



EasyAccess2.0

EasyAccess 2.0 Startup Guide

Remotely monitor and control your HMI



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1. EasyAccess 2.0

EasyAccess 2.0 is Remotely monitor and control your machine.



Overview

Traditionally, accessing a remote HMI is a convoluted job. Security concerns and tricky network parameters setup makes it difficult for many HMI users. And even with proper setup, access is still quite limited, allowing connection to only one HMI within the remote network. However, with EasyAccess 2.0, this has all changed.

EasyAccess 2.0 provides a new way for accessing an HMI from anywhere in the world. With EasyAccess 2.0, it becomes very easy to monitor and troubleshoot HMI and PLC that are at a remote location as long as Internet connection is available. As EasyAccess 2.0 already takes care of network settings and addresses security issues, the user can connect easily to the HMIs as if they were on the local network. Moreover, it is possible to have access multiple HMIs within a network.

EasyAccess is also a remote supporting service. Consider the case in which a machine builder has sold his machine with a Weintek HMI installed, and one of his oversea customers is reporting a problem, which may or may not require inspection by an engineer. He can remotely connect to the HMI through EasyAccess 2.0 to investigate the problem. The customer needs no extra network configuration, just Internet connection. In addition, he can also update the HMI project, monitor the PLC by Ethernet Pass-through, or even update the PLC program.

Features

- Secure connections
- Little PC setup required; no router setup required



- User friendly administrator and client UI
- Supports pass-through and proxy server
- Mobile support

System Requirement

- PC Operation System: Windows® XP, Windows® 7, Windows® 8 (32 / 64bit),
 Windows® 10 (32 / 64bit) (Require Administrator privilege)
- Weintek HMI with EasyAccess 2.0 feature activated (Eligible HMI models)
- Internet Connection
- EasyBuilder Pro V4.10.05 or later
- iPad: iOS® 7.0 or above
- AndroidTM: V4.1.2 or above

Specification

Restriction	Description	
Data Rate and Usage Limit	Data rate at 100 kB/s for the first 1GB and 5 kB/s after. Usage count restarts on the 1st day of each calendar month.	
# of Domain an HMI can be registered in	1	
# of users an HMI can be connected by at a time	1. See "Occupied" status in Appendix.	
# of HMI a user can connect to at a time	3 (Mobile) / 10 (PC)	
Service Port	HTTPS port (443)	
Ethernet-Ethernet Pass-through	1 IP	

Model and OS Support

HMI OS versions that support EasyAccess 2.0

Model	OS version or later
eMT3070A	20140624
eMT3070B	All versions
eMT3105, eMT3120, eMT3150 *	20140701
MT8070iE, MT8100iE	20140626
MT8050iE, MT8071iE, MT8101iE	20140624



MT8090XE, MT8091XE	All versions
MT8121XE, MT8150XE	20140624
mTV-100	20140815
cMT-SVR	20140715
All other models	All OS versions

^{*} EasyAccess 2.0 is not available for eMT3105, eMT3120 and eMT3150 shipped prior to June, 2012.

2. Getting Started

To get started, follow the steps below:

- 1. Install EasyAccess 2.0 on PC/Android/iOS (see below)
- 2. The HMI must be activated.
 - See <u>Activate an HMI</u>, or <u>PC Activator</u>
- 3. The HMI must be registered in a Domain.
 - See <u>Add an HMI to a Domain</u>, <u>Manage the Domain</u>, or <u>PC Activator</u>
- 4. The HMI must be programmed to go online.
 - See Connect the HMI to EasyAccess 2.0
- 5. The user must have a user account which is associated with an HMI. See *Manage the Domain*
- 6. EasyAccess 2.0 must be installed.

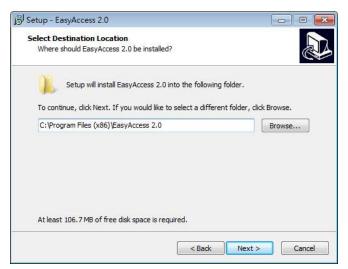
Installation

1. Download the setup.exe file from EasyAccess 2.0 homepage and open it. Select the language for the installation process, and then click [Next]. If there is a previous version of EasyAccess 2.0 on the PC, please remove it before installation.

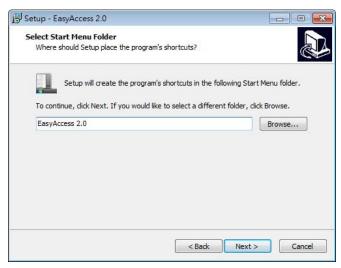




Select a folder for EasyAccess 2.0 installation or use the default folder. Click [Next].

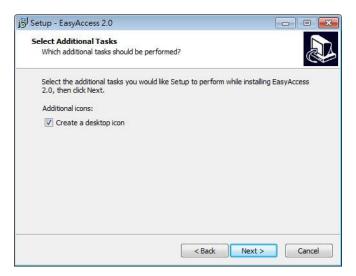


3. Select a start menu folder, or use the default folder. Click [Next].

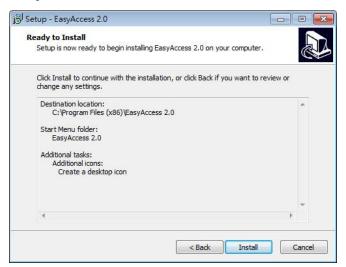


Select additional tasks, for example: [Create a desktop icon]. Click [Next].

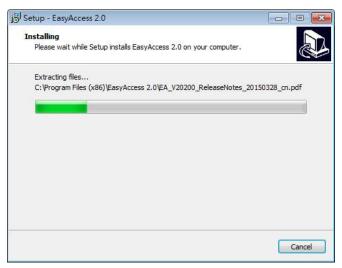




5. Confirm all setting. To change the setting, click [Back]. To start installation, click [Install].



6. Installation progress.



7. Click [Finish] to complete the installation.





Here is a list of notable files in the installation folder:

File Name	Description
cMT Viewer	The PC application for accessing a cMT HMI.
EasyAccess 2.0	The main program used to establish remote connection to an HMI.
gui_30	An essential component when using HMI Viewer to monitor a remote HMI.
PC Activator	Application for activating EasyAccess 2.0 for HMI on the network.

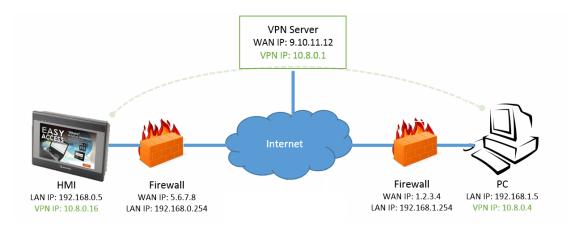
3. Basics

EasyAccess 2.0 access technology is quite different from traditional way of remote access method. Here are some notable points:

Traditional remote connection	EasyAccess 2.0
(blue links)	(green dotted links)
Connection traffic must pass through a number of firewalls, which means there are layers of network settings.	PC and HMI both connect to a dedicated VPN server through which data are exchanged, or by P2P.
Network/Router setting is mandatory; therefore, coordination with the IT department is crucial.	No additional network setting is required.



For one WAN IP, only one device can be connected.	For one WAN IP, multiple devices can be connected.
For a device behind two or more routers, connection might not be possible.	Being behind several routers does not affect EasyAccess 2.0 connectivity at all.



EasyAccess 2.0 Network Overview



Activation

While selected models come with built-in EasyAccess 2.0 license, most do not, and must be activated in order to use the feature. A purchased license can be used to activate any one of the supported models; however, once an HMI has been activated, its license cannot be transferred to another HMI.

Understanding Domain, HMI Group, and User

The basic management block is Domain, under which HMIs, HMI Groups, and Domain Users exist. An HMI, upon activation, can be added to a domain.

Domain and Domain Admin: The basic block of HMI management. One Domain account may contain a number of Users, HMIs and HMI groups. However, each HMI can belong to only one Domain. The Domain Administrator manages all aspects the domain through the web-based portal at (https://account.ihmi.net). Domain Administrator account can also be used for logging in the EasyAccess 2.0 client program.

HMI Group: A subset of HMIs within a domain. A user in an HMI Group can access all HMI in that group. For the Domain Admin, HMI Groups provide an easy way for management of user access to HMI. An HMI can belong to more than one HMI groups.

User: A user holds the account used to login in to the EasyAccess 2.0 program. They are allowed access to HMIs for which it has direct association, and also HMIs within the group it is associated with. User's relationship with HMIs and HMI Groups are managed by the Domain Admin.

The prime principle governing HMI management in EasyAccess 2.0:

An HMI can belong to one domain only at any given time

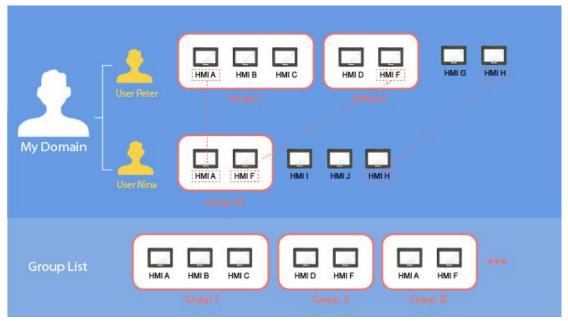


Example

Consider the following figure for an illustrative example of a domain.

