

cMT SVR

Startup Guide

Your industrial control solutions source

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Chapter 1 - Overview

1.1 Connector pin designations

PIN#	COM1 RS-232	COM2 RS-485		COM3 RS-485
		2W	4W	
1				Data+
2	RxD			
3	TxD			
4				Data-
5		Ground		
6		Data+	RX+	
7		Data-	RX-	
8			TX+	
9			TX-	

1.2 USB host port and SD card slot

USB 2.0 full speed host interface supports barcode scanners and USB drive. While using external hard drive, use external power supply. Do not use USB port to charge external device. You may use SD card as an expansion of storage.

1.3 Ethernet port

The unit has one/two 10/100/1000M Gigabit Ethernet ports.

The LED indicators on the Ethernet port indicate:

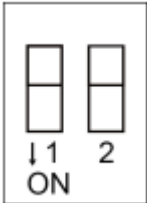
- Orange LED: LAN link status
- Green LED: Active communication status

1.4 DIP switch

Each unit is equipped with a reset button and a set of DIP switches. When using the DIP switches to change modes, the corresponding functions will be triggered.

When SW1 is turned ON and the unit is powered on again, the IP setting is restored to default:

cMT-SVR-100/102	cMT-SVR-200/202
• Ethernet 1: DHCP • Ethernet 2: 192.168.100.1	• Ethernet 1: DHCP • Wi-Fi: DHCP



SW1	SW2	Mode
OFF	OFF	Normal mode
ON	OFF	Restore Ethernet IP settings
OFF	ON	Boot loader mode
ON	ON	Restore factory default

Note: Reboot cMT-SVR after adjusting DIP switches to start the corresponding mode.
When restoring factory default, the project file and history data stored are all cleared.

1.5 LED indicator

LED indicators show the operation status of cMT-SVR.

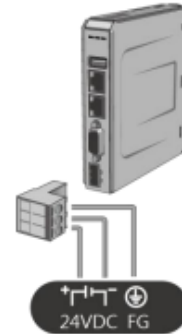
- Power (Orange) - Indicates power status.
- CPU (Green) - Indicates CPU status.
- Communication (Blue) - Indicates communication status. It flashes during communication and may stay on when communication is good.

1.6 Lithium battery

A cMT-SVR Series HMI requires a CR1225/CR1220 coin type lithium battery to keep the RTC running. Due to the difference in manufacturing time, the battery type can either be CR1225 or CR1220 3V lithium battery. To change the battery, choose the type depending on the model you use.

1.7 Power connection

The unit can be powered by DC power only, cMT-SVR-100/102 voltage range: $24 \pm 20\%$ Volts DC, cMT-SVR-200/202 voltage range: 10.5~28 Volts DC, compatible with most controller DC systems.

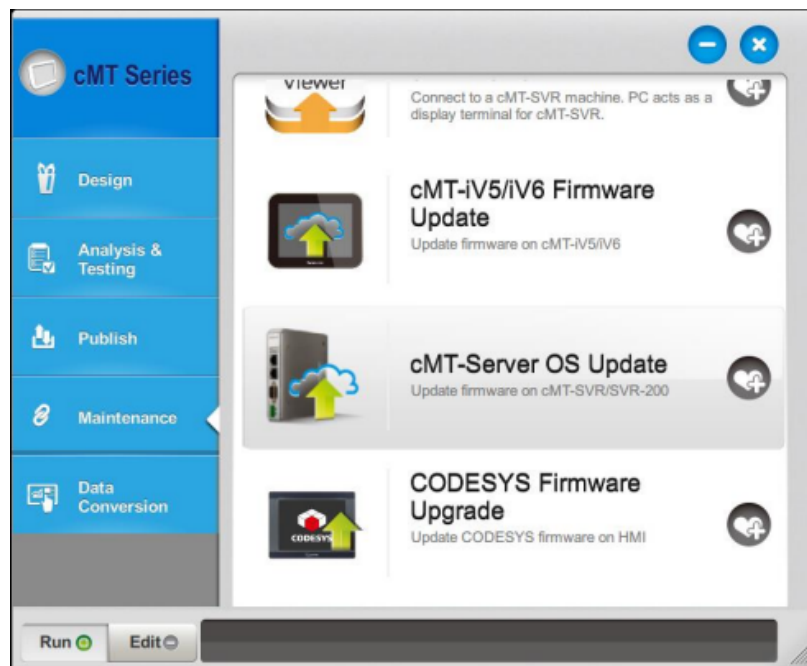


Note: Connect positive DC line to the '+' terminal and the DC ground to the '-' terminal.

1.8 How to update cMT-SVR OS image

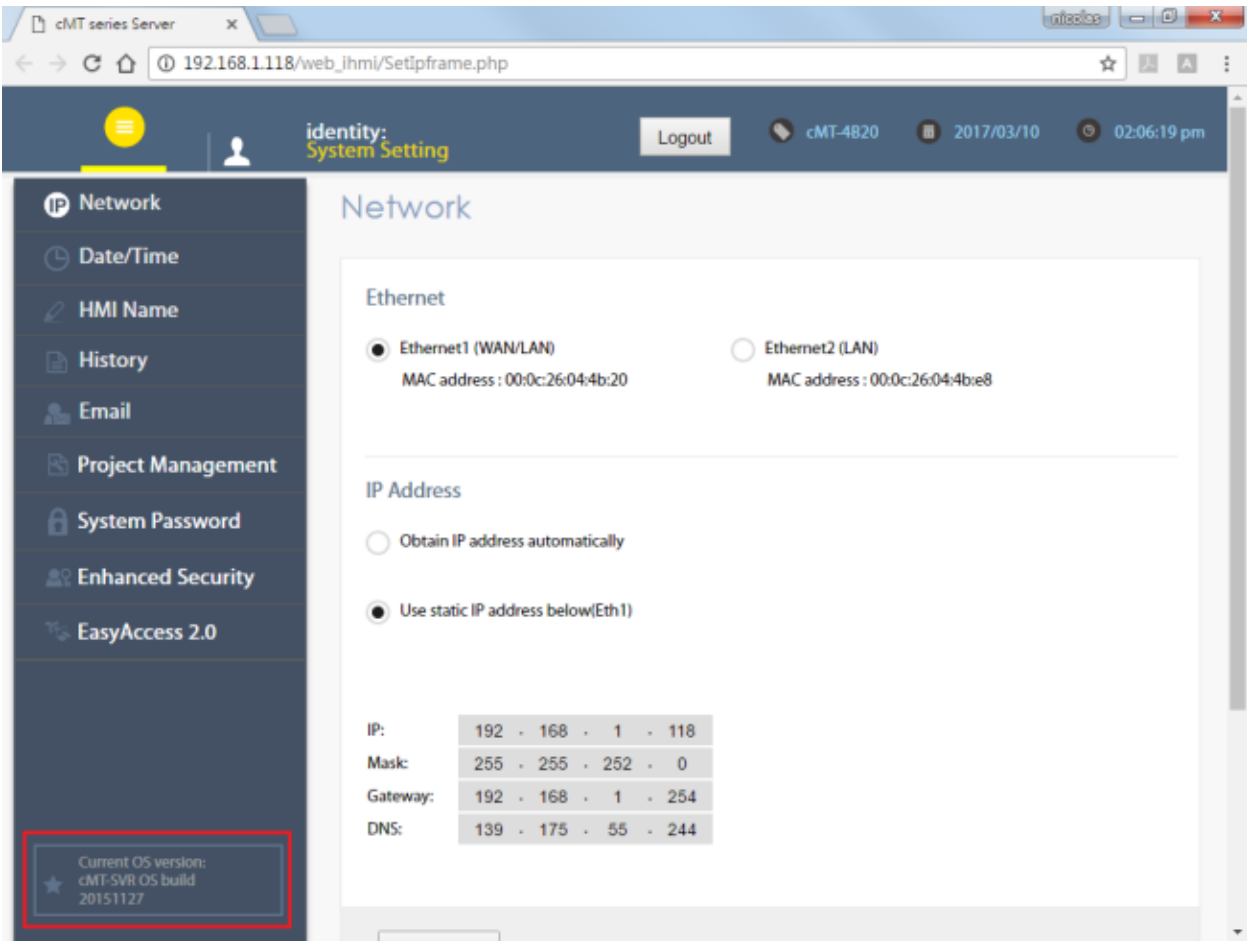
From the Utility Manager

Under EBPro installation directory, open **UtilityManager.exe**, select **cMT Series**, open the **Maintenance** tab, and select **cMT-Server OS Update**. Select the **cMT-SVR** and the OS (20190902 or later), and then click **Update**.



Using an SD card

Copy the MTfirmware.bin file to SD card, insert the SD card to cMT-SVR and flip DIP Switch 2 to ON. Restart cMT-SVR and wait about 2 minutes for the system to update OS image. To find the version number of cMT-SVR OS, log in System Setting as shown below. (Details can be found in later chapters.)

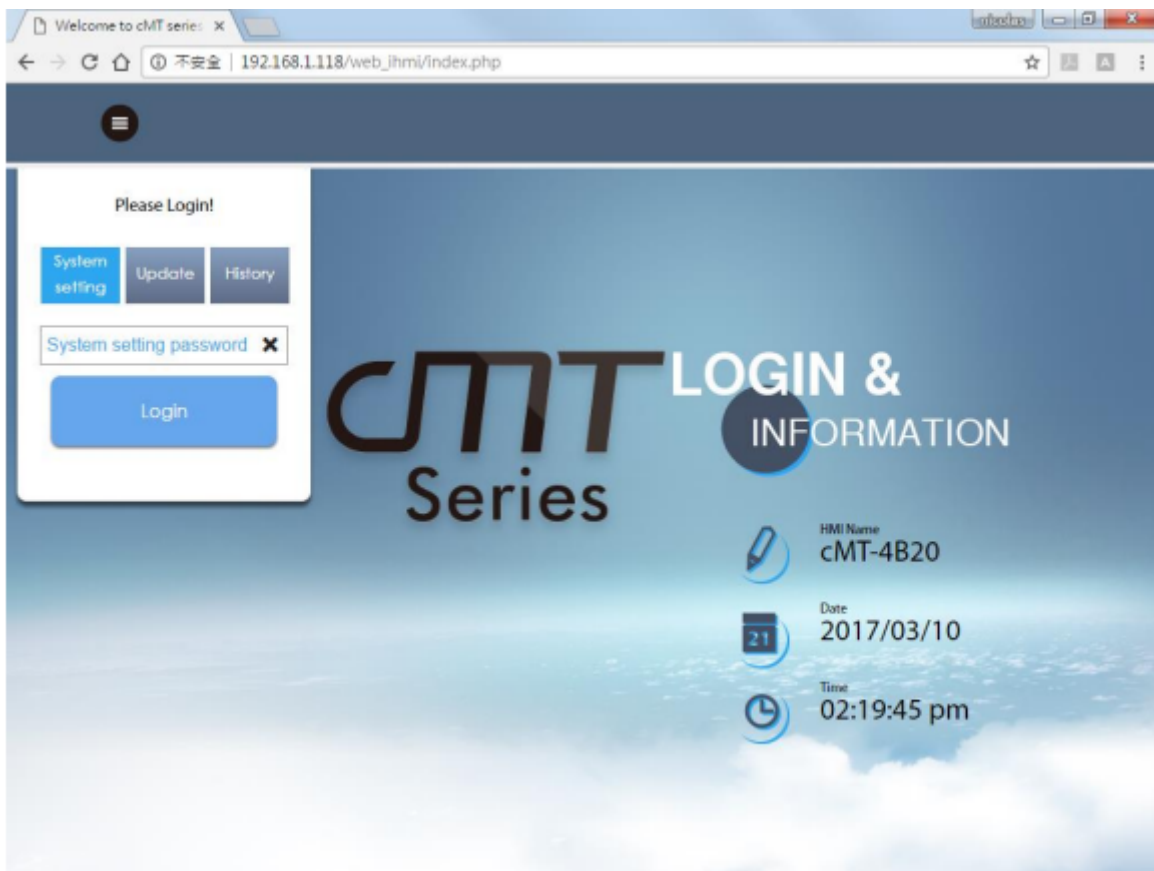


Chapter 2 - System Setting

Connect cMT-SVR via Ethernet cable or Wi-Fi and configure system settings using the following two ways.

