## Chapter 5 System Parameter Settings

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

Sys	tem Pa	arame	eter Setting	şs				X		
D	Nevice Model General Security Font Extended Memory Printer Server									
	Device list :									
	No.		Name	Location	Device type	Interface	I/F Protocol	Statio		
	Local	HMI	Local HMI	Local	MT6056T/MT8056T (320 x 234	) Disable	N/A	N/A		
	<							>		
		New .		Delete	Settings					
	Projec	t desci	ription :					()		
								<u>~</u>		
								~		
	<							>		
							_			

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

Device Properties	
Name : M	IITSUBISHI FX0n/FX2
0	HMI 💿 PLC
Location : L	ocal 💉 Settings
PLC type : M	II TSUBISHI FX0n/FX2
۷.	1.00, MITSUBISHI_FXON.so
PLC I/F : R	S-485 4 W V PLC default station no. : 0
COM : CO	DM1 (9600,E,7,1) Settings
	Use broadcast command
Interval	of block pack (words) : 5
Max. read-	command size (words) : 32
Max. write-	command size (words) : 32 💽
· · · · · · · · · · · · · · · · · · ·	OK Cancel

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.		

	IP Address Settings				
	IP address : 192 · 168 · 1 · 34 Port no. : 500				
	Timeout (sec) : 1.0 S Tum around delay (ms) : 0				
	Send ACK delay (ms) : 0 Parameter 1 : 0 Parameter 2 : 0 Parameter 3 : 0				
	OK Cancel				
PLC default	When contents of device address is not included station no.,				
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				
	Read address				
	PLC name : MITSUBISHI FX0n/FX2				
	Device type : TV				
	Address: 1#20				
	Address format : ddd [range : 0 ~ 255]				
	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.				
Liza huga dagat	For example, the value as 255 and when on device address set				
Use broadcast	For example, the value as 255 and when on device address set				
command	255#20, the Hivi will send command to PLC merely and				
	Ignore that any response from PLC.				
Interval of block	is less then this value, these commands can be combined to				
pack (worus)	one. But combination won't function if this value as 0				
	For example, if the value as 5, when read out a word from				
	I W3 and 2 words from I W6 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.	The Max. data size to be read out from device at one time.				
read-command					

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

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

Device list :					
No.	No. Name		Device type	Interface	I/F Protoc
Local HMI	Local HMI	Local	MT8121T (800 x 600)	Disable	N/A
Local PLC 1	MITSUBISHI FXO	Local	MITSUBISHI FX0n/	COM1(9600,E,7,1)	RS485 4 W

### (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

Device Properties	
Name :	SIEMENS S7/200
	◯ HMI   ⊙ PLC
Location :	Remote Settings IP : 192.168.1.35 (Port = 8000)
PLC type :	SIEMENS S7/200
	V.1.90, SIEMENS_S7_200.so
PLC I/F :	RS-485 2W V PLC default station no. : 2
COM :	COM1 Settings
	Use broadcast command
Interv	val of block pack (words) : 5
Max. rea	d-command size (words): 32
Max. wri	te-command size (words) : 32
	OK Cancel

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		
	IP Address Settings		
	IP address : 192 · 168 · 1 · 35 Port no. : 8000		
	OK Cancel		
PLC Type	Select SIEMENS S7/200 in this case		
PLC I/F	This setting is depends on what interface the remote PLC used		
СОМ	The setting is depends on what COM port the remote PLC		
	used		
PLC default	The setting is depends on what the remote PLC used		
station no.			

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

Device list :							
No.	Name	Location	Device type	Interface			
Local	Local HMI	Local	MT8121T (800 x 600)	Disable			
Local	MITSUBISHI FX0n/F	2 <sub>cal</sub>	MITSUBISHI FX0n/FX2	COM1(9600,E,7,1)			
Remo	SIEMENS S7/200	Remote(IP:192.168.1	SIEMENS S7/200	COM1 (9600,E,8,1)			

### (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.

Device Properties
Name : Remote HMI
⊙ HMI ○ PLC
Location : Remote Settings IP : 192.168.1.11 (Port = 8000)
Interval of block pack (words) : 5
OK Cancel

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.

m Parameter Settin	ngs
rice Model Gene	ral Security Font Extended Memory Printer Server
HMI model :	MT6056T/MT8056T (320 x 234)
HMI station no :	0
Port no. :	8000 (used as MODBUS server's port no.)
Timer	
Clock source :	External device
PLC name :	Local HMI
Device type :	LW
	16-bit Unsigned 🕑
Address :	0 System tag
	Index register
Printer	
Туре :	SP-M, D, E, F
COM :	СОМ 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 manage:	nent
History data space 4.0M	Max. XOB file size
*Hint : If	change storage space, please reset HMI's data logs and event logs.

HMI model	Select current HMI model as illustration below.
	MT6056T/MT8056T (320 x 234)
	MT6056T/MT8056T (320 x 234) MT6070T/MT8070T (480 x 234) MT6104T/MT8080T/MT8104T (640 x 480) MT8121T (800 x 600) MT8104XH/MT8121X (800 x 600) MT8104XH/MT8121X (800 x 600) MT8150X (1024 x 768) MT6070i/8070i (480 x 234) MT8070iH/MT6100i/MT8100i (800 x 480)
	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]						
	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) 🛛 VSB only						
	Paper size : None SP-M. D. E. F						
	EPSON ÉSC/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)						
Ct.							
Storage space	• Manages the 12MB of combined Project and History data						
management (T	memory space.						
series support)	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.						

