

License Patrol™ Server
Concurrent License Management Tool

Administrator's Guide

Release 26.1 for Microsoft Windows

July 2026

License Patrol Administrator's Guide, 26.1.x for Microsoft Windows

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License Patrol Administrator's Guide

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- Did you find any errors?
- Is the information clearly presented?
- Do you need more information? If so, where?
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If you find any errors or have any other suggestions for improvement, please indicate the document title and part number, and the chapter, section, and page number (if available). You can send comments to us in the following ways:

- Electronic mail: **support@veralab.com**
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If you would like a reply, please give your name, address, telephone number, and (optionally) electronic mail address.

If you have problems with the software, please contact License Patrol Technical Support.

Preface

This guide is your primary source of introductory, postinstallation, configuration, and administration information for using License Patrol server.

This preface introduces you to the License Patrol Administrator's Guide, discussing the intended audience, structure, and conventions of this document. A list of related License Patrol documents is also provided.

> **Note** Starting with this release, License Patrol adopts the year-based version numbering used across VeraLab Inc. products: version 26.1 is the first release of 2026 and succeeds version 9.5.

This preface contains these topics:

- Audience
- Organization
- Related Documentation
- Conventions

Audience

License Patrol Administrator's Guide for Windows is necessary for anyone installing, configuring, or administering License Patrol server.

License Patrol Administrator's Guide is intended for IT Managers, Administrators, Technicians, and other IT personnel who perform the following tasks:

- Manage multi-computer environment and personnel
- Perform system administration and setup

To use this document, you need:

- Windows 8.1, Windows 10/11, Windows Server 2016, Windows Server 2019, Windows Server 2022, or Windows Server 2025 installed and tested on your computer system.

> **Note** License Patrol 26.1 server components run on Apache Tomcat 11 with a Java runtime (JDK 25 LTS) and PostgreSQL 18, all bundled with the server installation. See the *License Patrol Server Installation Guide* for system requirements.

Organization

This guide contains the following chapters and appendixes:

Chapter 1, License Patrol Setup and Administration

This chapter describes how to setup and administer License Patrol system. This chapter describes how to perform concurrent management and remote control tasks.

Chapter 2, Maintain Data

This chapter describes License Patrol Import utility and data purge controls and guides you through the procedures to perform data import and data purge.

Appendix A, System Settings

This appendix describes how to set and tune system settings on your License Patrol server.

Related Documentation

This guide is a part of a set for IT personnel using License Patrol tool. The other guides in the set are:

- *License Patrol Server Installation Guide*
- *License Patrol Client Installation Guide*

To download free release notes, installation documentation, white papers, or other collateral, please visit www.veralab.com.

Conventions

This section describes the conventions used in the text of this documentation set. We use various conventions in text to help you more quickly identify special terms. The following table describes those conventions and provides examples of their use.

Convention	Meaning	Example
Bold	Bold typeface indicates screen elements, such as elements of forms or menu items.	Select the **Available** checkbox.
Italics	Italic typeface indicates book titles or emphasis.	*You can not make currently used workstations unavailable.*
Bold Italics	Bold and Italic typeface indicates screen names and areas.	The screen changes to ***Dashboard***.
<>	Angle brackets enclose variables or optional items.	The Dashboard `<counter_name>` page appears for that counter.

1 License Patrol Setup and Administration

This chapter describes how to perform configuration of environment and maintain License Patrol. This chapter covers the following topics:

- Managing License Patrol Environment
- Managing System Settings
- Diagnostics
- Managing Software Licenses
- Viewing Current Status
- Software Tracking Reports

Managing License Patrol Environment

Typical License Patrol environment includes one or more rooms with computers, that have License Patrol client software installed and configured to communicate with the server. Since LP is a web based application, anyone who has an access to the server through a web browser and login credentials can use the system. You can create as many user accounts as necessary for your organization's environment.

License Patrol Objects

In order to setup the system for the first time, you will need to perform the following tasks:

1. Create or import rooms records
2. Create or import images and workstations records
3. Create or import users

> **Note** Starting with version 26.1, the Model object is deprecated. Clients automatically detect and report the computer model during registration, so models are no longer created, imported, or maintained manually.

Whenever manually adding/removing objects or conducting an import, keep in mind object dependencies. Either you are working in multi- or single room environment, you have to create room(s) first or use default dummy room. If you need to maintain software images, you must create images records prior to adding workstations records. All objects can be added, edited, and deleted. In order to add or edit an object you have to fill/update a form which contains object's attributes. All objects have mandatory and optional attributes. Mandatory attributes are in red color and can not be omitted. Optional attributes are in black color and can be omitted unless otherwise stated. Once deleted, objects 'retire', which means that all references to them are retained in the database for reporting or search purposes but they are hidden from users.

User Administration

You can either create native application accounts or integrate License Patrol with campus central LDAP/MSAD directory and provision LDAP accounts.

Every application user in License Patrol has to be assigned at least one security role. User must be active (**Active** check box must be selected) in order to be able to login into the system. You can assign the following rights to user: Get List of Client Processes, and Terminate Client Processes. These rights enable IT personnel to control and manipulate client workstations from the Monitoring task.

> **Note** For more information on remote control, see Viewing Current Status in this guide.

To add user:

1. Navigate to **Setup → Users**.
2. In the ***User Administration*** page, click the **Add User** link.
3. In the ***Add New User*** page, fill out the form with required fields.

> **Note** You have to select at least one role for each user.

4. Click **Add**.

To edit User:

1. Navigate to **Setup → Users**.
2. Click the **Edit** icon next to an appropriate user.
3. In the ***Edit User <username>*** page, update the appropriate fields.
4. Click **Update**.

To delete user:

1. Navigate to **Setup → Users**.
2. Click the **Delete** icon next to user you want to delete.

Using LDAP for User Authentication

Starting with version 7.0 it became possible to authenticate License Patrol application users (Users) using LDAP.

To provision LDAP account as License Patrol User record:

1. Navigate to **Setup (role) → Users**.
2. Click the **Provision LDAP Users** link on the top.
3. Fill out LDAP connection details such as LDAP Server URL, path to the user records container (Base DN), ID attribute (e.g. CN or sAMAccountName), and LDAP server lookup account DN and password. When using MSAD directory, ID attribute is not required (it is set to sAMAccountName by default), instead MSAD Domain Name must be entered.

