



# EasyAccess 2.0 Manual

Your Industrial Control Solutions Source

[www.maplesystems.com](http://www.maplesystems.com)



For use as the following:

- Installing and setting up EasyAccess 2.0 with Maple products

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## **WARRANTY**

Warranty statements are included with each unit at the time of purchase and are available at [www.maplesystems.com](http://www.maplesystems.com).

## **TECHNICAL SUPPORT**

This manual is designed to provide the necessary information for trouble-free installation and operation of EasyAccess 2.0. However, if you need assistance, please contact Maple Systems:

- Phone: 425-745-3229
- Email: [support@maplesystems.com](mailto:support@maplesystems.com)
- Web: <http://www.maplesystems.com>

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## Chapter 1 - Introduction

### Overview

Traditionally, HMIs were designed to connect only to local industrial control equipment such as PLCs or automation controllers. With the prevalence of internet connectivity on the plant floor, there is increased demand for remote access to local HMIs and PLCs. Access from a computer outside of the plant provides the opportunity to add new features to the HMI/PLC by qualified personnel without necessitating a costly visit. The ability to troubleshoot and reconfigure an HMI or the PLC from a remote location greatly reduces the length of down time.

However, accessing a remote HMI is a tricky proposition. Security must be ensured to prevent unauthorized access and to reduce safety concerns. Complex network parameters setup makes it difficult for many HMI users to establish communications. 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, the ability to remotely connect to HMIs is much easier, secure, and more flexible.

EasyAccess 2.0 provides a new way for accessing an HMI from anywhere in the world. With EasyAccess 2.0, it is very easy to monitor and troubleshoot your HMIs and PLCs from a remote location as long as an Internet connection is available. Since EasyAccess 2.0 manages all network settings and security issues, the user simply connects to the HMIs as if they were on the local network. Moreover, it is possible to have access to multiple HMIs within a network.

EasyAccess is a remote supporting service. Consider a machine builder who sells his machines with Maple HMIs installed. One of his customers calls to report a problem. Rather than book an expensive plane flight, the machine builder remotely connects to the HMI using EasyAccess 2.0 to investigate the problem. He can review and update the HMI project, monitor the PLC using Ethernet Pass-through, or even update the PLC program. The customer need do nothing except make the phone call.

### Features

- Secure connections (using OpenVPN and SSL encryption)
- Little PC setup required; no need to modify router settings, firewalls, or open ports
- Administrator based system restricts unauthorized access
- Remote monitor of HMI; View screens or easily implement updates to HMI project
- Supports pass-through mode (monitor and update connected PLCs)
- Proxy server option to conceal identity of remote PCs

### System Requirements

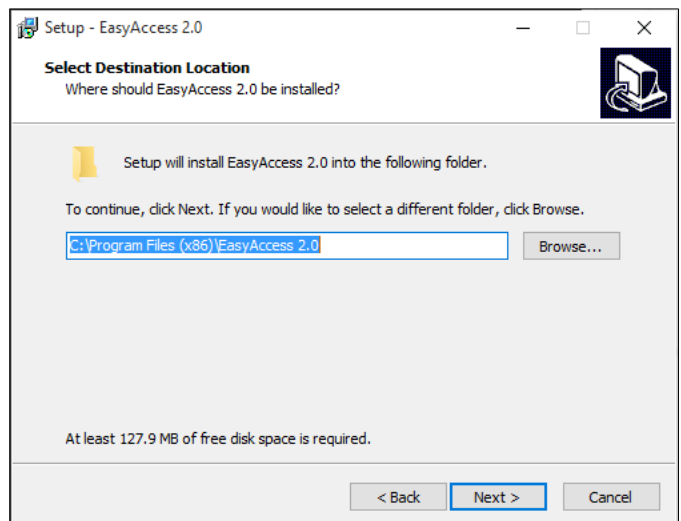
- PC Operating System: Windows XP, Windows 7, Windows 8 (32 / 64bit) (Requires Administrator privilege)
- Maple HMI with EasyAccess 2.0 feature activated
- Internet Connection
- EZwarePlus V4.10.05 or later
- iPad: iOS 7.0 or above
- Android: V4.1.2 or above

## Chapter 2 - EasyAccess 2.0 Installation

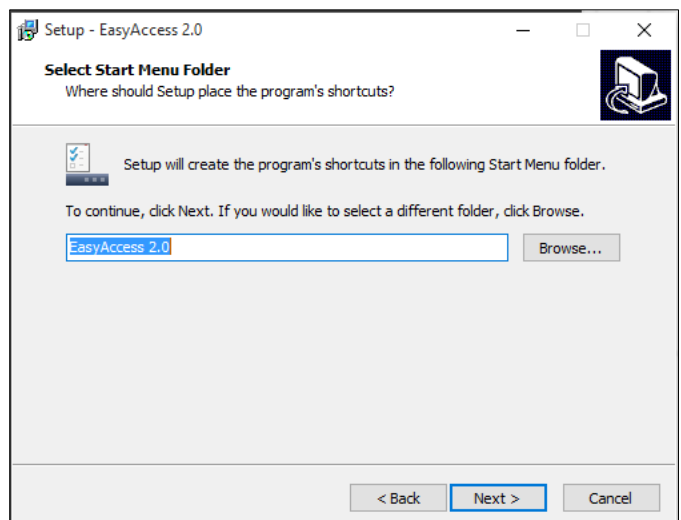
1. Download the setup.exe file from EasyAccess 2.0 homepage and open it. Select the language for the installation process, and then click [Next]. If there is a previous version of EasyAccess 2.0 on the PC, please remove it before installation.



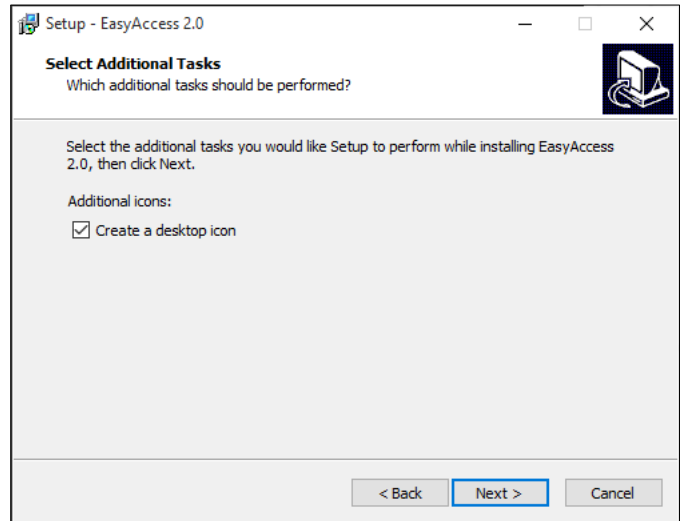
2. Select a folder for EasyAccess 2.0 installation, or use the default folder. Click [Next].



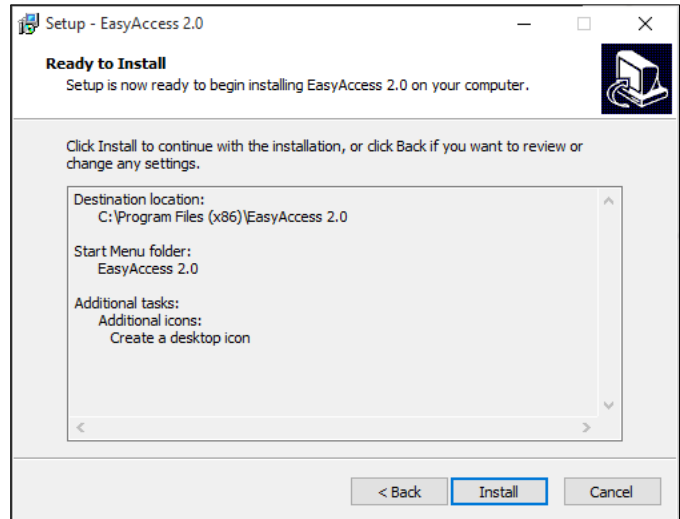
3. Select a start menu folder, or use the default folder. Click [Next].



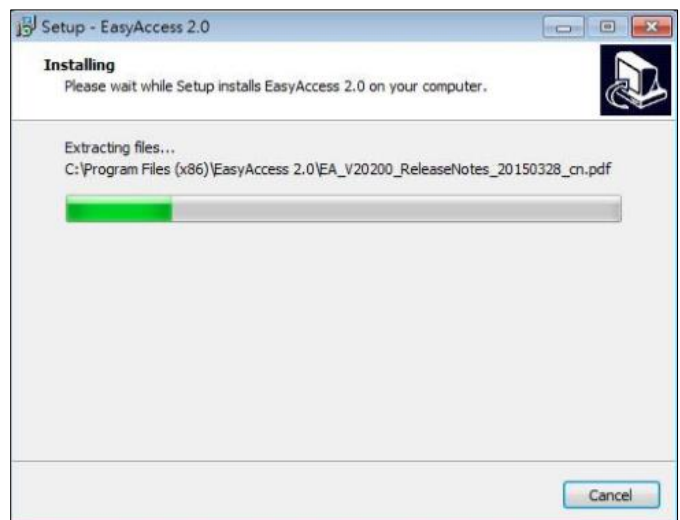
- 4. Select additional tasks, for example: [Create a desktop icon]. Click [Next].



