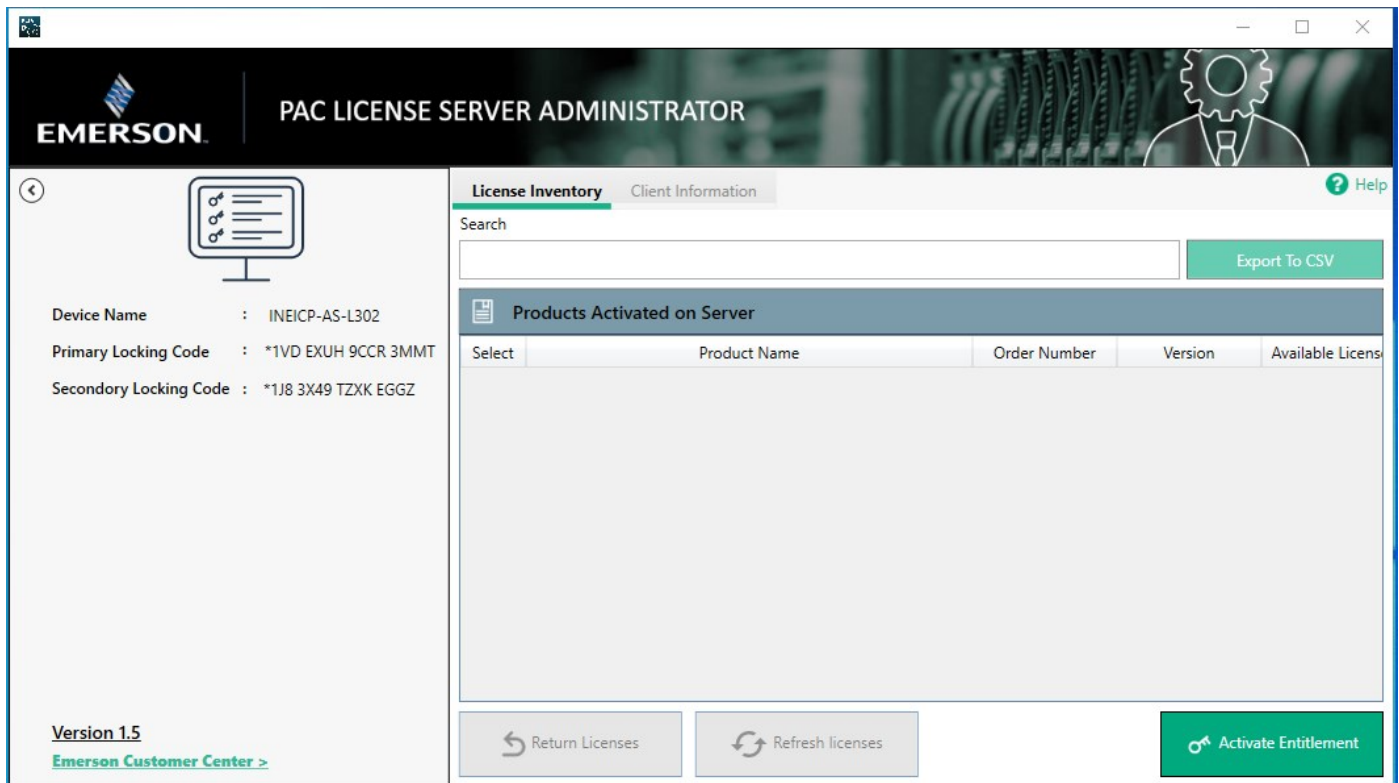


# PAC License Server Administrator

## USER MANUAL



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## Warnings and Caution Notes as Used in this Publication

### **WARNING**

Warning notices are used in this publication to emphasize that hazardous voltages, currents, temperatures, or other conditions that could cause personal injury exist in this equipment or may be associated with its use.

In situations where inattention could cause either personal injury or damage to equipment, a Warning notice is used.

---

### **CAUTION**

Caution notices are used where equipment might be damaged if care is not taken.

---

**Note:** *Notes merely call attention to information that is especially significant to understanding and operating the equipment.*

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# Section 1: About this Manual

## 1.1 Glossary

**Activation Code** – An activation code is used to convert a customer’s entitlement to a software license.

**Device Locking Code** – A device locking code is used during the activation process to bind a license to a specific device.

**Entitlement** – An entitlement is a purchased right to use a software application for a specified period or in perpetuity. An entitlement is activated on a supported device for use. An activated entitlement results in a license that is bound to a device.

**Environment Variable** – An environment variable is a device-wide variable that is configured outside of an application. Users can specify a name and value for the environment variable that can be referenced by any number of applications.

**License** – A license results from activating an entitlement onto a supported device. A license enables customers to use the software on the device to which it is bound.

