

User Manual

cMT-iV5 Startup Guide



v 2.2
JAN 8, 2016

Table of Contents

| | |
|--|----|
| Chapter1. Overview | 1 |
| 1.1. Specification | 1 |
| 1.2. Dimensions..... | 2 |
| 1.3. Ethernet port..... | 3 |
| 1.4. CR1225 battery | 3 |
| 1.5. Power connection | 3 |
| 1.6. Requirements..... | 3 |
| Chapter2. System Setting | 4 |
| 2.1. Information | 4 |
| Master Password | 4 |
| 2.2. General..... | 5 |
| 2.3. Language | 5 |
| 2.4. Input Method | 6 |
| 2.5. Time/Date | 6 |
| 2.6. Network..... | 6 |
| 2.7. cMT-SVR System Setting | 7 |
| Chapter3. cMT Viewer App..... | 8 |
| 3.1. Introduction of icons..... | 8 |
| 3.2. How to load project file to cMT-iv5..... | 9 |
| 3.3. How to switch between cMT-SVR projects..... | 11 |
| Chapter4. Updating Firmware, OS..... | 12 |
| 4.1. Updating cMT Viewer | 12 |
| 4.2. Updating OS | 13 |

Chapter1. Overview

1.1. Specification



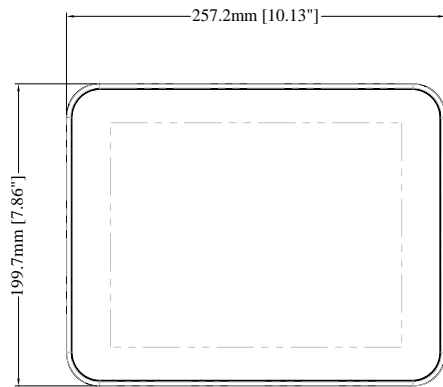
Cloud Human Machine Interface

Features

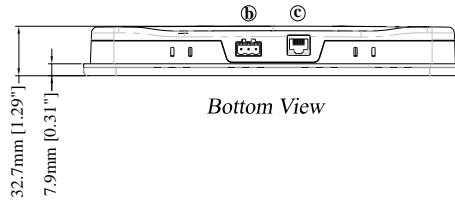
- 9.7" 1024 x 768 TFT LCD, LED Backlight
- Fan-less Cooling System
- Built-in 512 MB Flash Memory
- One Gigabit Ethernet Port
- Built-in mono speaker
- Built-in Power Isolator
- Designed for connecting cMT-SVR

| | | |
|----------------------|---------------------------------|---|
| Display | Display | 9.7" TFT |
| | Resolution | 1024 x 768 |
| | Brightness (cd/m ²) | 350 |
| | Contrast Ratio | 500:1 |
| | Backlight Type | LED |
| | Backlight Life Time | >30,000 hrs. |
| | Colors | 262K |
| Touch Panel | Type | Tempered Glass, Capacitive Type |
| | Accuracy | Active Area Length(X)±2%, Width(Y)±2% |
| Memory | Flash | 512 MB |
| | RAM | 1 GB |
| Processor | | 32 bits RISC Cortex-A9 1GHz |
| I/O Port | SD Card Slot | N/A |
| | 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 | |
| RTC | | Built-in |
| Power | 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) |
| Specification | PCB Coating | Yes |
| | Enclosure | Plastic |
| | Dimensions WxHxD | 257.2 x 199.7 x 32.7 mm |
| | Panel Cutout | 248.5 x 191 mm |
| | Weight | Approx. 0.76 kg |
| | Mount | Panel mount, VESA mount 75 x 75 mm |
| Environment | 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) |
| Certificate | CE | CE marked |
| | UL | cULus Listed |
| Language | Display | English, French, Italian, Spanish, Russian, Simplified Chinese, Traditional Chinese, Korean, German |
| | Input Methods | English, French, Italian, Spanish, German, Russian, Pinyin, Zhuyin |
| Software | | cMT Viewer |