> **Note** You can read more about LDAP configuration in LDAP Configuration Guide document: https://veralab.com/veralab/files/VERALAB_LDAP_Configuration_Guide.pdf

4. Click **Test Connection** button to verify License Patrol server can connect to LDAP server on specified port using end user (User) credentials.
5. Click **Save** button to start provisioning users with License Patrol application roles and privileges same as you would do for Native accounts.
6. Click **Advanced Mode** button to configure License Patrol with multiple LDAP servers (optional).

> **Note** License Patrol does not support duplicate usernames. For example, if you have user record with username jsmith and would like to provision jsmith from LDAP directory, native account record must be deleted first.

Converting accounts from Native to LDAP

You can convert accounts from Native to LDAP, assuming you have already setup LDAP connectivity and records with same usernames exist in LDAP directory. See above paragraph how to enable LDAP integration. You will receive an error message if you try to convert a Native account not existing in LDAP directory.

To convert Native account into LDAP:

1. Navigate to **Setup (role) → Users**.
2. Locate account record you wish to convert and click the **Convert to LDAP** icon next to Native account type. Convert to LDAP icon will not be displayed if LDAP integration has not been setup.
3. You will see a pop-up message prompt *Would you like to convert this native account to LDAP?* Click **OK**.

4. If conversion was successful, you will see a confirmation message and the account type will change to LDAP.

Workstation Administration

Workstations belong to the lowest level of dependency hierarchy. Each workstation has to be assigned to a room and an image.

> **Note** Starting with version 26.1, the Model object is deprecated: workstations are no longer assigned a model manually. Instead, clients automatically detect and report the computer model during registration.
>
> **Note** Starting with version 26.1, License Patrol supports smarter station identification based on a unique Device ID. Device ID identification remains stable when machines are re-imaged, renamed, or change network address, and is more reliable than host name or MAC address in such environments. See the System Settings appendix for the Recognize client workstation by setting.

To add a workstation:

1. Navigate to **Setup → Stations**.
2. In the ***Workstation Administration*** page, click the **Add Workstation** link.
3. In the ***Add New Workstation*** page, fill the appropriate fields.
4. Click **Add**.

To edit a workstation:

1. Navigate to **Setup → Stations**.
2. Click the **Edit** icon next to the appropriate workstation.
3. In the ***Edit Workstation <name>*** page, update the appropriate fields.
4. Click **Update**.

> **Note** Workstation Add/Edit page allows to change Remote Control settings for individual workstations. The Guard and Watch properties are set for entire environment in the Settings page. License Patrol Remote Control system settings can be overridden on a room level or on a workstation level. For more information, see System Settings appendix.
>
> **Note** Starting with version 9.1 License Patrol supports multi-session VDI environments. RDS servers must have License Patrol client installed and thin clients must have Thin Client checkbox checked in Workstation properties.

To delete a workstation:

1. Navigate to **Setup → Stations**.
2. Click the **Delete** icon next to the appropriate workstation.

> **Note** You can not delete a workstation that is currently in use.

Room Administration

Rooms can be associated with physical rooms in your environment or they can be logical collections of workstations. It is up to an IT manager or an administrator how to compose rooms. Rooms may have dependent workstations and have to be defined prior to defining workstations.

To add a room:

1. Navigate to **Setup → Rooms**.
2. In the ***Room Administration*** page, click the **Add Room** link.
3. In the ***Add New Room*** page, fill the appropriate fields.
4. Click **Add**.

To edit a room:

1. Navigate to **Setup → Rooms**.
2. Click the **Edit** icon next to the appropriate room.
3. In the ***Edit Room <name>*** page, update the appropriate fields.
4. Click **Update**.

> **Note** Room Add/Edit page allows to change rooms' License Patrol Guard settings. The Guard and Watch properties are set for the entire environment in the Settings page. License Patrol Guard system settings can be overridden on a room level or on a workstation level. For more information, see System Settings appendix.

To delete a room:

1. Navigate to **Setup → Rooms**.
2. Click the **Delete** icon next to the appropriate room.

> **Note** You can not delete a room that has dependent workstations.

Image Administration

Images have to be defined prior to defining workstations. Images do not depend on any other object. An image is a collection of software installed on a workstation. One image is usually propagated to several workstations.

To add an image:

1. Navigate to **Setup → Images**.
2. In the ***Image Administration*** page, click the **Add Image** link.
3. In the ***Add New Image*** page, fill the appropriate fields.
4. Click **Add**.

To edit an image:

1. Navigate to **Setup → Images**.
2. Click the **Edit** icon next to the appropriate image.
3. In the ***Edit Image <name>*** page, update the appropriate fields.
4. Click **Update**.

To delete an image:

1. Navigate to **Setup → Images**.
2. Click the **Delete** icon next to the appropriate image.

> **Note** You can not delete an image that has dependent workstations.

Managing System Settings

License Patrol settings are adjustable parameters that can be tuned to reflect your business requirements. System settings are grouped into several categories. This chapter gives a generic overview of the settings used in License Patrol and how to customize them. For a detailed description and value ranges, see System Settings.

Editing System Settings

We recommend reviewing System Settings appendix carefully before changing any system setting.

To edit a setting:

1. Navigate to **Setup (role)** → **Settings**.
2. In the settings ***Main Menu*** page, click the appropriate settings category.
3. In the ***Edit <setting_category> Settings*** page, update the appropriate fields.
4. Click **Update Settings**.

Viewing System Settings

For convenience, all system settings can be displayed on one screen. The screen will display the settings in read-only mode.

To view all settings:

1. Navigate to **Setup (role)** → **Settings**.
2. In the settings ***Main Menu*** page, click the **View All Settings** link. The ***List of All Settings*** page will be displayed.

Client Settings

Client settings control client-server behavior and policies. This is the key page for setting up communication between License Patrol Client and License Patrol Server, e.g. communication port and password. Here you can also specify client monitoring and controlling policies for site level. These can be overridden on room or workstation level. See "Managing License Patrol Environment" in this Guide.

Multi-Session Settings

Multi-session settings control application behavior in the environments where users are connecting from thin clients to multi-session terminal servers. See "License Patrol Settings" in this guide to learn more about multi-session settings.

