

Demo Project for Recipe Search

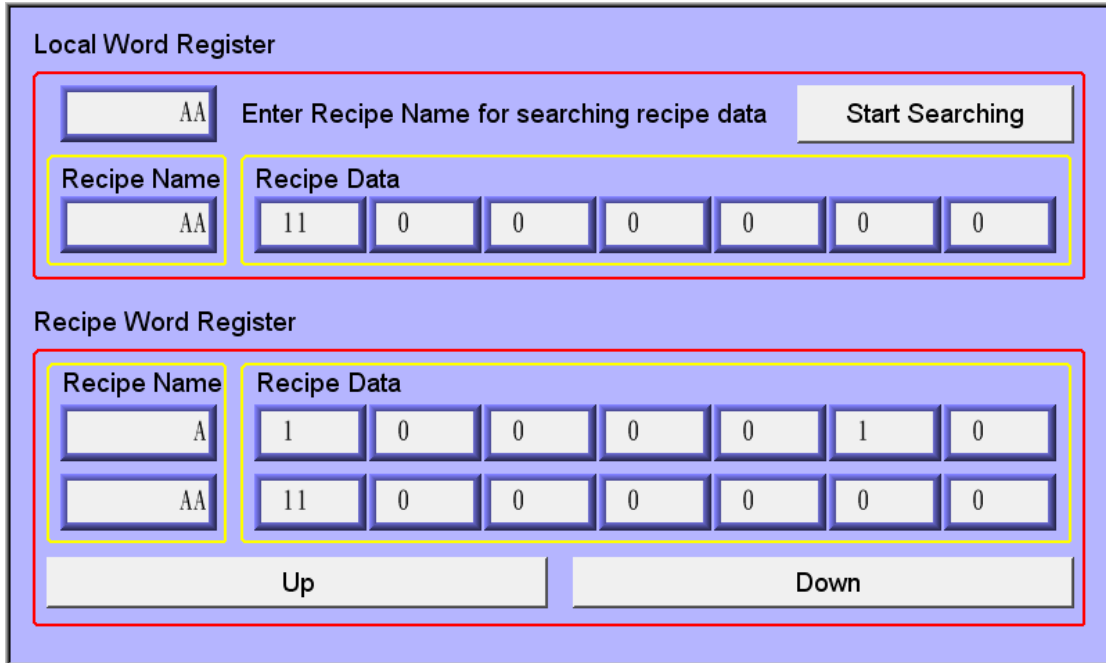
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1. Overview and Operation

