# **Chapter 9 Object's General Properties**

The contents of object's general properties setting include:

- 1. Selecting the connection PLC device
- 2. Setting the reading and writing address
- 3. Using shape library and picture library
- 4. Setting text content
- 5. Adjusting profile size

#### 1. Selecting the connection PLC device

When using some objects, select the connection PLC device is required. See the picture below, [PLC name] is to assign the name of the connection PLC device. The picture shows that there are two PLC devices available for selection: "Local HMI" and "Allen-Brandley DF1." These listed available PLC devices are sourced from "device table" in "System Parameters."

| PLC name : | Allen-Brandley DF1              | ~ |
|------------|---------------------------------|---|
|            | Local HMI<br>Allen-Brandley DF1 |   |
|            | Allen-Dialmiey DF1              |   |

### 2. Setting the reading and writing address

| Device type : | LW              |   |                  | * |
|---------------|-----------------|---|------------------|---|
| Address :     | 0               |   | 🔲 System tag     |   |
| Index :       | INDEX 0         | * | 🗹 Index register |   |
|               | 16-bit Unsigned | * |                  |   |

The above picture shows that the following items are contained in reading and writing address settings:

### [Device type]

In selection of device types, when the connection PLC device is different, there will be different device types for selection.

| – Read address — |   |   |
|------------------|---|---|
| PLC name :       | Allen-Brandley DF1                              | * |
| Device type :    | T4SV  | ~ |
| Address :        | T4SV<br>T4PV<br>C5SV<br>C5SV<br>N7<br>Nfn<br>F8 |   |
|                  | Fín   |   |

## [Address]

Setting the reading and writing address.

## [System tag]

Address tag includes "system tag" and "user-defined tag." System tag, including bit address system tag and word address system tag, is to reserve the addresses of particular purposes for the system. When selecting "system tag," in addition to that [Device type] will show the content of "system tag," [Address] will indicate the selected system tag. Refer to the picture below.

| Write address | LB9019 : disable/  | anable humari                    | 40 |
|---------------|--------------------|----------------------------------|----|
| Device type . | L D9019 . UISADIE/ |                                  | *  |
| Address :     | LB9019             | 🔽 System tag                     |    |
|               |                    | Index register                   |    |
|               |                    | 🔲 Write when release this button |    |

The following pictures show partial contents of bit address system tag and word address system tag respectively, and for further information, please refer to the illustrations in the "label library" section.

### [Index register]

Refer to the illustrations in "index register" section for information on if it is necessary to select "index register" or not.

### **Selecting Numeric Type**

The EB8000 supports the following listed numeric types. It is necessary to select the proper numeric type, especially when using address tag.

| 16-bit Unsigned 🛛 🗸 |
|---------------------|
| 16-bit BCD          |
| 32-bit BCD          |
| 16-bit Hex          |
| 32-bit Hex          |
| 16-bit Binary       |
| 32-bit Binary       |
| 16-bit Unsigned     |
| 16-bit Signed       |
| 32-bit Unigned      |
| 32-bit Signed       |
| 32-bit Float        |

# 3. Using shape library and picture library

Shape Library and Picture Library are available for some objects to enhance the object's visual effects. See the picture below, go to the Bit Lamp Object's Properties menu and then click the [Shape] tab to set up Shape Library and Picture Library.

| New Bit Lamp Object  | × |
|--|---|
| General Shape Label  | _ |
| Shape Shape Library 🔽 Use shape  |   |
| ✓ Inner ✓<br>✓ Frame   |   |
| Interior pattern : Pattern Style Duplicate these attributes to every state |   |
| Picture  |   |
| Picture Library 🗹 Use picture  |   |
| Preview  |   |
| 0 1 State : 0  |   |
|  |   |
| Background :   |   |

The descriptions of each item's setting on the [Shape] menu are as follows:

# **Settings of Shape Library**

# [Shape Library ...]

Refer to the part (I) at the last of this section for information related to the settings of [Shape Library ...].

# [Use Shape]

Set whether or not to use the functions in Shape Library by selecting [Use Shape] or not.