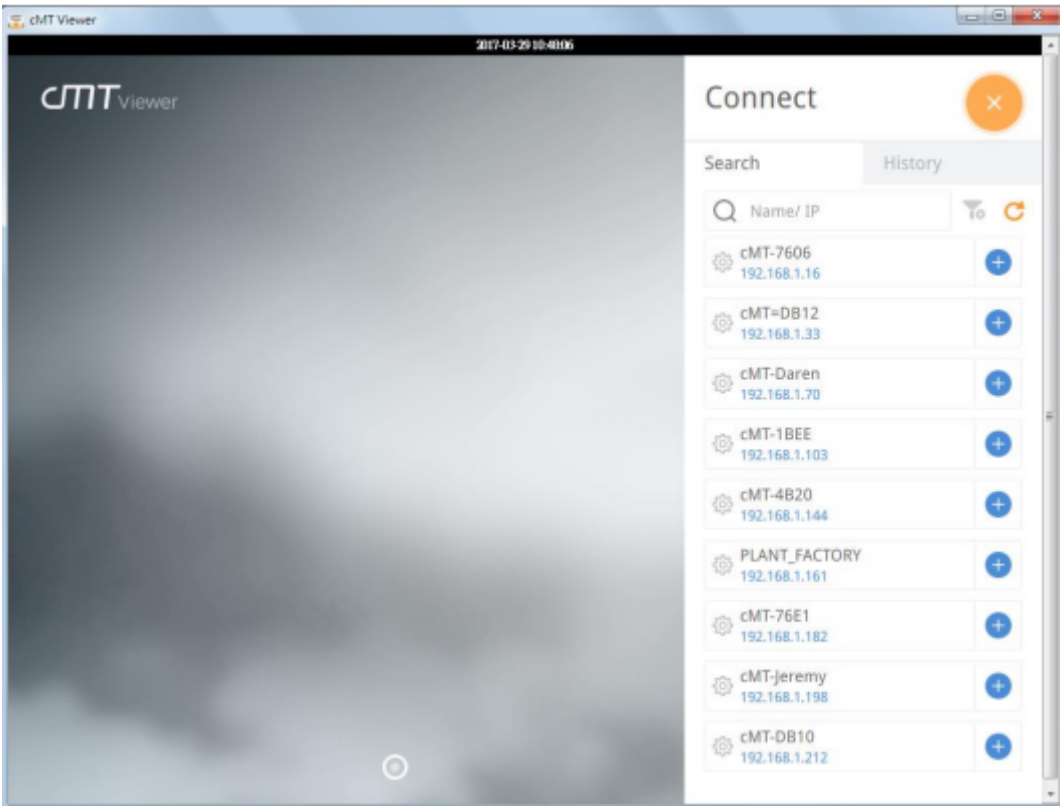
Set in internet browser

Open an internet browser and enter cMT-SVR IP address (for example: 192.168.1.15/web_ihmi) to configure cMT-SVR.



Set on cMT Viewer devices

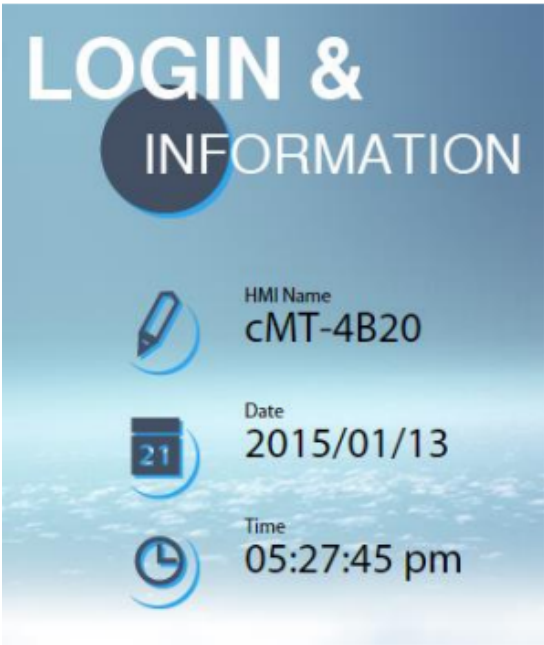
Launch cMT Viewer App, tap Search, select the cMT-SVR and tap the  icon to configure.



2.1 cMT-SVR System Setting

2.1.1 Information

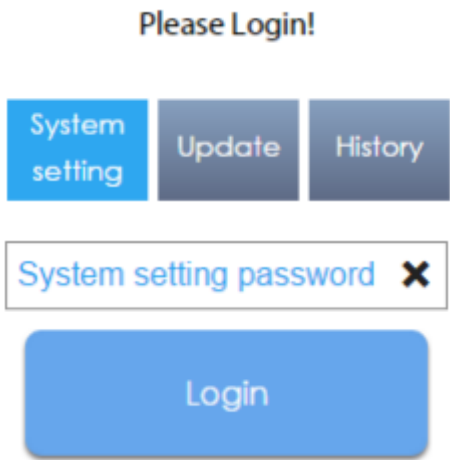
The following part introduces cMT-SVR system information.



Icon	Description
	Displays HMI name.
	Displays current date.
	Displays current time.

2.1.2 System Setting

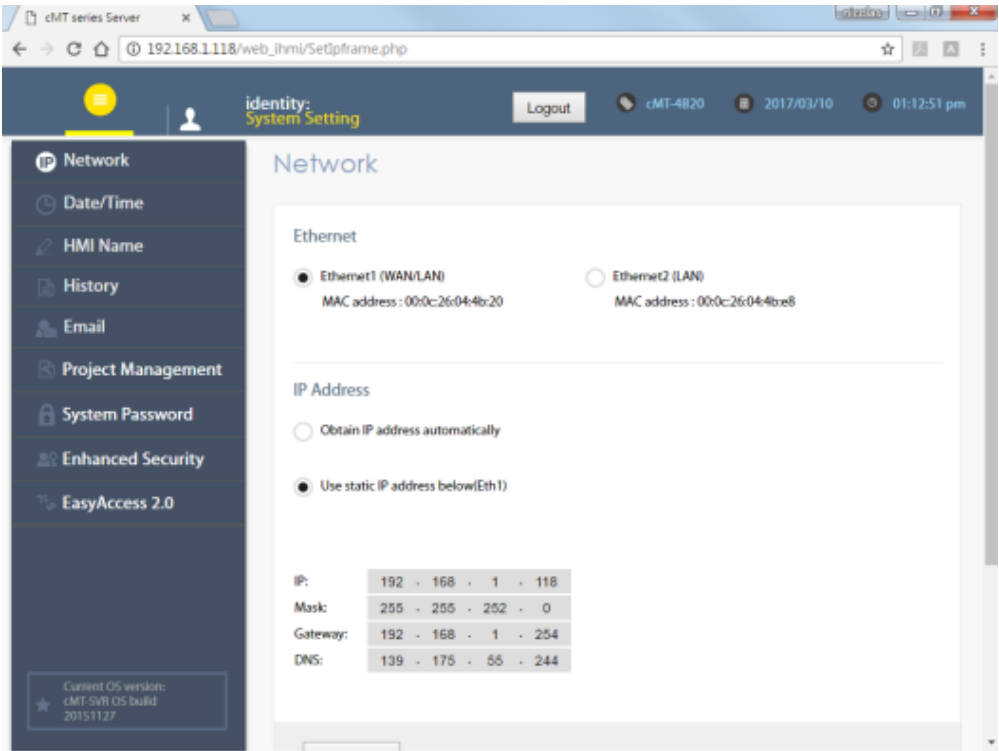
The following part introduces cMT-SVR system setting.



There are two modes, **System setting** and **Update**. System Setting controls all the settings while Update controls limited items. For safety, specify password for configuration. Enter password to log in and then select History to back up history data.

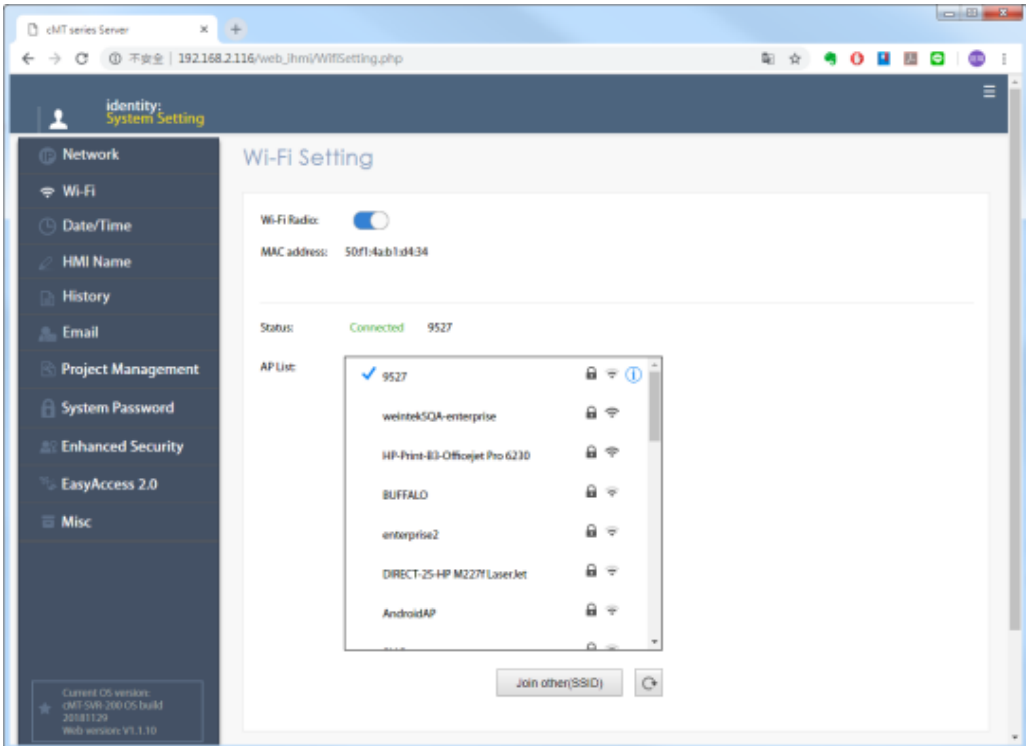
Network

Set the IP address of Ethernet port. cMT-SVR-100/102 has two Ethernet ports while cMT-SVR-200/202 only has one.



