

VeraLab™
Computer Lab Management Suite

Administrator's Guide

Release 26.2 for Microsoft Windows

November 2026

VeraLab Administrator's Guide, 26.2.x for Microsoft Windows

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- Did you find any errors?
- Is the information clearly presented?
- Do you need more information? If so, where?
- Are the examples correct? Do you need more examples?
- What features did you like most?

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:

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  San Jose, CA 95113
  USA

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Preface

This guide is your primary source of introductory, postinstallation, configuration, and administration information for using VeraLab Computer Lab Management Suite.

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

This preface contains these topics:

- Audience
- Organization
- Related Documentation
- Conventions

Audience

VeraLab Administrator's Guide for Windows is necessary for anyone installing, configuring, or administering VeraLab Computer Lab Management Suite.

VeraLab Administrator's Guide is intended for Computer Lab Managers, Administrators, Technicians, and other lab personnel who perform the following tasks:

- Manage computer lab facility and personnel
- Perform system administration and setup

To use this document, you need one of the following installed and tested on your computer system: Windows 8.1, Windows 10, Windows 11, Windows Server 2012/2012 R2, Windows Server 2016, Windows Server 2019, Windows Server 2022, or Windows Server 2025.

Organization

This guide contains the following chapters and appendixes:

Chapter 1, VeraLab Administration

This chapter describes how to administer VeraLab system.

Chapter 2, Maintain Data

This chapter describes how to perform data import to facilitate VeraLab system set up, how to purge historical data from the database, and how to rebuild AI Insights data.

Appendix A, System Settings

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

Related Documentation

This guide is a part of a set for computer lab personnel using VeraLab Computer Lab Management Suite. The other guides in the set are:

- *VeraLab Server Installation and Upgrade Guide*
- *VeraLab Guard Client Installation Guide*
- *VeraLab User's Guide*
- *VeraLab Booking App 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.

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 VeraLab Administration

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

- The VeraLab Web Interface
- Managing VeraLab Objects
- Student Portal
- Web Service API
- Managing System Settings
- AI Insights
- Roles and Tasks Customization
- Diagnostics
- Managing Software Licenses
- VeraLab Client Administration
- Audit Log

The VeraLab Web Interface

VeraLab 26.2 redesigns every screen of the VeraLab console and the Booking App on a single, modern design system. Menu tasks and the procedures in this guide work as before; this section summarizes what looks or behaves differently.

- **Theme.** Choose a light, dark, or automatic theme at any time; both light and dark are tuned for readable contrast.
- **Phones and tablets.** On small screens the menu moves into a drawer, and the department and theme switchers stay available.
- **Messages in the page.** Confirmations and alerts appear in the page instead of browser pop-ups. Success and error messages name what changed, for example "Room Kerr CAD Lab was deleted."
- **Session timeout warning.** VeraLab warns you before your web session ends and offers **Stay signed in**. If your session does end, your work is kept when you sign in again in another tab. The time limit is set by the **Web Session Timeout (minutes)** setting.
- **Searchable, sortable tables.** Monitoring, Diagnostics, Unregistered Stations, and many other lists can be searched and sorted.
- **Full-page editors.** Admin, Long-Term, and Short-Term accounts are created and edited on regular pages instead of pop-up windows.
- **Login page.** The login page has a **Booking Portal** tile. Tiles for the **Student Portal** and **Remote Station Access** appear only when those features are turned on.
- **Accessibility.** VeraLab was reviewed against VPAT 2.5. Validation errors are announced to screen readers and lead to the field concerned, help and tooltips work with the keyboard, contrast is improved in both themes, and the LiveMap can be used without a mouse.
- **Local formats.** In reports and dashboards, hours follow your time format setting, and counts use your locale's number grouping.
- **Supported browsers.** VeraLab 26.2 needs Chrome or Edge 111, Firefox 121, or Safari 16.4 (iOS and iPadOS 16.4), or later. Check kiosks and lobby screens before you upgrade.

Redesigned screens include Workstation Availability (faster loading), Client Banners, Add and Edit Alert, Enrollment, Search Issues (live filtering with counts and export), Inventory Administration, Remote Client Update, the Shift Panel, the sign-in page, and the server installation completion page.

Managing VeraLab Objects

VeraLab objects are logical definitions that represent real-life objects. Most of VeraLab objects have intuitive names and they usually correspond to real-life names, such as employees, rooms, workstations. Some, for example Semesters, correspond to academic timelines and are usually specific to each academic institution and could be equivalent to quarters or trimesters.

VeraLab Objects Hierarchy

VeraLab environment comprises objects that depend on each other, therefore it is important to understand the hierarchy of objects. Parent objects have to be created first and removed last. Objects not included in this hierarchy can be managed in any order.

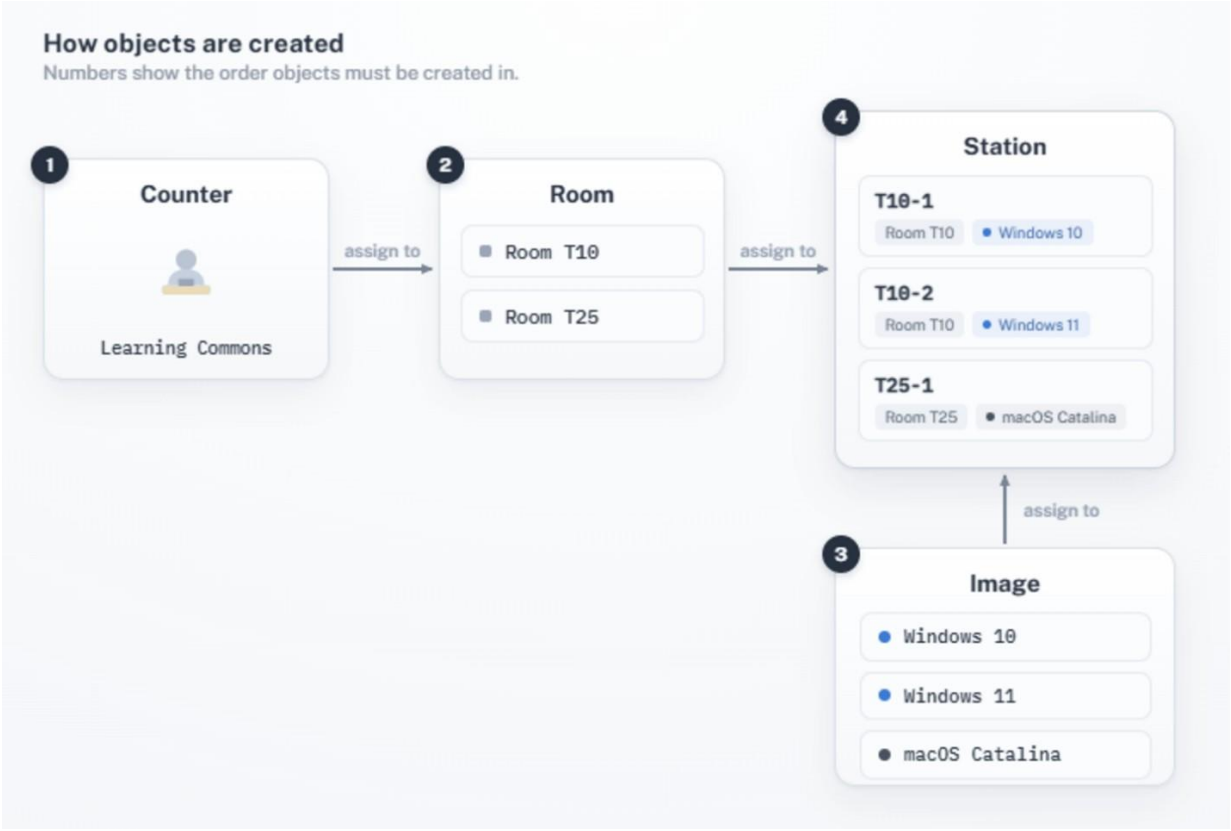


Figure 1-1. VeraLab Objects Hierarchy.

> **Note** You need to complete your environment setup before installing client software. During client software installation and registration with VeraLab server you will be prompted to specify workstation attributes, such as image and which room it should be assigned to.

Review this hierarchy chart before manually adding/removing objects or conducting an import (see *Performing Import* for more details and how-to information). Objects can be added, edited, or 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 shown 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.

Starting with version 8.1 a new level of hierarchy, called Departments has been introduced. It added both complexity and flexibility to managing VeraLab application environment. This feature is available only if you purchased Enterprise Edition license.

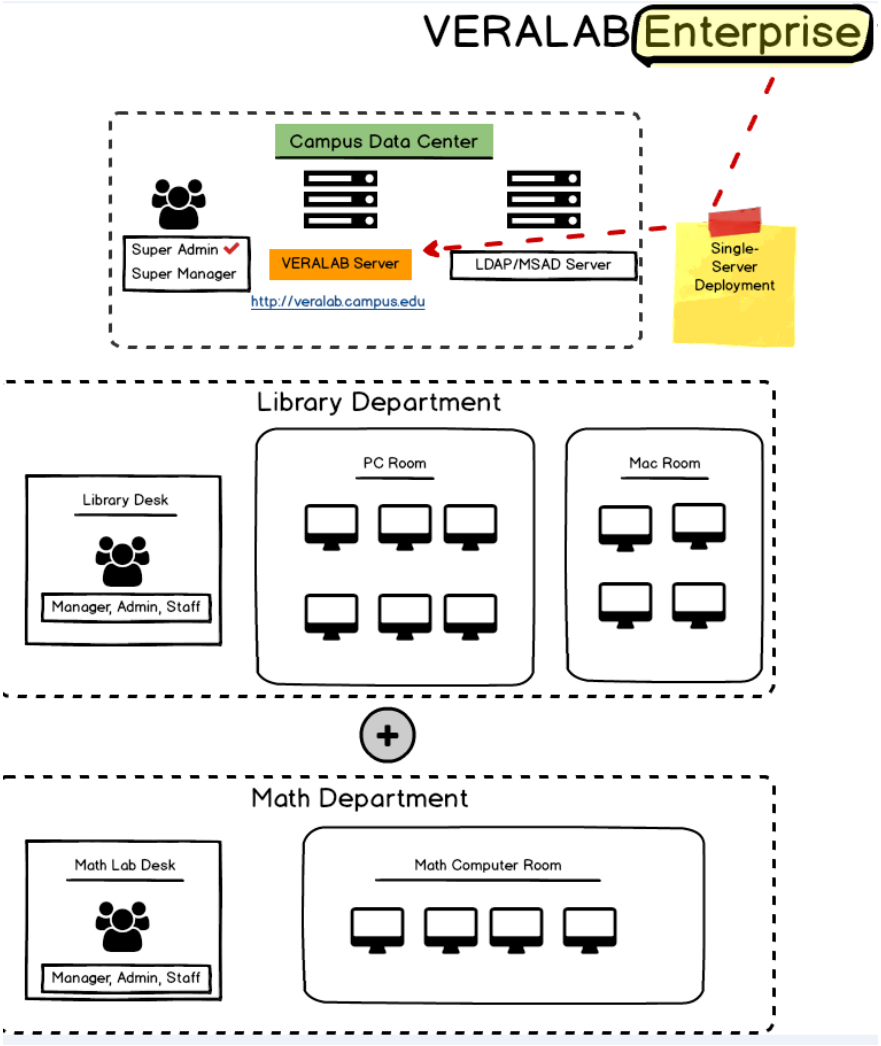


Figure 1-2. VeraLab Enterprise Edition High-Level Diagram.

If you have VeraLab Enterprise Edition up and running, the following high-level setup steps are recommended:

1. Identify who in your organization requires Site Level access. There are two Site level roles available out of the box: Super Administrator and Super Manager (Super Manager is described in *User's Guide*). A user with Super Administrator role can perform Site Level setups, e.g. add/edit/delete objects and change application settings. By default, a user who applies Enterprise Edition license, will automatically be assigned Super Administrator role.
2. Upload Enterprise Edition license key. This will activate Enterprise Edition mode. Without EE license key, EE mode is installed, but not enabled.
3. After activating EE mode a new department, called Dummy Department will be created. If you upgraded from previous versions, all your setups will belong to Dummy Department. We recommend renaming it to an actual department name in your organization. Navigate to **Setup → Departments** to create additional departments.

4. As a user with Super Administrator role, review your current user account records to verify that all users have proper access to their respective departments. One user can have access to multiple departments, e.g. a manager or lab assistant can work for more than one department. You can also set what department and role will be default for a user, i.e. upon logon to application a user will be landing on specific department page.
5. Create and assign other objects to correct level and department. In addition to Users, the following objects can be created on Site or Department levels: Images, Roles, Admin Accounts. If an object is created and assigned to Site Level, any Department can use it.

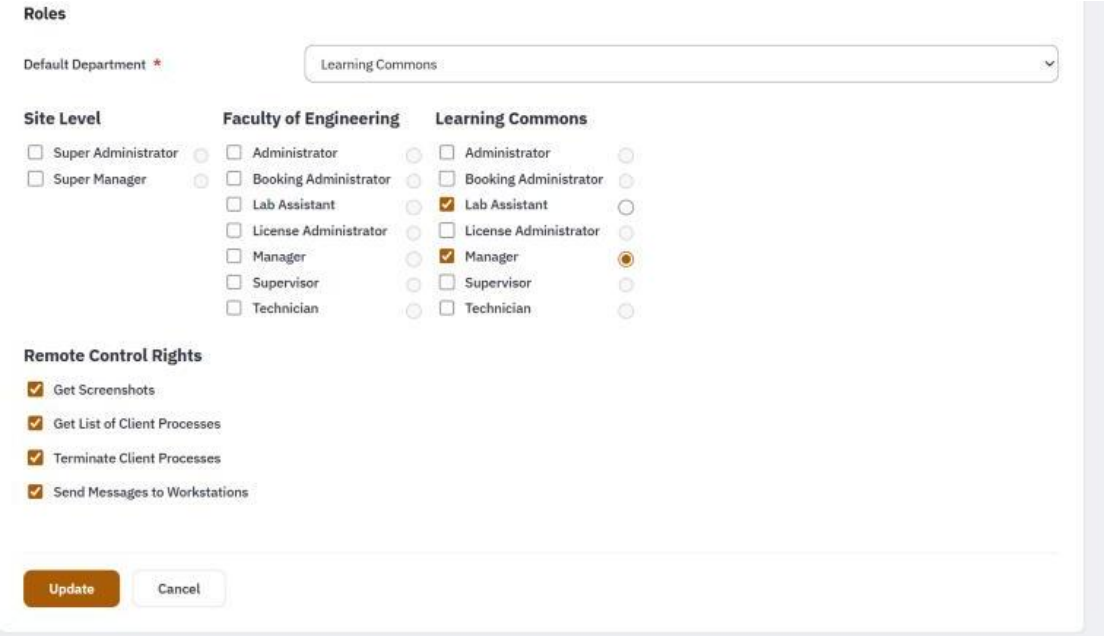


Figure 1-3. Roles and Remote Control Rights on the Edit Employee page.

Department Administration

Departments have been introduced in VeraLab 8.1 Enterprise Edition. If you have Standard Edition or running VeraLab version 8.0.1 or older, you can skip this section.

To create or add a department:

1. Navigate to **Super Administrator** (role) → **Setup** → **Departments**.
2. In the ***Department Administration*** page, click the **Add Department** link.
3. In the ***Add New Department*** page, fill required fields.
4. Click **Add**.

To edit a department:

1. Navigate to **Super Administrator** (role) → **Setup** → **Departments**.
2. Click the **Edit** icon next to the appropriate department.
3. In the ***Edit Department <name>*** page, update the appropriate fields.
4. Click **Update**.

To delete a department:

1. Navigate to **Super Administrator** (role) → **Setup** → **Departments**.

2. Click the **Delete** icon next to the appropriate department.

> **Note** You can not delete a department that has dependent counter, room, workstation, employee, inventory, and storage objects. They must be deleted or re-assigned to another department first.

