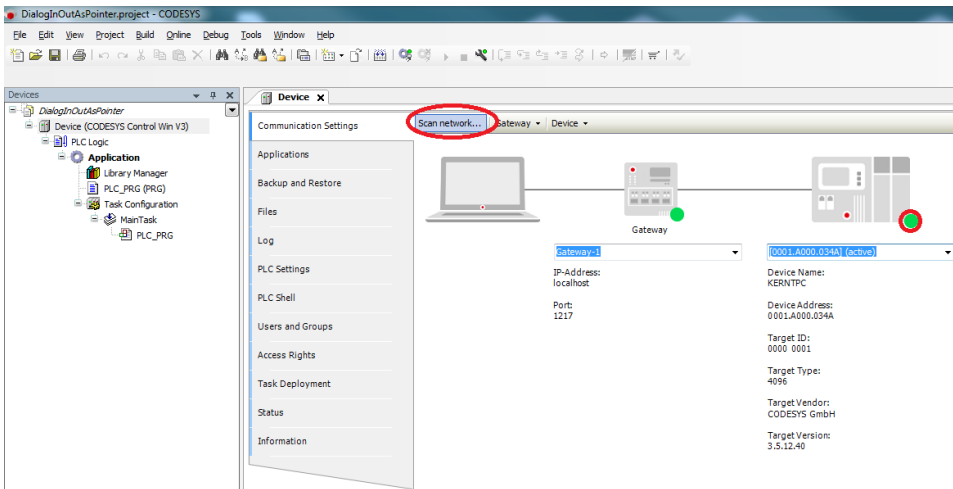


Visu: Dialogs with and without directly passing variables ({attribute 'VAR_IN_OUT_AS_POINTER'})

- Create a "Standard project" and select *CODESYS Control Win V3* as the device.
- Define the target system by means of the *Network scan*.



- Create and edit an FB named *FB_Sample* as follows:

Declaration

```
FUNCTION_BLOCK FB_Sample
VAR_INPUT
    byInstanz    : BYTE;
END_VAR
VAR
    udiCount     : UDINT;
    xReset       : BOOL;
    udiValue     : UDINT;
    sText        : STRING := 'Input something';
END_VAR
VAR CONSTANT
    c_udiOffset  : UDINT := 10000;
END_VAR
```

Implemen tation

```
udiCount := udiCount+1;

udiValue := byInstanz * c_udiOffset + udiCount;

IF udiValue >= (byInstanz+1) * c_udiOffset THEN
    udiValue := byInstanz * c_udiOffset;
END_IF

IF xReset THEN
    udiCount := 0;
END_IF
```

- Edit the *PLC_PRG* POU as follows:

Declaration

```

PROGRAM PLC_PRG
VAR
    fbSample1 : FB_Sample := (byInstanz := 1);
END_VAR

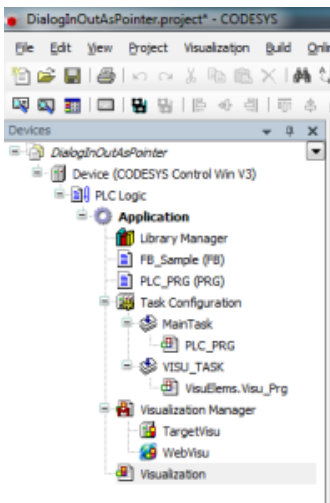
```

Implemen
tation

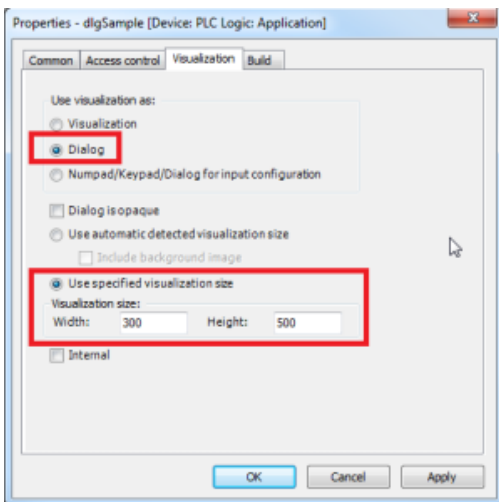
```
fbSample1();
```

- Insert a visualization in the device tree.