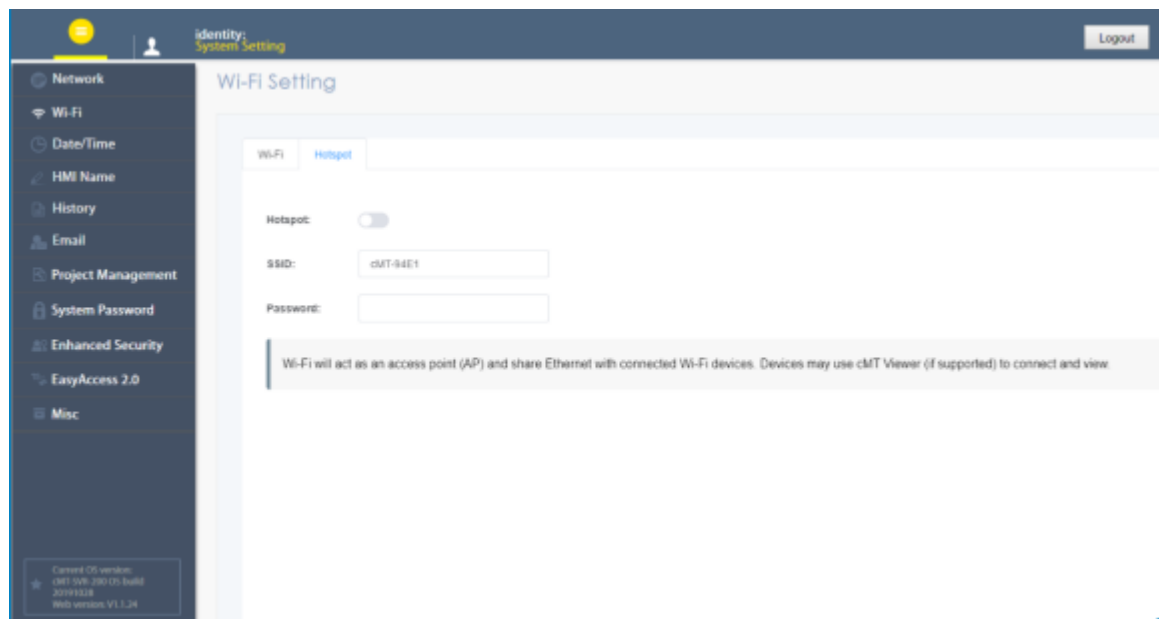
Wi-Fi

cMT-SVR-200/202 can be connected via Wi-Fi. The settings page is shown below.

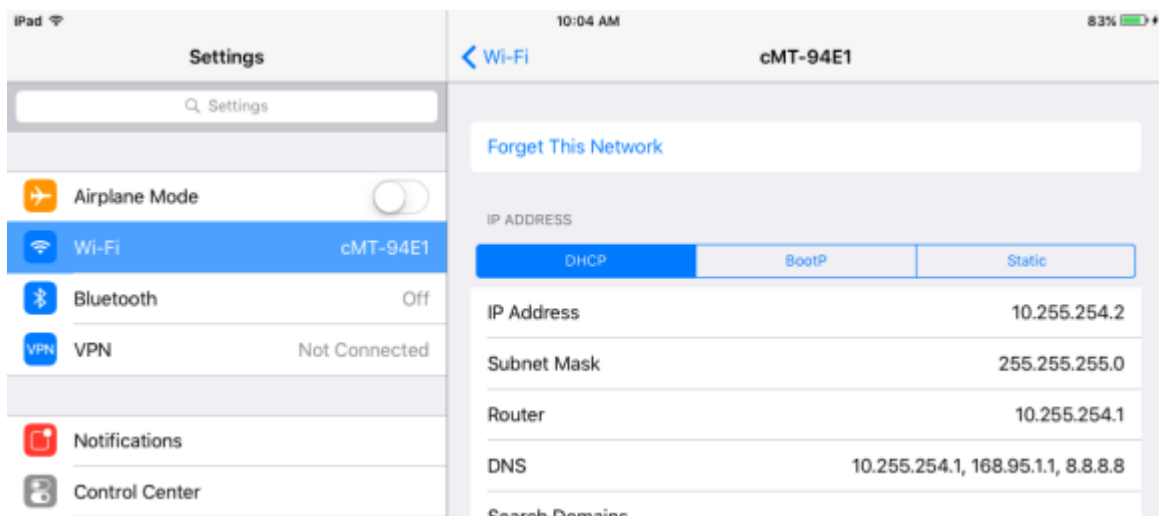


Wi-Fi Hotspot

Using Wi-Fi hotspot on cMT-SVR-200/202 is possible.

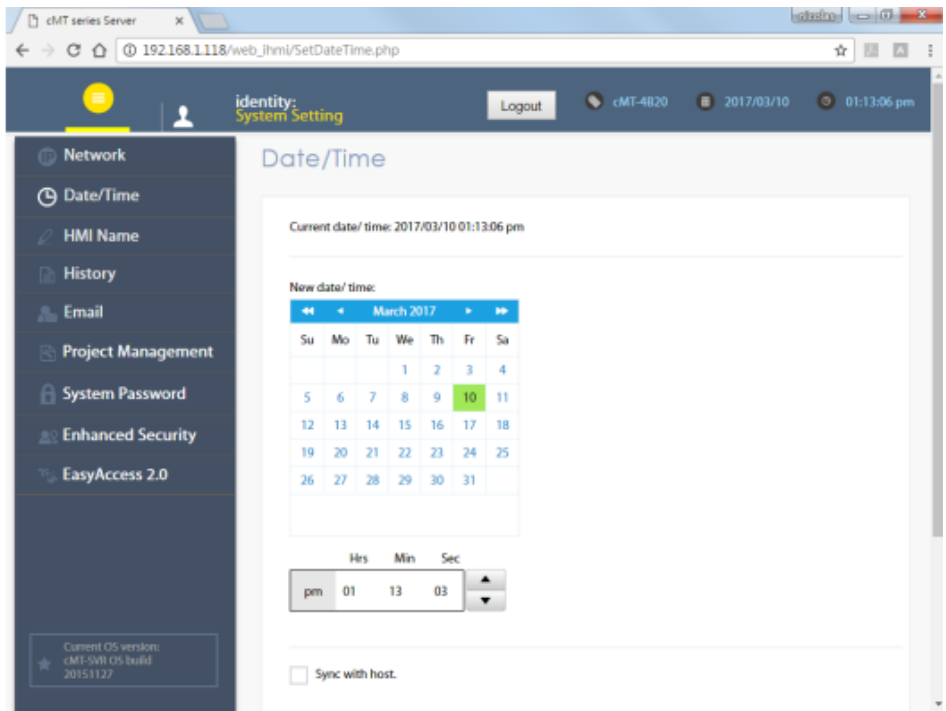


After setting up the hotspot, computers and portable devices that support Wi-Fi can connect with cMT-SVR-200/202 to wirelessly edit the project, download files, or monitor using cMT Viewer.



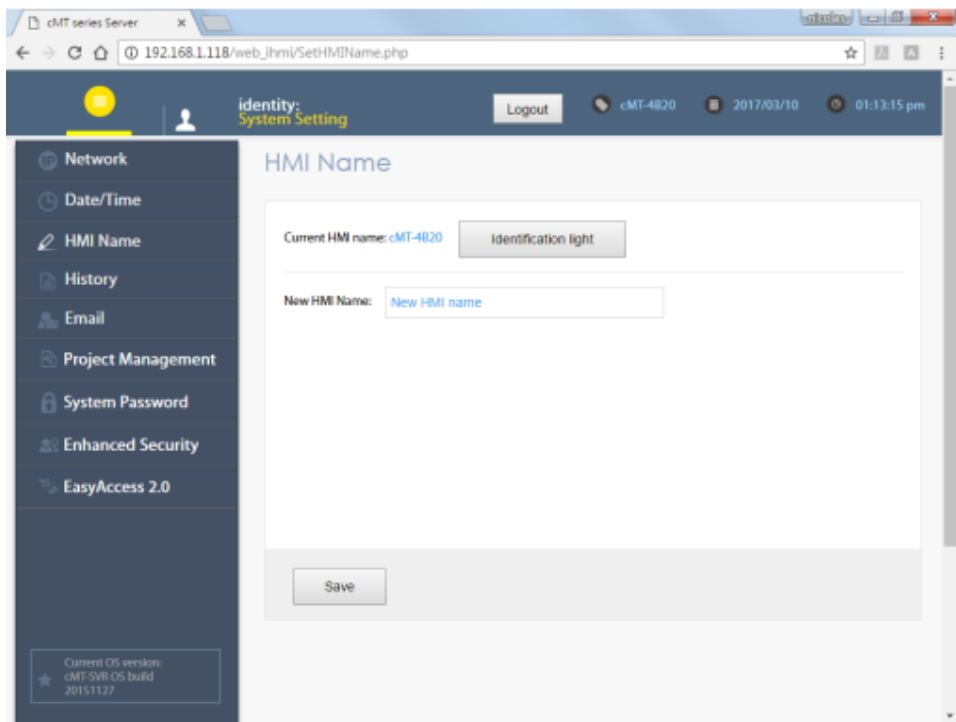
Date/Time

Set time or select Sync with host. to synchronize cMT-SVR time with PC time.



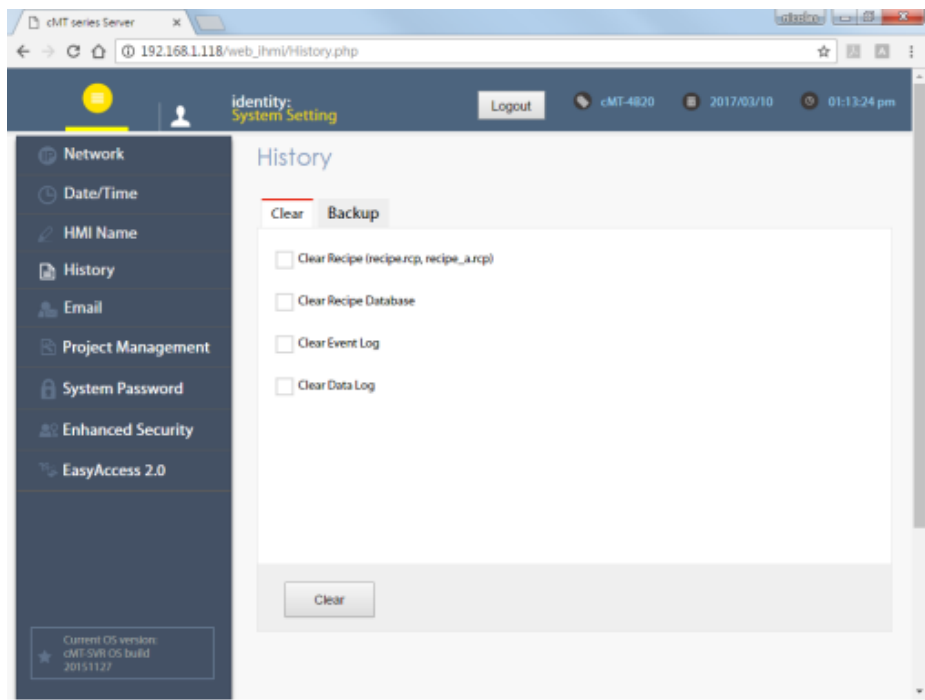
HMI Name

Enter a cMT-SVR name to identify the unit. This saves the trouble of remembering the IP address of each unit. Click Identification light button to turn on the CPU light of the unit. The light flashes 3 times to help find the unit.



