cMT Web HMI

User Manual

Your industrial control solutions source

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Chapter 1 - Overview

1.1. Ethernet Port

The cMT Web HMI provides two Ethernet ports. LAN1 supports 10/100/1000Mbps, while LAN2 supports 10/100Mbps. The indicators are as follows:

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

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

1.2. CR2032 Battery

The cMT Web HMI requires a CR2032 lithium battery to keep the RTC running.
Battery specification: CR2032 3V lithium battery.

1.3. Power Connection

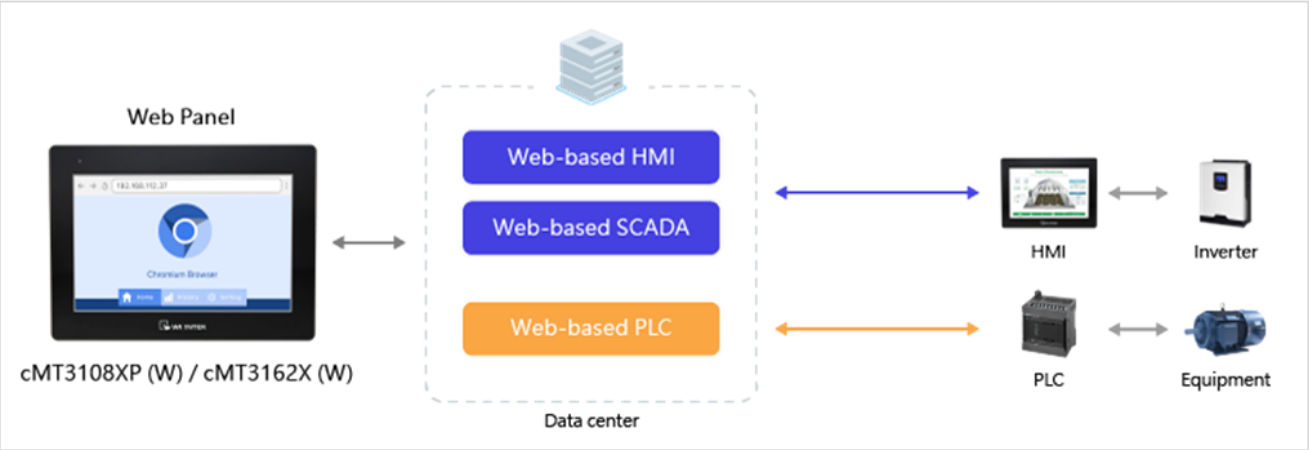
The cMT Web HMI is only DC powered. The specified DC voltage range is 24±20 volts, ensuring compatibility with most controller DC power systems. The power conditioning circuitry inside the unit is managed by a switching power supply, and the peak starting current can reach up to 2A.

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

1.4. Operating Environment

1. Built-in web client program: Google Chromium.
2. Supports connection to web servers, web-based SCADA systems, PLCs, and HMIs.
3. Using A Maple Systems HMI as an example, it allows the use of EasyAccess 2.0 for editing HMI interface settings and WebView for monitoring HMI screens through a web browser.

Chapter 2 – cMT Web HMI



The cMT Web HMI is equipped with a built-in web browser, allowing direct access to various systems with web servers over the network. Here are several common applications:

Web-based HMI

Using A Maple Systems HMI as an example, the system settings page of EasyAccess 2.0 and the screen monitoring function via WebView allow the cMT Web HMI to modify the system parameters of the on-site HMI and control the HMI display through a browser. A single HMI combined with multiple cMT Web HMIs can now provide comprehensive service, eliminating the need for multiple HMIs. Only one HMI file needs to be managed.

Web-based SCADA

Many SCADA systems are based on web interfaces. After configuration, on-site data can be tracked, displayed, and analyzed via the web. The cMT Web HMI only needs to know the corresponding URL to easily connect with the plant's SCADA system.

Web-based PLC

Some PLCs also feature web server functionality, offering not only a webpage for setting PLC parameters but also the ability to edit display screens, such as with CODESYS WebVisu. The cMT Web HMI can be used to monitor PLCs as well.

Chapter 3 – System settings

Upon the first power-up, the default screen will appear. Tapping the System Settings button allows access to the system settings login screen. The default password is 111111.

3.1. System

In the System Settings page, it is possible to configure information related to the device, including system information, display settings, diagnostics, and more.

3.1.1. System Info

Setting	Description
HMI Name	Modify the HMI name here.
Date/Time	Click to change the time information.

HMI Info Collector

Setting	Description
Version	View the current version of the HMI Info Collector.
HMI Info Collector	Click to directly download a file that stores HMI information. This file can be provided for analysis in case the HMI encounters an unexpected error.

3.1.2. Display/Misc

Setting	Description
Brightness	Adjust the brightness of the backlight.
Audio	Choose whether to enable audio.
Audio Volume	After enabling audio, adjust the volume level.

Touch Sound Feedback	When enabled, the touchscreen emits sound effects.
Touch Sensitivity	Set appropriate touch sensitivity for different environments.
Show Mouse Cursor	Enable to display the mouse cursor.
Direction	Adjust the display orientation of the HMI screen.
Input Method	Language of the keyboard popup when typing; supports multiple languages.
Startup Image - Customize	Allow customization of the startup screen. The countdown timer and System Settings button will be retained.
Startup Image - Reset	Reset to the default startup screen.

