Chapter 5　System Parameter Settings
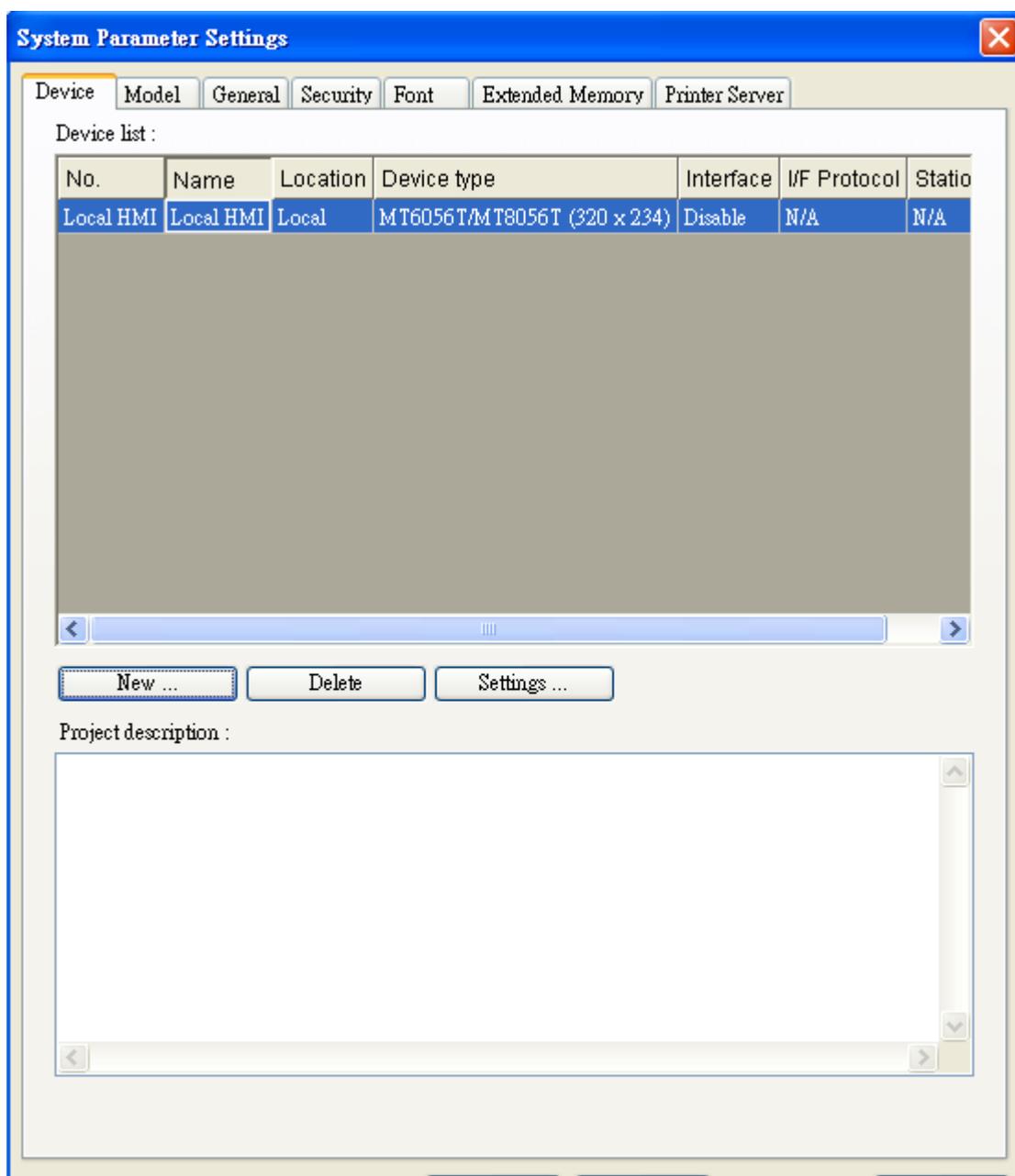
In the EB8000, select menu [Edit] / [System Parameters…] and the System Parameter Settings dialog display as follows:

System Parameter Settings are divided into seven parts: **[Device]**, **[Model]**, **[General]**, **[Security]**, **[Font]**, **[Extend Memory]** and **[Printer Server],** which are introduced respectively in this chapter.

[Device]

[Device] parameters determine all of the characteristics of each device controlled by a HMI. These devices include PLC, remote HMI and PC. When open a new *.mtp file, a default device: "Local HMI" is in the table. That is to say the device table must have a "Local HMI" at least, and it is used to identify current HMI.