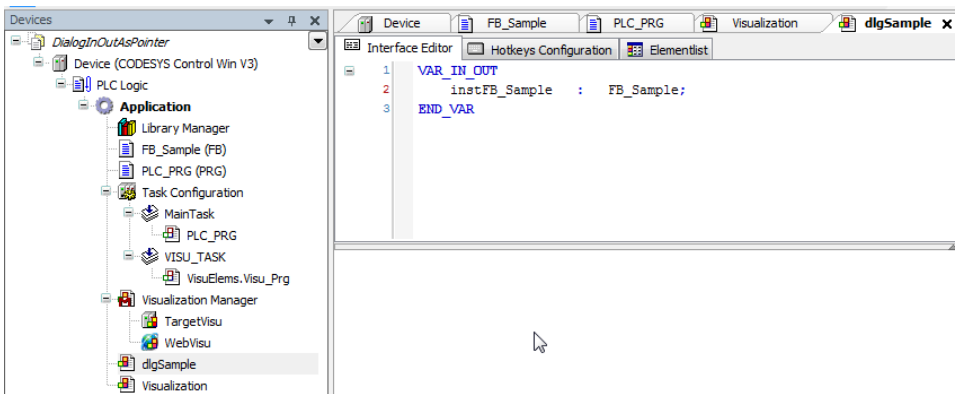
Then the *Visualization Manager* is inserted automatically with the visu types *TargetVisu* and *WebVisu*. In addition, a *VISU_TASK* is also created automatically.



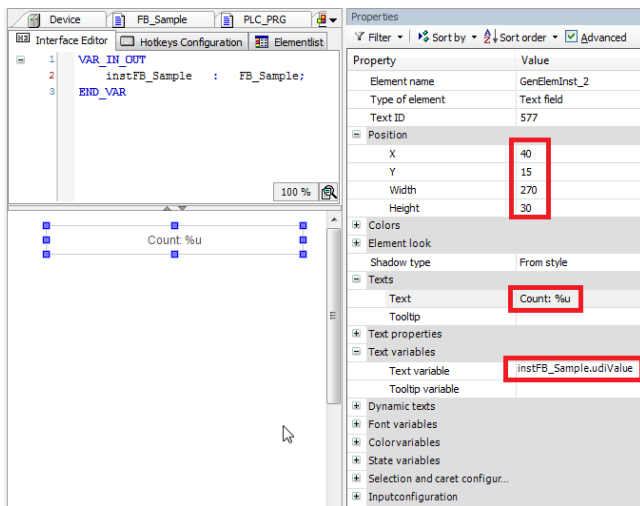
- Create an additional visualization named *dlgSample*.
From the context menu, open and set the properties dialog of the page as follows:



- From the *Visualization/Interface Editor*, open and edit the interface editor as follows:



Set a rectangle on the page for displaying the counter value and edit the properties as follows:



Copy the element and edit the properties as follows:

The screenshot shows the SIMATIC Manager interface with the 'Properties' window open for a text element. The 'Position' section shows X=40, Y=55, Width=270, and Height=30. The 'Text' section shows the text '%s'. The 'Text properties' section shows the text variable 'instFB_Sample.sText'. The 'Input configuration' section shows the 'OnMouseClicked' event configured to 'Write a Variable'.

Property	Value
Element name	GenElemInst_10
Type of element	Text field
Text ID	338
Position	
X	40
Y	55
Width	270
Height	30
Colors	
Element look	
Shadow type	From style
Texts	
Text	%s
Text properties	
Text variables	
Text variable	instFB_Sample.sText
Dynamic texts	
Font variables	
Color variables	
State variables	
Selection and caret configur...	
Input configuration	
OnDialogClosed	Configure...
OnMouseClicked	Write a Variable
OnMouseDown	Configure...

Set an additional rectangle element and edit the properties as follows:

The screenshot shows the SIMATIC Manager interface with the 'Properties' window open for a rectangle element. The 'Position' section shows X=40, Y=100, Width=130, and Height=40. The 'Text' section shows the text 'OK'. The 'Input configuration' section shows the 'OnMouseClicked' event configured to 'Close Dialog'.

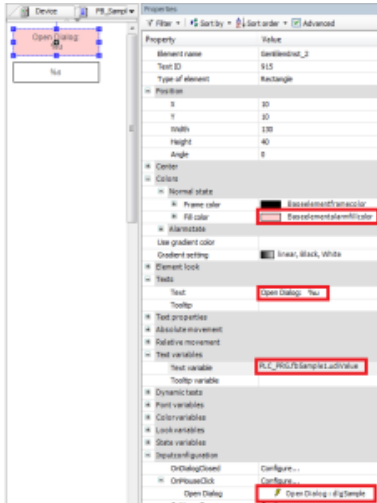
Property	Value
Element name	GenElemInst_12
Text ID	364
Type of element	Rectangle
Position	
X	40
Y	100
Width	130
Height	40
Angle	0
Center	
Colors	
Use gradient color	
Gradient setting	linear, Black, White
Element look	
Texts	
Text	OK
Text properties	
Absolute movement	
Relative movement	
Text variables	
Dynamic texts	
Font variables	
Color variables	
Look variables	
State variables	
Input configuration	
OnDialogClosed	Configure...
OnMouseClicked	Close Dialog
Close Dialog	Close Dialog: digSample, Result: OK

Copy the rectangle and edit the properties as follows:

The screenshot shows the SIMATIC Manager interface with the 'Properties' window open for a rectangle element. The 'Position' section shows X=100, Y=100, Width=100, and Height=40. The 'Text' section shows the text 'Cancel'. The 'Input configuration' section shows the 'OnMouseClicked' event configured to 'Close Dialog'.