- In this example, the domain, named "MyDomain" has two users, Peter and Nina.
- In this example, HMI are grouped together as Group I, Group II, Group III...etc, and one HMI belong to more than one groups. (HMI A)
- Users can belong to many groups, and have access to the HMI in the groups they belong to. (User Peter & Group I)
- Users can be directly associated with HMI and have access to them. (User Nina & HMI J)
- Multiple users can access the same HMI, whether by assignment to groups (HMI
 A) or by direct association (HMI H).

All of this is done by the Domain Admin. The Domain Admin can exercise large amount of freedom in domain management.



A sample domain "MyDomain"



4. Activate an HMI

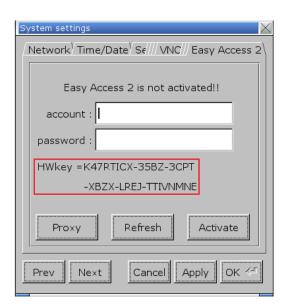
The HMI must have been activated in order to be connected using EasyAccess 2.0. Check its activation status on HMI in the [EasyAccess 2] tab of the [System settings] page. Activation is permanent, so please make sure that activation is applied to the intended HMI.

Selected models have EasyAccess 2.0 activated by default. If your HMI has not been activated, it can be activated by one of the following means:

- Self-serve activation with activation codes on Domain web page
- Self-serve activation with activation codes on PC Activator
- Activation by Weintek's authorized dealer

Alternatively, new user could test out EasyAccess 2.0 by getting trial activation.

In either case, HMI's Hardware key will be required. Locate it in the [EasyAccess 2] tab of system setting or system register **LW-11210**.



Activation status and Hardware key



With an Activation Card on the Web

If you have an activation card, you may activate the HMI with the Activation codes printed on the card through the domain management system.

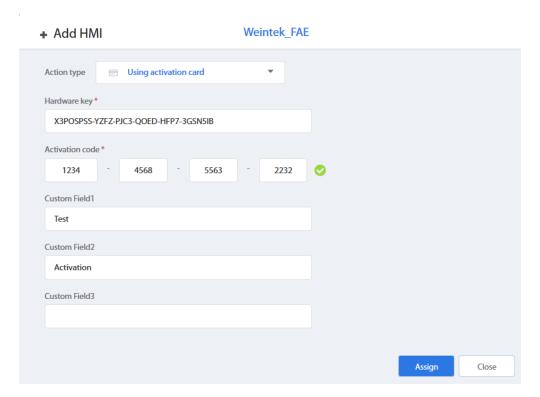


Activation Card

- Visit the domain management system and login to your Domain with your credential. Create a new domain if you do not have one yet.
 - For the Global server, the URL is https://account.ihmi.net For the China server, the URL is https://www.easyaccess.cn
- 2. In [Devices] tab » [Add HMI], choose the Action type [Using activation card], and then enter the Hardware key and your Activation code.

Note: Activation by activation card will also add the HMI to the domain, in which case, steps described in <u>Chapter 5</u>. Add an <u>HMI to a Domain</u> can be skipped.





Activation by activation code

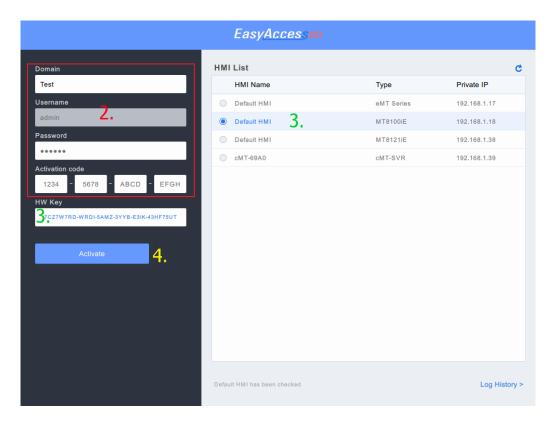
With an Activation Card on PC Activator

Alternatively, use the helper application "PC Activator" to facilitate activation process.

- 1. Run PC Activator.
- 2. Enter Domain Admin's credential and Activation code.
- **3.** From the HMI list, select the one to be activated. The HW key will be loaded to the display field.
- **4.** Depending on the HMI's current activation status, the button below will show "Activate" or "Already activated.
- 5. Click on the "Activate" button to complete activation.

Note: Support for PC activator varies among different model and OS versions. Please review <u>Chapter 14. PC Activator</u> for information on PC Activator





PC Activator

By Hardware key through dealer

Please provide the Hardware key to your dealer for assistance.

Trial Activation

A one-time, 30 days free trial activation option is available for each HMI.

- Visit the domain management system and login to your Domain with your credential.
 - If using the Global server, the URL is https://account.ihmi.net
 If using the China server, the URL is https://www.easyaccess.cn
- 2. In [Devices] tab » [Add HMI], choose the Action type [30 days free trial], and then enter the Hardware key.

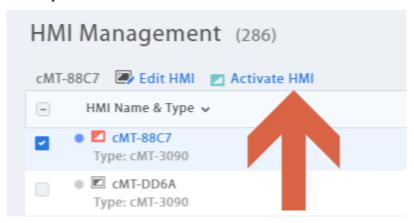
Note: The HMI will be permanently bound to the domain in which the 30 days free trial is activated. It must be activated with an activation code before it can be deleted and transferred to another domain.



Activate Trial HMI

When the trail activation of a HMI expires, you may activate the HMI with activation code.

Please login to you domain, go to [Devices] tab » [HMI List] » select trial HMI and click [Activate HMI].





5. Add an HMI to a Domain

An HMI must belong to a domain to use EasyAccess 2.0.

When an HMI is activated by activation card, it is automatically added to that domain in which it is activated. However, when an activated HMI does not currently belong to any domain, once it goes online, it will obtain a set of Session ID/Password, which can be used to add the HMI to a domain.

EasyAccess 2.0 service requires that each HMI belong to only one domain. Therefore, once an HMI is added to one domain, it cannot be added to another one. Another Domain Admin will not be able to add that HMI even with the same Session ID/Password. For an HMI to be transferred to another domain, it needs to be removed from its current domain, and then it can be added to another domain with its new Session ID/Password.

By Session ID/Password

How to find Session ID/Password?

Session ID/Password are generated uniquely for the HMI by the EasyAccess 2.0 service, the HMI must go online in order to receive this piece of information.

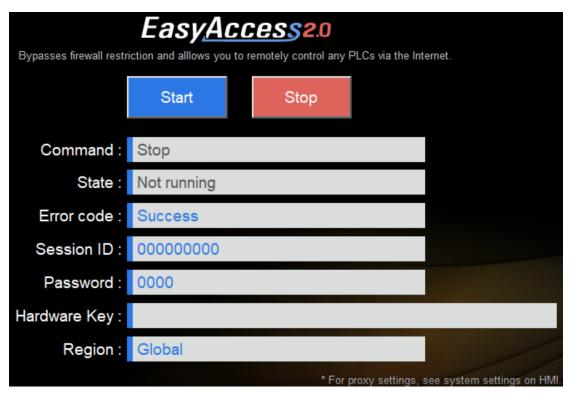
 First, create and download an EasyBuilder program that displays Session ID/Password (system registers [LW-10821] to [LW-10827]), and allows setting LW-10820, the connection control register.

The above setup has been made available in a demo project and the template files (Page 76).

- 2. Let HMI go online by setting [LW-10820] to ON.
- 3. Once successfully connected, HMI will display the Session ID/Password.

Review <u>Connect the HMI to EasyAccess 2.0 Server</u> for more information.





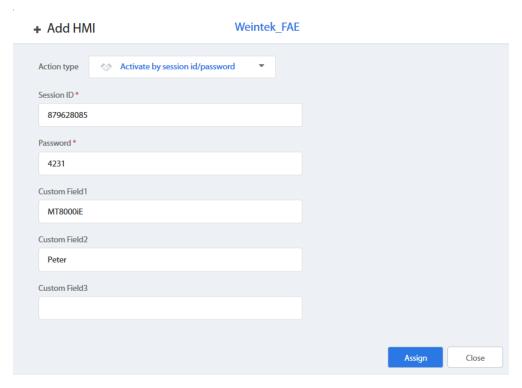
<u>Demo Project</u> showing Session ID/Password

Note: Using EasyWatch, it is also possible to find out the Session ID/Password without actually downloading a project. EasyWatch allows users to monitor the HMI or the PLC address values via Ethernet from the PC. For its usage, check out related sections in the EasyBuilder Pro User Manual.

Add to domain by Session ID/Password

In domain page, under the "Devices" tab, click "Add HMI", and then enter the Session ID/ Password and notes if needed.





Add to Domain by Session ID/Password

In PC Activator

PC Activator also facilitates the "Add to Domain" process, without needing access to the Session ID/Password. Refer to <u>PC Activator</u> on how to complete this process in PC Activator.



6. Manage the Domain

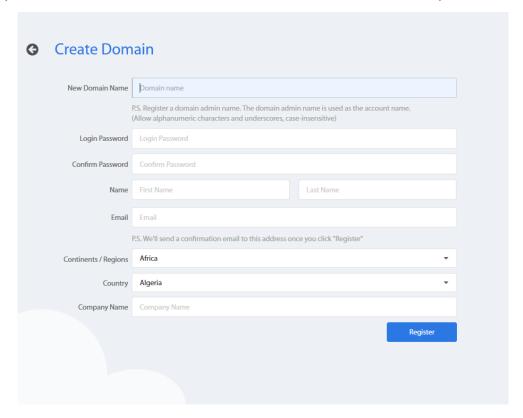
To access the domain management system,

For access of Global server: https://account.ihmi.net
For access of China server: https://www.easyaccess.cn

Note: your project setting may affect which domain to use. Please be mindful about the choice of server.