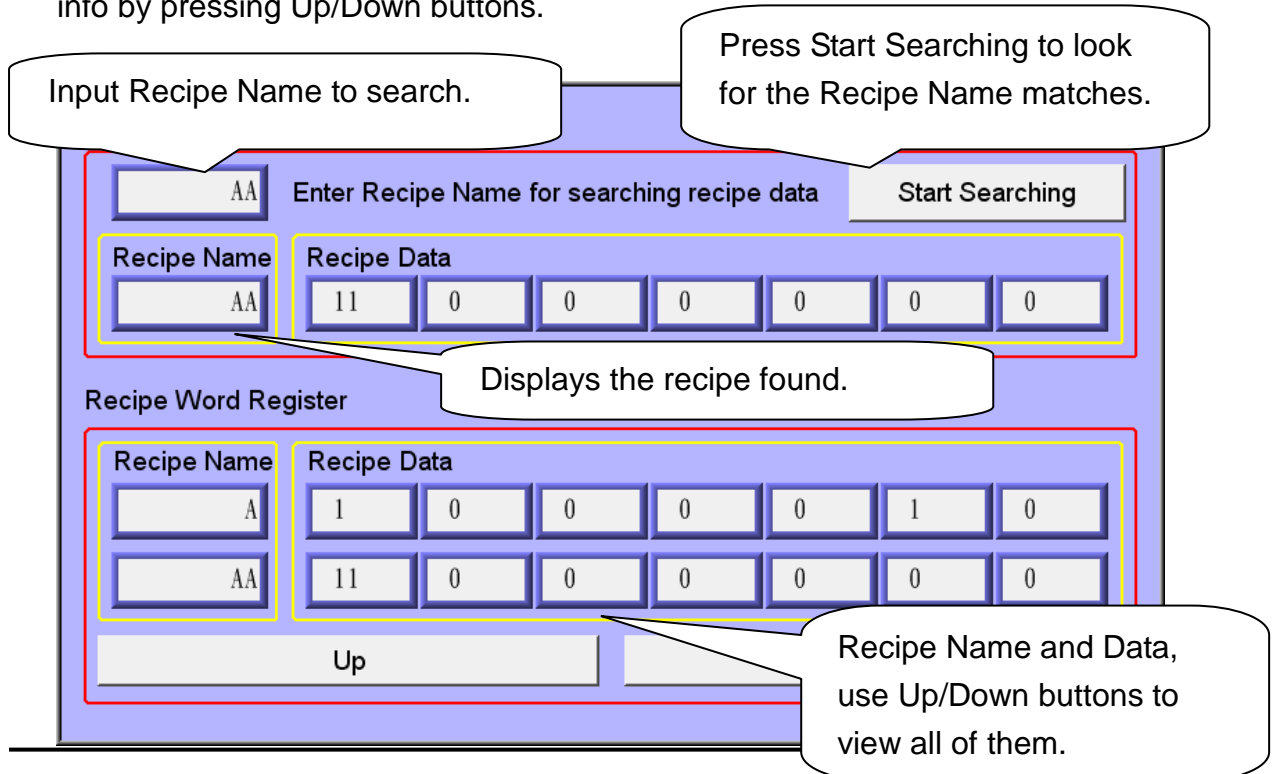
[Overview]

This demo project shows how to search recipe data via Recipe Name. A specified recipe can be found through a comparison using Macro data.



[Operation]

Enter the Recipe Name to search on ASCII Input object, press Start Searching to start looking for the data that matches. The found data will be displayed on LW objects. Recipe Word Register is used to view all recipe info by pressing Up/Down buttons.



2. Setting up the screen

Set some operating objects, such as Numeric Input objects, ASCII Input objects, Set Bit object and Set Word objects on Window 10.

1. Local Word Register Area

In Local Word Register area, create two ASCII Input objects, one set to LW100 and another set to LW 0.

ASCII Input Object's Properties

General | Data Entry | Security | Shape | Font | Profile

Description :

Mask Use UNICODE Reverse high/low byte

Read address

PLC name : Local HMI

Address : LW 100

Notification

Enable

OK Cancel Help

Click **[Setting]** to set **[No. of word]** to "5".

Address

PLC name : Local HMI

Device type : LW

Address : 100 System tag

Address format : DDDDD [range : 0 ~ 10799]

Index register

No. of word : 5

Tag Library... OK Cancel

ASCII Input Object's Properties

General | Data Entry | Security | Shape | Font | Profile

Description :

Mask Use UNICODE Reverse high/low byte

Read address

PLC name : Local HMI

Address : LW

Notification

Enable

Click **[Setting]** to set **[No. of word]** to "5".

Address

PLC name : Local HMI

Device type : LW

Address : 0 System tag

Address format : DDDDD [range : 0 ~ 10799]

Index register

No. of word : 5

Create 7 Numeric Input objects, set to LW5~LW11.

Numeric Input Object's Properties

General | Data Entry | Numeric Format | Security | Shape | Font | Profile

Description :

Read/Write use different addresses

Read address

PLC name : Local HMI

Address : LW

Notification

Enable

Notification on invalid input

Enable

OK Cancel Help

Create a Set Bit object for executing Macro_1.

Set Bit Object's Properties

General Security Shape Label Profile

Description : |

Write address

PLC name : Local HMI [v] Setting...

