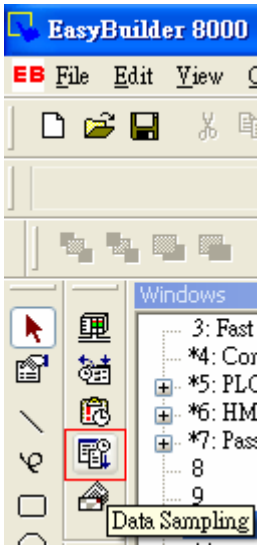
Chapter 8 Data Sampling

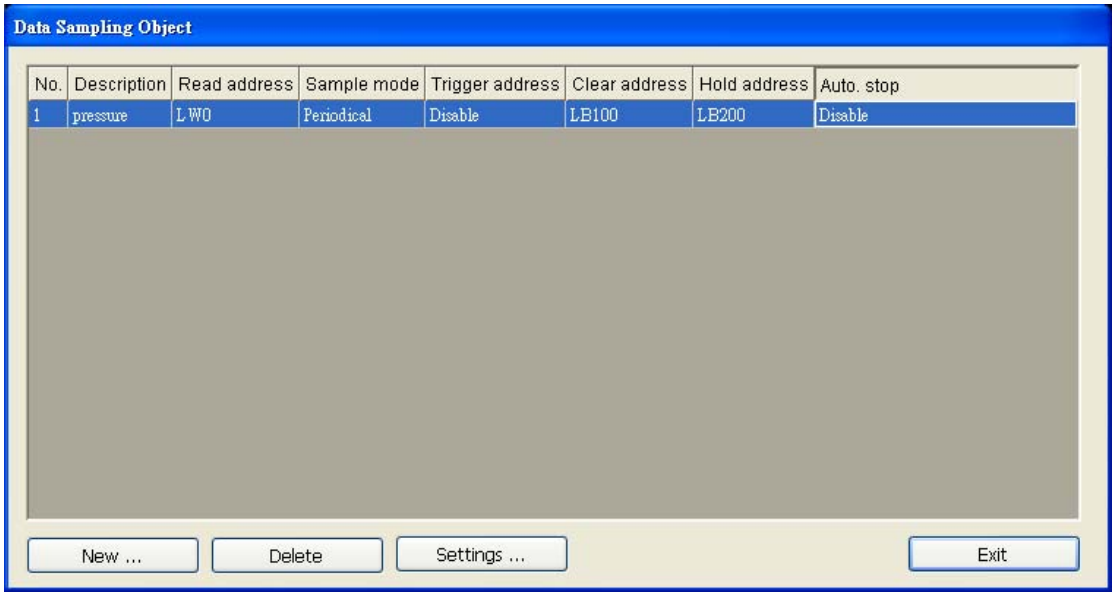
“Data Sampling” identifies the method of data sampling, including sampling time and sampling location. Besides, EB8000 saves the obtained sample data as Storage location\filename \ yyyymmdd.dtl, the storage location might be HMI, CF card, USB1 or USB2, format to the assigned location where filename is defined by users and yyyymmdd is the built time setting by system.
EB8000 provides system tag for manage the data sampling.

[LB 9025] delete the oldest data sampling file (set ON)
[LB 9026] delete all data sampling files (set ON)
[LB 9027] refresh data sampling information (set ON)
[LW 9063] no. of data sampling files
[LW 9064] size of data sampling files

1. Create a new defined of data sampling



Before using Trend display to view the content of data sampling, the method of data sampling has to be defined. Click [Data Sampling] from toolbar and then Data Sampling Object dialog appears as below:



[New …]

Create a new “data sampling” definition.

[Delete]