Domain Creation

Anyone can create a new domain for free. A valid e-mail address is required.

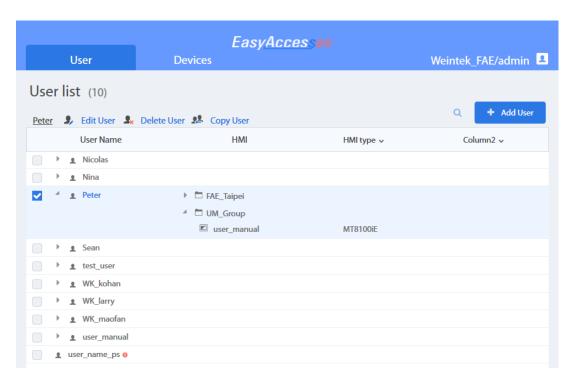


Create a Domain

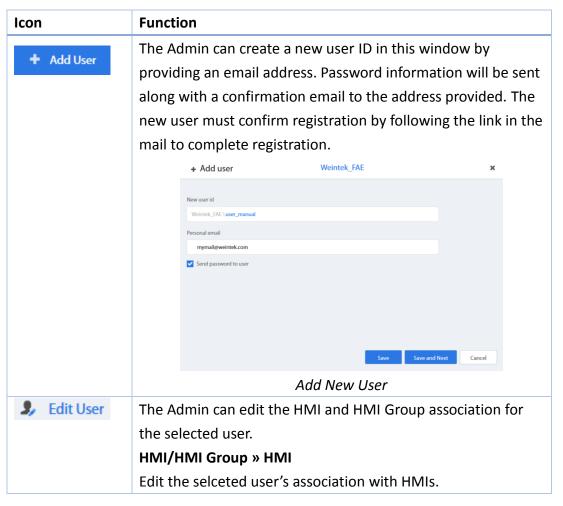
User Management

The User list displays all users and their information in the Domain. It shows whether a user is associated with any HMI and if the user belongs to any HMI group. In this page, the Admin can carry out user management actions: Add User, Edit User, Delete User, or Copy User here. For domains with a large number of users, search tool is also available.

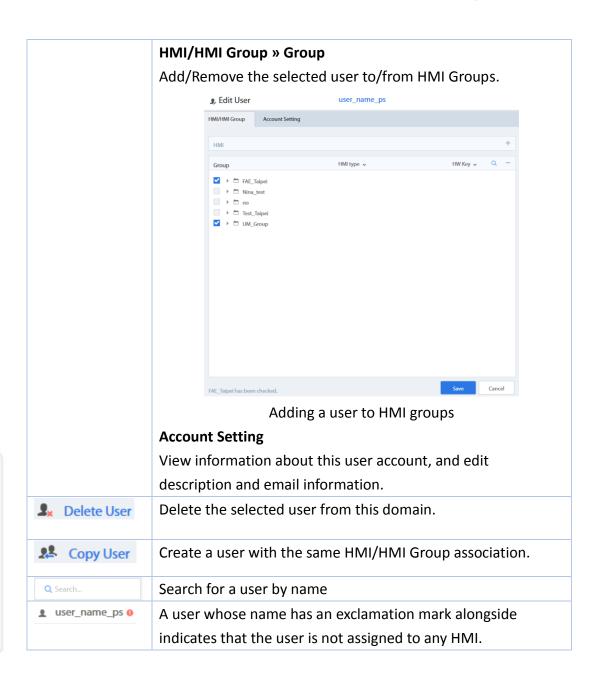




List of Users



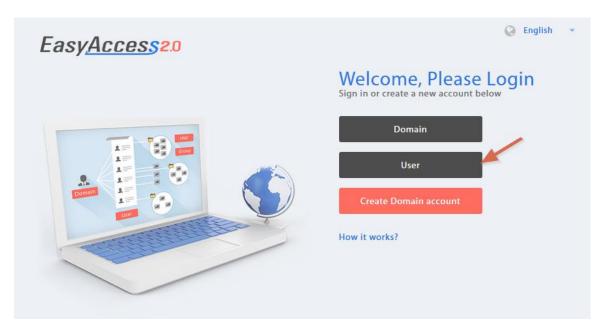




Change User Password

When the user account is first created, a default password is mailed to the registered email address. The password can be subsequently changed. To do so, visit the homepage of the domain management system and select User login. Follow the on screen guidance and change the password.

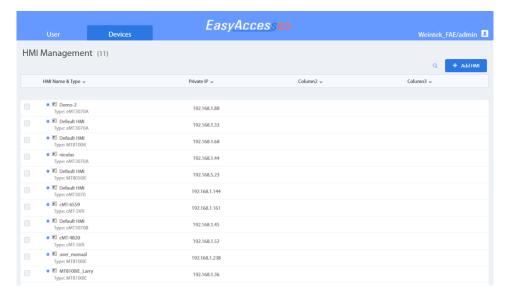




User Login

Device Management

The HMI list shows all HMIs registered in the current domain, and the HMI Group list shows all groups currently existing in this domain. The first column can sort the HMI by name, while the other columns can be set to show the following information: Private IP, Public IP, Activation Date, or Custom Field.



HMI List



HMI Icon	Function
+ Add HMI	Add a new HMI to the domain.
T Add HMI	Action type » Using activation card
	Activate the HMI and add it to the current domain.
	Hardware key and activation code are required.
	Action type » activate by session id/password
	Add the HMI to the current domain by Session ID/Password.
	Session ID/Password is required.
	Action type » 30 days free trial
	Activate a 30-day free trial for an HMI. The HMI will be
	permanently bound to the domain in which the 30 days free
	trial is activated. Only after the HMI has been activated with
	an activation code will it be allowed to be deleted from the
	current domain and added to another one.
Edit HMI	Edit the selected HMI
	User/HMI Group tab » User
	Edit user association with the selected HMI.
	User/HMI Group tab » HMI Group
	Add/Remove the selected HMI from the HMI groups.
	Activation Information
	View Hardware key and other information about this HMI.
Delete HMI	Delete the selected HMI from this domain. Once deleted,
	the HMI can be added to another domain with a new
	session id/password.
Q Search Filter ✓	Search for HMI by name. Enabling filter function will show
	only assigned / unassigned or all HMI.

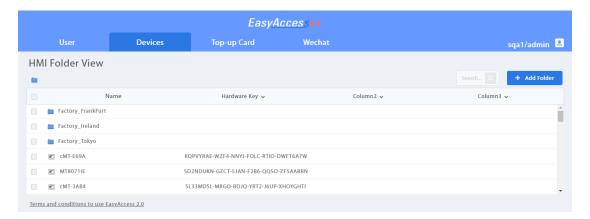


HMI Group Icon	Function	
+ Add Group	Create a new HMI group.	
Edit Group Edit the selected HMI group		
	HMI/User tab » HMI	
	Add/Remove HMI from the selected group.	
	HMI/User tab » User	
	Edit user association with the selected group.	
	General Setting	
	View information about this HMI group.	
Delete Group	Delete the selected HMI group.	

Note: once an HMI is deleted from current domain, it can then be added to another domain. To add it back again, you will need a new set of session id/password.

Organize HMI into Folders

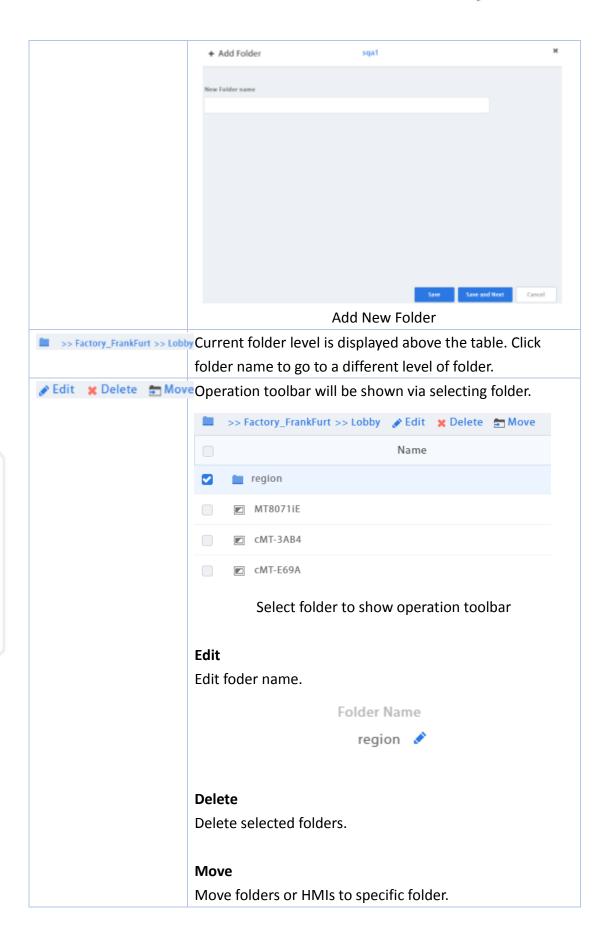
In domain management web page, under the "Devices" tab, click "HMI Folder View". HMI can be managed easily by creating your own folder/category. In this page, the Domain Admin can: Add/Edit/Delete folders, or Move HMI/folder to another folder. For domains with a large number of HMIs, search tool is also available.