Here you can also set default client auto-registration values, e.g. if your thin clients are located in a dedicated room and share other properties, such as Image.

In the ***Edit Multi-session Settings*** page click on the **Thin clients auto-registration settings** select **Auto-register thin clients on the server using below default value** checkbox and select desired values from the **Room** and **Image** drop down menus.

Reports Settings

Reports settings control reports submission and output. Changes to reports settings may affect the performance of the application, therefore, it is important to understand their meaning before editing values. You can specify

maximum number of options that can be selected from multiple-option drop-down lists (*Number of Selected Options* setting). Reports can be generated to display multi-month intervals (referred as Step in the report forms).

For example, you can generate a report that will display three-month intervals (Jan-Mar, Apr-Jun, etc.) or six-month intervals (Jan-Jun, Jul-Dec). The *Maximum Number of Periods in Reports* setting specifies the maximum number of such intervals. The default value for Maximum Number of Periods in Reports settings is twelve, meaning that if you select one-month intervals, you can generate a report for entire calendar year (e.g. February 2004 - January 2005) but not more than that.

Starting with version 5.5 there is a new setting *Page size for PDF printing* that supports two main page sizes: Letter and A4.

> **Note** Starting with version 26.1, reports are exported to Excel in the .xlsx format. Earlier releases produced legacy .xls output.

Security Settings

Security settings control password protection and web session time-out.

Diagnostics

Diagnostics page is used to gather logs and system information from client workstations. License Patrol support may ask you to turn on logging on the client(s) and upload trace logs for further troubleshooting and analysis. To turn on client log generation:

1. Login as a user with **Setup** role → **Diagnostics**.
2. Select a room from the drop-down menu.
3. Select **Start Log** from the **Action** drop-down menu.
4. Select one or more client stations using checkbox(es).
5. Click **Execute** button.

It may be required to refresh the Diagnostics page after a while to verify that log level has been changed. If log is successfully turned on, Log Level field value will change from None to Finest. To save client log file, click on **Get Log** icon and save the compressed file.

Diagnostics page allows retrieving of client specs (CPU speed, RAM, Disk size) directly from client workstations. To retrieve client specs, click on an "i" icon next to a selected station. Diagnostics page will also display License Patrol software version installed on clients. Starting with version 7.0, Computer Info pop-up page will also display information about video cards together with driver version as well as additional details about hard disks and hard disks firmware.

> **Note** Starting with version 9.1 multi-session RDS servers can show connected sessions in the pop-up window.
>
> **Note** Starting with version 26.1, License Patrol supports on-demand client refresh: an administrator can instruct an individual client to refresh its configuration and status from the server immediately, without waiting for the next polling interval.

Managing Software Licenses

Tracking Concurrent Licenses

License Patrol allows you to control number of concurrent licenses used in computer environments. System or network administrators can install software with limited number of acquired licenses on every workstation, but only specified number of workstations will be able to run such software at the same time. You can also prevent certain applications to be launched on workstations by setting the number of licenses for those applications equal to zero. Starting with version 7.0 Tracked Applications page uses AJAX technology to automatically retrieve number of used applications without need to refresh this page. In Use Licenses pop-up window allows terminating selected program on one or more stations remotely.

To view licenses, navigate to **Track Software → Tracked Applications**. On the ***Add/Edit Tracked Applications*** page, you can see the maximum number of licenses for each application and a number of currently used licenses.

> **Note** In versions lower than 6.0 in order to group more than one application under one license you could list them separated by semicolons. For example, if you need to add Adobe Creative Suite license, you can add *\Photoshop.exe;*\Dreamweaver.exe;*\Flash.exe in the Path field. This functionality is kept for backward compatibility, however it is recommended to use new method with multiple Application masks described below.

To add a new license:

1. Navigate to **Track Software (role) → Tracked Applications**.
2. In the ***Add/Edit Tracked Applications*** page, click the **Add Application** link.
3. In the ***Add New License*** page, fill out all necessary fields.

To facilitate entering data and minimize a chance for mistake, License Patrol allows you to request the data from a client workstation, which is currently running that application or program and fill the form automatically.

To fill the form automatically:

- In the ***Add New License*** page, click the **Select from Currently Running** link. The pop-up window will be displayed.
- In the ***List of Running Applications*** pop-up window, select a room and a workstation from the drop-down lists.
- Select a program by clicking the link with a name of process under the **Process** column.
- The pop-up window will close itself.

You have an option not to enforce application shutdown when maximum number is reached, but rather use software metering functionality just to record software usage. Software metering can be activated or deactivated for a particular application.

4. Click **Add**.

> **Note** If you leave No. of Licenses field blank, software metering will not be enforced. To restrict application from being launched, you can specify 0 in that field.

Starting with version 6.0 License Patrol has new functionality to support multiple application masks under the same product/application and to set license reserves across multiple rooms (or groups of users).

For example if you have two different versions of the same product running on Windows 7 and Mac OS, you can group them under the same Product Name. Another example is to group multiple applications belonging to the same suite family, e.g. Adobe CS6 comprising Photoshop, Illustrator, etc.