**Lease** – A temporary license, usually for 30 days, taken from the available pool of licenses on the PAC License Server. The lease gives the client exclusive rights to use that license during the lease period.

**PAC License Server** – a dedicated server where a pool of entitlements are activated and the resulting licenses are made available to clients to lease from the server.

## 1.2 Revisions in this Manual

Revision	Date	Description
B	Jan 2023	Adds support for PLSA 1.5 <ul style="list-style-type: none"><li>PLSA can now be run on both physical and virtual machines.</li><li>Parts of the UI will no longer overlap in smaller windows.</li></ul>
A	Apr 2022	Initial Release

# Section 2: PAC License Server Administrator Installation

## 2.1 Minimum Installation Requirements

System Requirements for the PLSA Suite:

- Minimum processors (for small to medium-sized projects):
  - Intel® Core® i5
  - AMD FX® or Phenom® II X6
- Recommended processors for large projects or when using multi-instance:
  - Intel quad-core Core i7
  - AMD higher FX or Phenom II X6 models
- MS Server 2016, MS Server 2019, Windows 10, or Windows 11
- At least 2 GB of Disk Space
- At least 4 GB of RAM, 8 GB recommended
- Minimum recommended display resolution of 1920x1080 pixels

## 2.2 Other System Requirements

### **ELM Software (Required)**

- Entitlement and License Manager (ELM)

### **System Requirements for Application Software**

- Specific to the application software being used, the application may reside on a physical or virtual machine

### **Internet Access Requirements for Online Activation / Return of Licenses**

- Internet access is required for online activation and license return from the ELM software using HTTPS protocol on TCP port 443.
- Server connection requires UDP port 5093 to be open to inbound traffic. This may require firewall modifications.

### **License Server must have a static IP address assigned**

- The machine upon which the license server is installed, must have a static IP address to refresh and end leases.

## Section 3: Overview and Operation

### 3.1 Overview

PAC License Server Administrator (PLSA) is a desktop application that allows users to activate, return, and refresh a pool of licenses on the PAC License Server. It gives the license administrator the ability to manage licenses from a central location.

Customers can use PLSA to review the inventory of licenses available on the server and the clients that are currently leasing licenses from the server. PLSA is used in conjunction with Entitlement License Manager and Emerson Customer Center to manage licenses.

---

#### Important

Server-Side Sentinel RMS License Manager must be added to Windows Defender Firewall's Allow Apps List

- Add Sentinel RMS License Manager to the Allowed Apps list found by following the path *Control Panel > All Control Panel Items > Windows Defender Firewall > Allowed Apps*

Client-Side must have Server IP and System Name updated

- The server's IP and System Name need to be updated in the client's host files found in `C:\Windows\System32\drivers\etc`.

Virtual machines need to have the same subnet mask as the server to fetch licenses.

If a user is experiencing issues accessing the Help PDF, open *Acrobat Reader > Edit > Preferences > Security (Enhanced) > Toggle on Enable Protected Mode at startup*.

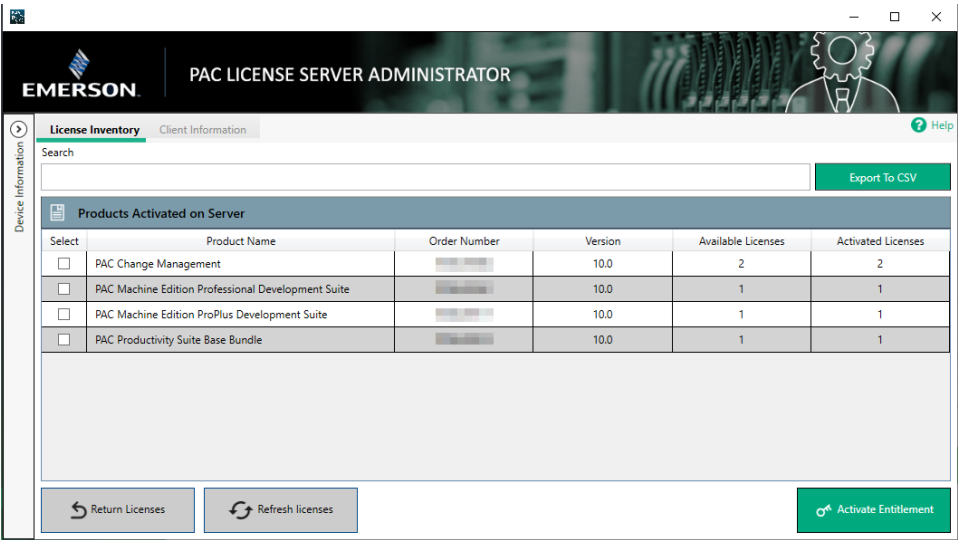
---

### 3.1.1 License Inventory Tab

The following tab shows the product name, order number, version, available license quantity, and activated license quantity.