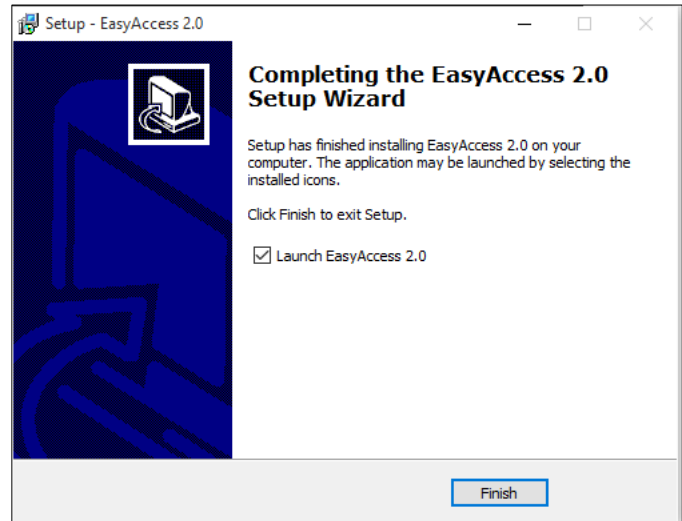
- 5. Confirm all setting. To change the setting, click [Back]. To start installation, click [Install].



- 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 an RMI5010 or HMI5150DXL to view screens on the 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 that activates EasyAccess 2.0 for any HMIs on the local area network.
EA_V2xxxx_ReleaseNotes (pdf)	Release notes documenting important changes of EasyAccess 2.0 to date.

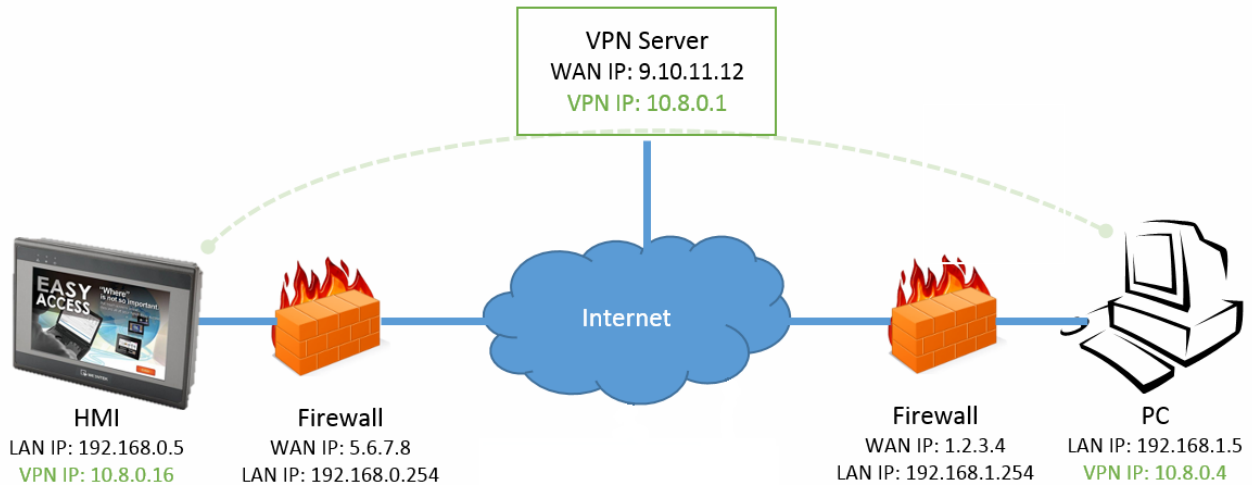


## Chapter 3 - Getting Started

### Understanding EasyAccess 2.0

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

Traditional remote connection (blue links)	EasyAccess 2.0 (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 is exchanged.
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

### Understanding Domain, HMI Group, and User

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

**Activation:** The first step towards using EasyAccess 2.0. Each HMI has its EasyAccess 2.0 feature disabled by default, and must be activated in order to use the feature. A purchased license is used to activate any one of the supported models. Once an HMI has been activated, its license cannot be transferred to another HMI.

**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>). Once a user is assigned to a domain account, he uses the EasyAccess 2.0 application to log in to his account.

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

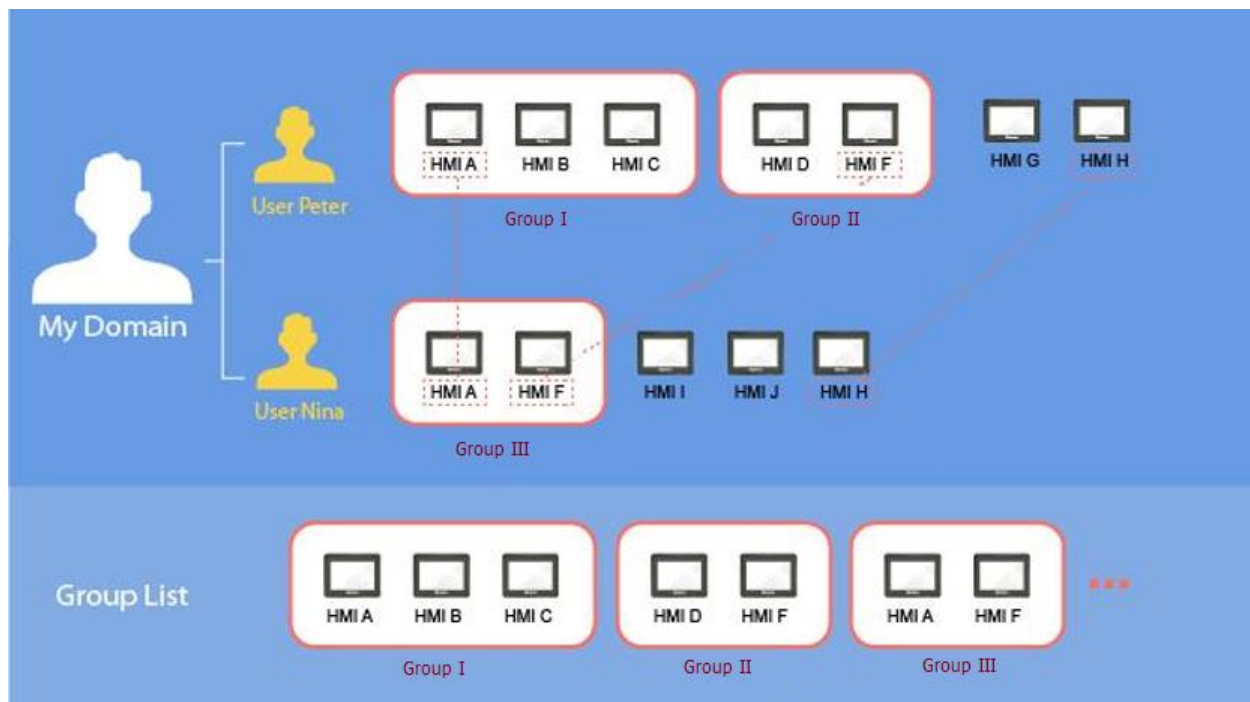
**User:** A user holds the account used to login in to the EasyAccess 2.0 program. They are allowed access to HMIs for which it has direct association, and also HMIs within the group it is associated with. User's relationship with HMIs and HMI Groups are managed by the Domain Admin.

The primary 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.
- HMIs are grouped together as Group I, Group II, Group III..., and one HMI belongs to more than one group. (HMI A)
- Users can belong to many groups, and have access to the HMIs in the groups they belong to. (User Peter & Group I)
- Users can be directly associated with HMIs 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 Administrator. The Domain Management System allows many options in domain management.

## Setup Checklist



Please review the following checklist to start using EasyAccess 2.0. See relevant sections describing the functions in detail.

Check	Relevant Section
✓ The HMI must be activated.	<a href="#">Chapter 4 - Activate an HMI</a> or <a href="#">Chapter 15 - PC Activator</a>
✓ The HMI must be registered in a Domain.	<a href="#">Chapter 5 - Adding an HMI to a Domain</a> or <a href="#">Chapter 6 - Manage the Domain</a> or <a href="#">Chapter 15 - PC Activator</a>
✓ The HMI must be programmed to go online.	<a href="#">Chapter 7 - Connect the HMI to EasyAccess 2.0 Server</a>
✓ The user must have a user account which is associated with an HMI.	<a href="#">Chapter 6 - Manage the Domain</a>
✓ EasyAccess 2.0 must be installed.	<a href="#">Chapter 8 - EasyAccess 2.0 PC client Program</a>

After the DMS is setup, the user may then initiate remote connection to the HMI!

[Chapter 9 - Connect to the HMI by EasyAccess 2.0](#)

[Chapter 13 - EasyAccess 2.0 on Android](#)

[Chapter 14 - EasyAccess 2.0 on iPad](#)

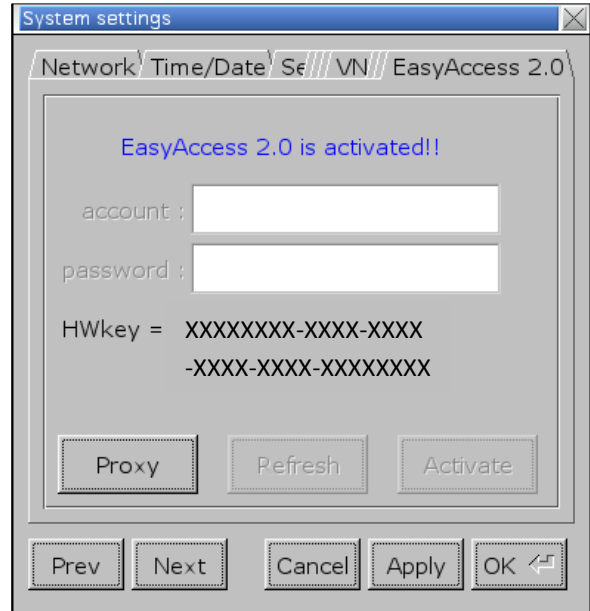
## Chapter 4 - Activate an HMI

The HMI must have been activated in order to be connected using EasyAccess 2.0. Check its activation status on the HMI in the [EasyAccess 2] tab of the [System settings] page.

