

# User Manual

## cMT-iV6 Startup Guide

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## Chapter1. Overview

### 1.1. Specification

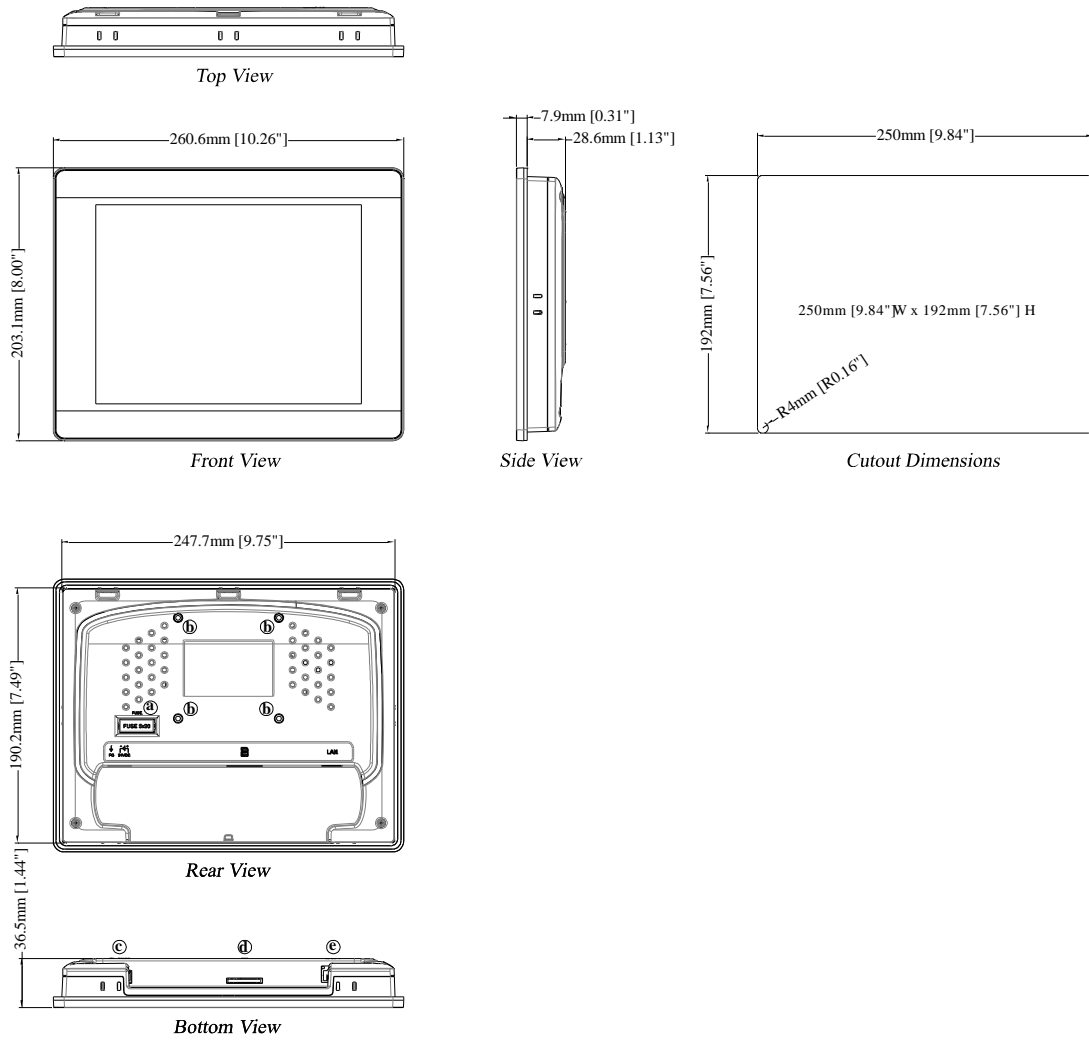


#### Features

- 9.7" 1024 x 768 TFT LCD
- Fan-less Cooling System
- Built-in 4GB Flash Memory and RTC
- SD Card Slot Supports SD/SDHC Cards
- NEMA4/IP65 Compliant Front Panel

<b>Display</b>	Display	9.7" TFT
	Resolution	1024 x 768
	Brightness (cd/m <sup>2</sup> )	350
	Contrast Ratio	500:1
	Backlight Type	LED
	Backlight Life Time	>30,000 hrs.
	Colors	262K
	LCD Viewing Angle (T/B/L/R)	60/70/70/70
Pixel Pitch (mm)	0.192 (H) x 0.192 (V)	
<b>Touch Panel</b>	Type	4-wire Resistive Type
	Accuracy	Active Area Length(X)±2%, Width(Y)±2%
<b>Memory</b>	Flash	4 GB
	RAM	1 GB
<b>Processor</b>		32-bit RISC 1GHz
<b>I/O Port</b>	SD Card Slot	SD/SDHC
	USB Host	N/A
	USB Client	N/A
	Ethernet	10/100/1000 Base T x 1
	COM Port	N/A
	RS-485 Dual Isolation	N/A
	CAN Bus	N/A
	HDMI	N/A
	Audio Output	Built-in Mono Speaker
Video Input	N/A	
<b>RTC</b>		Built-in
<b>Power</b>	Input Power	24±20%VDC
	Power Isolation	Built-in
	Power Consumption	900mA@24VDC
	Voltage Resistance	500VAC (1 min.)
	Isolation Resistance	Exceed 50MΩ at 500VDC
	Vibration Endurance	10 to 25Hz (X, Y, Z direction 2G 30 minutes)
<b>Specification</b>	PCB Coating	Yes
	Enclosure	Plastic
	Dimensions WxHxD	260.6 x 203.1 x 36.5 mm
	Panel Cutout	250 x 192 mm
	Weight	Approx. 0.92 kg
Mount	Panel mount, VESA mount 75 x 75 mm	
<b>Environment</b>	Protection Structure	NEMA4 / IP65 Compliant Front Panel
	Storage Temperature	-20° ~ 60°C (-4° ~ 140°F)
	Operating Temperature	0° ~ 50°C (32° ~ 122°F)
	Relative Humidity	10% ~ 90% (non-condensing)
<b>Certificate</b>	CE	CE marked
<b>Language</b>	Display	English, French, Italian, Spanish, Russian, Simplified Chinese, Traditional Chinese, Korean, German, Japanese, Polish
	Input Methods	English, French, Italian, Spanish, German, Russian, Pinyin, Zhuyin, Korean, Japanese, Polish
<b>Software</b>		cMT Viewer

## 1.2. Dimensions



<b>a</b>	Fuse	<b>d</b>	SD Card Slot
<b>b</b>	VESA 75 mm screw holes	<b>e</b>	LAN 1
<b>c</b>	Power Connector		

### 1.3. Ethernet port

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

The LED indicators on the Ethernet port indicate:

Orange LED: LAN link status

Green LED: Active communication status

To connect Ethernet, please use a CAT-6 Ethernet cable.

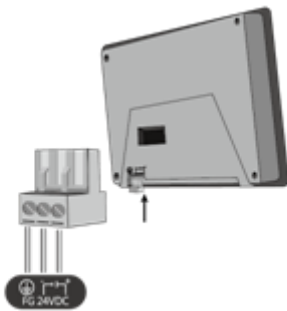
### 1.4. CR2032 battery

The cMT-iV6 requires a CR2032 coin type lithium battery to keep the RTC running.

Battery type: CR2032 3V lithium battery

### 1.5. Power connection

**Power:** The unit can be powered by DC power only, voltage range:  $24 \pm 20\%$  Volts DC, compatible with most controller DC systems. The power conditioning circuitry inside the unit is accomplished by a switching power supply. The peak starting current can be as high as 2A.




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

### 1.6. Requirements

1. cMT Viewer: Built-in app for connecting cMT Series HMI.
2. Supported HMI model: cMT Series HMI models.
3. One cMT-iV6 can log in and operate four cMT HMIs simultaneously.

## Chapter2. System Setting

Startup cMT-iV6 and run the built-in cMT Viewer app.