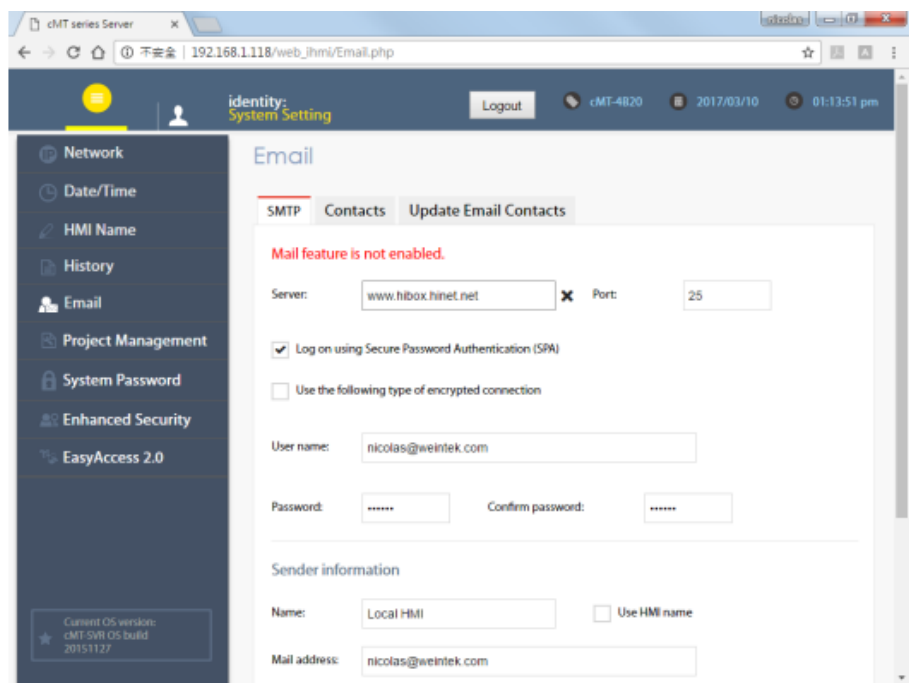
History

Clear or backup history data in cMT-SVR.



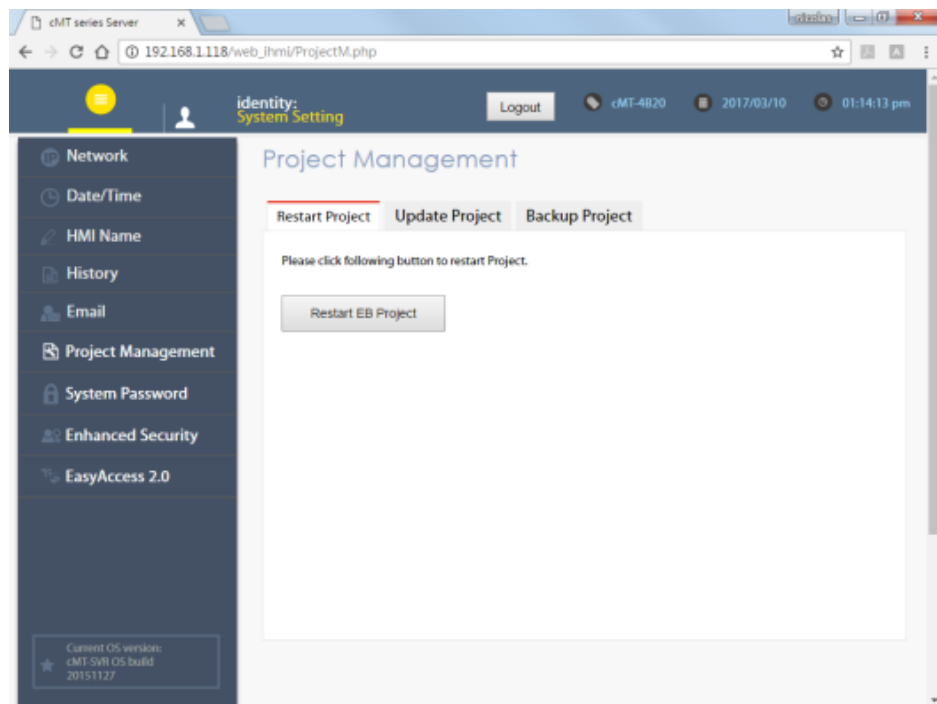
Email

Set the mail address and contact group.



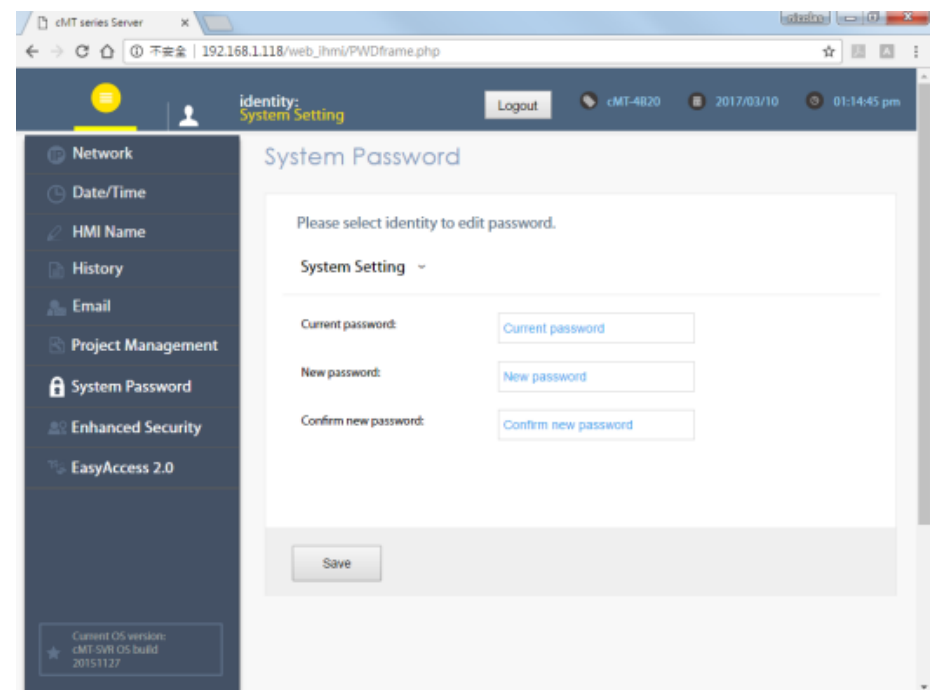
Project Management

Restart, update, or backup project file.



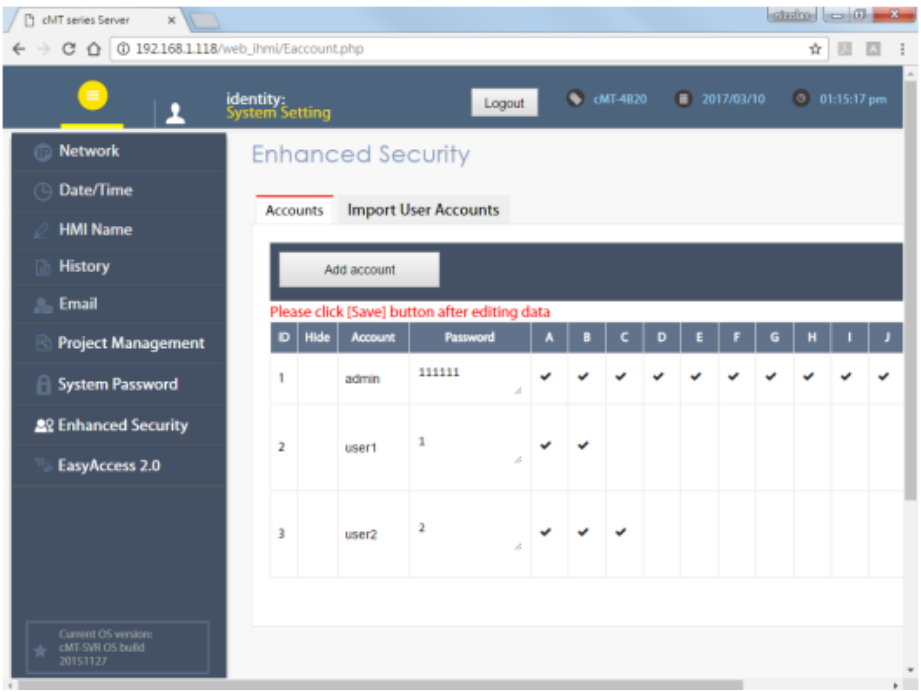
System Password

Set the password for login, and the password for transferring project file and history data.



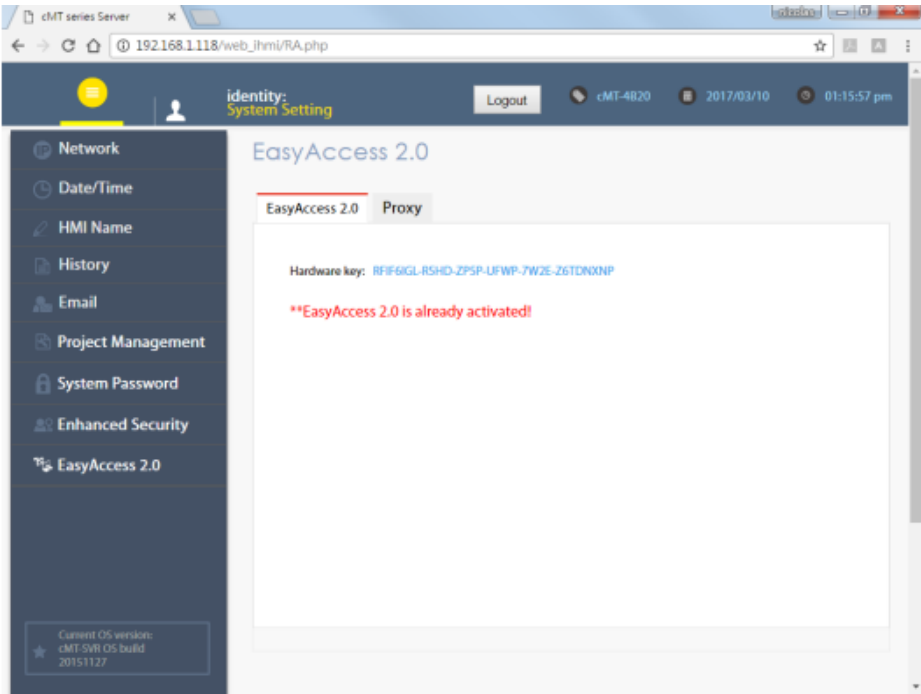
Enhanced Security

Set the privilege and password of the account.



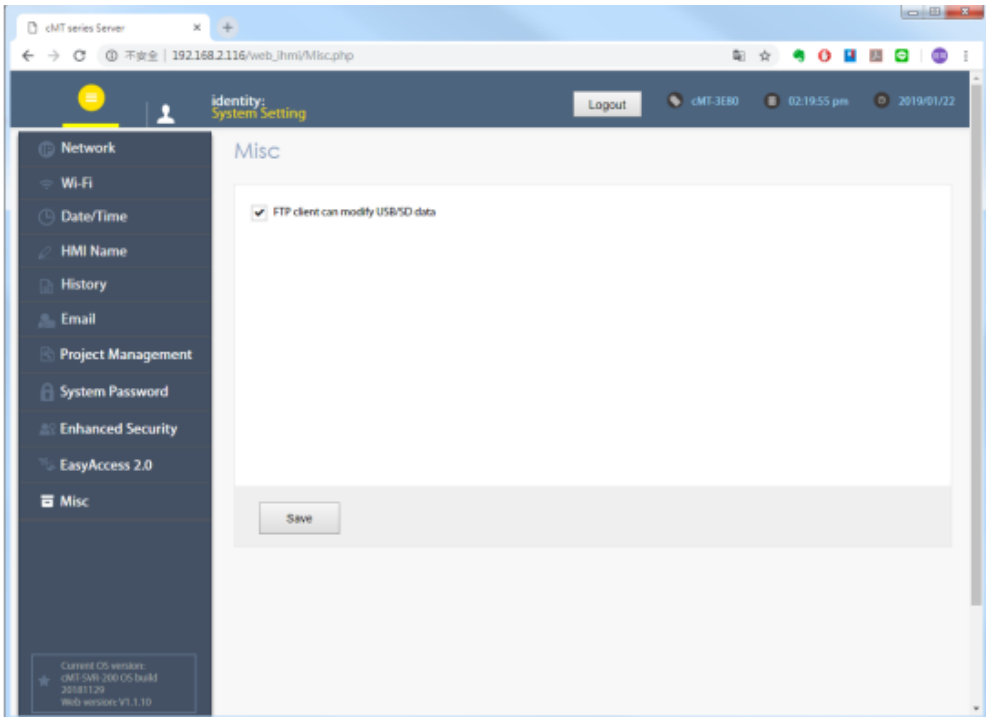
EasyAccess 2.0

Activate EasyAccess 2.0 and configure proxy settings.



