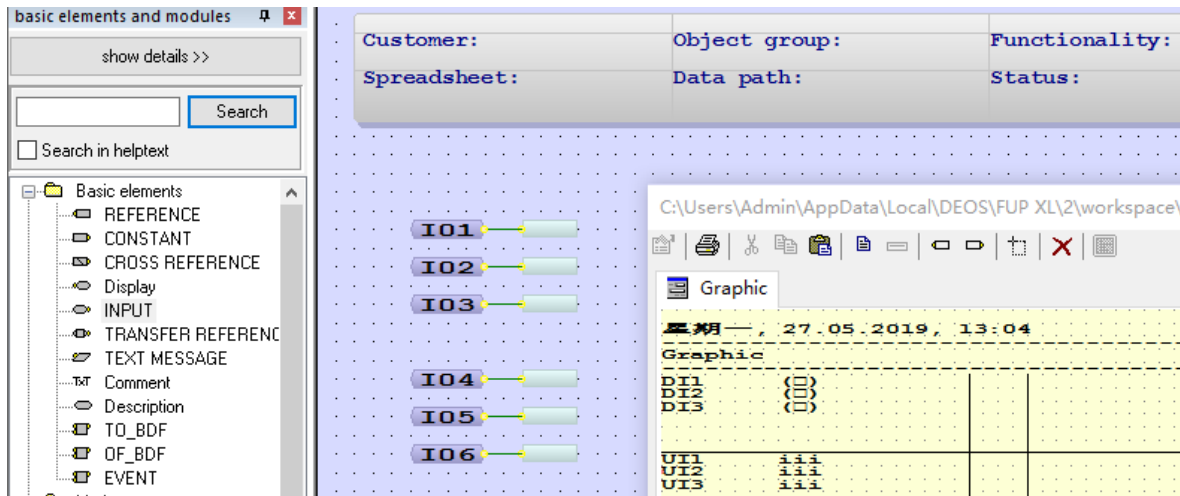
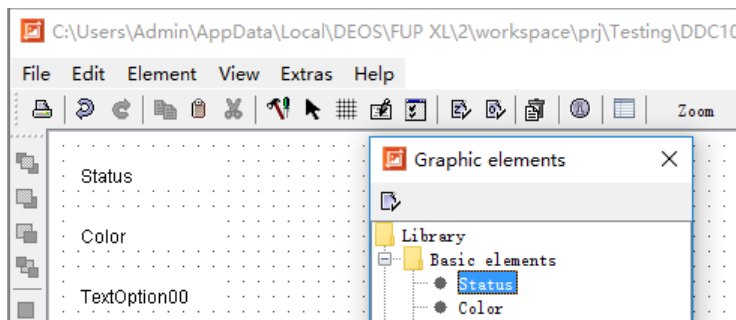


TT190701 – FUP - Graphic Elements for Digital Point

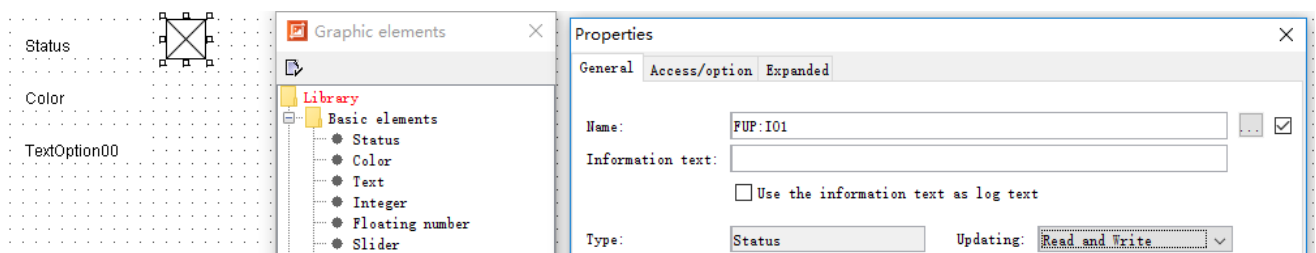
1. There are many ways to display and command digital point on graphic. We will try to show you most of them in this document. First, we create a new FUP page called “graphic”, and add 3 “Input” with type “Bit” and 2 with type “UI”