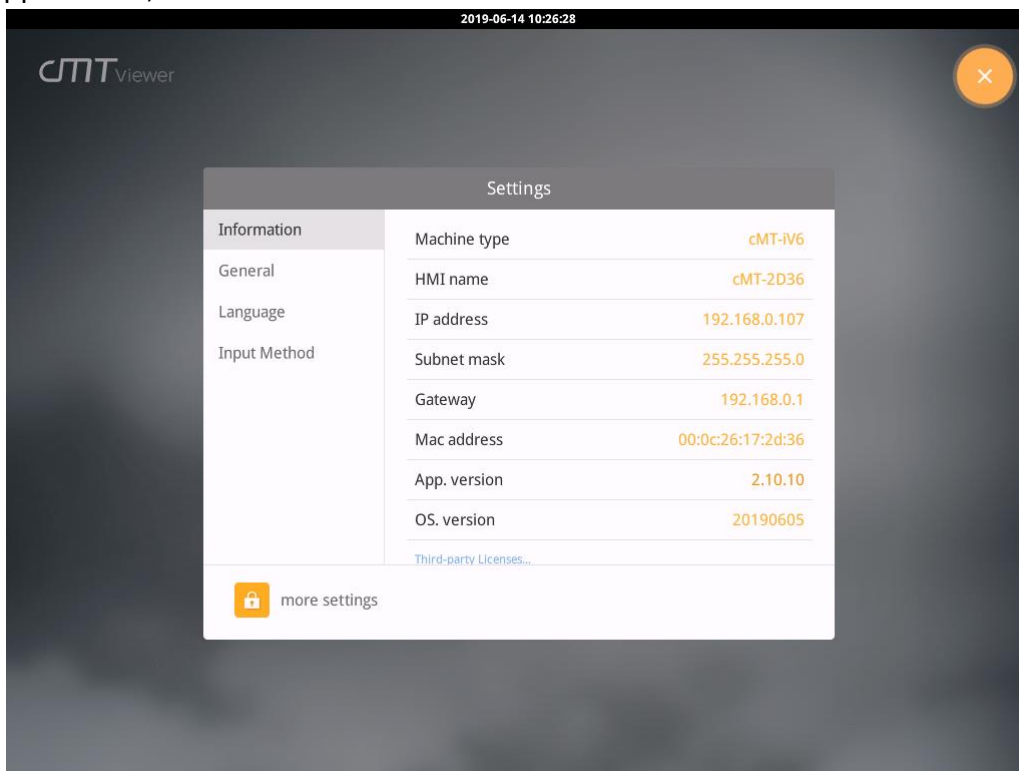
Tap the Start Button  in the upper-left corner of the screen to open the setting page.

Tapping anywhere in the background returns to the previously used project screen.

### 2.1. Information

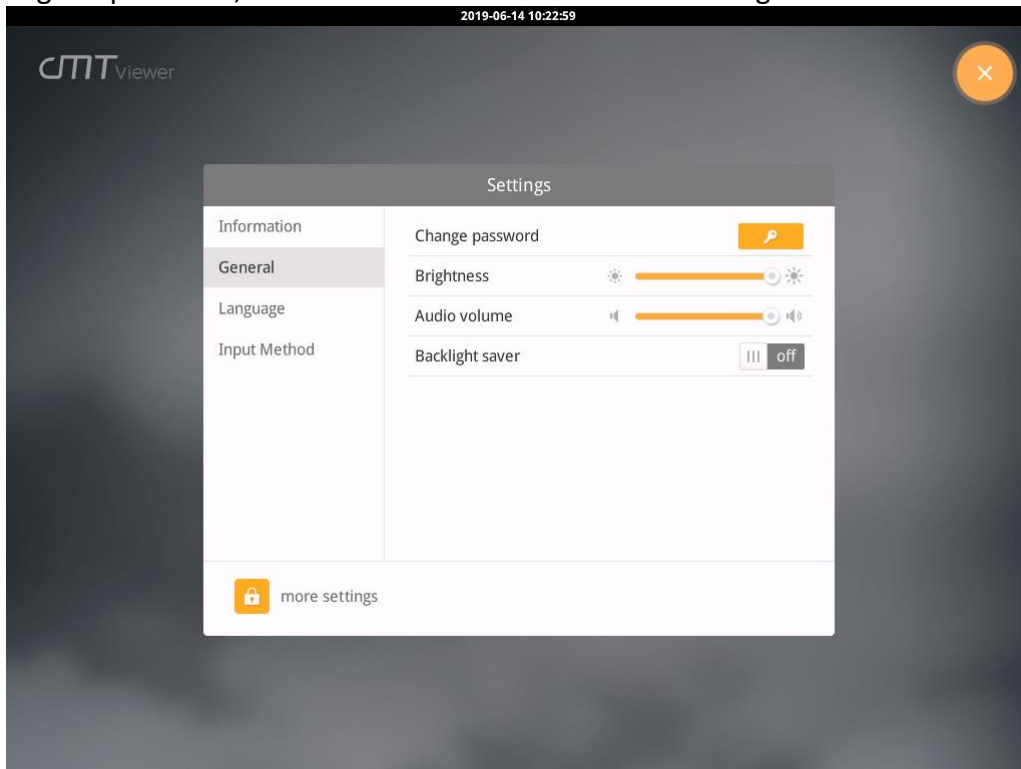
Tap Setting > Information to view the information about this cMT-iV6.

The information includes: Machine type, HMI name, IP address, Subnet mask, Gateway, Mac address, App. version, and OS. version.



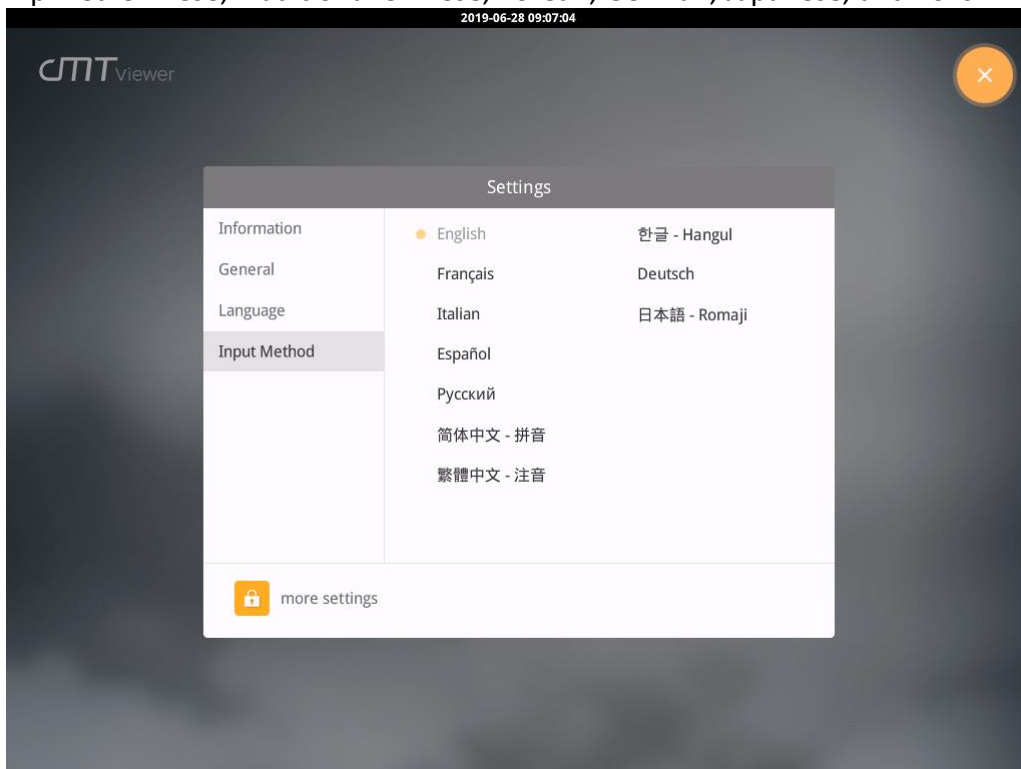
## 2.2. General

In General tab, screen brightness and audio volume can be adjusted, and password can be changed. After entering the password, the HMI name can be viewed and changed.




## 2.3. Language

In Language tab, select an interface language. The options are: English, French, Italian, Spanish, Russian, Simplified Chinese, Traditional Chinese, Korean, German, Japanese, and Polish.



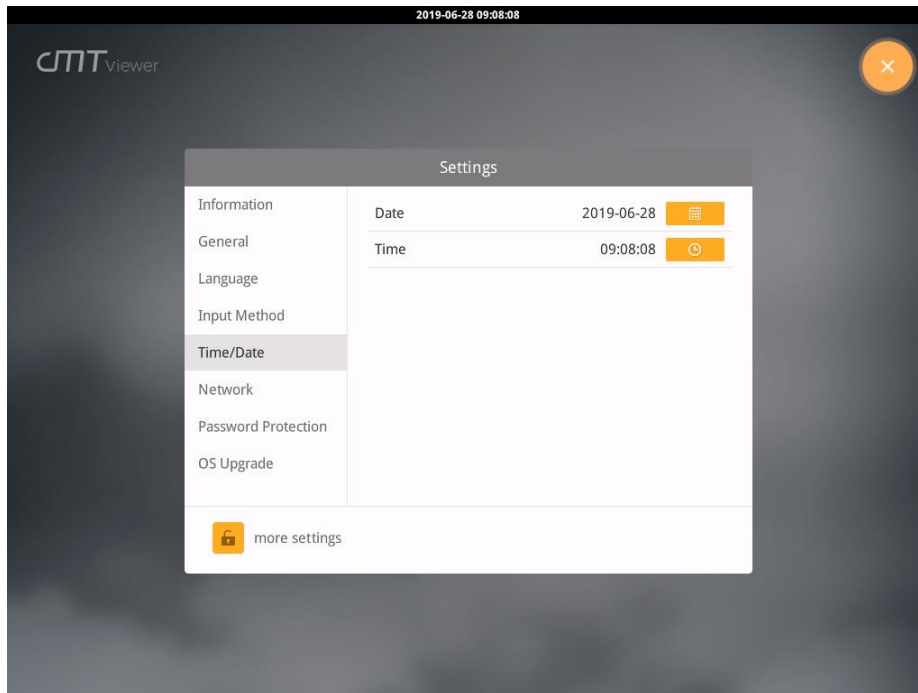
## 2.4. Input Method

Add in keyboards of different languages. The options are: English, French, Italian, Spanish, Russian, Simplified Chinese (Pinyin), Traditional Chinese (Zhuyin), German, Korean, Japanese, and Polish.