Address : LB [v] 0

Write after button is released

Attribute

Set style : Toggle [v]

Macro

Execute macro Macro : [ID:001] macro_1 [v]

Trigger mode : OFF<->ON [v]

OK Cancel Help

2. Recipe Word Register Area

In Recipe Word Register area, create two ASCII Input objects, one set to RW 0 and another set to RW 12.

ASCII Input Object's Properties

General | Data Entry | Security | Shape | Font | Profile

Description :

Mask Use UNICODE Reverse high/low byte

Read address

PLC name : Local HMI

Address : RW IDX 0

Notification

Enable

Click **[Setting]** to set **[No. of word]** to "5" and select **[Index register]**:
Index 0 (16bit).

Address

PLC name : Local HMI

Device type : RW

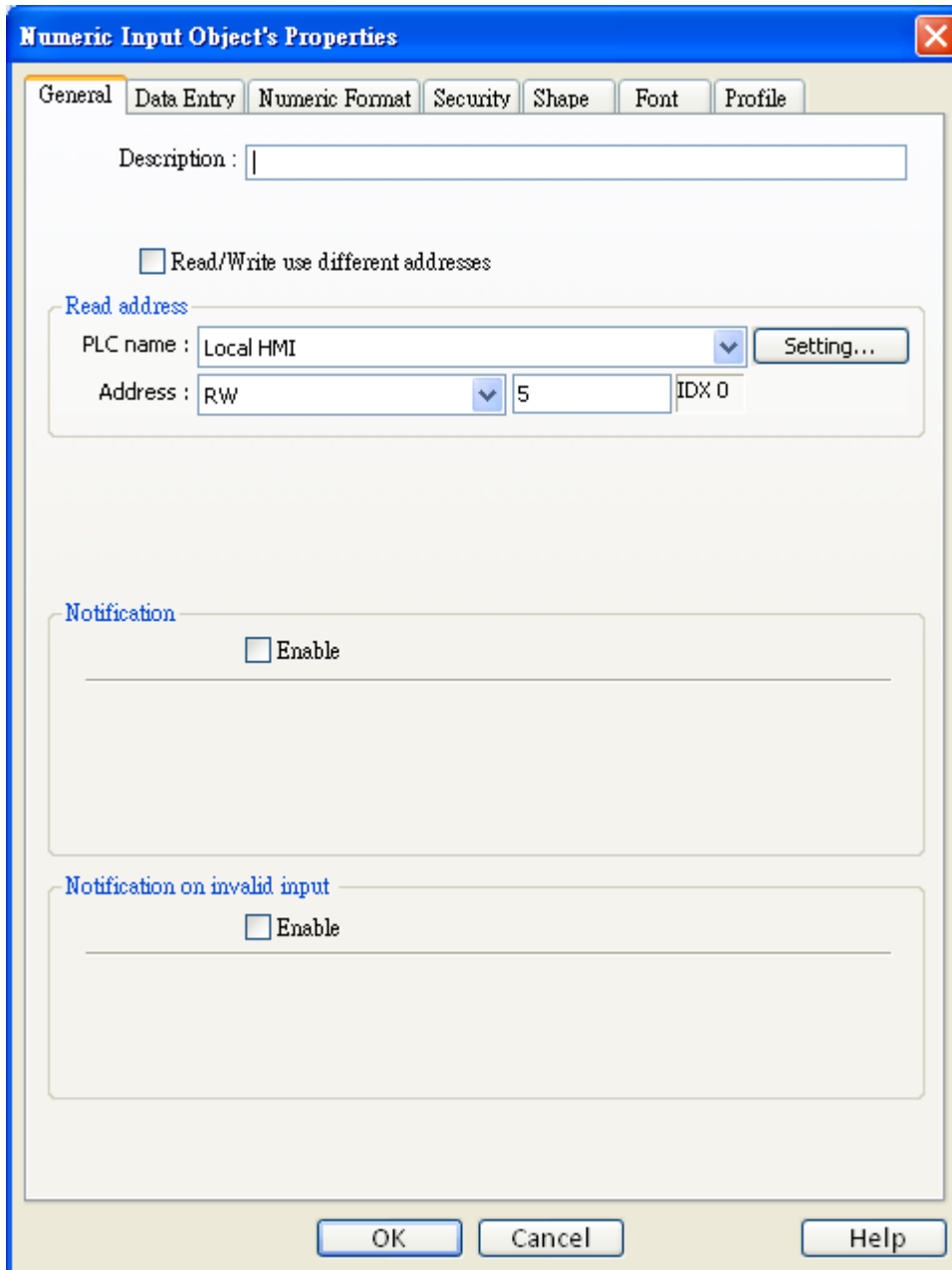
Address : System tag

Address format : DDDDDD [range : 0 ~ 524287]

Index : INDEX 0 (16-bit) Index register

No. of word :