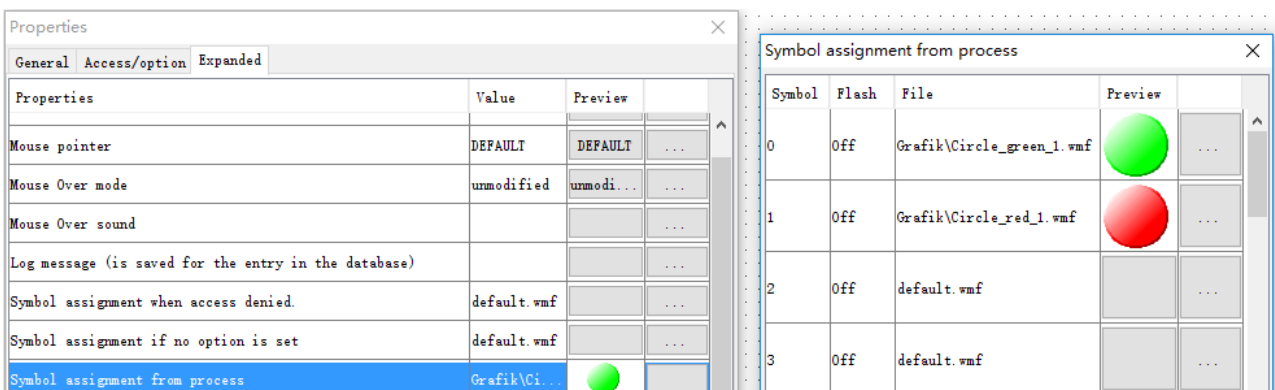
2. Next, we add a new graphic page named “Digital”. Add 3 “Text” elements with the name “Status”, “Color” and “TextOption00”



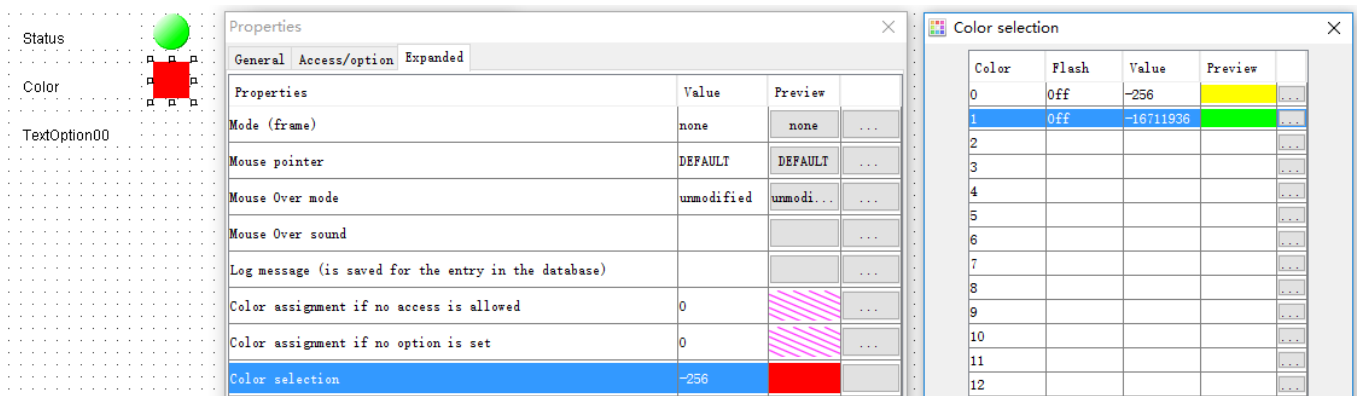
3. The 1st we use is “Status”. Add it to your graphic, link to “I01”, and change to “Read and Write”



4. Go to “Expand” tab, set the symbol for value 0 and 1, using the “2D Graphic Library”, under “Symbols” folder



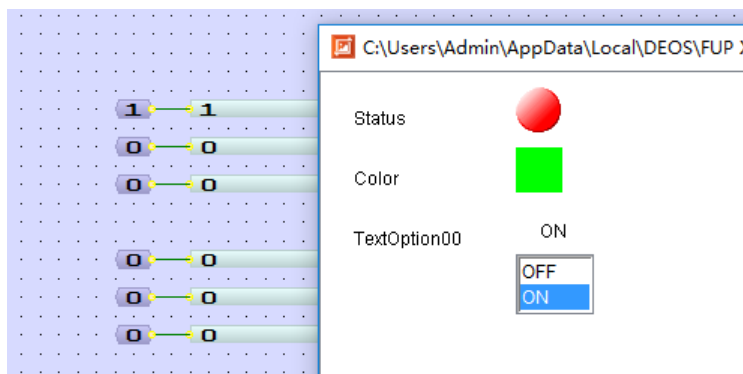
5. The 2nd we use is “Color”, same settings as “Status”, set to color for value 0 and 1.