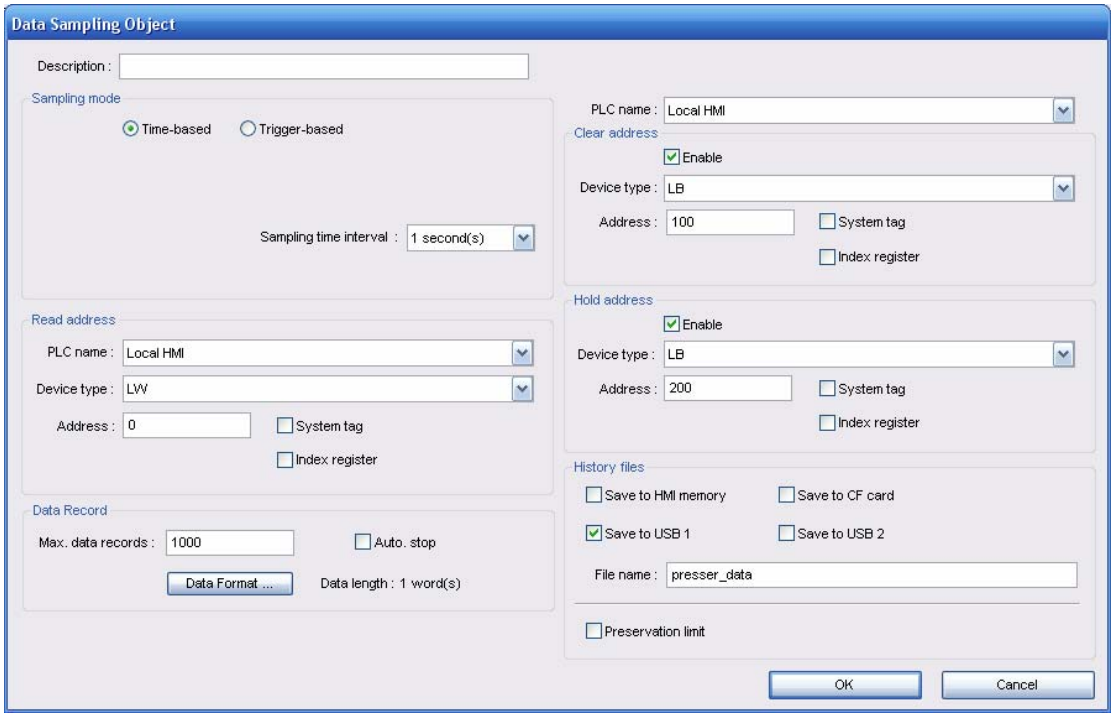
Delete the assigned “data sampling”.

[Settings …]

Modify and set the “data sampling” definition

2. Create a new Data Sampling

Click [New…] and the Data Sampling Object setting dialog appears as below:



Read address

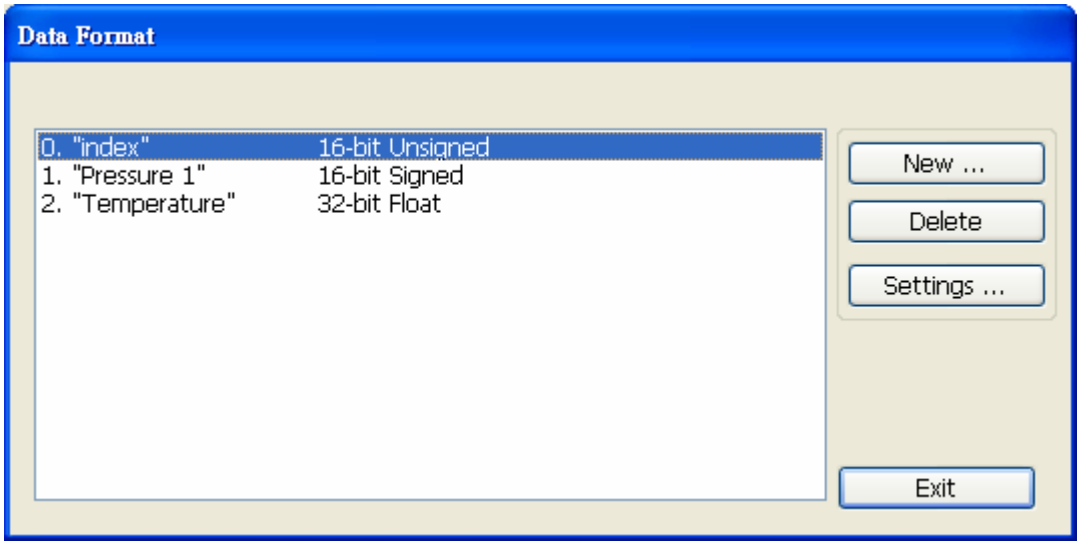
[Max. data records]

Max data records which can be saved to a data sampling definition (the limitation is 86400 records).

[Data Format …]

The format of a data sampling: A data sampling may include more than one record and EB8000 is able to retrieve different formats of records at the same time. After clicking [Data Format], users can use “Data Format” dialog to define the content of a record. Take the following as an example, users define three set of data: “Index” (16-bit Unsigned)、“Pressure 1”(16-bit Signed) and “Temperature”(32-bit Float) respectively and 4 words in total length. In other words, EB8000 retrieves the length of 4 words as a record starting from the assign address.

Please refer to Parts—General Settings for more details.



