

WEINTEK LABS., INC.

Notes on Upgrading EasyBuilder Pro Project

This manual explains differences in functions between non-cMT and cMT/cMT X projects, and how users can configure EasyBuilder Pro when upgrading to cMT/cMT X project.

Notes on Upgrading EasyBuilder Pro Project

This manual explains the differences in functions users may find after upgrading from an eMT/iE/XE project to a cMT/cMT X project, and how users can adjust the settings in response.

1.	Overview	1
2.	Data Sampling	2
2.1.	History File	2
2.2.	History File Format	3
2.3.	Display Objects	4
2.3.1.	Trend Display	4
2.3.2.	History Data Display	5
2.3.3.	Option List – Dates of Historical Data	5
2.4.	File Saving Mechanism	6
2.5.	System Registers Related to Data Sampling	6
2.6.	Features Removed without Bringing Impact	7
2.6.1.	Data Sampling	7
2.6.2.	Max. data records (real-time mode) and clear real-time data address	7
2.6.3.	System Registers	8
2.7.	Features Not Supported on cMT/cMT X Series Models	9
2.7.1.	Trend Display	9
2.7.2.	Circular Trend Display	9
3.	Event Log	10
3.1.	History File	10
3.2.	History File Format	11
3.3.	Display Objects	12
3.3.1.	Event Display – History Mode	12
3.4.	Event Log Messages	13
3.5.	System Registers Related to Event Display	14
3.6.	Features Removed without Bringing Impact	15
3.6.1.	Font in Event Display	15
3.6.2.	System Registers	15
3.7.	Features Not Supported on cMT/cMT X Series Models	16
3.7.1.	Serial Printer Settings	16
3.7.2.	Alarm Display and Event Display – Empty Warning	16
4.	Overlapping Objects	17
4.1.	Enable Touch Area	17
4.2.	Find Overlapping Objects	17
4.3.	Convert to Combo Button	18

4.4.	Tips on Object Placement	19
5.	User Password and Security	20
5.1.	General Mode	20
5.2.	Enhanced Security Mode	22
6.	Window Related.....	24
6.1.	Function Key – Popup Window	24
6.2.	Fast Selection Window.....	24
7.	Remote Printing / Backup Server.....	26
7.1.	Printer Server	26
7.2.	Backup Server	26
7.3.	Demonstration	28
8.	Features Not Supported on cMT/cMT X Series Models	29
8.1.	Objects	29
8.1.1.	Numeric	29
8.1.2.	Function Key	29
8.1.3.	Option List.....	30
8.1.4.	Pie Chart	30
8.1.5.	Picture View.....	31
8.1.6.	PLC Control	31
8.1.7.	Contacts Editor	32
8.2.	Data / History	33
8.2.1.	Recipe View	33
8.2.2.	Backup	33
8.3.	Project File	34
8.3.1.	Convert labels to bitmap images	34
8.3.2.	Macro.....	34

1. Overview

In Easy Builder Pro, upgrading from an eMT/iE/XE project (.emtp) to a cMT/cMT X project (.cmt) is as simple as selecting a new model in System Parameter Settings. In a cMT/cMT X project, most of the features are retained, but certain features may be removed or behave differently.

This user manual explains these differences and how users can configure the project when upgrading to cMT/cMT X Series models.

The following table shows the cMT/cMT X features that behave differently from non-cMT models.

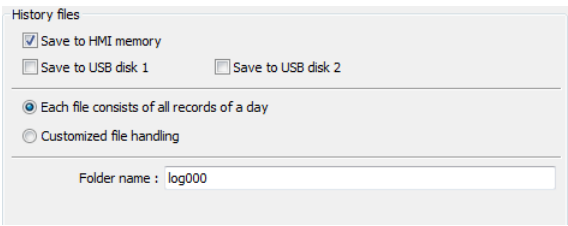
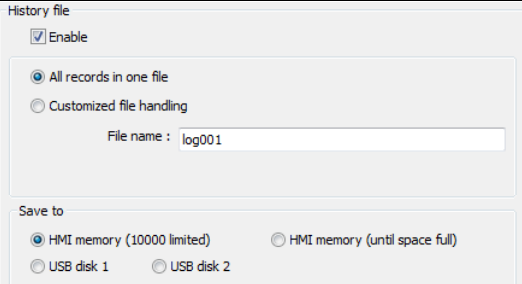
Data Sampling
<ol style="list-style-type: none"> 1. Number of historical files: a file a day → all data in one file 2. Format of historical files: .dtl → .db 3. Display objects: Supports spacing adjustment, dynamic control of Y axis and main axis, and changing time range by tapping the Option Button (gear icon) of the object on HMI. 4. Circular Trend Display is not supported.
Event Log
<ol style="list-style-type: none"> 1. Number of historical files: a file a day → all data in one file (Customized File Handling is not available). 2. Format of historical files: .evt → .db 3. Display objects: Displays the triggered / acknowledged / returned to normal states of an event in a different manner. Time range can be changed by tapping the Option Button (gear icon) of the object on HMI. 4. Serial printer related features are not supported.
Combo Button
<ol style="list-style-type: none"> 1. Button / Switch: A Combo Button can be used to trigger a sequence of actions. 2. Overlapped objects: Only the object on the top layer can be triggered. Please take this into consideration when overlapping multiple objects.
Password and Security
<ol style="list-style-type: none"> 1. General Mode: This mode is retained after upgrading to a cMT/cMT X project. Remote users cannot log in under this mode. 2. Enhanced Security Mode: The designated LW address is retained after upgrading to a cMT/cMT X project. Remote users cannot log in when the control addresses are LW addresses.
Windows
<ol style="list-style-type: none"> 1. Function Key – Popup Window: Popup position setting has changed. 2. Fast Selection Window: Not supported on cMT/cMT X Series but using a Direct Window can achieve the same effect.
Remote Printing / Backup Server
<ol style="list-style-type: none"> 1. Printer Server: cMT/cMT X can directly connect to Ethernet printers to send print jobs. 2. Uploading screen hardcopy: After saving a file to an external device using a PLC Control object, the file can be backed up to PC using File Transfer feature. 3. Backup Server: Files can be backed up to PC using File Transfer feature. When data is synchronized to database, it can be backed up to PC using EasyConverter.

2. Data Sampling

This chapter explains the differences in Data Sampling related settings that exist after upgrading from an eMT/iE/XE project to a cMT/cMT X project, and how users can adjust the settings to achieve the same effect as in an eMT/iE/XE project. This chapter also explains the features that are not supported after upgrade.

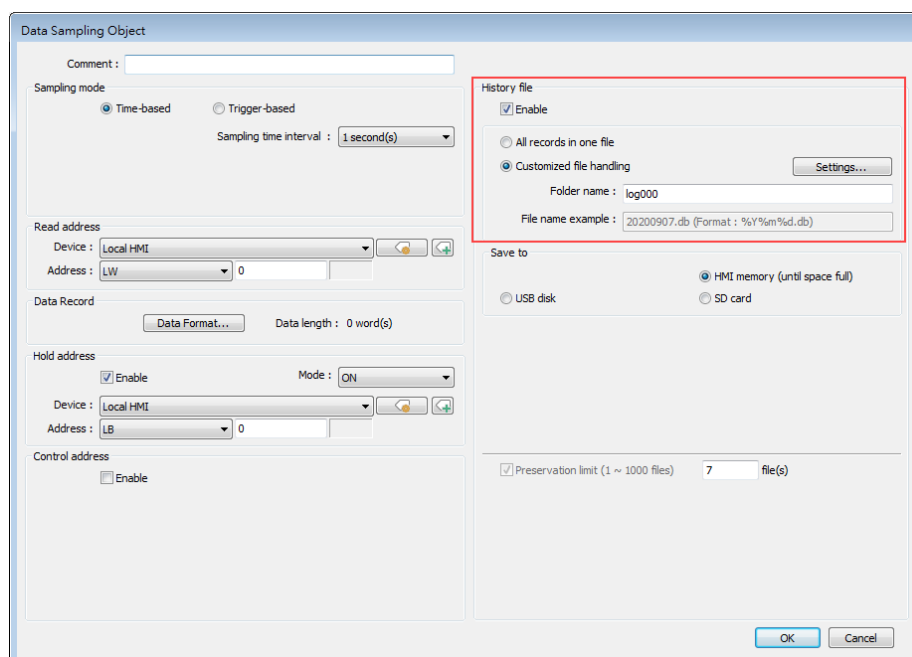
2.1. History File

In an eMT/iE/XE project, historical files are saved in a way that each file contains all records of a day. In a cMT/cMT X project, all records are saved into one file.

eMT/iE/XE Series	cMT/cMT X Series
	

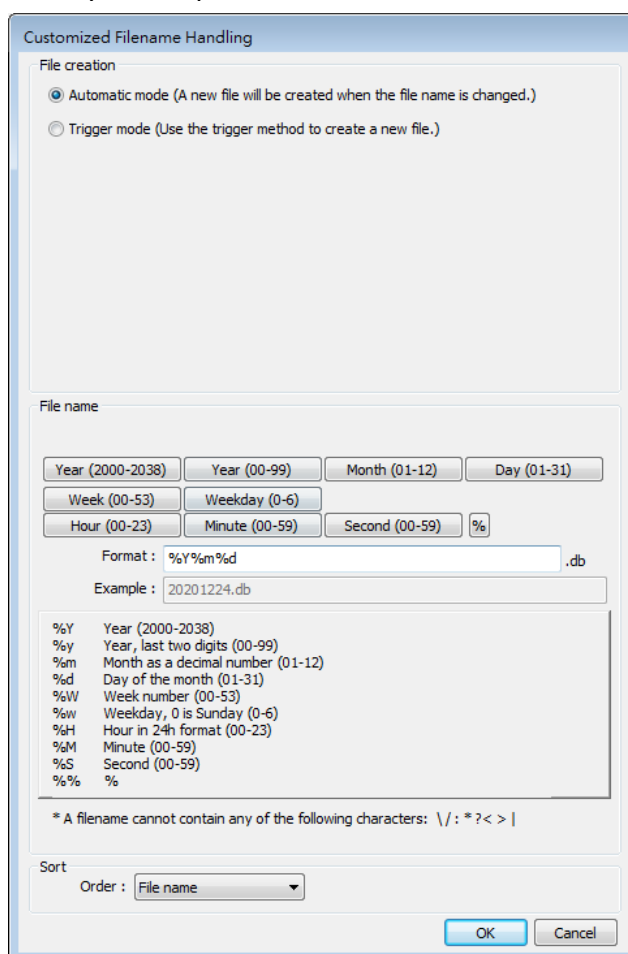
To make cMT/cMT X Series save historical files in a way that each file contains all records of a day, please follow the steps below.

Step 1. Set History File setting to [Customized file handling].

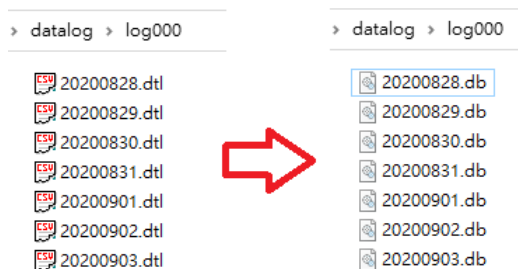


Step 2. For the setting of Customized File Handling, use %Y%m%d.db as file name format. This

saves data of each day into separate files.



Step 3. After conversion, one historical file is generated a day.