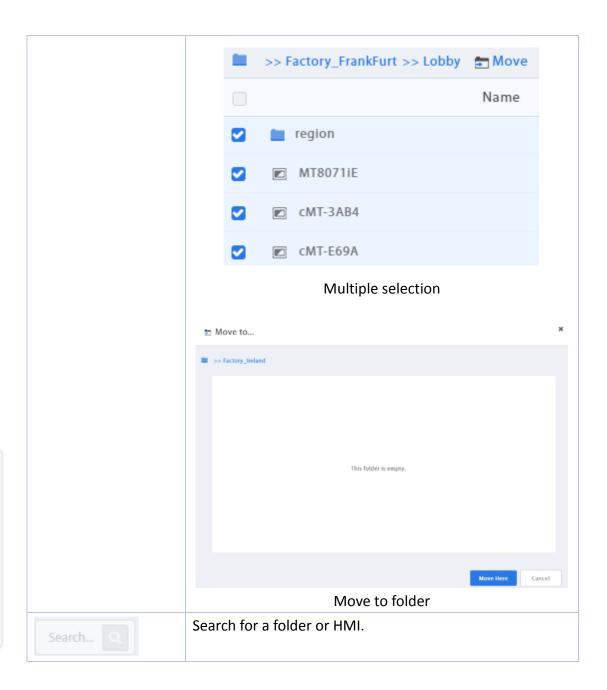
List of Folders and HMIs

HMI Folder View Icon	Function
+ Add Folder	The Domain Admin can create a new folder in this domain.







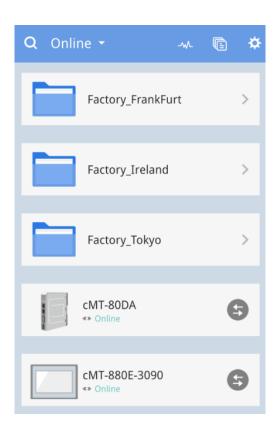


The folder structure also displayed on EasyAccess 2.0 Application





Folder Structure on EasyAccess 2.0 (Windows)



Folder Structure on EasyAccess 2.0 (Mobile)



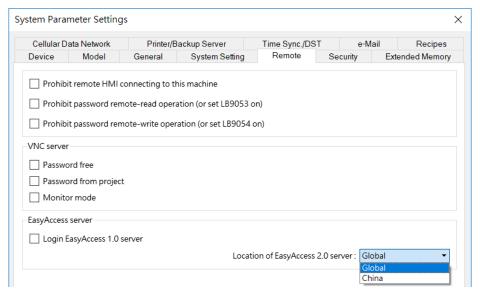
7. Connect the HMI to EasyAccess 2.0 Server

Selection of Server

In EasyBuilder Pro project, select the location of EasyAccess 2.0 server to be used. This setting is found in [System Parameter Settings] » [Remote] tab. Options available are: *Global* and *China*.

Choosing the server

China and Global domains use different servers, so account and activation information in one will not match those in another. The activation codes obtained through the distributor channel in China are only valid for the China server. All others will be valid for the Global server. Please choose the server setting based on the server where the HMI was originally activated, China or Global.



Selection of EasyAccess 2.0 Server

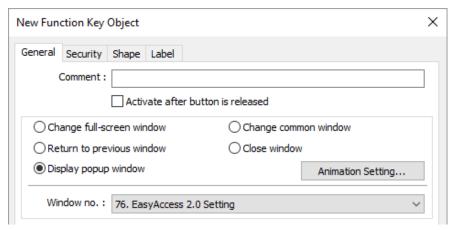
Configure EasyBuilder Pro Project

With an activated HMI, go through the following steps to connect to the EasyAccess 2.0. Ensure that this is done, implicitly or explicitly, in the project to use EasyAccess 2.0.

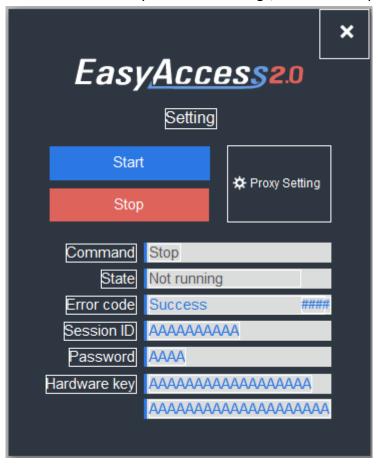
Use built-in window (template)

- 1. You could create a new project with template
- 2. Add a [Function Key] object in [Object] menu. For "Window no.", select window 76.





3. Window 76 is a built-in "EasyAccess 2.0 Setting", similar to the picture below:



Built-in Window 76 for EasyAccess 2.0

4. Download project to the HMI. When done, click the [Function Key] and click "Start" to start EasyAccess 2.0 on the HMI.

Alternatively, you may create your own objects in EasyBuilder Pro and follow the steps:

- 1. Configure the EasyBuilder Pro project. In the EasyBuilder project, the user should be able to write to LW-10820.
- 2. Write "1" to LW-10820 to go online. HMI's EasyAccess 2.0 status should be



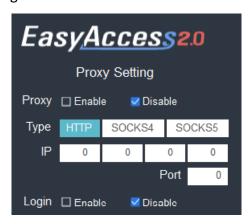
"Online". Session id/password will be displayed accordingly, depending on whether the HMI has been added to a domain.

Trouble shooting

Check error code in "EasyAccess 2.0 Setting" or LW-10829 (16bit)



- 1 (Not activated!): Please check if your HMI is already activated or not. To activate HMI, please reference How to activate an HMI.
- 2 (Log-in timeout!): Your HMI can not connect to other server, Please help check your network settings (Ex: firewall). See Diagnosis to check the network environment.
- 201 (NetworkGatewayError): Please check you network setting, Gateway setting might be wrong.
- 202 (NetworkDNSError): Please check you network setting, DNS setting might be wrong.
- 203 (ProxyError): Please check your proxy setting, if you don't use proxy, please keep the Proxy setting "Disable".

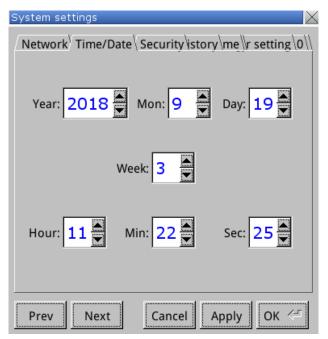


• 204 (PingAuthServerFail): Your HMI can not connect to other server, Please help



check your network settings (Ex: firewall). Diagnosis

 205 (SSLCertificateError): Please check if you HMI "Time/Date" setting in system setting is correct.



If problem still exists, please help collect HMI information through HMI info collector.

8. EasyAccess 2.0 on PC

EasyAccess 2.0 is provided as a standalone program that can be installed on the PC. It can be used independent of the EasyBuilder software suite.

Download the software from Weintek's website at: https://www.weintek.com/globalw/Software/EasyAccess.aspx

Step-by-step for establishing EasyAccess 2.0 connection.



1. Launch EasyAccess 2.0.exe.



2. Enter Domain name, Domain user's username and password, and then click [Login].



3. Once logged in, the program will list user's HMIs and their statuses.



4. Click on connect button to establish connection to an online HMI. Once connected, the virtual IP address will be displayed. It is now possible to connect directly to the HMI by network services such as VNC, HMI Viewer,



or FTP.



5. When finished, click on disconnect button to terminate the connection.

VNC Viewer

For models supporting VNC server, one may use VNC viewer to access the HMI. Please install a VNC Viewer of your choice, and provide its executable file (.exe) location to EasyAccess 2.0 application in [Settings] » [Path]. After you have successfully made the connection, should clicking on the VNC icon yields no response, launch VNC viewer separately and use the virtual IP address obtained in EasyAccess 2.0 as the destination IP address.

Please install a VNC Viewer of your choice: TightVNC, RealVNC

HMI Viewer

Non-cMT models support using HMI Viewer to access HMI. Provide a suitable gui_e30.exe location to EasyAccess 2.0 application in [Settings] » [Path]. gui_e30.exe is contained within EasyAccess 2.0 and EasyBuilder Pro installation folder, where the latter always contains the most up-to-date version.

cMT Viewer

cMT models support using cMT Viewer to access HMI. cMT Viewer is contained within EasyAccess 2.0 and EasyBuilder Pro installation folder, where the latter always contains the most up-to-date version.

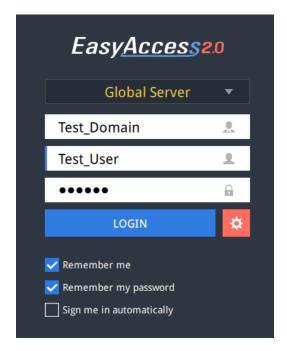
Installing adaptors

During the first program run, the software will detect whether necessary adaptors are present. If not, they will be installed automatically.

Log in

Domain name, Domain username and password are required for login.





Login to EasyAccess 2.0

Main screen

Once successfully logged in, the main screen will show all HMIs for the user and their online statuses. HMIs that are online will have a connect button and a setting button. There is no limit on the number of HMIs that can be simultaneously connected from the program. However, once an HMI is connected by a user, it goes into "occupied" state and cannot be connected by another user before the existing connection has been terminated.