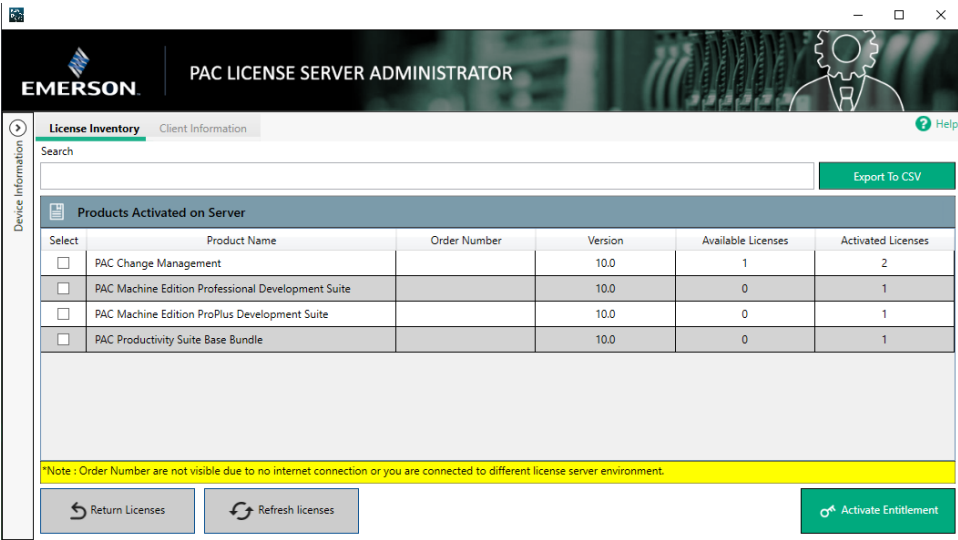
This screen displays licenses activated on the server. The user can return or refresh activated licenses or activate additional entitlements on the server.

**Figure 1: License Inventory Tab**



If the device does not have an internet connection to EMS, the Order Number column will be blank. A yellow message will display across the bottom of the box.

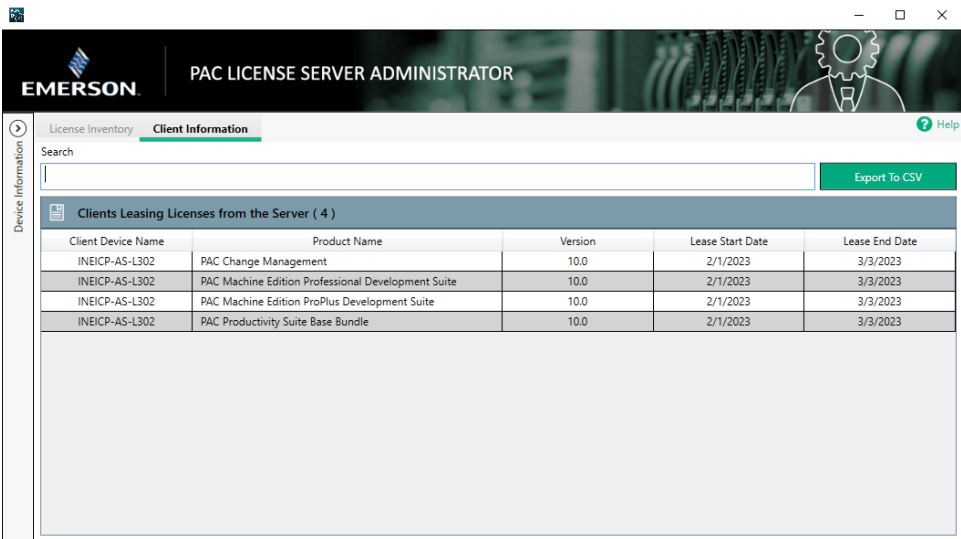
**Figure 2: Not Connected Message**



## 3.1.2 Client Information Tab

This tab displays the clients that have leased licenses from the server

**Figure 3: Client Information Tab**

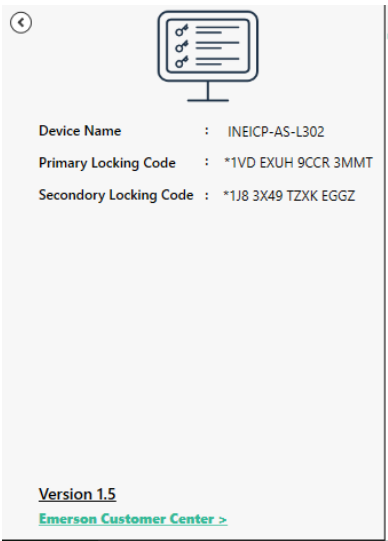


Client Device Name	Product Name	Version	Lease Start Date	Lease End Date
INEICP-AS-L302	PAC Change Management	10.0	2/1/2023	3/3/2023
INEICP-AS-L302	PAC Machine Edition Professional Development Suite	10.0	2/1/2023	3/3/2023
INEICP-AS-L302	PAC Machine Edition ProPlus Development Suite	10.0	2/1/2023	3/3/2023
INEICP-AS-L302	PAC Productivity Suite Base Bundle	10.0	2/1/2023	3/3/2023

