DIAView

Common Scripts

Ruby
2020/06/01

Outline

- The concepts of scripts
- The scripts of Basic Graphics
- The scripts of Window Controls
- The scripts of Extend Controls
- The Action scripts
- The Window scripts
- The Color scripts

Purpose

In this chapter, you will learn …..

… more about common scripts

… more about six types of scripts in the DIAView

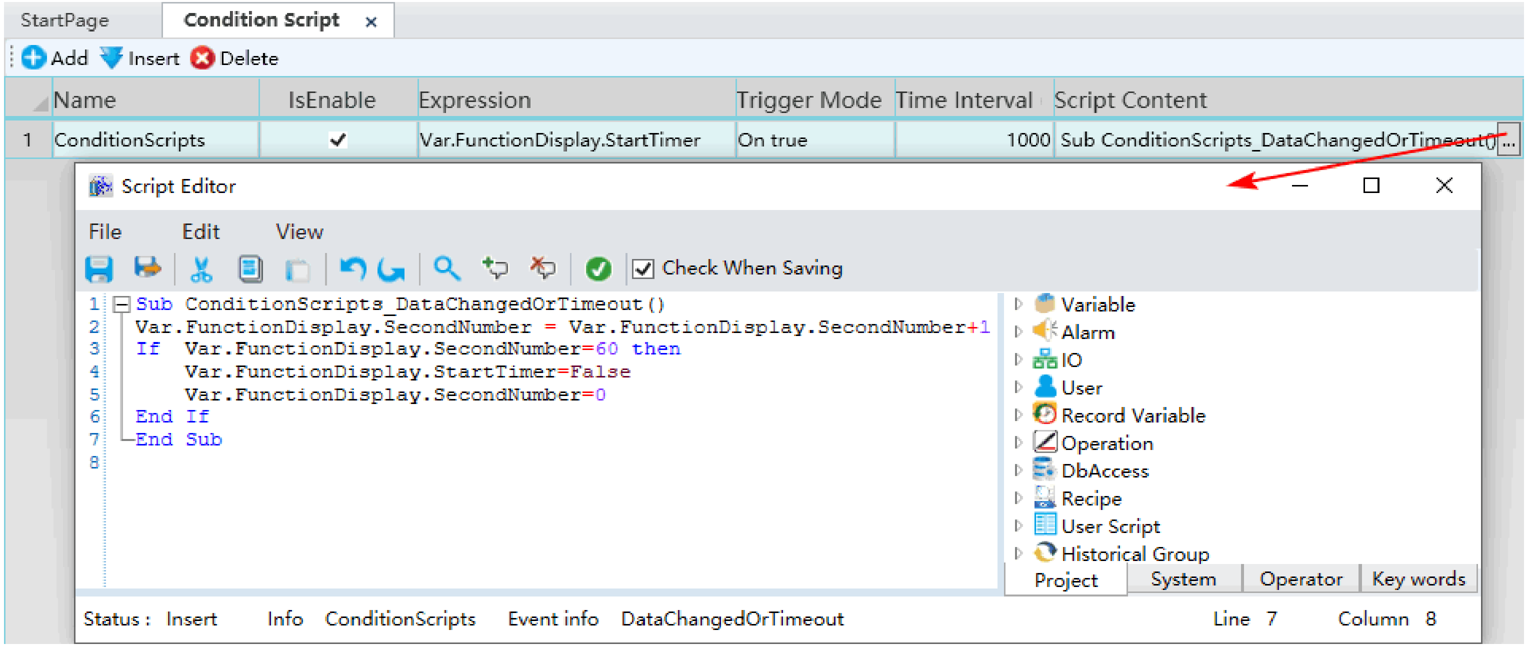
Outline

- The concepts of scripts
- The scripts of Basic Graphics
- The scripts of Window Controls
- The scripts of Extend Controls
- The Action scripts
- The Window scripts
- The Color scripts

The Concepts of Scripts

Although the functions of DIAView are comprehensive and powerful, the functions required by customers are different. Some functions need to be customized according to customer needs. DIAView can write related programs through a script editor to complete some special tasks and functions.

The event configuration,window program and user program in DIAView all need to use the script editor to write scripts. DIAView adopts VB Script language, users can write logic control programs according to VB Script language grammar specification, so as to complete specific functions and enhance the usability of the system.



	Name	IsEnable	Expression	Trigger Mode	Time Interval	Script Content
1	ConditionScripts	✓	Var.FunctionDisplay.StartTimer	On true	1000	Sub ConditionScripts_DataChangedOrTimeout() ...

```
Sub ConditionScripts_DataChangedOrTimeout()
Var.FunctionDisplay.SecondNumber = Var.FunctionDisplay.SecondNumber+1
If  Var.FunctionDisplay.SecondNumber=60 then
    Var.FunctionDisplay.StartTimer=False
    Var.FunctionDisplay.SecondNumber=0
End If
End Sub
```

Status : Insert　Info　ConditionScripts　Event info　DataChangedOrTimeout　Line 7　Column 8

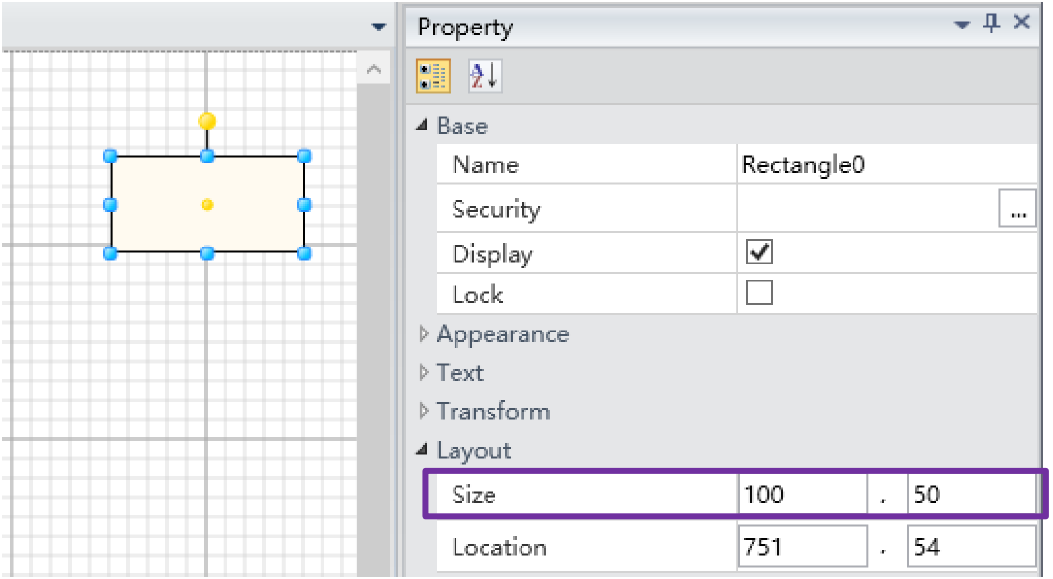
Outline

- The concepts of scripts
- **The scripts of Basic Graphics**
- The scripts of Window Controls
- The scripts of Extend Controls
- The Action scripts
- The Window scripts
- The Color scripts

Fill, Height, Width of Rectangle

- **Fill ,Height ,Width** example:

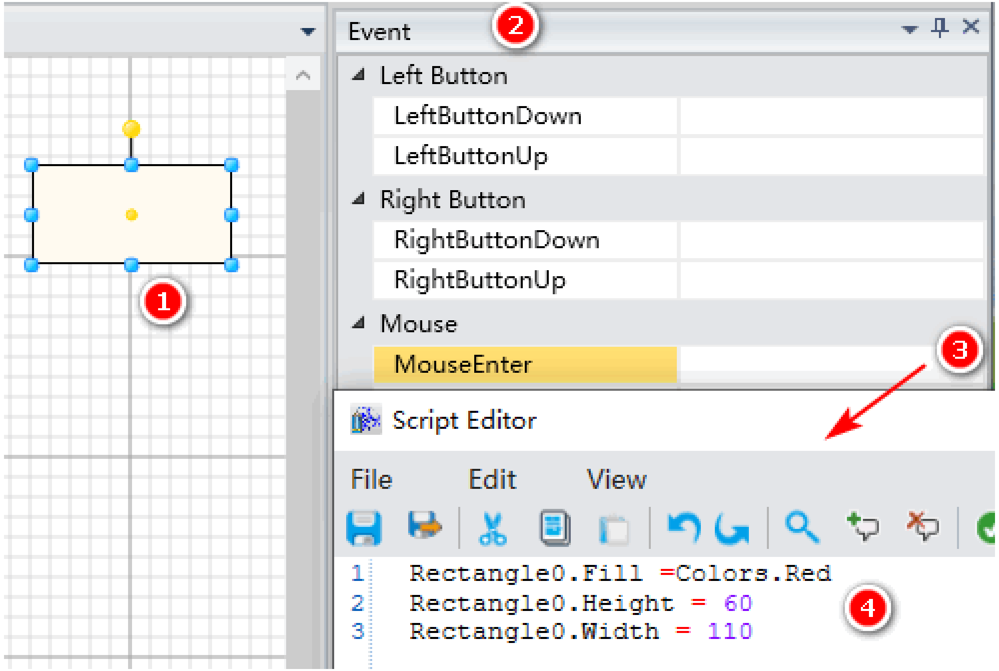
Create a rectangle and set its properties with scripts
(1)Create a Rectangle0 (Size: 100*50)in the Window0



Name: Rectangle0
Security: ...
Display: ☑
Lock: ☐
Size: 100 , 50
Location: 751 , 54

Fill, Height, Width of Rectangle

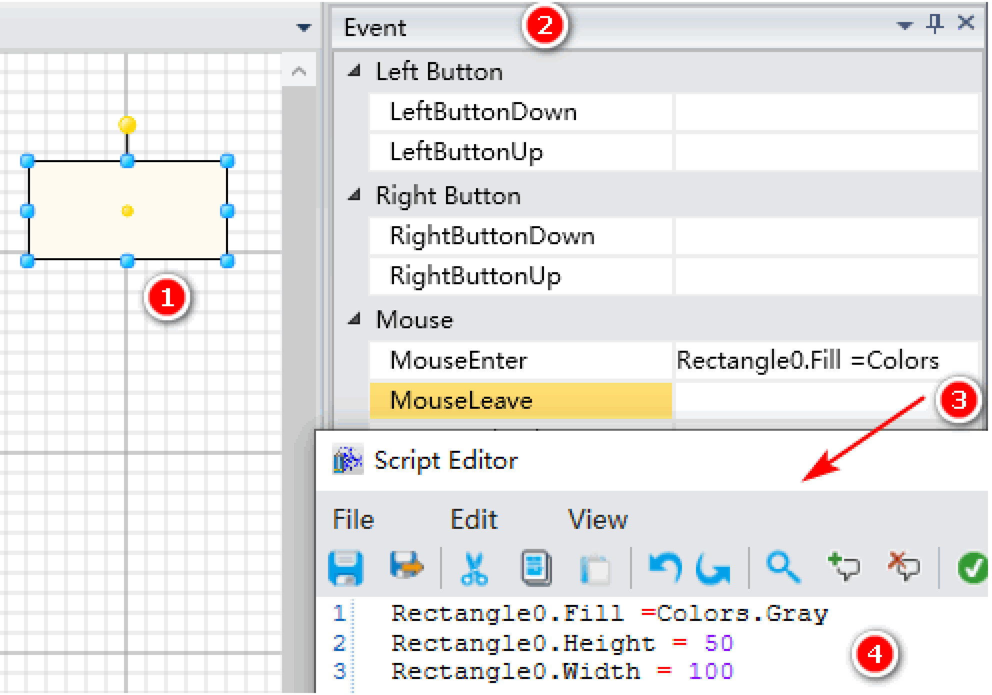
(2)Configure the MouseEnter event of the Rectangle0



```
Rectangle0.Fill =Colors.Red
Rectangle0.Height = 60
Rectangle0.Width = 110
```

Fill, Height, Width of Rectangle

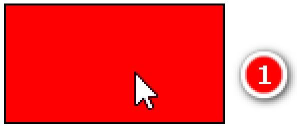
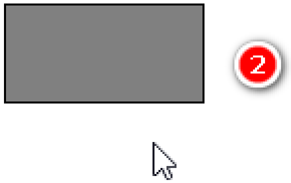
(3)Configure the MouseLeave event of the Rectangle0



```
Rectangle0.Fill =Colors.Gray
Rectangle0.Height = 50
Rectangle0.Width = 100
```

Fill, Height, Width of Rectangle

(4)Run the current project.

	
Red,110*60	Gray,100*50

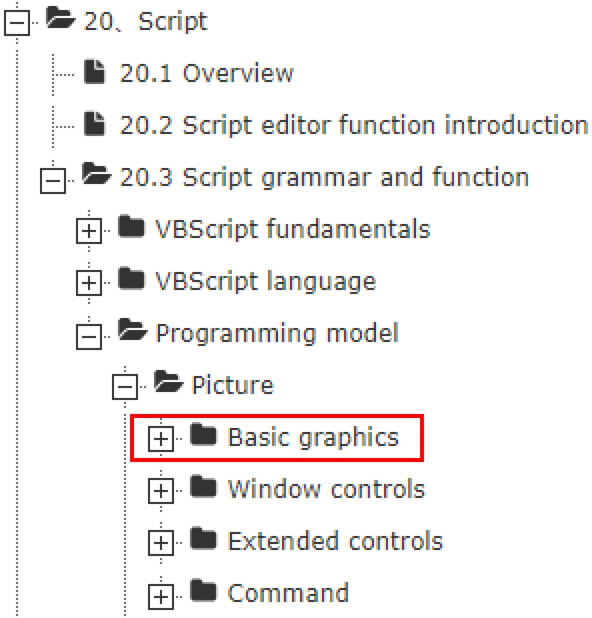
①When the mouse enters the Rectangle0, the Rectangle0 becomes red and the size of it becomes 110*60

②When the mouse leaves the Rectangle0, the Rectangle0 becomes gray and the size of it becomes 100*50

※ For more details, please refer to the section “20.3 Script grammar and function” in user manual.

The Scripts of Basic Graphics

For more details about the scripts usage of basic graphics, please refer to the section “20.3 Script grammar and function” in the user manual. As shown in the figure below:



- 20、Script
  - 20.1 Overview
  - 20.2 Script editor function introduction
  - 20.3 Script grammar and function
    - VBScript fundamentals
    - VBScript language
    - Programming model
      - Picture
        - Basic graphics
        - Window controls
        - Extended controls
        - Command

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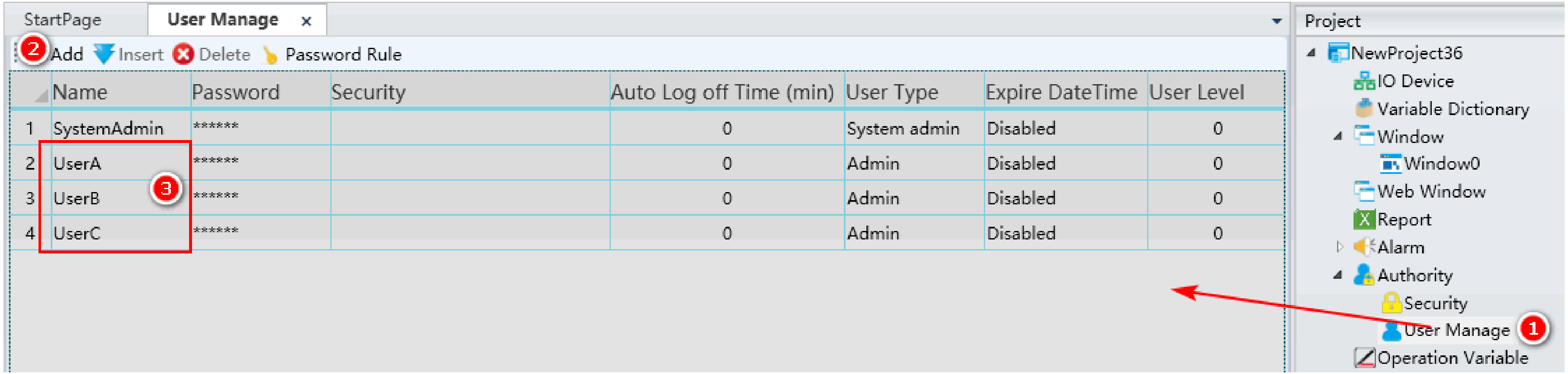
AddItems Script of ComboBox

- **AddItems** example1:

Get users name in the current project with AddItems script
(1)Create 3 users: UserA , UserB , UserC

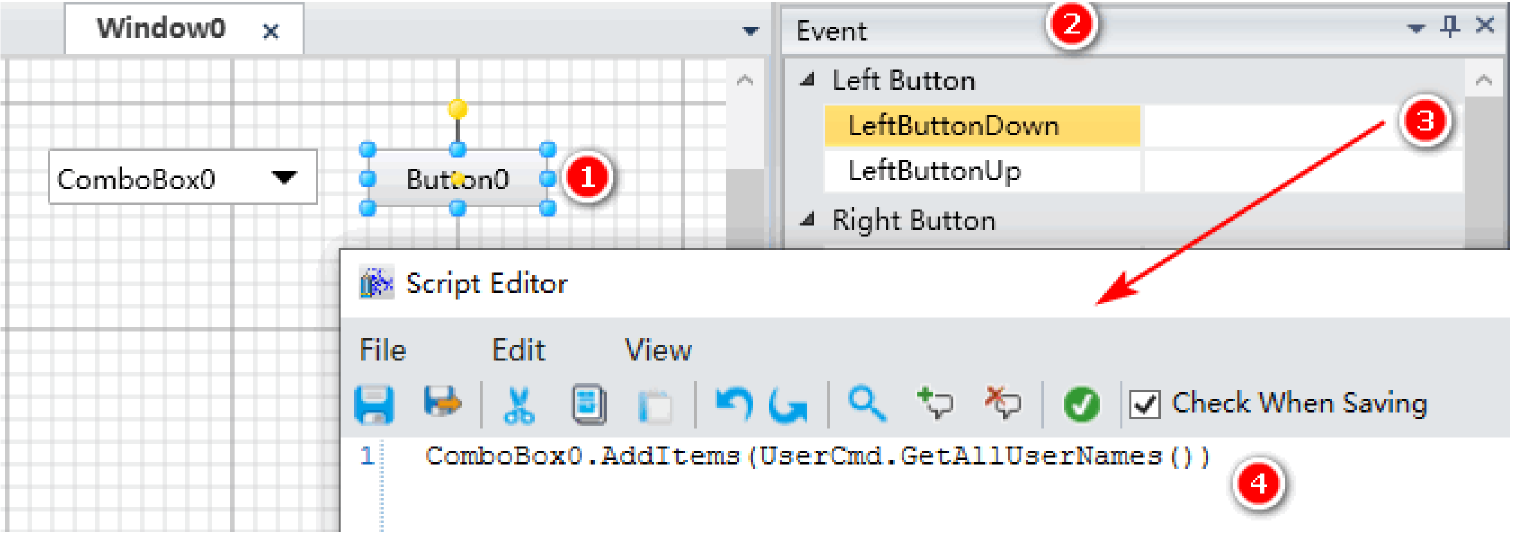


	Name	Password	Security	Auto Log off Time (min)	User Type	Expire DateTime	User Level
1	SystemAdmin	******		0	System admin	Disabled	0
2	UserA	******		0	Admin	Disabled	0
3	UserB	******		0	Admin	Disabled	0
4	UserC	******		0	Admin	Disabled	0

※Refer to the section “12.3 User” in user manual.

AddItems Script of ComboBox

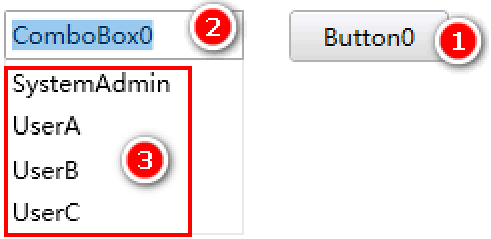
(2)Create a ComboBox0 and a Button0 in the Window0, configure the LeftButtonDown event of the Button0.



```
ComboBox0.AddItems(UserCmd.GetAllUserNames())
```

AddItems Script of ComboBox

(3)Run the current project.



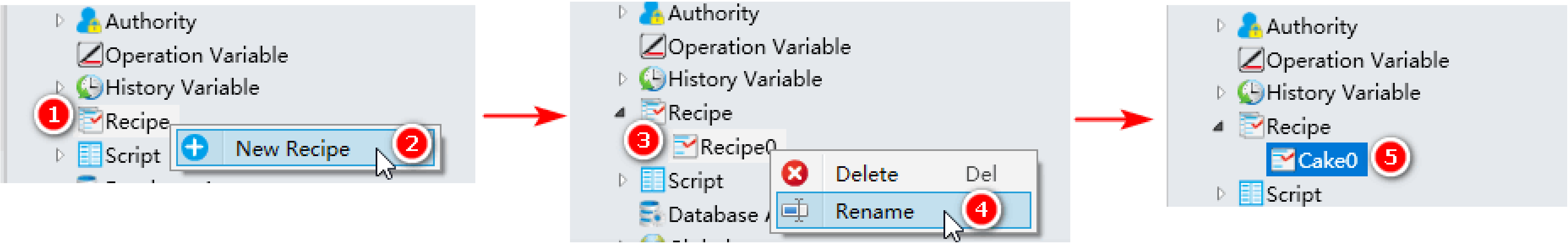
①Click the Button0

②③The ComboBox0 displays the all users’ name in the current project—
SystemAdmin , UserA , UserB , UserC

AddItems Script of ComboBox

- **AddItems** example2:

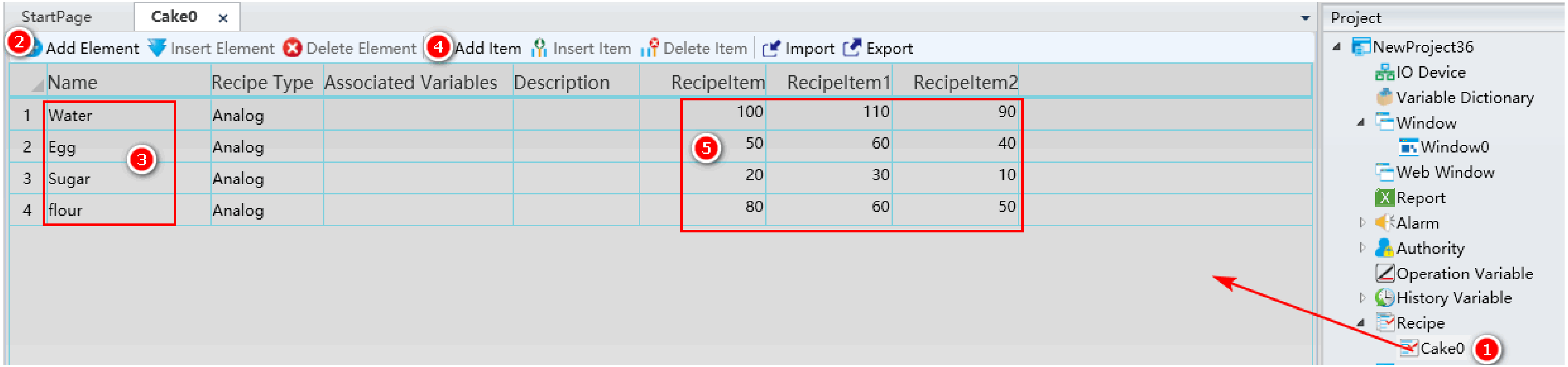
Get recipe information with AddItems script
(1)Create 1 recipe: Cake0



① ③ Right click
② ④ Click
⑤Rename as “Cake0”

AddItems Script of ComboBox

(2) Configure parameters for cake0

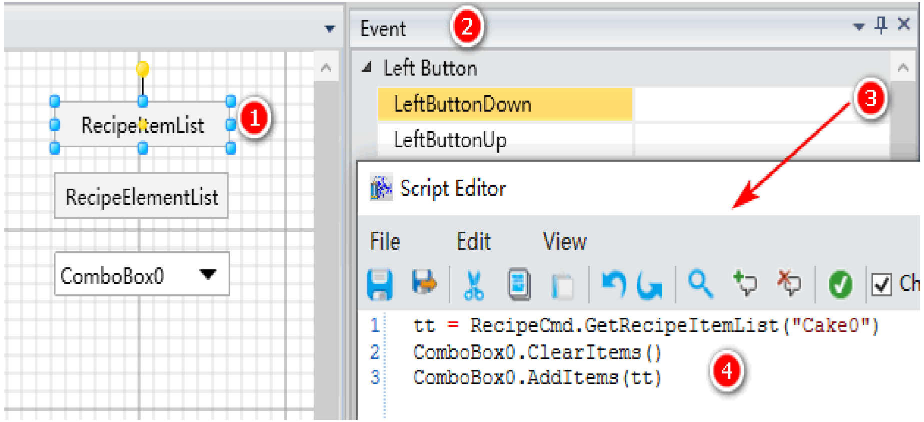


	Name	Recipe Type	Associated Variables	Description	RecipeItem	RecipeItem1	RecipeItem2
1	Water	Analog			100	110	90
2	Egg	Analog			50	60	40
3	Sugar	Analog			20	30	10
4	flour	Analog			80	60	50

※Refer to the section “15.2 Recipe configuration” in user manual.

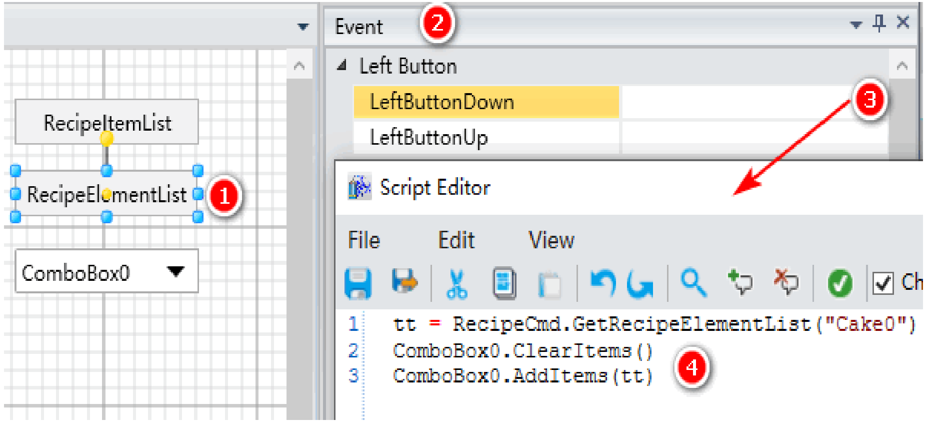
AddItems Script of ComboBox

(3)Create a ComboBox0 and two buttons(RecipeItemList, RecipeElementList) in the Window0, configure the LeftButtonDown event of the two buttons.



```
tt = RecipeCmd.GetRecipeItemList("Cake0")
ComboBox0.ClearItems()
ComboBox0.AddItems(tt)
```

RecipeItemList

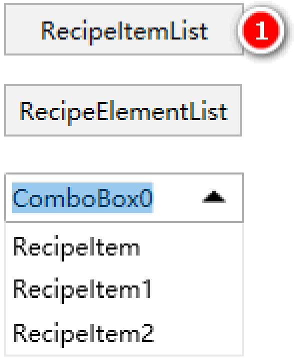
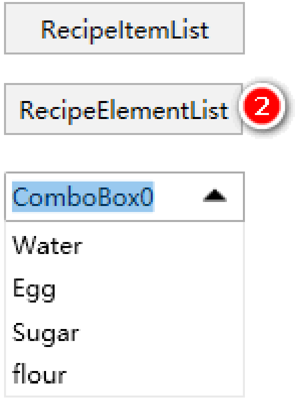


```
tt = RecipeCmd.GetRecipeElementList("Cake0")
ComboBox0.ClearItems()
ComboBox0.AddItems(tt)
```

RecipeElementList

AddItems Script of ComboBox

(4)Run the current project.

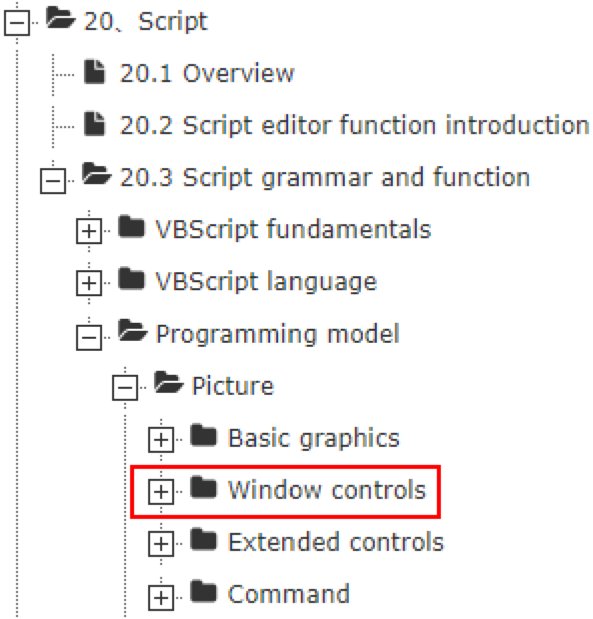
 RecipeItemList ① RecipeElementList ComboBox0 RecipeItem RecipeItem1 RecipeItem2	 RecipeItemList RecipeElementList ② ComboBox0 Water Egg Sugar flour
RecipeItemList	RecipeElementList

①Click the “RecipeItemList” button, the ComboBox0 displays the recipe items of Cake0—RecipeItem , RecipeItem1 , RecipeItem2

②Click the “RecipeElementList” button, the ComboBox0 displays the recipe elements of Cake0—Water , Egg , Sugar, flour

The Scripts of Window Controls

For more details about the scripts usage of window controls, please refer to the section “20.3 Script grammar and function” in the user manual. As shown in the figure below:



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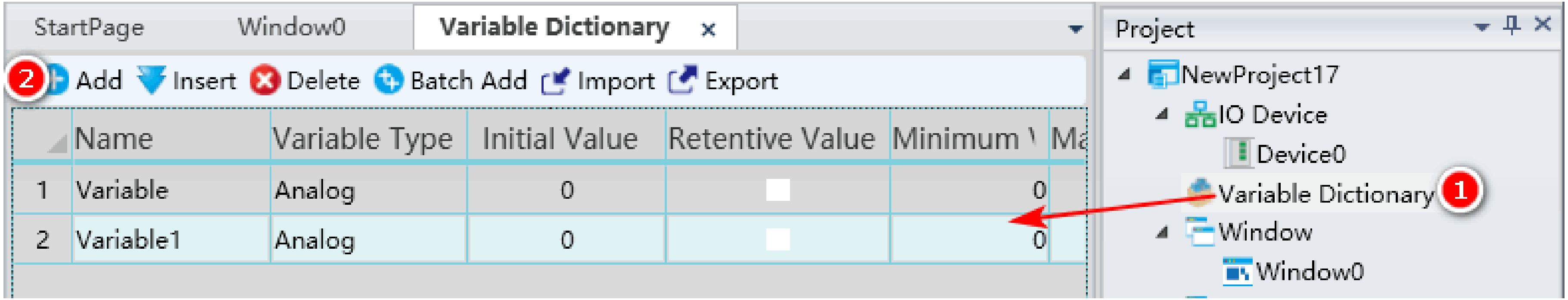
The Scripts of HistoryChart

- **QueryHistoryDate** example：

Query the history data from the moment the project starts to the current time
(1)Create 2 variables：Variable，Variable1

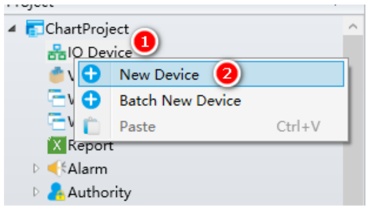


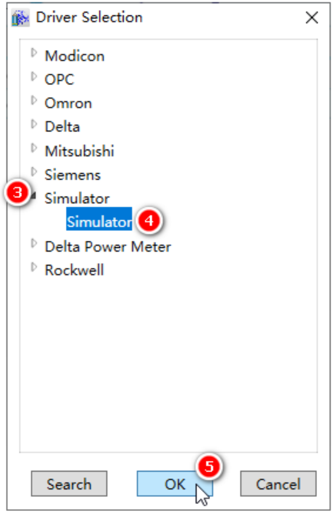
	Name	Variable Type	Initial Value	Retentive Value	Minimum \	Ma
1	Variable	Analog	0	☐	0	
2	Variable1	Analog	0	☐	0	

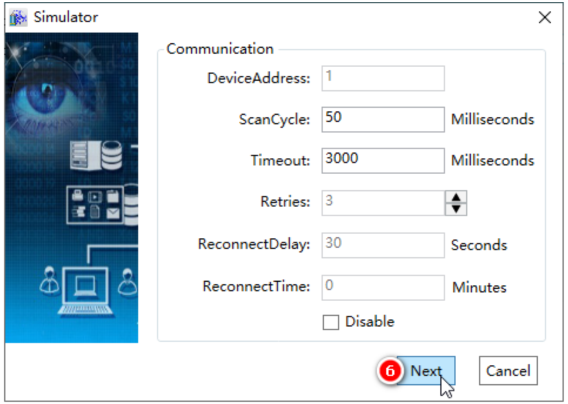
※Refer to the section “6.3 Variables” in user manual.

The Scripts of HistoryChart

(2) Create a simulated device：Device0







DeviceAddress: 1

ScanCycle: 50 Milliseconds

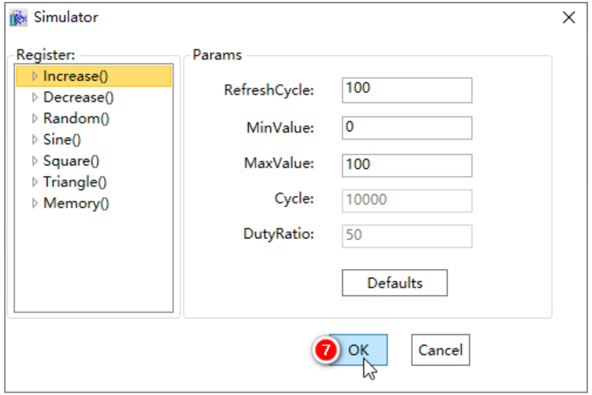
Timeout: 3000 Milliseconds

Retries: 3

ReconnectDelay: 30 Seconds

ReconnectTime: 0 Minutes

☐ Disable



RefreshCycle: 100

MinValue: 0

MaxValue: 100

Cycle: 10000

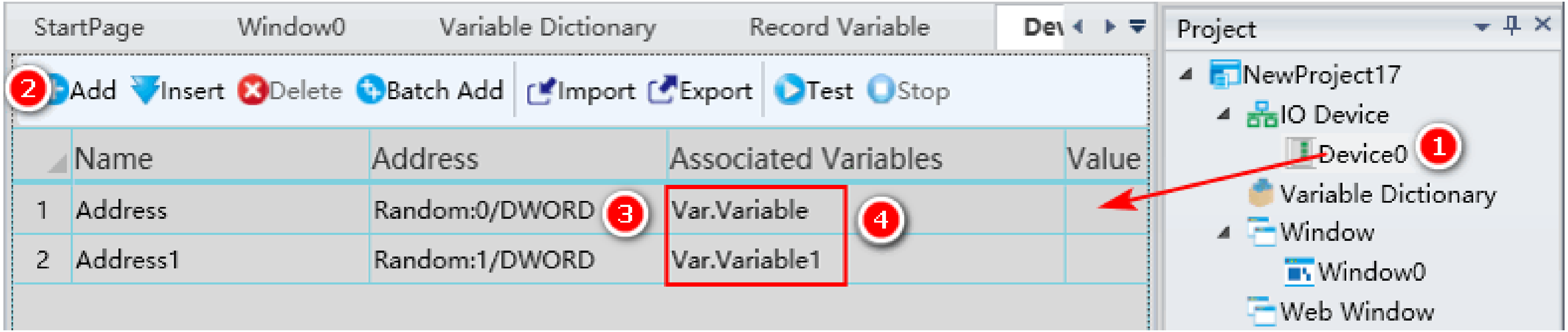
DutyRatio: 50

①Right click “IO Device” node
②Click “New Device”
③④Double click “Simulator”

※Refer to the section “5.10.1 Simulator” in user manual.

