TheGreenBow Activation Server 4.11

Administrator's Guide

Latest update: 2 September 2022
Document reference number: 20220902_AG_TAS_4.11_EN_1.2

Property of TheGreenBow © 2022

www.thegreenbow.com

TheGreenBow is a registered trademark.

Linux® is the registered trademark of Linus Torvalds in the U.S. and other countries.

Debian is a registered trademark owned by Software in the Public Interest, Inc. in the United States, managed by the Debian project.

Any other third-party trademarks mentioned in this document are the property of their respective owners.

All reproduction rights are reserved, including for iconographic or photographic representations. No part of this document may be copied and/or published by any means whatsoever without our express written consent.

All the information provided is subject to modifications at any time and without notice.

Despite our utmost care and attention in producing this document and its regular updates, errors may have been introduced in the information provided. If you notice any issues, please feel free to contact us and let us know. We will make the necessary changes.

Table of contents

1 Overview 1
1.1 Introduction 1
1.2 How TAS works 1
1.2.1 Supported Linux distributions 2
1.2.2 Main administration features 2
1.2.3 Features in TheGreenBow VPN Client 3
1.3 Benefits of using TAS 3
1.3.1 Self-managed 3
1.3.2 Full visibility of your license pool 3
1.3.3 Activate without an internet connection 3
1.4 Main features 4
1.5 Minimum requirements 4
2 Preparing your server 6
2.1 Introduction 6
2.2 Installing required components all in one go 6
2.3 Installing additional PHP modules 7
2.3.1 Checking OpenSSL 7
2.3.2 Installing ionCube Loader 7
3 Configuring the system 8
3.1 Updating the mySQL configuration file 8
3.1.1 Locating the mySQL configuration file 8
3.1.2 Editing the mySQL configuration file 8
3.1.3 Setting lowercase table names to 1 8
3.1.4 Disabling strict SQL mode for transactional storage engines 8
3.2 Updating the Apache configuration file 10
3.3 Updating the PHP configuration file 11
4 Installing TAS software 12
4.1 Installation package 12
4.2 Installation procedure 12
4.3 Configuring the PHP settings 14

4.4 Granting full access rights on the application folder 14
4.5 Restarting the database and webserver daemons 15
5 Updating TAS software 17
6 Activating TAS software 19
7 Using TheGreenBow Activation Server 25
7.1 Overview 25
7.2 Topmost menu items 26
7.2.1 Home 26
7.2.2 Login/Logout 26
7.3 License Management 29
7.3.1 Search 29
7.3.2 Import 30
7.3.3 Logs 31
7.3.4 Manual Activation 34
7.4 Audit 35
7.4.1 License Status 36
7.4.2 All Activity 36
7.5 Admin 37
7.5.1 User List 37
7.5.2 Group Rights 38
7.6 Server 39
7.6.1 About 39
7.6.2 Settings 40
7.7 Resetting license numbers 41
7.7.1 Resetting a single activation 41
7.7.2 Resetting multiple activations 43
7.7.3 Resetting activations from a list of e-mail addresses/IDs 45
7.7.4 Displaying activation details 46
7.8 Importing license numbers 46
7.9 Exporting results 48
7.10 User management 48
7.10.1 Adding a user 49
7.10.2 Editing a user's settings 50
7.10.3 Deleting a user 51
7.10.4 Editing group rights 52

8 Troubleshooting 55

9 Appendix 56

9.1 Installing required components step by step 56

9.1.1 Web server 56

9.1.2 Database system 57

9.1.3 PHP 58

9.2 FAQ 59

9.2.1 Installing required components all in one go in CentOS/RHEL 59

9.2.2 Installing OpenSSL in CentOS/RHEL 60

9.2.3 Updating the Apache configuration file in CentOS/RHEL 60

9.2.4 Granting full access rights on the application folder in CentOS/RHEL 60

10 Contact 62

10.1 Information 62

10.2 Sales 62

10.3 Support 62

Document revision history

Version	Date	Sections/pages concerned	Description of change	Author
1.0	2021-11-26	All	Initial draft	MM, BB
1.1	2022-01-07	All	Minor formatting and layout changes	BB
1.2	2022-08-26	2.2, 2.3, 3.2	Corrected the code sample and inserted a cross-reference to differences in CentOS/RHEL	JLB, BB
		4.4	Added a warning concerning differences in CentOS/RHEL	JLB, BB
		4.5, 5, 6	Added boxed text on entering a secure server address	AL, BB
		9.2	Added an FAQ with code examples for CentOS/RHEL	JLB, BB

1 Overview

1.1 Introduction

Thank you for downloading our TheGreenBow Activation Server (TAS) software for Linux.

TAS is marketed on the basis of an annual subscription. The subscription includes customer-specific support and software maintenance.

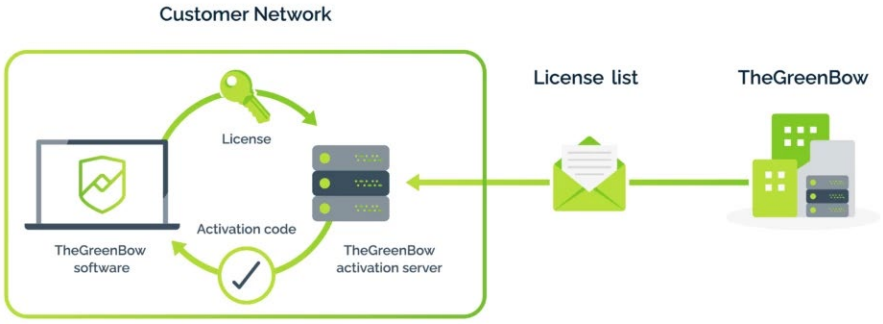
This document describes how to install and activate TheGreenBow Activation Server, as well as its features.

The explanations provided in this document are based on an installation in Linux Debian 10 with MariaDB and PHP 7. While other configurations are possible, we recommend using this setup.

1.2 How TAS works

A software license is used to activate TheGreenBow VPN Clients. To validate the license, TheGreenBow VPN Clients will connect to our online activation server over the internet.

TheGreenBow VPN Clients can also be deployed on in-house networks that do not connect to the internet. In this case, our TheGreenBow Activation Server (TAS) allows you to manage VPN client licenses directly within the organization's or company's local network.



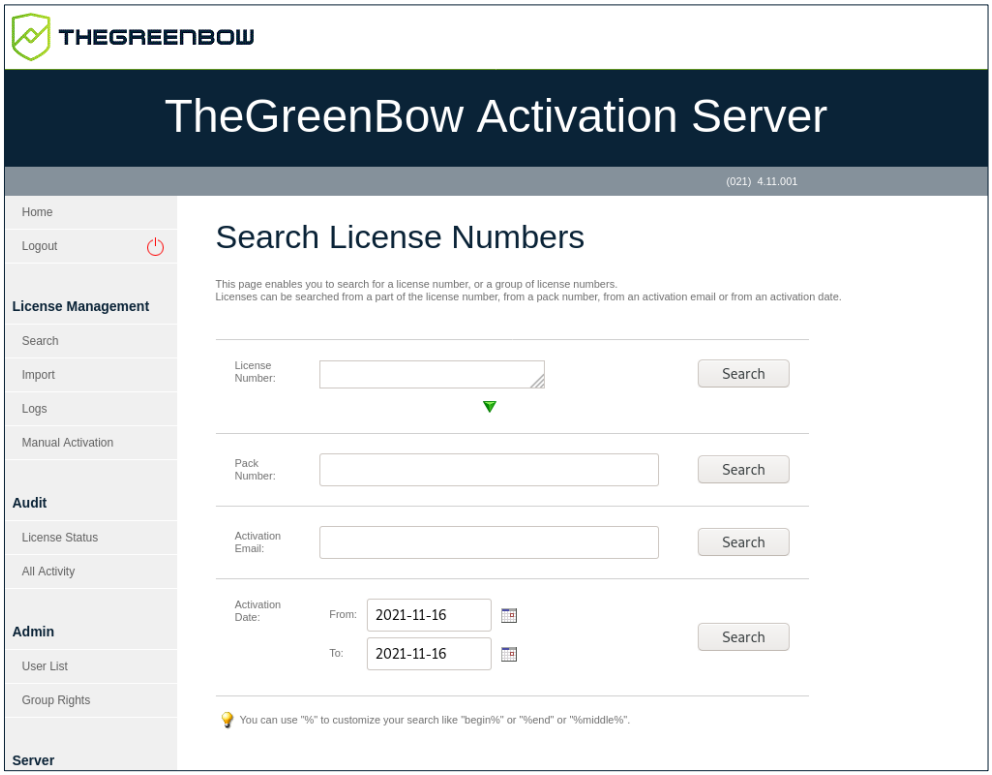
TAS is a software that can be installed on various Linux platforms. Based on Apache, mySQL or MariaDB and PHP, it comes complete with documentation explaining how to configure a Linux server to manage TheGreenBow VPN Client licenses and activations.

1.2.1 Supported Linux distributions

The following Linux distributions are supported:

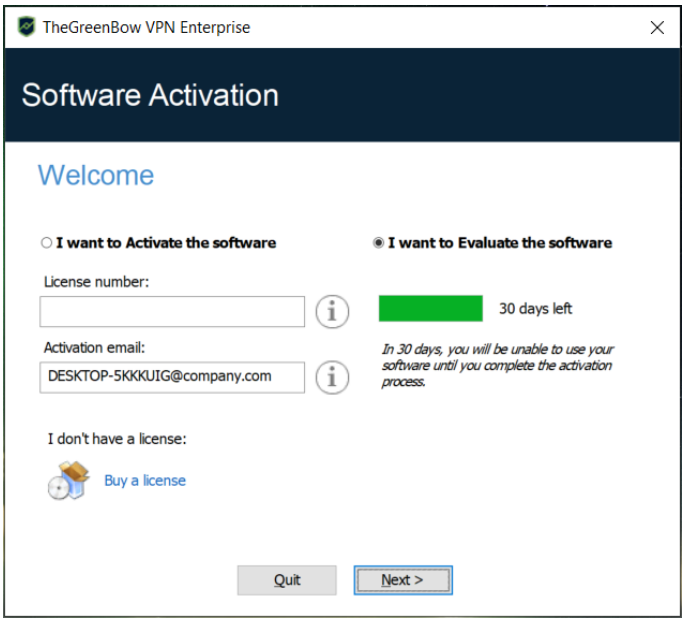
- Linux Debian 8.x, 9.x and 10.x
- Linux CentOS 7.x
- Linux RedHat EL 7.x, 8

1.2.2 Main administration features



- Import a file with a list of licenses provided by TheGreenBow
- Support for individual and master licenses
- License search: activated, not yet assigned, by activation date or by identifier
- Export search results to a CSV file
- Reset an activation (e.g. when a workstation is lost or stolen)
- Activity logs (successful activations, failed attempts, etc.), including search function

1.2.3 Features in TheGreenBow VPN Client



- Explicit activation performed by the user in the VPN client's interface
- Silent and automatic activation during VPN client installation
- Activation within a VPN tunnel
- Reset activation when the VPN client is uninstalled

1.3 Benefits of using TAS

1.3.1 Self-managed

Manage installation on your users' workstations as well as your deployment policy entirely on your own: activations, reactivations, assignment of VPN licenses, etc.

1.3.2 Full visibility of your license pool

Keep full control of your license pool. TAS provides you full visibility of all your licenses: breakdown by OS, by installed versions, log histories, etc.

1.3.3 Activate without an internet connection

If you need to operate in full isolation, TAS allows you to activate licenses without needing any internet access.

