

GE's HMI-SCADA for iOS®

GETTING STARTED
ON THE APPLE® iPad®, iPhone®, OR iPod® TOUCH CLIENT

May 2020



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About This Guide

Thank you for taking the time to install and use GE's HMI-SCADA for iOS® product on your Apple® iPad®, iPhone®, or iPod® Touch. This document describes how to use GE's HMI-SCADA for iOS client on your Apple devices.

GE's HMI-SCADA for iOS allows iFIX and CIMPLICITY customers to connect to their respective Webspaces web servers from their Apple devices. By connecting through your iPad, iPhone, or iPod Touch, you can view and interact remotely with iFIX and CIMPLICITY applications.

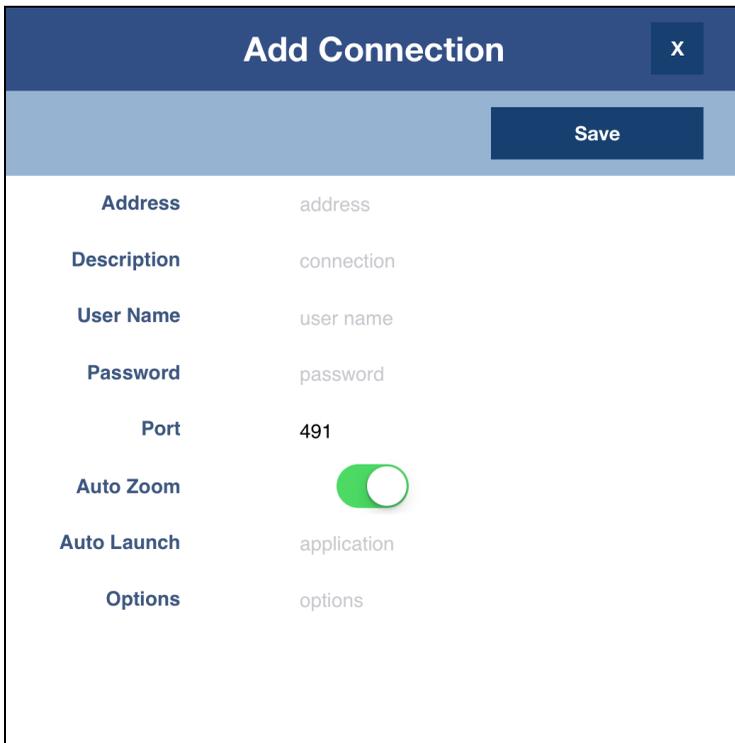
GE's HMI-SCADA for iOS application for the iPad, iPhone, or iPod Touch has been tested with:

- CIMPLICITY 9.5 or greater
- iFIX 5.9 or greater

Be aware that whenever an iPad, iPhone, or iPod Touch device is connected to a web server (Webspaces Server), one client license is consumed. The number of clients that can connect to your web server, depends on license key. For example, in the GE License Viewer Client, it's listed in iFIX as the 'Number of Web Server Connections' and in CIMPLICITY as the 'Number of GlobalView Connections.'

Running GE's HMI-SCADA for iOS

In order to connect to a web server from GE's HMI-SCADA for iOS (ProficySCADA), you must first add the connection. Tap the **Add Connection** button to enter the connection information as shown in the following figure.



Add Connection		x
		Save
Address	address	
Description	connection	
User Name	user name	
Password	password	
Port	491	
Auto Zoom	<input checked="" type="checkbox"/>	
Auto Launch	application	
Options	options	

The **Add Connection** dialog box for connecting a host

NOTE: Cached user credentials are stored securely in the iOS Keychain — a secure, encrypted storage mechanism designed to protect private data.

To open a connection

1. Tap the desired connection in the main window to open the **Connection** dialog box.
2. Tap the **Connect** button.

To edit a connection

1. Tap the desired **connection** in the main window to open the **Connection** dialog box.
2. Tap the **Edit** button.
3. Edit the connection properties, as desired.
4. Tap **Save**.

To delete a connection

1. Tap the desired **connection** in the main window to open the **Connection** dialog box.
2. Tap the **Edit** button.
3. Tap the **Delete** button.
4. Tap **Delete** in the confirmation dialog box.

Available Connection Options

There are several options available in the Connection dialog box. The following are the currently supported connection options:

- **Port Number:** While GE's HMI-SCADA for iOS sessions use port number 491 by default, this setting allows you to use a different TCP/IP port to connect to your host. The GE's HMI-SCADA for iOS host must be configured to accept connections on the specified port, and any firewalls must be configured to allow incoming connections on the specified port.
- **Auto Zoom:** Auto Zoom improves session usability by automatically zooming and panning into active windows, thereby making it easier to tap buttons and other user-interface elements in those windows. When a window is closed, the session will automatically zoom out to fit the newly

active window.