Create 14 Numeric Input objects, set to RW5~RW11 and RW17~RW23.



Numeric Input Object's Properties

General | Data Entry | Numeric Format | Security | Shape | Font | Profile

Description : |

Read/Write use different addresses

Read address

PLC name : Local HMI [v] [Setting...]

Address : RW [v] 5 [IDX 0]

Notification

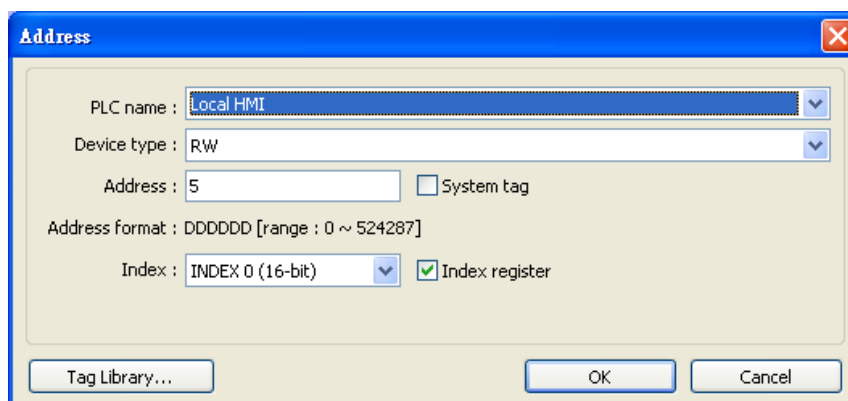
Enable

Notification on invalid input

Enable

OK Cancel Help

Click **[Setting]**, select **[Index register]: Index 0 (16bit)** for all the 14 Numeric Input objects.



Address

PLC name : Local HMI [v]

Device type : RW [v]

Address : 5 System tag

Address format : DDDDDD [range : 0 ~ 524287]

Index : INDEX 0 (16-bit) [v] Index register

Tag Library... OK Cancel

Create 2 Set Word objects, using the setting shown below.

[Write address] set to LW9200, **[Attribute]** set to “Decrement value (JOG-)”,
[Dec. value] =12 and **[Bottom limit]** = 0.