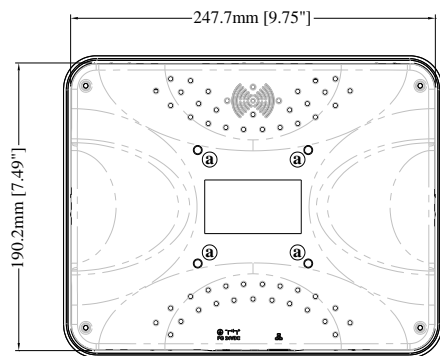
1.2. Dimensions



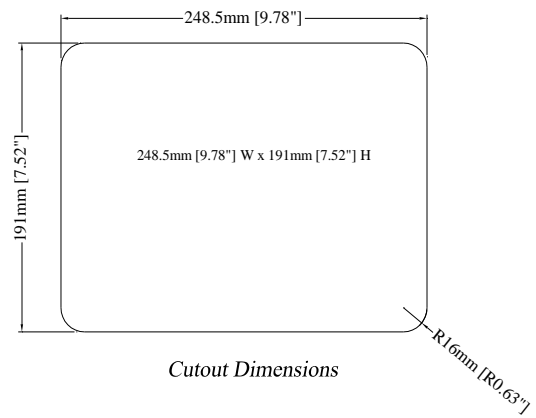
Front View



Bottom View



Rear View



Cutout Dimensions

| | | | |
|----------|------------------------|----------|---------------|
| a | VESA 75 mm screw holes | c | Ethernet Port |
| 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.

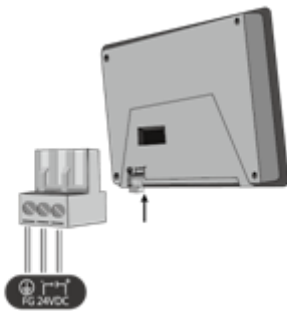
1.4. CR1225 battery

The cMT-iV5 requires a CR1225 coin type lithium battery to keep the RTC running.

Battery type: CR1225 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 500mA.



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-SVR.
2. Supported HMI model: cMT-SVR.
3. One cMT-iV5 can log in and operate three cMT-SVRs simultaneously.

Chapter2. System Setting

Startup cMT-iV5 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 the checkerboard area returns to the previously used project screen.

2.1. Information

Tap Setting > Information to view the information about this cMT-iV5.

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

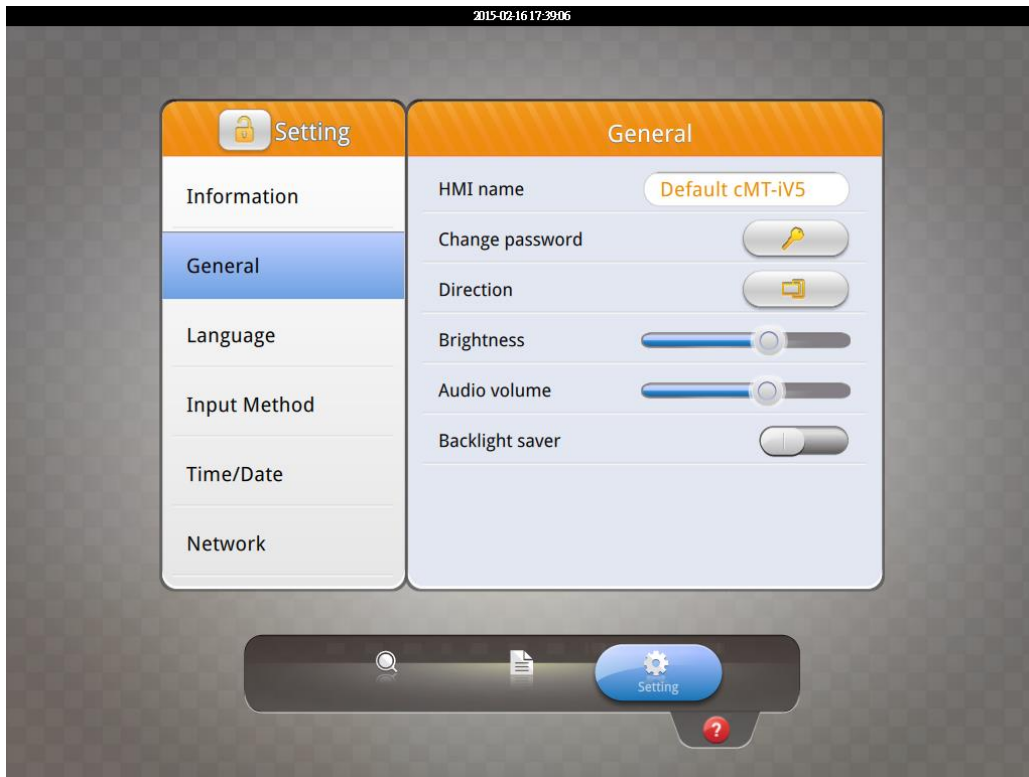


Master Password

In case of lost password, using the master password “default11111” can set the password back to the default value “11111”. However, this will clear all connection history.