1.4 Main features

The following are the main features of TAS:

Supported language	English
Search license and view activation	Search any license number in the database to check whether it has been activated and when
Reset license numbers	License numbers can be reset so that the VPN software can be installed on another computer
Import license numbers	License numbers can be imported using XML files
Manual activation	VPN software activation can be performed manually in addition to online activation
View logs	All logs containing software activation information for all licenses can be searched
Export results	Export results of license or log search to a CSV file
Audit	Generate reports for TheGreenBow
Web application	Can be installed on any web server

1.5 Minimum requirements

TheGreenBow Activation Server (TAS) works on several Linux distributions. However, it has only been tested on Debian GNU Linux 10 and we therefore

recommend using this distribution. The minimum requirements for installing the software are as follows:

Operating System	**Linux Debian** 8.x, 9.x or 10.x OR **Linux CentOS** 7.x / **Linux RHEL** 7.x
CPU	1.8 GHz or higher
Memory	1 GB or higher
Disk space required	20 MB (for software, allow 100 MB for database)
Database system	**mySQL** 5.1.30 or greater **MariaDB** 5.x or **MariaDB** 10.x
PHP	PHP 7 or greater OR PHP 5.3 or greater
Additional PHP modules	**OpenSSL** 1.1.1 Multibyte String (**mbstring**) **ionCube** Loader (latest corresponding PHP package) MySQLi extension XML extension
Apache	Apache 2.2.x or higher
netstat command	net-tools package

2 Preparing your server

2.1 Introduction

Before you install TheGreenBow Activation Server (TAS), you need to make sure that all the required components are installed and up to date on your server (see section 1.5 Minimum requirements).

You can install and update most of the required components in one go or choose to install them successively one by one. The corresponding procedures are described below.

All the commands described below are for Debian GNU/Linux 10.

2.2 Installing required components all in one go

If you're starting out from scratch on a new machine that does not have a database system, PHP, or web server installed, you can perform all the required installation steps using the commands below.

If you prefer to proceed step by step for each of the required components, refer to the section 9.1 Installing required components step by step in the Appendix.

To install or update the Apache web server, MariaDB server, and PHP extensions all in one go, run the following command as root:

```
sudo apt-get -y update && sudo apt-get -y install
apache2 libapache2-mod-php php mariadb-server php-mysql
php-xml php-mbstring
```

If you have not already installed and configured MariaDB, you will be prompted to set a password for the mySQL "root" user. We highly recommend that you set this password.

To find out which are the corresponding commands in CentOS/RHEL, refer to section 9.2 FAQ.

To set the password for the mySQL "root" user, run the following command:

```
mysql_secure_installation
```

To check that the MariaDB installation is OK, run the following command:

```
sudo mysql -u root -p -e 'show databases;'
```

You should see a list of the installed databases.

Now, proceed with the installation of the additional PHP modules. To do so, refer to section 2.3 Installing additional PHP modules below.

2.3 Installing additional PHP modules

TheGreenBow Activation Server requires the following additional modules to be installed:

- OpenSSL 1.1.1 or higher
- ionCube Loader, latest version corresponding to the PHP package

2.3.1 Checking OpenSSL

OpenSSL is already available in most Linux distributions. To check the installed version, run the following command:

```
openssl version -a
```

If you need to install or update OpenSSL, run the following command:

```
sudo apt install openssl
```

To find out which are the corresponding commands in CentOS/RHEL, refer to section 9.2 FAQ.

2.3.2 Installing ionCube Loader

Download the ionCube loader package from the ionCube website: http://www.ioncube.com/loaders.php. The installation instructions can be found in the `readme.txt` file included in the downloaded archive, as well as on the loader download page.

You have successfully prepared your server. You can now proceed with configuring the system. To do so, refer to chapter 3 Configuring the system below.

3 Configuring the system

Once all the software components listed in section 1.5 Minimum requirements have been installed, please check the following system settings:

- mySQL configuration file
- Apache configuration file
- PHP configuration file

3.1 Updating the mySQL configuration file

3.1.1 Locating the mySQL configuration file

The mySQL configuration file, named `my.cnf`, is usually located under `/etc/mysql/`. If this is not the case, you can run the following command in a Terminal window to locate it:

```
sudo find / -name my.cnf
```

3.1.2 Editing the mySQL configuration file

Use a command line text editor (e.g. nano) to edit the `my.cnf` file by running the following command in a Terminal window:

```
sudo nano /etc/mysql/my.cnf
```

3.1.3 Setting lowercase table names to 1

Under section `[mysqld]`, set the lowercase table names to 1. The entry should appear as follows:

```
[mysqld]
lower case table names=1
```

If the section does not exist, you can add it by simply copying the above two lines to the end of the `my.cnf` file.

3.1.4 Disabling strict SQL mode for transactional storage engines

If you use MariaDB 10.2 and higher, you must disable the strict SQL mode for transactional storage engines.

Start by determining whether the mode is enabled. If it is, you will need to add a line to the mySQL configuration file to disable it permanently. To do this, proceed as follows:

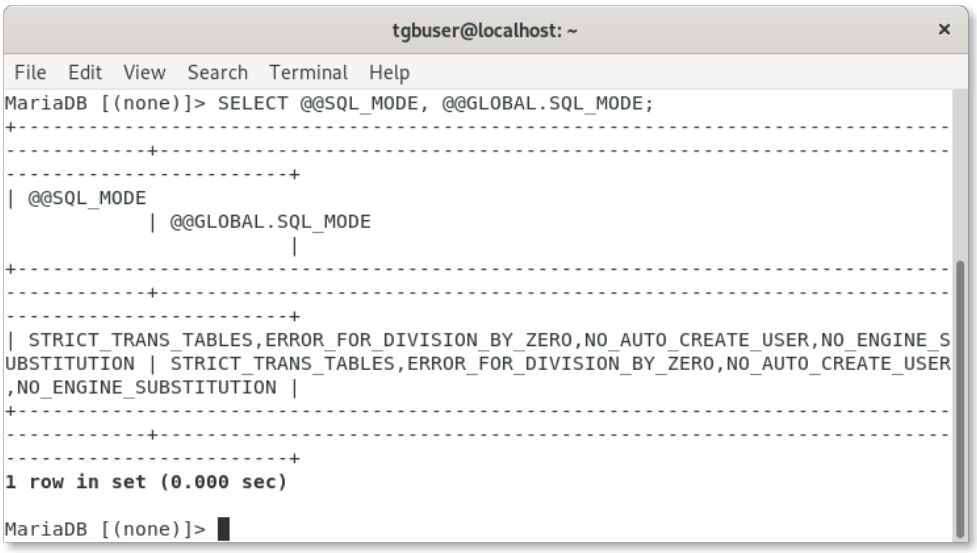
1. Open a Terminal window.
2. Run MariaDB as root or using superuser privileges to determine which SQL modes are enabled:

```
sudo mysql -u root -p
```

3. Run the following command in MariaDB to list the SQL mode and global SQL mode variables:

```
SELECT @@SQL_MODE, @@GLOBAL.SQL_MODE;
```

The command should return something like the following:



If neither of these variables contains the `STRICT_TRANS_TABLES` mode, you can proceed with updating the Apache configuration file (see section 3.2 Updating the Apache configuration file below).

If either or both these variables contain the `STRICT_TRANS_TABLES` mode, proceed as follows:

4. Open a new Terminal window and edit the `my.cnf` SQL configuration file as described above (see section 3.1.2 Editing the mySQL configuration file).
5. Add the following line under section `[mysqld]`:

```
sql-mode = "[modes]"
```

6. Return to the Terminal window in which MariaDB is running and copy all the SQL modes except `STRICT_TRANS_TABLES`.
7. Switch back to the Terminal window in which you are editing the `my.cnf` file and paste the copied modes over *[modes]* in the line you just inserted (keep the quotes).

   The entry should now look like the following:

```
[mysqld]
lower_case_table_names=1
sql-mode =
"ERROR_FOR_DIVISION_BY_ZERO,NO_AUTO_CREATE_USER,NO_ENGIN
E_SUBSTITUTION"
```

You have successfully updated the mySQL configuration file. You can now proceed with updating the Apache configuration file. To do so, refer to the next section.

3.2 Updating the Apache configuration file

The Apache configuration file, named `apache2.conf`, is usually located under `/etc/apache2/`. If this is not the case, you can run the following command in a Terminal window to locate it:

```
sudo find / -name apache2.conf
```

Use a command line text editor (e.g. nano) to edit the `apache2.conf` file by running the following command:

```
sudo nano /etc/apache2/apache2.conf
```

To find out which are the corresponding commands in CentOS/RHEL, refer to section 9.2 FAQ.

Add the following line to the end of the file:

```
AddType application/x-httpd-php .php .php3 .html
```

You have successfully updated the Apache configuration file. You can now proceed with updating the PHP configuration file. To do so, refer to the next section.

3.3 Updating the PHP configuration file

The PHP configuration file, named `php.ini`, is usually located under `/etc/php/7.3/apache2/`. If this is not the case, you can run the following command in a Terminal window to locate it:

```
sudo find / -name php.ini
```

You need to create a temporary directory for uploads, set the access rights to allow all users to run, modify, and read the directory (777), and then set the directive `upload_tmp_dir` with the path to the directory in the `php.ini` file.

We recommend creating the following directory to avoid `base_dir` issues: `/var/www/html/http_upload/`.

To do this proceed as follows:

1. Create the `http_upload` directory in desired location:

```
sudo mkdir /var/www/html/http_upload/
```

2. Give all users full access rights to the directory:

```
sudo chmod 777 -R /var/www/html/http_upload/
```

3. Use a command line text editor (e.g. nano) to edit the `php.ini` file by running the following command:

```
sudo nano /etc/php/7.3/apache2/php.ini
```

4. Set the directive `upload_tmp_dir` with the path to the directory. The entry in the `php.ini` file should appear as follows:

```
; Temporary directory for HTTP uploaded files (will use
; system default if not specified).
upload_tmp_dir = /var/www/html/http_upload/
```

You have successfully configured your system. You can now proceed with installation. To do so, refer to chapter 4 Installing TAS software below.

4 Installing TAS software

4.1 Installation package

The installation package consists of PHP script files and the MariaDB database file.

4.2 Installation procedure

To install TheGreenBow Activation Server (TAS), proceed as follows:

1. Open a Terminal window and navigate to the directory where you stored the mySQL package.
2. Import the mySQL package from the command line using the root login on the mySQL server:

```
sudo mysql -u root -p <osace.sql
```

   This creates the following databases on the mySQL server:

   - `tgbqualif`
   - `tgbqualif_private`

3. Run `mysql`:

```
sudo mysql
```

4. Create a new user account on the mySQL server:

```
CREATE USER 'tas_user'@localhost IDENTIFIED BY
'password1';
```

   You can configure any username of your choice, as long as the name follows the mySQL naming conventions.

5. Grant the user the `SELECT`, `INSERT`, `UPDATE`, `DELETE`, `CREATE`, `DROP`, `ALTER`, `LOCK TABLES` privileges on both databases created above, by running the following commands successively:

```
GRANT SELECT, INSERT, UPDATE, DELETE, CREATE, DROP,
ALTER, LOCK TABLES ON qualiftgb.* TO
'tas_user'@'localhost';
GRANT SELECT, INSERT, UPDATE, DELETE, CREATE, DROP,
ALTER, LOCK TABLES ON qualiftgb_private.* TO
'tas_user'@'localhost';
```

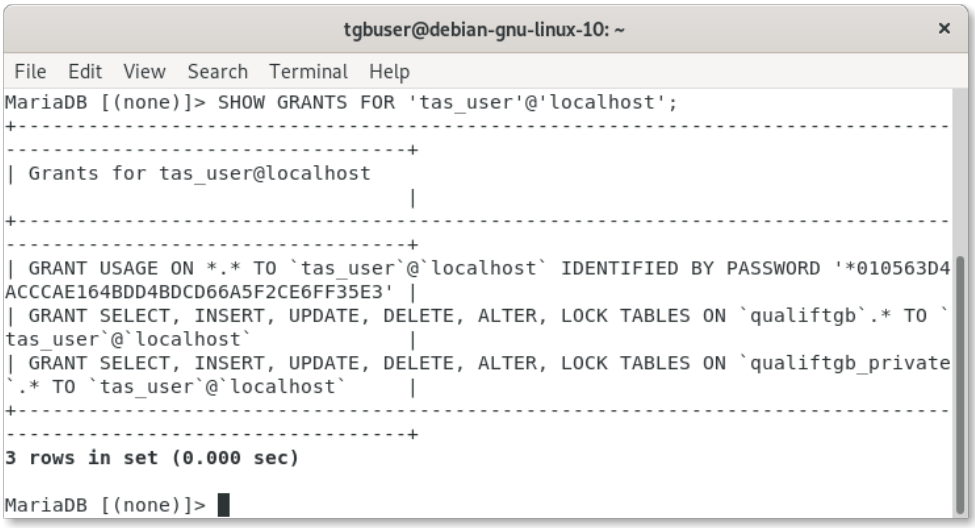
6. Flush the user privileges to reload the grant tables:

```
FLUSH PRIVILEGES;
```

7. Check the privileges granted to the user you created:

```
SHOW GRANTS FOR 'tas_user'@'localhost';
```

The command should return something like the following:



8. Run the following command to exit MariaDB:

```
exit;
```

9. Unpack the `tgbosace_server.tar.gz` PHP script file into the target server:

```
sudo tar -xf tgbosace_server.tar.gz -C /var/www/html/
```

We recommend unpacking the script file to the document root (i.e. `/var/www/html/`) as the `%{DOCUMENT_ROOT}` variable is preconfigured for this location.