Your HMI may have been activated already. If not, you must purchase an Activation Card from Maple Systems. Then the HMI can be activated by one of the following means:

- Go to your Domain Management System web page (<https://account.ihmi.net/domain/> and log in to your DMS account as administrator). This is the most common method- it allows you to activate and register the HMI to your Domain in the same session.
- Use PC Activator that is included with EasyAccess 2.0 (start the PC Activator application on your PC- make sure all HMIs to be activated are on same local area network). This method automatically reads the HWkey from each HMI that is activated.

In each instance, the HMI Hardware key is required. Locate it in the [EasyAccess 2] tab of System Settings or System Register LW-11210 (ASCII object- 20 words).



Activation Status and Hardware Key

### With an Activation Card

If you have an activation card, you may activate the HMI with the Activation code printed on the card through your Domain Management System.



Activation Card

1. Visit the EasyAccess2.0 DMS (Domain Management System located at <https://account.ihmi.net/domain>) and login to your Domain with your admin credentials.

- In the [Devices] tab, click the HMI List, then [+ Add HMI]. Select 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.*

*Therefore, [Chapter 5. Add an HMI to a Domain](#) can be skipped.*

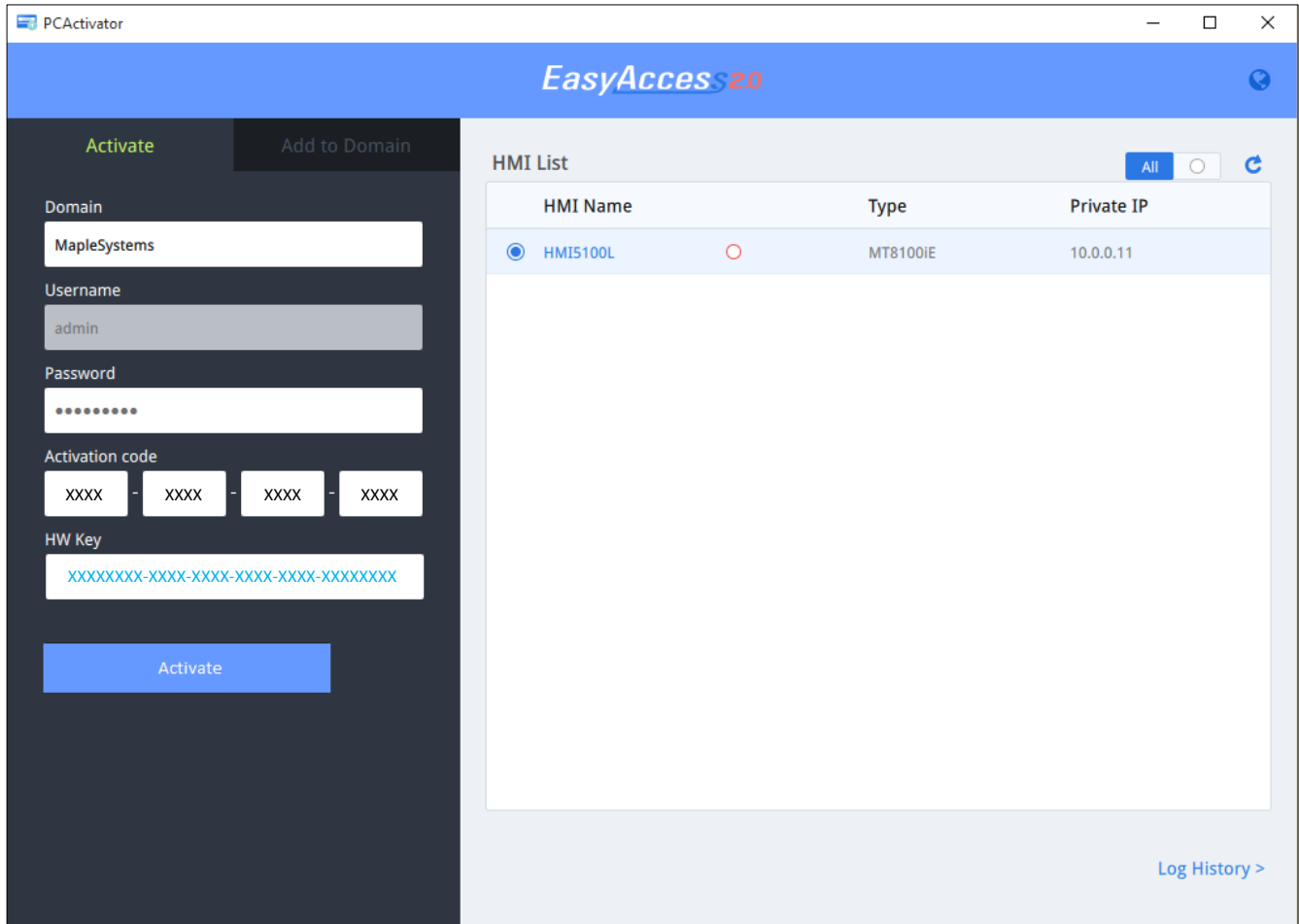
Activation using activation card on DMS

### With an Activation Card on PC Activator

Alternatively, you can use the application “PC Activator” that is installed with EasyAccess 2.0:

- Run PC Activator, then click on the Activate tab.
- Enter Domain Admin’s credentials.
- Enter the Activation code listed on the Activation Card.
- From the HMI list, select the one to be activated. The HW key will be loaded to the display field.
- Depending on the HMI’s current activation status, the button below may show “Activate”, “Already activated” or “Not Supported”.
- Click on the “Activate” button to complete activation.

Note: Support for PC activator varies among different model and OS versions.



PC Activator

### Trial Activation

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

1. Visit the EasyAccess 2.0 DMS website (<https://account.ihmi.net/domain>) and login to your Domain with your credentials.
2. In [Devices] tab >> [Add HMI], choose the Action Type [30 day free trial], and then enter the Hardware key.

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

## Chapter 5 - Adding an HMI to a Domain using the Session ID/Password

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

When an HMI is activated using an activation card, it is automatically added to that domain in which it is activated. This can be done by going to the EasyAccess 2.0 DMS website (<https://account.ihmi.net/domain>) or by using the PC Activator utility. However, you may have an occasion to remove (de-register) an activated HMI from a particular domain so that it can be registered in another 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. 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.

### How to find Session ID/Password?

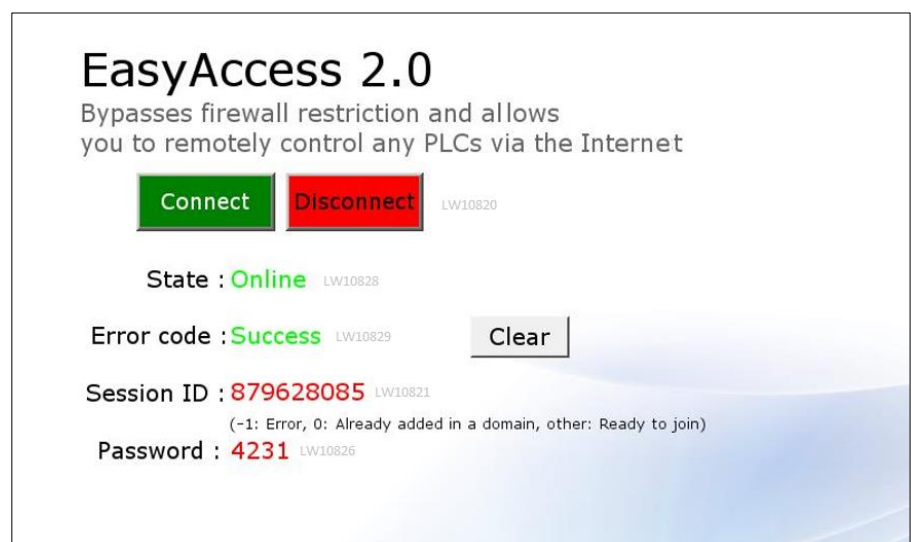
A Session ID and Password is generated uniquely for each HMI that is connected to the EasyAccess 2.0 server. If an HMI is activated but does not belong to a domain, you can determine the Session ID and Password by providing an internet link (access to the web) to the HMI.

1. First, create and download an EZwarePlus 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 is available in the EasyAccess 2.0 Demo project and the template files of the HMI.**
2. Let the HMI go online by setting [LW-10820] to ON.
3. Once successfully connected, the HMI will display the Session ID/Password.

Note: Review [Appendix- Example for preparing EasyAccess 2.0 page](#) for more information.

Note: It is also possible to determine the Session ID/Password using the EasyWatch application in the Utility Manager or EZwarePlus.

EasyWatch allows users to monitor the HMI or PLC address values via Ethernet connection to the PC. For more information, consult the EZwarePlus Programming Manual.



Demo Project screen on HMI showing Session ID/Password

### Add to domain by Session ID/Password

With the Session ID and Password, go to your DMS page and log in as the administrator. Under the “Devices” tab, click “+ Add HMI”, and then select “Add by session id/password” under Action Type. Enter the Session ID/Password and notes if needed.

