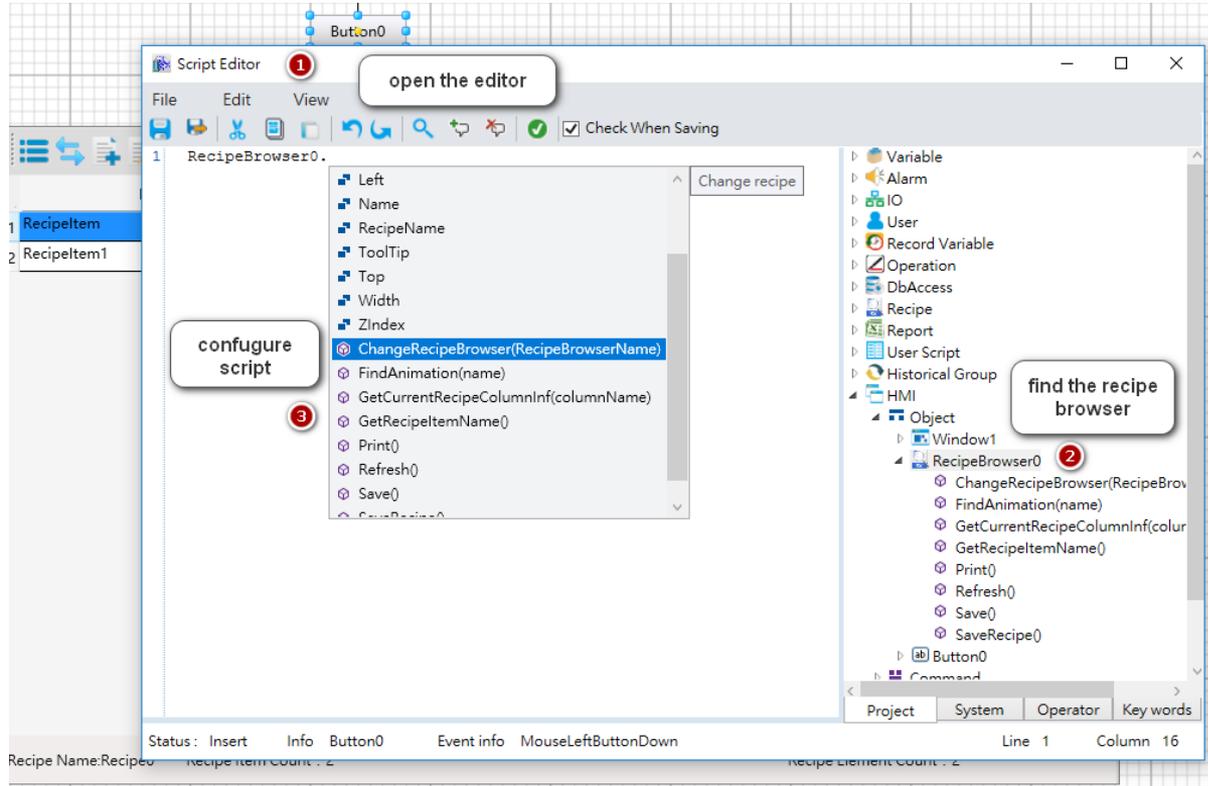
OK Cancel

Name	Type	Value
1 RecipeElement	Analog	20.00
2 RecipeElement1	Analog	0.00

Write variables to recipe items

Add, delete or change recipe items and recipe element.

Recipe events



The screenshot displays the Script Editor window for a control script. The main editor area shows the script for the RecipeBrowser0 control, with the following methods listed:

- Left
- Name
- RecipeName
- ToolTip
- Top
- Width
- ZIndex
- ChangeRecipeBrowser(RecipeBrowserName)** (highlighted)
- FindAnimation(name)
- GetCurrentRecipeColumnInfo(columnName)
- GetRecipeItemName()
- Print()
- Refresh()
- Save()
- SaveRecipe()

Annotations on the screenshot include:

- 1** (in a red circle) pointing to the Script Editor title bar, with a callout box saying "open the editor".
- 2** (in a red circle) pointing to the RecipeBrowser0 object in the Object Explorer, with a callout box saying "find the recipe browser".
- 3** (in a red circle) pointing to the ChangeRecipeBrowser method in the script list, with a callout box saying "configure script".