4.3 Configuring the PHP settings

Once the software has been installed, you need to configure the PHP settings. To do this follow the steps below:

1. Open a Terminal window and navigate to the `/osace_library/` directory, e.g. `/var/www/html/osace_library/`.
2. Use a command line text editor (e.g. nano) to edit the `settings.php` file by running the following command:

```
sudo nano settings.php
```

3. Set the login name and password for the user used to import the databases into mySQL (e.g. root) as well as for the user created in step 4 of section 4.2 Installation procedure.

This should be the mySQL password not the system password.

4. Enter the license number for your TAS under `OSACE_SERVER_LICENSE` by replacing `123456-123456-123456-123456` with the number you have received from TheGreenBow.
5. Exit and save the changes you have made.

4.4 Granting full access rights on the application folder

You need to grant full access rights on the `/osace_files/` application folder, e.g. `/var/www/html/osace_files/`, in order for the software to run. To do this, open a Terminal window, navigate to the parent folder and run the following command:

```
sudo chmod -R 777 osace_files
```

In CentOS/RHEL, since the SELinux security module is enabled by default, you must add specific permissions (see section 9.2 FAQ).

4.5 Restarting the database and webserver daemons

Before you start using the software, you need to restart the database and webserver daemons.

To do this, open a Terminal window and run the following commands successively:

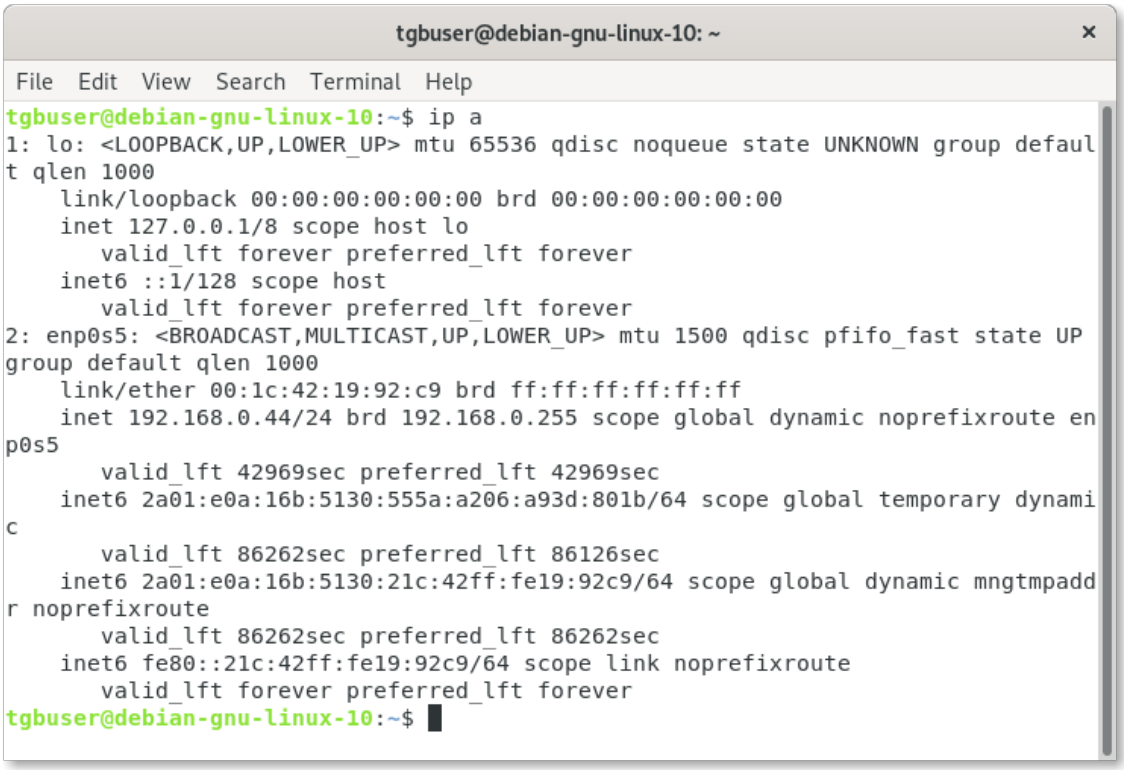
```
sudo systemctl restart mariadb.service
sudo systemctl restart apache2
```

You can now go to the TAS homepage to complete the installation and activate your server.

To find out the IP address of your web server, run the following command in a Terminal window:

```
ip a
```

You should see something like the following:



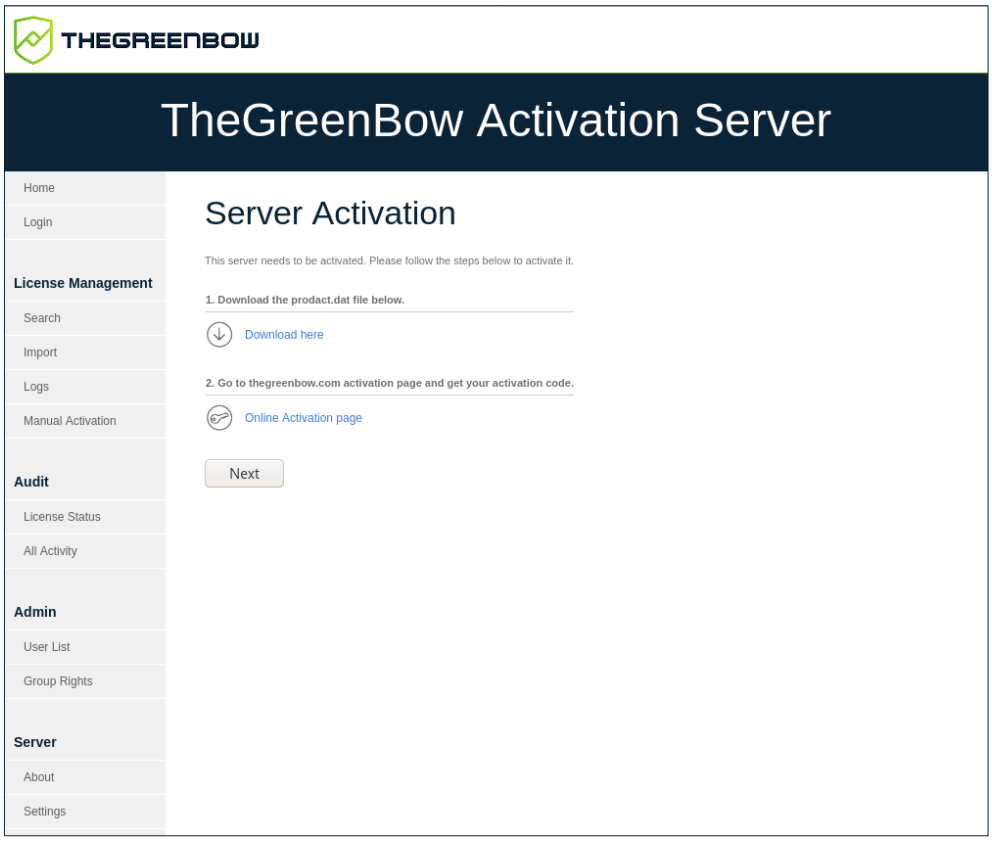
If you are running TAS on a virtual machine, make sure to select bridged networking for the server to be visible to other machines on your network.

To access the TAS homepage, open a web browser and enter the following address:

```
http://[server_IP_address]/osace/
```

If you use a secure connection to your server over port 443, you must enter the complete address including the `https` prefix, e.g. `https://www.myserver.com/osace/`. Otherwise, you can enter the URL without the `http` prefix, e.g. `www.myserver.com/osace/`.

You should now see the following page:



If this is not the case, you can enter the following address to troubleshoot the system:

```
http://[server_IP_address]/osace/checkSystem.php
```

If you are unable to resolve the issues, contact customer support: https://www.thegreenbow.com/form.html?lang=en.

You have successfully installed the TAS software. You can now proceed with activation. To do so, refer to chapter 6 Activating TAS software below.

5 Updating TAS software

To upgrade TheGreenBow Activation Server (TAS) follow the steps below:

1. Open a Terminal window and navigate to the directory where the software has been installed, e.g. `/var/www/html/`.
2. Back up the settings file by running the following command:

```
sudo cp /var/www/html/osace_library/settings.php
~/settings.php.bak
```

3. Run the following command to delete the `osace` folder:

```
sudo rm -r osace
```

4. Unpack the `tgbosace_server.tar.gz` PHP script file into the target server:

```
sudo tar -xf tgbosace_server.tar.gz -C /var/www/html/
```

We recommend unpacking the script file to the document root (i.e. `/var/www/html/`) as the `%{DOCUMENT_ROOT}` variable is preconfigured for this location.

5. Restore the PHP settings by running the following command:

```
cp ~/settings.php.bak
/var/www/html/osace library/settings.php
```

6. Set the mySQL user login name and password (see section 4.3 Configuring the PHP settings).
7. Grant full access rights on the `/osace_files/` application folder, e.g. `/var/www/html/osace_files/`. To do this, open a Terminal window, navigate to the parent folder and run the following command:

```
sudo chmod -R 777 osace_files
```

8. Go to the TAS homepage to complete installation and activate your server.

   To do this, open a web browser and enter the following address:

```
http://[server_IP_address]/osace/
```

If you use a secure connection to your server over port 443, you must enter the complete address including the `https` prefix, e.g. `https://www.myserver.com/osace/`. Otherwise, you can enter the URL without the `http` prefix, e.g. `www.myserver.com/osace/`.

6 Activating TAS software

Once the software is installed, you must activate TheGreenBow Activation Server (TAS) before being able to use it.

In case you need to re-activate your server, e.g. after having extended your TAS license subscription, you can access the Activation Procedure from the **About** page (left menu).