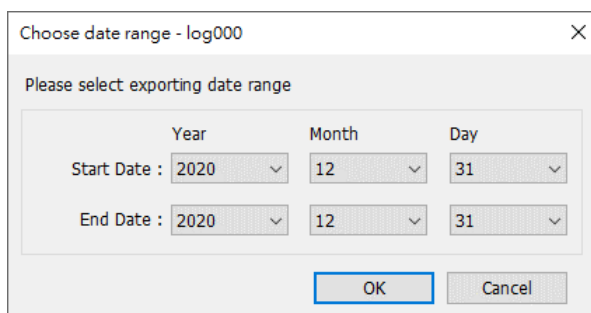


2.2. History File Format

In an eMT/iE/XE project, historical files are saved as .dtl, while in a cMT/cMT X project, historical files are saved as .db. Both formats can be opened using EasyConverter and exported in .csv format.

eMT/iE/XE Series	cMT/cMT X Series
20200829.dtl 20200830.dtl 20200831.dtl 20200901.dtl 20200902.dtl 20200903.dtl	log000.db

When opening cMT/cMT X's .db file using EasyConverter, different from opening a .dtl file, a window for selecting date range appears.



2.3. Display Objects

Data logs may be displayed using Trend Display, Circular Trend Display, and History Data Display objects. However, please note that Circular Trend Display object is not supported on cMT/cMT X Series.

2.3.1. Trend Display

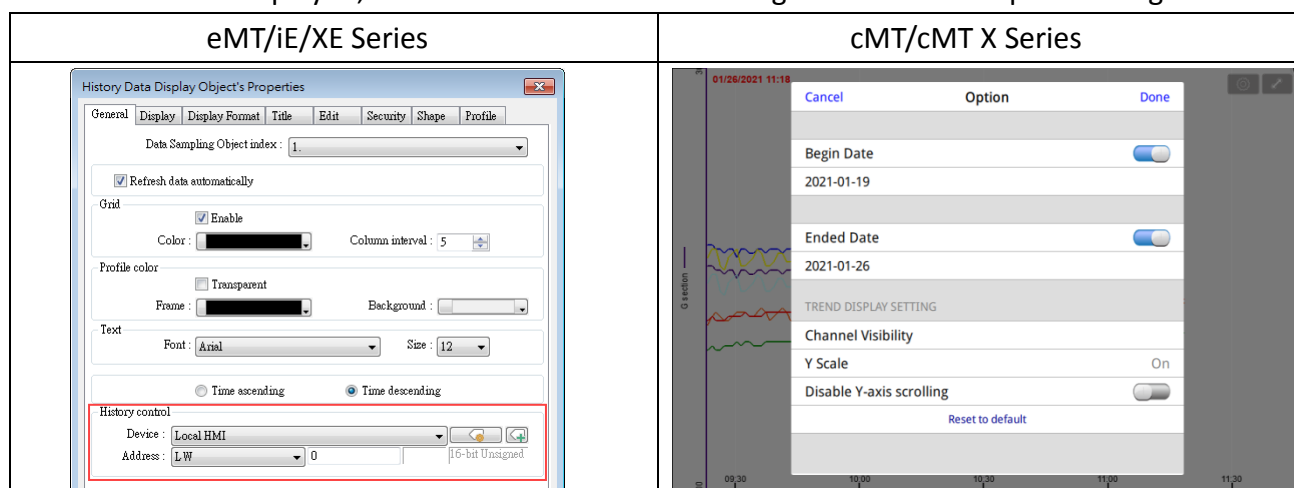
Settings relating to dynamic spacing and dynamic control of Y axis / main axis in eMT/iE/XE project have been removed for cMT/cMT X projects because on a cMT/cMT X model, users can do the same thing with the built-in UI buttons.

eMT/iE/XE Series	cMT/cMT X Series

eMT/iE/XE Series	cMT/cMT X Series

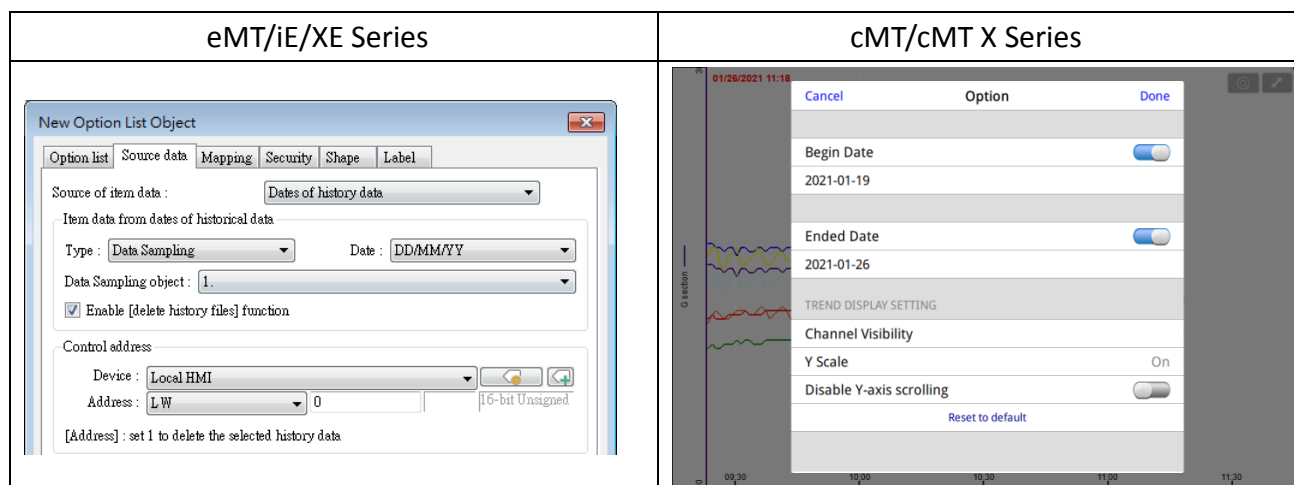
2.3.2. History Data Display

In an eMT/IE/XE project, a History Control address can be used for selecting the file to be displayed in a History Data Display object. In a cMT/cMT X project, settings relating to designating the History Control address have been removed because on a cMT/cMT X model, all data will be displayed, and users can select a time range in the built-in option dialog.



2.3.3. Option List – Dates of Historical Data

When an Option List is used to select a date of historical data, the Option List will not be effective after upgrading to cMT/cMT X project. Instead, please select a time range by tapping in the built-in option dialog of a Trend Display or History Data Display object on a cMT/cMT X model.



2.4. File Saving Mechanism

In an eMT/iE/XE project, the data log is saved with the specified filename soon after data is sampled. In a cMT/cMT X project, the data log is temporarily saved in HMI memory, and is only made available after synchronization or filename changes.

Enable [Auto sync. periodically] so that data can be synchronized to the designated location. The recommended setting is 5 minutes.

History file

☒ Enable

☐ All records in one file

☒ Customized file handling Settings...

Folder name : log000

File name example : 20210126.db (Format : %Y%m%d.db)

Save to

☐ USB disk 1 ☐ USB disk 2 ☒ HMI memory (until space full)

☒ Preservation limit (1 ~ 1000 files) 7 file(s)

☒ Auto sync. periodically 5 minute(s)

2.5. System Registers Related to Data Sampling

When using the following system registers to save or delete Data Sampling files, their behaviors vary between models:

eMT/iE/XE Series: The system registers do not return from ON to OFF.

cMT/cMT X Series: The system registers automatically return from ON to OFF.

These above-mentioned behaviors of these system registers require no actions after upgrading the project.

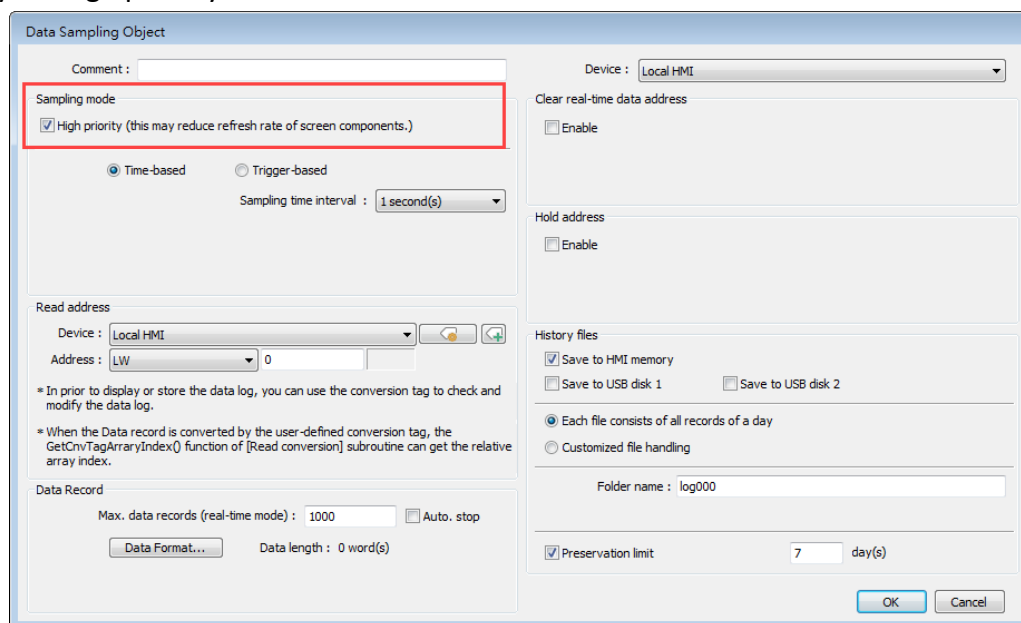
Address	Description
LB-9026	delete all data sampling files on HMI memory (set ON)
LB-9034	save event/data sampling to HMI, USB disk, SD card (set ON)
LB-11950	delete all data sampling files on SD card (set ON)

LB-11953	delete all data sampling files on USB disk 1 (set ON)
LB-11956	delete all data sampling files on USB disk 2 (set ON)

2.6. Features Removed without Bringing Impact

2.6.1. Data Sampling

The option below does not exist in cMT/cMT X project because its sampling mode is always in high priority.



2.6.2. Max. data records (real-time mode) and clear real-time data address

There is no clear distinction of real-time and historical data on cMT/cMT X Series models; therefore, the real-time related settings are removed after upgrading to a cMT/cMT X project.

2.6.3. System Registers

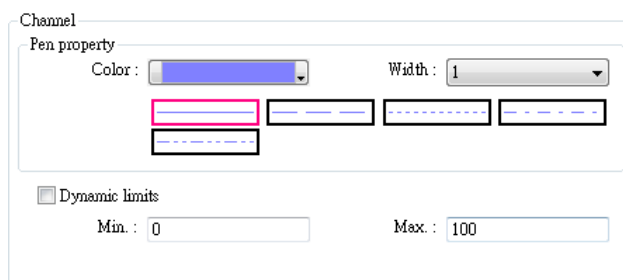
cMT/cMT X Series does not support the use of system registers to delete the earliest file or statistical information about data sampling. If deleting a file to free up memory space is inevitable, set [Preservation limit] to make HMI automatically delete outdated records. The recommended preservation limit is 7~14 days (or files).

Address	Description
LB-9025	delete the earliest data sampling file on HMI memory (set ON)
LB-9027	refresh data sampling information on HMI memory (set ON)
LB-11949	delete the earliest data sampling file on SD card (set ON)
LB-11951	refresh data sampling information on SD card (set ON)
LB-11952	delete the earliest data sampling file on USB disk 1 (set ON)
LB-11954	refresh data sampling information on USB disk 1 (set ON)
LB-11955	delete the earliest data sampling file on USB disk 2 (set ON)
LB-11957	refresh data sampling information on USB disk 2 (set ON)
LW-9063	(16bit) : no. of data sampling files on HMI memory
LW-9064	(32bit) : size of data sampling files on HMI memory (bytes)
LW-10489	(16bit) : no. of data sampling files on SD card
LW-10490	(32bit) : size of data sampling files on SD card (bytes)
LW-10492	(16bit) : no. of data sampling files on USB disk 1
LW-10493	(32bit) : size of data sampling files on USB disk 1 (bytes)
LW-10495	(16bit) : no. of data sampling files on USB disk 2
LW-10496	(32bit) : size of data sampling files on USB disk 2 (bytes)

2.7. Features Not Supported on cMT/cMT X Series Models

2.7.1. Trend Display

Only solid line pattern is available when width is set to 1.