The procedure to create a new device as follow:
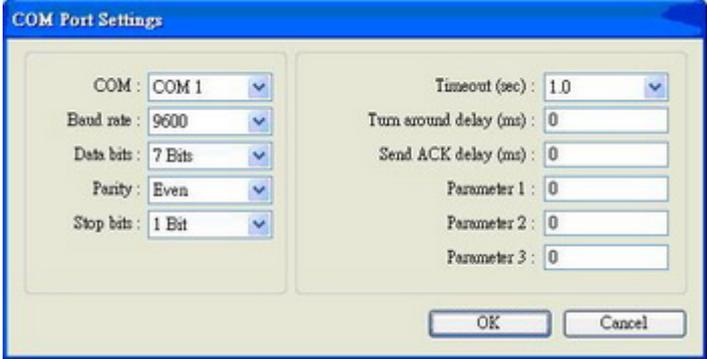
(1) How to control a local PLC

So-called "local PLC" means a PLC is connect to local HMI directly. To control a local PLC should add this type of device first. Click [New…] and the following [Device Properties] dialog display. Correctly fill in all of the properties as required.
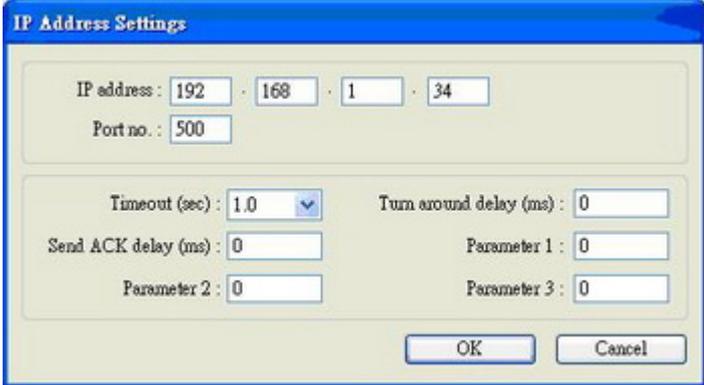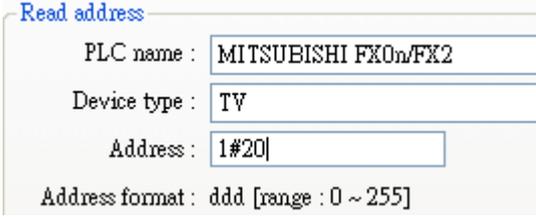
Here an example local PLC is MITSUBISHI FX0n/FX2

Each of settings is introduced as follows:

Name	The name of device
HMI or PLC	Select [PLC] for this case
Location	[Local] or [Remote] can be selected. Select [Local] foe this case
PLC type	Select the type of PLC. Select MITSUBISHI FX0n/FX2 for this case
PLC I/F	Four PLC interfaces are available: [RS-232], [RS-485 2W], [RS-485 4W], and [Ethernet]. If the interface is [RS-232], [RS-485 2W],or [RS-485 4W], click [Settings…] and then [Com Port Settings] dialog display as below. User should correctly set the COM port communication parameters. **[Timeout]** HMI will pop up window no. 5, the "PLC No Response" message once communication interrupts over this setting. **[Turn around delay]** Before HMI sending command to PLC, this setting will delay the command. If no specific request, the default setting is 0. If the interface is [Ethernet], click [Settings…] and then [IP Address Settings] dialog display. User should correctly set IP address and Port No. of the PLC.

PLC default station no.	When contents of device address is not included station no., EB8000 will use this default setting for PLC station no. Besides, PLC station no. can put in device address directly, for example, 1#20 1 means PLC station no, and must to more than 0 and less than 255. 20 means PLC address, the # sign is to separate station no. and address.
Use broadcast command	For example, the value as 255 and when on device address set 255#20, the HMI will send command to PLC merely and ignore that any response from PLC.
Interval of block pack (words)	If the interval of read out address between different commands is less than this value, these commands can be combined to one. But combination won't function if this value as 0. For example, if the value as 5, when read out a word from LW3 and 2 words from LW6 respectively, because the interval of addresses between LW3 and LW6 is less than 5, these two commands can be combined to one. For that the contents of combination command becomes 5 consecutive words from LW3 (read out from LW3~LW7). Note: Max. combination command must less than [Max. read-command size].
Max. read-command	The Max. data size to be read out from device at one time.

size (words)	
Max. write-command size (words)	The Max. data size to be wrote in to device at one time

After every setting is completed, a new name "Local PLC" device is list on the table.