Employee Administration

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

Each employee in VeraLab has to be provisioned (must have at least one security role assigned). An employee must be Active (The **Active** check box must be selected) in order to be able to login into the system. Hourly employees will have access to the Shift Start/End page and they will show on payroll reports. If you are using VeraLab Suite together with VeraLab Guard client, you can assign the following rights to an employee: **Get Screenshots**, **Get List of Client Processes**, **Terminate Client Processes**, and **Send Messages to Workstations**. These rights enable lab employees to have limited control of client workstations from the Monitoring page.

> **Note** For more information, see *Starting/Ending Shifts* and *Managing Staff Payroll* in *User's Guide*, and *Remote Client Update* in this guide.

> **Important** Employee Groups have been introduced in version 5.5 and later deprecated in version 8.1 with introduction of VeraLab Enterprise Edition that allows better control and segregation of access.

To edit an employee:

1. Navigate to **Administrator** (role) → **Setup** → **Users**.
2. Click the **Edit** icon next to an appropriate employee.
3. In the ***Edit Employee <username>*** page, update the appropriate fields.
4. Click **Update**.

To delete an employee:

1. Navigate to **Administrator** (role) → **Setup** → **Users**.
2. Click the **Delete** icon next to an employee you want to delete.

Using LDAP for Employee Authentication

Starting with version 6.0 it became possible to authenticate VeraLab application users (Employees) using LDAP.

To provision LDAP account as VeraLab Employee record:

1. Navigate to **Administrator** (role) → **Setup** → **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.

4. Click **Test Connection** button to verify VeraLab server can connect to LDAP server on specified port using end user (Employee) credentials.
5. Click **Update** button to start provisioning users with VeraLab application roles and privileges same as you would do for Native accounts.

> **Note** If you are using single directory for employee and user authentication, you can configure LDAP under Common Settings and then re-use (inherit) same settings for Employee, User, and report authentication. You can read more about LDAP configuration in *LDAP Configuration Guide* document: `https://veralab.com/veralab/files/VERALAB_LDAP_Configuration_Guide.pdf`.
>
> **Note** VeraLab does not support duplicate usernames. For example, if you have an employee 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

Starting with Version 6.5 you can convert accounts from Native to LDAP, assuming you have already setup LDAP connectivity and records with same usernames exist in LDAP directory. 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 **Administrator** (role) → **Setup** → **Users**.
2. Locate account record you wish to convert and click the **Convert to LDAP** icon next to Native account type. The **Convert to LDAP** icon will not be displayed if LDAP integration has not been setup.
3. VeraLab asks *Would you like to convert this native account to LDAP?* Confirm to continue. Starting with VeraLab 26.2, this confirmation appears in the page instead of a browser pop-up.
4. If conversion was successful, you will see a confirmation message and the account type will change to LDAP.

> **Note** Starting with version 9.3 VeraLab supports Single Sign-On using SAML. To read more about SSO configuration, please refer to the *VERALAB SSO Integration with Microsoft Azure SAML Guide*. You can choose to use one or the other. After enabling SSO, LDAP will be disabled automatically and vice versa; to revert back to LDAP, you must disable SSO.

Workstation Administration

Workstations belong to the lowest level of dependency hierarchy. Before adding new Stations, you have to define Counters and Rooms. Each workstation has to be assigned to a room and an image. If the **Available** check box is selected, all newly created workstations are immediately available for registrations using Lab Assistant's dashboard. The **Maximum Registration Length (min.)** setting is inherited from the system settings and can be overwritten on the workstation level.

To add a workstation:

1. Navigate to **Administrator** (role) → **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**.

Starting with version 9.0 VeraLab supports multi-session terminal server configurations when VeraLab client is installed on Windows Terminal servers and user sessions are established from thin terminals.

> **Note** If you are on version 9.1 or higher, there is no drop-down menu on the Workstation Add/Edit page any more. Clients can only be of two types: either Thin Client (checked checkbox) or a regular client. RDS servers (multi-user or single-user session servers) are considered as regular clients. See *Using VeraLab in Multisession Environments with Virtualized Clients* guide on the VeraLab FAQ page.

To edit a workstation:

1. Navigate to **Administrator** (role) → **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 Edit page allows to change availability and VeraLab Guard settings for individual workstations. To change a workstation's availability, click the **Edit Availability** link. If **Available** checkbox is selected (default), workstation is ready for sign in. If **Reservable** checkbox is selected, workstation is available for individual bookings (if an optional reservation module Booking App has been installed and configured). The Guard and Watch properties are set for entire lab in the Settings page. VeraLab Guard 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 6.5, VeraLab allows you to "hide" stations from real-time statistics dashboard (Student Portal) and other external interfaces using VeraLab web service. To hide such stations, uncheck **Display in Student Portal** checkbox on the ***Edit Workstation*** page.

Starting with VeraLab 26.2, the redesigned ***Workstation Availability*** page lets you change many stations at once. It has filters and bulk actions, **Lock now** and **Unlock now** actions, **Save changes** and **Discard** buttons, and a history of availability changes.

To delete a workstation:

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

> **Note** You can not delete a workstation that is currently in use or unavailable. Starting with version 7.2, multiple stations can be deleted simultaneously.

Workstations default **Locking Mode** value is inherited from Room or entire application settings. If changed on Room level, all stations in the room will change default values. However an individual workstation value can be overridden on station level in the ***Edit Workstation*** screen.

When **Locking Mode** is set to **Strict**, workstations screens are automatically locked when such events as Sign-out or End of Class are triggered. When **Locking Mode** is set to **Liberal**, workstation screens stay unlocked but can be locked manually by executing remote command from the Monitoring task. Liberal locking mode option is used in Self-Service environments and Strict mode is used in environments with Counter Sign-In scenario.

Starting with version 7.2 VeraLab supports client-server connectivity (**Tools** → **Settings** → **Guard** → **Client Identification Method**) using MAC Addresses; starting with VeraLab 26.1, it also supports identification by Device ID (Hybrid or Strict). Stations can store multiple MAC addresses, and the server verifies uniqueness of

MAC addresses. VeraLab also supports adding client stations to a "Banned Stations" list; stations on this list (based on their MAC address) will not be allowed to communicate to VeraLab server.

> **Note** In VeraLab 26.2 the settings category formerly called **Guard Settings** is named **Guard**. See *Managing System Settings*.

Starting with version 8.5.9 VeraLab supports room-level Maintenance mode. This feature locks stations automatically after reboot or logout until a Student Assistant acknowledges cleanup from the Monitoring or Diagnostics screen.

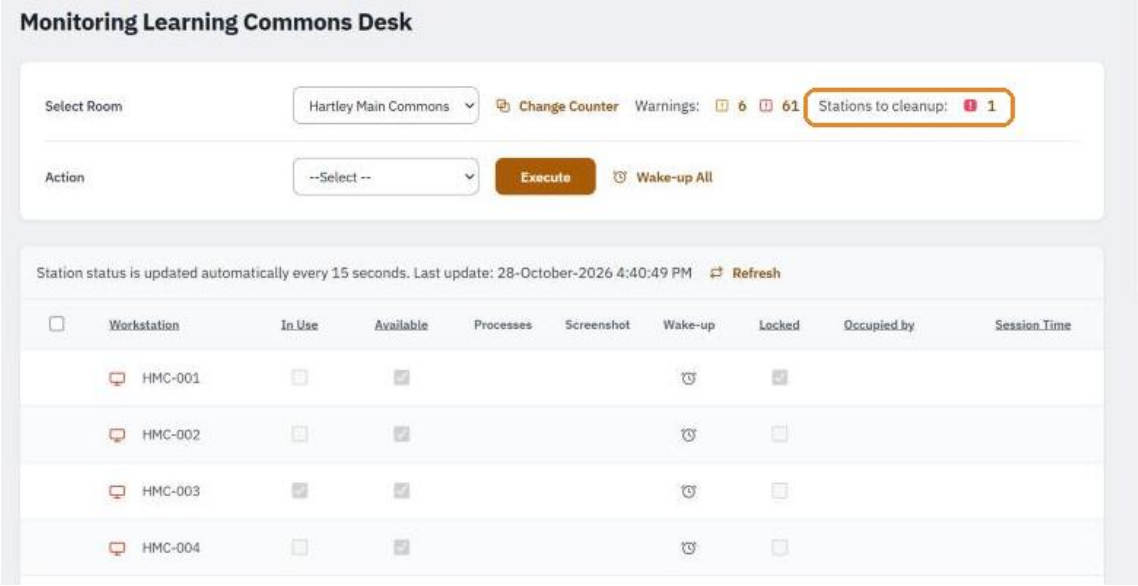


Figure 1-4. Monitoring counter view showing stations awaiting cleanup.

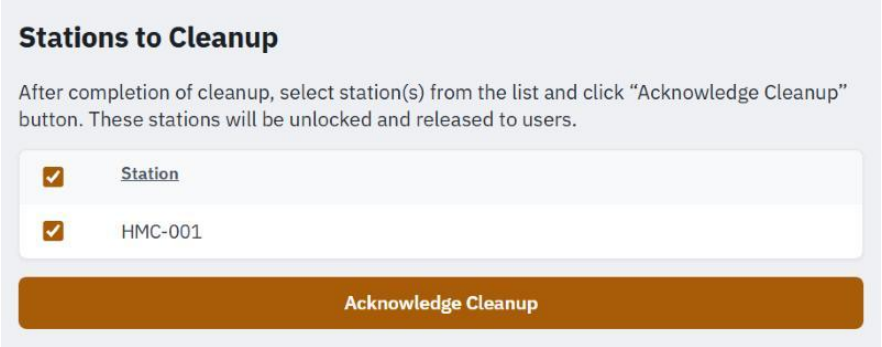


Figure 1-5. Stations to Cleanup acknowledgment screen.

Room Administration

Rooms can be associated with physical rooms in the computer lab or they can be logical collections of workstations. Rooms belong to the middle level of dependency hierarchy. Rooms depend on counters and they normally have dependent workstations. Rooms have to be defined prior to defining workstations. The **Maximum Class Registration Length (min.)** setting is inherited from the system settings and can be overridden on the room level.

To add a room:

1. Navigate to **Administrator** (role) → **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 **Administrator** (role) → **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 pages allow to change rooms' VeraLab Guard settings. The Guard and Watch properties are set for entire lab in the Settings page. VeraLab Guard system-level settings can be overridden on a room level or on a workstation level. For more information, see *System Settings* appendix.

There are two settings introduced in versions 3.0 and higher: **Sign-in Mode** and **Display in Student Portal**. By selecting **Display in Student Portal** you can add a room to the list of rooms displayed on the Student Portal page.

Starting with version 8.6.1, VeraLab has a new room-level setting **Maintenance Mode**. When enabled, Maintenance mode locks computer screens upon reboot or after logout from current user session. Active sessions are not interrupted. Lab Assistants can unlock stations after completing and acknowledging cleanup from the Monitoring or Diagnostics screen.

Starting with version 9.3, VeraLab has a new room-level property which allows you to set new look and feel for the "Click Here to Logoff" button. This enhancement can be applied to LDAP-enabled and/or regular VeraLab Guard clients. To change logout button properties, such as color, position on the screen, and behavior, click on the **Edit** button in the "Click Here to Logoff" Button Settings section of the Room edit page. Select between using Global button settings or customized Room level settings.

To delete a room:

1. Navigate to **Administrator** (role) → **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 in a lab.

To add an image:

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

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

Semester Administration

Semester is a common name used in VeraLab for specifying an academic timeline. A Semester can be equivalent to an academic quarter or an academic semester, and is specific to an individual academic institution schedule. Semesters are used in reports for easier presentation and analysis. An example of semester name (if semester is equivalent to an academic quarter) can be Fall 2025 or Summer 2026.

To add a semester:

1. Navigate to **Administrator** (role) → **Manager Board** → **Semesters**.
2. In the ***Semester Administration*** page, click the **Add Semester** link.
3. In the ***Add New Semester*** page, fill the appropriate fields.
4. Click **Add**.

To edit a semester:

1. Navigate to **Administrator** (role) → **Manager Board** → **Semesters**.
2. Click the **Edit** icon next to the appropriate semester.
3. In the ***Edit Semester <name>*** page, update the appropriate fields.
4. Click **Update**.

To delete a semester:

1. Navigate to **Administrator** (role) → **Manager Board** → **Semesters**.
2. Click the **Delete** icon next to the appropriate semester.

Counter Administration

Counters belong to the highest level of VeraLab hierarchy. Counters are composed of rooms and rooms have workstations assigned to them. VeraLab counter corresponds to real-life check-in point for workstation registrations, waitlists, etc. Counters have to be defined prior to rooms and workstations. At least one counter must be defined even if all lab rooms operate in self-service mode.

To add a counter:

1. Navigate to **Administrator** (role) → **Setup** → **Counters**.
2. In the ***Counters Administration*** page, click the **Add Counter** link.
3. In the ***Add New Counter*** page, fill the appropriate fields.
4. Click **Add**.

To edit a counter:

1. Navigate to **Administrator** (role) → **Setup** → **Counters**.
2. Click the **Edit** icon next to the appropriate counter.
3. In the ***Edit Counter <name>*** page, update the appropriate fields.
4. Click **Update**.

To delete a counter:

1. Navigate to **Administrator** (role) → **Setup** → **Counters**.
2. Click the **Delete** icon next to the appropriate counter.

> **Note** You can not delete a counter that has dependent rooms.
>
> **Note** If VeraLab is used in Self-Service environment, where users have their own login credentials and do not need to sign in via counter station, Counters have to be set anyway for lab Monitoring purposes.

Student Portal

Student Portal is a read-only page available to public via browser:

```
http://vl_server_name:8080/veralab/portal
```

It does not require users to sign-in to VeraLab Application. Student Portal page can be enabled (default) or disabled. If it is disabled users will see *Student Portal is disabled* when reaching the above URL. To enable/disable Student Portal page go to **Administrator** (role) → **Tools** → **Settings** → **Student Portal**. When the Student Portal is enabled, a **Student Portal** tile also appears on the VeraLab login page.

> **Note** For more information, see *System Settings* appendix.

The Redesigned Student Portal

VeraLab 26.2 introduces a redesigned Student Portal:

- **Room cards.** Every room shows the number of free computers and its state in words: *Open*, *Almost full*, *Full*, *Class in session*, or *Closed*. Students can show only rooms with free computers, star the rooms they use most, and sort by free computers or by name.
- **Room pages.** Each room has its own page (`/veralab/portal/room/<room_id>`) with **Floor plan**, **Station list**, and **Today** views. Rooms without a floor plan can show their stations as a list. Information refreshes without reloading the page. Links to the old LiveMap pages lead to the new room pages.
- **Display Mode.** For a screen at the lab entrance (`/veralab/portal/display`): a full-screen view for lobby screens and kiosks with large type and a clock. It shows every room, refreshes and scrolls through the rooms automatically, and can be paused. A single room can also be shown on its own.
- **Remote Station Access.** Stations under maintenance are never offered for remote connection.

Starting with version 5.5, Student Portal has new section Quick Links. It may contain a list of links to external references outside of VeraLab application. Quick Links list is managed under the Manager role, Manager Board menu category, Quick Links task.

Starting with version 6.5, Student Portal has a new link to Weekly Lab Schedule. To create and publish Lab Schedule, login to VeraLab application as admin user and go to **Student Portal** → **Lab Schedules** menu. Weekly Lab Schedule link on the Student Portal page will display a schedule only if today's date falls within a predefined schedule period date range.

> **Important** Starting with VeraLab 26.2, the separate mobile portal (`/veralab/mportal`) and the Text-only LiveMap are no longer provided. The redesigned Student Portal works on phones, and each room's **Station list** view replaces the text-only LiveMap. Update any bookmarks or signage that point to `/mportal`.

