

# DIAView

Report

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# Outline

- Report overview
- Report usage
- Report template
- Report creation
- Report configuration settings

# Purpose

In this chapter, you will learn .....

- ... Basic operation and management of reports
- ... Features supported by reports

# Outline

- Report overview
- Report usage
- Report template
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- Report configuration settings

## ➤ DIAView report function

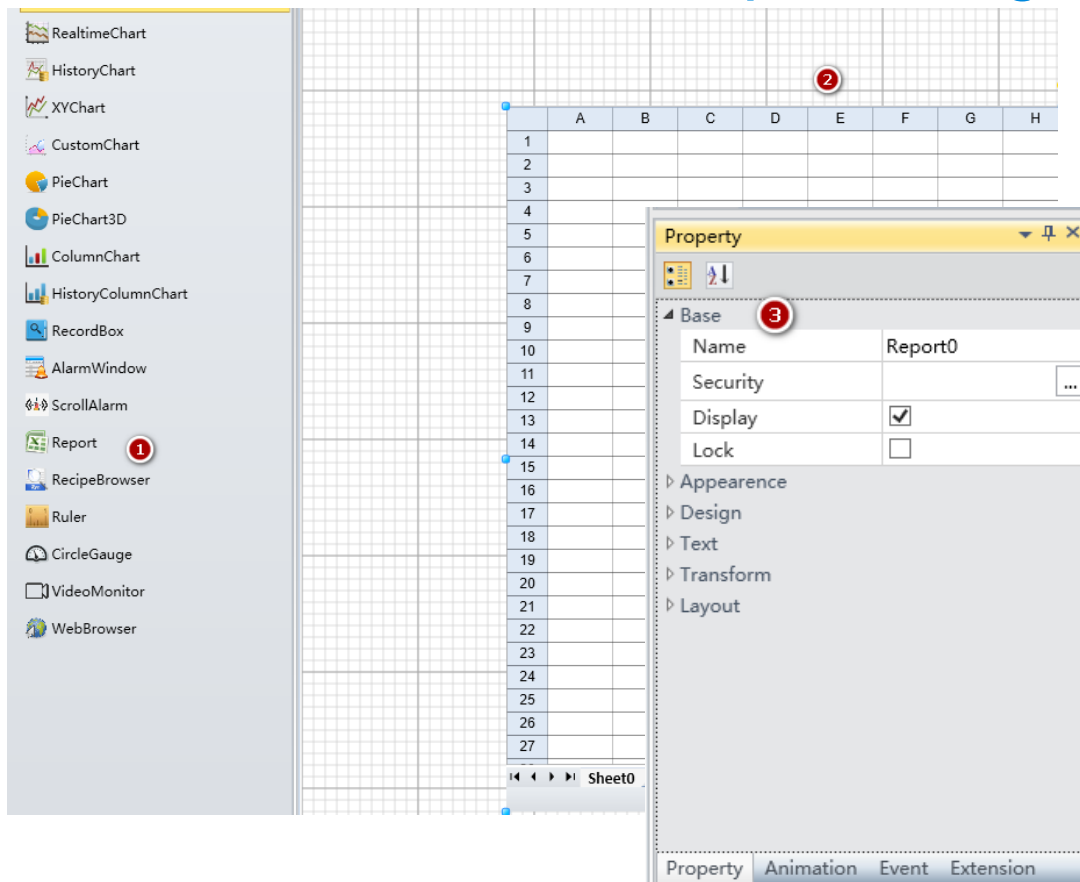
- Provides a reporting tool in the "excel-like" operation mode to produce common production reports (**daily reports, monthly reports, annual reports, etc.**), and can also flexibly produce reports in various complex formats to complete the query of real-time, historical and statistical data, Display, print and output.
- The report can not only display the data of the real-time historical database, but also can perform data access and query with typical relational databases such as **MySQL, SQL Server, Oracle, and Access.**



- Report overview
- **Report usage**
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## ➤ Example for creating a report

- ① Click the report in the toolbar
- ② Drag to the desired position on the canvas
- ③ Configure report properties

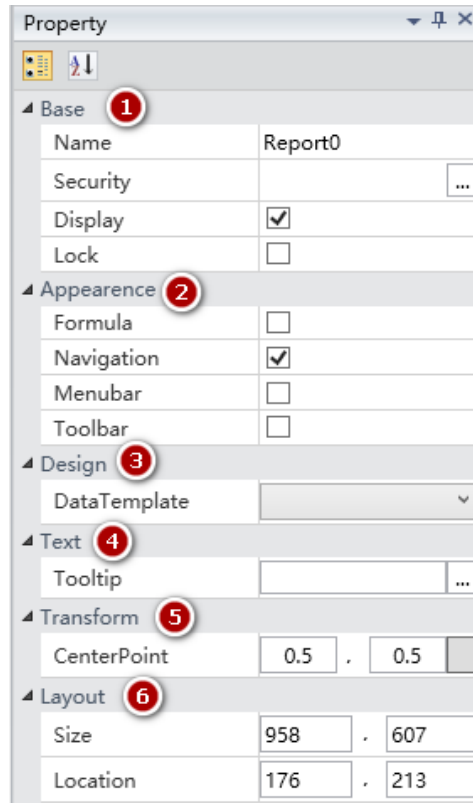


The screenshot illustrates the steps for creating a report in the Delta software. The toolbar on the left lists various components, with the 'Report' icon (a green document with a bar chart) highlighted by a red circle and the number 1. The main canvas is a grid, and a red circle with the number 2 is placed on it. The 'Property' window on the right shows the 'Base' properties for the report, with a red circle and the number 3 highlighting the 'Name' field, which is set to 'Report0'. The 'Property' window also shows other properties like 'Security', 'Display', and 'Lock'.

