

Weintek USA, Inc. www.WeintekUSA.com (425) 488-1100

User Manual

cMT-FHDX Startup Guide



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1. Supported Touch Screen

Brand Name	Model	Touch Screen Type	Screen Size	Requires OS Version
			(Inch)	
IEI	DM-F22A/PC-R11	USB projected	21.5"	20171208 or
		capacitive touch		greater
Aplex	ARCDIS-121AP	USB projected	21.5"	20171208 or
		capacitive touch		greater
Indumicro	IMD-C220PT	USB projected	21.5"	20171208 or
		capacitive touch		greater
Норе	HIS-ML19.5-CTBA	USB analog resistive	19.5"	20180523 or
Industrial		touch		greater
Systems				
ELO	ET1590L-7CWB-1-ST-NPB-G	USB AccuTouch [®] 5-	15"	20180523 or
		wire Resistive Touch		greater
ELO	ET1593L-2UWB-0-MT-ZB-NPB-G	TouchPro PCAP	15.6"	20180523 or
				greater
ELO	ET2094L-8CWB-0-ST-NPB-G	USB IntelliTouch	19.5"	20180523 or
				greater
Cincoze	CV-117R/M1001	USB Resistive Touch	17"	20180910 or
				greater
Weintek	cMT-iM21	Capacitive touch	21.5"	20171208 or
				greater

The following industrial touch screens are verified to be compatible with the cMT-FHDX.

2. Network Wiring Diagram

Connect a cMT-FHDX to a router by an Ethernet cable as the diagram shows below.

The default IP address of LAN 1 is DHCP. The default IP address of LAN 2 is static IP 192.168.100.1. The IP addresses of LAN 1 and LAN 2 must be configured to different subnets, except for the cMT-FHDX which have been activated with a Codesys license.



cMT-FHDX LAN Ports:

The cMT-FHDX is equipped with two independent Ethernet ports which isolate the device network from the company/factory network. LAN1 is a WAN (Wide Area Network) port which is allowed to connect to a public network or another network via a gateway. LAN2 is a LAN (Local Area Network) port.

3. Setup

Press the system toolbar button in the top left of the screen to open the Setup menu.



Information

This page shows general information about cMT-FHDX and network information.

G Setting	Information		
	Machine type	cMT-FHDX-220	
1 Information	HMI name	cMT-F39E	
General	OS. version	20200902	
Language	Ethernet1		
•88-	IP address	192.168.2.142	
🏧 Input Method	Subnet mask	255.255.252.0	
	Gateway	192.168.1.254	
	Mac address	00:0c:26:1f:f3:9e	
	Ethernet2		
	IP address	192.168.100.1	
	Subnat mack	755 755 755 0	

General

Adjust the brightness of the screen and audio volume. The Audio option will be available when the connected monitor display supports **DDC /CI** (Display Data Channel/Command Interface).



Language

Select a language for Setup. The language selected on the project of the cMT-FHDX won't be changed by this setting.

G Setting		Language	
	English		\checkmark
Information	Français		
Tanguage	Italian		
Input method	Español		
 Reset options 	Русский		
	简体中文		
	繁體中文		
	한국어		

Input Method

Select languages for system keyboard input use.

a Setting	Input method	
	English	 Image: A second s
 Information 	Français	
⊕ ⊐ Language	Italian	
🏧 Input method	Español	
⊙ Reset options	Русский	
· · · · · · · · · · · · · · · · · · ·	简体中文 - 拼音	
	繁體中文 - 注音	
	한글 - Hangul	

Advanced Settings

To access more system settings, click on the lock icon in the top left corner. There are two different levels of password protection. Select [System Setting] and enter System Setting password. The default password of System Setting is 111111. The **Codesys** tab, **OS Upgrade** tab, and **Reset Option** tab will be accessible to System Setting.

Login	
System setting	
Esnañol	
	System setting Update

After clicking on [OK], the icon will become unlocked.



Codesys

This is a page used to activate Codesys functionality. To activate this feature on a cMT-FHDX, a Codesys activation card is required and must be purchased separately.

[Codesys Activation Code]- Enter the codes displayed on a Codesys activation card. Click [Active] to activate Codesys.

Note: Once Codesys is activated, there is no way to remove Codesys from the cMT-FHDX.

[Restore Codesys License]- The Codesys functionality will be restored if it is enabled. Contact Weintek USA before using this.

Setting	CODESYS	Active
System setting	CODESYS Activation Code:	
Information	Restore CODESYS License	Restore
CODESYS		
General		
Network		
O Time/Date		
🖉 HMI Name		

General

[Direction]- Click on the button to change the direction of the screen display.

[Popup download window]- If enabled, after inserting a USB drive to the USB port of the cMT-FHDX, the Upload/Download dialog window will pop up.

[FTP Port]- Click the ">" button to change FTP port number.

[FTP client can modify USB/SD data]- If enabled, historical data stored in USB drive can be modified via FTP(File Transfer Protocol).

[Show Start button]- If this option is turned off, the system toolbar button will be hidden.

Setting	General	
System setting	Direction	
1 Information	Brightness	
	Popup download window	
II General		
Network	FTP Port (default: 21)	21 >
	FTP client can modify USB/SD data	
O Time/Date	Show Start button	
🖉 HMI Name		
—		

Network

Set the IP addresses of Ethernet 1 and Ethernet 2. The default IP address of Ethernet 1 is DHCP. The default IP address of Ethernet 2 is 192.168.100.1. The IP addresses of Ethernet 1 and Ethernet 2 must be on separate subnets, except for the cMT-FHDX with activated Codesys.