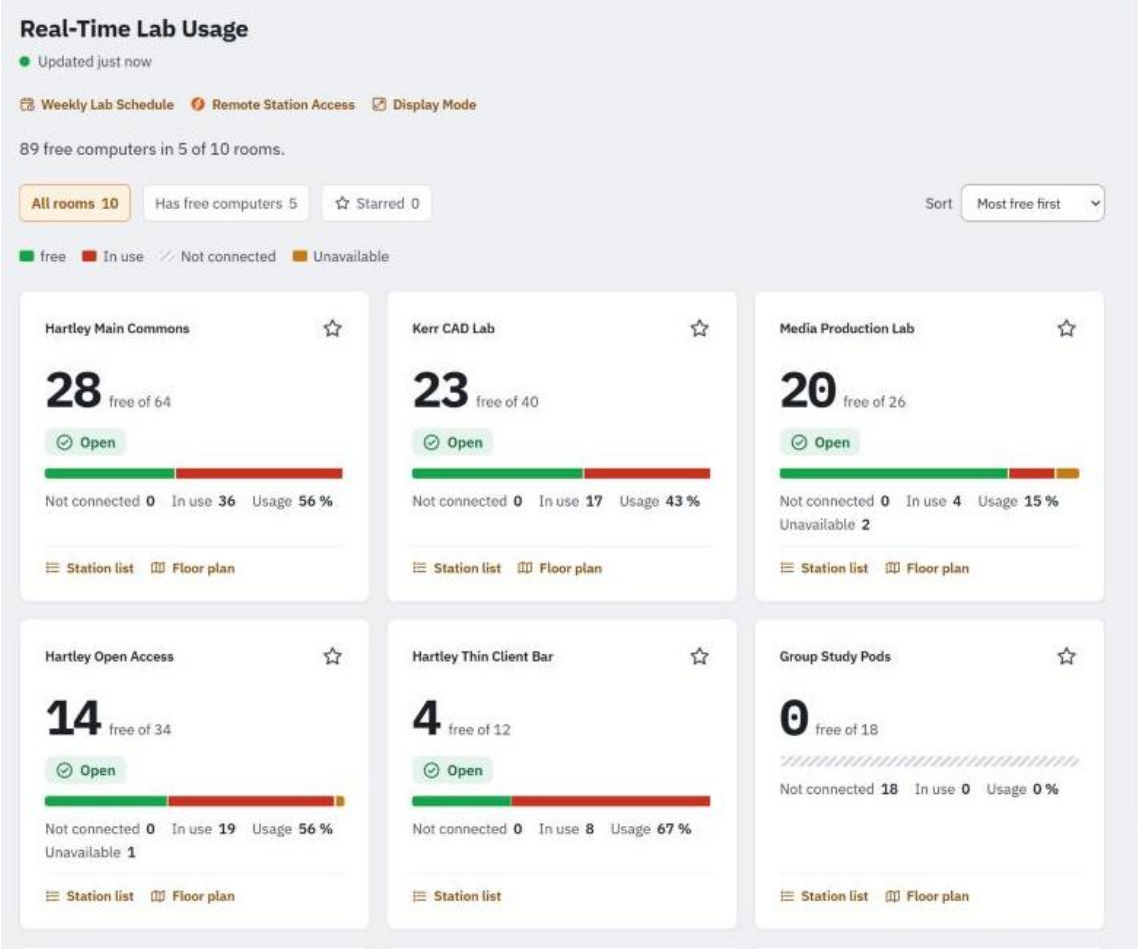


Figure 1-6. VeraLab Student Portal.

LiveMap Editor

Starting with VeraLab 26.2, LiveMaps are edited in a full-page LiveMap editor. To open it, navigate to **Student Portal → LiveMaps**. The ***LiveMap List*** page shows every room with the number of stations on the map and not on the map; click the **Add/Edit** icon next to a room. The editor provides:

- **Find a station**, zoom and fit, **Snap to Grid**, and keyboard placement of stations.
- Previews of how the map looks on the lobby screen and on the Student Portal.
- Eight station icons, a label position for each station, an optional operating system icon, and marker sizes in pixels.
- **Not on the map** list of stations to place, and **Auto arrange** and **Clear the map** actions.
- Map properties: caption, description (also read by screen readers as the description of the background image), width and height, and background image. Save with **Save LiveMap** or **Save and Close**.

Important Station positions and sizes are converted to the new editor when you upgrade to 26.2. Open each map you had edited once after the upgrade to check it.

Note VeraLab 26.2, including the LiveMap editor, requires Chrome or Edge 111, Firefox 121, or Safari 16.4 (iOS and iPadOS 16.4), or later.

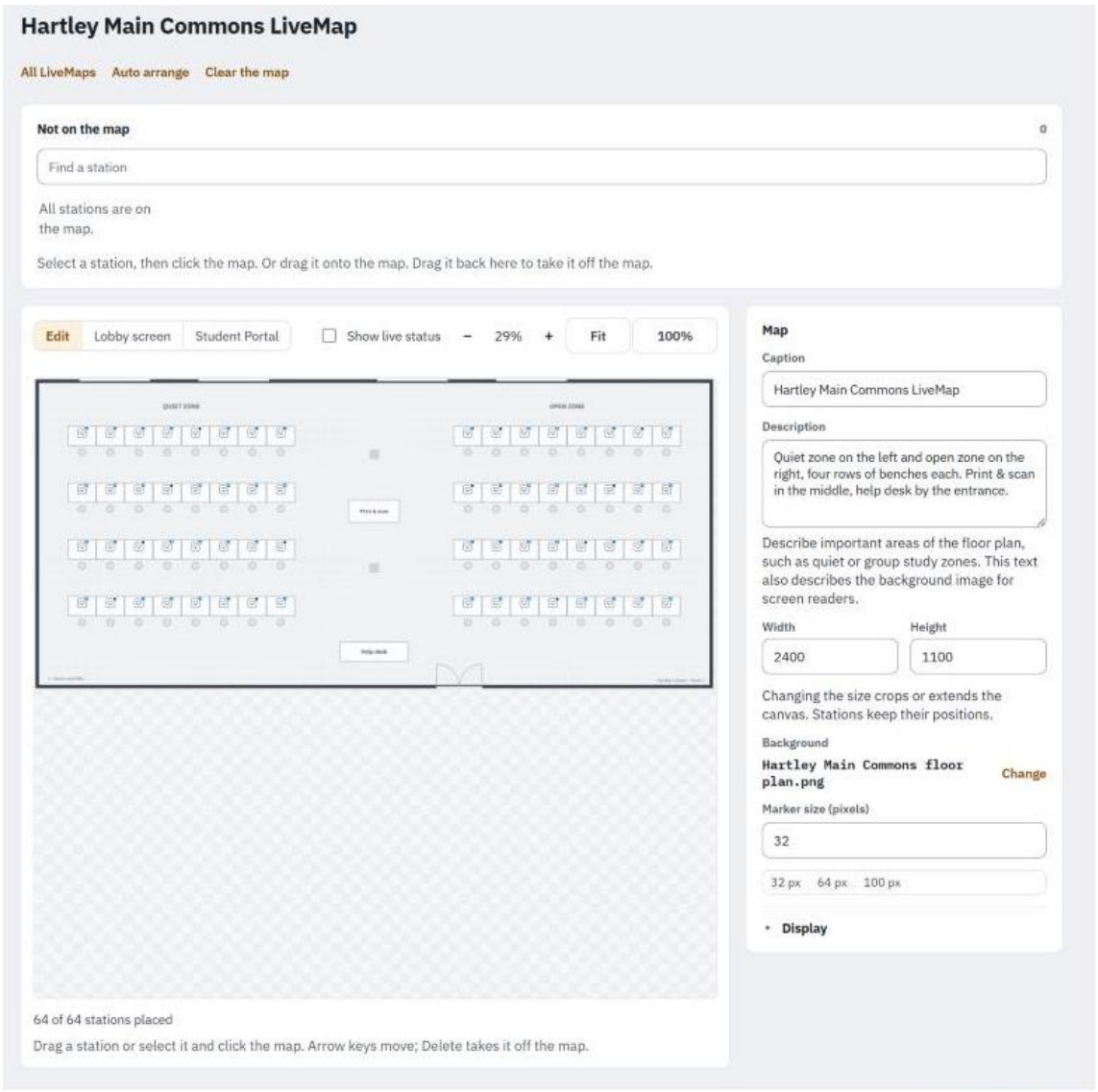


Figure 1-7. LiveMap editor.

Web Service API

Starting with version 5.x, VeraLab offers web service to provide information about computer usage via GET requests.

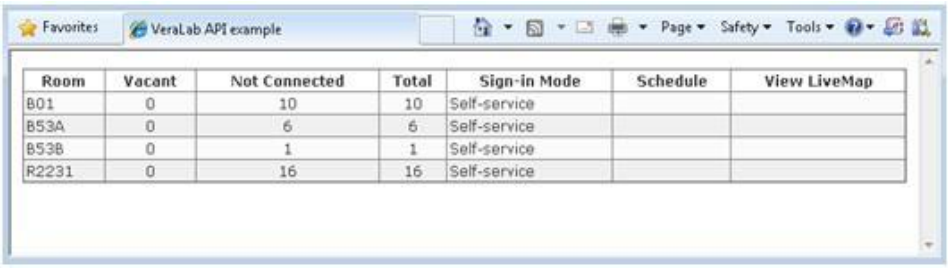
VeraLab web service is available at `http://[veralab_host]:8080/veralab/occupancy`. It returns the following data:

```
jQuery11({"data":[{"departmentName":"Library Department",
"signinMode":"Self-service","not_connected":0,"total":1,"unavailable":0,
"vacantNum":0,"id":"1001","vacant":"0","occupied":1,
"roomName":"Learning Commons","counterName":"Library Circulation Desk"},
{"departmentName":"Math Department","signinMode":"Self-service",
"not_connected":0,"total":1,"unavailable":0,"vacantNum":0,"id":"1",
"vacant":"0","occupied":1,"roomName":"M100 Room",
"counterName":"Math Main Counter"}]});
```

where

- `departmentName` – name of a Department (available only in VeraLab Enterprise Edition).
- `counterName` – name of a counter.
- `id` – room id.
- `vacant` – number of available for use computers represented as a string, can also return *class* or *yield*.
- `vacantNum` – number of available for use computers represented as an integer.
- `occupied` – number of computers in use.
- `unavailable` – number of unavailable computers.
- `not_connected` – number of disconnected computers.
- `total` – number of computers in a room.

Below is another API example using JSON data-interchange format. To extract data from VeraLab in format displayed in Figure 1-8, please refer to the code from Figure 1-9 below.



Room	Vacant	Not Connected	Total	Sign-in Mode	Schedule	View LiveMap
B01	0	10	10	Self-service		
B53A	0	6	6	Self-service		
B53B	0	1	1	Self-service		
R2231	0	16	16	Self-service		

Figure 1-8. Sample browser rendering of the occupancy Web Service API.

```
<html>
<title>VeraLab API example</title>
<script
 src="https://ajax.googleapis.com/ajax/libs/jquery/1.5.1/jquery.min.js">
</script>
<style>
table.srkTable {
  background-color: white; border-collapse: collapse; border-color: gray;
  border-spacing: 2px; border-style: outset; border-width: 1px;
  color: #333333; font-family: Verdana,Tahoma,Arial,Sans-serif;
  font-size: 12px;
}
.srkListHeaderText { font-weight: bold; border: 1px solid gray;
  padding: 2px; }
```

```
.srkListOddCell { background-color: #FBFBFB; padding: 2pt;
  vertical-align: top; }
.srkListEvenCell { background-color: #F0F0F0; padding: 2pt;
  vertical-align: top; }
.srkListCell { padding: 2px; border: 1px solid gray; }
a.srkListLink { color: #333333; }
</style>
<script>
$(document).ready(function() {
  var baseURL = 'http://127.0.0.1:8080/veralab/';
  $.getJSON(baseURL + 'occupancy?mode=full&jsoncallback=?', {},
    function(json) {
    var str = '<table border="0" cellpadding="0" cellspacing="0"
                width="100%" class="srkTable"><tr>';
    str += '<td class="srkListHeaderText" align="center">Room</td>';
    str += '<td class="srkListHeaderText" align="center">Vacant</td>';
    str += '<td class="srkListHeaderText" align="center">Not Connected</td>';
    str += '<td class="srkListHeaderText" align="center">Total</td>';
    str += '<td class="srkListHeaderText" align="center">Sign-in Mode</td>';
    str += '<td class="srkListHeaderText" align="center">Schedule</td>';
    str += '<td class="srkListHeaderText" align="center">View LiveMap</td>';
    str += '</tr>';
    for (var i = 0; i < json.data.length; i++) {
      str += '<tr class="' + (i%2==0 ? 'srkListOddCell' : 'srkListEvenCell')
           + '">';
      var id               = json.data[i].id;
      var total_st         = json.data[i].total;
      var vacant_st        = json.data[i].vacantNum;
      var not_connected_st = json.data[i].not_connected;
      var roomName         = json.data[i].roomName;
      var signinMode = '';
      if (json.data[i].hasOwnProperty('signinMode')) {
        signinMode = json.data[i].signinMode;
      }
      var scheduleLink = '';
      if (json.data[i].hasOwnProperty('scheduleURL')) {
        scheduleLink = '<a class="srkListLink"
          onclick="window.open(\'' + baseURL + json.data[i].scheduleURL + '\'
          ,\'view_schedule\',\'width=600,height=600,...\')"
          href="javascript:void(0);">Schedule</a>';
      }
      var mapLink = '';
      if (json.data[i].hasOwnProperty('mapURL')) {
        mapLink = '<a class="srkListLink"
          onclick="window.open(\'' + baseURL + json.data[i].mapURL + '\'
          ,\'live_map\',\'width=800,height=600,...\')"
          href="javascript:void(0);">LiveMap</a>';
      }
      str += '<td class="srkListCell">' + roomName + '</td>';
      str += '<td class="srkListCell" id="vacant' + id + '">' + vacant_st
           + '</td>';
      str += '<td class="srkListCell" id="ncntd' + id + '">'
           + not_connected_st + '</td>';
      str += '<td class="srkListCell">' + total_st     + '</td>';
      str += '<td class="srkListCell">' + signinMode   + '</td>';
      str += '<td class="srkListCell">' + scheduleLink + '</td>';
      str += '<td class="srkListCell">' + mapLink      + '</td>';
      str += '</tr>';
    }
    str += '</table>';
    $('#labtable').html(str);
  });
  setInterval(function() {
```

```
    $.getJSON(baseURL + 'occupancy?jsoncallback=?', {}, function(json) {
      for (var i = 0; i < json.data.length; i++) {
        var id = json.data[i].id;
        try { $('#vacant' + id).text(json.data[i].vacant); }       catch(e) {}
        try { $('#ncntd' + id).text(json.data[i].not_connected); } catch(e) {}
      }
    });
  }, 30000);
});
</script>
<body><div id="labtable"></div></body>
</html>
```

Figure 1-9. jQuery/JSON code example for the VeraLab occupancy Web Service API.

In the above code example `baseURL` variable needs to be updated with your existing VeraLab host name or IP address and port number. When request parameters include `mode=full` the following fields are retrieved:

- `roomName` – Room Name.
- `signinMode` – Self-Service or Counter sign in mode.
- `scheduleURL` – string following `baseURL` corresponding to room's schedule. This is an optional property. It does not get retrieved if there is no Room schedule in the database.
- `mapURL` – string following `baseURL` corresponding to a room's map. This is an optional property. It does not get retrieved if there is no Room map in the database.

It is recommended to put `mode=full` for the first request followed by periodical requests without it.

Managing System Settings

VeraLab settings are adjustable parameters that can be tuned to reflect your business requirements. This section gives a generic overview of the settings used in VeraLab and how to customize them. For a detailed description and value ranges, see *Appendix A, System Settings*.