2.2. General

In General tab, screen brightness and audio volume can be adjusted, backlight saver can be enabled, and password can be changed. After entering the password, the HMI name can be viewed and changed. Tap the Direction icon to change the screen orientation.




2.3. Language

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



2.4. Input Method

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

Tap  icon in the upper-left corner (a cMT-iV5 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

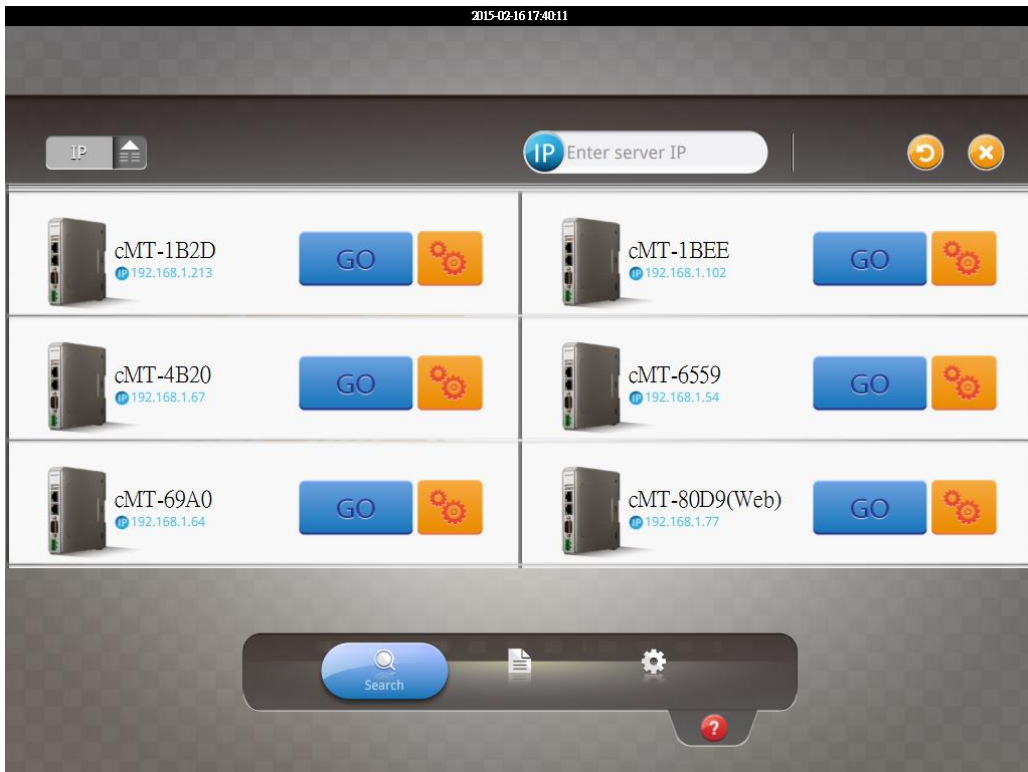
In Network tab, enable [Obtain an IP address automatically] or manually enter IP address, Subnet mask, Gateway, and DNS.



2.7. cMT-SVR System Setting













The system information of cMT-SVR can be set from cMT Viewer in cMT-iV5. Tap Search, find the cMT-SVR and tap  to open cMT-SVR setting page.

See [cMT-SVR User Manual](#) for more information.