2.7.2. Circular Trend Display

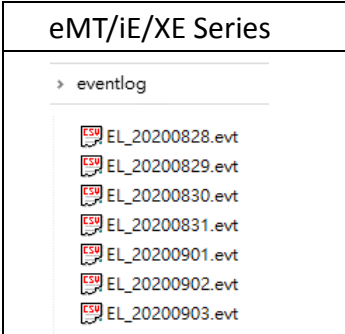
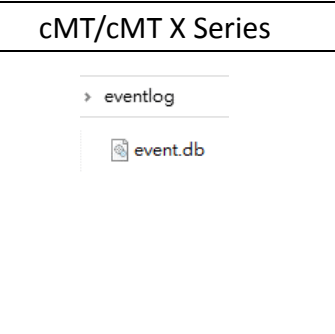
Circular Trend Display is not supported on cMT/cMT X Series. To prevent compilation errors, after upgrading the project to a cMT/cMT X project, please manually delete all Circular Trend Display objects.

3. Event Log

This chapter explains the differences in Event Log related settings that exist after upgrading from an eMT/iE/XE project to a cMT/cMT X project, and how users can adjust the settings to achieve the same effect as in an eMT/iE/XE project. This chapter also explains the features that are not supported after upgrade.

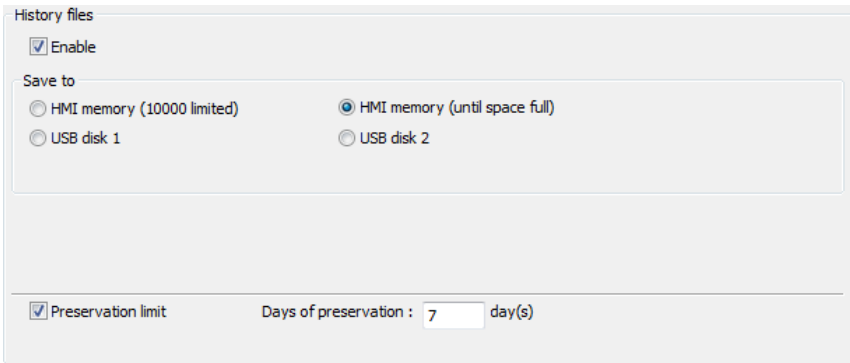
3.1. History File

In an eMT/iE/XE project, event logs are saved into .evt format, and in a way that each file contains all records of a day. In a cMT/cMT X project, all records are saved into one .db file. Customized File Handling option is not available for Event Log.

eMT/iE/XE Series	cMT/cMT X Series
 <p>eventlog</p> <ul style="list-style-type: none"> EL_20200828.evt EL_20200829.evt EL_20200830.evt EL_20200831.evt EL_20200901.evt EL_20200902.evt EL_20200903.evt 	 <p>eventlog</p> <ul style="list-style-type: none"> event.db

To make cMT/cMT X Series save event log in a way that each file contains all records of a day, please consider an alternative method that involves the use of a Scheduler object and a Backup object.

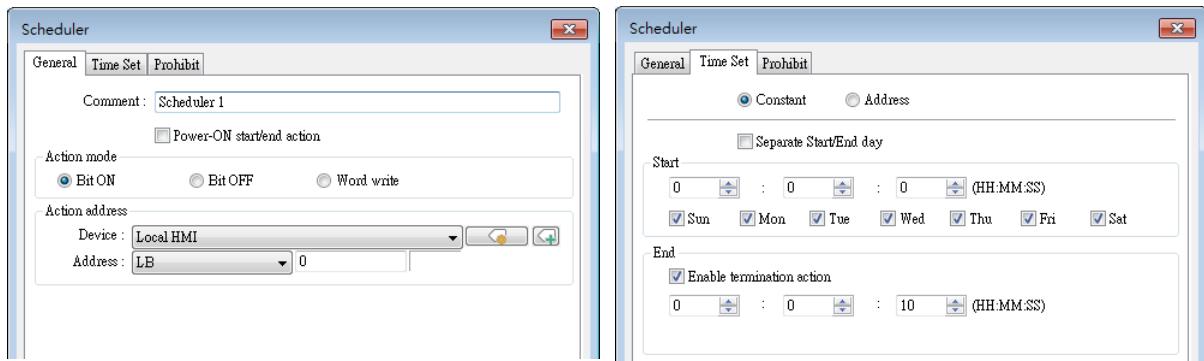
Step 1. Save historical data to HMI memory (until space full) and set preservation limit (7~14 days).



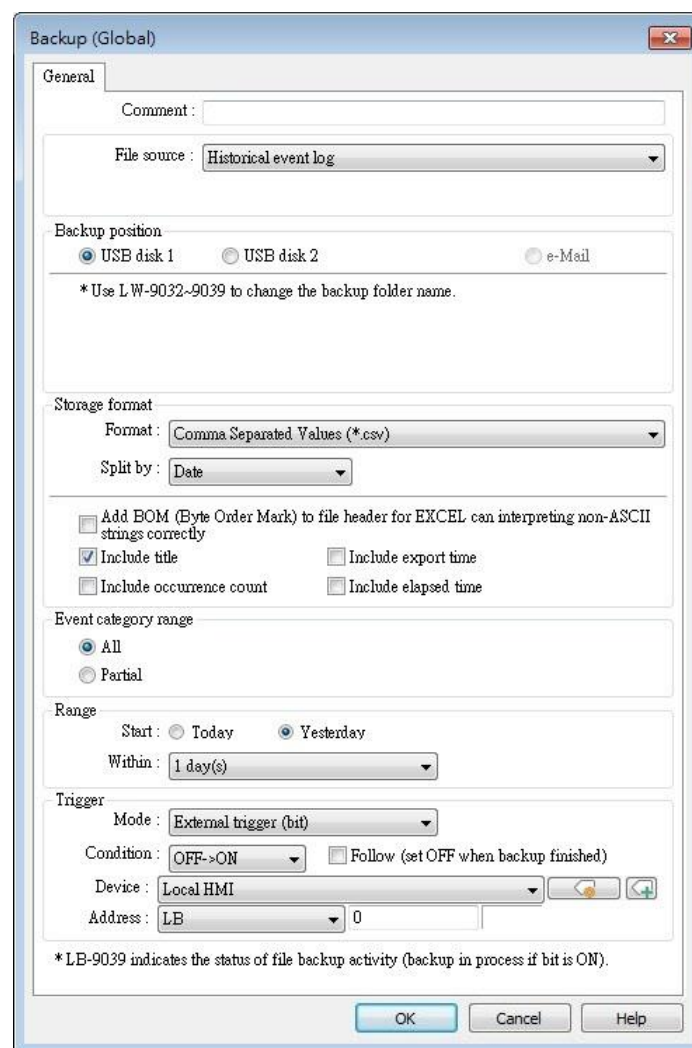
The 'History files' window shows the following settings:

- ☒ Enable
- Save to:**
 - ☐ HMI memory (10000 limited)
 - ☒ HMI memory (until space full)
 - ☐ USB disk 1
 - ☐ USB disk 2
- ☒ Preservation limit: Days of preservation : 7 day(s)

Step 2. Create a Scheduler object that triggers a bit address at 00:00 every day.











Step 3. Create a Backup (Global) object, set the range to 1day yesterday, and set Scheduler's action address as Backup's trigger address. In this way, an event log file is generated every day, but please note that files obtained by Backup object are in .csv format.



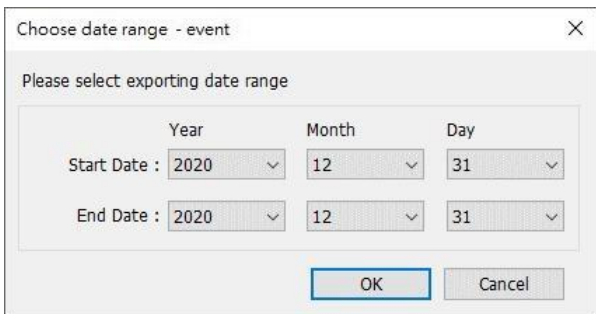
3.2. History File Format

In an eMT/iE/XE project, historical files are saved as .evt, while in a cMT/cMT X project, historical files are saved as .db. Both formats can be opened using EasyConverter and exported

in .csv format.

eMT/iE/XE Series	cMT/cMT X Series
 EL_20200828.evt  EL_20200829.evt  EL_20200830.evt  EL_20200831.evt  EL_20200901.evt  EL_20200902.evt  EL_20200903.evt	 event.db

When opening cMT/cMT X's .db file using EasyConverter, different from opening an .evt file, a window for selecting date range appears.



3.3. Display Objects

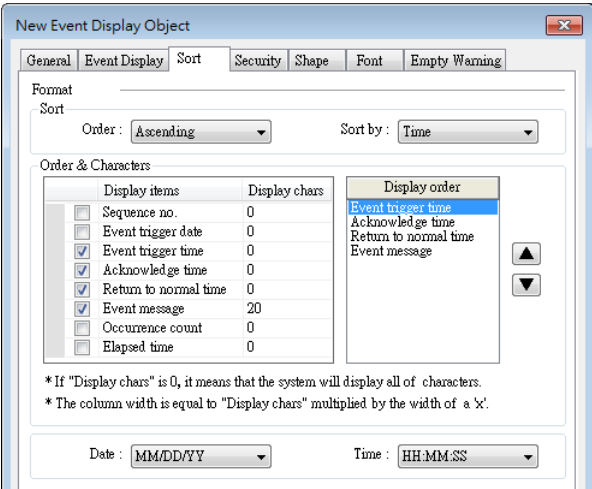
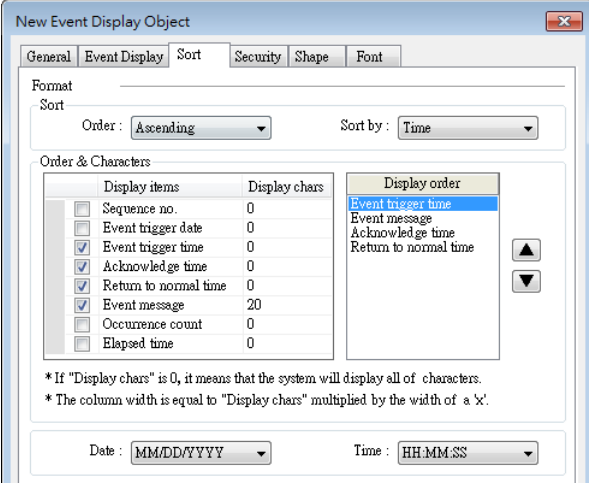
Event logs can be displayed using Alarm Bar, Alarm Display, and Event Display objects.

3.3.1. Event Display – History Mode

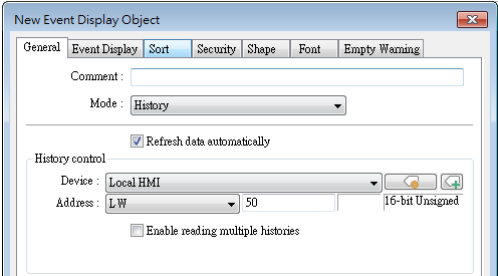
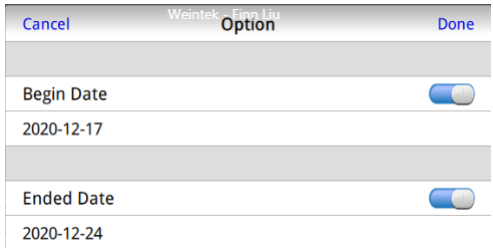
For event display, the display of trigger time, acknowledge time, and return to normal time differs between history mode of eMT/iE/XE models and cMT/cMT X models.

On the left, eMT/iE/XE models display the time information of each state of an event in separate rows and in different colors.