Tap  icon in the upper-left corner (a cMT-iV6 password is required). Enter the password and click OK, the Time/Date and Network setting tabs will be enabled.

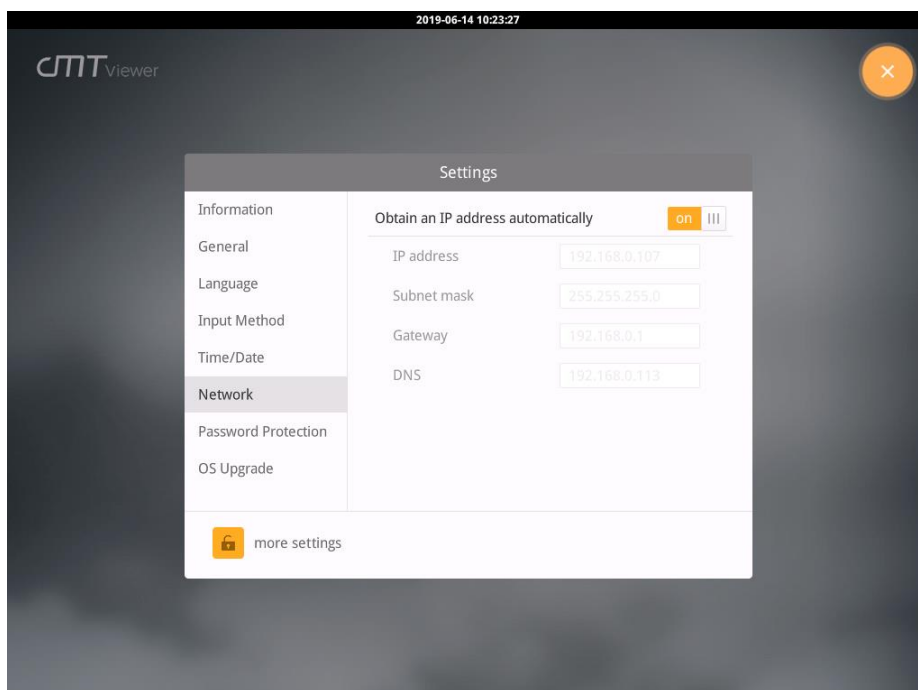
## 2.5. Time/Date

In Time/Date tab, set the current system time and date.



## 2.6. Network

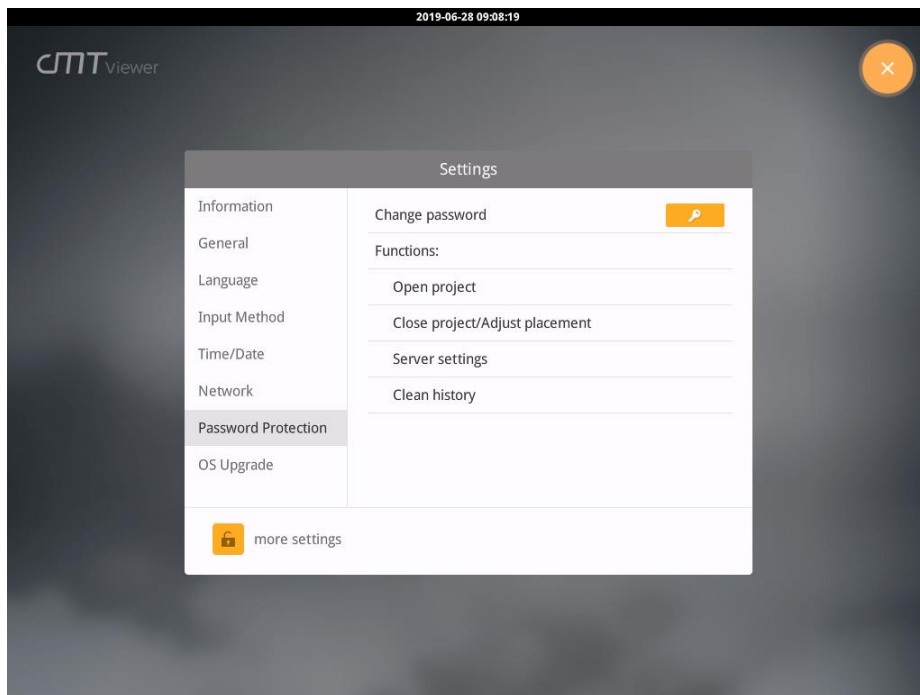
In Network tab, enable [Obtain an IP address automatically] or manually enter IP address, Subnet mask, Gateway, and DNS.





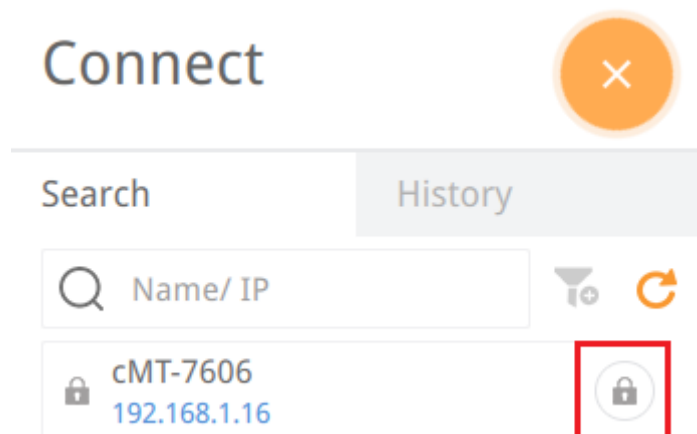
## 2.7. Password Protection

Entering a password is required when using a function selected in the Password Protection tab.



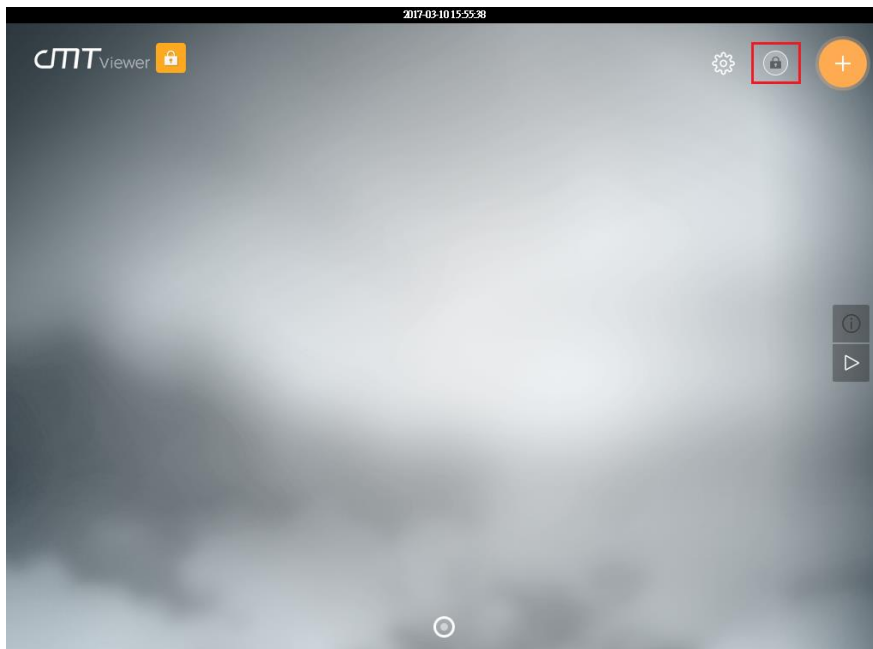
### Open project

With this option selected in the Password Protection tab, adding a new cMT model will require entering a password.



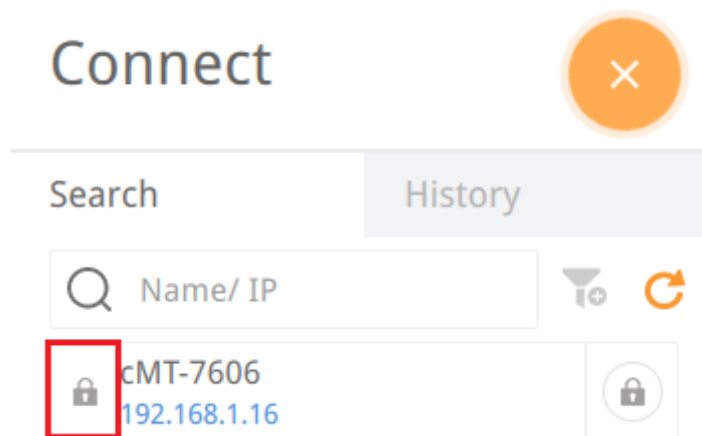
### Close project/Adjust Placement

With this option selected in the Password Protection tab, changing screen layout in Monitor Mode will require entering a password.



