Demo Project for Trend and Data Display

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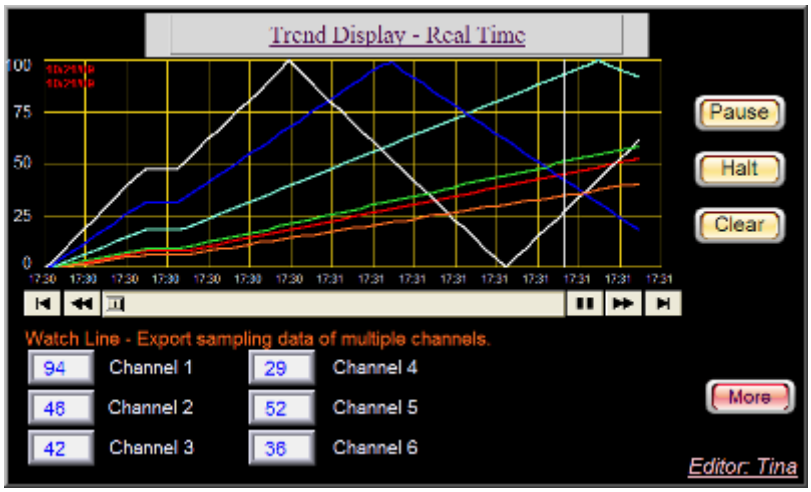
1. Overview and Operation

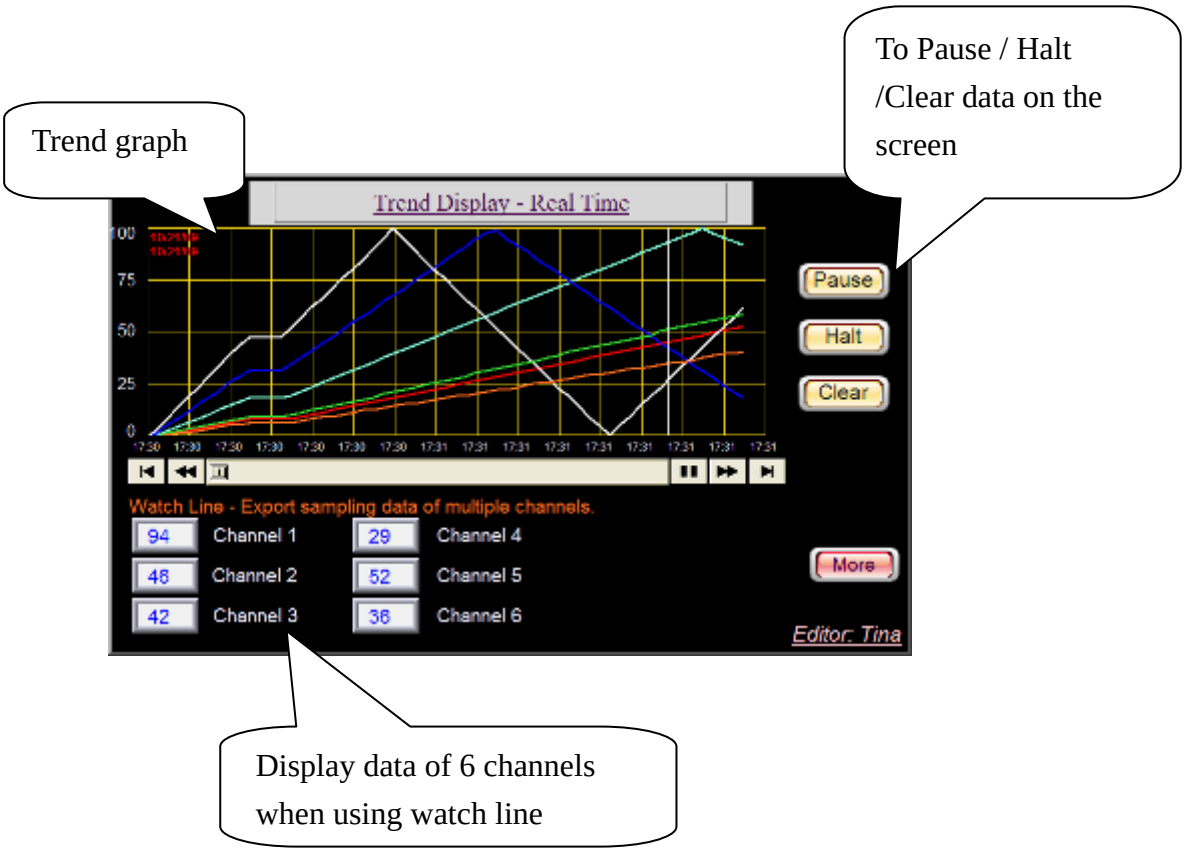
[Overview]

This demo project displays how to use Trend Display graph to show data log in Real-time mode or History mode. A History Data object can also be used to display data log in table chart.

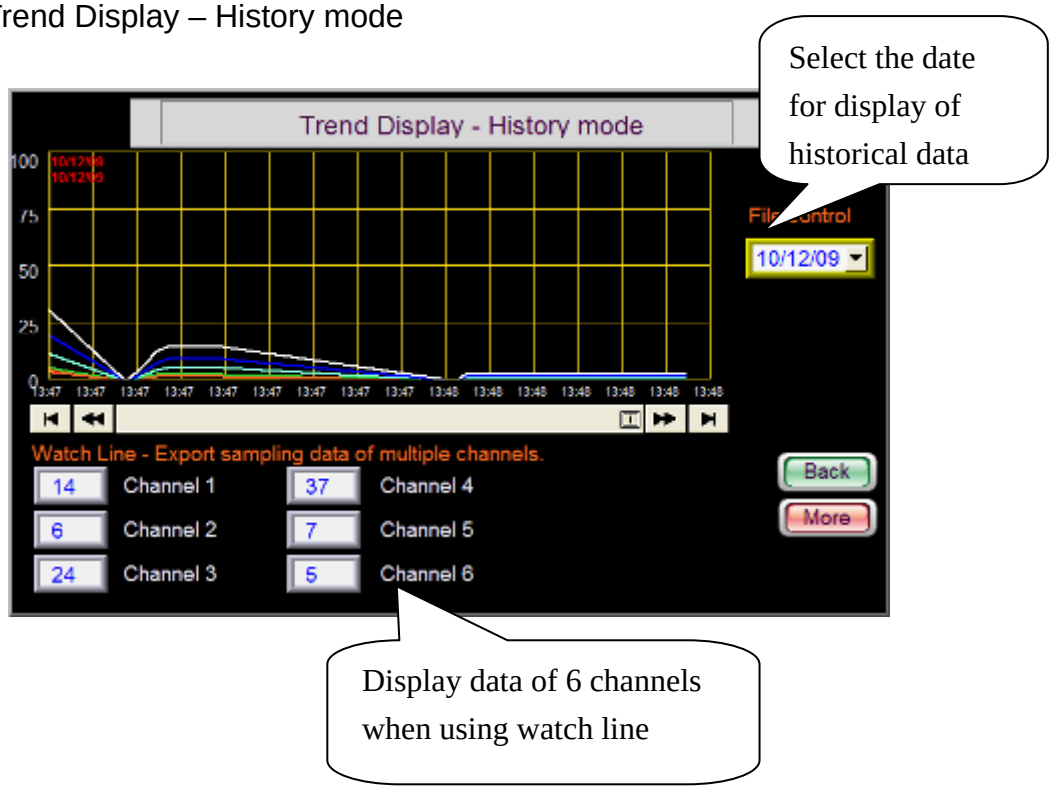


[Operation]

