How to Install, Activate, Update, and Troubleshoot ControlST* Licenses

This document provides information and procedures to help users install, activate, and update ControlST* licenses. This document also provides information to troubleshoot issues with new or active licenses, including hardware license keys (dongles) and software license keys (Proficy and Advantage). The following sections are provided in this document:

- New License Installation/Activation
- Advantage License Activation
- Customize Device Alias
- License Key Update Using a Reflash (*.mlic) File
- Advantage License Return
- Advantage License Error Troubleshooting

Note For ControlST license ordering procedures, refer to How to Order ControlST Software Media and License Keys (GHT-200048) and How to Order ControlST License Keys Flow Diagram (GHT-200060).

New License Installation/Activation

➢➢ To install or activate a new ControlST license key

1. Determine which ControlST version you are licensing and which license key type you have:
   a. ControlST version prior to V03.06.09 = green dongle
   b. ControlST V03.06.09 to V04.07.xx = blue dongle
   c. ControlST V05.xx.xx = Advantage software license activation key, user-configurable SSL key, or pre-programmed/non-configurable M5 hardware key
      Or Proficy M4 hardware key or keyless license

Note M4 hardware keys and keyless licenses are no longer available as of April 7, 2017.
2. For ControlST V04.07.xx or previous, refer to Legacy license key installation procedures.

3. For ControlST V05.xx.xx or higher, ControlST includes the installation of the Proficy Common Licensing. Install a Proficy Common license (software, hardware keys, or keyless activation for internal development) as follows:

   a. Run the Proficy License Client (or Manager, or Viewer, depending on version) and verify that the Proficy Common Licensing service is installed and running.

   i. From the **Start** menu, select **All Programs, Proficy Common, and License Client (or Manager, or Viewer for older versions)**.

   ii. If the License Client (Manager/Viewer) is not available from the **Start** menu, select **Control Panel, Programs and Features**, and confirm that **Proficy Common Licensing** is installed.

   iii. If the Proficy Common Licensing service is installed, from the **Start** menu, select **Control Panel, Administrative Tools, Services**. Sort the Services list alphabetically, then scroll down and locate **Proficy Common Licensing**. Restart **Proficy Common Licensing**.

   iv. If the Proficy Common Licensing service is not installed, install it from one of the following locations:

      • Customers: From the ControlST DVD (most recent version) _files folder, run **ProficyClientInstaller.exe**.
      • GE Internal Personnel: From the GE Box folder **Proficy Common Licensing**, download and run **ProficyClientInstaller.exe**.

   b. Verify the License Manager/Client version:

      • V14.8.419, License Manager, is the minimum version allowed for Advantage licensing.
      • V17.2.x, License Client, is the minimum version required for new M5 hardware key.
      • V17.4.x License Client, is the minimum version required to update a non-configurable license key.

   c. Check for an expiration date of the license/key and for ControlST (may indicate this is a demo key).
Advantage License Activation

The following Proficy License Client (or Manager/Viewer, depending on version) versions are required for Advantage licenses:

- V14.8.419, License Manager, is the minimum version allowed for Advantage licensing.
- V17.2.x, License Client, is the minimum version required for new M5 hardware key.
- V17.4.x License Client, is the minimum version required to update a non-configurable license key.

➢➢ To activate an Advantage license using Proficy License Client

1. Open the Proficy License Client. From the Start menu, select All Programs, Proficy Common, and License Client.
2. Verify that the version number is V17.2.x or higher (lower right corner).

![License Client Version Number]

Note Version 17.4.x may generate an unhandled exception error regarding ccflc4 not running. This is generally related to missing Microsoft® VS2015 software updates in older computers.

3. If no license is detected at startup, the Activate Licenses tab displays the options to activate a license.
4. Select an available option to activate your license. Based on your computer configuration and networking, the available options are identified as active links by being underlined.
   a. For an internal GE or GE customer computer that is connected to the Internet, Option 1 is the easiest and fastest option. Select Option 1 and skip to step 5.
   b. If you already have, or want to create, a Local License Server, select Option 2 after the Local License Server is set up and available. Refer to the procedure To activate a license against a Local License Server using Proficy License Client.
   c. Select Option 3 if you have inserted a USB hardware key for activation.
   d. For a computer that is not connected to the Internet, Option 4 allows offline activation.
e. Option 5 is used for a special type of software license that requires a corporate agreement for use. This option is not a typical licensing method.

