

WEINTEK LABS., INC.

External Memory (EM)

Changing EM Filename Dynamically

Demo Project

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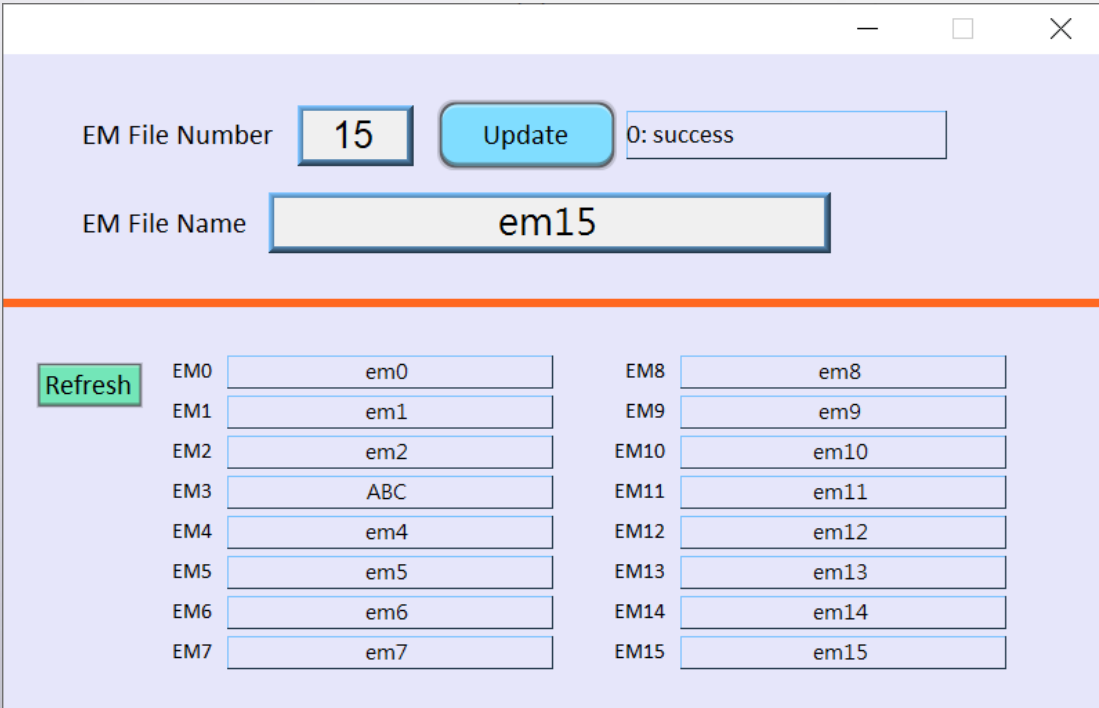
1. Overview and Operation

Overview

External Memory (EM) Registers can save data into external devices, and retain data after HMI is rebooted. Before, EM's file name is a number with a prefix "em", and is not customizable. Starting with EasyBuilder Pro V6.05.02, changing EM file name on HMI dynamically by using an address is possible. This demo project explains how to change EM file name on HMI.

Operation

After running simulation on your PC or downloading the project to HMI, enter the EM File Number to be changed, enter a new file name and then click [Update] button.




EM File Number	EM File Name
15	em15

EM Register	Value
EM0	em0
EM1	em1
EM2	em2
EM3	ABC
EM4	em4
EM5	em5
EM6	em6
EM7	em7
EM8	em8
EM9	em9
EM10	em10
EM11	em11
EM12	em12
EM13	em13
EM14	em14
EM15	em15

2. Setting up the Screen

Step 1. Click [Home] » [System Parameters] » [External Memory] and then select [Enable dynamic file name].

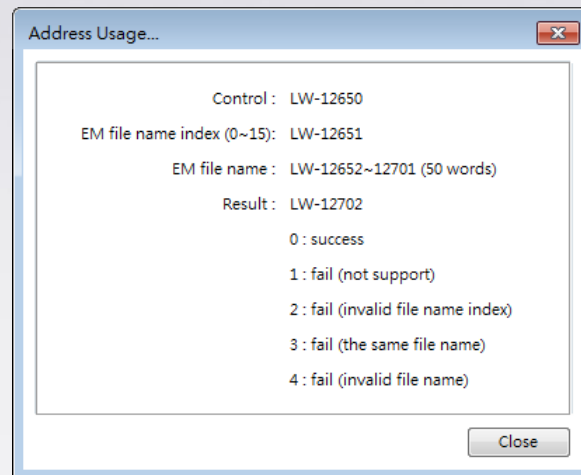


Device	Model	General	System	Remote	Security
Extended Memory		Cellular Data Network	Time Sync /DST	e-Mail	