The screenshot shows a dialog box titled '+ Add HMI' from MapleSystems. The 'Action type' dropdown is set to 'Add by session id/password'. The 'Session ID' field contains '879628085' and has a red asterisk. The 'Password' field contains '4231' and also has a red asterisk. There are three 'Custom Field' inputs: 'Custom Field1' with 'MyHMI', 'Custom Field2' with 'Location: Anywhere, USA', and 'Custom Field3' with 'First Install'. A note on the right states 'HMI will have Session ID/password if the HMI does not belong to any Domain'. At the bottom right, there are 'Assign' and 'Close' buttons.

Add to Domain by Session ID/Password



## Chapter 6 - Manage the Domain

Go to <https://account.ihmi.net> to create your domain management system.

### Domain Creation

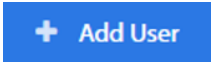
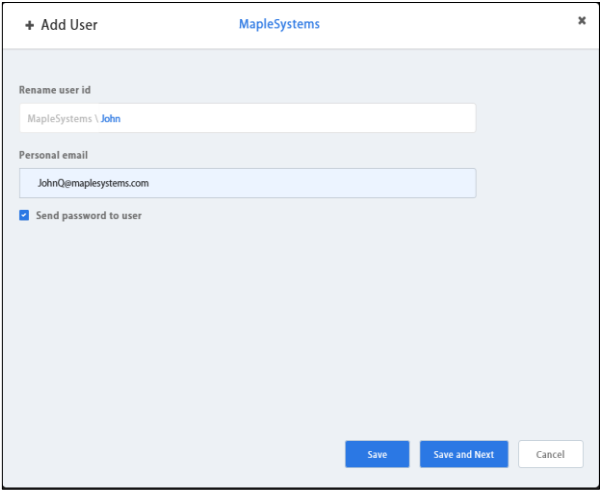

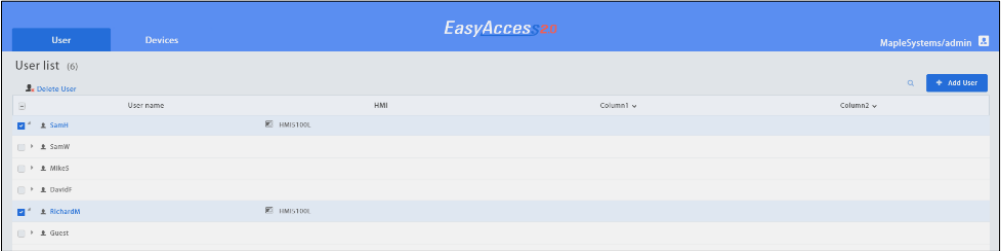


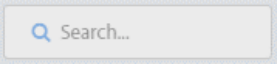

Anyone can create a new domain for free. A valid e-mail address is required.

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.

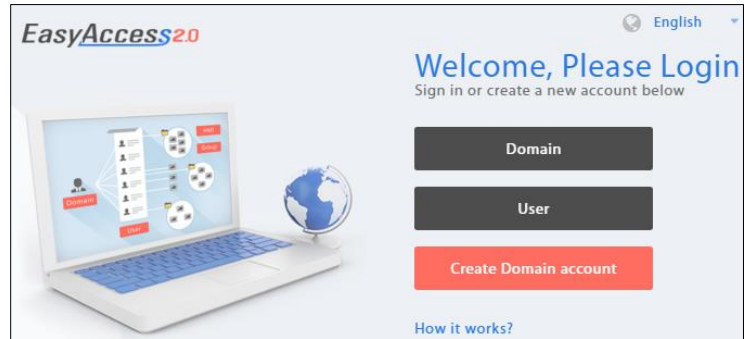
List of Users

Icon	Function
	<p>The Admin can create a new user ID in this window by providing an email address. Password information will be sent along with a confirmation email to the address provided.</p> <p>The new user must confirm registration by following the link in the mail to complete registration.</p> 
	<p>The Admin can edit the HMI and HMI Group association for the selected user.</p> <p><b>HMI/HMI Group » HMI</b> Edit the selected user’s association with HMIs.</p> <p><b>HMI/HMI Group » Group</b> Add/Remove the selected user to/from HMI Groups.</p>  <p><b>Account Setting</b> View information about this user account, and edit description and email information.</p>
	<p>Delete the selected user from this domain</p>
	<p>Create a user with the same HMI/HMI Group association</p>
	<p>Search for a user by name</p>
	<p>A user whose name has a red exclamation mark beside indicates that the user is not assigned to any HMI.</p>

### 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.

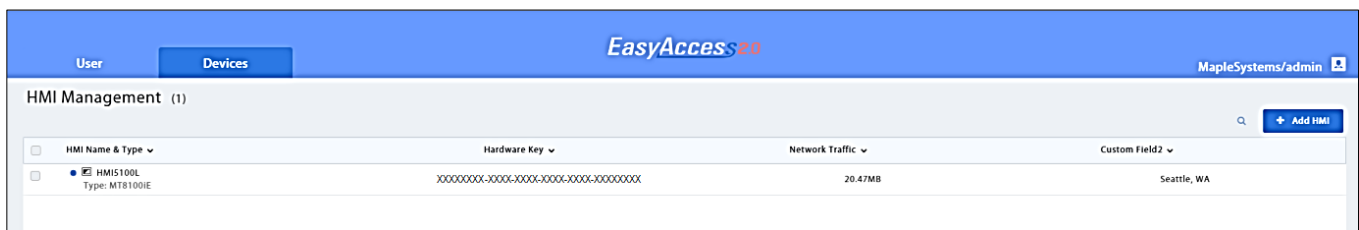
To do so, visit the [homepage](#) of the domain management system (DMS) and select User Login. Follow the on-screen guidance and change the password.



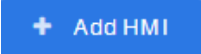
User Login






### 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
	<p>Add a new HMI to the domain</p> <p><b>Action type » Using activation card</b>                      Activate the HMI and add it to the current domain. Hardware key and activation code are required.</p> <p><b>Action type » activate by session id/password</b>                      Add the HMI to the current domain by Session ID/Password. Session ID/Password is required.</p> <p><b>Action type » 30 day free trial</b>                      Activate a 30 day free trial for an HMI. The HMI will be permanently bound to the domain in which the 30 day 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.</p>

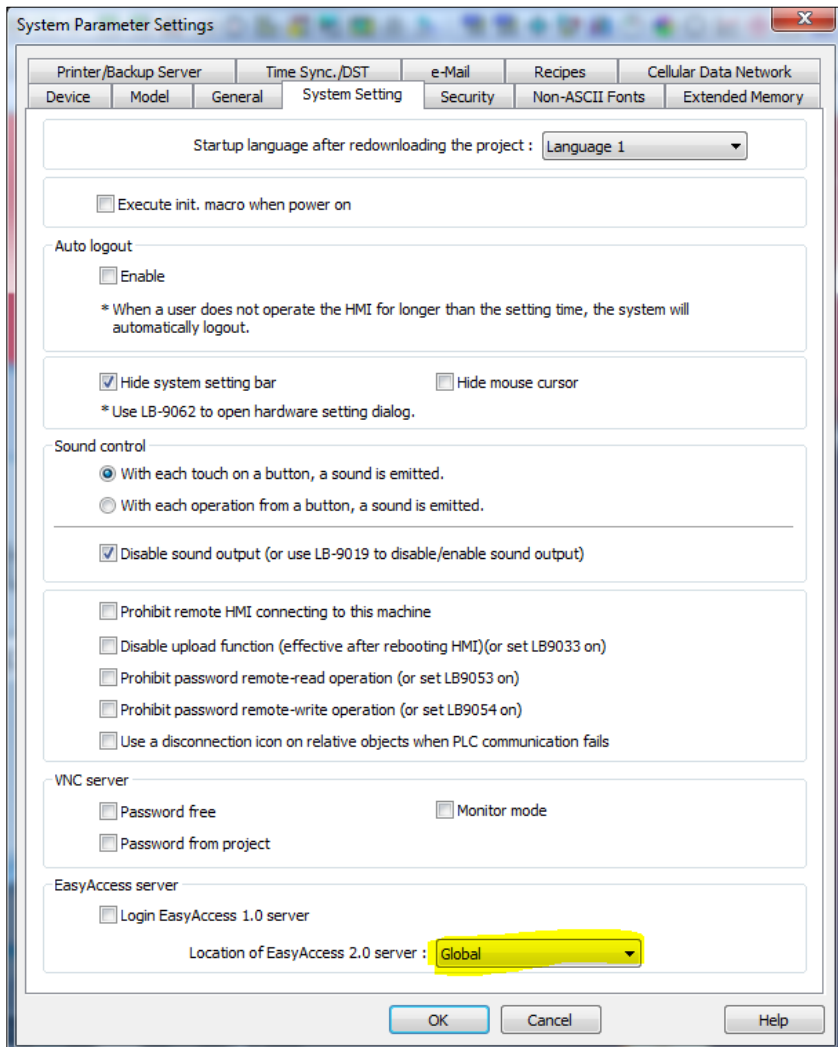
 Edit HMI	<p>Edit the selected HMI</p> <p><b>User/HMI Group tab » User</b> Edit user association with the selected HMI.</p> <p><b>User/HMI Group tab » HMI Group</b> Add/Remove the selected HMI from the HMI groups.</p> <p><b>Activation Information</b> View Hardware key and other information about this HMI.</p>
 Delete HMI	<p>Delete the selected HMI from this domain. Once deleted, the HMI can be added to another domain with a new session id/password.</p>
<input type="text" value="Search..."/>	<p>Search for HMI by name. Enabling filter function will show only assigned / unassigned or all HMIs.</p>
	<p>Create a new HMI group</p>
 Edit Group	<p>Edit the selected HMI group</p> <p><b>HMI/User tab » HMI</b> Add/Remove HMI from the selected group.</p> <p><b>HMI/User tab » User</b> Edit user association with the selected group.</p> <p><b>General Setting</b> View information about this HMI group.</p>
 Delete Group	<p>Delete the selected HMI group</p>

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

## Chapter 7 – Using the EasyAccess 2.0 Application

### Selecting Server in EZwarePlus

In EZwarePlus, you can select the location of which EasyAccess 2.0 server you will use. This setting is located in the [System Parameter Settings]>>[System Setting] tab. Options are: *Global* and *China*. Or you can select this option by creating a Numeric or Set Bit object on an HMI screen set to LW-11296 (0 for Global, 1 for China).



