

# cMT iV Series Display

## User Manual

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## Table of Contents

Chapter 1 - Overview .....	3
1.3. Ethernet Port .....	3
1.4. USB Host Port .....	3
1.5. CR2032 Battery .....	3
1.6. Power Connection .....	3
1.7. Operating Environment.....	3
Chapter 2 - System Settings.....	3
2.1. System Properties.....	4
2.2. Application .....	5
2.3. Network.....	7
2.4. VNC.....	7
VNC Interlock.....	8
Chapter 3 - cMT Viewer App .....	9
3.1. How to Load Project File to cMT iV Series Display.....	9
3.2. How to Switch Between cMT / CMT X HMI Projects.....	10
3.3. USB Drive Support.....	10
Chapter 4 - OS Update .....	11
4.1. Updating the OS.....	11
4.1.1. Updating via EasyWeb 2.0.....	11
4.1.2. Updating via USB Drive .....	11

## Chapter 1 - Overview

### 1.3. Ethernet Port

The cMT iV Series Display provides two Ethernet ports. LAN1 supports 10/100/1000Mbps and LAN2 supports 10/100Mbps. The indicators are as follows:

- Orange LED: Indicates LAN connection status.
- Green LED: Indicates active communication status.

For Ethernet connections, use a CAT-5e network cable.

### 1.4. USB Host Port

Support for USB 2.0 interface allows connection to barcode scanners and USB drives. When connecting an external hard drive, use an external power source to provide sufficient voltage to the hard drive. Do not use this USB port to charge external devices.

### 1.5. CR2032 Battery

The cMT iV Series Display requires a CR2032 3V lithium battery to keep the RTC running.

### 1.6. Power Connection

The cMT iV is DC-powered. The specified DC voltage range is  $24\pm 20$  volts, ensuring compatibility with most controller DC power systems. The power conditioning circuitry inside the unit is managed by a switching power supply. The peak starting current can reach up to 2A.

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

### 1.7. Operating Environment

1. cMT Viewer is an app for connecting cMT/CMT X Series HMI models. One cMT iV Series Display can log in and operate up to six cMT/CMT X Series HMIs simultaneously.

## Chapter 2 - System Settings

Since the cMT iV Series Display has cMT Viewer built-in, opening it will launch the cMT Viewer.

Tap the **gear button**  in the upper-right corner of the screen to open the system settings.

### 2.1. System Properties

System Properties allows viewing info and managing settings about the cMT iV Series Display.

Setting	Description
<b>Model</b>	Displays the currently used model, such as cMT3108XP (IV).
<b>HMI Name</b>	A customizable identifier name for easy recognition among multiple devices.
<b>OS Version</b>	Displays the current running operating system version.
<b>Hardware Key</b>	Displays the device's unique hardware key for authentication and registration.
<b>LAN1 MAC Address</b>	Displays the MAC address for LAN1.
<b>LAN2 MAC Address</b>	Displays the MAC address for LAN2.
<b>Date and Time</b>	Used to set and display the device's current date and time.

<b>Brightness</b>	Adjust screen brightness to suit different lighting environments and usage needs.
<b>Sound</b>	Adjust the volume level, including key tones and system alerts. The sound can be toggled on or off as needed.
<b>Language</b>	Select the display language for the device.
<b>Input Method</b>	Set the input method to facilitate input operations in different language environments.
<b>Backlight Saver</b>	Configure the backlight saving feature to automatically turn off the screen backlight when the device is idle for extended periods.
<b>Show Mouse Cursor</b>	Configure whether to display the mouse cursor, useful with a touchscreen or external mouse.
<b>Direction</b>	Set the screen display orientation, including landscape and portrait modes.
<b>Reset HMI to Default</b>	Restore all settings to factory defaults.
<b>OS Upgrade</b>	Begin updating the system by selecting the OS file from a USB drive. Do not power off during the update. Refer to the OS update section for detailed steps and precautions.
<b>Third-Party Licenses</b>	View third-party licenses.