Property	Value
Name	Report0
Security	...
Display	<input checked="" type="checkbox"/>
Lock	<input type="checkbox"/>

## ➤ Report Properties:

- ① **Base:**  
Basic properties, the same as other control graphics
- ② **Appearance :**  
Appearance can choose whether display formula , navigation, menu bar and toolbar.
- ③ **Design:**  
Design and set the report template to the report
- ④ **Text:**  
Report prompt text information
- ⑤ **Transform:**  
Contains the center point of the report
- ⑥ **Layout:**  
The size and position of the report in the canvas can be adjusted by numerical values



Property	
Base	
Name	Report0
Security	...
Display	<input checked="" type="checkbox"/>
Lock	<input type="checkbox"/>
Appearance	
Formula	<input type="checkbox"/>
Navigation	<input checked="" type="checkbox"/>
Menubar	<input type="checkbox"/>
Toolbar	<input type="checkbox"/>
Design	
DataTemplate	...
Text	
Tooltip	...
Transform	
CenterPoint	0.5 . 0.5
Layout	
Size	958 . 607
Location	176 . 213

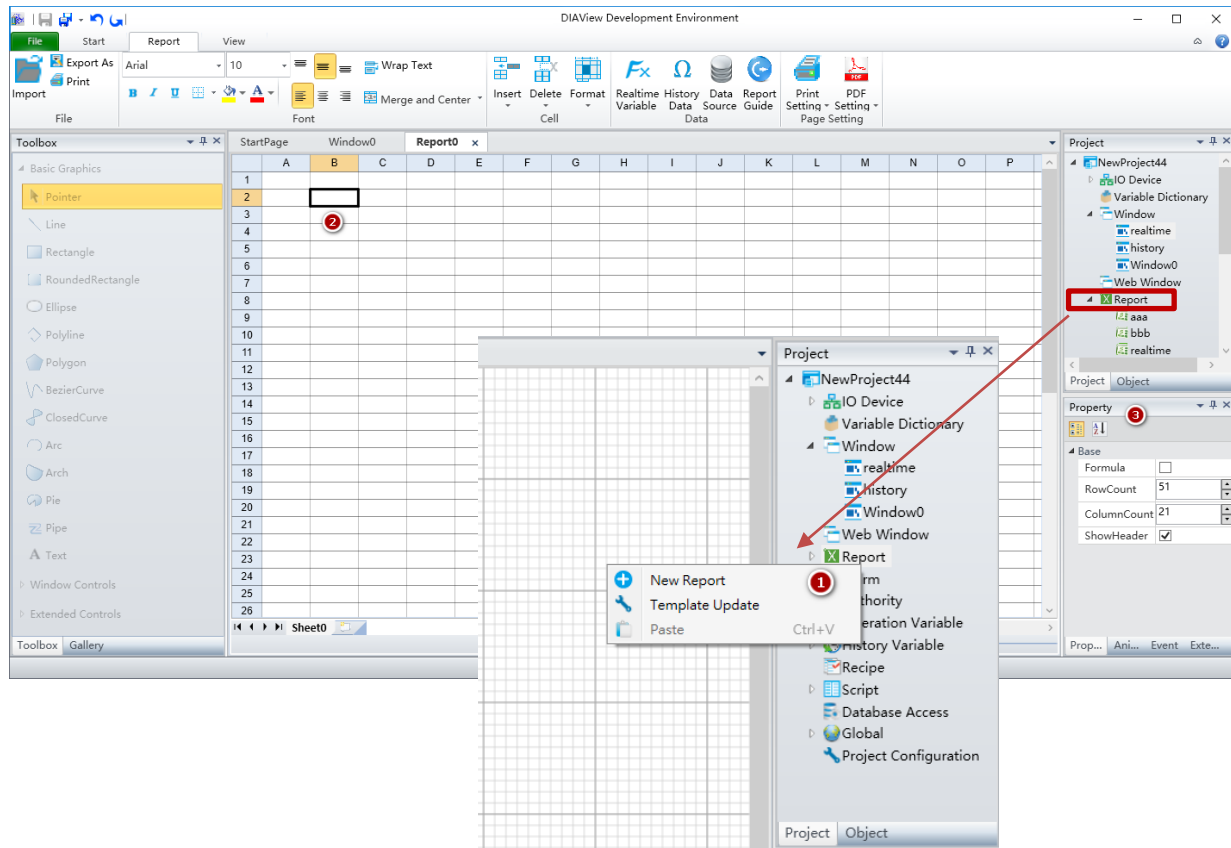


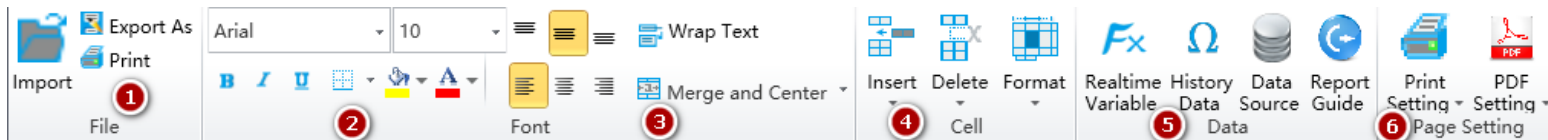
- Report overview
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## ➤ Create a report template:

### • Step 1

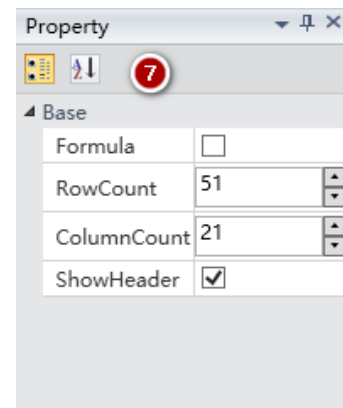
- ① Right-click the report in the project node
- ② Create a new report template
- ③ Configure report template properties





## • Step 2

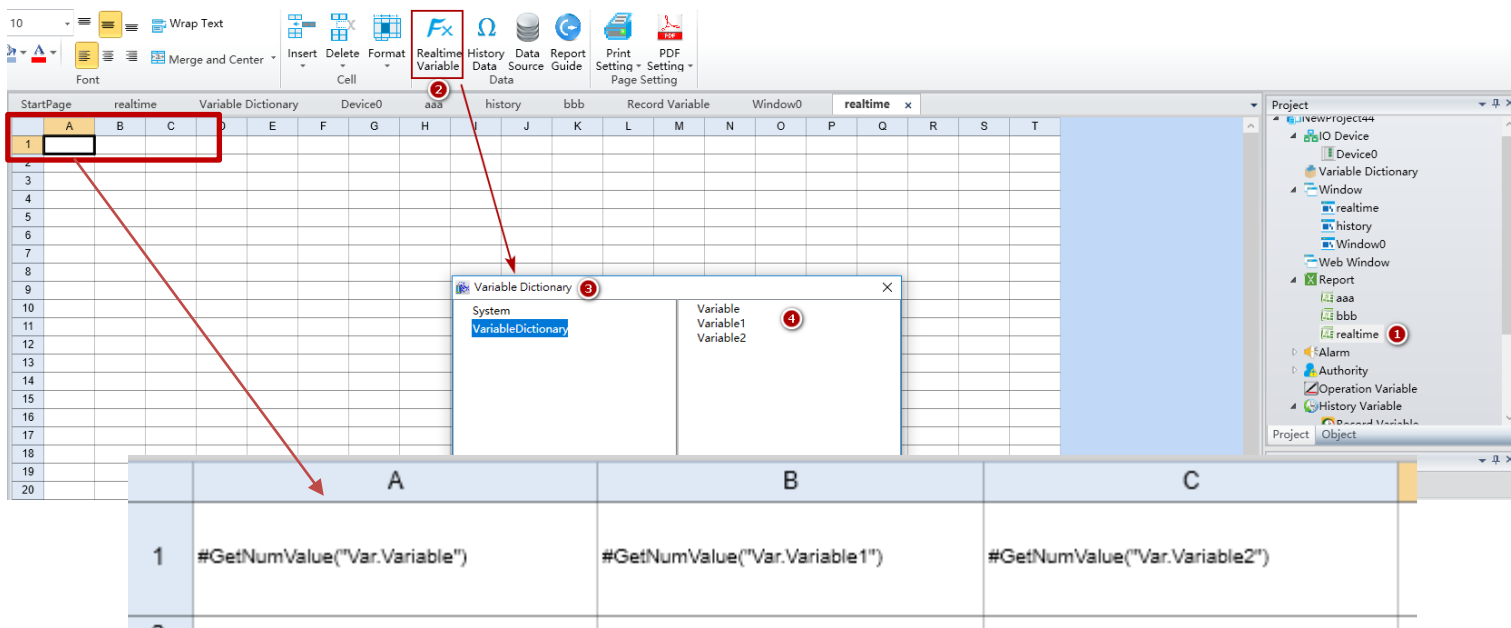
- ① Import and export printing function
- ② Set the text font in the table, you can change the size and fill color, etc.
- ③ Set the table format, you can set the alignment center and line break and merge
- ④ Format cells, EXCEL-like operations
- ⑤ Set data, you can bind real-time or historical variables, you can also add data sources and report wizards
- ⑥ Print settings and PDF settings
- ⑦ Basic properties of report templates, including whether to display the formula bar, number of rows and columns, and row and column headers



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## ➤ Create the real-time report

- ① Create a new report template
- ② Select the report template menu bar to bind real-time variables
- ③ Select the variable to be bound