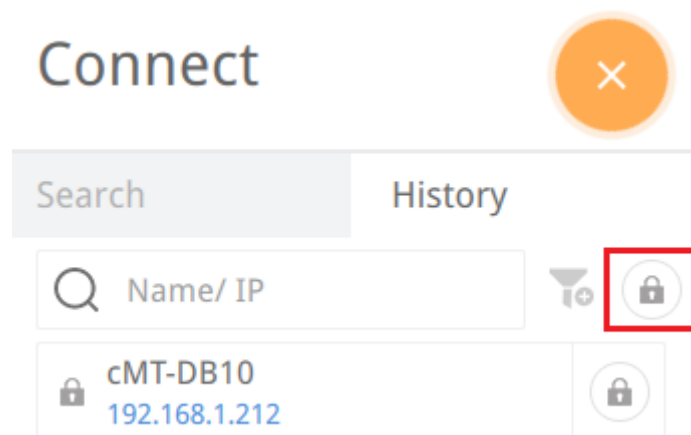
**Server setting**


With this option selected in the Password Protection tab, opening cMT HMI's system setting using cMT Viewer will require entering a password.

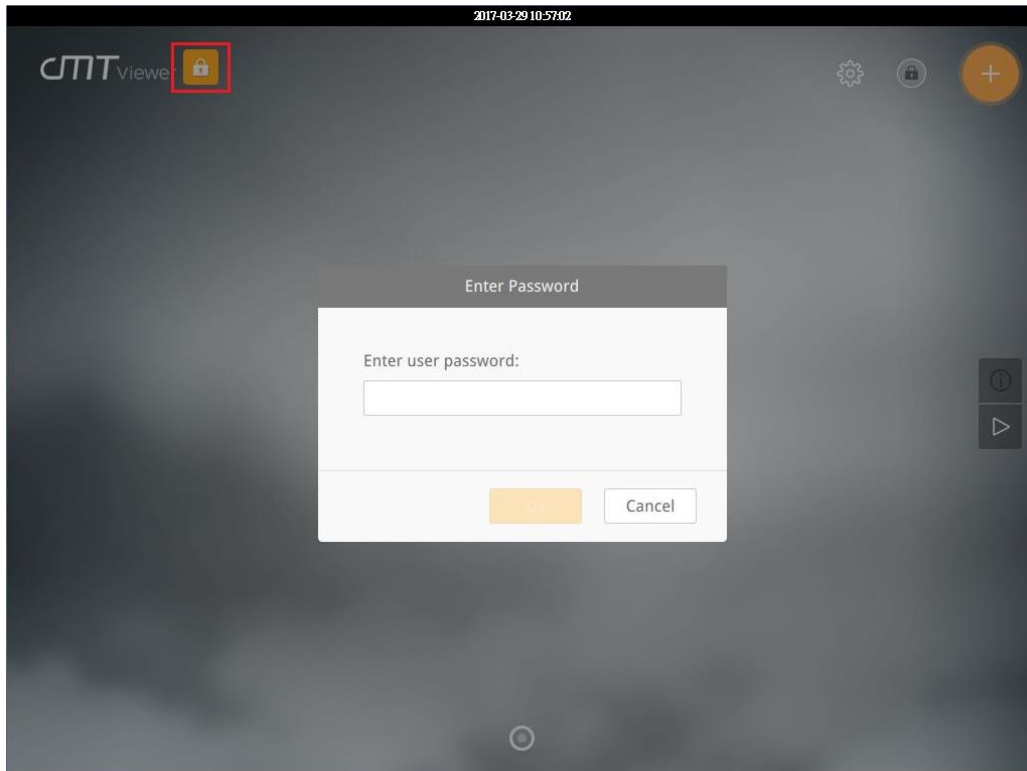



**Clear history**

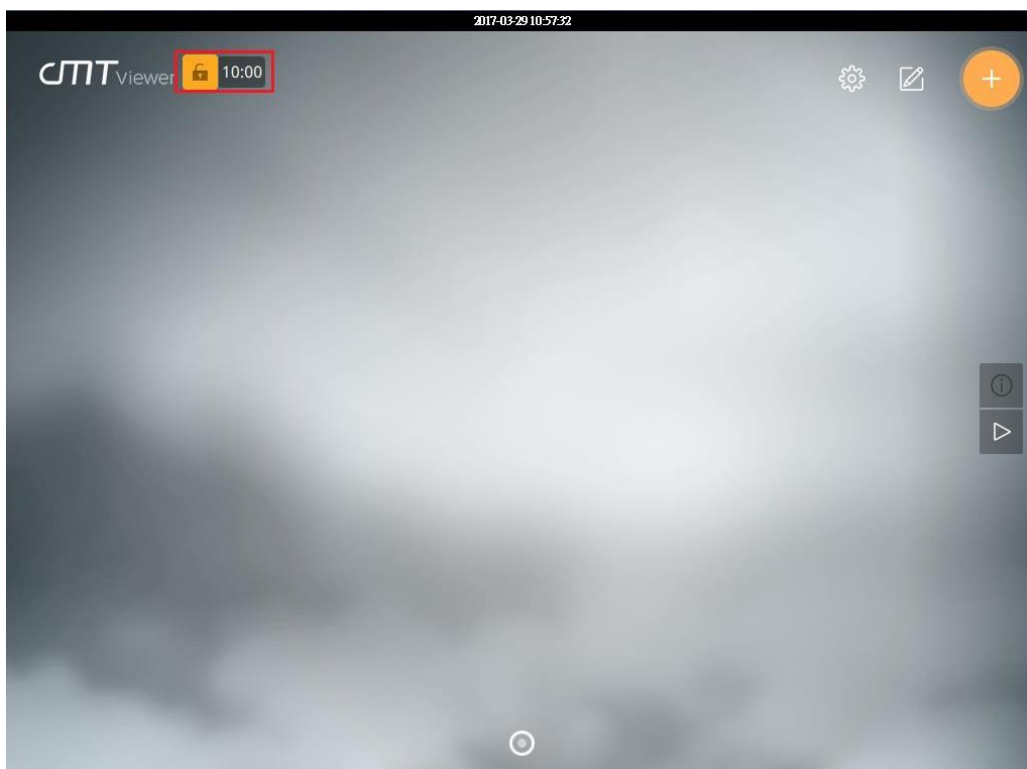
With this option selected in the Password Protection tab, clearing the history of the cMT connections will require entering a password.



To use a password protected function, tap the  icon in the upper-left corner of the screen and then enter the password.



After entering the password, cMT Viewer will show a countdown timer for 10 minutes, and lock the password protected function again when the countdown is over. The countdown timer can be reset by tapping anywhere of the screen. To end the countdown, tap the lock icon  as shown below.




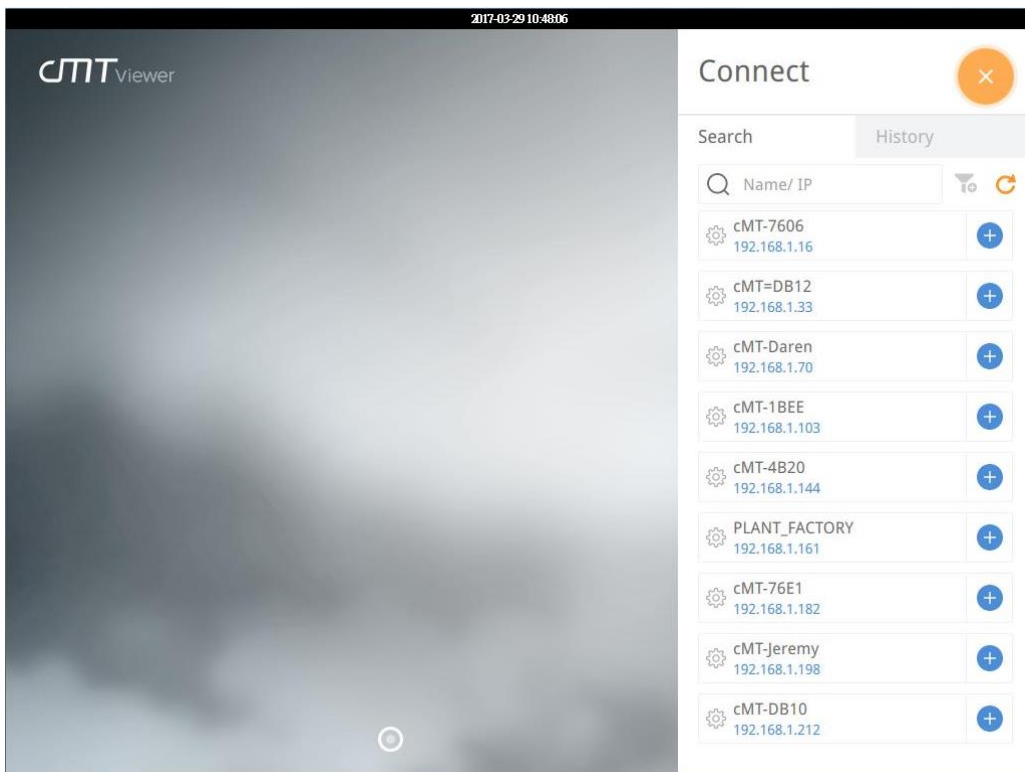
## 2.8. OS Upgrade

Please see Chapter 4 Updating Firmware, OS in this manual for more information.