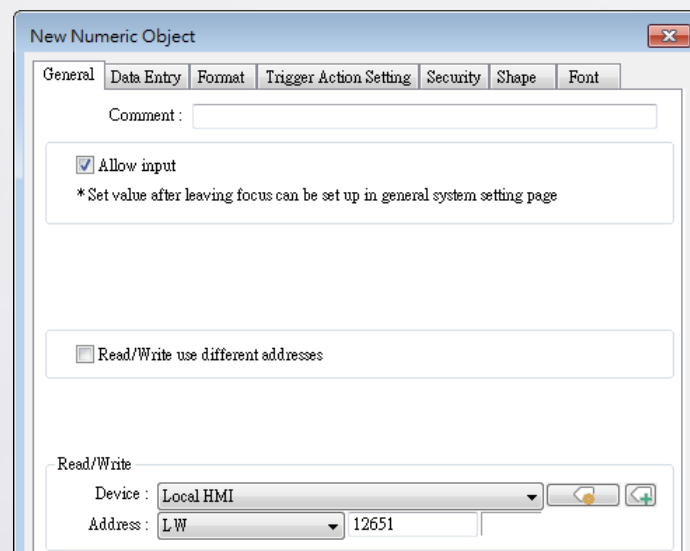
Device	Model	General	System	Remote	Security
EM0	File name : em0	.emi	<input checked="" type="radio"/> USB disk 1	<input type="radio"/> USB disk 2	
EM1	File name : em1	.emi	<input checked="" type="radio"/> USB disk 1	<input type="radio"/> USB disk 2	
EM2	File name : em2	.emi	<input checked="" type="radio"/> USB disk 1	<input type="radio"/> USB disk 2	
EM3	File name : em3	.emi	<input checked="" type="radio"/> USB disk 1	<input type="radio"/> USB disk 2	
EM4	File name : em4	.emi	<input checked="" type="radio"/> USB disk 1	<input type="radio"/> USB disk 2	
EM5	File name : em5	.emi	<input checked="" type="radio"/> USB disk 1	<input type="radio"/> USB disk 2	
EM6	File name : em6	.emi	<input checked="" type="radio"/> USB disk 1	<input type="radio"/> USB disk 2	
EM7	File name : em7	.emi	<input checked="" type="radio"/> USB disk 1	<input type="radio"/> USB disk 2	
EM8	File name : em8	.emi	<input checked="" type="radio"/> USB disk 1	<input type="radio"/> USB disk 2	
EM9	File name : em9	.emi	<input checked="" type="radio"/> USB disk 1	<input type="radio"/> USB disk 2	
EM10	File name : em10	.emi	<input checked="" type="radio"/> USB disk 1	<input type="radio"/> USB disk 2	
EM11	File name : em11	.emi	<input checked="" type="radio"/> USB disk 1	<input type="radio"/> USB disk 2	
EM12	File name : em12	.emi	<input checked="" type="radio"/> USB disk 1	<input type="radio"/> USB disk 2	
EM13	File name : em13	.emi	<input checked="" type="radio"/> USB disk 1	<input type="radio"/> USB disk 2	
EM14	File name : em14	.emi	<input checked="" type="radio"/> USB disk 1	<input type="radio"/> USB disk 2	
EM15	File name : em15	.emi	<input checked="" type="radio"/> USB disk 1	<input type="radio"/> USB disk 2	

☒ Enable dynamic file name (not including filename extension)
 [Usage...](#)

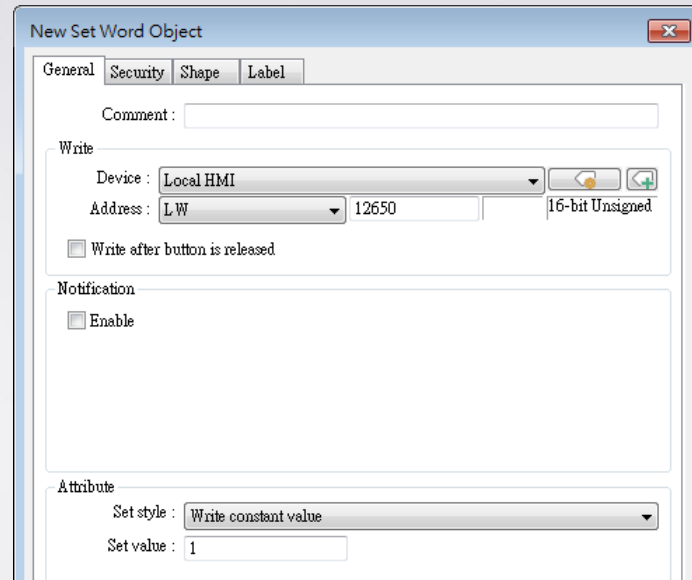
With this option selected, the related control addresses can be viewed by clicking [Usage] on the right.