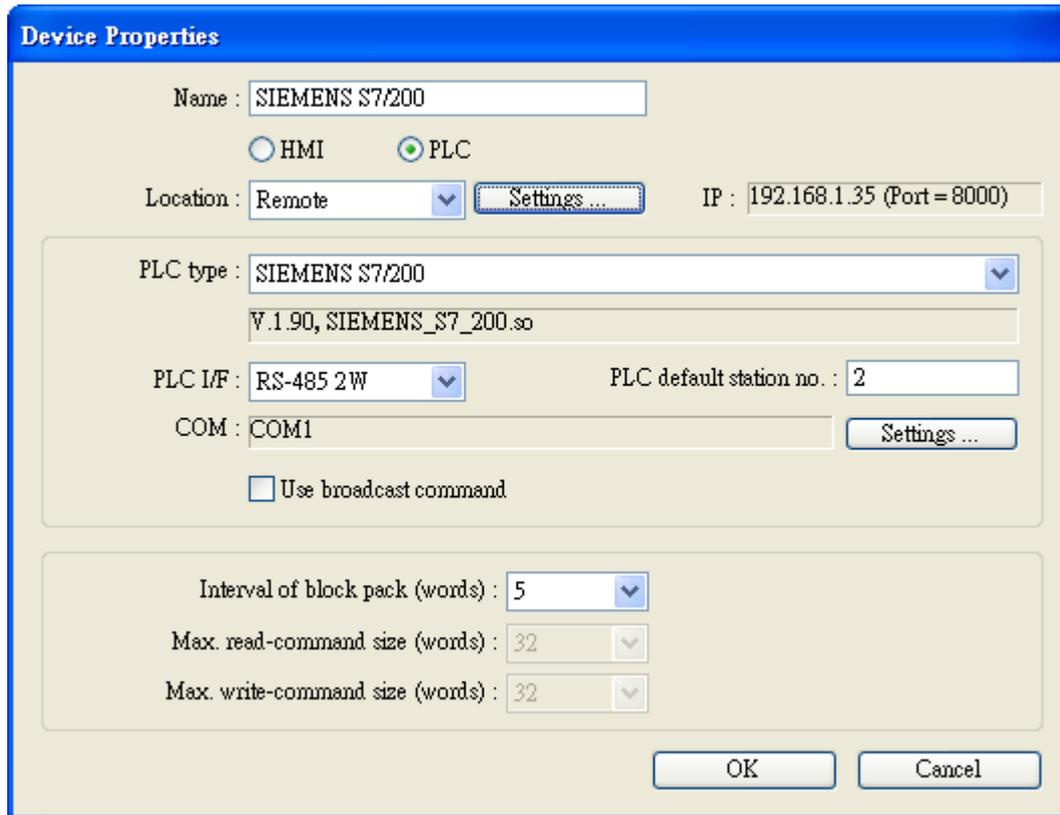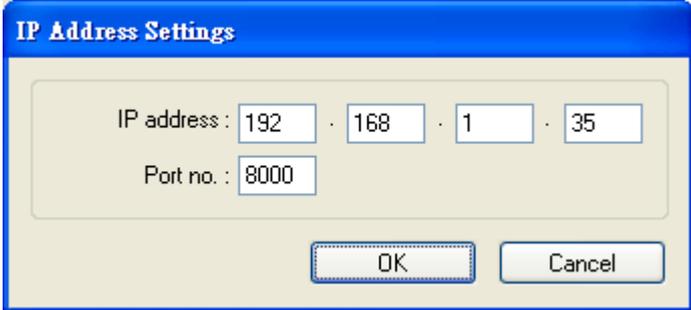**(2) How to control a remote PLC**

So-called "remote PLC" means a PLC is connect to a remote HMI. To control a remote PLC should add this type of device. Click [New…] and the following [Device Properties] dialog display. Correctly fill in all of the properties as required.

Here an example remote PLC is SIEMENS S7/200

Each of settings is introduced as follows:

Location	Select [Remote] in this case and set the IP address of the remote HMI which connected SIEMENS S7/200 PLC. Click [Settings…] to set the IP address of the remote HMI
PLC Type	Select SIEMENS S7/200 in this case
PLC I/F	This setting is depends on what interface the remote PLC used
COM	The setting is depends on what COM port the remote PLC used
PLC default station no.	The setting is depends on what the remote PLC used

After every setting is completed, a new name "Remote PLC" device is list on the table.