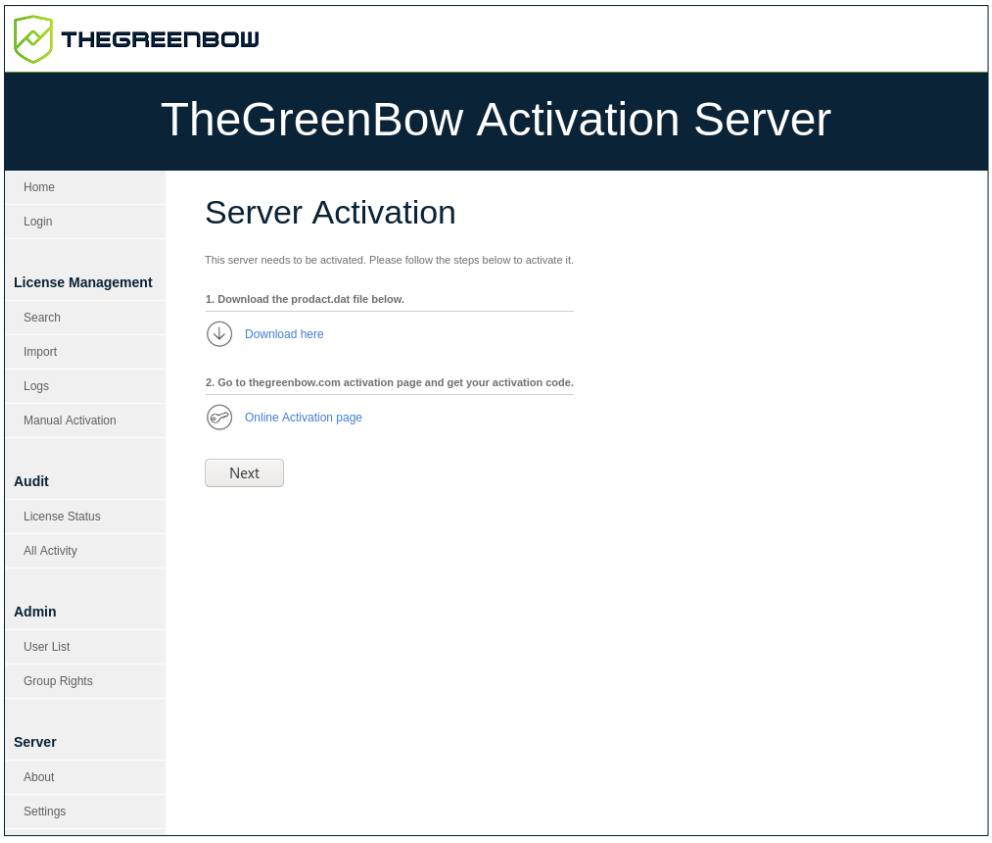
To activate TAS, proceed as follows:

1. Open a web browser and enter the following address:

```
http://[server_IP_address]/osace/
```

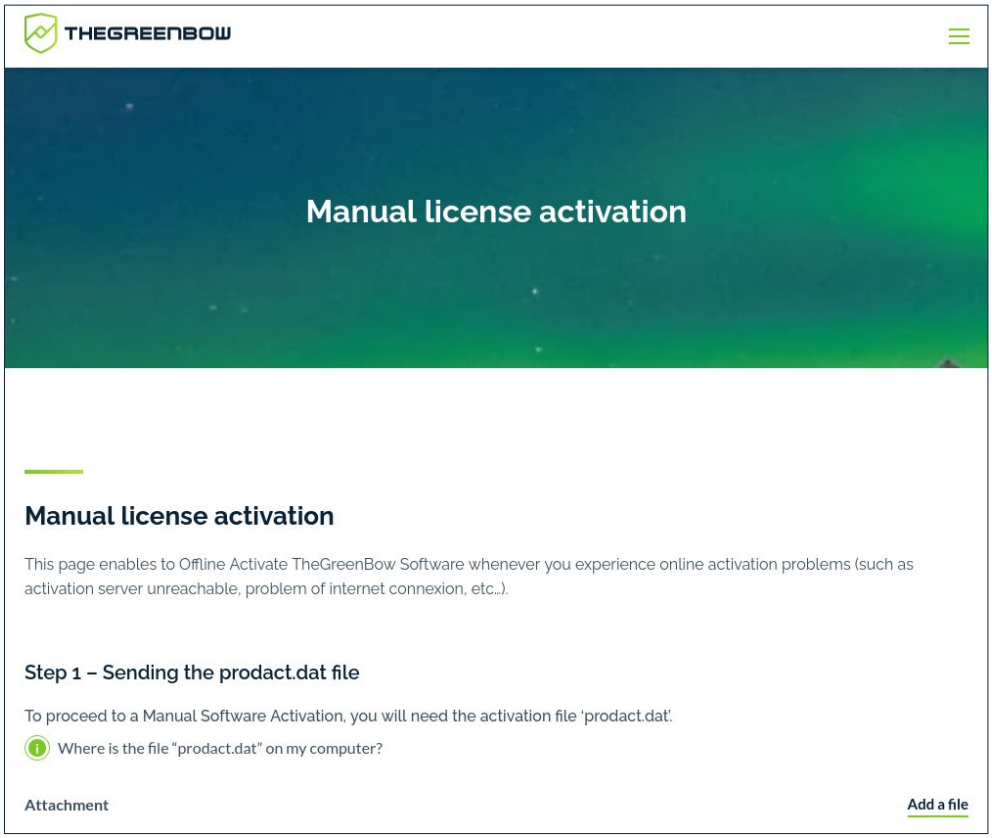
If you use a secure connection to your server over port 443, you must enter the complete address including the `https` prefix, e.g. `https://www.myserver.com/osace/`. Otherwise, you can enter the URL without the `http` prefix, e.g. `www.myserver.com/osace/`.

The following page is displayed:



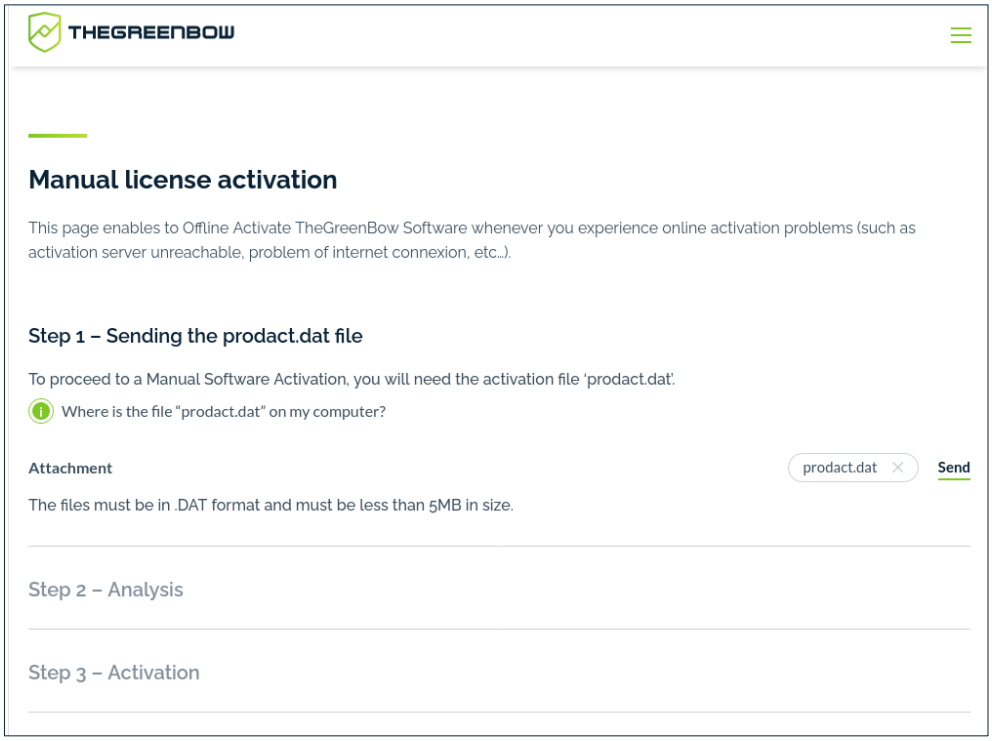
2. Click **Download here** to download the `prodact.dat` activation file from your web server.
3. Click **Online Activation page** to open the manual activation page on TheGreenBow online server (https://www.thegreenbow.com/en/support/license-management/manual-license-activation/).

   The following page is displayed:

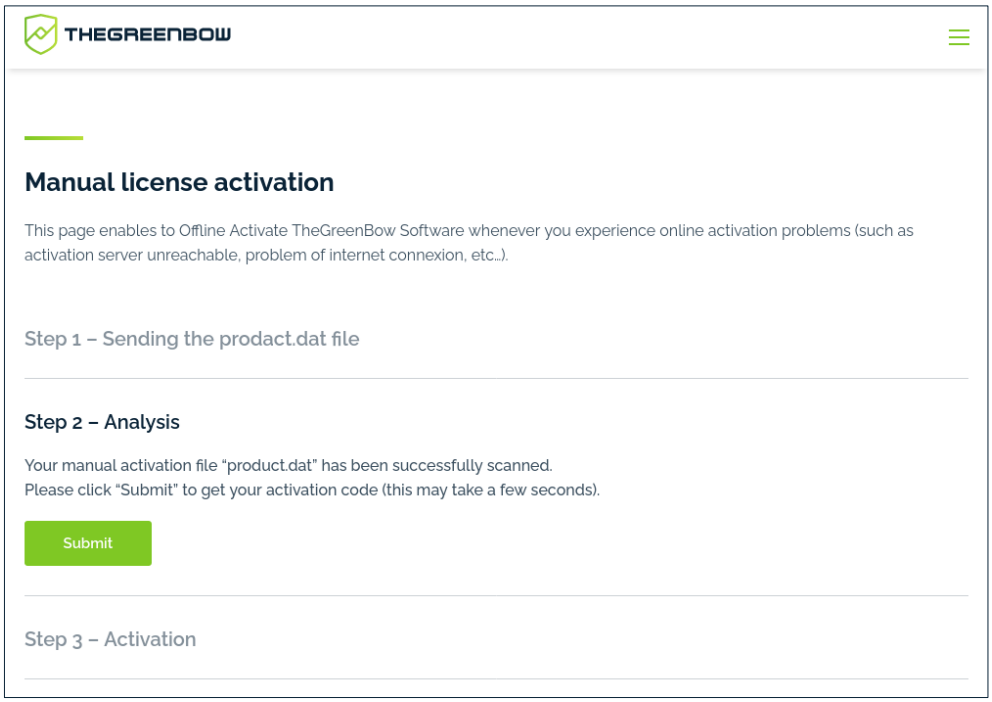


4. Click **Add a file** and select the `prodact.dat` file you downloaded.

The page now appears as follows:

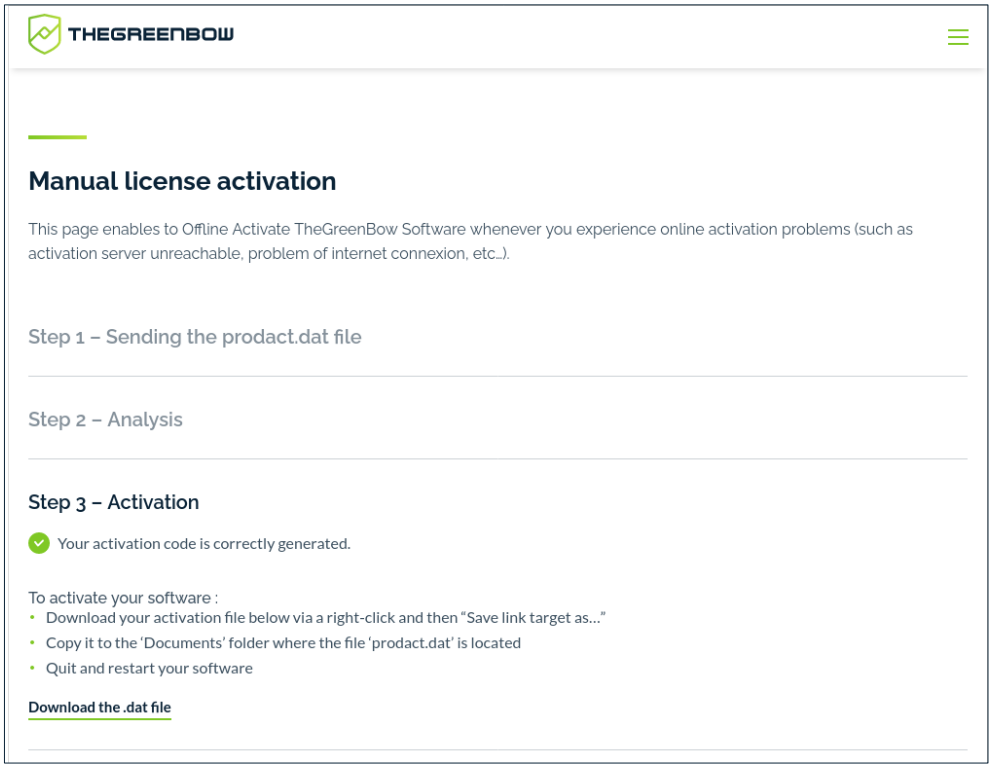


5. Click **Send** to upload the activation file to the online activation server. The following page is displayed:



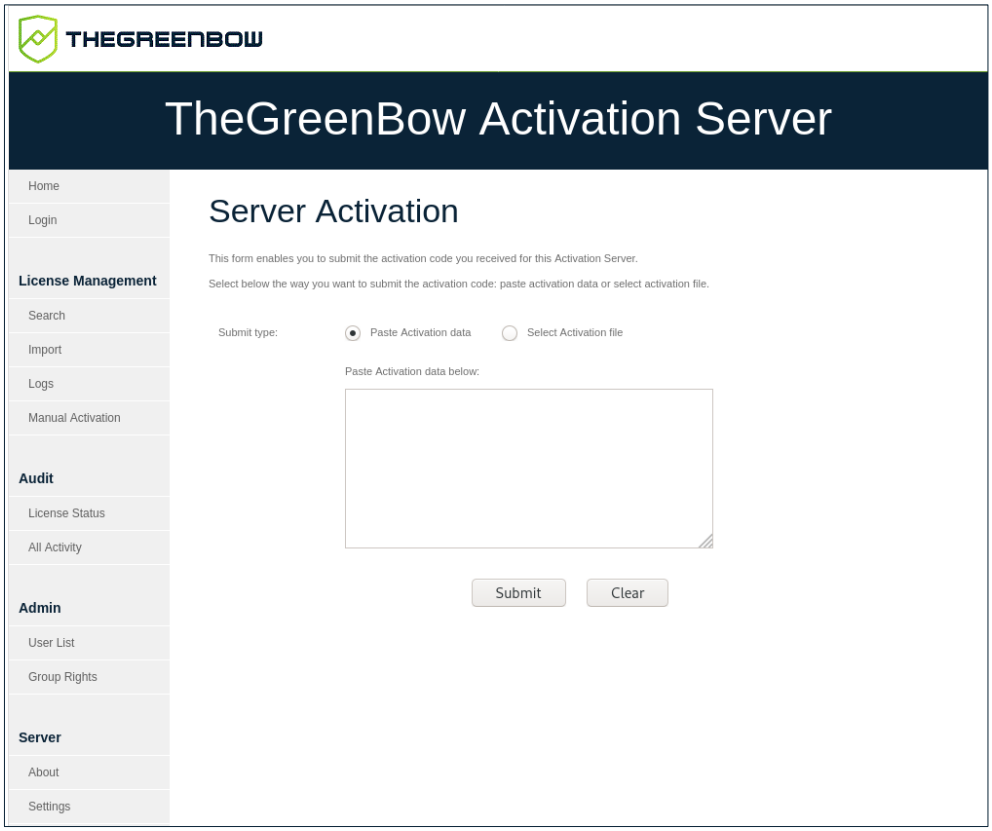
6. Click **Submit**.

The following page is displayed:

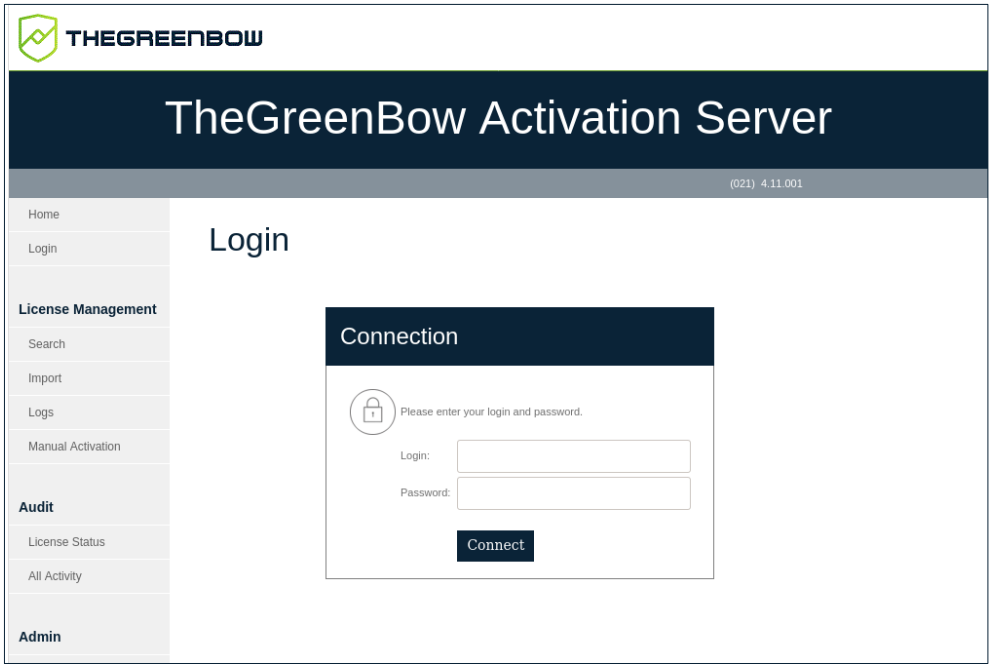


7. Right-click the **Download the .dat file** link to the file with the activation code named `tgbcod_YYYYMMDD_XXXX.dat` and save the file to the desired location on your machine.
8. Return to the TAS activation page and click **Next**.

The following page is displayed:



9. Click **Select Activation file**. A **Browse...** button (or equivalent depending on your browser) appears. Click **Browse...** and select the activation file from the location where you saved it. Then, click **Submit**. The TAS **Login** page is displayed:



Should activation fail, you can try to copy and paste the activation data into the activation page. To do this, return to the activation page, click **Paste Activation data**, open the `tgbcod_YYYYMMDD_XXXX.dat` file in a text editor, copy the activation code and paste it into the activation page.
If this still does not work, contact customer support: https://www.thegreenbow.com/form.html?lang=en.

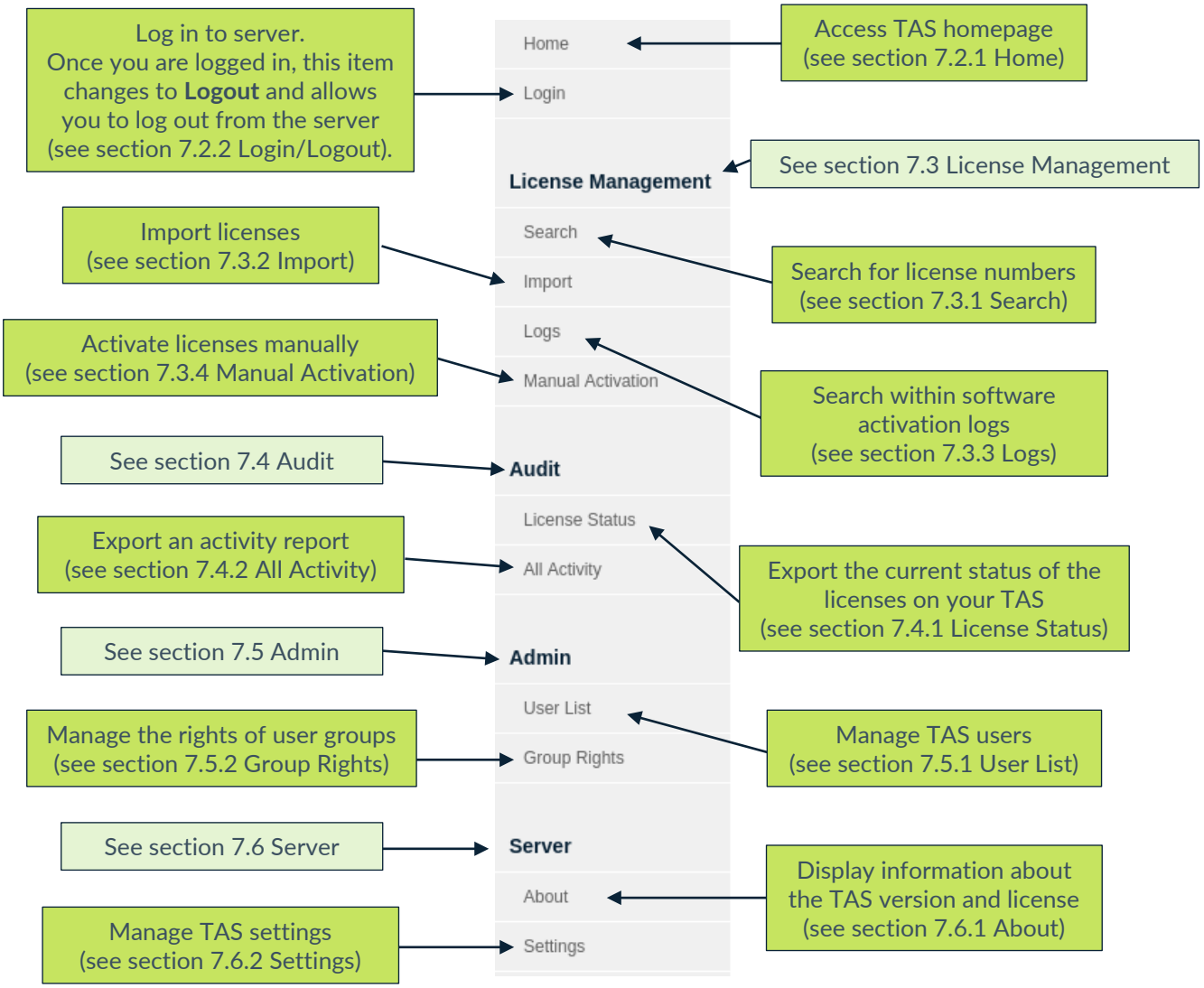
You have successfully activated the TAS software. You can now start using it. To find out how, refer to chapter 7 Using TheGreenBow Activation Server below.

7 Using TheGreenBow Activation Server

7.1 Overview

Once TheGreenBow Activation Server (TAS) has been installed you can start using it immediately.

The TAS user interface is straightforward and is based on a menu shown on the left side of the page that contains several items grouped under various headings:



Each item will be described below in the same order as it appears in the menu. You can also click the links in the above descriptions to directly access the corresponding section.

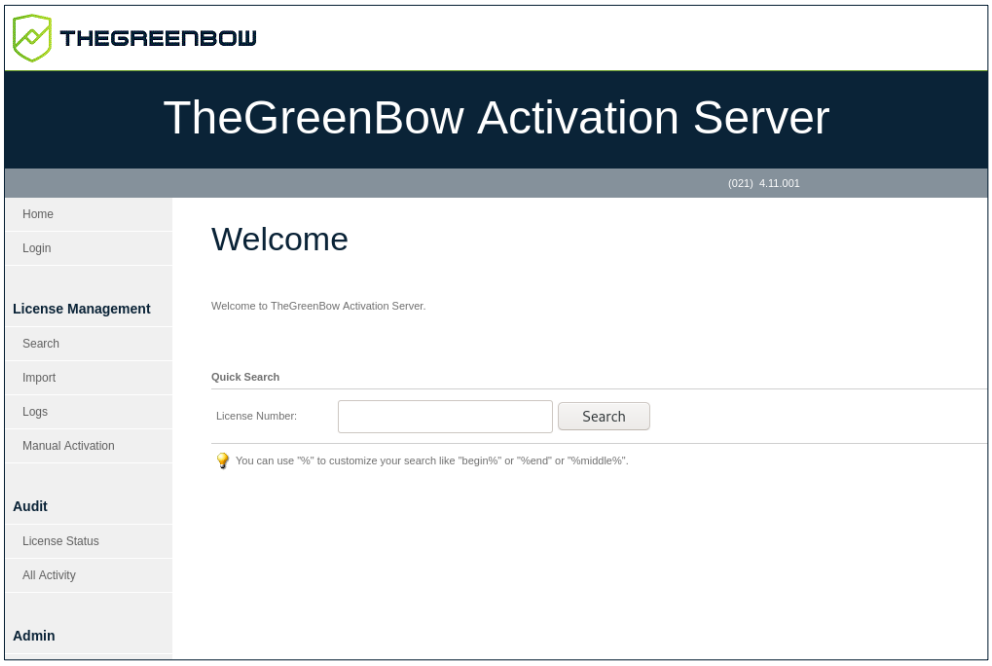
7.2 Topmost menu items

The two topmost menu items are not grouped under any heading and are self-explanatory:

- **Home** gives access to the TAS homepage (see section 7.2.1 Home).
- **Login** allows you to log in to the server. Once you are logged in, this item changes to **Logout** and allows you to log out from the server (see section 7.2.2 Login/Logout).