Set Word Object's Properties

General Security Shape Label Profile

Description : |

Write address

PLC name : Local HMI

Address : LW-9200 (16bit) : address index 0 16-bit Unsigned

Write after button is released

Notification

Enable

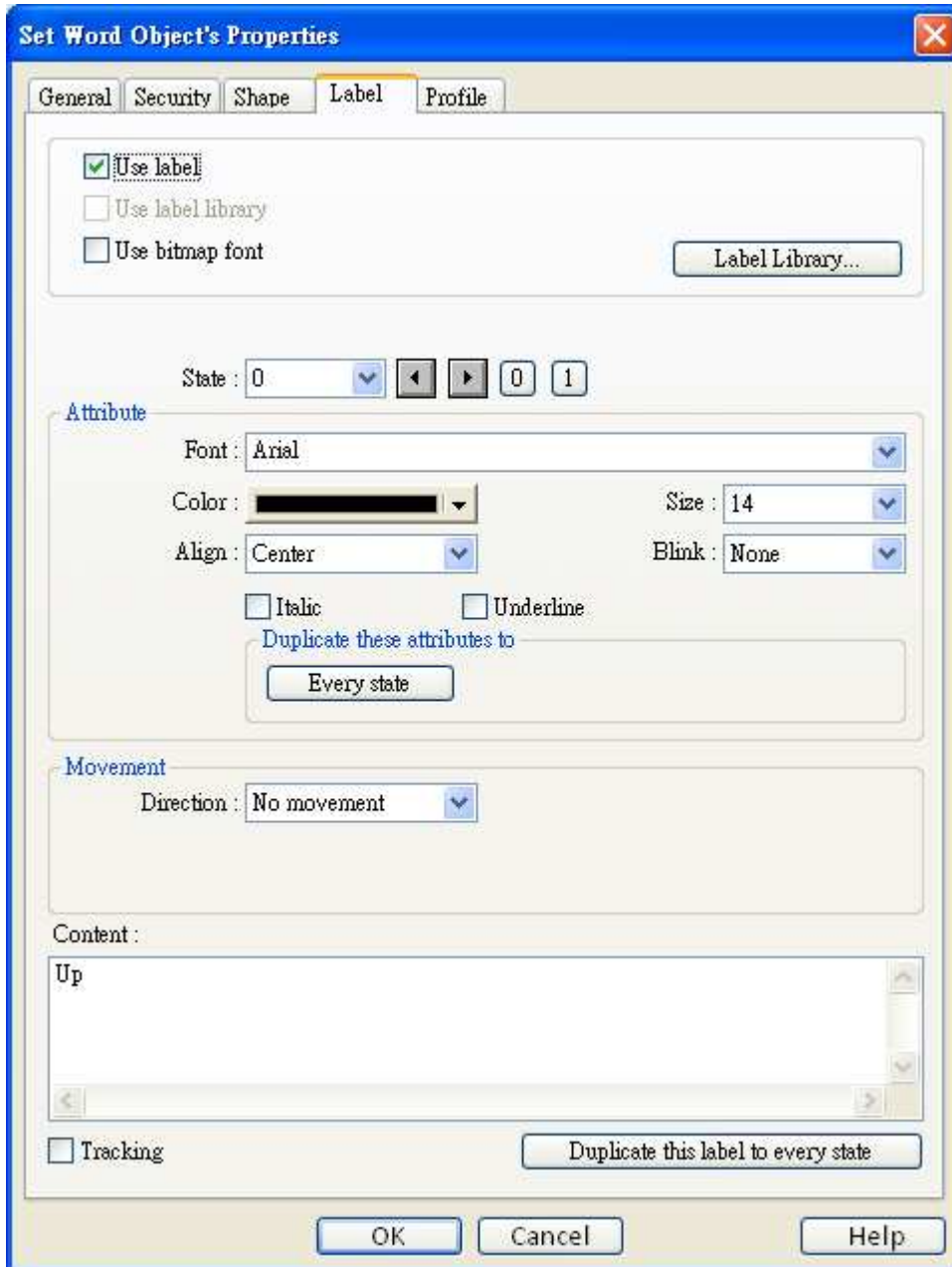
Attribute

Set Style : Decrement value (JOG-)

Dec. value : 12 Bottom limit : 0

OK Cancel Help

Go to **[Label]** tab, tick **[Use label]**, for **[Content]**, input “Up”.



The screenshot shows the 'Set Word Object's Properties' dialog box with the 'Label' tab selected. The 'Use label' checkbox is checked. The 'Content' field contains the text 'Up'. The 'Attribute' section shows 'Font' set to 'Arial', 'Color' as black, 'Size' as 14, and 'Align' as 'Center'. The 'Movement' section shows 'Direction' as 'No movement'. The 'Tracking' checkbox is unchecked. Buttons for 'OK', 'Cancel', and 'Help' are at the bottom.

Set Word Object's Properties

General Security Shape **Label** Profile

Use label
 Use label library
 Use bitmap font Label Library...