## 2.9. cMT HMI System Setting





The system information of cMT HMI can be set from cMT Viewer on cMT-iV6. Tap Search, find the

cMT HMI and then tap  to open cMT HMI setting page.



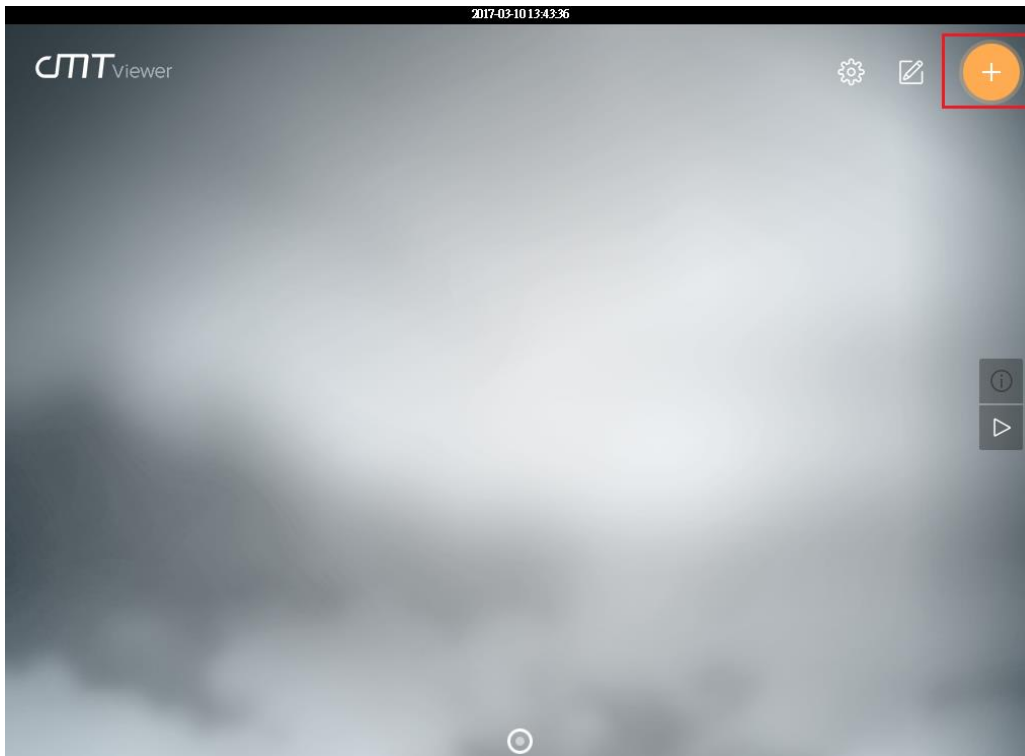
## Chapter3. cMT Viewer App

### 3.1. Introduction of icons

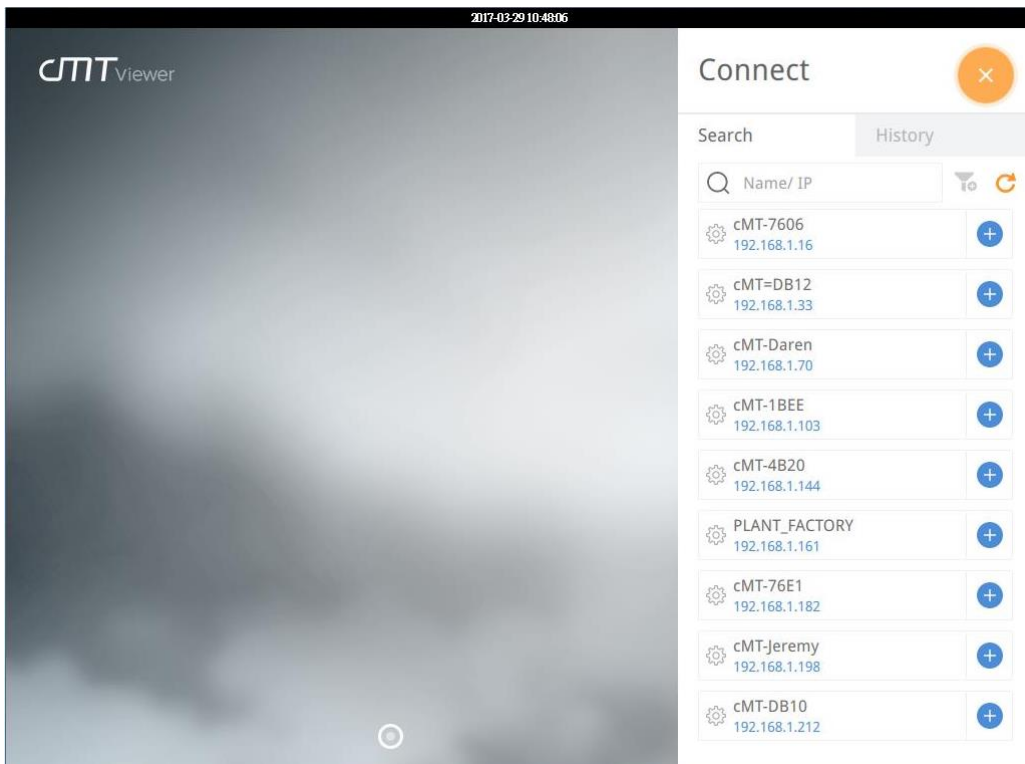
Icon	Description
	<p>Tap the Start Button when running the project to return to cMT Viewer home screen.</p>
	<p>Tap this icon to configure cMT Viewer.</p>
	<p>Tap this icon to change screen layout in Monitor Mode.</p>
	<p>Tap this icon to search for all cMT Series HMIs on the same network.</p>


### 3.2. How to load project file to cMT-iV6

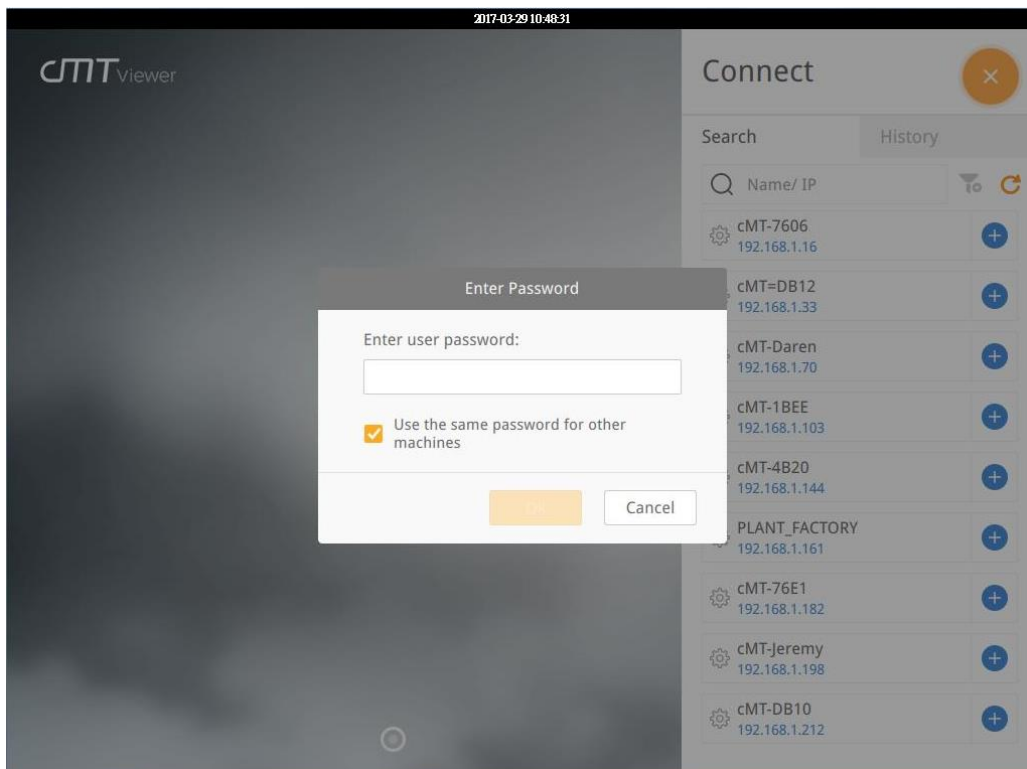
Step 1. Run cMT-iV6 and tap the button shown in the following figure.



