Quick Start Guide

iFIX, iGS, and Historian

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doc@ge.com

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Chapter 1. Overview

Quick Start: iFIX, IGS, and Historian

First time installing iFIX, IGS, and Historian all on the same computer? Want to quickly set up a system so that you can get up and running fast? The following sections outline a few simple steps to get going right away!

In very little time, you can set up iFIX, IGS, and Historian all on the same computer and feel assured that your system is configured correctly and running as it is supposed to.

While there are many flexible ways to configure your system, most users will go through the following steps. After everything is installed and configured, you can begin to realize the full potential of your GE Digital solution!

Prereqs *(page 3)* | Step 1: Download *(page 3)*| Step 2: Licening *(page 4)* | Step 3: iFIX *(page 6)* | Step 4: IGS *(page 6)* | Step 5: Historian *(page 6)* | Step 6: iFIX Collector *(page 7)* | Step 7: Test Picture *(page 8)*

PreReqs

Before you set up your system it is really important that you make sure the computer that you want to install everything on meets the minimum requirements. Use the links below to check the system requirements before you proceed.

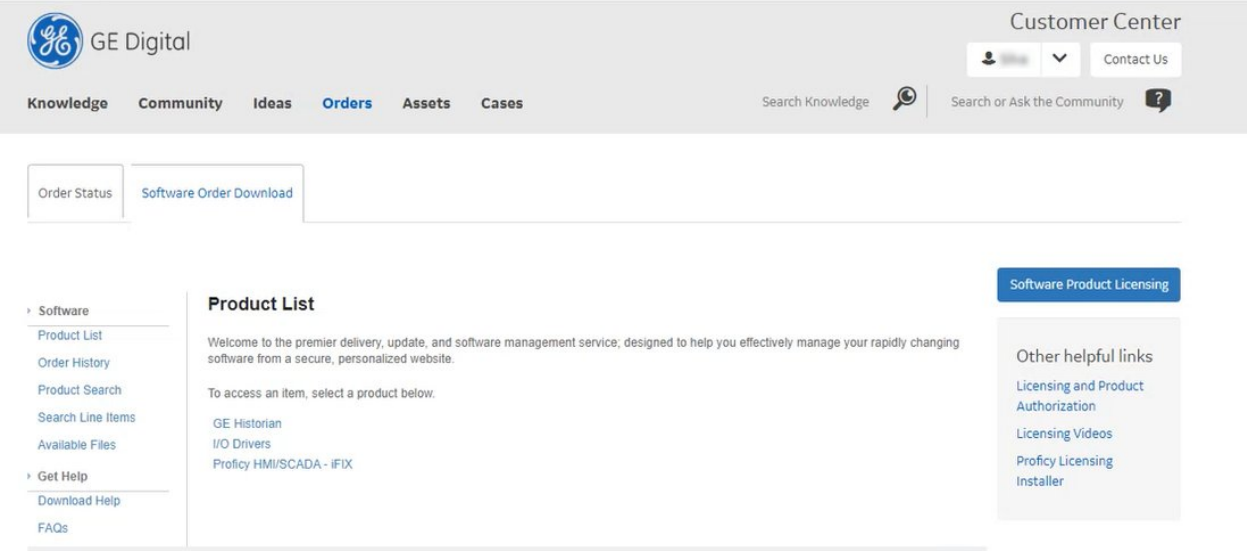
- iFIX System Requirements *(page 10)*
- Historian System Requirements *(page 16)*

These steps assume that you are installing the iFIX, IGS, and Historian for the first time on this computer.

1. Download Your GE Digital Software

After you get an e-mail from GE Digital with your product download links and activation codes, login in to the web site specified in e-mail using the same e-mail address that the activation codes were sent to. You will need an Internet connection to complete these steps. For more details, use the link below for guided details on how to obtain your product downloads from **Orders** page.

Steps to Download Your GE Digital Software *(page 19)*



2. Install and Configure Licensing

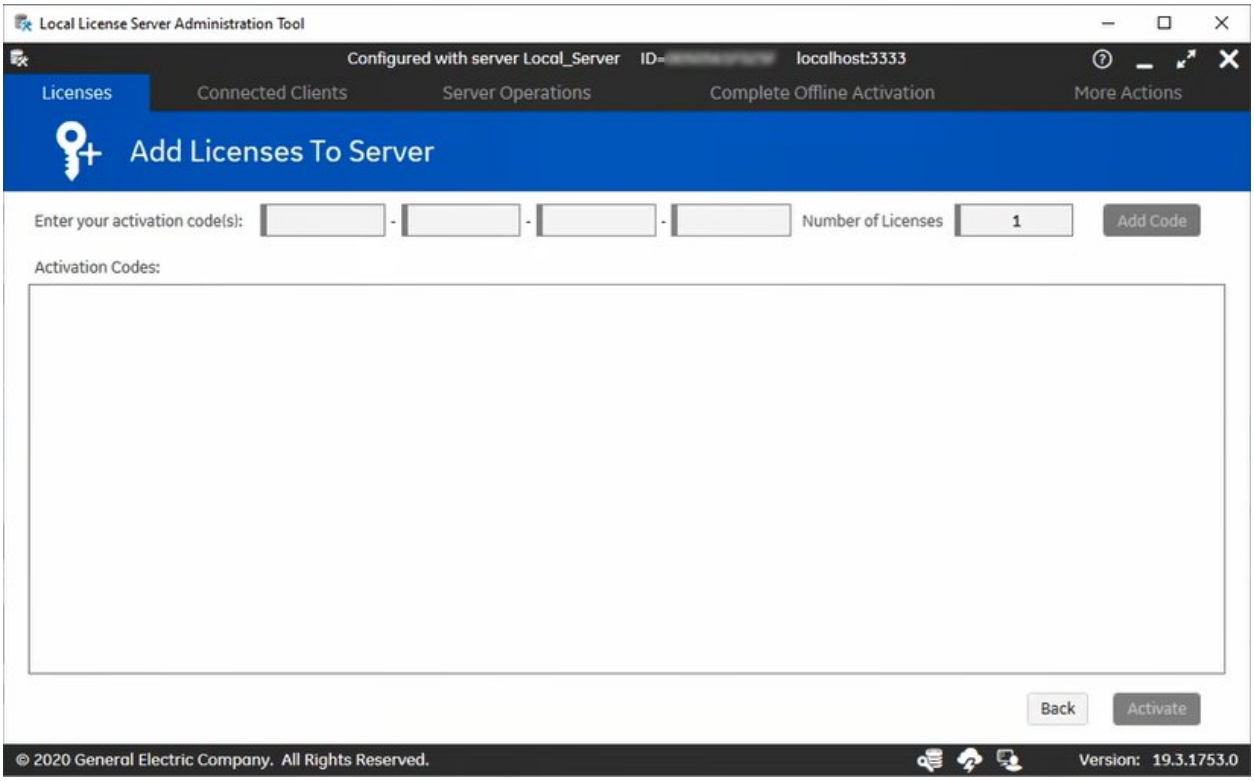
After you download Proficy Common Licensing, you'll want to use this executable to install the following:

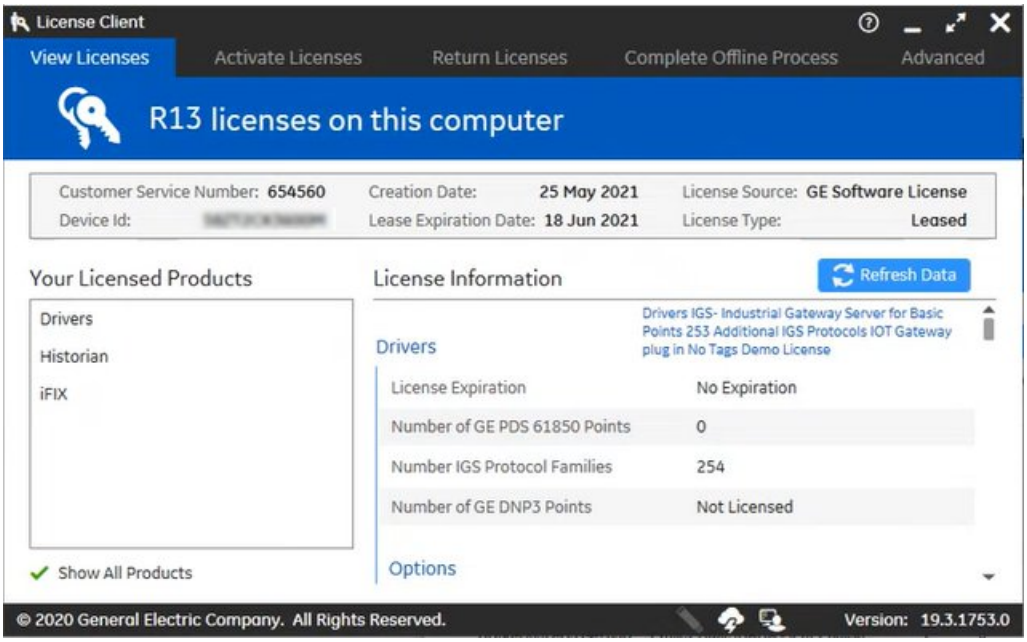
- **Local License Server**
- **License Server Tools**
- **License Client**

Be sure to run the licensing installer as an Administrator. After installing the licensing components, restart your computer.

Download your codes using the **Local License Server Administration Tool**. Run the **License Client** to activate your entitlements. After doing so, be sure to confirm that all licenses appear in the License Client. Use the link below for detailed steps.

Steps to Install and Configure Licensing *(page 21)*


Local License Server Administration Tool
Configured with server Local_Server ID= localhost:3333
Licenses
Connected Clients
Server Operations
Complete Offline Activation
More Actions
Add Licenses To Server
Enter your activation code(s):
Number of Licenses
1
Add Code
Activation Codes:
Back
Activate
© 2020 General Electric Company. All Rights Reserved.
Version: 19.3.1753.0

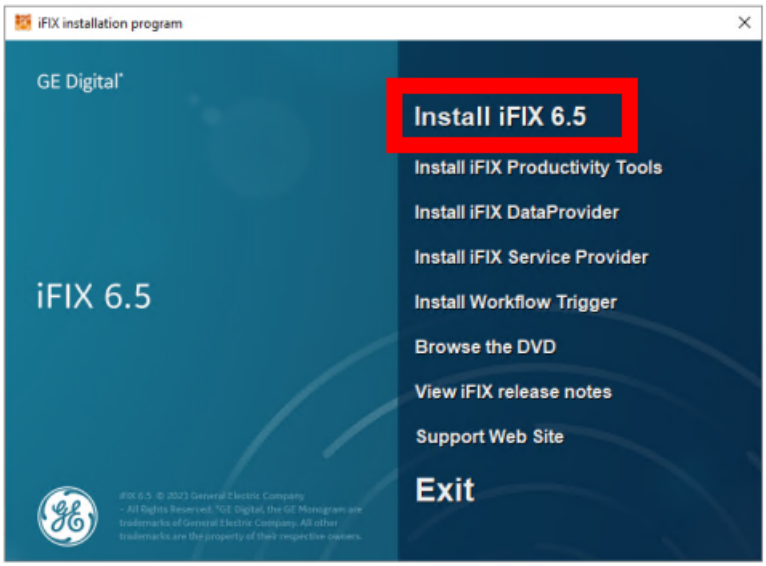

License Client
View Licenses
Activate Licenses
Return Licenses
Complete Offline Process
Advanced
R13 licenses on this computer
Customer Service Number: 654560
Creation Date: 25 May 2021
License Source: GE Software License
Device Id:
Lease Expiration Date: 18 Jun 2021
License Type: Leased
Your Licensed Products
Drivers
Historian
iFIX
Show All Products
License Information
Refresh Data
Drivers
Drivers IGS- Industrial Gateway Server for Basic Points 253 Additional IGS Protocols IOT Gateway plug in No Tags Demo License
License Expiration
No Expiration
Number of GE PDS 61850 Points
0
Number IGS Protocol Families
254
Number of GE DNP3 Points
Not Licensed
Options
© 2020 General Electric Company. All Rights Reserved.
Version: 19.3.1753.0

3. Install iFIX

Next, install a **Typical** iFIX using the defaults. Be sure to run the iFIX install as an Administrator (right-click and select run as Administrator). When installing choose to install and register the local instance of Configuration Hub.

Be sure to write down the **client ID** and **client secret** you enter during the install, as you will need this when you install Historian! Be aware that only English alphanumeric characters values and the following symbols are supported in the client ID and client secret fields: "-><~!@#$%^&*?|"

Steps to Install iFIX *(page 31)*



4. Install IGS

Install IGS using the defaults. Be sure to run the IGS install as an Administrator (right-click and select run as Administrator). If you get a message to install some prerequisites on startup, click OK and continue to do so, and the restart and try again. Choose to install **All Features**, and select the **Skip Setting a Password at this Time** option. Add IGS to the iFIX SCU.

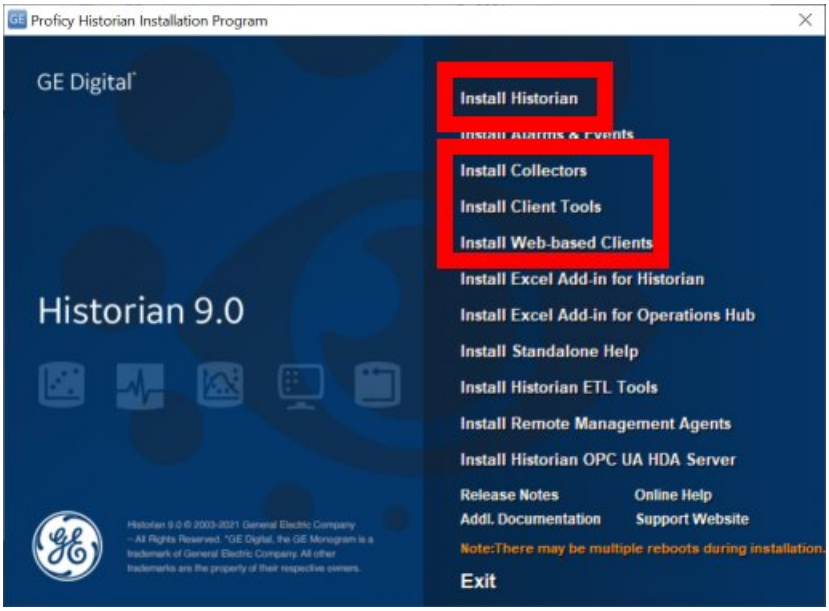
1. Steps to Install IGS *(page 38)*
2. Steps to Add IGS to the iFIX SCU *(page 40)*

5. Install Historian

Next, install all of the Historian components specified below using the defaults. Be sure to run the Historian installs as an Administrator (right-click and select run as Administrator). Be aware that post install of the Historian server, it is recommended that you disable the **Enforce Strict Client Authentication** and **Enforce Strict Collector Authentication** options post in the Historian Administrator.

Important: After you install the Historian Server, open the Services panel and confirm that the Historian Data Archiver is running. If for some reason, you do not see the Historian Data Archiver in this list and **Running**, attempt to reinstall Historian Server (without an uninstall). If something went wrong during your install, this troubleshooting step should fix it. The Data Archiver is an important application that needs to be running for use of the Historian Server. You will not be able to get data in iFIX if the Historian Data Archiver is not installed and running.

1. Steps to Install Historian Server *(page 41)*
2. Perform Historian Server Post Install Tasks *(page 45)* (steps not linked on the install screen)
3. Steps to Install Historian Collectors *(page 46)*
4. Steps to Install Historian Client Tools *(page 48)*
5. Steps to Install Historian Web-Based Clients *(page 50)*
6. Steps to Install Historian Web Client Certificates *(page 52)* (steps not linked on the install screen)



6. Configure Historian to iFIX

To configure the iFIX Collector, use **Configuration Hub** with the Historian plugin option. It is very important that you use the UAA credentials (the default is machinename.admin) to access Configuration Hub. In Configuration Hub, follow the wizard to add the iFIX Collector instance using the defaults.

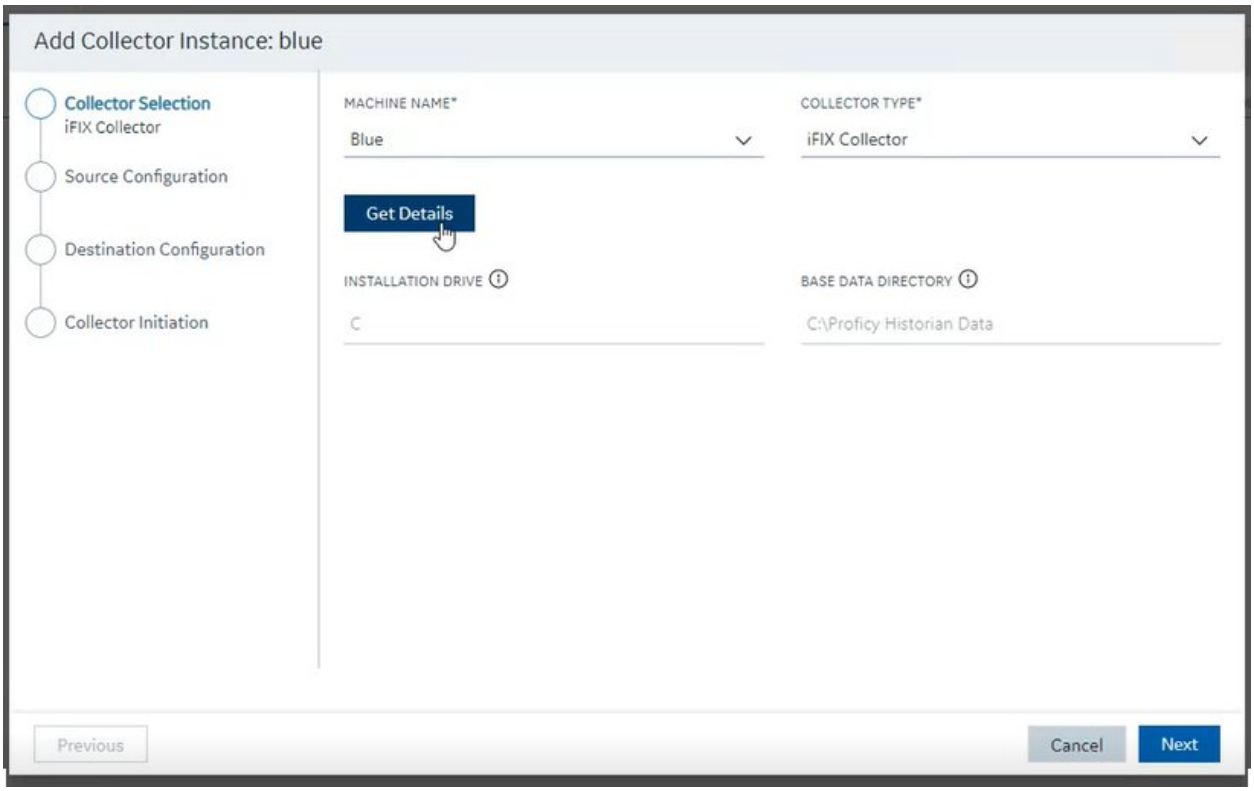
After you add the iFIX Collector in Configuration Hub, run the iFIX SCU and configure a task for the ihfixcollector.exe application using the new command line option for Configuration Hub:

```
NOSERVICE REG=machinename_iFIXCollector
```

In the command line above, replace *machinename* with the actual computer name. The default will be: **machinename_iFIX**.

Important: The RunAsDos command for previous versions of Historian is no longer valid and should be removed from the Task list if it appears there.

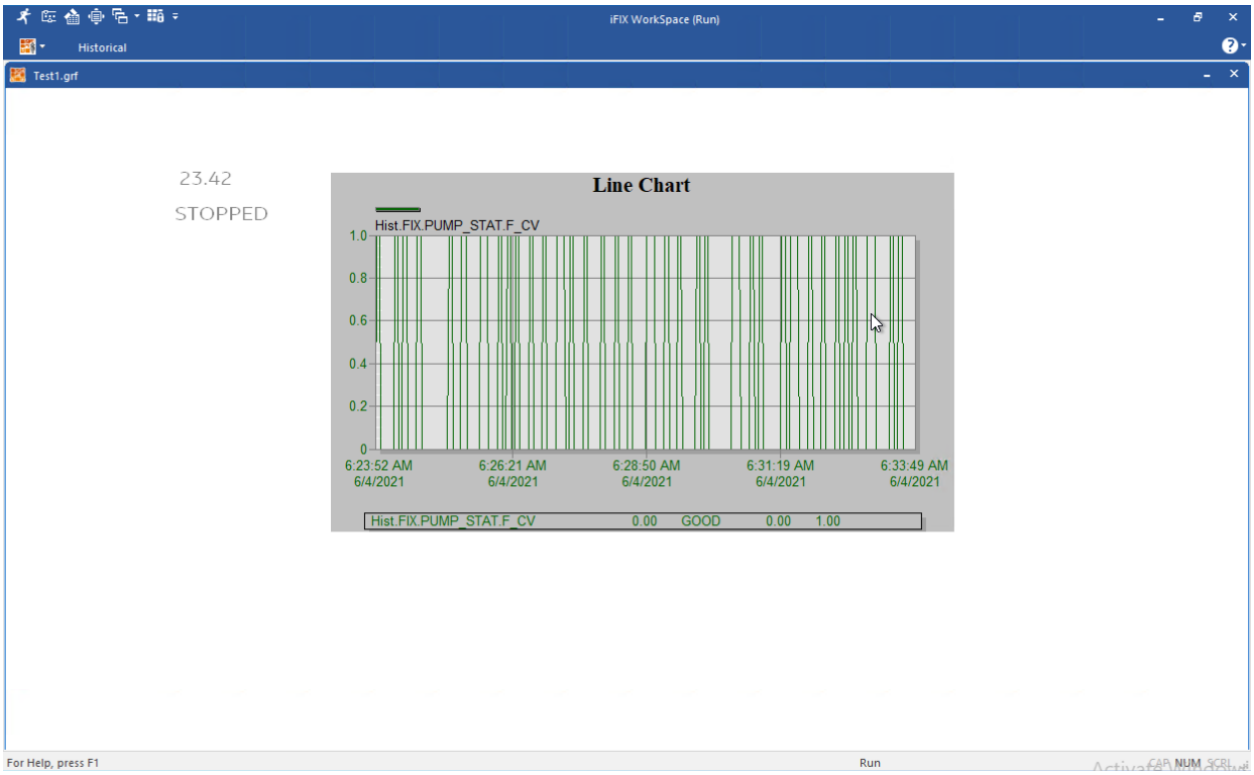
Steps to Configure the iFIX Collector *(page 60)*



7. Build Your Test Picture

Start iFIX and in the iFIX WorkSpace create a picture, and insert two data links that point to the real-time tags. Next, insert a Line MultiLine Chart to display the historian tag data for both tags. Switch to run mode to confirm that you can view data. Click the link below for more detailed steps.

Steps to Build a Test Picture *(page 68)*


iFIX WorkSpace (Run)
Historical
Test1.grf
23.42
STOPPED
Line Chart
Hist.FIX.PUMP_STAT.F_CV
1.0
0.8
0.6
0.4
0.2
0
6:23:52 AM
6/4/2021
6:26:21 AM
6/4/2021
6:28:50 AM
6/4/2021
6:31:19 AM
6/4/2021
6:33:49 AM
6/4/2021
Hist.FIX.PUMP_STAT.F_CV 0.00 GOOD 0.00 1.00
For Help, press F1
Run
CAP NUM SCRL

Chapter 2. System Requirements

iFIX System Requirements

Software Requirements

GE recommends using the latest service packs for Windows operating systems. The minimum iFIX software requirements include:

- One of the following operating systems:
  - Microsoft® Windows® 10 (32-bit or 64-bit) Professional or Enterprise Edition.
  - Microsoft® Windows® 10 IoT Enterprise with LTSC enabled, or an operating system released under Long Term Service Channel for iFIX for IoT. Use of iFIX for IoT is further restricted by your End User License Agreement (EULA), please see your EULA for details.
  - Microsoft® Windows® 8.1 (32-bit or 64-bit), Professional or Enterprise Edition.
  - Microsoft® Windows® Server 2019.
  - Microsoft® Windows® Server 2016.
  - Microsoft® Windows® Server 2012 R2.

Note: Only English Windows IoT, with English regional settings, is supported with English iFIX; other language operating systems or regional settings for Windows IoT are not supported.

Tip: Since Microsoft Windows has continuous updates, you should run the Windows update feature to get the latest Windows software for use with iFIX. Some operating systems require Microsoft KB2999226 to be installed before you can install iFIX. For Windows Server 2012 R2, you must have KB2919442 and then KB2919355 installed before installing KB2999226. For Windows 8.1, you just need KB2999226.

- Network interface software for TCP/IP network communication and certain I/O drivers.
- If you are using third-party software along with iFIX, make sure that the third-party software is also supported for the operating system you are running iFIX on. For instance, if you are running iFIX on Microsoft Windows Server 2019, your third-party software must also be supported on Windows Server 2019.
- If using iFIX and Historian on the same machine, it is highly recommended to install iFIX first.
- An I/O driver for iFIX SCADA servers. GE supplies I/O drivers for many programmable controllers or you may purchase a driver separately.

Important: Be certain that before you purchase an I/O driver, that the driver is compatible with the hardware and operating system that you intend to run it on. For example, if the driver is not supported on a specific operating system, then you cannot use that driver with iFIX running on that

operating system. For more information on iFIX supported drivers and their respective operating systems, refer to the GE Digital support web site at: http://ge-ip.force.com/communities/.

- If using VisiconX and Historian, you must install the Historian OLE DB driver.
- To run the iFIX Plug-in for Configuration Hub, the following browsers were tested:
  - Google® Chrome
  - Microsoft® Edge based on Chromium
  - Mozilla® Firefox
  - Apple® Safari (MAC OS)

Note: Sometimes the MAC OS cannot resolve the system name. In this case, update the hosts file. Also, you will be required to manually install the Configuration Hub root certificate on the MAC OS.

- One of the following relational database applications, if relational database software is used with iFIX:
  - Microsoft® SQL Server 2017
  - Microsoft® SQL Server 2019
  - Oracle® 19c
  - Oracle® 18c
  - Microsoft® Access 2000 (or higher). Microsoft Access is supported for local installs only

Hardware Requirements - iFIX SCADA Server

For an iFIX SCADA server, the recommended minimum hardware requirements are:

Important: The minimum requirements below assume that you are running a SCADA server without additional applications (such as EDA applications) and a minimal amount of tags. If you want to run more applications or increase your tag count, you will need to increase your hardware support for better performance. You should scale your system based on number of tags. For Enhanced Failover, the following requirements apply to both the primary and secondary computers.

- A 3.0 GHz Intel® Core™ i5 Processor or equivalent with 8GB of memory. For better performance, please consider using a faster processor and more memory.
- SpeedStep® technology is not supported and must not be enabled.
- For time synchronization, the Windows Net Time and W32tm commands are both supported. However, if using the W32tm command, be sure to use the /nowait instruction when resynchronizing the clock. For example: W32tm /resync /nowait. The /nowait parameter instructs the operating system to make a stepping adjustment against the time server.

Note: With virtual machines, the host and guest operating system need to synchronize against an external physical Network Time Protocol (NTP) Server.

- The power save settings on your computer must be disabled. Do not use any power setting features that affect CPU clock speed. For Enhanced Failover, the power save settings on both computers and dedicated network card (NIC) must be disabled.
- For Enhanced Failover, you need one additional Gigabit-Ethernet card (or better) dedicated for SCADA-to-SCADA traffic (for a total of at least 2 network cards), or the VMXNET 3 network adapter NIC. The dedicated SCADA-to-SCADA network card should be excluded from the iFIX-to-iFIX network (not enabled for LAN redundancy), and used exclusively for Enhanced Failover synchronization. Both network cards must be of the same speed, and appear on the compatibility list for each card. It is strongly recommended that the cards be of the same make and model number, and use the same drivers.
- For Enhanced Failover, you must use a direct connection via a Cat6 crossover cable, without going through any switches, hubs, or routers. Due to limited bandwidth and latency, wireless networking technology should not be considered.
- For Enhanced Failover, the Primary and Secondary SCADA computers must be located physically next to each other, in the same location/room.
- For Enhanced Failover, Jumbo Frames technology must be used on the dedicated network. Jumbo Frames technology allows for an Ethernet frame of 9000 MTU for the payload, compared to a frame of 1500 bytes without the Jumbo Frames.
- A minimum of 40 GB of free hard drive space for iFIX pictures, databases, alarm files, and other data files, in addition to the free disk space required by the operating system for Windows Updates. It is strongly recommended that many GBs of additional free space exist on the hard drive to avoid performance issues.
- Be aware that iFIX alarm and historical data files grow dynamically. If you plan to perform extensive alarm or data collection on a node, you may need more disk space on that particular node.
- Other GE products, such as Proficy Plant Applications and Proficy Historian, impose additional requirements. Refer to the System Requirements in the associated product's electronic books for that product's specific system requirements.
- 100 MBit or faster Full Duplex TCP/IP-compatible network interface adapter for iFIX network communication between SCADA and Client nodes.