## 2.2. Application

The Application tab allows adjusting cMT Viewer preferences.

Setting	Description
<b>Restore Previous Connections</b>	Configure whether the cMT Viewer automatically restores the last connection upon startup. If this option is enabled, the cMT Viewer will remember and automatically reconnect to the previously used HMI devices, which is convenient for users frequently interacting with the same devices.
<b>Display Datetime Bar</b>	Configure whether to show the date and time bar on the main screen.
<b>Show Start Button</b>	Configure whether to display the "Start" button on the interface, allowing users to return to the home screen. When the Start button is hidden, its hidden position can be set. Users can trigger the Start button by long-pressing the hidden position, enabling a return to the home screen when needed.
<b>Password Protection</b>	Configure whether to enable the password protection feature. Once enabled, users must enter a password before accessing certain features.

**[Open Project]:** Once this function is protected, entering a password is required before adding cMT / CMT-X series HMIs.

**[Close Project/Adjust Project]:** Once this function is protected, entering a password is required to close the project file.

**[Server Settings]:** Once this function is protected, entering a password is required to access the

cMT / CMT-X system settings via cMT Viewer.

**[Clean History]:** Once this function is protected, entering a password is required to clear the history of connection under the History tab. To operate protected functions, tap the icon  at the top left and enter the password.

After entering the password, the cMT Viewer will automatically lock the protected functions again after a 10-minute countdown. On the cMT iV Series Display, tapping anywhere on the screen resets the countdown timer. To reset the countdown immediately, select the icon .

## 2.3. Network

Setting	Description
<b>Ethernet LAN1</b>	Usually used for external network connections, requiring the setup of IP address, subnet mask, gateway, and domain name.
<b>Ethernet LAN2</b>	Usually used for internal network connections to isolate internal networks from external ones. To avoid network conflicts, LAN1 and LAN2 should be set in different domains.
<b>Network Bridge</b>	Bridge mode can be enabled to allow LAN1 and LAN2 to operate on the same network segment, providing switch functionality.

## 2.4. VNC

Setting	Description
<b>Enable</b>	Once the VNC feature is enabled, VNC Client devices can connect to the cMT iV Series Display, allowing remote users to view and operate the cMT iV Series Display interface.
<b>Multiple Connections</b>	Allows multiple VNC Client devices to connect simultaneously. Note that having more VNC Clients connected at the same time may impact the cMT iV Series Display's communication speed.
<b>Require Password</b>	To enhance system security, a password can be set so that only VNC Clients with the correct password can connect to the cMT iV Series Display.