6. The 3rd we use is “TextOption00”, same settings as “Status”, set the “Text” to “OFF” and “ON”.



7. Click the button to test your graphic. Click on the “Status” and “Color” to turn it on/off, and use the dropdown combo box for the “TextOption00”. If you need read only, just set the “Updating” to “Read”



8. For both “Status” and “Color”, there is an option for dropdown menu to command it (like the one for “TextOption00”). To enable it, go to “Expand” tab and change it to 1. There is also option to make it flash when

Symbol	Flash	File	Preview
0	On	Grafik\Circle_green_1.wmf	

9. For “TextOption00”, we have an option to set the foreground (text) and/or background color to flash when it is value 1.

Flash (0=No, 1=Yes)	FUP:I01	FUP:I01
Foreground flash color	-16711936	
Background flash color	-65536	

10. All three elements can display and control points with more than 2 status, e.g. Off/On/Auto. Link them to the “I04”, and change the graphic, color and text for value is 2.

Symbol assignment from process

Symbol	Flash	File	Preview
0	Off	Grafik\Circle.wmf	
1	Off	Grafik\Circle_green_1.wmf	
2	Off	Grafik\Circle_red_1.wmf	

C:\Users\Admin\AppData\Local\DEOS\FUP XL\2\workspace

Status

Color

TextOption00

OFF

OFF

AUTO

11. In our graphic library, there are many other graphics you can use for “Status”. Also, from Internet, we can easily find many beautiful buttons to use with “Status”.

Symbol	Flash	File	Preview
0	Off	Grafik\Switch_02.wmf	
1	Off	Grafik\Switch_03.wmf	

Symbol	Flash	File	Preview
0	Off	C:\Users\Admin\Desktop...	
1	Off	C:\Users\Admin\Desktop...	

Symbol	Flash	File	Preview
0	Off	Grafik\Selector_switch...	
1	Off	Grafik\Selector_switch...	

C:\Users\Admin\AppData\Local\DEOS\FUP XL\2\workspace\prj\Testing\DDC101\graphic.fut - FUP Graphic Editor

Status

ON

OFF

ON

OFF

AUTO

Color

TextOption00

ON

ON

OFF

12. The next 2 elements are “CheckBox00” and “Option00”. Add a “CheckBox00” element and set it like below. Use the button to make it looks like a checkbox.

CheckBox00

Option00

Library

Basic elements

Control elements

CheckBox00

Option00

LockSwitch00

Pushbutton00

DialogCall01

DialogCall04

DialogCall06

Properties

General

Access/option

Expanded

Name: FUP:IO1

Information text:

Use the information text as log text

Type: CheckBox00

Updating: Read and Write

13. For “Option00”, you need to add 2 “Option00”, 1 for “OFF” and 1 for “ON”. For the one “ON”, you need to set the “Option is set with this value” to 1.

Option00

ON

OFF

Graphic elements

Library

Basic elements

Control elements

CheckBox00

Option00

LockSwitch00

Pushbutton00

DialogCall01

DialogCall04

DialogCall06

Dialog01

Dialog05

Dialog06

Properties



















General

Access/option

Expanded

Properties	Value	Preview
Mode (frame)	none	none
Mouse pointer	DEFAULT	DEFAULT
Mouse Over mode	unmodified	unmodi...
Mouse Over sound		
Log message (is saved for the entry in the database)		
Symbol assignment when access denied.	default.wmf	
Symbol assignment if no option is set	default.wmf	
Option is set with this value	1	1



14. Using the table we created in TT190501, we can make a very nice display



Name	Type = Bit	Type = UI
Status	    ON OFF 	 ON OFF AUTO 
Color	 	
TextOption00	ON 	ON 
CheckBox00		
Option00	 ON  OFF	 OFF  ON  AUTO

15. The next one is “LockSwitch00”. We can use it to create button for on/off or fan speed

LockSwitch00	 	  
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16. For on/off, we create 2 “LockSwitch00”, one for “ON” and one for “OFF”. For the “ON” button, we assign 1 when it is pressed, and assign the graphic for button pressed and not pressed


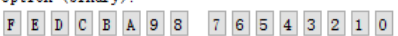
Image is printed with this value	1	1	...
Image if switch is pressed	Grafik\on...		...
Image if switch is not pressed	Grafik\On...		...

0	0
Grafik\of...	
Grafik\of...	