Note: iFIX does not support NetBIOS or IPv6.

- One free direct-connect USB port. Some touch screens, pointing devices, and I/O drivers require a serial port. Additional ports for I/O hardware should be ordered with the computer.
- For Enhanced Failover, ensure that the following ports are open on your firewall: UDP port 53014 needs to open for the Sync Card and TCP 2010 needs to open for the SCADA NIC.
- SVGA or better color monitor with a 24-bit (16,777,216 colors) graphics card capable of at least 1024x768 resolution.
- Two-button mouse or compatible pointing device (such as a touch screen) that can open a context menu.

Hardware Requirements - iFIX iClient (View)

For iFIX client computers, the recommended minimum hardware requirements are:

- A 3.0 GHz Intel® Core™ i3 Processor or equivalent with 4GB of memory. For better performance, please consider using a faster processor and more memory.

Note: To use more than 4 GB of memory on a 32-bit platform you need to use Physical Address Extension (PAE). For more information on PAE please reference: http://msdn.microsoft.com/en-us/library/windows/desktop/aa366796%28v=vs.85%29.aspx.

- SpeedStep® technology is not supported and must not be enabled.
- For time synchronization, the Windows Net Time and W32tm commands are both supported. However, if using the W32tm command, be sure to use the /nowait instruction when resynchronizing the clock. For example: W32tm /resync /nowait. The /nowait parameter instructs the operating system to make a stepping adjustment against the time server.

Note: With virtual machines, the host and guest operating system need to synchronize against an external physical Network Time Protocol (NTP) Server.

- The power save settings on your computer must be disabled. Do not use any power setting features that affect CPU clock speed.
- A minimum of 20 GB of free hard drive space for iFIX pictures, databases, alarm files, and other data files, in addition to the free disk space required by the operating system for Windows Updates. It is strongly recommended that many GBs of additional free space exist on the hard drive to avoid performance issues.
- Be aware that iFIX alarm and historical data files grow dynamically. If you plan to perform extensive alarm or data collection on a node, you may need more disk space on that particular node.
- Other GE products, such as Proficy Plant Applications and Proficy Historian, impose additional requirements. Refer to the System Requirements in the associated product's electronic books for that product's specific system requirements.
- 100 MBit or faster Full Duplex TCP/IP-compatible network interface adapter for iFIX network communication between SCADA and Client nodes.

Note: iFIX does not support NetBIOS or IPv6.

- One free direct-connect USB port. Some touch screens, pointing devices, and I/O drivers require a serial port. Additional ports for I/O hardware should be ordered with the computer.
- SVGA or better color monitor with a 24-bit (16,777,216 colors) graphics card capable of at least 1024x768 resolution.
- Two-button mouse or compatible pointing device (such as a touch screen) that can open a context menu.

Wireless Devices and iFIX

It is strongly recommended that you do not run SCADA nodes on wireless devices. Running an iFIX SCADA on a wireless device may impact performance, as some wireless protocols fall below the recommended bandwidth requirements.

Virtual Machine Support

As part of our development testing and qualification, we make extensive use of virtualized environments. iFIX does not target any specific hardware or virtualized platform.

GE Digital will support the functional operation of the product that is running on a supported Operating System in a virtualized environment and will address any functional issues related to the software.

GE Digital cannot guarantee performance of the software in the virtualized environment due to the wide range of parameters associated to the hardware, configuration, memory settings, 3rd party software, and the number of virtual sessions running on the same hardware, all of which can affect performance.

It is the responsibility of you, the customer, to ensure that the performance of the GE HMI/SCADA software and application are adequate to meet the needs of their runtime environment. GE does not support issues related to functionality that is not available as a result of running in a virtual machine. Examples include the functionality of card level drivers such as Genius, RMX, SA85 and functions requiring direct video access, or functionality of other software running in the same environment. It is your responsibility to check with the vendor of those applications for their ability to run in a virtualized environment.

Each virtual machine instance that is using our software is required to have a valid license. The licensing in a virtualized environment will depend on the access to a hardware key or a license server depending on the selected license type.

Remote Desktop (Terminal Server) Support

When using Remote Desktop with iFIX, the following operating systems are supported for your server machine: Microsoft Windows Server 2012 Standard or Enterprise Edition, Microsoft Windows Server 2016 Standard Edition, and Microsoft Windows Server 2019 Standard Edition.

The following Remote Desktop Client configurations were tested with iFIX:

- Microsoft Windows 8.1: Remote Desktop Connection Version 6.3.9600 – Remote Desktop Protocol 8.1
- Microsoft Windows 10: Remote Desktop Connection Version 10.0.19041 – Remote Desktop Protocol 10.8
- Microsoft Windows Server 2012 R2: Remote Desktop Connection Version 6.3.9600 – Remote Desktop Protocol 8.1

- Microsoft Windows Server 2016: Remote Desktop Connection Version 10.0.14393 – Remote Desktop Protocol 10.2
- Microsoft Windows Server 2019: Remote Desktop Connection Version 10.0.17763 – Remote Desktop Protocol 10.6

Compatibility with other GE Products

Several GE products work with iFIX. The following is a general set of versions tested to work with the iFIX 6.5 product:

Product	Required Version
Plant Applications Dynamos	8.2, 8.1.
Batch Execution	5.6.
Operations Hub	2.0.
CIMPLICITY	11 and 11.1.
Historian	9.0, 8.1, 8.0. **Note:** If you are using VisiconX with Historian, you must install the Historian OLE DB driver.
Change Management (PCM)	9.5.
Task List	2.6 SP1.
Workflow	2.6 SP1.
Webspace	6.0 and 5.0. **Note:** When configured for WebSpace, none of the iFIX SCUs on WebSpace Server should be configured to start iFIX as service, as this is a unsupported configuration.
Win911	4.20.10
DreamReport	5.0 R2 for Proficy
IGS	7.68 or later

Note: For information on product compatibility with critical Microsoft security patches, go to the GE Digital support web site:

https://digitalsupport.ge.com/communities/en_US/Article/Information-on-Product-Compatibility-with-Critical-Microsoft-Security-Patches

You will need a customer login to access this page.

Historian System Requirements

Software Requirements

Operating System Historian requires one of the following operating systems, with latest service packs or revisions:

- Microsoft® Windows® Server 2019 (64-bit)
- Microsoft® Windows® Server 2016 (64-bit)
- Microsoft® Windows® Server 2012 R2 (64-bit)
- Microsoft® Windows® 10 IoT (32-bit or 64-bit)
- Microsoft® Windows® 10 (32-bit or 64-bit)
- Microsoft® Windows® 8.1 Professional (32-bit or 64-bit)

Hardware Requirements

Historian Server

Hardware Component	Requirement
CPU speed, processor type, and RAM	A 2.4 GHz clock-speed Intel Core i3 or i5 or i7 CPU or an equivalent AMD Phenom CPU with a 8 GB RAM for a 64-bit Historian server.
Disk size	An 80 GB free hard-drive space for the data archives, message files, buffer files, and log files used by the system.
Other requirements	• A DVD-ROM drive. • 100 Mbps TCP/IP-compatible network interface adapter for network communication and certain I/O drivers.

Data Collector Node

Hardware Component	Requirement
CPU speed, processor type, and RAM	A 2.0 GHz clock-speed Intel Core i3 or i5 or i7 CPU or an equivalent AMD Phenom CPU with a 2 GB RAM.
Disk size	A 40 GB free hard-drive space to store buffer data.
Other requirements	• A DVD-ROM drive. • A TCP/IP-compatible network interface adapter for network communication and certain I/O drivers.

Microsoft Windows Server

Many desktop-class computers are not certified to run Windows. Check the Microsoft website and your computer hardware vendor website for possible conflicts between your hardware and Windows server. These specifications are sufficient to meet the needs of a small pilot application. However, production system requirements may be significantly different depending on many application-specific factors. Please contact your product manager to review the requirements of your application.

Network Speed

For a large Configuration Hub setup, it is recommended that the network speed is 1 GBPS.

Note:

- If you are using a single node setup, then it is recommended to use 32 GB RAM.
- Ensure that you are using the same hardware requirement for the mirror node as well.
- You must have a minimum of 10 GB free space available for the data archiver to start.
- Many desktop-class computers are not certified to run Windows server. Check the Microsoft website and your computer hardware vendor website for possible conflicts between your hardware and Windows server. These specifications are sufficient to meet the needs of a small pilot application. However, production system requirements may be significantly different depending on many application-specific factors. Please contact your product manager to review the requirements of your application.

Compatibility with Other Products

Several GE products work with Historian. The following is a general set of required versions to work with Historian.

Important: If you want to enable the Strict Authentication feature in Historian 7.2, be aware that you will need to apply the latest SIMs that support this feature for all Proficy clients that connect to the Archiver, including the ones listed in this table. In addition, there may be SIMS to allow pre-5.0 collectors and client applications such as Excel Add-In to connect. Refer to the SIM download page for update for Historian and other Proficy products.

Product	Supported Version
CIMPLICITY	10.0, 11.0
iFIX	6.1, 6.5
Plant Applications	8.0, 8.1
Workflow	2.5 SP4, 2.6 SP1
Operations Hub	1.7, 2.0

* For customers using iFIX, there was a change in the HKEY_CURRENT_USER registry values for WebSpace and it will no longer work with the existing SIM. Ensure that you get the latest iFIX

SIMs. The following article provides additional instructions: https://ge-ip.force.com/communities/en_US/Article/iFIX-Webspace-Strict-Historian-Authentication

** For Plant Apps customers using the `'Historian Type = 'GE Proficy – Historian 3.0'` to connect to Historian 7.2, both the Enabled and Disabled options for Enforce Strict Client Authentication selection are supported.

** For Plant Apps customers using the 'Historian Type = 'GE Proficy – Historian' to connect to Proficy Historian 7.2, only the Disabled option for Enforce Strict Client Authentication selection is supported.

In Historian 5.0, the Historian HKEY_CURRENT_USER registry key values were changed. The programs accessing the server collection through the SDK are unaffected. Any program or script that directly accesses the registry keys or any Terminal Server login scripts that try to configure a list of servers by importing registry keys directly will no longer work. Such programs need to access the server collection via SDK calls, not directly.

Historian REST APIs are required to integrate between Historian and Operations Hub. Historian REST APIs are installed automatically when you install Historian Web-based Clients.

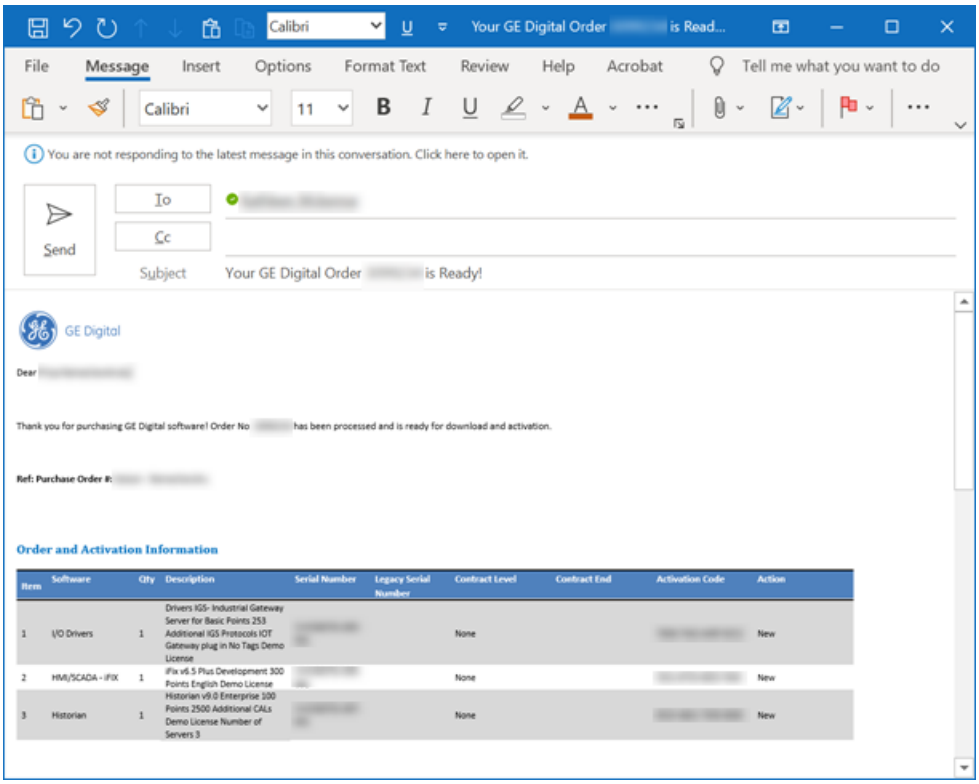
Important: Do not install Operations Hub and Web-based Clients on the same machine.

Chapter 3. Download Overview

Steps to Download Your GE Digital Software

Sample Email

After you receive an email from GE Digital with your activation codes, similar to the one below, you can download the required product installs. You will need to download: iFIX, Historian, IGS, and Common Licensing. Use the steps that follow to accomplish this task. You will need an Internet connection to proceed.



Download Installers

1. Click the link in the email from GE Digital to access the web site.
2. Login using the same e-mail address that the activation codes were sent to. After a successful login, you will be brought to the **Software Order Download** page, with your **Product List**. All of the products that you purchased appear in this product list.
3. From the Product List on the Orders page, select the **Proficy HMI/SCADA - iFIX** link. The product download page appears.

4. Select the product version you want to install. The Software Terms and Conditions screen appears.
5. Click **I Agree** to continue.
6. Select the ISO for the GE iFIX product you want download.
7. Next, select the **Common Licensing** executable (.exe) to start the licensing download. You'll need this license install so that you have all the parts of licensing to administrate it all from the same computer.
8. Browse back to the Product List on the Orders page, and select the **I/O Drivers** link. The I/O Drivers product download page appears.
9. Select the **I/O Drivers English** link. The Software Terms and Conditions screen appears.
10. Click **I Agree** to continue.
11. Select the **IGS7.68Software.exe** link to start the download.

    Note: Replace 7.68 with the latest version, if there is a newer one available.

12. Browse back to the Product List on the Orders page, and select the **GE Historian** link. The product download page appears.
13. Select the Product Version you want to install. The Software Terms and Conditions screen appears.
14. Click **I Agree** to continue.
15. Select the GE Historian product ISO to start the download.

    Now that you have all four installs (iFIX, Common Licesning, IGS, and Historian, you can proceed to the next step, Steps to Install and Configure Licensing *(page 21)*.

Chapter 4. Install and Configure Licensing

Steps to Install and Configure Licensing

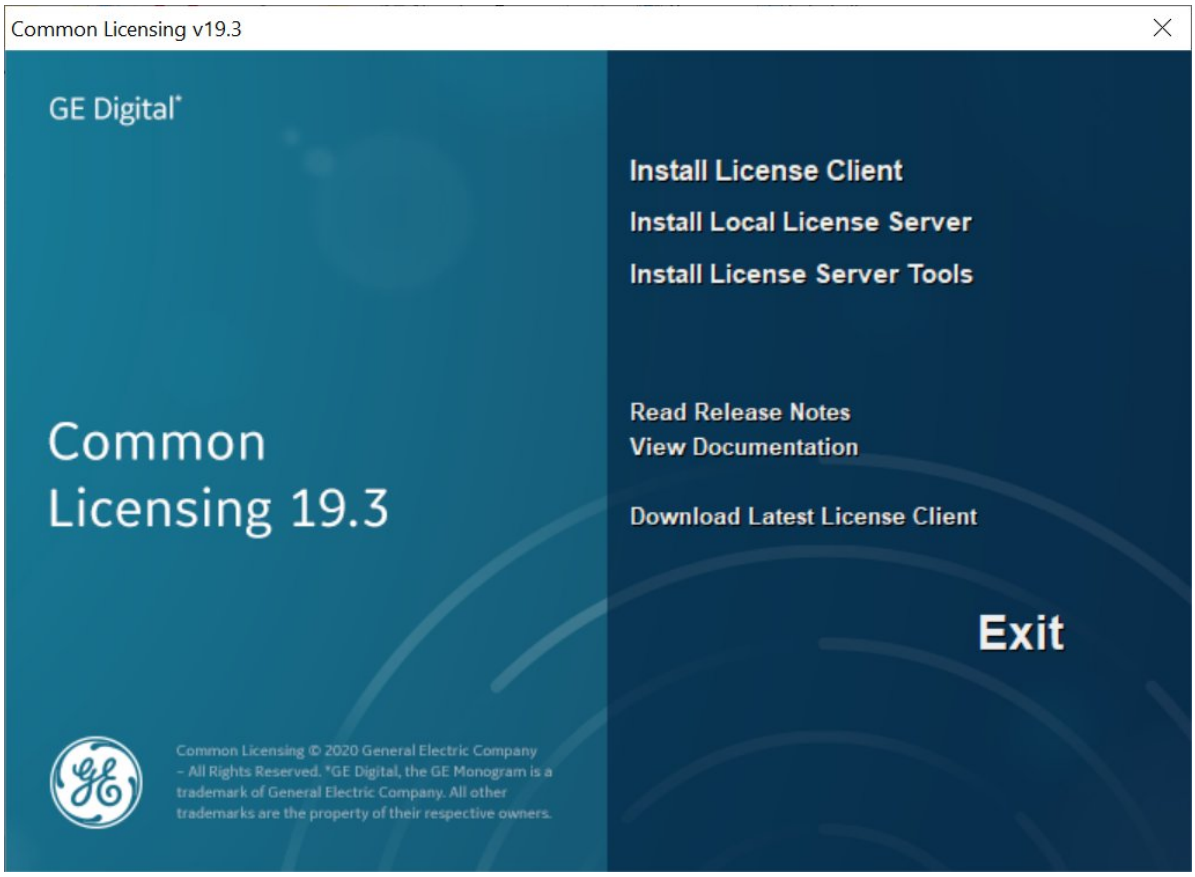
Overview of License Install and Configuration

Use the following steps to install and configure licensing on the same server that you plan to use with your Proficy applications:

1. Overview of License Install and Configuration *(page 21)*.
2. Run the License Installer *(page 21)*.
3. Install the Local License Server *(page 22)*.
4. Install the License Server Tools *(page 23)*.
5. Install the License Client *(page 24)*.
6. Download the License Codes on the Server *(page 26)*.
7. Activate Your Entitlement on the License Client *(page 28)*.
8. Confirm the License Client Displays Licenses *(page 29)*.

Run the License Installer

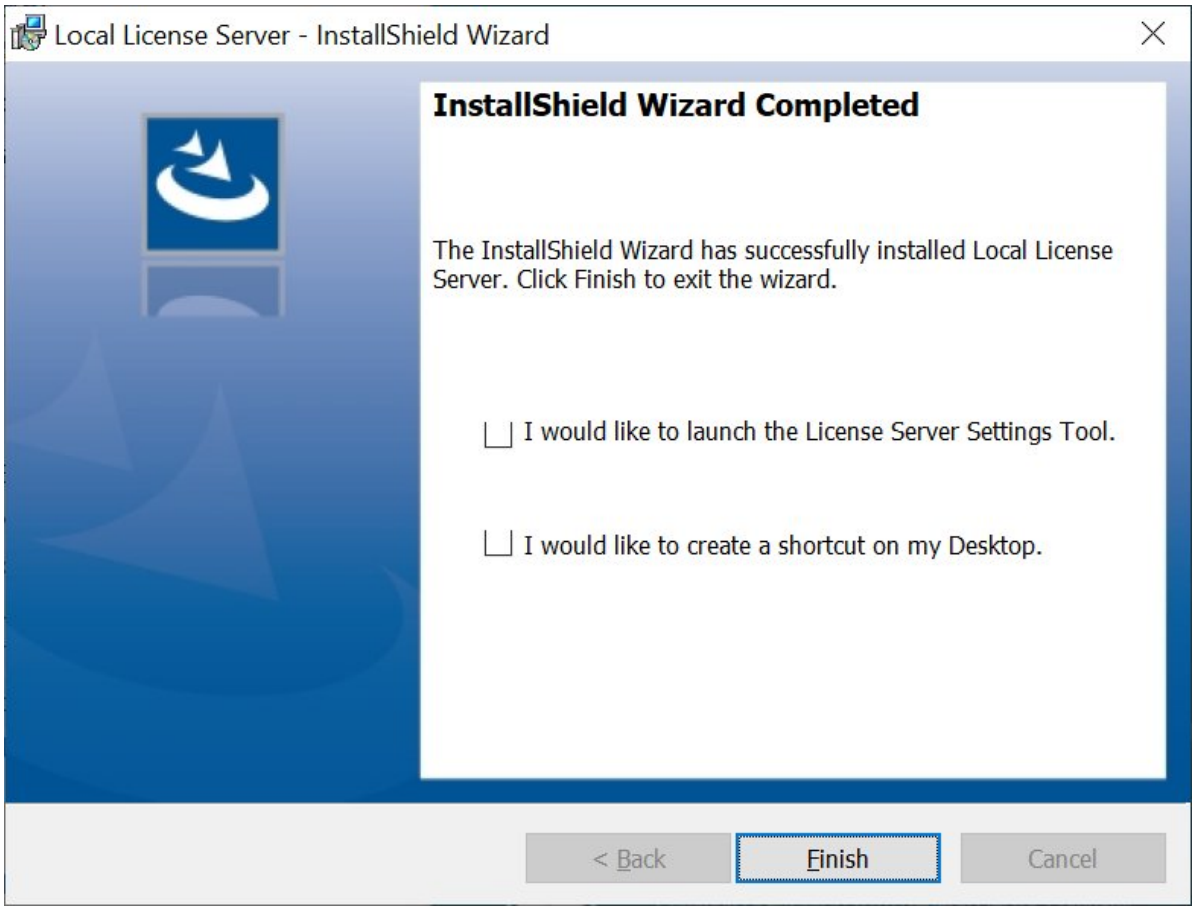
1. Confirm that you are logged in as an Administrator.
2. Browse to the folder where you downloaded the installers.
3. Right-click the Common Licensing .exe file, and select run as Administrator. A message appears asking if you want to allow this application to make changes to your device.
4. Click **Yes**. The Common Licensing screen appears, as shown in the following figure.



Install the Local License Server

1. From the Common Licensing install screen, click the **Install Local License Server** link. The install launches.

   Several screens will appear, and open and close as the install progresses. This may take a few moments, and may require some pre-reqs to finish installing. At the end of the install the following screen appears.

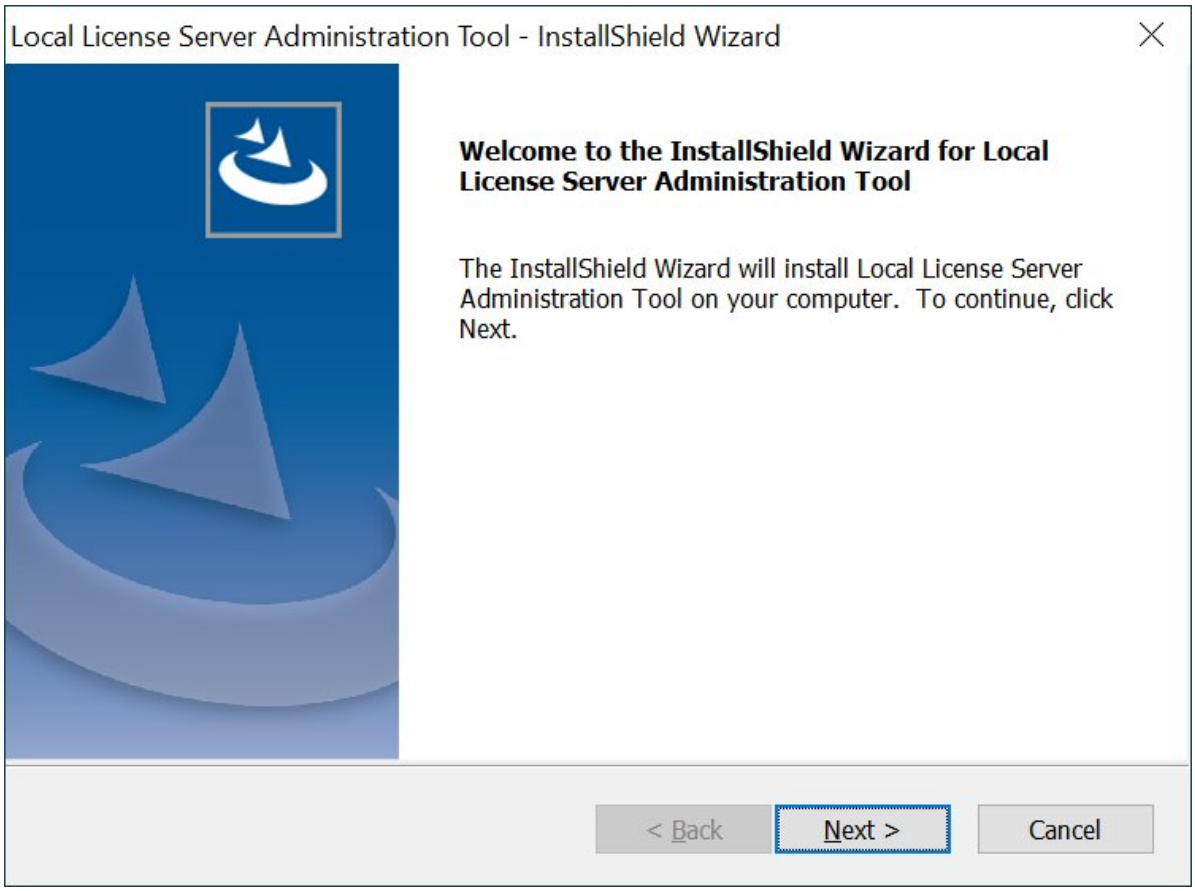


2. Click **Finish** to complete the install.

Install the License Server Tools

1. From the Common Licensing install screen, click the **Install License Server Tools** link.

   Again, a few screens will appear, and open and close as the install launches. This may take a few moments, and may require some pre-reqs to install. The welcome screen appears.

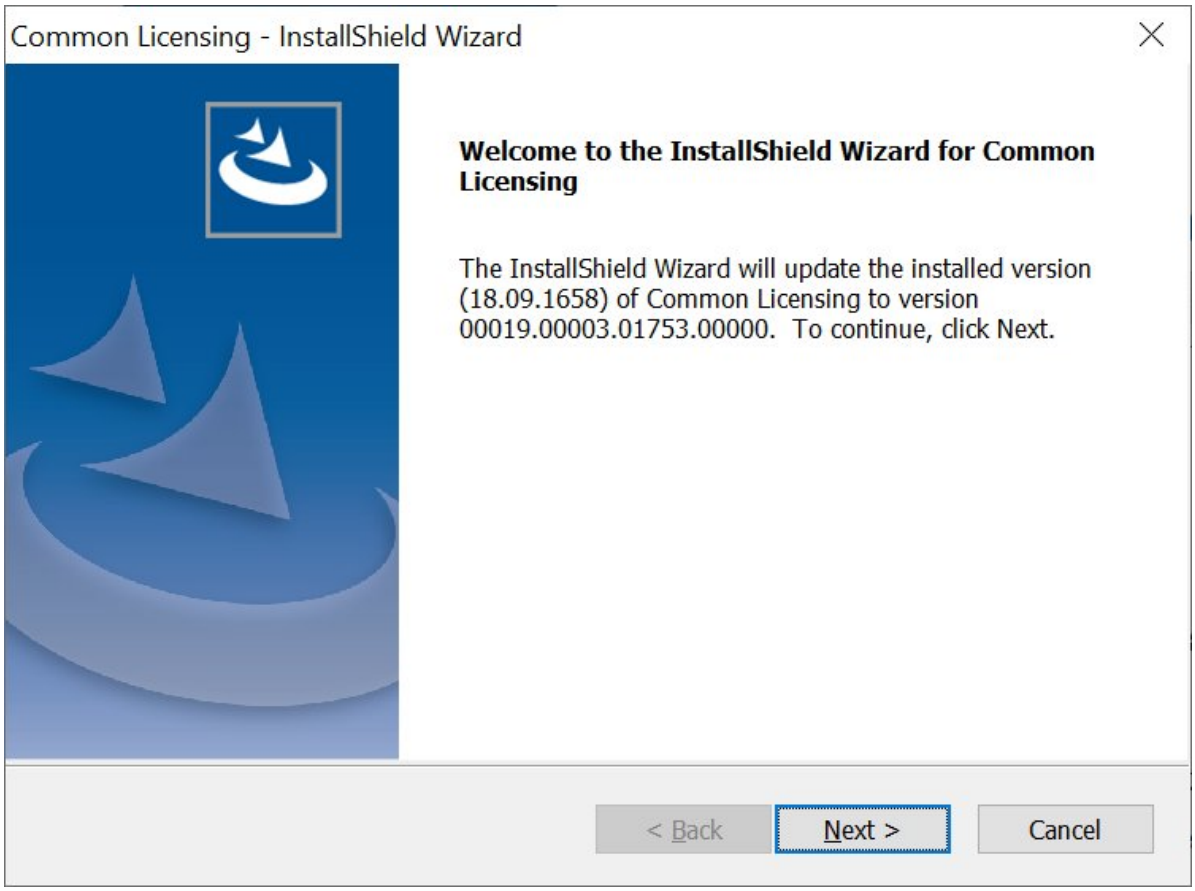


2. Click **Next**. The License Agreement appears.
3. Click **I accept the terms of this license agreement** and click **Next** to continue. The Ready to Install screen appears.
4. Click **Install**. When the install completes, the Installation Wizard Complete screen appears.
5. Click **Finish** to complete the install.