(3) How to control a remote HMI

So-called "remote HMI" means through network, local HMI or on PC run on-line simulation to control remote HMI. To control a remote HMI should add this type of device. Click [New…] and the following [Device Properties] dialog display. Correctly fill in all of the properties as required.
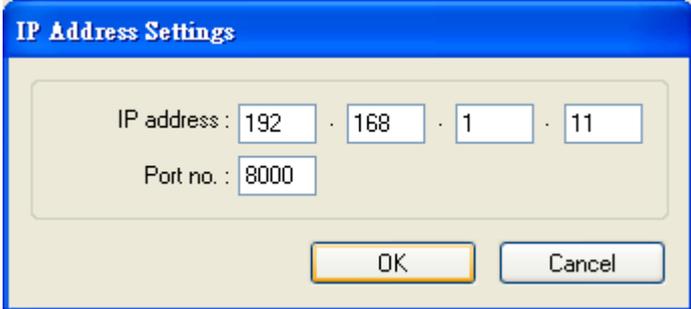
Each of settings is introduced as follows:

HMI or PLC	Select [HMI] for this case
Location	Select [Remote] in this case and click [Settings…] to set IP address of remote HMI and Port no. The port no. of remote HMI and local HMI must be same **IP Address Settings** IP address : 192 · 168 · 1 · 11 Port no. : 8000 OK Cancel

After every setting is completed, a new name "Remote HMI" device is list on the table.

No.	Name	Location	Device type	Interface	I/F ...	St...
Local...	Local HMI	Local	MT8xxx	N/A	N/A	N/A
Local...	MITSUBISHI F...	Local	MITSUBISHI F...	COM1(96...	RS4...	0
Rem...	SIEMENS S7/200	Remote(IP:192.168.1.10, P...	SIEMENS S7/2...	COM1(96...	RS4...	2
Rem...	Remote HMI	Remote(IP:192.168.1.11, P...	MT8xxx	Ethernet	TC...	N/A

[Model]

[Model] tab parameters determine the settings of HMI model, timer source and printer.

HMI model	Select current HMI model as illustration below. If on designing time to change the HMI model, user also can resize pop-up window and objects.

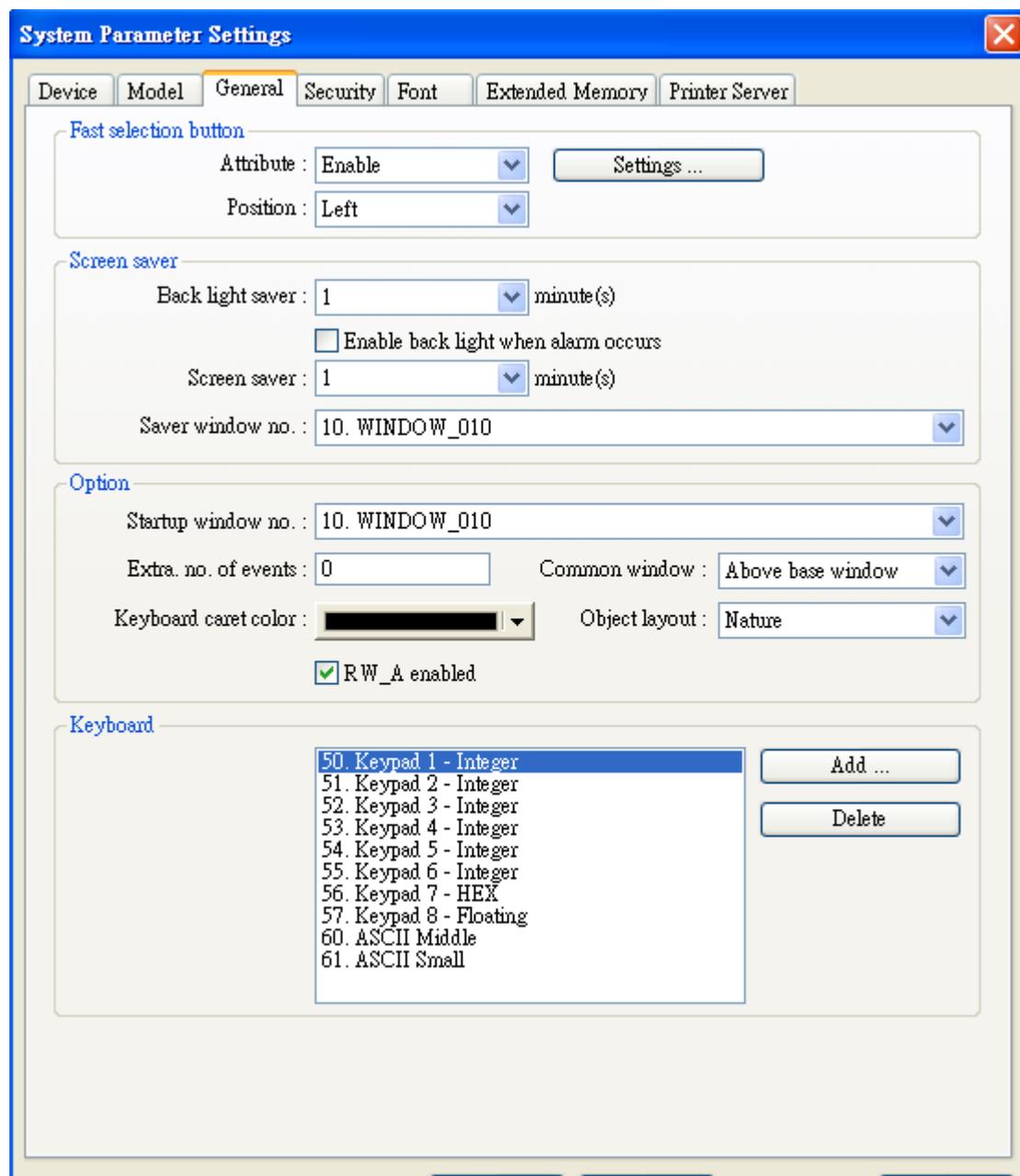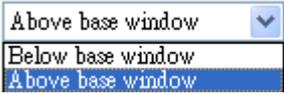|	
	Resize pop-up windows/objects General windows ☑ Resize pop-up windows ☑ Resize objects Keyboard windows ☑ Resize keyboard windows ☑ Resize function key objects OK
HMI station no.	Set the no. of HMI station. If no particular purpose, select default
Port no.	Set the port no. for HMI. It is used as MODBUS server's port no. If no particular purpose, select default
Timer	[Clock source] HMI RTC ▾ HMI RTC External device Set the source of timer. The time of the timer is used by such as [Data Log], [Event Log] ….etc. objects which needs the time records. Selecting "HMI RTC" demonstrates the time signal comes from internal clock of the HMI. Selecting "External device" demonstrates the time signal comes from external device. The correct address source of time signal is necessary in this situation. Take the illustration below as an example. "TV" indicates the time from Local PLC. The contexts of 6 consecutives addresses starting from 0 show as follows: TV 0 -> Sec. TV 1 -> Min. TV 2 -> Hr. TV 3 -> Day TV 4 -> Month TV 5 -> Year