5. If Option 1 was selected, enter the Activation Code provided to you in the GEIP SecureSoftLicensing email.

![Example GEIP SecureSoftLicensing Email]

**Note** It is recommended that you cut and paste the Activation Code from the email into the left most entry field on this screen rather than typing the code and risking typographical errors.
6. Click **Add Code**.

7. If you have multiple licenses to activate on this computer, enter the next code, click **Add Code**, and repeat as necessary.

8. After all codes are entered, click **Activate** (lower right corner).

Active licenses are displayed in the View Licenses tab.
To activate a license against a Local License Server using Proficy License Client

1. Open the Proficy License Client. From the Start menu, select All Programs, Proficy Common, and License Client.

2. From the License Client Activate Licenses tab, select Option 2, Yes, for this computer from a Local License Server.

3. Enter the URL for the Local License Server, then click Display Available Licenses to establish a connection and browse the available licenses.

4. Select the license, then click Activate.
➢ To activate an Advantage license using Proficy License Manager

1. Run the Proficy License Manager and verify the version number is V14.8.419 or higher (displayed in lower right corner).

![Proficy License Manager Version](image)

The *Welcome to Proficy License Manager* window provides the following options:

- **View Licenses** is similar to the traditional Proficy Common Licensing Viewer.
- **Manage Licenses** is used to activate or return licenses in either Online or Offline mode.
- **Change Settings** is used to select the license server to be used for activation, and test the connection to the GEIP License Server for online activation using the GEIP License Server.

To activate an Advantage license in Proficy License Manager using an Activation Code

1. After license purchase, you should receive an email containing your Activation code, such as the example email displayed in the following figure.

![Example Advantage License Activation Email](image)

2. Highlight and copy the activation code [Ctrl + C] from the email.

3. Open the License Manager. From the Start menu, select All Programs, Proficy Common, and License Manager.

4. Click Continue to proceed with license activation.

![Continue with Activation](image)
5. Click **Change Settings** to confirm the default setting for activation is *Online using the GEIP License Server*.

![Change Settings]

6. Confirm that the **GEIP License Server** is selected as the activate source, and verify the connection status is **ONLINE**.

![Verify GEIP License Server and Connection Status]
7. Click **Save**.

8. Select **Welcome** in the upper left corner of the **Change Settings** window to return to the **Welcome** window.

9. Click **Manage Licenses**.
10. Click the **Key** icon beside **Activate** to activate the license on this computer.

![Activate Code on This Computer](image1.png)

11. Click **Enter Activations**.

![Enter Activations](image2.png)
12. With the Activation code copied from the email to the computer cut/paste buffer from step 2, the *New Code Detected* dialog window displays. Click **Yes** to automatically paste in the activation code.

![Activate Code](image)

13. Click **Activate**.

![Code Ready to Activate](image)

14. The *License Activation Successful* message displays when the activation is complete. Click **OK**.

![Advantage License Activation Successful](image)
15. Verify that the license is displayed in the *Your Licensed Products* section of the *Activate a License* window.
Customize Device Alias

You can customize your device alias to identify your machine in readable terms.

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To customize your device alias

1. Open the Proficy License Client. From the Start menu, select All Programs, Proficy Common, and License Client.
2. Verify that the version number is V17.2.x or higher (lower right corner).
3. From the Advanced tab, select Option 3, Update Application Settings.
4. Select Device Alias (left side menu).

Device Alias Application Settings

5. The Alias assigned to your computer is displayed. For example, in the figure Device Alias Application Settings, the assigned Alias is MachineName/G3Z8NYF2E.
6. The Device Name is your computer ID. To customize the Device Name, you can add your SSO with "-" between the ID and your SSO.
7. The Device Location is an optional field that can be customized to your location. For example, the location could be entered as SalemVA.
8. Click Save to save the settings. The update is confirmed by the message Updated device alias settings persisted.
### Device Alias Application Settings Updated

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<thead>
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</tr>
</thead>
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</tr>
<tr>
<td>Logging</td>
<td></td>
</tr>
<tr>
<td>Device Name</td>
<td>G3Z8NYF2E-208005243</td>
</tr>
<tr>
<td>Device Location (optional)</td>
<td>SalemVA</td>
</tr>
</tbody>
</table>

Updated device alias settings persisted
License Key Update Using Reflash (*.mlic) File

➢ To update a license key after ordering and receiving the M5 key update email (as shown in the following figure)

Example M5 Key Update Email

Dear Requestor Name,

Thank you for purchasing GE software! Order No. BM00175564 has been processed and is ready for download.