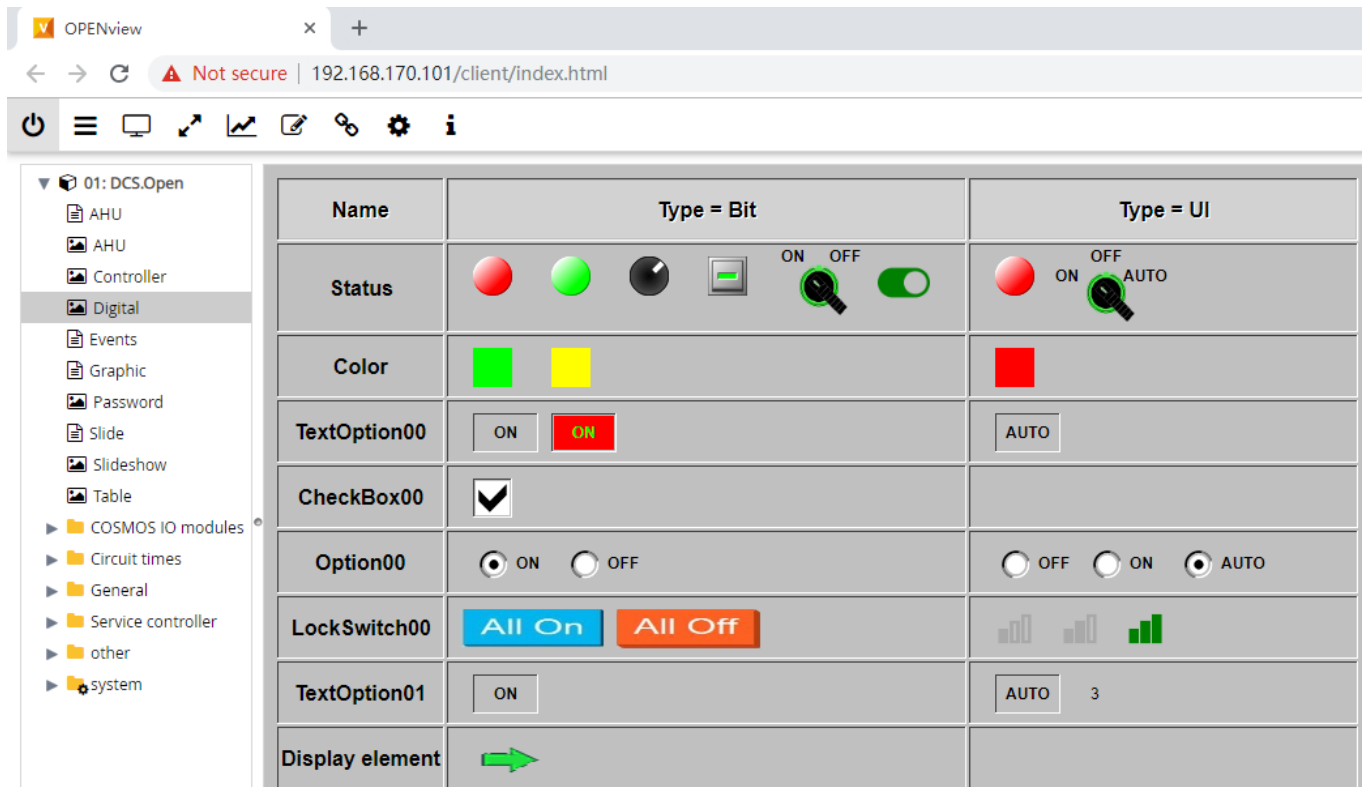
17. “TextOption01” is like “TextOption00”, but you can assign any value to be display, e.g. 1 for “ON”, 2 for “OFF”, and 3 for “AUTO”, for some Modbus FCU, instead of always start from 0.

Properties			
General Access/option Expanded			
Properties	Value	Preview	
Process value 0	1	1	...
Text 0	OFF	OFF	...
Process value 1	2	2	...
Text 1	ON	ON	...
Process value 2	3	3	...
Text 2	AUTO	AUTO	...

18. The last one is to use “Display Element” to show the graphic when the input in 1, e.g. animation for flow using arrow, or alarm icon when point in alarm

Properties	
General Access/option Expanded	
Access (binary):	(hexadecimal)
	<input type="text" value="0xC00E"/>
Option (binary):	(hexadecimal)
	<input type="text" value="0x0000"/>
Option value (process link):	<input type="checkbox"/> ..
Display element:	<input checked="" type="checkbox"/> ..
<input type="text" value="FUP: I01"/>	

19. Here is the final graphic.



20. Please note that you need to set “Updating” to “Read and Write”, otherwise the command will not work

21. Also, you can set the “Mouse Pointer” to “Hand”, so that when user mouse over the button, the mouse pointer will change to “Hand”, so user will know it is commandable