Chapter3. cMT Viewer App

3.1. Introduction of icons

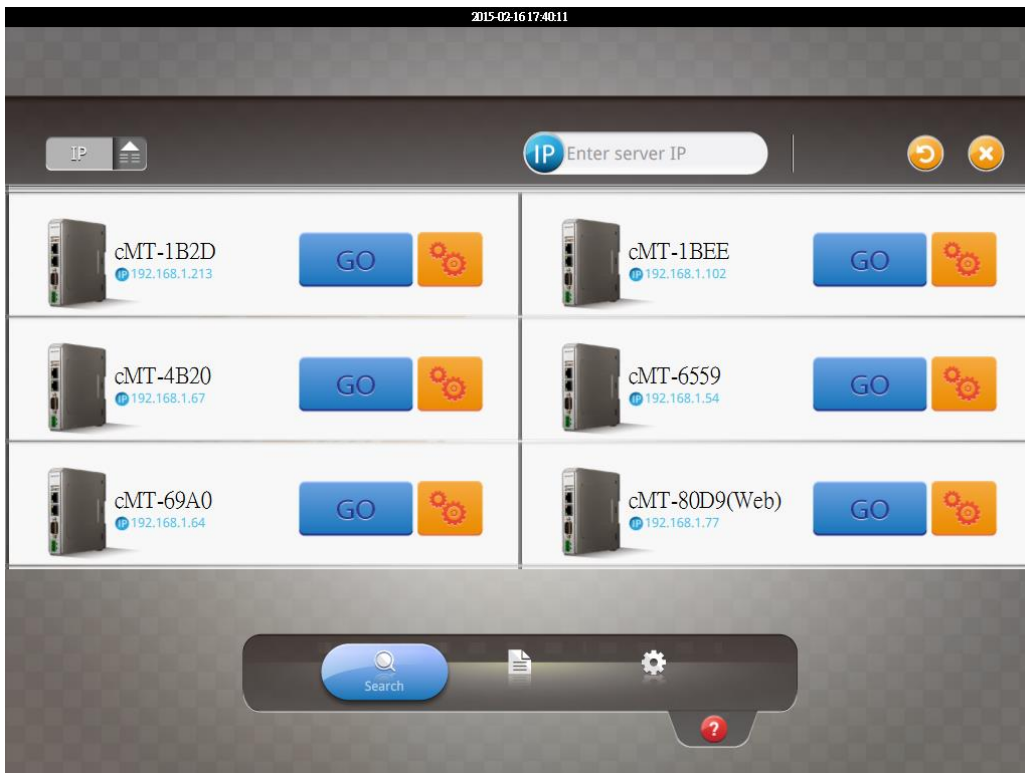
| Icon | Description |
|---|--|
|  | <p>When running cMT Viewer, tap the Start Button to configure the settings.</p> |
|  | <p>Project tab lists the logged in cMT-SVRs. Each cMT-iV5 can control three cMT-SVRs simultaneously.</p> |
|  | <p>Search tab lists all the cMT-SVRs on the same network.</p> |
|  | <p>History tab lists the cMT-SVRs previously logged in.</p> |
|  | <p>System tab is used to adjust the brightness and volume, or view information.</p> |
|  | <p>Tap this icon to make cMT-SVR CPU LED (green) blink for identify the cMT-SVR.</p> |
|  | <p>Tap this icon to load cMT-SVR project to cMT-iV5 and run the project.</p> |
|  | <p>Tap this icon to configure cMT-SVR system settings.</p> |
|  | <p>In Search tab, sort cMT-SVRs according to IP address.</p> |
|  | <p>In Search tab, sort cMT-SVRs according to HMI name.</p> |
|  | <p>In History tab, clear all the login records.</p> |
|  | <p>Tap this icon to understand more information about the features and operations.</p> |

3.2. How to load project file to cMT-iV5

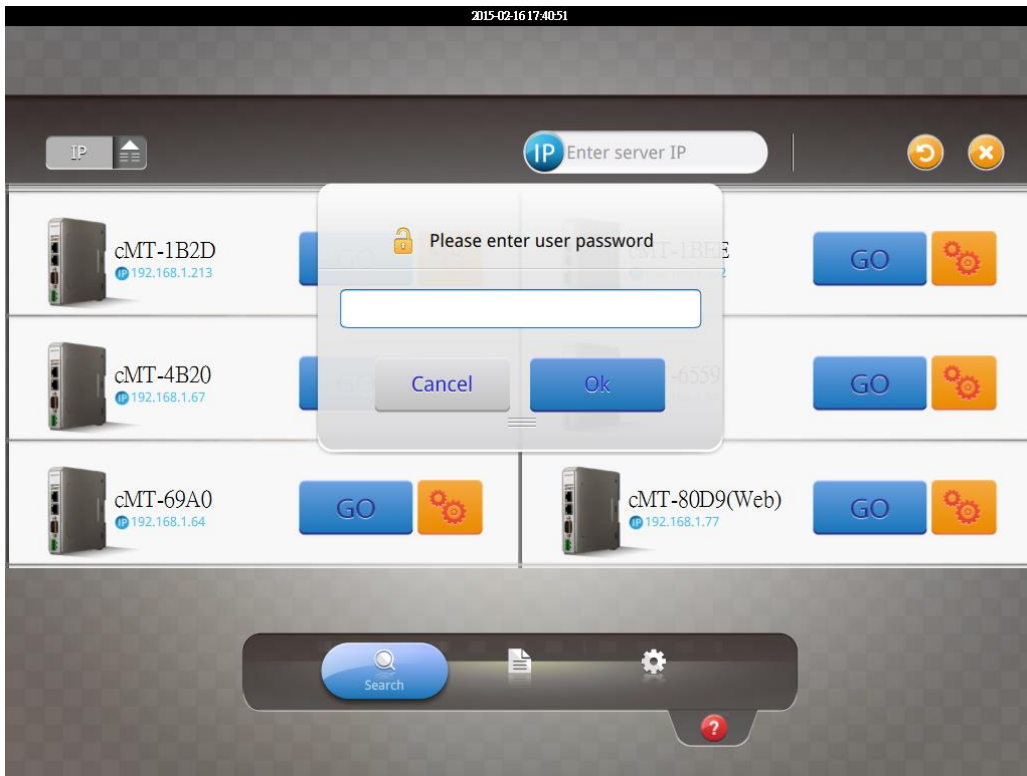
Step 1. Run cMT-iV5, tap Start Button as shown in the following figure.