State : 0 ◀ ▶ 0 1

Attribute

Font : Arial ▼
Color : Size : 14 ▼
Align : Center Blink : None ▼
 Italic Underline
Duplicate these attributes to
Every state

Movement

Direction : No movement ▼

Content :

Up

Tracking Duplicate this label to every state

OK Cancel Help

For another Set Word object, **[Write address]** set to LW9200, **[Attribute]** set to “Increment value (JOG+)”, **[Inc. value]** =12 and **[Upper limit]** = 1200.

Set Word Object's Properties

General Security Shape Label Profile

Description : |

Write address

PLC name : Local HMI [v] [Setting...]

Address : LW-9200 (16bit) : address index 0 [v] 16-bit Unsigned

Write after button is released

Notification

Enable

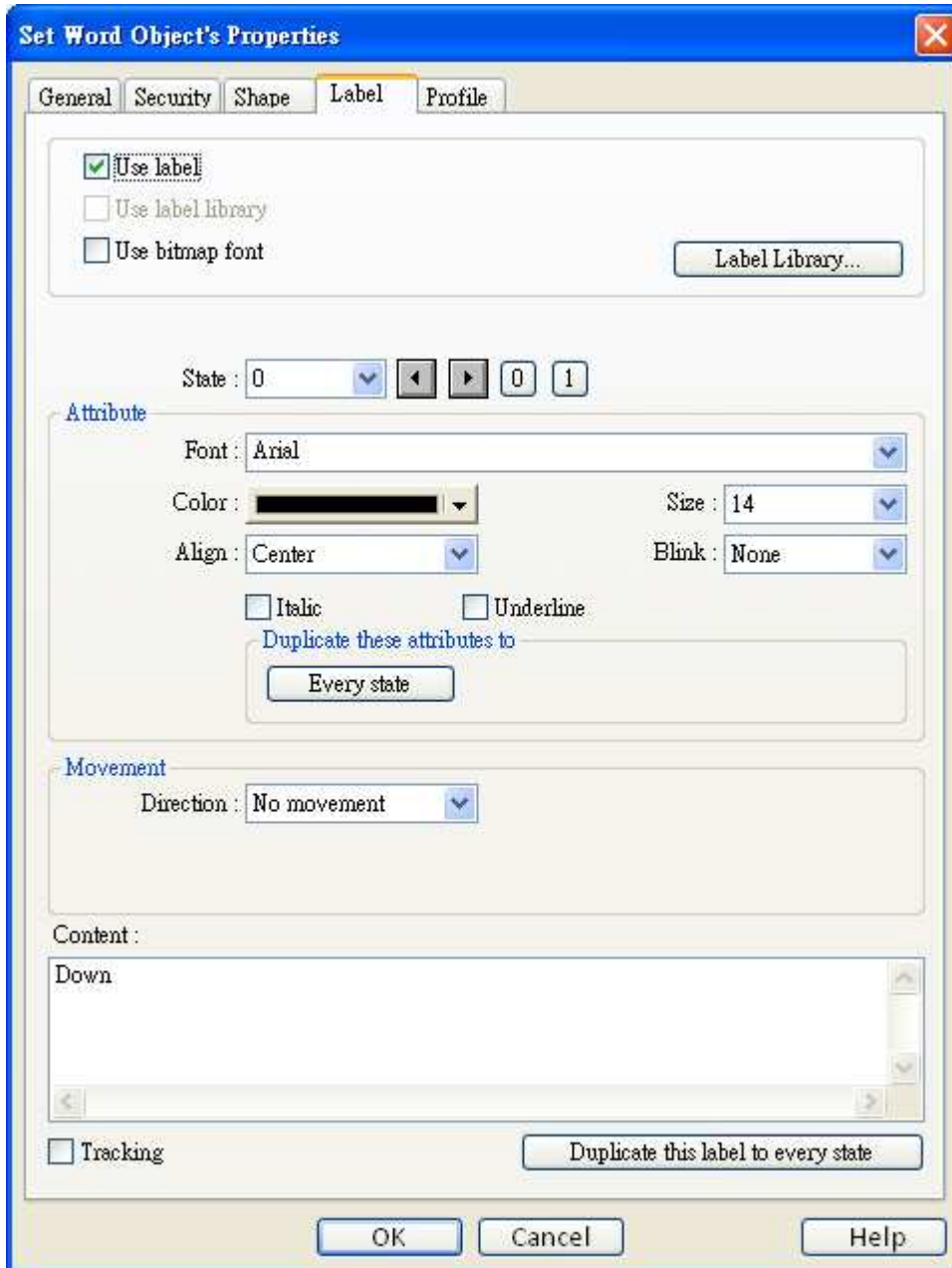
Attribute

Set Style : Increment value (JOG+) [v]

Inc. value : 12 Upper limit : 1200

OK Cancel Help