7.2.1 Home

The TAS homepage is the default page that is displayed when you browse to the TAS URL. You must log in to use any of the available functions (see section 7.2.2 Login/Logout).

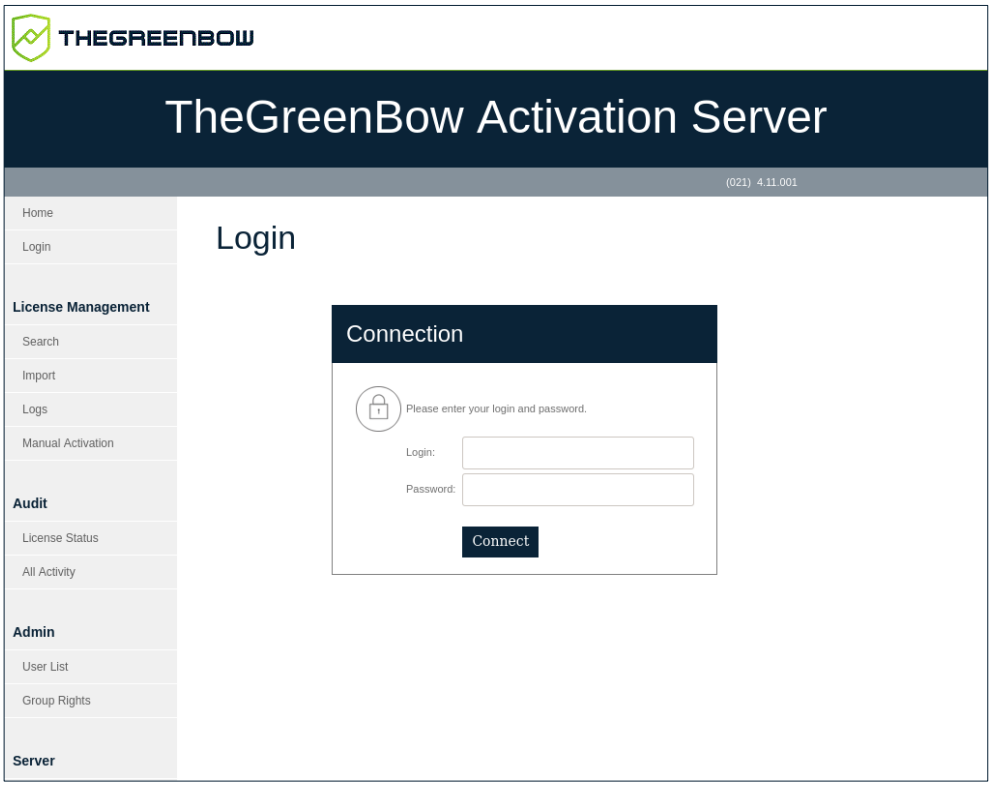


It contains a **Quick Search** field that allows you to quickly search for one or several license numbers.

You can use the "%" wildcard character to represent one or several characters in your search, e.g. "begin%", "%end" or "%middle%".

7.2.2 Login/Logout

As its name suggests, the **Login** item opens the **Login** page used to log in to TAS.



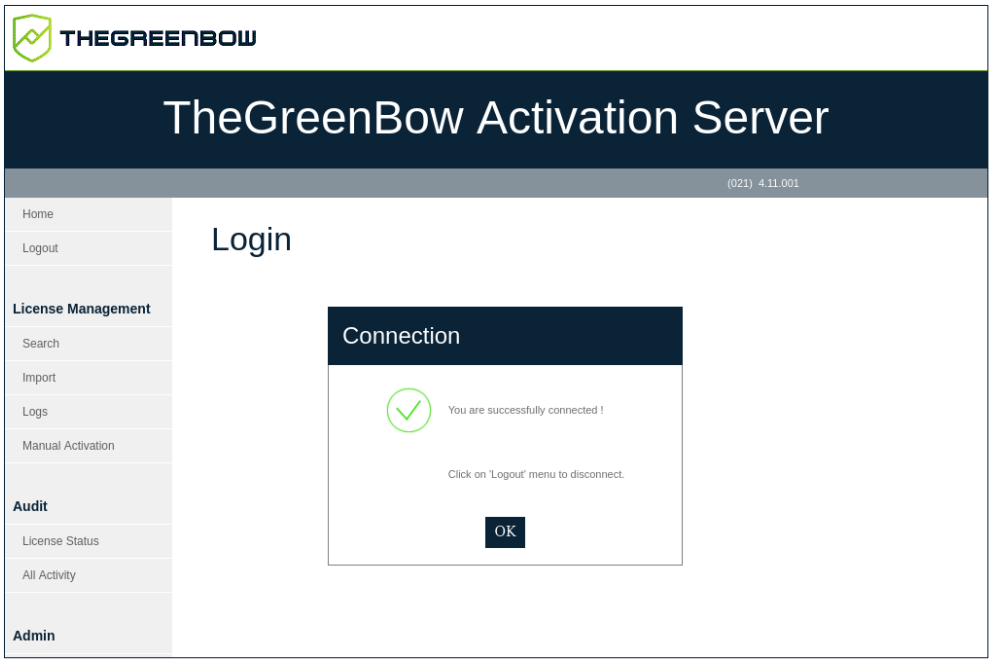
The first time you use TAS, you need to log in with the following default credentials:

- **Login**: usertas
- **Password**: pass123

We strongly recommend that you change the password on the **Settings** page after the first login. Refer to section 7.6.2 Settings for more details on how to set a new password.

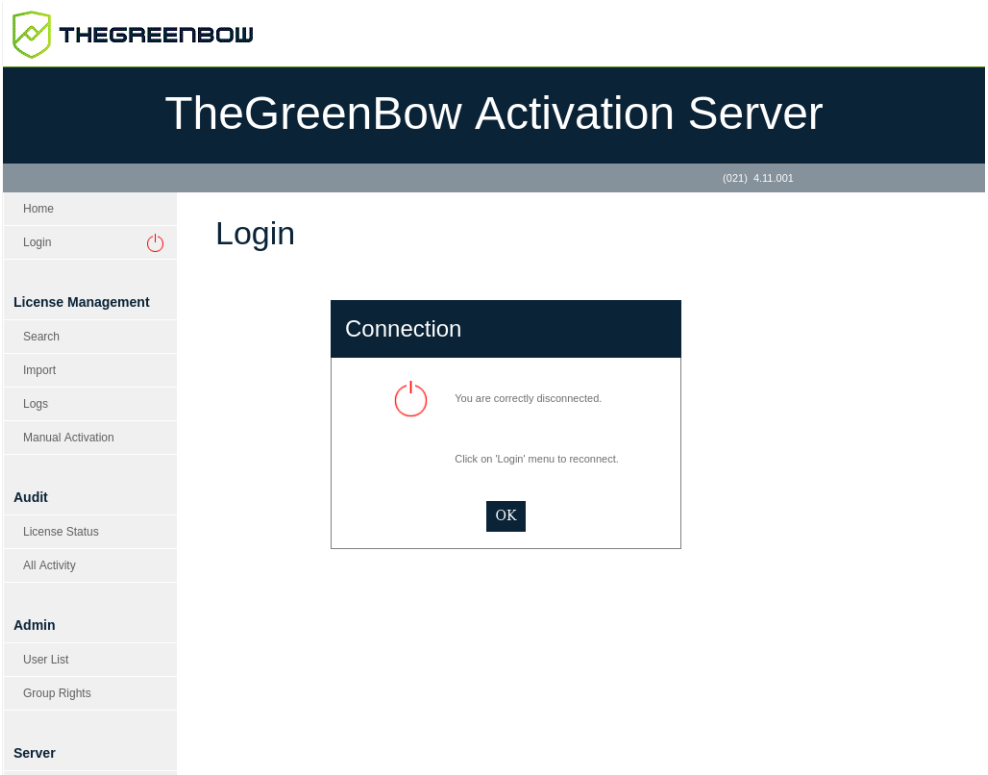
To log in to TAS, proceed as follows:

1. Enter the login name in the **Login** field.
2. Enter the password in the **Password** field.
3. Click **Connect**. A message is displayed to confirm that the login succeeded. The **Login** menu item changes to **Logout**.



4. Click **OK** to confirm the message. The TAS homepage is displayed.

To log out from TAS, click **Logout** in the left menu. You are immediately logged out and the following page is shown:



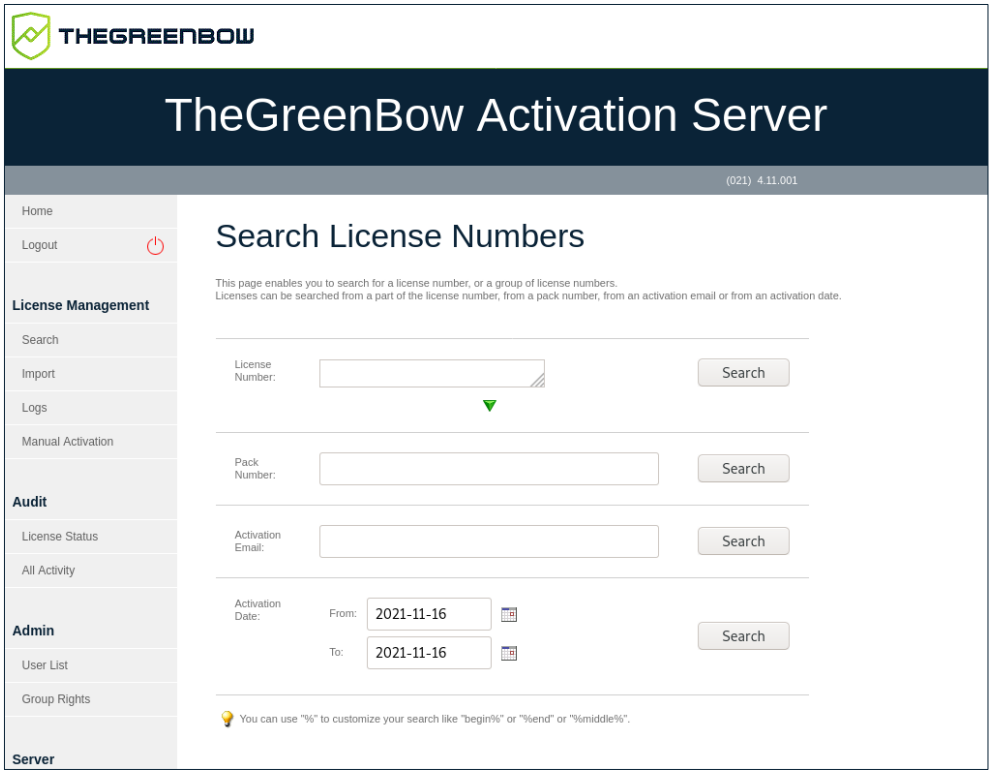
7.3 License Management

The **License Management** heading contains the following menu items:

- **Search** allows you to search for license numbers (see section 7.3.1 Search).
- **Import** allows you to import licenses (see section 7.3.2 Import).
- **Logs** allows you to search within software activation logs (see section 7.3.3 Logs).
- **Manual Activation** allows you to activate licenses manually (see section 7.3.4 Manual Activation).

7.3.1 Search

The **Search** menu item opens the **Search License Numbers** page.