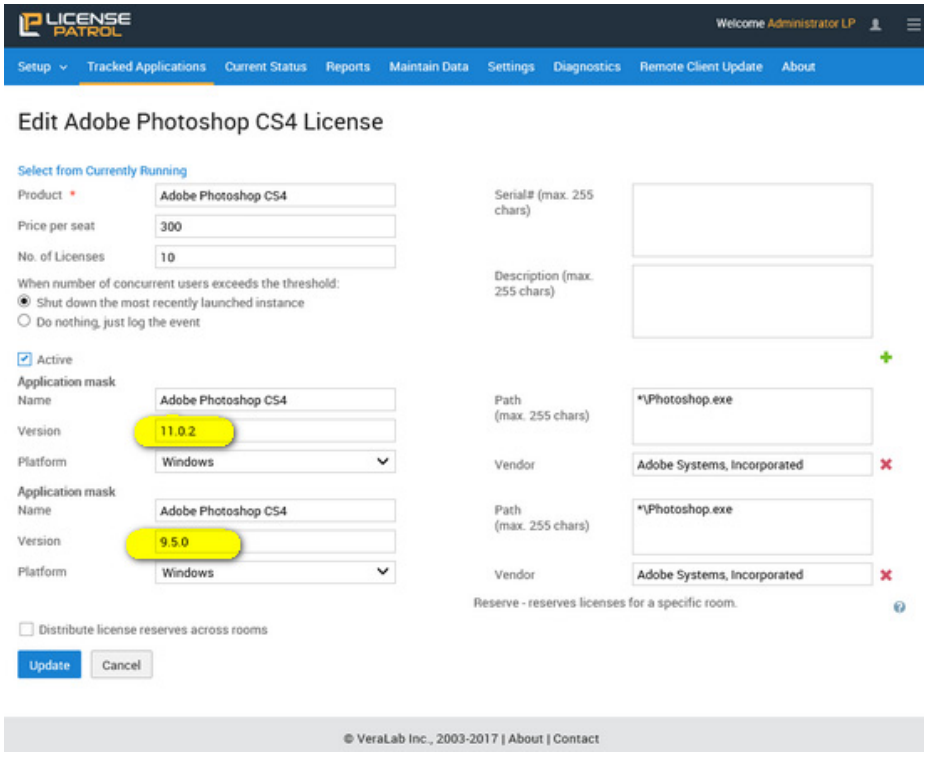


Figure 1–1. Edit License page with multiple Application masks

You can also set a room reserve or distribute license reserve across multiple rooms. Setting License Reserve enables users in a specific room to run guaranteed number of instances of the metered application. E.g. if you have 10 licenses shared across two rooms or two groups of users, when you assign a reserve to room/group A (let's say 2) this guarantees at least 2 licenses available to that room/group users at any time.

Starting with version 8.2.2 License Patrol allows skipping software metering of selected software applications in specific rooms. To add room exclusions:

1. Navigate to **Track Software (role) → Tracked Applications**.
2. Click **Add** or **Edit** icon next to the appropriate application.
3. In the ***Edit <name> License*** page, select the **Disable License Monitoring in rooms** checkbox.
4. Using arrow buttons make necessary selections in the Rooms section.

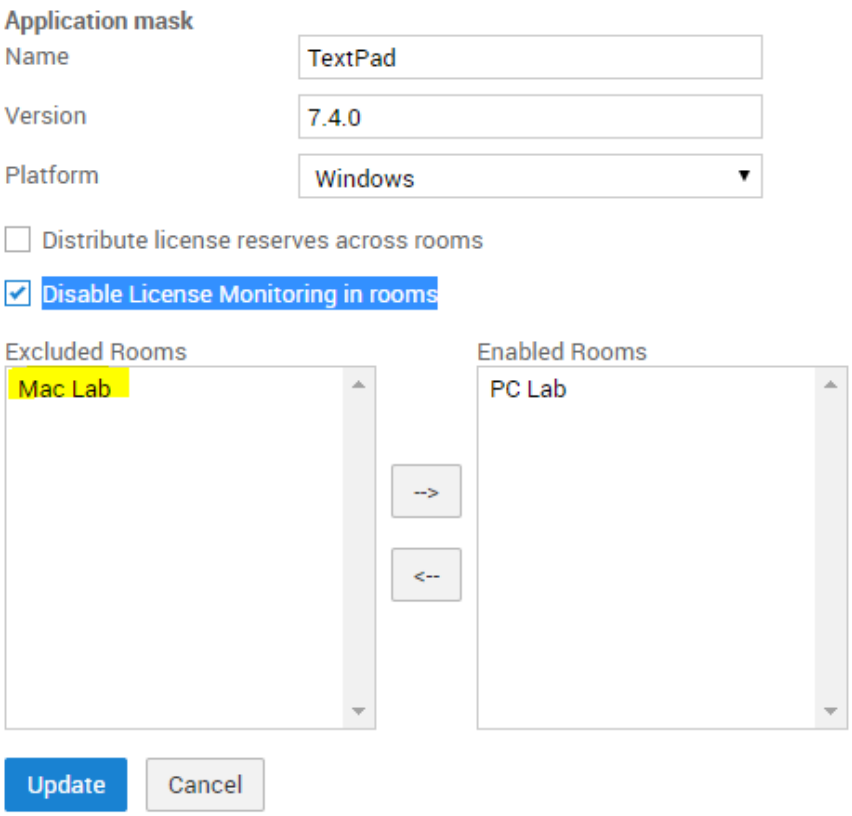


Figure 1–2. Disabling license monitoring in selected rooms

To edit License:

1. Navigate to **Track Software → Tracked Applications**.
2. Click the **Edit** icon next to the appropriate application.
3. In the ***Edit <name> License*** page, update the appropriate fields. You can update the form automatically by requesting the data from a client workstation. To update the form automatically:
   - In the ***Edit <name> License*** page, click the **Select from Currently Running** link. The pop-up window will be displayed.
   - In the ***List of Running Applications*** pop-up window, select a room and a workstation from the drop down lists.
   - Select a program by clicking the link with a name of process under the **Process** column.
   - The pop-up window will close itself.
4. Click **Update**.

To delete a license:

1. Navigate to **Track Software → Tracked Applications**.
2. Click the **Delete** icon next to the appropriate application.

Importing Data From File

Starting from version 8.3, License Patrol features bulk license list import. If you need to maintain a long list of client software you are tracking, this new feature comes out handy. New functionality will allow you to download a Demo or a Template file, make necessary adjustments or compile a new list and import it back into

License Patrol. Once uploaded, software tracking and concurrent management will start using new license attributes as per made adjustments.

> **Note** Starting with version 26.1, the bulk license list can be uploaded in the Excel .xlsx format. Legacy .xls files continue to be accepted.

To upload your data from a file:

1. Login as user with **Track Software** role → **Tracked Applications** (menu).
2. Click the **Import Data from File** link.