On the right, cMT/cMT X models display the time information of the states of an event in a single row.

eMT/iE/XE Series	cMT/cMT X Series																					
 <table border="1"> <tr> <td>Triggered</td> <td>16:55:28</td> <td>Value = 10</td> </tr> <tr> <td>Acknowledged</td> <td>16:55:34</td> <td>Value = 10</td> </tr> <tr> <td>Normal</td> <td>16:55:40</td> <td>Value = 10</td> </tr> </table>	Triggered	16:55:28	Value = 10	Acknowledged	16:55:34	Value = 10	Normal	16:55:40	Value = 10	 <table border="1"> <tr> <td>Triggered</td> <td>12:05:09 Event 0</td> <td></td> <td></td> </tr> <tr> <td>Acknowledged</td> <td>12:05:09 Event 0</td> <td>12:05:09</td> <td></td> </tr> <tr> <td>Normal</td> <td>12:05:09 Event 0</td> <td>12:05:09</td> <td>12:05:09</td> </tr> </table>	Triggered	12:05:09 Event 0			Acknowledged	12:05:09 Event 0	12:05:09		Normal	12:05:09 Event 0	12:05:09	12:05:09
Triggered	16:55:28	Value = 10																				
Acknowledged	16:55:34	Value = 10																				
Normal	16:55:40	Value = 10																				
Triggered	12:05:09 Event 0																					
Acknowledged	12:05:09 Event 0	12:05:09																				
Normal	12:05:09 Event 0	12:05:09	12:05:09																			

For eMT/iE/XE's Event Display – History Mode, one must designate a History Control address in order to select the desired file for display, or selects the option [Enable reading multiple histories] to display data from multiple files. After upgrading to a cMT/cMT X project, all events will be displayed and users simply select a time range in the built-in UI.

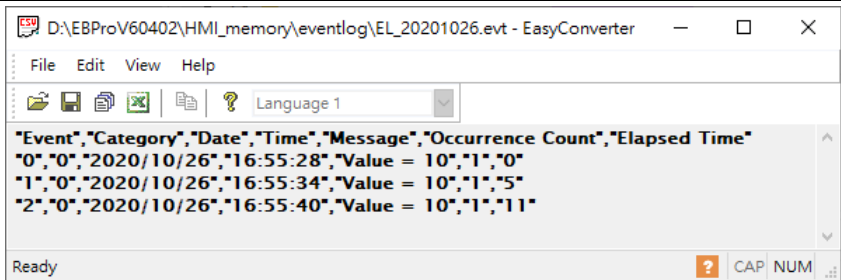
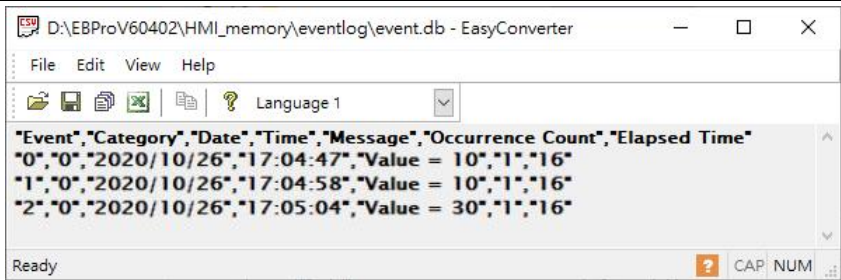
eMT/iE/XE Series	cMT/cMT X Series
	

3.4. Event Log Messages

When a watch address is set for event log message, and the watch address has different values at trigger, acknowledgement, and recovery, the logged message derived from the watch address will be slightly different between eMT/iE/XE Series and cMT/cMT X Series.

For example, given that the value in the watch address is 10 when the event is triggered, 20 when the event is acknowledged, and 30 when the event returns to normal, the end result is

shown in the following figure.

eMT/iE/XE Series
 <p>The screenshot shows the EasyConverter window for the file D:\EBProV60402\HMI_memory\eventlog\EL_20201026.evt. The main display area contains the following event log data:</p> <pre>"Event","Category","Date","Time","Message","Occurrence Count","Elapsed Time" "0","0","2020/10/26","16:55:28","Value = 10","1","0" "1","0","2020/10/26","16:55:34","Value = 10","1","5" "2","0","2020/10/26","16:55:40","Value = 10","1","11"</pre> <p>The status bar at the bottom indicates 'Ready' and 'CAP NUM'.</p>
cMT/cMT X Series
 <p>The screenshot shows the EasyConverter window for the file D:\EBProV60402\HMI_memory\eventlog\event.db. The main display area contains the following event log data:</p> <pre>"Event","Category","Date","Time","Message","Occurrence Count","Elapsed Time" "0","0","2020/10/26","17:04:47","Value = 10","1","16" "1","0","2020/10/26","17:04:58","Value = 10","1","16" "2","0","2020/10/26","17:05:04","Value = 30","1","16"</pre> <p>The status bar at the bottom indicates 'Ready' and 'CAP NUM'.</p>

On eMT/iE/XE models, when the event is triggered, the logged message is 10. The logged message also prints 10 for event acknowledgment and recovery.

On cMT/cMT X Series, this is slightly improved. When the event is triggered, the logged message is 10 as expected, and still prints 10 for event acknowledgement. However, for event recovery, it is 30 as HMI reads the watch address again when the event returns to normal.

3.5. System Registers Related to Event Display

When using the following system registers to save or delete Event log files, their behaviors vary between models:

eMT/iE/XE Series: The system registers do not return from ON to OFF.

cMT/cMT X Series: The system registers automatically return from ON to OFF.

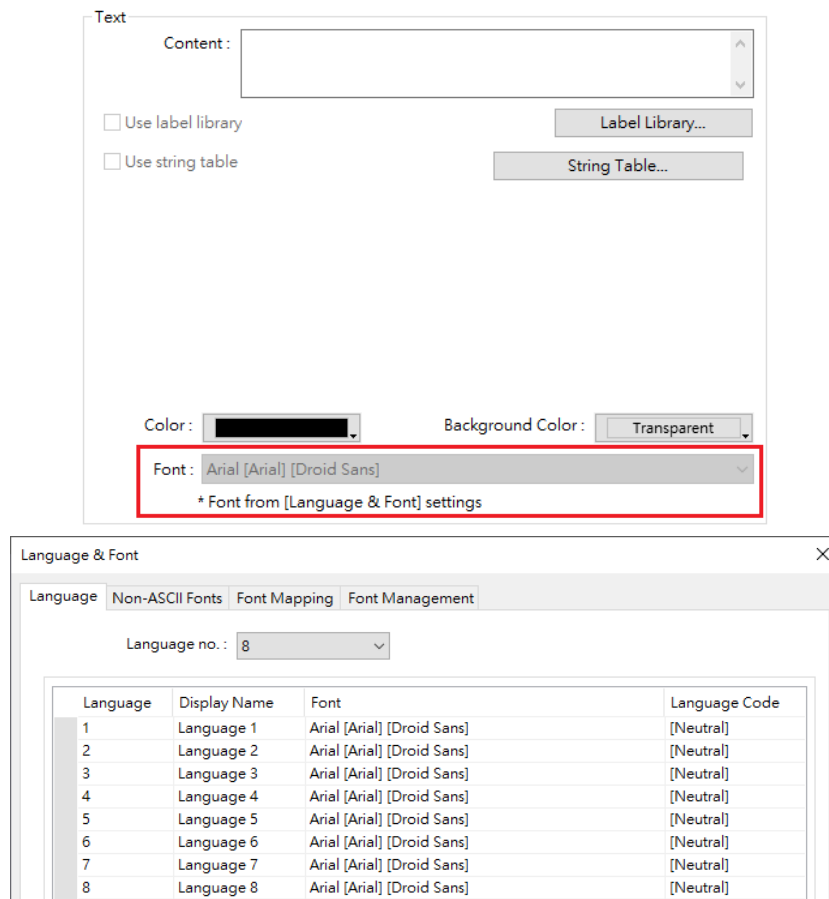
These above-mentioned behaviors of these system registers require no actions after upgrading the project.

Address	Description
LB-9023	delete all event log files on HMI memory (set ON)
LB-9034	save event/data sampling to HMI, USB disk, SD card (set ON)
LB-11941	delete all event log files on SD card (set ON)
LB-11944	delete all event log files on USB disk 1 (set ON)
LB-11947	delete all event log files on USB disk 2 (set ON)

3.6. Features Removed without Bringing Impact

3.6.1. Font in Event Display

After upgrading to a cMT/cMT X project, the font in Event Display will follow current settings in Language & Font.



3.6.2. System Registers

cMT/cMT X Series does not support the use of system registers to delete the earliest file or statistical information about event logs. If deleting a file to free up memory space is inevitable, set [Preservation limit] to make HMI automatically delete outdated records. The recommended preservation limit is 7~14 days (or files).

Address	Description
LB-9021	reset current event log (OFF->ON)
LB-9022	delete the earliest event log file on HMI memory (set ON)
LB-9024	refresh event log information on HMI memory (set ON)

LB-11940	delete the earliest event log file on SD card (set ON)
LB-11942	refresh event log information on SD card (set ON)
LB-11943	delete the earliest event log file on USB disk 1 (set ON)
LB-11945	refresh event log information on USB disk 1 (set ON)
LB-11946	delete the earliest event log file on USB disk 2 (set ON)
LB-11948	refresh event log information on USB disk 2 (set ON)
LW-9060	(16bit) : no. of event log files on HMI memory
LW-9061	(32bit) : size of event log files on HMI memory (bytes)
LW-10480	(16bit) : no. of event log files on SD card
LW-10481	(32bit) : size of event log files on SD card (bytes)
LW-10483	(16bit) : no. of event log files on USB disk 1
LW-10484	(32bit) : size of event log files on USB disk 1 (bytes)
LW-10486	(16bit) : no. of event log files on USB disk 2
LW-10487	(32bit) : size of event log files on USB disk 2 (bytes)

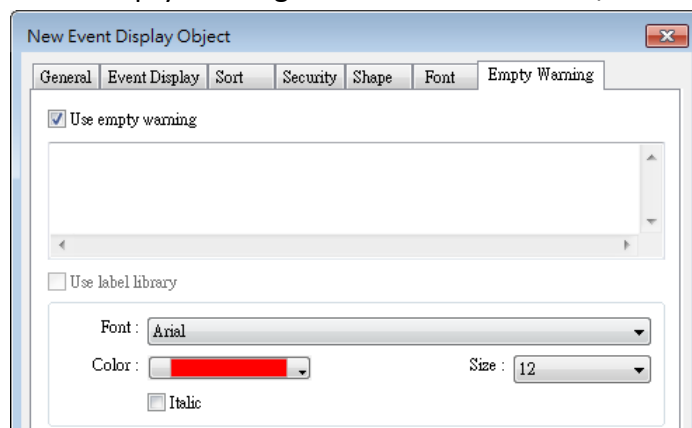
3.7. Features Not Supported on cMT/cMT X Series Models

3.7.1. Serial Printer Settings

In an eMT/iE/XE project, there are printer related settings of Event Log object when a serial printer is selected in System Parameters » Model. These settings will be removed after upgrading to a cMT/cMT X project.

3.7.2. Alarm Display and Event Display – Empty Warning

For the Alarm Display and Event Display objects on eMT/iE/XE models, empty warning is necessary because otherwise the states of “event being loaded” and “no event records” could not be distinguished when the display is empty. Now on cMT/cMT X Series, a loading icon shows when loading data, so an empty display would suggest that there is no event records. As a result, settings related to empty warning will be removed in cMT/cMT X project.



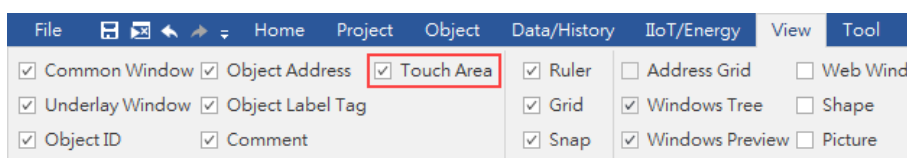
4. Overlapping Objects

When editing an eMT/iE/XE project, multiple objects can be overlapped, so that they can be triggered at once by a single touch. After upgrading to a cMT/cMT X project, only the frontmost object will be triggered. This is inevitable considering the underlying system difference between the models. In this case, users can modify overlapping objects manually.