Ref: Purchase Order #: 600167961
Secondary PO #: DLV064 Dongle upgrade

Order Information

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<tr>
<th>Key</th>
<th>Item</th>
<th>Software</th>
<th>Qty</th>
<th>Description</th>
<th>Serial Number</th>
<th>Contract Level</th>
<th>Contract End</th>
<th>Action</th>
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<td>3-16536701-057-001</td>
<td>None</td>
<td>Updated</td>
<td>Download Key File</td>
</tr>
</tbody>
</table>

Download Software

1. Click here to log into GE to download your software.

   Our records indicate this is the first time accessing our Portal so we have set up your new user account:
   Account: FOXGUARD SOLUTIONS
   User Name: first.last@you.com
   Temporary Password: “Temp123”

Note When a user receives an M5 key update email and is not registered for a Customer Portal account, a user account is automatically setup for the user and the account credentials are provided in this email. Notice at the bottom of this example email that a new user account has been created for the email recipient to log into the Customer Portal.

1. Click the Download Key File link in the Action column (right side of the email) and log into the Customer Portal using your user account credentials. (You may have to create an account. GE employees can use SSO logins.)

2. Once logged in, you may not be on the correct page to see the required files. If this is the case, go back to the email and click the Download Key File link again.

3. Download each encrypted key file (.mlic) to your computer.

4. Insert the hardware key to be updated.

5. Open License Client as follows: from the Start menu, select All Programs, select Proficy Common, select License Client, then select the Advanced tab.

6. Select option 6 Re-flash non-configurable USB Hardware Key.
7. Locate the downloaded files and click **Re-flash USB Key**.

8. Repeat steps 4 through 7 for each hardware key.
**Advantage License Return**

➢ To return an Advantage license using Proficy License Client

1. Open the Proficy License Client. From the **Start** menu, select **All Programs**, **Proficy Common**, and **License Client**.

2. Verify that the version number is V17.2.x or higher (lower right corner).

3. From the **Return Licenses** tab, select the license for return, then click **Return**.

![Return Licenses](image)

**Return Licenses**

When the license is removed, the Activate Licenses tab window is displayed.
**Advantage Licensing Error Troubleshooting**

The procedures in this section may be used to troubleshoot the following errors that may be encountered with Advantage licenses:

- Different Customer Number (CSN)
- Activation ID Not Present
- File Read Command Failure
- Clean License History From Activation Errors
- Expired or Invalid License
- Trusted Storage hostID Does Not Match System hostID
- Issues with New Laptops Using Mini-USB Ethernet Cable Adapters
- Activate Laptop with Wireless Connection
- Enable Wireless Connection on Docked Laptop
- License Key Refresh

**Different Customer Service Number**

If you receive an error message that the activation code you entered is for a different Different Customer Service Number (CSN) than the one for which the device is registered, this device has been previously licensed using a different Activation Code with a different CSN. You must take one of the following actions:

- a. Use the previous license.
- b. Update the previous license.
- Or
- c. Contact Customer Support to reset your Device ID to the new license CSN you want to use.

![Different CSN Error](image-url)
**Activation ID Not Present**

If you receive an Activation ID not Present error, the GEIP cloud does not recognize the Activation Code as valid. Usually this means there is a typographical error. It is best practice to cut and paste the Activation Code from the licensing email instead of typing it into the Activation window.

![License Activation Error](image)

**License Activation Error**

If after multiple attempts to correct the Activation code have failed, contact Customer Support to have the Activation code validated.

**File Read Command Failure**

A File Read Command Failure error may be caused when a previous version of the Proficy License was installed on the computer and the upgrade process did not clear all of the Legacy files.

![File Read Command Failure Error](image)

➢ To clear a File Read Command Failure error: perform the procedure to clean license history. If the issue persists, contact Customer Support.
Clean License History From Activation Errors

License history that results from activation errors can be cleaned from your computer.

**Attention**
Cleaning license history will remove all record of all licenses on your computer, but not in the GE Cloud or Local License Server. To recover your license after cleaning, you can perform the procedure License Key Refresh. If you activate another license, your previous license will be stuck in the GE Cloud or Local License Server and no longer available for use without help from Customer Support.

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To clean license history due to activation errors

1. Open the Proficy License Client. From the Start menu, select All Programs, Proficy Common, and License Client.
2. Verify that the version number is V17.2.x or higher (lower right corner).
3. From the Advanced tab, select Option 2, Clean license information on this computer.