Step 2. Search all the cMT-SVRs on the same network.



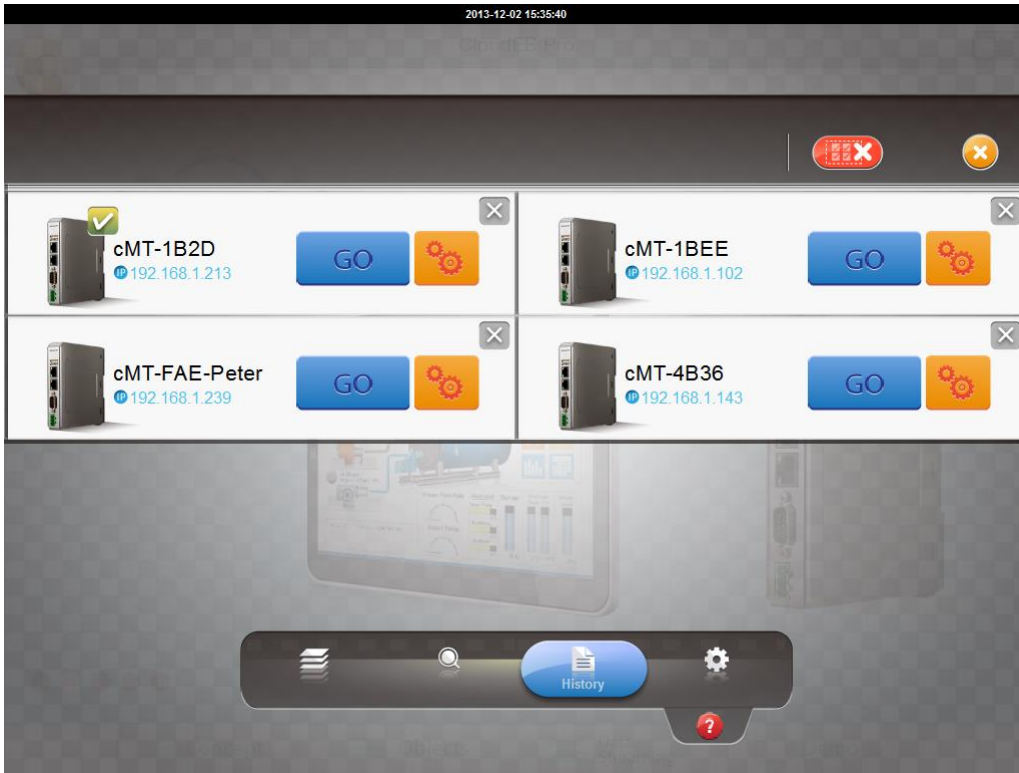
Step 3. Select the cMT-SVR, tap  and then enter password.