- **Auto Launch:** Auto Launch automatically launches the specified application when the session is launched. To connect to an iFIX WebSpace Server, the name provided should be “iFIX”. To connect to a CIMPLICITY server, the name should be “CimView,” “CimLayout,” or any shortcut name configured in WebSpace server administration Applications tab. The Auto Launch setting in the Favorite settings, overrides the application-level Auto Launch setting.
- **Options:** Use this field to supply additional optional parameters for the application specified in the Auto Launch field, using the `-r` command-line. For example, to specify a user screen:

For iFIX: `-r IFIX /puserscreen.grf`
where /p is the commandline, and userscreen.grf is the picture name (no space between the two).

For CIMPLICITY: `-r CIMVIEW "c:\screens\userscreen.cim"`

NOTE: *The Options command does not replace the Auto Launch option.*

The Add Host screen also allows you to enter user credentials that will be stored on your iPad, iPhone, or iPod Touch to prevent you from having to enter that information every time you connect to the host. If you do not enter user credentials, the client will prompt you for them every time you connect to the host.

NOTE: *Cached user credentials are stored securely in the iOS Keychain – a secure, encrypted storage mechanism designed to protect private data.*

After entering host information, tap the **Add** button to add the host to your devices' Favorites database. Tap the **Connect** button to connect to your host.

Application View Toolbar

After connecting to a host, the Application View toolbar is displayed at the bottom of the app.



The **Application View** toolbar

- Tap the **Power**  icon on the left side of the toolbar to disconnect the client from the host.
- Tap the **Keyboard**  icon to open/close the onscreen keyboard.
- Tap the **Auto Zoom**  icon to enable/disable Auto Zoom. When Auto Zoom is enabled, Webspace will automatically zoom and pan the view to the active application window.
- Tap the **Tasks**  icon on the right side of the toolbar to view a list of tasks currently running on the host. Tap an item in the list to activate the associated application. Right swipe an item to close the associated application.

Interacting with the Server

Once a session is established, you interact with the host web server using several multi-touch gestures. These gestures allow you to interact naturally with applications running on the host, even though the Apple device lacks a mouse and keyboard. The following are the common operations achievable using a mouse and keyboard, and a description of how to perform them using an iPad, iPhone, or iPod Touch device.

Understanding the Host Canvas

When connecting to a host using GE's HMI-SCADA for iOS, the image you see on the screen is essentially a canvas just like any other canvas on your Apple device. You can pinch in and out to zoom in and out. To pan the view, press three fingers on the screen and drag your fingers across the screen. Webspaces uses a three-finger drag to pan the view (instead of the typical single-finger drag) so that single finger drag operations can be used to simulate left button drag operations in remote applications.

Clicking and Double-Clicking

To click or double-click a button or other user interface component from the host, simply tap or double-tap on the touchscreen. If the user interface component on the host is too small to hit accurately with your finger, you can temporarily zoom in to enlarge it.

Dragging

To drag the mouse over the application (for dragging windows, selecting text in a document, and so on), tap and hold at the area of the screen where you would like

the drag operation to begin, and then begin dragging your finger across the screen. At this point, an on-screen indicator will appear indicating that a drag operation is in progress.

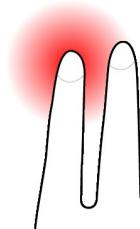
Hold your finger steady for a moment before you begin dragging it. Otherwise, the app will simply pan the host image, and dragging will not occur.

Dragging a single finger produces a left button drag in the remote application.

Dragging three fingers pans the client's view.

Right-Clicking

In order to achieve a right-mouse click, perform a two-finger tap at the position where you would like the right-click to occur. The actual position of the right-click will be at the position of your left finger.



Right-clicking by tapping two fingers on the screen.

Scrolling

To easily scroll through a document, drag two fingers vertically. Dragging upwards scrolls down, while dragging downwards scrolls up. The further you go in each direction, the faster the scrolling.

Using the Touch Keyboard

The device's onscreen keyboard will generally open automatically whenever an application can receive text input. To open the onscreen keyboard, perform a three-finger tap anywhere on the screen by simultaneously putting three fingers anywhere and immediately releasing them. The keyboard can be closed the same way. Another option is to bring up the on-screen toolbar and use the keyboard buttons on the toolbar. To expose the on-screen toolbar, press and hold a single finger anywhere on the screen. This will bring up the toolbar for several seconds until it is automatically hidden.

Special Keys Support

Webspace adds an extra row of keys to the top of the onscreen keyboard. This keyboard extension includes ctrl, shift, alt, tab, esc, home, end, insert, delete, up, down, left, right, function keys 1 through 12, etc. For example, to copy and paste text, highlight the text and press the ctrl + c button to copy it. Then press the ctrl + v button to paste the text.