# [Inner]

Set whether or not to add inner to the Shape by selecting [Inner] or not. When selecting [Inner] and clicking the color tab, the setting dialog box, as shown in the picture below, will be displayed to set the inner color.

| 色彩           | ? 🗙                               |
|--------------|-----------------------------------|
| 基本色彩(B):     |                                   |
|              |                                   |
|              |                                   |
|              |                                   |
|              |                                   |
|              |                                   |
|              |                                   |
| 自訂色彩(C):     |                                   |
|              | 色調(E): 160 紅(R): 0                |
|              | 濃度(S): 0 錄(G): 0                  |
| 定義自訂色彩(D) >> | 色彩原色(2) <u>売度(1)</u> : 0 藍(11): 0 |
| 確定 取消        | 新增自訂色彩(A)                         |

# [Frame]

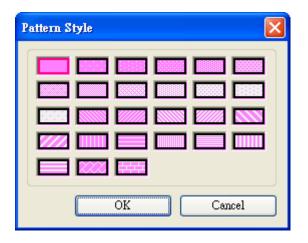
Set whether or not to add a frame to the Pattern by selecting [Frame] or not. When selecting [Frame] and clicking the color tab, the setting dialog box will be displayed to set the frame's color.

# [Interior Pattern]

[Interior Pattern] is used to set the color of the interior pattern.

# [Pattern Style]

Click [Pattern Style] and a setting dialog box, as shown in the picture below, will be displayed to set the pattern style.



## [Duplicate these attributes to every state]

[Duplicate these attributes to every state] is used to set all attributes of the present state to other states.

## **Settings of Picture Library**

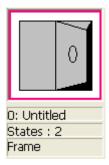
## [Picture Library]

Refer to the part (II) at the last of this section for information related to the settings of [Picture Library ...].

## 3.1 How to set [Shape Library ...]

Click [Shape Library ...] and a setting dialog box, as shown in the picture below, will be displayed. From the dialog box, you can see that the presently selected pattern is marked with a red frame.

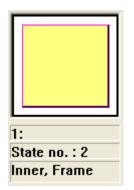
| arrow2<br>arrow3<br>button4<br>System Frame<br>System Lamp<br>O: Untitled<br>States : 2<br>Frame<br>Frame<br>D: Untitled<br>States : 2<br>Frame<br>D: Untitled<br>States : 2<br>Frame<br>D: Untitled<br>States : 2<br>Frame<br>Frame<br>Frame | St                        | ate : 0                            | 012  | 34567  | ן  |
|---|---------------------------|------------------------------------|--|--|--|
| State 0 ~ State 11 :<br>4: 5: Untitled 5: Untitled 5: Untitled 7: Untitled 7: Untitled 5: States : 3 States : 3 States : 3  | D: Untitled<br>States : 2 | States : 2                         | States : 2   | States : 2   | Select Lib<br>New Lib<br>Unattach Lib.   |
| States : 3 States : 3 States : 3  |                           |                                    |  |  | Place  |
|   | States : 3                | States : 3                         | States : 3   | States : 3   |  |
|   |                           | 0: Untitled<br>States : 2<br>Frame | 0: Untitled<br>States : 2<br>Frame<br>4:<br>States : 3<br>States : 3 | 0: Untitled       1: Untitled         States : 2       1: Untitled         Frame       1: Untitled         States : 2       Frame         Frame       1: Untitled         States : 2       Frame         Frame       1: Untitled         States : 2       Frame         Frame       1: Untitled         States : 3       1: Untitled | 0: Untitled       1: Untitled         5: Untitled       1: Untitled         5: Trame       2: Untitled         6: Untitled       1: Untitled         5: Untitled       1: Untitled |



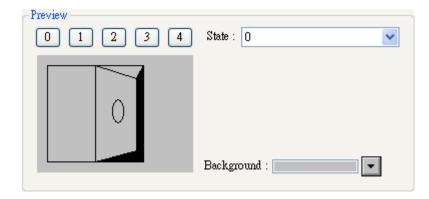
The above picture gives information of one of the Shapes in the Shape Library as follows:

| 0: Untitled  | This indicates the Shape's name and number in the library.            |
|--------------|---|
| State no.: 2 | This indicates the number of the Shape's states, and in this case, it |
|              | shows the Shape possesses two states.                                 |
| Frame        | This indicates that the Shape is set with "frame" only.               |

And the picture below shows that the Shapes is set with "inner" and "frame."



Refer to the illustrations in the "Setting-up and using Shape Library and Picture Library" section for the details about all of the settings in the "Shape Library's setting dialog box." After completing all the settings and clicking [OK], the selected Shape will be applied to the object, as shown in the picture below.



# 3.2 How to set [Picture Library ...]

Click [Picture Library ...] and a setting dialog box, as shown in the picture below, will be displayed. From the dialog box, you can see that the presently selected picture is marked with a red frame.