Step 4. The cMT-iV5 displays the project after the project is loaded




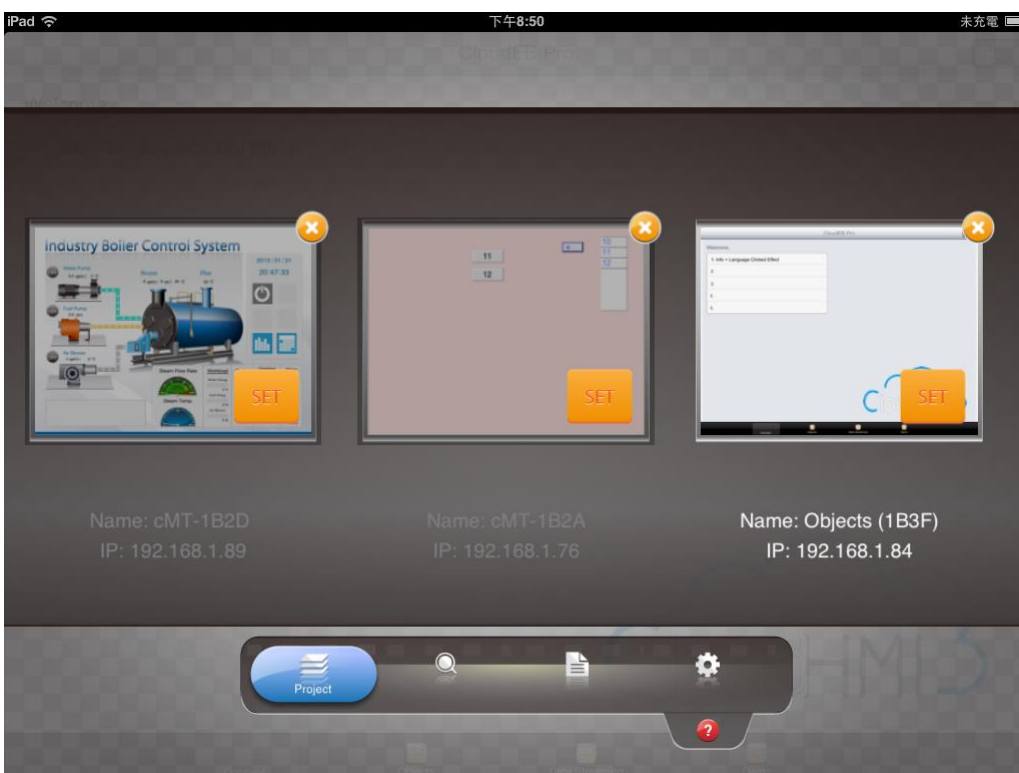
Tap Start Button to return to Search screen. To connect another cMT-SVR, repeat the preceding process to search for cMT-SVR and then load the project.



The  badge is displayed in the icons of the successfully connected cMT-SVRs. One cMT-iV5 can login to up to three cMT-SVRs simultaneously. Once the limit has been reached the  buttons for other cMT-SVRs will be unavailable and grayed out.

3.3. How to switch between cMT-SVR projects

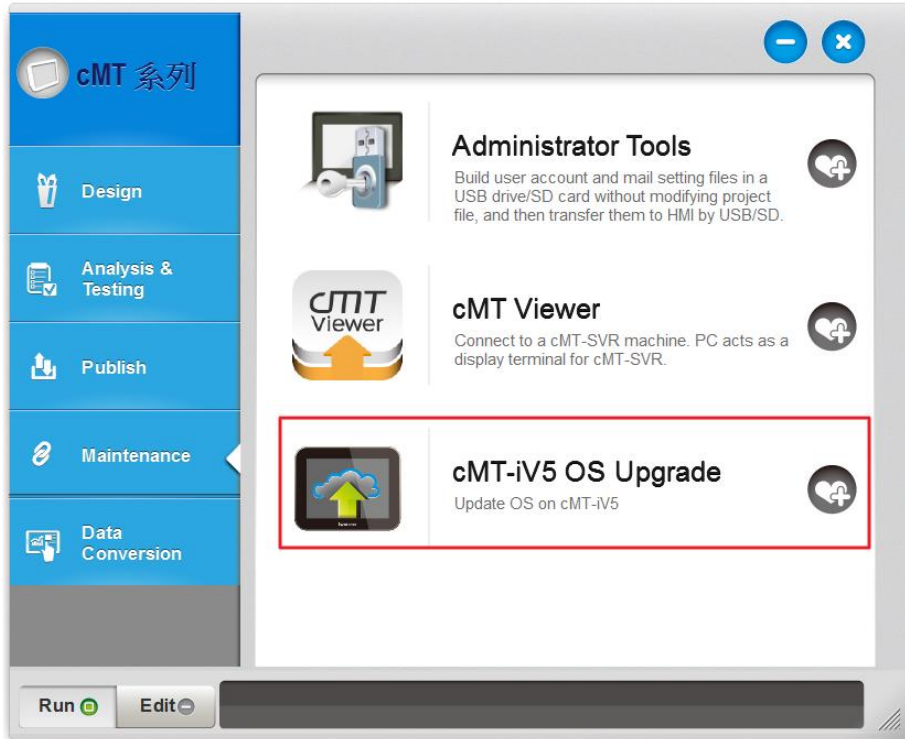
When multiple cMT-SVRs are connected, to switch between cMT-SVR projects, select from Project tab. To delete a project of a connected cMT-SVR, tap  .