Setting	Network	
System setting	Ethernet 1 (WAN/LAN)	>
Information	Ethernet 2 (LAN)	×
CODESYS		
■ General		
Network		
() Time/Date		
🖉 HMI Name		

Click on one of the ">" button. Enable [Obtain an IP address automatically] (DHCP) or set the IP address manually (Static IP).

Setting		Ethernet1 Ok
System setting	MAC address	00:0c:26:1f:f3:9e
Information		
CODESYS		
. Conoral	IP address	192.168.2.142
	Subnet mask	255.255.252.0
Network	Gateway	102 169 1 254
() Time/Date	Gateway	132.100.1.234
	DNS	168.95.1.1
	-	

Time/Date

Adjust cMT-FHDX RTC manually.

Setting	Y	Time/Date
System setting	Date	2020-09-23 >
Information	Time	09:43:11 🔰
CODESYS		
General		
Network		
O Time/Date		
🖉 HMI Name		

HMI Name

Change the name of cMT-FHDX to identify this HMI when retrieving historical data or loading a project on a PC. This saves time remembering the IP address of each cMT-FHDX.

Setting		HMI Name
System setting	HMI name	cMT-F39E 💙
1 Information		· -
General		
Network		
O Time/Date		
🖉 HMI Name		

Clear History

This page is used to clear historical data, recipe, and database information stored in the internal memory of cMT-FHDX.

Setting	Clear History
System setting	Clean Recipe
Clear History	Clean Recipe Database
🏷 Project Management	Clean Event Log
a System Password	Clean Data Log
Security	Clean Operation Log
VNC Setting	
😼 EasyAccess 2.0	

Project Management

Restarts the project of the cMT-FHDX and restores it to its initial state without cycling power.

Setting	Project Management		
System setting	Restart EB Project	Restart	
🖸 Clear History			
De Project Management			
System Password			
L Enhanced Security			
VNC Setting			
🔁 EasyAccess 2.0			
	<u> </u>		

System Password

There are three different levels of password protection, User, Update Project, and System Setting.

This page is used to change the passwords for operating a project via cMT viewer, loading a project to the HMI, accessing FTP server and so on. The default passwords of the three levels are 111111.

[User]- This level can operate cMT projects via cMT viewer.

[Update project]- This level can load and retrieve the HMI project, as well as retrieve historical data, such as data sampling and event log data. In addition, it can operate cMT projects via cMT viewer.

[System Setting]- This level has access to all system settings, load and retrieve the project, retrieve historical data, and operate cMT projects via cMT viewer. It is the *highest security level*.

[History]- FTP server access. The default password is 111111.

Password hierarchy -



Setting	System Password	
System setting	System setting	>
🔞 Clear History	Update project	>
D Project Management	History	>
System Password	User	>
🕰 Enhanced Security		
VNC Setting		
🔁 EasyAccess 2.0		
	٨	



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Enhanced Security (Objects authorized to operators in HMI project)

This function provides user passwords and security classes to prevent unauthorized operators from accessing objects that have the potential to cause damage or injury within your cMT-FHDX project. For more information, refer to section 5.6.2 **Enhanced Security Mode** in the Easybuilder pro user manual.

Setting	Enhanced Security		
System setting	Add account	Add	
System Password			
Security	admin	G H I J K L	
VNC Setting	user1	A B C D E F G H I J K L Delete	
🔁 EasyAccess 2.0	user2	A B C D E F G H I J K L Delete	
⊕™ Language			
🏧 Input method			

VNC Setting

The VNC server provides remote HMI monitoring and controlling via Ethernet connection.

[Start VNC]- It allows VNC connection with only one VNC client.

[VNC multi connection]- It allows connection with multiple VNC clients. Connecting the VNC server to too many VNC clients may slow down the communication speed and HMI performance.

[VNC login password]- Specify a password. Logging in the VNC server will require the password.

Setting	VNC S	etting
System setting Clear History	Start VNC	
🕞 Project Management	VNC multi connection	
A System Password	VNC login password	>
Security		
VNC Setting		
asyAccess 2.0		
Language		

EasyAccess2.0

EasyAccess 2.0 is a tool that allows users to access and control a cMT-FHDX remotely from anywhere in the world. cMT-FHDX is NOT a pre-licensed model. To use this feature, an EasyAccess 2.0 activation card is required and must be purchased separately.

For more information, refer to EasyAccess2.0 user manual.

Setting	EasyAccess 2.0	
System setting	EasyAccess 2.0 Connection	>
😧 Clear History	Proxy	>
Deproject Management		
System Password		
Security		
VNC Setting		
HasyAccess 2.0		
	λ	

Printer

cMT-FHDX can search your intranet for a network printer and connect to the printer.

Setting	Printer	
System setting	Printer name	Not installed
🛱 EasyAccess 2.0	Printer driver version	3.19.12
Language	URI	
🏧 Input Method	Install network printer	>
Printer		
🗙 OS Upgrade		
⊙ Reset options		
	λ	

Click [Install network printer] and select a printer from the list.

▲ Back Pi	rinter	Cancel Printe	er
Drinter nome	Officeries Pro 8100	HP LaserJet Professional P1606d socket://192.168.1.10	n Install
Printer name	Officejet_Pro_8100	HP LaserJet CP 1025nw socket://192.168.1.174	Install
URI hp:/net/Officeje	t_Pro_8100?ip=192.168.1.77	Officejet Pro 8100 N811a	Install
Backup PPD file	Execute	Officejet Pro 6230 ePrinter	Install
Install network printer	>	RICOH Aficio MP C5000 socket://192.168.1.9	Install

[URI]- Device URI (Uniform Resource Identifier).