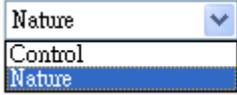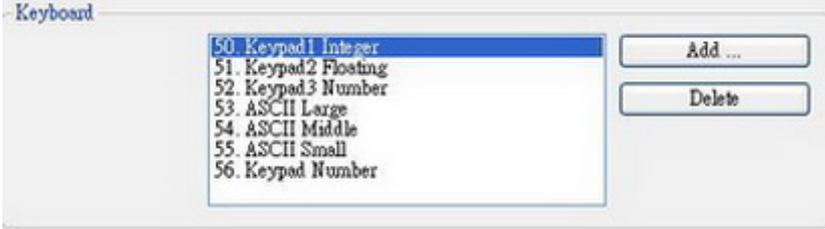|	Clock source : External device
	PLC name : MITSUBISHI FX0n/FX2
	Device type : TV
	16-bit Unsigned
	Address : 0
	Address format : ddd [range : 0 ~ 255]
Printer	[Type] To display supported printer, HP PCL Series have to use USB interface. Other printers have to use COM interface. For more details, please refer to the "MT8000 support printer" Type : HP PCL Series (USB) *USB only Paper size : None SP-M, D, E, F EPSON ESC/P2 Series HP PCL Series (USB) Using COM port to connect printer has to set the accurate parameters. When choose SP-M, D, E, F, the pixels of width has to set accurate, this setting can not exceed printer's default setting, otherwise will cause the printing to fault. Type : SP-M, D, E, F COM : COM 3 Baud rate : 19200 Data bits : 8 Bits Parity : None Stop bits : 1 Bit Pixels of width : 100 pixel(s) Screen hard copy scale : 100% * 100 pixels (for 1610 type) or 220 pixels (for 2407, 4004 type)
Storage space management (**T series support**)	● Manages the 12MB of combined Project and History data memory space. This allows smaller projects to have more internal memory for History Data or bigger project to have smaller internal memory. ● Minimum Project size is 6MB; Maximum Project size is 10 MB (default is 8MB). Minimum History data size is 2MB; Maximum History data size is 6 MB (default is 4MB). ● If the Project memory is made larger, History data may be over written when downloading. **It is necessary to reset HMI's data logs and event logs if change storage space.**

[General]

[General] tab parameters determine all properties related to screen operations.