The Scripts of HistoryChart

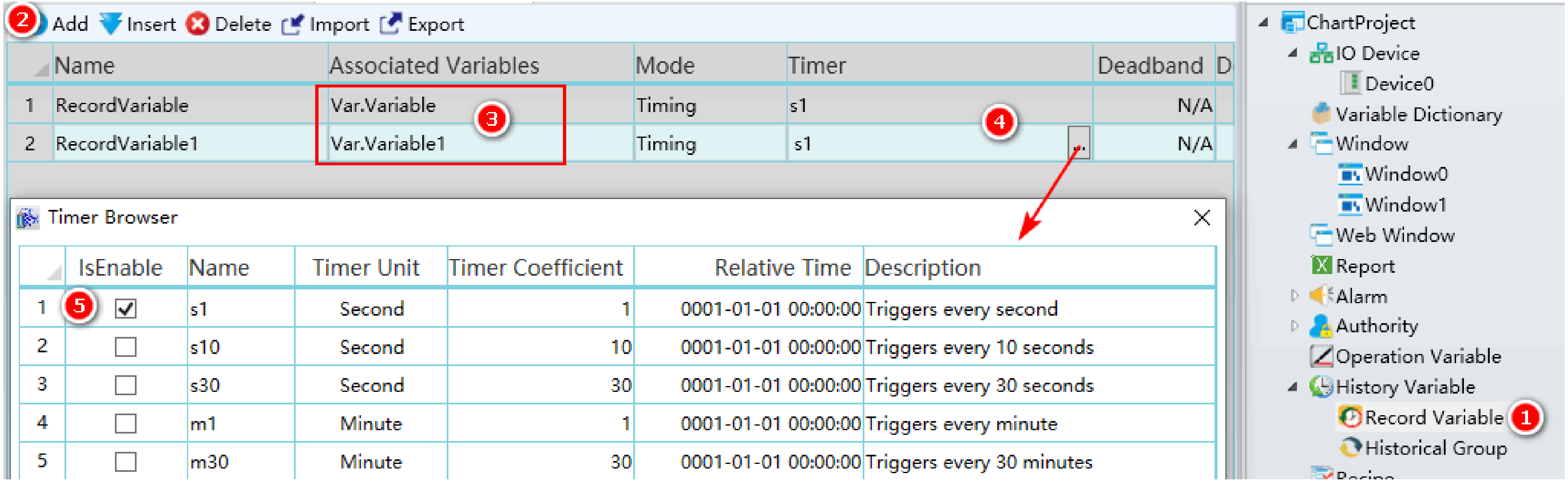
(3) Create two simulation address in the Device0 that associated with Variable, Variable1 respectively



	Name	Address	Associated Variables	Value
1	Address	Random:0/DWORD	Var.Variable	
2	Address1	Random:1/DWORD	Var.Variable1	

The Scripts of HistoryChart

(4) Create two historical variables in the Record Variable that associated with Variable, Variable1 respectively



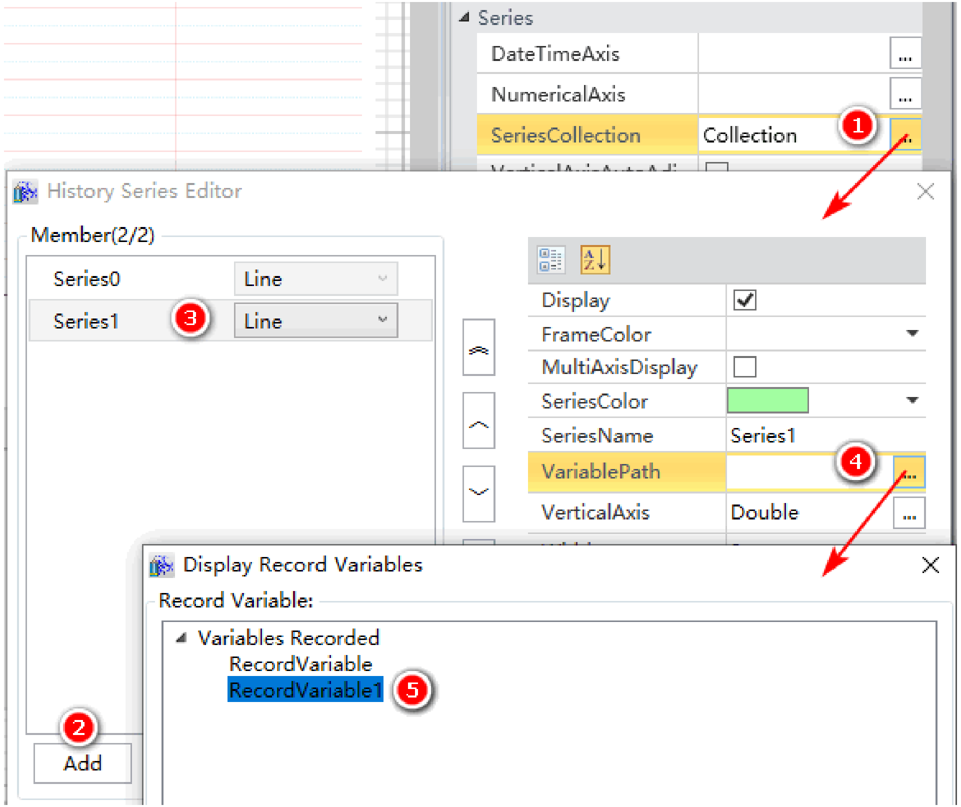
	Name	Associated Variables	Mode	Timer	Deadband	D
1	RecordVariable	Var.Variable	Timing	s1	N/A	
2	RecordVariable1	Var.Variable1	Timing	s1	N/A	

	IsEnable	Name	Timer Unit	Timer Coefficient	Relative Time	Description
1	☑	s1	Second	1	0001-01-01 00:00:00	Triggers every second
2	☐	s10	Second	10	0001-01-01 00:00:00	Triggers every 10 seconds
3	☐	s30	Second	30	0001-01-01 00:00:00	Triggers every 30 seconds
4	☐	m1	Minute	1	0001-01-01 00:00:00	Triggers every minute
5	☐	m30	Minute	30	0001-01-01 00:00:00	Triggers every 30 minutes

※Refer to the section "14.2 Setting history record variable" in user manual.

The Scripts of HistoryChart

(5) Create a HistoryChart0 in the Window0, and add 2 curves in the HistoryChart0, Series0 associated RecordVariable, Series1 associated RecordVariable1



Series
DateTimeAxis
NumericalAxis
SeriesCollection: Collection ①

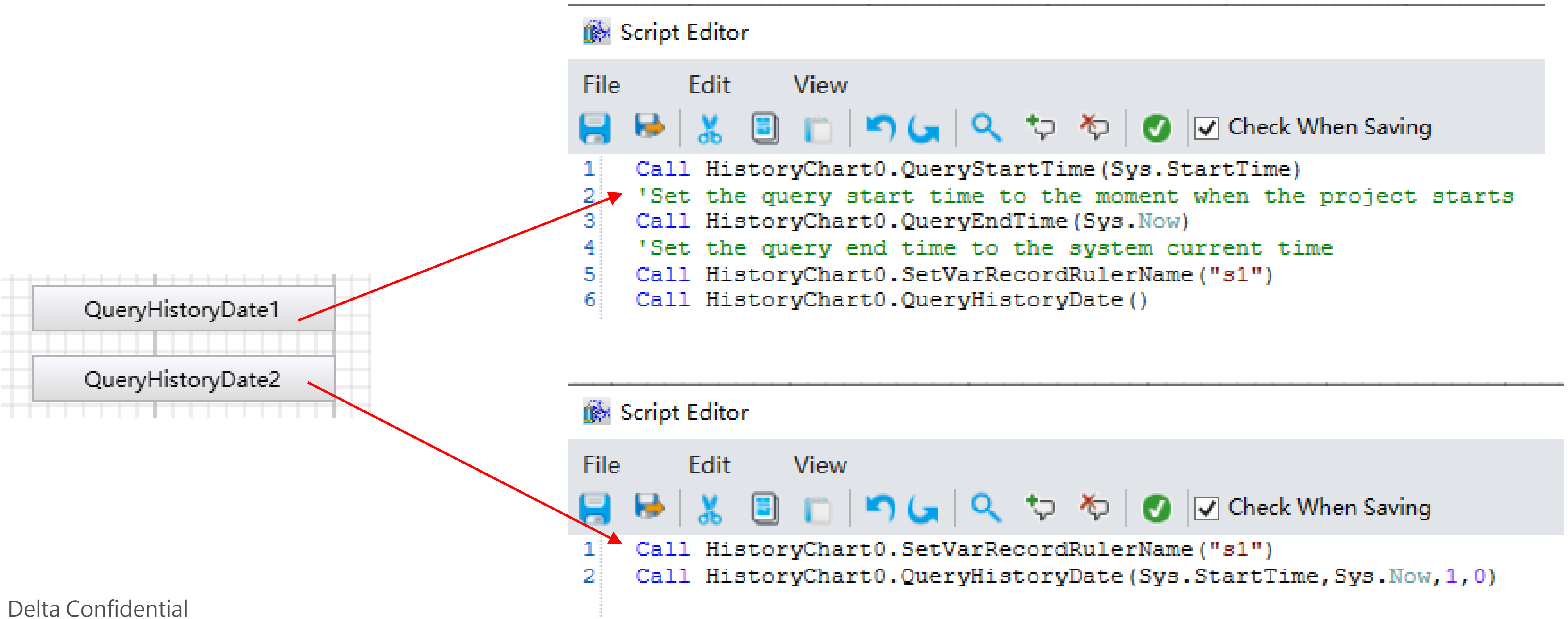
History Series Editor
Member(2/2)
Series0: Line
Series1: Line ③

Display: ☑
FrameColor
MultiAxisDisplay: ☐
SeriesColor: 🟩
SeriesName: Series1
VariablePath ④
VerticalAxis: Double

Display Record Variables
Record Variable:
Variables Recorded
RecordVariable
RecordVariable1 ⑤

The Scripts of HistoryChart

(6)Create two buttons in the Window0, configure the LeftButtonDown event of the two buttons

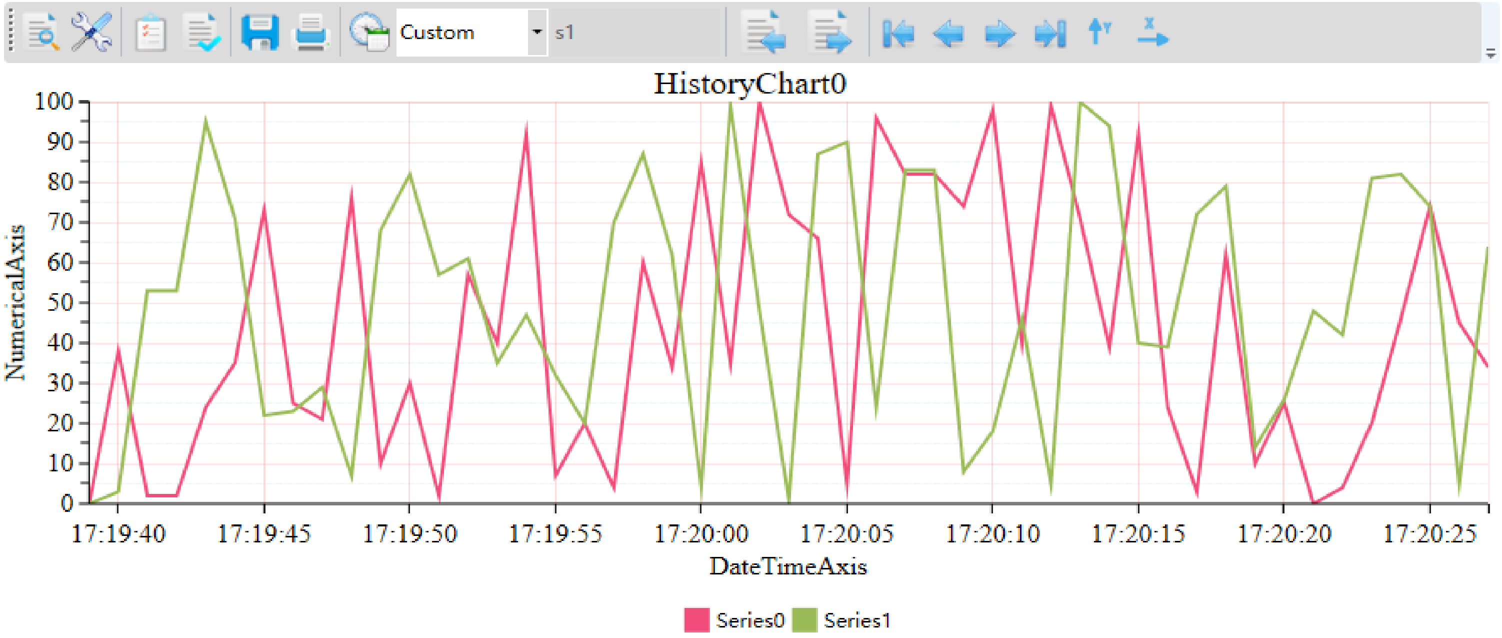


```
Call HistoryChart0.QueryStartTime(Sys.StartTime)
'Set the query start time to the moment when the project starts
Call HistoryChart0.QueryEndTime(Sys.Now)
'Set the query end time to the system current time
Call HistoryChart0.SetVarRecordRulerName("s1")
Call HistoryChart0.QueryHistoryDate()
```

```
Call HistoryChart0.SetVarRecordRulerName("s1")
Call HistoryChart0.QueryHistoryDate(Sys.StartTime,Sys.Now,1,0)
```

The Scripts of HistoryChart

(7)Run the Window0



Click the “QueryHistoryDate1” or “QueryHistoryDate2” button，the HistoryChart0 displays the history data from the moment the project starts to the current time

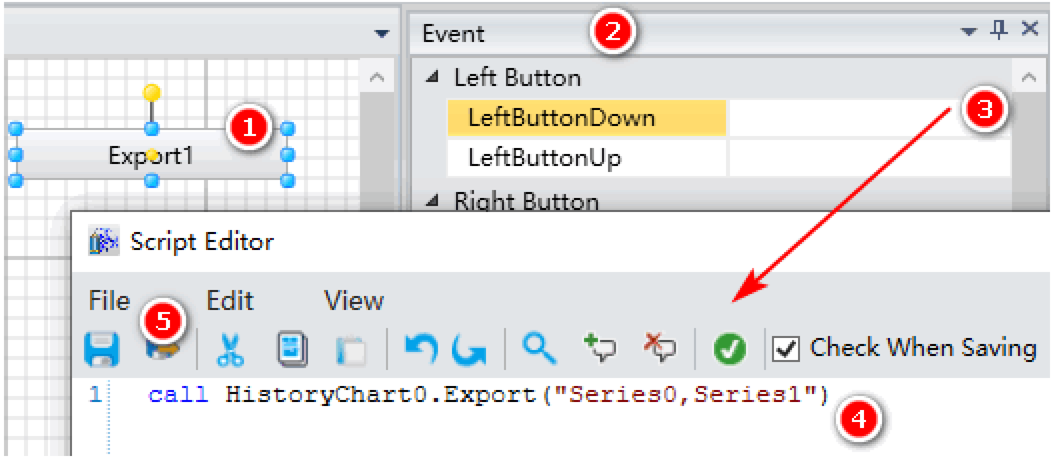
The Scripts of HistoryChart

- **Export** example1：

Export history data over a period of time

The first 5 steps are the same as(1)(2)(3)(4)(5) steps of QueryHistoryDate example

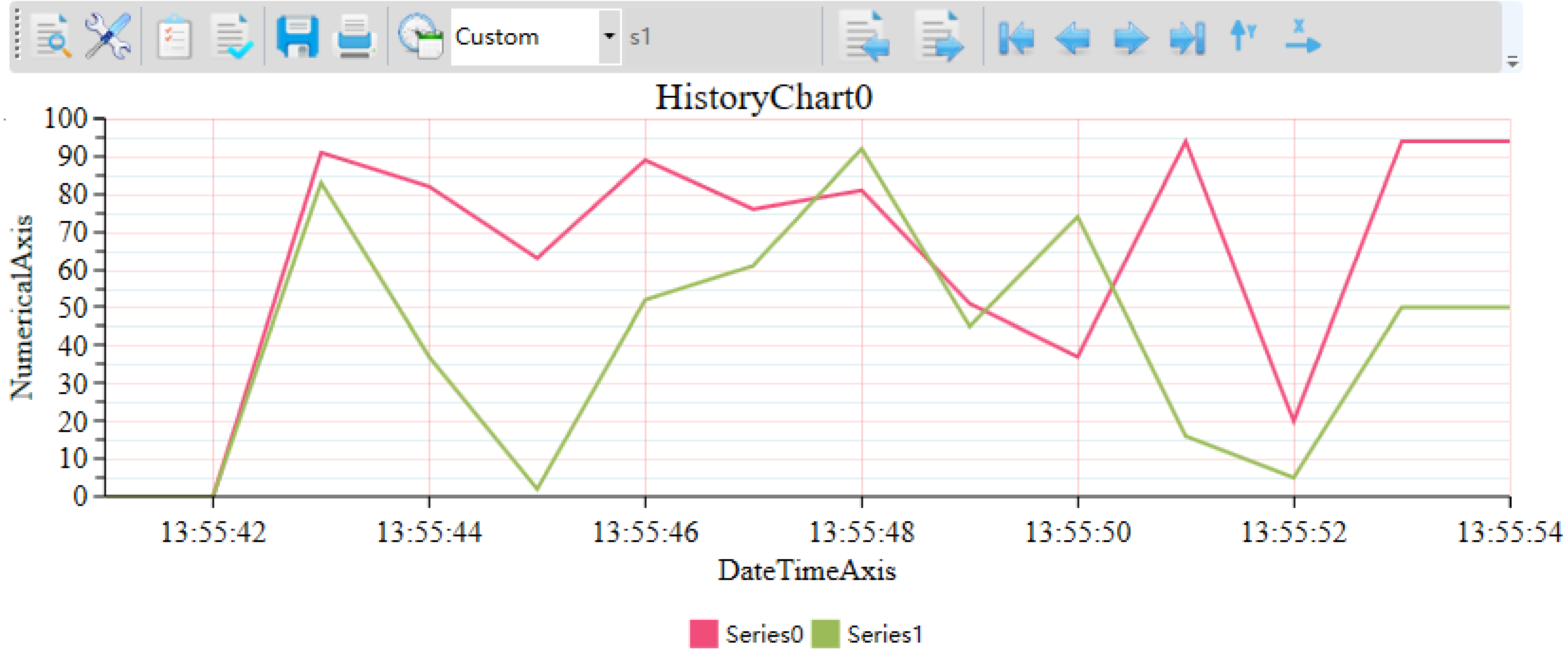
(6)Create one button(Export1) in the Window0, configure the LeftButtonDown event of the button



```
call HistoryChart0.Export("Series0,Series1")
```

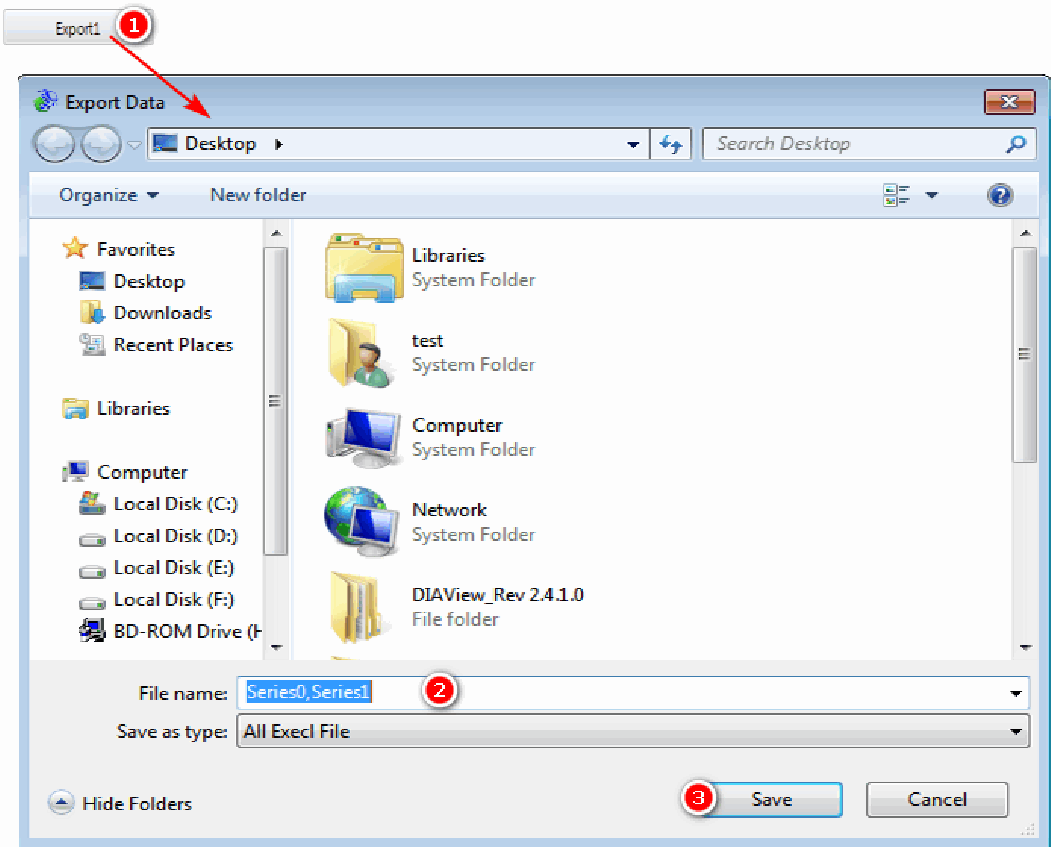
The Scripts of HistoryChart

(7)Run the Window0,query history data



The Scripts of HistoryChart

(8)Export the history data queried in the previous step



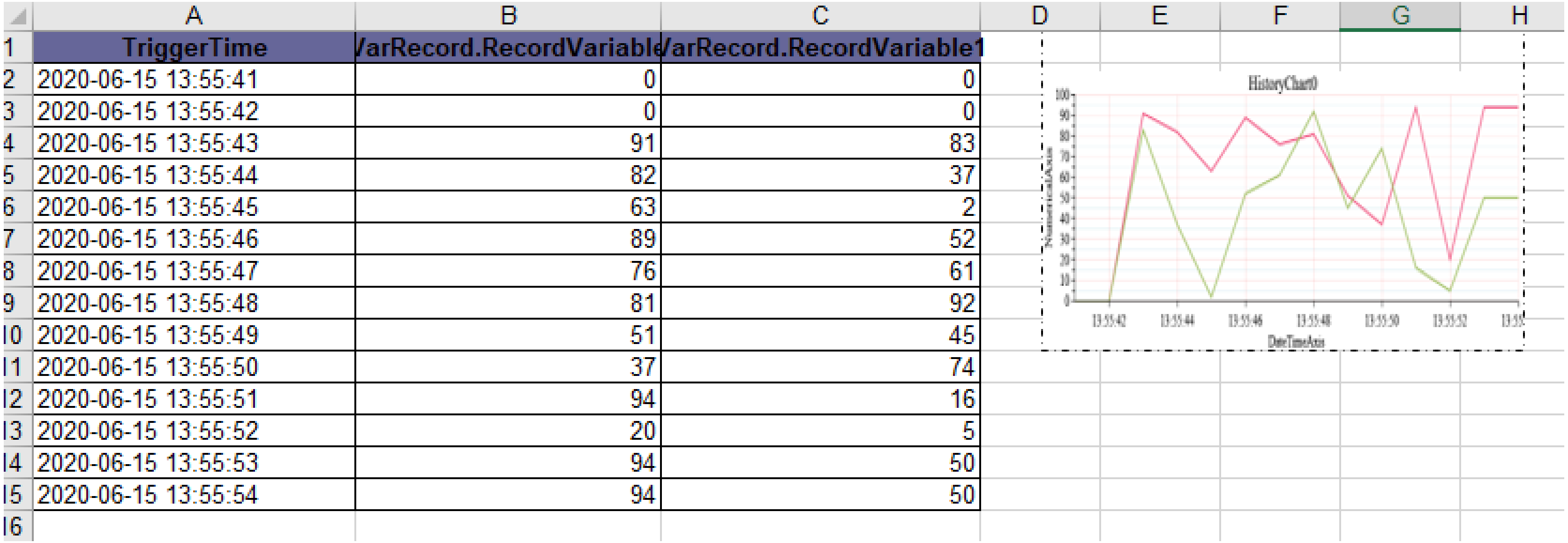
File name: Series0,Series1

Save as type: All Execl File

Click the “Export1” button, then Series0 and Series1 of HistoryChart0 are exported to the desktop successfully, and the name of Excel file is “Series0,Series1”

The Scripts of HistoryChart

(9) The exported Excel file is shown below



	A	B	C
1	TriggerTime	arRecord.RecordVariable	arRecord.RecordVariable1
2	2020-06-15 13:55:41	0	0
3	2020-06-15 13:55:42	0	0
4	2020-06-15 13:55:43	91	83
5	2020-06-15 13:55:44	82	37
6	2020-06-15 13:55:45	63	2
7	2020-06-15 13:55:46	89	52
8	2020-06-15 13:55:47	76	61
9	2020-06-15 13:55:48	81	92
10	2020-06-15 13:55:49	51	45
11	2020-06-15 13:55:50	37	74
12	2020-06-15 13:55:51	94	16
13	2020-06-15 13:55:52	20	5
14	2020-06-15 13:55:53	94	50
15	2020-06-15 13:55:54	94	50
16			

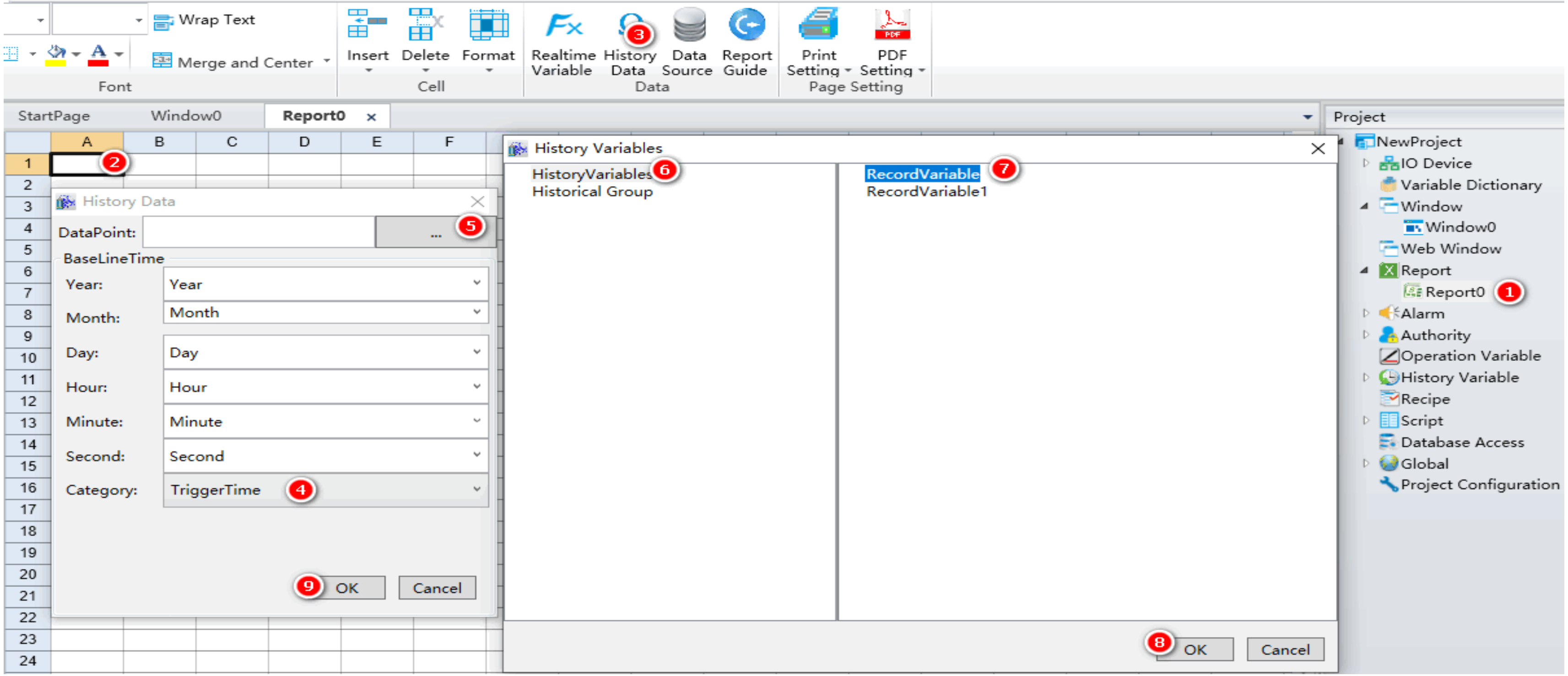
The Scripts of HistoryChart

- **Export** example2：

Export history data over a period of time by report template

The first 5 steps are the same as(1)(2)(3)(4)(5) steps of **QueryHistoryDate** example

(6)Create a report template(Report0) and configure history data for it



History Data

DataPoint: ⑤

BaseLineTime

Year: Year

Month: Month

Day: Day

Hour: Hour

Minute: Minute

Second: Second

Category: TriggerTime ④

⑨ OK Cancel

History Variables

HistoryVariables ⑥

Historical Group

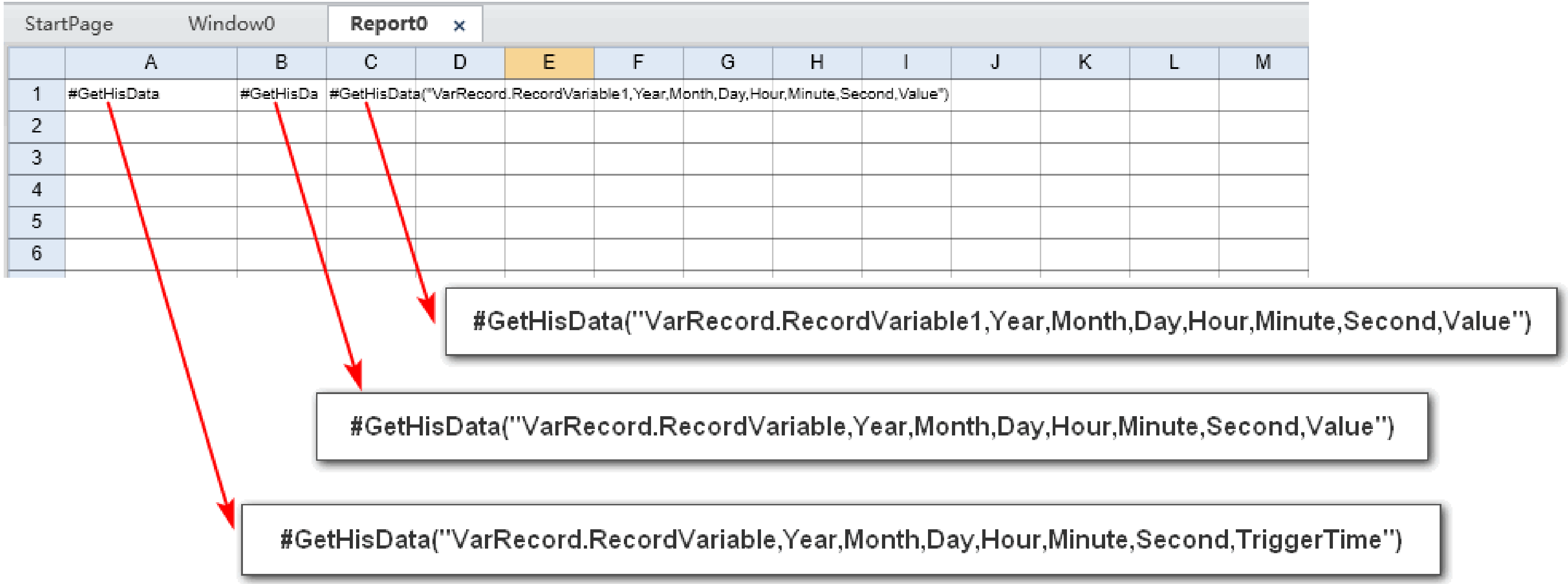
RecordVariable ⑦

RecordVariable1

⑧ OK Cancel

The Scripts of HistoryChart

(7) The configuration result of Report0 is as follows



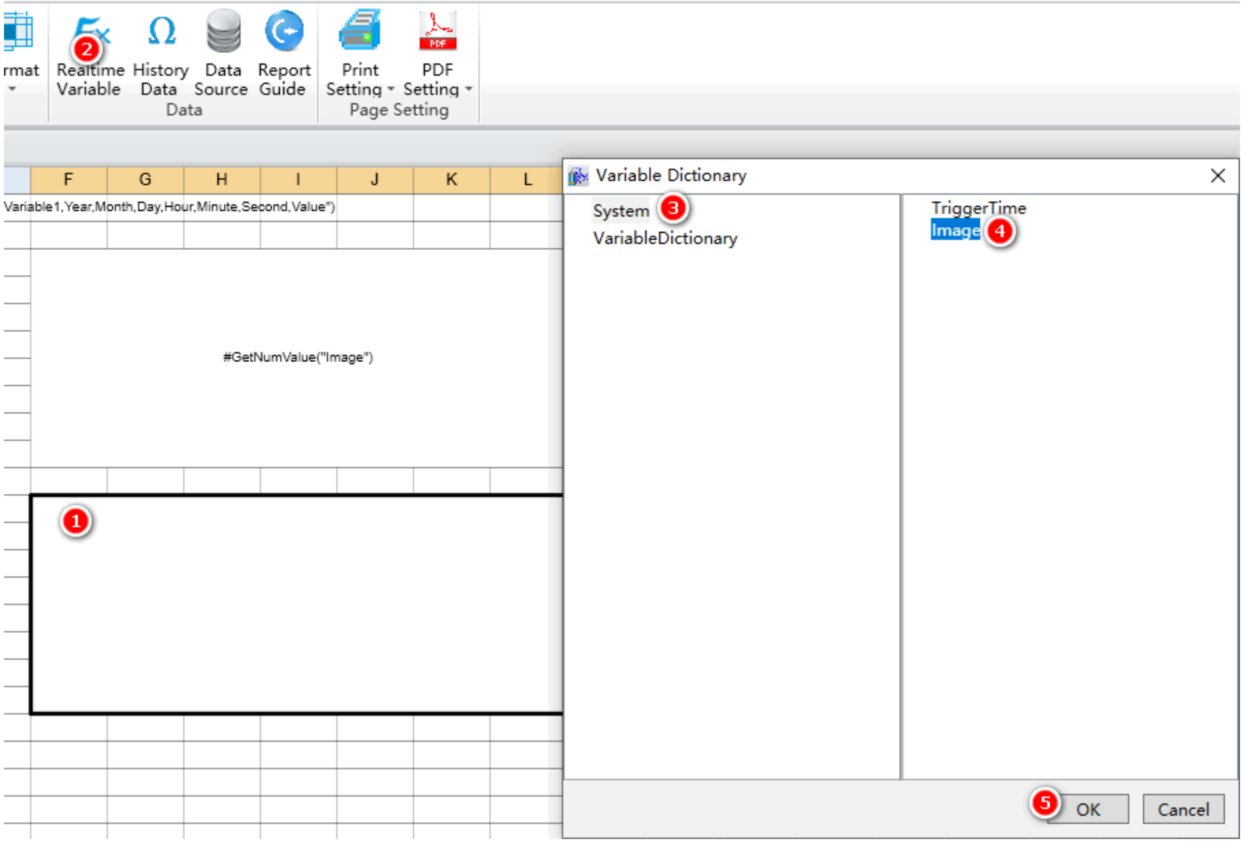
	A	B	C	D	E	F	G	H	I	J	K	L	M
1	#GetHisData	#GetHisDa	#GetHisData("VarRecord.RecordVariable1,Year,Month,Day,Hour,Minute,Second,Value")										
2													
3													
4													
5													
6													

#GetHisData("VarRecord.RecordVariable1,Year,Month,Day,Hour,Minute,Second,Value")

#GetHisData("VarRecord.RecordVariable,Year,Month,Day,Hour,Minute,Second,Value")

#GetHisData("VarRecord.RecordVariable,Year,Month,Day,Hour,Minute,Second,TriggerTime")

(8) Configure two areas used to display images for Report0

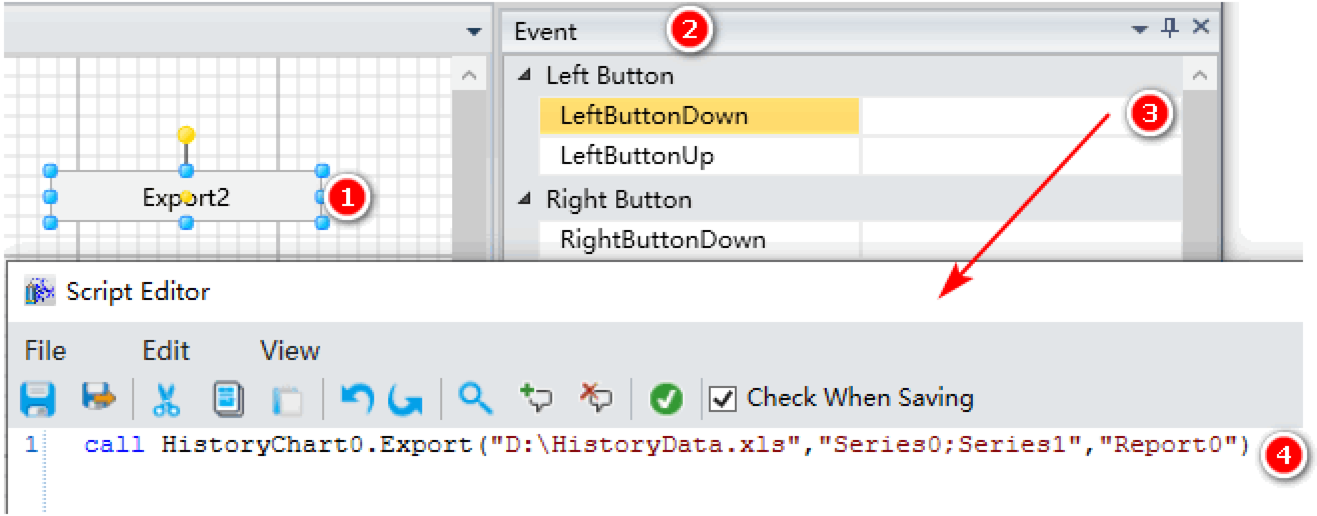


Variable1,Year,Month,Day,Hour,Minute,Second,Value")

#GetNumValue("Image")