Windows Keyboard Extension

To see all the special keys, scroll through the keys on the right side by sliding a finger to the left and right over the keys.



Windows Keyboard Extension scrolled to the right

NOTE: Tapping the **shift** key on the special keyboard and then tapping a character on the main onscreen keyboard does not produce an upper case character. To type upper case characters, use the up-arrow keys on the main onscreen keyboard.

Application Settings

GE's HMI-SCADA for iOS supports the following for app Settings:

- **Pin Toolbar:** When the Pin Toolbar option is set to ON, the toolbar will be displayed when the iPad, iPhone, or iPod Touch client is started.
- **Auto Connect:** When Auto Connect is ON, the client automatically connects to the last host the user accessed.
- **Auto Launch:** If an application is specified in the Auto Launch field, GE's HMI-SCADA client connects to the host and automatically starts the application, bypassing the Program Window. However, if an application name is entered in the Auto Launch option of a Favorite Host, that application will be launched upon connection, overriding GE's HMI-SCADA application's Auto Launch setting.
- **Scale Resolution:** Resolution scaling improves client usability and reduces bandwidth on both the client and the host. It is enabled by default for all Webspaces connections.
- **Allow Gateway Connections:** When Allow Gateway Connections is ON, the Add Connection dialog box displays an additional option that lets you create connections to gateways, in addition to connections to Webspaces hosts.
- **Reset All Settings:** Resetting the application will remove all saved connections and settings.

To configure these options use the **Settings** option. The following dialog box appears.

Edit Connection X

Delete **Save**

Address	2016.graphon.com
Description	Windows Server 2016
User Name	user1
Password	••••••
Port	491
Auto Zoom	<input checked="" type="checkbox"/>
Auto Launch	application
Options	-geometry 1000x800

Edit Connection dialog box

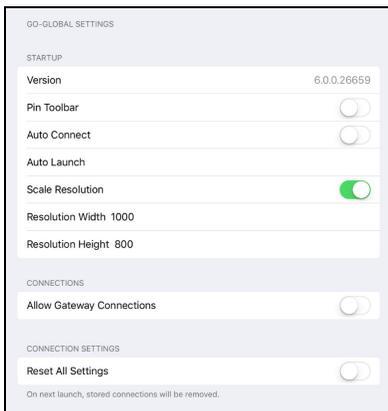
Resolution Scaling

Resolution refers to the clarity of the text and images displayed on your screen. At higher resolutions, such as 1600 x 1200 pixels, items appear sharper. They also appear smaller so more items can fit on the screen. At lower resolutions, such as 800 x 600 pixels, fewer items fit on the screen, but they appear larger. On high-density iOS devices, GO-Global sessions are run at a resolution of half the width by half the height of the device. Resolution scaling improves client usability and reduces bandwidth on both the client and the host. It is enabled by default for all Webspace connections.

You can change the resolution width and height to best fit your device in the **Settings** dialog box. You can adjust the resolution to make text and objects appear larger on your screen, or adjust it to make text and objects appear smaller so you have more space on your screen.

To change the resolution

1. Click the **Settings** icon in the lower right corner of the Connection view.
2. Type the desired width resolution in the **Resolution Width** box.
3. Type the desired height resolution in the **Resolution Height** box.
4. Click **Apply**.



Settings dialog box

If only a width or a height is specified, Webspaces will automatically calculate the missing value, based on the device's aspect ratio.

NOTE: Resolution scaling can be disabled through the Settings dialog box. When resolution scaling is disabled, Webspaces sessions will run at the full resolution of the client device.

To disable resolution scaling

1. Click the **Settings** icon in the lower right corner of the Connection view.
2. In the Settings dialog box, click the check box next to **Scale Resolution** to disable it.
3. Click **Apply**.

When adding or editing a connection, you can specify a resolution that will only apply to that connection. This will override the resolution specified in the **Settings** dialog box.

In the **Add Connection** or **Edit Connection** dialog boxes, type **-geometry** followed by the desired **width x height** (in pixels) in the **Options** box. For example, `-geometry 1000x800` or `-geometry 1136 x 640`