TheGreenBow Activation Server allows you to search for license numbers according to the following criteria:

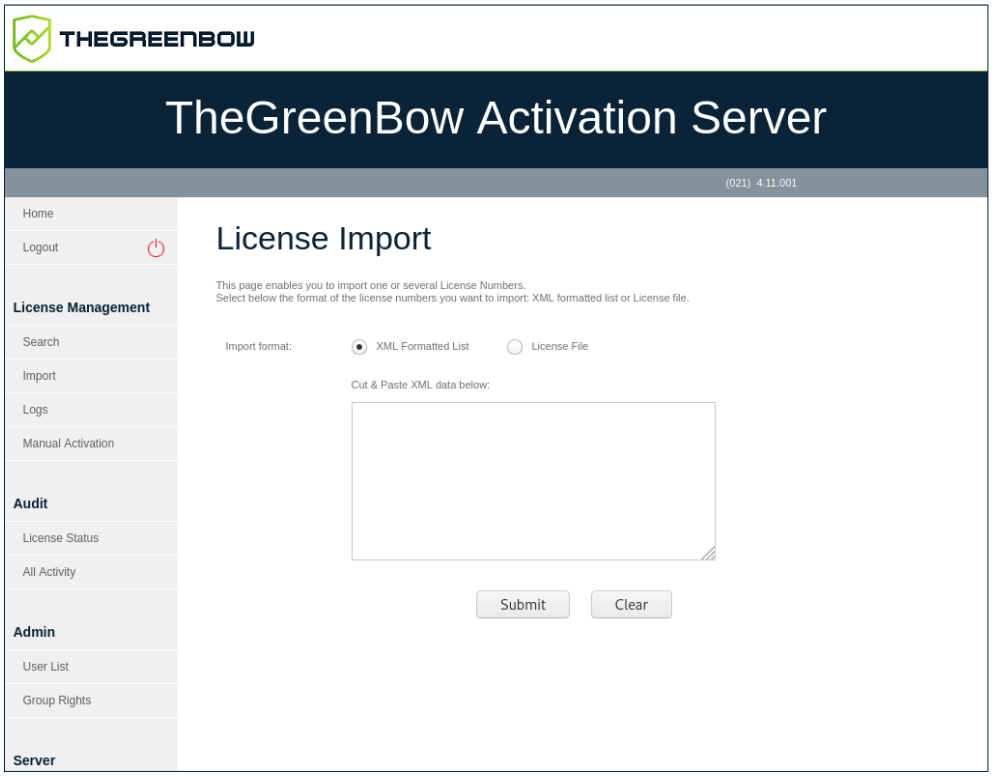
- **License Number** for one or several specific license numbers
- **Pack Number** for license numbers that are part of a group
- **Activation Email** entered by users during software activation
- **Activation Date** for a given date or period

For all fields on the **Search License Numbers** page, you can use the "%" wildcard character to represent one or several characters in your search, e.g. "begin%", "%end" or "%middle%".

Once a specific license number has been found, you can check whether it has been activated and view activation details, such as date, time, and activation e-mail.

7.3.2 Import

The **Import** menu item opens the **License Import** page.



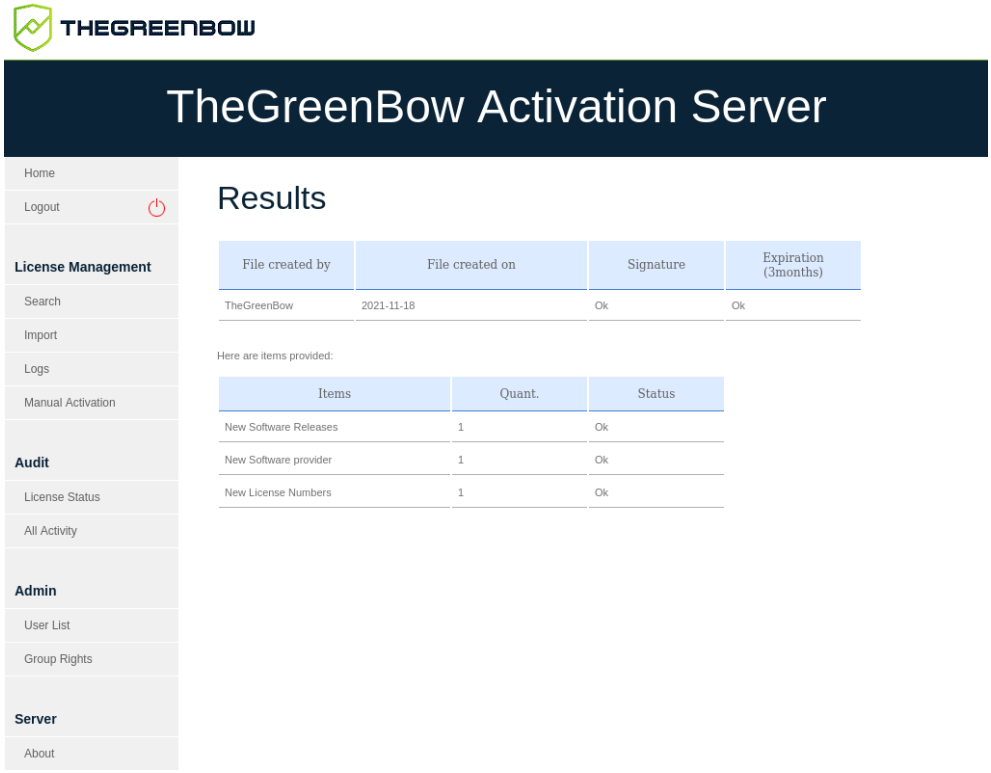
TheGreenBow Activation Server does not come with any VPN Client license numbers when it is installed. TheGreenBow will provide license numbers for its VPN software in XML files that you can import.

To import an XML license file, follow the steps below:

1. From the left menu, under **License Management**, click **Import** to display the **License Import** page.
2. Under **Import format**, click **License File**. A **Browse...** button (or equivalent depending on your browser) appears. Click **Browse...**, select the XML license file that you want to upload, and then click **Submit**.

Alternatively, you can click **XML Formatted List**, paste the contents of the file in the field provided for this purpose, and then click **Submit**.

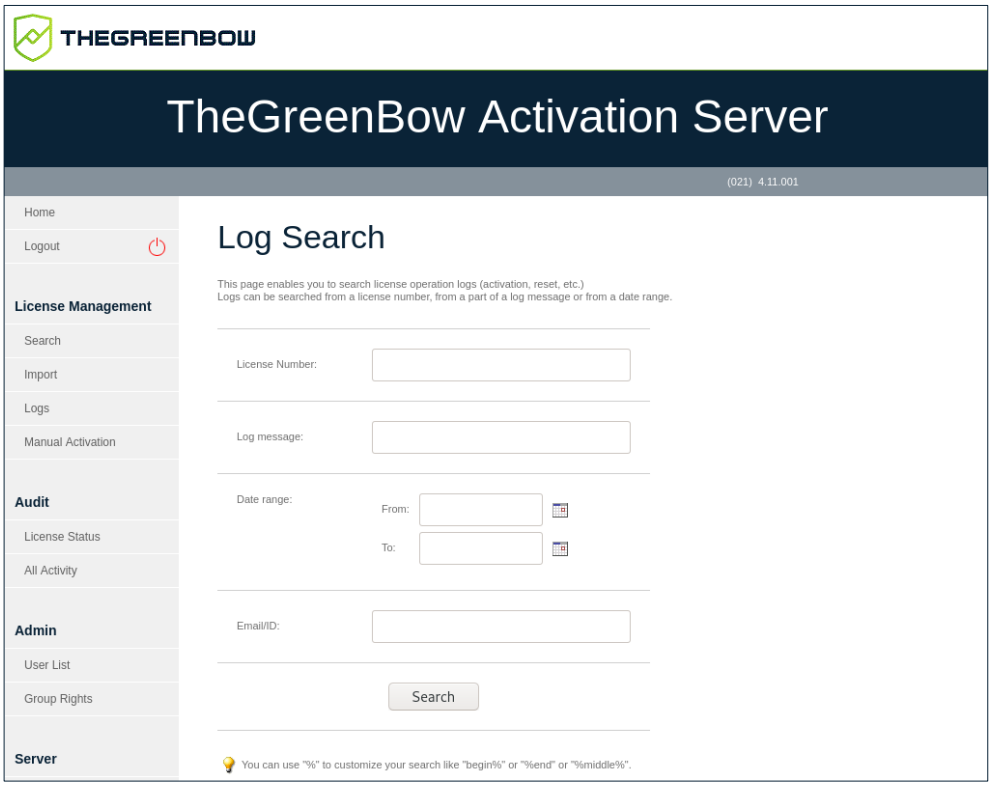
3. All the license numbers will be imported automatically, and the following confirmation message will be shown on the **Results** page:



If the XML license file has been altered or its signature is incorrect, an alert will be shown. In this case, contact customer support: https://www.thegreenbow.com/form.html?lang=en.

7.3.3 Logs

The **Logs** menu item opens the **Log Search** page.



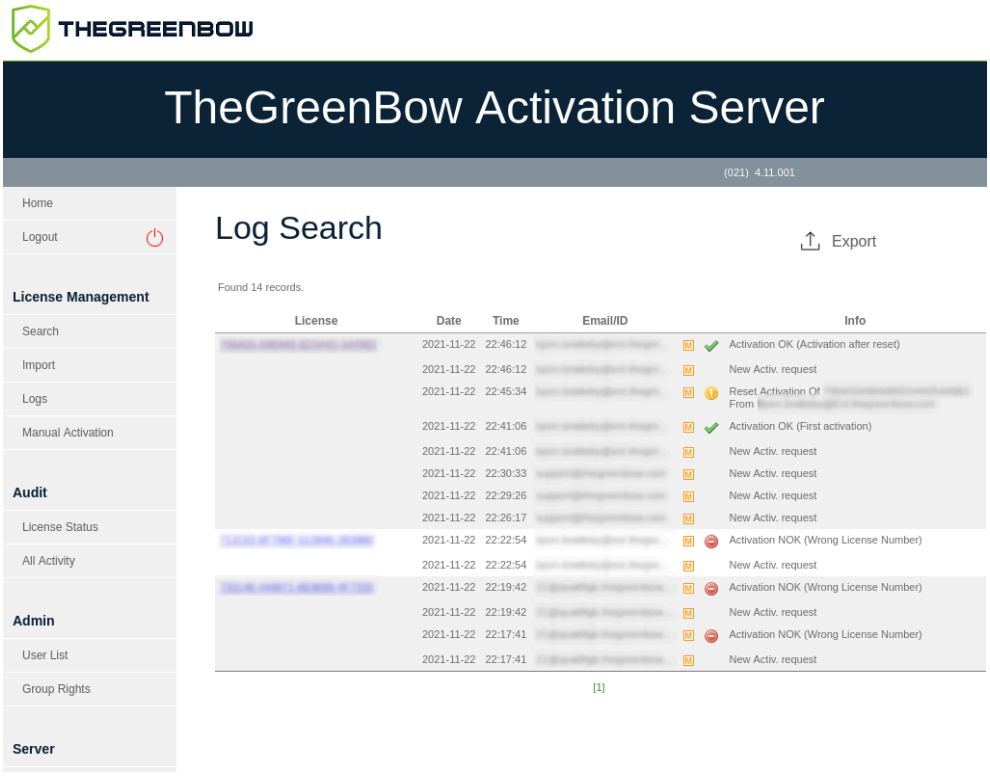
TAS allows you to search the software activation logs for any computer.