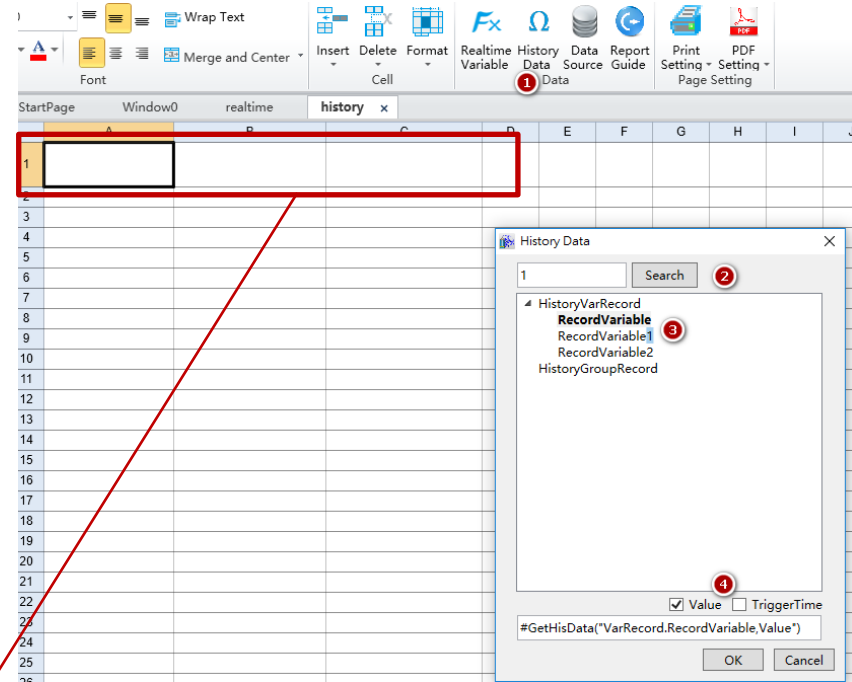


The screenshot illustrates the steps to create a real-time report in the Delta software. The interface shows a menu bar with options like 'Realtime Variable', 'History Data', 'Data Source', 'Report Guide', 'Print Setting', and 'PDF Setting'. A red box highlights the 'Realtime Variable' menu item, with a red arrow pointing to it labeled '2'. Below the menu bar, a 'Variable Dictionary' dialog box is open, showing a list of variables: 'System', 'VariableDictionary', 'Variable1', and 'Variable2'. A red box highlights 'VariableDictionary', with a red arrow pointing to it labeled '3'. In the background, a report template is visible with columns A, B, and C. A red box highlights the first row of the template, with a red arrow pointing to it labeled '1'. The report template shows the following formulas:

	A	B	C
1	#GetNumValue("Var.Variable")	#GetNumValue("Var.Variable1")	#GetNumValue("Var.Variable2")

## ➤ Create the history report

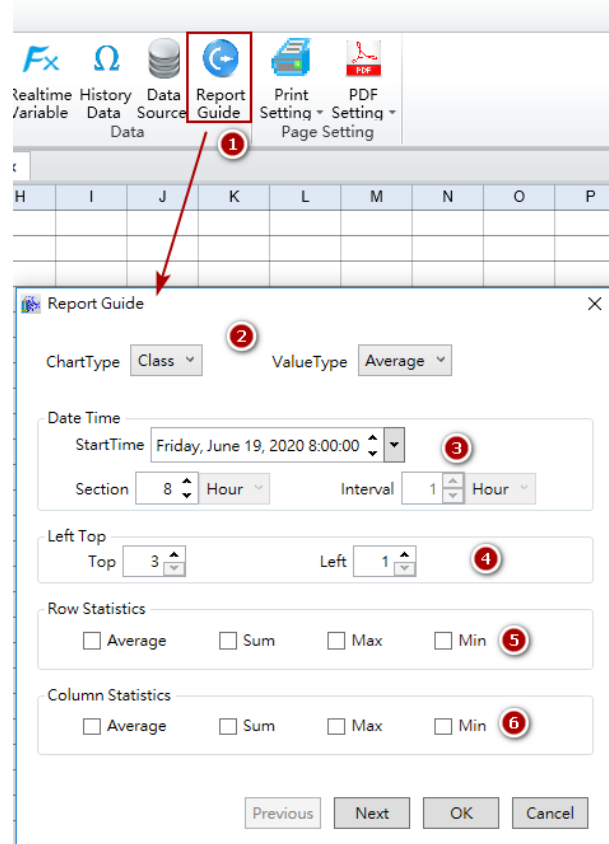
- ① Select the report template menu bar to bind historical variables
- ② Pick the required historical variables
- ③ Select the required historical variable
- ④ There are two forms of historical variables, **Value** and **Trigger time**



	A	B	C	D
1	#GetHisData("VarRecord.RecordVariable,Value")	#GetHisData("VarRecord.RecordVariable1,Value")	#GetHisData("VarRecord.RecordVariable2,Value")	#GetHisData("VarRecord.RecordVariable2,TriggerTime")