[Backup PPD file]- It is used to copy the PPD file (PostScript Printer Description) of printer.

OS Upgrade

This page is used to upgrade the OS version of cMT-FHDX.

Setting	OS Upgrade
System setting	Image path :
🔁 EasyAccess 2.0	-
Language	
🏧 Input Method	
Printer	
X OS Upgrade	
⊙ Reset options	

Reset Options

This page is used to reset a cMT-FHDX to its factory default settings. Press [Start] to reset if needed.

Setting	Reset options		
System setting	Reset HMI to default	Start	
🔁 EasyAccess 2.0			
Language			
🏧 Input Method			
Printer			
🗙 OS Upgrade			
⊙ Reset options			
	7		

Enter "yes" into the box and click on [OK] to start reset process.

Attention!			
This will r reset to f If you wa	remove everything actory defaults. nt to reset this HMI	rom this HMI and it please type 'yes' be	will be elow
	Cancel	Ok	

4. Web Interface

A cMT-FHDX's setting can also be accessed via a web browser. Before configuration, connect cMT-FHDX(LAN1) to a router via an Ethernet cable. Open a web browser (Edge, Chrome, or Firefox) and enter the IP address of the cMT-FHDX. For example, enter 192.168.1.15.

Select an identity and enter its password.



The tabs of the web interface are displayed as shown. They are **System**, **Network**, **Project**, **Data**, **Features**, and **Account**.

	~	Dashboard		
P Network	~	Now Date	Up Time	HMI Name
	~	2020/08/31 15:40:54	1:6:56	
	~			
	~			
Account	~	Web Version	OS Version	EA2.0 Version
		V2.0.33	20200818	2.10.13

Feature Introduction

Info

[Now] - Synchronizes the HMI RTC with the PC RTC.



Project Management

[Restart Project] - Restarts cMT-FHDX and restores it to its initial state.

[Update Project]- Loads a project and recipes from the PC to cMT-FHDX.

[Backup Project]- Uploads a project from cMT-FHDX to the PC.

[USB/SD Update]- Loads a project via a USB drive plugged into the USB slot of cMT-FHDX. Select the *.cxob file and click [Update].

j			Project Management		
聖			Restart Project:	Restart C	
=	Project		Update Project:	Update 🕒	
•	Project Management				
	Email		Backup Project:	Backup ↓	
	Enhanced Security		USB/SD Update:	Update 1	
	Recipe				

Email

This page provides setup of the SMTP server and email contact lists. For more information, refer to section 5.11 **e-Mail** in the Easybuilder pro user manual.

🕤 System 🗸 🗸	Email
다. Network ~	SMTP Contacts Upload
Project ^	* Host: server@smtn.net
Project Management	Server Wantphere
• Email	* Port: - 25 +
Enhanced Security	* Username: sup@weintekusa.com
Recipe	
🔚 Data 🗸 🗸	* Password:
Features ~	* Confirm Password:
Account ~	Authentication:
	Encryption: • None OTLS OSSL
	Sender Information
	* Name: Local HMI Use HMI Name
	* Address: sup@weintekusa.com

Recipe

[Update]- Select a button to transfer recipe files from the PC to the cMT-FHDX. [Backup] - Select a button to transfer recipe files from the cMT-FHDX to the PC. [Clear]- It is used to clear recipe and database information stored in the cMT-FHDX. Recipe

1 System Y					
문 Network 🗸					
	Itom			Action	
Project ^	iteni		Update	Backup	Clear
Project Management	Recipe Datat	base	Update	Backup	Clear
Email					
Enhanced Security	RW		Update	Packup	Clear
Recipe	RW_A		Update	Dackup	Lical

Data Log & Trend Display

This page displays data log information via a data spreadsheet or a trend chart. Data within each spreadsheet can be backed up individually by clicking [Export to Spreadsheet] or [Backup database]. [Export to Spreadsheet]- This function generates a CSV file.

[Backup database]- This function generates a compressed file of the .db files.

(j) System	~	Data Log 8	Trend Display				
문 Network	~	Data Display	Trend Display				
	~						
📒 Data	^	Object:	log000				
 Data Log & Trend D 	isplay						© Refresh @ Option
Event Log		# \$	Time \$	Channel 1	Channel 2	Channel 3	
Operation Log		82	③ 2020/09/01 12:12:27	-0.984808	0.646564	0.167008	1
	~	81	③ 2020/09/01 12:12:26	-0.996195	0.836447	-0.0837078	
	<u> </u>	80	③ 2020/09/01 12:12:25	-0.92388	0.998958	-0.37082	
1 Account		79	③ 2020/09/01 12:12:24	-0.793353	1.07886	-0.6	
		78	③ 2020/09/01 12:12:23	-0.608761	1.09915	-0.802957	
		77	③ 2020/09/01 12:12:22	-0.34202	1.04616	-0.994845	
		76	③ 2020/09/01 12:12:21	-0.0871557	0.937904	-1.11262	
		⊥ Exp	ort to Spreadsheet	Sackup database			< 1 >



Event Log

This page displays a data table in which operators can easily see important event information recorded on the HMI.

