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**HX-CPU & HX-CODESYS Training**  
**【 Web visualization 】**

# Outline



“**Visualization**” is function that the status or value of data in program displays by lamp or meter.

It is convenience for programmer because Programmer can be check the operation of program without source code.

Lamp

Switch

Analog meter

**NEXT II series** HITACHI Inspire the Next **HX**

RUN ERR Error Status

パラメータ 現在値

吐出圧力	0	MPa
吐出温度1	0	Step C
吐出温度2	0	Step C
筒体温度	0	Step C
ON時間	0	min
OFF時間	0	min
負荷率	0	%

パラメータ 現在値

電流	0	A
漏流量	0	l/min
発熱出力	0	W
負荷回数	0	回
運転時間	0	min
負荷時間	0	min

No.	Time	Log
0	01/20/16 04:04:45.35	Operation
1	01/20/16 04:04:59.59	WVF Error
2	01/20/16 04:04:59.59	STOP
3	01/20/16 04:04:59.59	High Temperature
4		
5		
6		
7		
8		
9		
10		

コントローラ一体型PMモータ搭載ポンプ HITACHI Inspire the Next **HX**

**HE Pump**

パラメータ 現在値

稼働時間	%d
出力電流	%d

電動バルブ

流量計 (ラインポンプ) 流量 %d [m<sup>3</sup>/h]

流量計 (HEポンプ) 流量 %d [m<sup>3</sup>/h]

電動バルブ 開程 %d [mm]

電動バルブ 開程 %d [mm]

トッピングモータ搭載  
PMモータ搭載  
50N-E61.5  
消費電力 %d [W]

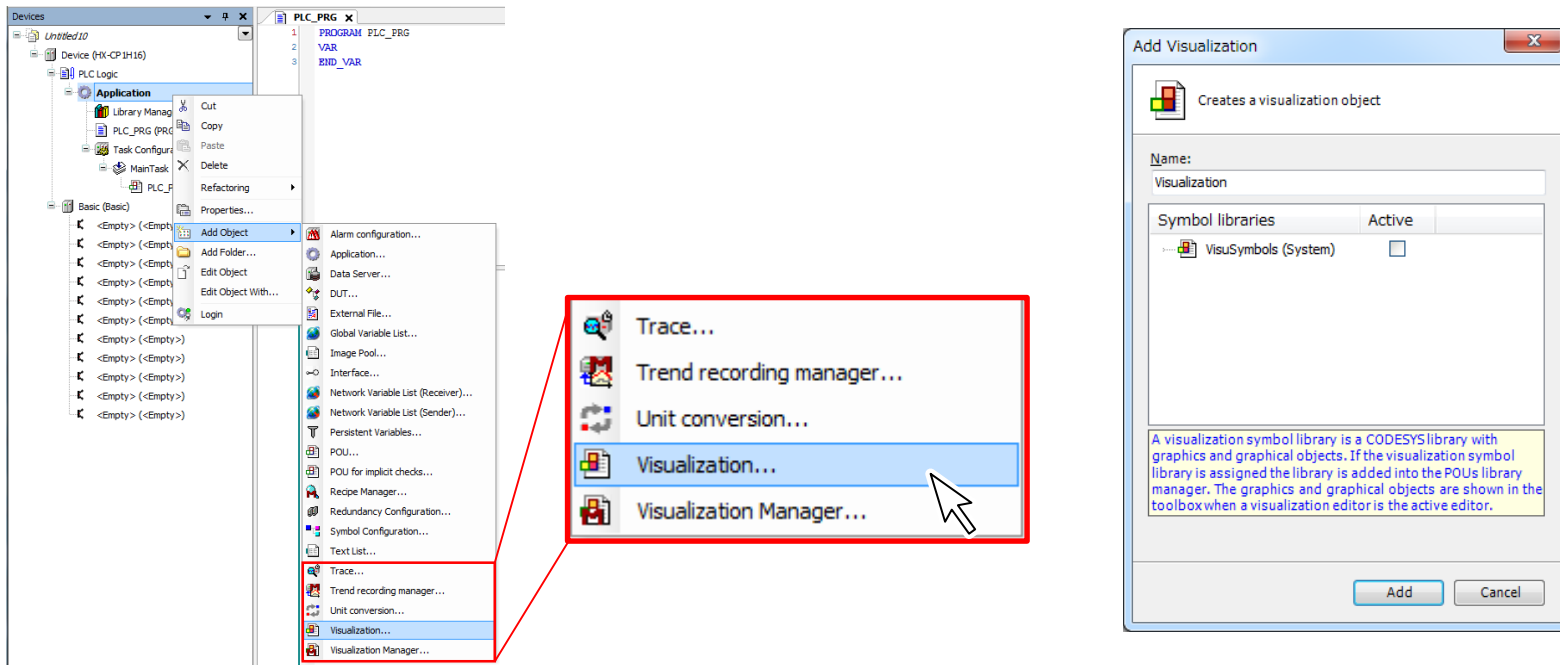
エトローラ一体型  
PMモータ搭載  
50N-1.5(1.5kW)  
消費電力 %d [W]

As to the high function model, the visualization can be displayed on the browser like Internet explore, google chrome, and so on.

If customer connects the tablet to HX, tablet can be used as HMI.

## Registration of visualization

Right click the mouse on “Application” in project tree, and select “Visualization” from “Add object” on submenu.

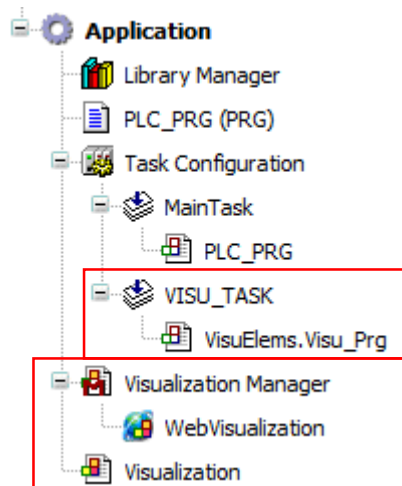


When “Add visualization” window appears, click “add” button.