Stores spect management		
History data space 4.0M	······	Max. XOB file size 8.0M
*Hint : If ch	ance storage space, please reset HMI's data loos and e	went loss

# [General]

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

System Parameter Settings	×
Device Model General Security Font Extended Memory Printer Server	
Fast selection button	
Attribute : Enable 🛛 🖌 Settings	
Position : Left 💌	
Screen saver	$\leq$
Back light saver : 1 winute(s)	
Enable back light when alarm occurs	
Screen saver : 1 winute(s)	
Saver window no. : 10. WINDOW_010	~
- Option	$\leq 1$
Startup window no.: 10. WINDOW_010	~
Extra. no. of events : 0 Common window : Above base window	~
Keyboard caret color : Object layout : Nature	~
RW_A enabled	
Keyboard	$\leq 1$
50. Keypad 1 - Integer Add	ר
51. Keypad 2 - Integer         52. Keypad 3 - Integer         53. Keypad 4 - Integer         54. Keypad 5 - Integer         55. Keypad 6 - Integer         56. Keypad 7 - HEX         57. Keypad 8 - Floating	ב ב
60. ASCII Middle 61. ASCII Small	

Fast selection	The settings of all attributes for fast selection window which is					
button	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					
Scroon sever	[Back light saver]					
Screen saver	[Dack light savel]					
	will be type off. The setting unit is minute. And back light will be					
	will be turn on. 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					
	arran automatically switches to the assigned [Saver window]					
	screen automatically switches to the assigned [Saver window					
	no.j. i ne 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					
	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] Nature Control Nature 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	Keyboard       S0 Keypad1 Integer         \$1. Keypad2 Ploating       Add         \$2. Keypad3 Number       Delete         \$4. ASCII Middle       Delete         \$5. ASCII Small       S6. Keypad Number         \$6. Keypad Number       100 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.

System Paramet	ter Settings										×
Device Mode	l General	Security	Font	E	xtended	Memory	/ Printe	r Server	]		
* Select opera	atable classes :	for each u	ser								
User 1 Enable	Password :	1111			💌 A	🖌 B	С	D	E	F	
User 2 Enable	Password :	2222			A 🗌	B	₽C	🔽 D	E	F	
User 3 Enable	Password :	3333			A 🗌	В	C	D	💌 E	🔽 F	
User 4		ininini Marina	inini Militi				6666	(i)(i))		(((()))	
User 5											٦l
User 6											ñ
- User 7											ĥ
User 8											ĥ
User 9											H
User 10											
User 11											
Enable											
Enable											
							_		_		_

On the objects, user can set operable different class is None and from class A to class F.

User restriction -				
Object class :	None	~		
	None			
	Class A			
	IClass B			
	Class E			
Sound	Class F			

When setting User 1 as below, that's mean only can operable class None, A, C, and E.

-User 1								
🗹 Enable	Password :	1111	🗹 A	B	С	D	🖌 E	F

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

System Parameter Settings	×
Device Model General Security Font Fonts for no-ascii strings 3 of 9 Barcode Albany Albertus Extra Bold Arial Arial Black Basemic Times Batang Bookman Old Style Consolas Courier New David Transparent Erss Demi ITC Gulim Impact Malgun Gothic Mangal Microsoft Sans Serif New Gulim SimHei	Extended Memory Printer Server

### [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.

rstem Parameter Settings					
Device M	odel General Security Font	Extended Memory	Printer Server		
File nar	ne : em0.emi	CF card	OUSB 1	O USB 2	
EM1 — File nar	ne : em1.emi	◯ CF card	💽 USB 1	O USB 2	
EM2 File nar	ne : em2.emi	CF card	💿 USB 1	O USB 2	
EM3 File nar	ne : em3.emi	CF card	💿 USB 1	O USB 2	
EM4 File nar	ne : em4.emi	◯ CF card	💿 USB 1	O USB 2	
EM5 File nar	ne : em5.emi	◯ CF card	⊙ USB 1	O USB 2	
EM6 File nar	ne : em6.emi	CF card	⊙ USB 1	O USB 2	
EM7 File nar	ne : em7.emi	CF card	💿 USB 1	O USB 2	
EM8 File nar	ne : em8.emi	CF card	⊙ USB 1	O USB 2	
EM9 File nar	ne : em9.emi	CF card	⊙ USB 1	O USB 2	

Extended Memory is numbered from EM1 to EM9. Max. size of each extended memory is up to 2G.

Device type :	LW	٢
	LW RW RW_A RWI	
	EM0 EM1	
	EM2 EM3	
	EM5 EM6	
	EM7 EM8	
	EM7 EM8 EM9	

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.

System Parameter Settings
Device Model General Security Font Extended Memory Printer Server
Use MT Remote Printer Server
Orientation :   Horizontal   Overtical
Printer size : 💿 Original size 💿 Fit to printer margins
Margin : 0 🔿 mm
Communication settings
IP address : 0 . 0 . 0 . 0
Port : 8005
User name : 111111
password : 111111

<b>Output settings</b>	[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	[IP address]	
settings	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.