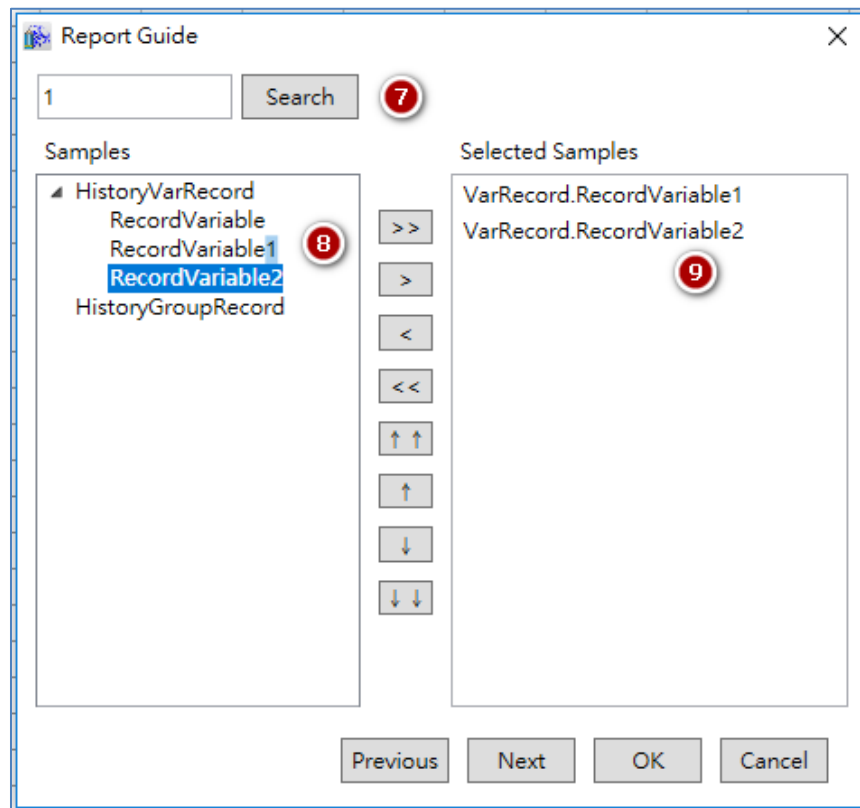
## ➤ Create the report guide

- ① Select **Report Wizard** on the menu bar of the report template.
- ② Select icon type and value type.
- ③ Select start time interval
- ④ Select the starting position of the icon
- ⑤ Set line statistics
- ⑥ Set column statistics



## ➤ Create the report guide

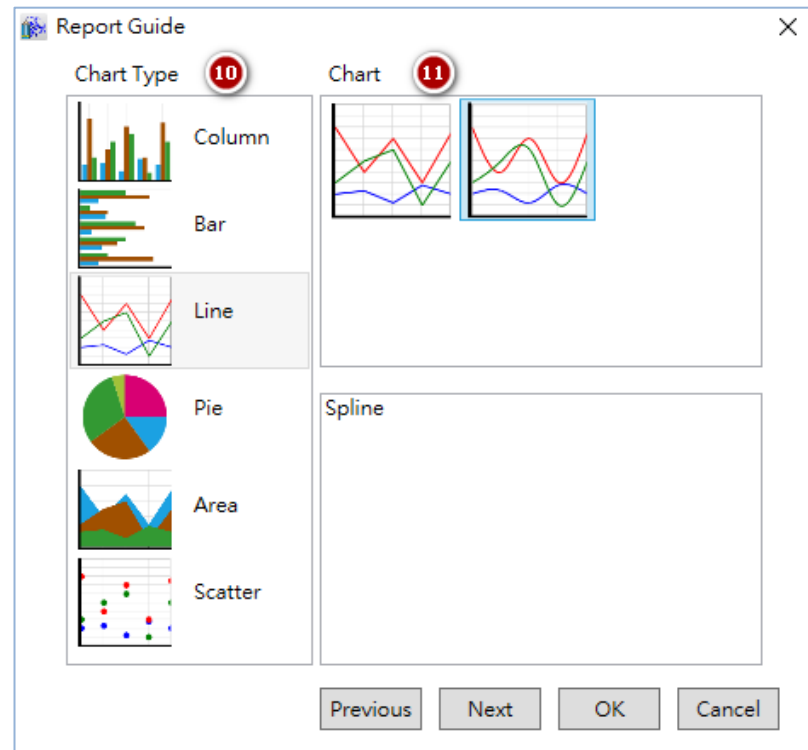
- ⑦ Quickly find the required variable
- ⑧ Select the required variable
- ⑨ Identify selected variables and make adjustments