## 3.1.3 Device information Expandable Panel

This tab shows the user critical information like Device Name, Primary Locking Code, Secondary Locking Code, and a link to open the Emerson Customer Center.

**Figure 4: Expandable Information Panel**



Device Name	: INEICP-AS-L302
Primary Locking Code	: *1VD EXUH 9CCR 3MMT
Secondary Locking Code	: *1J8 3X49 TZKK EGGZ

Version 1.5  
[Emerson Customer Center >](#)



## Section 4: Activating Multiple Entitlements Simultaneously

### 4.1 Activating Multiple Entitlements Automatically Using the Internet

1. Click the **Activate Entitlement** button.
2. Choose **Automatic Using Internet**.
3. Enter the 36-digit activation code and Quantity to Activate (Figure 5). The activation code is provided on the customer's order fulfillment email that arrives after the order is placed.

**Figure 5: Enter Activation Code and Quantity to Activate**

The screenshot shows a web interface with three tabs: 'Activation Method', 'Enter Activation Code' (which is active), and 'Confirmation'. A green question mark icon is in the top right corner. The 'Enter Activation Code' tab contains a large text input field labeled 'Enter Activation Code'. Below this field are two smaller text input fields: 'Available Quantity' and 'Quantity to Activate'. At the bottom of the form are two buttons: 'Back' on the left and 'Next' on the right.

4. The activation code can have multiple activations associated with it. The remaining activations available for the activation code entered will appear in the Available Quantity textbox. Enter a quantity equal to or less than the Available Quantity in the Quantity to Activate textbox.
5. Click the **Next** button.
6. PLSA will display a confirmation screen if the entitlements are activated successfully.

## 4.2 Activating Multiple Entitlements Manually

1. Click the **Activate Entitlements** button.
2. Select **Manual** for the Activation Method and copy or write down the device locking code. Click **Next**.

**Figure 6: Manual Activation Method**

Activate License

Activation Method   Upload License File   Confirmation

Activate Entitlement

☐ Automatic Activation using the Internet

☒ Manual Activation

It seems you cannot connect to our cloud activation services so we will proceed with the manual activation process. You will need to migrate a device locking code to a machine with Internet access. You will need generate a license file through the customer center and then install the license file manually to your machine with this wizard once you activated the license online.

Device Locking Code: \*1VD EXUH 9CCR 3MMT \*1J8 3X49 TZXX EGGZ Copy

Next

3. From a computer with an internet connection, navigate to:  
<https://emerson.com/iac-support>
4. Click the **Software** tab and find the entitlement to activate and click **Activate Manually**.

**Figure 7: Emerson Customer Center**

Product	Activated	Available
PAC Machine Edition Professional Development Suite	0	1
PAC Solution Provider Development Program	194	66

Account	Activation Code	Order Date	Order Number	Activated	Available	Actions
GE APPLIANCE CSN: 11732	f7b3aeed-8f33-43d7-9b0b-663e912f9f5c	9/17/2021	ET00410992	194	66	Activate Manually

5. Enter the activation quantity in the **Quantity to Activate** text field, enter the device name to be activated into **Device Name Text**, and enter the **Device Locking Code**.
6. Click **Complete Activation**.

- Click **Download License File** and save it to a removable disk/media.

**Figure 8: Click Download License File**

Order Activation

Activation Code: f7b3aeed-8f33-43d7-9b0b-663e912f9f5c Customer Name: GE APPLIANCE

Activation Completed successfully

Product	Activated
Solution Provider Development - Software Key -1 Part# EMRSPDEVL-SWK Expiration: 12/01/2025	1

[Download License File](#) [Done](#)

- Insert the removable disk/media with the downloaded license file into the machine designated as the PAC License Server.
- In PSLA, click **Browse** and navigate to the downloaded license file. Click **Next**.

**Figure 9: Upload License File**

Activation Method Upload License File Confirmation ?

Browse License File

C:\Users\E1344270\OneDrive - Emerson\Downloads\lservrc (44) [Browse](#)

[Back](#) [Next](#)

- PLAS will confirm that the license file has been uploaded successfully.