Starting with VeraLab 26.2, all settings are on one searchable settings page. The **Categories** list on the left groups them into 16 categories: AI Insights, Booking, Client Authentication, Email and Notification, Guard, Localization, Multi-session, Notification Server, Payroll, Registration, Reports, Security, Self-Service, Sign-in, Student Portal, and Wake on LAN. Within a category, settings are grouped under subheadings, and each setting shows its value next to its default. Category names no longer end in "Settings"; for example, **Guard Settings** is now **Guard**.

Below the categories list are four links: **Change History**, **View All Settings**, **Common LDAP Settings**, and **Single Sign-on Settings**. Common LDAP and Single Sign-on settings are not categories; they have their own pages.

> **Note** We recommend reviewing Appendix A carefully before changing any system setting.

To edit a setting:

1. Navigate to **Administrator** (role) → **Tools** → **Settings**.
2. Find the setting: select its category in the **Categories** list, or type part of its name or description in the search box.
3. Change the value. To return a setting to its shipped value, use **Restore default** for that setting.
4. Use the **Review changes** step to check every change you are about to save, then save your changes.

To see only the settings that differ from their shipped values, use the **Changed from default** filter next to the search box; it also shows how many settings have been changed. **Change History** records who changed which setting and when. To display all settings on one page, click **View All Settings**.

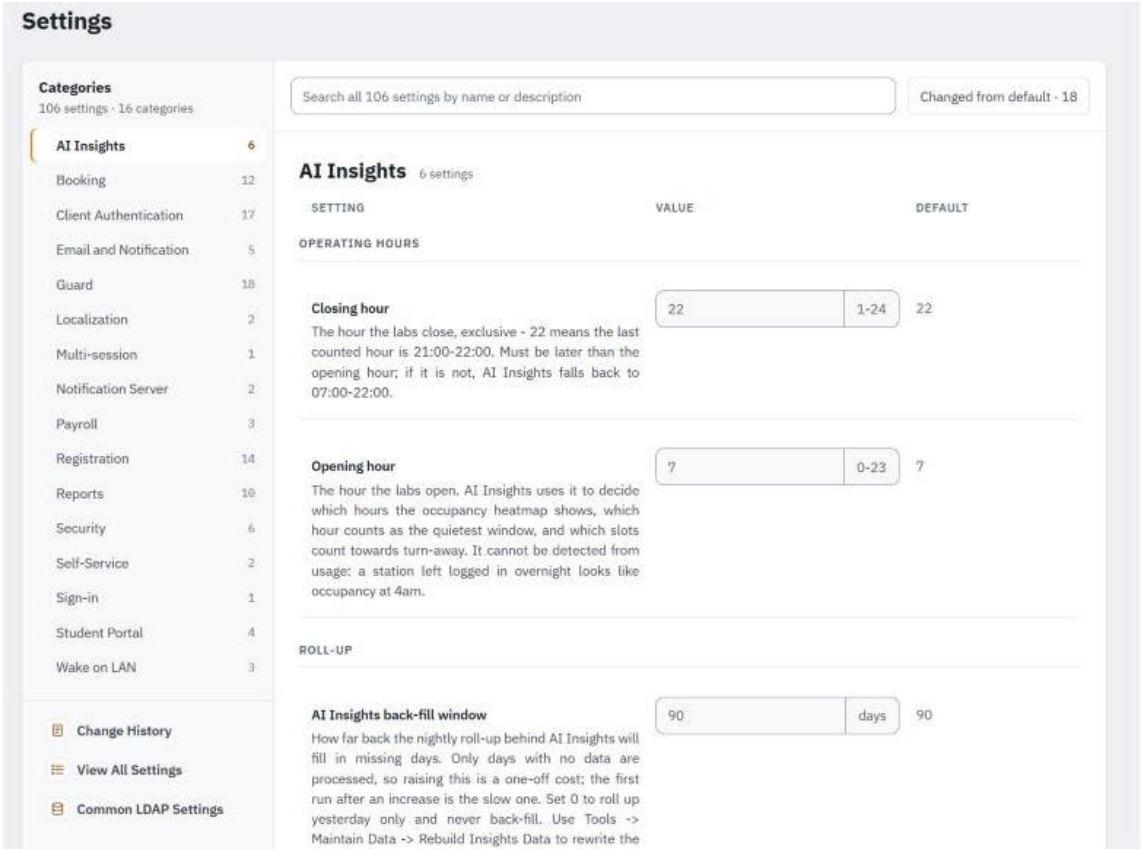


Figure 1-10. The Settings page, showing the AI Insights category.

AI Insights Settings

New in VeraLab 26.2, the **AI Insights** category (six settings) controls how AI Insights calculates its figures:

- **Opening hour** and **Closing hour** (under *Operating Hours*) – the hours your labs are open. AI Insights uses them to decide which hours the occupancy heat map shows, which hour counts as the quietest window, and which slots count toward turn-away. They cannot be detected from usage, because a station left logged in overnight looks like occupancy at 4 a.m.
- **AI Insights back-fill window** (under *Roll-up*) – how far back the nightly roll-up fills in missing days (90 days by default).
- **Longest session counted** – a longer session is treated as a machine left logged in rather than a person at a seat.
- **Nightly roll-up time** – when the roll-up runs each night, in minutes after midnight (140 = 02:20 by default). It changes when the work happens, not what it produces.
- **Seats per assistant** (under *Staffing*) – how many occupied seats one lab assistant can cover. AI Insights uses it to answer "Do we have enough staff at peak?"

For defaults and ranges, see *Appendix A, System Settings*.

For more information, see *AI Insights*.

Client Authentication Settings

Client authentication settings control and define access to client OS sessions when using VeraLab. When you enable authentication for clients running LDAP version of VeraLab client, it is used with Self-Service or Mixed sign-on scenarios.

In addition to LDAP integration you can set up clients to use native accounts for client-side authentication. VeraLab supports 5 types of native accounts stored locally on VeraLab server: Admin, Maintenance, Long-term, Mid-term, and Short-term accounts. These accounts allow bypassing LDAP authentication and are normally used by lab employees or users whose records are not stored in LDAP directory. Starting with VeraLab 26.2, Admin, Long-Term, and Short-Term accounts are created and edited on regular pages instead of pop-up windows.

> **Note** Starting with VeraLab 26.2, short-term (guest) account numbers no longer restart from guest1 each day. A number is reserved when the Add page opens and keeps increasing; numbers from accounts that were never activated are skipped.

When Admin Accounts functionality is enabled (by default), the Admin Accounts task will be displayed under **Setup → Admin Accounts** menu. Short/Mid/Long-term accounts are not enabled by default. To enable this functionality you need to add these tasks to a role of your choice using **Setup → Roles** menu, then enable them using **Tools → Settings → Client Authentication** menu.

Starting with version 7.0 VeraLab allows configuring and using multiple LDAP directories. To change or update the shared LDAP configuration, click **Common LDAP Settings** below the **Categories** list. A category can also have its own LDAP settings, which override Common LDAP for that area.

Email and Notification Settings

Email and Notification settings control email notifications, e.g. notifications sent to Technicians when a new technical issue is logged. It is recommended to setup correct values before releasing the system into production. If a notification email value is left blank, email notifications will be disabled. Starting with version 5.5, an Inventory Notification Email setting is used to notify email addressees when inventory threshold levels are reached.

SMTP server settings are reached from this category: under *Additional Actions*, click **View and edit** next to **Change SMTP Settings**.

Guard Settings

Guard settings (the **Guard** category) control client-server behavior and policies. This is the key page for setting up communication between client (VeraLab Guard) and VeraLab Server, including communication port and password. You can also specify client monitoring and controlling policies on Site Level. These can be overridden on room or workstation level.

Starting with VeraLab version 7.2, it is possible to set up client-server registration using MAC address; starting with VeraLab 26.1, Device ID (Hybrid or Strict) is also available. By default "**Client Identification Method**" is set to Host Name.

Notification Server Settings

Notification settings control notification server behavior and SMTP server parameters and values. Notification Server is used to send out workflow notifications, e.g. a notification that a workstation has been set out of order would be automatically sent out to all employees who have Technician Role.

Starting with VeraLab 26.2, outgoing email uses connection timeouts and negotiates STARTTLS correctly with the SMTP server.

Payroll Settings

Payroll settings control the behavior of the Payroll pages, which can be accessed by Manager, Lab Assistant, and Supervisor security roles. Hourly employees time sheet information can be edited by managers or supervisors. An administrator can adjust the time period during which it would be possible to modify employee shift start and end times. Time frame for accessing the Payroll page without re-entering user password can also be adjusted.

Registration Settings

Registration settings control student and class registrations, waitlists, and dashboard behavior. Starting with version 5.x, a new option is available to propagate application level settings to room or station level via a **Cascade to existing stations** option. This is useful for updating the Maximum Student Registration Time for all stations at once, e.g. during examination weeks.

Reports Settings

Reports settings control reports submission and output. You can specify maximum number of options that can be selected from multiple-option drop-down lists. Reports can be generated to display multi-month intervals. The **Maximum Number of Periods in Reports** setting (default: 12) specifies the maximum number of such intervals. Starting with version 5.5, a **Page size for PDF printing** setting supports Letter and A4 page sizes.

Starting with VeraLab 26.1, reports export in the modern Microsoft Excel .xlsx format, so results are ready to filter, sort, and share in Excel right away. Prior releases produced the legacy .xls format.

Starting with VeraLab 26.2, redesigned reports show the chart and a sortable table together, so their forms no longer ask you to choose between a table and a chart.

Security Settings

Security settings control various aspects around the application, e.g. password protection or web session timeout. The password setting applies to VeraLab native accounts only; when LDAP authentication is used, this setting is not applied. Starting with version 6.x, a **Shift Start/End Task Access List** setting allows restricting shift clock-in/out access based on IP addresses.

VeraLab 26.2 adds the following security hardening, which needs no configuration:

- All requests that change data are protected against cross-site request forgery (CSRF).
- XML processing is hardened, and SSO metadata has a size limit.
- Uploaded files are limited to 10 MB per file (2 MB for schedule files).

Self-Service Settings

Self-Service settings are applied in self-service-enabled environments and control session alert behavior.

Sign-In Settings

You can select Sign-In Mode for your entire lab during or after VeraLab Server installation.

- **Self-Service**: Select if you are using Active Directory or another LDAP authentication to log on to client workstations. This option hides all counter sign-in task tabs.
- **Counter Sign-in**: Select if users need to sign-in at the counter before starting to use workstations. This option hides all Self-Service task tabs.
- **Mixed**: Select if you plan on using Counter sign-in together with LDAP authentication. It will show both Counter and Self-Service task tabs.

> **Warning** Changes to this setting require re-login.

Student Portal Settings

Student Portal settings control the Student Portal page at site level. You can enable/disable the Student Portal page or its individual elements (Schedules and LiveMaps). Use **Customize Student Portal Fields** to choose which fields are displayed and in what order. Starting with VeraLab 26.2, turning the Student Portal or Remote Station Access on or off also shows or hides its tile on the VeraLab login page.

Wake on LAN Settings

Wake on LAN is an Ethernet computer networking standard that allows a computer to be turned on or woken up remotely by a network message. Most modern motherboards with an embedded Ethernet controller support Wake-on-LAN without the need for an external cable. Older motherboards must have a WAKEUP-LINK header onboard and connected to the network card via a special 3-pin cable. Wake on LAN must be enabled in the Power Management section of the motherboard's BIOS.

> **Important** Starting with VeraLab 26.2, for security, VeraLab accepts data-changing requests only from its own pages. If you use scripts or bookmarks that call VeraLab pages directly (for example, to wake lab computers), contact **support@veralab.com** before you upgrade.

Common LDAP Settings

Common LDAP settings are not a category; open them with the **Common LDAP Settings** link below the **Categories** list. Categories that have their own LDAP settings override Common LDAP for that area. Common LDAP settings allow you to configure a single or multiple directories used across the application. LDAP integration can be used for client-side authentication, VeraLab web application logon, and in some reports to search LDAP records for additional attribute values. In order to use multiple directories, fill out the form with the first directory and click on **Advanced Mode** button. Multiple directories will be searched in the order they are displayed, from top to bottom.

> **Warning** Once you are done with configuration changes, click **Save** button to exit, otherwise your changes will not be saved.

AI Insights

Starting with VeraLab 26.2, the **Manager Board → AI Insights** page reads the sessions recorded in your labs and explains what they show. AI Insights is included in every edition. This section covers setting it up; using the page is described in the *VeraLab User's Guide*.

AI Insights answers questions in four tiers, plus a set of saved questions:

- **Saved questions.** Ten ready answers to the questions lab managers are asked most, such as which room is busiest, whether there is enough staff at peak, which stations look faulty, and which licenses are paid for but not used. Each answer explains how it was worked out.
- **Utilization and room traffic.** Seat hours delivered, utilization at peak and on average, the busiest room, and a verdict for every room: full, steady, or spare capacity.
- **Demand forecast and staffing.** A typical-week occupancy heat map, the forecast peak, the number of lab assistants needed to cover it, the quietest window, and the hours at capacity.
- **Anomaly detection.** Hours in the most recent week that were busier, quieter, or emptier than their own baseline, with what was seen and what was expected. A room or hour that was quieter than usual or had no usage is a common sign of a closed room or a network fault.
- **License intelligence.** Peak concurrent use of each product compared with the seats you own, with right-sizing recommendations and the seats you could drop at renewal.

> **Note** Your data stays on your server. All AI Insights figures and summaries are calculated by your VeraLab server, and nothing is sent to an outside service.

AI Insights is available at Site Level and for each department.

Who Can See AI Insights

The upgrade to 26.2 gives AI Insights to the Manager role and, in Enterprise Edition, to the Super Manager role. To give it to other roles or remove it, edit the roles under **Setup → Roles** (see *Roles and Tasks Customization*).

Configuring AI Insights

Set the opening and closing hours, back-fill window, longest session counted, staffing ratio, and roll-up time under **Tools → Settings → AI Insights**. See *AI Insights Settings* in this chapter.

Building Insights Data

After the upgrade to 26.2, AI Insights builds its figures from your existing history in the background, so the page fills in shortly after the server first starts. Progress is shown on the ***Maintain Data*** page, which can also rebuild the history. A nightly roll-up then keeps the figures current.

After you import or purge history, run **Tools → Maintain Data → Rebuild Insights Data** to recalculate AI Insights. See *Rebuilding Insights Data* in Chapter 2.

Roles and Tasks Customization

Starting with version 6.x VeraLab allows customizing and editing existing roles and creating new custom roles. Tasks define what application areas users can have access to. VeraLab comes with a set of predefined/seeded roles. They can be edited, e.g. some existing tasks can be deleted or new tasks added. If this still does not satisfy environment needs, new custom roles can be created.

> **Note** Predefined Administrator role must have the following mandatory tasks: Users, Settings, About. All changes made to roles and tasks will be enabled after user's next logout and login.

To customize VeraLab roles:

1. Navigate to **Administrator** (role) → **Setup** → **Roles**.
2. To edit an existing role, click on **Edit** icon next to a role.
3. To add a new custom role, click on **Add Role** link.
4. On the Add or Edit role page, make necessary selections/changes, set desired default role and click on **Add** or **Update** button to apply changes.

A Users of Role report has been introduced to generate a list of users provisioned to a role. This report is available under Manager role.

> **Note** Upgrading to VeraLab 26.2 adds the AI Insights task to the Manager role and, in Enterprise Edition, to the Super Manager role.

Diagnostics

Diagnostics page is used to gather logs and system information from client workstations. VeraLab 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. Navigate to **Administrator** (role) → **Tools** → **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 the 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 the **Get Log** icon and save the compressed file.

The Diagnostics page also allows retrieving client hardware specs (CPU speed, RAM, Disk size) directly from client workstations by clicking the "i" icon next to a selected station. Starting with version 7.0, the Computer Info pop-up also displays information about video cards and hard disk firmware.