The Scripts of HistoryChart

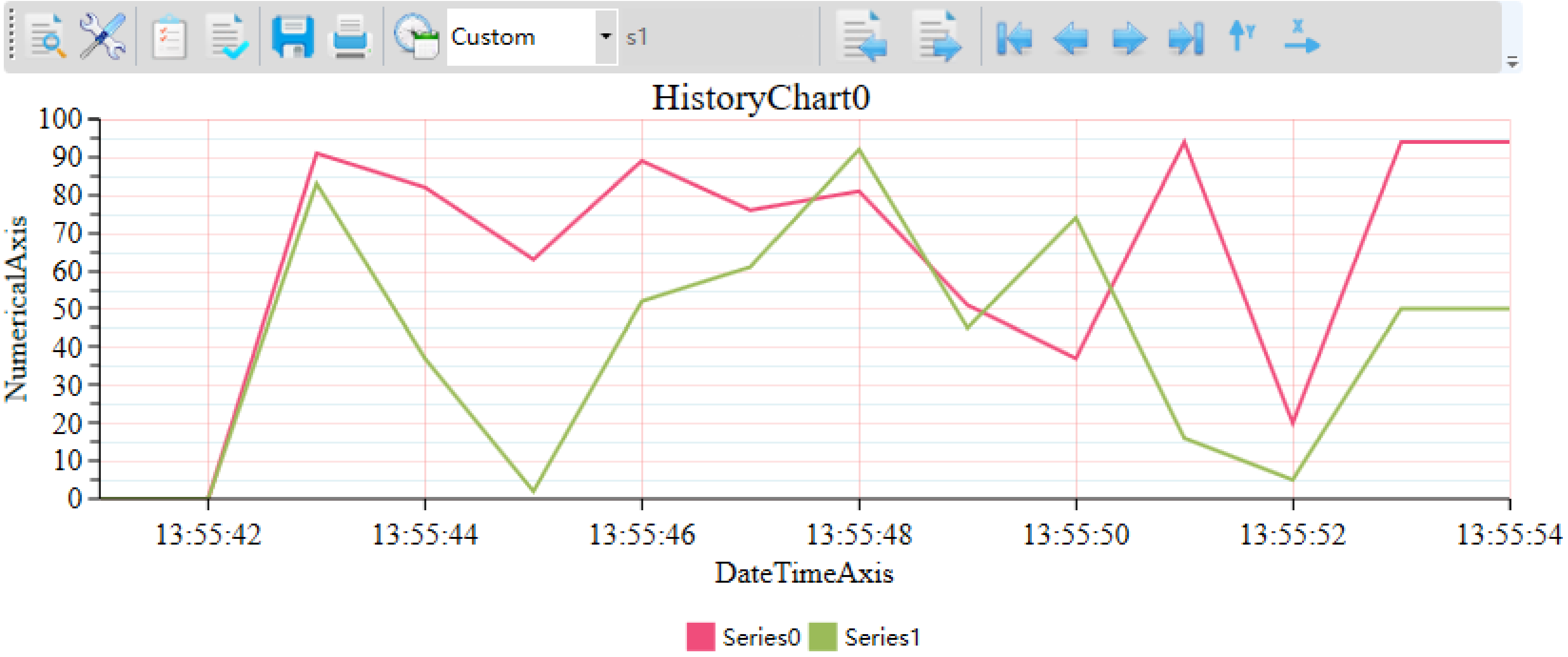
(9)Create one button(Export2) in the Window0, configure the LeftButtonDown event of the button



```
call HistoryChart0.Export("D:\HistoryData.xls","Series0;Series1","Report0")
```

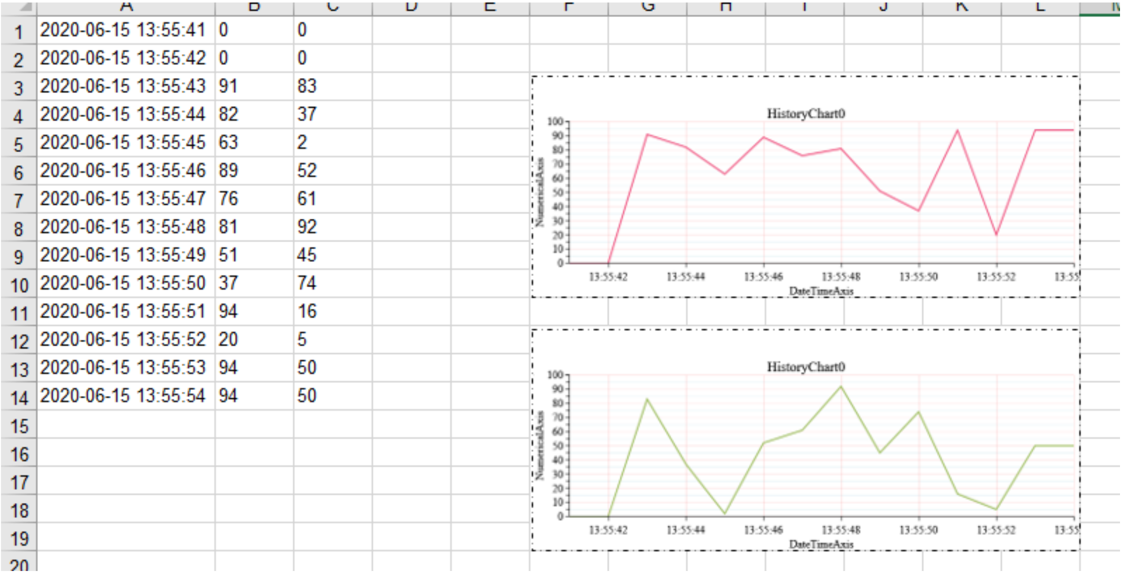
The Scripts of HistoryChart

(10)Run the Window0,query history data



The Scripts of HistoryChart

(11)Export the history data by report template, the exported excel file is shown below



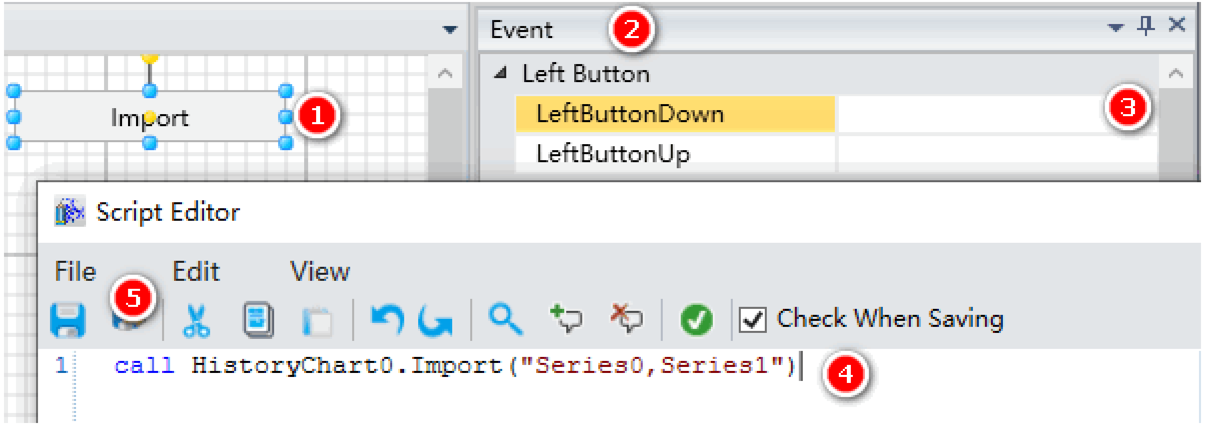
	A	B	C
1	2020-06-15 13:55:41	0	0
2	2020-06-15 13:55:42	0	0
3	2020-06-15 13:55:43	91	83
4	2020-06-15 13:55:44	82	37
5	2020-06-15 13:55:45	63	2
6	2020-06-15 13:55:46	89	52
7	2020-06-15 13:55:47	76	61
8	2020-06-15 13:55:48	81	92
9	2020-06-15 13:55:49	51	45
10	2020-06-15 13:55:50	37	74
11	2020-06-15 13:55:51	94	16
12	2020-06-15 13:55:52	20	5
13	2020-06-15 13:55:53	94	50
14	2020-06-15 13:55:54	94	50

Click the "Export2" button, then Series0 and Series1 of HistoryChart0 are exported to the disk D successfully, and the file name is "HistoryData"

The Scripts of HistoryChart

- **Import** example：

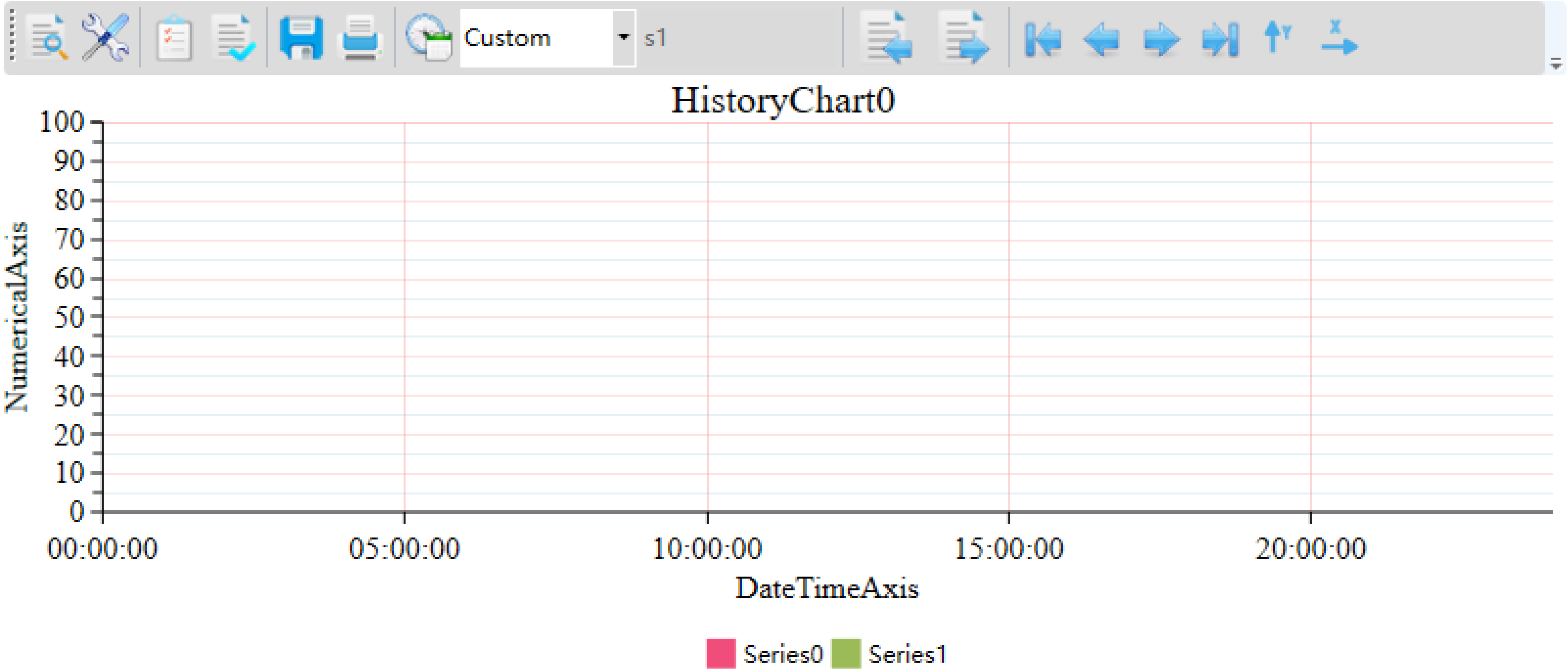
Import history data from excel file to history chart
The first 5 steps are the same as(1)(2)(3)(4)(5) steps of QueryHistoryDate example
(6)Create one button(Import) in the Window0, configure the LeftButtonDown event of the button



```
call HistoryChart0.Import("Series0,Series1")
```

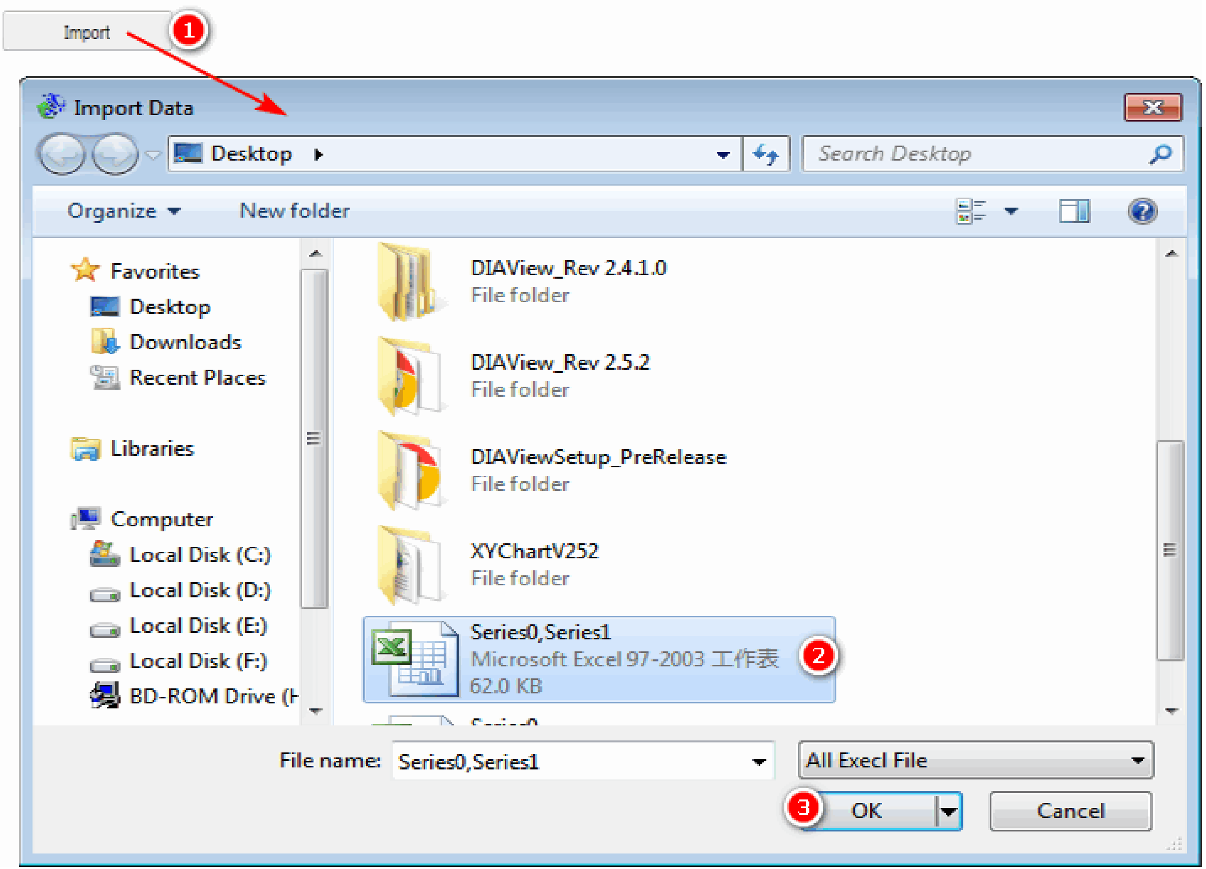
The Scripts of HistoryChart

(7)Run the Window0



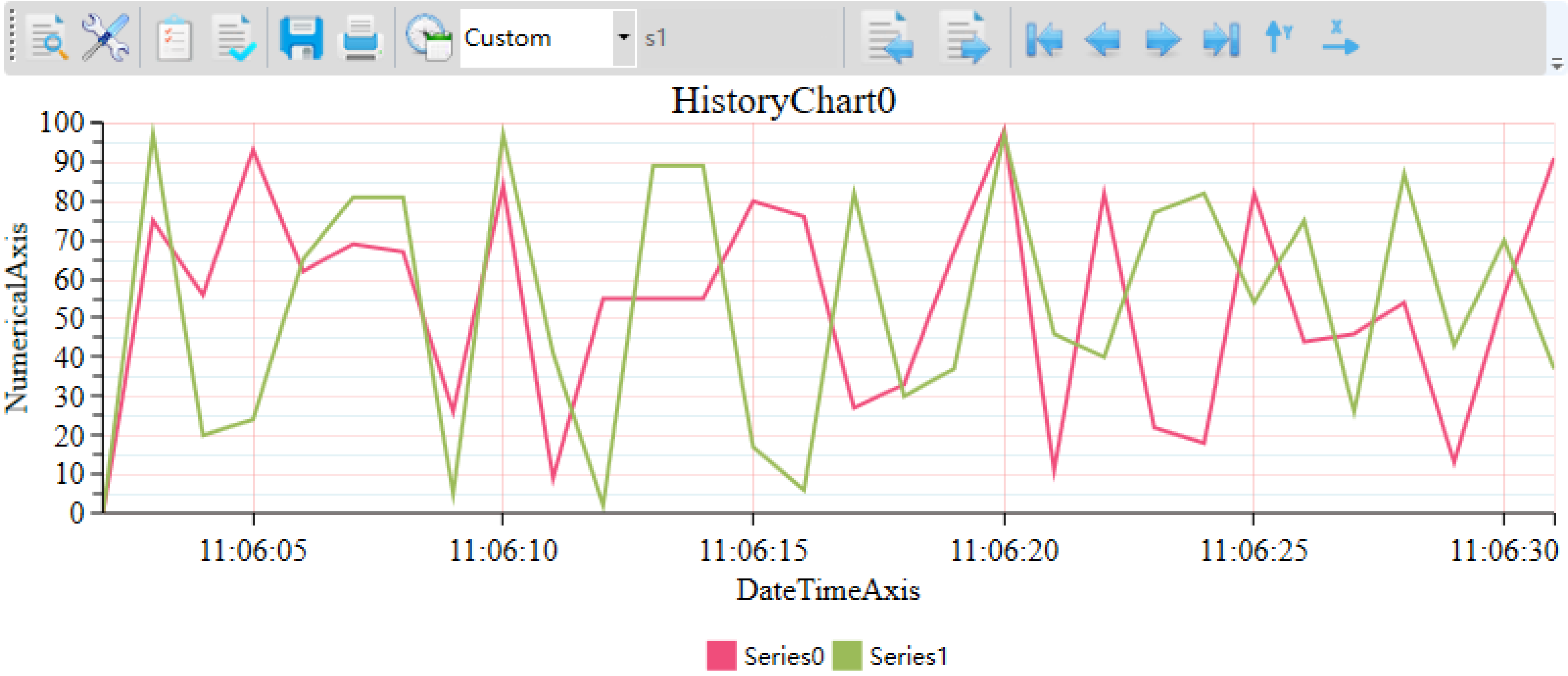
The Scripts of HistoryChart

(8)Click the "Import" button to import history data to HistoryChart0



The Scripts of HistoryChart

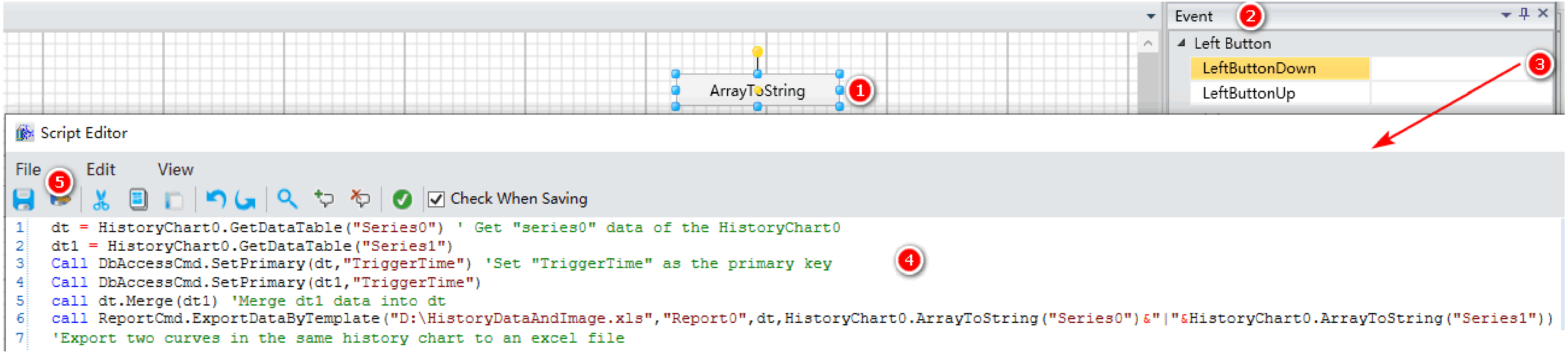
(9)The history data are imported to HistoryChart0 successfully, as shown below



The Scripts of HistoryChart

- **<u>ArrayToString</u>** example：

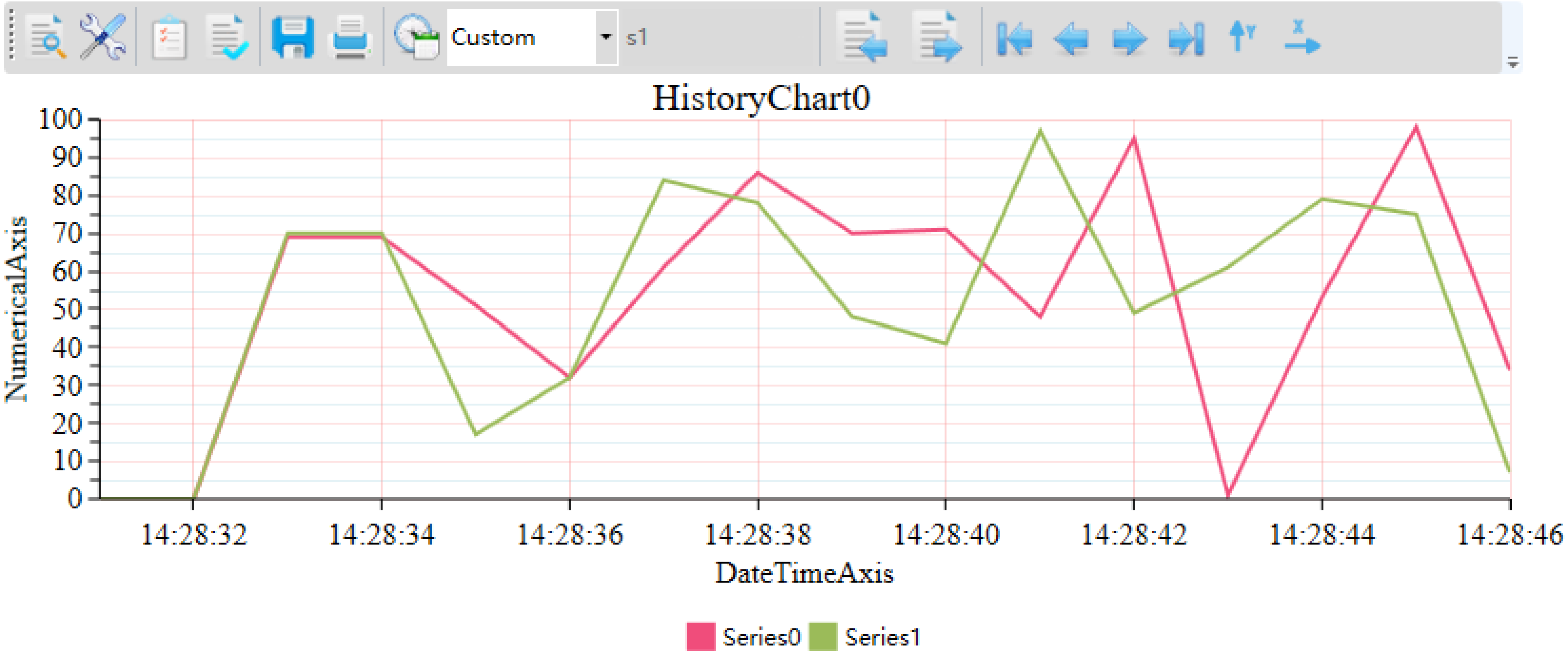
Export two curves in the same history chart to an excel
The first 8 steps are the same as the first 8 steps of **<u>Export</u>** example2
(9)Create one button(<u>ArrayToString</u>) in the <u>Window0</u>, configure the <u>LeftButtonDown</u> event of the button



```
dt = HistoryChart0.GetDataTable("Series0") ' Get "series0" data of the HistoryChart0
dt1 = HistoryChart0.GetDataTable("Series1")
Call DbAccessCmd.SetPrimary(dt,"TriggerTime") 'Set "TriggerTime" as the primary key
Call DbAccessCmd.SetPrimary(dt1,"TriggerTime")
call dt.Merge(dt1) 'Merge dt1 data into dt
call ReportCmd.ExportDataByTemplate("D:\HistoryDataAndImage.xls","Report0",dt,HistoryChart0.ArrayToString("Series0")&"|"&HistoryChart0.ArrayToString("Series1"))
'Export two curves in the same history chart to an excel file
```

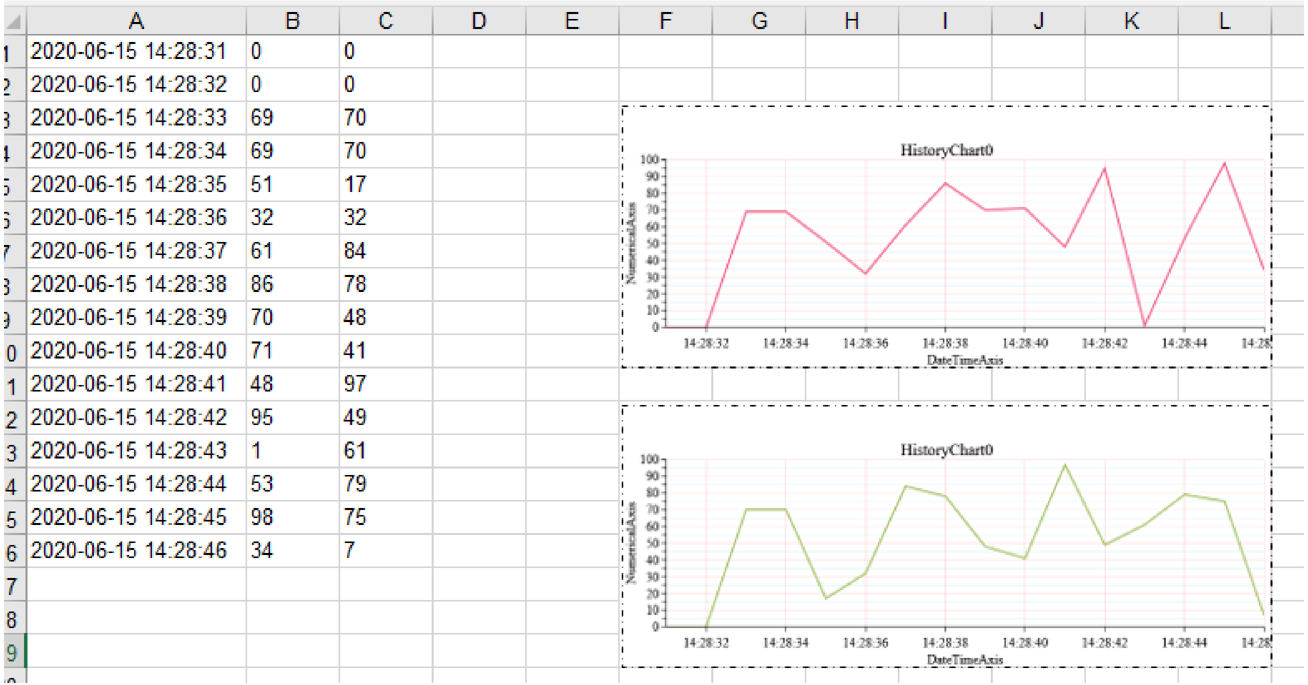
The Scripts of HistoryChart

(10)Run the Window0,query history data



The Scripts of HistoryChart

(11)Export the history data and image, the exported excel file is shown below



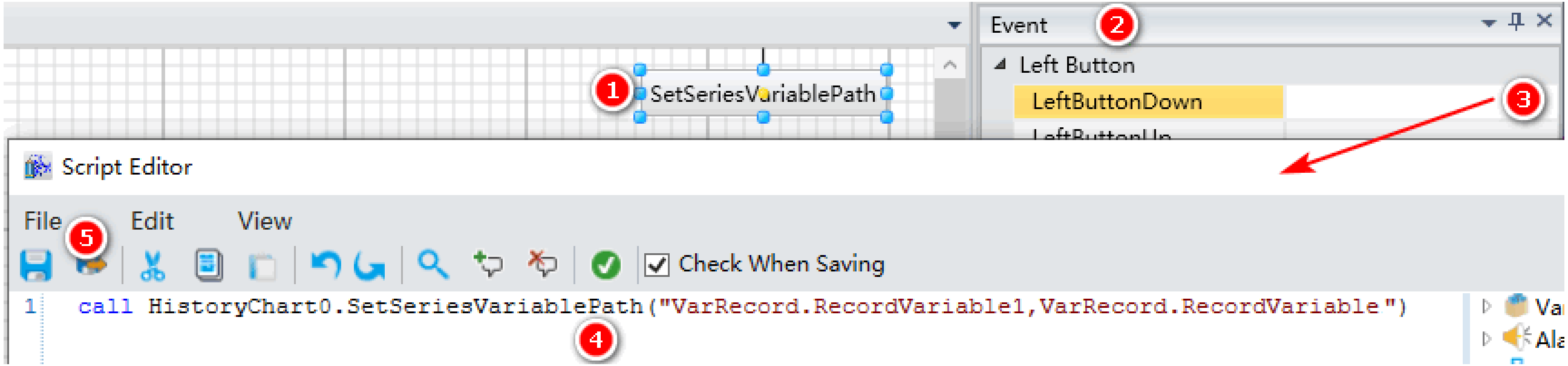
A	B	C
2020-06-15 14:28:31	0	0
2020-06-15 14:28:32	0	0
2020-06-15 14:28:33	69	70
2020-06-15 14:28:34	69	70
2020-06-15 14:28:35	51	17
2020-06-15 14:28:36	32	32
2020-06-15 14:28:37	61	84
2020-06-15 14:28:38	86	78
2020-06-15 14:28:39	70	48
2020-06-15 14:28:40	71	41
2020-06-15 14:28:41	48	97
2020-06-15 14:28:42	95	49
2020-06-15 14:28:43	1	61
2020-06-15 14:28:44	53	79
2020-06-15 14:28:45	98	75
2020-06-15 14:28:46	34	7

Click the “ArrayToImage” button, then Series0 and Series1 of HistoryChart0 are exported to the disk D successfully, and the file name is “HistoryDataAndImage”

The Scripts of HistoryChart

- **SetSeriesVariablePath** example：

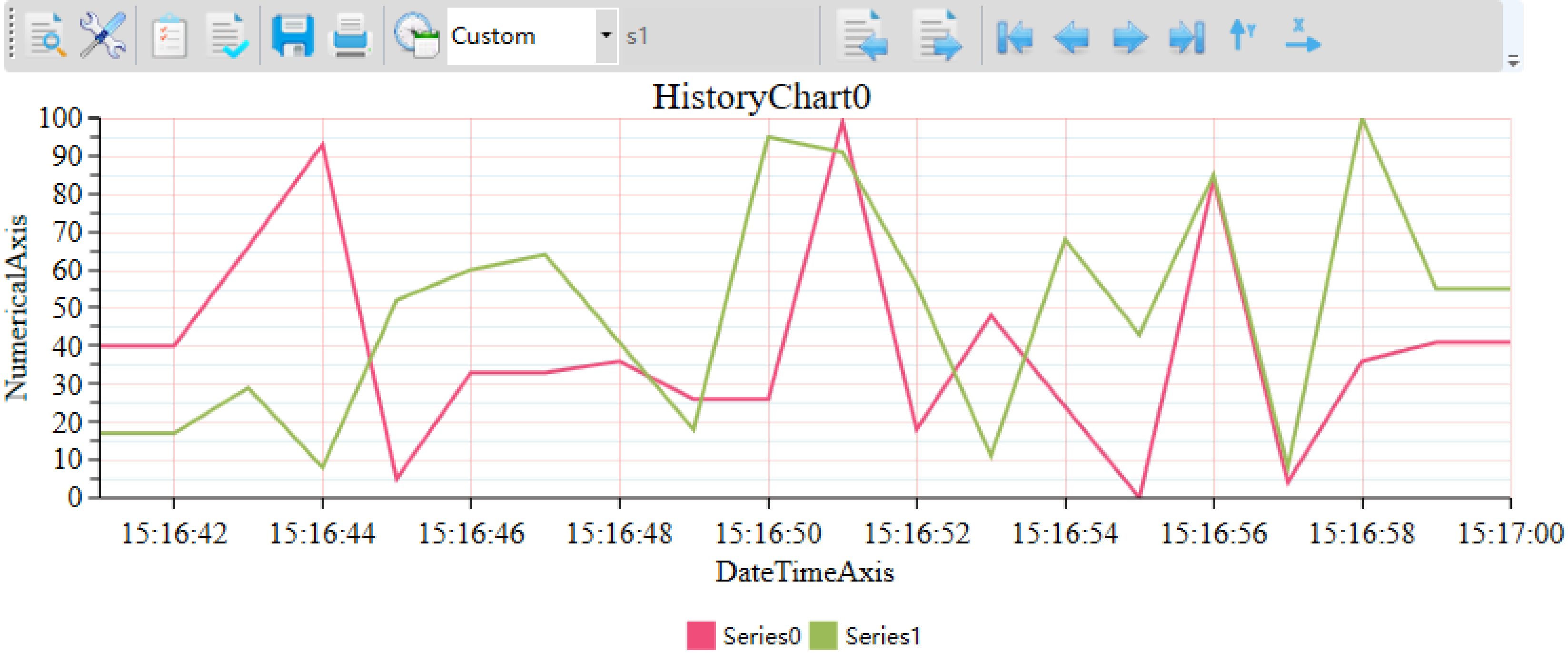
Exchange history variables associated with the two curves
The first 5 steps are the same as(1)(2)(3)(4)(5) steps of **QueryHistoryDate** example
(6)Create one button(SetSeriesVariablePath) in the Window0, configure the LeftButtonDown event of the button



```
call HistoryChart0.SetSeriesVariablePath("VarRecord.RecordVariable1,VarRecord.RecordVariable")
```

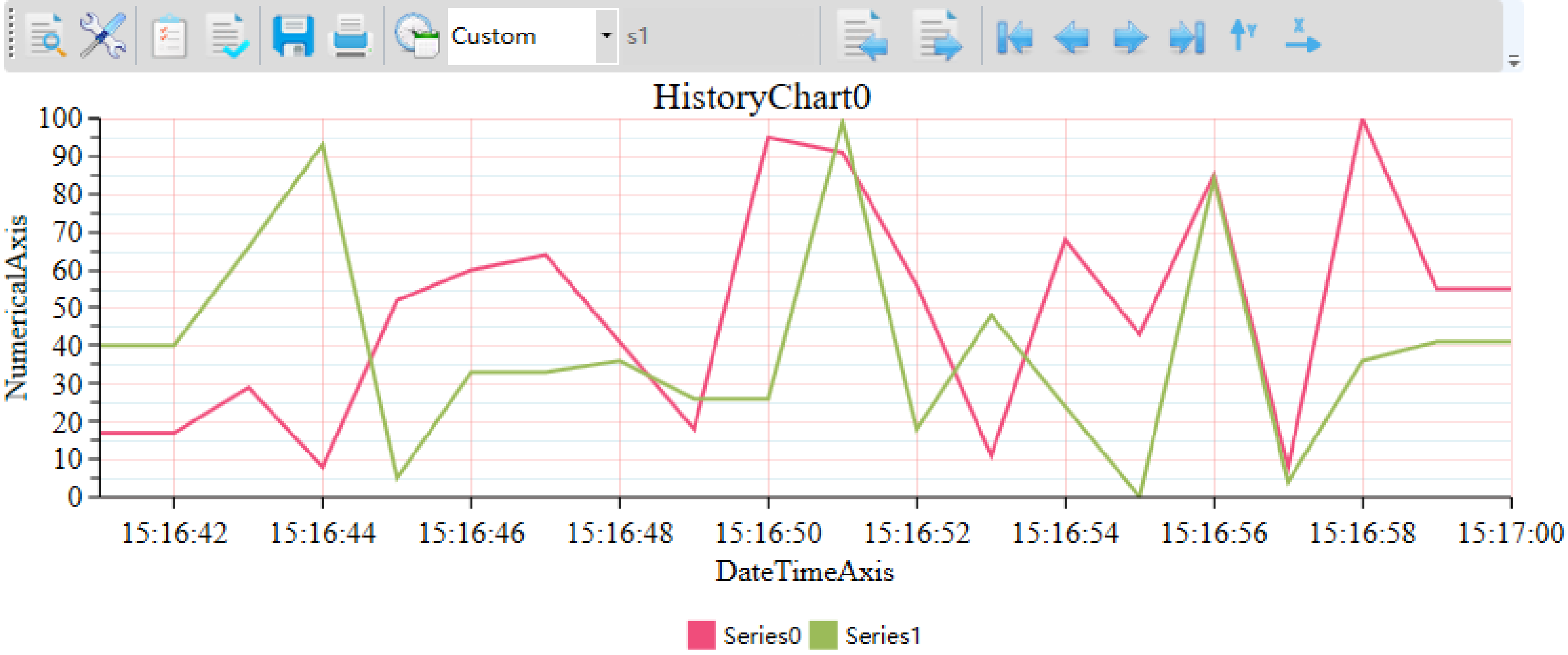
The Scripts of HistoryChart

(7)Run the Window0,query history data



The Scripts of HistoryChart

(8)Click the “SetSeriesVariablePath” button，then query history data again， as shown below



Comparing the image in the previous step, it can be concluded that the history variables associated with the two curves are exchanged.