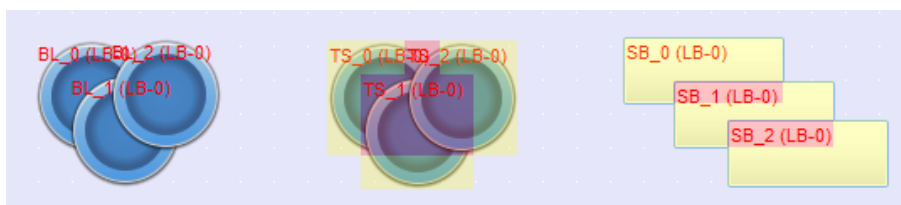
4.1. Enable Touch Area

To find the overlapping objects in the project, select [View] » [Touch Area]. All the touchable objects in the project will be highlighted in yellow and the overlapping area will be highlighted in pink.

1. Open View tab and select [Touch Area].



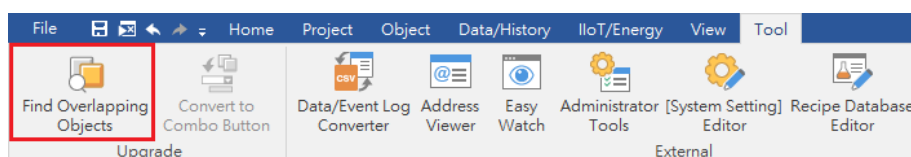
2. All the touchable objects in the project will be highlighted in yellow, the overlapping areas will be highlighted in pink, and the objects that are not touchable will remain the same.



4.2. Find Overlapping Objects

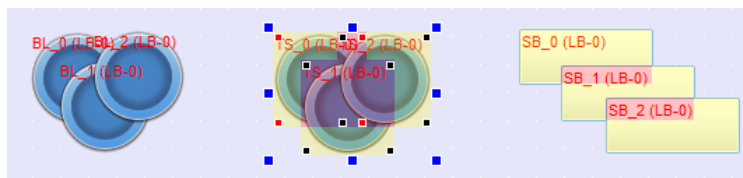
EasyBuilder Pro provides easy-to-use tools for users to quickly find overlapping objects and modify them after upgrading the project, which saves plenty of time.

1. Open Tool tab and click [Find Overlapping Objects] to find all the touchable overlapping objects in the project.



2. At the first time clicking [Find Overlapping Objects], the system will find the first group of

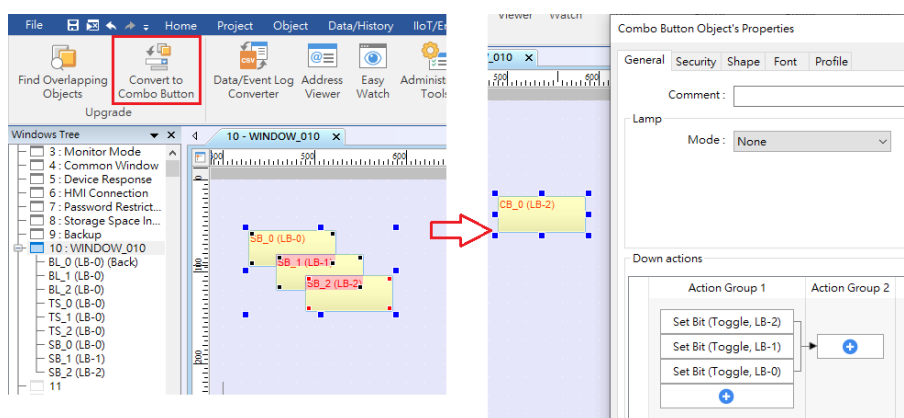
overlapping objects in the current window. To search for the next group, click this button again. When all the overlapping objects in the current window are found, the system will start searching for overlapping objects in the next window, and then open the window in which overlapping objects are found.



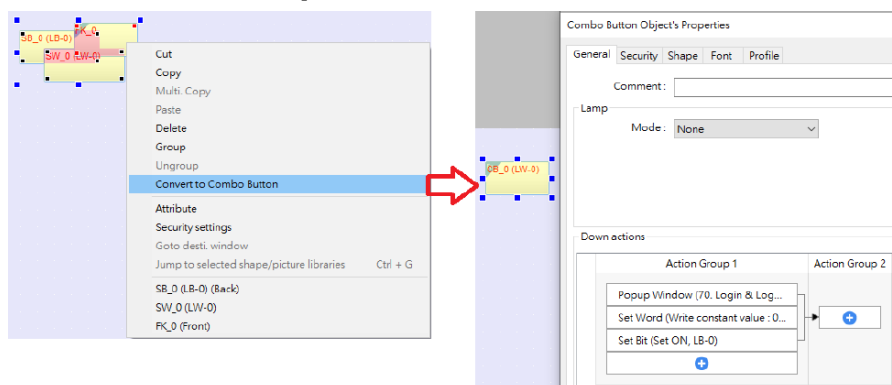
4.3. Convert to Combo Button

When the overlapping objects are Set Bit, Set Word, and Function Key, select these overlapped objects together, click the right mouse button, and then select [Convert to Combo Button]. All these objects can be converted to a single Combo Button. After converting to a Combo Button, the look, security setting, sound setting, and comment of the Combo Button will follow the settings of the frontmost object. Settings in the object one layer down will be used when they can't be found in the frontmost object.

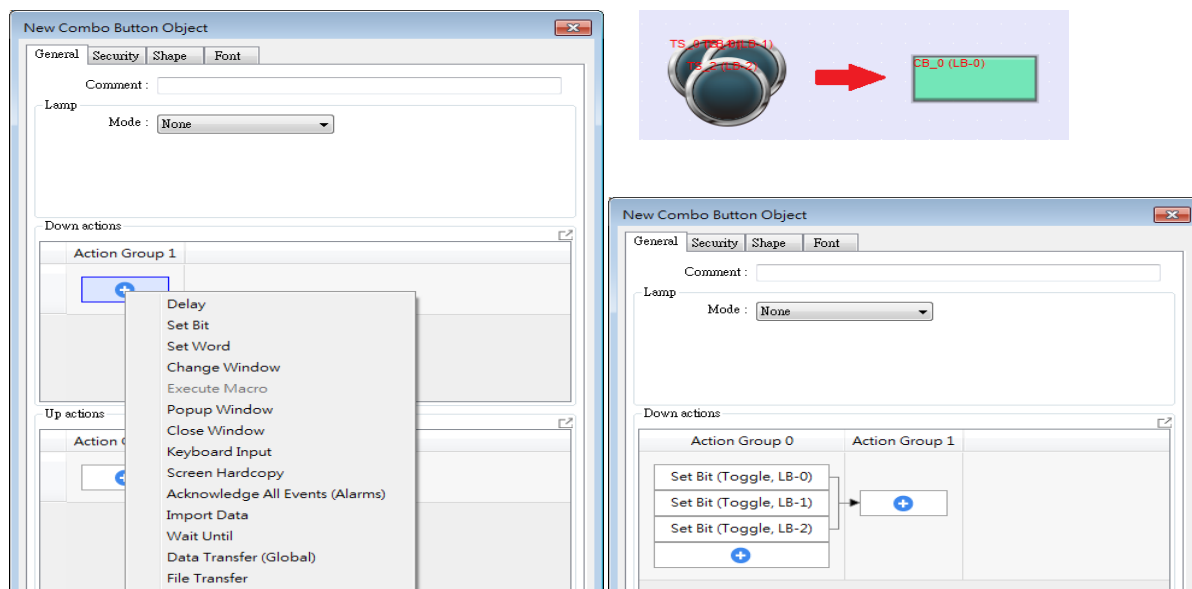
1. Open Tool tab and click [Convert to Combo Button].



2. Alternatively, select the overlapping objects together, click the right mouse button, and then select [Convert to Combo Button].

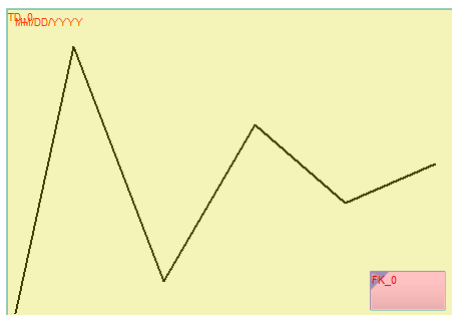


3. Objects other than Set Bit, Set Word, and Function Key need to be manually combined into a Combo Button to achieve the same effect where multiple functions can be triggered by one touch. A Combo Button can trigger a sequence of actions, and the actions are shown below.



4.4. Tips on Object Placement

After upgrading to a cMT/cMT X project, please check if there are overlapping objects. Please avoid placing objects in the way shown below, for example, where a Function Key for page change is covered by a Trend Display object. Please avoid overlapping objects unless it is necessary, in which case place the touchable object on top.



5. User Password and Security

To take advantage of the cMT/cMT X architecture where one cMT/cMT X Series HMI can be simultaneously monitored and controlled by multiple client devices remotely, security and access restriction must run independently on each client device. This section explains how to adjust related settings when upgrading an eMT/iE/XE project to a cMT/cMT X project.

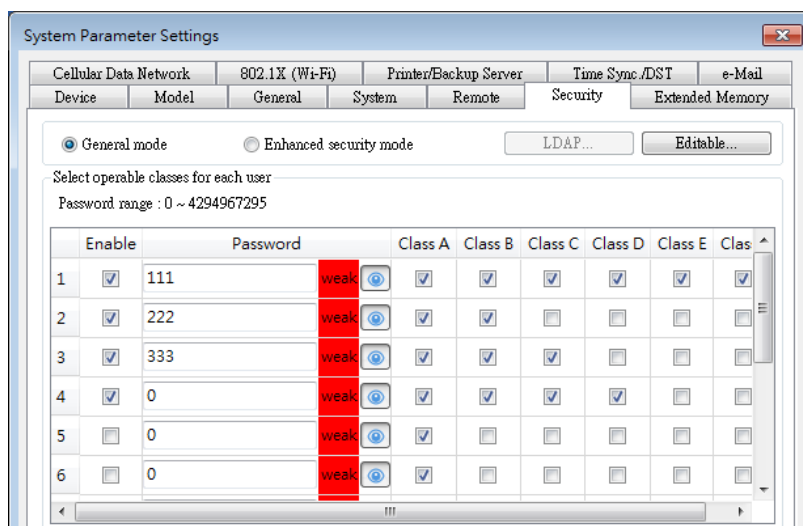
5.1. General Mode

When General Mode is used in an eMT/iE/XE project, this mode is retained after upgrading to a cMT/cMT X project. However, general mode works properly only by operating the designated control address on HMI itself. I.e, Remote login is not possible when using cMT Viewer for monitoring.