Backlight Saver

Settings	Description
Enable Timeout	When enabled, the backlight will turn off based on the idle timeout settings.
Idle Timeout (minutes)	Set the duration for the idle timeout.

3.2. Web Browser

All parameters related to the web browser can be configured here, including the default URL and countdown timer settings.

3.2.1. Web Browser Setting

Setting	Description

Default Website	Set the URL that will be accessed after the countdown finishes on the default screen.
Countdown before Start	The waiting time after entering the default screen before attempting to access the preset URL.
Enable Navigation Bar	When enabled, a navigation bar will appear at the top of the web browser.

3.2.2. Web Browser Diagnostic

Setting	Description
Remote Debugging	Determine whether to enable remote debugging for the web browser. The communication port must be configured.
Delete Browsing Data	Delete browsing data from the web browser.
Reset Browser	Reset the web browser settings.

3.3. Network

Configure network-related settings like Ethernet, wireless networks, and hotspots.

3.3.1. Ethernet

Setting	Description
LAN 1 (WAN)	Configure the IP parameters for LAN 1. Usually used for external network connections, requiring the setup of IP address, subnet mask, gateway, and domain name system.
LAN 2 (LAN)	Configure the IP parameters for LAN 2. 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.

Bridge Mode	Enable bridge mode to connect LAN1 and LAN2 within the same domain, achieving switch functionality. Users must confirm the connections of both network ports; improper connections may create loops, leading to broadcast storms. After confirmation, click to execute.

3.3.2. WiFi (For cMT3108XP (W) only)

Setting	Description
Wi-Fi	Enable Wi-Fi Functionality
AP List	Search for wireless access points in the area. Connect by entering the password.
Join other (SSID)	Manually join a wireless access point.
801.1X EAP	Configure encryption communication for the wireless network.

3.3.3. Hotspot (For cMT3108XP (W) only)

Setting	Description
Hotspot	Enable hotspot functionality to share wireless network from the cMT Web HMI.
SSID	Set the display name for the wireless access point.
Security	Choose the encryption method for communication.
Password	Set the access password for the wireless access point.
Hotspot server address	Configure the IP address for the cMT Web HMI to act as a server hotspot.
Hotspot dhcp address range	Specify the range of IP addresses that will be allocated when connected to the hotspot.

3.4. Features

3.4.1. VNC/WebView Setting

VNC Setting

Setting	Description
Enable	When enabled, VNC clients are allowed to connect and interact with the screen.
VNC Multi Connection	When enabled, up to 3 VNC clients can connect simultaneously.
Require Password	When enabled, a password must be used to log in to the VNC function.
VNC Password	Configure and modify the VNC login password.

WebView Setting

Setting	Description
Enable	When enabled, VNC clients are allowed to connect and interact with the screen.
Force HTTPS	When enabled, the WebView page will be forced to use the HTTPS protocol.
Use Same HTTP Port as EasyWeb	When enabled, the WebView page will connect to the VNC server on port 80 when using HTTP.
Use WebView as home page	When enabled, entering the IP address in the browser will directly access the WebView page.
User List	Select the user to log in to WebView.
Automatic Login	Automatically log in to WebView using the selected user. Note that users can log out manually and log in with a different user.

Control User	This user can view and control WebView. The login password can be modified.
View User	This user can only view WebView. The login password can be modified.

WebView Timeout Setting

Setting	Description
Enable Timeout	When enabled, WebView will close according to the idle timeout settings.
Idle Timeout (minutes)	Set the duration for the idle timeout.

VNC/WebView Interlock

Setting	Description
Enable	Enable the screen lock function. Users of the cMT Web HMI / VNC / WebView will not be affected by each other.
Timeout (seconds)	Set the timeout duration. After this period, control will be released, allowing the next client in line to gain control.
Status Bar Style	Regular:  Minimal: 

3.5. Administration

3.5.1. System Password

Modify the login password for the system settings pages.

3.5.2. OS Update

OS updates can be performed here. See chapter 4 in this manual for more information.

3.5.3. Restore Factory Default

Reset the web browser and all local settings to restore them to factory default values. This can only be performed on the HTML Web Panel.

Chapter 4 - OS Update

The OS version on the cMT Web HMI can be updated via Ethernet or USB drive.

4.1. Updating the OS

Please note that OS update failures can render the cMT Web HMI unusable, so care must be taken during the update. Ensure a stable power supply throughout the process.

4.1.1. Updating via EasyAccess 2.0

1. Open a web browser (Windows Edge, Chrome, Firefox) and enter the IP address of the cMT Web HMI (e.g., 192.168.2.121). Enter the password on the **login page** to access the 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 (.bin) onto a USB drive and insert it into the cMT Web HMI.
2. Enter the password on the **login page** to access the settings.
3. Under the **Administrator tab**, find and open the **OS Update tab**.
4. Tap **Update**, select the OS file in the USB drive, then tap **Update** to start the process.

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