**Figure 10: Successful License File Upload**

Activation Method Upload License File Confirmation ?

✓ Your license file has been uploaded successfully.

[Close](#)

## Section 5: Refreshing Licenses

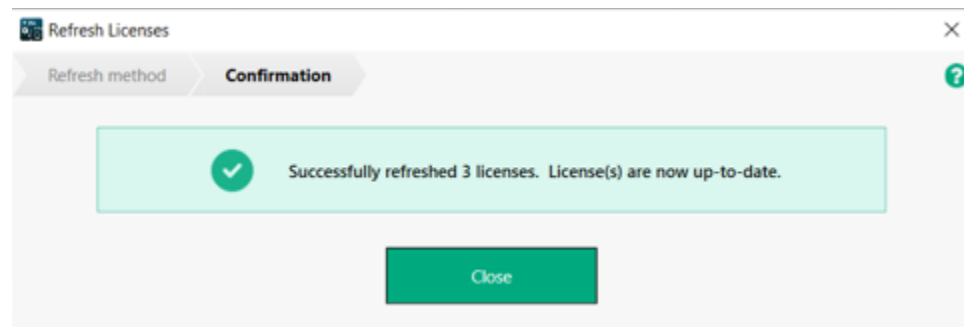
PLSA supports refreshing multiple licenses at the same time. Users will find the feature helpful to update licenses when their expiration dates change or when a new version is available for the product. These refreshes can be done automatically with an internet connection or manually with access to a machine with an internet connection.

### 5.1 Refreshing Multiple Licenses Automatically Using the Internet

1. With the **License Inventory** tab selected, click to highlight the license you wish to refresh and click **Refresh Licenses**.
2. Select **Automatic Using Internet** as the activation method.
3. PLSA will display a confirmation screen if the method was successful.

---

**Figure 11: Confirmation Screen**



# 5.2 Refreshing Multiple Licenses Manually

1. From a computer with an internet connection, navigate to:

<https://emerson.com/iac-support>

2. Click the **Software** tab and locate a valid renewable license.

Figure 12: Renewal Pending

f7b3aeed-8f33-43d7-9b0b-663e912f9f5c	GE APPLIANCE CSN: 11732	PAC Solution Provider Development Program -1 Part#: EMRSPDEVL-SWK	Refresh	1	Renewal Pending
f7b3aeed-8f33-43d7-9b0b-663e912f9f5c	GE APPLIANCE CSN: 11732	PAC Solution Provider Development Program -1 Part#: EMRSPDEVL-SWK	Refresh	1	Renewal Pending
f7b3aeed-8f33-43d7-9b0b-663e912f9f5c	GE APPLIANCE CSN: 11732	PAC Solution Provider Development Program -1 Part#: EMRSPDEVL-SWK	Download	1	Activated

3. Click on **Refresh**. The text will change into a blue **Download** link.
4. Click **Download** and save the license file to a removable disk/media.

Figure 13: Download License File

Refresh	1	Renewal Pending
Refresh	1	Renewal Pending
Download	1	Activated

5. Run PSLA and select **Manual** as the activation method.

Figure 14: Manual Activation Method

Refresh Licenses

Refresh method   Upload file to refresh   Confirmation

Please close all applications that are using an Emerson license before returning it.

Refresh licenses

☐ Automatic Refresh using the Internet

☒ Manual Refresh

We will proceed with the manual refresh process. You will need to migrate a device locking code to a machine with Internet access. You will need generate a license file through the customer center and then refresh the license file manually to your machine with this wizard once you refreshed the license online.

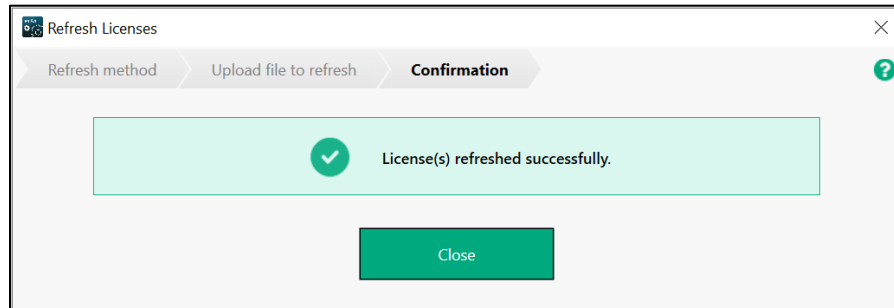
Device Locking Code   \*1VD EXUH 9CCR 3MMT \*1J8 3X49 TZXK EGGZ   Copy

Next

6. Click **Next** to start the manual refresh process. In the next tab, need to select the license file to refresh.
7. The application will display a confirmation screen if the license has been successfully refreshed.