Chapter4. Updating Firmware, OS

cMT Viewer (also called firmware) and OS version on cMT-iV5 can be updated via Ethernet.

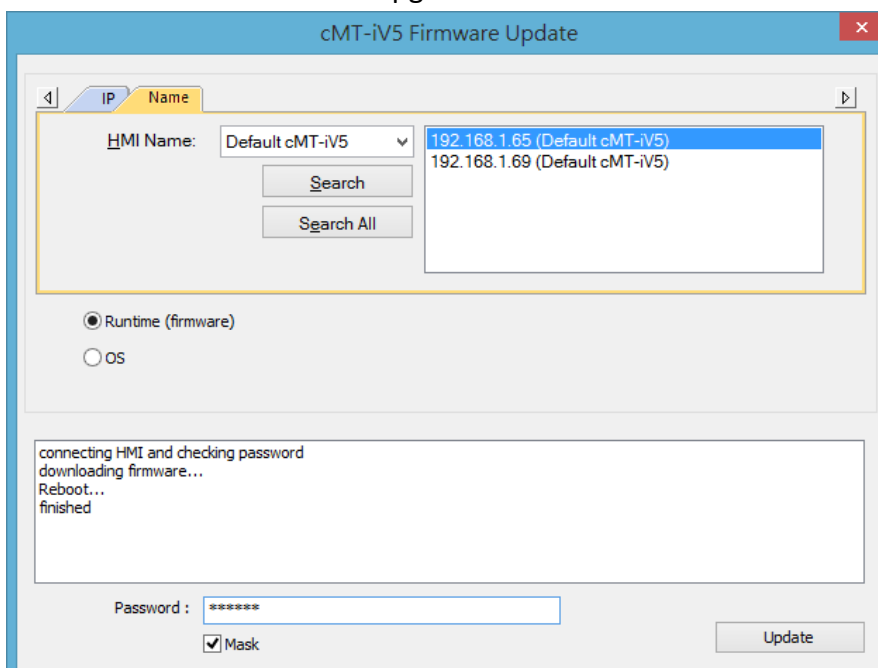
Launch Utility Manager, select cMT Series, and click [Maintenance] > [iV5 OS upgrade] to run the iV5 upgrade program.



4.1. Updating cMT Viewer

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 iV5 upgrade program select the HMI IP and select [Runtime (firmware)]. The firmware will be downloaded and upgraded to cMT-iV5.

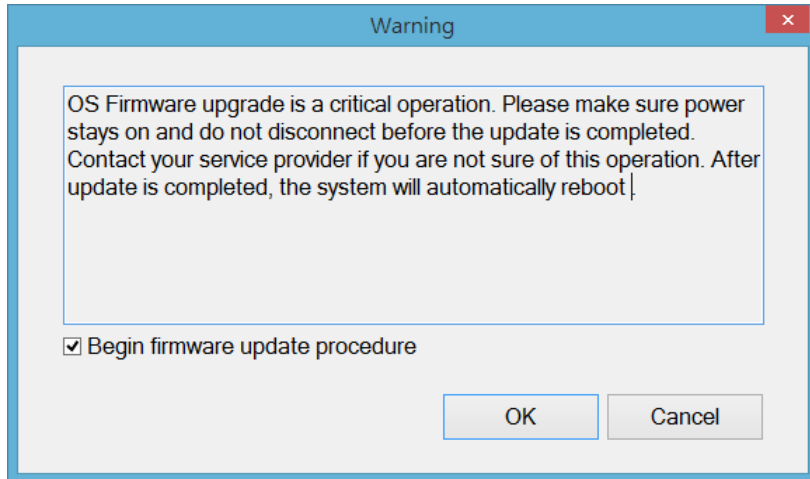


Step 3. Upon completion the updated cMT Viewer version can be found in the Setting > Information tab.