(j) System ~	Event Log						
문 Network 🗸							
🖿 Project 🗸 🗸	Time column	# Category 👙	Event Message	Event trigger time 🌲	Return to normal time $\mbox{$$$$$$$$$$$$$$$}$	Occurrence count	Elapsed ti Refresh
	a 2020-08-04 to 2020-09-01	1 1	Machine Error !!	© 2020/09/01 12:14:22	©	15	88
🔚 Data 🔷 🔨	Category range(0 - 255)	2 1	Flow Speed Error !!	· 2020/09/01 12:14:18	© 2020/09/01 12:14:26	6	48
Data Log & Trend Display	0 255 -	3 1	Tank Error II	© 2020/09/01 12:14:09	· 2020/09/01 12:14:19	10	95
Event Log	Keywords	4 1	Machine Error !!	© 2020/09/01 12:14:08	© 2020/09/01 12:14:15	14	88
Operation Log	Add terms	5 1	Machine Error !!	© 2020/09/01 12:13:54	· 2020/09/01 12:14:01	13	82
A Fortune	Select Language	6 1	Tank Error !!	③ 2020/09/01 12:13:49	© 2020/09/01 12:13:59	9	86
• Pealules	Language1 V	7 1	Flow Speed Error !!	© 2020/09/01 12:13:42	© 2020/09/01 12:13:50	5	40
🔒 Account 🗸 🗸		8 1	Machine Error II	© 2020/09/01 12:13:40	· 2020/09/01 12:13:47	12	75
		9 1	Tank Error !!	© 2020/09/01 12:13:29	© 2020/09/01 12:13:39	8	77
		10 1	Machine Error !!	© 2020/09/01 12:13:26	© 2020/09/01 12:13:33	11	69 🗸
						Export excel	± Backup database

Operation Log

This page allows you to back up operation log information recorded on the HMI.





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Webview Setting

Webview offers direct control over HMI screen using a web browser. [Set as homepage] – If enabled, Webview will be the home page of the web interface. [Change password]- Set up a password that prevent unauthorized operators from accessing Webview. [Webview]- Go to the Webview page to control the HMI screen remotely.

L	-	
j System	~	WebView Setting
문 Network	~	Enable:
Project	~	
		set as homepage
🔚 Data	~	
Features	~	Control User: password free
Ŭ		Change password fb
 WebView Setting 		
EasyAccess 2.0		
CODESYS		
Account	~	

If a password is set up for **Webview**, operators will have to enter the correct password.





Codesys

[Status] - If activated, this tab shows Codesys network information and status information.



[Project update](If activated) - Loads Codesys PLC project from the PC to the cMT-FHDX. Navigate to the folder containing *.app file and *.crc file and choose them.

[CODESYS update] (If activated) - Upgrade Codesys firmware from the PC to the cMT-FHDX. Navigate to the folder containing *.bin file and choose it.

j System	~	CODESYS
문 Network	~	Status Update
Project	~	
🧮 Data	~	Project update
Features	^	Project.app & Project.crc : Upload 🗠
WebView Setting		
EasyAccess 2.0		
CODESYS		CODESYS update
Account	~	firmware.bin : Upload $ allee$
		*Note: Updating firmware will also restart HMI.

Touch Calibration

This page allows you to update a driver for the touch screen and calibrate the resistive touch screen.

0		~	Touch Calibration	
聖		~	Current HMI name:	cMT-F39E
-		~	Touchscreen support:	true
		~	Driver version:	20190130
٢	Features	^		
	WebView Setting		louchscreen Calibration:	
	EasyAccess 2.0		Update:	Update Driver 1
	CODESYS			
	Touch Calibration			
6	Account	~		

5. How to Use WebView

Webview is used to monitor and control a CMT-FHDX on a web browser. It supports the following web browsers on a Windows PC, Chrome, FireFox, and Edge. Up to 4 users can access Webview simultaneously.

To use this feature, Webview must be enabled on the [Webview Setting]. You can set up password protection by clicking the [Change password] button. If password protection is not necessary for your application, check the [password free] button to disable password protection.

🕤 System 🗸 🗸	WebView Setting
문 Network Y	Enable:
👕 Project 🛛 👻	🕅 set as homepage
🔚 Data 🗸 🗸	
Features ^	Control User: password free
 WebView Setting 	
EasyAccess 2.0	
CODESYS	
🔒 Account 🗸 🗸	

If [Set as homepage] is enabled on the [Webview Setting] tab, Webview will be the home page of the web interface.

How to login to Webview

- 1. Open a web browser and enter HMI's IP address.
- 2. Enter the correct password.



3. The HMI screen will be displayed on the web browser. Use the "square" located in the bottom right corner to **scroll** around the screen when zoom level exceeds 100%.

Advanced Feat	tures Object	s Features	
			
	EasyAccess 2.0	Web Application	
	CODESVS		
	CODESTS	Marta OPC DA	
	0	2	
	VNC Viewe	SQL Query	
		WEINTEK	
			· ·

The toolbar located in the top left corner contains several menus.



The first group of tools allow you to enable or disable the zoom function. When you select the "100" icon, you can change the zoom level of the screen.



The second group of tools allow you to move the "square" to the preferred location. This group of tools will be accessible when you select the "100" icon.



The third group of tools allow you to navigate the system dashboard by clicking the "Gear" button. Clicking the "Exit" button will log out Webview.



Why won't Webview open?

- Webview is not enabled on [Webview Setting].
- The web browser you're using is not supported by Webview.
- There are already 4 users accessing Webview simultaneously.

6. How to Load a Project via USB Drive (USB Drive ->HMI)

Step 1. Use [Build Download Files] function to build *.cxob file into a USB drive.