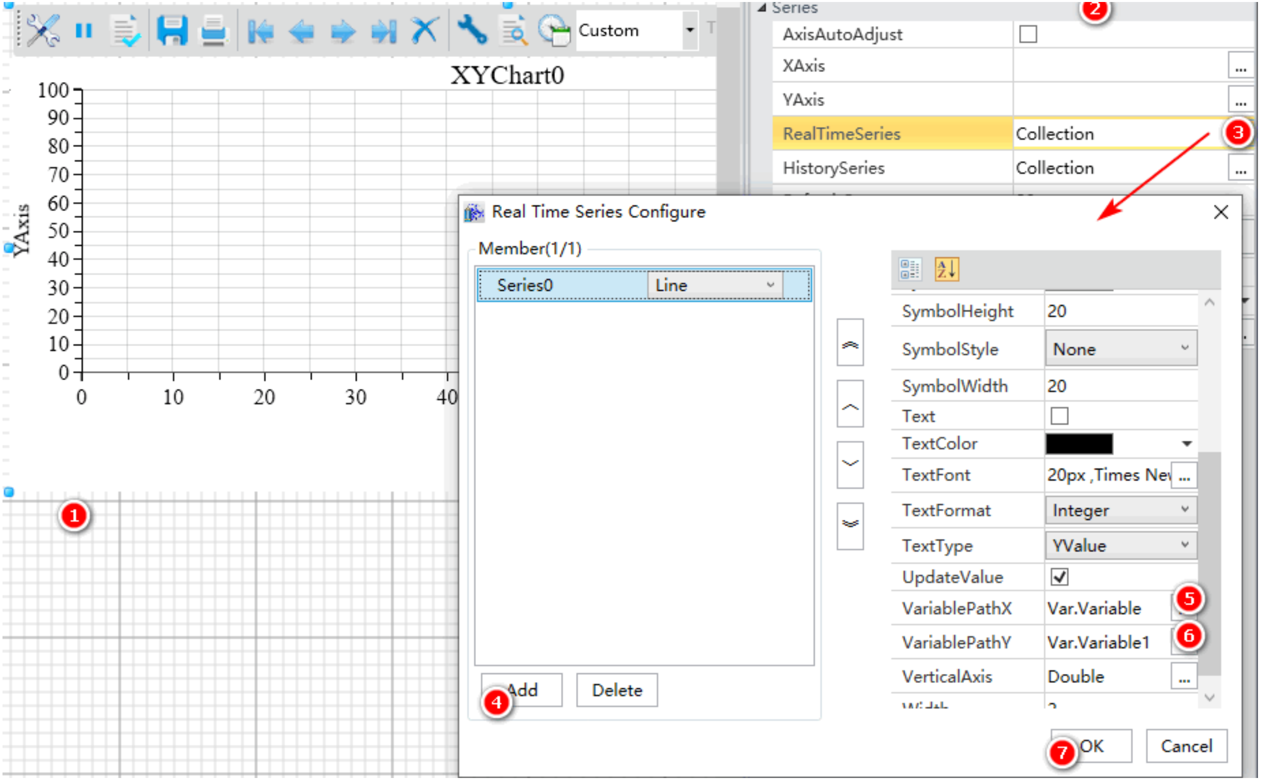
The Scripts of XYChart

- **AddPoint,UpdatePoint, DeletePoint, DeletevalueAll** example：

Add a point in the XYChart
(1)Create 2 variables：Variable，Variable1
(2) Create a simulated device：Device0
(3) Create two simulation address in the Device0 that associated with Variable, Variable1 respectively

The Scripts of XYChart

(4) Create a XYChart0 in the Window0, and add one curves in the XYChart0, VariablePathX of Series0 associated with Variable, VariablePathY of Series0 associated with Variable1



Series

AxisAutoAdjust	☐
XAxis	
YAxis	
RealTimeSeries	Collection
HistorySeries	Collection

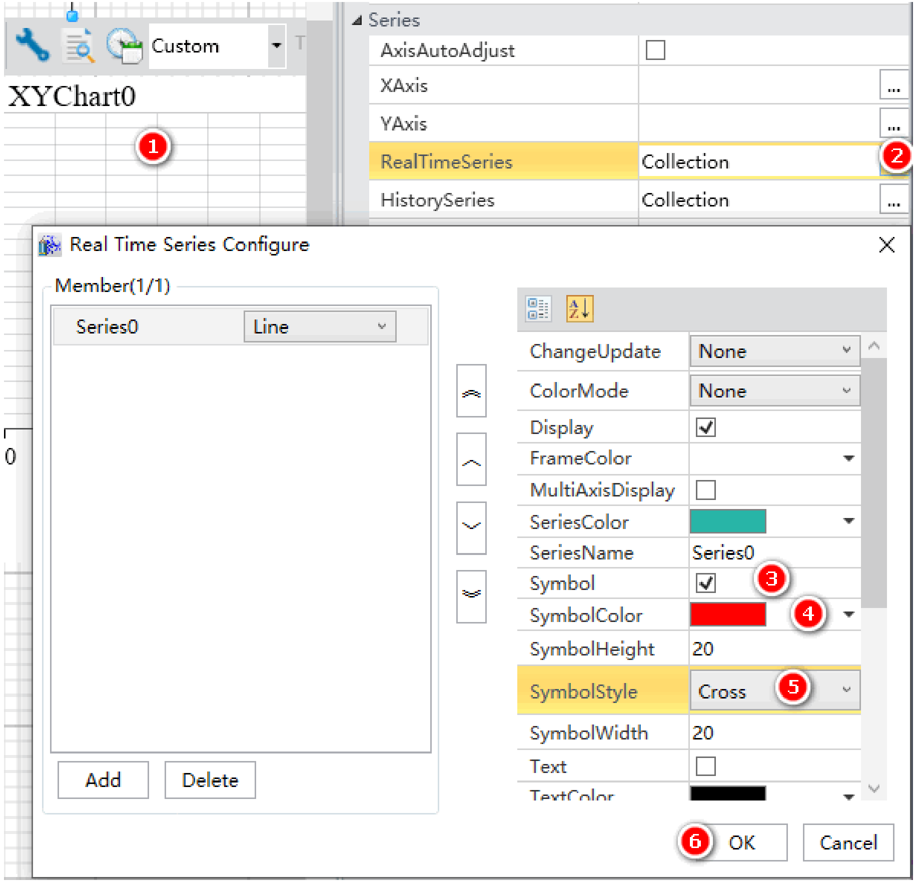
Member(1/1)

Series0 Line

SymbolHeight	20
SymbolStyle	None
SymbolWidth	20
Text	☐
TextColor	
TextFont	20px ,Times Nev
TextFormat	Integer
TextType	YValue
UpdateValue	☑
VariablePathX	Var.Variable
VariablePathY	Var.Variable1
VerticalAxis	Double

The Scripts of XYChart

(5)Set display the symbols of Series0



① XYChart0

Series
AxisAutoAdjust ☐
XAxis ...
YAxis ...
② RealTimeSeries Collection ...
HistorySeries Collection ...

Real Time Series Configure

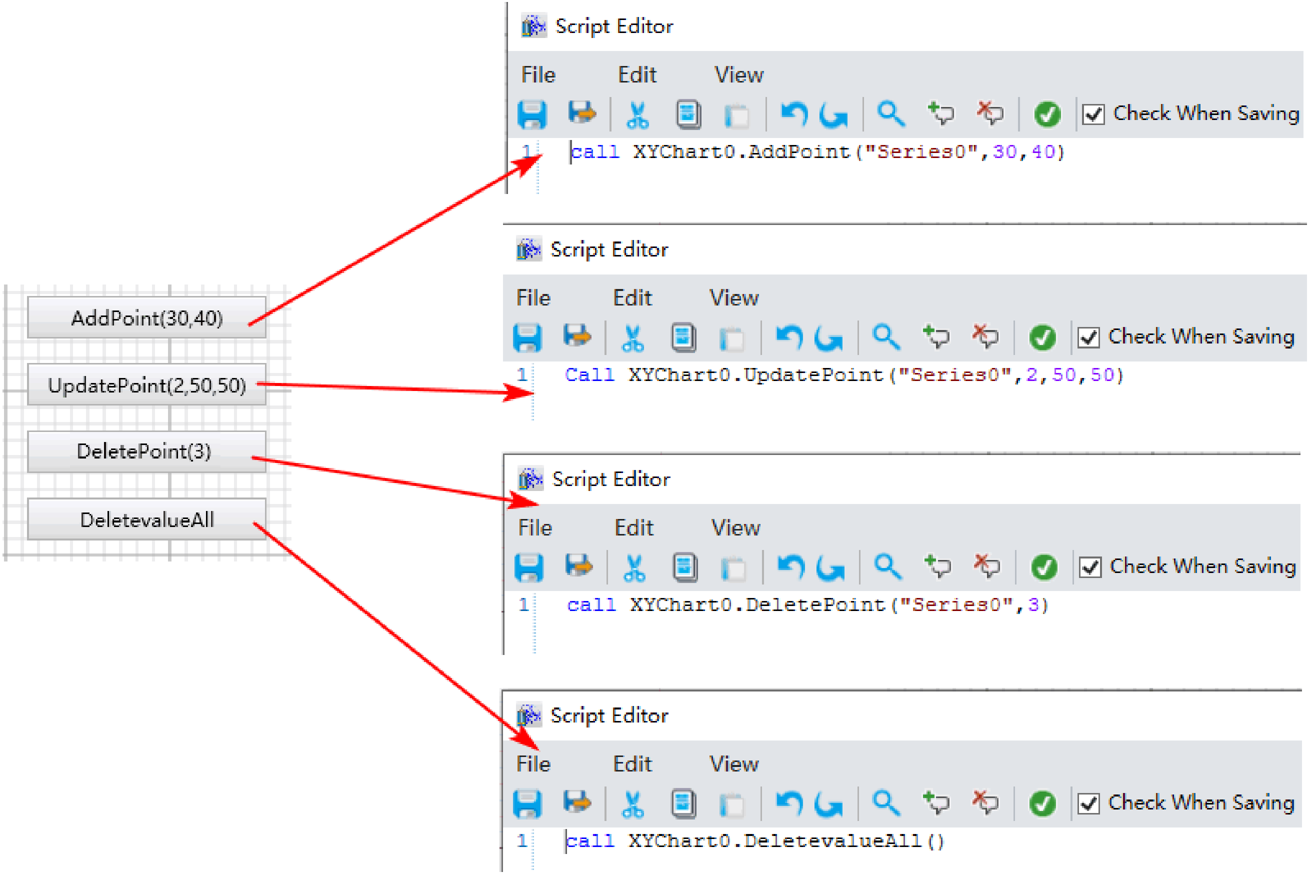
Member(1/1)
Series0 Line

ChangeUpdate	None
ColorMode	None
Display	☑
FrameColor	
MultiAxisDisplay	☐
SeriesColor	🟩
SeriesName	Series0
Symbol	☑ ③
SymbolColor	🟥 ④
SymbolHeight	20
SymbolStyle	Cross ⑤
SymbolWidth	20
Text	☐
TextColor	■

⑥ OK

The Scripts of XYChart

(6)Create 4 buttons in the Window, configure the LeftButtonDown event of the 4 buttons



☑ Check When Saving

```
call XYChart0.AddPoint("Series0",30,40)
```

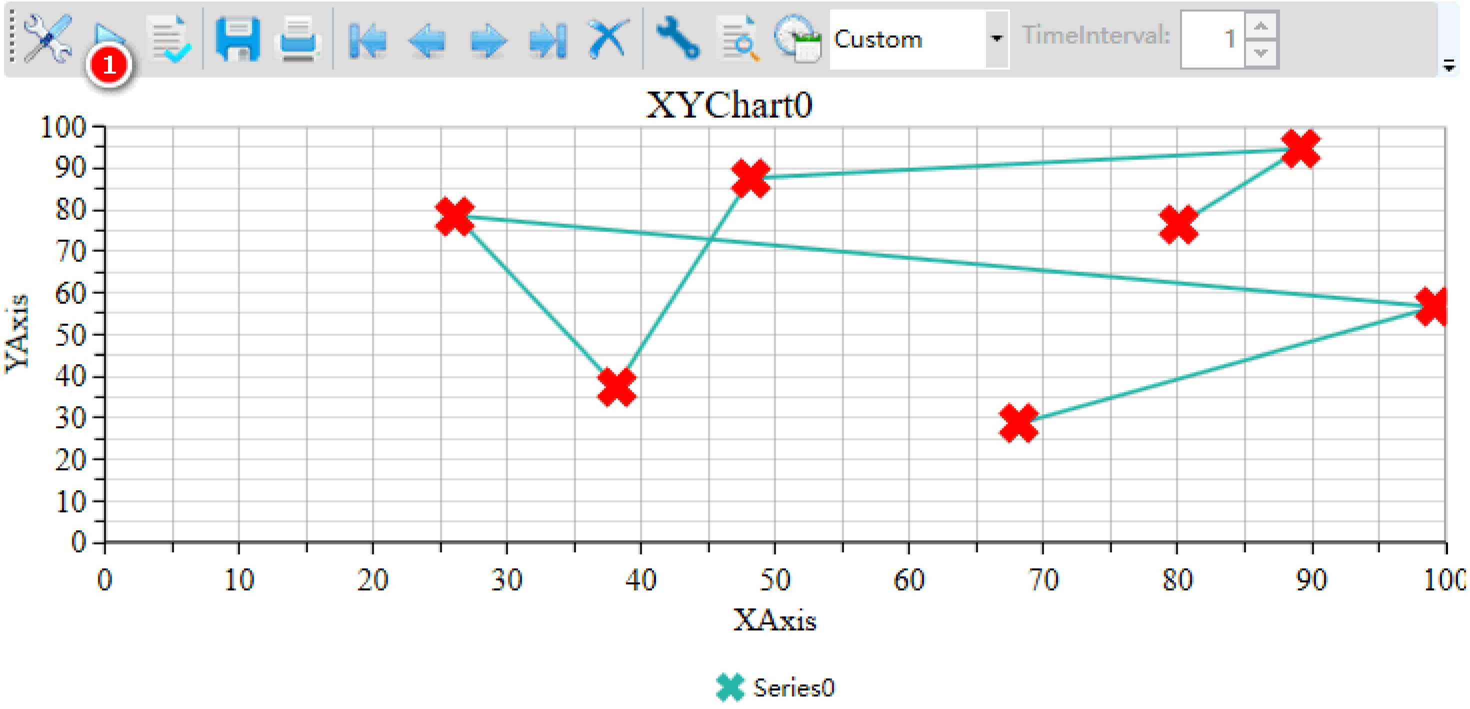
```
Call XYChart0.UpdatePoint("Series0",2,50,50)
```

```
call XYChart0.DeletePoint("Series0",3)
```

```
call XYChart0.DeletevalueAll()
```

The Scripts of XYChart

(7) Run Window0 for a while, then press the pause button in XYChart0 to stop data refresh



The Scripts of XYChart

(8) Execute scripts

①Click the “AddPoint(30,40)” button, Series0 will add a data point (30,40) at the end of itself

②Click the “UpdatePoint(2,50,50)” button, the data point with index 2 on Series0 will be updated to (50,50)

③Click the “DeletePoint(3)” button, the data point with index 3 on Series0 will be deleted

④Click the “DeletevalueAll” button, all the data points on the XYChart0 will be deleted

The Scripts of HistoryColumnChart

- **SetDateConditionListStartEndTime** example：

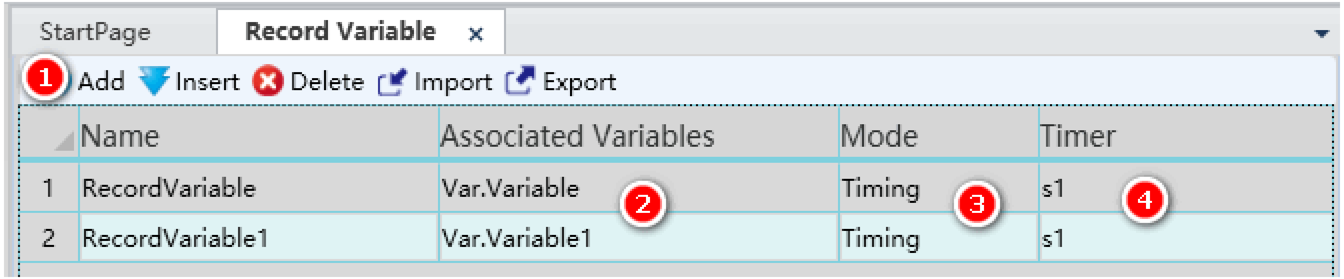
Query the minimum, average, and maximum data of two elements on the HistoryColumnChart over a period of time

(1)Create 2 variables：Variable，Variable1

(2) Create a simulated device：Device0

(3) Create two simulation address in the Device0 that associated with Variable, Variable1 respectively

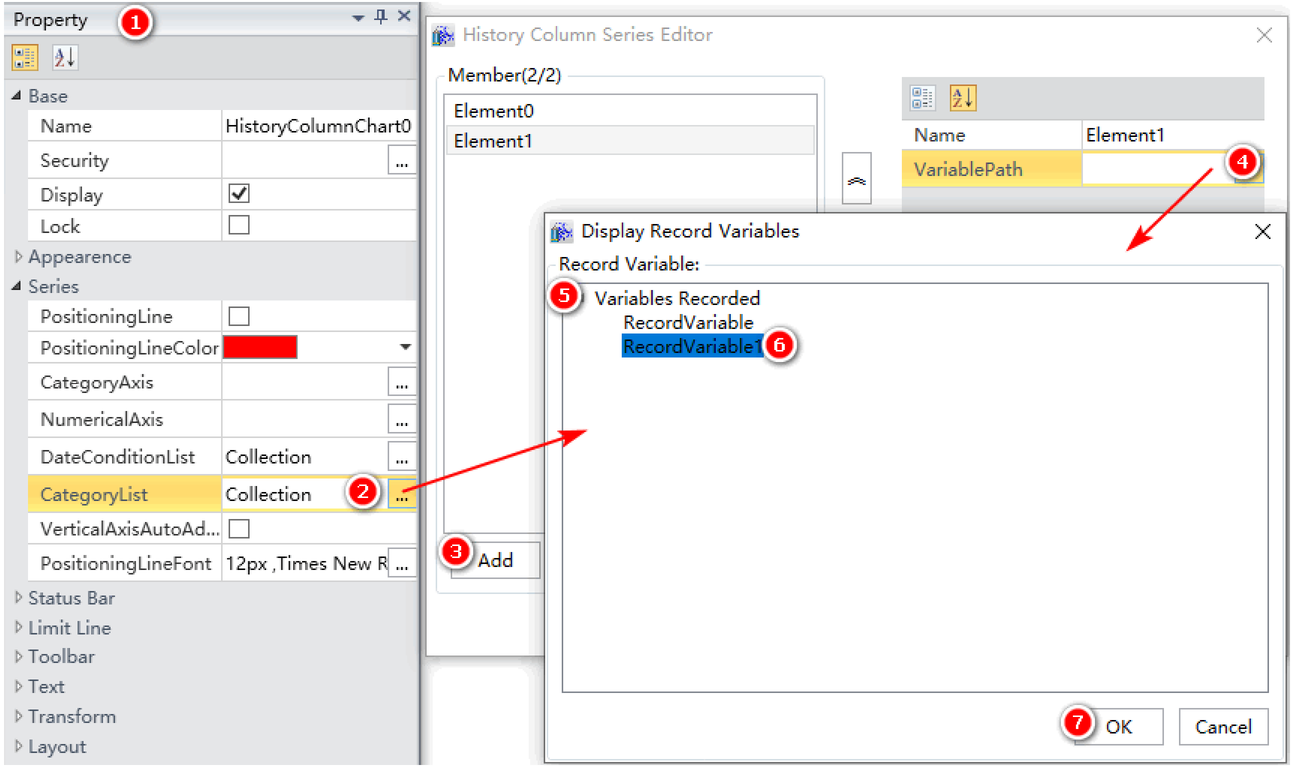
(4) Create two historical variables(RecordVariable, RecordVariable1) in the Record Variable node that associated with Variable, Variable1 respectively



	Name	Associated Variables	Mode	Timer
1	RecordVariable	Var.Variable	Timing	s1
2	RecordVariable1	Var.Variable1	Timing	s1

The Scripts of HistoryColumnChart

(5) Create a HistoryColumnChart0 in the Window0, and add 2 elements in the HistoryColumnChart0, Element0 associated RecordVariable, Element1 associated RecordVariable1



① Property

Base
Name	HistoryColumnChart0
Security	...
Display	☑
Lock	☐

Appearence

Series
PositioningLine	☐
PositioningLineColor	🟥
CategoryAxis	...
NumericalAxis	...
DateConditionList	Collection ...
CategoryList	Collection ② ...
VerticalAxisAutoAd...	☐
PositioningLineFont	12px ,Times New R ...

Status Bar
Limit Line
Toolbar
Text
Transform
Layout

History Column Series Editor

Member(2/2)
Element0
Element1
③ Add

Name	Element1
VariablePath	④

Display Record Variables

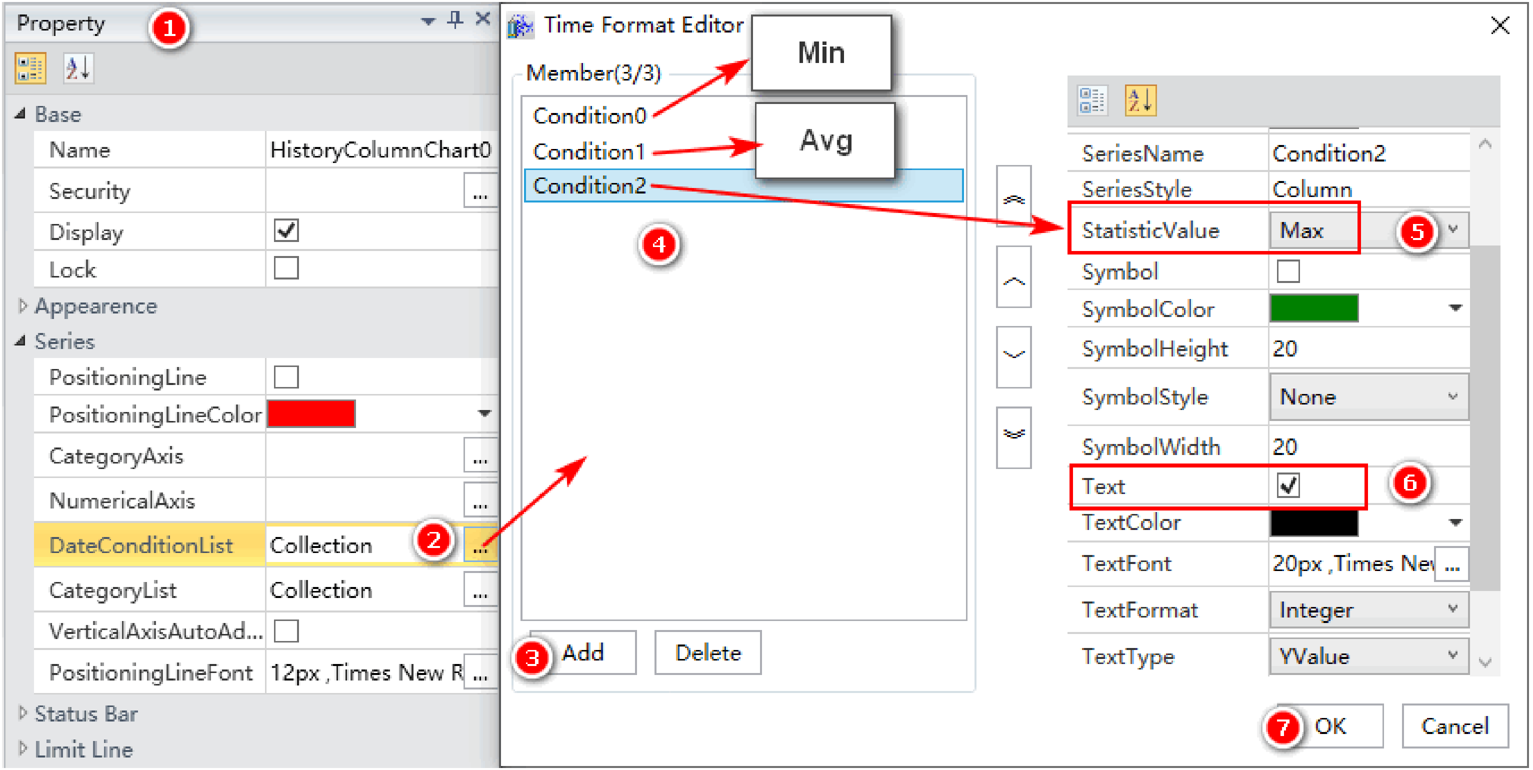
Record Variable:
⑤ Variables Recorded
RecordVariable
RecordVariable1 ⑥

⑦ OK
Cancel

The Scripts of HistoryColumnChart

(6)Set conditions properties

The StatisticValue property of Condition0, Condition1, Condition2 are the Min, Avg, Max respectively



Base	
Name	HistoryColumnChart0
Security	...
Display	☑
Lock	☐
Appearence	
Series	
PositioningLine	☐
PositioningLineColor	🟥
CategoryAxis	...
NumericalAxis	...
DateConditionList	Collection ...
CategoryList	Collection ...
VerticalAxisAutoAd...	☐
PositioningLineFont	12px ,Times New R ...
Status Bar	
Limit Line	

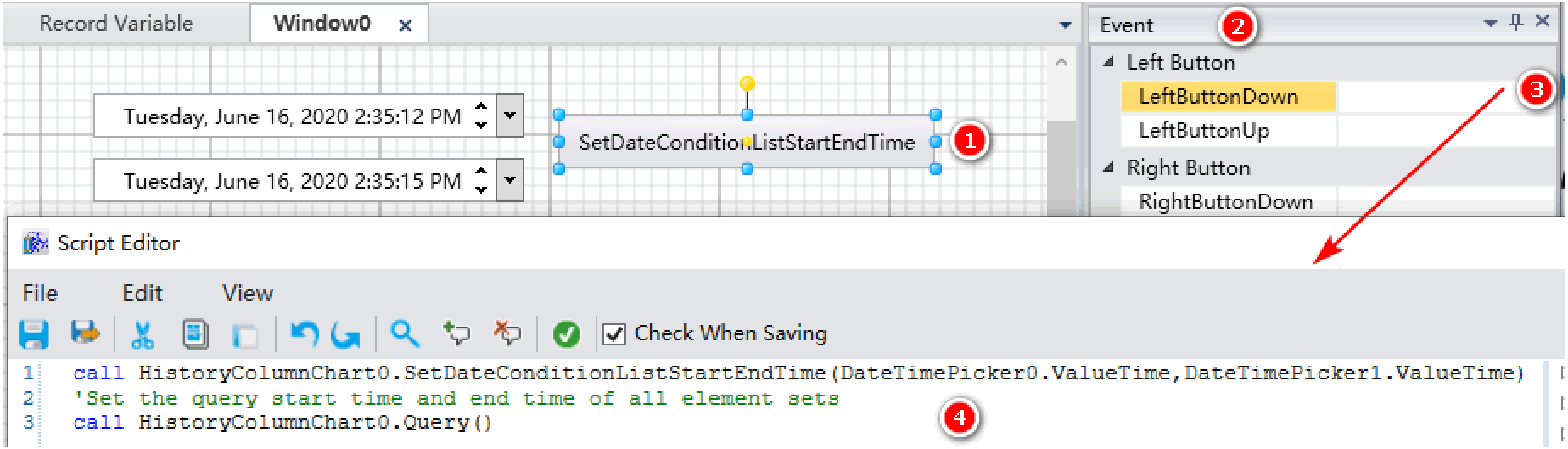
Member(3/3)

- Condition0
- Condition1
- Condition2

SeriesName	Condition2
SeriesStyle	Column
StatisticValue	Max
Symbol	☐
SymbolColor	🟩
SymbolHeight	20
SymbolStyle	None
SymbolWidth	20
Text	☑
TextColor	⬛
TextFont	20px ,Times Nev ...
TextFormat	Integer
TextType	YValue

The Scripts of HistoryColumnChart

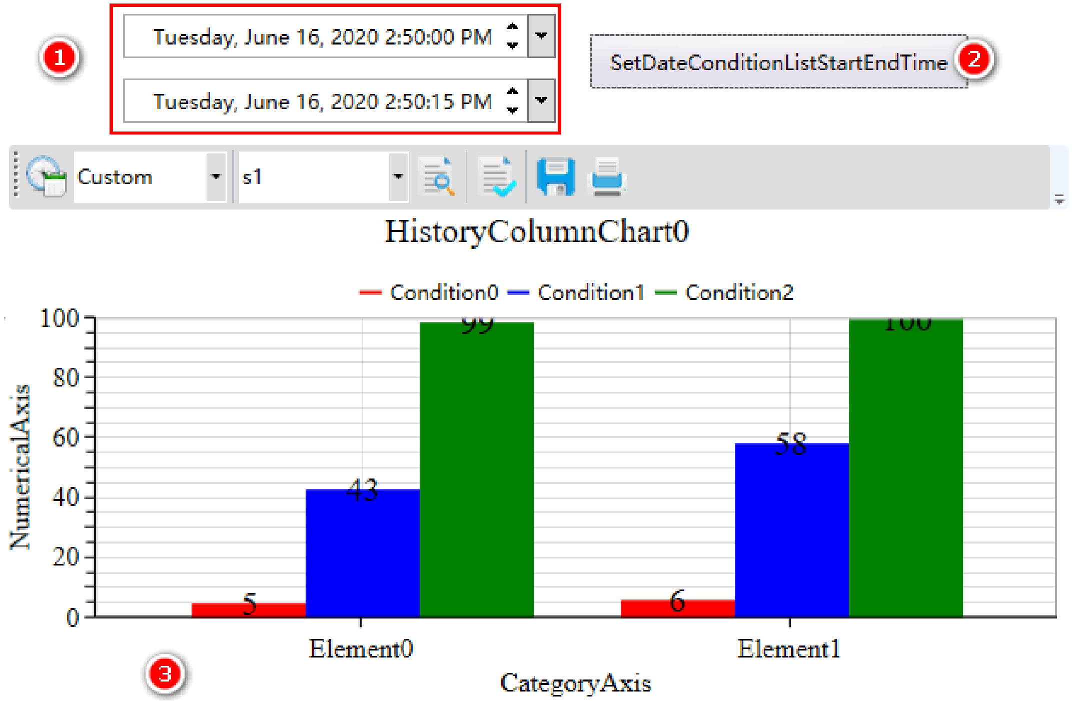
(7) Create two DateTimePicker(DateTimePicker0, DateTimePicker1) and a button in the Window0, configure the LeftButtonDown event of the button



```
call HistoryColumnChart0.SetDateConditionListStartEndTime(DateTimePicker0.ValueTime,DateTimePicker1.ValueTime)
'Set the query start time and end time of all element sets
call HistoryColumnChart0.Query()
```

The Scripts of HistoryColumnChart

(8) Run the Window0



Tuesday, June 16, 2020 2:50:00 PM

Tuesday, June 16, 2020 2:50:15 PM

①Set the query start time and end time

②Apply the set query period to the HistoryColumnChart0 , then query the data

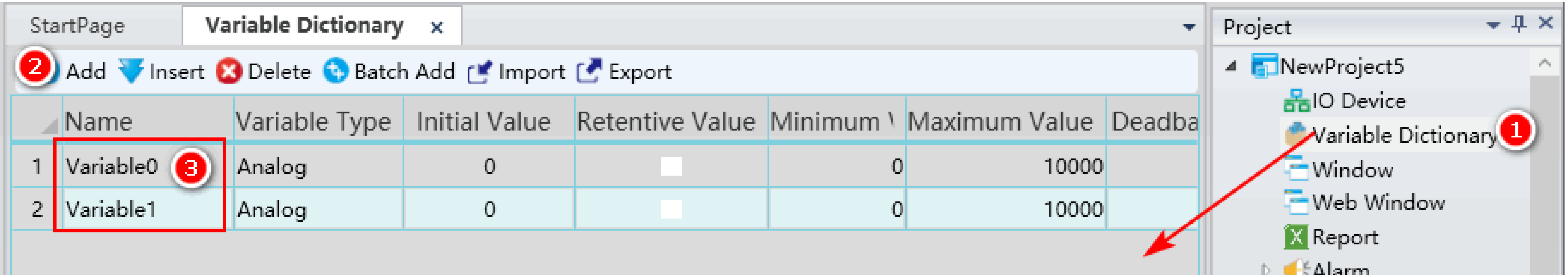
③Query result: The minimum, average and maximum values of Element0 are 5,43,99; the minimum, average and maximum values of Element1 are 6,58,100

The Scripts of AlarmWindow

- **<u>GetCurrentAlarmColumnInf</u>** example：

Get the content of the row 2 and column 7 of the real-time alarm window

(1)Create 2 variables：<u>Variable0</u> , <u>Variable1</u>

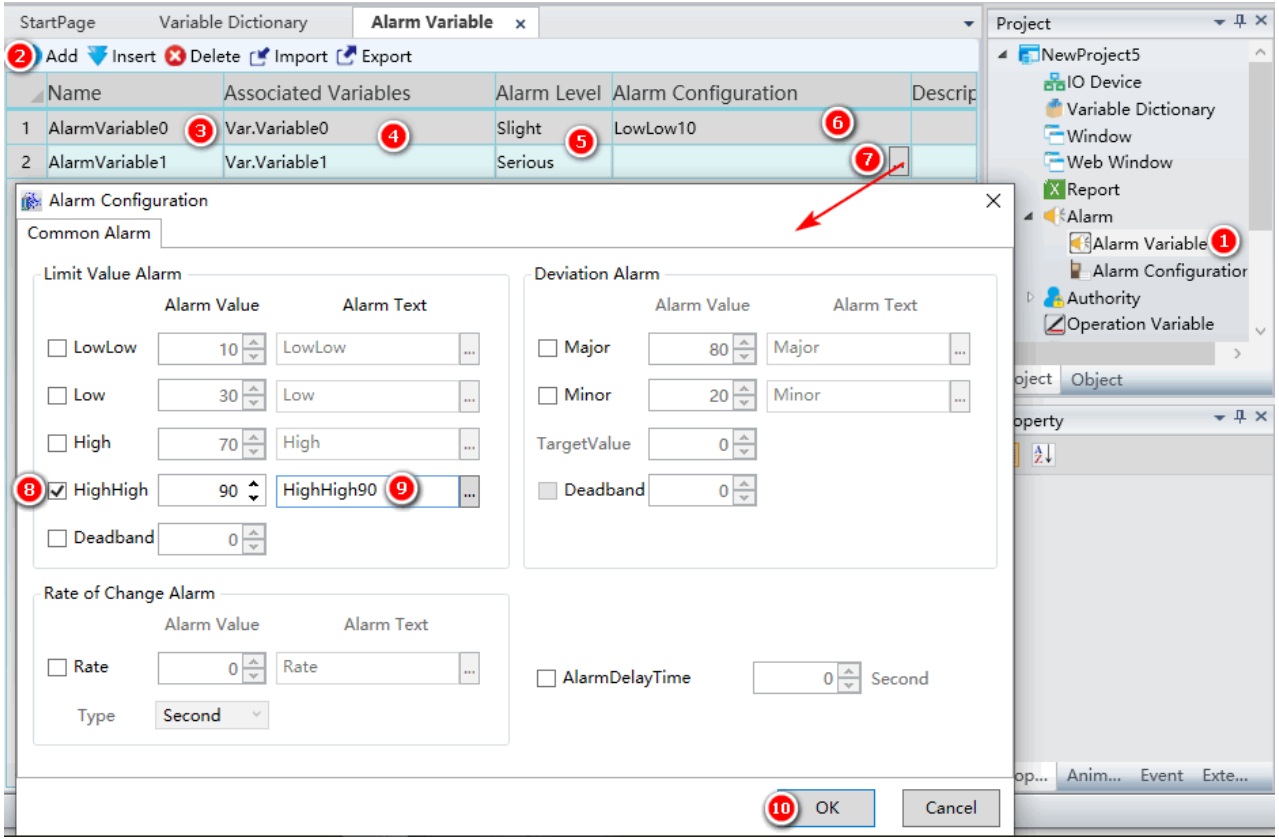


	Name	Variable Type	Initial Value	Retentive Value	Minimum \	Maximum Value	Deadba
1	Variable0	Analog	0	☐	0	10000	
2	Variable1	Analog	0	☐	0	10000	

※Refer to the section “6.3 Variables” in user manual.

The Scripts of AlarmWindow

(2)Create 2 alarm variables(AlarmVariable0 , AlarmVariable1) that associated with the Variable0, Variable1 respectively



	Name	Associated Variables	Alarm Level	Alarm Configuration	Descrip
1	AlarmVariable0	Var.Variable0	Slight	LowLow10	
2	AlarmVariable1	Var.Variable1	Serious		

Limit Value Alarm

	Alarm Value	Alarm Text
☐ LowLow	10	LowLow
☐ Low	30	Low
☐ High	70	High
☑ HighHigh	90	HighHigh90
☐ Deadband	0	

Deviation Alarm

	Alarm Value	Alarm Text
☐ Major	80	Major
☐ Minor	20	Minor
TargetValue	0	
☐ Deadband	0	

Rate of Change Alarm

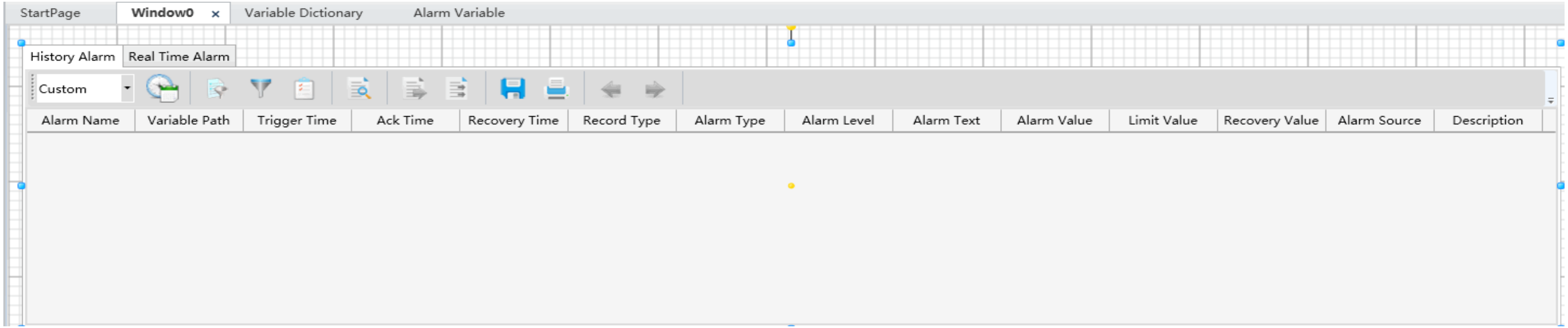
	Alarm Value	Alarm Text
☐ Rate	0	Rate
Type	Second	

☐ AlarmDelayTime 0 Second

※Refer to the section “11.3 Alarm variable” in user manual.