Note: Since the Global and China domains use different servers, it is important that you select the correct option. **Activation cards from Maple Systems require that you select the Global Server option.**

With an activated HMI that is registered to a domain, each domain user should now be able to use the EasyAccess 2.0 application to log in to his account and access any HMIs that are assigned to him.

### EasyAccess 2.0 PC client program

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

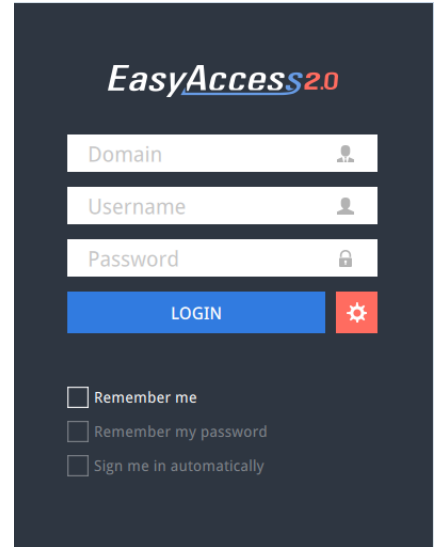
Download the software from Maple Systems [Support Center](#).

**Installing adapters**

During the first program run, the software will detect whether necessary adapters 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**

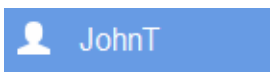





Once successfully logged in, the main screen will show all HMIs for the user and their online status. HMIs that are online will have a connect button and a setting button. There is no limit on the number of HMIs that can be simultaneously connected from the program. However, once an HMI is connected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



EasyAccess 2.0 Main Screen

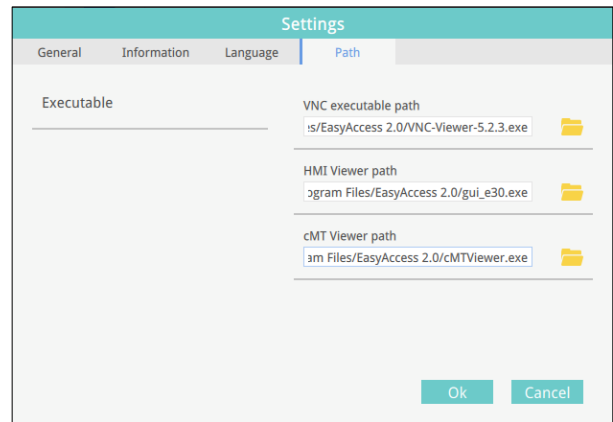
connection has been terminated.

Functions of icons on Main screen:

Icon	Function
	Logged in user name
	HMI search filter
	Tile view/List view
	Settings
	Logout of current user
	Displays connection and gui logs

### Settings

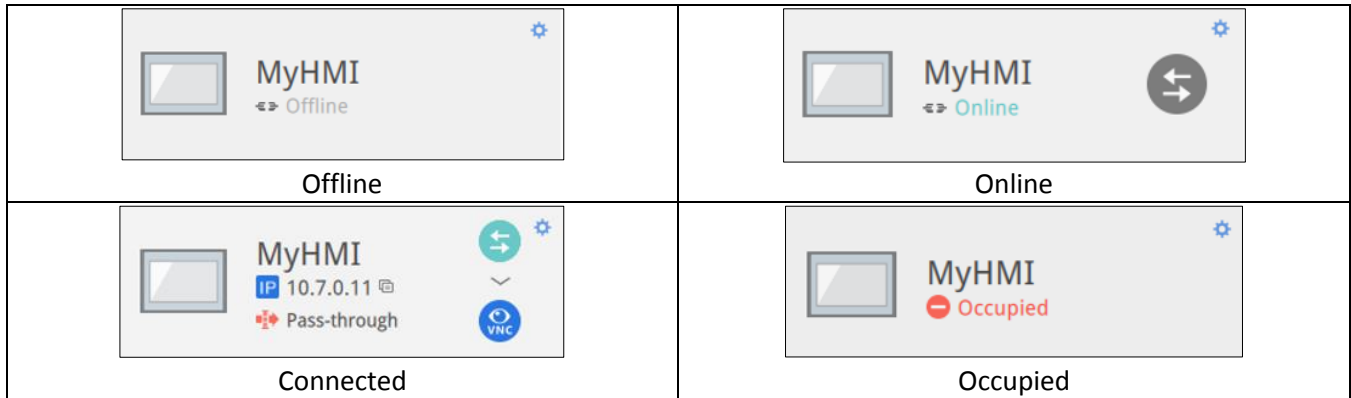
Tab	Description
General » Network traffic	Enable/Disable traffic display under the HMI
Information	Software version
Language	Select the language: English, French, Italian, Spanish, Russian, Simplified Chinese, Traditional Chinese, Korean, and German.
Path » Executable	<p>Select executable (*.exe) path for VNC Viewer, HMI Viewer, and cMT Viewer, used to launch the viewers when connections are established.</p> <p><b>VNC executable path</b> Location of the .exe executable of the VNC viewer. VNC viewer must be installed separately.</p> <p><b>HMI Viewer path</b> Location of the GUI (gui_e30.exe).</p> <p><b>cMT Viewer path</b> Location of the cMT Viewer, for use with RMI5010.</p>



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 EZwarePlus.

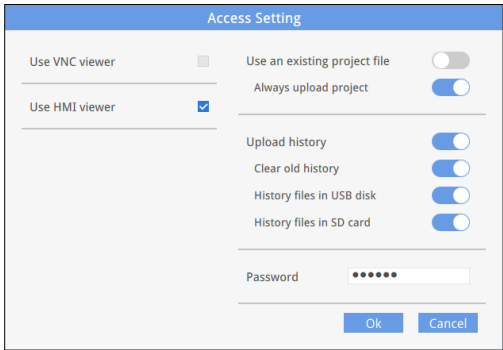
### HMI States and Access Setting

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



The usage or meaning of each icon:

Icon	Function
	HMI name
	Virtual IP address. Click to copy the IP address to clipboard.
	Set up pass-through IP address
	Connect to the HMI
	Disconnect from the HMI
	Access the HMI with VNC viewer (installed separately).
	Access the HMI with HMI Viewer
	<p>Enter access setting of the HMI, which allows from using of VNC Viewer or HMI Viewer.</p> <p>To use VNC Viewer, set executable path in Settings page.</p> <p>To use HMI Viewer, set executable path in Settings page.</p> <p>Also, set how project upload and history should be handled.</p>



HMI Viewer Settings



### 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 addition to viewing them here, it is also possible to save the logs as a file.

*Note: GUI is the necessary component for running the HMI Viewer*

TYPE	TIME	CONTENT
📶	2016-02-12 13:17:56 936	HMI5100L Traffic Usage: 20995 KB
📶	2016-02-12 13:17:54 844	HMI5100L change state to online
📶	2016-02-12 13:16:59 051	HMI5100L Traffic Usage: 20995 KB
📶	2016-02-12 13:12:02 797	Successful ARP Flush on interface [16] {XXXXXXXX-XXXX-XXXX-XXXX-XXXXXXXXXXXX}
📶	2016-02-12 13:12:02 696	Notified TAP-Windows driver to set a DHCP IP/netmask of 10.8.128.148/255.255.0.0 on interface {XXXXXXXX-XXXX-XXXX-XXXX-XXXXXXXXXXXX}[DHCP-serv: 10.8.0.0, lease-time: 31536000]
📶	2016-02-12 13:12:02 610	TAP-Windows Driver Version 9.9
📶	2016-02-12 13:12:02 508	TAP-WIN32 device [Weintek EasyAccess Adapter] opened: \\.\Global\ {XXXXXXXX-XXXX-XXXX-XXXX-XXXXXXXXXXXX}.tap
📶	2016-02-12 13:12:02 423	open_tun, tt->ipv6=0
📶	2016-02-12 13:12:02 321	do_ifconfig, tt->ipv6=0, tt->did_ifconfig_ipv6_setup=0
📶	2016-02-12 13:12:02 202	OPTIONS IMPORT: route-related options modified
📶	2016-02-12 13:12:02 099	OPTIONS IMPORT: --ifconfig/up options modified