## Registration of visualization

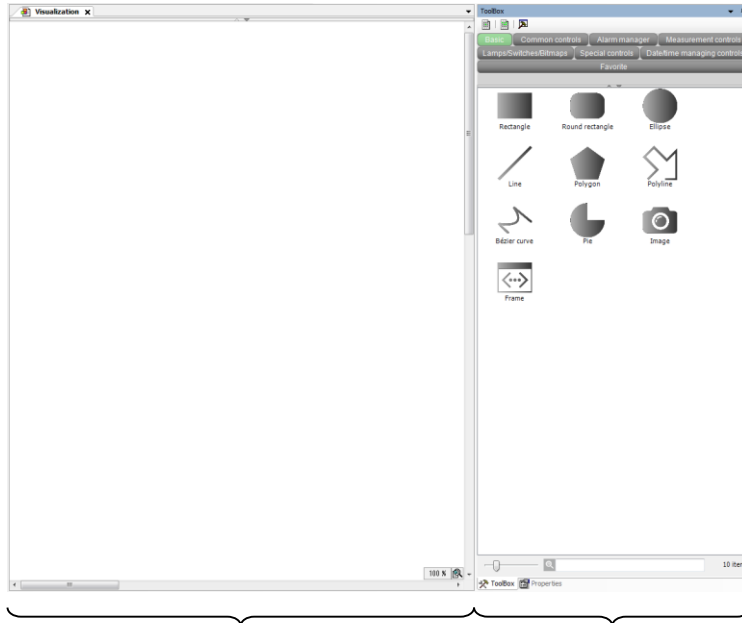
The visualization manager and Visualization are added to the project tree.

“VISU\_TASK” for visualization is added in the directory of “Task Configuration” automatically.



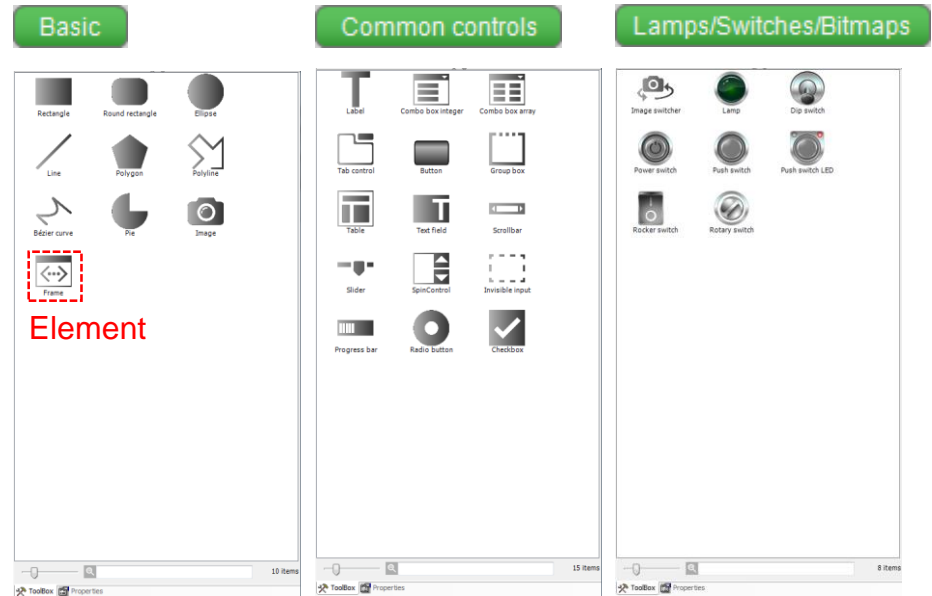
## Draw the visualization

When you double click “Visualization” on the project tree, Visualization Editor and Visualization tool box will be appeared.