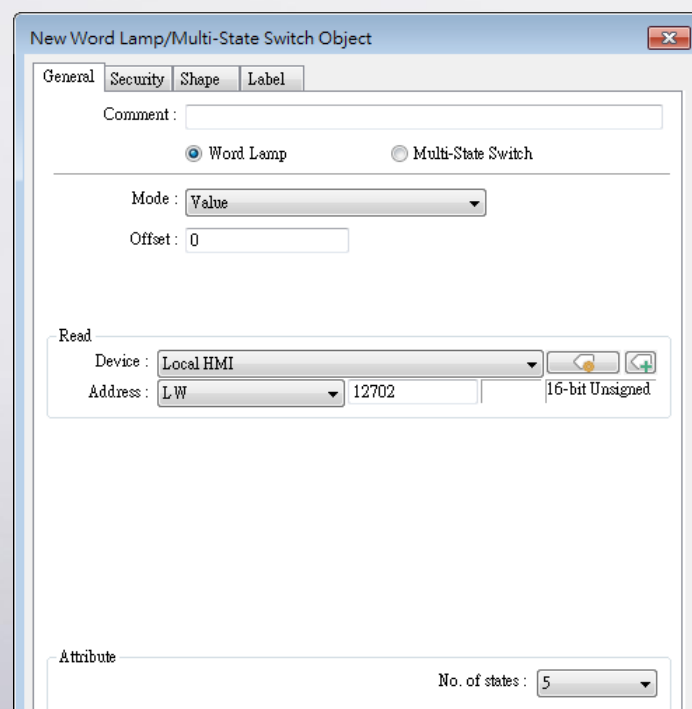
Step 2. Create a Numeric object, set address to LW-12651 for entering EM file index.



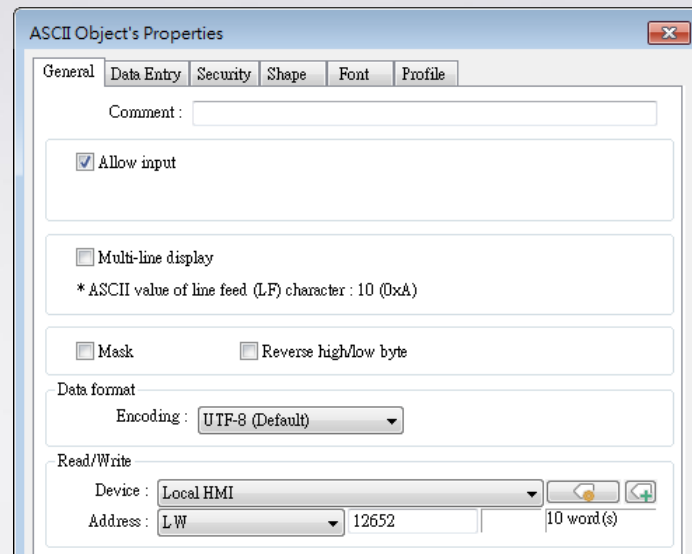
Step 3. Create a Set Word object, set address to LW-12650 for triggering the change of file name.



Step 4. Create a Word Lamp, set address to LW-12702, and set [No. of states] to 5. This Word Lamp can be used to show execution result. Open the Label tab to enter the content to be displayed for each state.



Step 5. Create an ASCII object, set address to LW-12652, length 10 words (Max. 50 words).



Step 6. Run simulation or download the project to HMI, enter the EM file index and the new file name, and then click [Update].

Step 7. In Macro set EM file indexes to be written to LW-12651 sequentially, and the EM file name in LW-12652~LW-12701 to be read and written to RW addresses. In this way, after HMI is rebooted, all EM file names can be read at a time and shown on window. (This step is optional.)

```

short id, add
char filename[20]

for id = 0 to 15
    add = id * 50
    SetData(id, "Local HMI", LW, 12651, 1)
    DELAY(100)
    GetData(filename[0], "Local HMI", LW, 12652, 20)
    SetData(filename[0], "Local HMI", RW, 0 + add, 20)
next
    
```

3. Addresses

The addresses of key objects used in this demonstration are listed below, please adjust as necessary.

Object	Address	Object ID	Description
Window 10			
Set Word	LW-12650	SW_0	Update EM file name
Numeric	LW-12651	NE_0	EM File Index
ASCII	LW-12652	AE_0	EM File Name
Word Lamp	LW-12702	WL_0	Result
ASCII	RW_0 ~	AD_0 ~	Macro reads all EM file names and writes them to RW.
	RW_750	AD_15	
Function Key		FK_0	Execute Macro