Starting with VeraLab 26.2, the Diagnostics station list is a searchable, sortable table. To find stations that may be faulty from their usage patterns, see the saved questions in AI Insights.

Managing Software Licenses

> **Note** Starting with VeraLab 26.2, the License intelligence tier of AI Insights compares peak concurrent use of each product with the seats you own and recommends seats you could drop at renewal. See *AI Insights*.

Limiting Concurrent Licenses

VeraLab allows control of the number of concurrent licenses used in a computer lab. Lab administrators can install software with a limited number of acquired licenses on every workstation, but only the specified number of workstations will be able to run such software at the same time. Lab administrators can also prevent certain applications from being launched by setting the number of licenses for those applications equal to zero.

To view licenses, navigate to **License Administrator** (role) → **Licenses**. The ***License Administration*** page shows the maximum number of licenses (**Threshold**) for each application and the number of currently used licenses (**In Use Licenses**). Starting with version 7.0, the page uses AJAX technology to automatically refresh in-use counts without requiring a page refresh. The **In Use Licenses** pop-up window allows terminating a selected program on one or more stations remotely. Starting with VeraLab 26.2, the page also offers **Delete Selected Licenses** and an **Excel** export of the license list.

To add a new license:

1. Navigate to **License Administrator → Licenses**.
2. In the ***License Administration*** page, click the **Add License** link.
3. In the ***Add New License*** page, fill out the necessary fields. To fill the form automatically from a currently running application, click the **Select from Currently Running** link, select a room and workstation from the pop-up, then click the process name.
4. To add a different version or platform for the same product, click the **Add** icon on the right to add additional application masks. To delete an application mask, click the **Delete** icon.
5. Click **Save**.

> **Note** The multiple-application-masks method was introduced in versions starting with 6.0. In order to group more than one application under same license you can list them separated by semicolons. For example, if you need to add an Adobe Creative Suite license, you can add `*\Photoshop.exe;*\Dreamweaver.exe;*\Flash.exe` in the **Path** field. This older syntax has been retained for backward compatibility, however we recommend using the new method with multiple application masks.
>
> **Note** If you leave the **No. of Licenses** field blank, software metering will not be enforced. To restrict an application from being launched, specify 0 in that field.

To edit a license:

1. Navigate to **License Administrator → Licenses**.
2. Click the **Edit** icon next to the appropriate license.
3. In the ***Edit License <name>*** page, update the appropriate fields.
4. Click **Update**.

To delete a license:

1. Navigate to **License Administrator → Licenses**.
2. Click the **Delete** icon next to the appropriate license.

Software Tracking

Software Tracking is automatically enabled provided that both server and client are running on version 2.4 or higher. To start tracking software, follow the steps in "Limiting Concurrent Licenses" and set the maximum number of licenses equal to or above the total number of connected clients. Starting with version 5.x, VeraLab stores price per seat and license cost information, further used in the Software Compliance report.

Software Usage History

To view Software Usage History:

1. Navigate to **License Administrator → Reports**.
2. Click the **Software Usage History** link.
3. Select a specific application from the **Product** drop-down list or select **All** (default). Provide other optional search criteria.
4. Click **Search**.

Aggregate Software Tracking Report

To view the Aggregate Software Tracking Report:

1. Navigate to **License Administrator → Reports**.
2. Click the **Aggregate Software Tracking Report** link.
3. Specify a date range and select a room. Leaving date fields blank will run the report for all recorded data up to yesterday's date.
4. Click **Submit**.

Starting with VeraLab 26.2, the report opens with summary cards (total usage, launches, most used product, highest concurrency) above a chart and a sortable table. Use **Excel**, **PDF**, **Share Report**, or **Schedule Report** to export, share, or schedule it, and **New Report** to change the criteria.

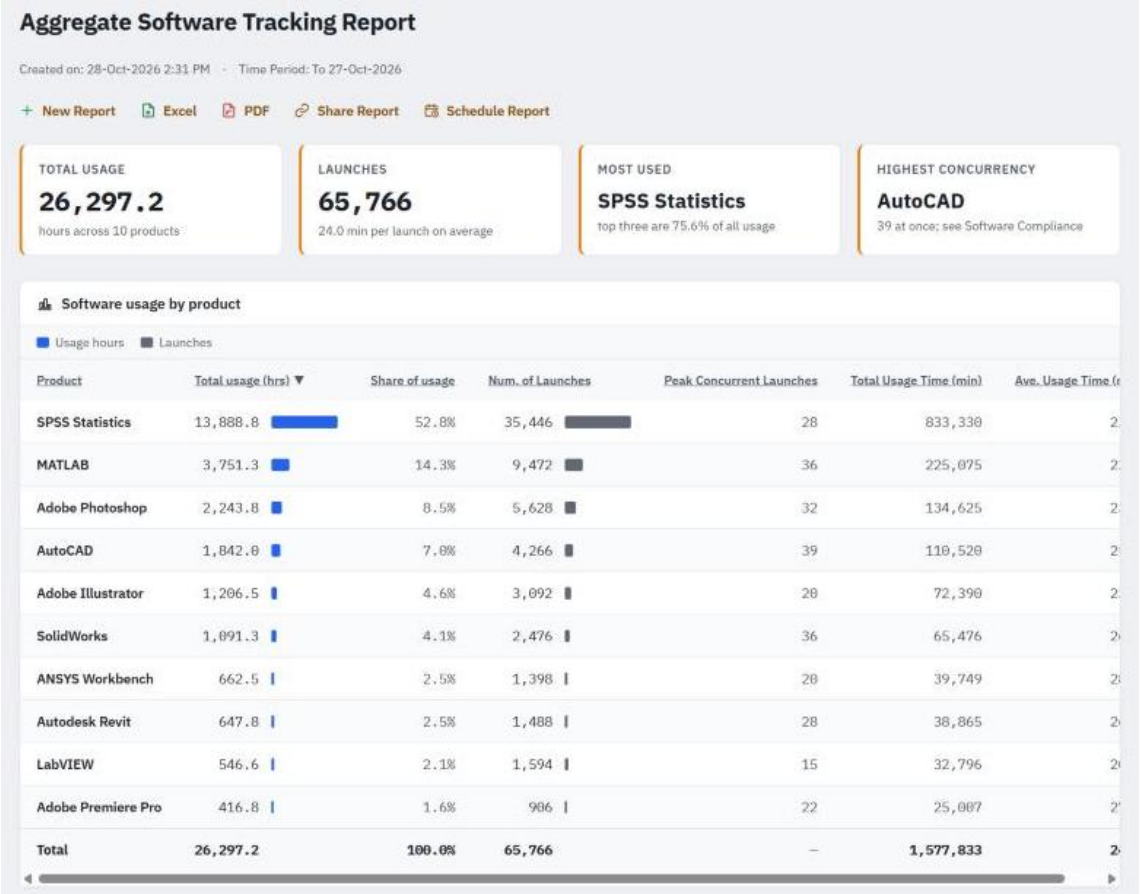


Figure 1-11. Aggregate Software Tracking Report.

Application Usage by Users

To view the Application Usage by Users report:

1. Navigate to **License Administrator → Reports**.
2. Click the **Application Usage by Users** link.
3. 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 the Software Compliance report:

1. Navigate to **License Administrator → Reports**.
2. Click the **Software Compliance** link.
3. Select a date range. Leaving date fields blank will run the report for all recorded data up to previous day.
4. Click **Submit**.

Starting with VeraLab 26.2, the report opens with summary cards (products short, licenses needed, products with no license recorded, products within license) above a chart of each product's peak concurrent use against the licenses owned, with the deficit or surplus for each product.

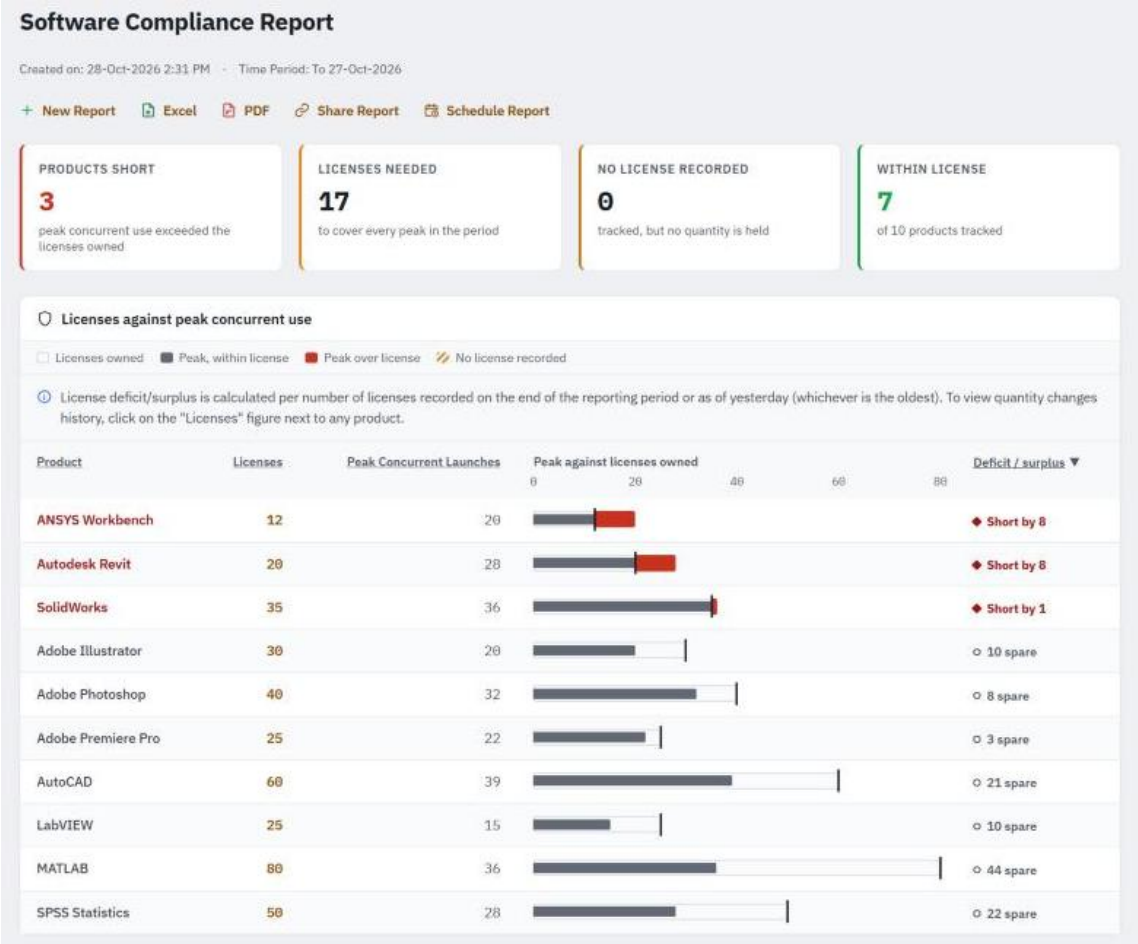


Figure 1-12. Software Compliance Report.

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

Software Usage by Day

To view the Software Usage by Day report:

1. Navigate to **License Administrator** (role) → **Reports**.
2. Click the **Software Usage by Day** link.
3. 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**.

Importing Data From Excel

Starting from version 8.3, VeraLab features bulk license list import. New functionality allows you to download a Demo or a Template file, make necessary adjustments or compile a new list, and import it back into VeraLab.

To upload your data from a file:

1. Navigate to **License Administrator** (role) → **Licenses** (menu).

2. Click the **Import Data from Excel** link.
3. On the ***Import Data From Excel*** page, you can generate your own file by following the instructions on the page, download the Demo file and use it as a reference, or use the Template File to enter all license details from scratch. Select the **Delete all existing licenses before import** checkbox only if the file should replace your current license list.

> **Note** Starting with VeraLab 26.2, uploaded files are limited to 10 MB per file.

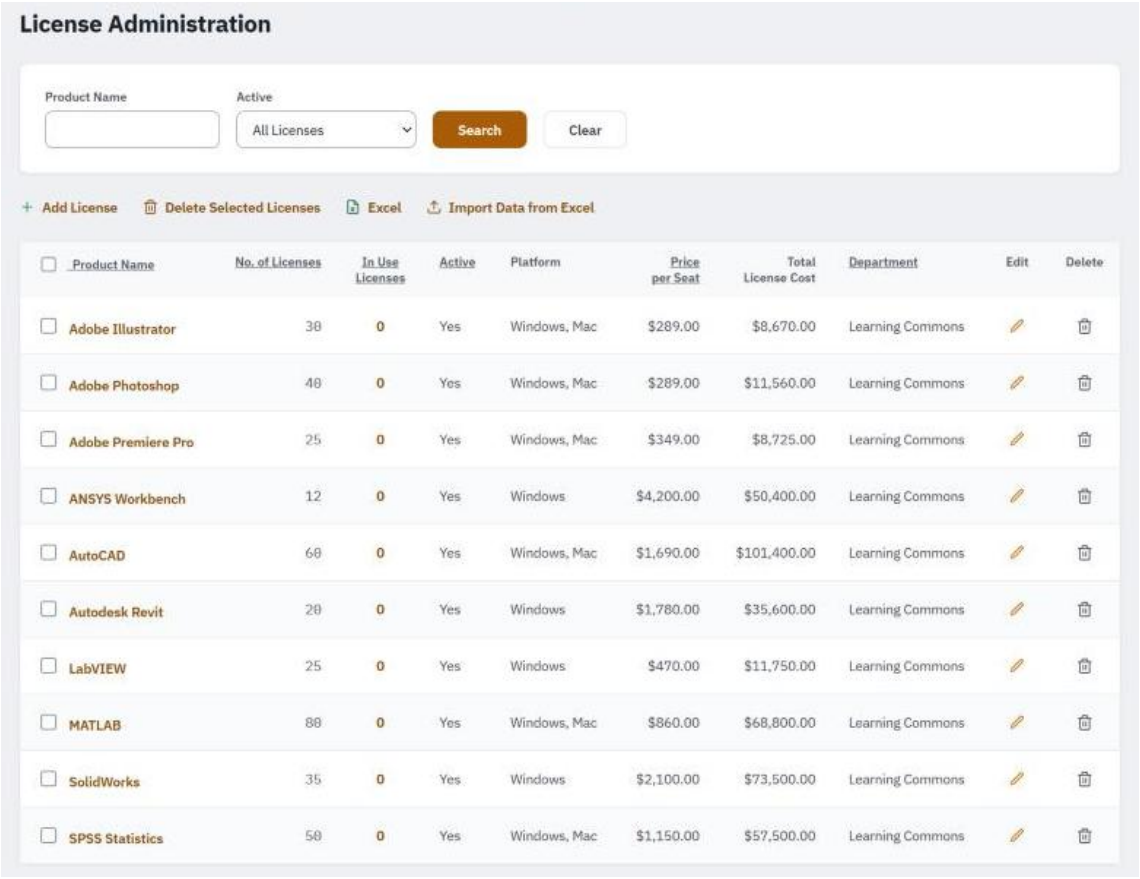


Figure 1-13. License Administration page with the Import Data from Excel link.