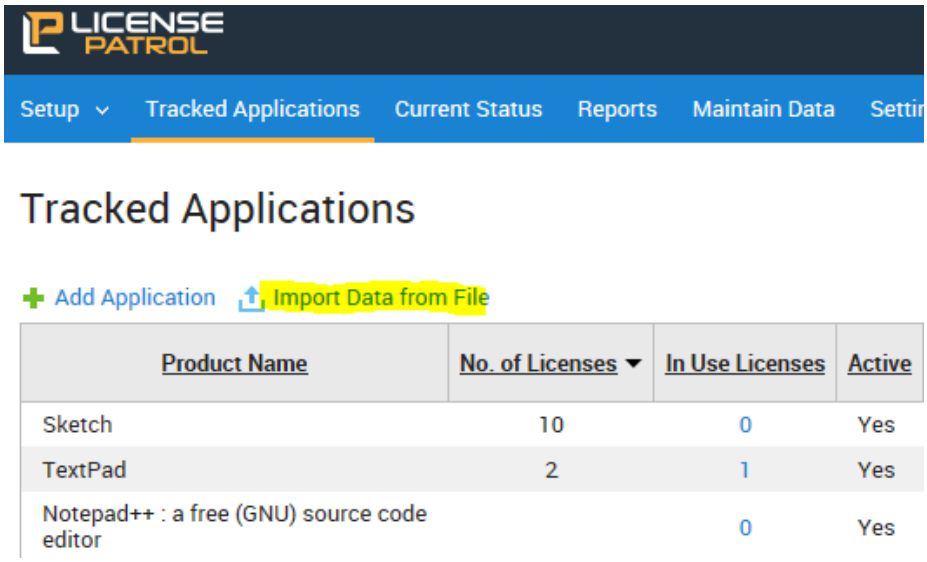


Figure 1–3. Tracked Applications page with bulk upload link

3. Import Data From File page offers few options. You can generate your own file by following instructions on the page, Download Demo file and use it as a reference, replacing demo data with your own or use Template File to enter all license details from scratch.

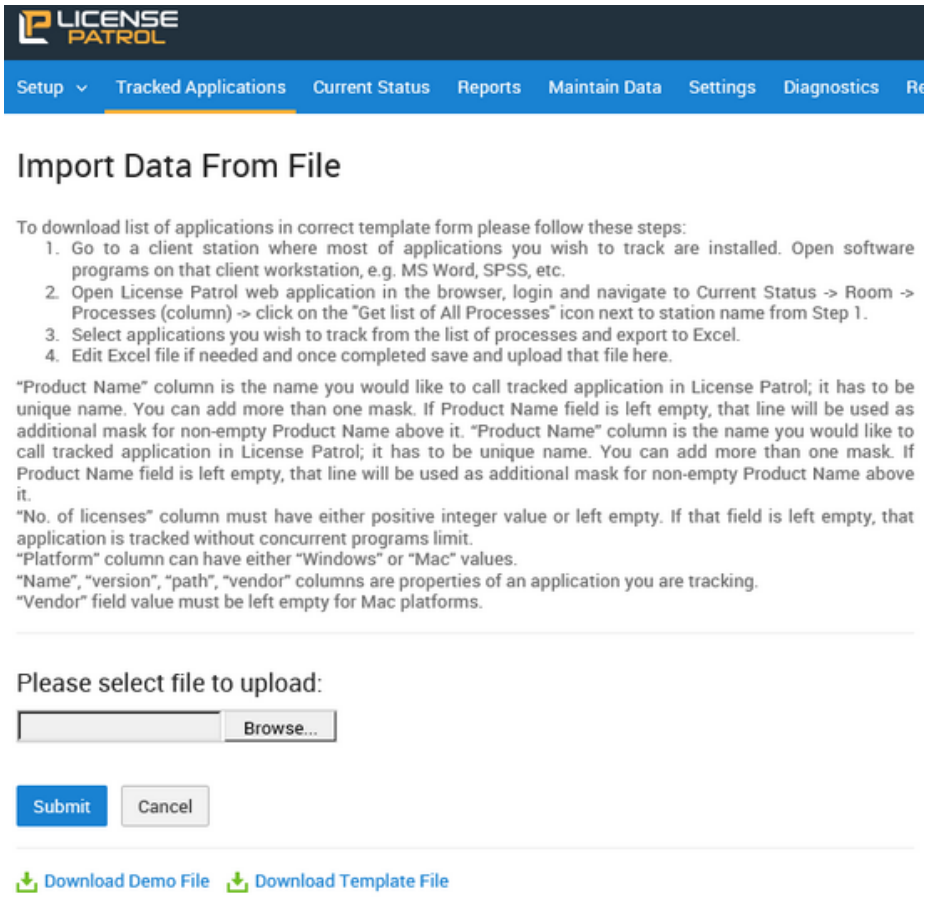


Figure 1–4. Import Data from File

Viewing Current Status

License Patrol Current Status page remote capabilities include the following mechanisms: viewing and terminating client workstation processes.

> **Note** You can use License Patrol Guard features only with client workstations that have License Patrol Guard Client installed and if the client-server connection was established. A colored Connection icon indicates the status of connection. If the Connection icon is green, the connection is established. If the icon is red, the connection is not established. If the icon is grey, the connection has never been established or License Patrol Guard Client software is not installed.

Viewing and Terminating Client Processes

To view and terminate a client process remotely:

1. Navigate to **Track Software → Current Status**.
2. In the ***Current Status*** page, select a room, or All, from the **Select Room** drop-down menu. If there is only one room, this step will be skipped. The screen refreshes and displays the list of workstations.
3. Click the **Get List of All Processes** icon under the **Processes** column next to an appropriate workstation. A pop-up window with a list of running processes will be displayed.
4. In the ***Running Processes on <workstation_name>*** pop-up window, select the check boxes of the processes/applications you need to terminate.

> **Note** A Terminate Client Processes right has to be assigned to a user, otherwise this functionality will be disabled. For more information, see User Administration.

5. Click **Terminate Selected**. The window will refresh automatically and the message will be displayed in the top part of the window. After terminating appropriate processes, close the pop-up window.

Software Tracking Reports

License Patrol provides a number of software tracking capabilities and reports on the tracked software usage. Software Tracking feature is automatically enabled provided that you have both server and client sides running on version 2.4 or higher. To start tracking software, you need to follow steps from the "Tracking Concurrent Licenses" section and setting the maximum number of licenses equal or above total number of connected clients.

Starting with version 5.x, License Patrol stores price per seat and license cost information. It is further used in "Software Compliance" report to calculate license deficit and surplus.

> **Note** Starting with version 26.1, the Excel export link on report pages produces files in the .xlsx format.

Software Usage History

To view software usage history:

1. Navigate to **Track Software → Reports**.
2. Click the **Software Usage History** link.
3. In the ***Software Usage History*** page, select a specific application from the **Product** drop-down list or select All (default). Specify other optional search criteria.
4. Click **Search** button.