Go to **[Label]** tab, tick **[Use label]**, for **[Content]**, input “Down”.



The screenshot shows the 'Set Word Object's Properties' dialog box with the 'Label' tab selected. The 'Use label' checkbox is checked. The 'Content' field contains the text 'Down'. The 'Attribute' section shows 'Font' set to 'Arial', 'Color' as black, 'Size' as 14, and 'Align' as 'Center'. The 'Movement' section shows 'Direction' as 'No movement'. The 'Tracking' checkbox is unchecked. Buttons for 'OK', 'Cancel', and 'Help' are at the bottom.

Set Word Object's Properties

General Security Shape **Label** Profile

Use label
 Use label library
 Use bitmap font Label Library...

State : 0 ◀ ▶ 0 1

Attribute

Font : Arial ▼
Color : Size : 14 ▼
Align : Center Blink : None ▼
 Italic Underline
Duplicate these attributes to
Every state

Movement

Direction : No movement ▼

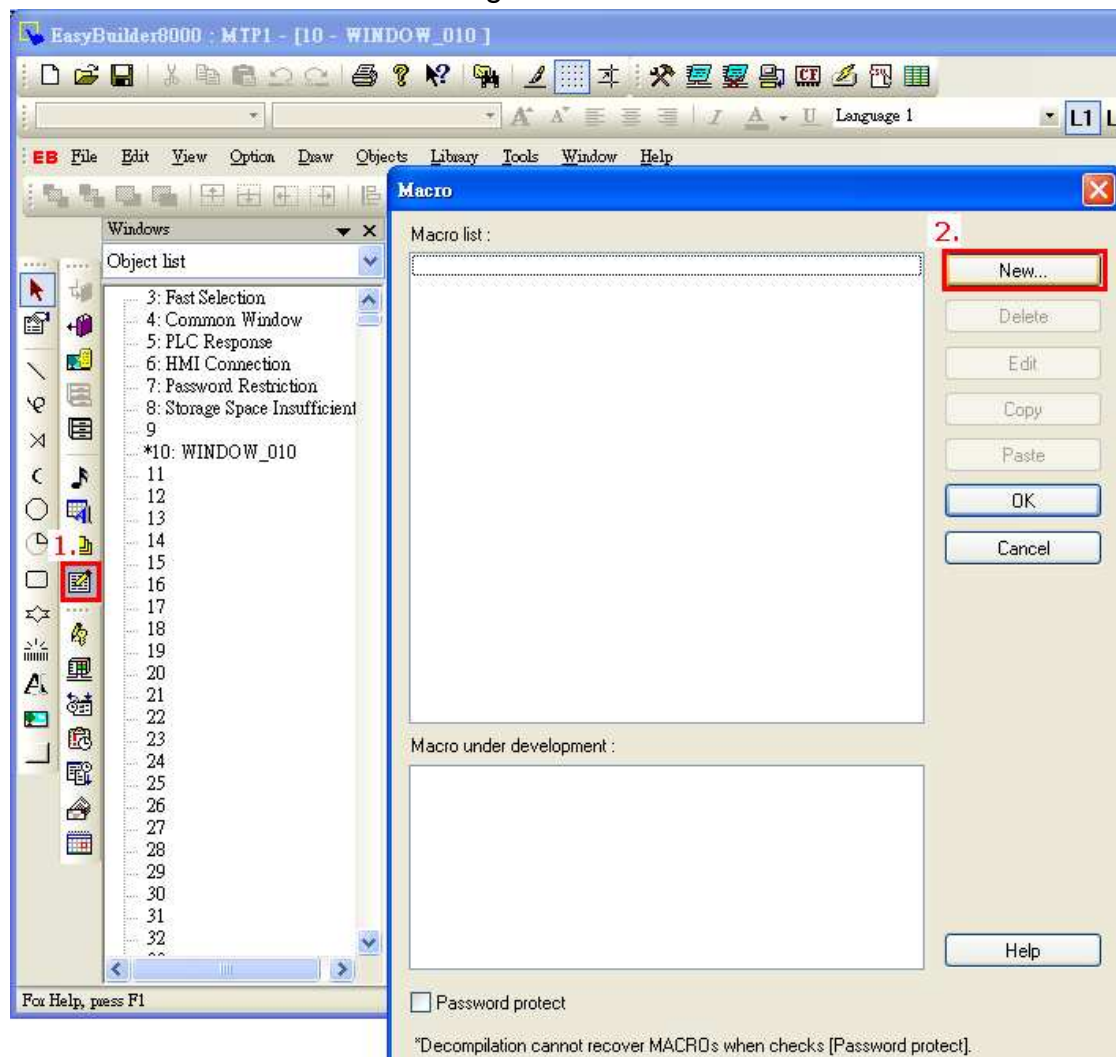
Content :