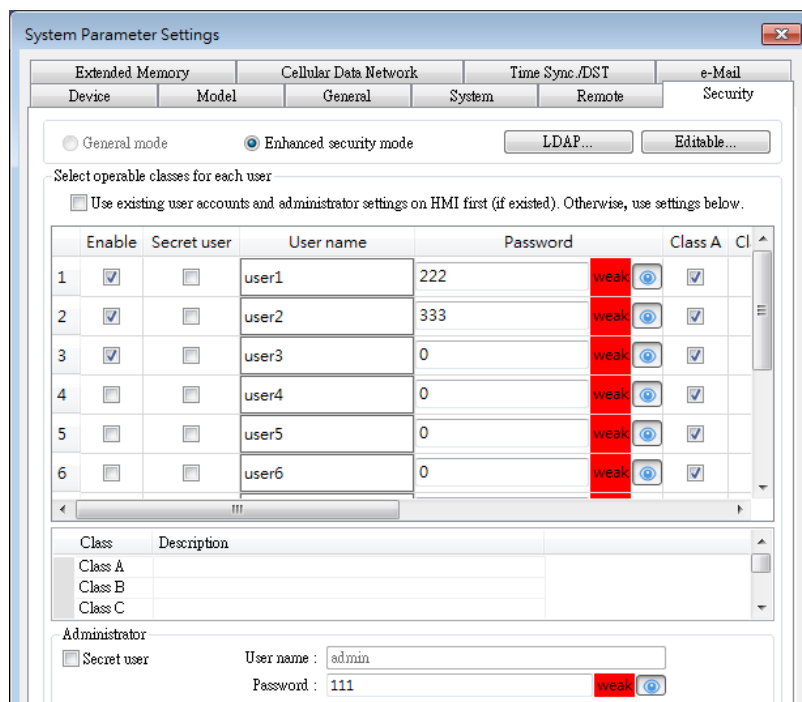
Users can manually switch to Enhanced Security Mode after upgrading to a cMT/cMT X project. With Enhanced Security Mode, remote login on cMT Viewer becomes possible. Please note that this change is irreversible.

The following example explains the difference of these modes in EasyBuilder Pro and how users can configure the project in response.

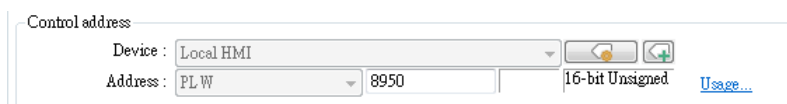
Step 1. In general mode, there are user (12 at most), password and operable class settings (A to F).



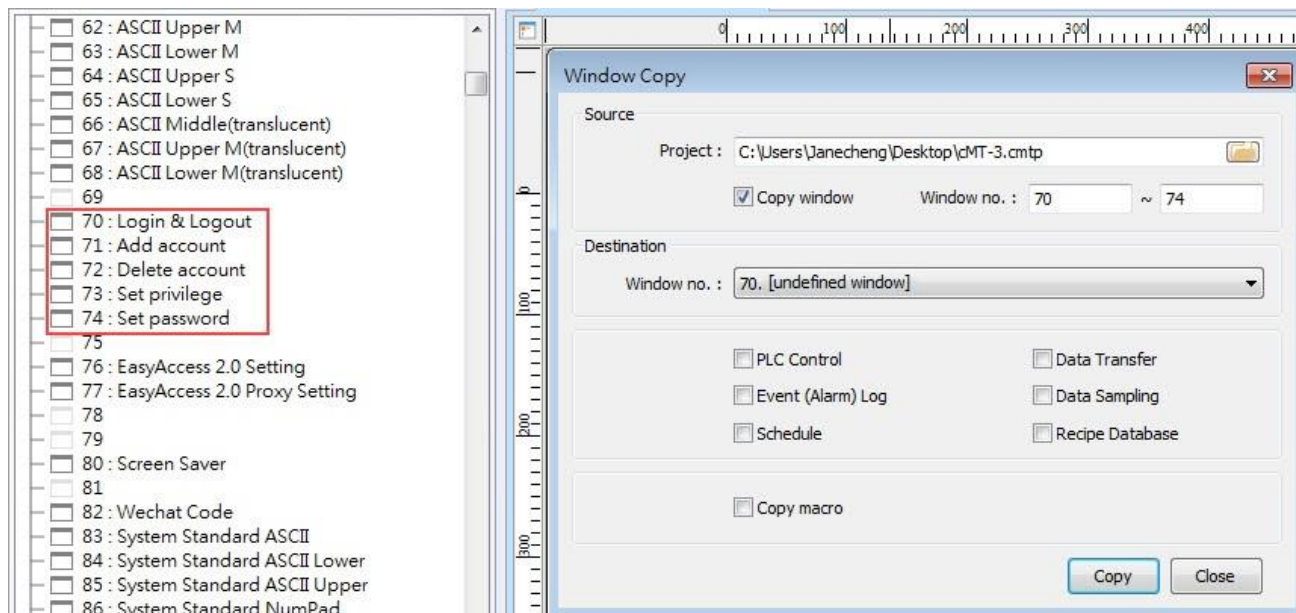
Step 2. After upgrading to a cMT/cMT X project, and then switching from General Mode to Enhanced Security Mode, the settings above will be retained as follows: the first user will be promoted to Administrator, and the 2nd to 12th users will be designed as user 1 to user 11 in Enhanced Security Mode.



Step 3. Set Control Address to PLW-8950.



Step 4. Create a new cMT/cMT X project file that uses a template, save the file, and then use window copy feature to copy window no. 70 to 74 to the original project file. Use these pre-configured windows to work the Enhanced Security Mode conveniently.

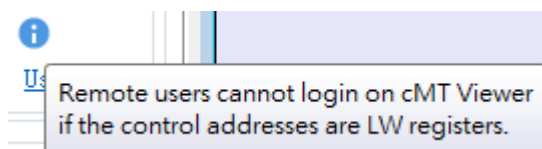


Step 5. Please remove the old login window and replace it with Window no. 70 which is suitable for Enhanced Security Mode. Adjustments mentioned above should be sufficient to allow the normal use of Enhance Security Mode. Changing the security

settings for individual objects will not be necessary.

5.2. Enhanced Security Mode

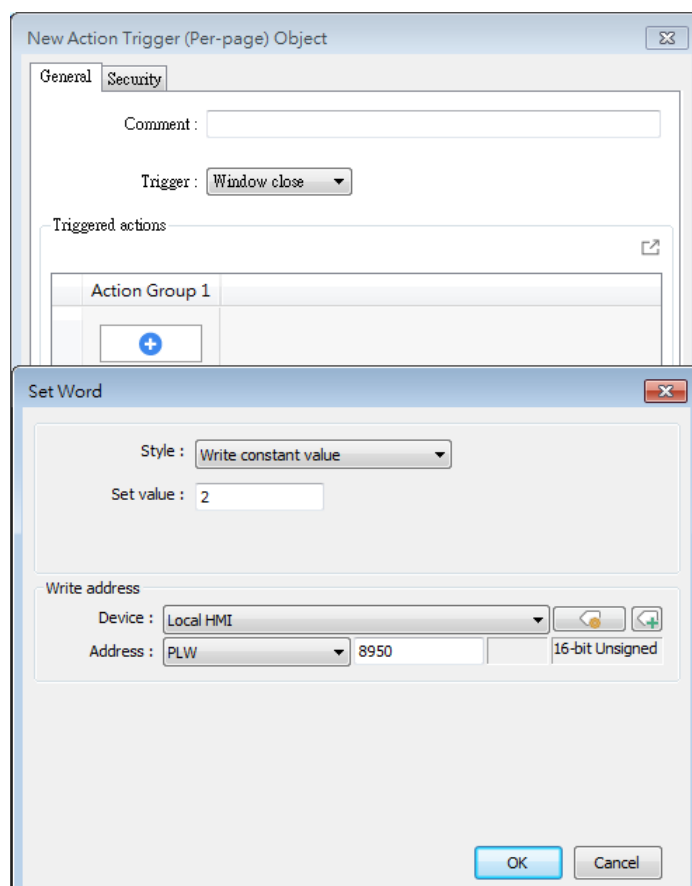
When Enhanced Security Mode is used in an eMT/iE/XE project, the LW control address setting will be retained after upgrading to a cMT/cMT X project. However, please note that security features will work only on HMI when the control address is LW. Remote login on cMT Viewer will not be possible.



After upgrading to a cMT/cMT X project, users may manually change the LW address to a PLW address, but please note that this change is irreversible. After changing the control address to PLW, remote login on cMT Viewer becomes possible.

eMT/iE/XE Series
<div>Control address</div> <div>Device : Local HMI</div> <div>Address : LW 8950 16-bit Unsigned Usage...</div>
cMT/cMT X Series
<div>Control address</div> <div>Device : Local HMI</div> <div>Address : PLW 8950 16-bit Unsigned Usage...</div>

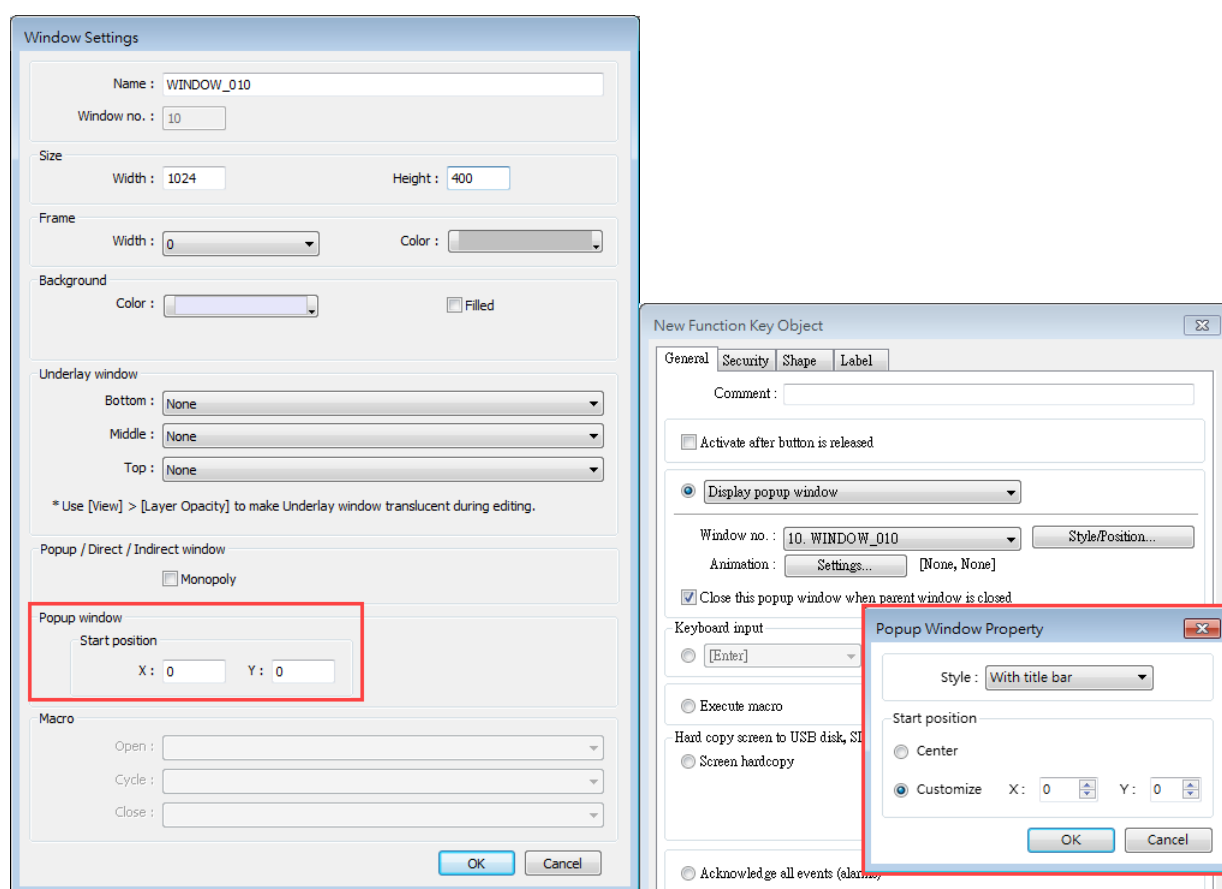
PLW addresses cannot be used in macros; therefore, any part of macro which references to the control address for security feature in eMT/iE/XE project should be removed. Use Action Trigger object instead in this case.