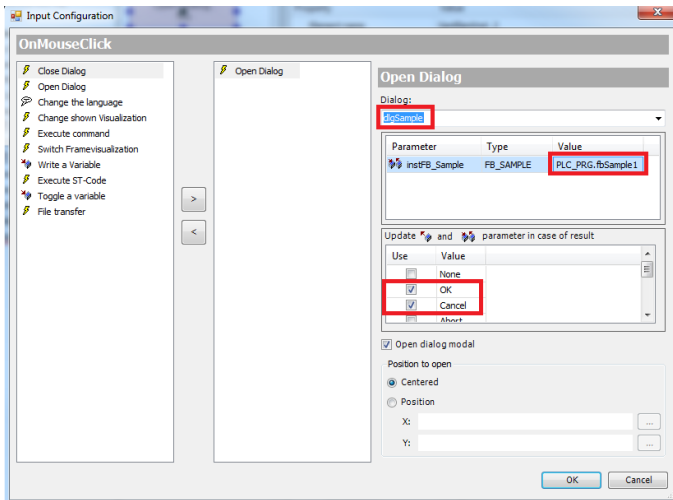
Property	Value
Element name	GenElemInst_14
Text ID	153
Type of element	Rectangle
Position	
X	100
Y	100
Width	100
Height	40
Angle	0
Colors	
Use gradient color	
Gradient setting	linear, Black, White
Element look	
Texts	
Text	Cancel
Text properties	
Absolute movement	
Relative movement	
Text variables	
Dynamic texts	
Font variables	
Color variables	
Look variables	
State variables	
Input configuration	
OnDialogClosed	Configure...
OnMouseClicked	Close Dialog
Close Dialog	Close Dialog: digSample, Result: Cancel

- In order to display the current value of the FB and call the dialog, we edit the *Visualization* page. Set a rectangle and edit the properties as follows:

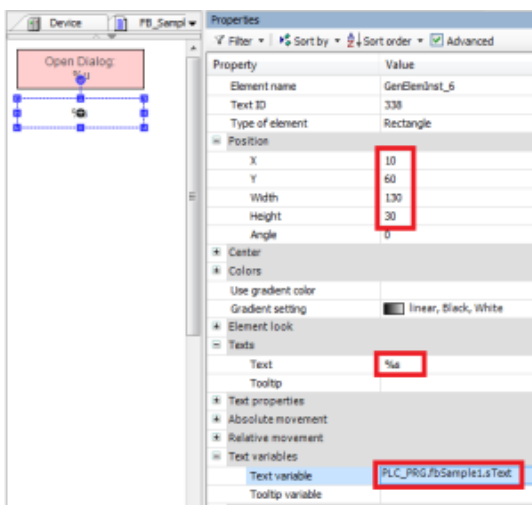


The line break between the *Open Dialog* text and the variable formatting *%u* is made with the key combination *[Ctrl] + [Return]*.

When assigning the input configuration, you also have to set the following properties in the dialog:



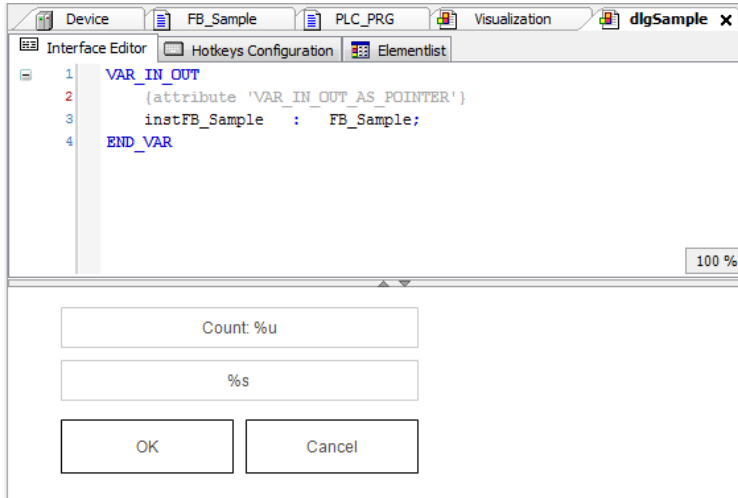
Set an additional rectangle on the page and edit the properties as follows:



- Load the project to the controller and start it.
Now when you open the dialog, you notice that the values in the dialog do not change, or an adjustment of the text is not passed to the variable until the dialog is closed:



- In order for changes between variables and dialog elements to be passed directly, the attribute `VAR_IN_OUT_AS_POINTER` must be added to the interface of the dialog, where by uppercase/lowercase must be taken into account:



After adding the attribute, you must execute *Build/Clean all* again and then download the program to the controller again.

Now the values should be updated "Online":