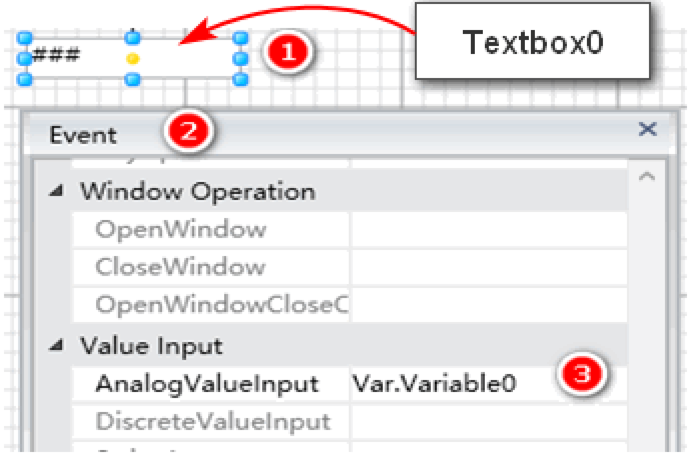
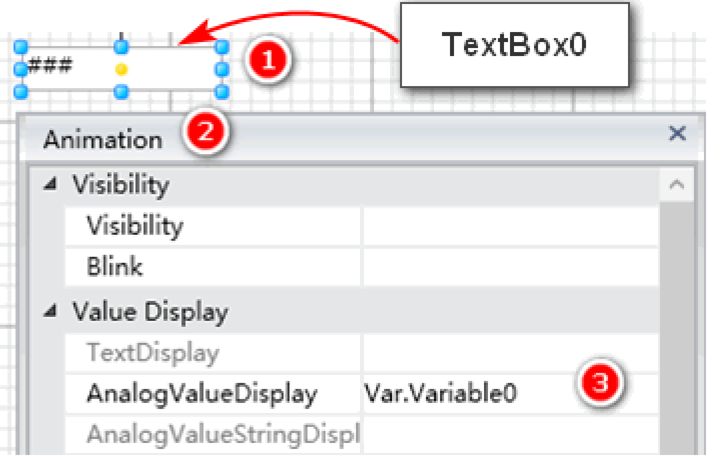
The Scripts of AlarmWindow

(3)Create a AlarmWindow0 in Window0



The Scripts of AlarmWindow

(4)Create 2 text box (Textbox0 , TextBox1)in Window0, the analog value input event and analog value display animation of TextBox0 , TextBox1 are associated with Variable0, Variable1 respectively

	
Analog Value Input	Analog Value Display

Textbox0

① ② Event

- Window Operation
  - OpenWindow
  - CloseWindow
  - OpenWindowCloseC
- Value Input
  - AnalogValueInput Var.Variable0 ③
  - DiscreteValueInput

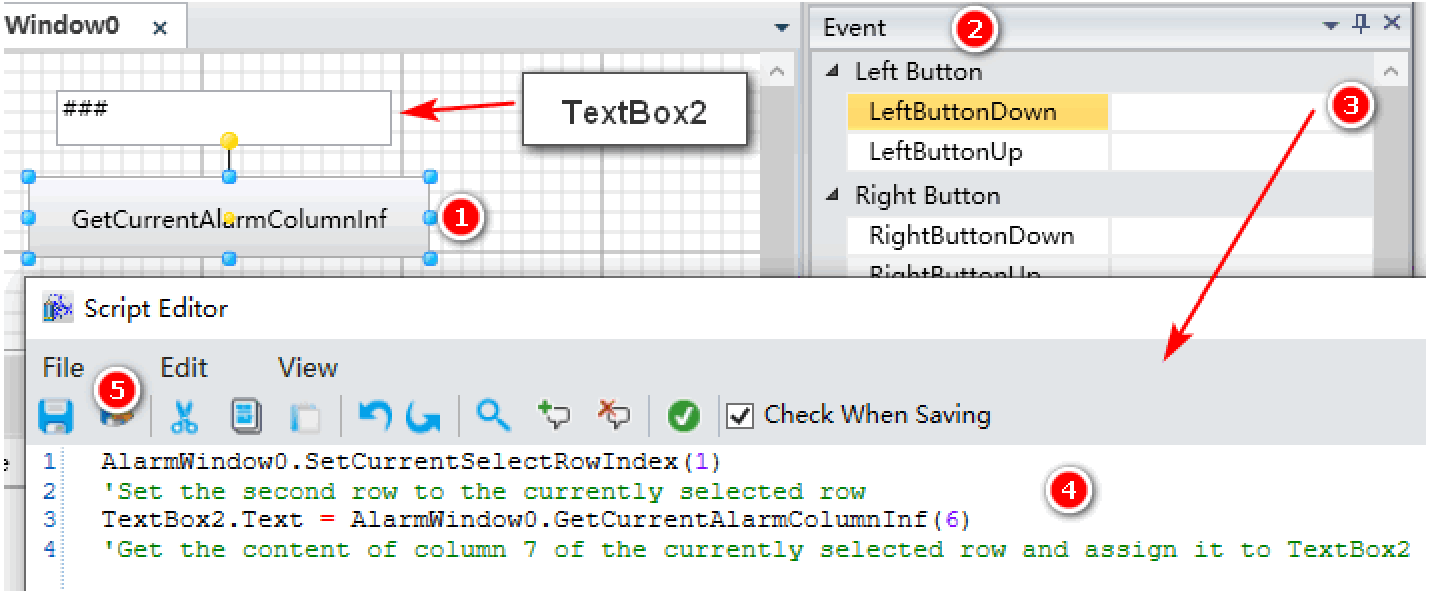
TextBox0

① ② Animation

- Visibility
  - Visibility
  - Blink
- Value Display
  - TextDisplay
  - AnalogValueDisplay Var.Variable0 ③
  - AnalogValueStringDispl

The Scripts of AlarmWindow

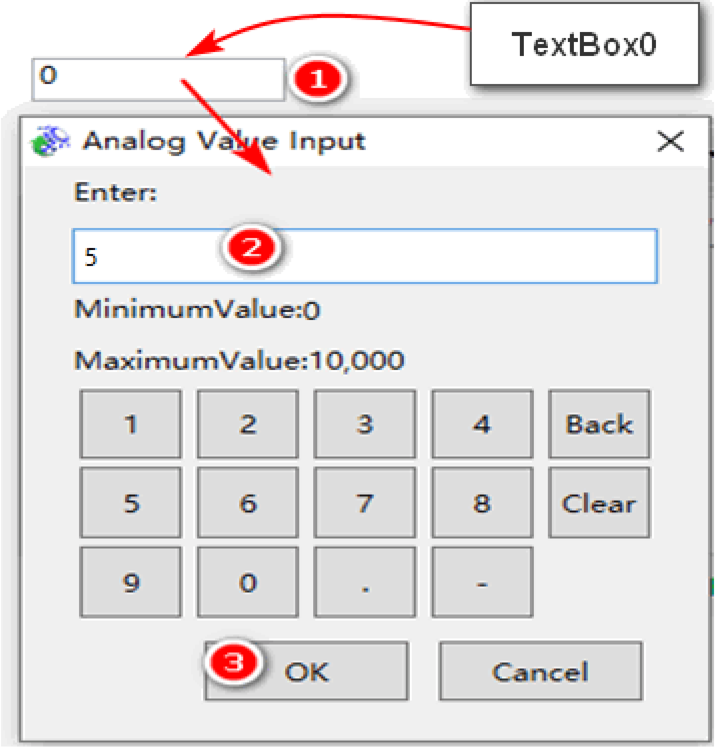
(5)Create a TextBox2 and a button(GetCurrentAlarmColumnInf) in the Window0, configure the LeftButtonDown event of the button



```
AlarmWindow0.SetCurrentSelectRowIndex(1)
'Set the second row to the currently selected row
TextBox2.Text = AlarmWindow0.GetCurrentAlarmColumnInf(6)
'Get the content of column 7 of the currently selected row and assign it to TextBox2
```

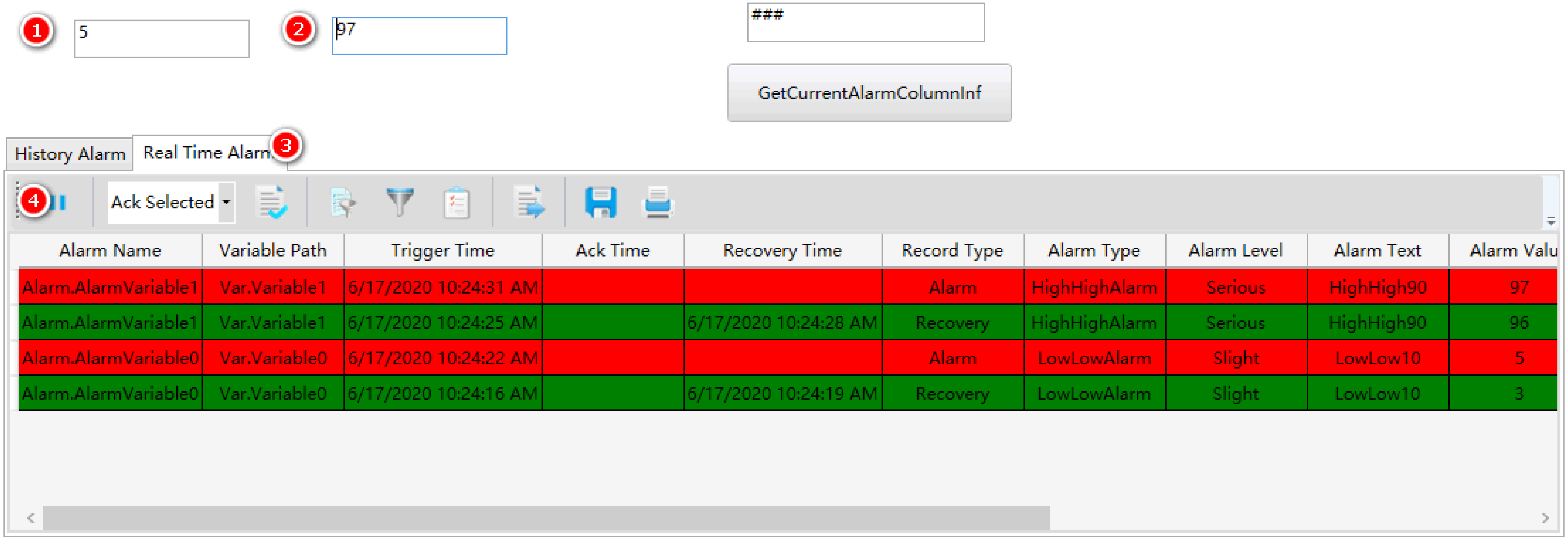
The Scripts of AlarmWindow

(6)Run the Window0. In Textbox0, input 3,13,5 in sequence;
In Textbox1, input 96,86,97 in sequence



The Scripts of AlarmWindow

(7)The Real Time Alarm window displays as follows



① 5

② 97

###

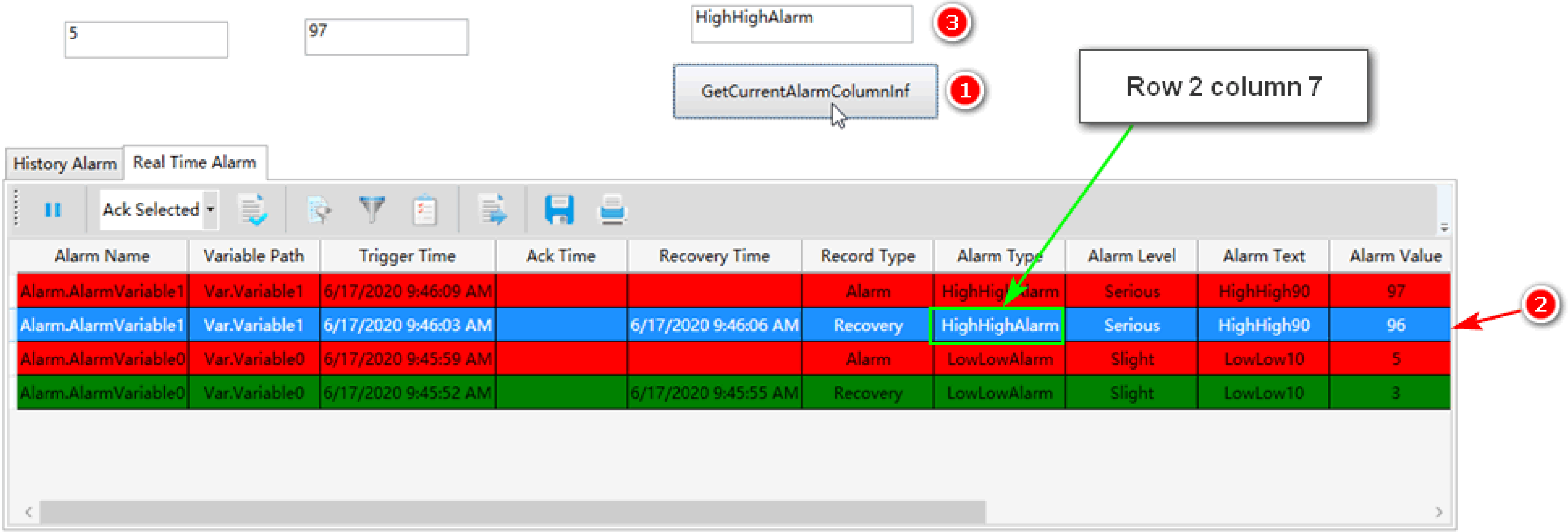
Alarm Name	Variable Path	Trigger Time	Ack Time	Recovery Time	Record Type	Alarm Type	Alarm Level	Alarm Text	Alarm Valu
Alarm.AlarmVariable1	Var.Variable1	6/17/2020 10:24:31 AM			Alarm	HighHighAlarm	Serious	HighHigh90	97
Alarm.AlarmVariable1	Var.Variable1	6/17/2020 10:24:25 AM		6/17/2020 10:24:28 AM	Recovery	HighHighAlarm	Serious	HighHigh90	96
Alarm.AlarmVariable0	Var.Variable0	6/17/2020 10:24:22 AM			Alarm	LowLowAlarm	Slight	LowLow10	5
Alarm.AlarmVariable0	Var.Variable0	6/17/2020 10:24:16 AM		6/17/2020 10:24:19 AM	Recovery	LowLowAlarm	Slight	LowLow10	3

The Scripts of AlarmWindow

(8)Execute the scripts

①Click the “GetCurrentAlarmColumnInf” button

③The TextBox2 displays the content of column 7 of the currently selected row --HigHighAlarm



5

97

HighHighAlarm

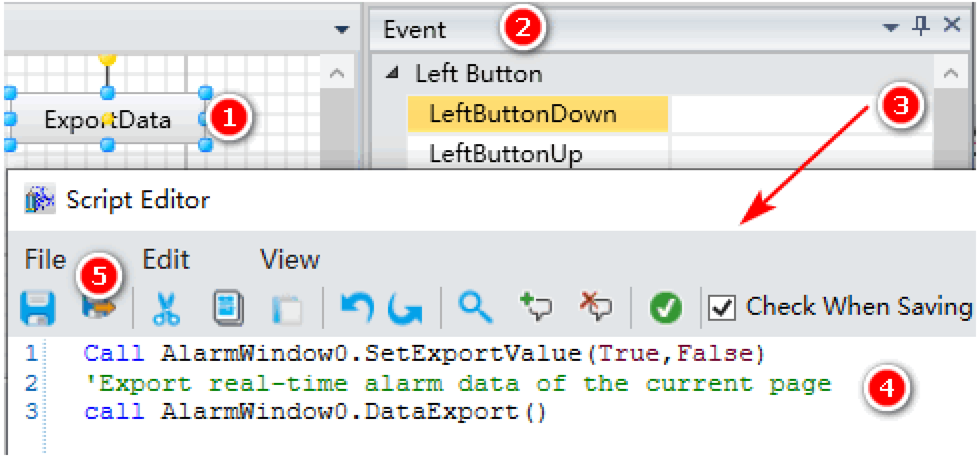
Row 2 column 7

Alarm Name	Variable Path	Trigger Time	Ack Time	Recovery Time	Record Type	Alarm Type	Alarm Level	Alarm Text	Alarm Value
Alarm.AlarmVariable1	Var.Variable1	6/17/2020 9:46:09 AM			Alarm	HighHighAlarm	Serious	HighHigh90	97
Alarm.AlarmVariable1	Var.Variable1	6/17/2020 9:46:03 AM		6/17/2020 9:46:06 AM	Recovery	HighHighAlarm	Serious	HighHigh90	96
Alarm.AlarmVariable0	Var.Variable0	6/17/2020 9:45:59 AM			Alarm	LowLowAlarm	Slight	LowLow10	5
Alarm.AlarmVariable0	Var.Variable0	6/17/2020 9:45:52 AM		6/17/2020 9:45:55 AM	Recovery	LowLowAlarm	Slight	LowLow10	3

The Scripts of AlarmWindow

- **<u>ExportData</u>** example1：

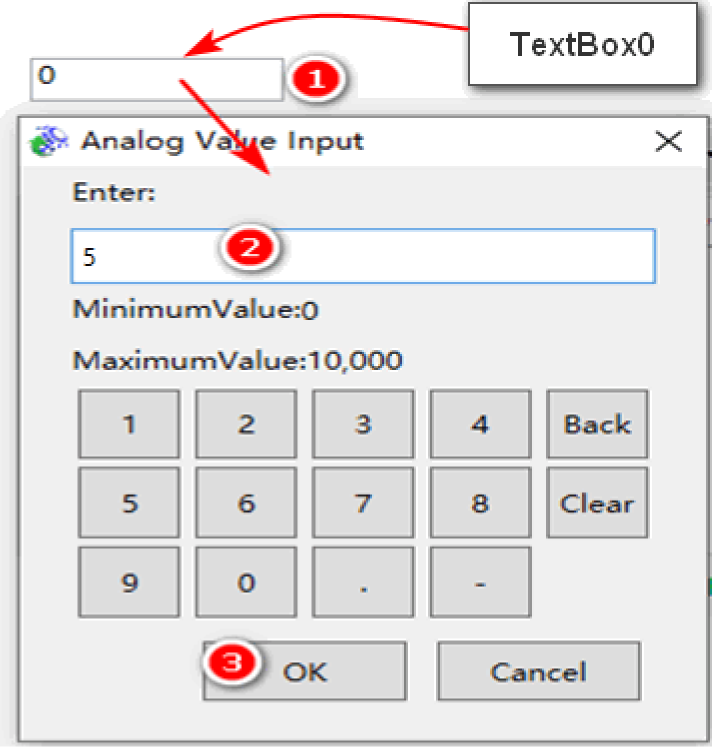
Export real-time alarm data of the current page
The first 4 steps are the same as(1)(2)(3)(4) steps of **<u>GetCurrentAlarmColumnInf</u>** example
(5)Create a button(<u>ExportData</u>) in the <u>Window0</u>, configure the <u>LeftButtonDown</u> event of the button



```
Call AlarmWindow0.SetExportValue(True,False)
'Export real-time alarm data of the current page
call AlarmWindow0.DataExport()
```

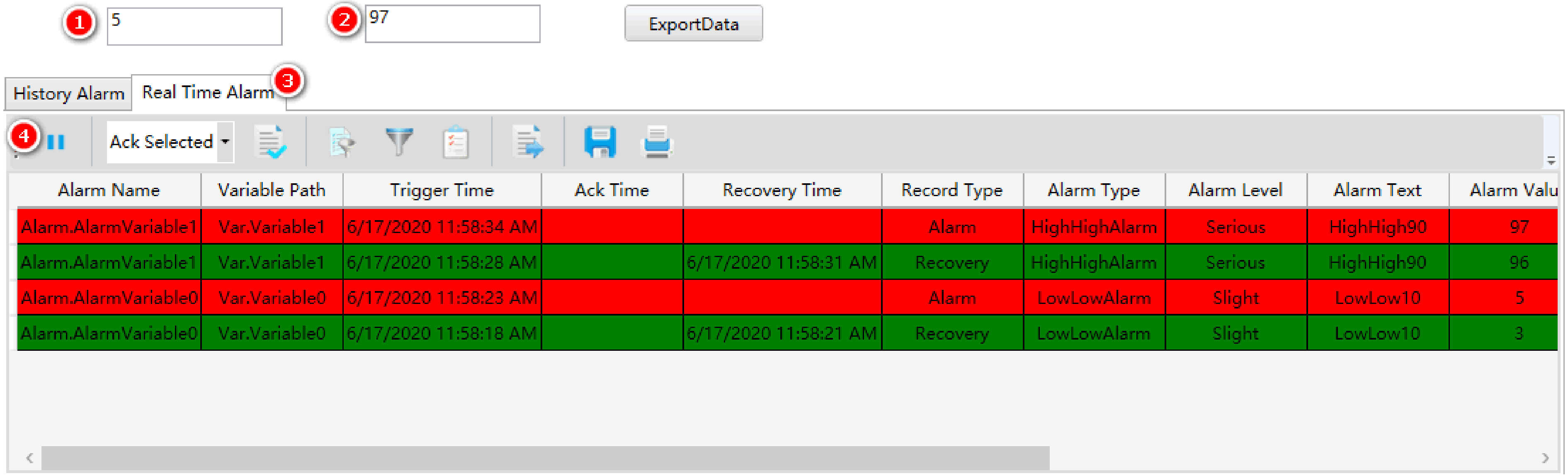
The Scripts of AlarmWindow

(6)Run the Window0. In Textbox0, input 3,13,5 in sequence;
In Textbox1, input 96,86,97 in sequence



The Scripts of AlarmWindow

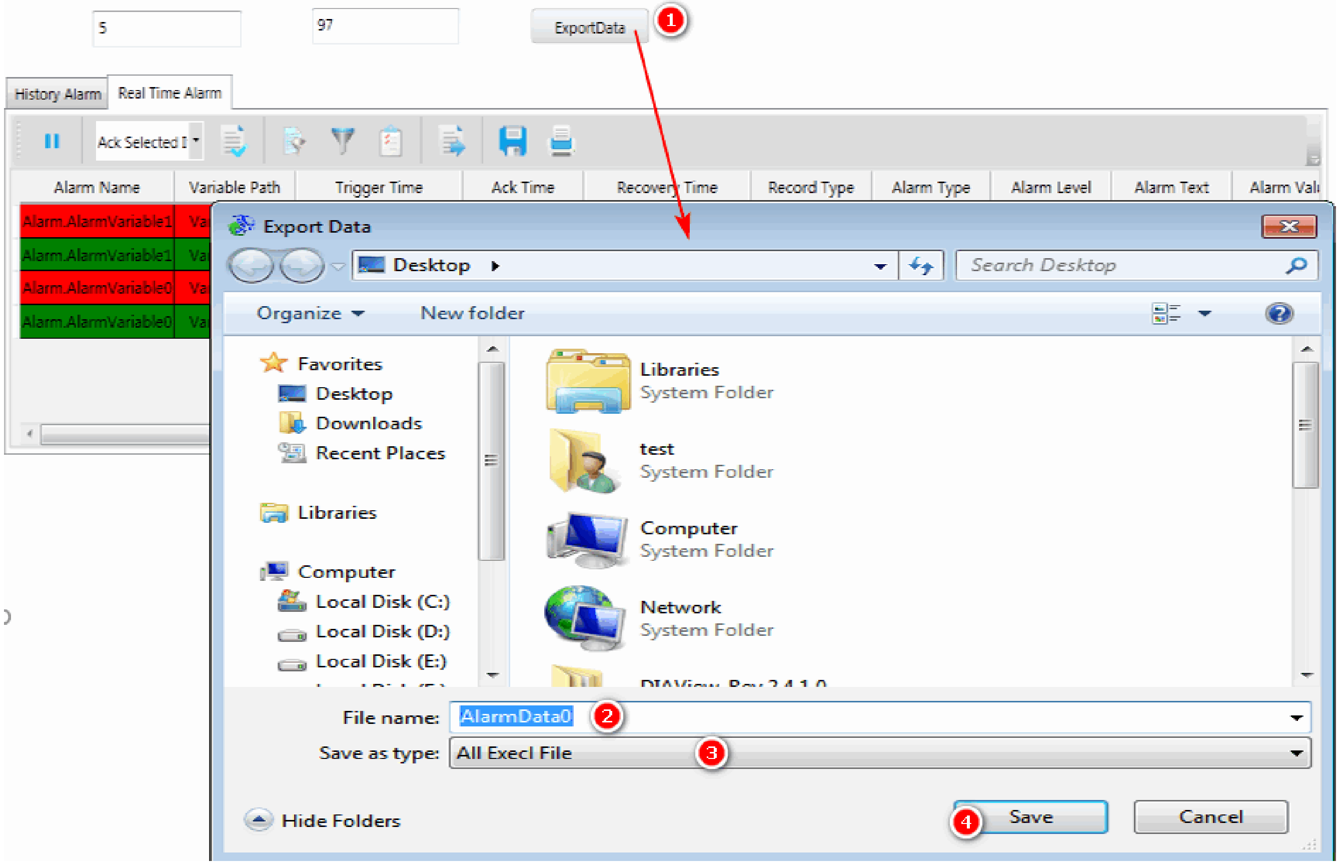
(7)The Real Time Alarm window displays as follows



Alarm Name	Variable Path	Trigger Time	Ack Time	Recovery Time	Record Type	Alarm Type	Alarm Level	Alarm Text	Alarm Valu
Alarm.AlarmVariable1	Var.Variable1	6/17/2020 11:58:34 AM			Alarm	HighHighAlarm	Serious	HighHigh90	97
Alarm.AlarmVariable1	Var.Variable1	6/17/2020 11:58:28 AM		6/17/2020 11:58:31 AM	Recovery	HighHighAlarm	Serious	HighHigh90	96
Alarm.AlarmVariable0	Var.Variable0	6/17/2020 11:58:23 AM			Alarm	LowLowAlarm	Slight	LowLow10	5
Alarm.AlarmVariable0	Var.Variable0	6/17/2020 11:58:18 AM		6/17/2020 11:58:21 AM	Recovery	LowLowAlarm	Slight	LowLow10	3

The Scripts of AlarmWindow

(8)Execute the scripts.Click the “ExportData” button to export alarm data to excel file



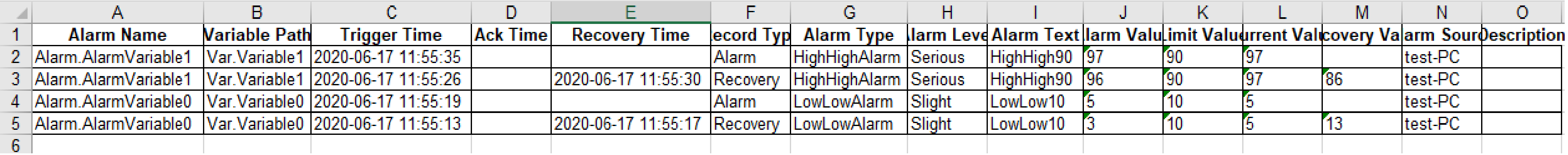
File name: AlarmData0 ②

Save as type: All Execl File ③

Save ④

The Scripts of AlarmWindow

(9)The excel file exported displays as follows



	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
1	**Alarm Name**	**Variable Path**	**Trigger Time**	**Ack Time**	**Recovery Time**	**ecord Typ**	**Alarm Type**	**larm Leve**	**Alarm Text**	**larm Valu**	**Limit Value**	**urrent Val**	**covery Va**	**arm Sour**	**Description**
2	Alarm.AlarmVariable1	Var.Variable1	2020-06-17 11:55:35			Alarm	HighHighAlarm	Serious	HighHigh90	97	90	97		test-PC	
3	Alarm.AlarmVariable1	Var.Variable1	2020-06-17 11:55:26		2020-06-17 11:55:30	Recovery	HighHighAlarm	Serious	HighHigh90	96	90	97	86	test-PC	
4	Alarm.AlarmVariable0	Var.Variable0	2020-06-17 11:55:19			Alarm	LowLowAlarm	Slight	LowLow10	5	10	5		test-PC	
5	Alarm.AlarmVariable0	Var.Variable0	2020-06-17 11:55:13		2020-06-17 11:55:17	Recovery	LowLowAlarm	Slight	LowLow10	3	10	5	13	test-PC	
6															

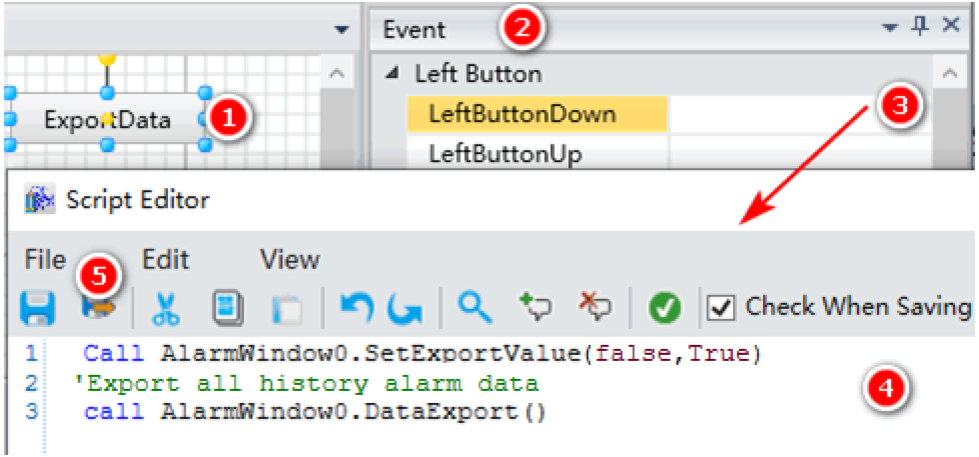
The Scripts of AlarmWindow

- **ExportData** example2：

Export all history alarm data

The first 4 steps are the same as(1)(2)(3)(4) steps of **GetCurrentAlarmColumnInf** example

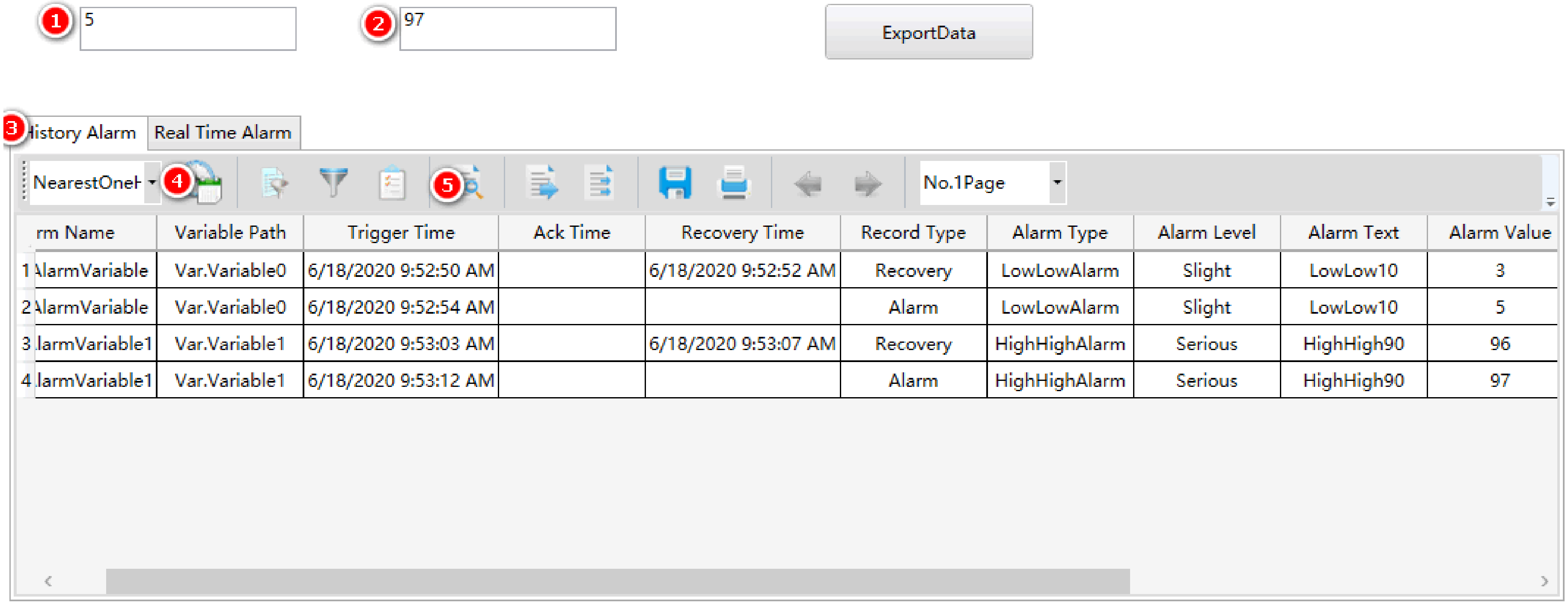
(5)Create a button(ExportData) in the Window0, configure the LeftButtonDown event of the button



```
 Call AlarmWindow0.SetExportValue(false,True)
'Export all history alarm data
 call AlarmWindow0.DataExport()
```

The Scripts of AlarmWindow

(6)Run the Window0. In Textbox0, input 3,13,5 in sequence;
In Textbox1, input 96,86,97 in sequence
(7)The History Alarm window displays as follows



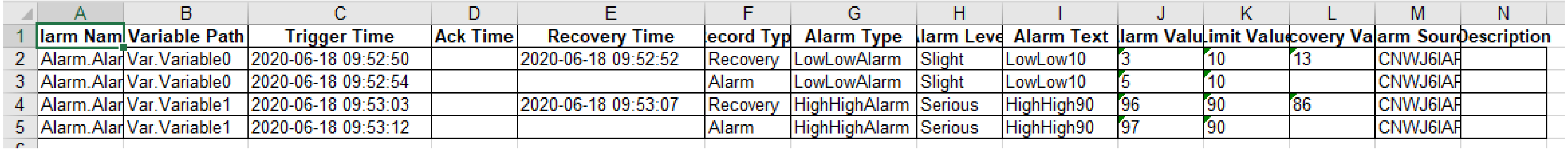
① 5

② 97

	rm Name	Variable Path	Trigger Time	Ack Time	Recovery Time	Record Type	Alarm Type	Alarm Level	Alarm Text	Alarm Value
1	AlarmVariable	Var.Variable0	6/18/2020 9:52:50 AM		6/18/2020 9:52:52 AM	Recovery	LowLowAlarm	Slight	LowLow10	3
2	AlarmVariable	Var.Variable0	6/18/2020 9:52:54 AM			Alarm	LowLowAlarm	Slight	LowLow10	5
3	larmVariable1	Var.Variable1	6/18/2020 9:53:03 AM		6/18/2020 9:53:07 AM	Recovery	HighHighAlarm	Serious	HighHigh90	96
4	larmVariable1	Var.Variable1	6/18/2020 9:53:12 AM			Alarm	HighHighAlarm	Serious	HighHigh90	97

The Scripts of AlarmWindow

(8)Execute the scripts.Click the “ExportData” button to export alarm data to excel file
(9)The excel file exported displays as follows

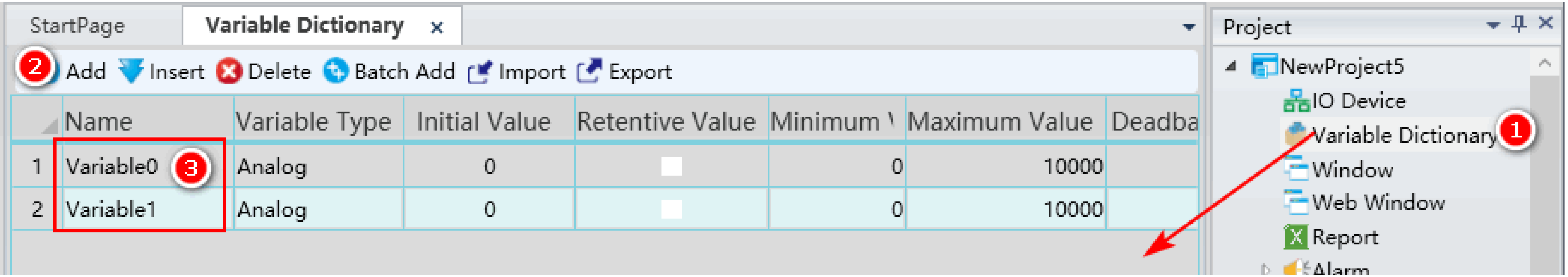


	A	B	C	D	E	F	G	H	I	J	K	L	M	N
1	larm Nam	Variable Path	Trigger Time	Ack Time	Recovery Time	ecord Typ	Alarm Type	larm Leve	Alarm Text	larm Valu	imit Valu	covery Va	arm Sour	escription
2	Alarm.Alar	Var.Variable0	2020-06-18 09:52:50		2020-06-18 09:52:52	Recovery	LowLowAlarm	Slight	LowLow10	3	10	13	CNWJ6IAF	
3	Alarm.Alar	Var.Variable0	2020-06-18 09:52:54			Alarm	LowLowAlarm	Slight	LowLow10	5	10		CNWJ6IAF	
4	Alarm.Alar	Var.Variable1	2020-06-18 09:53:03		2020-06-18 09:53:07	Recovery	HighHighAlarm	Serious	HighHigh90	96	90	86	CNWJ6IAF	
5	Alarm.Alar	Var.Variable1	2020-06-18 09:53:12			Alarm	HighHighAlarm	Serious	HighHigh90	97	90		CNWJ6IAF	

The Scripts of Report

- **SetRealTimeVariableChange** example：

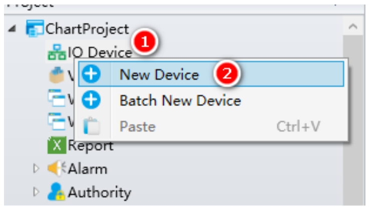
Reports display real-time data
(1)Create 2 variables：Variable0 , Variable

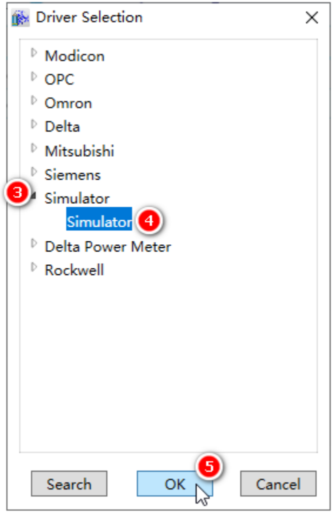


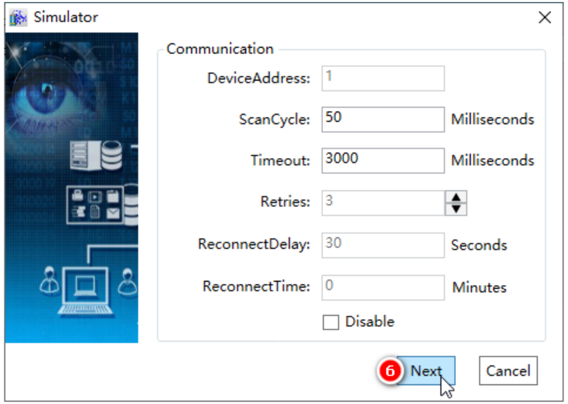
	Name	Variable Type	Initial Value	Retentive Value	Minimum \	Maximum Value	Deadba
1	Variable0	Analog	0	☐	0	10000	
2	Variable1	Analog	0	☐	0	10000	

※Refer to the section "6.3 Variables" in user manual.