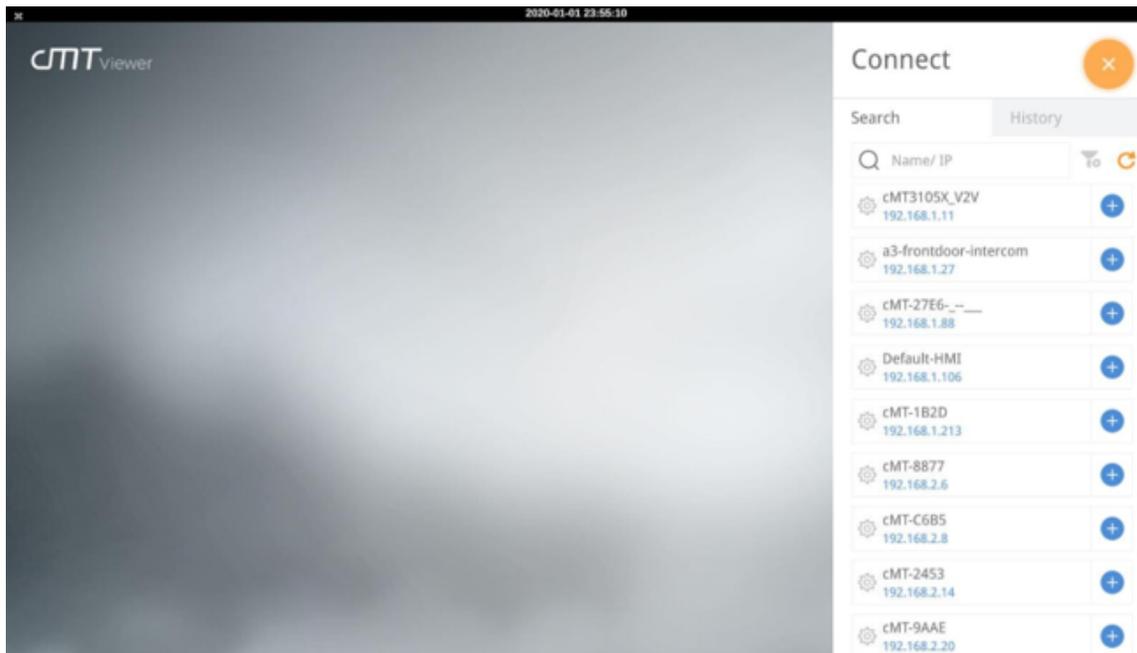
## VNC Interlock

Setting	Description
<b>Enable</b>	Enable the VNC interlock feature to enhance system security/manageability.
<b>Timeout</b>	Set the timeout for VNC interlock. If there is no operation past the set time, the operation access will automatically be disconnected.
<b>Status Bar Style</b>	Choose the display mode for the status bar to adjust according to usage needs.

## Chapter 3 - cMT Viewer App

### 3.1. How to Load Project File to cMT iV Series Display

1. Run the cMT iV Series Display and tap the button .
2. Search for all the cMT / CMT X HMIs on the same network.



3. Select a cMT/ CMT X HMI, tap the **blue plus** icon and then enter the password. With **Save password for this HMI** selected, entering password will not be necessary when connecting to the same HMI again.
4. The cMT iV Series Display displays the project after the project is loaded.

Tap Start Button to return to the home screen. To connect to another cMT / CMT X HMI, repeat the preceding process to search for cMT / CMT X HMI and then load the project. The connected

cMT / CMT X HMIs will have a grey plus sign  near its name.

## 3.2. How to Switch Between cMT / CMT X HMI Projects

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

To delete a project of a connected cMT/CMT X HMI, tap .

## 3.3. USB Drive Support

By using a USB drive, the cMT iV Series Display can support the following software features used in the project file of the connected cMT/CMT X 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, Use [USB Security Key] to Login.
- Selected features of Function Key: Screen hardcopy, import e-mail settings and contacts, Import user accounts, Use [USB Security Key] to Login.

Note that a USB drive must be inserted into the cMT iV Series Display, and in EasyBuilder Pro, the designated destination must be USB drive. When using these features, only the data in the USB drive on the cMT iV Series Display can be read instead of the data in the USB drive on the cMT/cMT X HMI.

## Chapter 4 - OS Update

The OS version on the cMT iV Series Display can be updated via Ethernet or USB drive.

### 4.1. Updating the OS

OS update failures can render the cMT iV Series Display unusable, so care must be taken during the update. Ensure a stable power supply throughout the process.

#### 4.1.1. Updating via EasyWeb 2.0

1. Open a web browser (Windows Edge, Chrome, Firefox) and enter the **IP address** of the cMT iV Series Display (e.g., 192.168.2.121). Enter the **Admin password** on the **login page** to access the web settings.
2. Under the **Administrator tab**, find and open the **OS Update tab**.
3. Click **Update**, select the **OS file**, and then click **Update** to start the process.

#### 4.1.2. Updating via USB Drive

1. Place the OS file **MTFirmware\_iV6.bin** onto a USB drive and insert it into the cMT iV Series Display.
2. In the **System Properties** tab, find and select **OS Upgrade**, then enter the **Admin** password.
3. Within the interface, click **Select File...**, choose the path to **MTFirmware.bin** on the USB drive, and click **OK**.
4. Once the OS file path is confirmed, click the **Upgrade** button at the top right of the screen to begin the OS update process

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