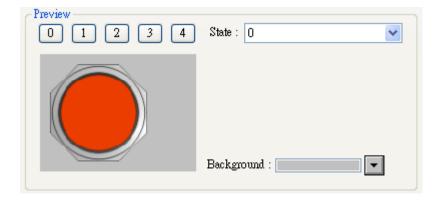
| cture Library        |                |               |                   |                   |               |
|----------------------|----------------|---------------|-------------------|-------------------|---------------|
| ibrary :             |                |               | State : 0         |                   | 12345         |
| button1<br>con1      |                |               |                   | $\bigcirc$        |               |
|                      |                | 0:PB Red      | 1:PB Green        | 2:PB Yellow       | 3:PB Blue     |
|                      |                | States : 2    | States : 2        | States : 2        | States : 2    |
|                      |                | 30054 bytes   | 30054 bytes       | 30054 bytes       | 30054 bytes   |
|                      |                | BMP (100x100) | BMP (100x100)     | BMP (100x100)     | BMP (100x100) |
| itate 0 ~ State 11 : |                |               |                   |                   |               |
|                      |                | 4:Lamp Red    | 5:Lamp Green      | 6:Lamp Yellow     | 7:Lamp Blue   |
|                      |                | States : 2    | States : 2        | States : 2        | States : 2    |
|                      |                | 30054 bytes   | 30054 bytes       | 30354 bytes       | 30054 bytes   |
|                      |                | BMP (100x100) | BMP (100x100)     | BMP (100x101)     | BMP (100x100) |
| Select Lib           | New Lib        | Unattach Lib. | Rename            | Export            | ОК            |
| Import Picture       | Modify Picture |               | Delete All States | Delete Cur. State | Cancel        |
|                      |                |               | Insert Before     | Insert After      | 7             |



The above picture gives information of one of the Picture in the Picture Library as follows:

| Picture name              | : 0 : PB Red  | the name of the Picture          |  |
|---------------------------|---|----------------------------------|--|
| Total states              | : 2   | the number of the Picture states |  |
| Image size                | : 30054   | the size of the Picture          |  |
| BMP                       | : the format of the Picture; BMP means bitmap Picture and its |                                  |  |
| format can be JPG or GIF. |   |                                  |  |

Refer to the illustrations in the "Setting-up and using Shape Library and Picture Library" section for the details about all of the settings in the "Picture Library's setting dialog box." After completing all the settings and clicking [OK], the selected Picture will be applied to the object, as shown in the picture below.



### 4. Setting text content

See the picture below, go to the Bit Lamp Object's Properties menu and then click the [Label] tab, where you can set the text content that is going to be applied in the object.

| New Bit Lamp Object                              | × |
|--|---|
| General Shape Label                              | _ |
| Use label  |   |
| Use label library                                |   |
|  |   |
|  |   |
| State : 0 🗸 🖌 0 1                                |   |
| Attribute  |   |
| Font : Arial                                     |   |
| Color : Size : 16                                |   |
| Align : Left V Blink : None V                    |   |
| Italic Underline                                 |   |
| Duplicate these attributes to every state        |   |
| Movement   |   |
| Direction : Left Continuous                      |   |
| Speed :  |   |
| Content :  |   |
| test   |   |
|  |   |
|  |   |
|  |   |
| Tracking     Duplicate this label to every state |   |
|  |   |

### [Use label]

[Use label] is used to select the font for the text. The EB8000 supports WINDOWS's true-font.

### [Use label library]

Check "Use label library" the label will display content of label library, as below illustration.

| 🗌 Use label         |             |        |               |
|---------------------|-------------|--------|---------------|
| 🗹 Use label library | Label tag : | NONAME | *             |
|                     |             |        | Label Library |

# [Label Library ...]

Refer to the illustrations in the "Setting-up and using Text and Label Library" section to view the content of label library.

# [Font]

Select font style in font list.

# [Color]

[Color] is used to select the font color for the text.

# [Size]

[Size] is used to select the font size for the text. The EB8000 supports all the text sizes.

# [Align]

[Align] is used to define the alignment method of the text input more than one line. The picture below shows how the lines of the text to be aligned by specifying "Left" in [Align].

#### 111 222222 33333333333

The picture below shows how the lines of the text to be aligned by specifying "Center" in [Align].

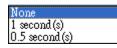
#### 111 222222 3333333333

The picture below shows how the lines of the text to be aligned by specifying "Right" in [Align].