EasyAccess 2.0 Main Screen



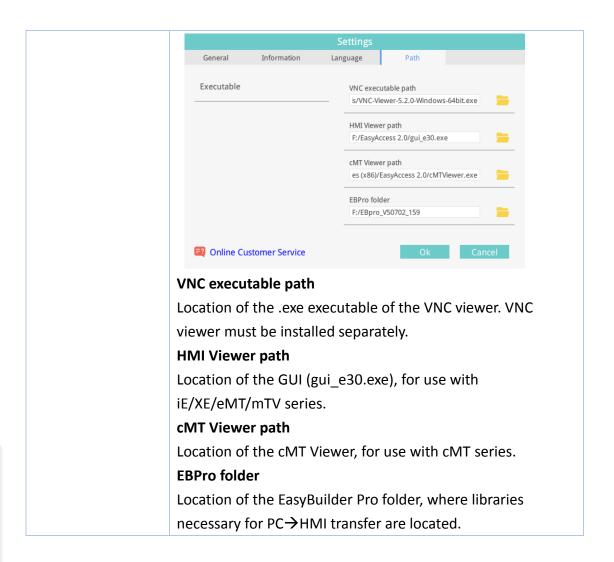
Functions of icons on Main screen:

lcon	Function	
<i>-</i> ₩-	Domain Traffic Usage(Top-up Card)	
Q user	HMI search filter	
##	Tile view/ List view	
₽	Event Logs	
- ☆-	Settings	
글	Logout of current user	
901	Displays connection logs	

Settings

Tab	Description	
General »	Options:	
Network traffic	Show all HMI Network traffic	
	Disable Weintek P2P	
	Enable sending log for debug	
Information	Software version and the terms of usage	
Language	Select the language	
	Languages available: English, French, Italian, Spanish,	
	Russian, Simplified Chinese, Traditional Chinese, Korean,	
	German, Japanese, Polish	
Path » Executable	Select executable (*.exe) path for VNC viewer, HMI Viewer,	
	and cMT Viewer, used to launch the viewers when	
	connections are established.	

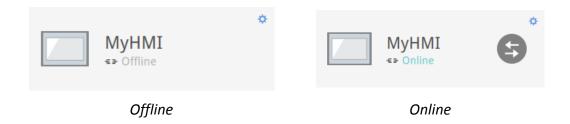




Note: Please try to keep GUI updated as it is the necessary executable for running the HMI Viewer. A copy of GUI and cMT Viewer which was most current as of the date of EasyAccess 2.0 release is included in the installation. An update of GUI may be required when programming environment of the HMI was updated; in this case, find it in the latest version of EasyBuilder Pro.

HMI States and Access Setting

HMI can be in one of the states: Offline, Online, Connected, Occupied.









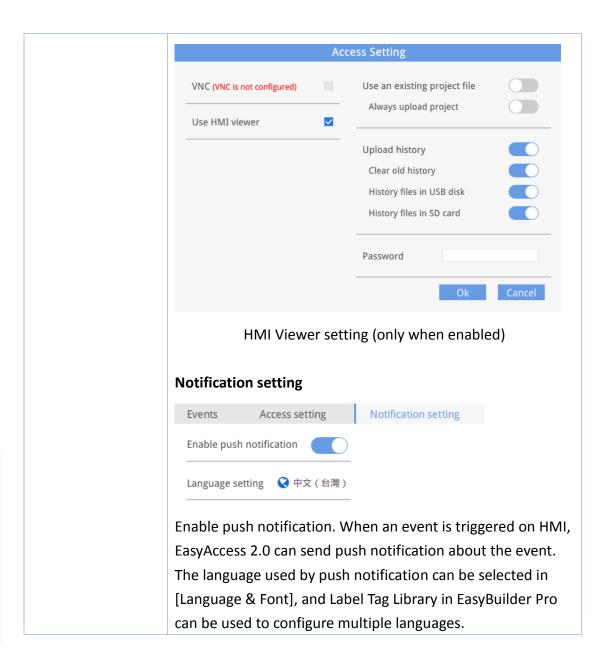
Connected

Occupied

The usage or meaning of each icon:

Icon	Function
MyHMI	HMI name
IP 10.7.0.6 ©	Virtual IP address. Click to copy the IP address to clipboard.
Pass-through	Set up pass-through IP address.
(3)	Connect to the HMI.
(3)	Disconnect from the HMI.
VNC	Access the HMI with VNC viewer (installed separately).
	Access the HMI with HMI Viewer.
*	Events
	When push notification is enabled, the notification of
	triggered events will be shown here.
	Access Setting
	Enter Access setting of the HMI, which allows using VNC
	Viewer or HMI Viewer.
	To use VNC Viewer, set executable path in Settings page.
	To use HMI Viewer, set executable path in Settings page. Also,
	set how project upload and history should be handled.

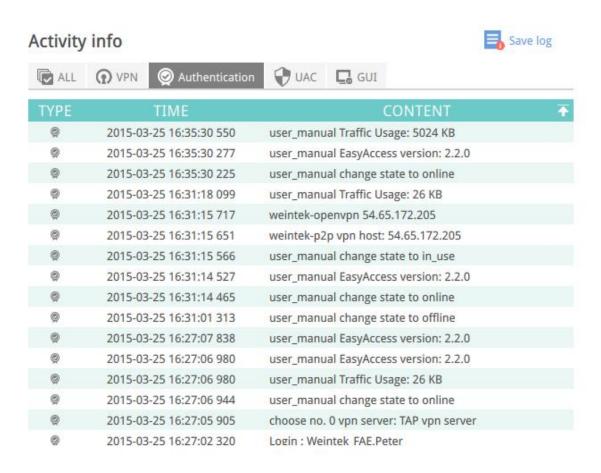




Connection Log

Clicking on the LOG icon brings out the detail connection logs with the VPN, Authentication, and UAC server. The GUI tab shows information relevant to the use of HMI Viewer. In additional to viewing them here, it is also possible to save the logs as a file.

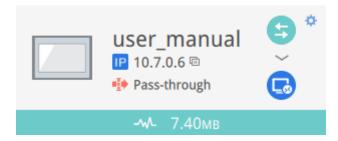




Connection Logs

Usage Display

The HMI's total data usage to date for the current month will be displayed.



Usage Display

Trouble shooting

If connection error happens, click the "Exclamation mark" icon to check the error details.





Error Happens



- Details
- X EasyAccess 2.0 to Vpn server connection status

US - Wide West wvpn (13.56.221.131)

Asia - Tanuki wvpn (13.114.36.115)

Details

- ✓ HMI to Vpn server connection status
 - Asia Tanuki wvpn (13.114.36.115)
 - US Wide West wvpn (13.56.221.131)

Recheck

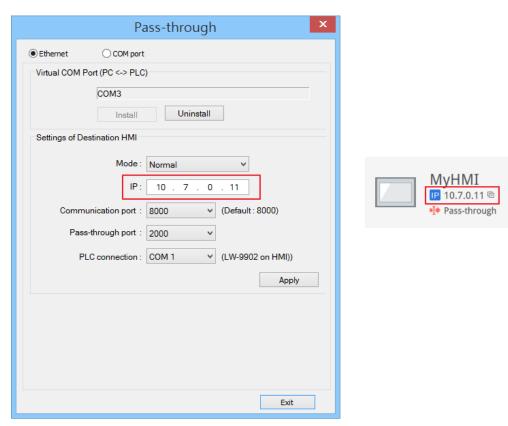
Error Details

You can also use <u>diagnosis</u> to help check those connection problems.



9. Pass-through (Serial)

Remote Pass-through is made possible and simple with EasyAccess 2.0. Similar to the traditional way of local pass-through, it is done with a helper program in Utility Manager. Simply enter the virtual IP address obtained in EasyAccess 2.0 in the pass-through program, as shown in the following figure. The remaining steps are the same as local pass-through. In doing remote pass-through, additional port settings are not required.

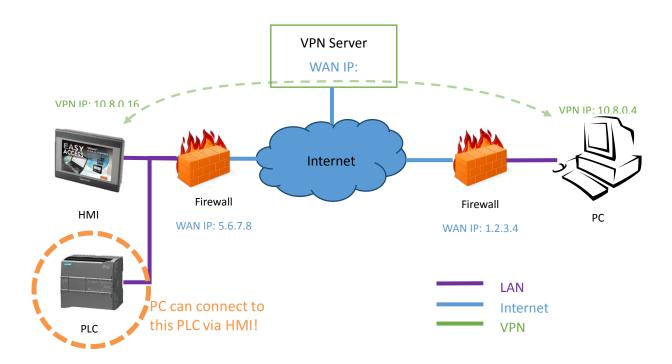


Pass-through setting in Utility Manager



10. Pass-through (Ethernet)

EasyAccess 2.0 not only makes possible direct connection to a Weintek HMI, but also provides pass-through function that enables the user to connect to the PLC on the remote HMI's network. Consider an EasyAccess network as shown below where a PLC is within the same LAN network as the HMI. Here, the PC, by first establishing EasyAccess 2.0 connection to the HMI, may use the HMI as the relay and connect to the PLC as well.



How to setup pass-through to PLC?

1. On the list of HMI, click on the "Pass-through" icon which appears below the IP address when connection in active.



2. Enter the IP address of the target PLC. Support up to 6 IP addresses.





3. Once connected, the IP address of the PLC will be shown. The user may now launch the PLC program.



If the remote PLC and the local computer have the same private IP address range, a warning will appear, indicating that subsequent connection to the PLC's IP address will be directed to the remote device instead of the local device if there is any.