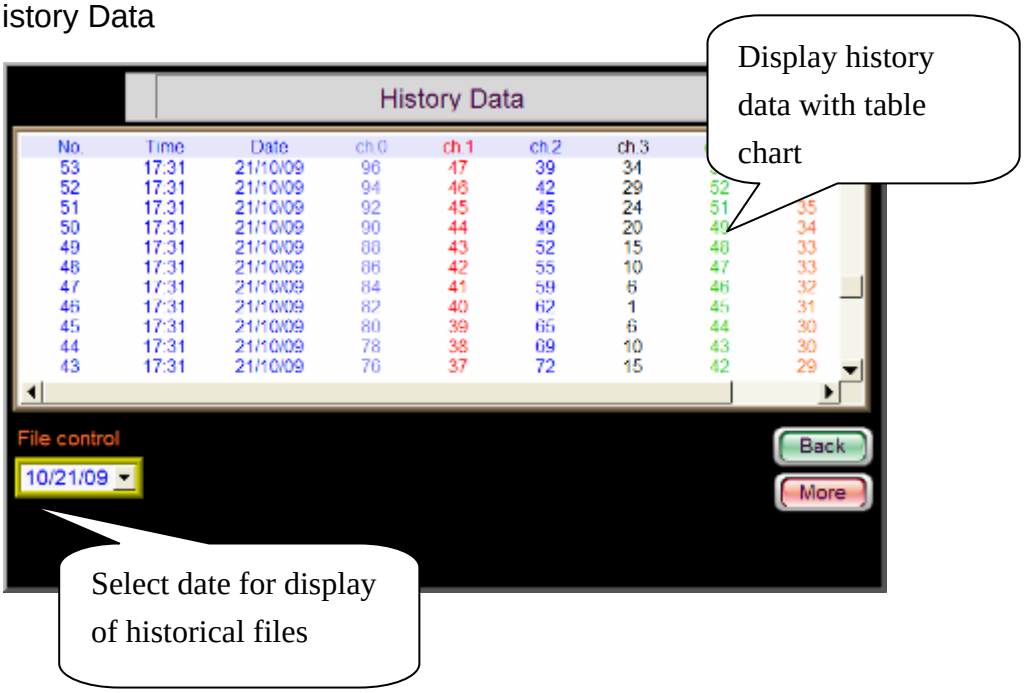
- Trend Display – Real Time



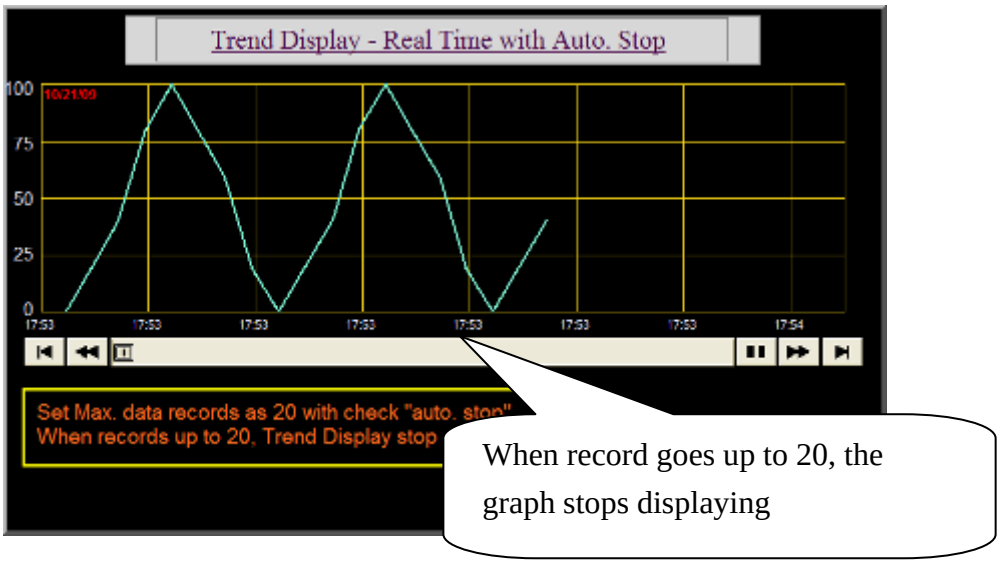
- Trend Display – History mode



- History Data

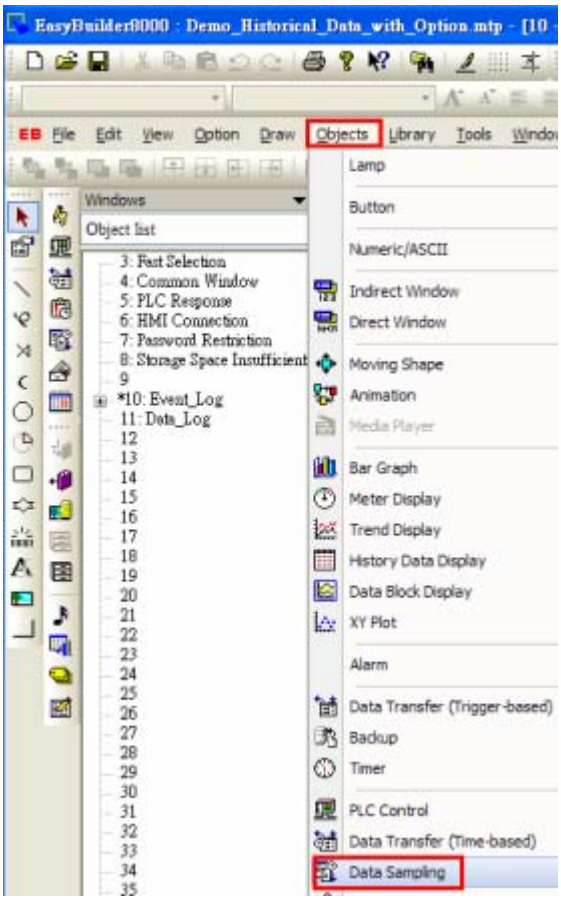


- Trend display – auto stop

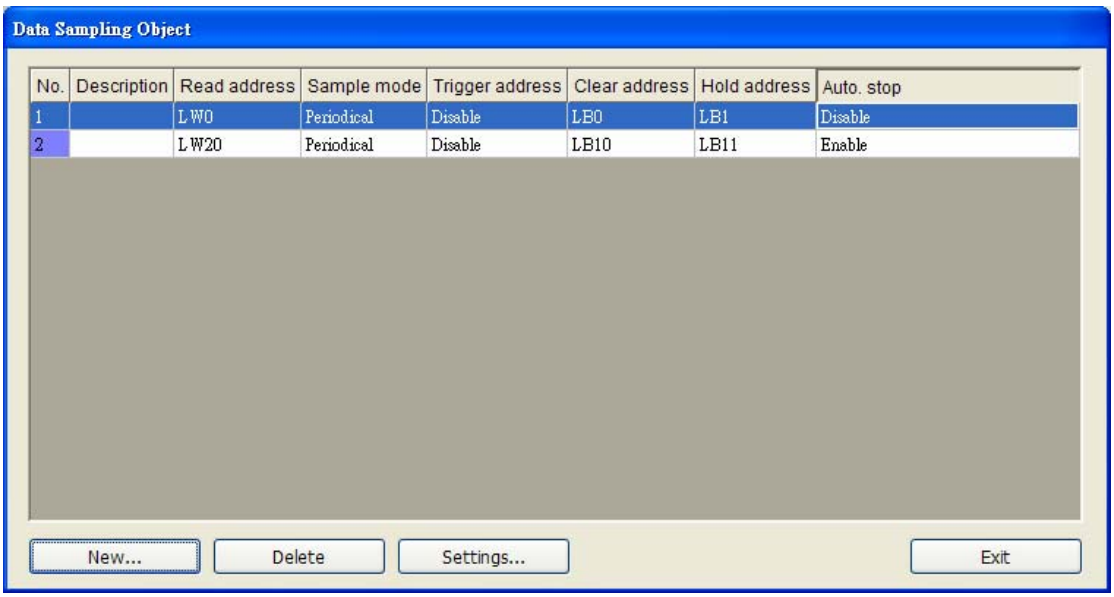


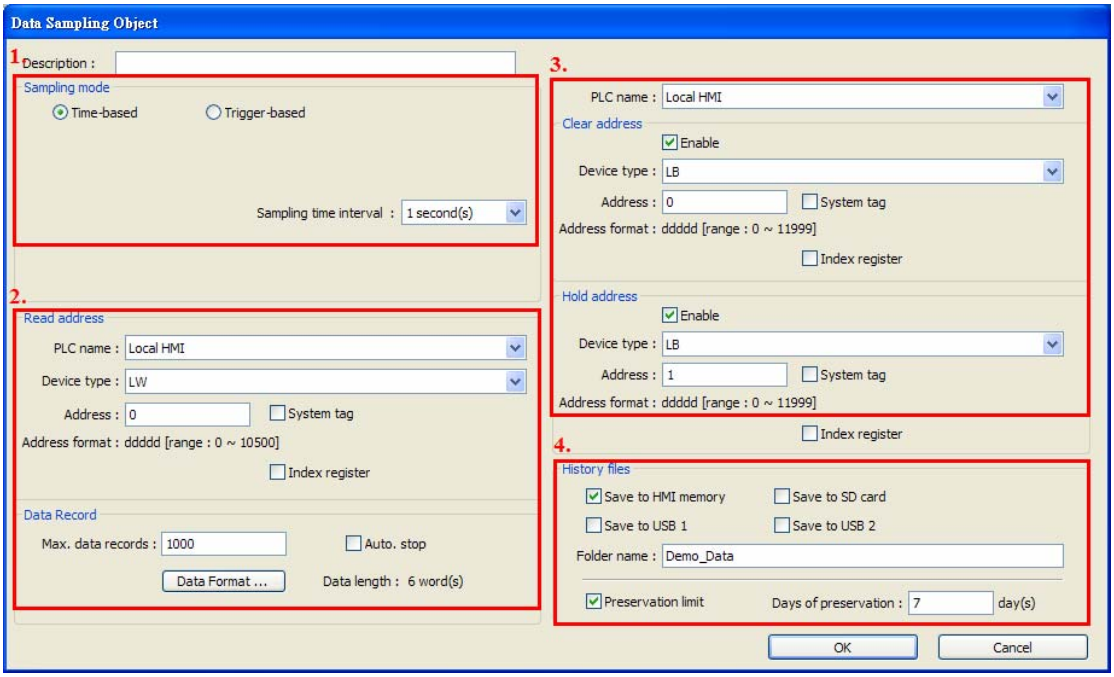
2. Setting up the screen

2-1. In the Objects area, click “Data Sampling” icon.



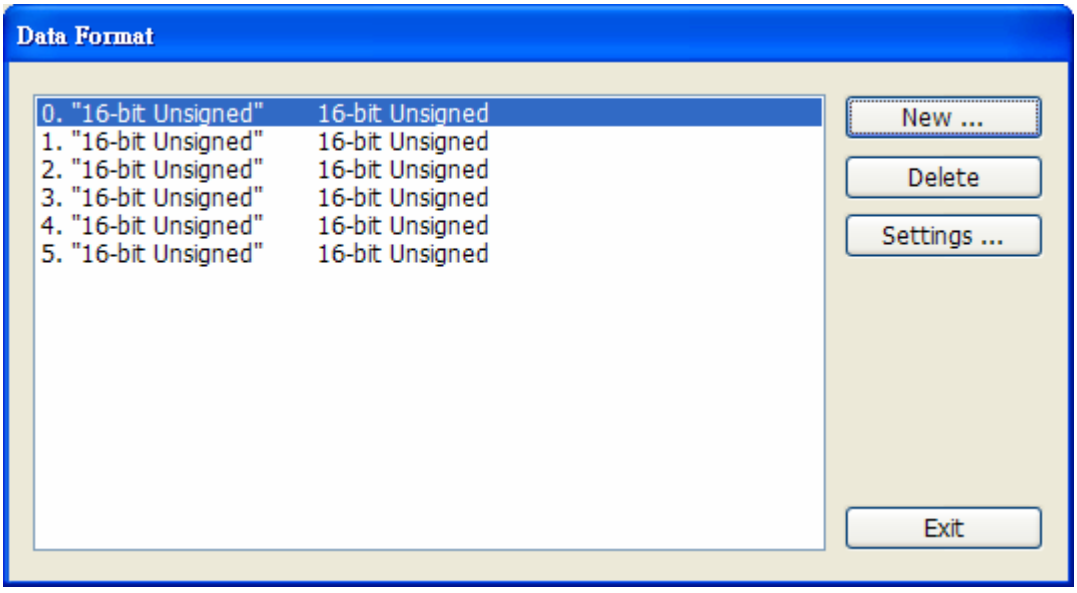