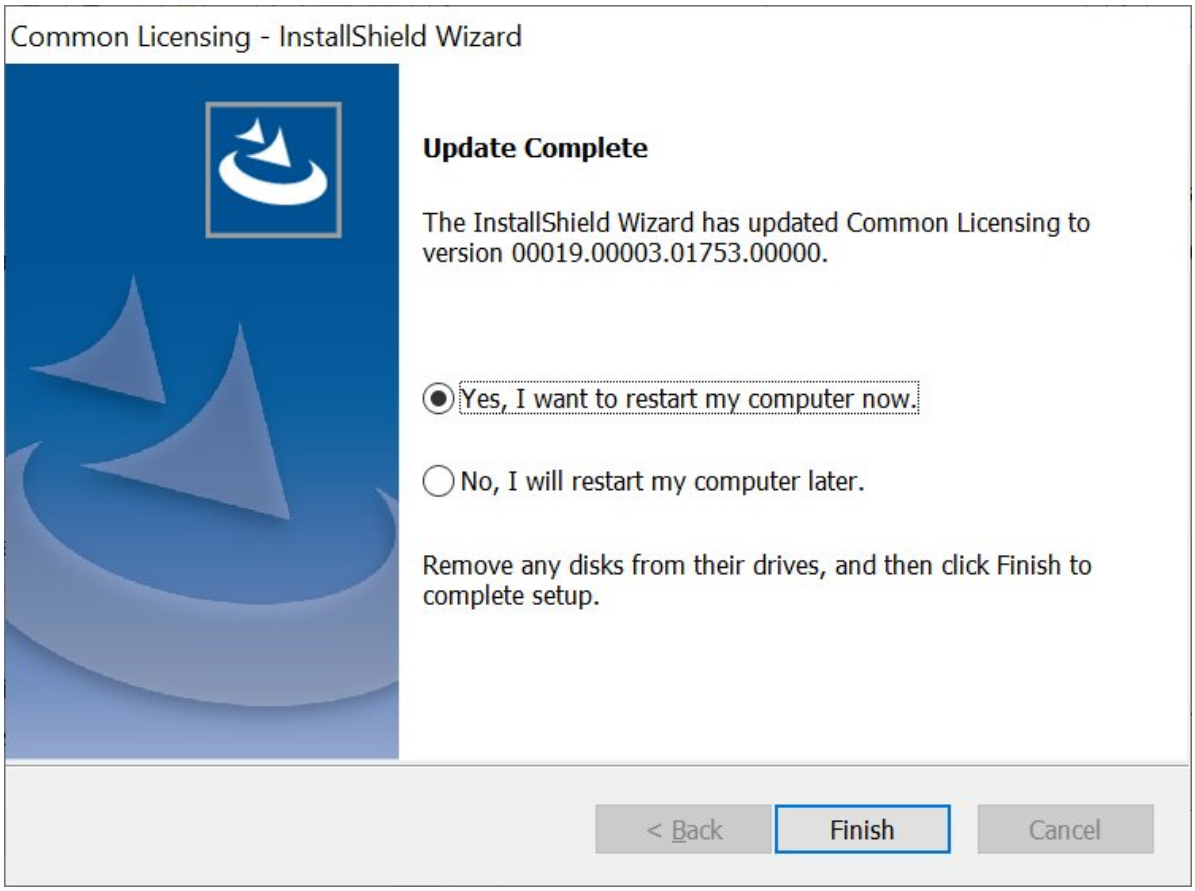
Install the License Client

1. Go back to the Common Licensing install screen, and click the **Install License Client** link.

   Again, a few screens will appear, and open and close as the install launches. This may take a few moments, and may require some pre-reqs for .NET to install. The following screen appears.



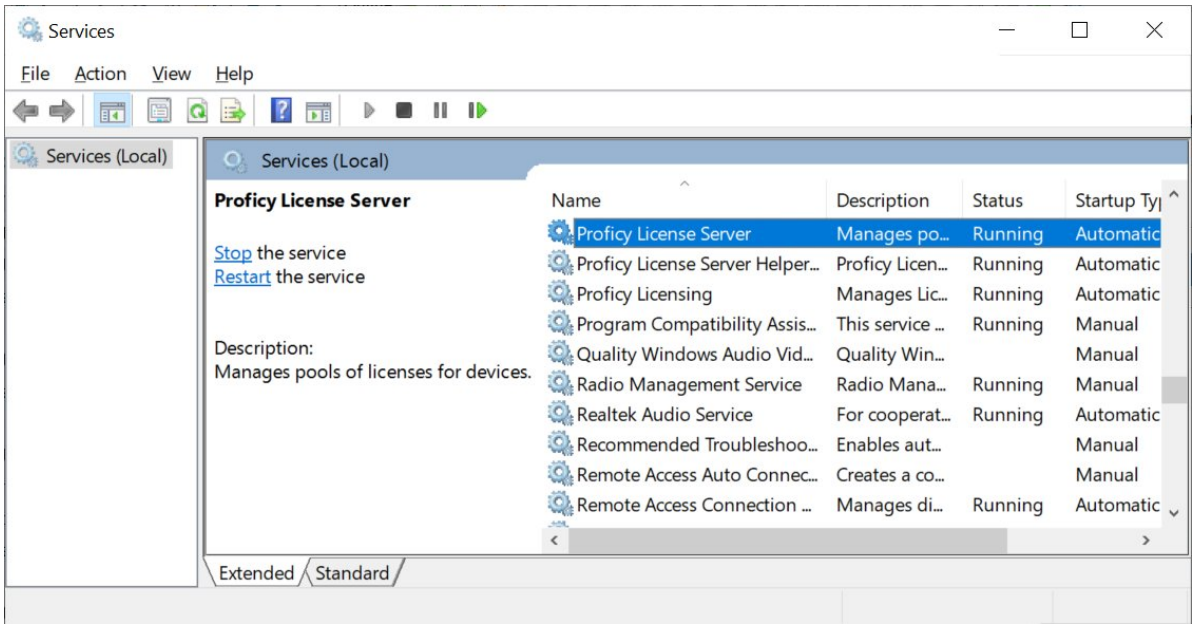
2. Click **Next**.
3. From the Install HASP Drivers screen, leave the default selected and click **Next**. The drivers are configured, and then your software is configured. When the update is complete, an Update Complete screen appears.



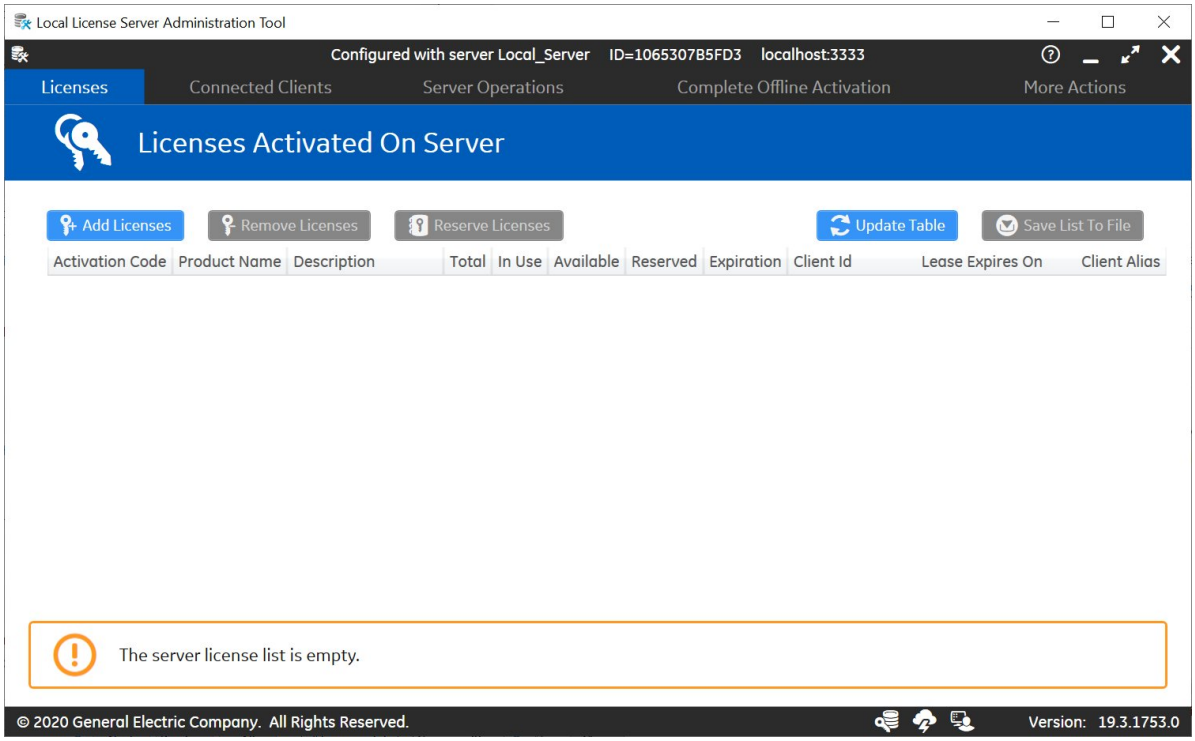
4. Leave the default of Yes selected to restart your computer.
5. Click **Finish**, and restart your computer.
6. Restart your computer

Download the License Codes on the Server

1. From the Services app, confirm that the License Server is running.



2. On the Start menu, go to General Electric > **Local License Server Administration**. A message appears asking if you want to make changes to this device.
3. Click **Yes** to continue. The License Local License Server Administration screen appears, as shown in the following figure.

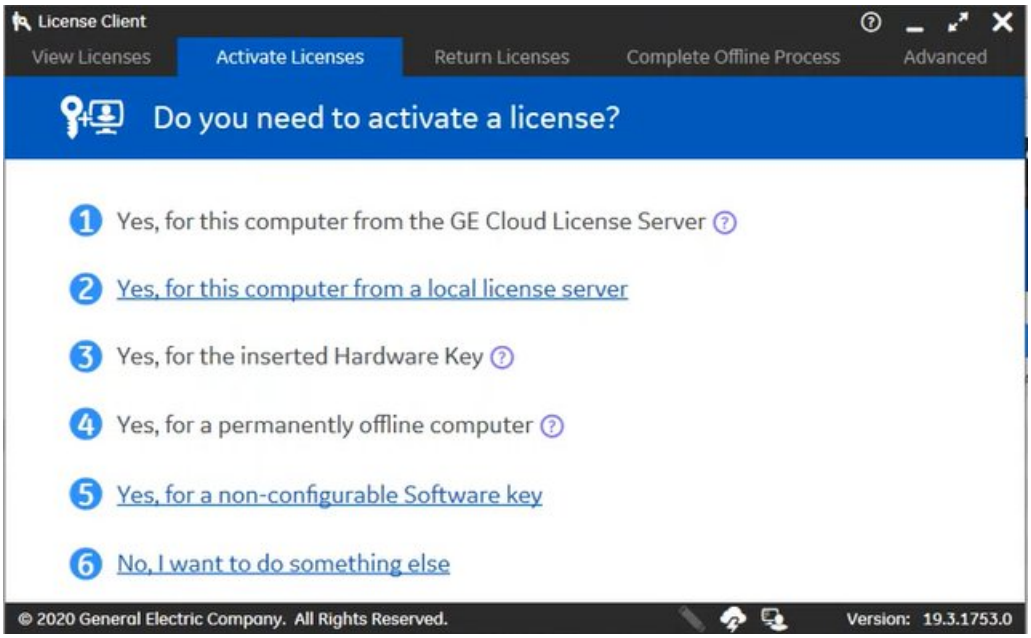


4. Click **Add Licenses.**
5. Enter your first activation code, and then click **Add Code**.

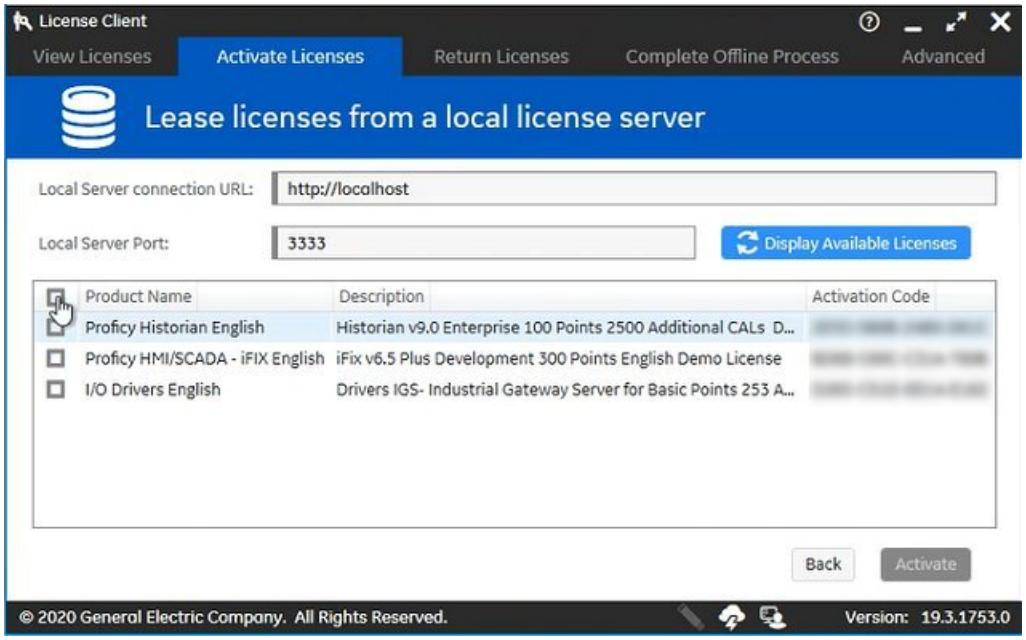
6. Repeat the previous step for each license you have.
7. Click **Activate**. The Licenses screen should now display all the licensees activated on the server.

Activate Your Entitlement on the License Client

1. On the Start menu, go to General Electric > **License Client**. A message appears asking if you want to make changes to this device.
2. Click **Yes** to continue. The License Client screen appears.



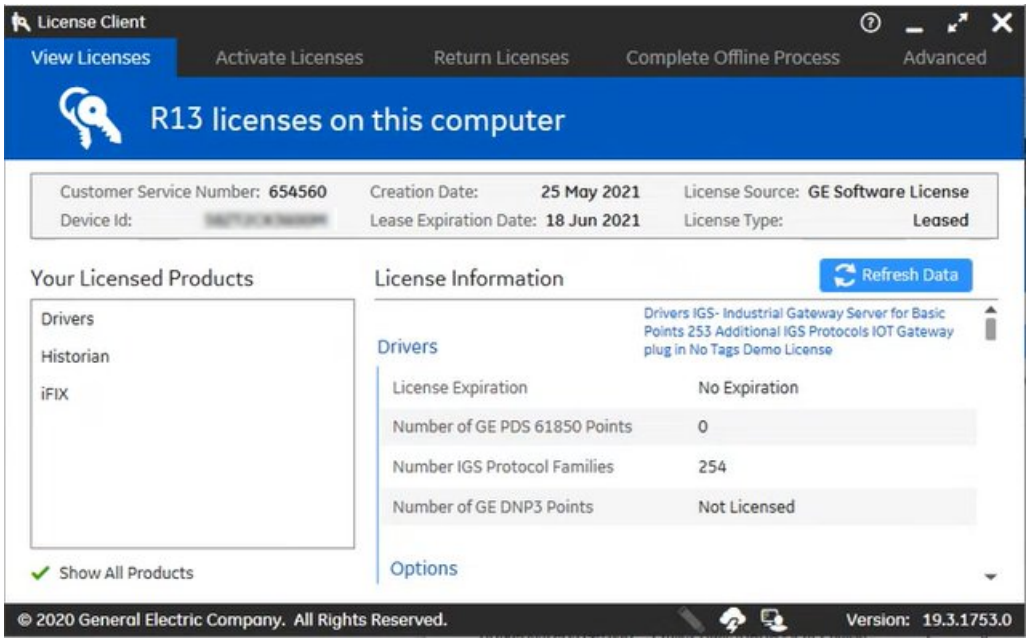
3. Since you have the Licensing Server already installed on the same machine, click option 2, the **Yes, for this computer from a local license server** option. The Lease Licenses screen appears.



4. Select the Historian, iFIX, and IGS licenses you want to activate, and then click **Activate**.

Confirm the License Client Displays Licenses

1. From the **License Client**, click the **View Licenses** tab. The licenses for the selected server appears, similar to the screen below.



2. In the Licensed Products area, click **Drivers**, **Historian**, or **iFIX** to view the license information.
3. Confirm that your license information appears correctly.

4. Close the application when you are complete.

Chapter 5. Install iFIX

Steps to Install iFIX

The steps that follow outline how to install the iFIX software from the product installation using the default settings. Be sure to run the iFIX install as an Administrator. When installing choose to install and register the local instance of Configuration Hub. Be sure to write down the client ID and client secret you enter during the install, you will needs this later when you install Historian!

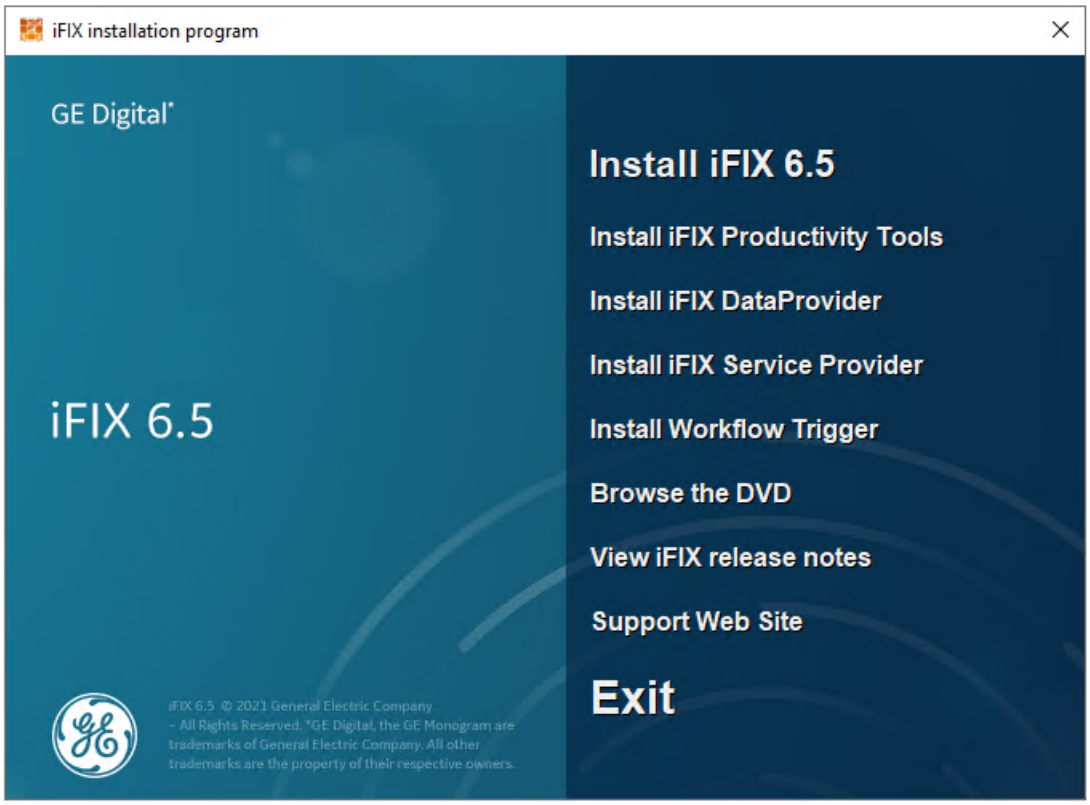
Note: The log file for the iFIX install is named iFIX65_SETUP.log. The log for the Configuration Hub portion of the install is named iFIX 6.5_ConfigHubMSI.log. Both logs appears in your Windows folder. These log files can be used to troubleshoot any issues that occur during install.

Install Steps

To install the iFIX software:

1. Log in to Windows with Administrator privileges. You must be an Administrator to install iFIX.
2. Ensure that there are no other GE processes running, and close any other programs that are running. It is important to shut down any GE or Proficy services and licensing prior to installing iFIX.
3. Mount the DVD, and from the install media, double-click the InstallFrontEnd.exe file to start the installer. A message may appear with a security warning. If it does, select Run to proceed.

   Important: Be aware that if you do not already have .NET 4.6.1 installed and you choose to install iFIX, the .NET 4.6.1 install will run first. After it installs, you will be prompted to restart your computer. After the restart, the iFIX install continues. The install media must be available or connected to the target machine the entire time for the install to finish.



4. Click the **Install iFIX** link. A message box appears asking you to confirm the install. By default, you will be prompted to install iFIX installs in secure mode.

   Important: There may be some pre-requisites that have to install before you can continue. If so, let them install and then continue. If you are using a network domain group, iFIX and its applications will not be able to run if this machine becomes disconnected from the network.

5. Click **Yes** to proceed. The install continues.

   Tip: If you see this message during the iFIX installation, you will need to install a Microsoft update before you can continue: “A necessary Windows security update for the Universal C Runtime component is missing on this computer. Please install the latest Windows updates and then install iFIX. For details, check the New Features section of the IPIiFIX.chm found in ReleaseNotes folder on this install media.” Install the Microsoft Update, KB2999226, and then try installing iFIX again. To install KB2999226, you may need to install other updates first. For Windows Server 2012 R2, you must have KB2919442 and then KB2919355 installed before installing KB2999226. For Windows 8.1, you just need KB2999226.

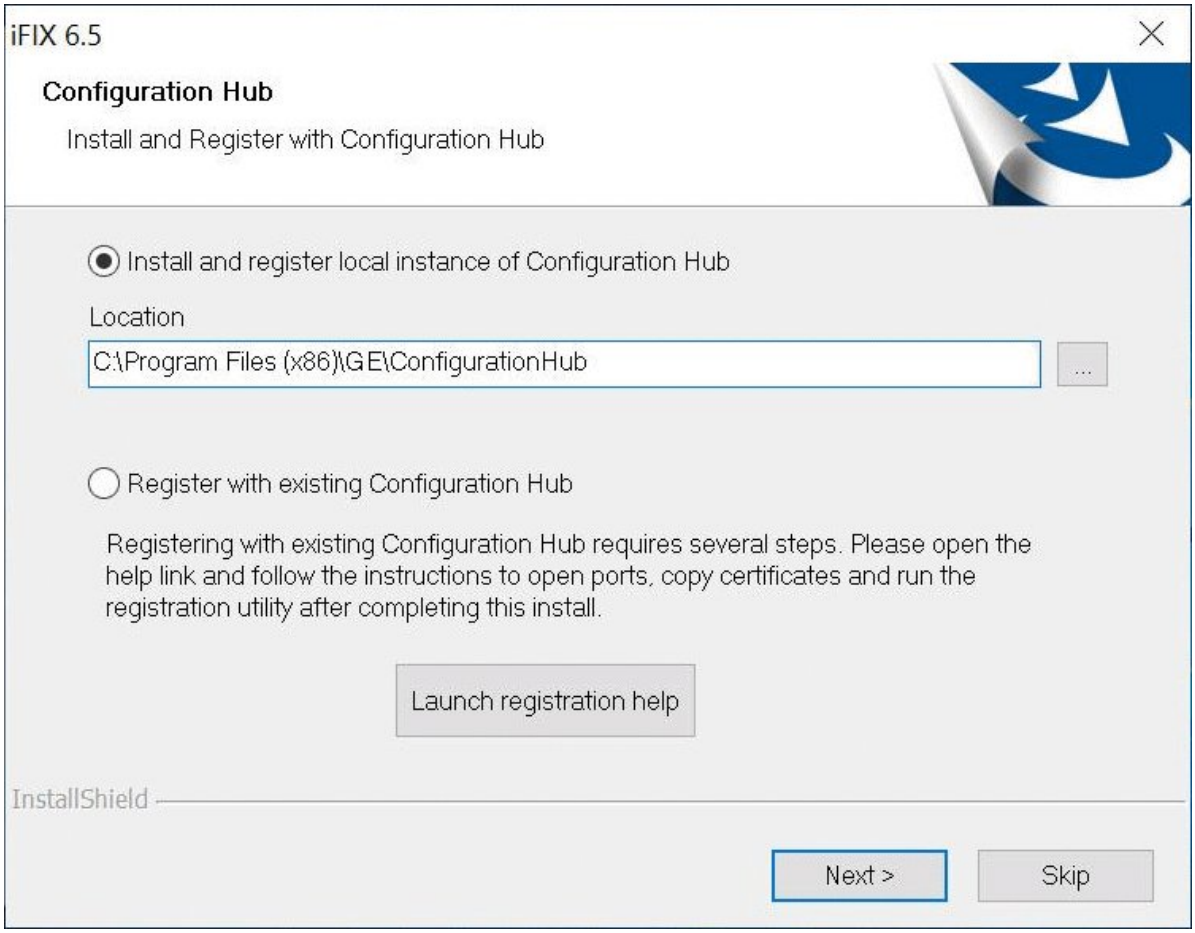
6. When an informational message box appears, click OK to proceed.