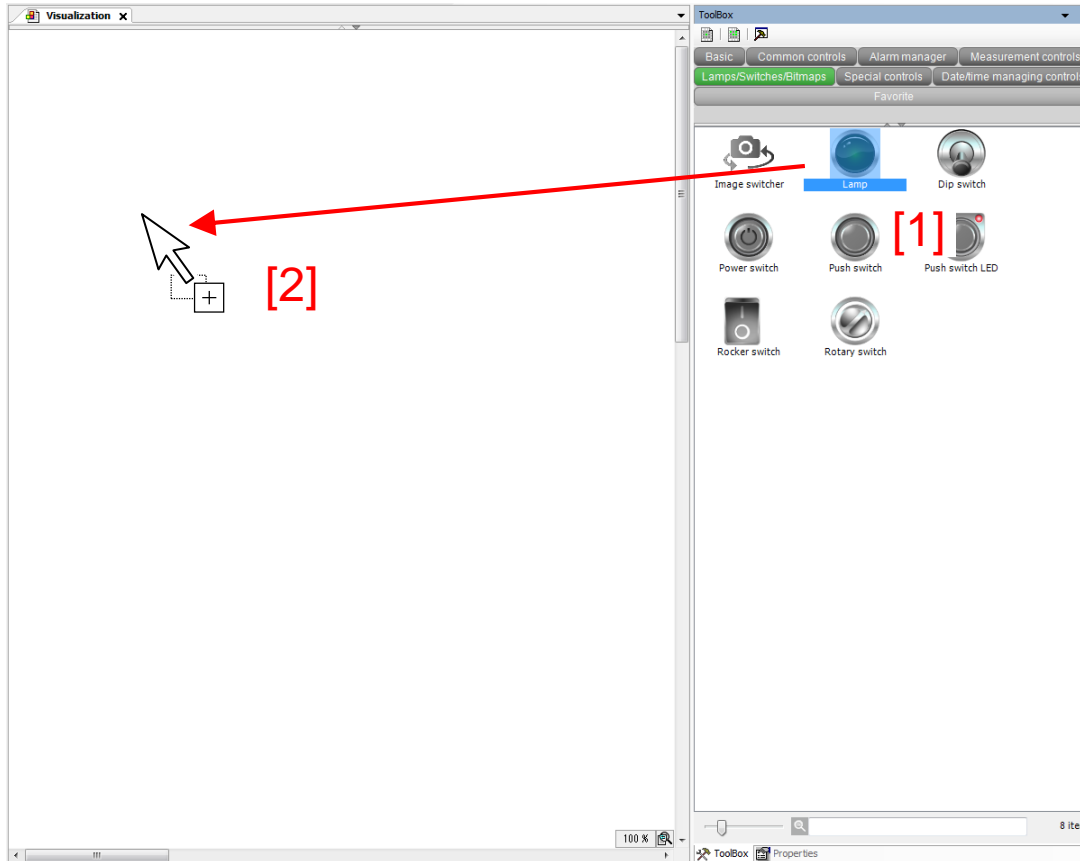
Visualization Editor

Visualization tool box

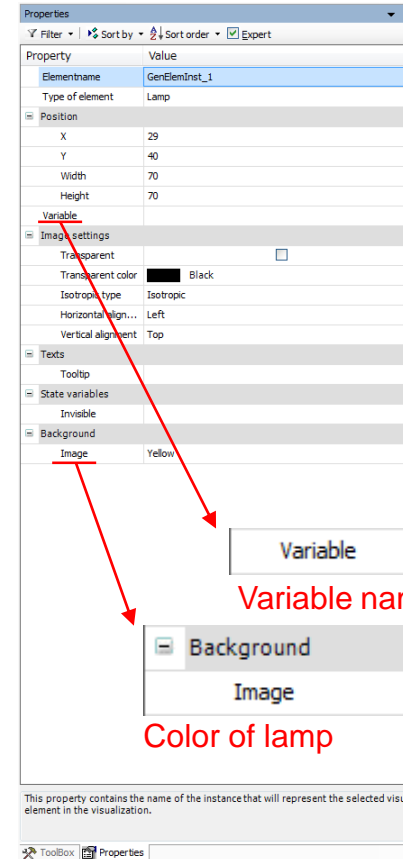


There are the parts (element) that makes up the screen in visualization tool box.

## Procedure to draw a lamp

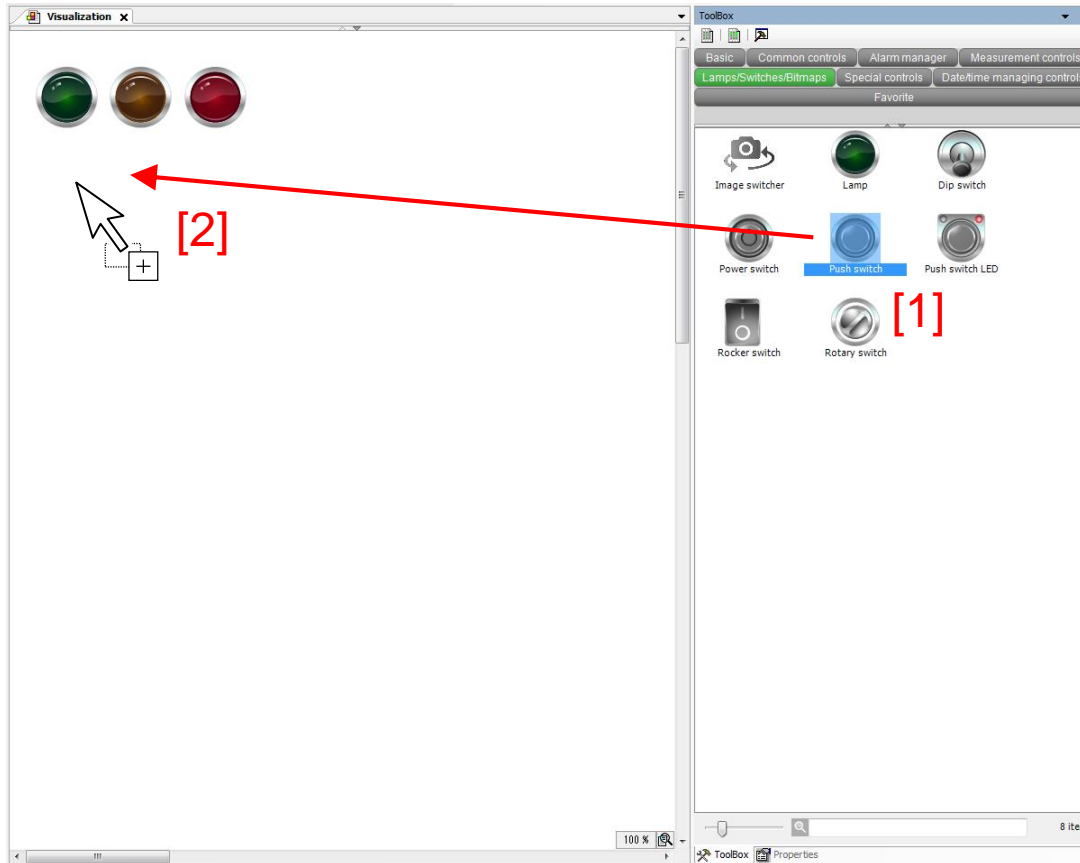


[3]

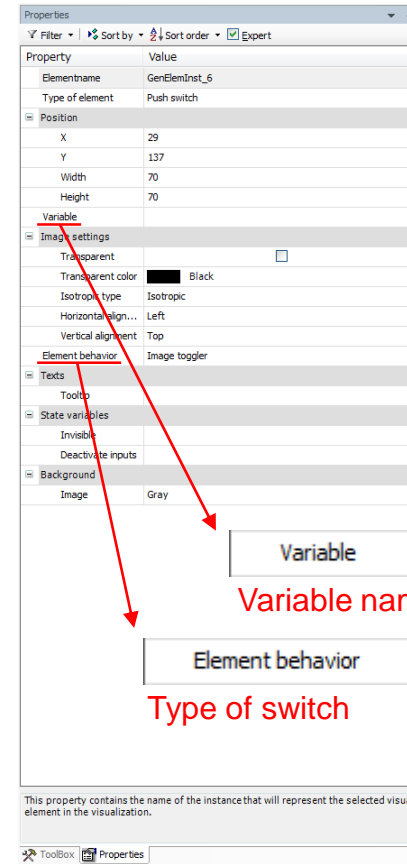


- [1] Select the element (lamp) from tool box.
- [2] Drag and drop this element to the editor portion.
- [3] Set the parameters of element in the property list.