The Data sampling dialogue box appears as below.





Step 1. Set the [Time based] and select 1 second in [Sampling time interval]

Step 2. Use LW0 in [Read address] and click [Data Format] to create 6 words as illustration below.

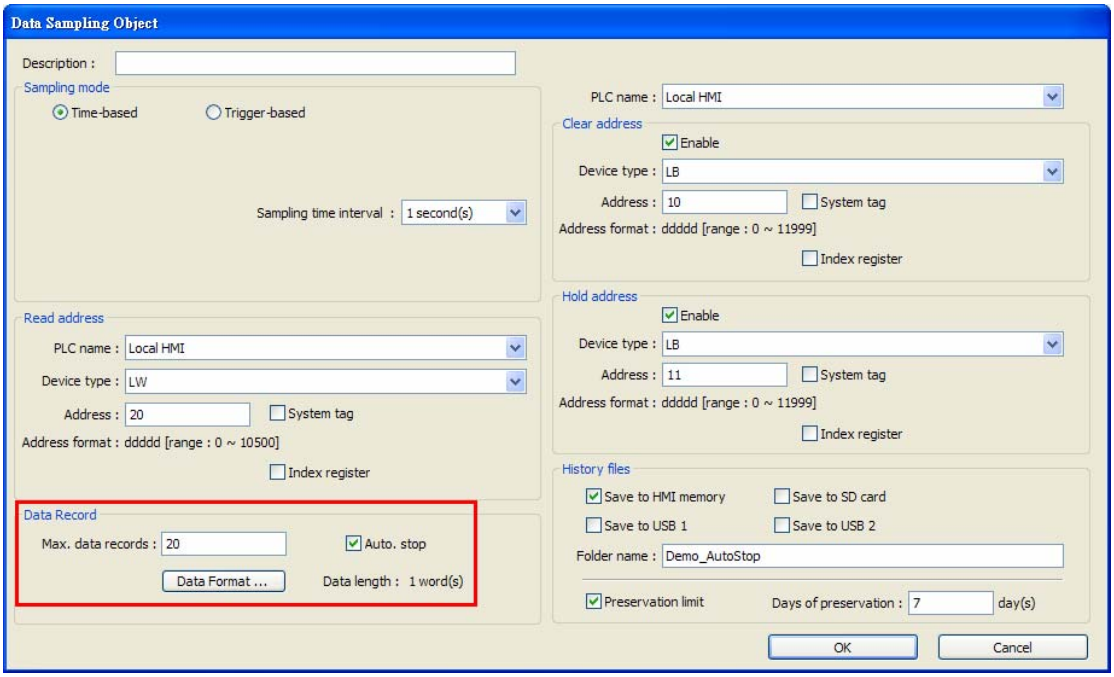


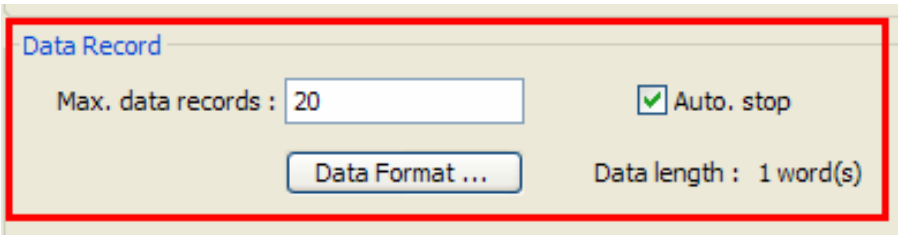
Step 3. Use LB0 in [Clear address] and LB1 in [Hold address]

Step 4. Select [Save to HMI memory], set folder name [Demo_Data] and

set 7 days for preservation.