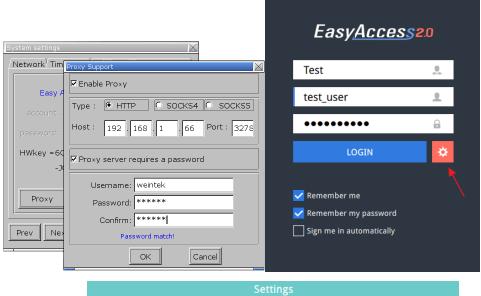
This will override connection to 192.168.1.20 to remote device. You see this message because the IP address (192.168.1.20) is in your local network (192.168.1.0/255.255.255.0).

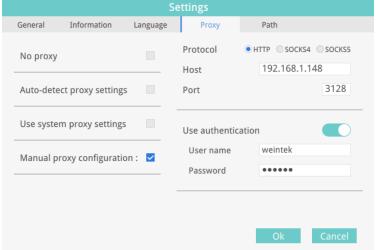


11. Proxy Server

A proxy server acts as an intermediary between clients and servers. In some network infrastructure, especially that of a large scale, proxy servers are used to ensure security, administrative control, and efficiency of the network. To establish connection with EasyAccess 2.0 through proxy, however, requires additional settings in EasyAccess 2.0 client program and/or the HMI.

Proxy settings at PC's EasyAccess 2.0 client side and HMI side are similar. On PC, proxy setting window can be called from the setting button of the login screen. On HMI it is found in the [EasyAccess 2 tab] of system settings. Enter the proxy type, host address, port number and login credentials obtained from the network administrator.





Proxy Settings



Proxy related system tags

The following table lists the system tags reserved for EasyAccess 2.0 proxy settings:

LW-11170 (16bit)	Proxy Disable/Enable (0: disable, 1: enable)
LW-11171 (16bit)	Proxy Type (0: HTTP, 1: SOCKSv4, 2: SOCKSv5)
LW-11172 (16bit)	Proxy Server IP0
LW-11173 (16bit)	Proxy Server IP1
LW-11174 (16bit)	Proxy Server IP2
LW-11175 (16bit)	Proxy Server IP3
LW-11176 (16bit)	Proxy Server Port
LW-11177 (16bit)	Proxy authentication (0: disable, 1: enable)
LW-11178 (16 words)	Proxy username
LW-11194 (16 words)	Proxy password



12. EasyAccess 2.0 on Android

EasyAccess 2.0 is available for Android devices. With EasyAccess 2.0, users can easily use VNC or cMT Viewer to access remote HMI. Even though the UI and available functionalities on an Android device maybe slightly different from PC, the connection steps are as simple and straighforward.

EasyAccess 2.0 on Android requires Android version 4.1.2 or later.

App Download

In addition to the main app EasyAccess 2.0, a helper OpenVPN Connector app is required. Please download the apps from Google Play and install the apps, both of which are free.

EasyAccess 2.0	Play Store download APK download
EasyAccess 2.0 OVPN Connector	Play Store download APK download

VNC/cMT Viewer Download

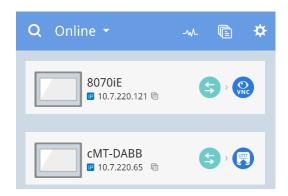
RealVNC VNC Viewer: Google Play

• cMT Viewer: Google Play

Step-by-step connection guide

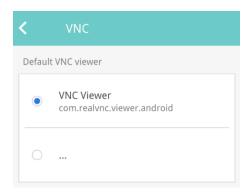
- 1. Launch EasyAccess 2.0 app.
- 2. Enter Domain name, Domain user's username and password, and then click [Login].
- 3. Once logged in, the app will list user's HMIs and their statuses.
- 4. Click on the connect button to establish connection to an online HMI."
- 5. Once connected, the virtual IP address will be displayed. It is now possible to connect directly to the remote HMI by VNC or cMT Viewer.





Noted:

You should download VNC viewer and set it to default VNC viewer. For example, download RealVNC Viewer and set to defualt VNC Viewer in Settings => VNC



6. When finished, return to EasyAccess 2.0 app and click on the disconnect button to terminate the connection.

VNC Viewer

For models supporting VNC server, one may use VNC viewer to access the HMI. Please install a VNC Viewer of your choice, and set it as the default VNC viewer in EasyAccess 2.0 application. Use the virtual IP address obtained in EasyAccess 2.0 as the destination IP address. After you have successfully made the connection, should clicking on the VNC icon yields no response, launch VNC viewer separately and use the virtual IP address obtained in EasyAccess 2.0 as the destination IP address.

cMT Viewer

cMT models support using cMT Viewer to access HMI. cMT Viewer is available for free on Google Play.



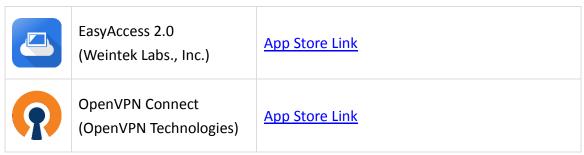
13. EasyAccess 2.0 on iOS

EasyAccess 2.0 is available on iOS devices. With EasyAccess 2.0, users can easily use VNC or cMT Viewer to access remote HMI. However, due to software restrictions, connection steps are slightly different from those on PC or Android.

EasyAccess 2.0 on iOS requires iOS version 7.0 or later.

App Download

In addition to the main app EasyAccess 2.0, OpenVPN Connect app is required. Please download the apps from the App store and install the apps, both of which are free.



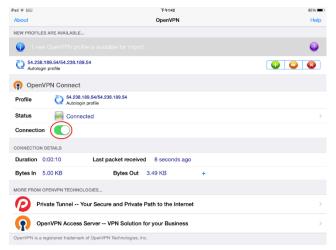
Step-by-step connection guide

- 1. Launch EasyAccess 2.0 app
- 2. Enter Domain name, Domain user's username and password, and then click [Login].
- 3. Once logged in, the program will list user's HMIs and their statuses.
- 4. Click on connect button to establish connection to an online HMI. Dialogue will show with action buttons. Click "Open in OpenVPN."

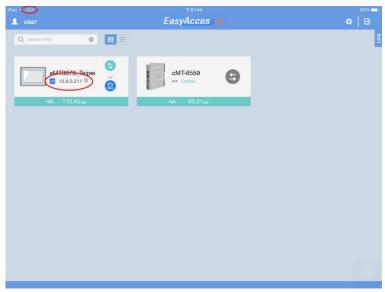




5. In OpenVPN app, add the login profile, and toggle the connection button to initiate connection.



6. Once connected, return to EasyAccess 2.0 app and the virtual IP address will be displayed. The top status bar will also display a VPN icon. It is now possible to connect directly to the remote HMI by VNC or cMT Viewer.



7. When finished, click on disconnect button to terminate the connection.

VNC Viewer

For models supporting VNC server, one may use VNC viewer to access the HMI. Please install a VNC Viewer of your choice, and set it as the default VNC viewer in EasyAccess 2.0 application. Use the virtual IP address obtained in EasyAccess 2.0 as the destination IP address. After you have successfully made the connection, should clicking on the VNC icon yields no response, launch VNC viewer separately and use the virtual IP address obtained in EasyAccess 2.0 as the destination IP address.



cMT Viewer

cMT models support using cMT Viewer to access HMI. cMT Viewer is available for free on the App Store.



14. PC Activator

The PC activator allows the user to quickly perform HMI activations, which would otherwise have to be done through the web interface. Instead of the often lengthy process of recording and typing hardware keys for activation, with PC Activator, the user now can quickly search for HMI's that are on the network, check their activation statuses, and activate them with the activation code. This is especially useful for bulk activation. In addition, PC Activator also lets users add HMI to a domain without having access to the session ID/ password.

Two main features are supported by the PC Activator

- HMI activation by activation code.
- 2. Adding an HMI to a domain.

Activation

- 1. Enter Domain name, password, and activation code.
- 2. Select an HMI from the HMI list. It is possible to activate ones with an icon. Its hardware key will be retrieved and shown.

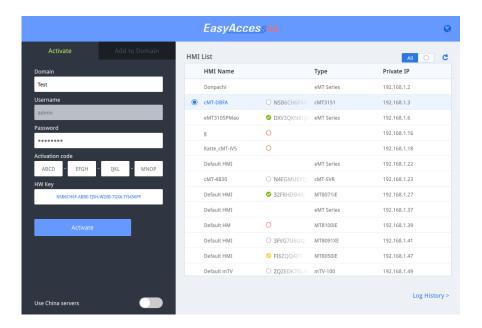
List of icon:

- : HMI is activated and assigned to a domain.
- : HMI is activated but not assigned to a domain.
- : HMI is not activated. It can be activated in PC Activator
- O: HMI's OS version does not support PC Activator. OS upgrade may solve this problem.

no icon: HMI does not support PC Activator.

3. Click the Activate button.





By toggling the option "Use China servers", PC Activator will check the activation status and perform activation with China servers (https://www.easyaccess.cn). Global and China servers are independent entities, so account information registered on global servers cannot be used on China servers, and vice versa.

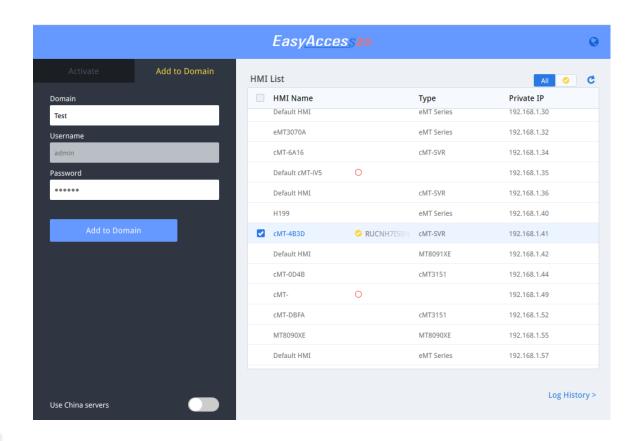
Add to Domain

PC Activator also allows the user to add an HMI to Domain directly without explicitly having gained access to the Session ID/Password. Simply enter the Domain name and admin password, and then select an HMI that can be added.

