# User Manual

# cMT-iV5 Startup Guide



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#### Chapter1. Overview

#### 1.1. Specification



#### **Cloud Human Machine Interface**

#### **Features**

- One Gigabit Ethernet Port
- Built-in 512MB Flash Memory
- Built-in 1000MB RAM
- Fan-less Cooling System
- Power Isolator Inside
- Built-in mono speaker
- Designed for connecting cMT-SVR

	Display	9.7" TFT
	Resolution (WxH dots)	1024 x 768
	Brightness cd/m <sup>2</sup>	350
Display	Contrast Ratio	500:1
	Backlight Type	LED
	Backlight Life Time	>30,000 hrs.
	Colors	262K
Touch Panel	Туре	Tempered Glass, Capacitive Type
Touch Panel	Accuracy	Active Area Length(X)±2%, Width(Y)±2%
Momory	Storage	512 MB
Memory	RAM	1GB
Processor		32 bits RISC Cortex-A9 1GHz
	Ethernet	10/100/1000M
I/O Port	Audio Output	Built-in Mono Speaker
	Video Input	N/A
RTC		Built-in
	Input Power	24±20%VDC
	Power Isolation	Built-in
	Power Consumption	900mA@24VDC
Power	Voltage Resistance	500VAC (1 min)
	Isolation Resistance	Exceed 50M $\Omega$ at 500VDC
	Vibration Endurance	10 to 25Hz(X,Y,Z direction 2G 30 minutes)
	Enclosure	Plastic
	Dimensions WxHxD	257.2 x 199.7 x 32.7mm
Specification		248.5 x 191 mm
	Weight	Approx.0.76 kg
	Protection Structure	NEMA4 / IP65
	Storage Temperature	-20°~60°C (-4° ~ 140°F)
Environment		0° ~ 50°C (32° ~ 122°F)
	Relative Humidity	10% ~ 90% @ 40°C (non-condensing)
	PCB Coating	Yes
Certificate		CE marked
Languago	Display	English, French, Italian, Spanish, Russian, Simplified Chinese, Traditional Chinese, Korean, Deutsch
Language	Input Methods	English, French, Italian, Spanish, German, Russian, Pinyin, Zhuyin



#### 1.2. Dimensions



а	VESA 75mm screw holes	С	Ethernet Port
b	Power Connector		

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#### 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:  $24\pm20\%$  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. CloudHMI: 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 CloudHMI 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.

Infomation	Machine type	cMT-iV5
	HMI name	Default cMT-iV5
General	IP address	192.168.1.123
Language	Subnet mask	255.255.255.0
Input Method	Gateway	192.168.1.254
	Mac address	00:0c:26:05:29:25
	App. version	1.0.11
	OS. version	20131120



#### 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. Tap the Direction icon to change the display direction.

Infomation	HMI name Default cMT-iV
General	Change password
Language	Brightness
Input Method	Audio volume
Time/Date	
Network	

#### 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.

Infomation	English	~
Quant	Français	
General	Italian	
Language	Español	
Input Method	Русский	
	简体中文	
	繁體中文	
	한국어	

#### 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.

B Settin	g		Time/Date	
Infomation		Date	2014-01-21	
General		G Time	44-50-59	0
Language	12	57	50	
Input Metho	13 14	58 59	51 52	
Time/Date	15 16		53 54	
Network	Car	ncel	Ok	
	Q	È	Setting	2

#### 2.6. Network

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

Infomation	Obtain an IP addre	ss automatically
General	IP address	192.168.1.123
General	Subnet mask	255.255.255.0
Language	Gateway	192.168.1.254
Input Method	DNS	0.0.0.0
Time/Date		

#### 2.7. cMT-SVR System Setting

The system information of cMT-SVR can be set from CloudHMI 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:

http://www.weintek.com/Download/cMT/eng/UserManual/cMT\_SVR\_UserManual\_eng.pdf





### Chapter3. CloudHMI App

#### **3.1.** Introduction of icons

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



#### 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

CloudHMI (also called firmware) and OS version on cMT-iV5 can be updated via Ethernet. Launch Utility Manager, select cMT Series, and click [Maintenance] > [iV5 upgrade] to run the iV5 upgrade program.



#### 4.1. Updating CloudHMI

- Step 1. Place the CloudHmi.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 [Firmware]. The firmware will be downloaded and upgraded to cMT-iV5.

cMT-iV5 Firmware Update	×
d IP Name	4
HMI Name:       Default cMT-iV5       Image: Transmitter in the second s	
● Firmware ○ OS	
connecting HMI and checking password downloading firmware Reboot finished	
Password : ****** V Mask Upda	ite

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Step 3. Upon completion the updated CloudHMI 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 [Start Firmware Upgrade] check box and click OK.

Warning	×
OS Firmware upgrade is a critical operation. Please make sure power stays on and do not disconnect before the update is completed. Contact your service provider if you are not sure of this operation. After update is completed, the system will automatically reboot .	
Begin firmware update procedure	
OK Cancel	

Step 2. Browse for the directory of the OS file named MTFirmware\_iV5.bin, and click [Update].

cMT-iV5 Firmware Update	×
1 IP Name	Þ
HMI Name:     Default cMT-iV5       Search       Search All	
Firmware     OS     D:\V5_firmware\fw_cmtiv5_20131120\MTFirmware_iV5.bin	
Password : ******  V Mask Update	e



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

	UtilityManager		
	Do you want to start the upgrade? (Your device will be upgraded after clicking Yes. Note this operation may take a few minutes. Again, please do not turn off the power while upgrading.)		
	<u>そい</u> 香い		
cMT-iV5 Firmware Update 🛛 🗙			
▲ IP Na HMI Na ○ Firmware ● OS	Ime: Default cMT-iV5 V Search Sgarch All Default cMT-iV5) 192.168.1.65 (Default cMT-iV5) 192.168.1.69 (Default cMT-iV5)		
D:\V5_firmware\fw_cmtiv5_20131120\MTFirmware_iV5.bin			
connecting HMI and checking password downloading OS			
Passwo	rd : ****** Mask		Stop

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