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Fast selection button	The settings of all attributes for fast selection window which is designated as window number 3. [Attribute] Enable or disable fast selection window. After selecting "Enable", click [Settings…] to set the attributes of the button including color and text. [Position] Select the location of the fast select button. If "Left" is chosen, the button will show up at the corner of the left-bottom; if "Right" is chosen, the button will show up at the corner of the right-bottom.
Screen saver	[Back light saver] If the untouched duration of screen is equal to this value, back light will be turn off. The setting unit is minute. And back light will be turn on when the screen is touched. [Screen saver] If the untouched duration of screen is equal to this value, the current screen automatically switches to the assigned [Saver window no.].The setting unit is minute. If "none" value is selected, [Saver window no.] function is disabled.
Option	[Startup window no.] Select the window no. after HMI is started up. [Extra no. of events] The default number of events in the system is 1000. If user would like to add more records, the setting value can be modified up to 10000. [Common window] Above base window Below base window Above base window The objects of the common window (window 4) will be with each base window. This selection determines these objects are placed on or under the objects of the base window.

	[Keyboard caret color] Set the color of keyboard cursor. [Object layout] If "Control" mode is selected, when HMI operates, [Animation] and [Moving Shape] display above other kinds of objects and with no relation to the built ranking. If "Nature" mode is selected, the displayed sequence of objects show according to objects' built priority. [RW_A enabled] Enable or disable the recipe data RW_A. After activating RW_A, an object can operate the content of RW_A .The size of RW_A is 64K.
Keyboard	 If user would like to create new keyboard, keyboard should be configured on the existing window and select [Add…] to add these windows to the list. Please refer to the "designing and using keypad" for more information.