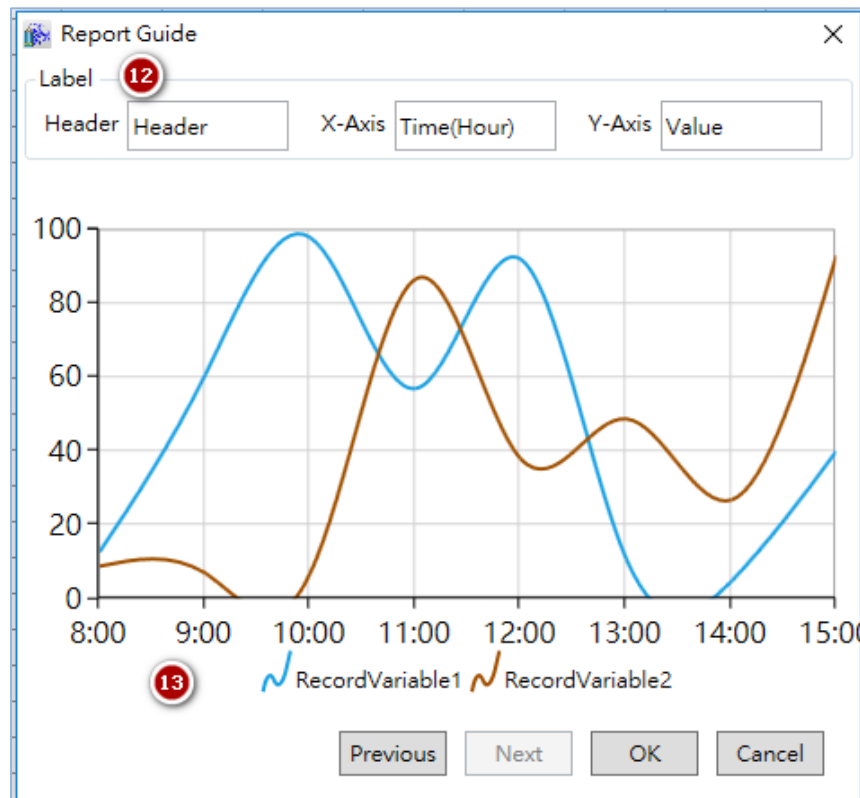
## ➤ Create the report guide

- ⑩ Select the type of generated chart
- ⑪ Choose Generate Chart Style



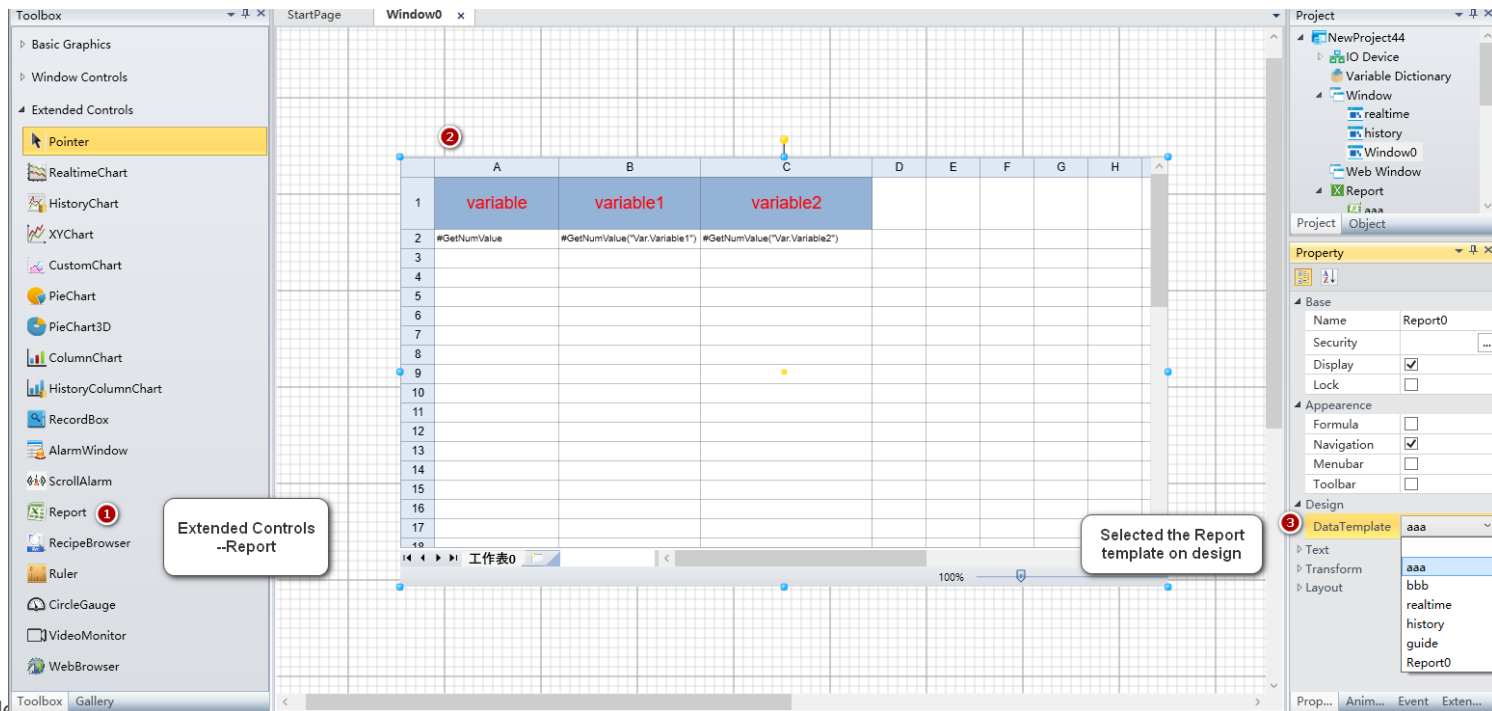
## ➤ Create the report guide

- ⑫ Change the title and XY axis content
- ⑬ Generate chart preview



## ➤ Report setting example

- Build the completed report template and report binding.