Aggregate Software Tracking Report

To view Aggregate Software Tracking report:

1. Navigate to **Track Software → Reports**.
2. Click the **Aggregate Software Tracking Report** link.
3. In the ***Aggregate Software Tracking Report*** page, specify a date range and select a room from the **Room** drop-down menu. Leaving date fields blank will run the report for all recorded data up to yesterday's date.
4. Click **Submit**.

The report displays a usage breakdown chart followed by a table listing each product with its number of launches and total usage time in minutes.

Application Usage by Users

To view Application Usage by users report:

1. Navigate to **Track Software → Reports**.
2. Click the **Application Usage by Users** link.
3. In the ***Application Usage by Users*** page, select a product, a date range and a room from the **Room** multiple choice menu. Leaving date fields blank will run the report for all recorded data up to previous day.
4. Click **Submit**.

Software Compliance

To view Software Compliance report:

1. Navigate to **Track Software → Reports**.

2. Click the **Software Compliance** link.
3. In the ***Software Compliance*** page, select a date range. Leaving date fields blank will run the report for all recorded data up to previous day.
4. Click **Submit**.

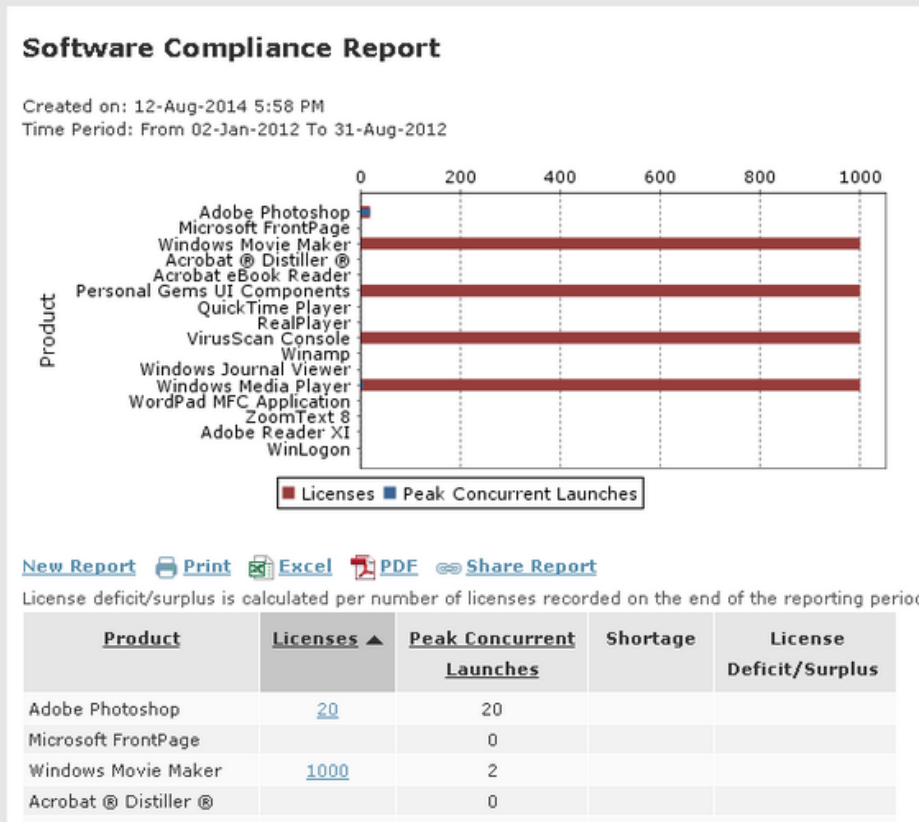


Figure 1–5. Software Compliance Report

To view a history of license quantity changes, click on the Licenses figure next to an application product.

Software Usage by Day

To view Software Usage by Day report:

1. Navigate to **Track Software → Reports**.
2. Click the **Software Usage by Day** link.
3. In the ***Software Usage by Day*** page, select a product and a date range. Leaving date fields blank will run the report for all recorded data up to previous day.
4. Click **Submit**.

2 Maintain Data

This chapter describes License Patrol data maintenance controls and guides you through the procedures to perform data import and data purge. This chapter covers the following topics:

- Preparing for Import
- Performing Import
- Import Troubleshooting
- Data Purge
- Purge Stale Clients

Preparing for Import

Import utility is designed to facilitate loading of bulk data into the system. Starting from version 2.4.5, import can be used either for initial setup or for incremental data loads. All further administration should be performed manually (see License Patrol Administration chapter for how-to information). All existing data will not be overwritten.

License Patrol Import utility uses Microsoft Excel format for the source data file. The template and sample Excel worksheets are included in the distributive version of the product.

Creating Excel File

It is highly recommended to use the License Patrol template file and populate it with your production environment data. Import utility can use spreadsheet files created or edited in MS Excel versions 97 and higher.

> **Note** Starting with version 26.1, License Patrol supports import of station data from Excel .xlsx files. Legacy .xls files continue to be accepted; it is no longer necessary to save workbooks in the .xls format before running Import.

Downloading Excel Template File

To download a provided Excel template file:

1. Navigate to **Setup → Maintain Data → Import**.
2. In the ***Bulk Import*** page, click the **Template File** link.
3. In the ***File Download*** pop-up window, click **Save** and choose a location on your local system.
4. Click **Save**.

Editing Excel Template File

The provided template file contains no data. The Excel file consists of four worksheets: Users, Images, Rooms, Stations. Each worksheet is a table, consisting of header cells and data cells.

> **Note** Do not modify worksheet names or header cell names.

Header cells in red color represent columns that are mandatory and must not be empty. To see additional comments or hints, select the appropriate header or data cell. You will see a yellow text box with comments where available. Comments text box will display detailed description and acceptable range of values.

After filling in your custom data, save the Excel file. You can save the file with a different name.

Using Excel Demo File

You can use the provided demo file to test the import utility. You can use the demo file as a sample for creating your own custom data file.

Downloading Excel Demo File

To download a provided Excel demo file:

1. Navigate to **Setup → Maintain Data → Import**.
2. In the ***Bulk Import*** page, click the **Demo File** link.

3. In the ***File Download*** pop-up window, click **Save** and choose a location on your local system.
4. Click **Save**.