   Note: If a previous version of iFIX already resides on your computer when you try to install the latest version of iFIX, a message box appears during the installation suggesting that you upgrade your existing iFIX install. It is recommended that you elect to upgrade iFIX when this

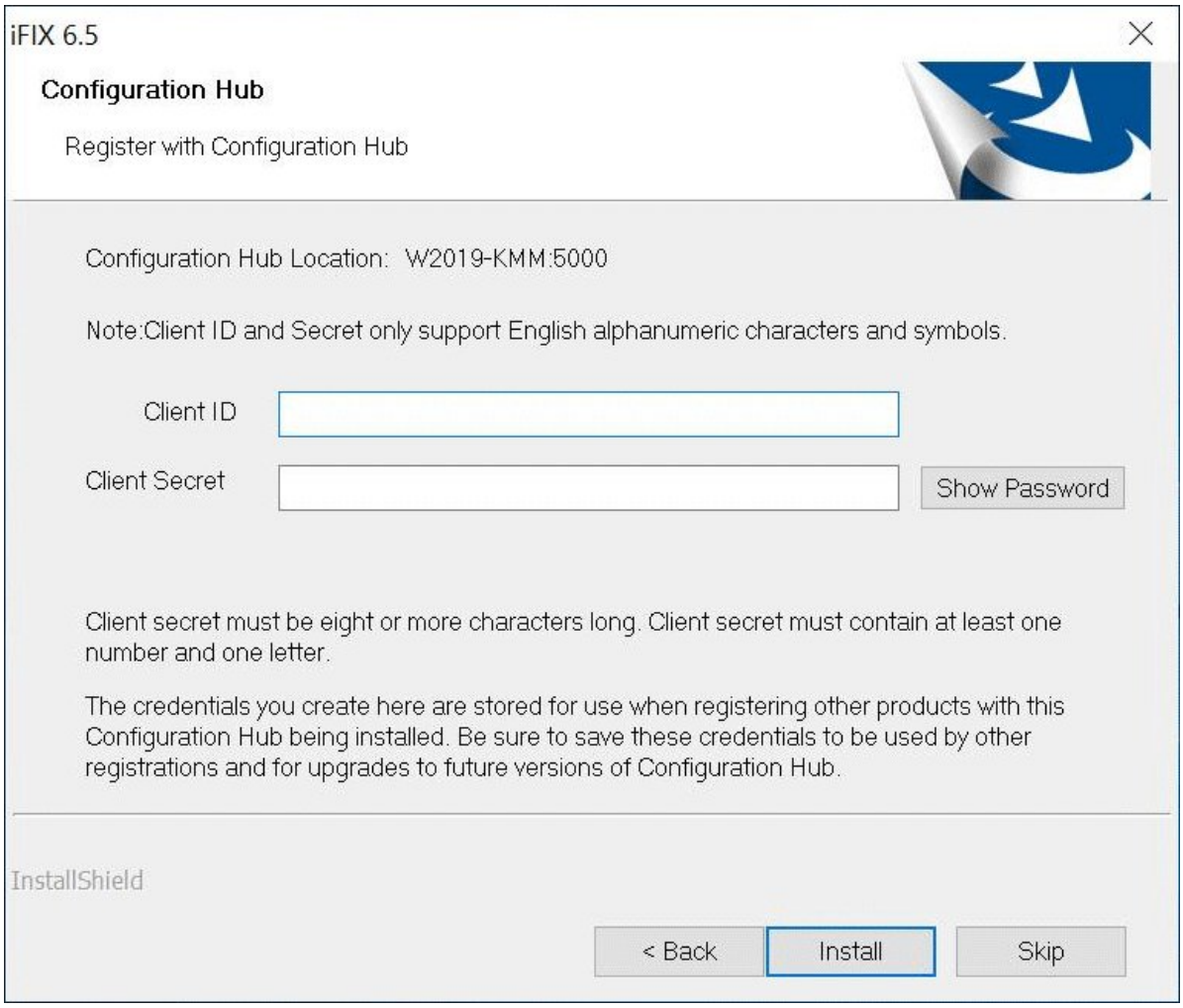
message appears. By following the upgrade process, iFIX installs to same folder where your previous version existed. For example, if you have iFIX installed to the C:\Dynamics folder, when you upgrade, the newer version of iFIX installs to the C:\Dynamics folder. After the iFIX upgrade completes and you restart iFIX, your SCU file is upgraded automatically, and the original file is backed up with a .^CU extension.

The install program starts and the Welcome screen appears.

7. Click Next to continue. The license agreement screen appears.
8. Click "I accept the terms of the license agreement" and then click **Next**. The Setup Type screen appears.
9. Select the **Typical** option, which installs iFIX, Configuration Hub, and the Electronic books (e-books), and then click **Next**. The Choose Destination Location screen appears.
10. Leave the default path, and click **Next** to continue. The Ready to Install Program screen appears.
11. Click Install. The progress of the installation displays on screen as the files are copied.
12. Wait as iFIX installs. After a few minutes, a Firewall setting message appears.
13. Click Yes to enable iFIX through the Windows firewall. The install continues. The next screen that appears is for Configuration Hub: the Install and Register with Configuration Hub screen.



14. Select the **Install and register the local instance of Configuration Hub** option. The Register with Configuration Hub screen appears.

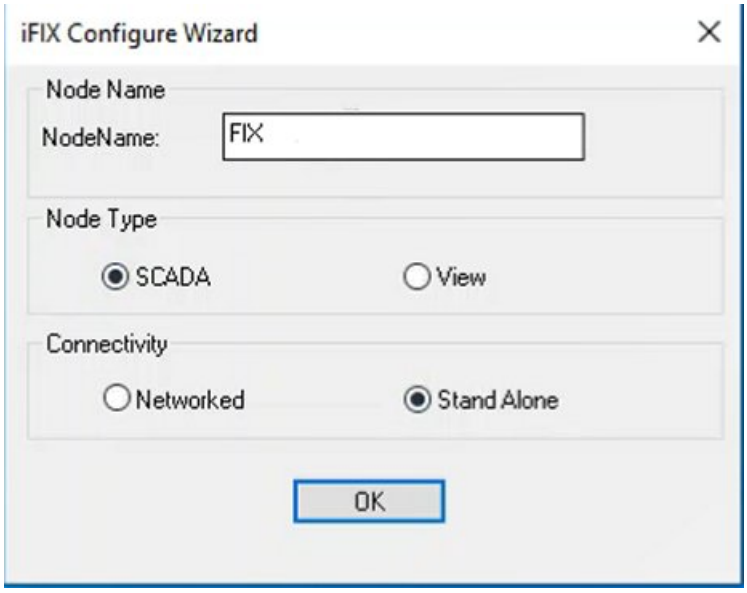


15. Enter a Client ID and Client secret. The client secret must be eight or more characters long and must contains at least one number and one letter.

    Note: Only English alphanumeric characters values and the following symbols are supported in the client ID and client secret fields: "-><~!@#$%^&*?|"

    Important: Be sure to take note of the values you enter in these fields. You need this information to register, update, or unregister Configuration Hub. For example, you would need the client ID and client secret if you want to configure a remote Configuration Hub.

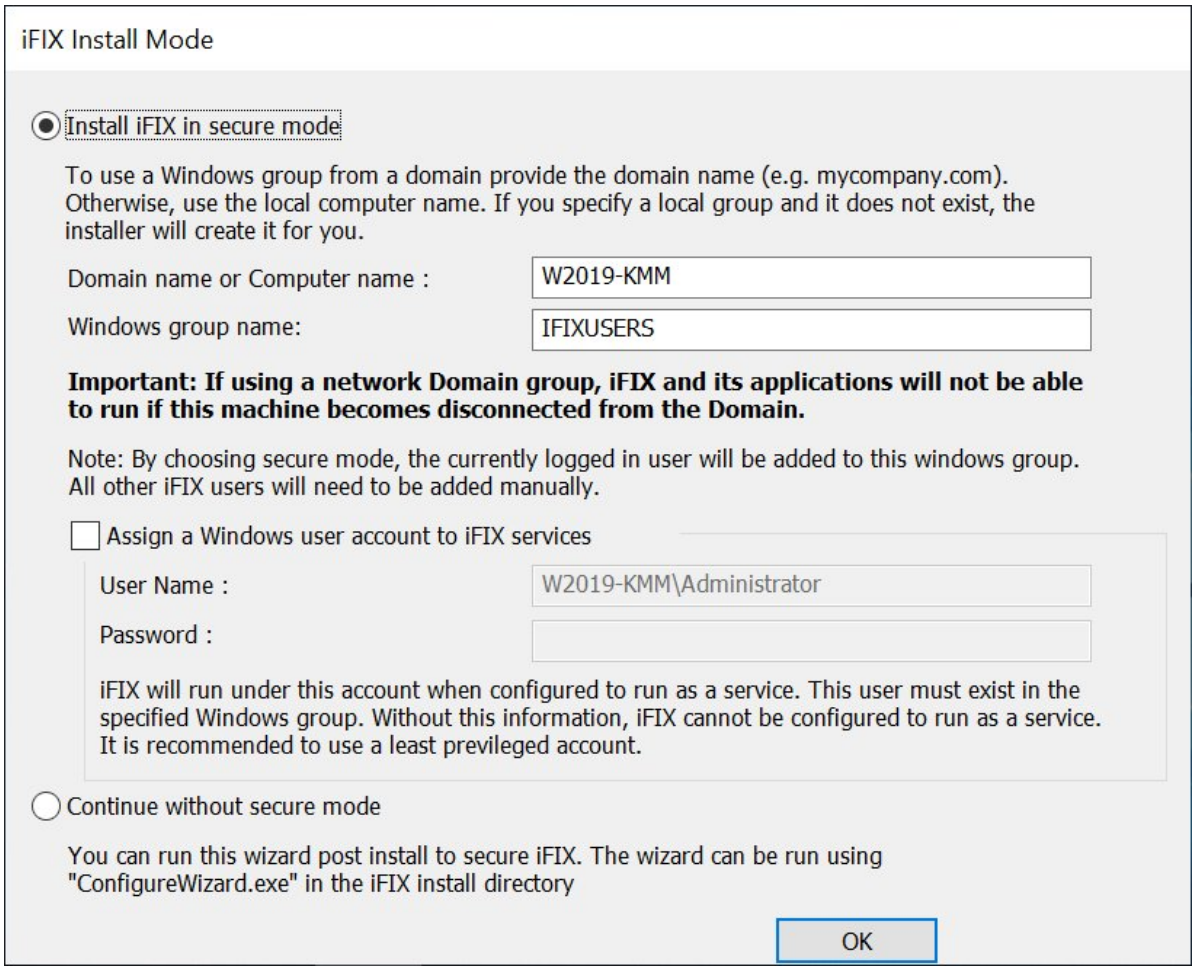
16. Click **Install** to install the Configuration Hub option. When the installation and registration completes, the iFIX Configure Wizard dialog box appears.



17. Leave the **Node Name**as FIX. (If you were using multiple SCADA servers on the same network, you'd probably want to consider giving it a different name. But, since we are installing everything on the same server, you do not have to change this value.)
18. For the **Node Type**, select SCADA.
19. For the **Connectivity Type** select **Stand Alone**, and then click OK.

Tip: If you wanted to enable other iClient (view) or other SCADA nodes to readily connect, you would select Networked.

The install continues and the iFIX Install Mode screen appears.



20. Leave the **Install iFIX in secure mode** option selected (the default).

    Note: You can optionally select the "Continue without Secure Mode" option, but it is not recommended for security purposes.

21. For the **Domain or Computer Name,** leave the local computer name (the default).
    - Be aware that when using the network domain group, iFIX and its applications will not be able to run if this machine becomes disconnected from the domain.
    - If you specify a local group and it does not exist, the installer will create it for you. By choosing secure mode, the currently logged in user will be added to this Windows group. All other iFIX users will need to be manually added.
22. For the **Windows group name**, leave the default: IFIXUSERS.
23. Leave the other options unselected (the default), and click **OK**.
24. When a message box appears requesting that you view the release notes, click **Yes**.
25. Close the release notes after you finish reviewing them to resume the install. The Install Complete screen appears.
26. Select **Finish** to restart your computer.
27. Check if there are any required Service Packs or SIMs to install for iFIX on the GE Support web site, and install them.

28. If you are using iFIX on a Domain, in a client/server networking configuration, update the HOSTS file with the name of the iFIX SCADA Server, to ensure the highest reliability for connectivity. This update must be done on the server and all clients, as the contents of the HOSTS file should be identical on each node (client and server) in your TCP/IP network. If your iFIX SCADA Server node name is different from the computer name where iFIX is installed, you also need to add this name to each HOSTS file.

Tip: For more information on the HOSTS file see below:

- You can find the HOSTS file in the C:\WINDOWS\system32\drivers\etc folder.
- Depending upon your permissions, you may need to copy this file to another folder, edit it, and then copy it back to the etc folder after your edits are complete.
- Use a text editor such as Notepad to edit the HOSTS file. To prevent Notepad from automatically adding a .TXT file extension when you save the file, in the Save as Type field, select “All Files.”
- An example entry in the HOSTS file is as follows: 198.212.170.4 SCADA01. If SCADA1 was the iFIX SCADA Server node name, but the computer name where the iFIX SCADA Server was installed was AREA1, you would need to add a second line to the HOSTS file for AREA1: 198.212.170.4 AREA1.
- If you do not know the TCP/IP address of the SCADA computer, run the IPCONFIG command on the SCADA Server.
- Be sure to update the HOSTS file on the SCADA Server and each iFIX Client that you install.
- The same, identical entries should appear in the HOSTS file for the iFIX SCADA Server and each iFIX View node (Client) on your network.

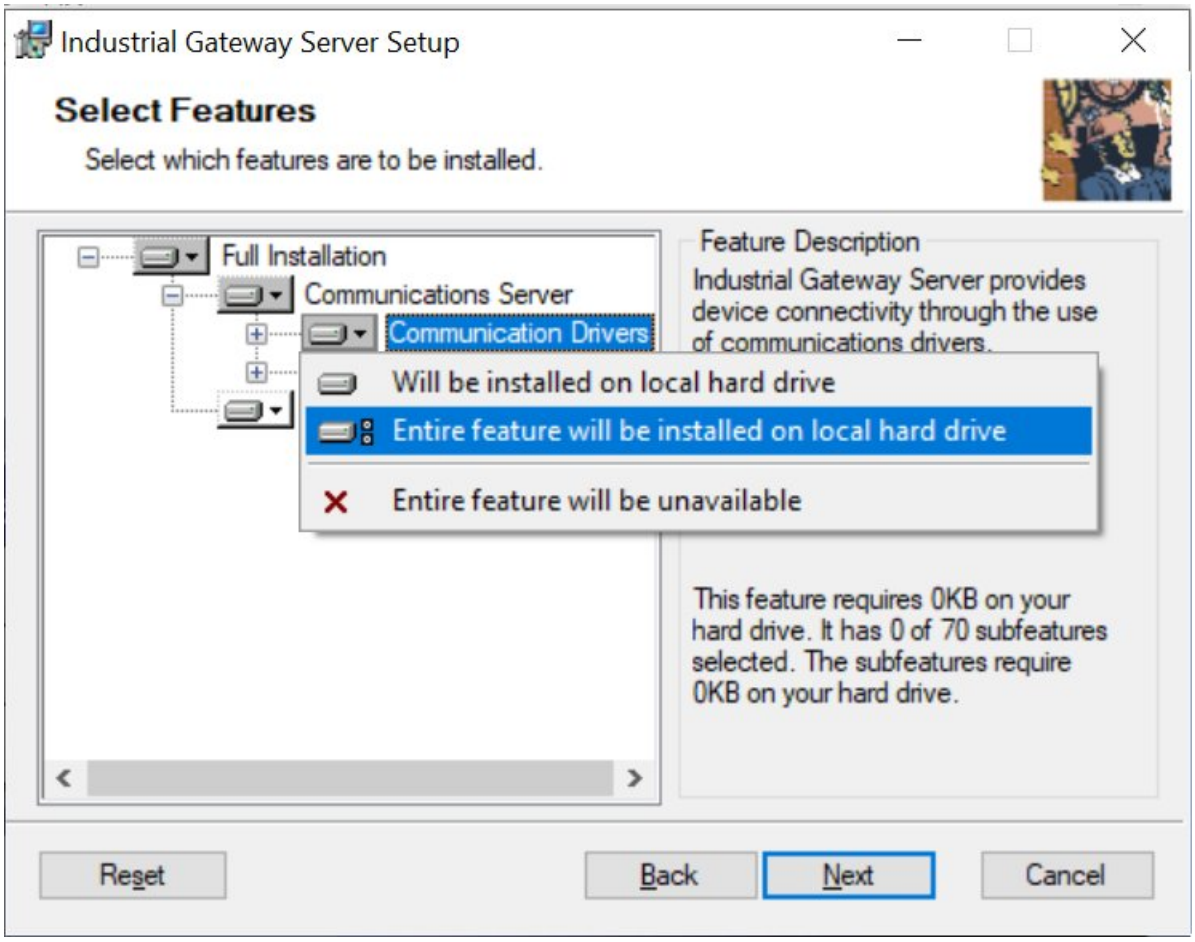
Chapter 6. Install IGS

Steps to Install IGS

1. Log in to Windows with Administrator privileges. You must be an Administrator to install Historian Server.
2. Ensure that there are no other GE processes running, and close any other programs that are running. It is important to shut down any GE or Proficy services and licensing prior to installing Historian. Shut down iFIX if it is already running.
3. Double-click the IGS installer, (IGS_v7.68_Software.exe, for example) to start the installer.
4. If a message appears requiring pre-requisites, click **Yes** to let the install copy the 2013 runtime components, click OK, and then restart the computer. After a few moments, the welcome screen appears.
5. Run the IGS installer again. The Welcome screen appears.

6. Click **Next** to proceed. The Application Data Folder screen appears.

7. Leave the defaults and click **Next** to proceed. The Shortcuts screen appears.
8. Leave the defaults and click **Next** to proceed. The iFIX Information screen appears.
9. Leave the default of FIX and click **Next** to proceed. The IGS install should auto-detect the already installed iFIX instance, making the install and configuration much easier. The Select Features screen appears.
10. Select the drop-down arrow next to the **Communications Drivers** folder. It is recommended that yous select **Entire feature will be installed on local hard drive** option, as shown in the following figure.



11. Click **Next** to proceed. The External Dependencies screen appears
12. Click **Next** to proceed. The User Manager Credential screen appears.
13. Select the **Skip Setting a Password at this Time** option.
14. Click **Next** to proceed. The Ready to Install screen appears.
15. Click **Install**.
16. Wait for the install to complete. When the install completes a final screen appears.
17. Click **Finish**.

Steps to Add IGS to the iFIX SCU

Configure IGS

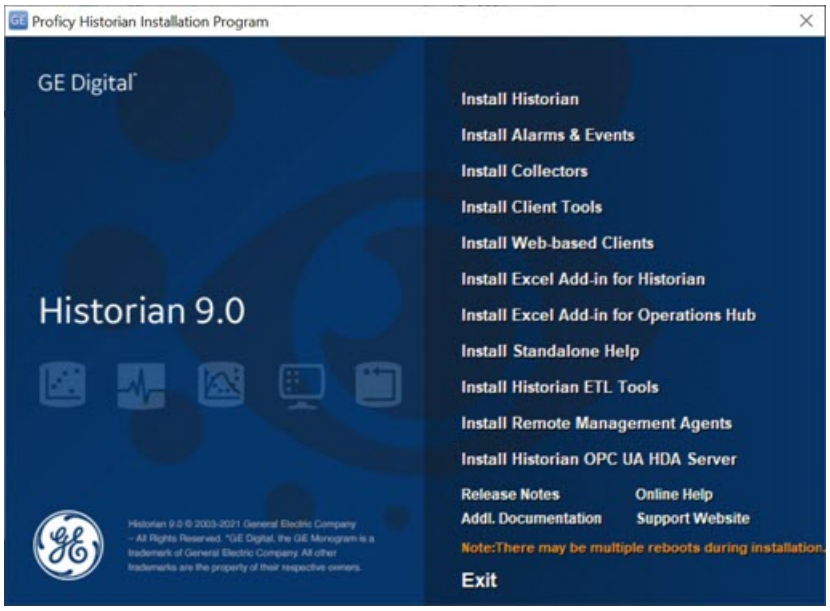
1. Opened the iFIX **SCU** to configure IGS driver.
2. On the Configure menu, select **SCADA**.
3. In the I/O Driver name field, click the browse (…) button. The available driver dialog box appears.
4. Select the IGS driver, and click OK.
5. Click **Add** to add the driver.
6. Click OK.
7. Save the SCU and start iFIX.

Chapter 7. Install Historian

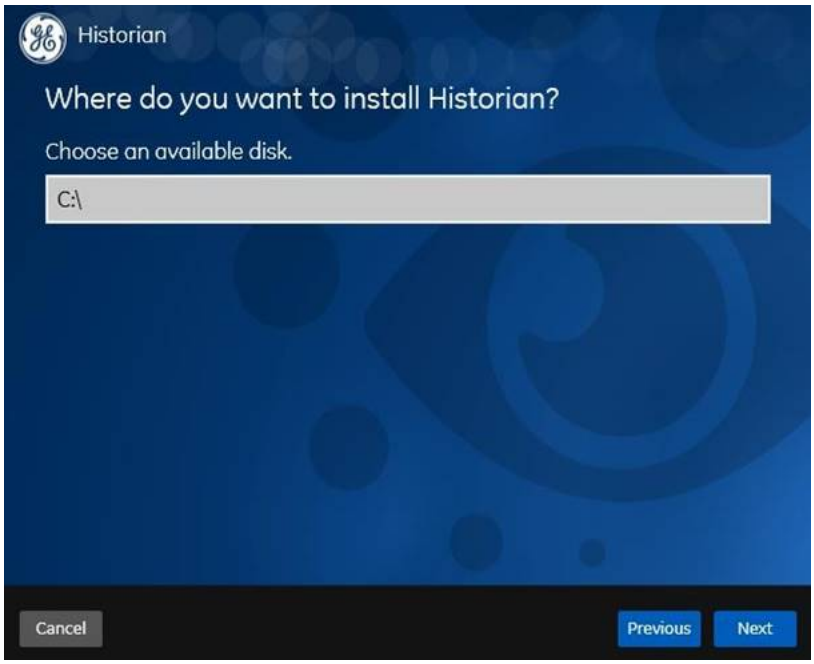
Steps to Install Historian Server

Note: Be aware for troubleshooting, by default, that the Historian install logs are copied here: C:\Users\UserName\AppData\Local\Temp\Historian_DateTime\Historian_DateTime.log

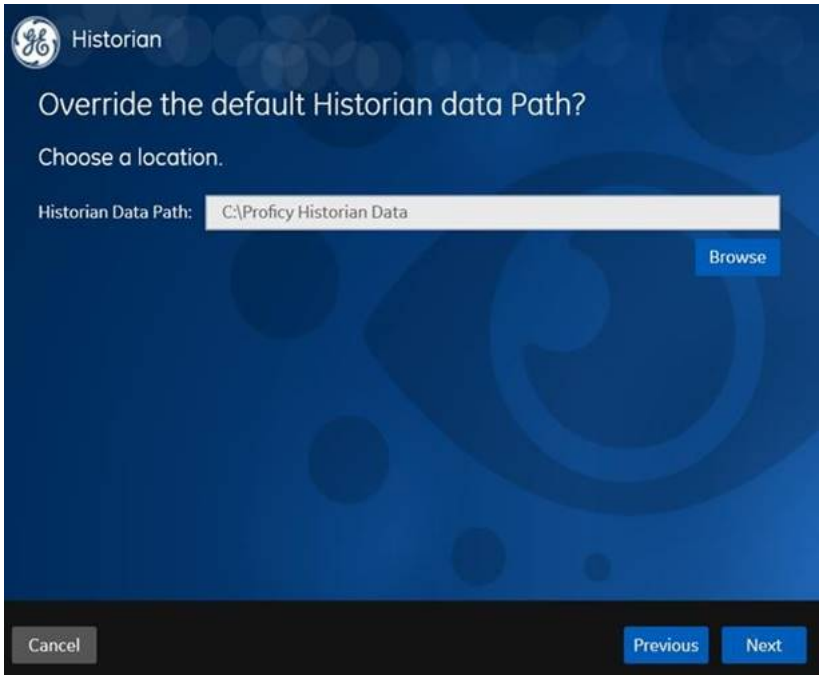
1. Log in to Windows with Administrator privileges. You must be an Administrator to install Historian Server.
2. Ensure that there are no other GE processes running, and close any other programs that are running. It is important to shut down any GE or Proficy services and licensing prior to installing Historian. Shut down iFIX if it is already running.
3. Mount the installer, and from the install media, open the Historian installation screen by right-clicking the InstallLauncher.exe file and selecting **Run as Administrator**. A message may appear with a security warning. If it does, select Run to proceed.



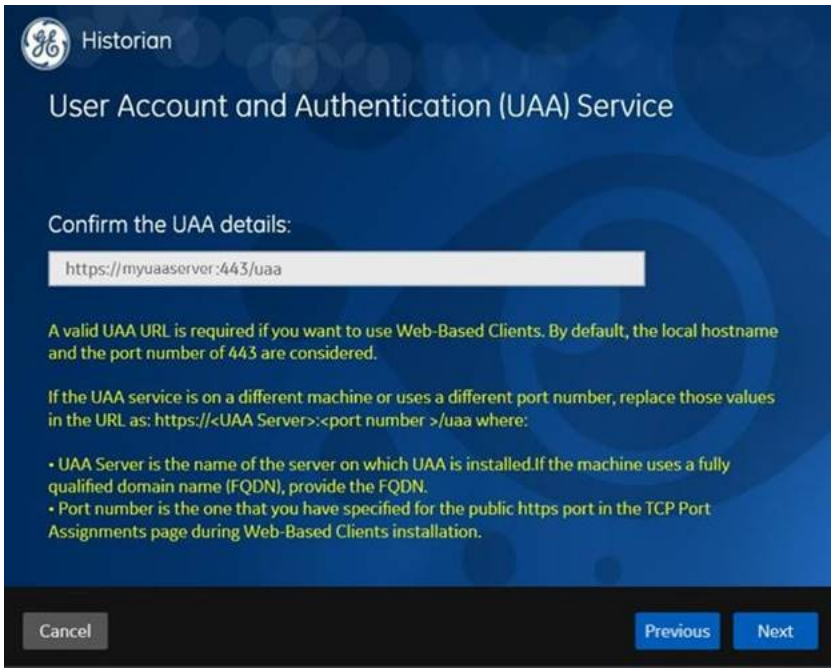
4. Select **Install Historian**. The welcome page appears.
5. Select **Next**. The license agreement appears.
6. Select the **Accept** check box, and then select **Next**. The Path screen appears.



7. Leave the default and click **Next**. The Default Data Path screen appears.



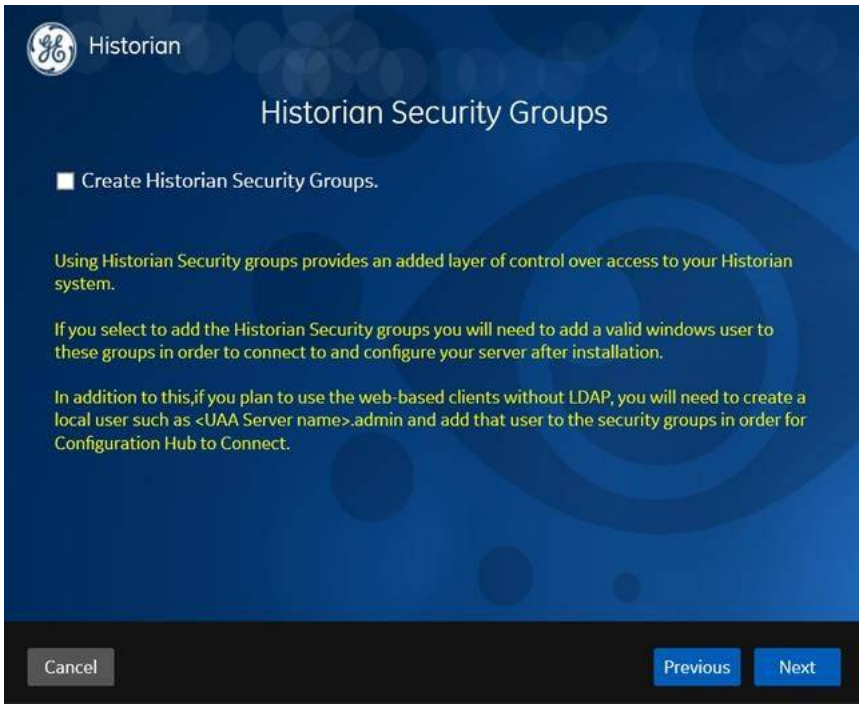
8. Leave the defaults and click **Next**. The**Override the default Historian data Path?** page appears.
9. Leave the default folder of the log files, and then select **Next**. The **UAAConfiguration** page appears. (UAA is required for user authentication. UAA provides identity-based security for applications and APIs. It supports open standards for authentication and authorization, including Oauth2.)



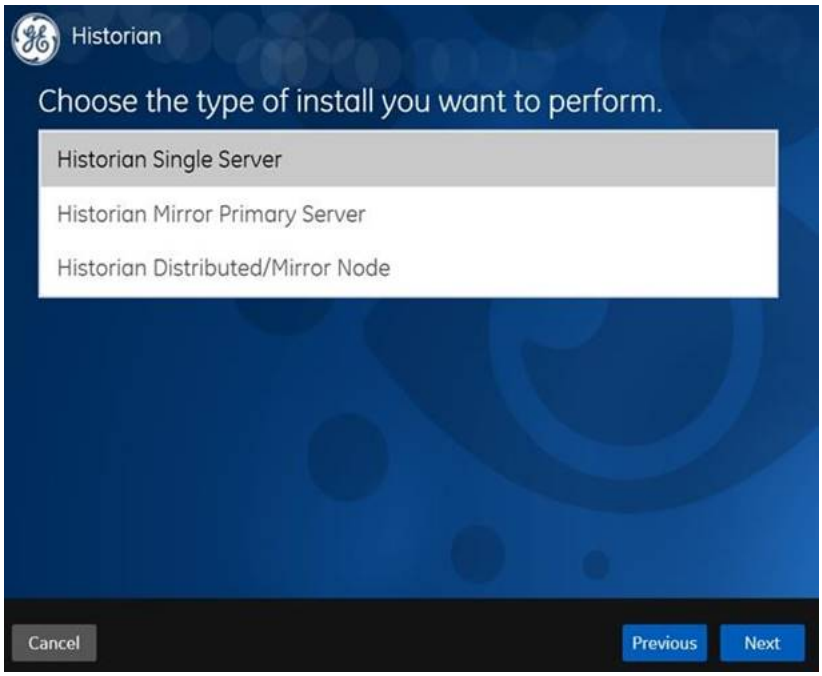
10. Leave the default value in the **Confirm the UAA details** box.