---

**Figure 15: License Refreshed Confirmation**



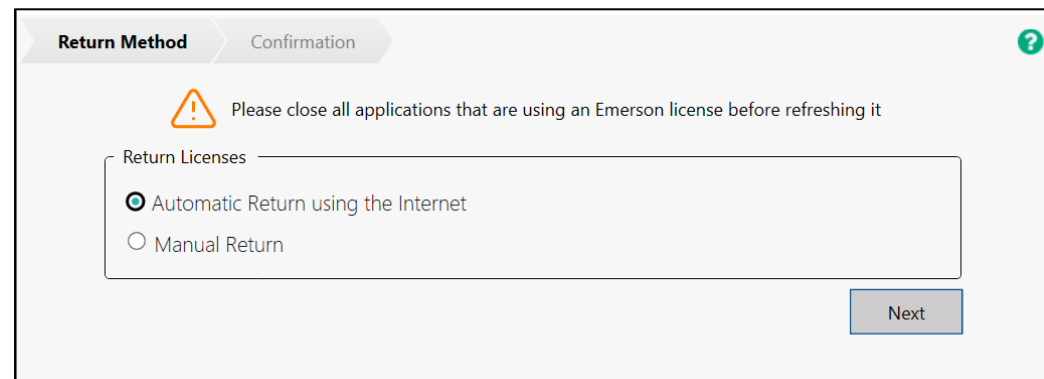
## Section 6: Returning Multiple Licenses Simultaneously

PLSA supports returning multiple licenses at the same time. Users will find the feature helps to remove licenses when their expiration dates are reached or when entitlements need to be activated on different machines. Returning licenses can be done automatically with the internet or manually using a separate internet-connected machine.

### 6.1 Returning Multiple Licenses Automatically

1. Select **Automatic using Internet** from the Return Method options

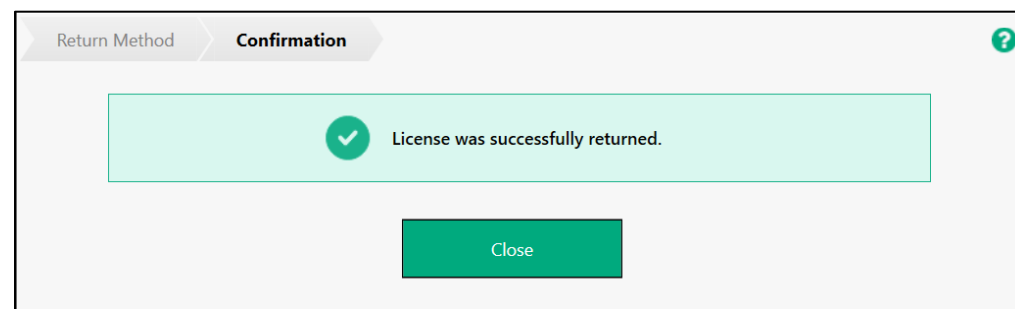
**Figure 16: Automatic Return Method**



The screenshot shows a dialog box titled "Return Method" with a "Confirmation" tab. A warning icon and text state: "Please close all applications that are using an Emerson license before refreshing it". Below this, under the heading "Return Licenses", there are two radio button options: "Automatic Return using the Internet" (which is selected) and "Manual Return". A "Next" button is located at the bottom right of the dialog box.

2. The automatic return method will automatically return the licenses and display a confirmation screen that the licenses have been returned.

**Figure 17: Confirmation Level**



The screenshot shows a confirmation dialog box with a "Confirmation" tab. A green checkmark icon and text state: "License was successfully returned." A "Close" button is located at the bottom center of the dialog box.

## 6.2 Returning Multiple Licenses Manually

If the machine with PSLA installed has no connection to the internet, the user can still manually return licenses with the aid of another machine connected to the internet.

1. Select **Manual** from the Return Method list and click **Next**.

**Figure 18: Return Licenses Manually**

The screenshot shows a wizard window titled 'Return License' with three steps: 'Return Method', 'Select Folder to Return', and 'Confirmation'. The 'Return Method' step is active. It contains a warning icon and text: 'Please close all applications that are using an Emerson license before refreshing it'. Below this, there are two radio buttons: 'Automatic Return using the Internet' (unselected) and 'Manual Return' (selected). A gray information box contains the following text: 'It seems you cannot connect to our cloud activation services so we will proceed with the manual return process. After completing the steps on this wizard, you will need to migrate a return confirmation file to a machine with Internet access. You will need to upload this return confirmation to the customer center in order to complete the return process. If you have fixed the Internet connection, you can click on "Check Internet Connection". If successful, it will automatically bring you to the next step. Otherwise, click "Continue" to proceed without Internet.' Below the information box is a link 'Check Internet Connection'. At the bottom right is a 'Next' button.