Performing Import

Import procedure is irreversible. Prior to import, make sure you backed up all necessary data in the database.

To perform an import:

1. Navigate to **Setup → Maintain Data → Import**.
2. In the ***Bulk Import*** page, click **Continue**.
3. In the ***File Upload*** page click **Browse** and locate a MS Excel file (*.xlsx or *.xls) on your local system.
4. Click **Submit**.

If import was successful, the page will refresh and a green confirmation message 'Import completed successfully!' will be displayed.

> **Note** If an error message is displayed, see Import Troubleshooting in this chapter for more information and troubleshooting techniques.

Import Troubleshooting

The provided import template file contains hints and internal validation mechanism to ensure data integrity. If import utility identifies integrity violations, it will display error messages and roll back the import transaction. The table below lists possible error messages and actions needed to correct errors.

Error Message	Description	Action
Internal Server Error	Internal License Patrol error.	Contact Technical Support
Error reading Excel workbook	Indicates a problem with file format.	Review the file format and MS Excel version.
Sheet '<name>' line <N>: Error adding record	Displays worksheet name that contains a non-valid record.	Review the record and verify that all values are within the specified range.
Sheet '<name>' line <N>: <Image, Room, Counter, Workstation> name should be unique	Displays worksheet name and record that contains duplicate object name.	Review the record and verify that there are no duplicates in the name column.
Sheet '<name>': Error reading the header: column '<name>' is missing	Displays the worksheet name and the missing column name. Indicates the column that was deleted or renamed.	Review the template file and correct the worksheet that contains missing column.
Sheet '<name>' line <N>: Integrity constrain error, <Image, Room> with name '<name>' does not exist	Indicates an attempt to add an orphan object.	Review the import file and make sure all objects have corresponding parents. See Object Hierarchy in Administrator's Guide.
Sheet '<name>' line <N>: '<column_name>' name can not be empty	Displays the worksheet name and the column that contains empty data cell.	Review the template file and correct the worksheet that contains missing data.
Sheet '<name>' line <N>: Password must be at least <N> characters	Indicates an attempt to add user with a password, which length is less than minimum required.	Navigate to Administrator Settings. Click on Security Settings link and review the value for Password minimum length (char) field.
Sheet '<name>' line <N>: Duplicate Roles	User can not have duplicate roles.	Review the Users worksheet and correct roles assigned to users.
Sheet '<name>' line <N>: Id Field can not be empty	Indicates to add a record with an empty ID field.	Review the template file for records with empty ID column.

Data Purge

Starting with version 5.x License Patrol supports data purge activities. There are two types available: Purge Historical Data and Purge Configuration Data. Purging historical records may be required for large environment that do not need to store data longer than certain number of years. Purging data also helps to maintain smaller size of the database which in turn improves application and reporting performance. Purging configuration data is designed to help with environment cleanup if you decide to start from fresh or need to do this on regular basis.

> **Warning** Purging data is non-reversible operation. All purged records are physically deleted from the database.

To perform historical data purge:

1. Navigate to **Setup → Maintain Data → Purge Historical Data**.
2. Select a date prior to which all data must be purged.
3. Select a checkbox next to desired log category(ies) to be purged, e.g. Software Usage.
4. Click on the **Purge** button.

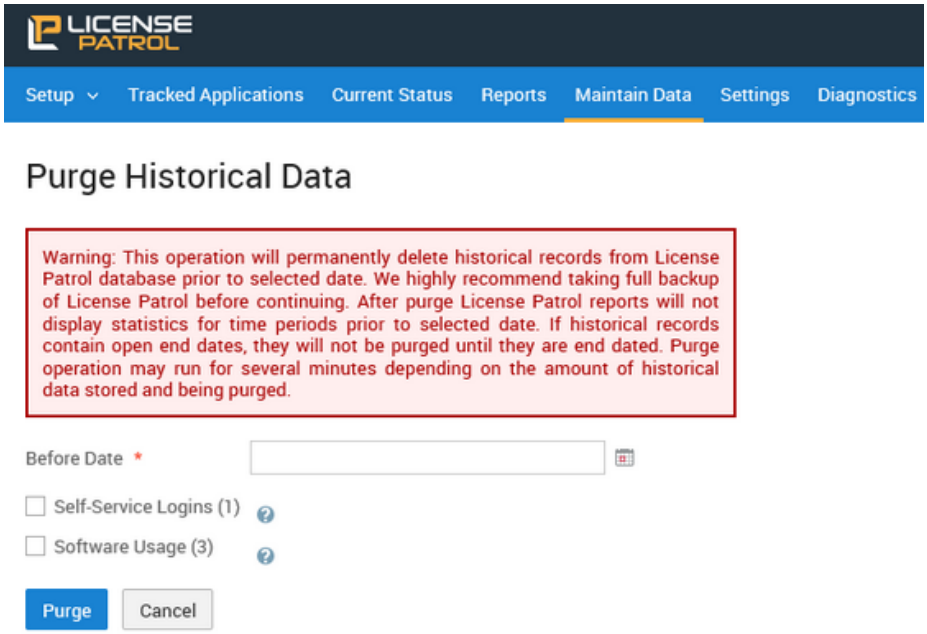


Figure 2–1. Purge Historical Data

To perform configuration data purge:

1. Navigate to **Setup → Maintain Data → Purge Configuration Data**.
2. Select a checkbox next to desired setup category(ies) to be purged, e.g. **Purge All Workstations**.
3. Click on the **Start purge** button.