## Procedure to draw a switch

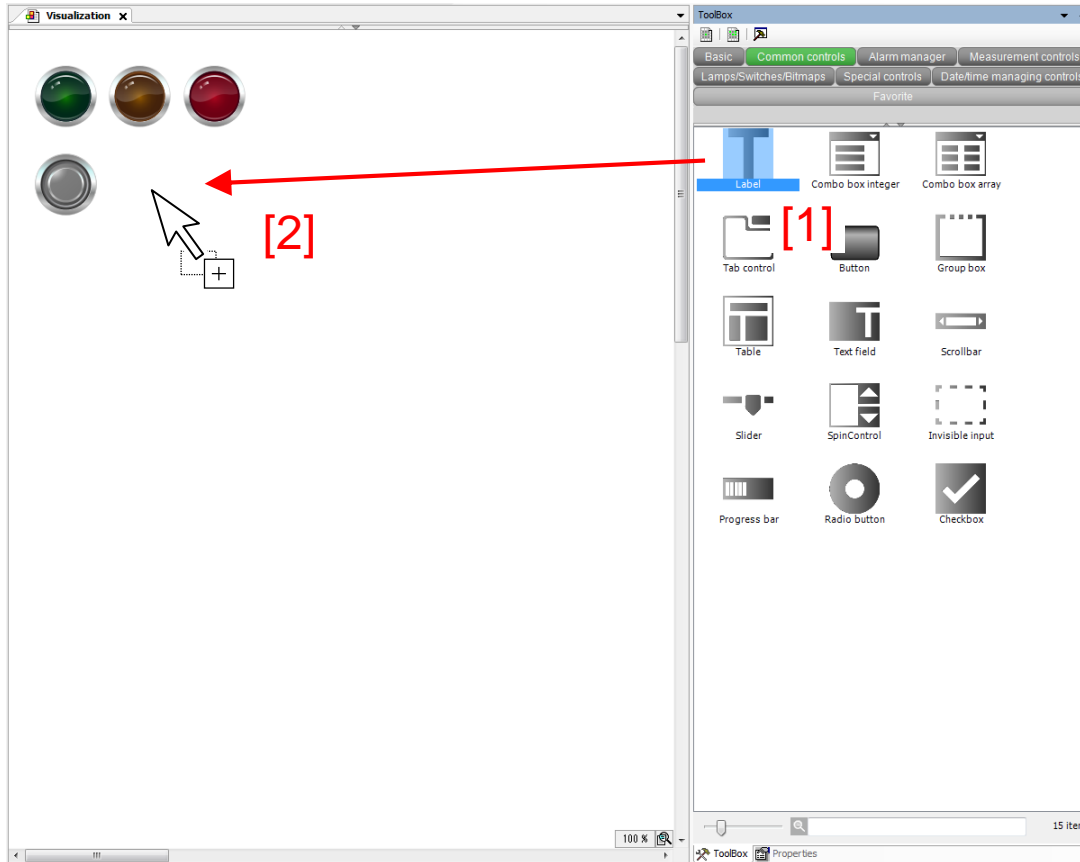


[3]

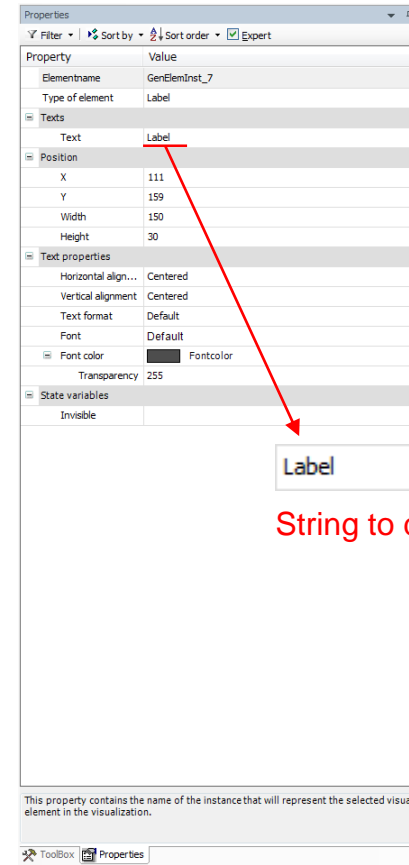


- [1] Select the element (switch) from tool box.
- [2] Drag and drop this element to the editor portion.
- [3] Set the parameters of element in the property list.