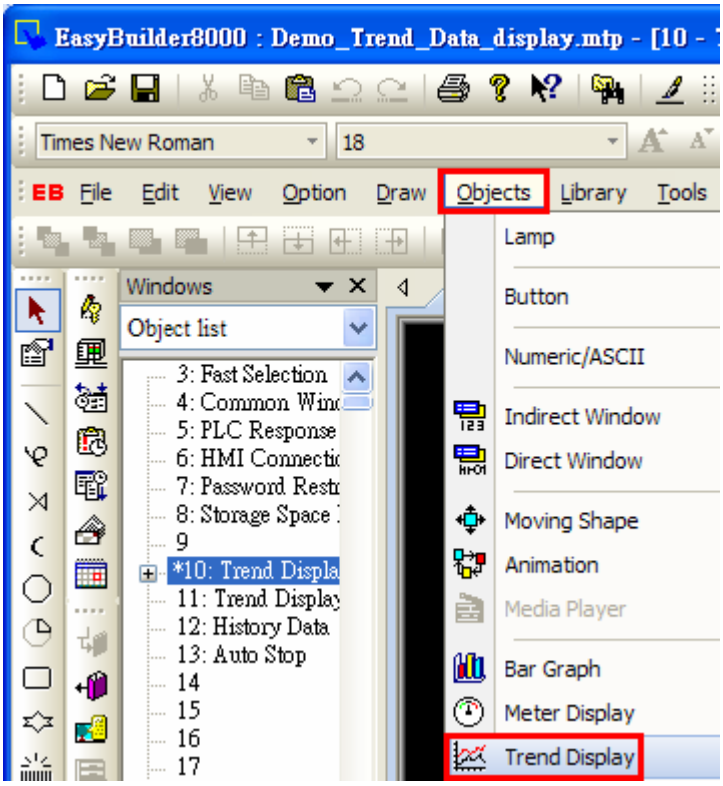
For Trend display – auto. stop, set as illustrated below.





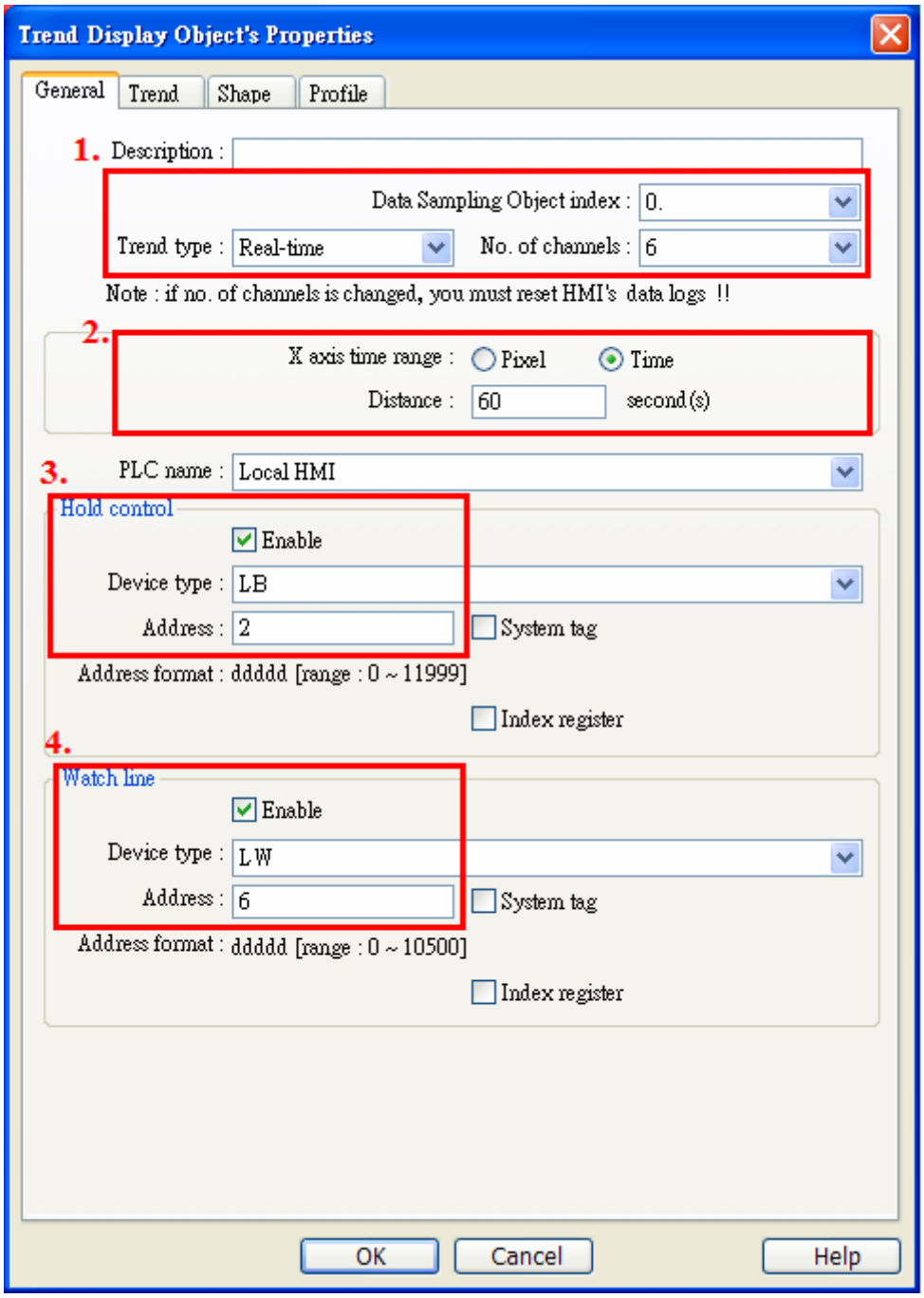
Set 20 in [Max. data records], the data will stop sampling when reaching 20 points.

2-2. Create a Trend display – real time in the Objects area in window 10.



The Trend Display dialogue box appears as below.

- In General of Trend Display settings



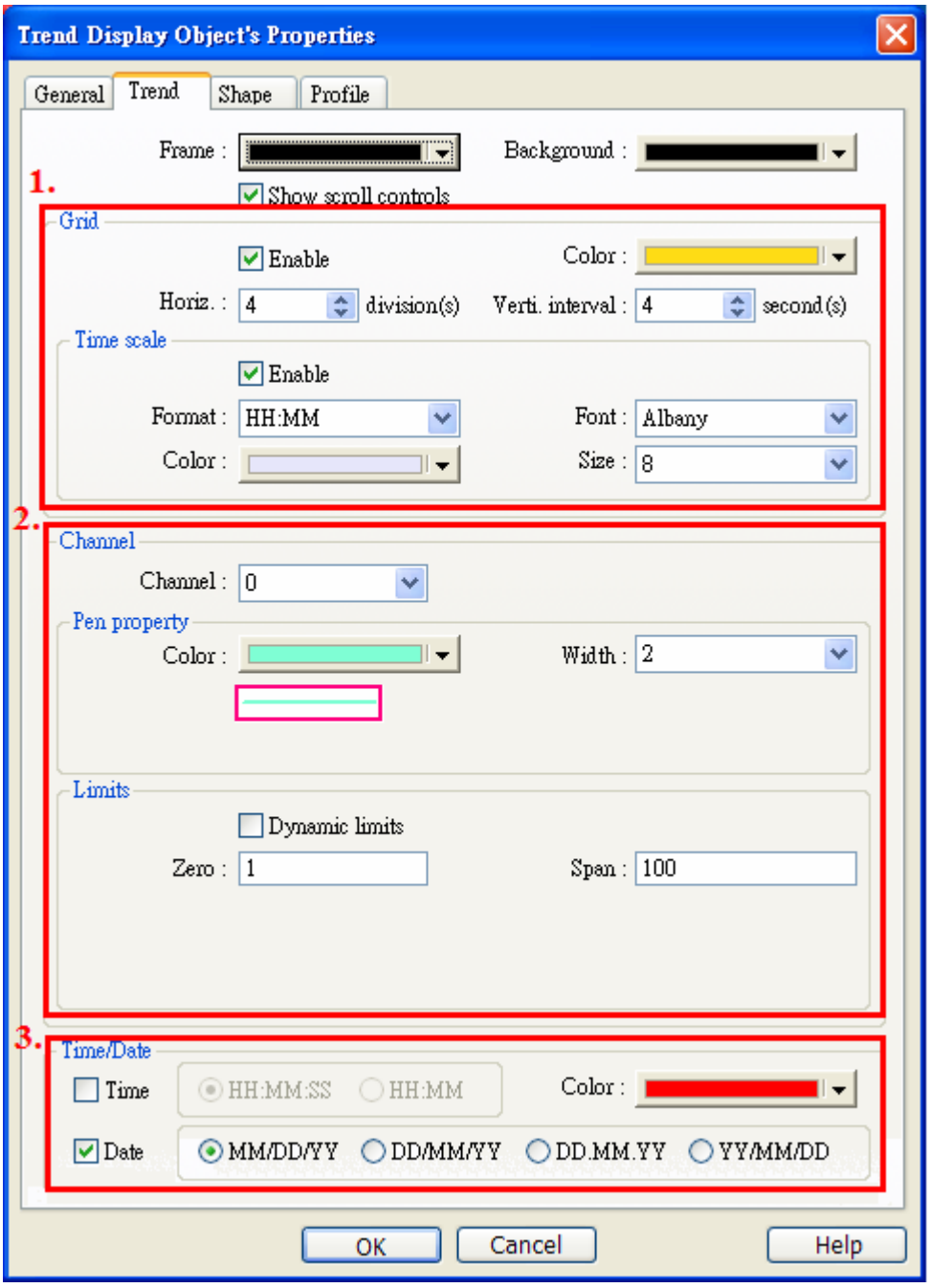
Step 1. Select [Real-time] in [Trend type] and 6 channels in [No. of channels]