6. Window Related

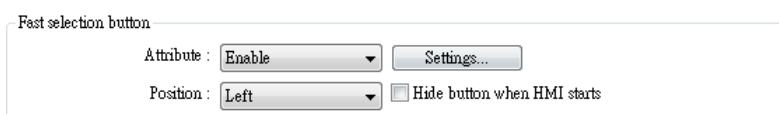
6.1. Function Key – Popup Window

On an eMT/iE/XE model, the popup window position is designated in the base window, while on a cMT/cMT X model, the position is designated in the settings window of Function Key object. After upgrading the project, EasyBuilder Pro will automatically fill in the start position settings without the need for further configuration.

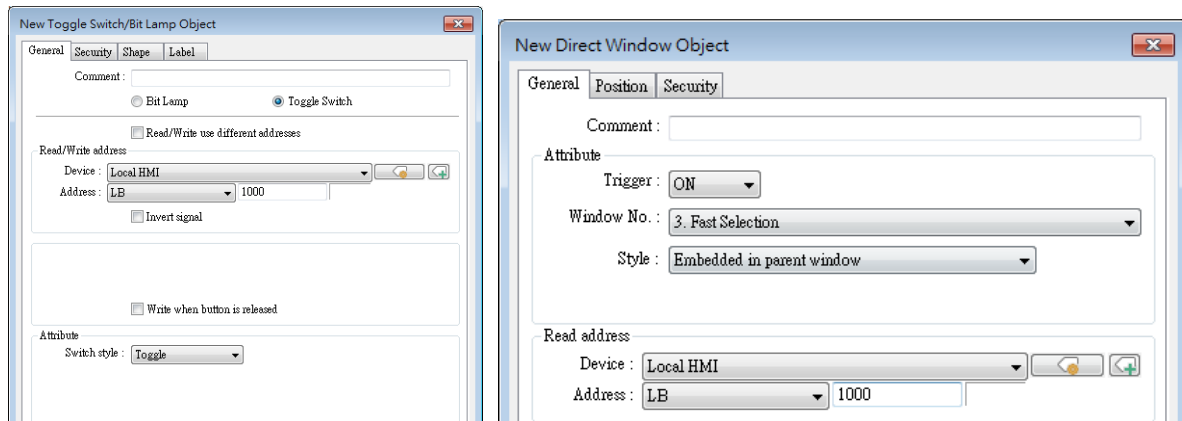


6.2. Fast Selection Window

The Fast Selection Window related settings shown below are not supported on cMT/cMT X Series models.



After upgrading to a cMT/cMT X project, the contents of Window no. 3 - Fast Selection Window should still remain. To have a similar function after upgrading to a cMT/cMT X project, simply add a Toggle Switch object and a Direct Window object in Window no. 4 - Common Window, and let the Direct Window's destination be Window no. 3. See the following figures for a setting example.



Note that for cMT/cMT X Series models, Window no. 3 is used for Monitor Mode. Hence, if Monitor Mode must also be used, please use another window for Fast Selection.

7. Remote Printing / Backup Server

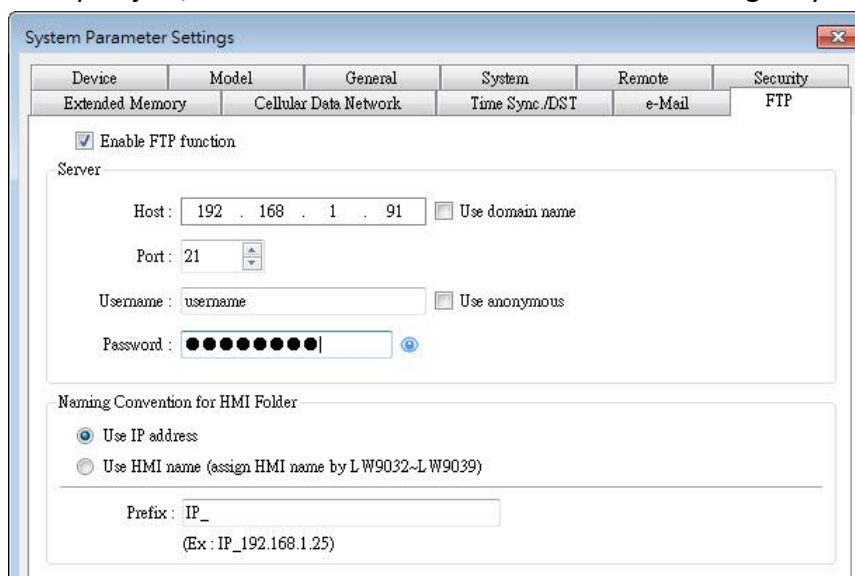
EasyPrinter is not supported on cMT/cMT X Series models. This chapter explains how to achieve similar functions as Printer Server or Backup Server on cMT/cMT X models.

7.1. Printer Server

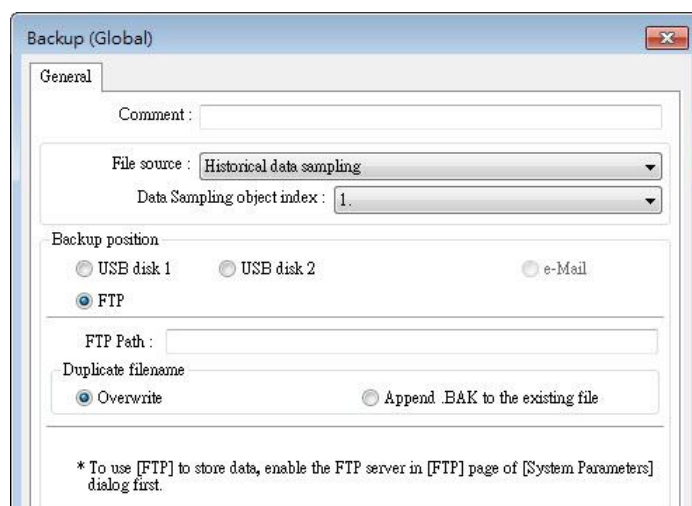
eMT/iE/XE models support relatively fewer printers; therefore, these models require the use of a printer server on a computer to print. On the other hand, cMT/cMT X models can directly connect to Ethernet-based printers following installation of their PPD file. Generally speaking, HP printers are known to have better compatibility with cMT/cMT X models.

7.2. Backup Server

The FTP feature in cMT/cMT X project allows users to transfer historical data to FTP server on PC by using a Backup object, in order to achieve the same effect as using EasyPrinter.



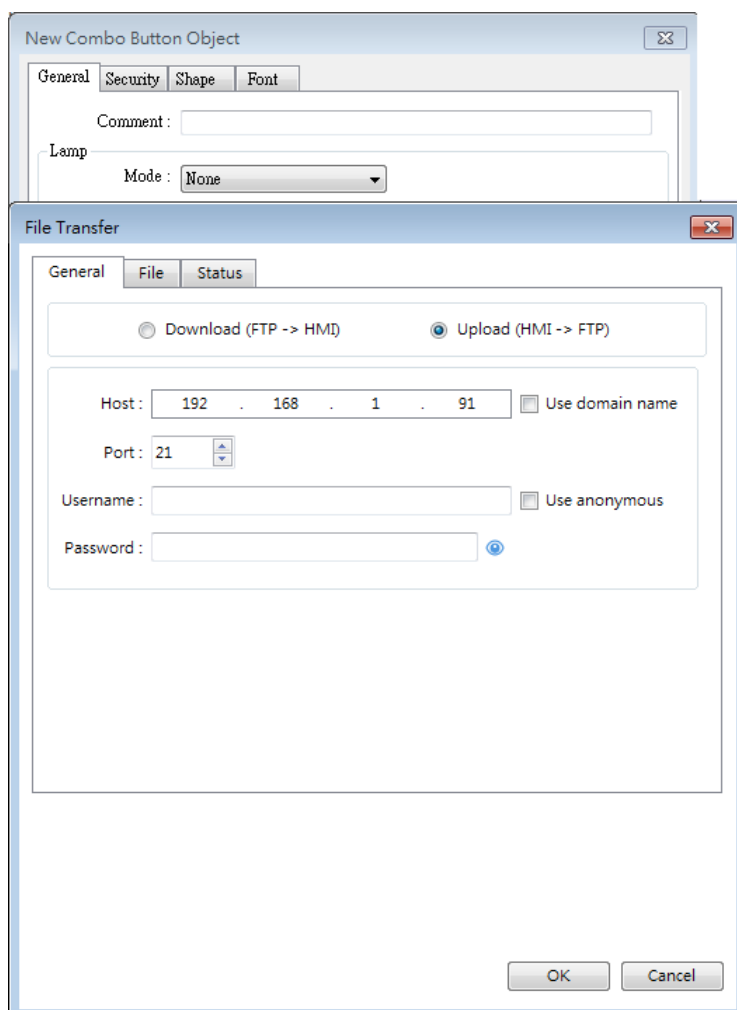
FTP tab in System Parameter Settings



FTP as Backup Position in Backup object settings

EasyConverter's Command Line can also back up the historical data in the database to PC. For more information, please see Ch 25.7 Batch File in EasyBuilder Pro User Manual.

To backup screen hardcopy to PC, use PLC Control object to get the screen hardcopy and then save the file to a USB disk or SD card. The file can then be transferred to PC by using Combo Button's File Transfer.



7.3. Demonstration

This demonstration shows how Combo Button's File Transfer function can be used in cMT/cMT X project to transfer historical data to FTP server on PC, in order to achieve the same effect as using EasyPrinter.

The download link of the demonstration project is:

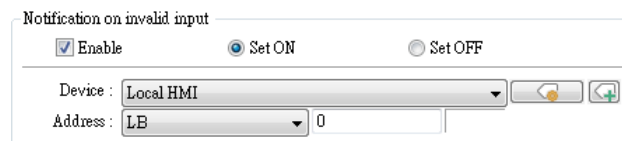
https://dl.weintek.com/public/Document/DEM/DEM20009_Combobox_Button_File_Transfer_Demo.zip

8. Features Not Supported on cMT/cMT X Series Models

8.1. Objects

8.1.1. Numeric

[Notification on invalid input] settings are not supported on cMT/cMT X Series models.



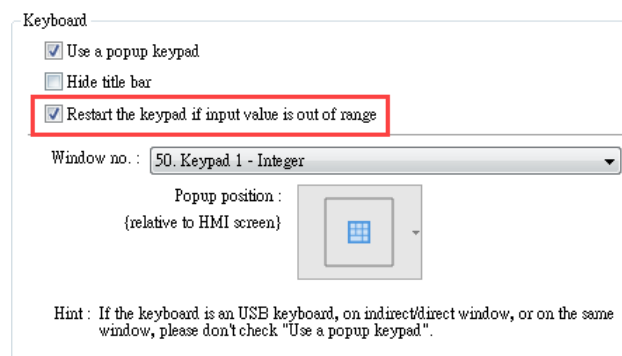
Notification on invalid input

☒ Enable ☒ Set ON ☐ Set OFF

Device : Local HMI

Address : LB 0

[Restart the keypad if input value is out of range] option is not supported on cMT/cMT X Series models. On cMT/cMT X Series models, the keyboard won't disappear until the user enters a valid value or presses the ESC key.



Keyboard

☒ Use a popup keypad

☐ Hide title bar

☒ Restart the keypad if input value is out of range

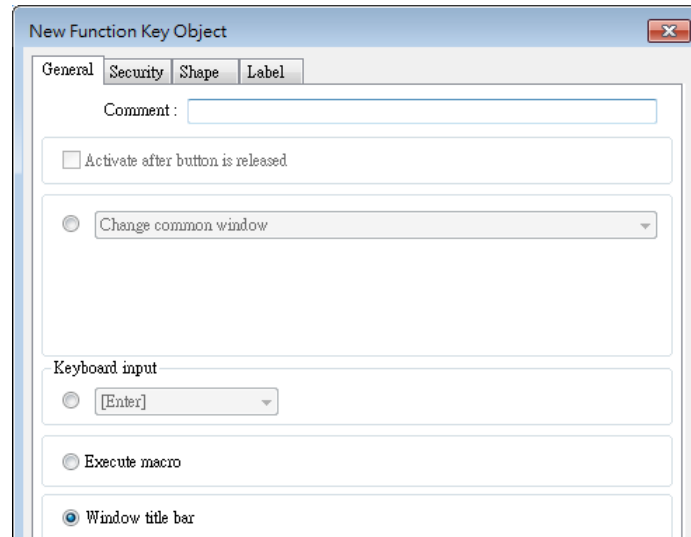
Window no. : 50. Keypad 1 - Integer

Popup position :
{relative to HMI screen}

Hint : If the keyboard is an USB keyboard, on indirect/direct window, or on the same window, please don't check "Use a popup keypad".