Step 2. Plug the USB drive into to the USB slot of cMT-FHDX. When a pop-up window is displayed prompting you to download or upload to your device, click on [Download].

 External Device Detected	
Functions	
Download	
Upload	
Close	

Step 3. Enter the password. The password requires the levels of **Update Project** or **System Setting**.



- *Step 4.* Navigate to the folder containing *.cxob file and highlight it.
- *Step 5.* Click on [Download] to start.

7. How to Retrieve Historical Data via USB Drive (HMI-> USB Drive)

Step 1. Plug a USB drive to the USB port of cMT-FHDX. A pop-up window will display prompting you to download or upload to your device, and then click on [Upload].

External Device Detected	
Functions	
Download	
Upload	
Close	

Step 2. Select logs and enter the password. The password requires the levels of **Update Project** or **System Setting**.

🗕 Back	Upload
	project Recipe Recipe database V Event log Data log Operation log
Password	•••••
Destination	=
	Upload

Step 3. Specify a folder path for storing historical data.



Step 4.	Click on [Upload] to start.	



8. How to Delete all Historical Data

Step 1. Re-open the pop-up menu that will allow you to download or upload to your device and click on [Download].

External Device Detected	
Functions	
Download	
Upload	
Close	

Step 2. Enter the password and select logs you want to delete. The password requires the levels of **Update Project** or **System Setting**. Click on [Download] to start.

Back Dow	nload
Password :	••••
Project :	
Recipe (RW) :	
Recipe (RW_A) :	
Recipe database :	
Reset recipe	
Reset recipe	database
🗸 Reset event l	og
🗸 Reset data lo	g
Reset operat	ion log
Dow	nload

9. OS Upgrade

Step 1. Copy the new OS image to a designated folder within a USB drive. In this demonstration, I create a folder named "OS_cMT_FHDX," and place the OS image onto the folder. The OS image takes the form of a *.bin file.



- *Step 2.* Plug the USB drive into the USB port of cMT-FHDX. If a window pops up and prompts you to download or upload, click close to dismiss it.
- *Step 3.* Press on the button [®] on the screen.
- **Step 4.** Press on the lock icon and choose [System Setting]. Enter the correct password to gain access. The default password is 111111.

B Setting	Input method

Step 5. Scroll through the menu and find the [OS upgrade] tab.

Setting	OS Upgrade
System setting	Image path :
VNC Setting	
4 EasyAccess 2.0	
Language	
📟 Input Method	
Printer	
X OS Upgrade	
№	

- *Step 6.* Click on the folder symbol and then navigate to the folder containing the OS image. In this demonstration, I'll locate the folder OS_cMT_FHDX, highlight the image, and then click [OK].
- *Step 7.* Click the [Upgrade] button in the top right corner.

OS upgrade will begin, which may take a some time. **Do not** unplug the power cable during OS upgrade. It may result in all data being lost. The progress bar indicates the progress of the OS upgrade. Reboot the HMI by following the instructions shown on the screen.



10. How to Calibrate Resistive Touch Screen

1. Connect the touch screen to the USB port of the cMT-FHDX via USB cable.

2. Open a web browser on a laptop. Make sure the laptop and the cMT-FHDX have connected to the router via Ethernet cables.

3. Login to the web interface with the correct password. The default password is 111111.

- 4. Go to the [Touch Calibration] tab.
- 5. Click on the [Start calibration] button to start calibration process.

Note: If you are required to update the driver of the touch screen, click on the [Update Driver] button. The pop-up window will prompt you to select a *.bin file.

Touch Calibration

urrent HMI name:	CMT-E39E
	CMIN SE
ouchscreen support:	true
)river version:	20190130
ouchscreen Calibration:	Start calibration
Jpdate:	Update Driver 🖈

6. The touch screen will enter calibration mode. Press the "target" sign shown in the corner of the screen.



7. When the window pops up, drag the sign into [OK] box in ten seconds to finish the process.



11. How to Adjust the Resolution of cMT-FHDX

Note: The cMT-FHDX supports 1920x1080 and 1280x720. For other resolutions supported by the cMT-FHDX, please contact Weintek USA to get the latest supported resolutions for the CMT-FHDX.

- 1. Launch Easybuilder pro software.
- Select the cMT-FHDX and select "customized" within [Project resolution]. Enter a resolution. The cMT-FHDX supports resolutions up to 1920x1080.

		~
► ● New	New Project	
Open Open	Model: ✓ ■ XE Series ▲ MT8090XE/MT8091XE (1024 x 768) ▲ MT8092XE (1024 x 768) ▲ MT8121XE/MT8150XE (1024 x 768) ▲ ✓ ■ cMT Series cMT3071 (800 x 480) cMT3071 (800 x 480) cMT3103 (1024 x 768) cMT3103 (1024 x 600) cMT3103 (1024 x 768) cMT-SVR (1024 x 748) cMT-SVR (1024 x 748) cMT-FWD (1920 x 1080) cMT-HD (1920 x 1080) cMT-G01 Gateway cMT-G02 Gateway (Built-in Wrfi) cMT-G02 Gateway (Cthernet Bridge) ✓ ✓ Use template (template_1920x1080.cmtp) ✓	cMT-FHD Orientation : Landscape Portrait Supported monitors
	Width : 1920 🜩 pixels Height : 1080 🌩 pixels	
Uncompress Pro	ject 🛃 Demo Project	OK Cancel

- 3. If you want to adjust the resolution during programming, go to the [Home] tab on the toolbar » [System Parameters] » [Model] tab.
- 4. The resolution setting will be displayed as shown.