Misc

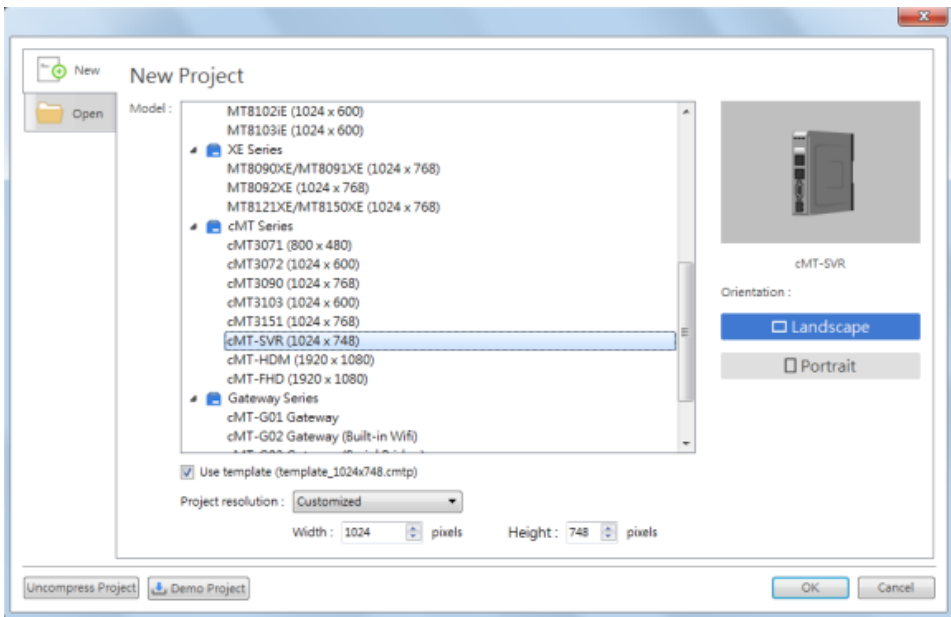
Miscellaneous settings.



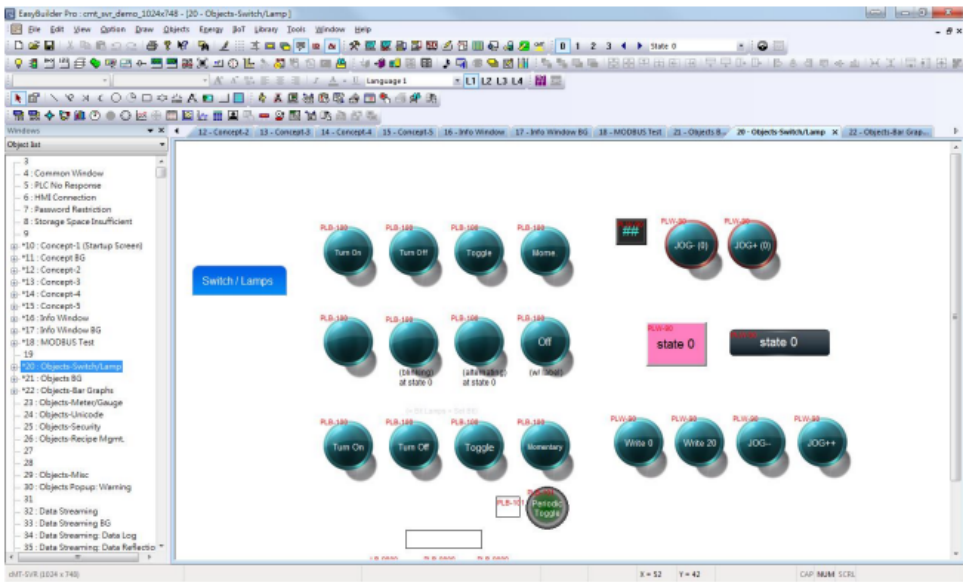
Chapter 3 - How to create a cMT-SVR project

3.1 Create a new project

1. Launch EBPro and select cMT-SVR model.



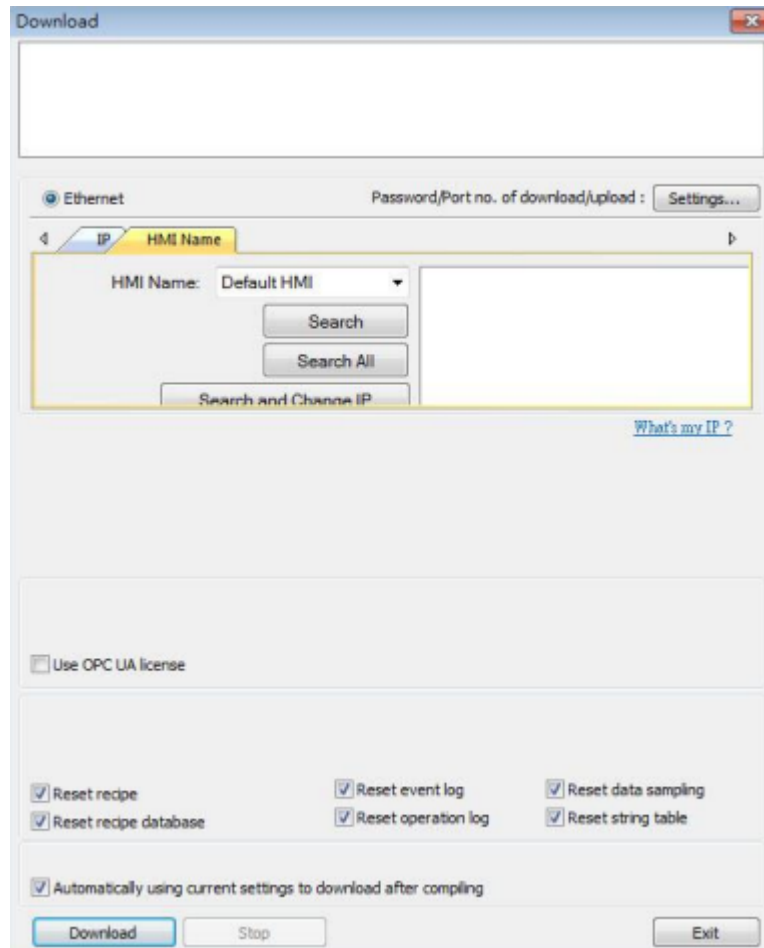
2. Create the objects needed on the editing screen.



3. Save the project and compile it to *.xob file.

3.2 Download project to cMT-SVR

After compilation, a *.cxob file is generated. The file can be downloaded via Ethernet in EBPro.



Or, in cMT-SVR System setting, tap Project Management \ Update Project to transfer the project file from PC to cMT-SVR. Open internet browser (IE, Chrome, Firefox), enter cMT-SVR IP address (for example: 192.168.1.118/web_ihmi), tap System setting, enter password, and then configure cMT-SVR settings.

Chapter 4 - cMT Viewer App

cMT Viewer can connect and control cMT Series HMI models. The devices that support cMT Viewer are: cMT-iV5 (Built-in), iPad/iPhone (Download from iOS® APP Store), Android™ (Download from Google Play), Windows® (in EBPro installation directory).

- Each cMT Viewer device can simultaneously connect with 4 cMT Series models.
- Each cMT Viewer device can simultaneously monitor 50 cMT Series models (under Monitor Mode).
- Each cMT Series model can simultaneously connect with 1~10 cMT Viewer devices. In EBPro, open System Parameters > Remote and set Max. connect count.

cMT viewer

Max connect count : Count : 1 ~ 10

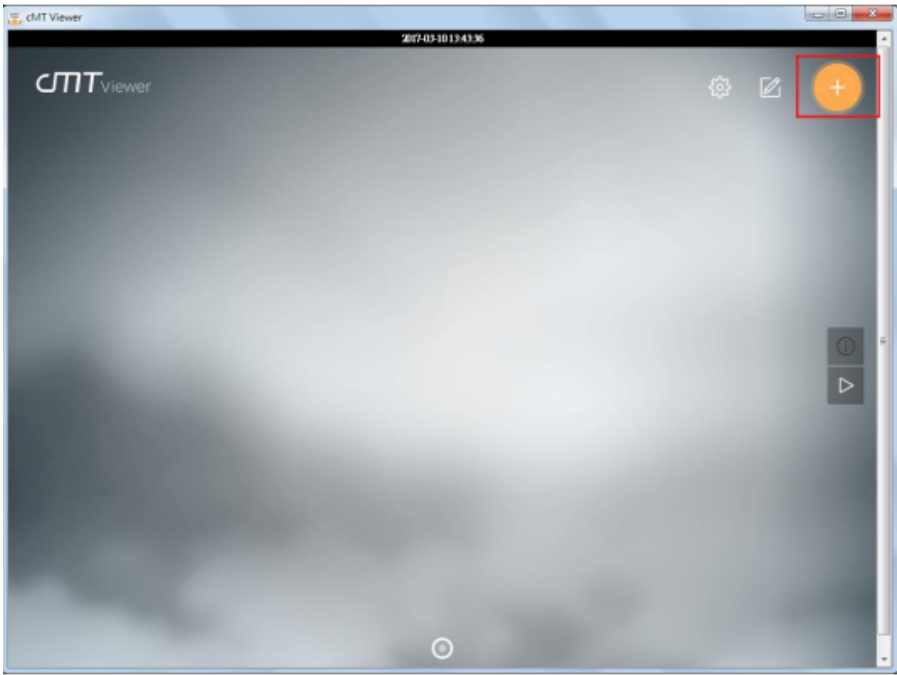
Warning : too many connect count will affect performance.

4.1 Introduction of icons

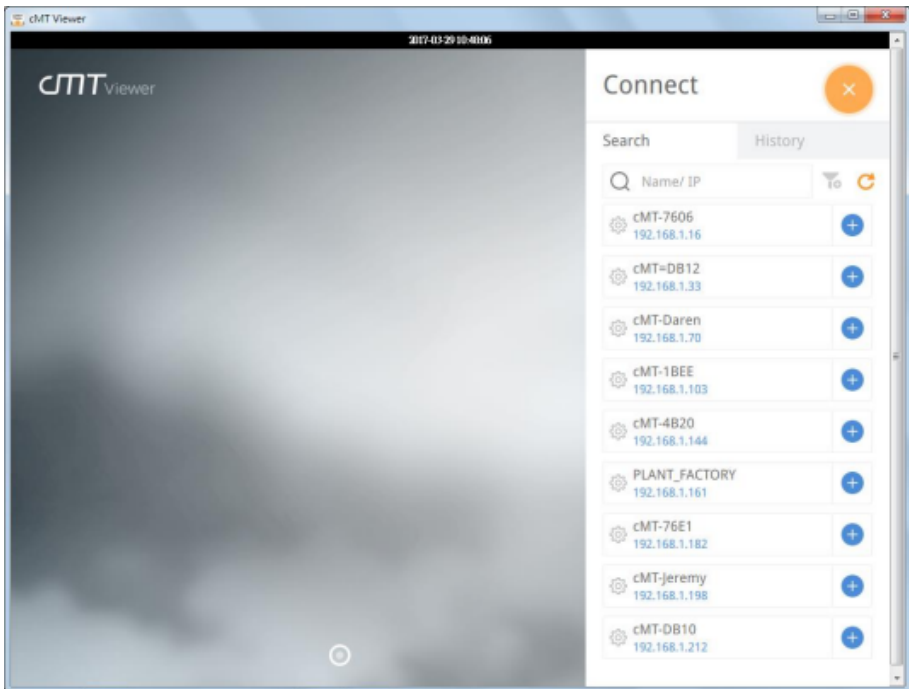
Icon	Description
	Tap this icon to run cMT Viewer App.
	Tap the Start Button when running the project to return to cMT Viewer home screen.
	Tap this icon to configure cMT Viewer.
	Tap this icon to change screen layout in Monitor Mode.
	Tap this icon to search for all cMT Series HMIs on the same network.