Step 2. Search for all the cMT HMIs on the same network.



Step 3. Select a cMT HMI, tap  and then enter the password. With [Use the same password for other machines] selected, entering password will not be necessary when adding other cMT HMIs that use the same password.

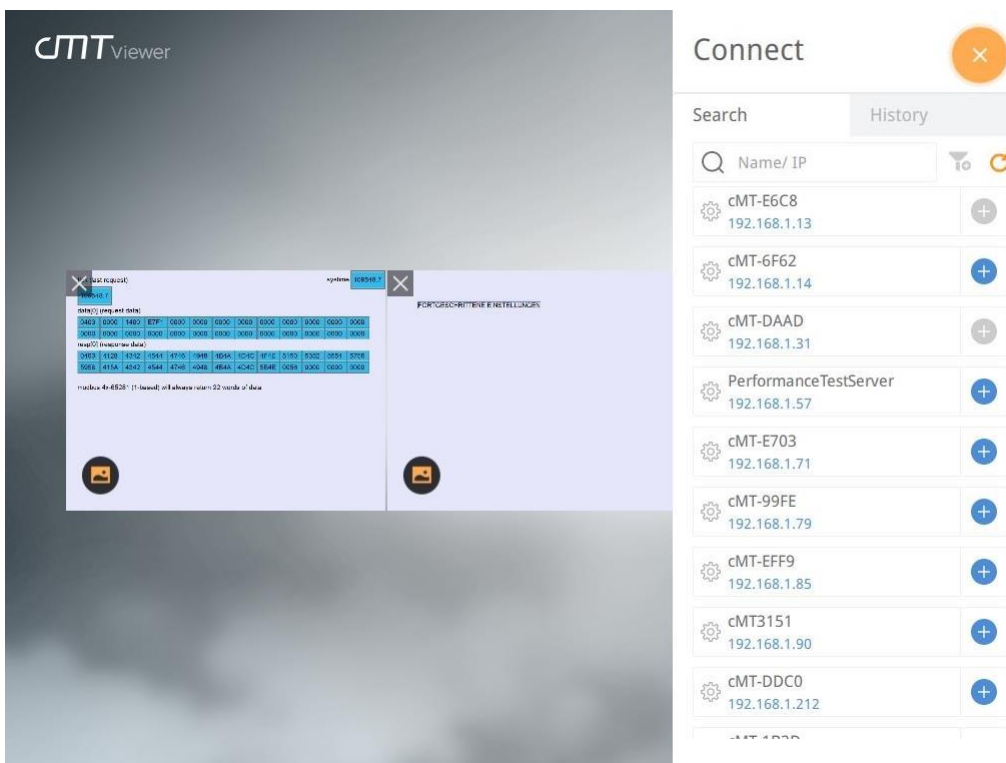


Step 4. The cMT-iV6 displays the project after the project is loaded





Tap Start Button to return to Search screen. To connect another cMT HMI, repeat the preceding process to search for cMT HMI and then load the project. The connected cMT HMIs will have a grey

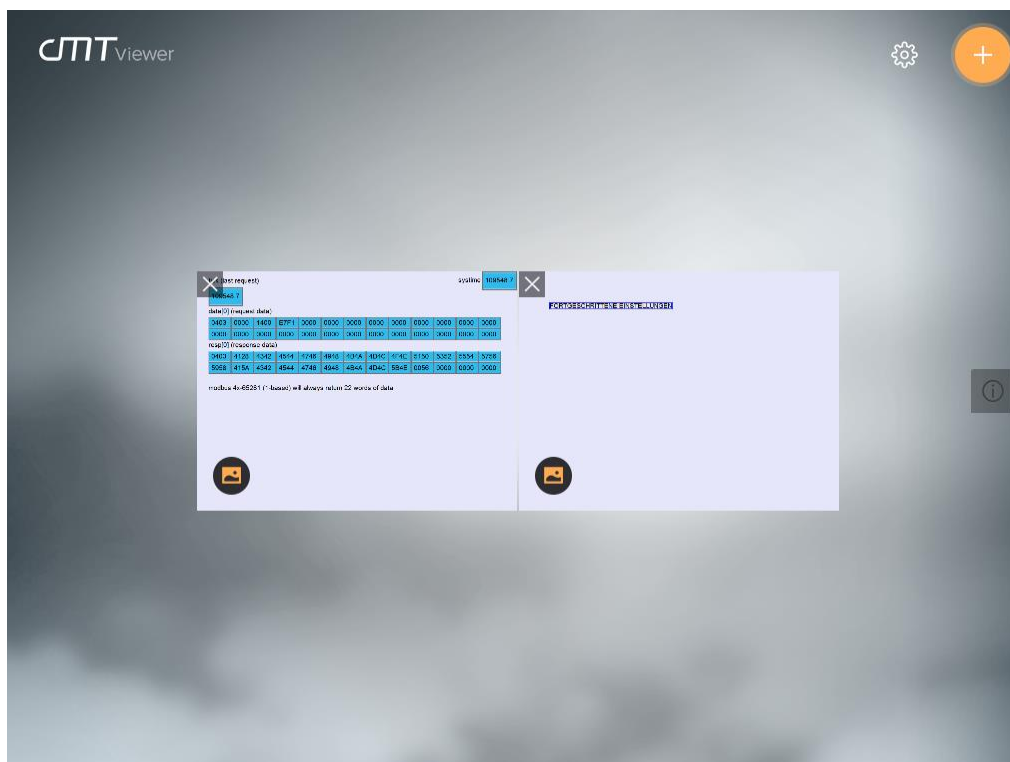
plus sign  near its name.



### 3.3. How to switch between cMT HMI projects

When multiple cMT HMIs are connected, to switch between cMT HMI projects, tap .

To delete a project of a connected cMT-SVR, tap .





### 3.4. SD Card Support

By using an SD card, cMT-iV6 can support the following software features used in the project file of the connected cMT HMI:

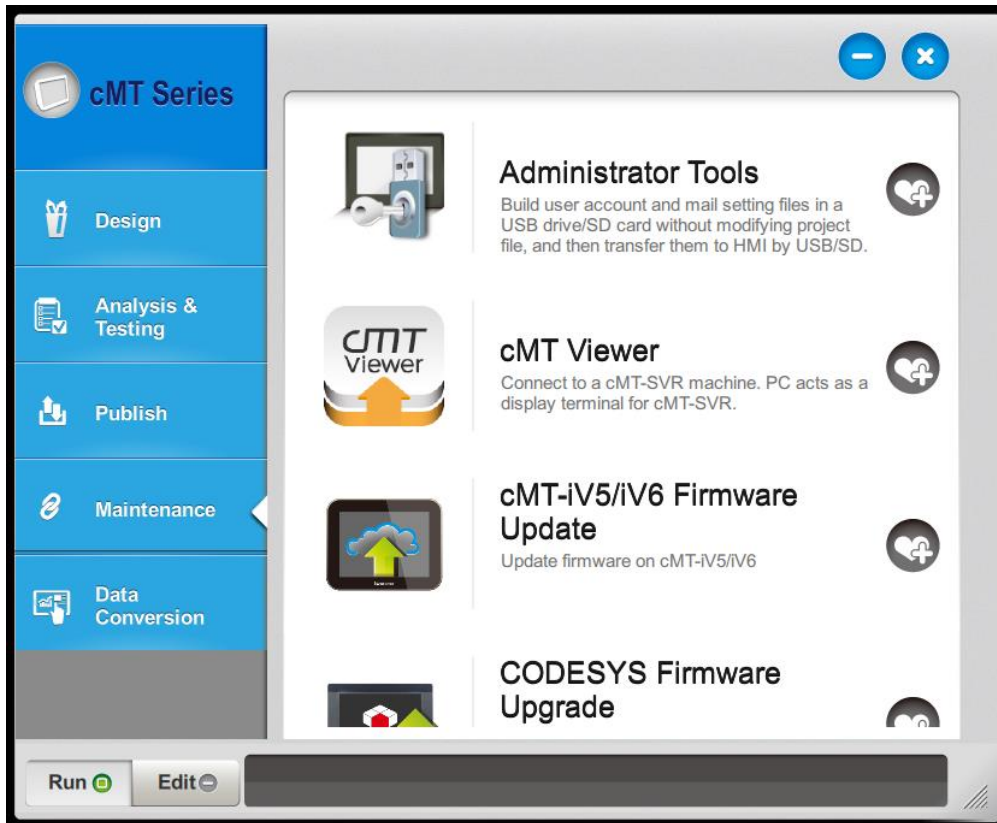
- File Browser
- Media Player
- Picture Viewer
- PDF Reader
- Selected features of Action Trigger: Screen hardcopy, Import e-mail settings and contacts, Import user accounts, User [USB Security Key] to Login.
- Selected features of Function Key: Screen hardcopy, Import e-mail settings and contacts, Import user accounts, User [USB Security Key] to Login.