Caution:

After executing off-line simulation, if user needs to change data format, please delete data log file in the C:\EB8000\datalog and then running off-line simulation again.

[PLC name]

Select the target PLC of data sampling.

[Clear address]

If the status of the assigned address is ON, obtained data will be cleared and the number of data sampling will be set to zero.

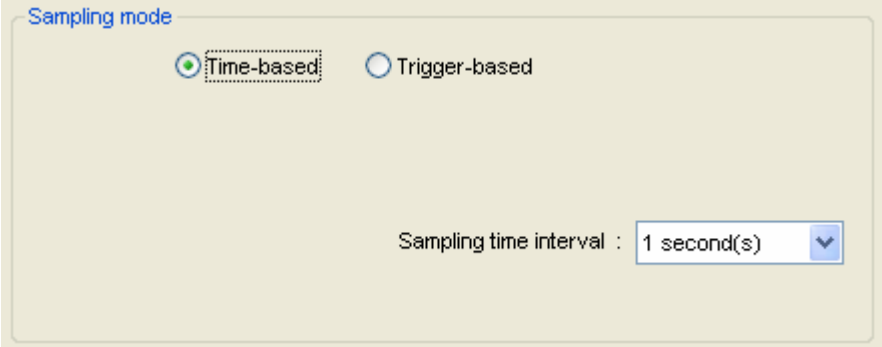
Caution: the clear address is used for “real time” in trend display only.

[Hold address]

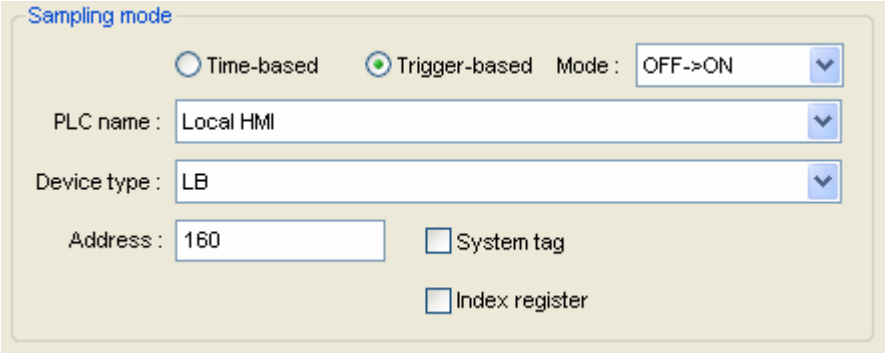
If the status of the assigned address is ON, sampling will be paused until the status of assigned address returns to OFF. Please refer to Parts—General Settings for other details.

Sample mode

EB8000 provides two method of sampling: “Time-based” and “Trigger-based”. If “Time-based” mode is selected, EB8000 samples the data by a fixed time frequency. Users have to set the “sampling time interval”.



If “Trigger-based” mode is selected, users can use a specific address status to trigger the data sampling.



[Mode]

Mode determines the condition to trigger the data sampling. Multiple choices are as follows:

“OFF->ON”	If the assigned address status is from OFF to ON, data sampling is triggered.
“ON->OFF”	If the assigned address status is from ON to OFF, data sampling is triggered.
“ON<->OFF”	If the assigned address status is changed, data sampling is triggered.

Please refer to Parts—General Settings for more details.

[Auto stop]
When the number of obtained data is equal to [Max. data records], if the Auto stop option is selected, data sampling will stop automatically.
Otherwise the trend display, real time mode, will delete old record and add in new data for display. If trend display is history mode, the data will keep display.

History files
History files assigns the save location of data sampling record. But when users do the simulation on PC, data is saved to data log subdirectory, the same subdirectory as Easy Builder 8000.exe.

[Save to HMI memory]
Save the sampling to MT8000 display.
Caution: The data will save in storage device when data up to 4kb, if less then 4kb, user can use LB-9034 to force saving.

[Save to CF card]
Save the sampling to CF card.

[Save to USB stick 1]
Save the sampling to USB stick 1. The USB stick numbering rule is: the stick inserted to the USB interface in the first place is numbered 1, next is numbered 2 and the last is numbered 3. There’s no relation with the interface position.

[Save to USB stick 2]
Save the sampling to USB stick 2.

[File name]
Set the file name for save the data in.

Set the file name of sampling and then EB8000 adds the time mark following under file name folder. As below picture, the preservation time is two days, that means USB1 memory stick will keep yesterday and the day before yesterday's data.
For example,
Today is 7/1, the HMI will keep 6/30, 6/29 data in the memory and 6/28 will be canceled from memory.