2. The user will need to generate a **Return Confirmation** file. The Return Confirmation file will need to be uploaded to the Emerson Customer Center.
3. Click **Browse** to choose a path to save the Return Confirmation file. Save this file to a removable disk/media to upload to a machine with internet access.
4. Click **Return** to generate the Return Confirmation file.

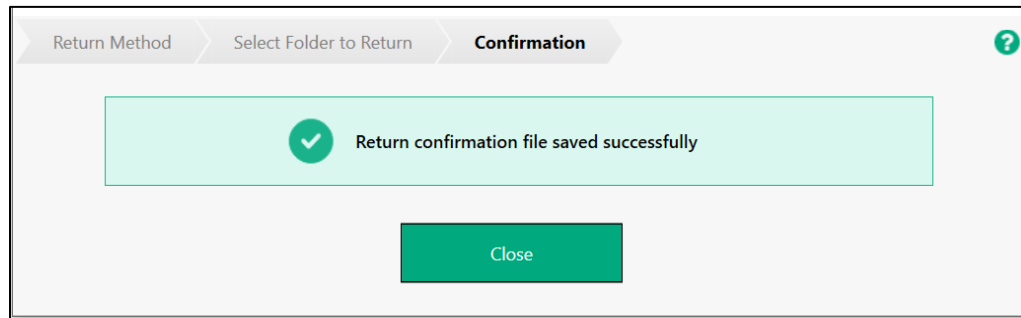
**Figure 19: Select Folder**

The screenshot shows the 'Select Folder to Return' step of the 'Return License' wizard. It contains a warning icon and text: 'Please close all applications that are using an Emerson license before returning it.' Below this, there is a text box labeled 'Choose path to save Return Confirmation' and a 'Browse' button. A gray information box contains the following text: 'This is the first of two steps for returning the entitlement. This will return all product licenses associated with the entitlement. Are you sure you want to continue? Please Note : This action can not be un-done.' At the bottom are 'Back' and 'Return' buttons.



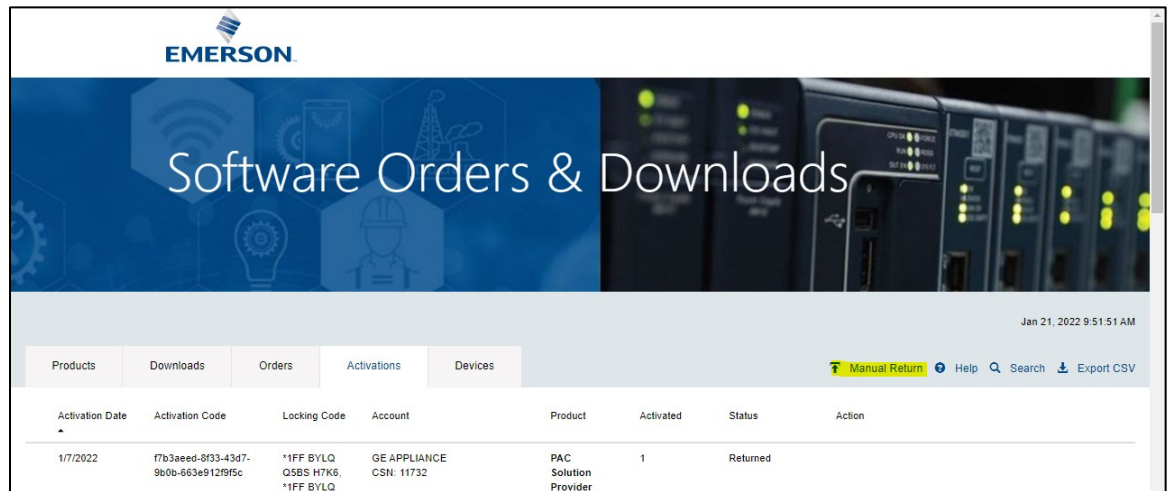
- The system will display that the return confirmation file has saved successfully.