(2) Create a simulated device：Device0







Communication

DeviceAddress: 1

ScanCycle: 50 Milliseconds

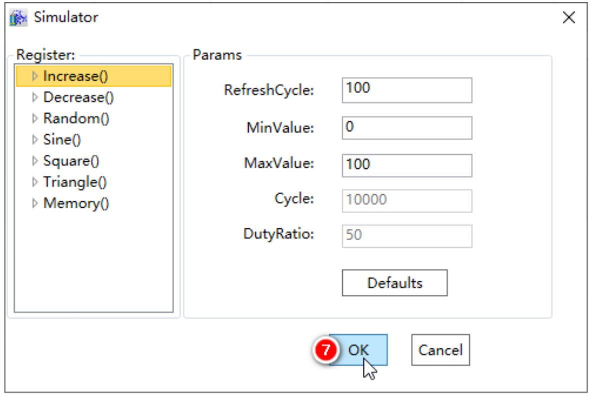
Timeout: 3000 Milliseconds

Retries: 3

ReconnectDelay: 30 Seconds

ReconnectTime: 0 Minutes

☐ Disable



Params

RefreshCycle: 100

MinValue: 0

MaxValue: 100

Cycle: 10000

DutyRatio: 50

①Right click “IO Device” node

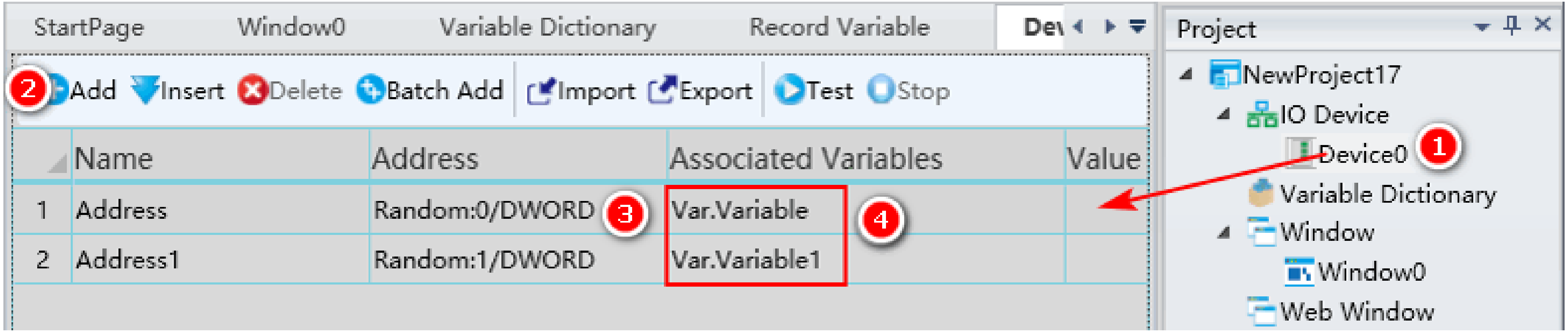
②Click “New Device”

③④Double click “Simulator”

※Refer to the section “5.10.1 Simulator” in user manual.

The Scripts of Report

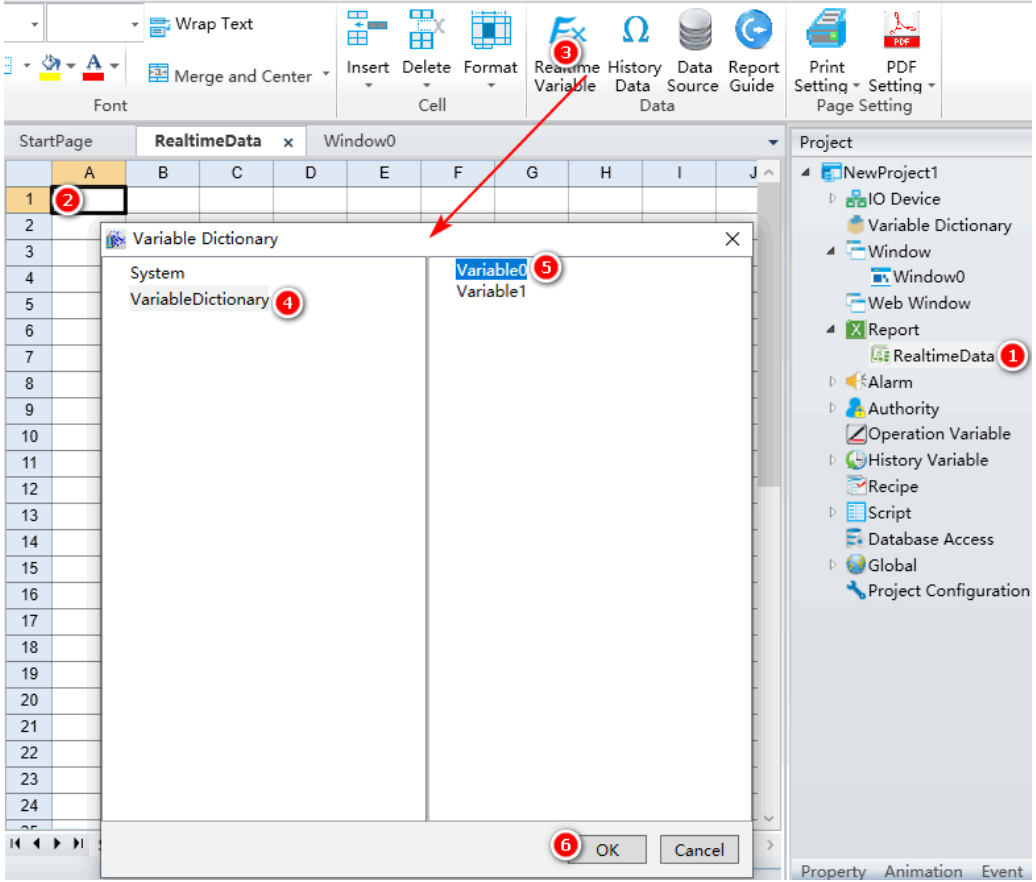
(3) Create two simulation address in the Device0 that associated with Variable, Variable1 respectively



	Name	Address	Associated Variables	Value
1	Address	Random:0/DWORD	Var.Variable	
2	Address1	Random:1/DWORD	Var.Variable1	

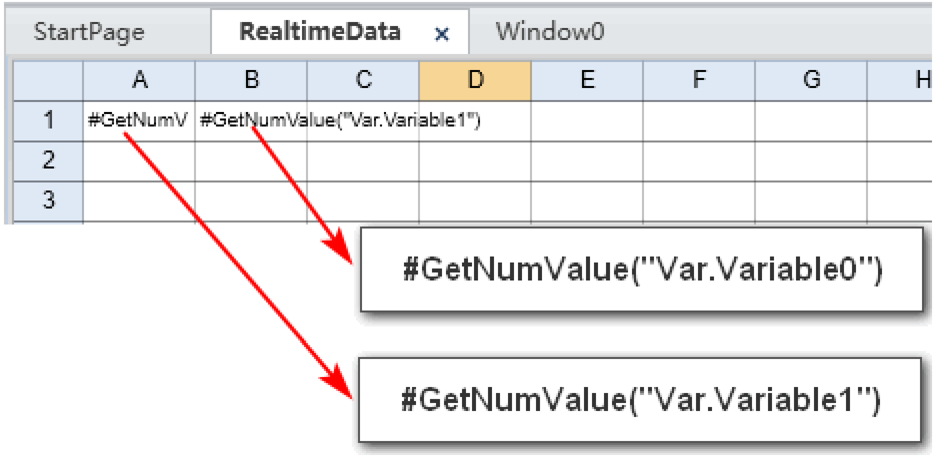
The Scripts of Report

(4)Create a report template(RealtimeData) and configure variables for it



The Scripts of Report

(5) The configuration result of RealtimeData is as follows



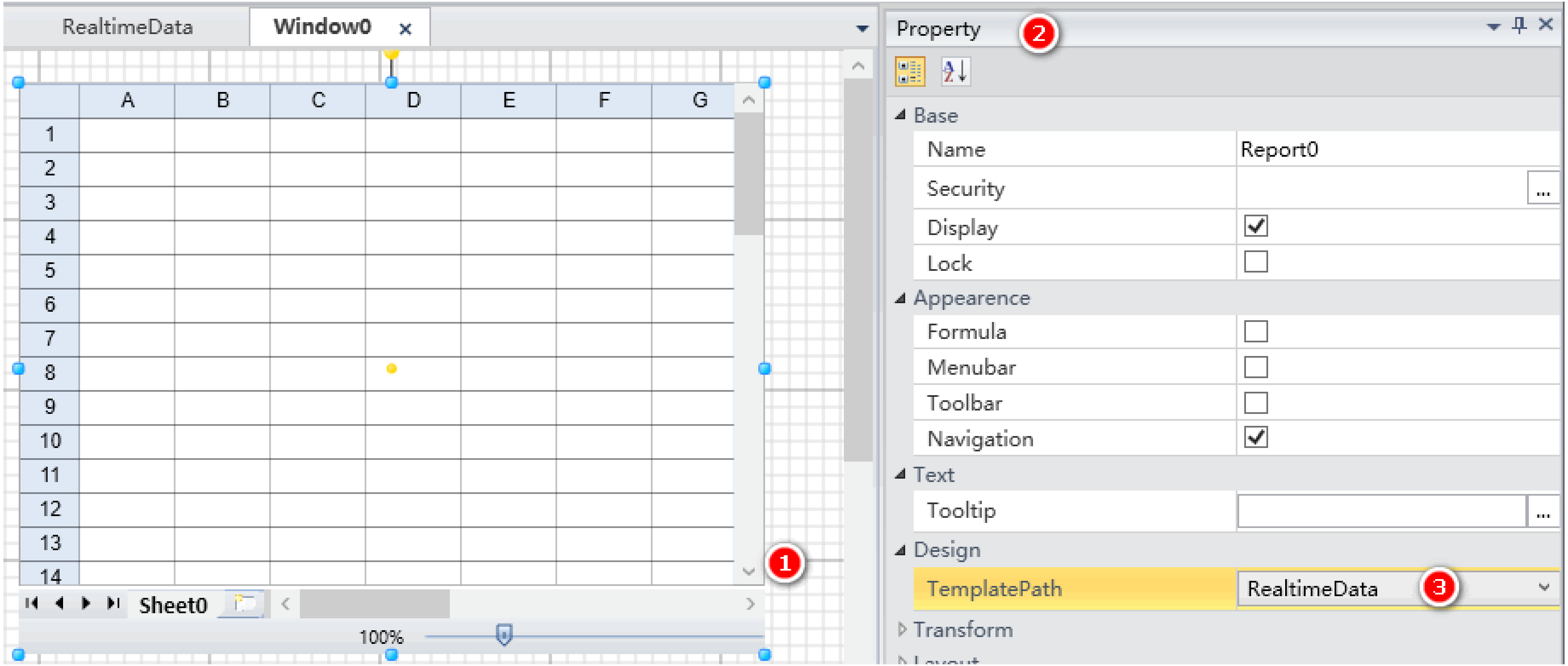
	A	B	C	D	E	F	G	H
1	#GetNumV	#GetNumValue("Var.Variable1")						
2								
3								

#GetNumValue("Var.Variable0")

#GetNumValue("Var.Variable1")

The Scripts of Report

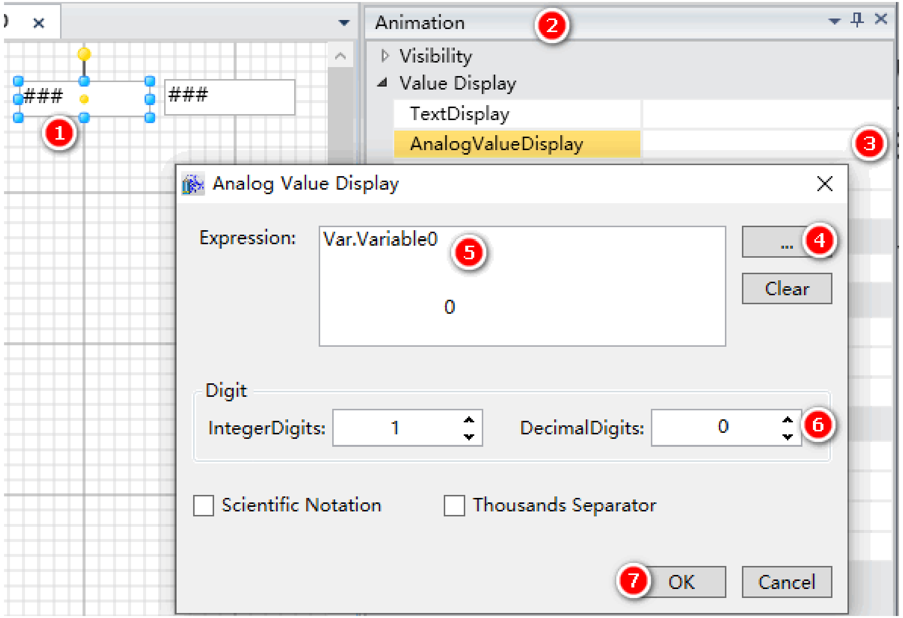
(6)Create a Report0 in the Window0, and bound the RealtimeData report template



Property	Value
Name	Report0
Security	
Display	☑
Lock	☐
Formula	☐
Menubar	☐
Toolbar	☐
Navigation	☑
Tooltip	
TemplatePath	RealtimeData

The Scripts of Report

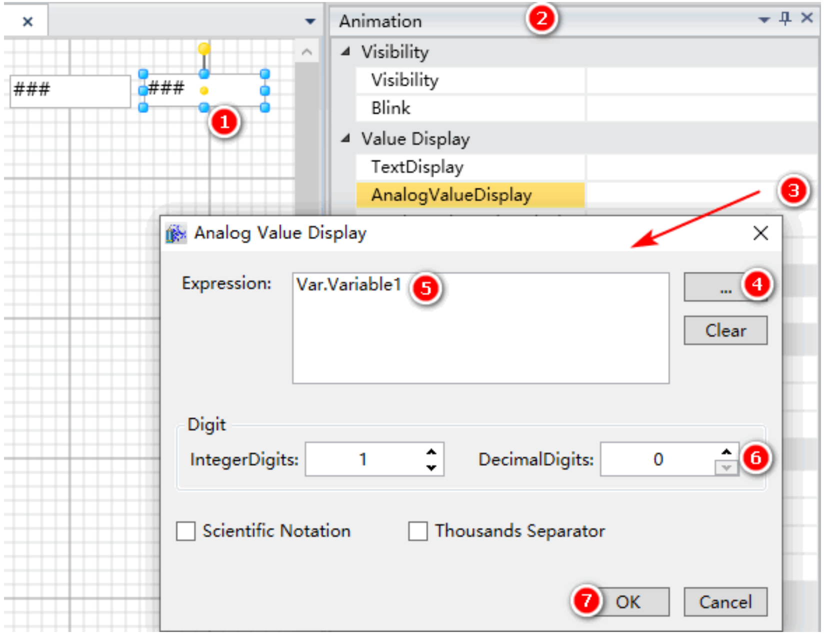
(7)Create 2 text box (Textbox0 , TextBox1)in Window0, the analog value display animation of TextBox0 , TextBox1 are associated with Variable0, Variable1 respectively



Expression: Var.Variable0
0

IntegerDigits: 1
DecimalDigits: 0

Analog Value Display



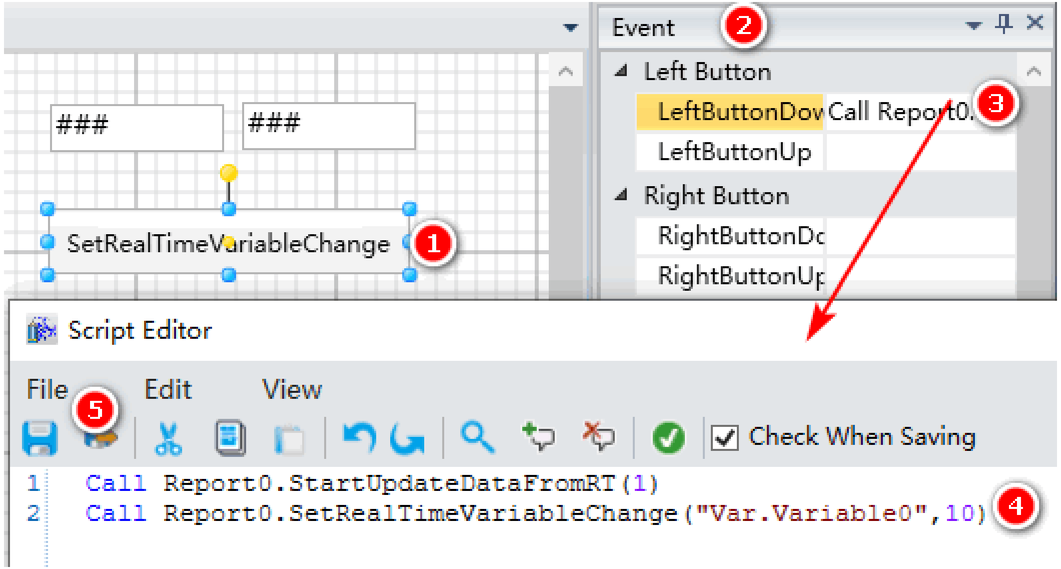
Expression: Var.Variable1

IntegerDigits: 1
DecimalDigits: 0

Analog Value Display

The Scripts of Report

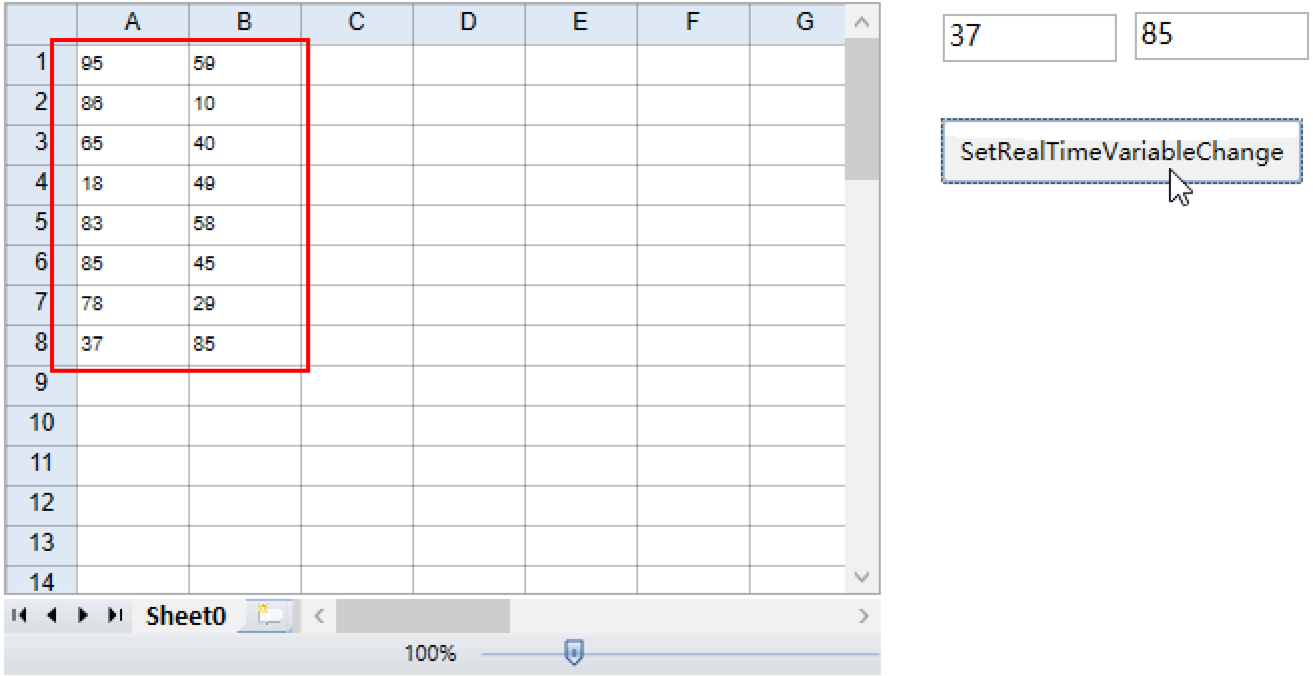
(8)Create a button(<u>SetRealTimeVariableChange</u>) in the <u>Window0</u>, configure the <u>LeftButtonDown</u> event of the button



```
Call Report0.StartUpdateDataFromRT(1)
Call Report0.SetRealTimeVariableChange("Var.Variable0",10)
```

The Scripts of Report

(9)Run the Window0,click the “SetRealTimeVariableChange”button , then the first 10 rows of column A and column B of Report0 display the values of Variable0 and Variable 1 in real time



	A	B	C	D	E	F	G
1	95	59					
2	86	10					
3	65	40					
4	18	49					
5	83	58					
6	85	45					
7	78	29					
8	37	85					
9							
10							
11							
12							
13							
14							

37

85

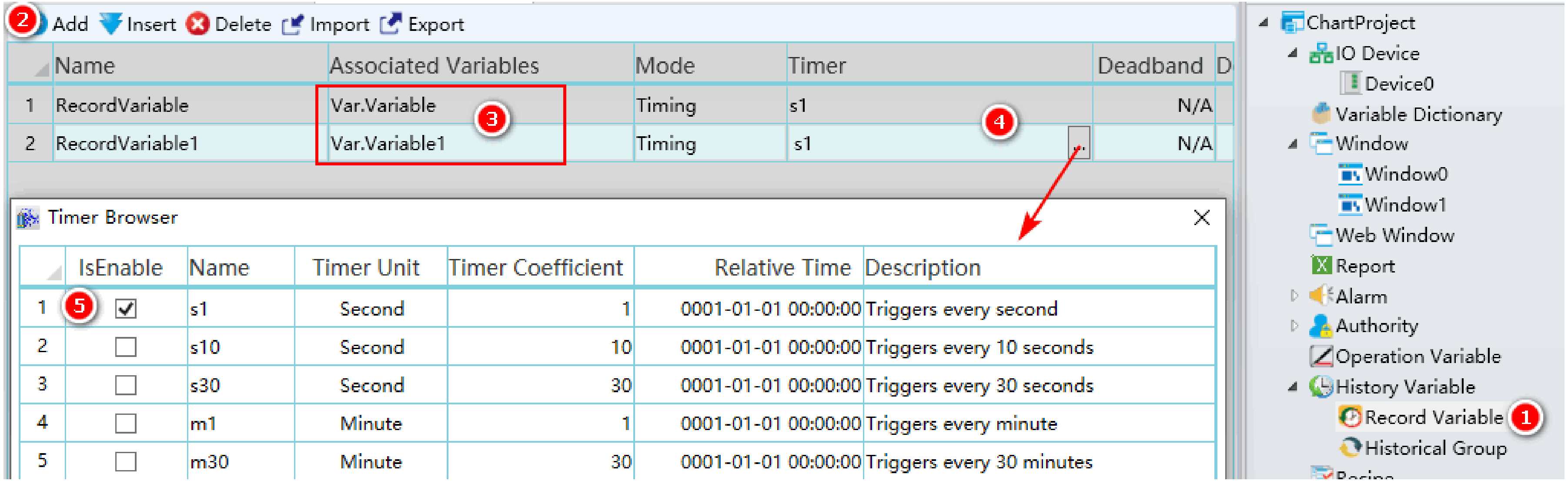
The Scripts of Report

- **<u>QueryHistoryData, QueryHistoryDataByCommon</u>** example：

Report query and display history data

The first 3 steps are the same as(1)(2)(3) steps of **<u>SetRealTimeVariableChange</u>** example

(4) Create two historical variables in the <u>Record Variable</u> that associated with <u>Variable</u>, <u>Variable1</u> respectively

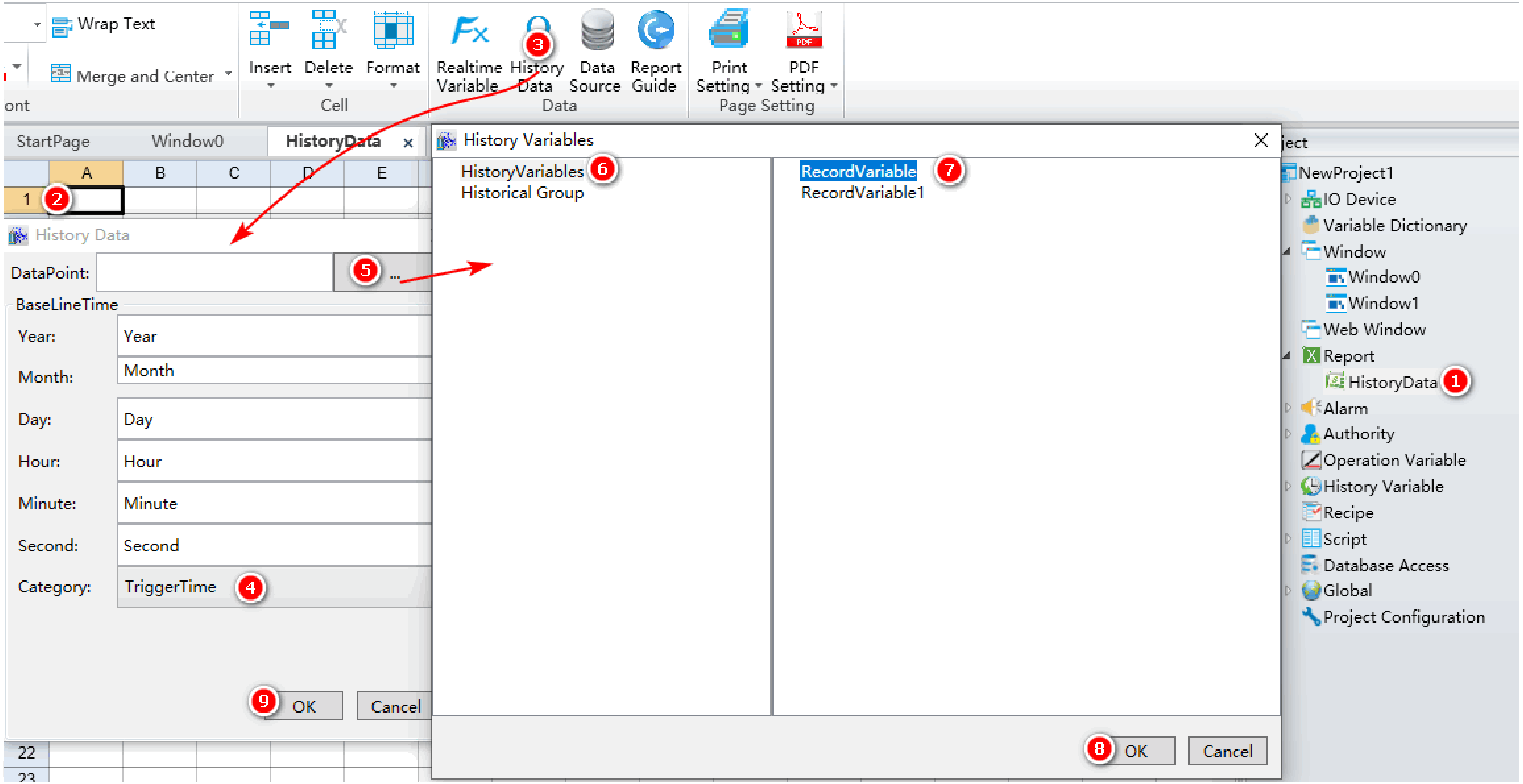


	Name	Associated Variables	Mode	Timer	Deadband	D
1	RecordVariable	Var.Variable	Timing	s1	N/A	
2	RecordVariable1	Var.Variable1	Timing	s1	N/A	

	IsEnable	Name	Timer Unit	Timer Coefficient	Relative Time	Description
1	☑	s1	Second	1	0001-01-01 00:00:00	Triggers every second
2	☐	s10	Second	10	0001-01-01 00:00:00	Triggers every 10 seconds
3	☐	s30	Second	30	0001-01-01 00:00:00	Triggers every 30 seconds
4	☐	m1	Minute	1	0001-01-01 00:00:00	Triggers every minute
5	☐	m30	Minute	30	0001-01-01 00:00:00	Triggers every 30 minutes

The Scripts of Report

(5)Create a report template(HistoryData) and configure history variables for it



History Data

DataPoint:

BaseLineTime

Year: Year

Month: Month

Day: Day

Hour: Hour

Minute: Minute

Second: Second

Category: TriggerTime

History Variables

HistoryVariables

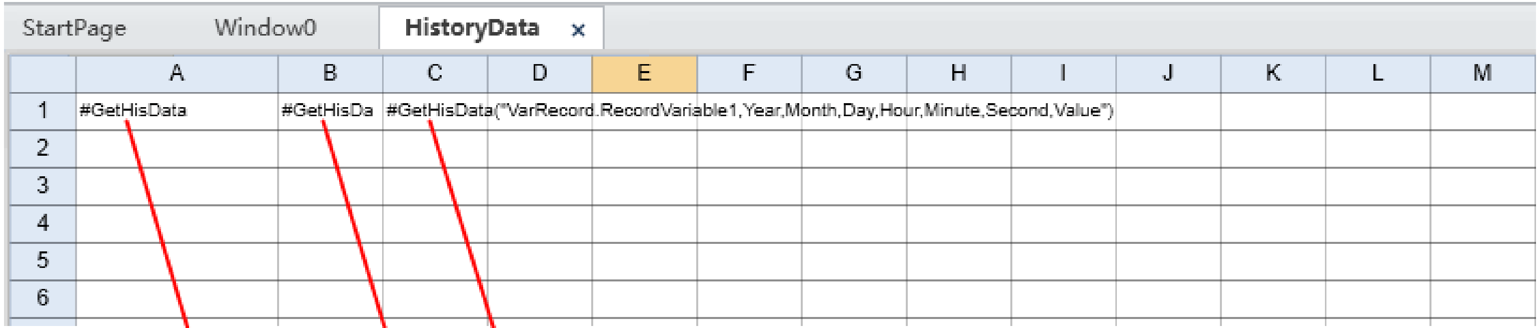
Historical Group

RecordVariable

RecordVariable1

The Scripts of Report

(6) The configuration result of <u>HistoryData</u> is as follows



	A	B	C	D	E	F	G	H	I	J	K	L	M
1	#GetHisData	#GetHisDa	#GetHisData("VarRecord.RecordVariable1,Year,Month,Day,Hour,Minute,Second,Value")										
2													
3													
4													
5													
6													

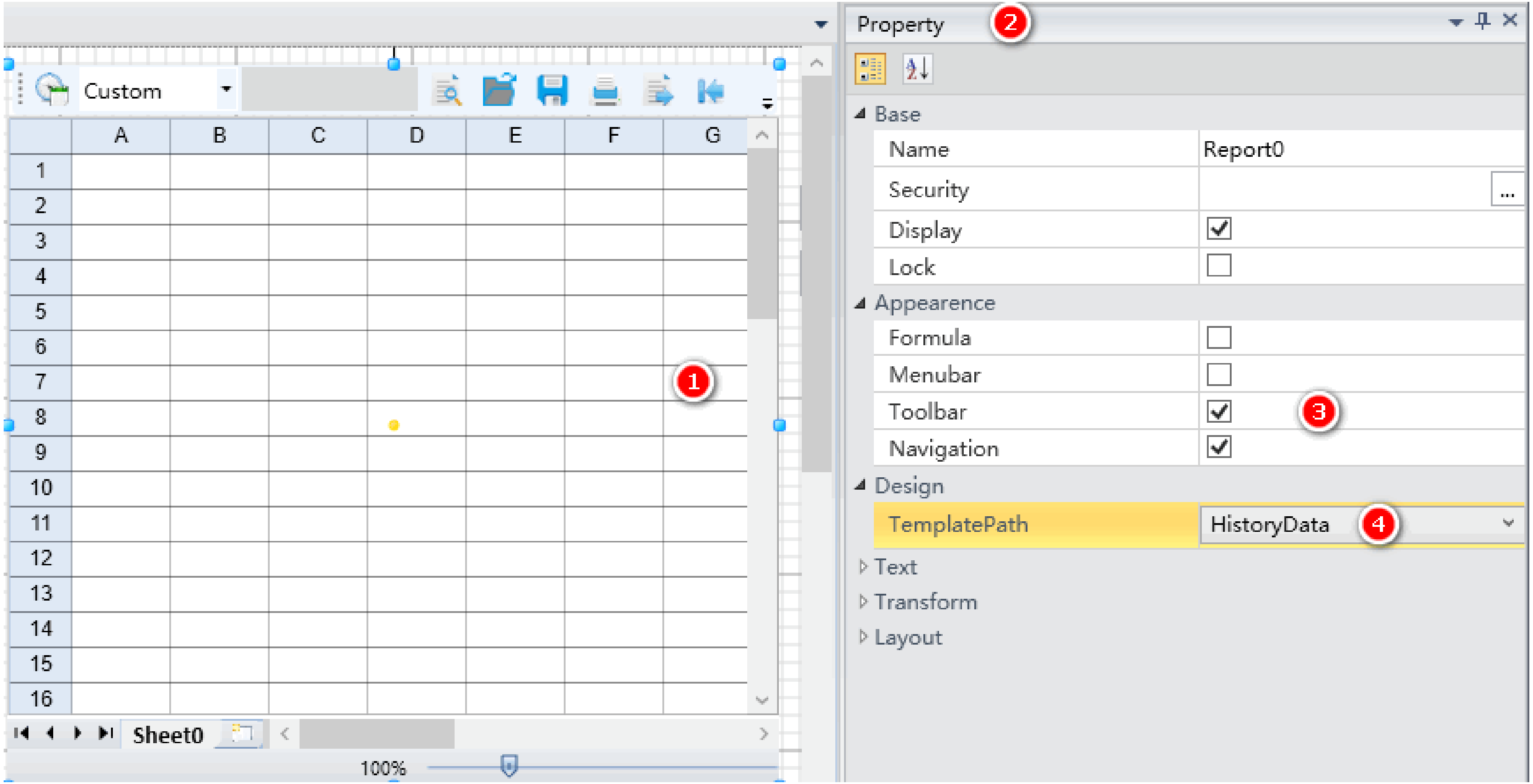
#GetHisData("VarRecord.RecordVariable1,Year,Month,Day,Hour,Minute,Second,Value")

#GetHisData("VarRecord.RecordVariable,Year,Month,Day,Hour,Minute,Second,Value")

#GetHisData("VarRecord.RecordVariable,Year,Month,Day,Hour,Minute,Second,TriggerTime")

The Scripts of Report

(7)Create a Report0 in the Window0, and bound the HistoryData report template



Base
Name: Report0
Security: ...
Display: ☑
Lock: ☐

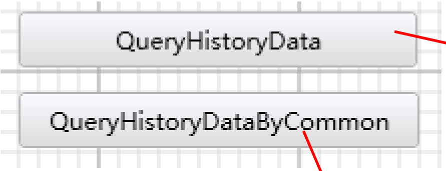
Appearence
Formula: ☐
Menubar: ☐
Toolbar: ☑
Navigation: ☑