HMI with a yellow icon, indicating that it has been activated but not assigned to a domain yet, can be selected and added to the Domain.

By toggling the option "Use China servers", PC Activator will check the activation status and perform activation with China servers (https://www.easyaccess.cn). Global and China servers are independent entities, so account information registered on global servers cannot be used on China servers, and vice versa.





PC Activator HMI OS Support

HMI and OS that supports PC Activator (current as of May 2018)

Model	OS version or later
eMT3070A	TBA
eMT3070B	20150603
eMT3105,eMT3120, eMT3150	TBA
MT8070iE, MT8100iE	20150508
MT8050iE, MT8071iE, MT8101iE	20150527
MT8090XE, MT8091XE, MT8092XE	20150603
MT8121XE, MT8150XE	20150603
mTV-100	20150508
cMT-SVR	20151127
MT8073iE, MT8102iE, MT8103iE	All versions
All cMT models except cMT-SVR	All versions



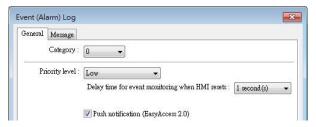
15. Push Notification

With push notification, HMI sends selected event messages to EasyAccess 2.0 server, which may be viewed in the EasyAccess 2.0 application. In the case of a mobile device, the device will receive the event messages as push notification and be alerted on the standby screen.

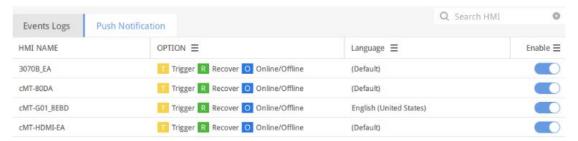
Requirements

Using push notification requires configurations in both EasyBuilder Pro project and EasyAccess 2.0 application as follows:

1. In the project, for each of the desired event log entry, check the "Push Notification (EasyAccess 2.0)" option.



2. In EasyAccess 2.0 [Event Logs] => [Push Notification setting], toggle ON the push notification Enable option for each desired HMI.



3. Select desired push notification event on OPTION.





Receiving notification

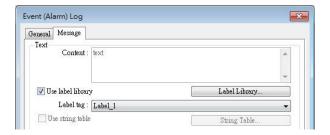
As long as EasyAccess 2.0 remains running at least in the background and the user remains logged in, when an event occurs, the device will receive push notification. Nonetheless, the exact device behavior upon receiving push notification depends on each device's setting regarding push notification.

For Apple's iOS device, push notification goes through Apple Push Notification Service, whereas Android devices' goes through Google Cloud Messaging. Note that these services may be unavailable in certain regions, and users in those regions are unable to receive push notification on their devices.

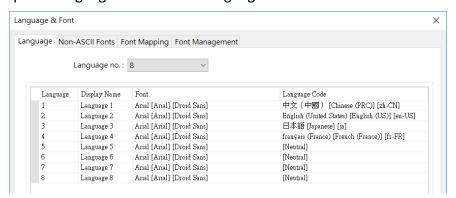
Language Selection

If the project includes multiple languages and its event log content also does, it is possible to switch the language contained in push notification messages. To do so, all the requirements are the same as regular push notification, plus the following:

1. In EasyBuilder Pro, for the content of event messages, use label tag with multiple language definition from the label library.



2. In EasyBuilder Pro, in [Language & Font], under [Language] tab, assign an appropriate language code to each language.



Having configured as above, the languages defined above can be selected In



EasyAccess 2.0 [Event Logs] » [Push Notification setting] for each HMI. Event messages and push notification message will change to the selected language accordingly.



Language Selection



Wechat

For Wechat users, it is also possible to receive push notification in Wechat app.

The following are the requirements for using Wechat push notification:

- ✓ HMI with EasyAccess 2.0 activated in China server, and connecting to China server.
- ✓ Event log entries having push notification enabled.
- ✓ Wechat account following EasyAccess 2.0 Official account and linked with HMI.

The only way to link Wechat account with HMI is by scanning a QR code in Wechat. In the EasyBuilder Pro, create a Wechat bar code object, and set its address to the system reserved address LW-11770. (also available as a tag in the label library) Then, configure the project so that the bar code object will be visible and has reasonable size for its HMI screen size.





On HMI, navigate to the barcode object on HMI, and then scan the barcode in Wechat, and then follow the in-app instructions to complete linking. You may be requested to follow EasyAccess Official account on Wechat if haven't already done so. In that case, follow EasyAccess Official account and then re-scan the bar code to proceed with account linking.





Once linked, the device will receive notification in Wechat when an eligible event occurs. In addition, there will also be Wechat messages when HMI connects to the server or disconnects from the server.





To manage the linked HMI, use the HMI management tool located at the bottom of the chat page and follow on screen instructions to unlink HMI.

Note: Following EasyAccess 2.0 Official account is an essential step for receiving push notification on Wechat. Also, note it is not necessary for an HMI to be added to any domain, nor is a domain user account needed to use Wechat push notification.



16. Data Top-up

Currently, an HMI has 1GB of high-speed data per month for free. Once free data cap has been exceeded, speed will be limited to 5kB/s.

For additional high-speed data, data top-up from a top-up card is required. The card comes in 5GB or 10GB, with one-year validity. When an HMI reaches its data cap for the month, top-up data will kick in and the data from the top-up card will be consumed to maintain high-speed data transfer.

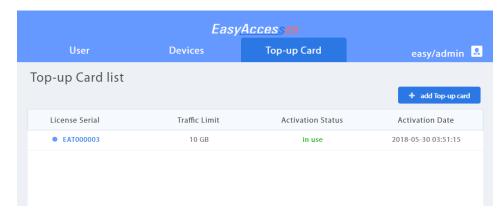
Top-up cards are available for purchase through Weintek's dealer; please contact your dealer for purchase details.

Loading top-up data

Load up top-up data with the following simple steps:

- 1. Obtain a Top-up card. It should come in electronic form, containing License Serial and Activation Code.
- 2. Go to Top-up card section in domain management system.
- 3. Click on the "add Top-up card" and then enter the License Serial and Activation Code to add the Top-up card.
- 4. Once successfully loaded, top-up data will be available within a few minutes.

Double-clicking on any one of the cards will display current usage and use history for the card. Similar "Domain Traffic Usage" information is also visible at the top left corner in the EasyAccess 2.0 application.



Top-up Card List



As Top-up data is associated with domain, all HMI and users in a domain will share the top-up data purchased. Also, adding multiple cards within a domain is allowed, and data from the card with the earliest expiration date will be used first.



17. Frequently Asked Questions

Activation/ Domain Registration

Q: I am creating a new domain, but "I Agree" can not be clicked.

A: Please help check if your browser uses google translation plugin. Disable it and try

again.

Q: After registering for a domain account, when trying to log in, it says my registration was incomplete?

A: After initial registration, an email will be sent to the email address. You must click on the link in the email to complete registration.

Q: I cannot activate while using PC Activator. HW Key text field is showing "Not Supported."

A: Please check the HMI's OS and refer to *PC Activator* for the list of PC Activator - supported model and OS version.

Q: I've just updated my OS to the latest release, but my activation disappeared. Do I have to re-activate?

A: In the EasyAccess 2 tab, click on the [Refresh] button. EasyAccess 2.0 will be re-activated if the same HMI was previously activated.

Q: My HMI is broken down and I am sending back my machine for repair. Can I use my old EasyAccess 2.0 license on my replacement machine?

A: Please contact us by service request on our website.

Q: I do not see the EasyAccess 2 tab.

A: Please check the HMI's OS and refer to Model and OS Support for the list of EasyAccess 2.0 - supported model and OS version.

Q: On the EasyAccess 2 tab, it says "connect to the server fails?" in red.

A: The HMI cannot connect to the internet. Please make sure Internet access is available to the HMI. Check the IP address, Gateway, and DNS address settings.



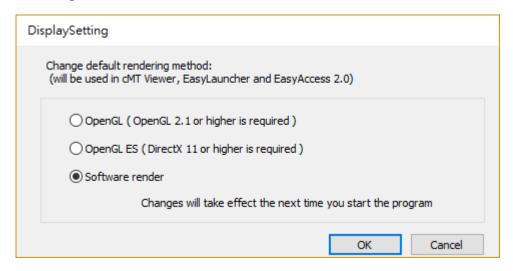
If the HMI has an OS version prior to 20140814, you might see this message too. This indicates that security certificate on the HMI has expired and cannot work with the EasyAccess 2.0 server. In order to use EasyAccess 2.0 again, you must update the certificate manually. The update procedure is as follows:

- With the latest EasyBuilder Pro, download the EasyAccess 2.0 <u>Demo project</u> (or any project which allows LW-10820 to be set to 1) to the HMI. When downloading, make sure EasyAccess 2.0 checkbox is ticked.
- 2. On the HMI, click the "connect" button (or set LW-10820 to 1); security certificate update will begin.
- 3. Check the activation status again in the system information page.

EasyAccess 2.0 Application

Q: When I run EasyAccess 2.0 on PC, I see weird graphic display like white dots everywhere and missing words.