Step 2. Click [Time] and set 60 seconds in [Distance]

Step 3. LB2 in [Hold control]

Step 4. LW6 in [Watch line]

- Select [Trend] tab and settings as below



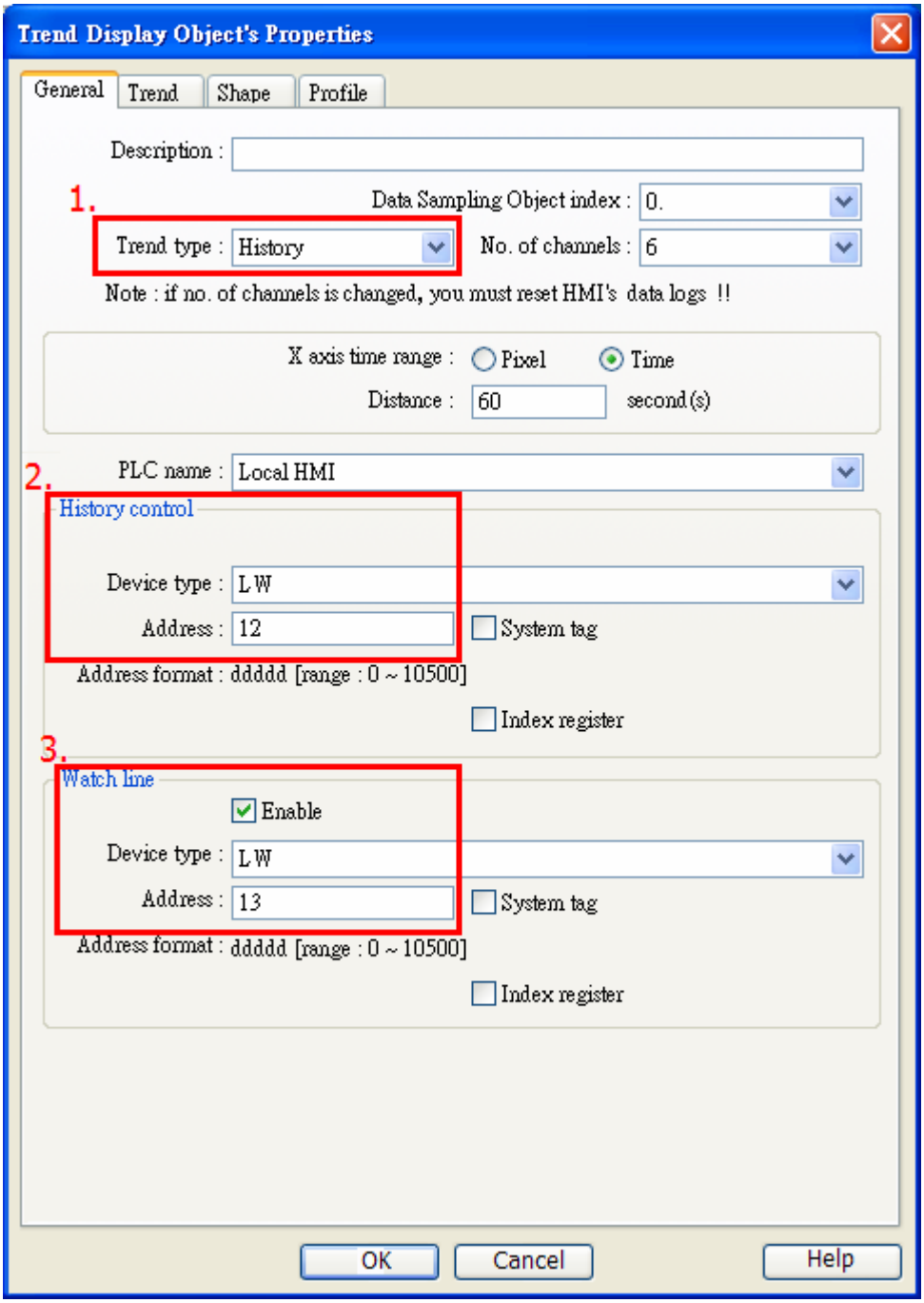
Step 1. Enable Grid and Time scale

Step 2. Set the Pen property and Limits for each channel, users are able to select channel no. to set the content.

Step 3. Select Date or Time display in the graph.

2-3. Create a Trend display – History type in the Objects area in window 11.

- In General of Trend Display settings

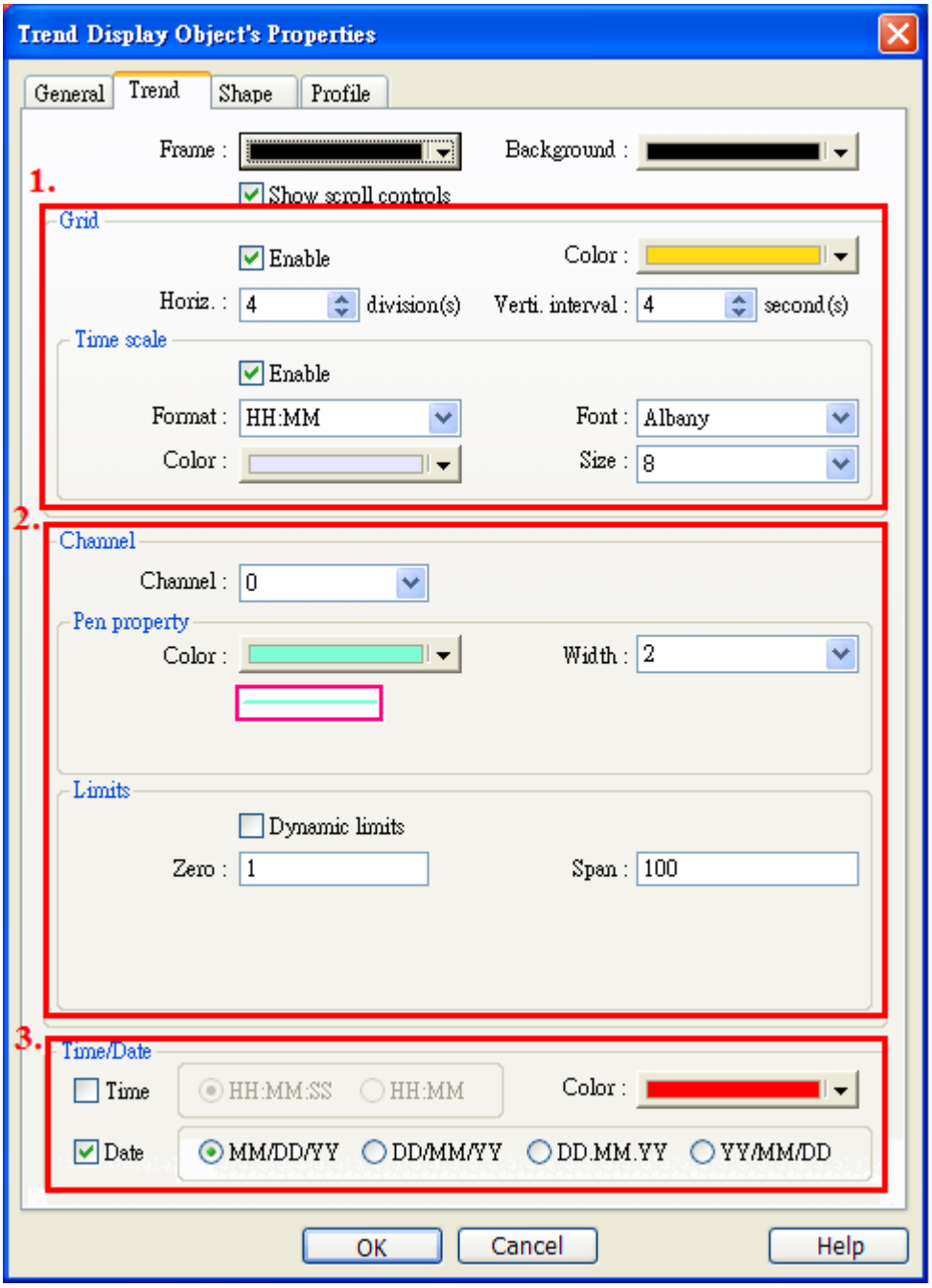


Step 1. Select History in [Trend type]

Step 2. Set LW12 in History control.