    Note: UAA details are required for use with Configuration Hub. By default, the local hostname and the port number of 443 are considered. If the UAA service is on the same machine on which you are installing the Historian server, you can accept the default value. If, however, the UAA service is on a different machine or uses a different port number, replace those values in the URL as follows: https://<UAA server>:<port number>/uaa where: <UAAserver> is the name of the machine on which UAA is installed. If the machine uses a fully qualified domain name (FQDN), provide the FQDN. <Port number>is the one that you have specified for the public https port in the **TCP Port Assignments** page during Web-based Clients installation. You can install a UAA service using Operations Hub or Historian Web-based Clients. You can provide the URL of an existing UAA instance. Or, if a UAA service is not available, you can install it during Web-based Clients installation. If you are installing a distributed/mirror node, provide the same UAA details that you entered while installing the primary server.

11. Select **Next**. The**Historian Security Groups** page appears. Using Historian security groups provides an added layer of control over access to your Historian system.

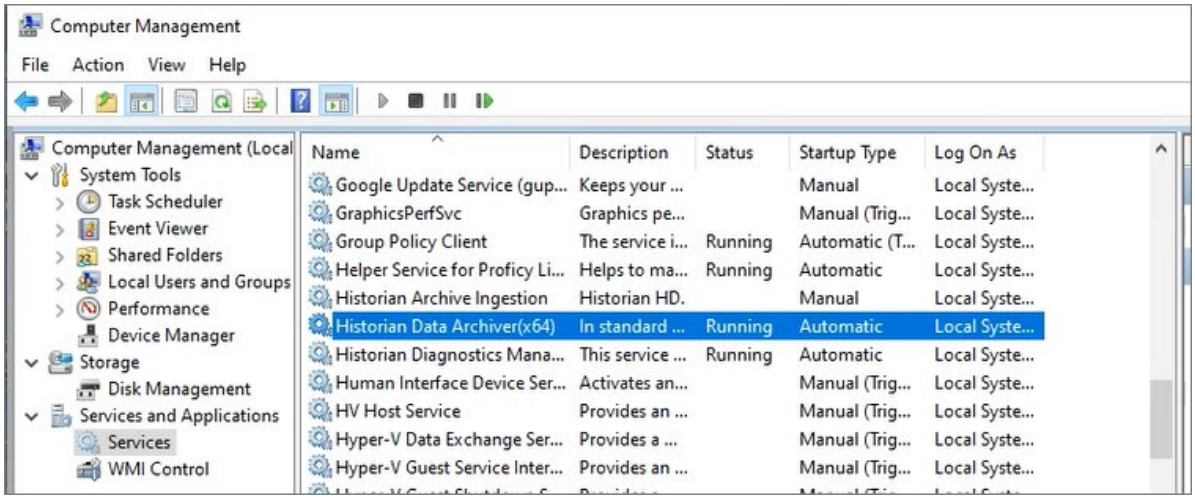


12. Leave this check box cleared (the default), and click **Next**. The Choose Type of Install page appears.



13. Select **Historian Single Server**. This option is for a stand-alone Historian system, which contains only one Historian server. This type of system is suitable for a small-scale Historian setup.
14. Click **Install**, the installation begins.

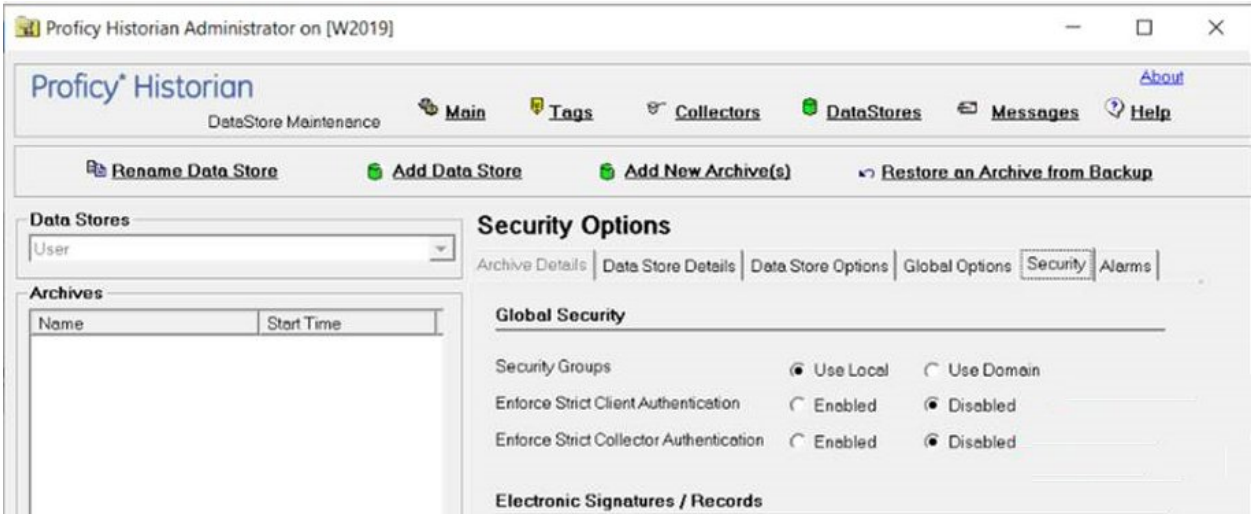
15. When you are asked to reboot your system, select **Yes**.
16. After the restart, open the **Services** app to confirm that the **Historian Data Archiver** shows up in the Services panel and is in a **Running** state.



Important: If for some reason, you do not see the **Historian Data Archiver** in this list and **Running**, attempt to reinstall Historian Server (without an uninstall). If something went wrong during your install, this troubleshooting step should fix it. The Data Archiver is an important application that needs to be running for use of the Historian Server. You will not be able to get data in iFIX if the Historian Data Archiver is not installed and running.

Perform Historian Server Post Install Tasks

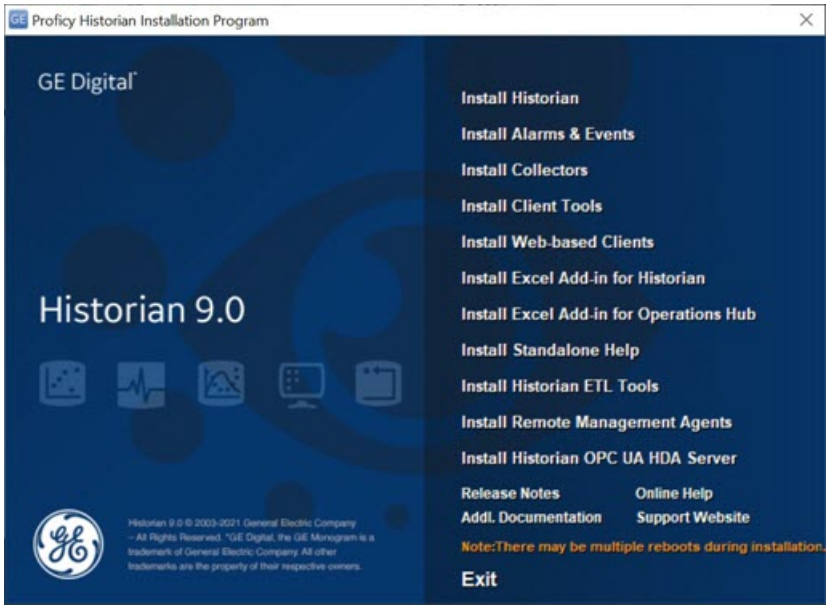
From the Start menu, open the **Historian Administrator**. If you want to connect to a remote Historian server, you must disable the **Enforce Strict Client Authentication** and **Enforce Strict Collector Authentication** options using Historian Administrator as shown in the following figure.



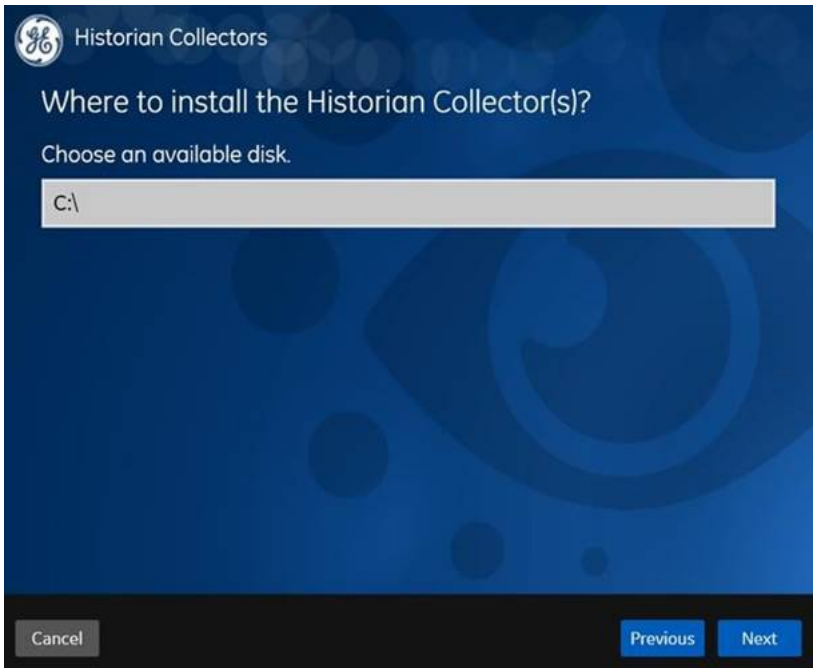
Also, be sure to ensure that the Windows user that you have specified while installing collectors is added to the iH Security Admins and iH Collector Admins groups.

Steps to Install Historian Collectors

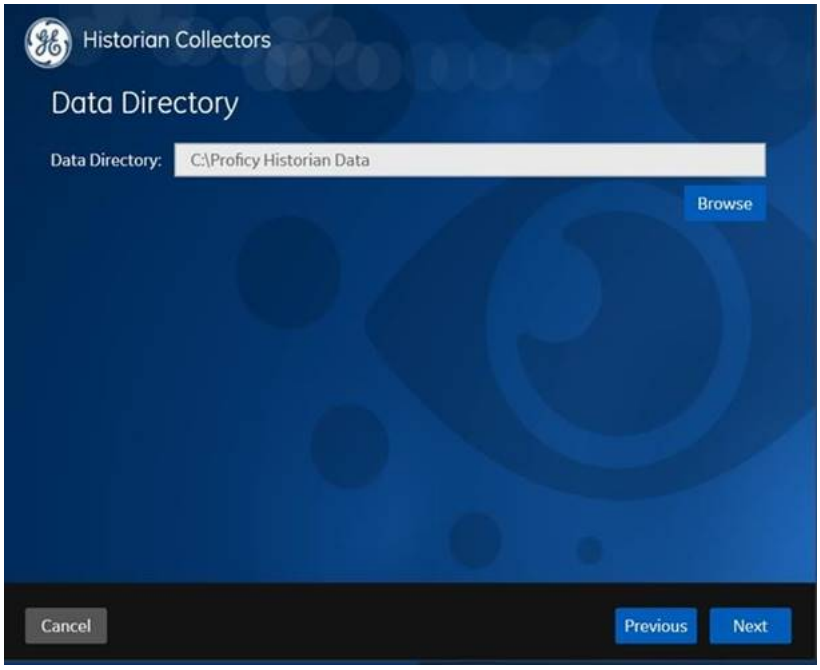
1. Right-click the InstallLauncher.exe file and select **Run as Administrator**.



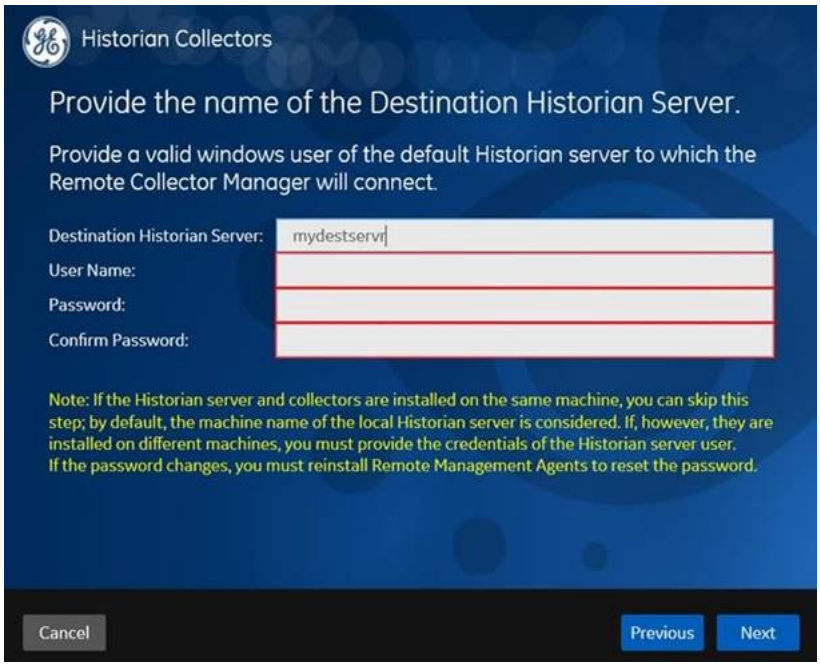
2. Select **Install Collectors**. The welcome page appears.
3. Select **Next**. The license agreement appears.
4. Select the **Accept** check box, and then select **Next**. The default installation drive appears.



5. Leave the defaults and click **Next**. The Data Directory screen appears.



6. Leave the defaults and click **Next**. The log file folder appears.
7. Leave the defaults and click **Next**. The destination Historian server page appears.



8. Provide the credentials of the Windows user account of the destination Historian server to which you want Remote Collector Manager to connect, and then select **Next**.

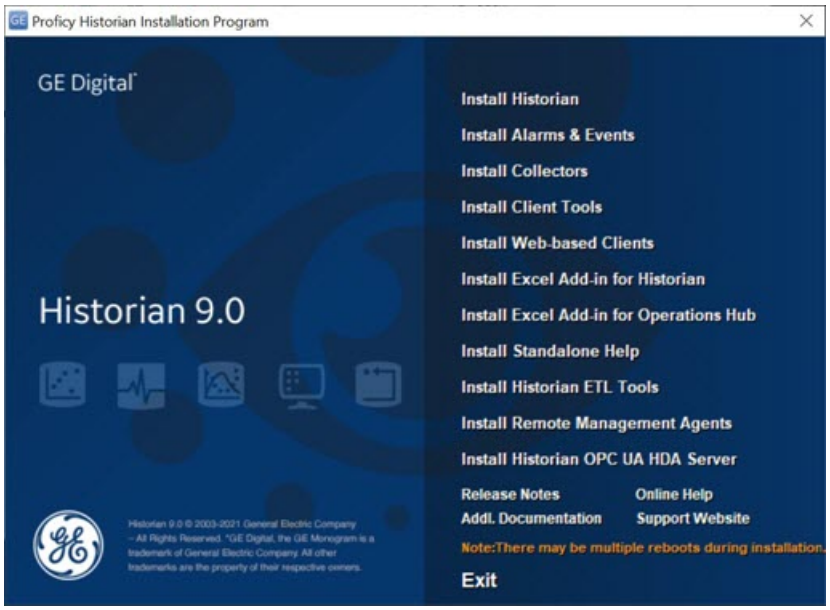
   Note: These details are required for Remote Collector Manager to connect to Historian to manage the collectors remotely. If the Historian server and collectors are installed on the same machine, and if strict collector authentication is disabled, you need not provide these details; by default, the machine name of the local Historian server is considered. If, however, they are installed on different machines, or if strict collector authentication is enabled, you must provide the credentials of the Historian server user.

9. Select **Yes**. A message appears, stating that you are ready to install collectors.
10. Select **Install**. The installation begins.
11. When you are prompted to reboot your system, select **Yes**.

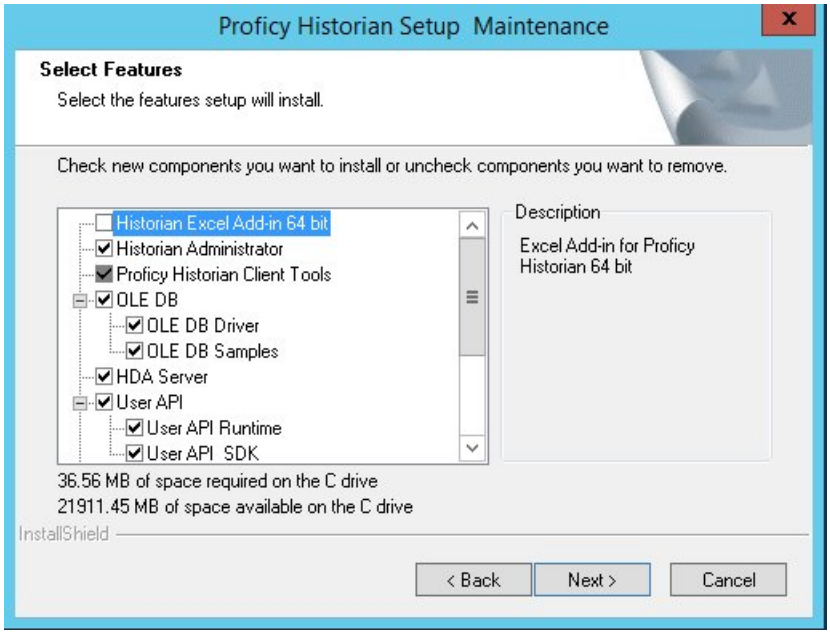
The collector executable files are installed.

Steps to Install Historian Client Tools

1. Right-click the InstallLauncher.exe file and select **Run as Administrator**.



2. Select **Install Client Tools**. The **Select Features** page appears, displaying a list of components that you can install with Client Tools.



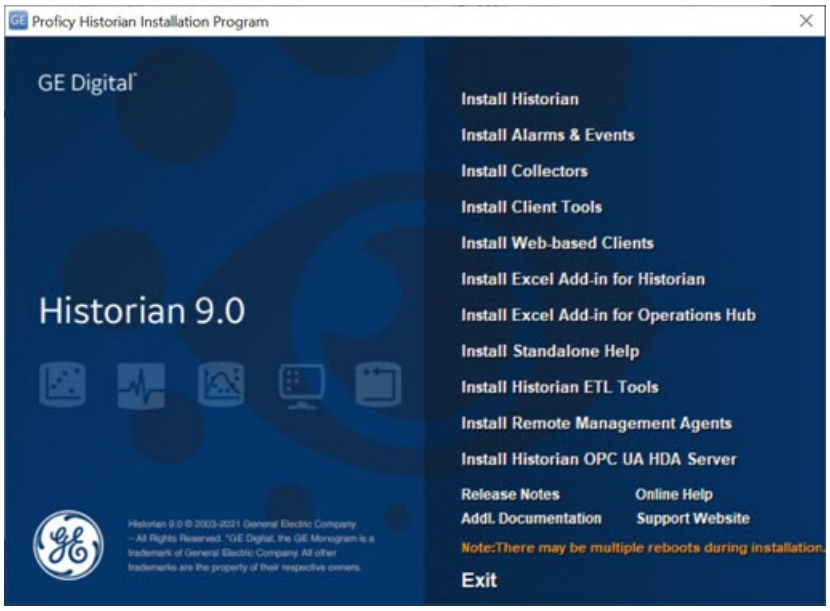
3. Leave the defaults. By default, the check boxes for components such as **Historian Administrator**, **HDA Server**, **OLE DB**, and **User API and SDK** are selected. If you do not want to install them at this time, clear the check boxes. You cannot, however, clear the **Proficy Historian Client Tools** check box.
4. Select **Next**. The **Choose the Historian Program Folder** page appears.
5. Leave the default destination folder of Client Tools, and then select **Next**. The **Historian Server Name** page appears.

6. Enter the IP address or the host name of the Historian server that you want to use with Client Tools, and then select **Next**.
7. When you are asked to reboot your system, select **Yes**.

Historian Client Tools, along with the selected components, are installed. If you have selected HDA Server, Microsoft .NET Framework 4.5 and the OPC Core Components 3.00 redistributable are installed as well.

Steps to Install Historian Web-Based Clients

1. Right-click the InstallLauncher.exe file and select **Run as Administrator**.



2. Select **Install Web based Clients**. The welcome page appears.
3. Select **Next**.The license agreement appears.
4. Select the **Accept** check box, and then select **Next**.The **TCP port assignments** page appears.
5. Leave the defaults, and select **Next** to proceed. The **Fully Qualified Domain Name(s)** page appears.
6. In the **FDQNs** box, leave it blank unless you are on a domain. Otherwise, enter the fully qualified domain names and then, select **Next**.

   Note: This field enables you to access Historian web applications remotely. You can use it to access the Web Admin console using alias names. Enter the values separated by commas. To access the Web Admin console using any of the following URLs, enter `Test.abc.ge.com,localhost,127.0.0.1,aliasName` The **Fully Qualified Domain Name(s)** page appears. Do not enter a space between the values. The **User Account and**

Authentication Service page appears, allowing you to choose whether you want to install UAA along with Web-based Clients installation or use an existing UAA.

7. Clear the **Use External UAA** check box. This will install UAA locally.
8. Enter an **Admin client secret**, re-enter the secret, and then select **Next**. Be sure to save this information!

   Note: The admin client secret must satisfy the following conditions: Must not contain only numbers, must not begin or end with a special character, and must not contain curly braces. The format of username for Historian Web-based Clients is <host name>.admin, where <host name> is the machine on which Web-based Clients are installed. And, the default client ID is admin. Both the host name and client ID are case-sensitive. If, however, the UAA server hostname is long, resulting in a username longer than 20 characters, Windows does not allow you to create the user. In that case, you can create a UAA user, and then create the corresponding Windows user, using the uaa_config_tool utility.

   Next, the **Configuration Hub Installation** page appears, allowing you to choose whether you want to install Configuration Hub along with Web-based Clients or an existing Configuration Hub, which is installed with iFIX. Configuration Hub allows you to add and manage a collector instance remotely.

9. Ensure that the **Use Existing Configuration Hub** check box is selected. (We will use the Configuration Hub instance that we already installed with iFIX.)
10. Enter the **server name** or the FQDN of the existing Configuration Hub server.

    Note: This server name is displayed in the address bar of the browser when you access Configuration Hub from the machine where Configuration Hub is installed.

11. Leave the default for the **Server Port**. If needed, modify the port number that you want to use for the web server (NGINX). The default value is 5000.
12. Enter the **Client ID** and **Client Secret** you used during the iFIX install.
13. Select **Test Connection**.The results of the connection test appear. You cannot proceed until the connection is successful.
14. Select **Next**. The default installation drive appears.
15. Leave the default and select **Next**.The **Customize Log Files Locations** page appears.
16. Leave the default, and then select **Next**. The destination Historian server page appears.
17. Provide the name of the destination Historian server to which Web-based Clients are connected by default. When you login to Configuration Hub, the default system will point to this server. Provide the name of Historian single-server.
18. Select **Next**. A message appears, stating that you are ready to install Web-based Clients.
19. Select **Install**. The Web-based Clients installation begins. When the install completes, a message appears.
20. Click **Exit** to close the install.
21. If prompted to reboot your machine, select **Yes** and restart.

Steps to Install Historian Web Client Certificates

Overview

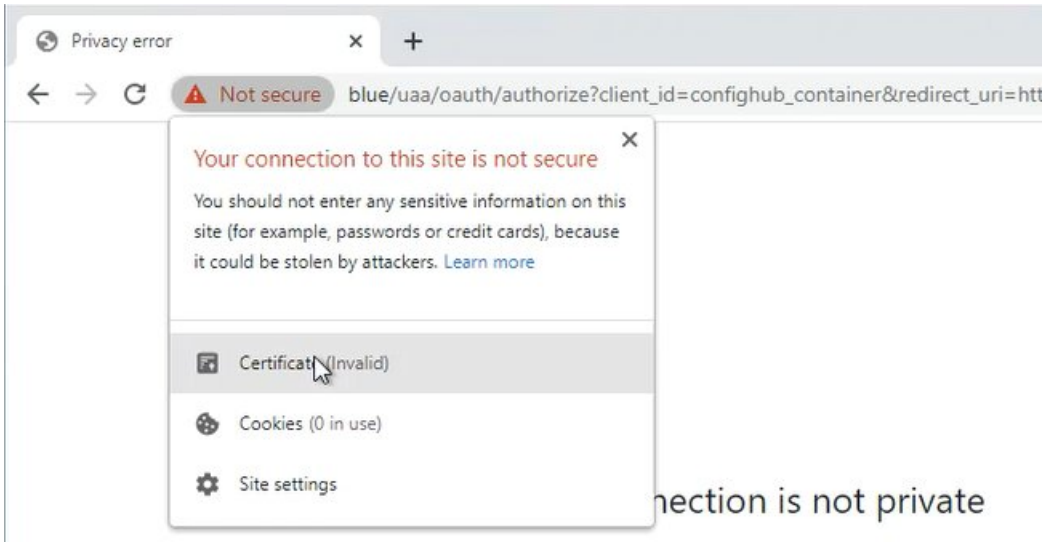
During Historian installation, a self-signed certificate is generated that you use with Historian web applications. A self-signed certificate is a certificate that is signed by itself rather than signed by a trusted authority. Therefore, a warning appears in the browser when connecting to a server that uses a self-signed certificate until it is permanently stored in your certificate store. This topic describes how to ensure that Google Chrome trusts the self-signed certificate.

Export Certificates *(page 52)*

Import Certificates *(page 56)*

Export Certificates

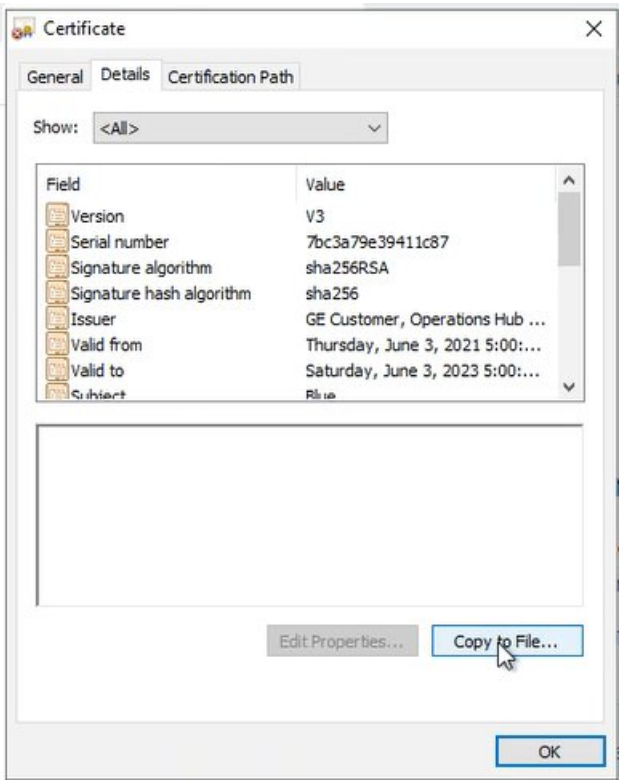
1. Using **Google Chrome**, access the site to which you want to connect. A message appears to inform you that the certificate is not trusted by the computer or browser.
2. Select **Not Secure** in the URL, and then select **Certificate**.



   The Certificate dialog box appears.

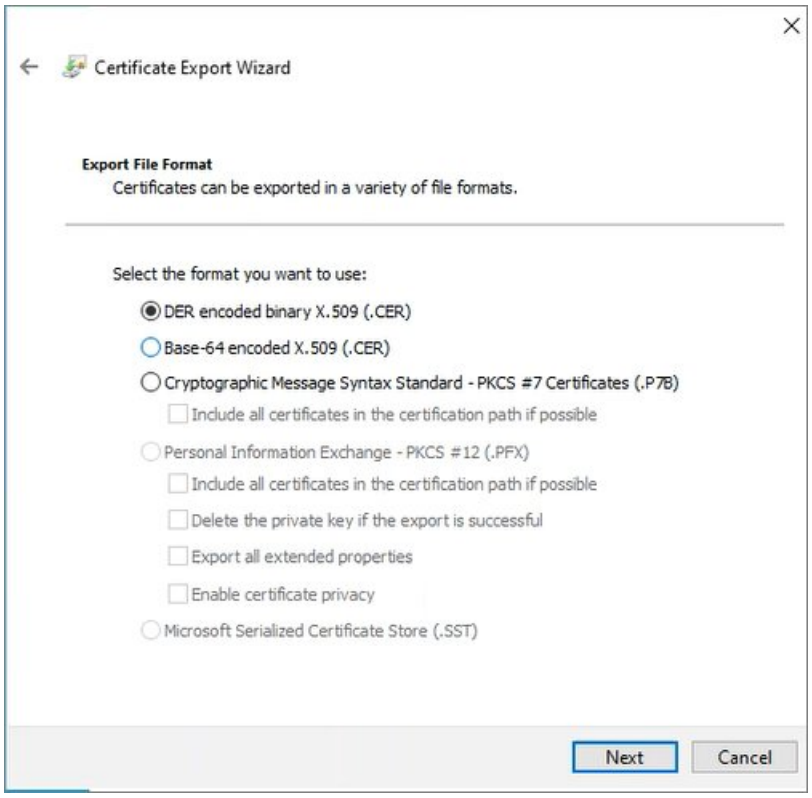
3. From the Certificate dialog box, select the **Certification Path** tab, confirm the server certificate is selected (the default).