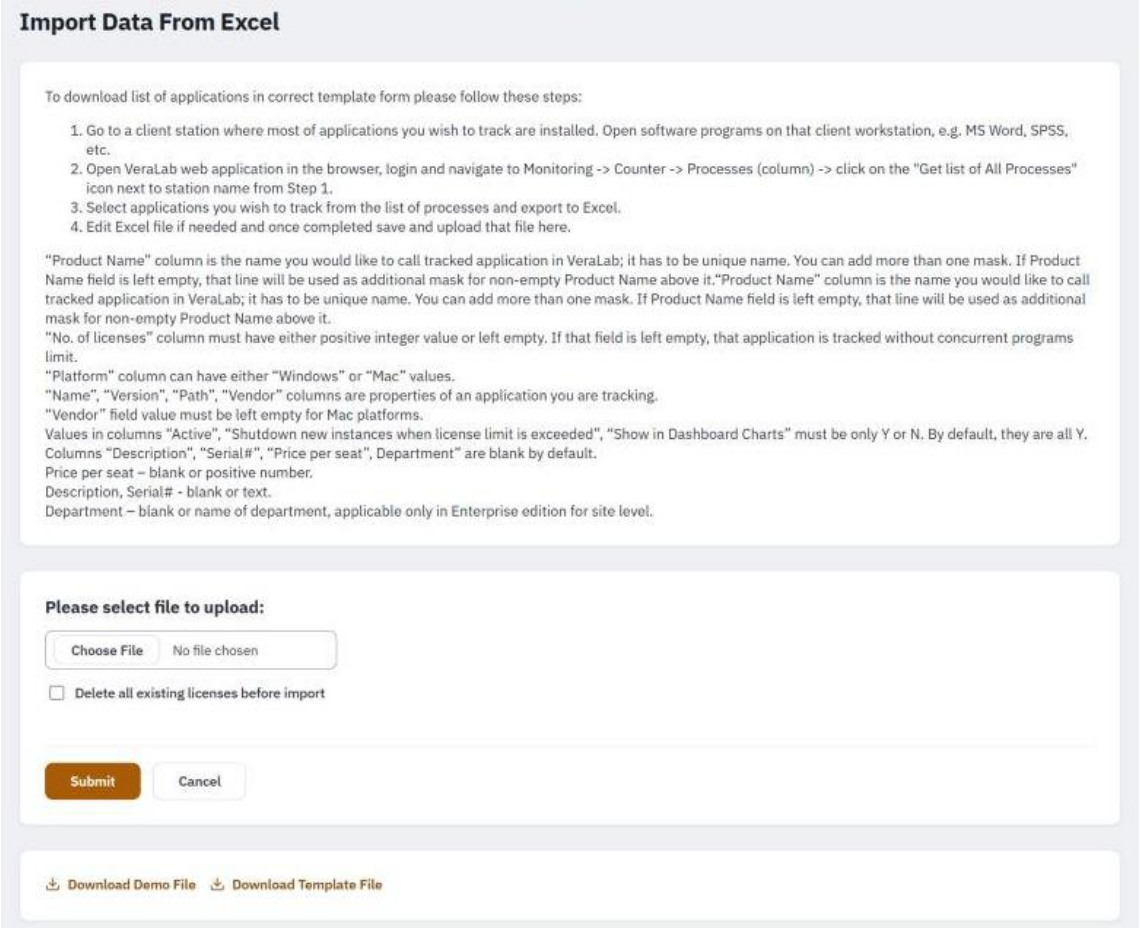


Figure 1-14. Import Data From Excel page.

VeraLab Client Administration

VeraLab Client (also called VeraLab Guard) requires a separate installation of client software. To avoid being locked out, we recommend installing VeraLab server and VeraLab client on two different hosts. For more information about client installation, see *VeraLab Guard Client Installation Guide*.

> **Note** VeraLab 26.2 comes with VeraLab Guard client 26.2 for Windows and macOS. Upgrade the server first, then update your workstations; see Remote Client Update.

Client Setup

Starting with version 5.x VeraLab comes with several options to deploy and setup VeraLab client in environments with large number of stations. Review them carefully before selecting the one that fits your strategy best.

Before running VeraLab client installation in production environment, visit **Administrator** (role) → **Setup** → **Stations** → **Client Setup** page.

There are two ways to install and setup VeraLab client:

- VeraLab Guard Manager Wizard (manual installation)
- Configuration file (silent installation)

The Client Setup page helps generate a Config file for silent installations. After generating the Config file, save it in the same folder as the VeraLab Client setup (.exe) file. The Client Installer will pick up parameters from the Config file. You may optionally select to auto-register workstations on the server.

Here are all deployment path options:

1. Setup required Room and Image tasks on the server → Generate Config file with Auto-register option selected → Deploy VeraLab clients.
2. Setup your environment using Import under **Administrator** (role) → **Tools** → **Maintain Data** → Generate Config file without Auto-register option selected → Deploy VeraLab clients.
3. Setup required Room and Image tasks on the server → Generate Config file without Auto-register option selected → Deploy VeraLab clients → Use ***Unregistered Stations*** list under **Administrator** → **Stations** to add all detected client workstations to corresponding rooms/images. Starting with VeraLab 26.2, the Unregistered Stations list is a searchable, sortable table.
4. Setup required Room and Image tasks on the server → Deploy VeraLab clients manually → If no Config file is used, VeraLab Client Setup will prompt you to specify room/image, server IP, and communication password.

> **Note** Starting with VeraLab 26.1, a unified client installer replaces the previous separate Standard, LDAP, and Novell (eDirectory) installers. The operating mode is now configured server-side via **Setup** → **Client Modes**, described in the next section.

Client Modes

Starting with VeraLab 26.1, the way a client signs users in is no longer baked into the installer. There is a single unified VeraLab Guard client, and its sign-in behavior is controlled from the server under **Setup** →

Client Modes. The setting can be applied globally, per department, per room, and per individual workstation, with lower levels overriding higher ones.

Available Modes

- **Standard Mode** – Clients sign in using their operating system (OS) username and password. This is the default for most environments (for example, MSAD-enabled environments).
- **LDAP Mode** – Requires an autologon account to be configured. The OS login happens automatically in the background, then the VeraLab lock screen appears and prompts the user for their username and password. Use the **Manage Autologon Accounts** link on the ***Client Modes*** page to set this up.
- **NetWare / eDirectory Mode** – Clients sign in using their Novell NetWare, Novell eDirectory, or NetIQ eDirectory credentials instead of their OS username. Windows only.

> **Note** Remote mode switching requires VeraLab client version 26.1 or later. Multiuser servers and thin clients always operate in Standard Mode, regardless of this setting.

Upgrade — Order of Operations

When upgrading from any pre-26.1 release, follow this sequence:

1. **Upgrade the server first.** After the upgrade (from any pre-26.1 release to 26.1 or later), all existing (older) clients continue to work exactly as before — nothing changes for them.
2. **Set client modes before upgrading clients.** Go to **Setup → Client Modes** and set the mode at each level: Global, Department, Room. If you have stations currently running the LDAP-enabled VeraLab Guard client, first add an autologon account at **Setup → Client Modes → Manage Autologon Accounts → Add Autologon Account**. Once added, you can assign it at the Global, Department, or Room level.
3. **Install the new clients.** Once everything is configured under **Setup → Client Modes**, you are clear to roll out the new 26.1 clients.
4. **Check client versions** anytime via **Setup → Stations** or **Tools → Diagnostics**.

How Modes Resolve

You can also set the mode per individual station, so mixing is fine: for example, set a whole room to LDAP and flip a few stations within it to Standard, or vice versa. Every room and station always ends up with a resolved mode through the inheritance / defaults mechanism:

- The global default is Standard mode.
- Nothing overridden anywhere → all new clients run in Standard mode.
- Set LDAP globally and override nothing lower down → every station runs in LDAP mode.
- Override at a lower level (department, room, or station) → that override applies to that scope; everywhere you did not touch falls back to the value inherited from the level above.

In short: lower-level settings win where you have set them; everything else inherits from above.

Client Banners

Client banners are images shown on client workstation screens. Starting with VeraLab 26.2, the redesigned ***Client Banners*** page lets you upload banners and choose the level at which each banner applies (Site Level, a department, or a room) on one screen. Banner files are kept within the department that owns them. When several banners are used, each stays on screen for the time set by the **Client Banners Rotation Interval (sec)** setting.

Remote Client Update

Starting with version 6.x VeraLab allows updating clients remotely. Clients must be on version 6.0 or higher for this functionality to work (e.g., you cannot perform remote client update from version 5.5 to 6.0.1, but you can perform a client update from version 6.0 to 6.0.1). Remote client updates can be performed for both PC and Mac platforms.

Starting with VeraLab 26.2, Remote Client Update is a guided three-step process: choose the update package, choose the stations, and confirm. Stations that cannot take the update are flagged with the reason.

> **Note** In VeraLab Enterprise Edition, Remote Client Update is available only at Site Level. Switch the department selector to Site Level before you start.

To perform remote client update:

1. Download new version of VeraLab client from `www.veralab.com`.
2. Copy the PC (`.exe`) and/or Mac (`.dmg`) client files, for example `veralab_client_setupX.X.exe`, into the `C:\Veralab\tomcat\webapps\veralab\update` directory on the server.
3. Login to VeraLab application and navigate to **Administrator** (role) → **Tools** → **Remote Client Update**.
4. Click **New Job**.
5. Under **Update package**, select the client file you'd like to deploy.
6. Under **Stations to update**, select **Update all compatible stations** or **Select stations on the next step**. To push updates only during a set time window, select **Scheduled Client Update**. Click **Continue**.
7. If you chose to select stations, select them on the next step. Stations that cannot take the update are flagged and the reason is shown, for example "Guard 6.0 or later is required".
8. Review the selected stations and start the update.

> **Note** Starting with version 8.6.1 VeraLab supports remote update for LDAP-enabled clients. To update LDAP-enabled clients, check the **Autologon account credentials** checkbox and provide Windows autologon credentials. This update is supported for client versions 8.5.4 or higher.
>
> **Note** Once started, the update process will continue even if the browser window is closed. If you need to terminate the update process, click on **Stop Update** button.

If a client is turned off when upgrade was initiated, it will start the upgrade process first thing after connecting to VeraLab server. The upgrade may take from several minutes to days and comprises the following cycles: new files are pulled from the server by selected compatible stations; upgrade is triggered by a VeraLab event on the client (e.g. session log off/on, monitored software started); once complete, the station transmits its status to the server. To avoid cyclic dependencies, only one cycle of upgrade is attempted.

To view client update status, navigate to **Administrator** (role) → **Tools** → **Remote Client Update**. The ***Remote Client Update History*** page lists each job with its platform, schedule, progress, and the number of stations waiting, successful, failed, and canceled. Open a job to see its ***Update Job Details*** page, which replaces the status pop-up window of earlier releases.

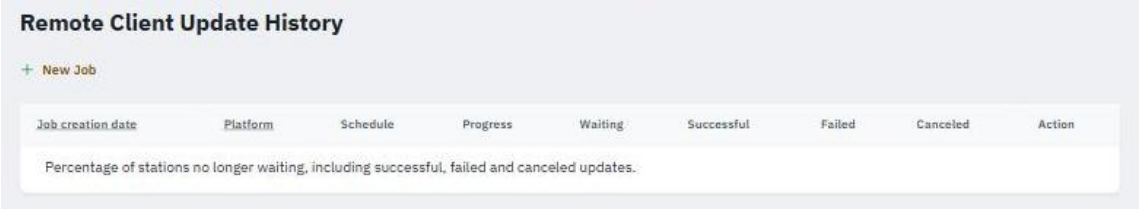


Figure 1-15. Remote Client Update History.

Using VeraLab Guard (Monitoring)

VeraLab Guard was designed to control and monitor client workstations remotely. VeraLab Guard includes the following control mechanisms: remote workstation locking and unlocking, remote user logout, restarting and shutting down workstations, wake-on-LAN, terminating client workstation processes, capturing client workstation screenshots, and pulling hardware specification details from client workstations.

Starting with VeraLab 26.2, the Monitoring station list is a searchable, sortable table.

Note You can use VeraLab Guard features only with client workstations that have VeraLab Guard Client installed and if the client-server connection was established. A colored two-arrow Connection icon indicates the status of connection: green = established, red = not established, gray = never established or client software not installed.

Note Lab employees can use VeraLab Guard features only if they have been assigned corresponding rights. See *Employee Administration* for more information.

Note VeraLab offers optional Wake-on-LAN functionality. Wake on LAN (WoL) support is implemented in the motherboard of the computer. Most modern motherboards with an embedded Ethernet controller support WoL without the need for an external cable. Wake on LAN must be enabled in the Power Management section of the motherboard's BIOS. See "VeraLab Settings" for more information on how to enable Wake-on-LAN.

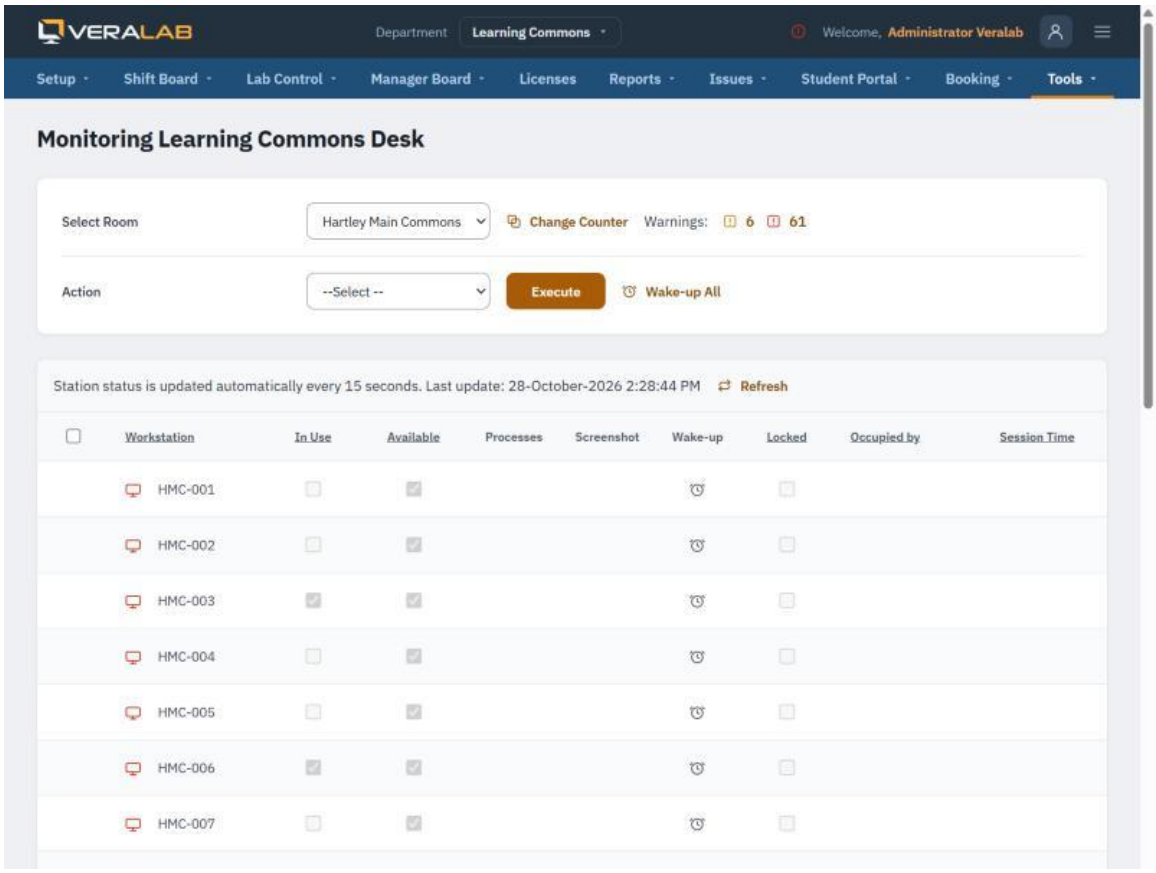


Figure 1-16. Monitoring view with Wake-on-LAN controls.

Viewing and Terminating Client Processes

To view and terminate a client workstation process:

1. Navigate to **Administrator** (role) → **Tools** → **Monitoring**.
2. Select a counter from the list of available counters.
3. In the ***Monitoring <counter_name>*** page, select a room, or **All**, from the **Select Room** drop-down menu.
4. Click the **Processes** icon under the **Processes** column next to an appropriate workstation. A pop-up window with a list of running processes will be displayed.
5. In the ***Running Processes on <workstation_name>*** pop-up window, select the check boxes of the processes you need to terminate.
6. Click **Terminate Selected**. The window will refresh automatically and a message will be displayed in the top part of the window. After terminating appropriate processes, close the pop-up window.