Step 3. Set LW13 in Watch line.

- Select [Trend] tab and settings as below

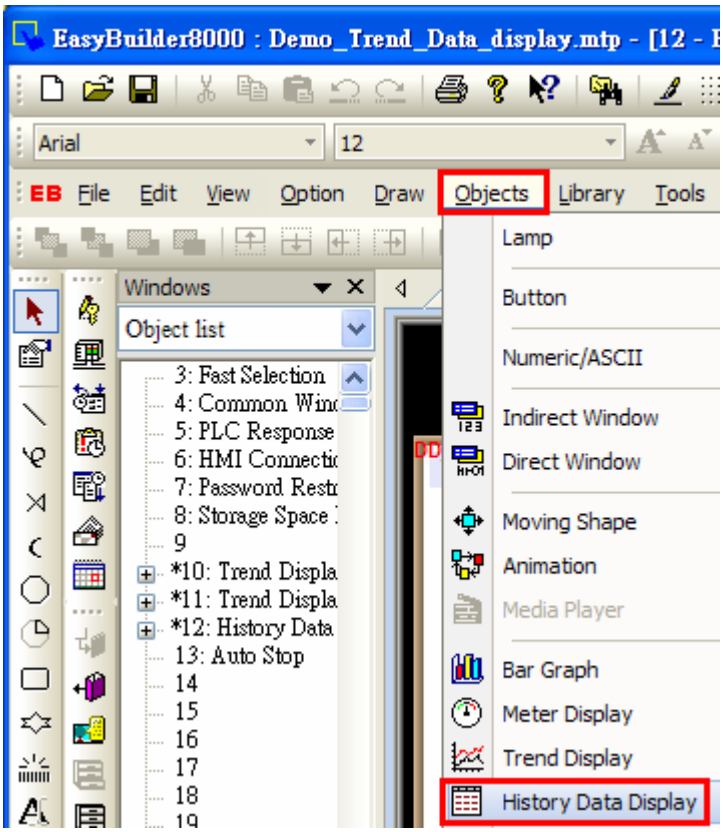


Step 1. Enable Grid and Time scale

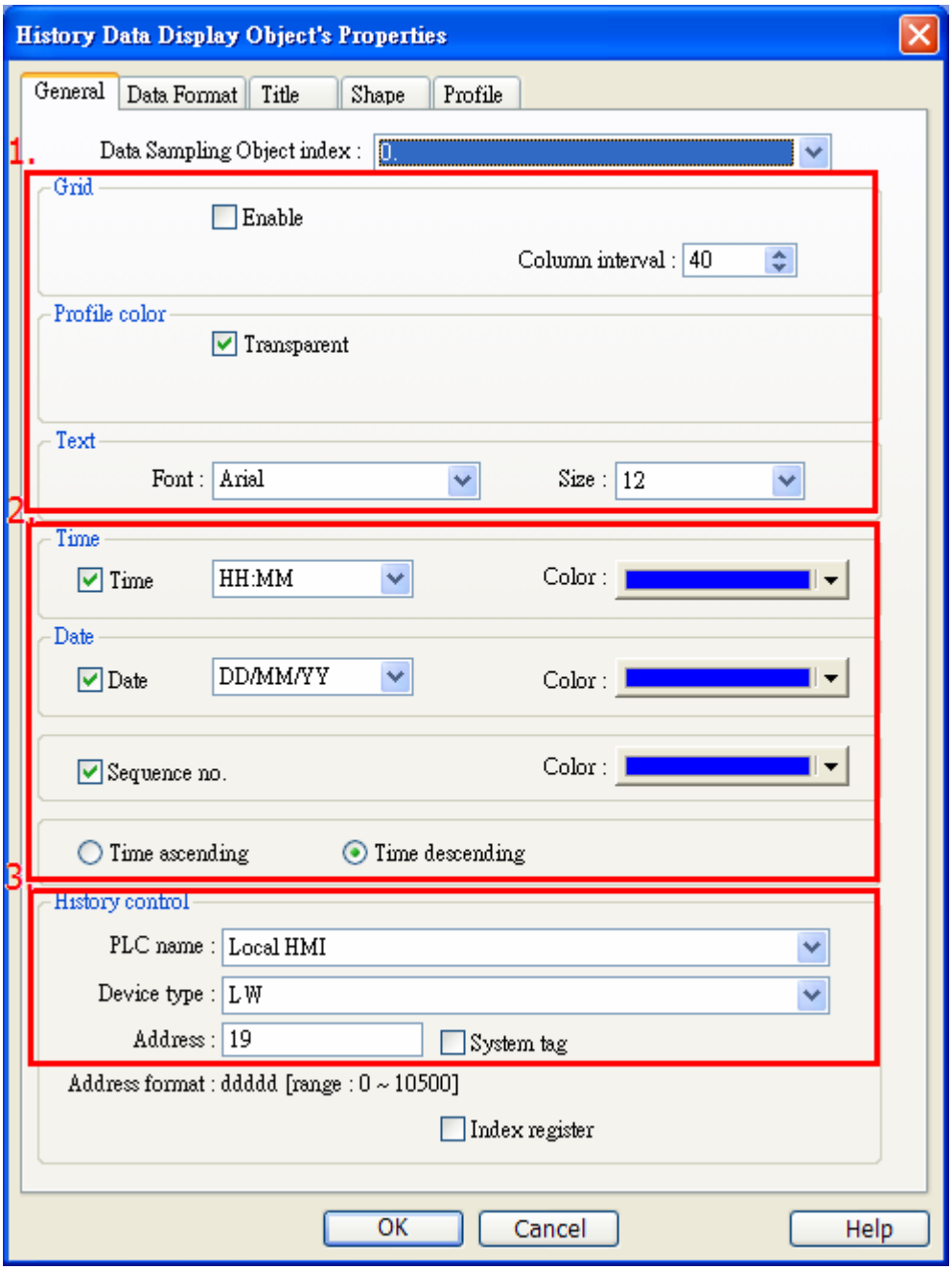
Step 2. Set the Pen property and Limits for each channel, users are able to select channel no. to set the content.

Step 3. Select Date or Time display in the graph.

2-4. Create a History Data Display object– History type in the Objects area in window 12.