#### 111 222222 3333333333

# [Blink]

[Blink] is used to define how the text blinks. There are three options in text blinking setting: specifying "Normal" for non-blinking text, or specifying the blinking speed to be "1 second" or "500 ms" for blinking text.



# [Italic]

[Italic] is used to set whether or not to use italics.

# Italic Label

# [Underline]

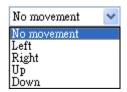
[Underline] is used to set whether or not to underline the text.

# Underline Label

## Settings in "Movement"

## [Direction]

[Direction] is used to set the direction of the text movement while using the marquee effect, which is available in a choice of directions shown in the picture below:



# [Continuous]

When setting to use the marquee effect, the text in the picture below will be displayed in two ways:



When not selecting [Continuous], the latter text will emerge only after the former text disappears completely. See the picture below.

When selecting [Continuous], the text will emerge continuously.



## [Speed]

[Speed] is used to set the speed of the text movement.

## [Content]

[Content] is used to set the content of the text. If using the Label Library, the content will be sourced from the Label Library.

## [Tracking]

When selecting [Tracking], moving the text of some state will also move the text of other states.

## [Duplicate this label to other states]

This function can be used to duplicate the present text content to the other states.

## 5. Adjusting profile size

See the picture below, go to the Bit Lamp Object's Properties menu and then click the [Profile] tab to adjust the position and size of the object.

| Bit Lamp Object's Pro | operties     |               | × |
|-----------------------|--------------|---------------|---|
| General Shape La      | bel Profile  |               |   |
| Position<br>Pinned    | X: 14 😂      | ¥: 40 🗘       |   |
| Size                  | Width : 50 📚 | Height : 50 🜲 |   |

## Settings in "Position"

### [Pinned]

Pinning the settings of the position and size of the object by selecting [Pinned], and the position and size of the object will not be able to change.

[X] and [Y] are the coordinates on the top left-hand corner of the object.

### Settings in "Size"

# [Width], [Height]

Used to adjusting the width and height of the object.

Before introduce Object properties, below is usage of station number variable and broadcast station no.

# Station number's variable

MT6000/8000 is available to use station number's variable in PLC address setting, as below picture, the var2 is one of 16 station numbers variable. This feature is available for EB8000 V1.31 or later.

| – Read address –––– |                     |
|---------------------|---------------------|
| PLC name :          | MITSUBISHI FX0n/FX2 |
| Device type :       |                     |
| Address             | var2#123            |

The syntax of Station number's variable is

#### varN#address

N's range is from 0~15 (integer), address is PLC's address as below two examples,

var5#234 (var5 is station number, 234 is PLC's address)

var15#456 (var15 is station number, 456 is PLC's address)

MT6000/8000 offer 16 station numbers : var0 ~ var15, Those station number are read

value

From LW10000~LW10015, the list as below is variable and LW's system reserve address :

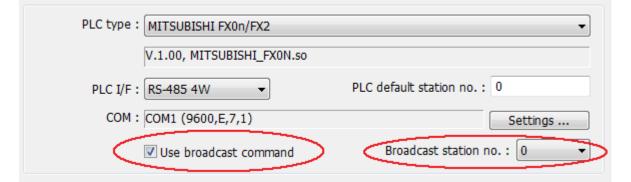
| var0 | LW10000 |
|------|---------|
| var1 | LW10001 |

| LW10002 |
|---------|
| LW10003 |
| LW10004 |
| LW10005 |
| LW10006 |
| LW10007 |
| LW10008 |
| LW10009 |
| LW10010 |
| LW10011 |
| LW10012 |
| LW10013 |
| LW10014 |
| LW10015 |
|         |

For example, var0's value is read from LW10000, when LW10000 is 32, that means var0#234 = 32#234 (the station number is 32); meanwhile, var13 is read from LW10013, when LW10013 is 5, the var13#234 =  $5#234 \circ$ 

#### **Broadcast Station no.**

MT6000/8000 offer two ways for user to use broadcast command. First is setting the broadcast in EB8000/Edit/System parameters/Device, as below picture



Second, Use system tag to enable or disable broadcast station no and change broadcast station

no., the related system tag as below list.

LB9065 disable/enable COM 1 broadcast station no.

LB9066 disable/enable COM 2 broadcast station no.

LB9067 disable/enable COM 3 broadcast station no.

LW9565 COM 1 broadcast station no.

LW9566 COM 2 broadcast station no.

LW9567 COM 3 broadcast station no.