The screenshot displays the Delta software interface for creating a report. The main workspace is a grid with columns A through H and rows 1 through 17. A table is defined in the first three columns:

	A	B	C
1	variable	variable1	variable2
2	#GetNumValue	#GetNumValue("Var.Variable1")	#GetNumValue("Var.Variable2")
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			
15			
16			
17			

Annotations on the screenshot:

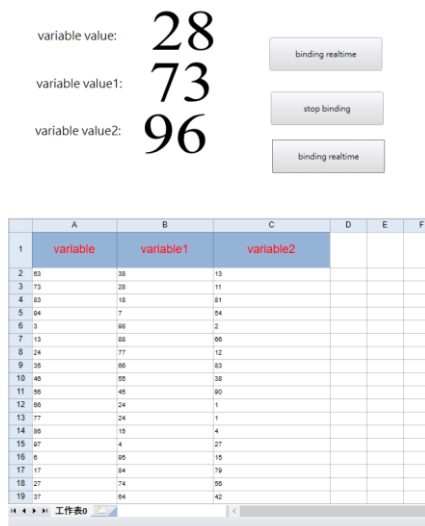
- Extended Controls --Report**: A callout box pointing to the 'Report' icon in the 'Extended Controls' section of the Toolbox.
- Selected the Report template on design**: A callout box pointing to the 'DataTemplate' dropdown in the 'Design' section of the Property window.

The interface includes a Toolbox on the left with categories like Basic Graphics, Window Controls, and Extended Controls. The Project window on the right shows a tree structure with 'NewProject44' and its sub-items. The Property window on the right shows the 'Base' and 'Appearance' properties of the selected report.

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## ➤ Report Guide test example

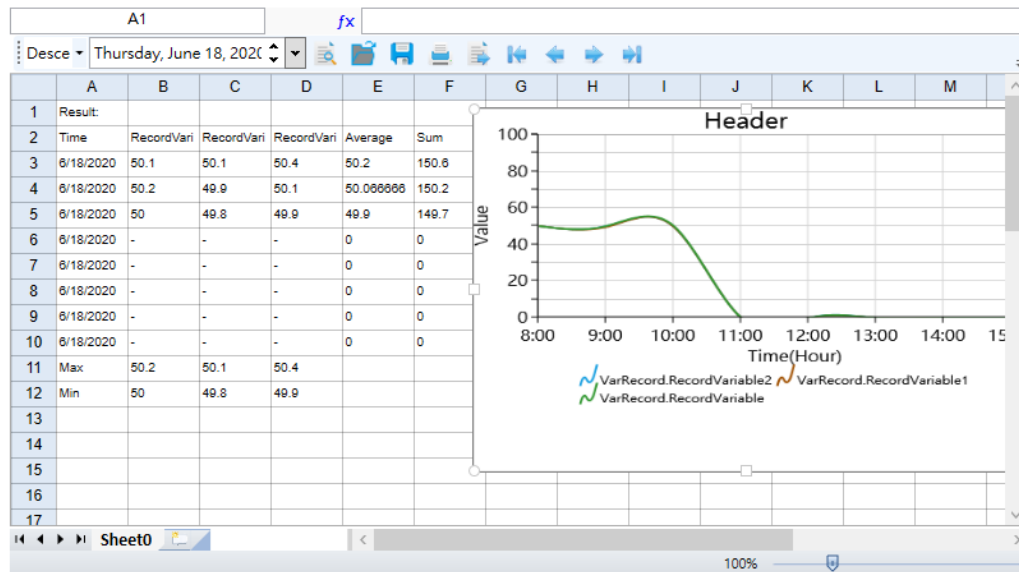
- Real-time report runtime screen
- Refresh data in real time after binding variables