## Procedure to draw a text



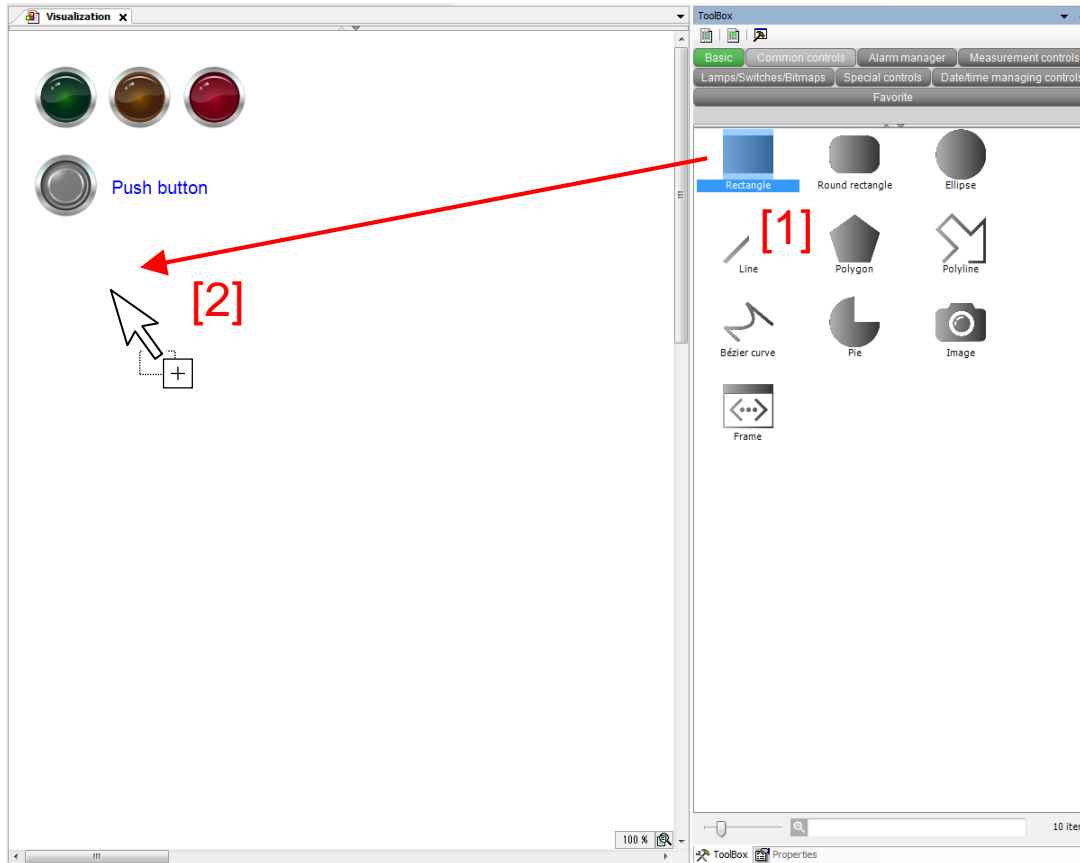
[3]



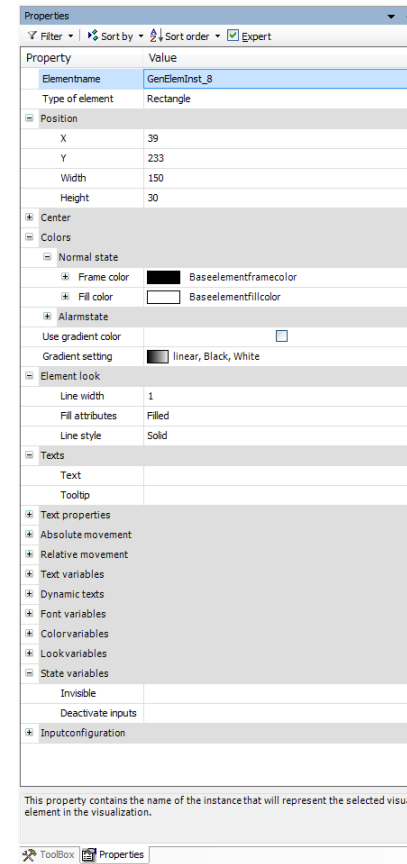
String to display

- [1] Select the element (label) from tool box.
- [2] Drag and drop this element to the editor portion.
- [3] Set the parameters of element in the property list.

## Procedure to draw a figure

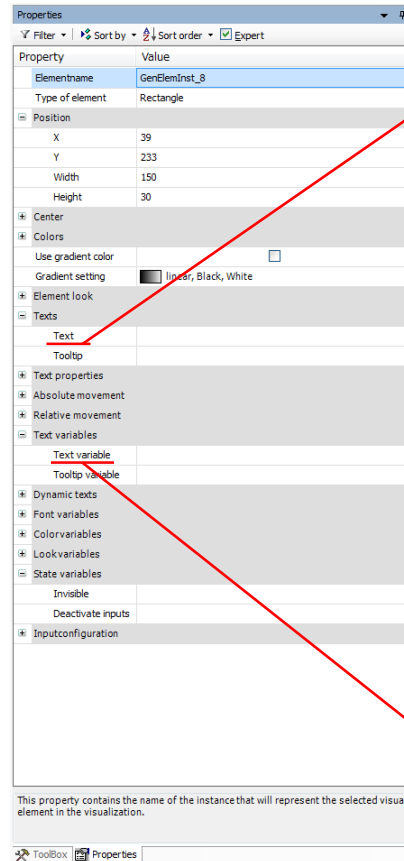
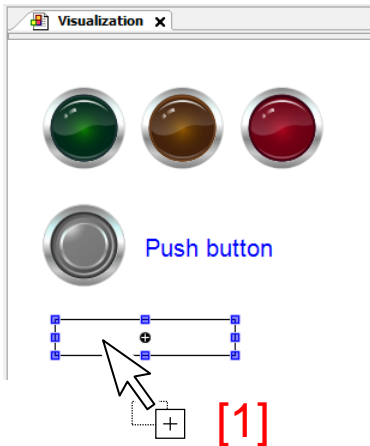


[3]



- [1] Select the element (rectangle) from tool box.
- [2] Drag and drop this element to the editor portion.
- [3] Set the parameters of element in the property list.

# Procedure to display the value of variable name in the figure



[2]

Argument specifiers

Specifier	Mean
%u	Decimal without sign
%d	Decimal with sign
%x	Hexadecimal
%s	String
%f	Real *

\* In case of real, it is possible to specify the number of display digits before and after the decimal point.  
Example) %2.1f ... 12.3 %1.3f ... 1.234

[3]

Variable name

- [1] Select the element (Rectangle).
- [2] Set argument specifiers for variable name.
- [3] Set variable name to display in the element.