4.2 How to load project file to cMT Viewer

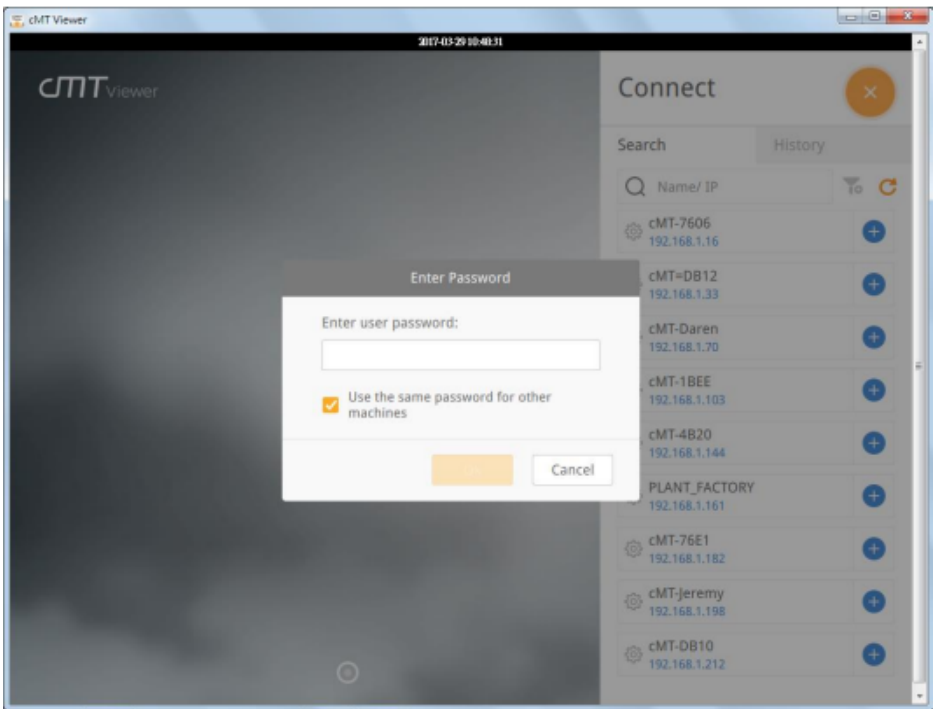
- 1. Launch cMT Viewer App and tap the + button as shown below.



2. Search for all the cMT Series HMI on the same network.



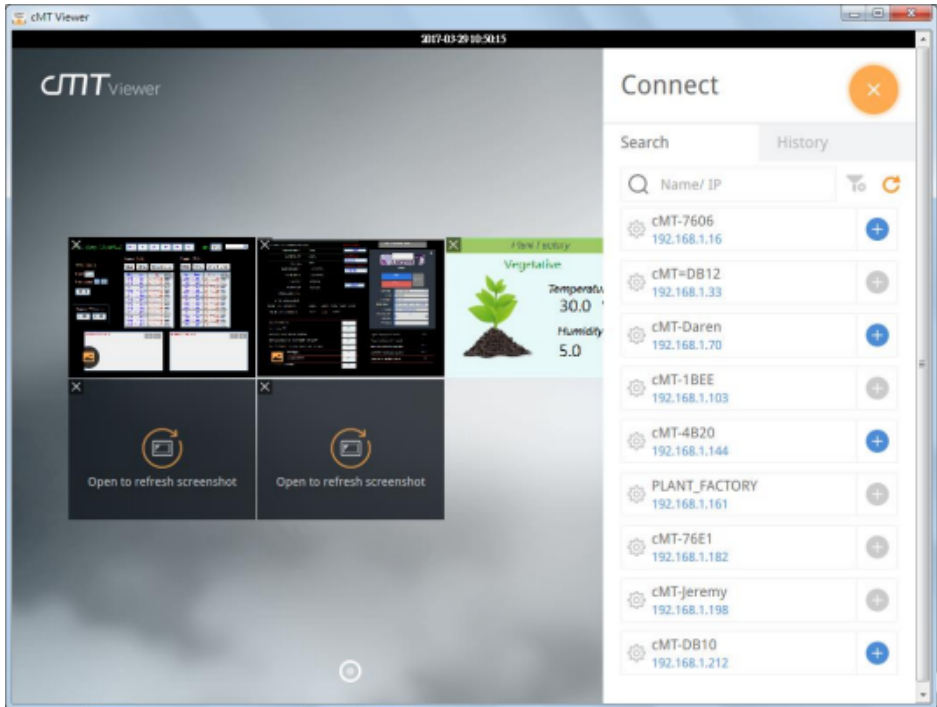
3. Select a cMT Series HMI, tap  and then enter password. If the "Use the same password for other machines" checkbox is selected, entering password will not be necessary when adding other cMT Seires HMI that uses the same password.



4. When finished, cMT Viewer will display the project.

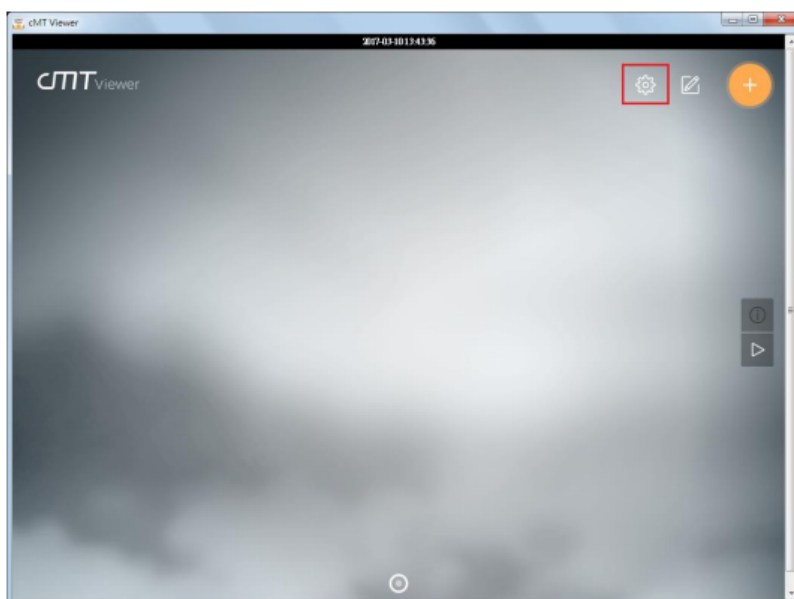


Tap Start Button to return to main screen. To connect to another cMT-SVR, follow the preceding steps to search for cMT-SVR and load the project. The + button of the connected cMT Series HMI will turn grey:

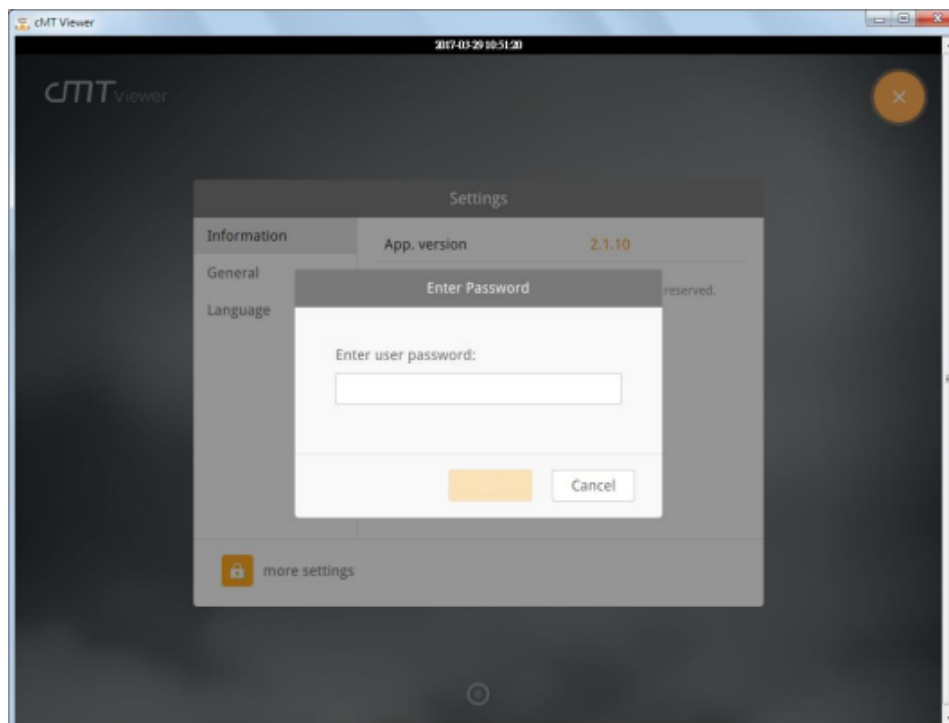


4.3 How to open cMT Viewer settings page

1. In cMT Viewer main screen tap  icon.



2. Enter password to open more settings.



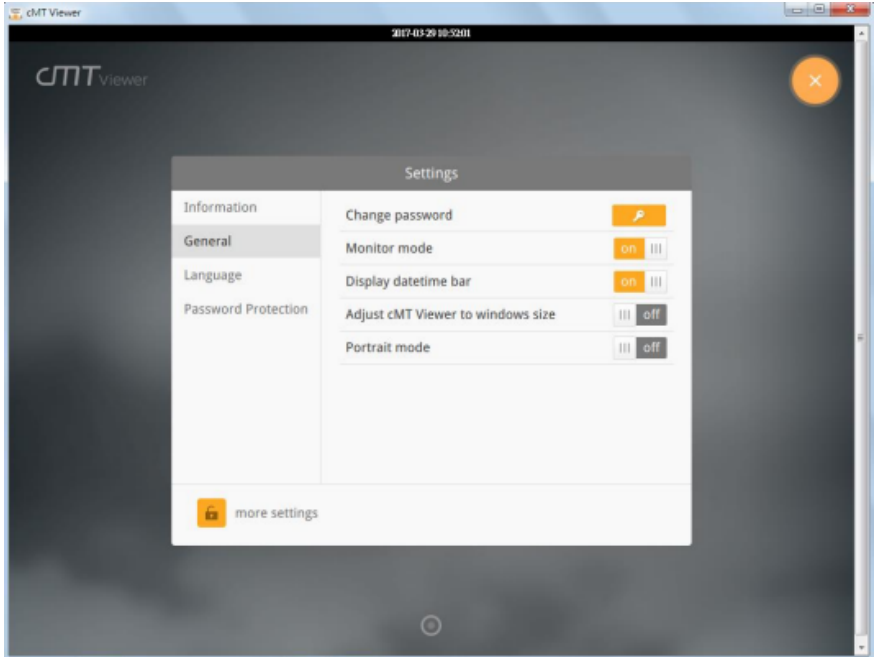
Information

cMT Viewer version information.