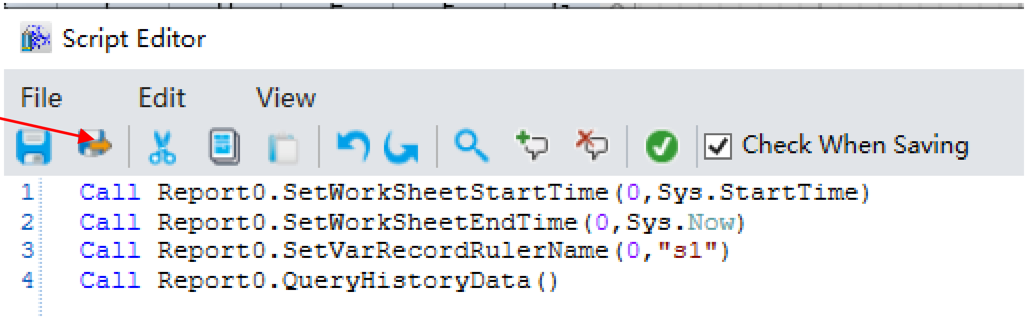
Design
TemplatePath: HistoryData

Text
Transform
Layout

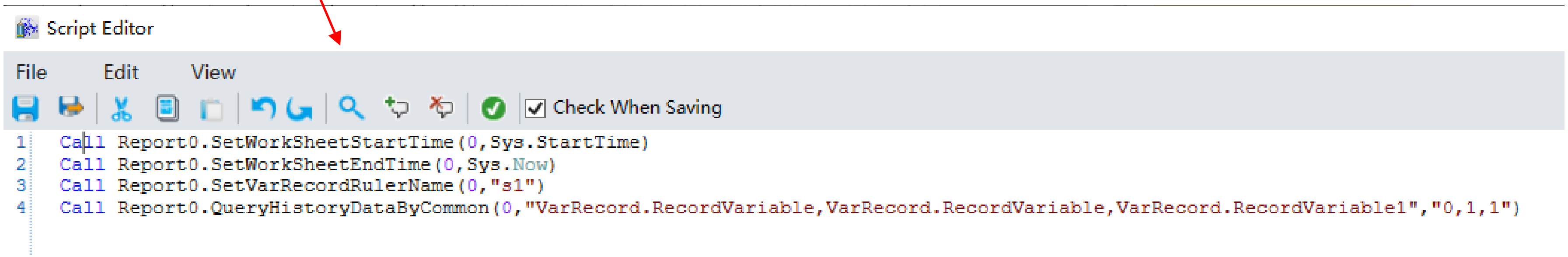
The Scripts of Report

(8)Create two buttons in the Window0, configure the LeftButtonDown event of the two buttons





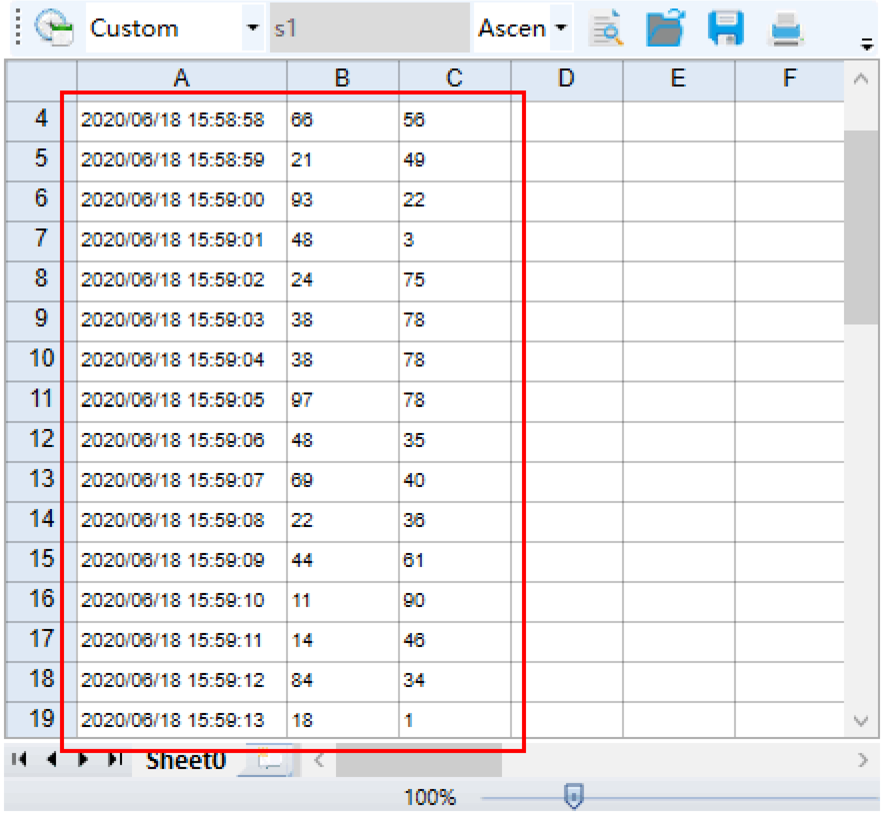
```
Call Report0.SetWorkSheetStartTime(0,Sys.StartTime)
Call Report0.SetWorkSheetEndTime(0,Sys.Now)
Call Report0.SetVarRecordRulerName(0,"s1")
Call Report0.QueryHistoryData()
```



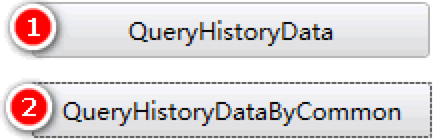
```
Call Report0.SetWorkSheetStartTime(0,Sys.StartTime)
Call Report0.SetWorkSheetEndTime(0,Sys.Now)
Call Report0.SetVarRecordRulerName(0,"s1")
Call Report0.QueryHistoryDataByCommon(0,"VarRecord.RecordVariable,VarRecord.RecordVariable,VarRecord.RecordVariable1","0,1,1")
```

The Scripts of Report

(9)Run the Window0,click the "QueryHistoryData"or "QueryHistoryDataByCommon"button, then the Report0 displays the history data from the start time to current time



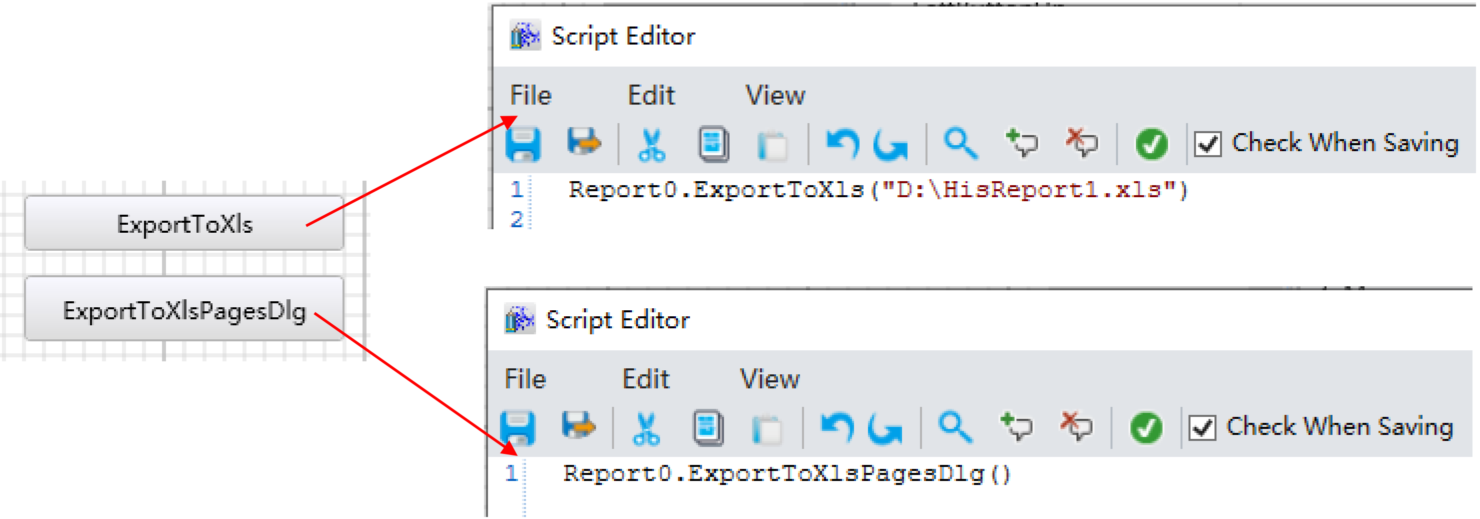
	A	B	C	D	E	F
4	2020/06/18 15:58:58	66	56			
5	2020/06/18 15:58:59	21	49			
6	2020/06/18 15:59:00	93	22			
7	2020/06/18 15:59:01	48	3			
8	2020/06/18 15:59:02	24	75			
9	2020/06/18 15:59:03	38	78			
10	2020/06/18 15:59:04	38	78			
11	2020/06/18 15:59:05	97	78			
12	2020/06/18 15:59:06	48	35			
13	2020/06/18 15:59:07	69	40			
14	2020/06/18 15:59:08	22	36			
15	2020/06/18 15:59:09	44	61			
16	2020/06/18 15:59:10	11	90			
17	2020/06/18 15:59:11	14	46			
18	2020/06/18 15:59:12	84	34			
19	2020/06/18 15:59:13	18	1			



The Scripts of Report

- **ExportToXls, ExportToXlsPagesDlg** example：

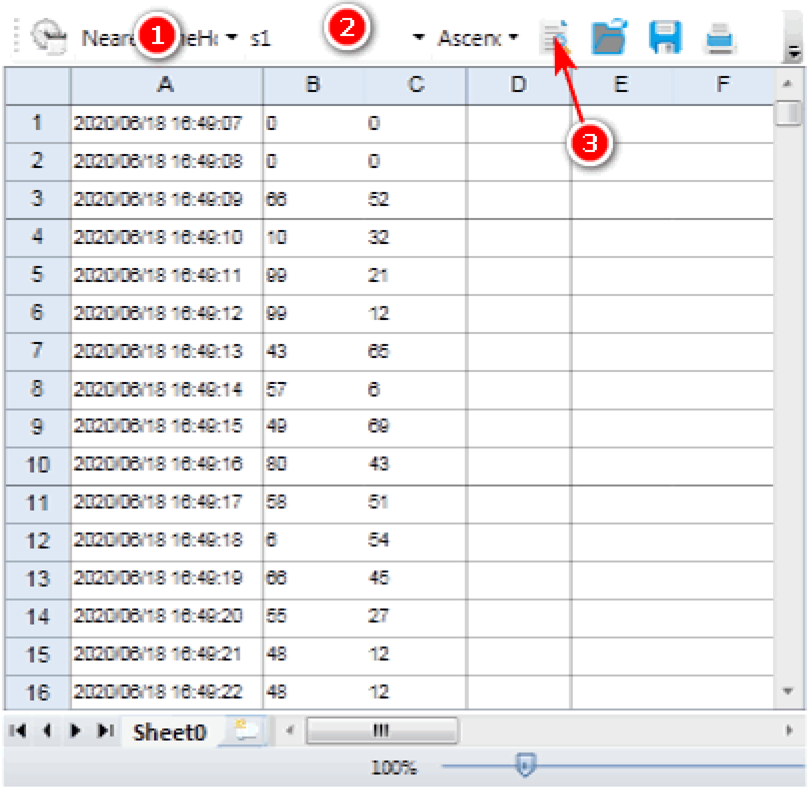
Export the history data displayed by report
The first 7 steps are the same as the first 7 steps of **QueryHistoryData, QueryHistoryDataByCommon** example
(8)Create two buttons in the Window0, configure the LeftButtonDown event of the two buttons



```
Report0.ExportToXls("D:\HisReport1.xls")
```

```
Report0.ExportToXlsPagesDlg()
```

(9)Run the Window0,query history data by toolbar buttons

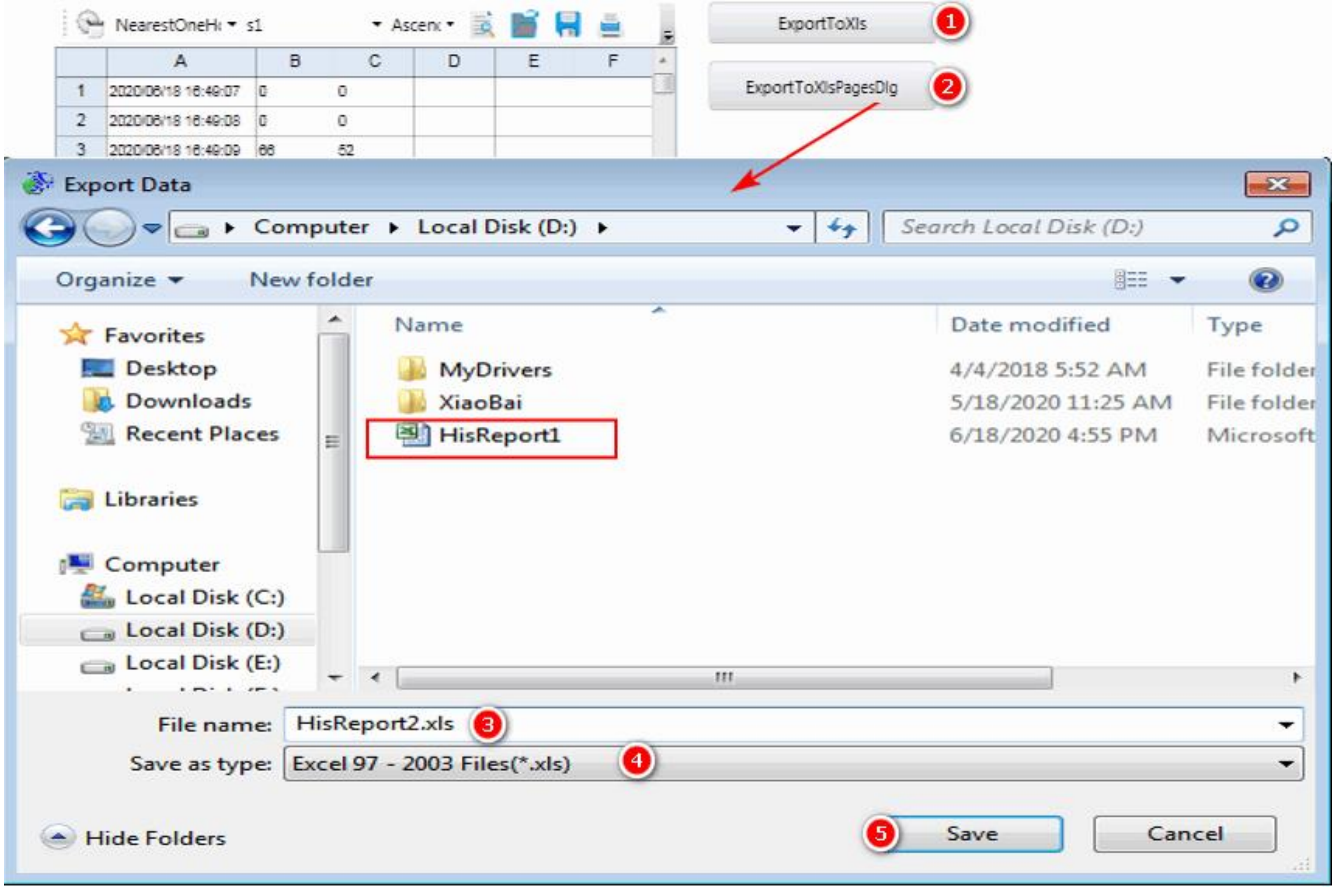


	A	B	C	D	E	F
1	2020/06/18 16:49:07	0	0			
2	2020/06/18 16:49:08	0	0			
3	2020/06/18 16:49:09	66	52			
4	2020/06/18 16:49:10	10	32			
5	2020/06/18 16:49:11	99	21			
6	2020/06/18 16:49:12	99	12			
7	2020/06/18 16:49:13	43	65			
8	2020/06/18 16:49:14	57	6			
9	2020/06/18 16:49:15	49	69			
10	2020/06/18 16:49:16	80	43			
11	2020/06/18 16:49:17	58	51			
12	2020/06/18 16:49:18	6	54			
13	2020/06/18 16:49:19	66	45			
14	2020/06/18 16:49:20	55	27			
15	2020/06/18 16:49:21	48	12			
16	2020/06/18 16:49:22	48	12			

The Scripts of Report

(10)Execute the scripts

①Click the "<u>ExportToXls</u>" button , the data in Report0 is exported to the Excel file under the D disk, the file name is HisReport1
②Click the "<u>ExportDataToXlsByDialog</u>" button, pop up data export dialog , as shown on the right



	A	B	C	D	E	F
1	2020/06/18 16:49:07	0	0			
2	2020/06/18 16:49:08	0	0			
3	2020/06/18 16:49:09	66	52			

Name	Date modified	Type
MyDrivers	4/4/2018 5:52 AM	File folder
XiaoBai	5/18/2020 11:25 AM	File folder
HisReport1	6/18/2020 4:55 PM	Microsoft

File name: HisReport2.xls

Save as type: Excel 97 - 2003 Files(*.xls)

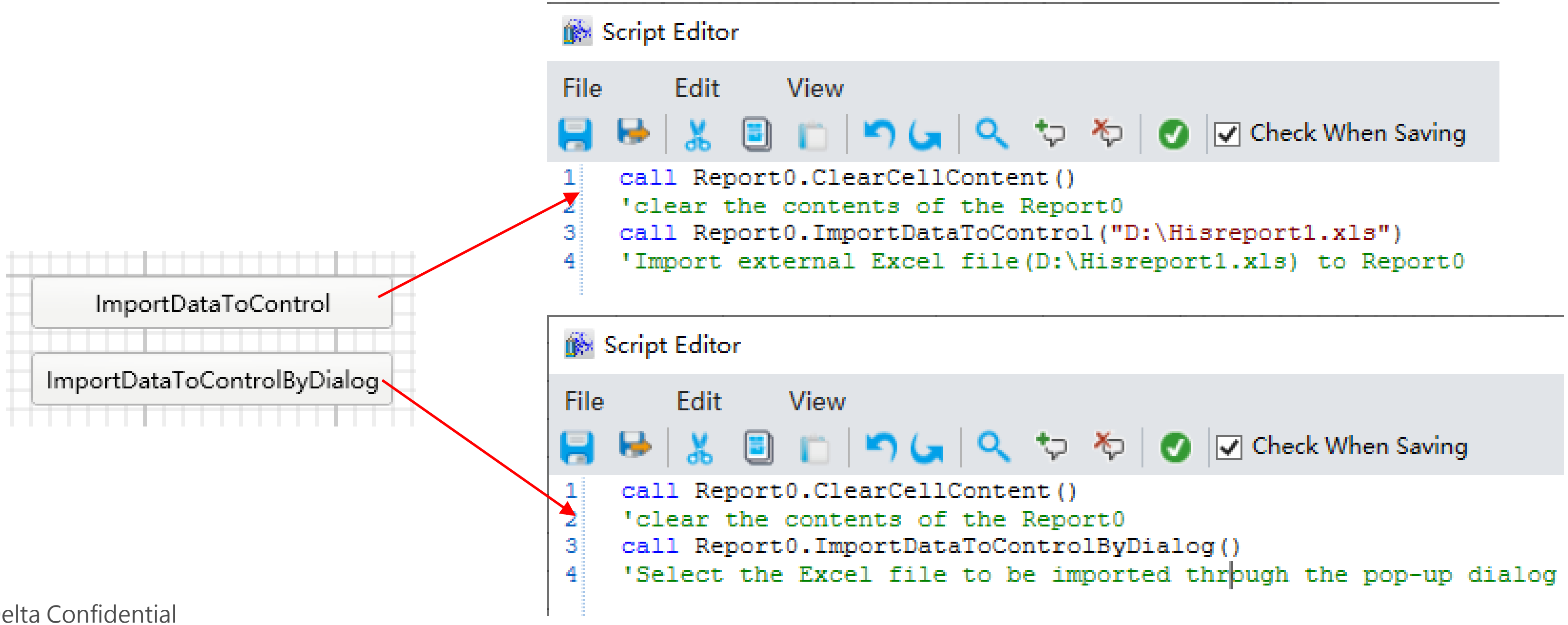
The Scripts of Report

- **ImportDataToControl, ImportDataToControlByDialog** example：

Import external Excel file to Report0

The first 7 steps are the same as the first 7 steps of **QueryHistoryData, QueryHistoryDataByCommon** example

(8)Create two buttons in the Window0, configure the LeftButtonDown event of the two buttons

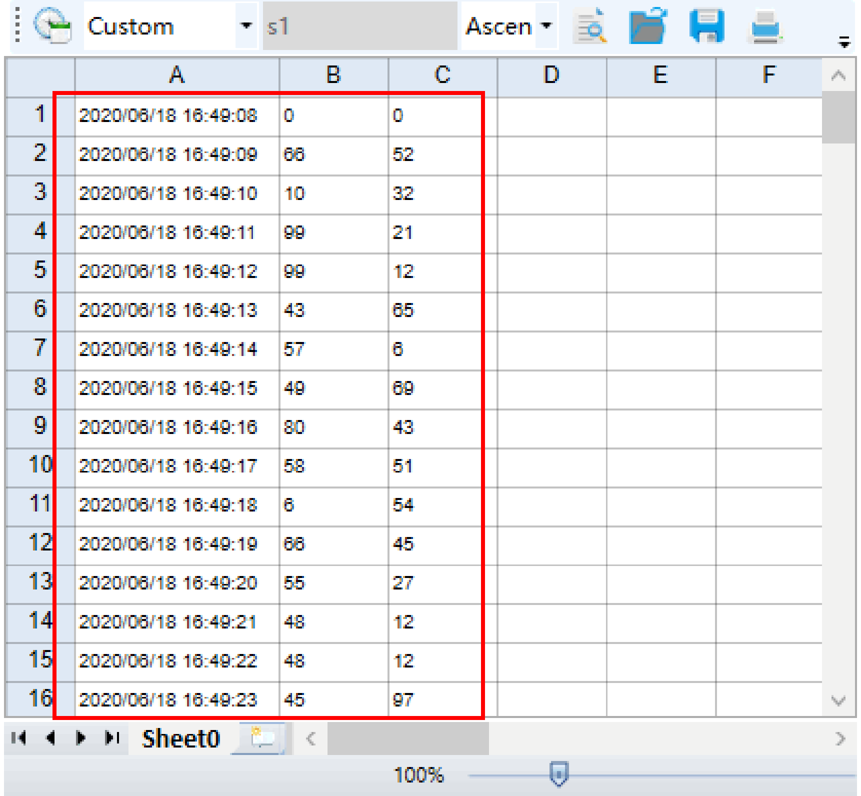


```
call Report0.ClearCellContent()
'clear the contents of the Report0
call Report0.ImportDataToControl("D:\Hisreport1.xls")
'Import external Excel file(D:\Hisreport1.xls) to Report0
```

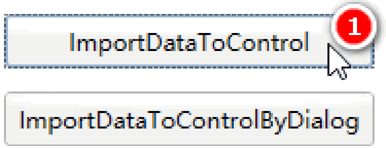
```
call Report0.ClearCellContent()
'clear the contents of the Report0
call Report0.ImportDataToControlByDialog()
'Select the Excel file to be imported through the pop-up dialog
```

The Scripts of Report

(9)Run the Window0,Click the “ImportDataToControl” to import the external Excel file(D:\Hisreport1.xls) to Report0

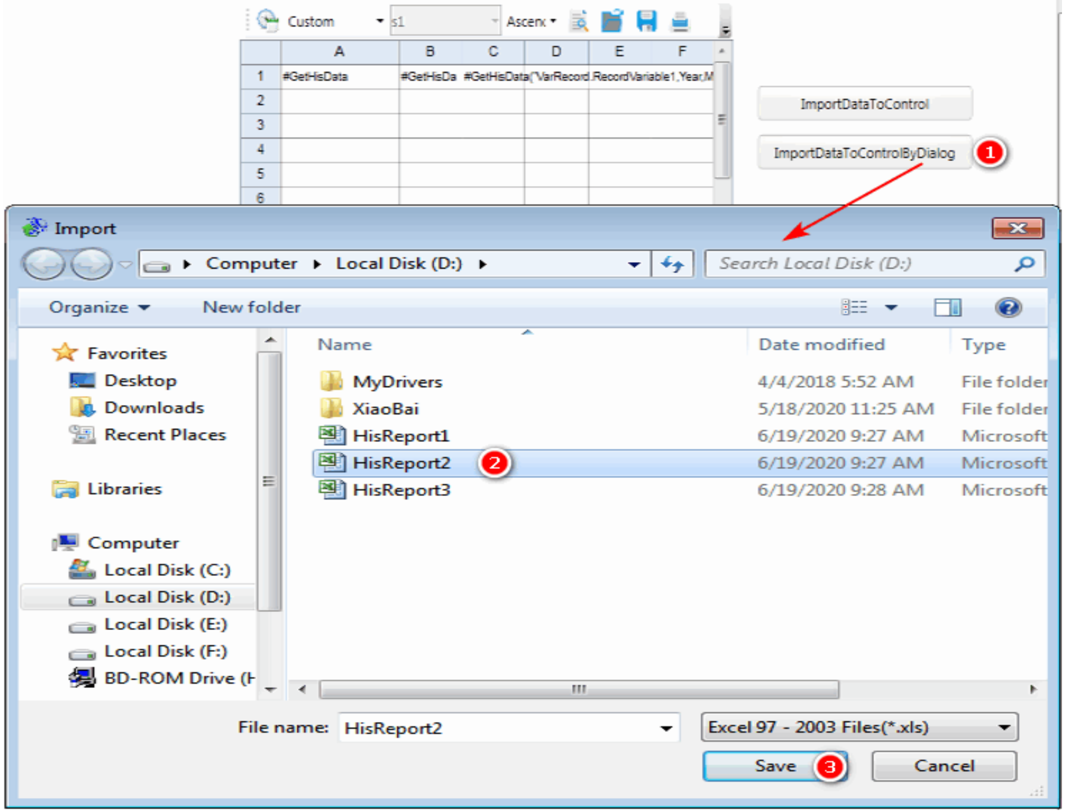


	A	B	C	D	E	F
1	2020/06/18 16:49:08	0	0			
2	2020/06/18 16:49:09	66	52			
3	2020/06/18 16:49:10	10	32			
4	2020/06/18 16:49:11	99	21			
5	2020/06/18 16:49:12	99	12			
6	2020/06/18 16:49:13	43	65			
7	2020/06/18 16:49:14	57	6			
8	2020/06/18 16:49:15	49	69			
9	2020/06/18 16:49:16	80	43			
10	2020/06/18 16:49:17	58	51			
11	2020/06/18 16:49:18	6	54			
12	2020/06/18 16:49:19	66	45			
13	2020/06/18 16:49:20	55	27			
14	2020/06/18 16:49:21	48	12			
15	2020/06/18 16:49:22	48	12			
16	2020/06/18 16:49:23	45	97			

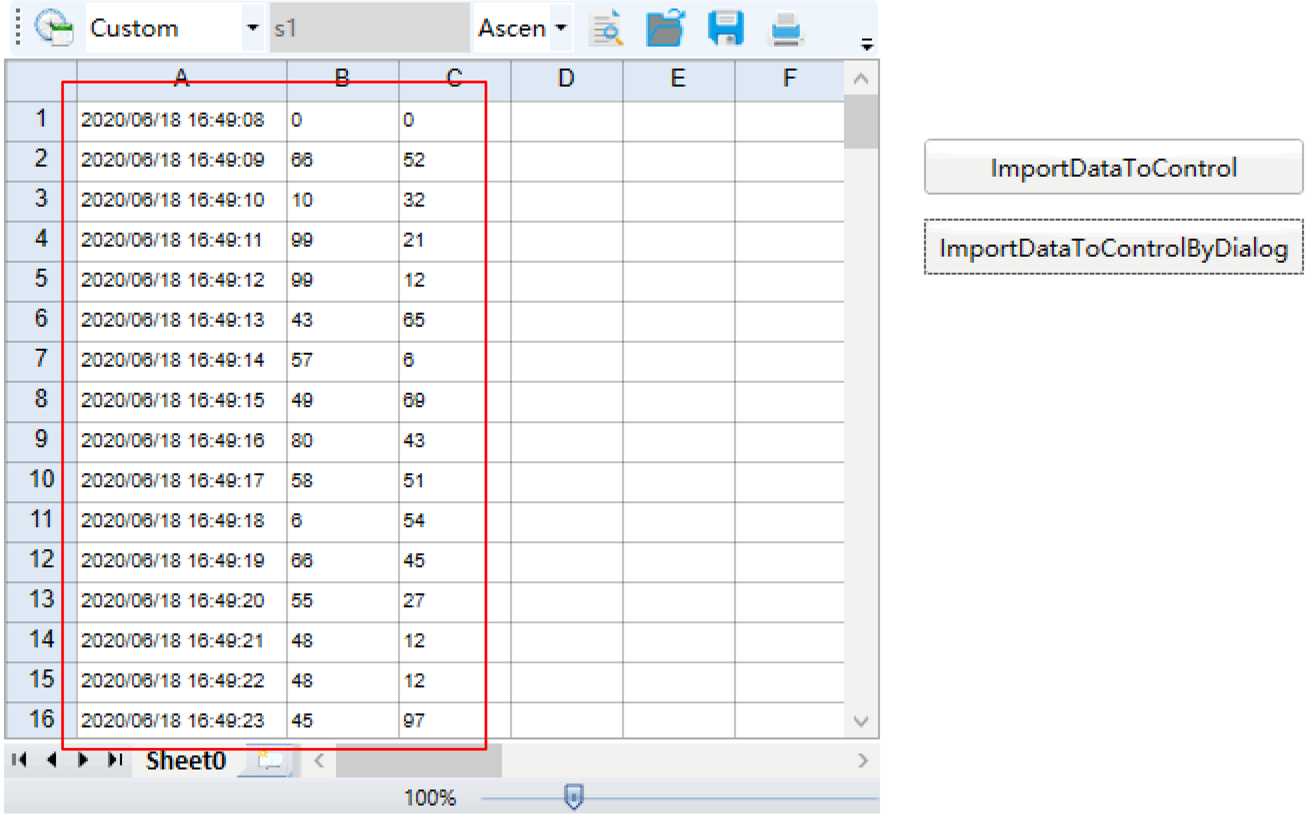


The Scripts of Report

(10)Click the “ImportDataToControlByDialog” button , pop up the import dialog to select the Excel file (D:\Hisreport2.xls) to import to Report0,as shown below



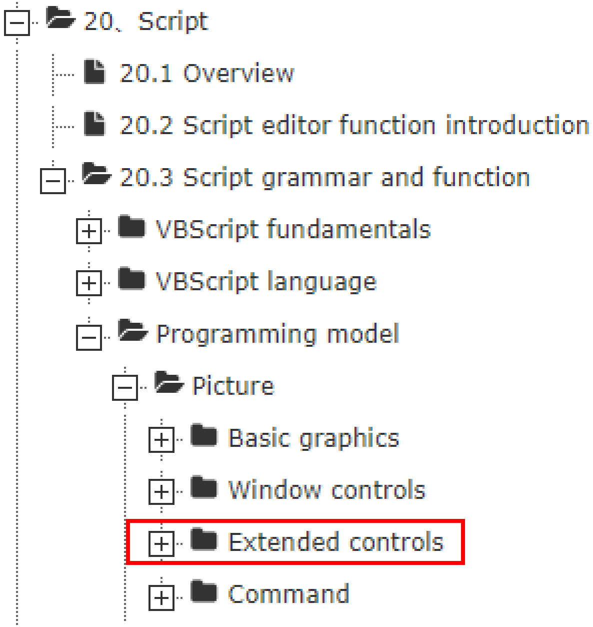
(11) The external Excel file (D:\Hisreport2.xls) was imported to Report0 successfully



	A	B	C	D	E	F
1	2020/06/18 16:49:08	0	0			
2	2020/06/18 16:49:09	66	52			
3	2020/06/18 16:49:10	10	32			
4	2020/06/18 16:49:11	99	21			
5	2020/06/18 16:49:12	99	12			
6	2020/06/18 16:49:13	43	65			
7	2020/06/18 16:49:14	57	6			
8	2020/06/18 16:49:15	49	69			
9	2020/06/18 16:49:16	80	43			
10	2020/06/18 16:49:17	58	51			
11	2020/06/18 16:49:18	6	54			
12	2020/06/18 16:49:19	66	45			
13	2020/06/18 16:49:20	55	27			
14	2020/06/18 16:49:21	48	12			
15	2020/06/18 16:49:22	48	12			
16	2020/06/18 16:49:23	45	97			

The Scripts of Extend Controls

For more details about the scripts usage of extend controls, please refer to the section “20.3 Script grammar and function” in the user manual. As shown in the figure below:



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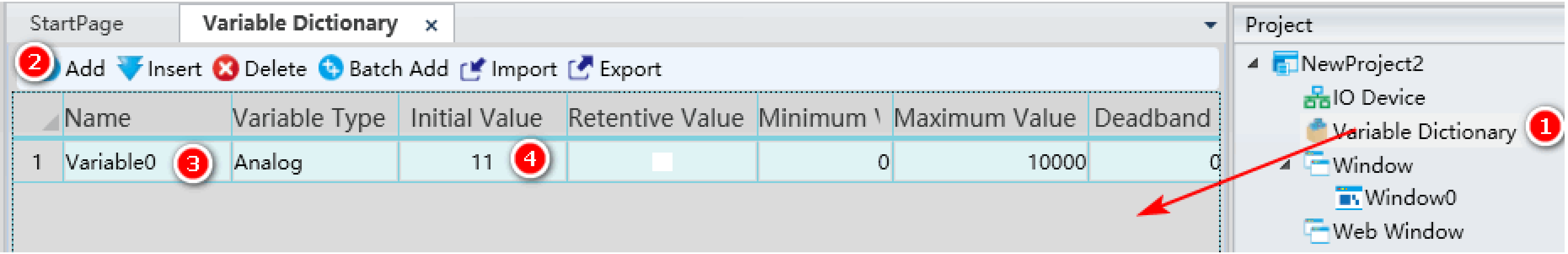
The Action Scripts

- **AnalogValueInput** example：

Change variable value
(1)Create a variable：Variable0

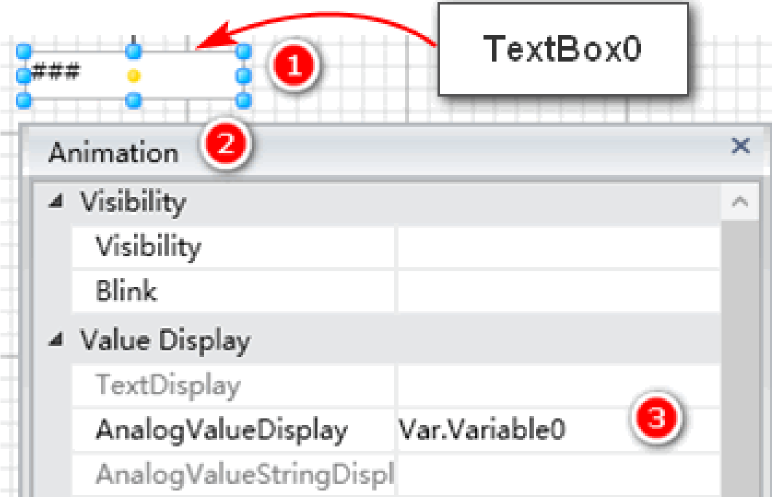


	Name	Variable Type	Initial Value	Retentive Value	Minimum	Maximum Value	Deadband
1	Variable0	Analog	11	☐	0	10000	0

※Refer to the section “6.3 Variables” in user manual.

