# 24. Recipe Editor

This chapter explains how to use Recipe Editor.

24.1.	Overview	24-2
24.2.	Recipe / Extended Memory Editor Setting	24-2
24.3.	Recipe Database Settings	24-4



# 24.1. Overview

Recipe Editor is used to create, view, and edit recipe data.

EasyBuilder Pro also provides another tool for editing recipe: Recipe Records. To use this tool; first define a recipe in EasyBuilder Pro [Data/History] » [Recipe Database] tab, and then use [Recipe View Object] to display the content. The following introduces the usage of these two editing tools.

# 24.2. Recipe / Extended Memory Editor Setting

- 1. Open Utility Manager and click [Recipe/Extended Memory Editor].
- 2. To add new .rcp or .emi files, click [File] » [New].
- 3. Set address range and select data format.

t Data Format			<b>—</b> ×
Address range ( From 0	(unit : word) To 12	Select your data format Format 0 Save Format	▼ Delete Format
Size 1 WORD 10 WORDs 1 WORD 1 WORD 1 WORD	Type 16-bit Unsigned String [ASCII] 16-bit Unsigned 16-bit Unsigned	Description Product No. Name Store No. Category	Add Delete Clear All Modify
•	III		OK Cancel

Setting	Description
Address range	Fill in address range, the unit of which is word.
Select your data	Save the specified data format for loading next time.
format	The saved file name is "dataEX.fmt" under
	EasyBuilder Pro's installation directory.
Data format	Edit new data format in this field.



**4.** Click [Add] to enter a description of the data type, and select data format. When selecting [String], please enter the length (words) and select [ASCII] or [Unicode].

Data Type	×
Description : Data 4	
C 16-bit BCD	C 32-bit BCD
C 16-bit HEX	C 32-bit HEX
• 16-bit Unsigned	C 16-bit Signed
C 32-bit Unsigned	C 32-bit Signed
C Float	
C String	WORD(s)
ASCII	C Unicode
ОК	Cancel

5. After setup, click [OK] to start editing recipe data.

øN	lew docume	ent*			
ID	ADDRESS	Product No.	Name	Store No.	Category
0	0	0	shampoo	9	4
1	13	1	knife	1	5
2	26	2	chair	3	2
3	39	3	coffee	3	3
4	52	4	pencil	6	5
5	65	5	muffin	6	3
6	78	6	donut	5	3
7	91	7	DVD	9	6
8	104	8	postcard	4	5
9	117	9	maps	5	5
10	130	10	camera	2	1
P					

In this example, the total length of data format is 13 words. Each 13 words will be one set of recipe data.

The first set: "product no." = address 0, "Name" = address 1 ~ 10, "Store No." = address 11, "Category" = address 12;

The second set: "product no." = address 13, "Name" = address 14 ~ 23, "Store No." = address 24, "Category" = address 25;...and so on.





After editing recipe data, it can be saved as .rcp, .emi, or .csv files. The .rcp files can be downloaded to HMI using Utility Manager or external devices (USB drive or SD card). The .emi files can be saved directly to the external device which is inserted to HMI as extended memory (EM).

# 24.3. Recipe Database Settings

In EasyBuilder Pro, open [Data/History] » [Recipe Database] to define recipes, set transfer method and edit recipe data.

#### 24.3.1. Definition

In Definition tab configure recipe database settings including recipe name, item name, data type...etc.

#### eMT, iE, XE, mTV Series

Recipes       Liem name       Data type       Size       Display width       Decimal Pt.       Alignment         1. recipe       item1       16-bit BCD       1       5       0       Left         item2       16-bit Unsigned       1       5       0       Left         item3       ASCII       10       10       0       Left		Item name	Data type	Size	Display width	Decimal Pt.	Alignment	
item2 16-bit Unsigned 1 5 0 Left item3 ASCII 10 10 0 Left		item1				0		
	1. Iccipe	item2			5	0	Left	
		item3	ASCII	10	10	0	Left	
Import Export Delete Settings								
	At most 100 items in one recip	e are recommended. M	4ore items might reduce	the perform	nance of HMI.			
At most 100 items in one recipe are recommended. More items might reduce the performance of HMI.								
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in the second se	sfer Data Sys	stem Registers							
cipes List :		611.35	0.00010-000				1. 8202 - 201		1
ecipes		Item name	Data type	Size	Display width	Decimal Pt.	1.	Label library	
. recipe		item1	16-bit BCD	1	5	0	Left	V	Label_1 : item1
		item2 item3	16-bit Unsig ASCII		5 5	0	Left Left	<b>V</b>	Label_2 : item2 Label_3 : item3
		item.5	ASCII	1	5	U	Leit	<b>V</b>	Laber_9 . Hent
Import	Export						New	Delete	Settings