[Security]
[Security] tab determines the operable classes and user password. Twelve sets of password can be set. Only numeral are allowed for password and the range from 0~999999999.
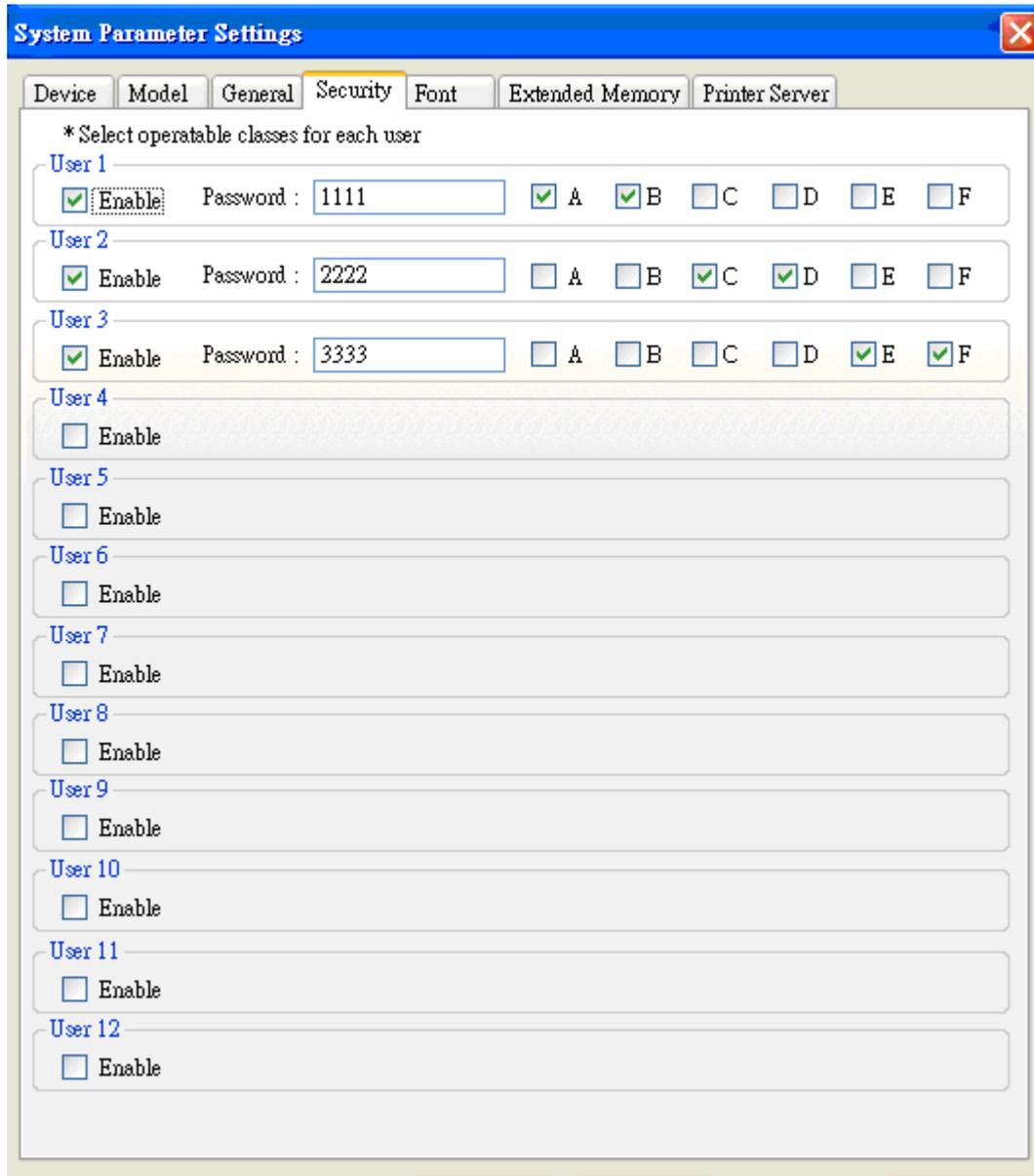
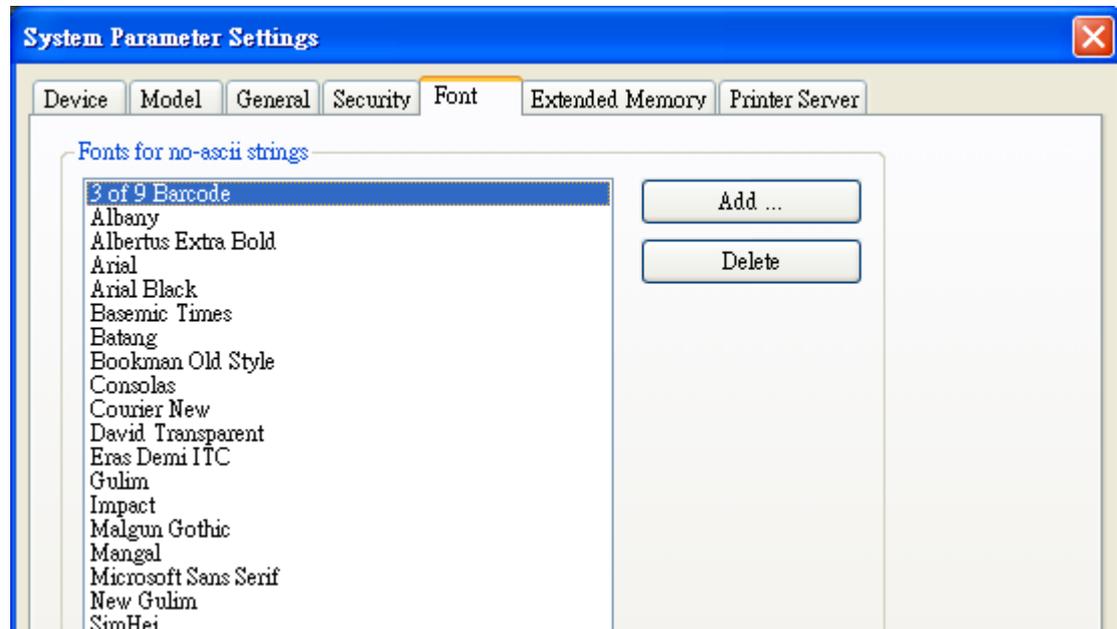On the objects, user can set operable different class is None and from class A to class F.
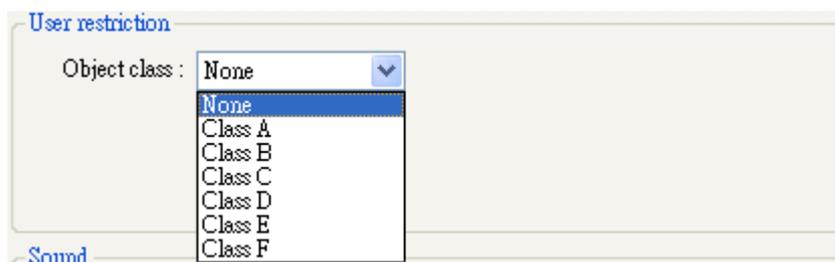
When setting User 1 as below, that's mean only can operable class None, A, C, and E.

About more information setting please refer to the "Object's Security Guard".

[Font]

[Font] tab determines the font of no-ASCII which be used on EB8000


[Fonts for no-ascii strings]

The fonts for no-ascii strings are listed above. When user used no-ascii font, and it don't listed on [Fonts for no-ascii strings] table, EB8000 will select a font which listed on table to substitute it automatically.

User also can test which no-ASCII strings of Windows can be used in HMI and add them to [Fonts for no-ascii strings] table.