4. Click the **Details**, and then select **Copy to File**.

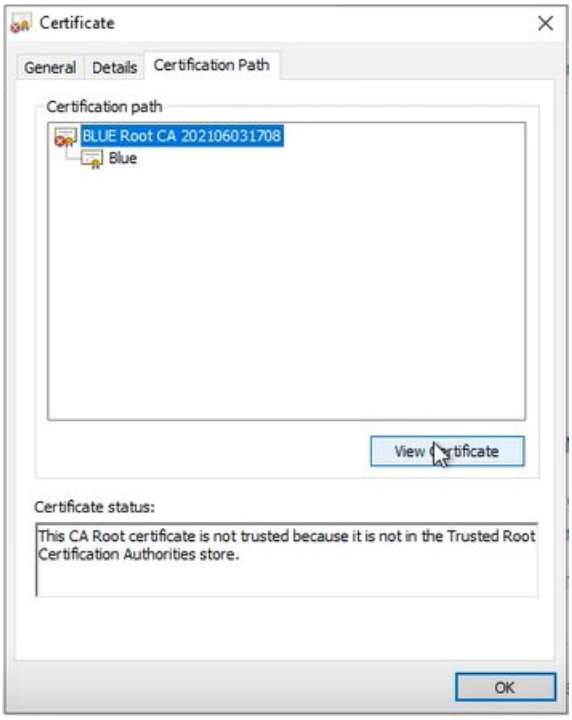


The Export wizard appears.

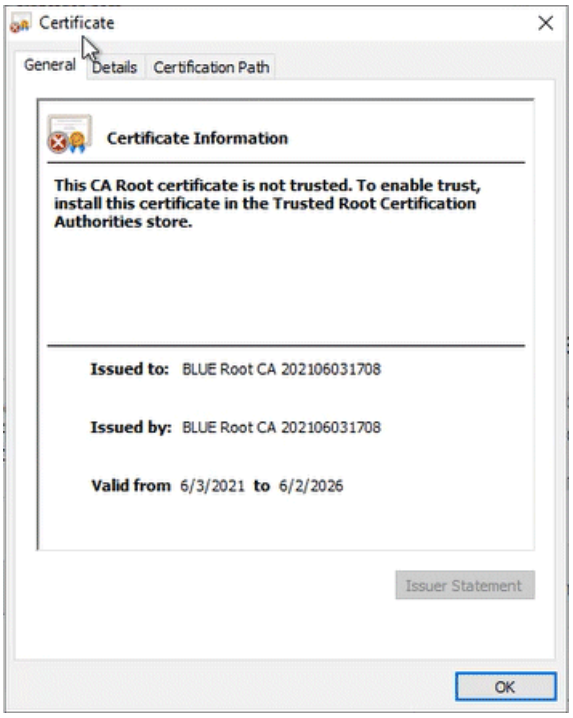
5. Click **Next**.
6. Select the **DER encoded binary X.509 (.CER)** format, and click **Next**.



7. Click **Browse** to provide a file name and location. For example: server_cert.cer and save it on the desktop.
8. Click **Save** and then **Next**.
9. Click **Finish**. A message box confirms the successful export.
10. Click **OK**.
11. Click the **Certification Path** tab, and select the root certificate.



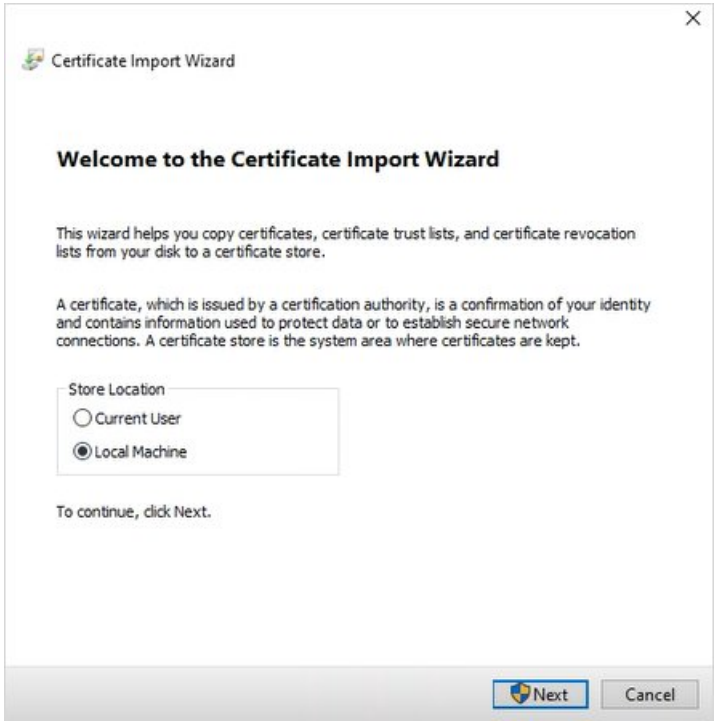
12. Click **View Certificate**.



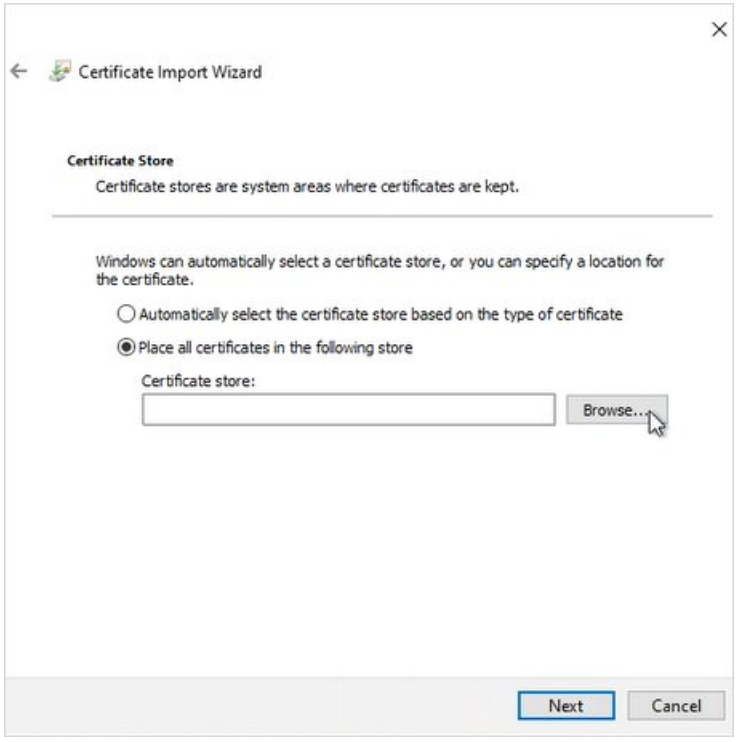
13. Repeat steps 4-10, but change the file name to **root_cert.cer**. Save this file to the desktop as well.

Import Certificates

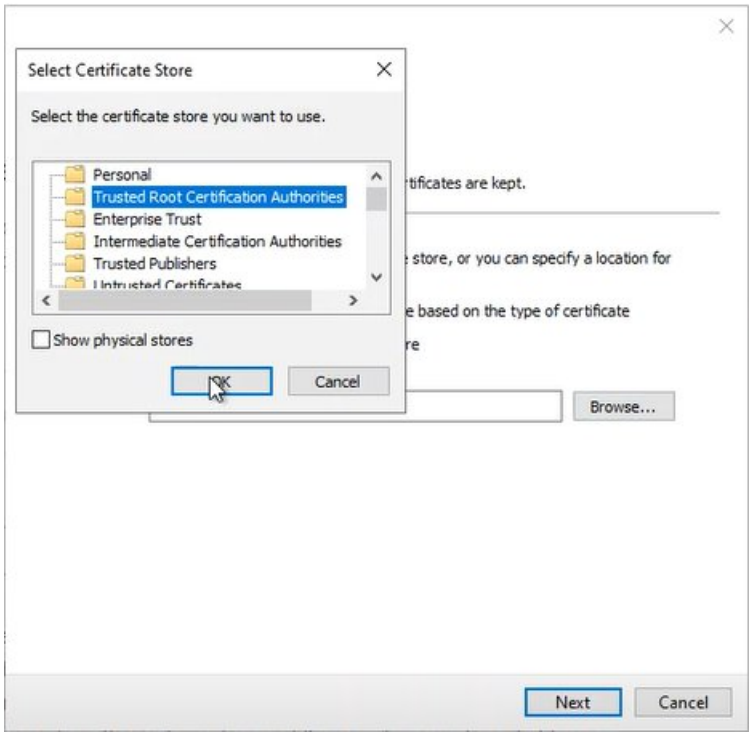
1. Browse to the location of the certificates files you exported (for example: the Windows Desktop).
2. For each file, right-click the .cer file and select **Install Certificate**. The **Certificate Import Wizard** window appears.
3. In the Store Location section, select **Local Machine** and click **Next**.



4. Select the **Place all Certificates in the following store** option, and then click **Browse**.

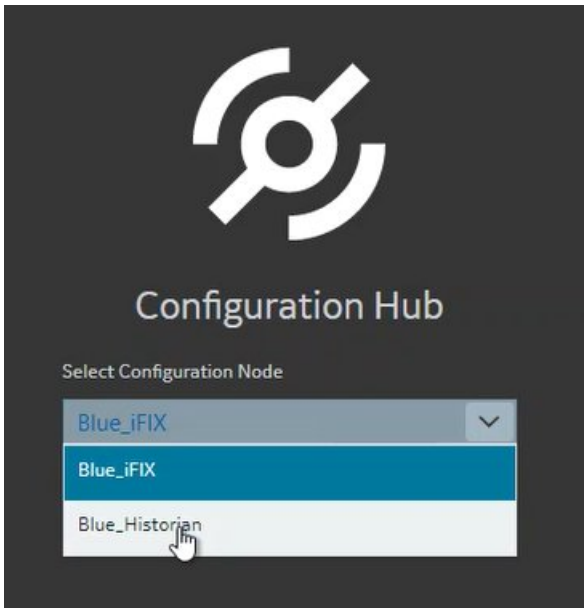


5. Select **Trusted Root Certification Authorities**, and then click **OK**.

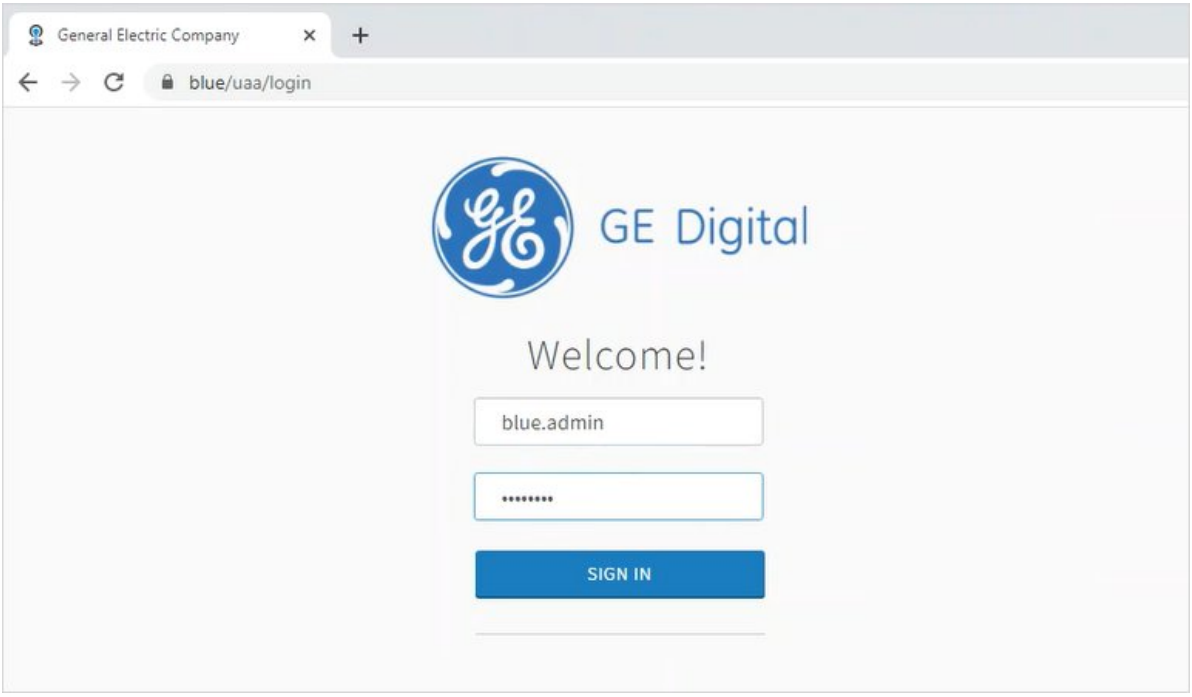


⚠ **Important:** Do not let the wizard select the store for you! A **Security Warning** window may appear. If it does, ignore the message by selecting **Yes**. The certificate is installed.

6. Click **Next**, and then **Finish**.
7. Close the browser.
8. After both certificates are installed, double-click the **Configuration Hub** icon on the desktop, and select the machinename_Historian option from the drop-down list to open the Historian plugin for Configuration Hub.



9. When the login screen appears, it is very important you enter the UAA credentials that you entered during the Historian Web Client install.



For example, the UAA user name should be machinename.admin (blue.admin in the above example), and the password you configured during the Historian Web Client install.

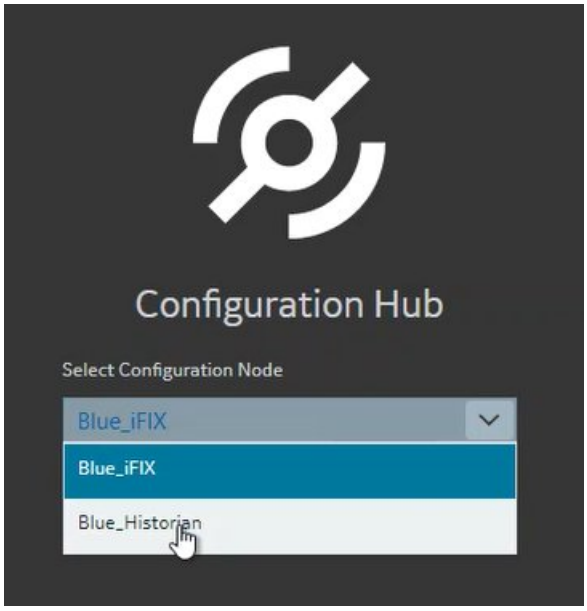
If error messages do not appear, the certificate is successfully imported.

Chapter 8. Historian to iFIX Configuration

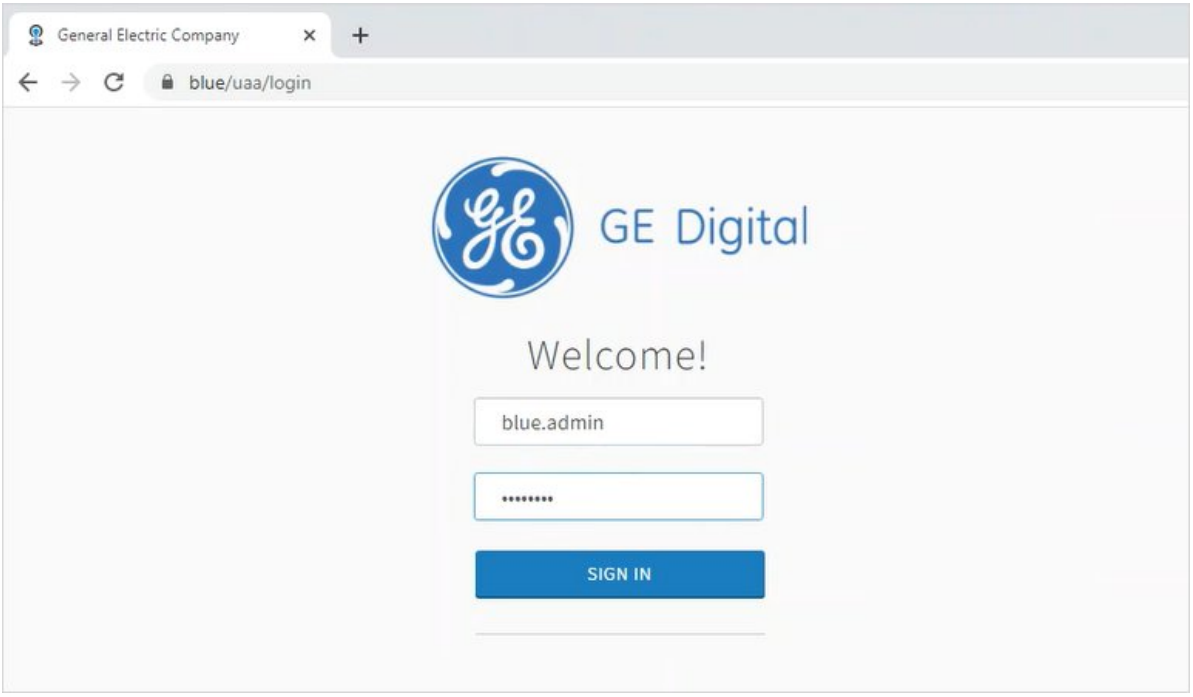
Steps to Configure the iFIX Collector

Configuration Hub Steps

1. Make sure iFIX is running and that security is enabled. Configuration Hub will not open otherwise. (You must enable security in iFIX before you can log in to Configuration Hub through the browser.)
2. Click the Configuration Hub icon on the desktop to launch it from a Google Chrome web browser.
3. Select machinename_Historian option from the drop-down list to open the Historian plugin for Configuration Hub.

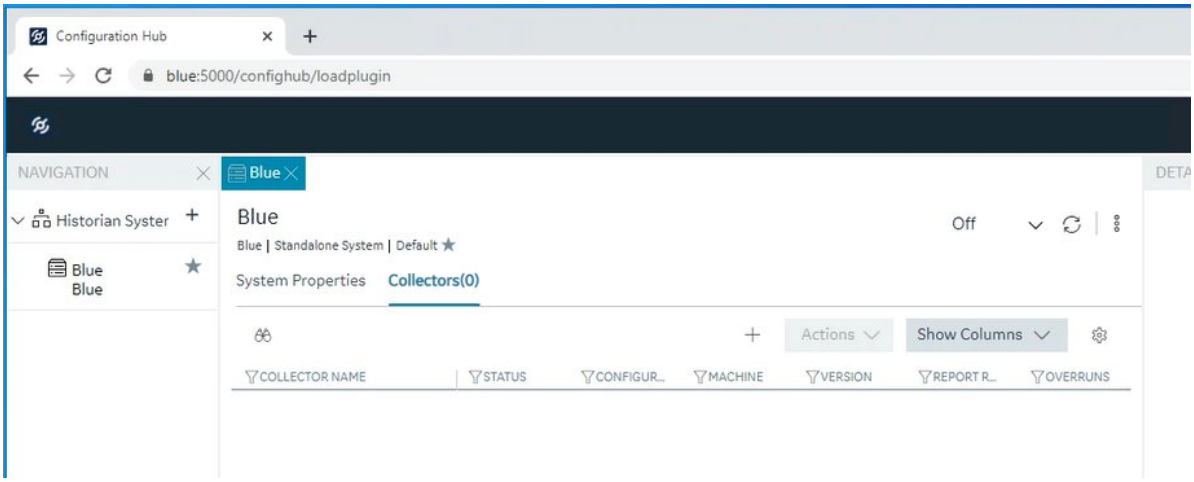


4. When the login screen appears, it is very important you enter the UAA credentials that you entered during the Historian Web Client install.

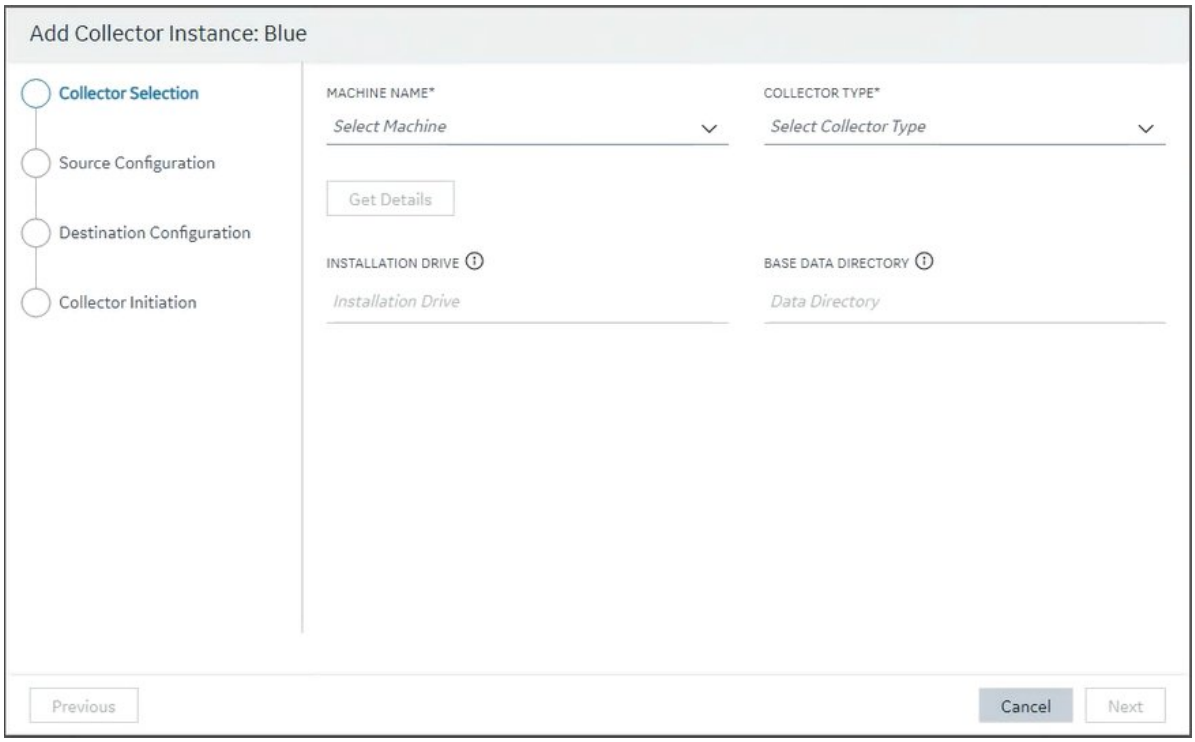


For example, the UAA user name should be machinename.admin (blue.admin in the above example), and the password you configured during the Historian Web Client install.

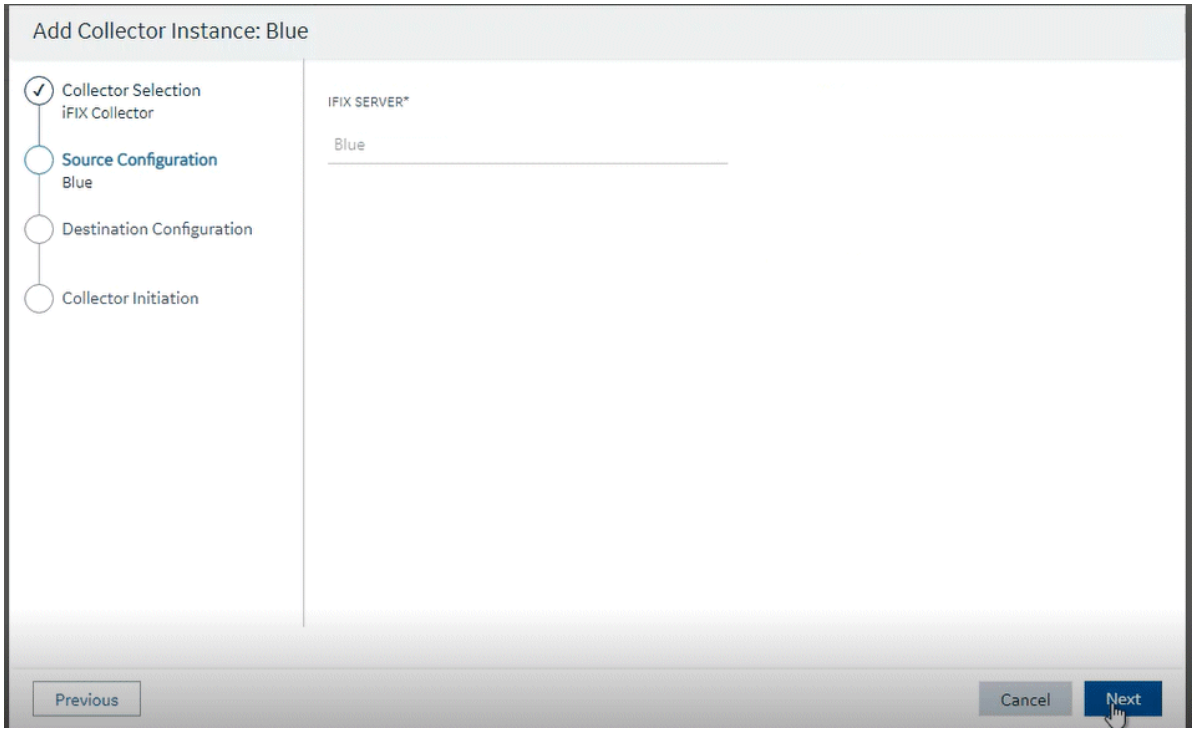
5. In the main screen, click the Collectors link. There will be zero (0) collectors displaying since we have not added any yet.



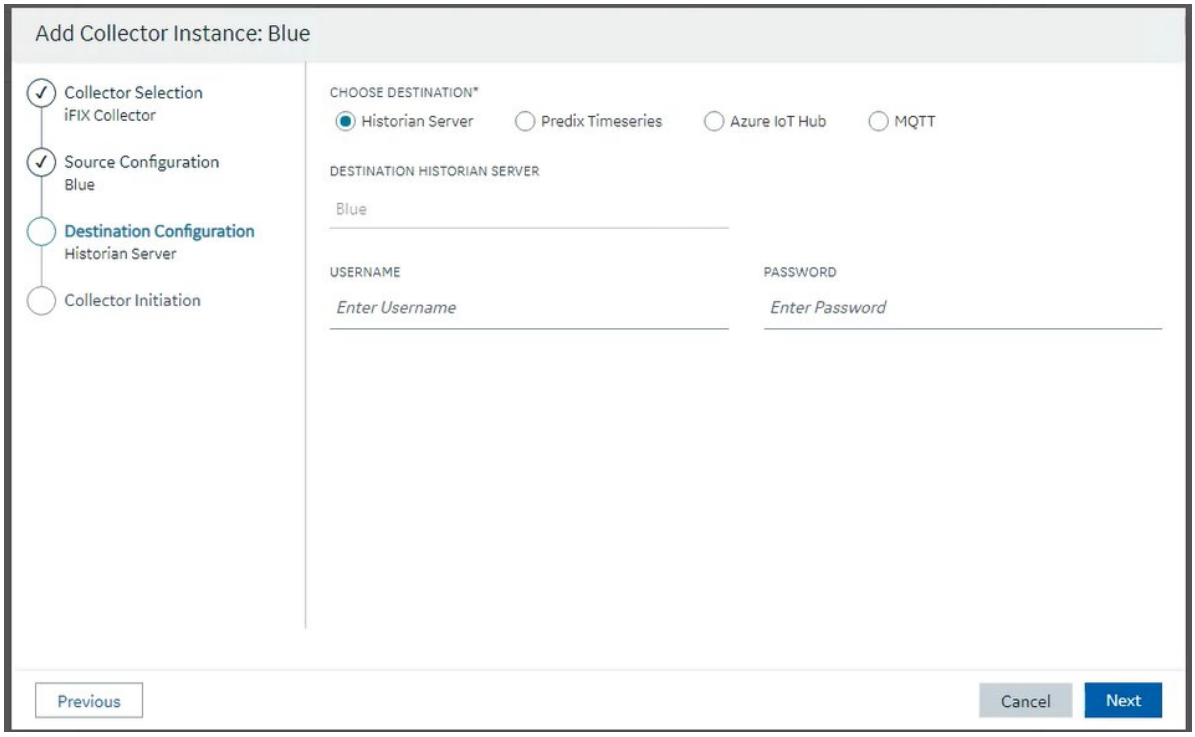
6. Click the plus icon (+) near the Actions drop-down to add a collector. The Collector install wizard appears, overlaying the screen.