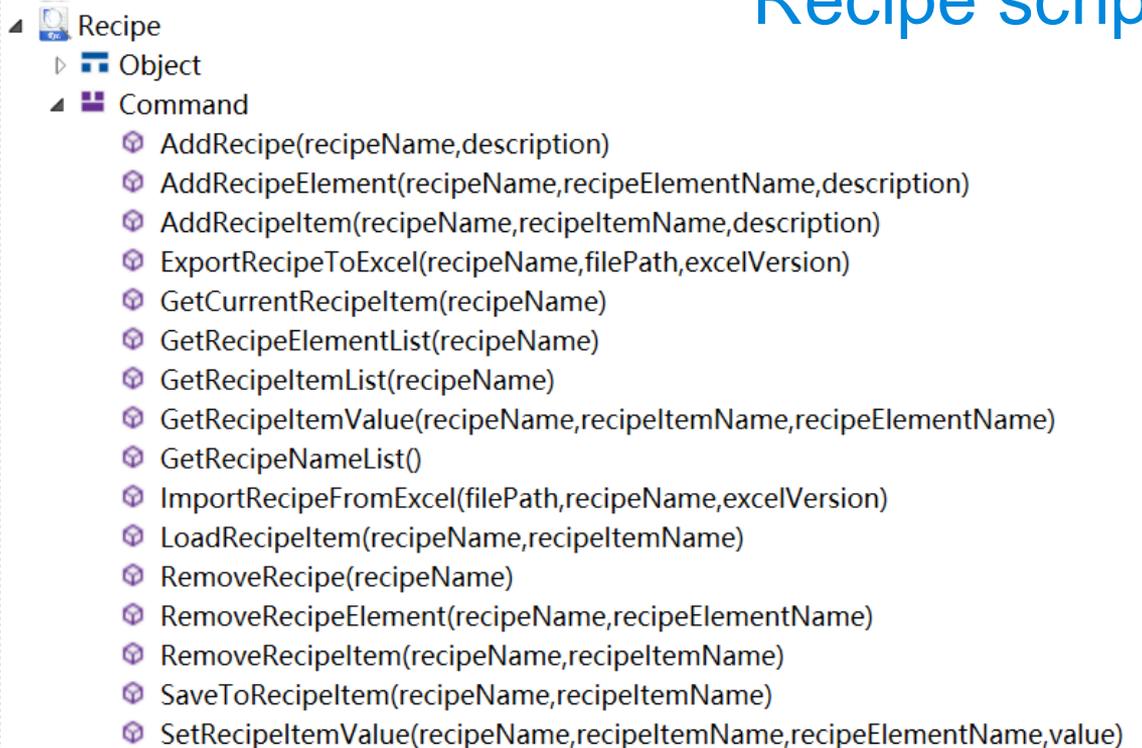
The status bar at the bottom indicates: Status: Insert Info Button0 Event info MouseLeftButtonDown Line 1 Column 16.

✘ The recipe browser control script can refer to the user manual Ch20.3

- Recipe overview
- Recipe configuration
- Use of formula
- **Recipe script**

➤ Recipe script

- When users configure window button events, screen programs, and user program scripts, the software provides simple and easy-to-use script properties and methods to complete some special tasks and functions.



Recipe script

✘ For basic operation instructions of recipe script, please refer to the user manual "20.3 Script Syntax and Functions → Programming Model → Recipe".

Smarter. Greener. Together.

To learn more about Delta, please visit www.deltaww.com.