Down

Tracking Duplicate this label to every state

OK Cancel Help

3. Click Macro icon to start editing.



Macro content is shown below:

```
macro_command main()
```

```
short a[5],bb,c[12]
```

```
GetData(a[0],"Local HMI", LW, 100, 5) // Gain LW100~104 data.
```

```
for bb = 0 to 1119 step 12 // Start Recipe Name comparison.
```

```
GetData(c[0], "Local HMI", RW, bb, 12)
```

```
if c[0]==a[0] and c[1]==a[1] and c[2]==a[2] and c[3]==a[3] and c[4]==a[4]
```

```
then
```

```
SetData(c[0], "Local HMI", LW, 0, 12) // Show the found Recipe Data in  
LW0~LW11 addresses.
```

```
end if
```

```
next bb
```

```
end macro_command
```

3. Addresses

The addresses used in this demo project are listed below. Please change these addresses base on actual usage.

Addresses		Object ID	Detail
Operating Objects		Window 10	
Word	LW100	AE_1	ASCII input object
	LW0	AE_0	ASCII input object
	LW5	NE_0	Numeric input object
	LW6	NE_1	Numeric input object
	LW7	NE_2	Numeric input object
	LW8	NE_3	Numeric input object
	LW9	NE_4	Numeric input object
	LW10	NE_5	Numeric input object
	LW11	NE_6	Numeric input object
	RW0	AE_2	ASCII input object
	RW12	AE_3	ASCII input object
	RW5	NE_14	Numeric input object
	RW6	NE_16	Numeric input object
	RW7	NE_17	Numeric input object
	RW8	NE_18	Numeric input object
	RW9	NE_19	Numeric input object
	RW10	NE_20	Numeric input object
	RW11	NE_21	Numeric input object
	RW17	NE_15	Numeric input object
	RW18	NE_22	Numeric input object
	RW19	NE_23	Numeric input object
	RW20	NE_24	Numeric input object
	RW21	NE_25	Numeric input object
	RW22	NE_26	Numeric input object
	RW23	NE_27	Numeric input object
	LW9200	SW_1	Set word object
	LW9200	SW_0	Set word object
Bit	LB0	SB_0	Set bit object