The Action Scripts

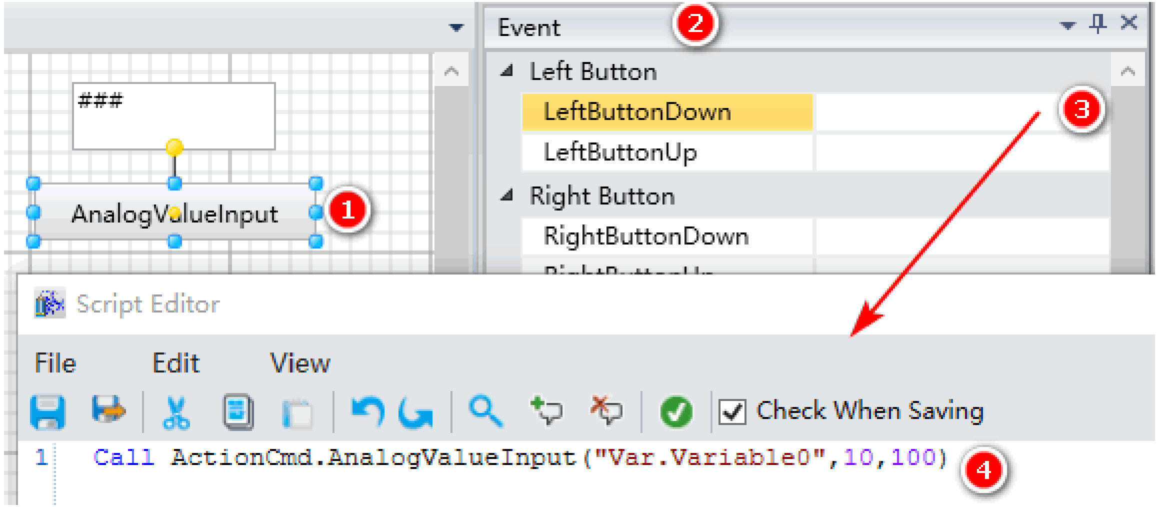
(2)Create a text box (Textbox0)in Window0, the analog value display animation of TextBox0 is associated with Variable0



AnalogValueDisplay Var.Variable0

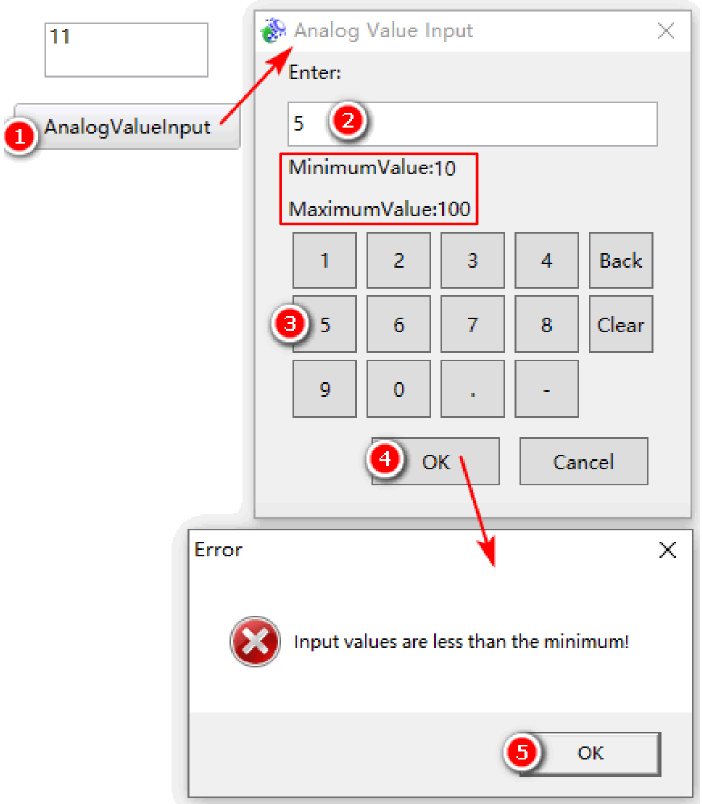
The Action Scripts

(3)Create a button (AnalogValueInput) in the Window0, configure the LeftButtonDown event of the button



```
Call ActionCmd.AnalogValueInput("Var.Variable0",10,100)
```

(4)Run the Window0, click the “AnalogValueInput” button, pop up the analog value input dialog, input a number less than 10 or greater than 100 , input failure



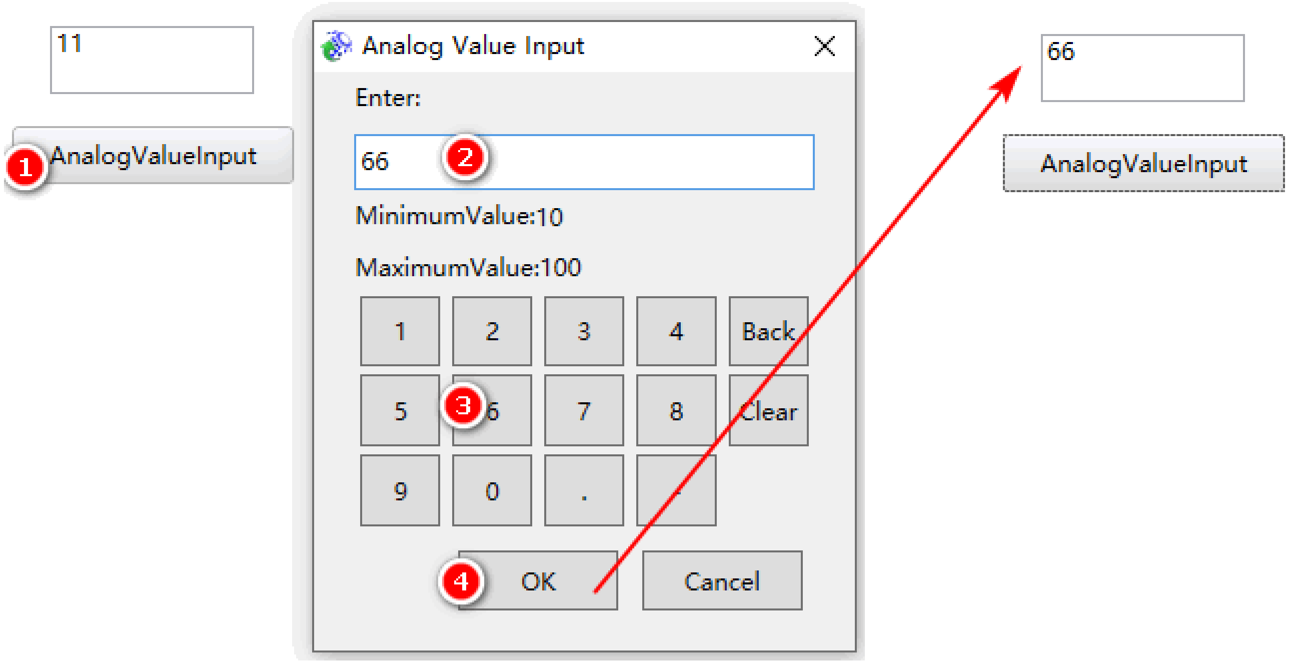
MinimumValue:10

MaximumValue:100

Input values are less than the minimum!

The Action Scripts

(5)Run the Window0, click the “AnalogValueInput” button, pop up the analog value input dialog, input a number between 10 and 100 , input successfully


Analog Value Input

Enter: 66

MinimumValue:10

MaximumValue:100

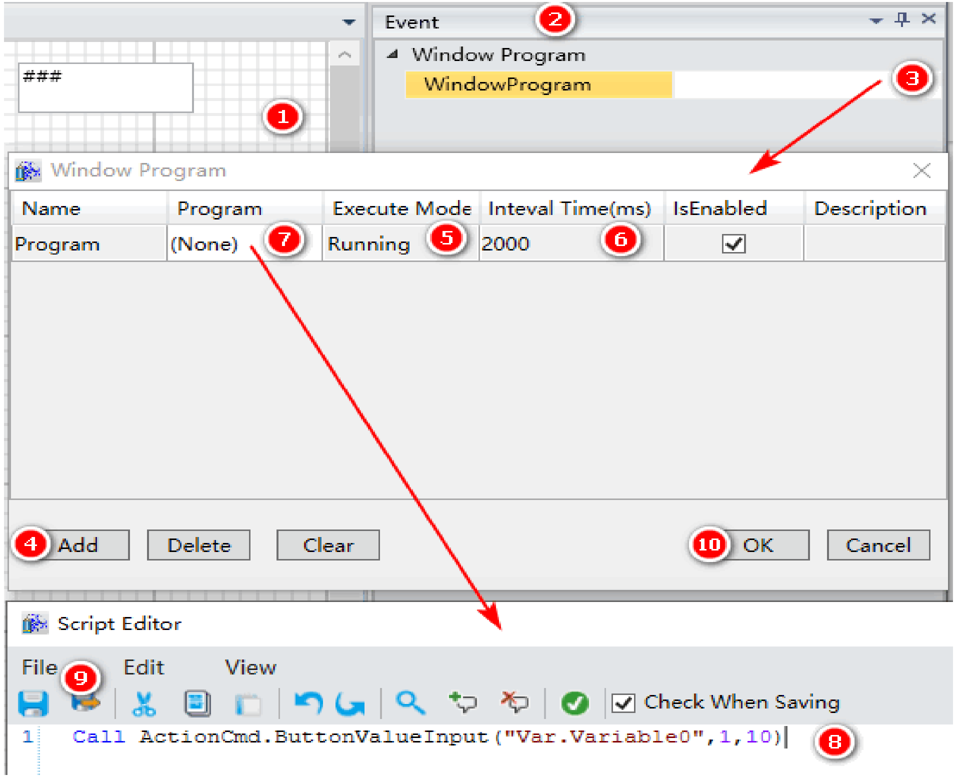
The Action Scripts

- **ButtonValueInput** example：

The variable increases by 10 every 2 seconds

The first 2 steps are the same as the first 2 steps of **AnalogValueInput** example

(3)Create a window program in the Window0



Name	Program	Execute Mode	Inteval Time(ms)	IsEnabled	Description
Program	(None)	Running	2000	☑	

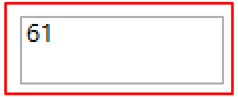
☑ Check When Saving

```
Call ActionCmd.ButtonValueInput("Var.Variable0",1,10)
```

①Click on any blank in the Window0
⑤Set this program to be executed at runtime
⑥Set this program to be executed every 2 seconds

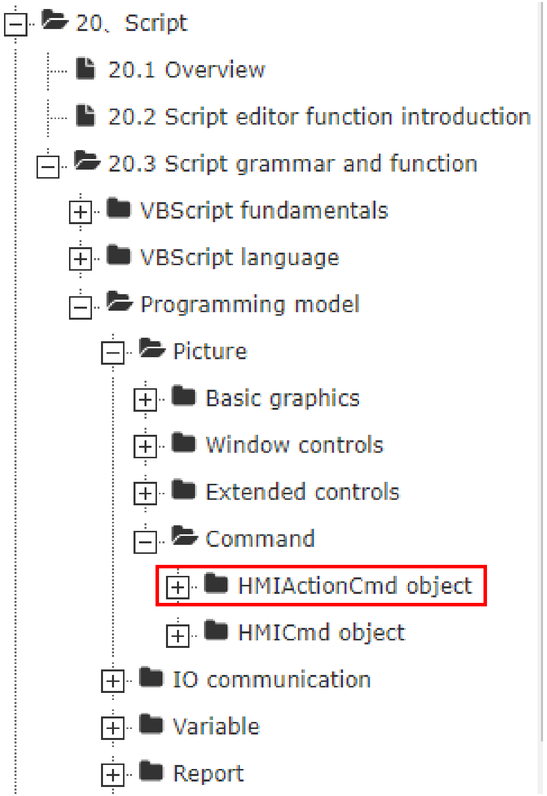
The Action Scripts

(4)Run the Window0 , at the beginning, the Textbox0 displays 11, and then the display value of TextBox0 increases by 10 every 2 seconds


61

The Action Scripts

For more details about the usage of action scripts , please refer to the section “20.3 Script grammar and function” in the user manual. As shown in the figure below:



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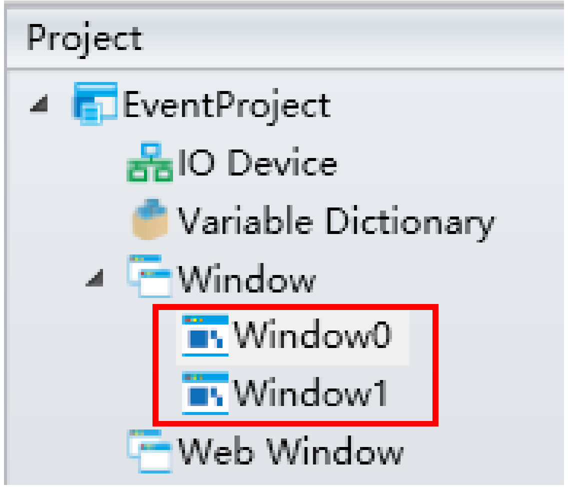
The Window Scripts

- **OpenDialogWindow, CloseDialogWindow** example：

Open a window dialog and then close it

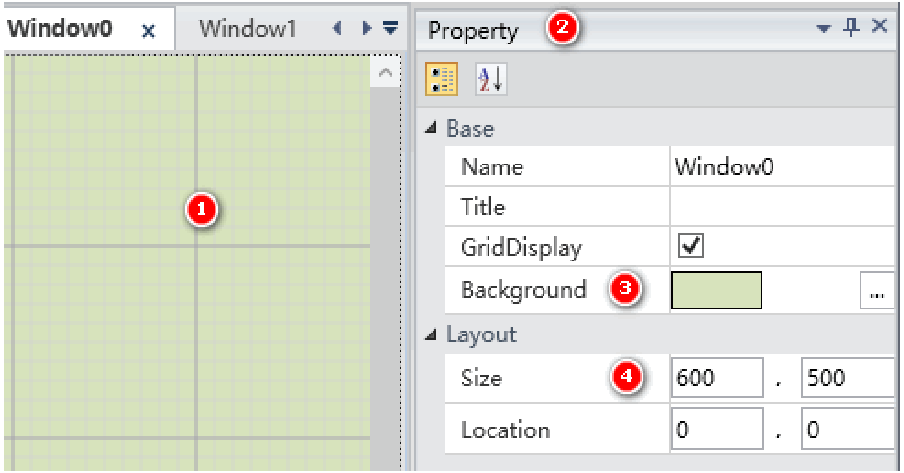
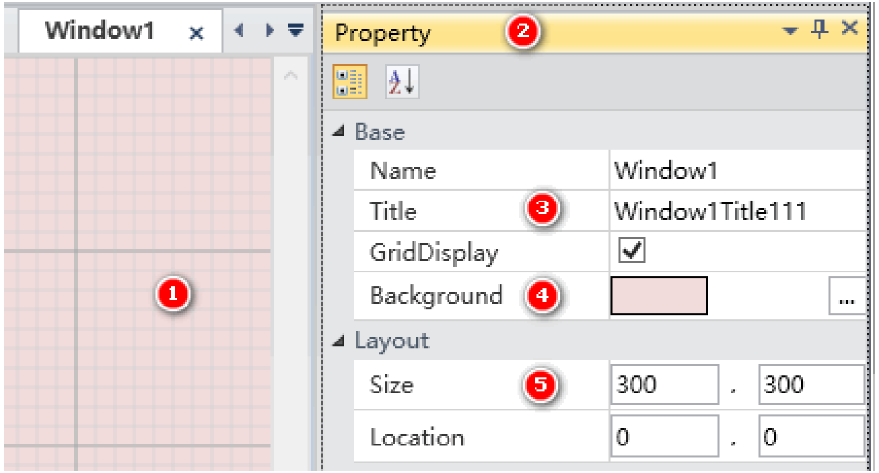
(1)Create 2 windows(Window0, Window1) in the project.



※Refer to the section “7.2.1.1 Add window” in user manual.

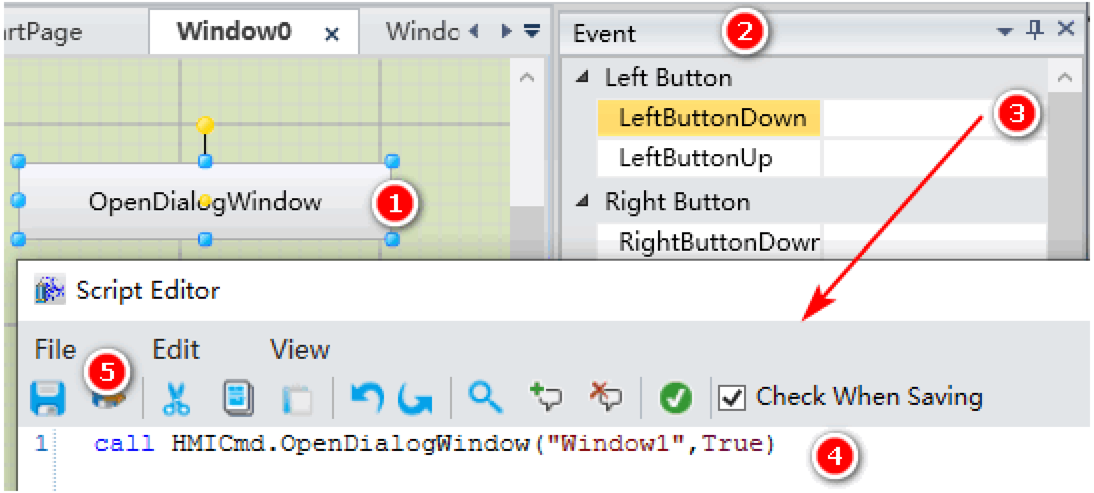
The Window Scripts

(2) Set the properties of <u>Window0</u>, <u>Window1</u>

 Window0 × Window1 ① ② Property Base Name: Window0 Title: GridDisplay: ☑ ③ Background Layout ④ Size: 600 , 500 Location: 0 , 0	 Window1 × ① ② Property Base Name: Window1 ③ Title: Window1Title111 GridDisplay: ☑ ④ Background Layout ⑤ Size: 300 , 300 Location: 0 , 0
Window0	Window1

The Window Scripts

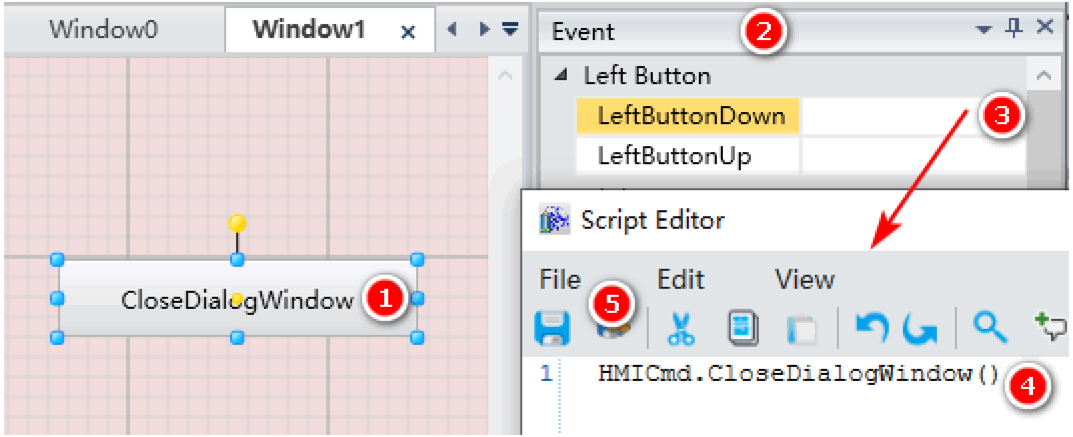
(3)Create a button(OpenDialogWindow) in the Window0, configure the LeftButtonDown event of the button



```
call HMICmd.OpenDialogWindow("Window1",True)
```

The Window Scripts

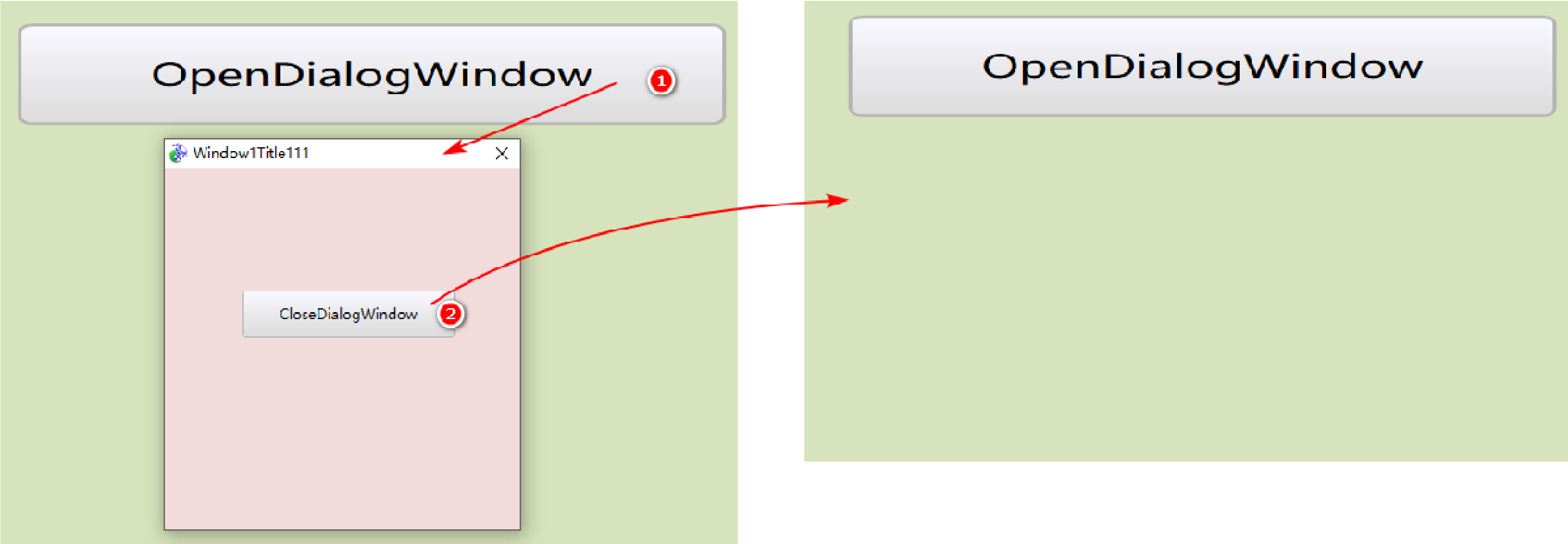
(4)Create a button(CloseDialogWindow) in the Window1, configure the LeftButtonDown event of the button



```
HMICmd.CloseDialogWindow()
```

The Window Scripts

(5)Run the Window0



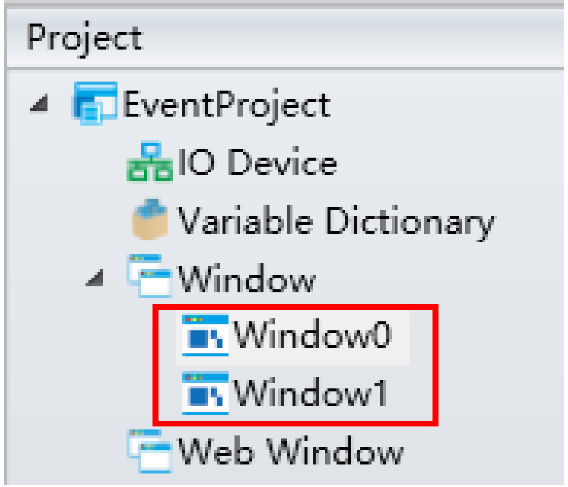
①Click the “OpenDialogWindow” button in the Window0, pop up the Window1 dialog , whose title is “Window1Title111”

②Click the “CloseDialogWindow” button in the Window1 dialog , then the Window1 dialog is closed

The Window Scripts

- **OpenWindowAndCloseOther** example：

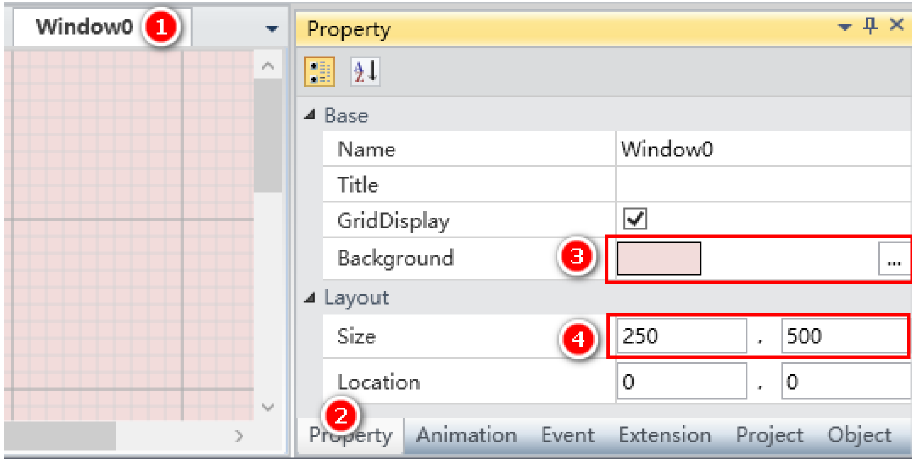
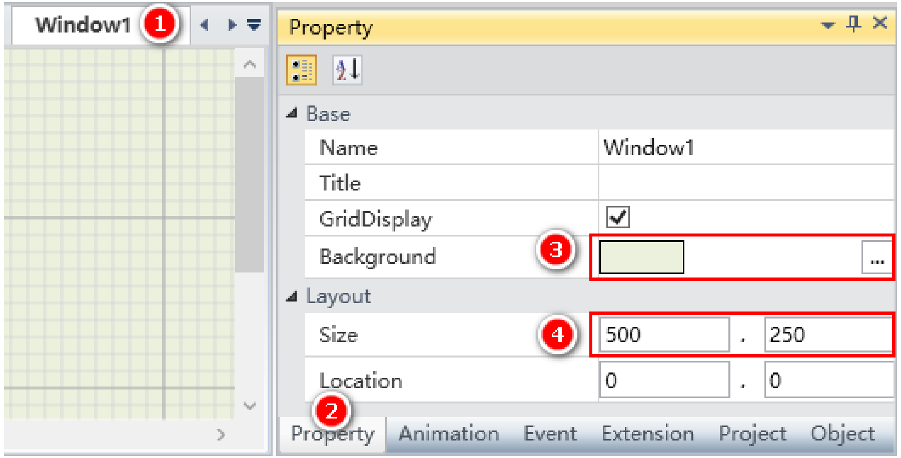
(1)Create two windows(Window0,Window1) in the project


Project
EventProject
IO Device
Variable Dictionary
Window
Window0
Window1
Web Window

※Refer to the section “7.2.1.1 Add window” in user manual.

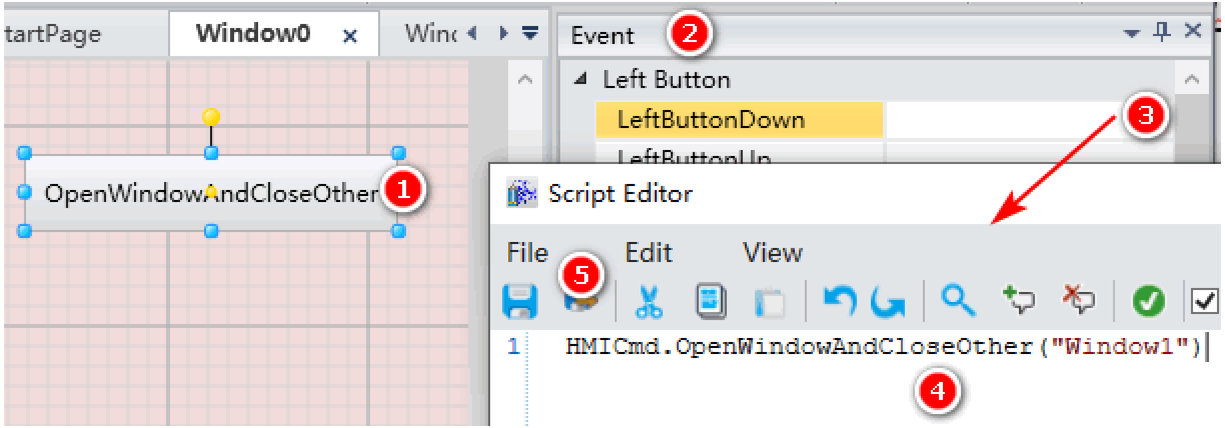
The Window Scripts

(2)Set the properties of Window0, Window1

	
Window0 ① ② Property Base Name: Window0 Title: GridDisplay: ☑ ③ Background: 🟥 ... Layout ④ Size: 250 , 500 Location: 0 , 0	Window1 ① ② Property Base Name: Window1 Title: GridDisplay: ☑ ③ Background: 🟩 ... Layout ④ Size: 500 , 250 Location: 0 , 0
Window0	Window1

The Window Scripts

(3)Create a button(OpenWindowAndCloseOther) in the Window0, configure the LeftButtonDown event of the button

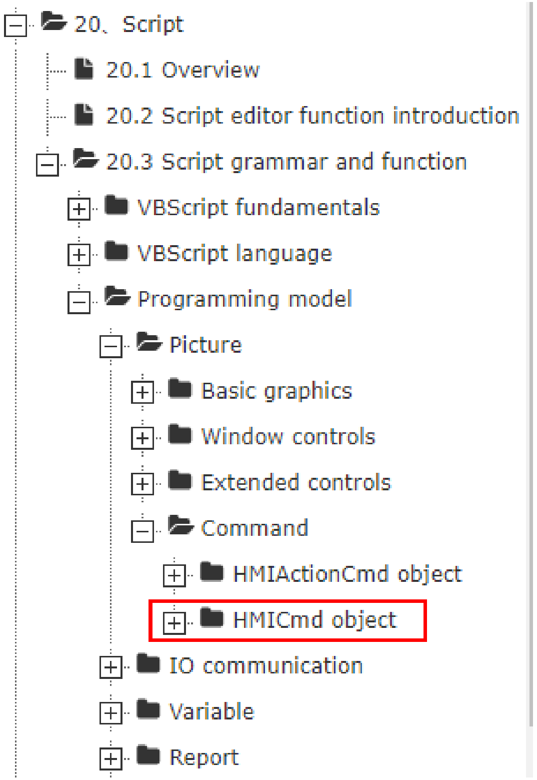


```
HMICmd.OpenWindowAndCloseOther("Window1")
```

(4)Only run the Window0 default. Then click the “OpenWindowAndCloseOther” button, the Window1 is opened, Window0 is Closed. Only Window1 is running

The Window Scripts

For more details about the usage of window scripts , please refer to the section “20.3 Script grammar and function” in the user manual. As shown in the figure below:



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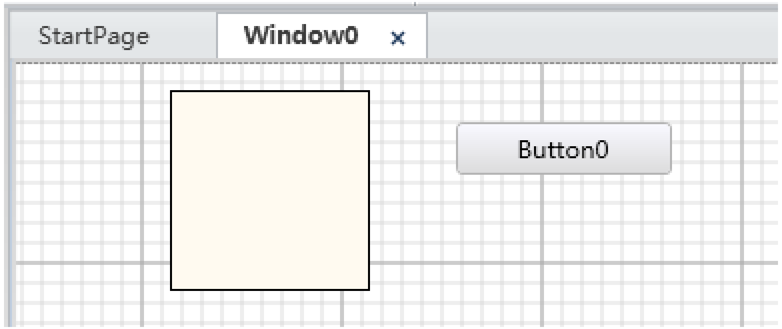
The Color Scripts

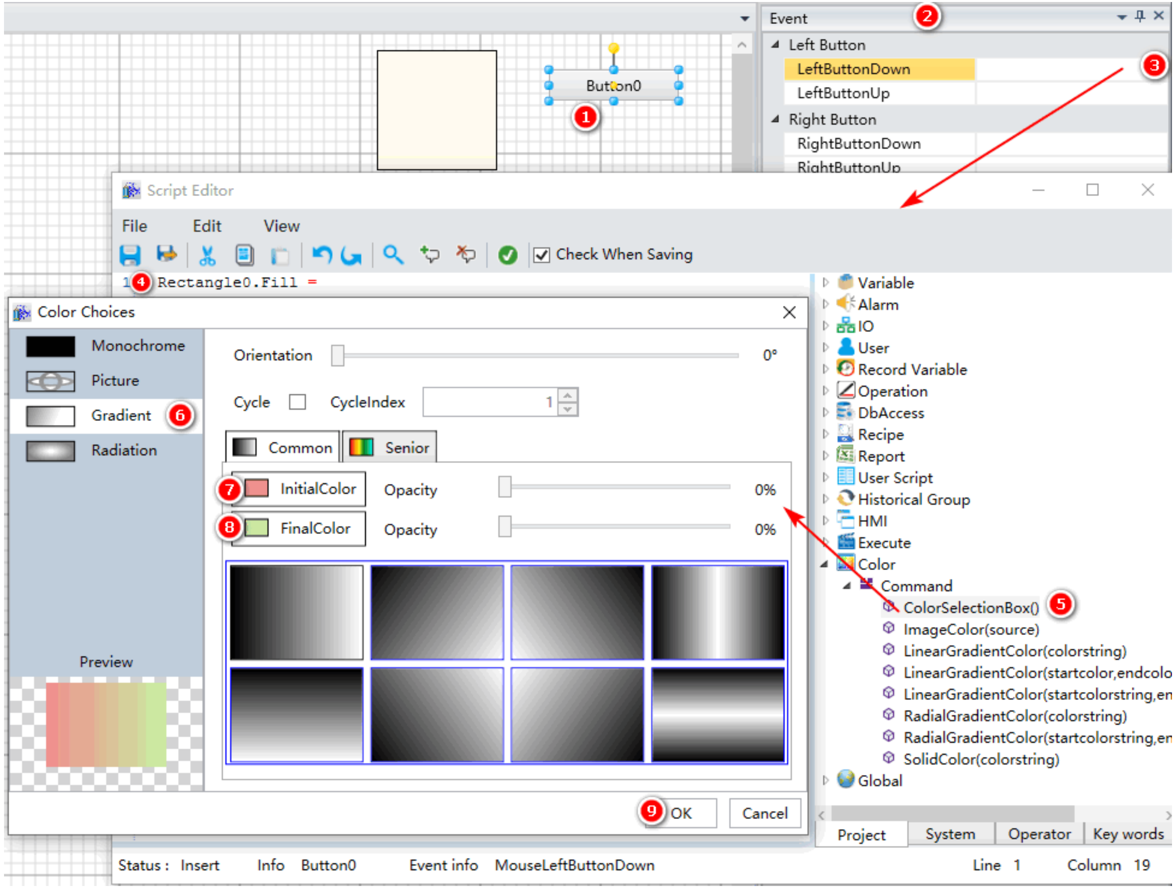
- **ColorSelectionBox** example(This script calls up the Color Editor)：

The rectangle is filled with a linear gradient color
(1)Create a Rectangle0 and a Button0 in the Window0, configure the left mouse down event of the button0



The Color Scripts

(2) Configure the LeftMouseDown event of the Button0



```
Rectangle0.Fill =
```

☑ Check When Saving

Orientation 0°

☐ Cycle

CycleIndex 1

InitialColor Opacity 0%

FinalColor Opacity 0%

Status : Insert

Info Button0

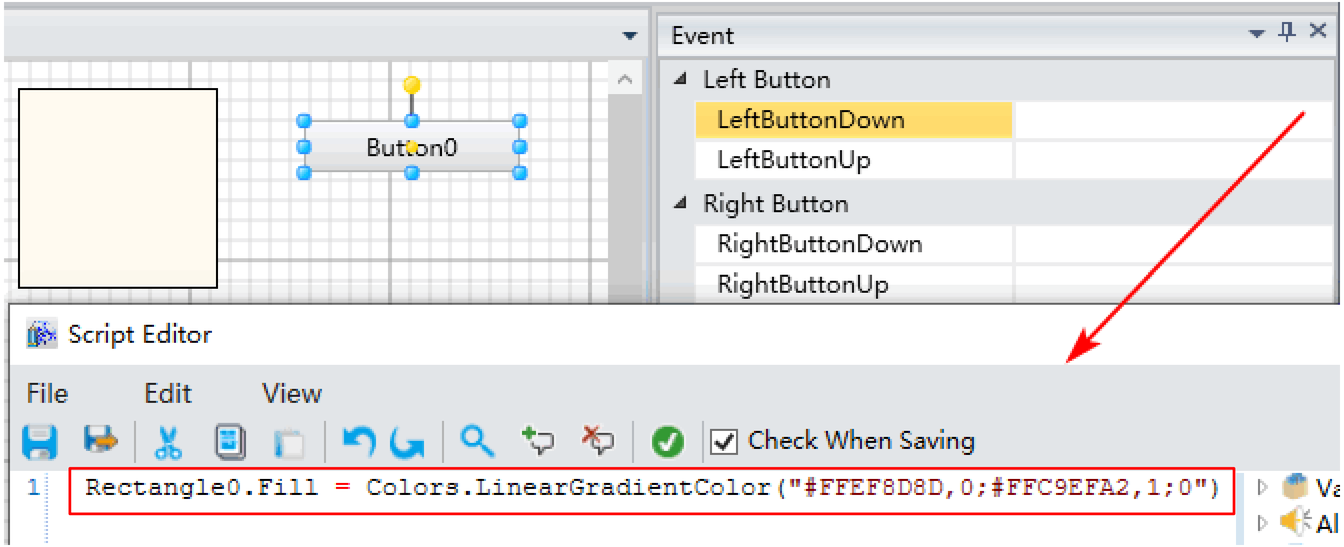
Event info MouseLeftButtonDown

Line 1

Column 19

The Color Scripts

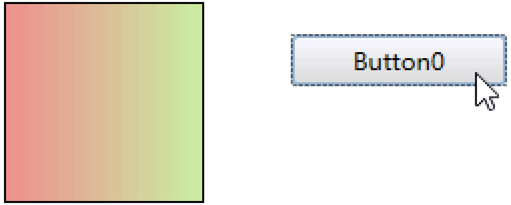
(3) The configuration results are as follows



```
Rectangle0.Fill = Colors.LinearGradientColor("#FFEF8D8D,0;#FFC9EFA2,1;0")
```

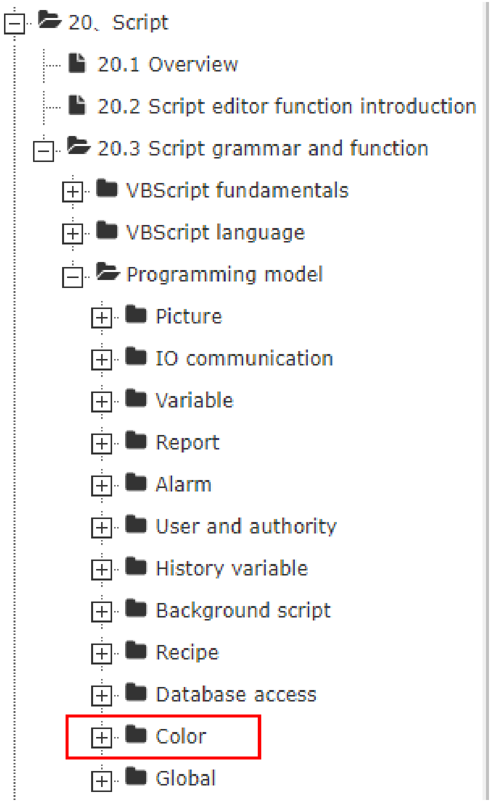
The Color Scripts

(4) Run the Window0, click the Button0, then the Rectangle0 becomes a red-green linear gradient fill



The Color Scripts

For more details about the usage of color scripts , please refer to the section “20.3 Script grammar and function” in the user manual. As shown in the figure below:



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    - User and authority
    - History variable
    - Background script
    - Recipe
    - Database access
    - Color
    - Global

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