Extended Me	mory	Cellular	[,] Data Network	Time Syn	c./DST	e-Mail	Recipe	e Database
Device	Mode	el	General	System S	etting	Remote		Security
HN HMI sta	Al model : ation no. : Port no. :	cMT-FHE 0 8000	v (1920 × 1080) ✓			~		
	Γ	_ Suppor	rt iE/XE/eMT/mT	V HMI commun	ication pro	tocol and EasyW	/atch	
	[Width : [□ Suppor	rt iE/XE/eMT/mT nized resolution	V HMI commun	ication pro Height : [tocol and EasyW Supported monitor 1080	Vatch <u>8</u> piz	kels

12. cMT-Viewer

cMT-Viewer is a free client application, which can remotely access the screen of the cMT-FHDX located on the LAN (Local Area Network) via Wi-Fi connectivity or Ethernet cable connection. To use cMT-Viewer you need to download and install the cMT-Viewer App on a mobile devices or PC. When the cMT-Viewer App runs on a device and connects to the cMT-FHDX, only data is exchanged between the device and the cMT-FHDX. Three client devices can remotely view and control the project of a cMT-FHDX simultaneously by default.

Supported Operating System	Where to download	Compatibility
Android phones or tablets	Google Play store	V4.1 or greater
iOS devices	App Store	V6 or greater
Windows PC	Weintek USA official website	Windows 7 or Windows 10
	(Stand-alone App. or Easybuilder pro)	

Note: cMT-Viewer is installed with the Easybuilder pro package on a PC. To find it, launch the Utility Manager » Select [cMT Series] model » [Maintenance] tab » [cMT-Viewer].

Typical Application Diagram



cMT-Viewer App Interface

Some operation options of the cMT-Viewer App opened on different operating systems may vary. This

document discusses how to operate the cMT-Viewer App running on a PC. First, launch cMT-Viewer App.



lcon	Name	Function
	Connect	Allows to open cMT3000 Devices List
	Edit	Allows to open page editor
ईट्रे	Settings	Allows to open system settings page
	Device Information	Allows to view device information
\triangleright	Auto Play	Allows to auto page switching
0 •	Page Indicator	Allows to switch page manually

Note: 1.In this demonstration, version 2.6.38 of cMT-Viewer is used.

2.Edit, Auto Play, and Page Indicator icons are only present when "Monitor Mode" functionality is enabled in the [Settings] page.

 Connect Menu- Click the Connect button and search for cMT-FHDXs in the [Search] tab. The available cMT-FHDXs will be shown as below when they exist on your local network. Tap an Add icon on the desired cMT-FHDX, and it will bring up a window requiring a password.



After that, the corresponding project will be loaded. If you want to go back to Connect menu, click on the Start (Home) button at the upper left corner.



Add a second project to the cMT-viewer App to switch and view different projects. The small pictures of the images as shown below are images of the cMT-FHDX projects before leaving the projects.



On [History] tab, you can connect the recently accessed projects. If the cMT-FHDXs are configured to DHCP, the history records may not be usable anymore since the IP addresses are dynamic. Click "clear" button to delete history records if needed. The "gear" buttons nearby each cMT-FHDX will open its web interface, allowing you to change the settings of the cMT-FHDX.

Connect Search History Q Name/ IP 10 cMT-E374 192.168.1.156 رْنَيْ cMT-9956 192.168.1.102 WUSA_SVR 192.168.1.13 cMT-10D1 Ð 192.168.1.101 WUSA_SVR Ð 192.168.1.7 cMT-10D1 192.168.1.143 () cMT-9956 192.168.1.100

X

• Settings Menu -

[Information] tab: Displays the current version of the cMT-Viewer application.

Settings				
Information	App. version	2.6.38		
General	Copyright 2006-2016 V	leintek Labs, Inc. All rights reserved		
Language	copy 13.12 2000 2010 1			
f more settings				

[General] tab: Provides general settings.

Change password- Allows users to change the password of "more settings" at the bottom left corner.

Display datetime bar - Determines if the time bar will be displayed at the top of cMT-Viewer application.

Adjust cMT Viewer to windows size - Adjusts cMT-Viewer to fit the window when users maximize the window of cMT Viewer App.

Portrait mode- Allows you to switch cMT Viewer to Portrait mode.

	Settings	
Information	Change password	٩
General	Display datetime bar	III off
Language	Adjust cMT Viewer to windows size	on III
	Portrait mode	III off
f more settings		

[Language] tab: Select a language for cMT-Viewer menus. The language selected on the project of the cMT-FHDX won't be changed by this setting.

	Settings	
Information	 English 	한국어
General	Français	Deutsch
Language	Italian	日本語
	Español	Język polski
	Русский	
	简体中文	
	繁體中文	
nore settings		

To enable Monitor Mode and use Password Protection functionalities, click on "more settings" icon and log in with the password set on "Change password." The default password is 111111. There are more options available on the **General** tab and the **Password Protection** tab.

	Settings	
Information	Change password	٩
General	Monitor mode	on III
Language	Restore previous connections	on III
Password Protection	Touch sounds	III off
	Display datetime bar	III off
	Adjust cMT Viewer to windows size	on III
	Portrait mode	III off
	Show Start button	on III
for more settings		

[Monitor mode]- Allows you to display multiple projects on cMT-Viewer and show important realtime data for the projects of each cMT-FHDXs.