4. Select **Clean** (unless you are certain you are using a Local License Server), then click **Confirm**.
After cleaning, the Activate License tab is displayed because you no longer have a license on your client. If you need to recover the license, refer to the procedure License Key Refresh.
**Expired or Invalid License**

If you receive an error in the ToolboxST application that your license is expired, confirm that your license is still valid.

If your license is valid, this error may indicate that the computer ID has changed. When your license was activated, the computer configuration was retained in computer memory, and now that configuration has changed. For example, the configuration is changed if any of the following parameters have changed:

- Computer name
- Network interface modules,
- Wireless was turned on/off
- Laptop was activated while in a docking station but has since been removed from the docking station, which causes the wireless to be activated

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To troubleshoot an Expired License error: confirm that your license is valid, or check if the configuration has changed.
Trusted Storage hostID Does Not Match System hostID

➢ To troubleshoot a Storage hostID error
1. From the Start menu, select Control Panel, Administrator Tools, then select Services.
2. Stop the following processes in this order:
   a. Helper Service for Proficy Licensing
   b. Proficy Licensing
   c. Sentinel LDK License Manager
3. From the C:\Program Files\Proficy\Proficy Common\Proficy Common Licensing\ folder, delete anchoring-0 files and storage-0 files.

Delete Proficy Common Licensing Storage Files
4. From the **Start** menu, select **Control Panel, Administrator Tools**, then select **Services**.

5. Restart the following processes in this order:
   a. Sentinel LDK License Manager
   b. Proficy Licensing
   c. Helper Service for Proficy Licensing

6. Retry license activation.

### Issues with New Laptops Using Mini-USB Ethernet Cable Adapters

Unlike Ethernet Network Adapter boards, the mini-USB Ethernet cable connection **disappears** when the mini-USB network cable is unplugged. This causes the Advantage license to become **invalid** if the license was activated while the laptop was wire-connected using the USB cable.

**Note** If you have already activated the Advantage license and now have an invalid license, perform the following steps:

1. Return the laptop to the state when the license was activated and working (either docked or undocked).
2. Open License Manager and confirm that the license is valid. (You may have to go to Welcome\Manage\Refresh to get the License Manager to display the license as valid.
3. From License Manager, go to Welcome\Manage\Return, select the license check box, and return the license. You should get a warning that you have no license.

Since the mini-USB connection **disappears**, the Advantage license needs to be activated on stable computer configuration details. For the mini-USB wired Ethernet connection, you must activate the license with wireless only, **after** changing the Network Adapter Manager to Manual and enabling wireless, as described in the procedure **Activate Laptop with Wireless Connection**.

### Activate Laptop with Wireless Connection

The standard GE core load for laptops **disables** a wireless connection when the laptop is docked. This avoids consuming two IP addresses on the GE network at the same time.

However, the Advantage license will become **invalid** if the license is activated while the laptop is docked (wireless disabled), then undocked (wired disabled, wireless enabled) to work remotely.

Before activating the Advantage license, perform the procedure **Enable Wireless Connection on Docked Laptop** to enable your wireless connection while the laptop is docked.

**Note** If you have already activated the Advantage license and now have an invalid license, perform the following steps:

1. Return the laptop to the state when the license was activated, either docked or undocked.
2. Open License Manager and confirm that the license is valid. (You may have to go to Welcome\Manage\Refresh to get the License Manager to display the license as valid.
3. From License Manager, go to Welcome\Manage\Return, select the license check box, and return the license. You should get a warning that you have no license.
4. Perform the procedure **Enable Wireless Connection on Docked Laptop** to enable a wireless connection while the laptop is docked.
**Enable Wireless on Docked Laptop**

Enabling or disabling the wireless NIC is controlled by a service called NetworkAdapterManager.

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**To activate your license to work with simultaneous wired and wireless connection**

1. It is recommended that you disconnect from the wire-connected network prior to making this change so you are using a wireless connection.
2. Open Services and locate the service NetworkAdapterManager. From the Control Panel, select Administrative Tools, select Services to open the NetworkAdapterManager.
4. Reconnect the wired connection.

You should now have both a wired and wireless connection, simultaneously.

**License Key Refresh**

Refresh the licenses installed on your device to update the license key information with any modifications made to the license in the GE Cloud License Server.

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**To refresh a license to get updates**

1. Open the Proficy License Client. From the Start menu, select All Programs, Proficy Common, and License Client.
2. Verify that the version number is V17.2.x or higher (lower right corner).
3. From the Advanced tab, select Option 1, Refresh existing licenses on this computer.

4. Click Refresh.

After licenses are refreshed, the View Licenses tab is automatically displayed with updated information.