# cMT / cMT X Series

R

Setting	Description
Recipes List	Add or delete a recipe, the maximum is 100 recipes.
New	Add a new item, the maximum is 1000 items.
Settings	Configure recipe settings, see the following description.
Delete	Delete the selected items.
Import	Import recipe definition.
Export	Export recipe definition. The exported file will not contain recipe records.

# Click [Settings]:

Recipes Item Information

# cMT, cMT X Series

Name: item1 Display Type : 16-bit BCD Item size (WORD) : 1 Display width (Chars) : 5 Right of decimal Pt. : 0 Alignment : Left Display name : item1

> 🔽 Use label library Label tag : Label\_1 : item1

> > ОК

Recipes Item Information       Name : item 1       Display Type : 16-bit BCD       Item size (WORD) : 1	 elvii, il, Al, iii v Selles
Display Type : 16-bit BCD	Recipes Item Information
Image: Display width (Chars):   Image: Display width (Chars):	Display Type : 16-bit BCD • Item size (WORD) : 1 • Display width (Chars) : 5 • Right of decimal Pt. : 0 • Alignment : Left •

# eMT iF XF mTV Series



Setting	Description
Name	Enter recipe item name.
Display Type	Setting item data type.
Item size (WORD)	Setting the size of the item.
Display with (Chars)	Setting the number of characters of the item to be displayed.
Right of decimal pt.	Setting the decimal place when displaying data.
Alignment	Setting the alignment when displaying data. [Align left], [Align center], and [Align right] can be selected.
Use label library	On cMT / cMT X series, setting display name is possible. The display name is by default the same as the item name or it may be a tag from Label Tag Library. Please see Chapter 16 Address Tag Library for more details.

#### 24.3.2. Transfer

Transfer tab contains the settings for transferring records between the recipe database and designated destinations.

#### **Bulk transfer**

Transfer destinations of a record are consecutive addresses starting from the designated address.

Recipe Database	
Definition Transfer Data System	Registers
Recipe List : Recipe1 Recipe2 Recipe3	<ul> <li>Enable</li> <li>Bulk transfer          <ul> <li>Transfer to individual addresses</li> </ul> </li> <li>Device : Local HMI         <ul> <li>Local HMI</li> <li>Q</li> </ul> </li> </ul>

Under this mode, the data type settings of destination addresses must follow those of the recipe items. The following table shows the bulk transfer result when LW-0 is designated as the starting address given settings in the following figure.

efinition Transfer Data Syst	em Registers							
Recipes List :								
Recipes 🚺 🗙	Item name	Data type	Size	Display width	Decimal Pt.	Alignment	Label library	Display name
1. Recipe1	item1	16-bit Unsig	1	5	0	Left	<b>V</b>	Label_1 : item1
2. Recipe2	item2	16-bit Signed	1	5	0	Left	<b>V</b>	Label_2 : item2
3. Recipe3	item3	32-bit Float	2	5	0	Left	<b>V</b>	Label 3 : item3



Item Name	Destination	Data Type of Dest. Address
item1	LW-0	16-bit Unsigned
item2	LW-1	32-bit Signed
item3	LW-3	32-bit Float

### Transfer to individual addresses

Transfer destination of each item within a record is configured individually.

cipe Database efinition Transfer Data	System Registers			
Recipe List : Recipe1 Recipe2	✓ Enable ○ Bulk transfer ● Transf	unsfer to individual addresses		
Recipe3	Item name	Data type	1	Address
	1 item1	16-bit Unsigned	[MODBUS TCP/IP] 4x-1	
	2 item2	16-bit Signed	[MODBUS TCP/IP] 4x-100	
	3 item3	32-bit Float	[MODBUS TCP/IP] 4x-200	

Under this mode, the data type setting of each destination addresses must also follow those of the corresponding recipe item. In the settings shown above, the data type of address 4x-1 should be 16-bit Signed, and 4x-100 should be 32-bit Signed, and so on.