[Show Start button] - If disabled, the "Home" icon on the project will be hidden.

Show Start button		III off
Hidden Start position (Long press for 1.5 seconds to show start menu)		0
	0	0

[Password Protection] - Accessing the *protected actions* will require a password if actions are selected below. Specify a password on [Change password] of this page.

Open Project: The action to connect to cMT-FHDX and load its project.

Close Project: The action to close projects on cMT-Viewer.

Server Settings: The action to go to web interface of cMT-FHDXs.

Clear History: The action to clear recently accessed projects on the History tab of the Connect menu.

	Settings
Information	Change password
General	Functions:
Language	Open project
Password Protection	Close project/Adjust placement
	Server settings
	Clean history
G more settings	

When selecting actions, the Password Protect icon will be present.

Information	Settings	
General	Functions:	
Language	Open project	0
Password Protection	Close project/Adjust placement	0
	Server settings	
HMI n	Clean history	
a more settings		

In Password Protection mode, *protected actions* are locked. To access them, click on the Password Protect icon and enter the corresponding password.

🐷 cMT Viewer				
	2018-11-21 12:47:00	e		
		Connect		×
		Search	History	
		Q Name/ IP		To C
		CMT-9956 192.168.1.102		۵
STATION 1	STATION 3	CMT-E374 192.168.1.156		۲
TEMPERATURE	TEMPERATURE			
97.5 °C	92.5 °C			
HUMIDITY	HUMIDITY			
16 %	14 %			

The *protected actions* are accessible to users with knowledge of assigned password. There is a countdown timer displayed as shown below. When the time runs out, the Password Protection mode will be activated.

🦉 cMT Viewer		00	10 11 21 12:50.40		3. 3	
	er 💼 9:55	20	10-11-21 12-20.40	Connect		×
				Search	History	
				Q Name/ IP		To C
				谷 (MT-9956 192.168.1.102		Θ
×	STATION 1	×	STATION 3	ද ्र ू 192.168.1.156		Θ
TE	EMPERATURE	TE	EMPERATURE			
	40.0 °C		30.0 °C			
	HUMIDITY		HUMIDITY 4 %			

13. Monitor Mode

The small images of the cMT-FHDX project as shown below will be updated automatically, so users will see the latest data without entering each cMT-FHDX project.

Click on the Auto Play button. cMT-Viewer will automatically go to the next page.



To pause Auto Play mode, click the Pause button highlighted in red. To leave Auto Play mode, click the Stop button highlighted in orange.



When clicking on the Device Information button, the names of each cMT-FHDX, as well as their IP address, will be displayed as shown below. Tap the "Gear" (Setup) buttons to go to the web interface of each cMT-FHDX.



Click the Edit button to configure the page layout.



• Edit Menu -

[Page] - Click the Add button to create a new page or delete the current page with the Delete button. Up to 9 pages can be created in each instance of cMT-Viewer.

[Move the current page] - Switch to the first page, the previous page, the next page, or the last page. [Layout] - Set up the maximum number of projects in each page. It provides 3x3(9) format and 5x4(20) format.

[AutoPlay] - Set up the time interval for Auto Play mode to go to the next page after the given time interval.



Note: To show real-time data for the project of a cMT-FHDX like below, you must enable Monitor Mode in Easybuilder pro and create a screen for visualization. Here are steps to configure.



- 4. Launch Easybuilder pro software v6.01.01 or greater.
- 5. Create a project of cMT-FHDX.
- 6. Go to the [Home] tab» [System Parameters].
- 7. In the [System Parameters], click on [General] tab.
- 8. Enable Monitor Mode checkbox. This option is turned off by default.

Extended Mem	nory Cellu	ar Data Network	Time Sync./DST	e-Mail	Recipe Database
Device	Model	General	System Setting	Remote	Security
Options					
🗌 Enable fa	ist display mode v	vhen change windov	v	RW_A enable	d
Windows					
Startup	window no. : 10	. WINDOW_010			~
Screen saver	mon window : At	oove base window	~		
Screen saver	mon window : At	oove base window	<u>v</u>		
Screen saver	Screen saver : 25	pove base window	<pre>v minute(s)</pre>		
Screen saver	Screen saver : 25 r window no. : 80	pove base window	<pre>v minute(s)</pre>		~
Screen saver Save Monitor mode	Screen saver : 25 r window no. : 80	pove base window	v minute(s)		~

- 9. Close [System Parameters] settings. Open the window no.3, titled Monitor Mode.
 - 💽 EasyBuilder Pro : Montitor mode ST1 [3 Monit 🗄 🖶 📴 🛠 🗊 🖾 🛠 🔺 🎝 👳 📘 🐰 Cut oo Find 🔁 Mu Copy Paste System Select 🗗 Wir Parameters Clipboard Edit Windows ▼ X Object list \sim \land 4 : Common Window 5 : Device Response 6: HMI Connection 7 : Password Restriction 8 : Storage Space Insufficient 9 : Backup *10 : WINDOW_010 11 - 12
- 10. Place Text object, Bit Lamp object, Word Lamp object, Numeric Display object, ASCII Display object, Bar Graph object or Alarm Display object to show up-to-date data on this screen, so you can see the data shown and updated on the cMT-Viewer App while in monitor mode.

	STATION 1	
	TEMPERATURE	
	### .#°C	
	HUMIDITY	
	### %	
_		

8. Download this project to a cMT-FHDX.

14. cMT-Viewer Limitations

Feature Limitation

Some features do not work on a cMT Viewer client (PC, iOS, Android, cMT-iV5), even if they work on the local cMT HMI. Please take this into consideration when programming projects.