- In General of History Data Display settings

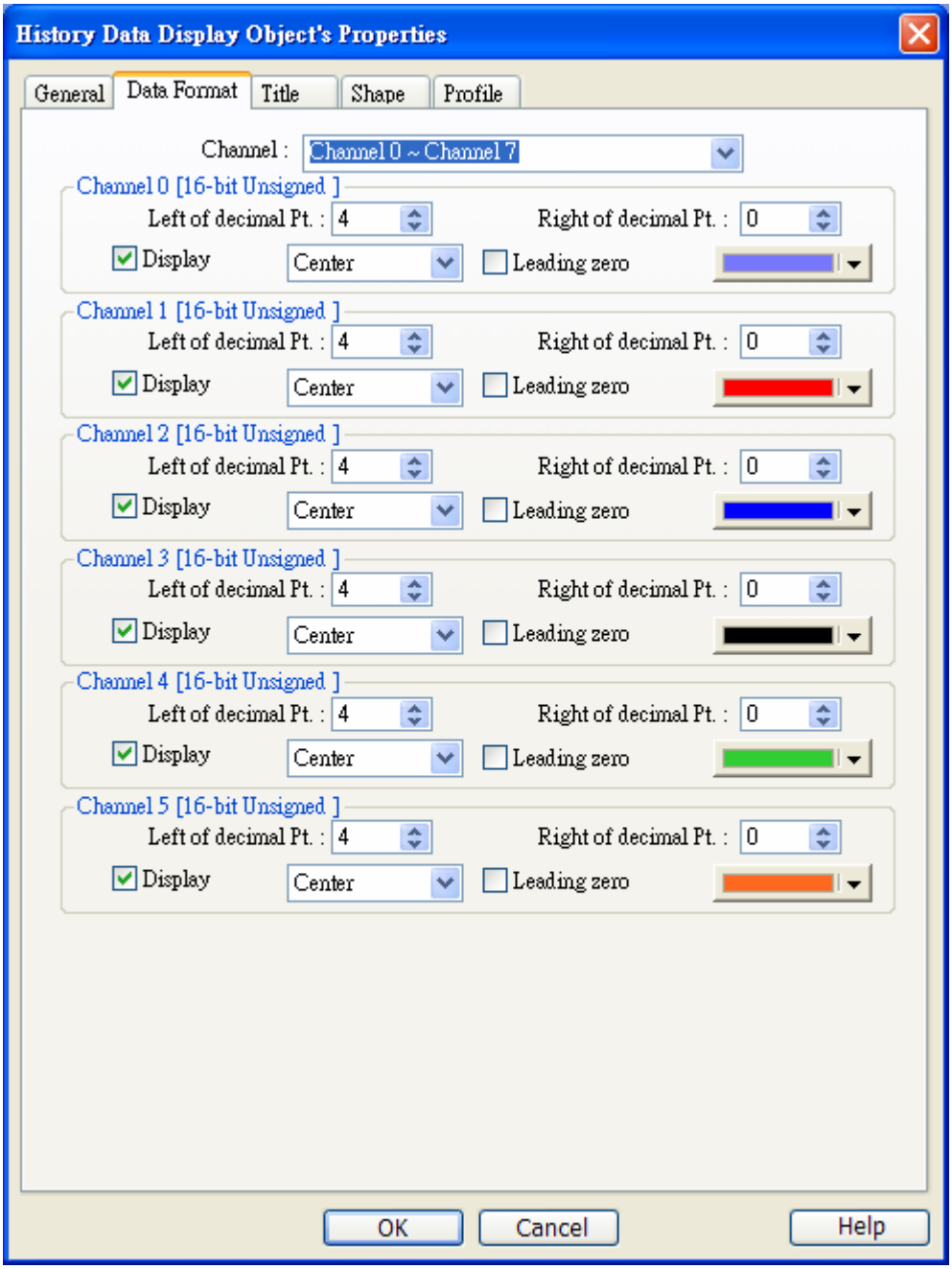


Step 1. Set 40 in [column interval] and Transparent in [Profile color], the text is using Arial font and 12 font size.

Step 2. Select [Time] and [Date] of data sampling and format.
Select [Time descending] to put the latest data on top.

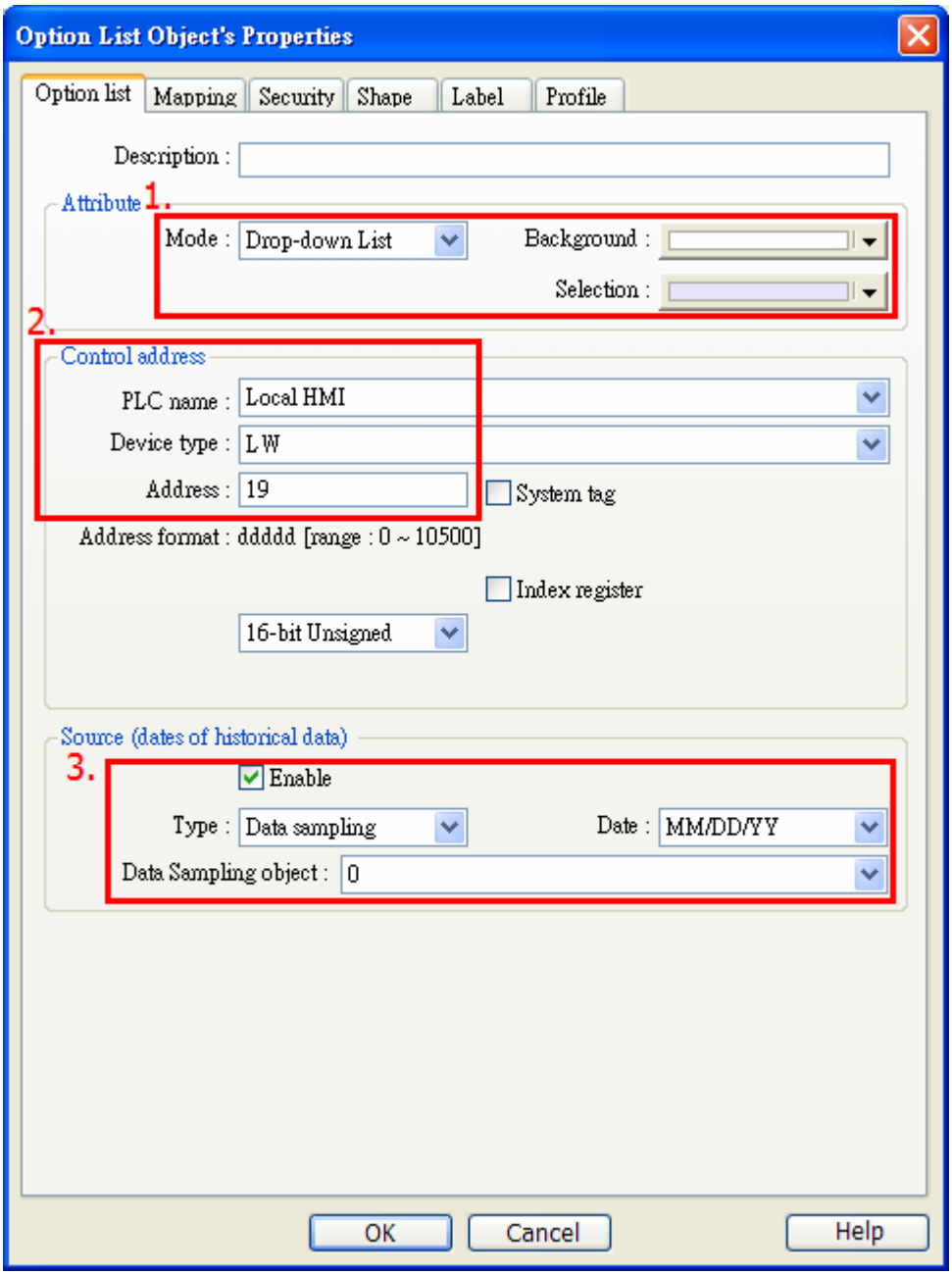
Step 3. Use LW19 in [History control]

- Select [Data Format] tab and settings as below



Enable channel 0 ~ channel 5 and select the data format for each channel.

Use an option list to select dates of historical data, setting page illustration is shown below.