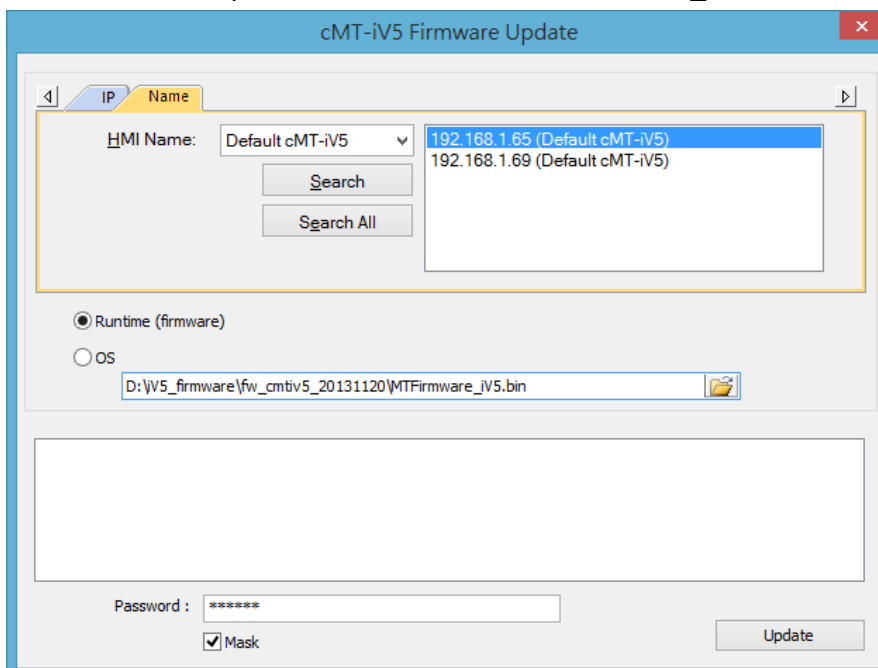
4.2. Updating OS

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

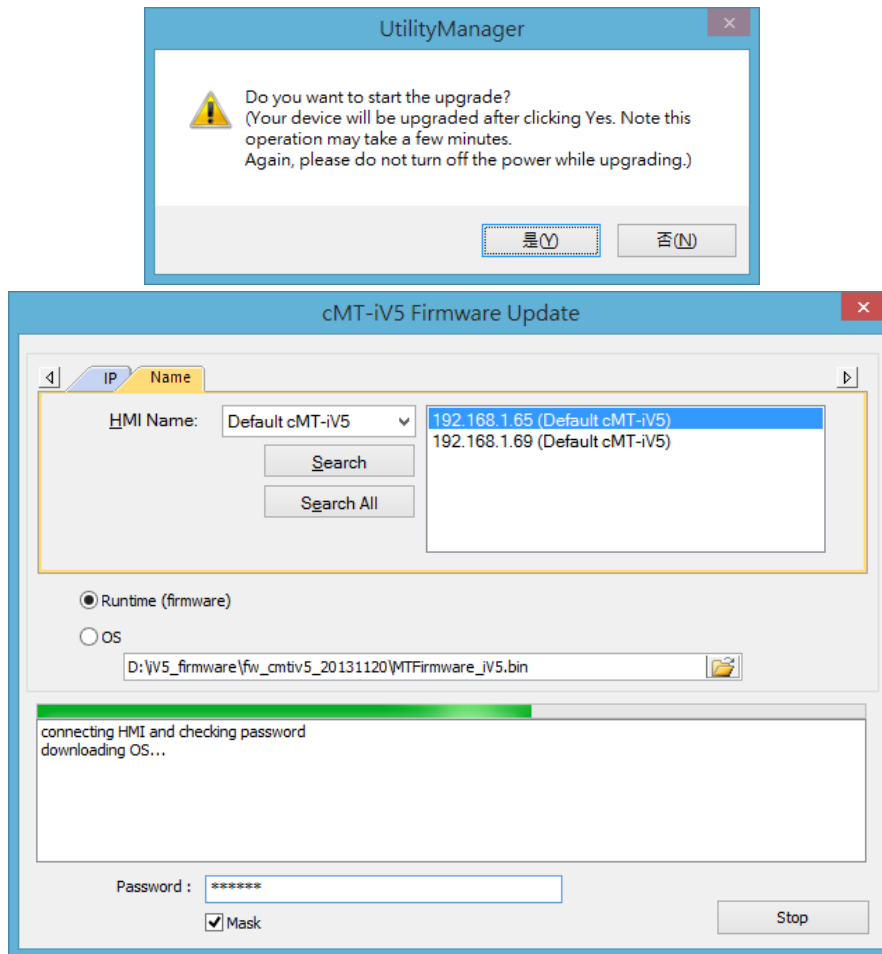
Step 1. In the iV5 upgrade program select the HMI IP and select [OS]. A warning message is displayed, select [Begin firmware update procedure] check box and click OK.



Step 2. Browse for the directory of the OS file named MTFirmware_iV5.bin, and click [Update].



Step 3. A confirmation message is displayed. Click [Yes] and the OS will be downloaded and upgraded to cMT-iV5.



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