Connection Logs

### Usage Display






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

HMI5100L  
 IP 10.8.220.158  
 Pass-through  
 20.50MB

Usage Display

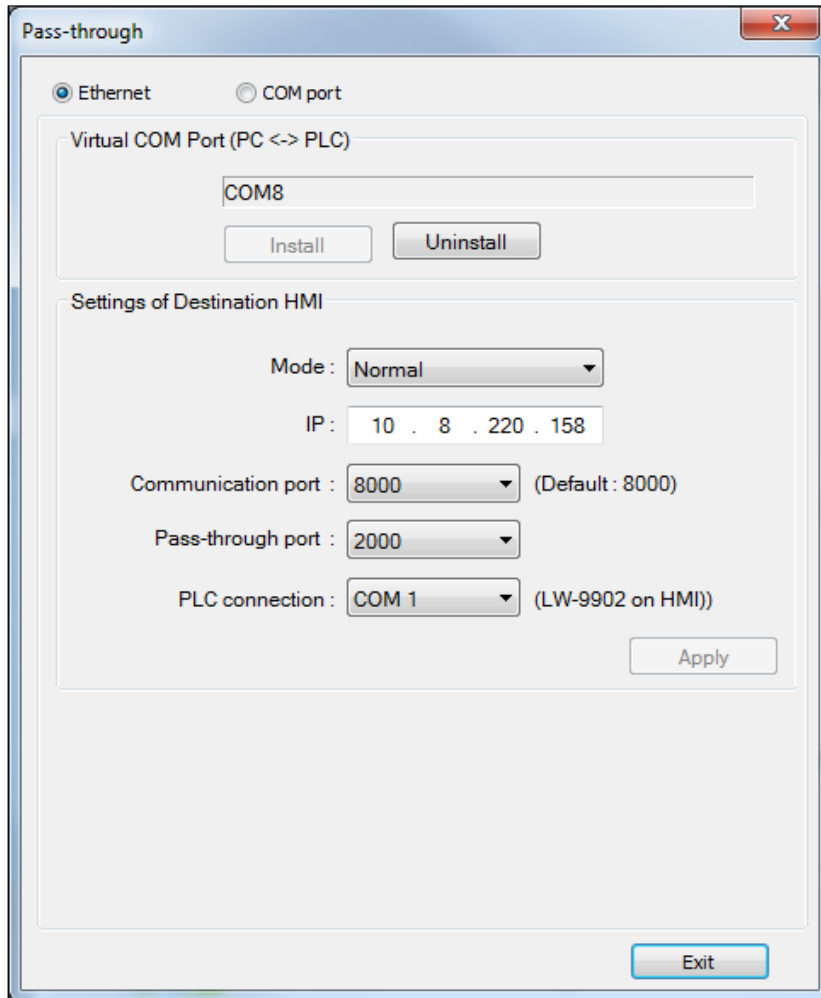
## Chapter 9 - Connect to the HMI by EasyAccess 2.0 on PC

Step-by-step for establishing EasyAccess 2.0 connection.

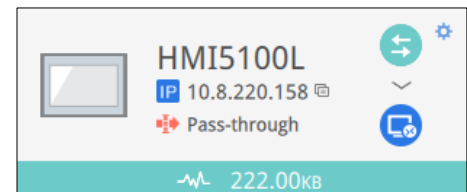
	1. Launch EasyAccess 2.0.exe.
	2. Enter Domain name, Domain user's username and password, and then click [Login].
	3. Once logged in, the program will list HMIs assigned to each user and status.
	4. Click on connect button to establish connection to an online HMI. Once connected, the virtual IP address will be displayed. It is now possible to connect directly to the HMI by net services such as VNC, HMI Viewer, or FTP.
	5. When finished, click on disconnect button to terminate the connection.

## Chapter 10 - Pass-through with EasyAccess 2.0

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 an application 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.

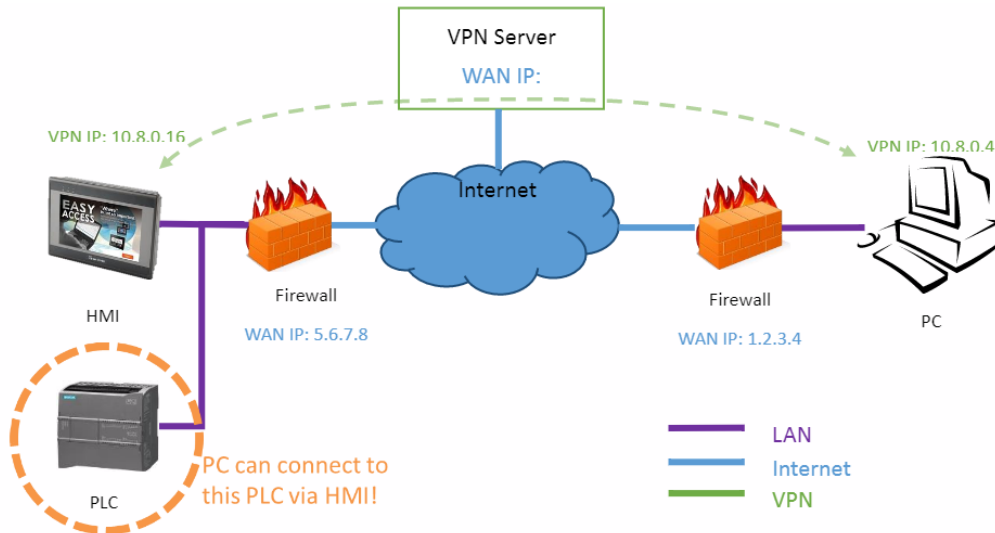


Pass-through setting in Utility Manager



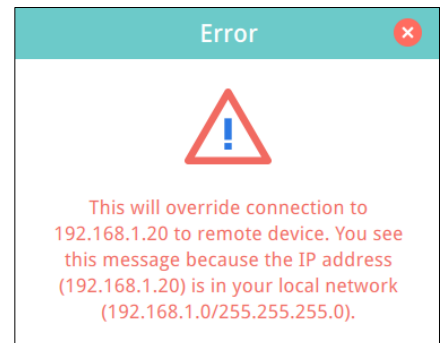
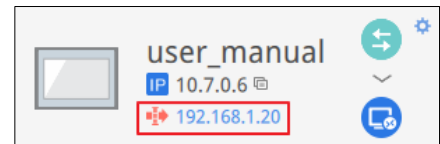
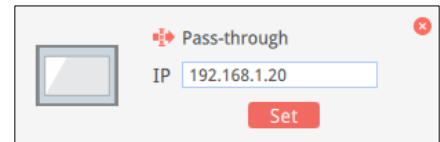
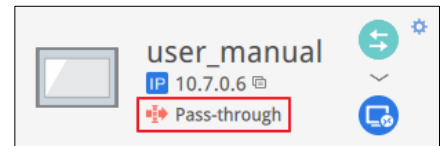
## Chapter 11 - Pass-through Connect to a remote PLC on the HMI network (Ethernet pass-through)

EasyAccess 2.0 not only makes possible direct connection to a Maple 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.
3. Once connected, the IP address of the PLC will be shown. The user may now launch the PLC program.

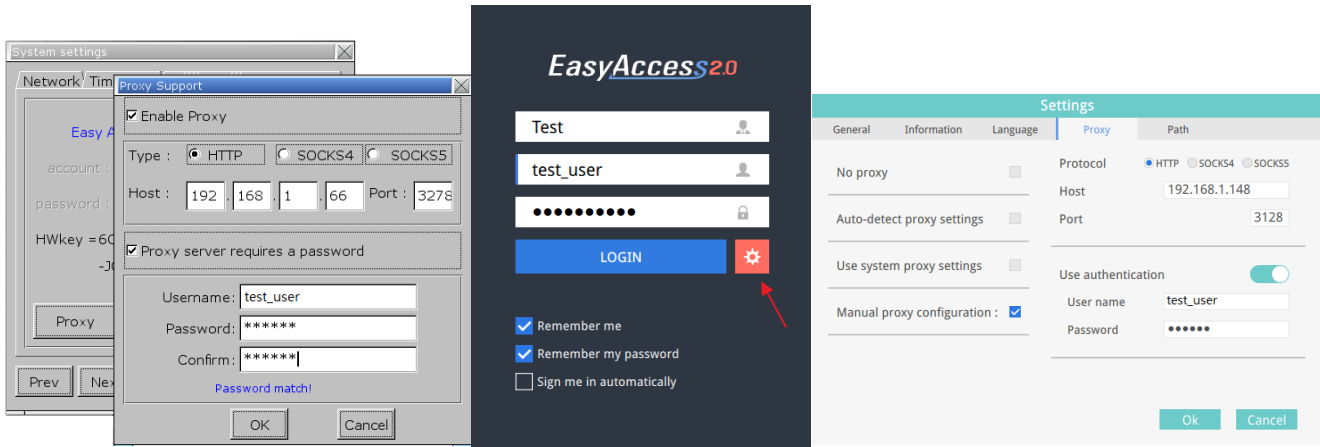


If the remote PLC and the local computer have the same private IP address range, a warning will appear, indicating that subsequent connection to the PLC’s IP address will be directed to the remote device instead of the local device if there is any.

## Chapter 12 - 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:

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



## Chapter 13 - 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 a remote HMI. Even though the user-interface and available options on an Android device maybe slightly different from a PC, the connection steps are as simple and straight-forward.