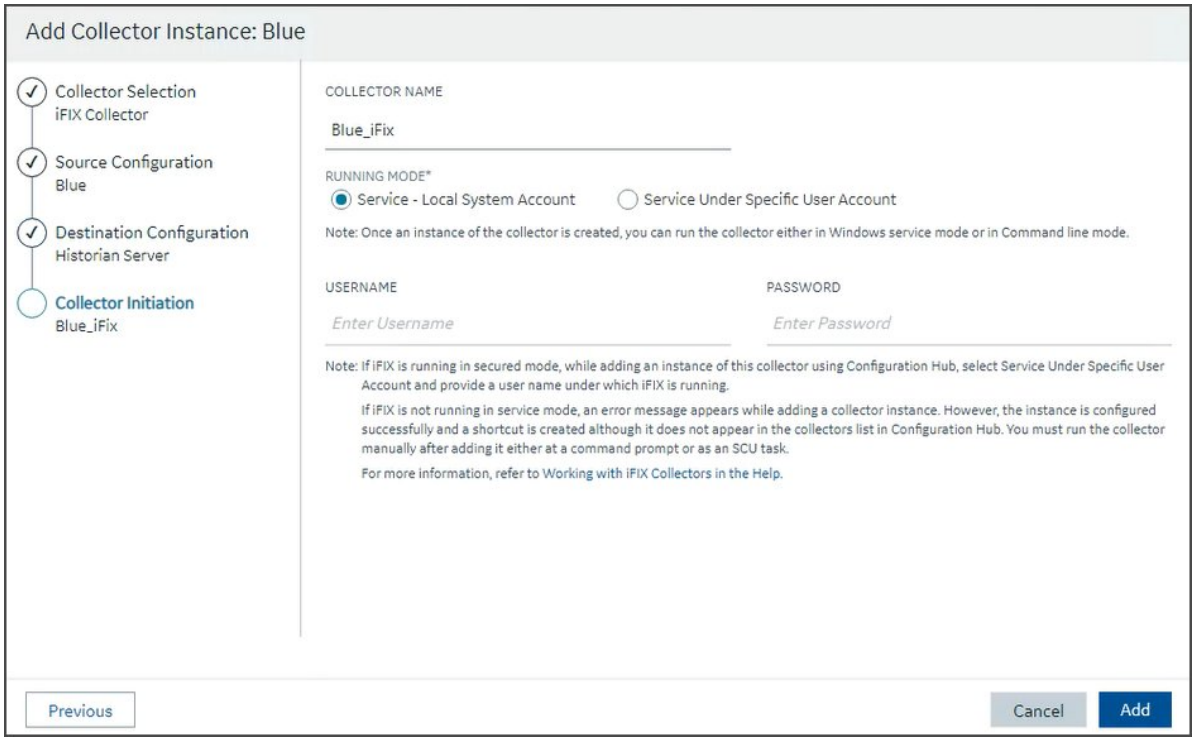
7. In the **Machine name** field, select your local machine name instance from the drop-down list.
8. In the **Collector Type** field, select **iFIX Collector** from the drop-down list.
9. Select **Get Details**, and then click **Next**. The Server Configuration screen appears.



10. Leave the defaults and click **Next**. The Destination Configuration screen appears in the wizard.



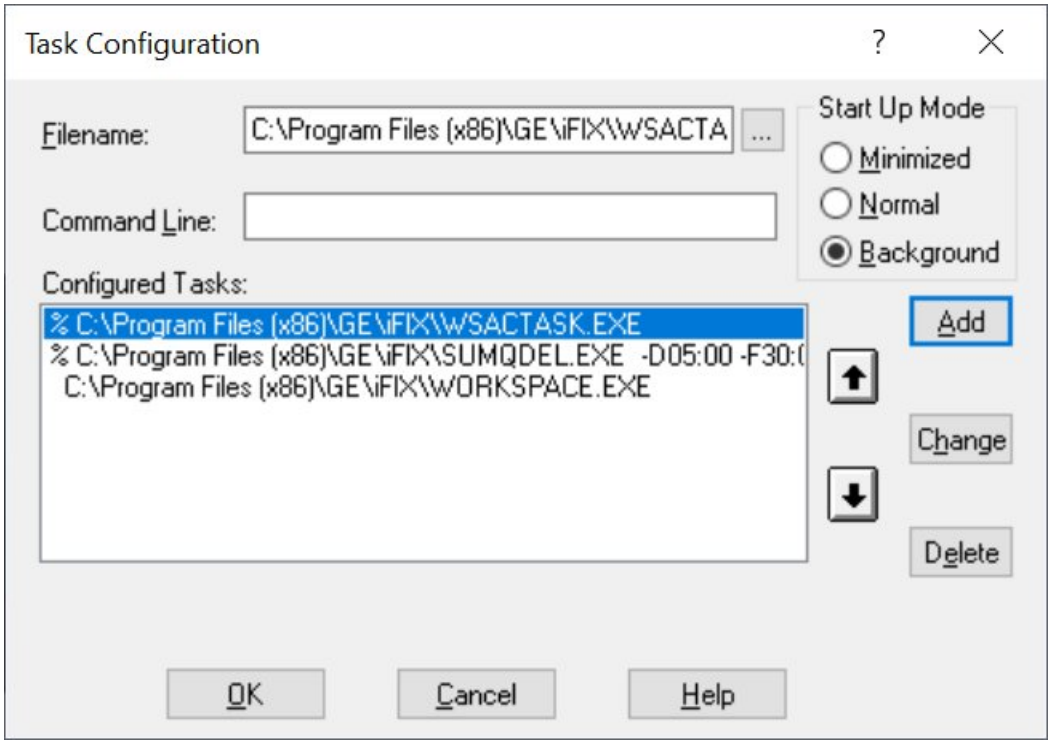
11. Enter the Windows computer **User name** and **Password**, and click **Next**. The Collector Initiation screen appears.



12. Leave the defaults and then click **Add**.

iFIX Steps

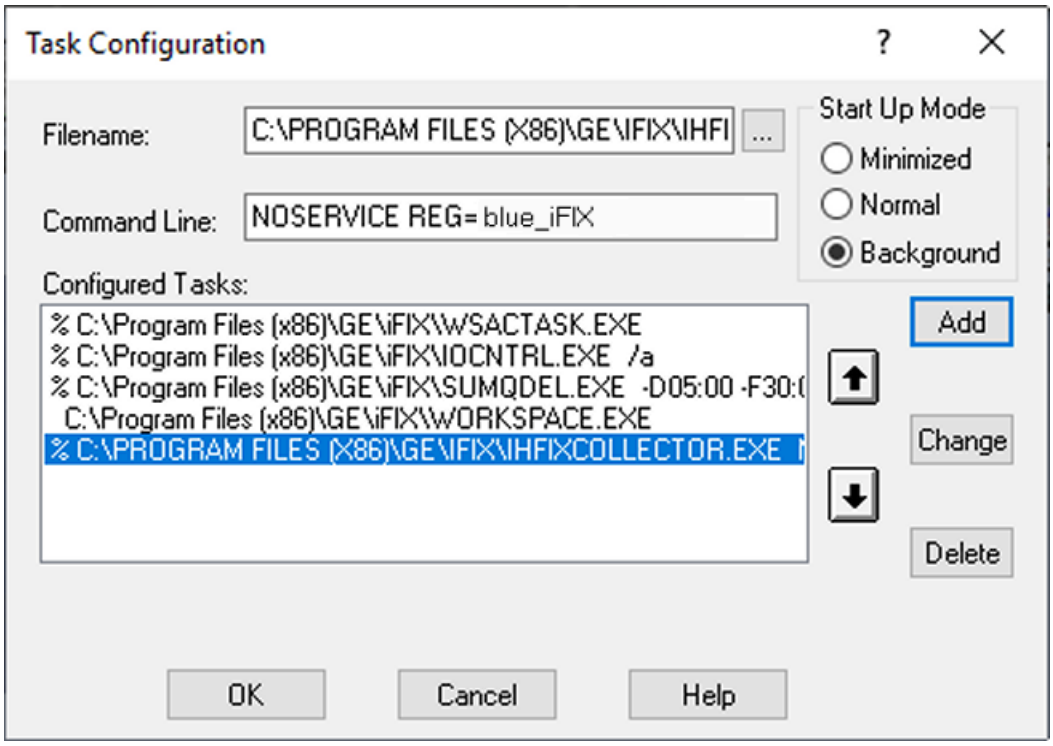
1. From the Start menu, select iFIX and then **SCU** (System Configuration). The SCU appears.
2. On the **Configure** menu, select **Tasks**. The Task Configuration dialog box appears.



3. Next to the Filename field, click the browse (…) button. A Select Files window appears.
4. Select the ihfixcollector.exe file from the iFIX folder (by default: C:\Program Files (x86)\GE \iFIX).
5. In the Command Line field, enter the following command line.

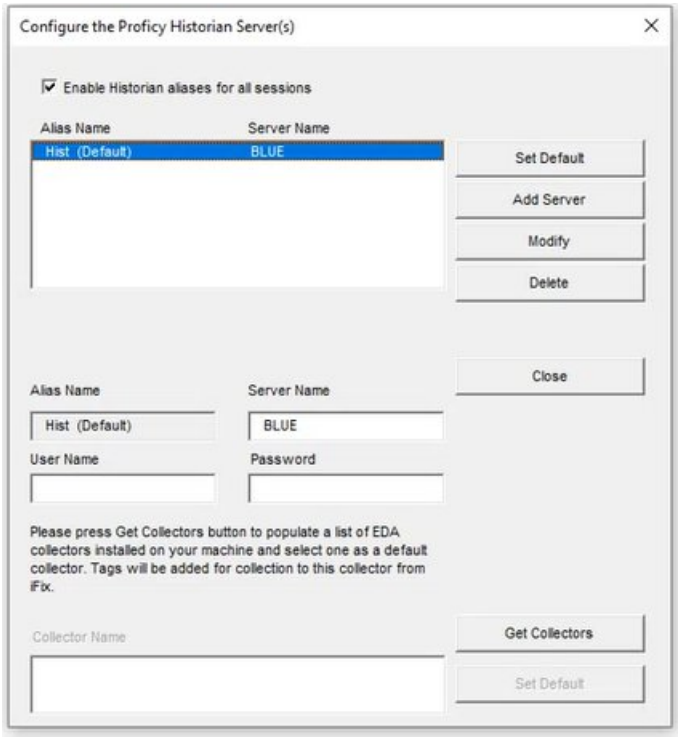
```
NOSERVICE REG=machinename_iFIXCollectorName
```

In the command line above, replace *machinename* with the actual computer name. The default will be: **machinename_iFIX**. The following figure shows an example with blue_iFIX.

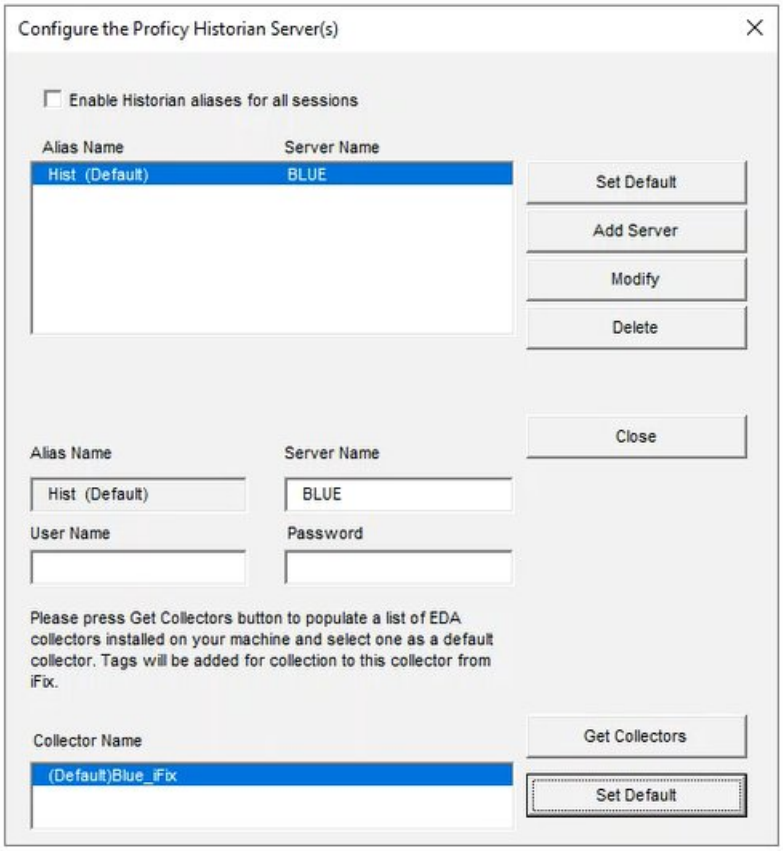


Important: The RunAsDos command for previous versions of Historian is no longer valid and should be removed from the Task list if it appears there.

6. Click **Add**.
7. Click **OK**.
8. Save the SCU settings, and then close the SCU app.
9. Start iFIX.
10. Open the **Task Manager** from Windows.
11. In the Task Manager, confirm the **iFIX Collector** (ihfixcollector.exe) is running. The Task Manager should show all apps spawned from iFIX.
12. Open the iFIX WorkSpace, and click the **Administration** tab.
13. Select the **Configure Historian Server** option. The Configure Historian Server dialog box appears.



14. Click the **Get Collectors** button to get the iFIX Collector.
15. Select the iFIX Collector name (Blue_iFIX in the following example), and then click **Set Default** to set the selected collector as the default collector.


Configure the Proficy Historian Server(s)
Enable Historian aliases for all sessions
Alias Name
Server Name
Hist (Default)
BLUE
Set Default
Add Server
Modify
Delete
Close
Alias Name
Server Name
Hist (Default)
BLUE
User Name
Password
Please press Get Collectors button to populate a list of EDA collectors installed on your machine and select one as a default collector. Tags will be added for collection to this collector from iFix.
Collector Name
Get Collectors
(Default)Blue_iFix
Set Default

Chapter 9. Build a Test Picture

Steps to Build a Test Picture

Overview

Use the steps below to create an iFIX picture, and insert two data links that point to the real-time tags that you created in the Connecting IGS Data to iFIX Tags *(page)* steps. After you insert the data links the steps that follow will also describe how to insert a Trend chart to display the historical data.

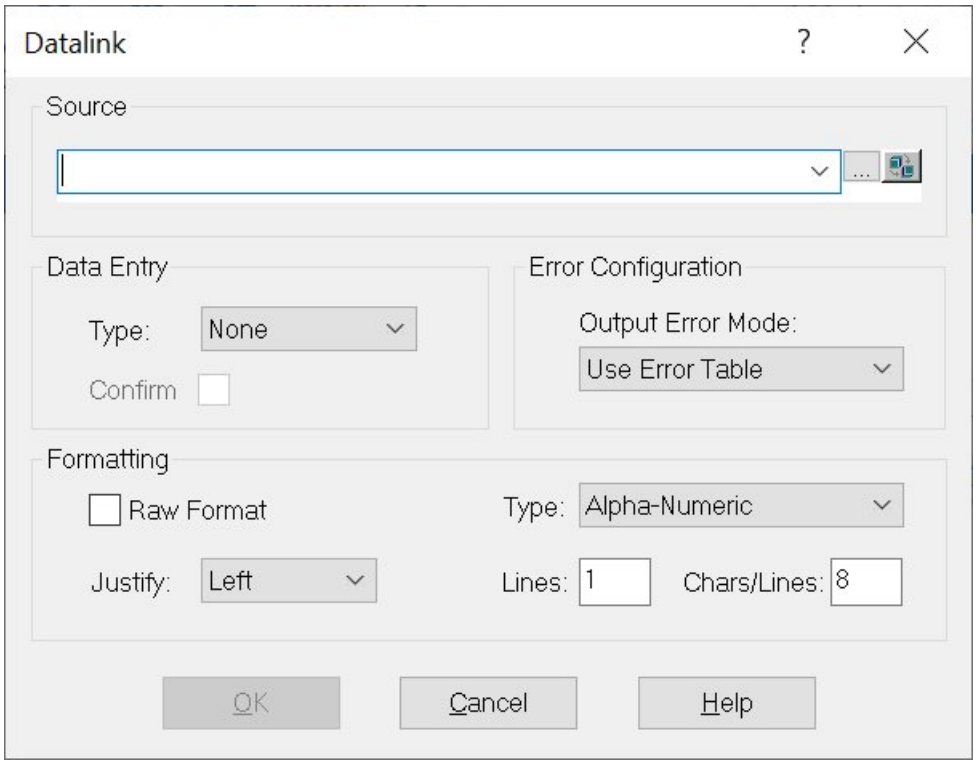
Insert Datalinks into a Picture *(page 68)*

Insert a Standard Chart and View Data *(page 73)*

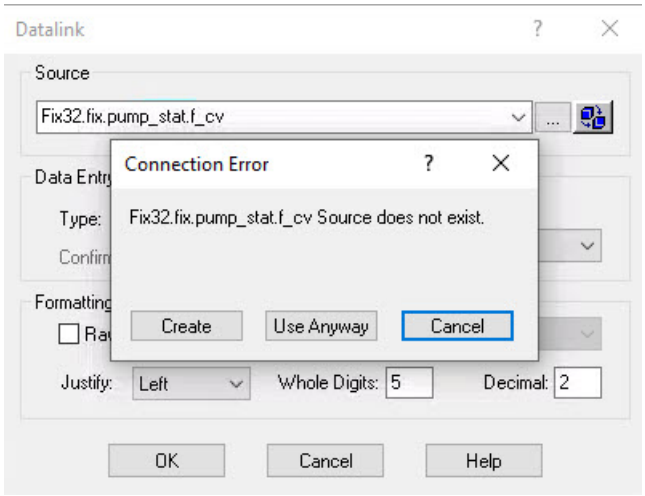
Insert Datalinks into a Picture

To insert the data links in the test picture:

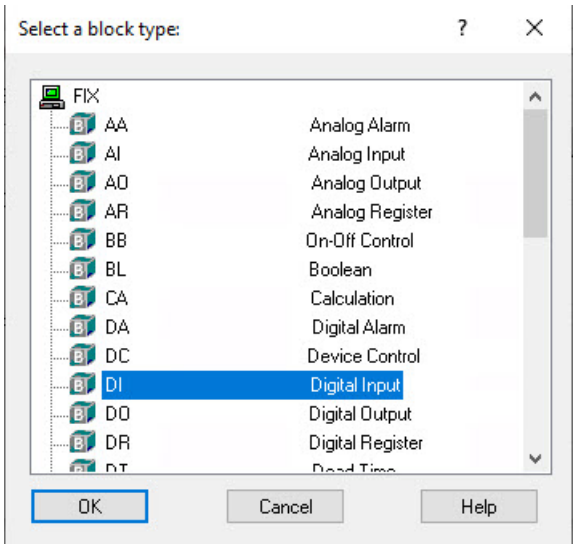
1. Log on to Windows as an Administrator (if you are not already logged in).
2. Start iFIX and the iFIX WorkSpace.
3. On the Insert menu, select Object/Links and then **Datalink**. The cursor changes to a cross-hair on screen.
4. Draw a rectangle where you want the datalink to appear in the picture. The Datalink dialog box appears.



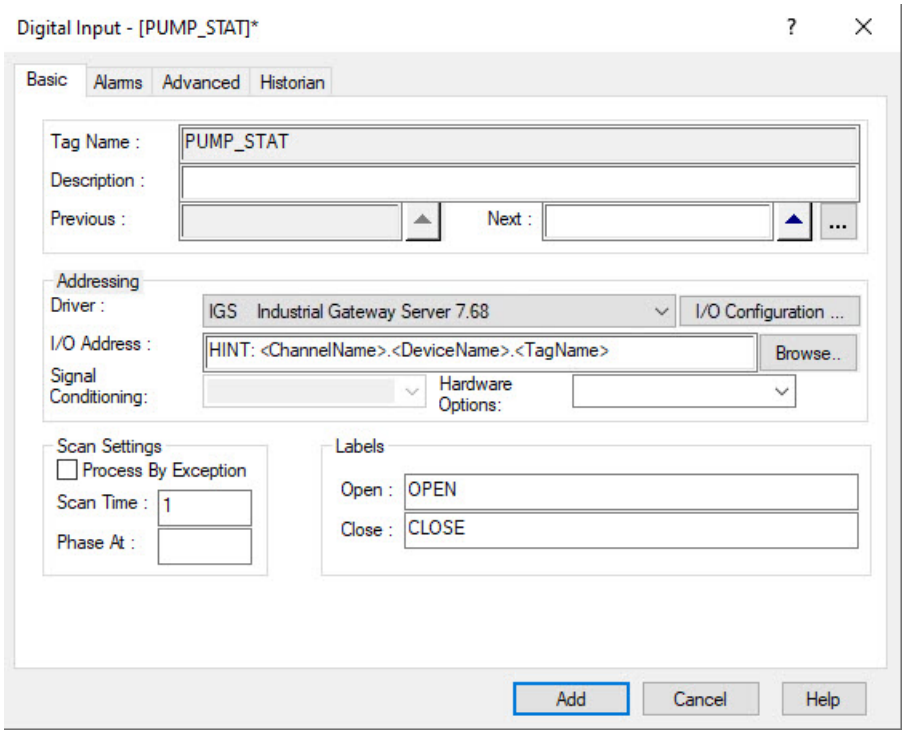
5. In the Source field, enter **Fix32.fix.pump_stat.f_cv** and click **OK**. You are prompted to create a new tag.



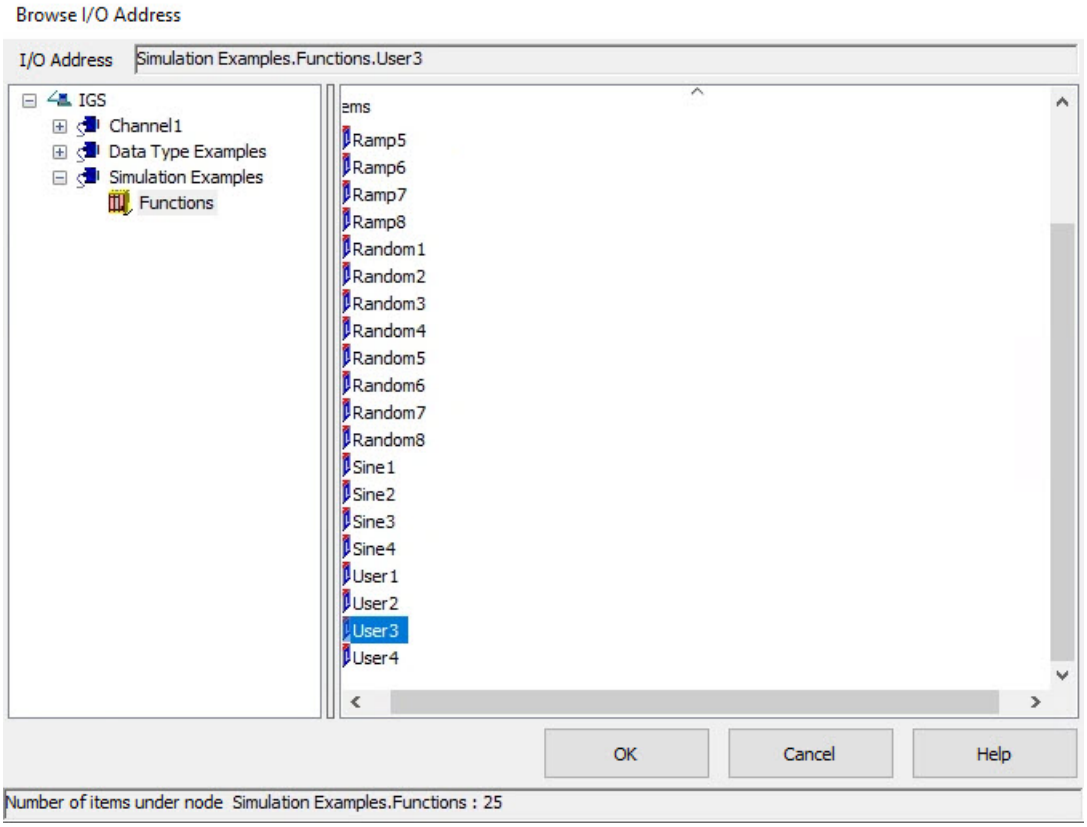
6. Click **Create**. Another dialog box appears requesting a tag type.



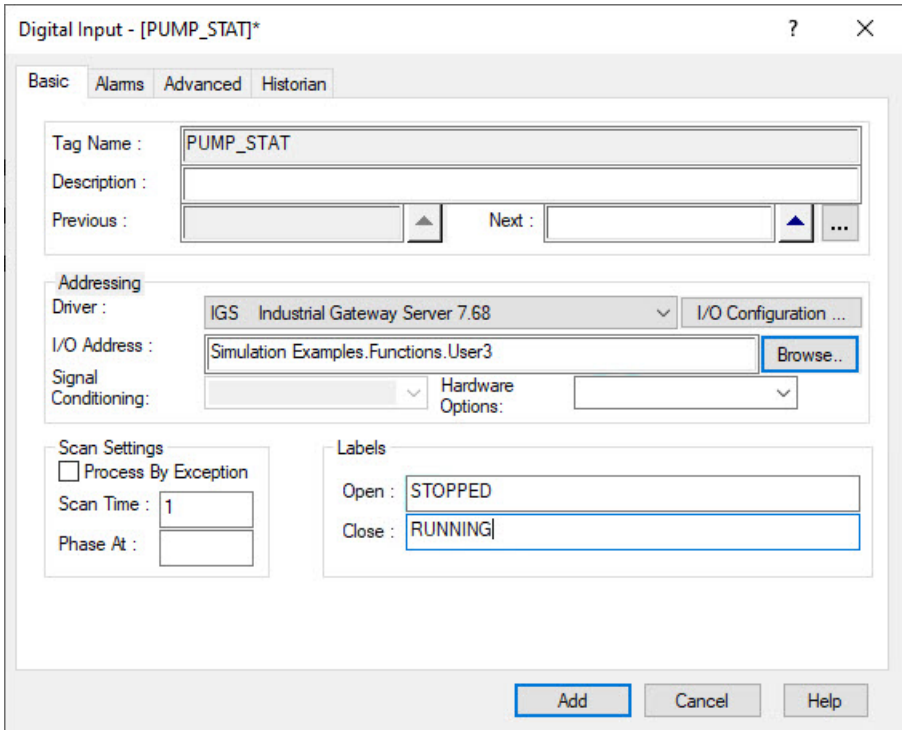
7. Select **DI** (Digital Input). Another dialog box appears.



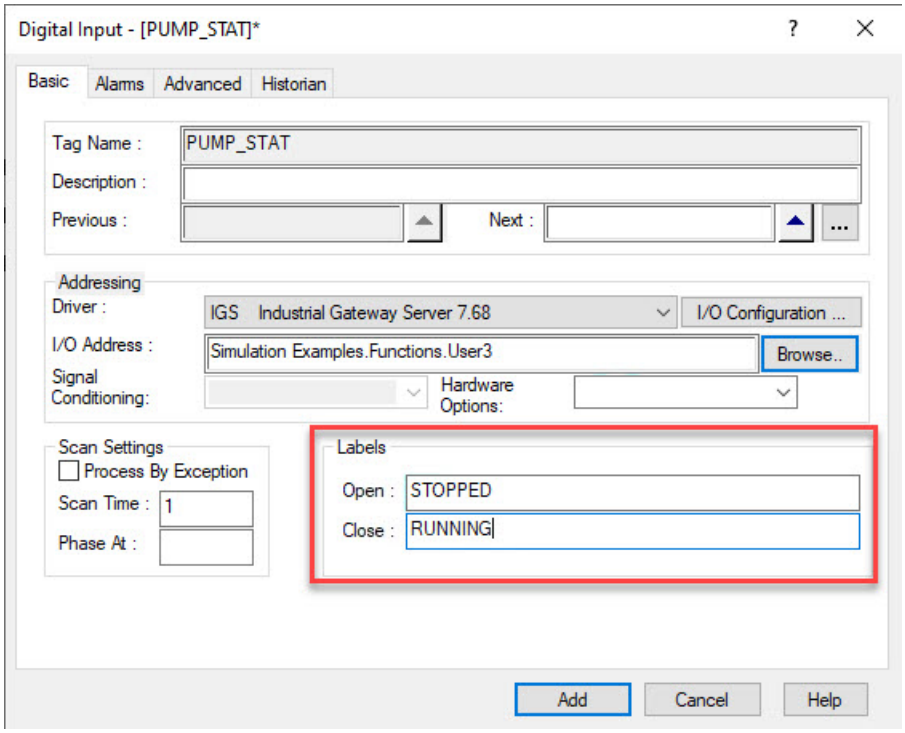
8. From the Addressing area, in the Driver field, select **IGS Industrial Gateway Server** from the drop-down list.
9. Next to the I/O Address field, click **Browse**. The Browse I/O Address field appears.