## Procedure to draw an image file

The composite image illustrates the three-step procedure:

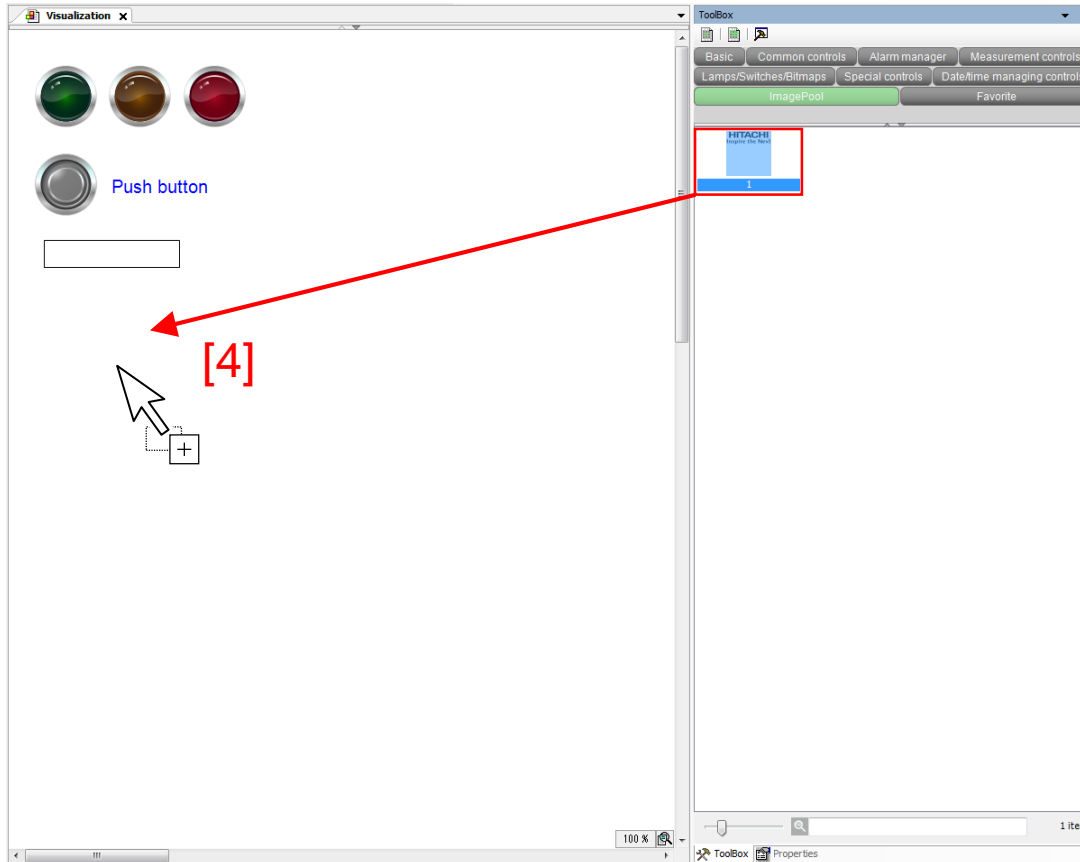
- [1]** In the 'Devices' tree, the 'Add Object' menu is open, and 'Image Pool...' is selected.
- [2]** The 'ImagePool' window is shown with a table containing columns for ID, File name, Image, and Link type. A 'Select Image' dialog box is open, showing options for how to handle the image file.
- [3]** The 'ToolBox' is shown with the 'ImagePool' button highlighted, and a registered image file (Hitachi logo) is displayed in the 'Image Pool' section.

[1] Select "Image Pool" from "Add object" on submenu.

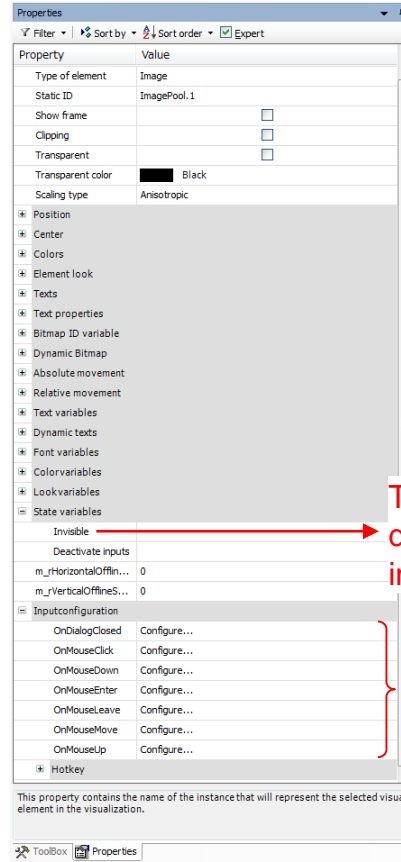
[2] Register the image file.

[3] Registered image file displays in Image Pool in tool box.

## Procedure to draw an image file



[5]