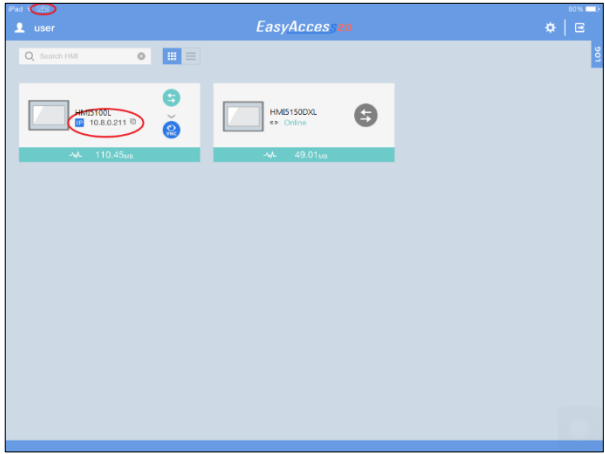

EasyAccess 2.0 on Android requires Android version 4.1.2 or later.

### App Download

In addition to the main app EasyAccess 2.0, the OpenVPN Connector application is required. Please download the apps (both are free) from the App store and install.

Icon	App Name	App Provider
	EasyAccess 2.0	Weintek Labs, Inc.
	EasyAccess 2.0 OVPN Connector	Weintek Labs, Inc.

### 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 HMIs and status.
	4. Click on connect button to establish connection to an online HMI.
	<p>5. Once connected, 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.</p> 
	6. When finished, return to EasyAccess 2.0 app and click on the disconnect button to terminate the connection.



## Chapter 14 - EasyAccess 2.0 on iPad

EasyAccess 2.0 is available on iOS for iPad. 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.





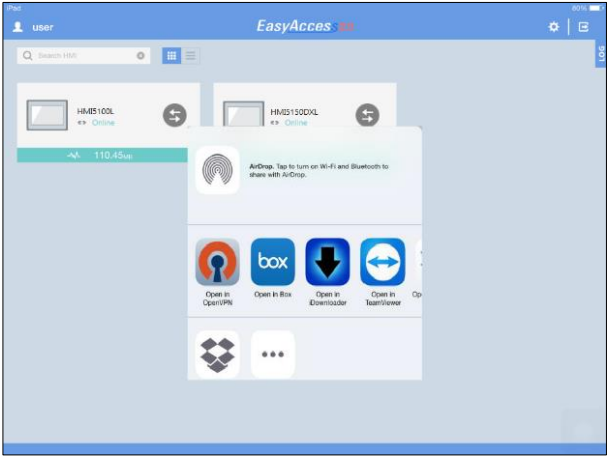
EasyAccess 2.0 on iPad requires iOS version 7.0 or later.


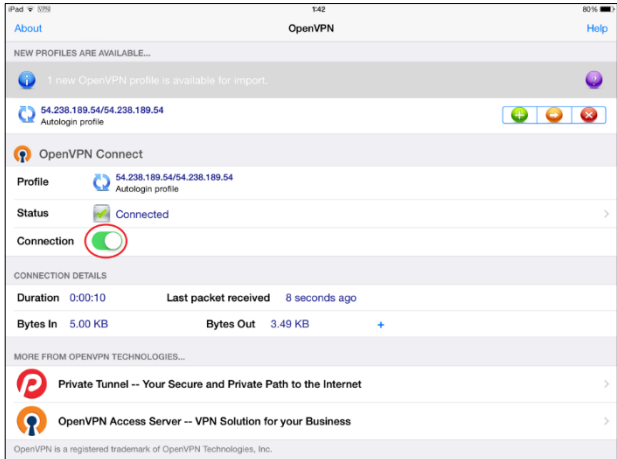

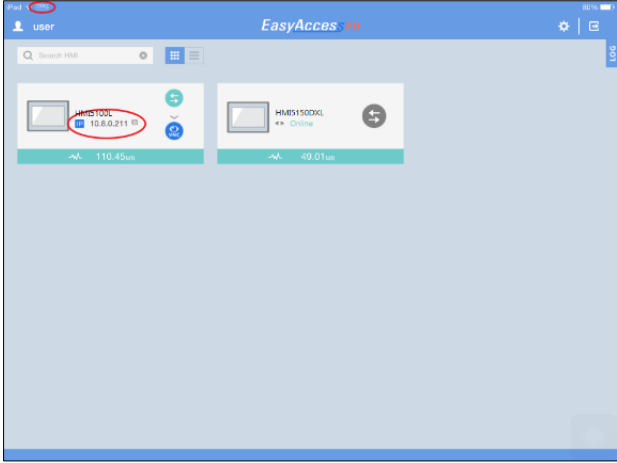

### Download from the app store

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.

Icon	App Name	App Provider
	EasyAccess 2.0	Weintek Labs, Inc
	OpenVPN Connect	OpenVPN Technologies

### 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 HMIs and status.
	4. Click on connect button to establish connection to an online HMI. Dialogue will show with action buttons. Click "Open in OpenVPN." 

	<p>5. In OpenVPN app, add the login profile, and toggle the connection button to initiate connection.</p>	
	<p>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.</p>	
	<p>7. When finished, click on disconnect button to terminate the connection.</p>	



## Chapter 15 - 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 an 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
- Adding an HMI to a domain

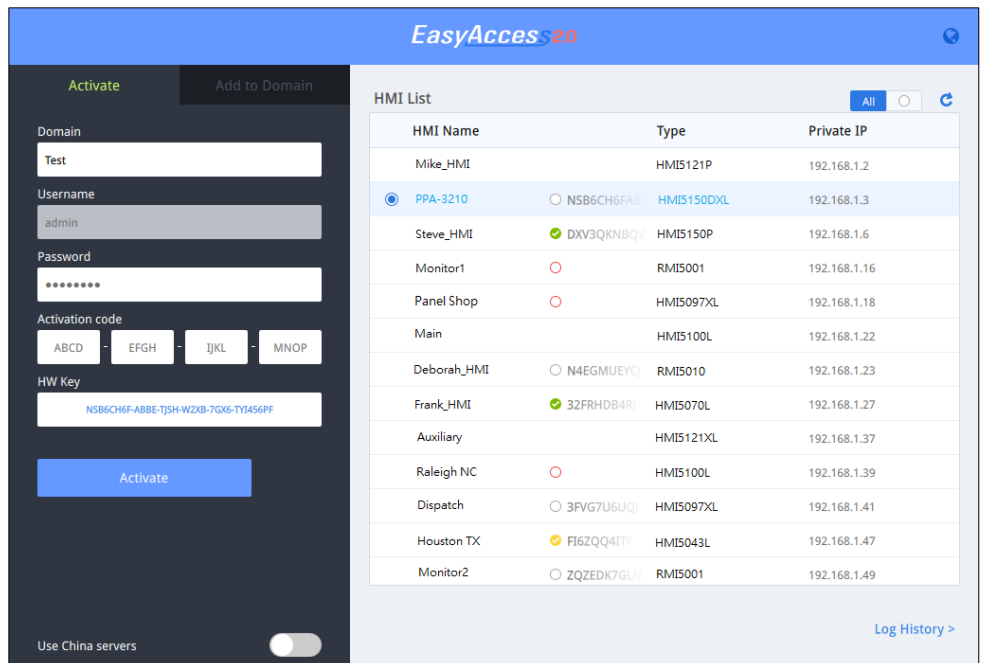
### Activation


<p><b>LOGIN</b></p> <p><input type="radio"/></p>	<ul style="list-style-type: none"> <li>• Enter the Domain name, password, and activation code</li> <li>• Select an HMI from the HMI list. It is possible to activate ones with the <input type="radio"/> icon. Its hardware key will be retrieved and shown.</li> </ul> <p>List of icons:</p> <ul style="list-style-type: none"> <li><input checked="" type="radio"/> : HMI is activated and assigned to a domain.</li> <li><input checked="" type="radio"/> : HMI is activated but not assigned to a domain.</li> <li><input type="radio"/> : HMI is not activated. It can be activated in PC Activator.</li> <li><input type="radio"/> : HMI's OS version does not support PC Activator. OS upgrade may solve this problem.</li> <li>No icon: HMI does not support PC Activator.</li> </ul>
<p><b>Activate</b></p>	<p>Click the Activate button.</p>

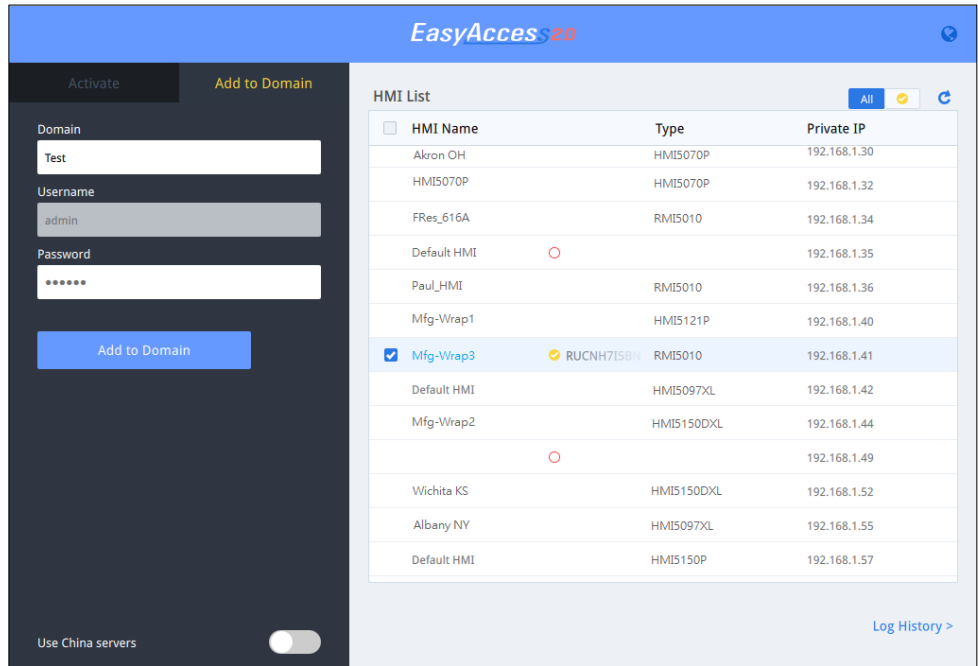
Note: the "Use China servers" option is not available for Maple Systems HMIs.