[Extended Memory]

This tab use to decide the location of extended memory.
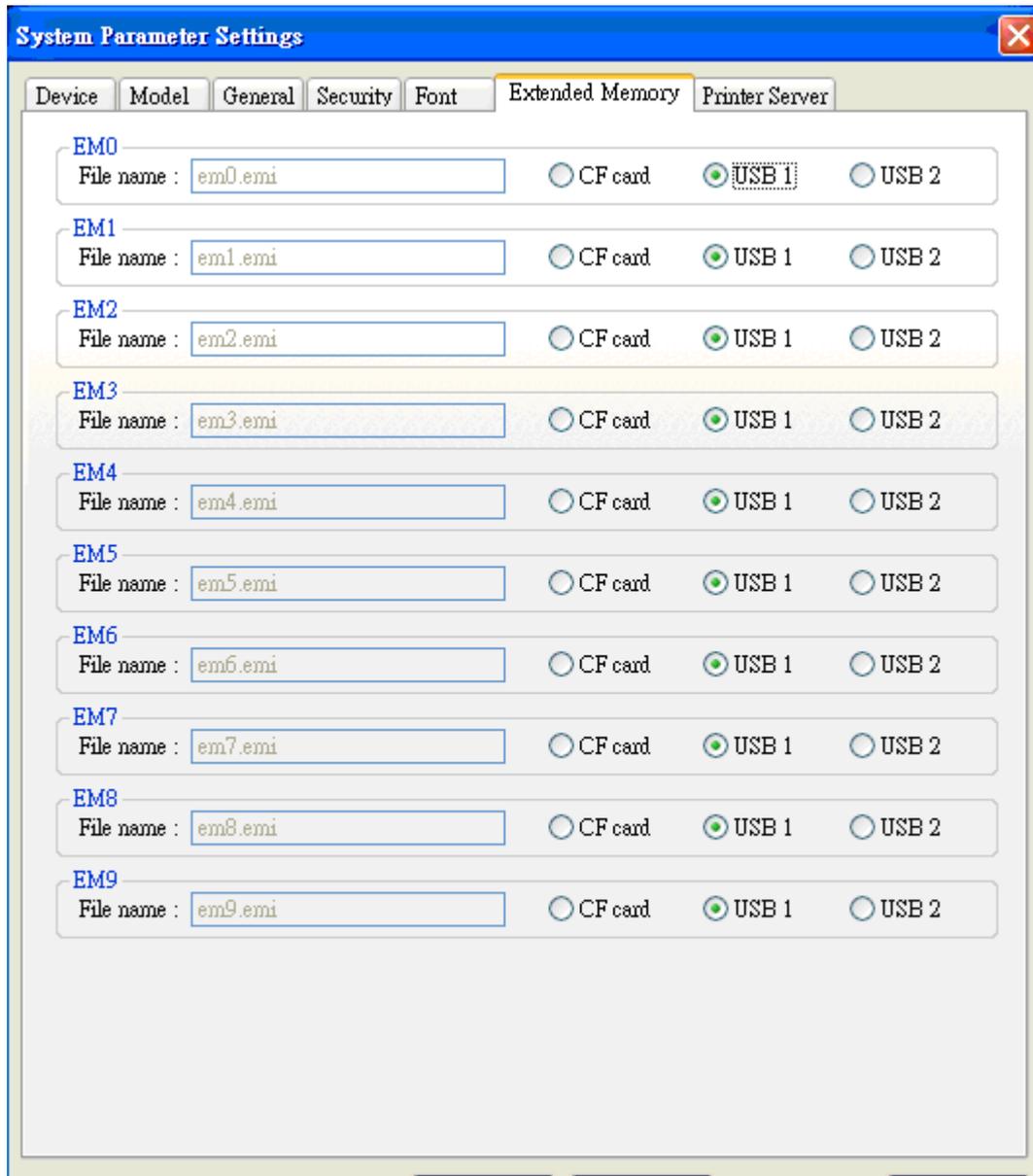
Extended Memory is numbered from EM1 to EM9. Max. size of each extended memory is up to 2G.

External devices such as CF Cards and USB memory sticks are not affected by power loss. Data stored in these locations is retained regardless of HMI power conditions.

If the external device is removed, the "PLC no response" message display when the HMI tries to access extended memory. Data is returned as 0 in this case.

The HMI supports "hot swapping" of CF Card and USB devices. There is no need to interrupt operations to change out CF Card or USB devices.

[Printer Server]
Use this tab to set up all of MT remote printer server setting.

Output settings	[Orientation] Picture or word can be set horizontal or vertical. [Printer size] It can be set original size or fit to printer margins. [Margin] The borderline setting include top, bottom, right and left.
Communication settings	[IP address] Assign the IP address of remote printer via network. [Port], [User name], [Password] Determined by user. Port can be set from 1 to 65535. Max. length of user name and password is 12 characters.

※ The other specifics please refer to the appendix Easy Printer.