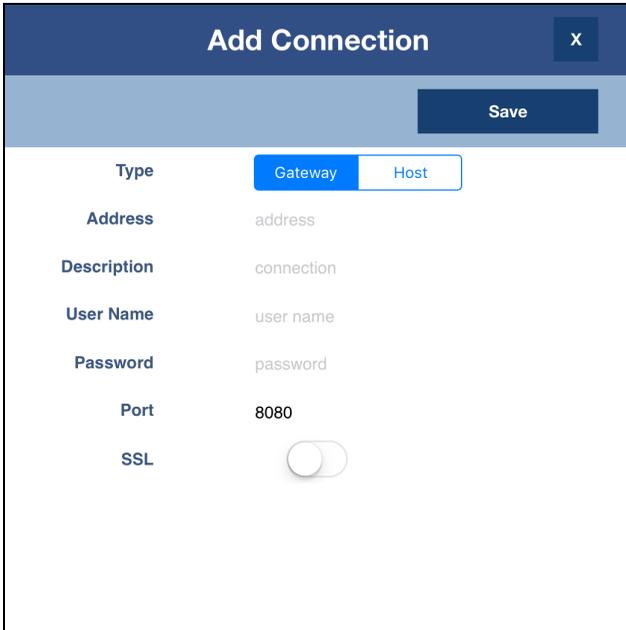
Gateway Support

When the **Allow Gateway Connections** option is ON, you can add connections to gateways, as well as connections to Webspaces hosts.

To add a connection to a gateway

1. Tap the **Add Connection** button.
2. Tap the **Gateway** button.
3. Type the address of the gateway in the **Address** box. (For example, `gateway.domain.com`)
4. Type the name of the gateway in the **Description** box.
5. Type your user name in the **User Name** box.

6. Type your password in the **Password** box.
7. Type the **Port** number on which the gateway is configured to accept connections. 8080 is the default port.
8. If the gateway uses HTTPS, set the **SSL** option to "ON." If the gateway uses HTTP, set the SSL option to "OFF."
9. Click **Save**.



Add Connection		X
		Save
Type	<input checked="" type="radio"/> Gateway <input type="radio"/> Host	
Address	address	
Description	connection	
User Name	user name	
Password	password	
Port	8080	
SSL	<input type="checkbox"/>	

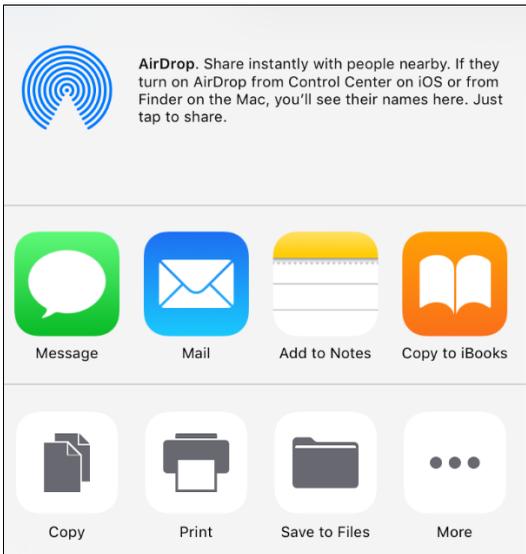
Add Connection dialog box

Printing

Webspace supports printing to AirPrint compatible printers.

To print a document

1. While running the Webspace app, print a document as you normally would.
2. Select **Preview PDF**, then click the **Print** button. This will convert the document to a .pdf.
3. When the .pdf opens, tap the **Share** button on the iOS device's toolbar.
4. Tap the **Print** button.



The iPad's Share menu (iOS 6.x)

Logging

The Weospace app synchronizes its log files with the host. Log files from the Weospace app are stored in the \Program Files\Proficy\Proficy Weospace\Log\ folder on the host.

Tips for Working with CIMPLICITY and iFIX

Be aware of the following tips when working with GE's HMI-SCADA for iOS application on your Apple device:

- Network usage can vary considerably based on the amount of data being displayed and updated in your screens/pictures. Be sure to take this into consideration when building or displaying your screens/pictures.
- Exporting files from your HMI/SCADA application will only give you access to your web server and its mapped drives.
- When zooming, be sure to make accurate clicks.
- Ensure you set up the Autolock feature on your iPad, iPhone, or iPod Touch to prevent unauthorized access.
- Be aware that you can take a screen capture of your SCADA applications from the iPad, iPhone, or iPod Touch by holding down the Home button and the Sleep/Wake button simultaneously. The screen capture is copied to your Saved Photos.
- Integrated Windows authentication is only available to users who sign in from Windows computers that are members of the same domain as the Weospace Server.

Best Practices

Be aware of the following best practices when working with GE's HMI-SCADA for iOS application on the iPad, iPhone, or iPod Touch:

- Minimize keyboard input.
- Use large buttons.
- Use care with data entry objects, especially sliders.
- Run your application with the Autozoom enabled to allow for easier navigation.
- Become familiar with using two fingers for zooming in/out (especially if auto zoom is deactivated). Many pop-up screens and menus (for instance, right-click menus) are very difficult to read/use unless they are zoomed in.
- Use large buttons to help with key pad navigation.
- Use Buttons and Ramps instead of Sliders for ease of use.
- Lock your device to ensure you do not inadvertently invoke control elements while the iPad, iPhone, or iPod Touch is in your briefcase, backpack, and so on, and to prevent unauthorized access.
- Be sure to use long (strong) password to protect your device, as opposed to the simple password option.