Please note that an SD card must be inserted into cMT-iV6, and in EasyBuilder Pro, the designated destination must be SD card. When using these features, only the data in the SD card on cMT-iV6 can be read instead of the data in the SD card on cMT HMI.

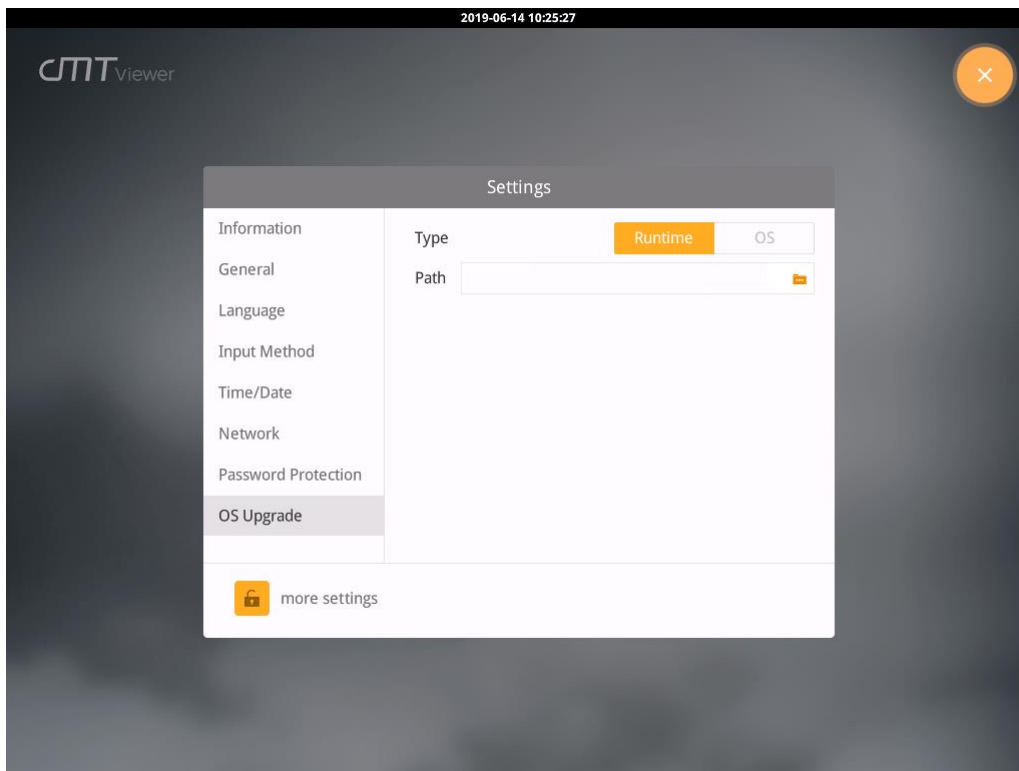
## Chapter4. Updating Firmware, OS

cMT Viewer (also called firmware) and OS version on cMT-iV6 can be updated via Ethernet or SD card.

To update OS via Ethernet, launch Utility Manager, select cMT Series, click [Maintenance] > [iV5/iV6 OS upgrade], and run the upgrade program.



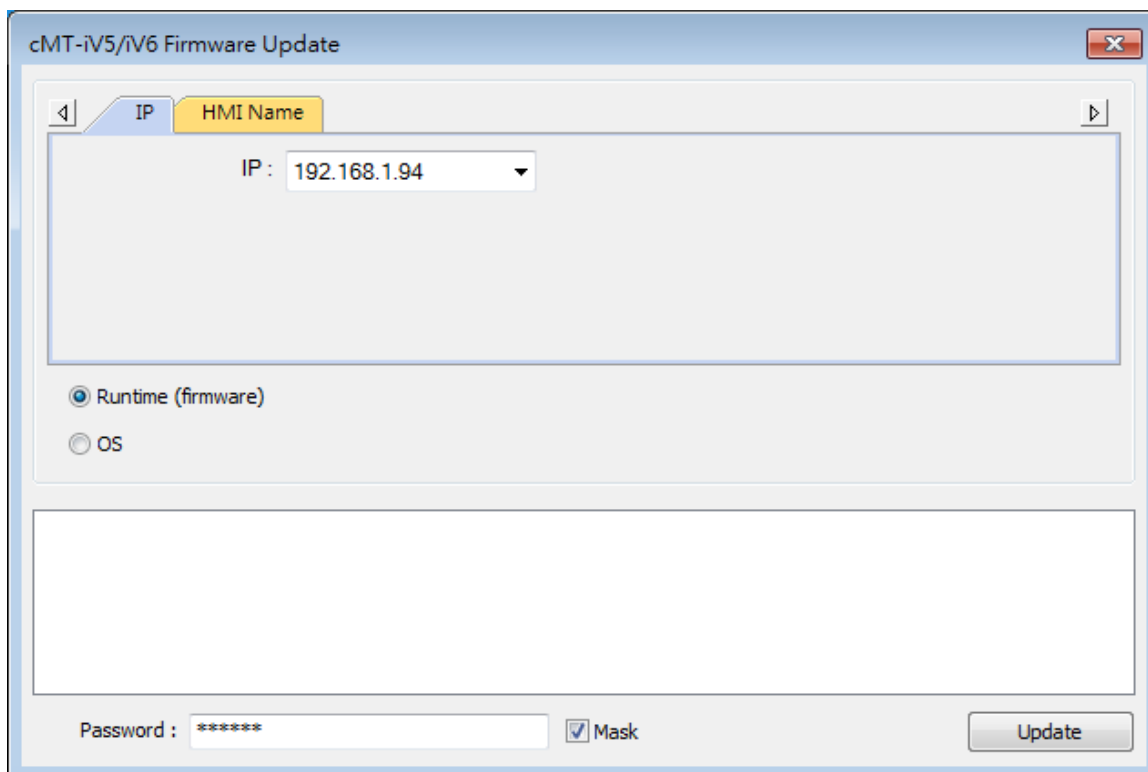
To update OS via an SD card, copy the firmware or OS into the SD card, insert the SD card to cMT-iV6, tap , tap , enter the password, and then open OS upgrade tab.



#### 4.1. Updating cMT Viewer

##### Updating cMT Viewer via Ethernet

- Step 1. Place the cMTViewer.iv5 file into the firmware folder under the EasyBuilder Pro installation directory. (The default directory: ebpro/firmware)
- Step 2. In the upgrade program select the HMI IP and select [Runtime (firmware)]. The firmware will be downloaded and upgraded to cMT-iV6.

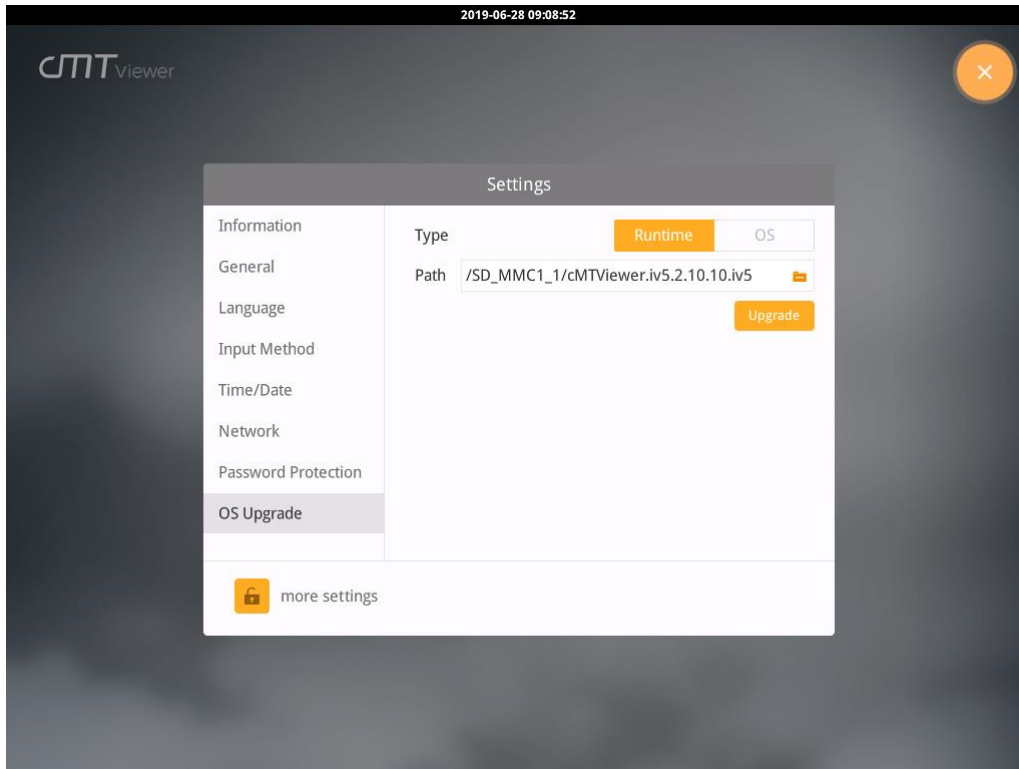


Step 3. Upon completion the updated cMT Viewer version can be found in the Setting > Information tab.