# Report configuration settings

## ➤ Report Guide at runtime

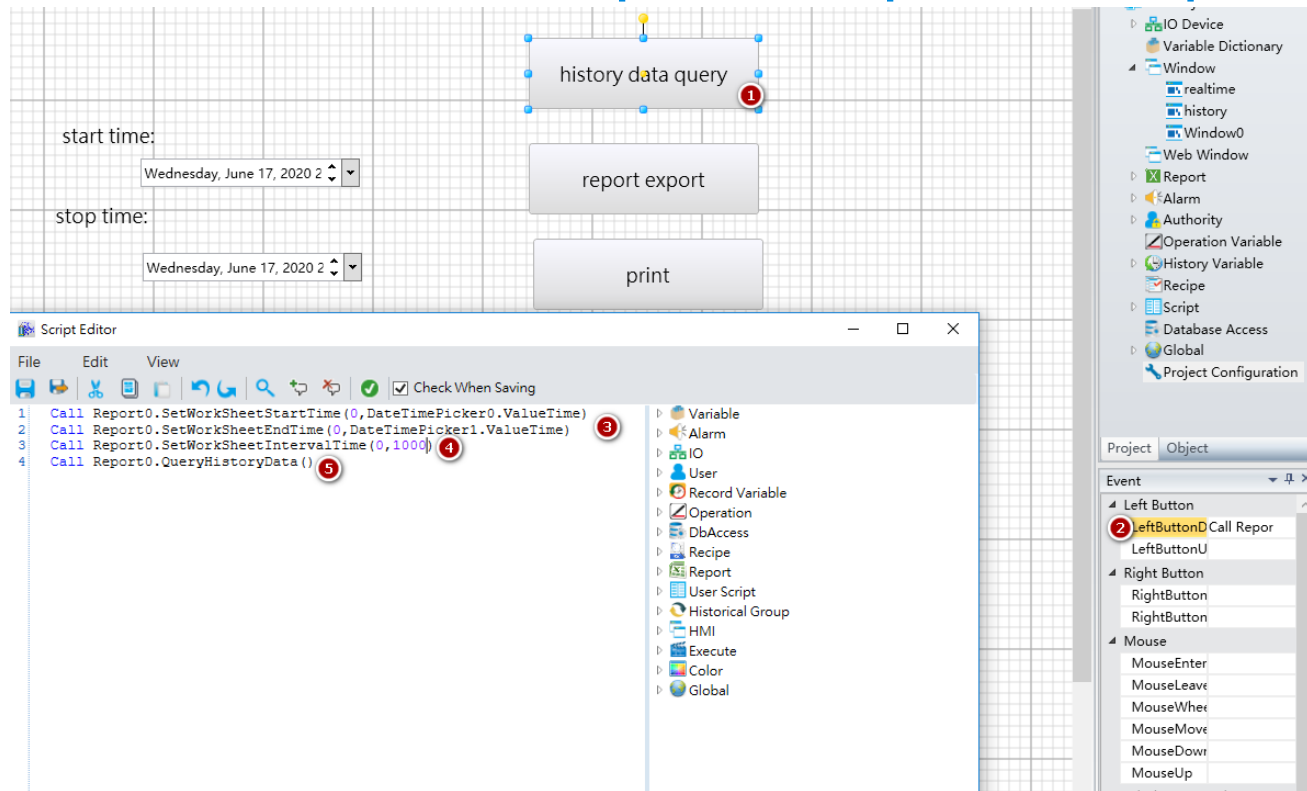
- The start query date is June 18, and the data for 8 hours is queried. The average, total, maximum and minimum statistics are configured, and the data statistics chart is generated.



# Report Scripts Example

## ➤ In develop time

- ① Create a button.
- ② Configure the left button press script event.
- ③ Choose start time and end time
- ④ Set query interval
- ⑤ Query historical data



The screenshot displays the Delta HMI development environment. At the top, a report script is configured with a 'history data query' button (1), a 'report export' button, and a 'print' button. Below the buttons, two date pickers are shown for 'start time' and 'stop time', both set to 'Wednesday, June 17, 2020 2'. The 'Script Editor' window is open, showing the following code:

```

1 Call Report0.SetWorkSheetStartTime(0,DateTimePicker0.ValueTime)
2 Call Report0.SetWorkSheetEndTime(0,DateTimePicker1.ValueTime)
3 Call Report0.SetWorkSheetIntervalTime(0,1000)
4 Call Report0.QueryHistoryData()

```

The code is annotated with numbered circles: 1 for the 'history data query' button, 2 for the 'report export' button, 3 for the 'print' button, 4 for the 'SetWorkSheetIntervalTime' function, and 5 for the 'QueryHistoryData' function. The 'Project' and 'Object' panels on the right show the project structure, including 'IO Device', 'Variable Dictionary', 'Window', 'realtime', 'history', 'Window0', 'Web Window', 'Report', 'Alarm', 'Authority', 'Operation Variable', 'History Variable', 'Recipe', 'Script', 'Database Access', 'Global', and 'Project Configuration'. The 'Event' panel shows the 'Left Button' event, with 'LeftButton0 Call Report' selected.

✗Report events involving other scripts can refer to the user manual 20.3.

# Report Scripts Example

## ➤ In run time

- ① Choose start time and end time
- ② Click the Query Data button
- ③ The queried historical data appears in the table

variable value: 40  
variable value1: 61  
variable value2: 73

start time:

Wednesday, June 17, 2020 2:25

stop time:

Thursday, June 18, 2020 2:25

2

history data query

report export

print

	A	B	C	D	E	F	G	H	I	J	K
1	variable	variable1	variable2	time							
2	0	0	0	2020/06/17 14:50:21							
3	18	83	12	2020/06/17 14:50:22							
4	29	72	89	2020/06/17 14:50:23							
5	39	62	34	2020/06/17 14:50:24							
6	50	51	45	2020/06/17 14:50:25							
7	61	40	78	2020/06/17 14:50:26							
8	72	29	22	2020/06/17 14:50:28							
9	81	20	43	2020/06/17 14:50:29							
10	92	9	43	2020/06/17 14:50:30							
11	2	99	86	2020/06/17 14:50:31							
12	12	89	52	2020/06/17 14:50:32							
13	22	79	12	2020/06/17 14:50:33							
14	33	68	86	2020/06/17 14:50:34							
15	43	58	6	2020/06/17 14:50:35							
16	53	48	2	2020/06/17 14:50:36							
17	63	38	67	2020/06/17 14:50:37							

✗Report events involving other scripts can refer to the user manual 20.3.

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