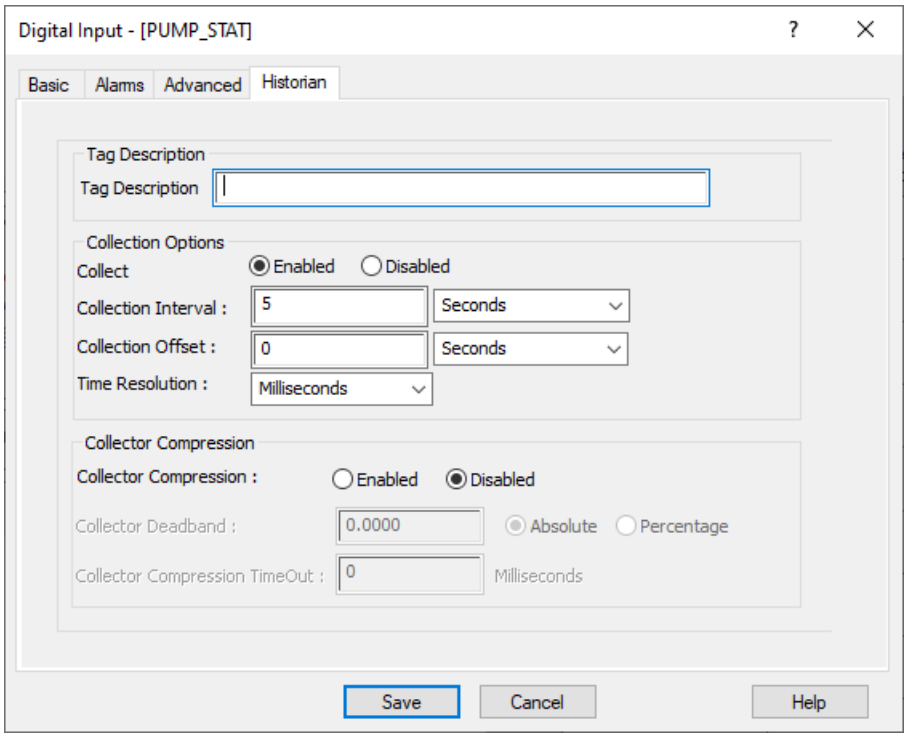
10. Browse and select **Simulation Examples.Functions.User3**, and click **OK**. You return to the Digital Input dialog box.



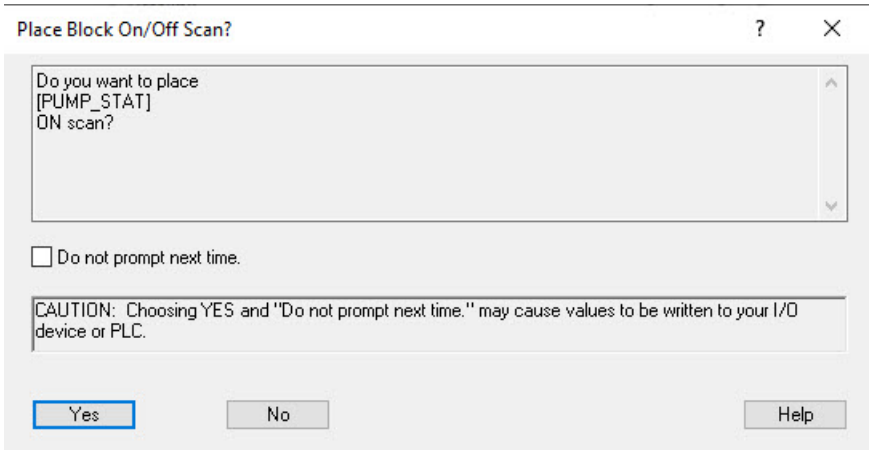
11. In the Labels, area change the Open and Close labels to STOPPED and RUNNING.



12. Click the **Historian** tab.



13. In the **Collection Options** area, select the Enabled option and click **Save**. Another message appears about putting the block on scan.

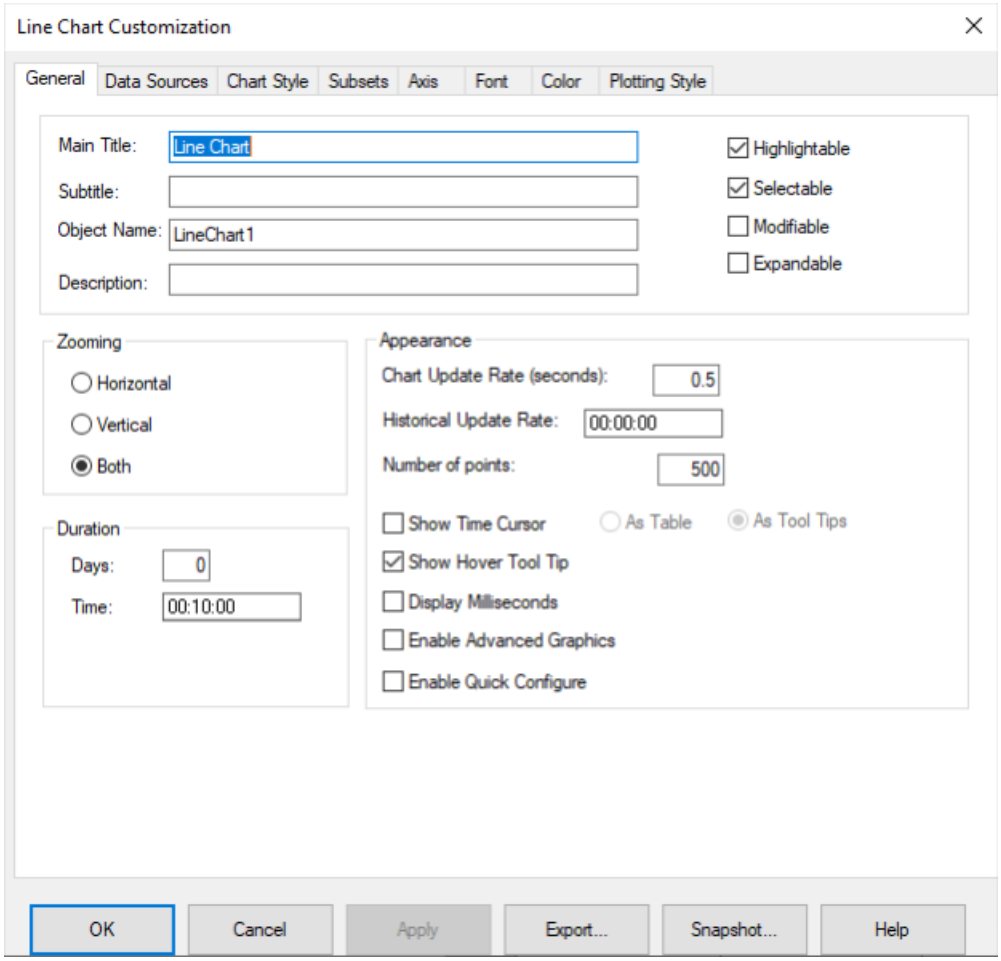


14. Click **Yes** to continue.
15. Repeat steps 3-14, but instead create an **AI** tag, use **Fix32.fix.pump_speed.f_cv** for the tag, and browse and select **Simulation Examples.Functions.User2** for the IGS I/O address. Step 11 can be skipped.

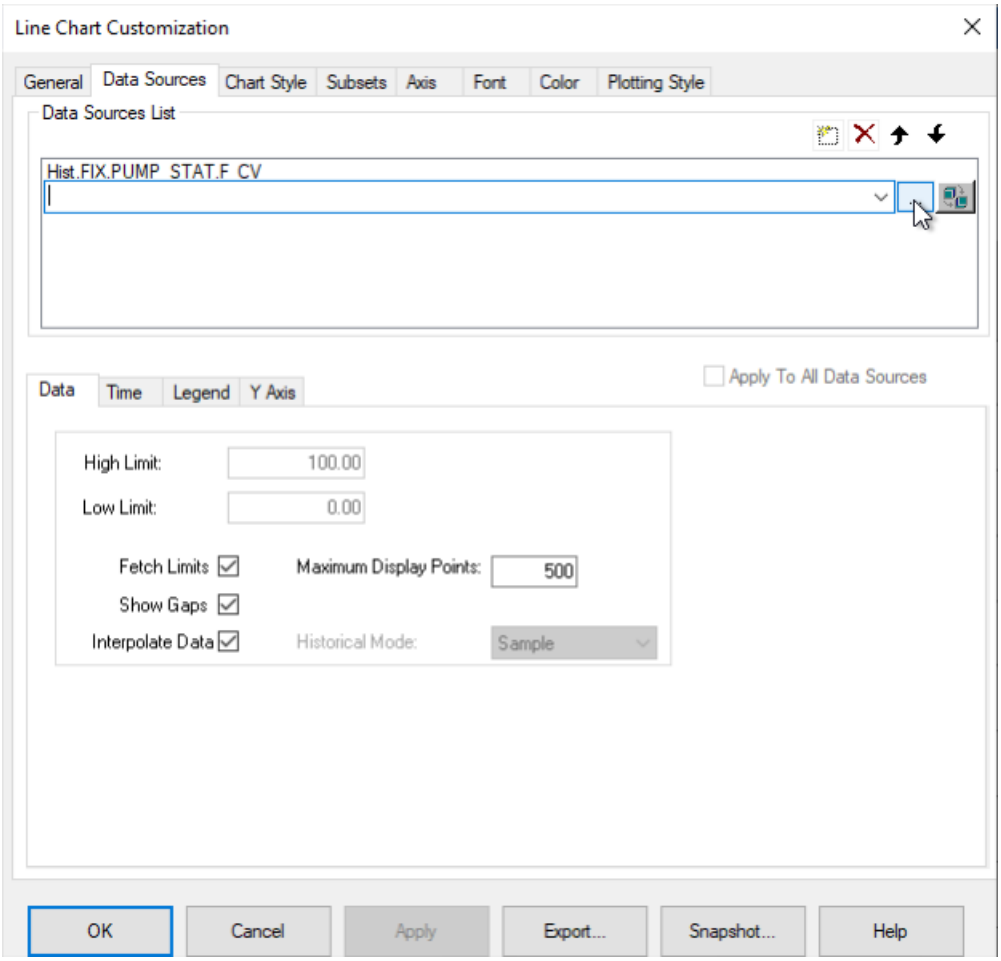
Insert a Standard Chart and View Data

1. With your picture open in the iFIX WorkSpace, click the **Insert** tab.
2. Select **Line Multiline Chart**. The cursor again turns into a cross-hair.

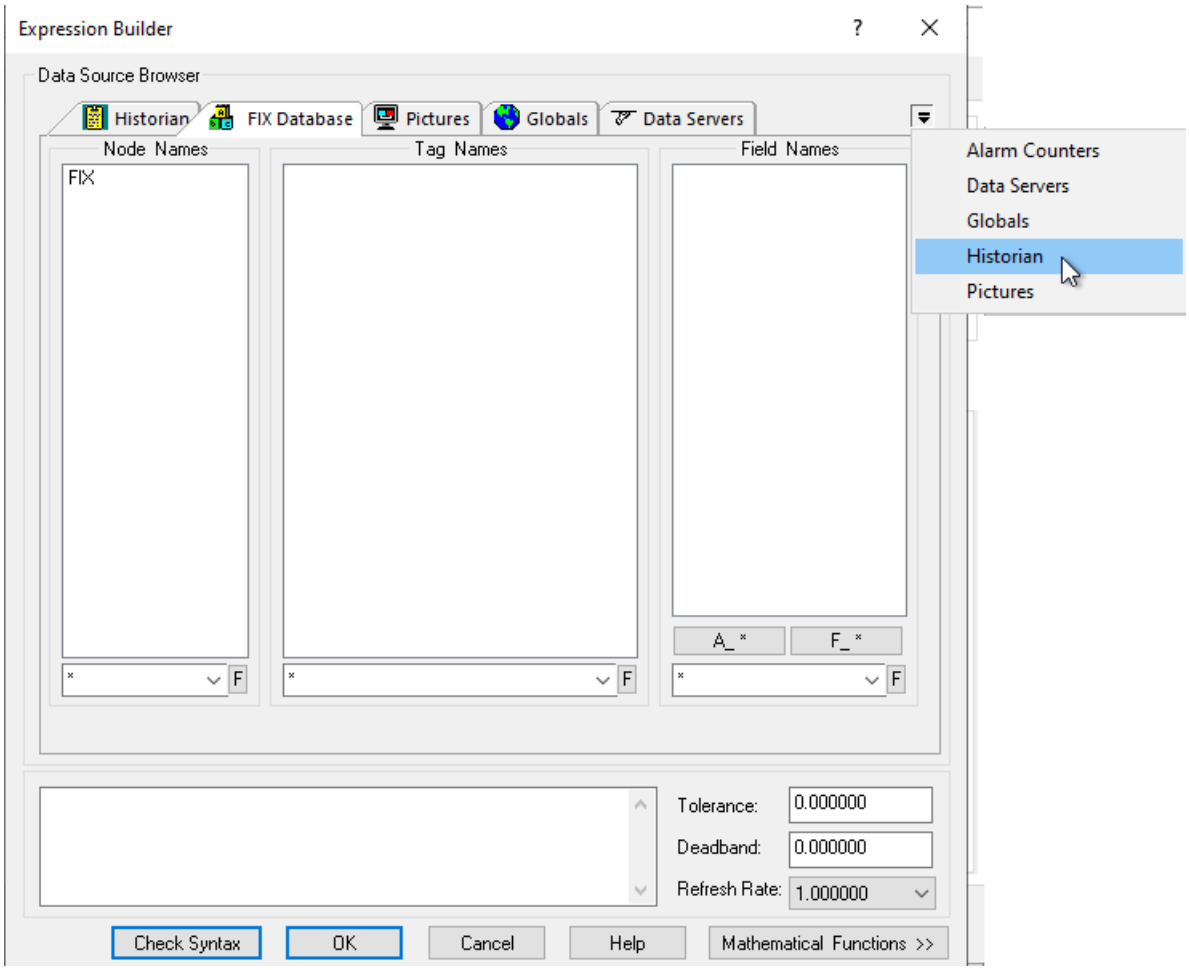
3. Draw a rectangle where you want the chart to appear in the picture.
4. Double-click the chart. The Line Chart Customization dialog box appears.



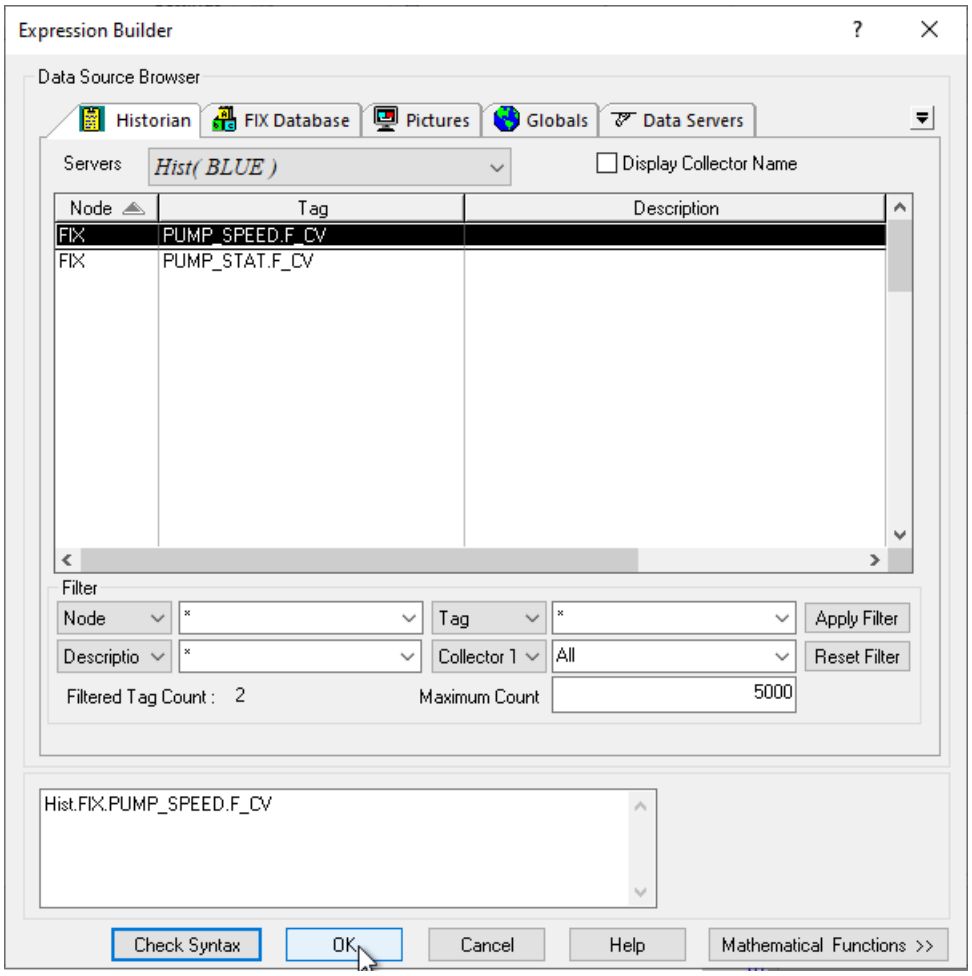
5. In the Chart Configuration, set the **Duration Time** to **10 minutes**.
6. Click the **Data Sources** tab.



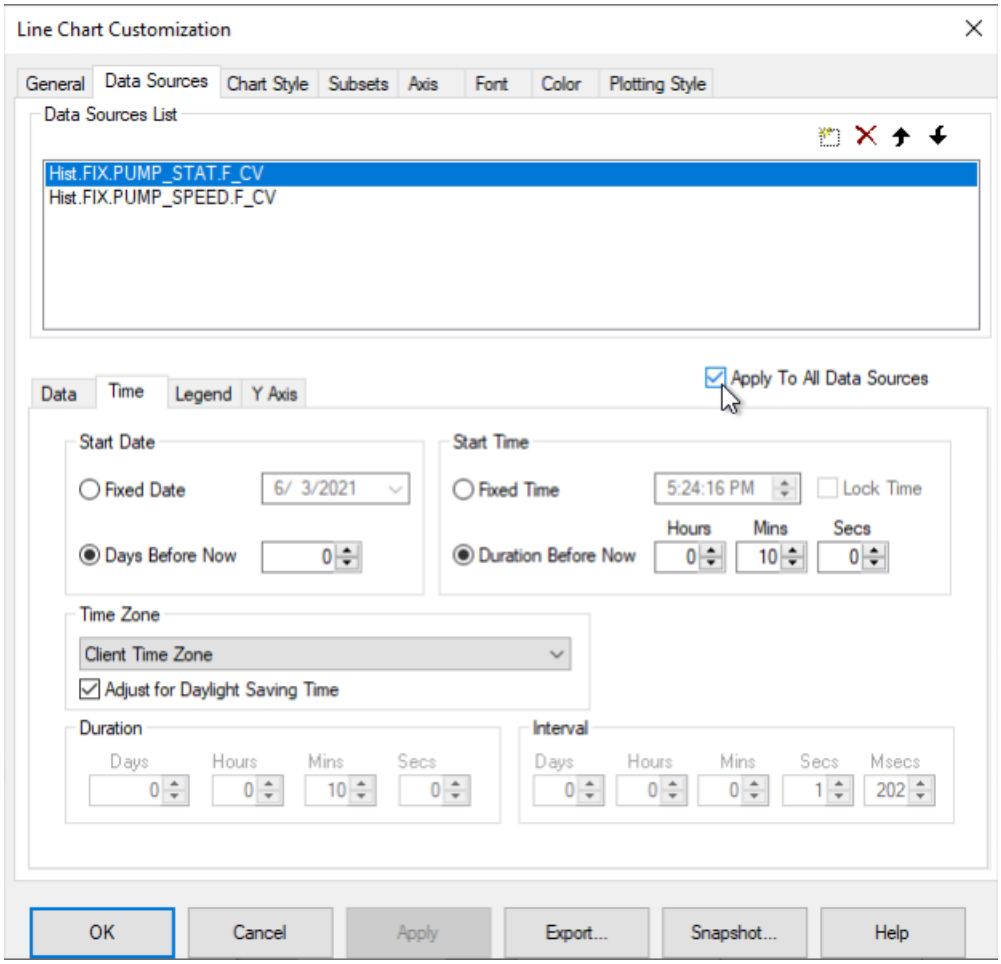
7. In the Data Sources area, click the browse (…) button to open the **Expression Builder**.
8. From the Expression Builder, click the **Historian** tab. If it does not show up, click the drop-down in the far right of the tab areas and select Historian there.



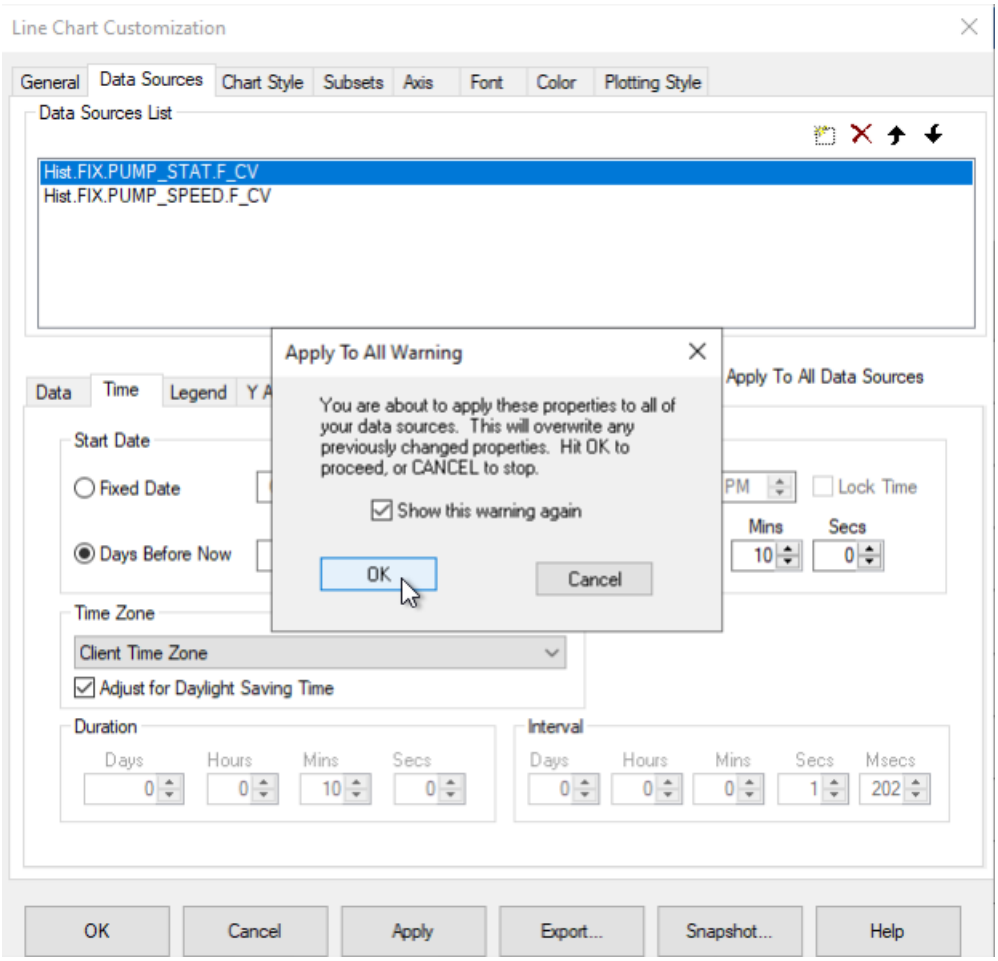
9. Select the Historian server name, add then select the **PUMP_SPEED.F_CV** tag and then click **OK**.



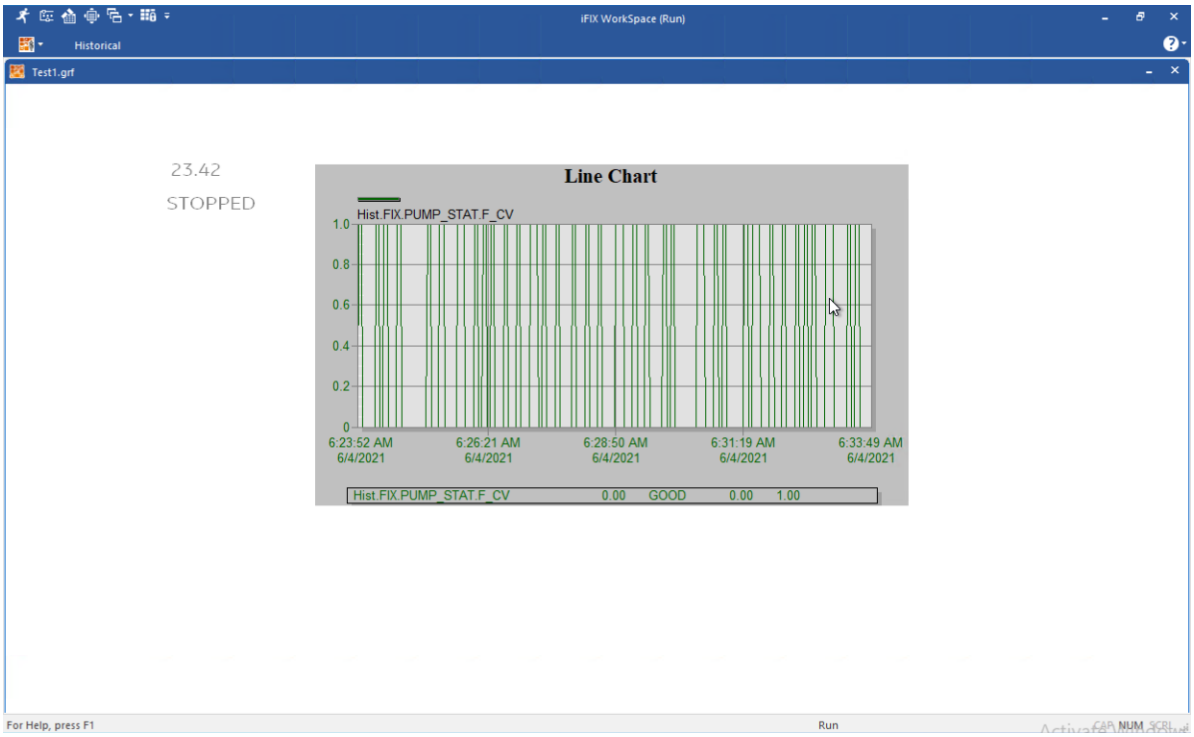
10. Repeat steps 7-9 with the **PUMP_ STAT.F_CV** tag.
11. Back in the Line Chart Customization dialog box, on the Data Sources tab, select the **Apply to All Data Sources** check box.



12. On the Data Sources tab, in the **Start Time** area, change the **Duration Before Now** to **10 minutes**, and click **OK**. The following message appears.



13. Click **OK** to return to the iFIX picture.
14. Save your picture.
15. On the **Home** tab, click **Switch to run mode** to confirm that you can view the real-time and historical data with changing values. For an example, see the following picture.


iFIX WorkSpace (Run)
Historical
Test1.grf
23.42
STOPPED
Line Chart
Hist.FIX.PUMP_STAT.F_CV
1.0
0.8
0.6
0.4
0.2
0
6:23:52 AM 6/4/2021
6:26:21 AM 6/4/2021
6:28:50 AM 6/4/2021
6:31:19 AM 6/4/2021
6:33:49 AM 6/4/2021
Hist.FIX.PUMP_STAT.F_CV 0.00 GOOD 0.00 1.00
For Help, press F1
Run
CAP NUM SCRL