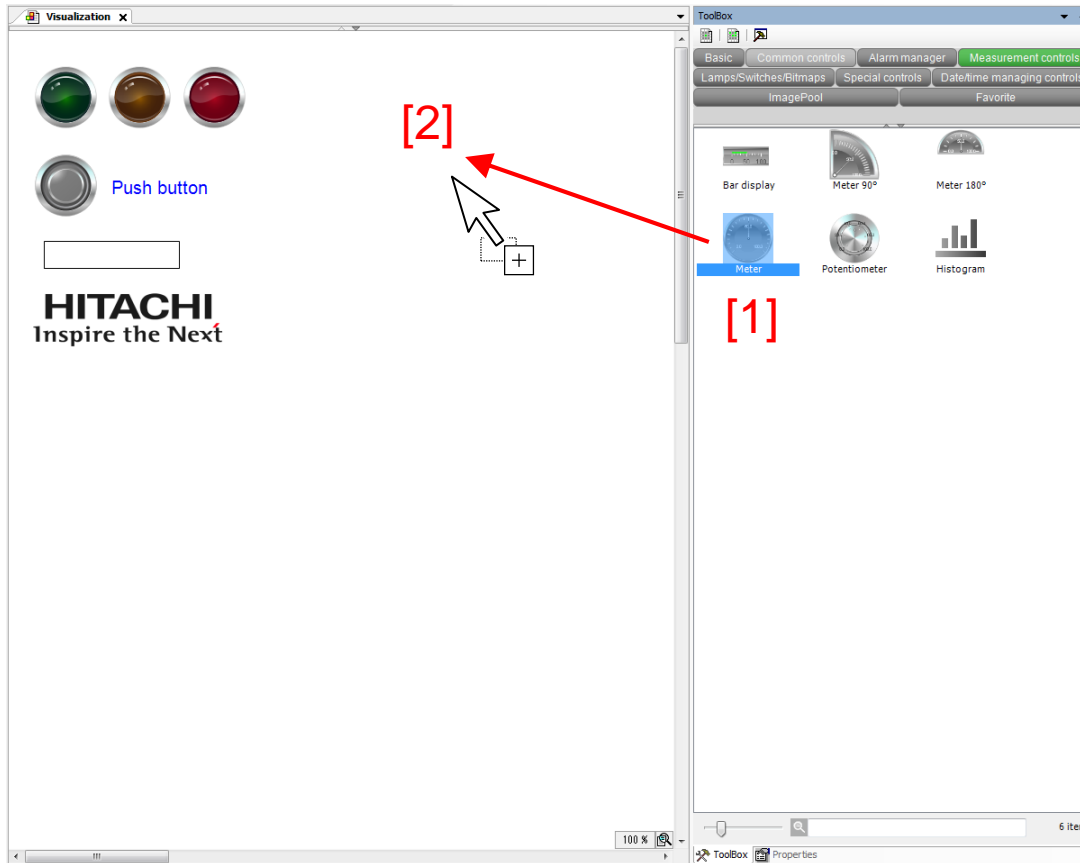
Toggle between displaying and hiding images

Configure the operation against the mouse action

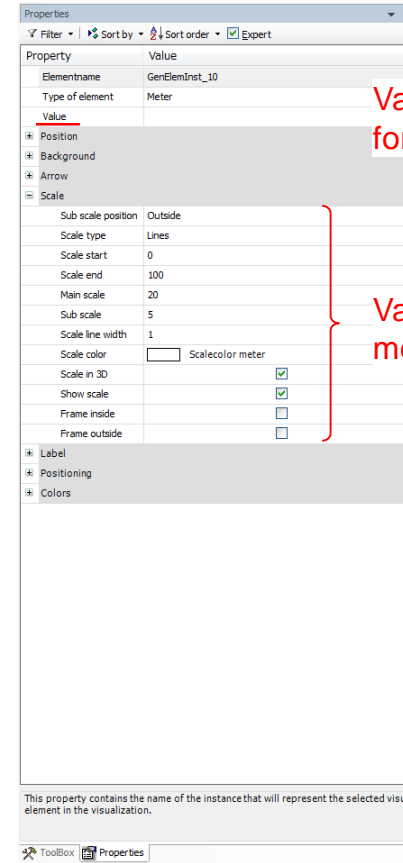
[4] Drag and drop this element (Image file) to the editor portion.

[5] Set the parameters of element in the property list.

## Procedure to draw an analog meter

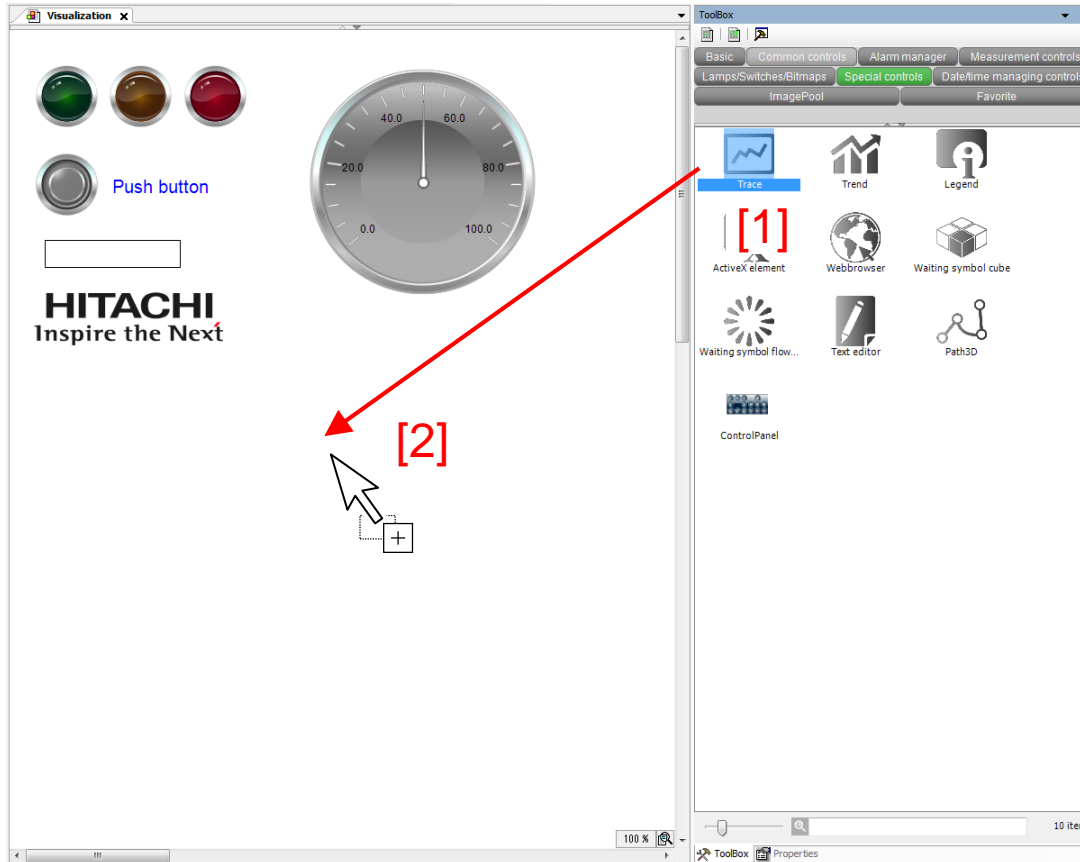


[3]