### 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 an icon of , indicating that it has been activated but not assigned to a domain yet, can be selected and added to the Domain.



### OS Support

HMI OS that supports PC Activator (current as of January 2016)

Model	OS version or later
HMI5070P	TBA
HMI5070Pv2	20150603
HMI5121P, HMI5150P	TBA
HMI5070L, HMI5070LB, HMI5070DL, HMI5100L	20150508
HMI5043L, HMI5043LB, HMI5070NLv2	20150527
HMI5097NXL, HMI5097XL, HMI5097DXL	20150603
HMI5121XL, HMI5150XL	20150603
RMI5001	20150508
RMI5010	20151127

## Chapter 16 - Frequently Asked Questions

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: This depends upon the extent of the repair. Please notify our customer service department that the HMI sent in for repair has an EasyAccess 2.0 license when receiving an RMA#.

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 the [PC Activator – OS Support](#) section.

Q: I do not see the EasyAccess 2 tab.

A: Please check the HMI’s OS and refer to [References – Model and OS Support](#) section.

Q: On the EasyAccess 2 tab, it says “Connection to the server failed?” 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 the 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:

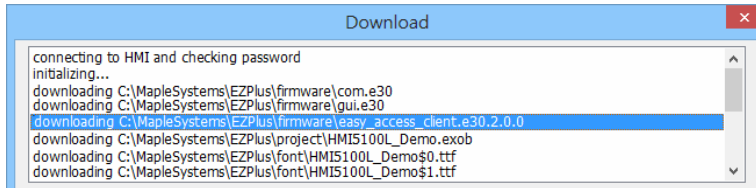
1. Using the latest version of EZwarePlus, download the EasyAccess 2.0 Demo project (or any project which allows LW-10820 to be set to 1) to the HMI. When downloading, make sure the EasyAccess 2.0 option is checked.
2. On the HMI, click the “connect” button (or set LW-10820 to 1); security certificate update will begin.
3. Check the activation status again in the system information page.

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

A: Yes, it is perfectly normal. EasyAccess 2.0 connections are established on demand, consequently the VPN IP address may change. On PC or Android devices, any 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 mode to use based on current network conditions.

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

A: Please make sure that the EasyAccess 2.0 client program is in the HMI. It should have been downloaded to the HMI during project download. If not, check the version of EZwarePlus used and whether `easy_access_client.e30` is in the firmware folder.



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

A: If you obtained EasyAccess 2.0 from our website, you can rest assured that the software is safe. Click on "More info", and then click "Run Anyway" to continue.

## Chapter 17 - References

### System Restrictions

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	See " <u>Occupied</u> " status in Appendix.
# of HMIs a user can connect to at a time	Unrestricted
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
HMI5070P	20140624
HMI5070Pv2	All versions
HMI5121P, HMI5150P *	20140701
HMI5070L, HMI5070LB, HMI5070DL, HMI5100L	20140626
HMI5043L, HMI5043LB, HMI5070NLv2	20140624
HMI5097NXL, HMI5097XL, HMI5097DXL	All versions
HMI5121XL, HMI5150XL	20140624
RMI5001	20140815
RMI5010	20140715

\* EasyAccess 2.0 is not available for HMI5121P and HMI5150P shipped prior to June, 2012.

## Appendix

### Terminology

#### (Online Status) Online:

When an HMI goes on-line, it continuously sends information to the authentication server and lets all EasyAccess 2.0 clients know it is ready for connection. In this state, there is no connection between the HMI and an EasyAccess 2.0 client.

#### (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.

### EZwarePlus System Tags

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

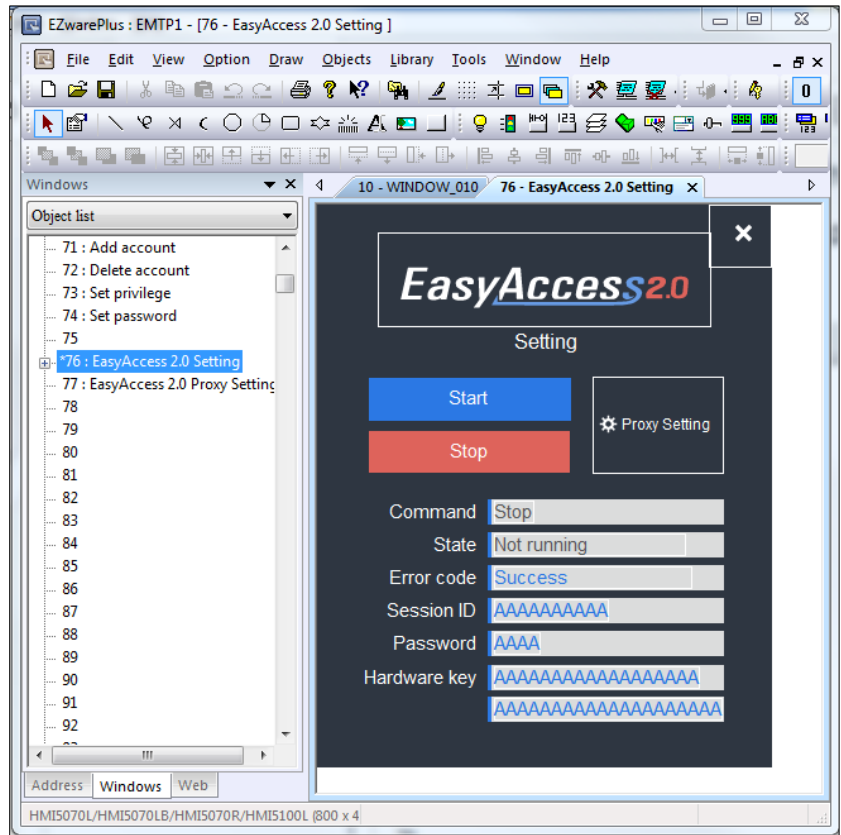
System Tag	Function
<b>LW-10820 (16bit)</b>	Connect/Disconnect EasyAccess 2.0 0: Disconnect 1: Connect
<b>LW-10828 (16bit)</b>	EasyAccess 2.0 Online Status 0: Disable 1: Offline 2: Online 3: Occupied 4: Download client update
<b>LW-10829 (16bit)</b>	Error code provides information about error status while the HMI is going online using 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 Maple Systems.) 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)
<b>LW-10821 (5 words, ASCII)</b>	Session ID. This is used to add an HMI to a Domain.
<b>LW-10826 (2 words, ASCII)</b>	Session Password. This is used to add an HMI to a Domain
<b>LW-11210 (20 words, ASCII)</b>	Hardware Key
<b>LW-11296 (16 bit)</b>	Location of EasyAccess 2.0 server 0: Global 1: China

Note: Demo pages using these system registers have been added to the template file in EZwarePlus. Look for them when opening a new file to save time in your project design. Refer to the example on next page.

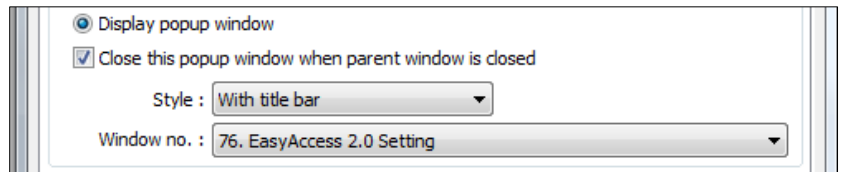
### Example for preparing EasyAccess 2.0 page

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

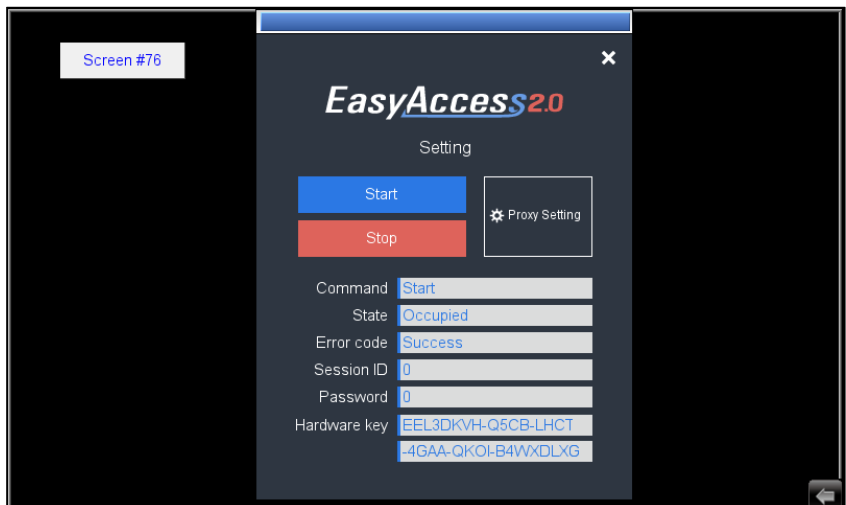
1. Create a new project using templates, and you can see window #76 as below:



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.
5. Click "Start" button. If the network setting of the HMI is correct, the state will be online like the following:



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