A: Your PC may not have full support of graphic rendering method used by EasyAccess 2.0 client program. Run "Display Settings" to select the one that gives the best rendering result.



Q: I'm using Windows 8 and the SmartScreen warns that running the software may put by PC at risk.

A: If you obtained our software from the official channel, either directly from us or from a trusted dealer, you can rest assuered that the software is safe. Click on "More info", and then "Run Anyway" to continue.

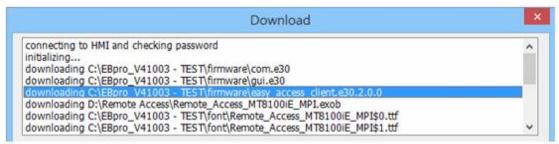
Q: When I try to connect to EasyAccess 2.0 by setting LW-10820, nothing happens.

A: There are many possibilities, here is the list for a few of them:

1. Please make sure that EasyAccess client program is in the HMI. It should have been



downloaded to the HMI during project download. If not, check the version of EasyBuilder Pro used and whether easy_access_client.e30 is in the firmware folder.



2. The time setting of HMI may be incorrect. If time setting on HMI vastly different from the current time, its security certification will be considered expired and connection will fail.

Q: How do I update EasyAccess 2.0? Do you provide regular updates?

A: Yes, Weintek will provide feature and bug fixing updates on a regular basis. For the latest PC, iOS, Android software, please download from our website, the App Store, and Google Play Store, respectively.

HMI's EasyAccess client program is updated when you download any new program with EasyBuilder Pro. When EasyBuilder Pro detects that HMI has an EasyAccess 2.0 client program older than the one bundled to that EasyBuilder Pro version, it will download and update the one in HMI automatically.

Q: All my settings seem correct, and I see my HMI online in China. However, I just cannot make a connection sometimes! Is EasyAccess 2.0 service available everywhere?

A: Due to possible restriction of VPN traffic imposed by Chinese authorities, EasyAccess 2.0 connection may sometimes fail when network traffic has to travel across the "borders".

Access Location	Server in use	HMI Location	Connection Quality
Outside of China	Global	Outside of China	OK
China	Global	Outside of China	May be Affected
Outside of China	Global	China	May be Affected
China	Global	China	May be Affected
Outside of China	China	Outside of China	May be Affected
China	China	Outside of China	May be Affected
Outside of China	China	China	May be Affected
China	China	China	OK

As a rule of thumb, network traffic that needs to traverse across China's firewall may



be affected. In this case, do not disable Weintek P2P.

Q: I notice that VPN IP address can change between sessions. Is it normal?

A: Yes, it is perfectly normal. EasyAccess 2.0 connections are established on demand, so VPN IP address may change. Also, on PC or Android device, IP address starting with 10.8 denotes a connection made in point-to-point (P2P) mode as opposed to VPN mode. In general, P2P mode allows higher data rate than VPN does. The program will determine the proper mode to use based on current network conditions.

Q: When I try to log in with my user account, I always get incorrect username/password error.

A: Make sure that you are logging in to the right server. Currently there are Global and China servers and they are independent of each other. Their domain management web URL are different, and in EasyAccess 2.0 application, there is an option to choose the server to connect to.

Mobile App

Q: When using EasyAccess 2.0 mobile client, I get "EasyAccess 2.0 OPVN Connector" Error. (Android)

A: Make sure that OVPN is installed. Also, make sure that OVPN is authorized and trusted.

Q: When using EasyAccess 2.0 mobile client, I get "cannot open VNC" related error.

A: Make sure that VNC Viewer is installed and that the correct VNC Viewer app has been designated in the VNC setting page.

Other

Known Model-specific issues

- 1. cMT3090 with OS version 20170320 or earlier may experience slower EasyAccess
- 2.0 connection. We suggest upgrading your cMT3090 OS to a latter version.



18. **Diagnosis**

TCP Connection Test

To use EasyAccess 2.0 VPN connection, multiple TCP connection would be made from your HMI or PC to our vpn servers.

On PC, you can download our analyzer tool <u>ea_test.zip</u> to check connections to those servers.

On the HMI, you need to make sure HMI can connect to those VPN servers:

- ireland.wvpn.ihmi.net
- japan.wvpn.ihmi.net
- us.wvpn.ihmi.net

If any error happens, please check your network settings (e.g. firewall). If you still don't know what to do, you can contact our online customer service for help.

For access of Global server: https://account.ihmi.net
For access of China server: https://www.easyaccess.cn

DNS Test

Please run "analyze.bat" and check the result from "analyze_result.txt" in dns.check.zip.

HMI
HMI Info Collector

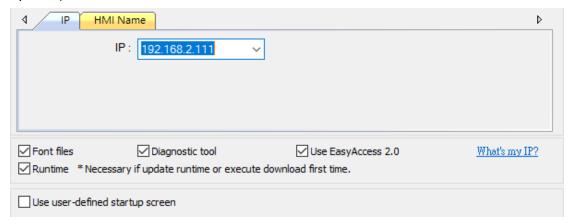


19. HMI Info Collector

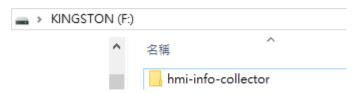
HMI Info Collector

Please download the latest EasyBuilder Pro (minimum required version: V6.01.02).

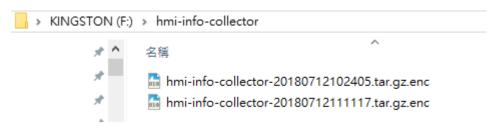
Re-download project to your HMI. Make sure "Diagnostic tool" and "Use EasyAccess 2.0" are both clicked (cMT series will automatically download without setting options).



Prepare a USB device and create a folder named "hmi-info-collector" in it.



Insert the USB drive into HMI, and wait until you heard 2 beeps.
Pull out the USB drive and send us the files inside "hmi-info-collector" folder.





20. Appendix

Terminology

(Online Status) Online:

When an HMI goes online, it sends keep-alive information to a keep-alive server and lets all EasyAccess 2.0 clients know it is ready for connection. There is still no connection in this state unless one EasyAccess 2.0 client connects to it.

(Online Status) Occupied:

When an EasyAccess 2.0 client connects to the HMI, then the HMI is **occupied** and no other EasyAccess 2.0 client can connect to it until it is disconnected.

EasyBuilder Pro System Tags

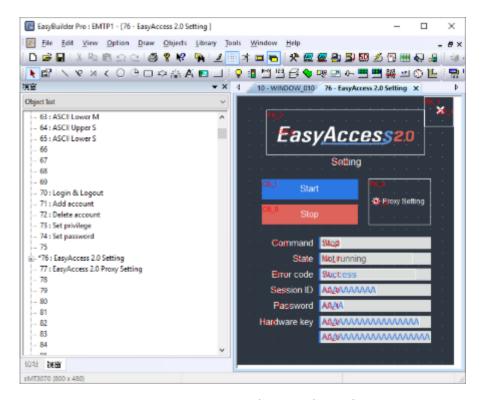
A number of system tags are added to EasyBuilder Pro for exclusive use of EasyAccess 2.0.

System Tag	Function
LW-10820 (16bit)	Connect/Disconnect EasyAccess 2.0
	0: Disconnect
	1: Connect
LW-10828 (16bit)	EasyAccess 2.0 Online Status
	0: Disable
	1: Offline
	2: Online
	3: Occupied
	4: Download client update
LW-10829 (16bit)	Error code provides information about error status while the
	HMI is going online on EasyAccess 2.0.
	0: Success.
	(Connection successful)
	1: Not activated.
	(EasyAccess 2.0 function is not activated on the HMI)
	2: Log-in timeout
	(Outbound connection is broken or the server is down)
	3: Certificate expired
	(License Key has expired. Please check with distributor.)
	4: HMI client not ready



	(Open and close client too frequently)
	5: HMI client will update
	(Update is downloaded and ready)
	6: HMI client does not exist
	(Client program does not exist in HMI memory)
LW-10821	Session ID. This is used to add an HMI to a Domain.
(5words, ASCII)	
LW-10826	Session Password. This is used to add an HMI to a Domain
(2words, ASCII)	
LW-11210	Hardware Key
(20words)	
LW-11296	Location of EasyAccess 2.0 server
(16bit)	0: Global
	1: China

Note: Demo pages using these system registers have been added to the template file in EasyBuilder Pro. Look for them when opening a new file to save time in your project design.



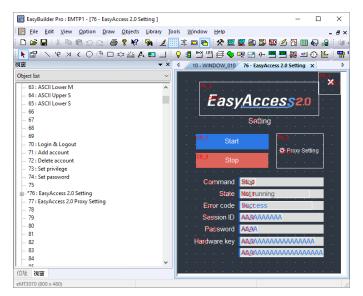
EasyAccess Page in the Template File



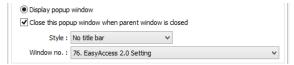
Example for preparing EasyAccess 2.0 page

Here are the steps for preparing EasyAccess 2.0 page from the new template file in EasyBuilder Pro.

1. Create a new project using templates, and you can see window #76 as below:

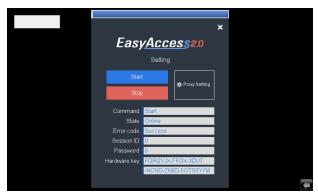


2. In window #10, add a [Function Key] object to popup window #76.



- 3. Download the project to HMI.
- 4. On HMI, click the [Function Key] object which was just added.
- Click "Start" button.

If the network setting of the HMI is correct, the state will be online like the following:



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