**Figure 20: Return Confirmation File Saved Successfully**



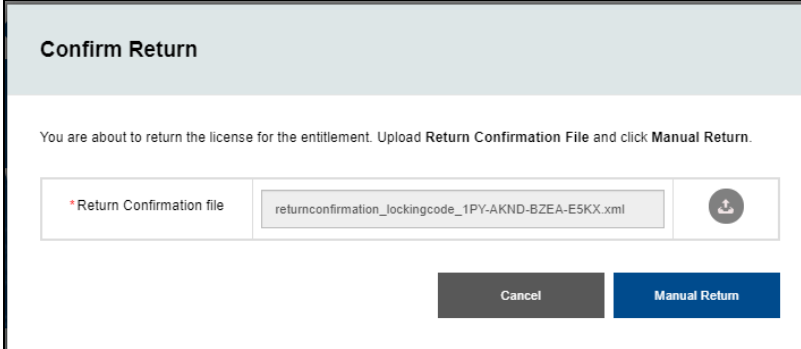
- From a computer with an internet connection, navigate to:  
<https://emerson.com/iac-support>
- Click the **Software** tab and then click the **Activations** tab.
- Click the **Manual Return** link in the upper-right corner next to the Help button.

**Figure 21: Manual Return link**



9. Emerson Customer Center will request the Return Confirmation file. Click the  button to browse for the saved file and click **Manual Return**.

**Figure 22: Upload the Return Confirmation File**



**Confirm Return**

You are about to return the license for the entitlement. Upload Return Confirmation File and click **Manual Return**.

\* Return Confirmation file

returnconfirmation\_lockingcode\_1PY-AKND-BZEA-E5KX.xml

Cancel Manual Return

10. Emerson Customer Center will display a confirmation screen if the file was successfully returned.

## Appendix A: Secure Deployment Guide

This section introduces the fundamentals of security and secure configuration and deployment.

### A.1: What is Security?

Security is the process of maintaining the confidentiality, integrity, and availability of a system:

- Confidentiality: Ensure only the people you want to see the information can see it.
- Integrity: Ensure the data is what it is supposed to be.
- Availability: Ensure the system or data is available for use.

Emerson recognizes the importance of building and deploying products with these concepts in mind and encourages customers to take appropriate care in securing their Emerson products and solutions.

### A.2: General Security Recommendations

Emerson product users are recommended to follow the following general security recommendations:

- Harden system configurations by enabling/using the available security features, and by disabling unnecessary ports, services, functionality, and network file shares.
- Apply all of the latest Emerson product security updates, Software Improvement Modules (SIMs), and other recommendations.
- Apply all of the latest operating system security patches to control systems PCs.
- Use anti-virus software on control systems PCs and keep the associated anti-virus signatures up-to-date.
- Use whitelisting software on control systems PCs and keep the whitelist up-to-date.
- Limit the installation and usage of software to necessary user groups.
- Firewall: To use the PLSA system with Emerson Cloud, allow all outbound traffic at TCP port 443 to URL `intelliplatform.prod.sentinelcloud.com`. Be sure to allow replies to connections as well. To use ELM system with the PLSA server, all outbound traffic at UDP port 5093 to the host name.
- Proxy: When running ELM on a machine that connects to the internet via a proxy, PLSA uses system proxy settings when communicating with the Emerson cloud to conduct activations and returns.

## A.3: Secure Deployment and Hardening

Emerson recommends the following items when configuring the PAC License Server Administrator:

1. Implement the necessary ACL restrictions such that only users with an Administrator-level of privilege can run the Entitlement and License Manager.
2. Configure a local firewall to allow HTTPS traffic to reach out to the internet through port 443.
3. Configure a local firewall to allow incoming UDP port 5093, unless the default port has been changed.

# General Contact Information

Home link: <http://www.emerson.com/industrial-automation-controls>

Knowledge Base: <https://www.emerson.com/industrial-automation-controls/support>

## Technical Support

### Americas

Phone: 1-888-565-4155  
1-434-214-8532 (If toll-free option is unavailable)

Customer Care (Quotes/Orders>Returns): [customercare.mas@emerson.com](mailto:customercare.mas@emerson.com)  
Technical Support: [support.mas@emerson.com](mailto:support.mas@emerson.com)

### Europe

Phone: +800-4444-8001  
+420-225-379-328 (If toll-free option is unavailable)  
+39-0362-228-5555 (from Italy - if toll-free 800 option is unavailable or dialing from a mobile telephone)

Customer Care (Quotes/Orders>Returns): [customercare.emea.mas@emerson.com](mailto:customercare.emea.mas@emerson.com)  
Technical Support: [support.mas.emea@emerson.com](mailto:support.mas.emea@emerson.com)

### Asia

Phone: +86-400-842-8599  
+65-6955-9413 (All other Countries)

Customer Care (Quotes/Orders>Returns): [customercare.cn.mas@emerson.com](mailto:customercare.cn.mas@emerson.com)  
Technical Support: [support.mas.apac@emerson.com](mailto:support.mas.apac@emerson.com)

Any escalation request should be sent to: [mas.sfdcescalation@emerson.com](mailto:mas.sfdcescalation@emerson.com)

**Note:** If the product is purchased through an Authorized Channel Partner, please contact the seller directly for any support.

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