### Updating cMT Viewer via SD card

Step 1. Copy the cMTViewer.iv5 file into the SD card, and then insert the SD card into cMT-iv6.

Step 2. In OS Upgrade tab select [Runtime] and then select the directory where cMTViewer.iv5 file is placed, click [Update].



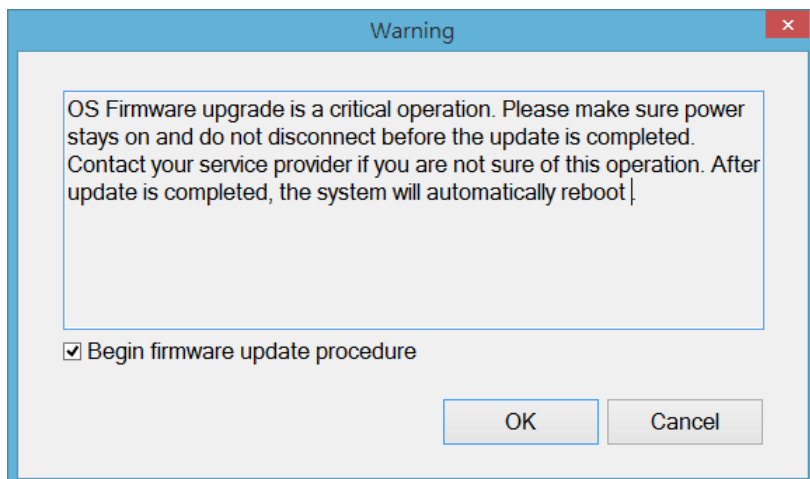
Step 3. Upon completion the updated cMT Viewer version can be found in the Setting > Information tab.

## 4.2. Updating OS

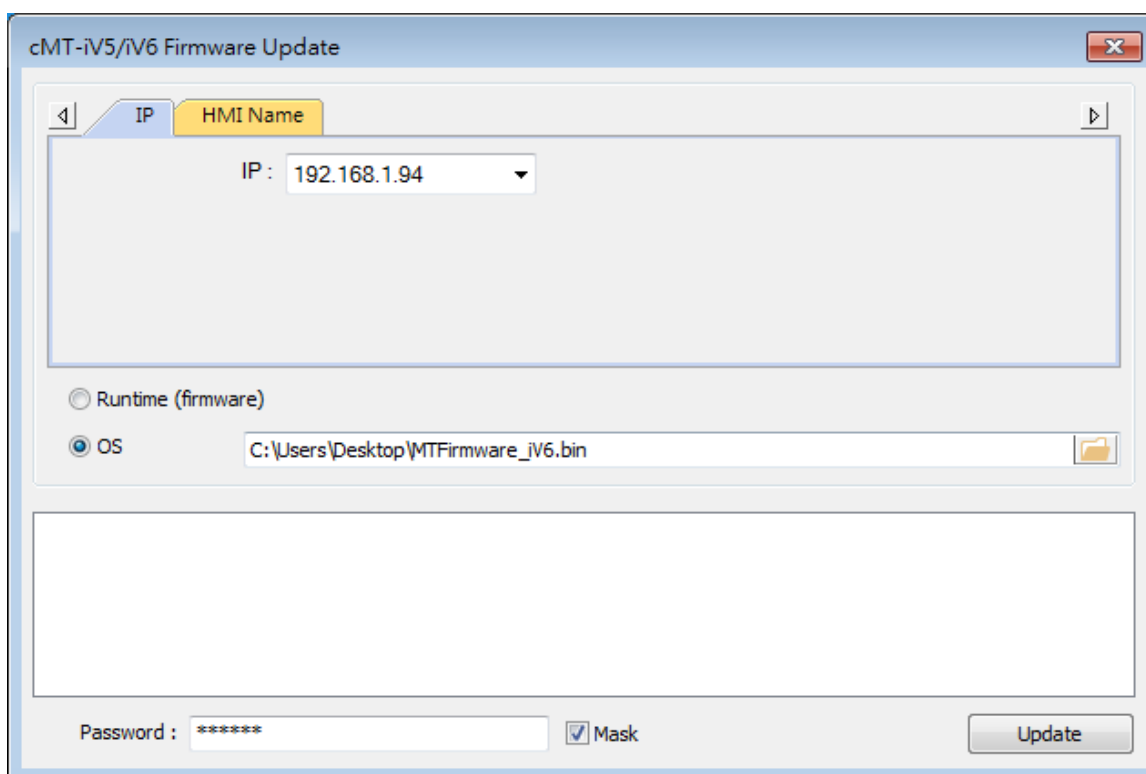
Please note that OS upgrade is a critical operation. Please make sure power stays on and do not disconnect before the update is completed.

### Updating OS via Ethernet

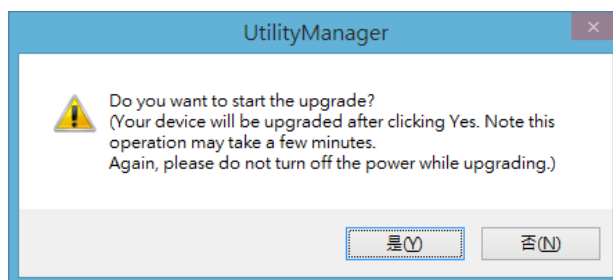
Step 1. In the upgrade program select the HMI IP and select [OS]. A warning message is displayed, select [Begin firmware update procedure] check box and click OK.



Step 2. Browse for the directory of the OS file named MTFirmware\_iV6.bin, and click [Update].



Step 3. A confirmation message is displayed. Click [Yes] and the OS will be downloaded and upgraded to cMT-iV6.



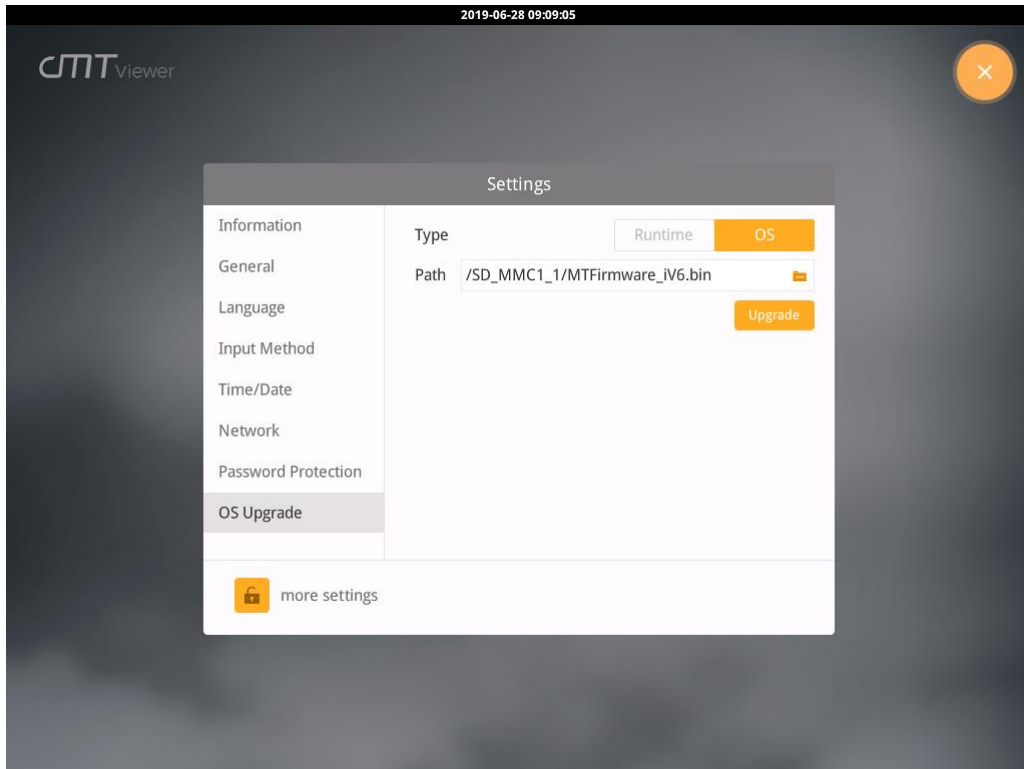
Step 4. Upon completion the updated OS version can be found in the Setting > Information tab.

### Updating OS via SD card

Step 1. Copy the MTFirmware\_iV6.bin into the SD card, and then insert the SD card into cMT-iV6.

Step 2. In OS Upgrade tab select [OS] and then select the directory where MTFirmware\_iV6.bin

file is placed, click [Update].



Step 3. Upon completion the updated OS version can be found in the Setting > Information tab.