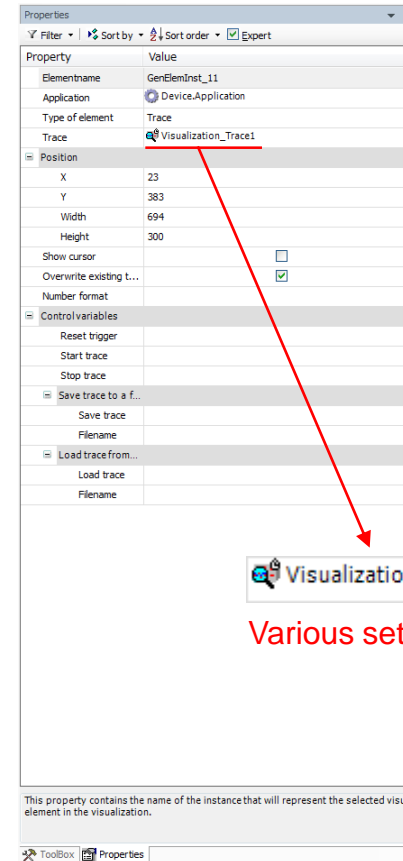


- [1] Select the element (meter) from tool box.
- [2] Drag and drop this element to the editor portion.
- [3] Set the parameters of element in the property list.

## Procedure to draw a graph (trace)

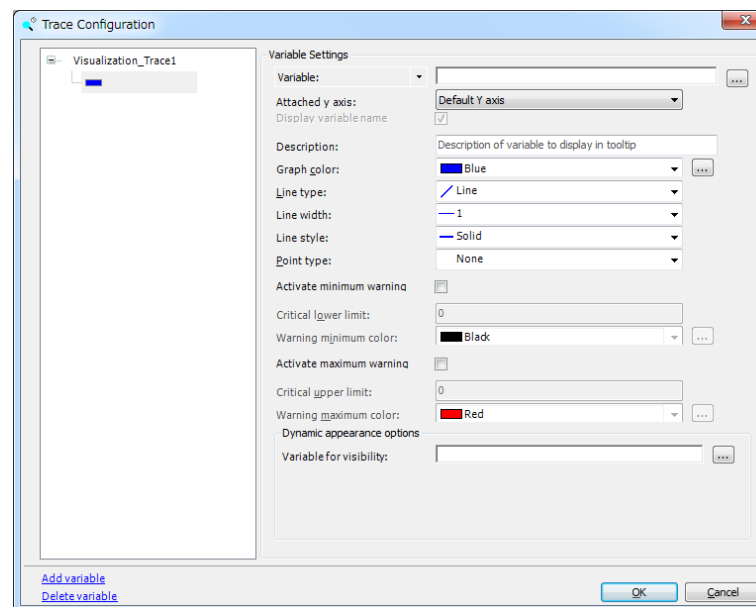
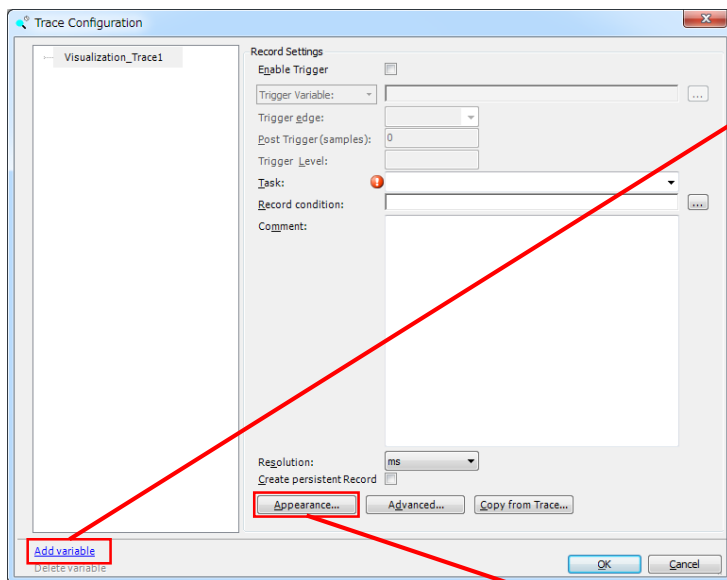


[3]



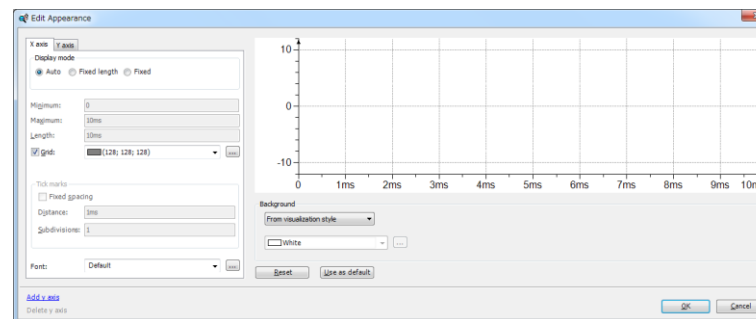
- [1] Select the element (trace) from tool box.
- [2] Drag and drop this element to the editor portion.
- [3] Set the parameters of element in the property list.

## Procedure to draw a graph (trace)



[4] Add the variable name, and select the color of graph.

[5] Set the range of X-axis and Y axis, etc.



**END**



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