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

Capturing Client Screenshots

To capture a client screenshot:

1. Navigate to **Administrator** (role) → **Tools** → **Monitoring**.

2. Select a counter from the list of available counters.
3. In the ***Monitoring <counter_name>*** page, select a room, or **All**, from the **Select Room** drop-down menu.
4. Click the **Screenshot** icon under the **Screenshot** column next to an appropriate workstation. A pop-up window with a captured screenshot will be displayed. If necessary, use the browser's menu to save the image.

You will notice a timestamp watermark in the top right corner of the captured screenshot.

Performing Remote Operations on Client Workstations

A number of actions can be performed remotely on workstation(s) that have VeraLab Guard installed and that are connected to the server. The actions include: lock and unlock, logout, restart, shutdown.

1. Navigate to **Administrator** (role) → **Tools** → **Monitoring**.
2. Select a counter from the list of available counters.
3. In the ***Monitoring <counter_name>*** page, select a room, or **All**, from the **Select Room** drop-down menu.
4. To perform an action on workstation(s), select checkboxes under the **Select** column next to appropriate workstation(s). You can select all workstations by selecting the checkbox in the **Select** column header.
5. Select an action from the **Action** drop-down menu.
6. Click **Execute**.

> **Note** Starting with VeraLab 26.2, you can also lock and unlock stations from the ***Workstation Availability*** page with **Lock now** and **Unlock now**.

Sending Text Messages

To send a text message to a workstation:

1. Navigate to **Administrator** (role) → **Tools** → **Monitoring**.
2. Select a counter from the list of available counters.
3. In the ***Monitoring <counter_name>*** page, select a room, or **All**, from the **Select Room** drop-down menu.
4. Select or deselect checkboxes under the **Select** column next to appropriate workstations.
5. Select **Send Message** from the **Action** drop-down menu.
6. Click **Execute**.
7. In the ***Send Message to Workstations*** page, type a text message.
8. Click **Send**.

> **Note** Starting with VeraLab version 8.3, there is a new option available to send Emergency Notifications. These notifications will lock client screens until users click on "**I Acknowledge**" button.

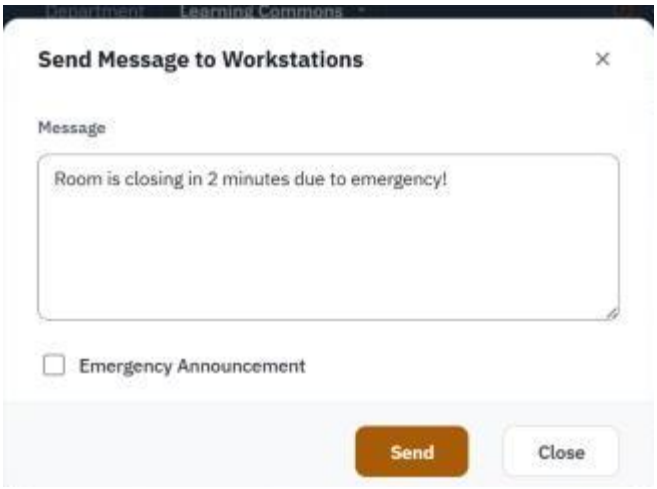


Figure 1-17. Send Message to Workstations window.



Figure 1-18. Lock screen shown on client monitors when an Emergency Notification is sent.

Audit Log

Starting with version 8.5 VeraLab comes with Audit Log functionality. Audit Log is a security-relevant chronological record, set of records that provide documentary evidence of the sequence of activities performed using VeraLab web interfaces.

By default this task is available to users with Administrator role; however, it can be added to other standard or custom roles. Audit log has three additional output columns: **Data A**, **Data B**, and **Data C**. The output in these columns depends on the event or activity recorded in the **Event** column. For example, if a user sends a message from the Monitoring Task, Data A will show the target station(s) and Data B will show the actual message text.

> **Note** By default VeraLab Enterprise version has Audit Log enabled only on Site Level. It can be added to Department Level via Role/Task editing.

There is a setting associated with this functionality: by default, the audit trail retains the last 180 days of events. To change the default value, go to **Tools → Settings → Security → Maximum Audit Log Time (days)**.

Starting with VeraLab 26.2, changes to system settings are also recorded in **Settings Change History** (see *Managing System Settings*).

Working with Audit Log

To view activities and events recorded in the audit trail:

1. Logon to VeraLab web application as a user with Administrator role.
2. Navigate to **Tools → Audit Log**.
3. Enter required search criteria using filters. Leaving filter(s) blank will result in retrieving all records for that field.
4. Click **Search**. To export the results, click **Excel** or **CSV** above the results table.

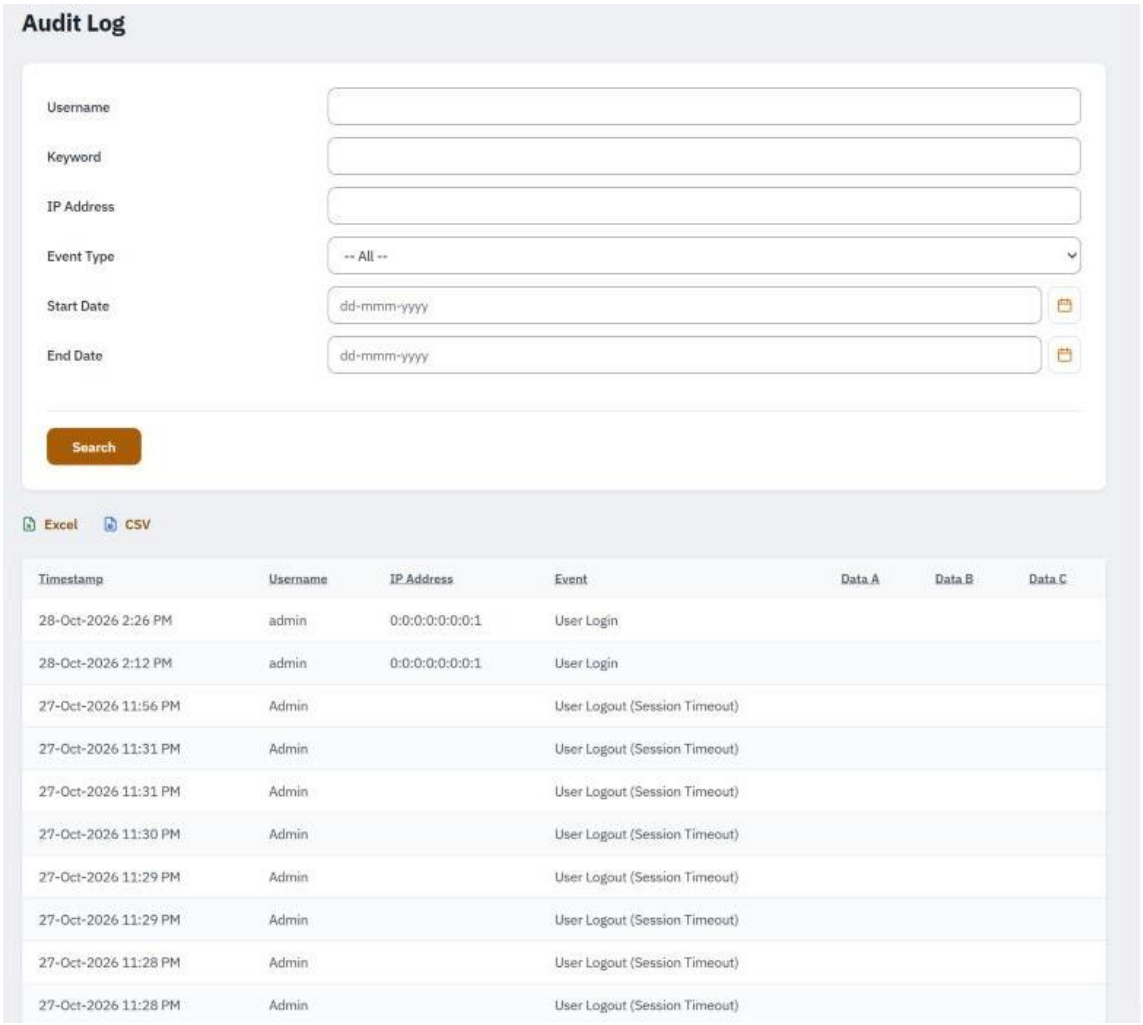


Figure 1-19. Audit Log.

2 Maintain Data

This chapter describes VeraLab data maintenance controls and guides you through the procedures to perform data import, data purge, and the rebuild of AI Insights data. This chapter covers the following topics:

- Preparing for Import
- Performing Import
- Import Troubleshooting
- Data Purge
- Rebuilding Insights Data

Preparing for Import

Import utility is designed to facilitate loading of setup data into the system. Import should be used only for initial setup. All further administration should be performed manually. If performed in production environment, all existing data will be overwritten. Contact VeraLab Support if you need to perform incremental updates.

VeraLab Enterprise Edition allows running Import only on Department levels. Once a new department is created, login as a user with Administrator role on Department level, navigate to **Tools → Maintain Data → Import**, and follow the standard process to import data.

VeraLab Import utility uses Microsoft Excel format for the source data file. Starting with VeraLab 26.1, the Import Data tool accepts the modern .xlsx format in addition to the previously supported .xls format. The template and sample Excel worksheets are included in the distributive version of the product.

> **Note** Starting with VeraLab 26.2, **Import Class Bookings** is no longer offered under **Maintain Data**.

Creating Excel File

It is highly recommended to use the VeraLab template file and populate it with your production environment data. Starting with VeraLab 26.1, Import accepts both .xlsx (Microsoft Excel 2007 and later) and the legacy .xls format. On VeraLab releases prior to 26.1 only .xls is accepted, so a file authored in Microsoft Excel 2007 or later must be saved as .xls before running Import on those releases.

Downloading Excel Template File

To download the provided Excel template file:

1. Navigate to **Administrator** (role) → **Tools** → **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 five worksheets: Users, Counters, 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. Comments text box will display detailed description and acceptable range of values. After filling in your custom data, save the Excel file.

Using Excel Demo File

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

Downloading Excel Demo File

To download the provided Excel demo file:

1. Navigate to **Administrator** (role) → **Tools** → **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**.

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

Performing Import

> **Warning** 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 **Administrator** (role) → **Tools** → **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** Starting with VeraLab 26.2, the import file is limited to 10 MB.
>
> **Note** If an error message is displayed, see *Import Troubleshooting* in this chapter for more information and troubleshooting techniques.
>
> **Note** If you import history, run *Rebuilding Insights Data* afterwards so AI Insights reflects the imported data.

Import Troubleshooting

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 VeraLab 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>: <Object> name should be unique	Displays worksheet name and record that contains a 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.	Review the template file and correct the worksheet that contains the missing column.
Sheet '<name>' line <N>: Integrity constrain error, <Object> 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.
Sheet '<name>' line <N>: '<column>' name can not be empty	Displays the worksheet name and the column that contains an 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 an employee with a password shorter than the minimum required.	Open **Tools → Settings → Security** and review **Password minimum length**.
Sheet '<name>' line <N>: Duplicate Roles	Employee can not have duplicate roles.	Review the Users worksheet and correct roles assigned to employees.
Sheet '<name>' line <N>: Id Field can not be empty	Indicates a record with an empty ID field.	Review the template file for records with empty ID column.

Data Purge

Starting with version 5.x VeraLab supports data purge activities. Purging historical records may be required for large environments that do not need to store data longer than a certain number of years. Purging data also helps to maintain a smaller database size, which improves application and reporting performance.

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

To perform data purge:

1. Navigate to **Administrator** (role) → **Tools** → **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. **Self-Service Logins**.
4. Click on the **Purge** button.

> **Note** After a purge, run *Rebuilding Insights Data* so AI Insights no longer counts the purged history.

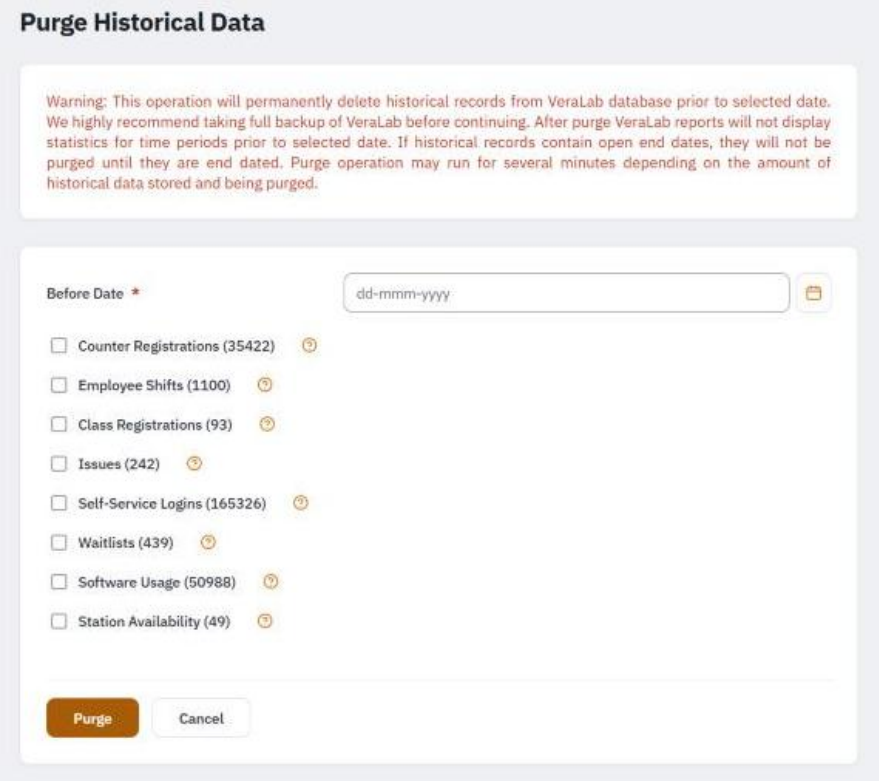


Figure 2-1. Purge Historical Data.

Rebuilding Insights Data

AI Insights (see *AI Insights* in Chapter 1) reads every figure from a nightly roll-up of the session log. Rebuilding rewrites that roll-up from the session log for the back-fill window. It reads the session log and writes only the roll-up, so nothing else is affected.

Rebuild the AI Insights data when:

- a figure has been found wrong;
- historical data has been imported or purged;
- the server has been down long enough to leave gaps.

To rebuild AI Insights data:

1. Navigate to **Administrator** (role) → **Tools** → **Maintain Data** → **Rebuild Insights Data**.
2. Check the **Back-fill window**. If you need more history, click **Change in Settings** and raise **AI Insights back-fill window** before rebuilding.
3. Click **Rebuild**.

The page also shows the status of the last run, the date range and number of rows held, and how many of the last days had activity.