Features (Objects) that do not work remotely on cMT Viewer App are listed below.

- File Browser
- Media Player
- Video In: USB Camera
- Video In: IP Camera
- Video In: Video Input (analog)
- Picture View
- PDF Reader
- VNC Viewer
- Selected features of Function Key: Screen hardcopy, Import user data/User [USB Security Key]
- Selected features of PLC Control
 - i. Screen hardcopy: Files are saved in the external drive on HMI
 - ii. Backlight: Backlight control of HMI screen
- Selected features of Operation Log
 - i. Operation Log printing: Logs are saved in the external drive on HMI

Above objects won't be displayed on a cMT Viewer App, but can be accessed via a VNC client.

Maximum Connect Count

Three cMT-Viewer clients are allowed to remotely view and control the project of a cMT-FHDX simultaneously. When the fourth cMT-Viewer client connects to the cMT-FHDX, the warning message as shown below will pop up and reject the connection.



The maximum capacity can be adjusted in Easybuilder pro software. Here are the steps.

- 1. Launch Easybuilder pro v6.01.01 or greater.
- 2. Go to [Home] tab » [System Parameters].
- 3. Click on [Remote] tab.
- 4. Within cMT-Viewer, set up a number of cMT-Viewer max connections. Up to 10 cMT-Viewer clients are

allowed to connect to one cMT-FHDX.

Warning: Allowing a number of cMT-Viewer connections up to 4 or over will affect HMI performance. Please take this into consideration when programming projects.

Extended Mer	nory Ce	ellular Data Network	Time Sync./DST	e-Mail	Recipe Database
Device	Model	General	System Setting	Remote	Security
Prohibit ren	note HMI connec	ting to this machine			
Prohibit page	sword remote-r	ead operation (or set LB9	053 on)		
		· · · · · · · · · · · · · · · · · · ·			
Prohibit pa	ssword remote-v	vrite operation (or set LB9	9054 on)		
VNC server					
Password fr	ee				
Password fr	om project				
Monitor mo	ode				
EasyAccess serv	er				
			Location of EasyAccess 2.	0 server : Global	•
Diagnoser					
Enable					
MT viewer					

15. cMT-FHDX Gestures Operation

Tap: This is the most common gesture. Briefly touch HMI screen with fingertip.Drag: Move fingertip over HMI screen without losing contact.Press: Touch HMI screen for extended period of time.Pinch: Touch HMI screen with two fingers and bring them closer together.Spread: Touch HMI screen with two fingers and move them apart.

Gestures may vary when operating project on different touch screens.

On resistive touch screen:

Gestures	Supported Objects (Features)
Тар	All "Input" objects
Drag	Data log: Trend Display, History Data Display
(Scroll horizontally, scroll up, and	Event log: Event Display, Event Bar Chart(Gantt)
scroll down on the object to view	Operation log: Operation Log View
more data)	Recipe: Recipe View
	SQL: SQL Query Result Viewer
	Others: Option-List, Data Block Display
Press	This gesture can be configured on the property of
	the object in HMI program if needed.

On capacitive touch screen:

Gestures	Supported Objects (Features)
Тар	All "Input" objects *1
Drag	Data log: Trend Display, History Data Display
(Scroll horizontally, scroll up, and	Event log: Event Display, Event Bar Chart(Gantt)
scroll down on the object to view	Operation log: Operation Log View
more data)	Recipe: Recipe View
	SQL: SQL Query Result Viewer
	Others: Option-List, Data Block Display
Press	This gesture can be configured on the property of
	the object in HMI program if needed.
Pinch	Data log: Trend Display
Spread	Data log: Trend Display

*1 Input objects refers to objects that are allowed operators to open a window as well as pop-up window, press a button to turn bit ON/OFF, or enter a value to a word register.

Note:

1. For more information about *Press*, refer to section 10.5 **Object Security Settings** in Easybuilder pro user manual and see "Min. press time (Sec)."

16. cMT-iM21 Touch Screen

The cMT-iM21 is a capacitive touch screen monitor exclusively designed for cMT-FHDX. The resolution of the cMT-iM21 supports up to 1920 x 1080. The USB client port is used to connect to the cMT-FHDX for touch signal transmission. The recommended length of USB cable and the HDMI cable are less than 5 meters for common practice. If you consider using the cables whose length exceed 5 meters, please choose a device or cable that can strengthens the signal. The cMT-iM21 is equipped with a USB host port. This allows users to plug in a USB drive for storing data logs, event log, recipes, and videos that can be accessed by the cMT-FHDX.

The bottom view of cMT-iM21



The wiring diagram for cMT-iM21 and cMT-FHDX



The cMT-iM21 is not equipped with audio output and speaker. Please consider using **HDMI2HDMI+Audio** converter to connect the cMT-FHDX to an external speaker if needed.

Reference Link: Weintek Labs website: <u>http://www.weintek.com</u>



Founded in 1996, WEINTEK LABS is a global-leading HMI manufacturer and is dedicated to the development, design, and manufacturing of practical HMI solutions. WEINTEK LAB's mission is to provide quality, customizable HMI-solutions that meet the needs of all industrial automation requirements while maintaining customer satisfaction by providing "on-demand" customer service. WEINTEK LABS brought their innovative technology to the United States in 2016, WEINTEK USA, INC., to provide quality and expedient solutions to the North American industrial market.

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