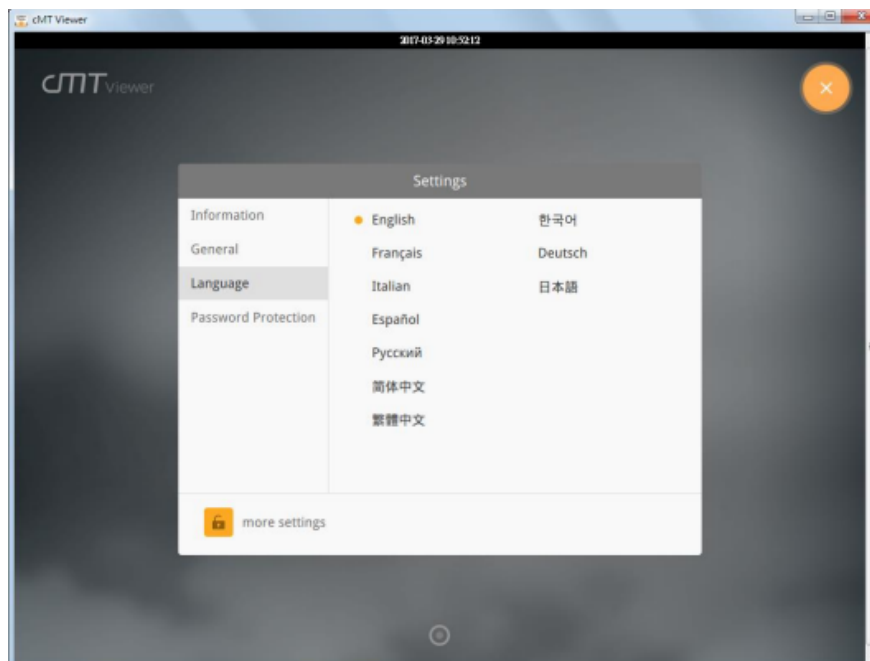
General

cMT Viewer display settings.



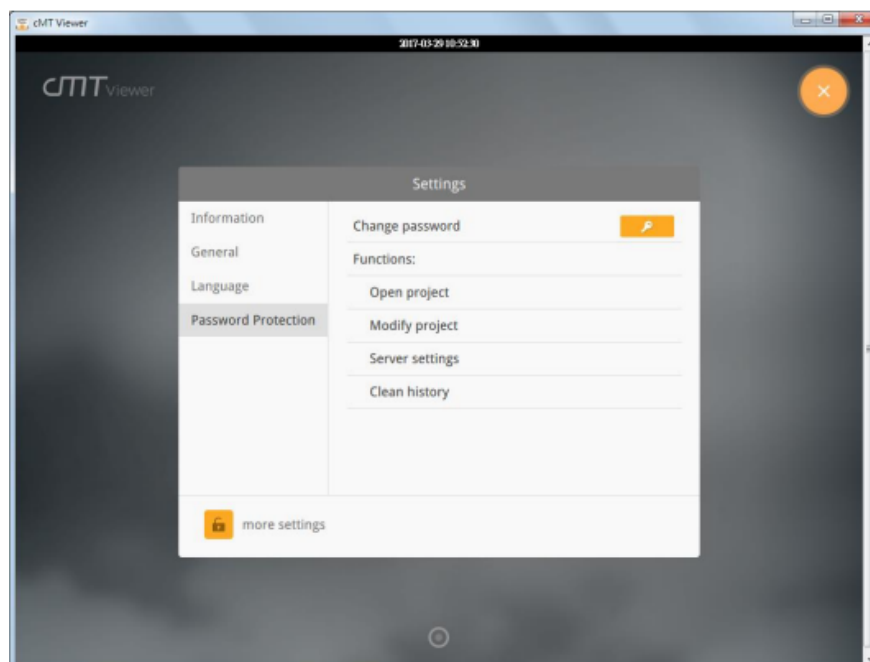
Language

cMT Viewer interface language menu.



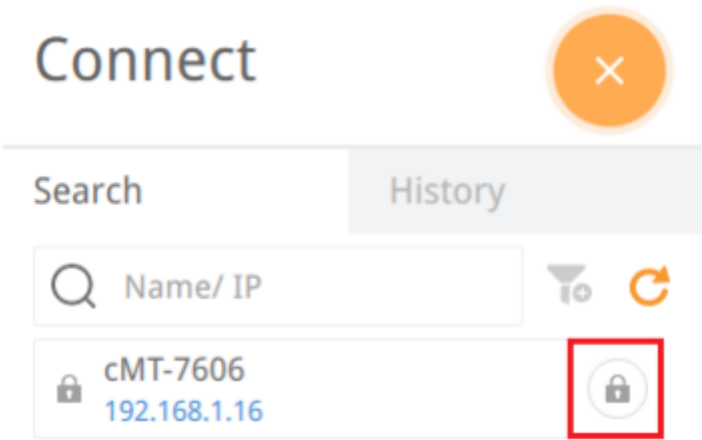
Password Protection

After setting, entering password will be necessary for using these functions.



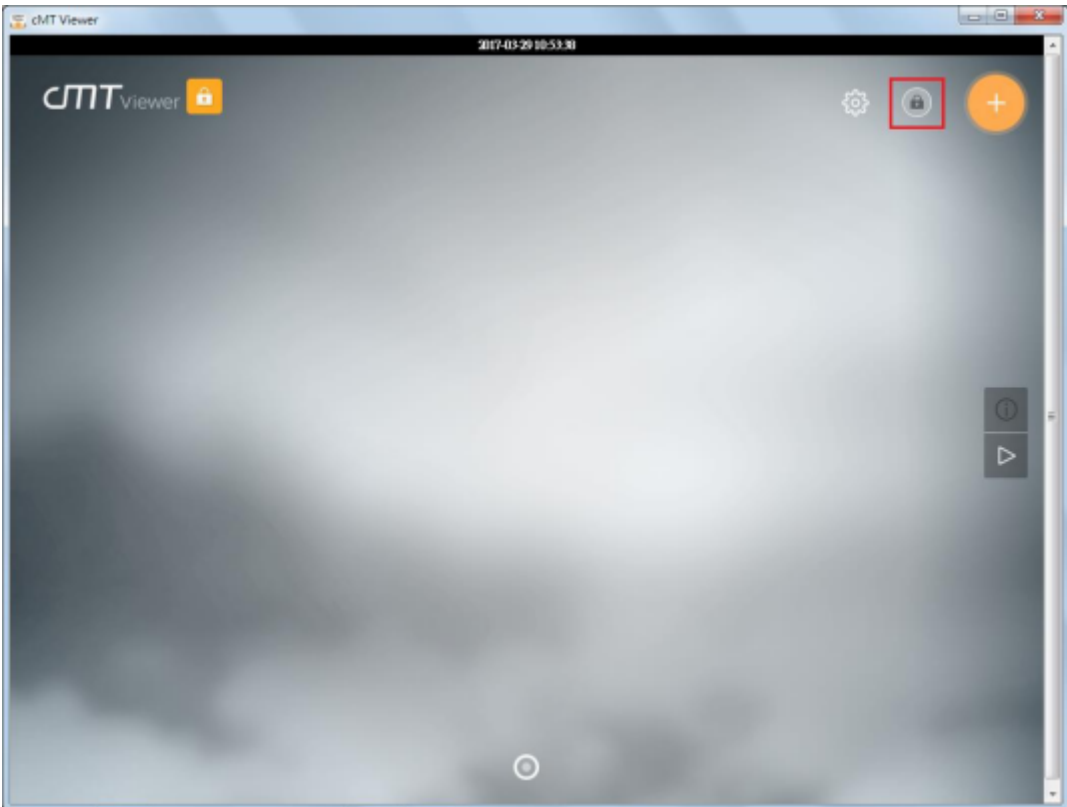
Open project

If this function is protected by password, adding new cMT Series HMI will require password.



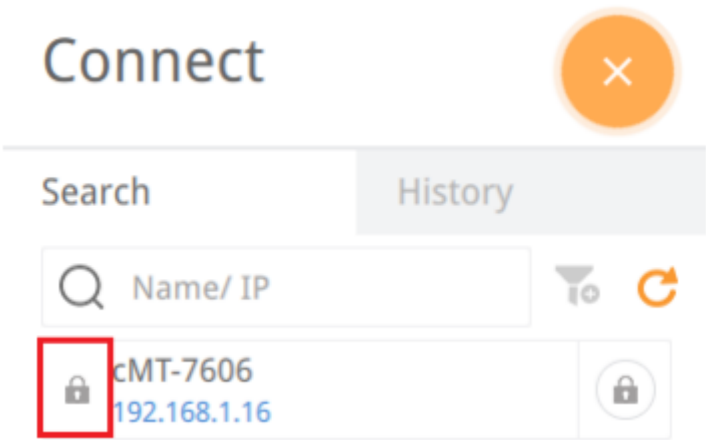
Modify project

If this function is protected by password, changing layout of Monitor Mode will require password.



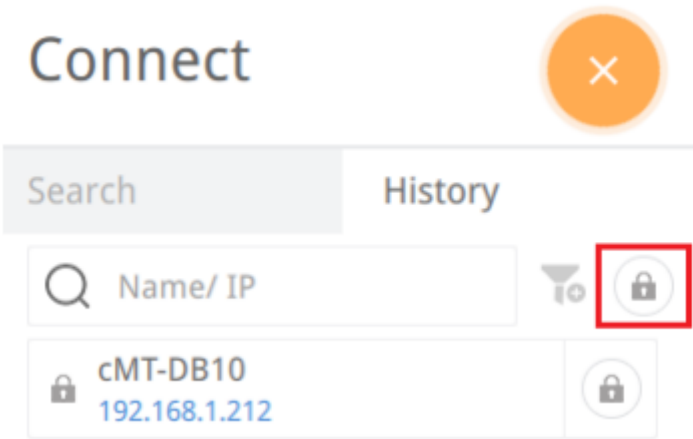
Server settings

If this function is protected by password, entering cMT system settings using cMT Viewer will require password.