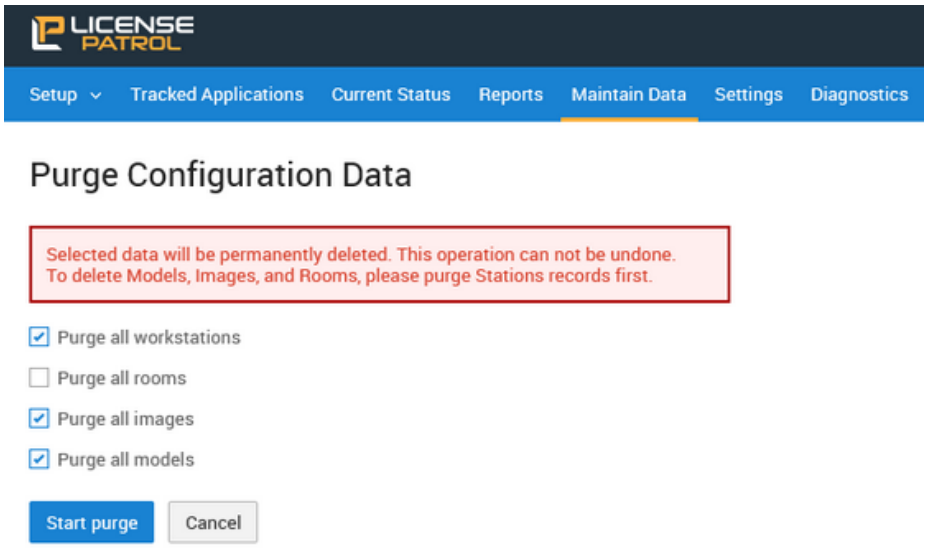


Figure 2–2. Purge Configuration Data

Purge Stale Clients

Purge Stale Clients page allows you to identify client workstations that have been stale or disconnected from License Patrol server for N number of days. These could be decommissioned computers that have never been cleaned up from the License Patrol application.

To perform stale clients purge:

1. Navigate to **Setup → Maintain Data → Purge Stale Clients**.
2. Enter number of days threshold in the **Days** field.
3. Click on **Apply Filter** button.
4. Next page will display the list of stations that meet above criteria and their **Last Connected** date. If you wish to exclude any stations from the list, mark those stations and click on **Exclude Selected** button. They will be removed from the list.
5. Click **Start Purge** button to complete this operation.

> **Note** Purge Stale Clients task is using actual last connection timestamp received from clients, the data of last connection is stored in the ws_last_connection_time table.

A System Settings

This appendix explains how to tune License Patrol settings. This appendix covers the following topics:

- License Patrol Settings

License Patrol Settings

License Patrol settings are adjustable parameters that can be tuned to reflect your business requirements. System settings are grouped into several categories, see Managing System Settings for the categories overview. This appendix lists all the settings in the alphabetical order. Review the table below carefully before making any change to default values.

> **Note** Starting with version 26.1, client workstations can be recognized by a unique Device ID in addition to Host Name and IP Address. Device ID identification remains stable when stations are re-imaged or renamed and is the recommended method for such environments. See the Recognize client workstation by setting below.

Setting	Default Value	Range of Values	Description
Allow Terminate Applications	true	true/false	Allows to shutdown client applications remotely.
Allow Terminate System Processes	false	true/false	Allows to shutdown client system processes remotely.
Allow View Applications	true	true/false	Allows to view launched client applications remotely.
Associate metered applications with	Thin Client	Thin client/RDS	By default, user sessions will be associated with thin clients where these session are initiated. Changing this setting to RDS will map sessions to RDS server location. This will be reflected in reports respectively.
Enable auto-add of terminal clients to Unregistered Stations list (true/false)	false	true/false	When enabled, new terminal sessions will automatically appear in the list of Unregistered stations and can be assigned to respective rooms from there.
Enable pagination on the top when number of rows exceed (records)	blank (disabled)	1-300	By default, reports with small number of output records will display pagination on the bottom of the page only. Additional pagination on the top can be enabled using this setting. Leave blank if you want to disable pagination on the top of tables.
Enforce unique MAC address restriction	true	true/false	This setting should be set to true if your Recognize workstations by is set to MAC address. If you have to maintain duplicate stations in the environment, you can set it to false to allow for multiple stations with same MAC address.
I am Alive Interval (seconds)	30	5-32000	Interval of time between sending signals to server.

Setting	Default Value	Range of Values	Description
Maximum Number of Selected Options	7	3-30	Limits the number of options, which can be selected at the same time from a drop-down list. Specifying less options may improve system performance when generating reports.
Maximum Number of Time Periods in Reports	12	1-12	Limits the number of time periods which can be displayed in reports. A period is a specified time frame (in months) divided by the specified step. For example, if the system is set to allow 2 periods, and, when running a report, if a step is set to 2 months, then only 4 months can be specified for the report.
Maximum rows in Excel output file	20000	up to 65000	Limits the number of records in the Excel output file in reports. Starting with version 26.1, Excel output files are produced in the .xlsx format.
Network Outage Timeout (seconds)	100	5-32000	Interval of time before client decides that there is a network outage.
Number of Records Displayed per Page	25	3-300	Defines number of records displayed per page if a search, report, etc., return multiple records.
Page size for PDF printing	Letter	Letter/A4	Defines page size when exporting reports into PDF format.
Password minimum length (char)	8	Any	Specifies minimum number of characters required for users passwords.
Permit Launch of Metered Applications on Network Outage	false	true/false	Permits using licensed/metered software during network outage.
Client Identification Method	Host Name	Host Name/IP Address/MAC Address/Device ID (Strict) Device ID (Hybrid)/	• IP Address: If this option is selected, clients will be identified by the IP address seen by the server. Note: This is a legacy option and is not recommended for use. • Host Name: The client reports its Host Name, which is then used as the primary identifier. • MAC Address: The client reports the MAC addresses of all its physical network adapters. The system will then match the client to a database record if at least one of these MAC addresses matches. Note: MAC address recognition requires client version 8.0 or newer.

Setting	Default Value	Range of Values	Description
			• Device ID (Hybrid): The system uses the Device ID to identify the client if it is reported; otherwise, it defaults to the Host Name. • Device ID (Strict): The Device ID is always required for identification. If the client does not report a Device ID, it will be unable to communicate with the VeraLab Server. Exception: VMware Horizon virtual machines are recognized by Host Name. Device ID - is a unique identifier (UUID) of the device's motherboard, stored in a protected section of the BIOS/UEFI; it typically remains unchanged. Note: Device ID identification requires client version 26.1 or higher. Note: Thin clients are always identified by Host Name only.
Server Connect Password	welcome	alphanumeric string	The password that is used to establish client-server connection. This password is prompted for during License Patrol client installation.
Use Websockets (true/false)	false	true/false	Please contact support@veralab.com before enabling it.
Web Session Timeout (minutes)	30	numeric value	Specifies time limit for a logged in License Patrol web application user which has been inactive for a period of time.