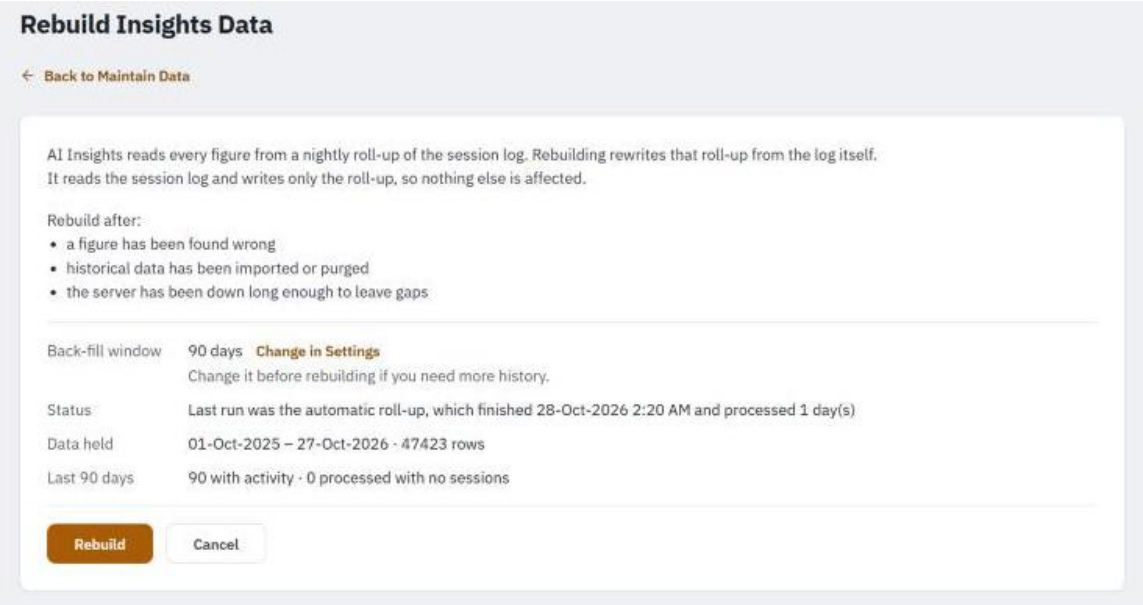


Figure 2-2. Rebuild Insights Data.

> **Note** You do not need to rebuild after upgrading to 26.2. AI Insights builds its figures from your existing history in the background after the server first starts.

A System Settings

This chapter explains how to tune VeraLab settings. This chapter covers the following topic:

- VeraLab Settings

VeraLab Settings

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

> **Note** The AI Insights settings added in VeraLab 26.2 are also described in *AI Insights Settings* in Chapter 1.

Setting	Default Value	Range of Values	Description
AI Insights back-fill window (days)	90	days (0 = no back-fill)	How far back the nightly roll-up behind AI Insights fills in missing days. Only days with no data are processed, so raising it is a one-time cost. Set 0 to roll up yesterday only. Use Tools → Maintain Data → Rebuild Insights Data to rewrite the window from the session log. New in 26.2.
Administrator Email Address	admin@your_domain.edu	Any valid e-mail address	E-mail address of the person responsible for system administration.
Allow Capture Screenshots	true	true/false	Allows capturing and viewing client screenshots remotely.
Allow Semesters to Overlap	false	true/false	In certain cases it may be necessary to allow overlapping semester periods.
Allow Terminate Applications	true	true/false	Allows shutting down client applications remotely.
Allow Terminate System Processes	false	true/false	Allows shutting down client system processes remotely.
Allow View Applications	true	true/false	Allows viewing launched client applications remotely.
Client Banners Rotation Interval (sec)	20	Any positive numeric value	Controls how long (in seconds) one image stays on the client screen before changing to the next image when multiple banners are used.
Closing hour	22	1–24	The hour the labs close, exclusive: 22 means the last

Setting	Default Value	Range of Values	Description
			counted hour is 21:00–22:00. Must be later than Opening hour; if it is not, AI Insights falls back to 07:00–22:00. New in 26.2.
Client Identification Method	Host Name	Host Name / IP Address / MAC Address / Device ID (Hybrid) / Device ID (Strict)	Defines how VeraLab identifies client workstations. If clients may change IP addresses dynamically, keep the default Host Name value. MAC Address is available starting with version 7.2. Device ID (Hybrid) uses the Device ID to identify the client if it is reported; otherwise it falls back to Host Name. Device ID (Strict) always requires a Device ID; if a client does not report one, 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. Device ID (Hybrid) and Device ID (Strict) are available starting with VeraLab 26.1 and require client version 26.1 or higher. Note: this setting was named "Recognize Client Workstation by" prior to VeraLab 26.1.
Currency Symbol	Dollar ($)	Dollar, Euro, Pound, Rand, Baht	Local currency symbol used on all pages and reports where local currency data is displayed.
Display Short-term Account Expiration Warning Message	true	true/false	Enables or disables session expiration warning messages for short-term accounts on client stations.

Setting	Default Value	Range of Values	Description
Enable Admin Accounts	true	true/false	Admin Accounts are cached on the clients and allow login to client OS bypassing LDAP authentication or during network outage.
Enable alerts for user sessions with exceeded time limit	false	true/false	If enabled, alerts will be displayed on Lab Assistant and Manager Dashboards listing workstations and accounts where session time limit has been exceeded.
Enable Authentication for clients running LDAP version of VeraLab Client	false	true/false	Enables integration of VeraLab with LDAP. Requires clients to have special version of VeraLab installed.
Enable auto-add of terminal clients to Unregistered Stations list	false	true/false	When enabled, new terminal sessions will automatically appear in the list of Unregistered stations.
Enable automatic unassign on logout	true	true/false	When enabled, ends user registration and unassigns user from client workstation during logout.
Enable Expiring Registrations Warning on Clients	false	true/false	If enabled, a warning message will be displayed on client workstations N minutes before registration is expired.
Enable Long-Term Accounts	false	true/false	Long-term accounts have "user" prefix followed by an automatically generated sequence number (e.g. user1, user2..userN). They do not allow concurrent sessions.
Enable Maintenance Account	false	true/false	Maintenance Account is used to bypass LDAP authentication and grant access to client session when connection to LDAP server is broken.
Enable Mid-Term Accounts	false	true/false	Mid-term accounts have "visitor" prefix followed by an automatically generated

Setting	Default Value	Range of Values	Description
			sequence number (e.g. visitor1..visitorN). They have an expiration date and do not allow concurrent sessions.
Enable pagination on the top when number of rows exceed (records)	blank (disabled)	1–300	Additional pagination on top can be enabled using this setting. Leave blank to disable.
Enable Public Reports	true	true/false	Enables creating reports available to users via direct links without application authentication.
Enable registration timeout and lock screen	false	true/false	Turns registration timeout on/off for expired registrations. Timed-out registrations are automatically closed; workstation screen will also be locked if strict locking mode is enabled.
Enable room schedules integration	false	true/false	Enables student portal and web services to use room schedules when publishing station and room availability.
Enable Shift Notes	false	true/false	Adds an optional text field for adding notes during shift start and shift end.
Enable Short-Term Accounts	false	true/false	Short-term accounts have "guest" prefix followed by an automatically generated sequence number (e.g. guest1..guestN). Starting with VeraLab 26.2, sequence numbers no longer restart from guest1 each day: a number is reserved when the Add page opens and keeps increasing, and numbers from accounts that were never activated are skipped. They do not allow concurrent logins.
Enable Station Remote Access link on Student	true	true/false	Displays Remote Station Access link on the Student Portal page. Starting with

Setting	Default Value	Range of Values	Description
Portal			VeraLab 26.2, also shows the Remote Station Access tile on the login page; stations under maintenance are never offered for remote connection.
Enable Student Portal	true	true/false	Enables access to read-only portal page where room schedules and LiveMaps are displayed. Starting with VeraLab 26.2, also shows the Student Portal tile on the login page.
Enable Timed Testing	false	true/false	Enables functionality to use computer lab for timed testing. Unlocks computer screens for a specified period of time and locks them when test time expires.
Enforce Counter Sign-in username verification against LDAP	false	true/false	Inherits LDAP configurations defined under LDAP Settings for Client Workstation Authentication.
Enforce Lab Assistant shifts assignment to counters	false	true/false	A counter must be selected during clock in for hourly employees.
Enforce unique MAC address restriction	true	true/false	Should be set to true if Client Identification Method is set to MAC Address.
Expiring Class Registration Warning Time (minutes)	5	1–100	Defines when a warning for an expiring class registration is displayed.
Expiring Registration Warning Time on Clients (minutes)	5	1–100	Defines warning timeout for expiring registrations on client workstation screens. Warning is displayed twice: N minutes before expiration and 1 minute before expiration.
Expiry Notice for Registrations	true	true/false	Enables warnings for expiring registrations on Dashboards.
First Day of Week	Sunday	Monday–Sunday	Used for preferences in

Setting	Default Value	Range of Values	Description
			reports.
Hide student ID in registration dashboards	true	true/false	Masks Student ID and Instructor ID values in Check-In, Waitlist, and Class registration dashboards.
I am Alive Interval (seconds)	30	5–32000	Heartbeat interval between clients and the server.
Idle Session Pop-up Warning Timeout (minutes)	[blank]	numeric	A warning pop-up window will be displayed after the specified time period. Leaving this field blank disables warning pop-ups.
Idle Timeout (minutes)	[blank]	numeric	The system will perform the selected action from Idle Timeout Action if there is no activity within the setting timeframe. Leave blank to disable.
Idle Timeout Action	Logout	Logout, Restart, Shutdown	Specifies what action is performed when client session exceeds the idle timeout threshold.
Ignore password for LDAP users	false	true/false	If enabled, LDAP-enabled clients will still show login screen with password field, however password will not be verified for LDAP users.
Inventory Notification Email	[blank]	Email address(es)	Email notification is sent out when an inventory item reaches its minimum threshold limit. Multiple emails must be separated by comma.
Lab Policy Violation Message	Your access has been restricted…	text	Message appears on user logon screens when number of violations have been exceeded. Must be used together with Alert Lists.
Lock on Network Outage	false	true/false	Client workstations are automatically locked during network outage.
Locking Mode	Liberal	None, Liberal, Strict	Defines whether workstations

Setting	Default Value	Range of Values	Description
			are unlocked/locked automatically during sign-in/out process.
Login Screen Message	[blank]	text (max 100 chars)	Informational message on LDAP-enabled login screens to provide additional login instructions.
Longest session counted (hours)	24	hours	A session longer than this is treated as a machine left logged in rather than a person at a seat, and contributes only up to this many hours to AI Insights. The session itself is not discarded; the number of capped sessions is reported on the AI Insights page, and a high count means logoff is not being detected. New in 26.2.
Maintenance Account Password	nopass	any	Password for the Maintenance Account (see Enable Maintenance Account).
Maintenance Account Username	jsmith	alphanumeric	Username for the Maintenance Account (see Enable Maintenance Account).
Maximum Audit Log Time (days)	180	integers	Defines how long (in days) audit log data is retained. Records older than this are automatically removed.
Maximum Class Registration Time (minutes)	480	1–1440	Maximum time for which a class can be registered to use stations/rooms.
Maximum Length for the 'User ID/School ID' Text Fields (char)	9	1–40	Limits number of characters which can be entered in the User ID/School ID text fields.
Maximum Number of Selected Options	7	3–50	Limits number of options that can be selected simultaneously from drop-down lists.
Maximum Number of Time Periods in	12	3–36	Limits number of time periods that can be displayed

Setting	Default Value	Range of Values	Description
Reports			in reports.
Maximum Rows in CSV output file	100000	unlimited	Limits the number of records in the CSV output file in reports.
Maximum Rows in Excel output file	20000	up to 65000	Limits number of records in the Excel output file in reports.
Maximum Student Registration Time (minutes)	480	30–1440	Defines maximum time for which a student can use/be registered to a station.
Maximum Waitlist Time (minutes)	180	1–1440	Defines maximum time for which a student can remain on waitlist before the warning is displayed.
Network Outage Timeout (seconds)	100	5–32000	Interval of time before client decides that there is a network outage.
Nightly roll-up time (minutes after midnight)	140	0–1439	When the AI Insights roll-up runs each night, as minutes after midnight (140 is 02:20, 0 is midnight, 1439 is 23:59). Only whole days are rolled up, so this changes when the work happens, not what it produces. A new time takes effect after the next run, or immediately if the server is restarted. New in 26.2.
Notification Expiration Time (hours)	72	any	Defines when notifications from the notification queue expire.
Notification Monitor Activity (seconds)	10	any	Defines how frequently the notification monitor checks the notification queue.
Notification Server E-mail Address	notification@your_domain.edu	Any valid e-mail address	E-mail address used as a return address in messages sent by the notification server.
Notification Server Name	VeraLab Notification	any alphanumeric string	The 'From' name which appears in e-mail messages sent by the notification server.
Number of	25	3–300	Defines number of records

Setting	Default Value	Range of Values	Description
Records Displayed per Page			displayed per page when a search, report, etc., returns multiple records.
Number of violations threshold to restrict user access	[blank]	integers	When the number of violations/strikes for a user is exceeded, user access is restricted. Used together with Alert Lists functionality.
Opening hour	7	0–23	The hour the labs open. AI Insights uses it for the occupancy heat map, the quietest window, and turn-away slots. New in 26.2.
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 user passwords.
Payroll Editable Period (days)	60	0–3000	Time window during which employee's submitted hours can be edited.
Payroll Session Timeout (seconds)	300	30–30000	Specifies inactivity interval after which Payroll task session times out.
Permit Launch of Metered Applications on Network Outage	true	true/false	Permits using licensed/metered software during network outage.
Registration Expiry Notice Period (minutes)	5	any positive numeric value	Defines when a warning for an expiring registration is displayed.
SMTP Server	n/a	n/a	Starting with version 8.2, SMTP settings are available under Tools → Settings → Email and Notification → Additional Actions → Change SMTP Settings.
Search Accounts in LDAP	true	true/false	If enabled (default), VeraLab will attempt to validate user credentials by searching both native accounts and LDAP

Setting	Default Value	Range of Values	Description
			directory.
Seats per assistant	60	1–1000	How many occupied seats one lab assistant can cover. AI Insights divides the seats in use at the busiest typical hour by this value, rounds up, and never goes below two, to answer "Do we have enough staff at peak?" and to staff weekends. New in 26.2.
Self-Service session limit for displaying alerts (minutes)	120	any positive numeric value	Time threshold for self-service sessions after which alerts are displayed on Dashboards.
Server Connect Password	welcome	alphanumeric string	The password used to establish client-server connection. Prompted during VeraLab client installation.
ServiceNow Inbound Email	blank	valid email	Inbound email address for logging new incidents with ServiceNow. Keep blank to disable.
Shift Start/End Task Access List	[blank]	IP addresses	Specifies list of IP addresses allowing access to Lab Assistants Shift Start/End functionality. If kept blank, Lab Assistants can start/end shifts from any IP address. Supports CIDR notation.
Short-term Account Session Limit (minutes)	120	any positive numeric value	Maximum session time duration (in minutes) for Short-term accounts.
Short-term Account Warning Message Threshold (minutes)	5	any positive numeric value	Controls how far in advance a warning message is displayed on client stations for short-term accounts.
Show Chart	true	true/false	Allows enabling/disabling the room occupancy chart on the Student Portal page.
Sign-in Mode	Mixed	Mixed/Counter/Self-Service	Selects the sign-in mode for the entire lab. Mixed shows both Counter and Self-Service

Setting	Default Value	Range of Values	Description
			task tabs. Requires re-login after changing.
Time Format	12-hour	12/24-hour	Time format to switch between AM/PM format and military time format.
Use Websockets	false	true/false	Please contact support@veralab.com before enabling.
Wake on LAN Broadcast address(es)	blank	IP address format	Comma-delimited network broadcast address targets for magic packet. If left blank, VeraLab will send magic packets to broadcast addresses of all registered network connections.
Wake on LAN Enabled	false	true/false	If pre-requisites are met, sets computer wake-up remotely over your network.
Wake on LAN Port	7	any available	The destination port for the wake-on-LAN packet. The port must be open on all firewalls between VeraLab server and clients.
Warning for Expiring Class Registrations	true	true/false	Enables warnings for expiring class registrations on Dashboards.
Web Session Timeout (minutes)	30	numeric value	Specifies the time limit for a logged-in VeraLab web application user who has been inactive. Starting with VeraLab 26.2, VeraLab warns the user before the session ends and offers Stay signed in; if the session ends, work is kept when the user signs in again in another tab.