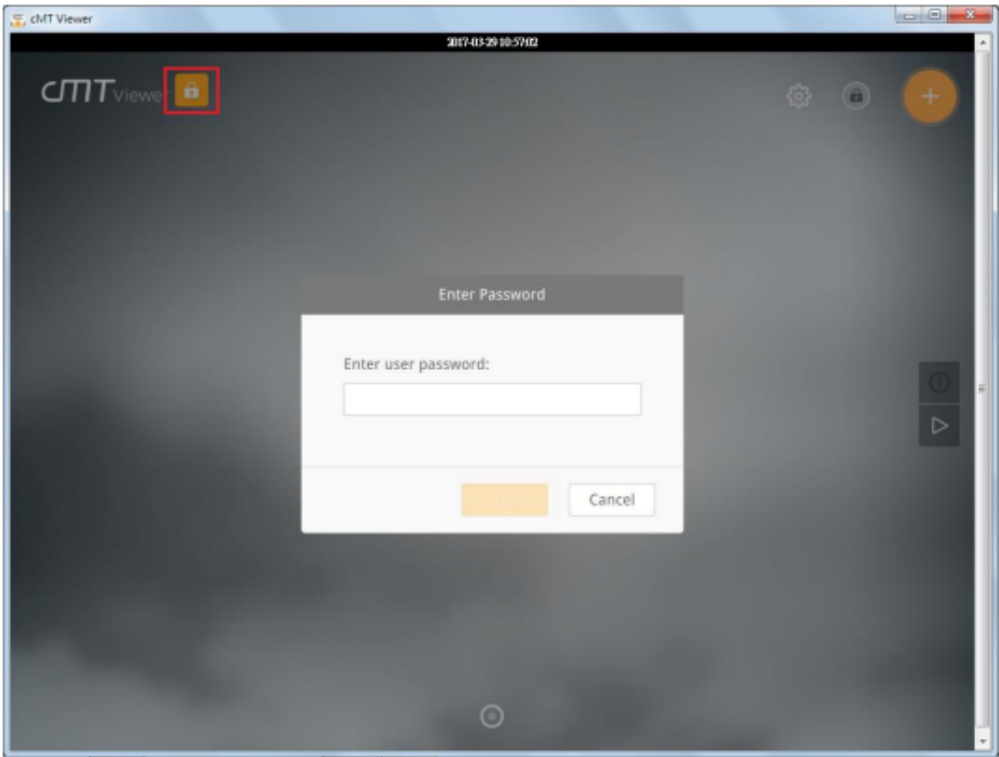


Clear history

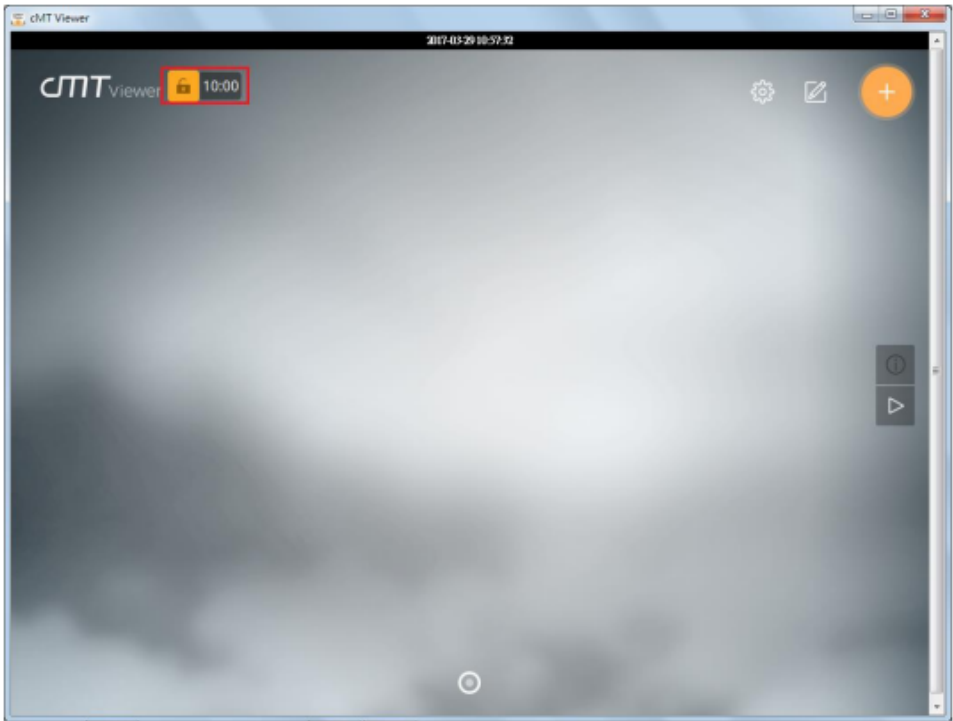
If this function is protected by password, clearing connection history in History page will require password.



To use password protected functions, tap the lock icon  in the upper left corner and enter password.



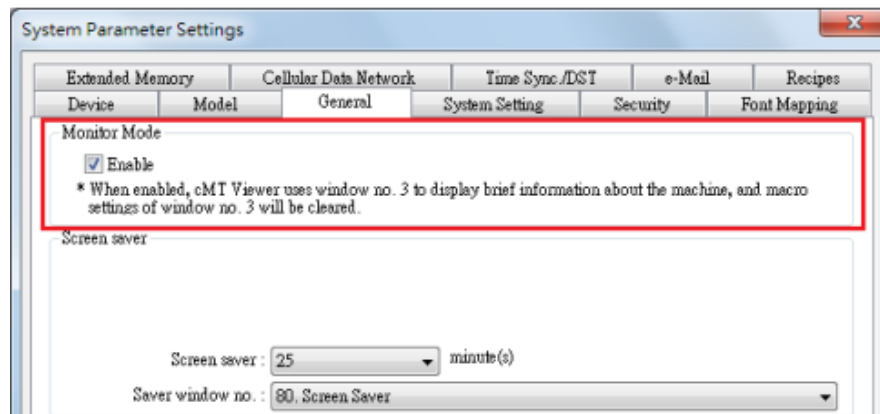
After entering password, cMT Viewer will start a countdown timer of 10 minutes, when it's over, the functions protected by password will be locked again. The countdown timer can be reset by tapping any button in cMT Viewer. To reset the timer to zero, tap .



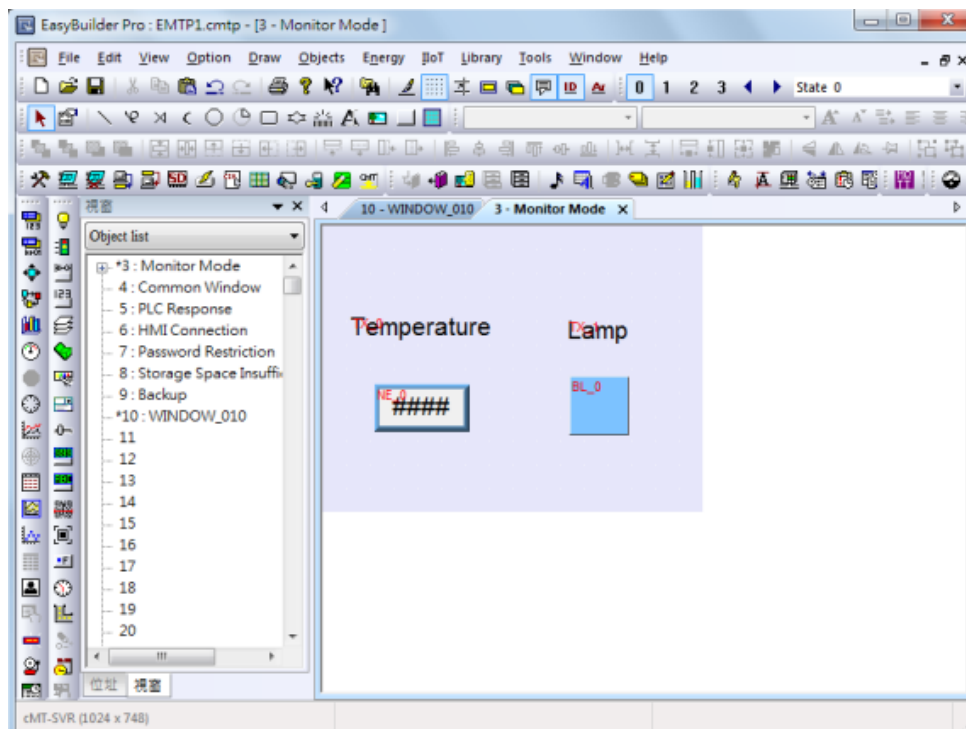
4.3 Monitor Mode

cMT Viewer supports Monitor Mode. By placing objects in Window no. 3 in the project, cMT Viewer screen can be refreshed dynamically. In Monitor Mode, the user can select up to 50 HMIs to monitor simultaneously, without the need for accessing each cMT.

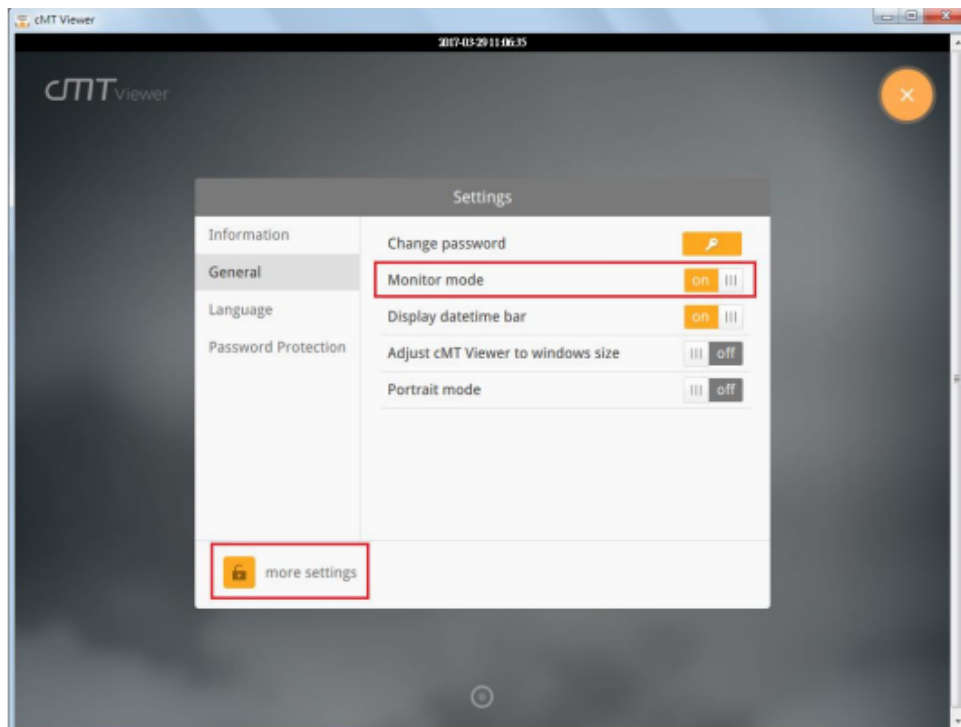
1. Enable Monitor Mode in EPro > System Parameter Settings > General tab.



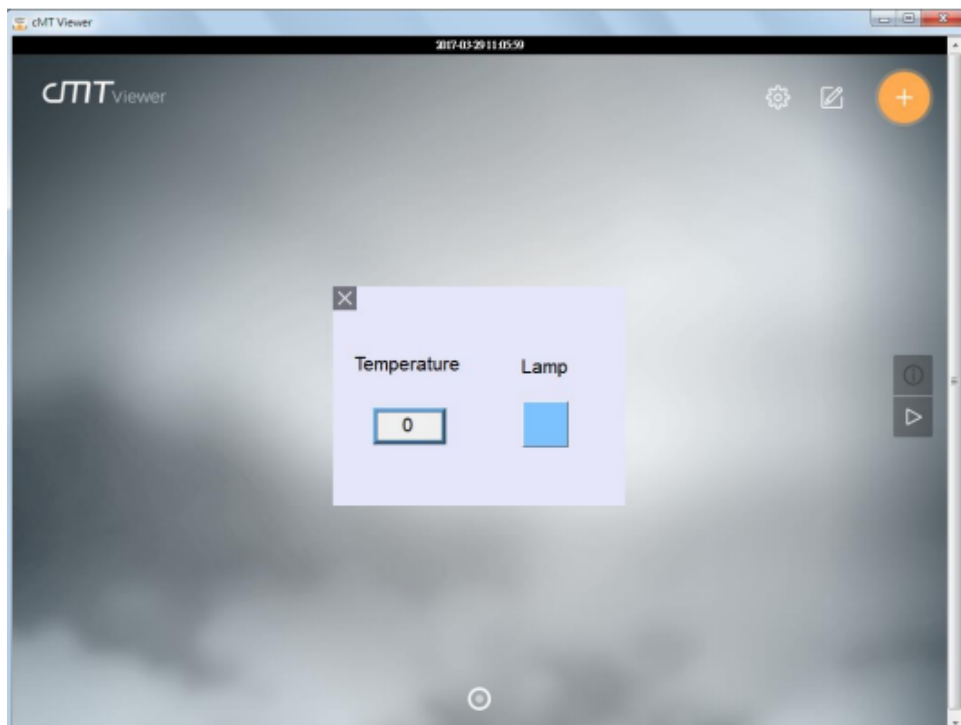
2. Add the needed objects in Window No. 3, which is the Monitor Mode window by default.



3. Open more settings in cMT Viewer, go to General page and enable Monitor mode.



4. Download the project file to cMT Series HMI using cMT Viewer, the Monitor Mode window appears.



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