#### 24.3.3. Data

Data tab contains an editor for recipe content. Before recipe content can be edited in this tab, the data type of the items should be set in Definition tab.

	System Regi	isters				
ecipes List :						
Recipe1 (3) Recipe2 (0) Recipe3 (0)		item1	item2	item3		
Recipe3 (0)	1	1	2	3		
	2	4	5 8	6		
	3	7	8	9		
						ad Minist All Ausses Track
					New Dele	te
						Cancel Help



In the example shown above, Recipe created in the Definition tab can be found. Items shown on the right hand side come from item names added in Definition tab. Data of each item name can be configured in this tab following the data type defined in the Definition tab.

Setting	Description
Recipes:	The recipes created in Definition tab. The number
	enclosed in brackets shows the total number of
	records in the corresponding recipe.
Add	Adds records into the recipe according to the
	defined data type.
Delete	Deletes the edited content.
Up / Down Arrows	Moves the selected record upward / downward.

To define recipes according to the specified data type, click [Add] button above the record list to insert a new record and start editing each item. When click on the item, the item's data type will be shown under the record list. This helps users to fill in each item with appropriate value. Click [OK] to confirm and save the records.

efinition	Transfer	Data	Syst	em Regi	sters						
Recipes Lis		a N	1								<i>6</i> 2
Recipe (3)					Data	1	Data2	Data3			
				1	1		2	3			
				2	4		5	6			
			4	3	7		8	9			
-			DD	ata type ecimal P	= '16-b t. = '0'	it Unsigned			New	Delete	]



## 24.3.4. System Registers

In System Register tab, a list of recipe database related control addresses and their descriptions can be found.

finition Tra	nsfer Data System Registers
Selection	Current selection of record, and it is numbered from zero.
	When the value of Selection is changed, the corresponding values will be updated.
Count	Show the number of records in current recipe.
Command	Enter certain value will send command to the selected record.
	Enter "1" : Add a new recipe record.
	Enter "2" : Update the selected recipe record.
	Enter "3" : Delete the selected recipe record.
	Enter "4" : Delete all recipe records.
	Enter "5" : Write selected record to PLC.
	Enter "6": Update selected record from PLC
Result	View the result of executing commands.
	Displays "1": Command successfully executed.
	Displays "2": The selected record does not exist.
	Displays "4": Unknown command.
	Displays "8": Records reach limit (10000 records), no new records can be added.
	Displays "16": Other command is being executed.
	Displays "32" : Transfer command failed
	OK Cancel He



- The maximum number of Recipe Database acceptable in a project file is 100 Recipe Databases. A Recipe Database can contain 1000 items.
- Each recipe can hold a maximum of 10000 records.
- The maximum data length acceptable in a Recipe Database is 2000 words. Exceeding the limit can lead to compilation failure.
- The name of Recipe Database and recipe items should be in alphanumeric.
- The recipe records will be stored in the .exob file after compilation and will be downloaded to HMI. These recipes cannot be shared with other project files. If users need to modify the recipe contents and download them to the HMI, make sure that [Reset recipe database] check box is selected during download. If not, the recipe database in the HMI will not be updated.



Download	×
Ethernet     O USB cable     Password : Setting	
4 IP Name	⊳
IP: 192.168.1.222 ▼	
✓ Firmware ✓ Font files	
* Necessary if update firmware or execute download first time.	
Use user-defined startup screen	
Reset recipe       Reset event log       Reset data sampling         Reset recipe database       Reset operation log	
<ul> <li>Reboot HMI after download</li> <li>Automatically using current settings to download after compiling</li> </ul>	
Download         Stop         Exit	

Click the icon to watch the demonstration film. Please confirm your internet connection before playing the film.