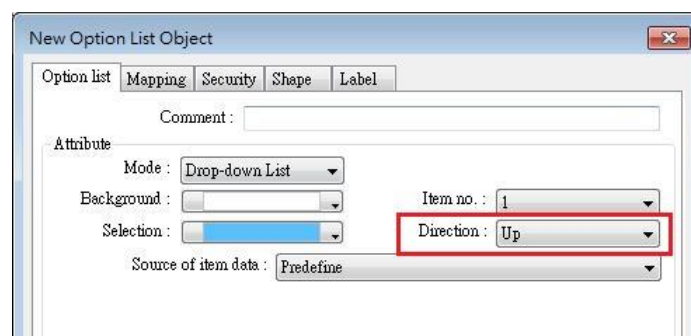
8.1.2. Function Key

[Window title bar] option is not supported on cMT/cMT X Series models. After upgrading the project to a cMT/cMT X project, these Function Keys will become Combo Buttons without any action, while preserving the original look.



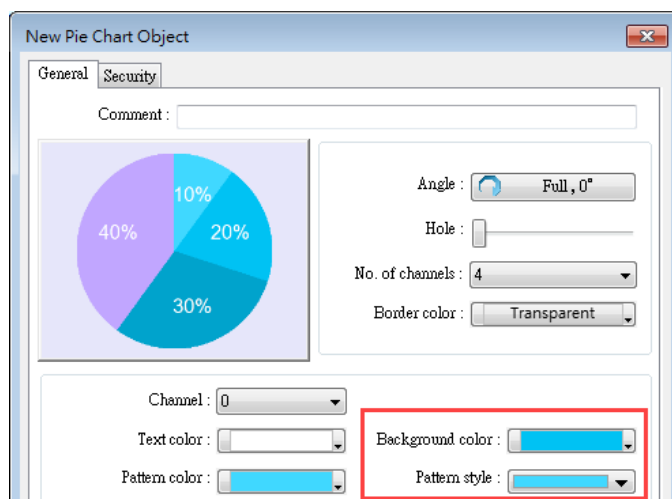
8.1.3. Option List

The [Up] direction option of Drop-down List is not supported on cMT/cMT X Series models. On cMT/cMT X Series models, the expansion direction of the list is controlled by the system.



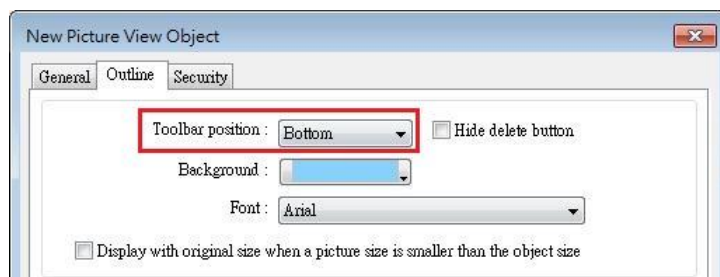
8.1.4. Pie Chart

[Background color] and [Pattern style] settings of Pie Chart are not supported on cMT/cMT X Series models. Each Pie Chart slice is filled with a single color.



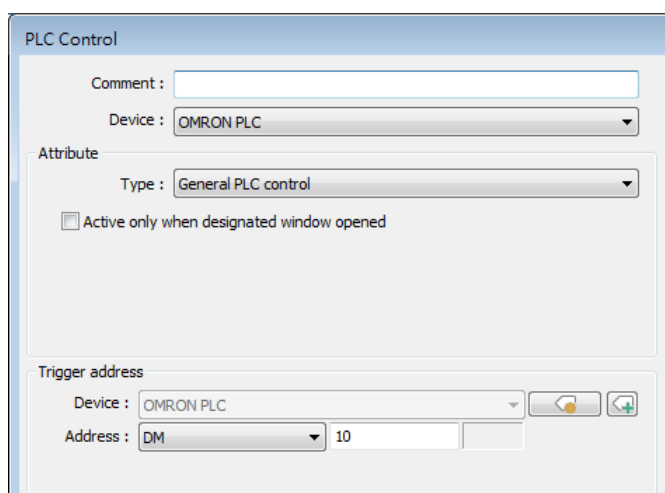
8.1.5. Picture View

[Toolbar position setting] of Picture View is not supported on cMT/cMT X Series models.



8.1.6. PLC Control

[General PLC control] type is not supported on cMT/cMT X Series models. Please use Data Transfer or macros instead.



In an example where a PLC Control object is used and its trigger address is set to OMRON PLC's DM-10, to transfer data of 16 words between addresses DM-100 and LW/RW-200, the macro can be edited as shown below.

Work Space

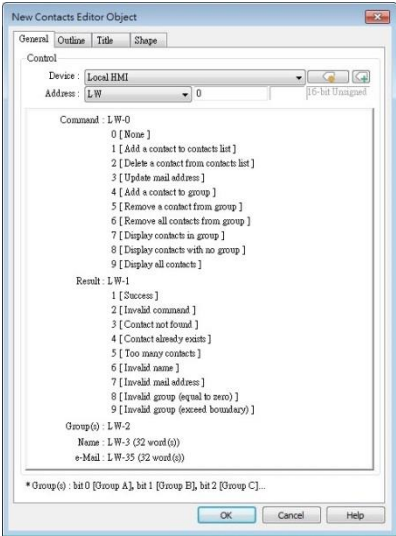
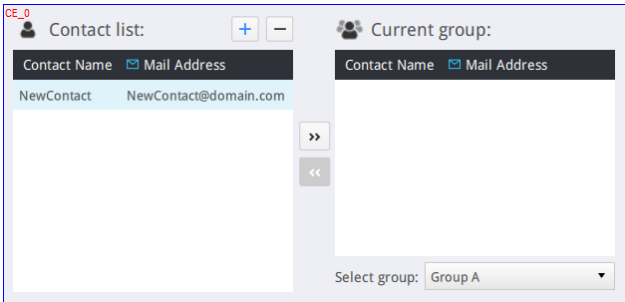
Macro ID : 1 Macro name : macro_1

☐ Periodical execution

```
1
2 macro_command main()
3
4 short method
5 short move[16]
6
7 GetData(method, "OMRON PLC", DM, 10, 1)
8
9 select case method
10 case 1
11     GetData(move[0], "OMRON PLC", DM, 100, 16)
12     SetData(move[0], "Local HMI", RW, 200, 16)
13 break
14 case 2
15     GetData(move[0], "OMRON PLC", DM, 100, 16)
16     SetData(move[0], "Local HMI", LW, 200, 16)
17 break
18 case 3
19     GetData(move[0], "Local HMI", RW, 200, 16)
20     SetData(move[0], "OMRON PLC", DM, 100, 16)
21 break
22 case 4
23     GetData(move[0], "Local HMI", LW, 200, 16)
24     SetData(move[0], "OMRON PLC", DM, 100, 16)
25 break
26
27 end select
28 end macro_command
```

8.1.7. **Contacts Editor**

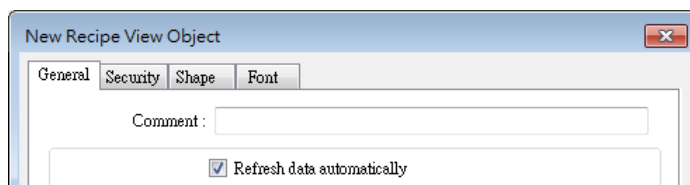
Control address settings are not supported on cMT/cMT X Series models. After upgrading the project to a cMT/cMT X project, users can set up the contacts with its built-in UI. Please remove objects that reference to the control addresses after upgrade.

eMT/iE/XE Series	cMT/cMT X Series
	

8.2. Data / History

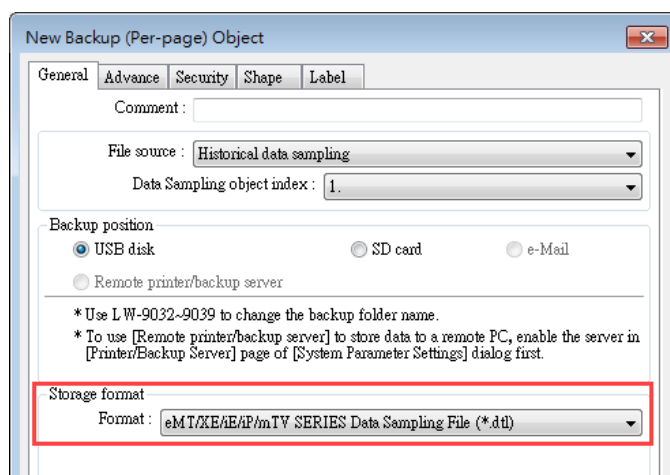
8.2.1. Recipe View

[Refresh data automatically] option in Recipe View settings is not supported on cMT/cMT X Series models. cMT/cMT X's Recipe View object has built-in auto-refresh feature.

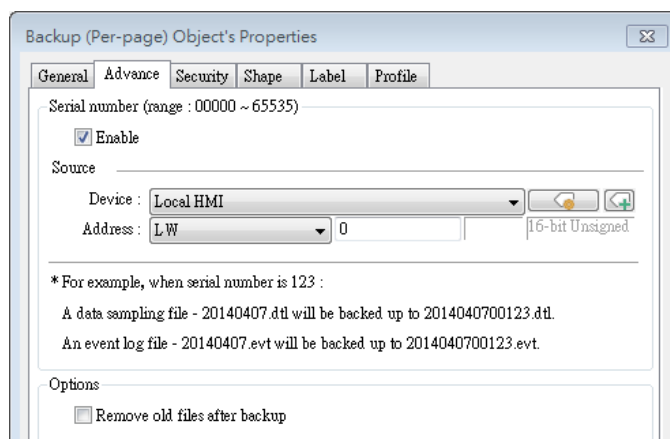


8.2.2. Backup

cMT/cMT X Series models only support .csv format; therefore, the option below is not supported.



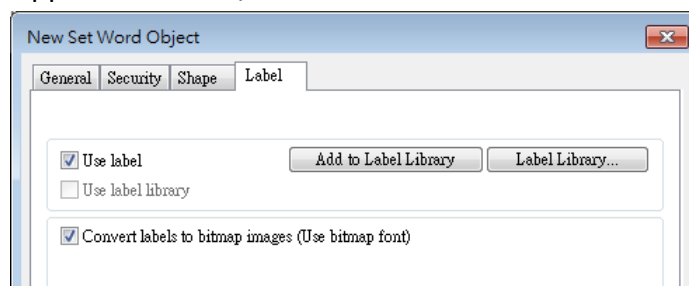
Serial number settings are only supported for .dtl and .evt file formats; therefore, they are not supported on cMT/cMT X Series models. For Data Sampling, though, the same can be realized with customized file handling.



8.3. Project File

8.3.1. Convert labels to bitmap images

This option is not supported on cMT/cMT X Series models.



8.3.2. Macro

The macro functions in the table below are not supported on cMT/cMT X Series models. Using them in a cMT/cMT X project should lead to compilation errors.

Data Sampling / Event Log Functions	
FindDataSamplingDate	Find Data Sampling Date.
FindDataSamplingIndex	Find Data Sampling Index.
FindEventLogDate	Find Event Log Date.
FindEventLogIndex	Find Event Log Index.