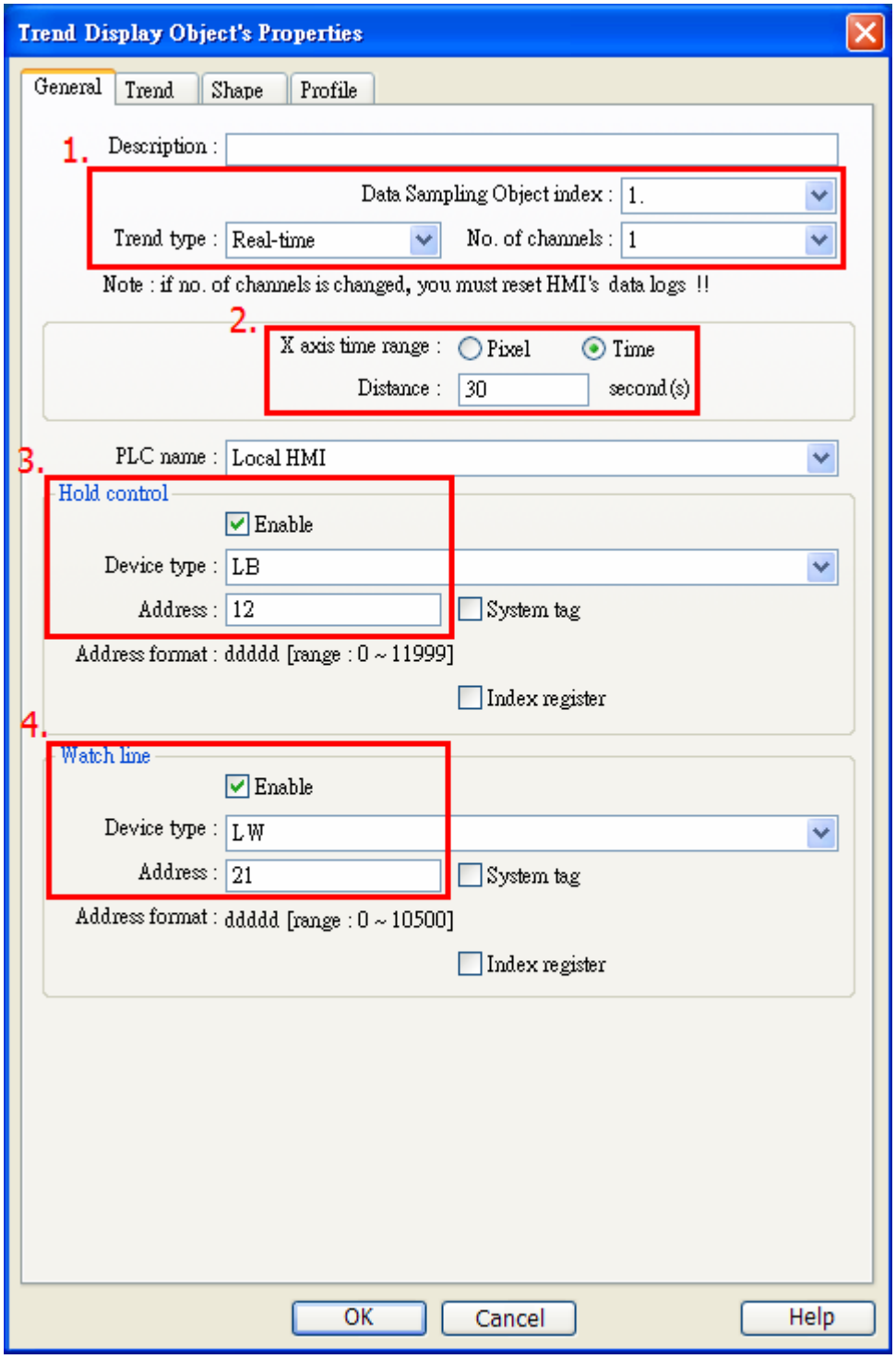
Step 1. Select [Drop-down List] and color of Background and selection in [Attribute]

Step 2. Use LW19 in [Control address]

Step 3. Select Data sampling 0 in [Source]

2-5. Create a History Data Display object– History type in the Objects area in Window 13.

- In General of Trend Display settings

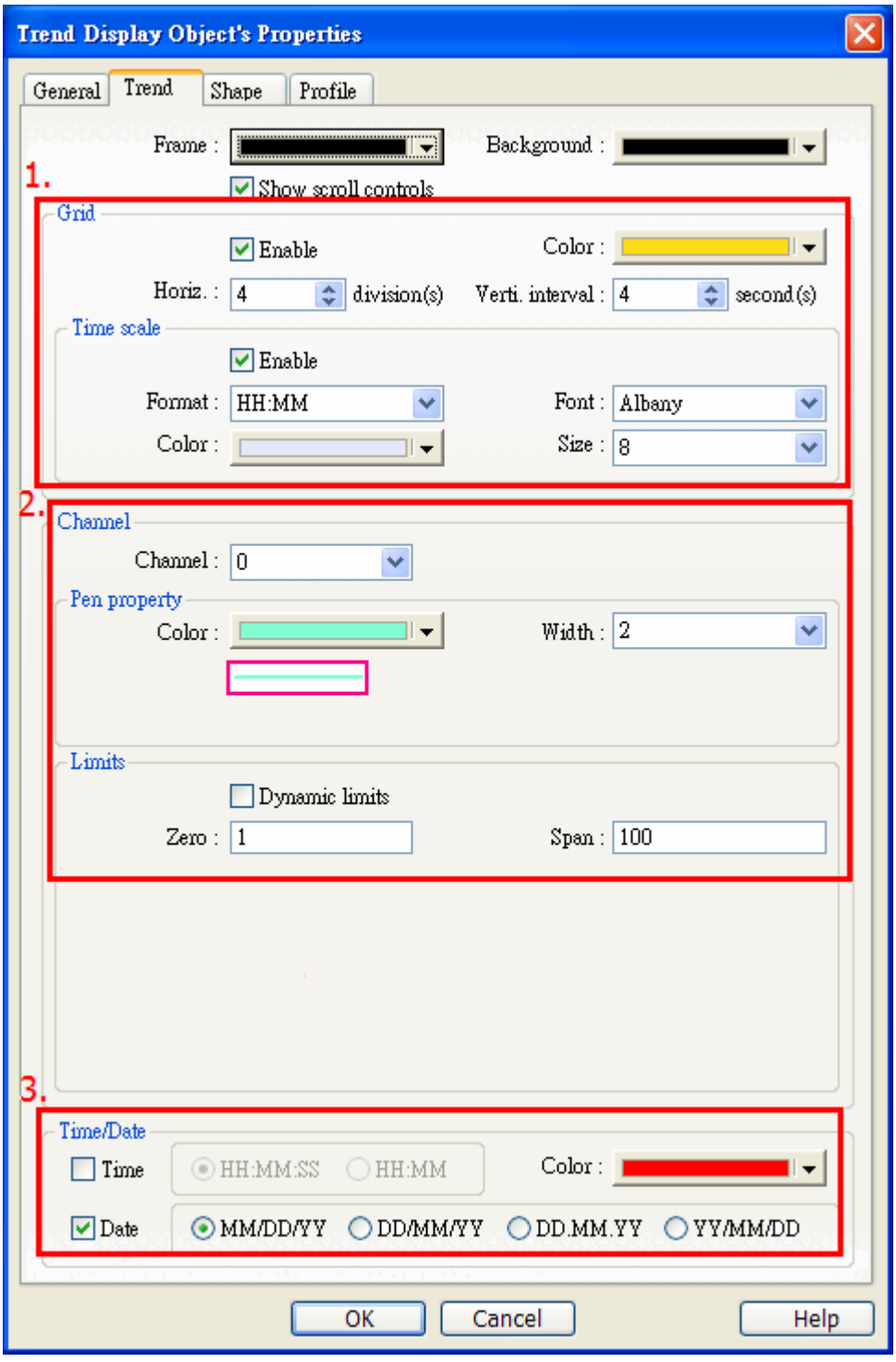


Step 1. Click Real-time in [Trend type], select 1 for [Data Sampling Object index] and 1 in [No. of channels]

Step 2. 30 seconds in [Distance] and Time in [X axis time range]

Step 3. Set 12 in Hold control.

Step 4. Set LW21 in Watch line.



Step 1. Enable Grid and Time scale

Step 2. Set the Pen property and Limits for each channel, users are able to select channel no. to set the content.

Step 3. Select Date or Time display in the graph.

3. Addresses

The addresses used in this demo project are listed below. Please change these addresses according to your system.

Addresses		Object's ID	Detail
Data sampling 0 for window 10,11,12			
Word	LW0 ~ LW5		Data sampling read addresses
Bit	LB0		Clear address
	LB1		Hold address
Data sampling 1 for window 13			
Word	LW20		Data sampling read addresses
Bit	LB10		Clear address
	LB11		Hold address
Window 10			
Word	LW0~LW5	SW_0~SW_5	Data sampling
	LW6~LW11	NE_0~NE_5	Point of watch line for channel 0~channel 5
Bit	LB0	TS_0	Clear data
	LB1	TS_1	Halt data sampling
	LB2	TW_2	Pause data
Window 11			
Word	LW6~LW11	NE_0~NE_5	Point of watch line for channel 0~channel 5
Option List	LW12	OL_0	For selecting historical dates
Window 12			
Option List	LW19	OL_0	For selecting historical dates
Window 13			
Word	LW20	SW_0	Data sampling