To search within these logs, follow the steps below:

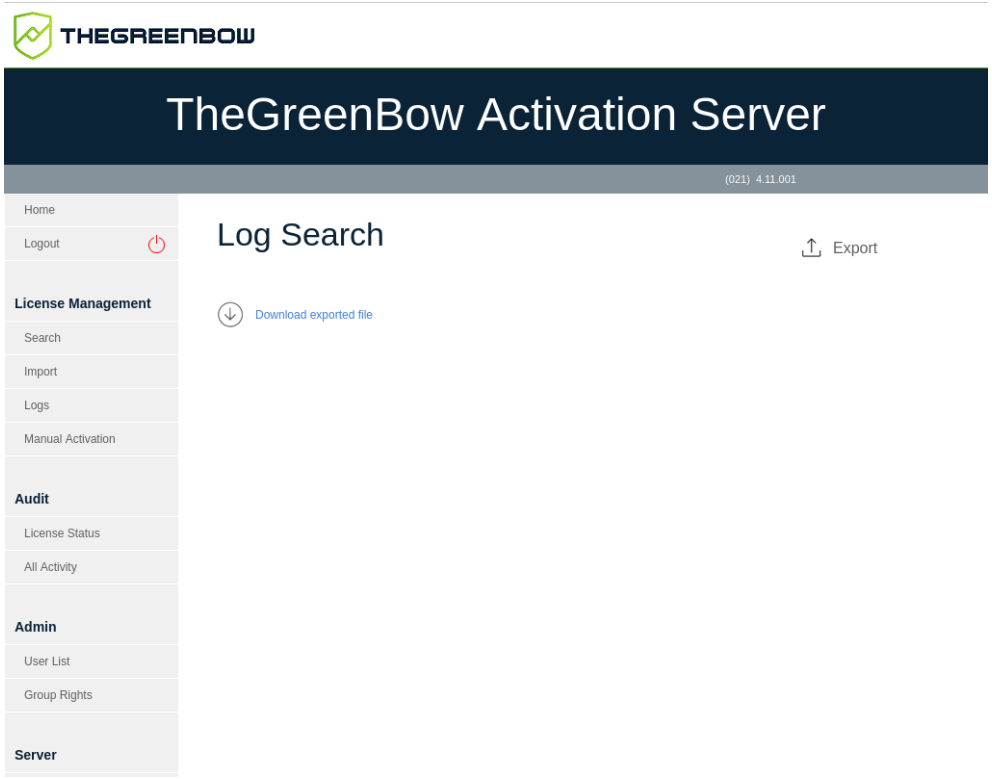
1. From the left menu, under **License Management**, click **Logs** to display the **Log Search** page.
2. Enter a license number or any log text that may have been logged, e.g. “Added new”, “License Number” or “activation successful”.

For all fields on the **Log Search** page, you can use the “%” wildcard character to represent one or several characters in your search, e.g. “begin%”, “%end” or “%middle%”.

3. If your search is successful, you will see a page like the following:



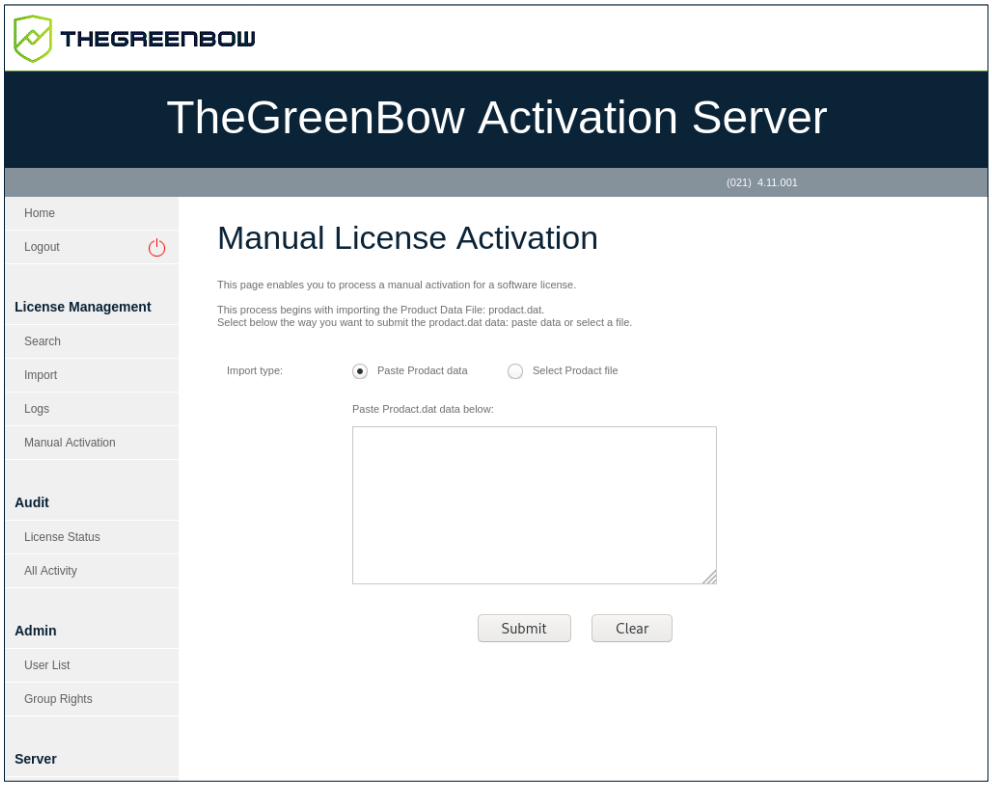
4. Click **Export** to export the results to a CSV file. The file is generated, and the following page is displayed:



5. Click **Download exported file** to open or save the file. It contains the same information as the results screen.

7.3.4 Manual Activation

The **Manual Activation** menu item opens the **Manual License Activation** page.



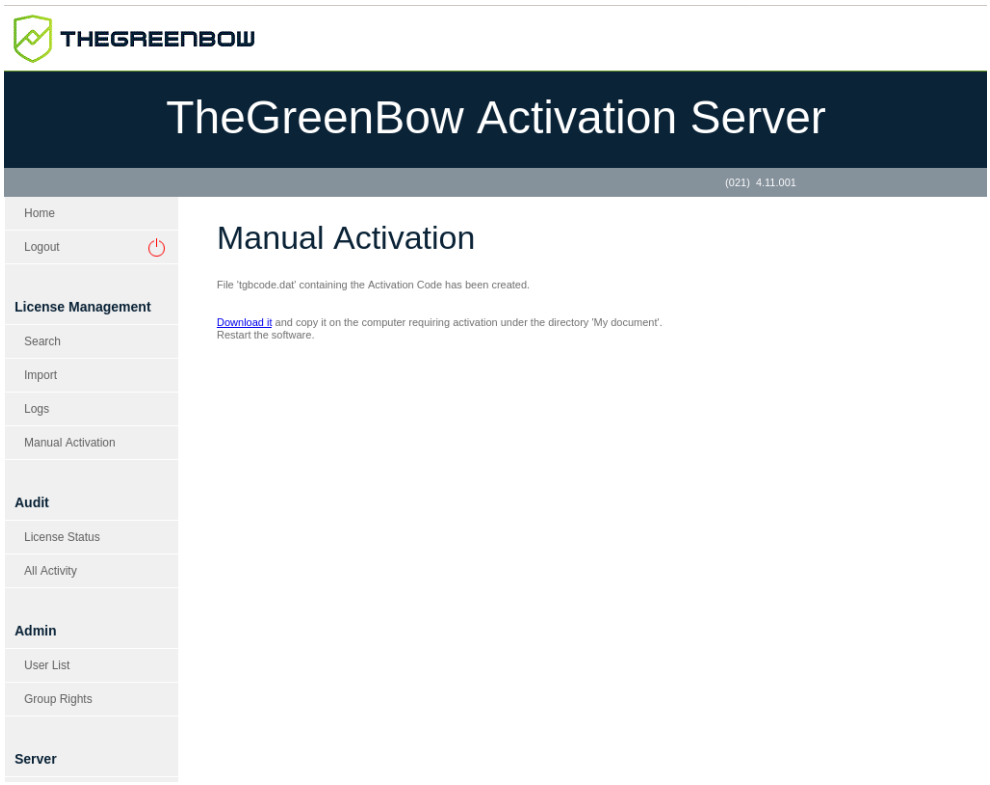
In addition to automatically activating software licenses online, IT managers can activate licenses manually.

To process a manual activation, follow the steps below:

1. Retrieve the `prodact.dat` file from the computer on which you want to activate software. The `prodact.dat` file is located under **Documents** (if your OS is Windows) and is generated every time you attempt to activate the software.
2. On TAS, from the left menu, under **License Management**, click **Manual Activation** to display the **Manual License Activation** page.
3. Under **Import type**, click **Select Prodact file**. A **Browse...** button (or equivalent depending on your browser) appears. Click **Browse...**, select the `prodact.dat` file that you want to upload, and then click **Submit**.

Alternatively, you can click **Paste Prodact data**, paste the contents of the file in the field provided for this purpose, and then click **Submit**.

4. An activation file will be generated and made available for download in the following screen:



5. To complete the manual activation process, click the **Download it** link and save the activation file to the same folder from which you retrieved the `prodact.dat` file on the computer on which you want to activate the software. The software will be activated automatically the next time it is started.

If there is an issue with the activation process, an error message will be displayed with an error code. For more help on activation error codes, please refer to our support section on our website: https://www.thegreenbow.com/en/support/online-support/.

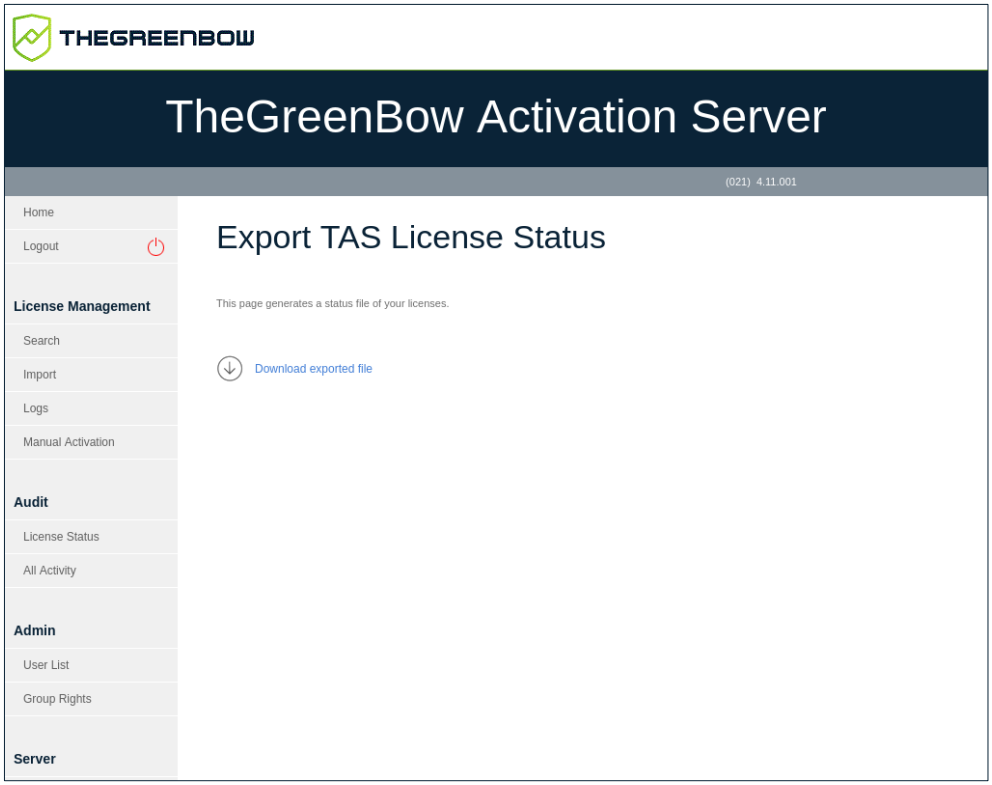
7.4 Audit

The **Audit** heading contains the following menu items:

- **License Status** allows you to export the current status of the licenses on your TAS (see section 7.4.1 License Status).
- **All Activity** allows you to export an activity report (see section 7.4.2 All Activity).

7.4.1 License Status

The **License Status** menu item opens the **Export TAS License Status** page.



The **Export TAS License Status** page is used to generate a License Status Report.

The exported file is in CSV format and contains the following information about each of your licenses:

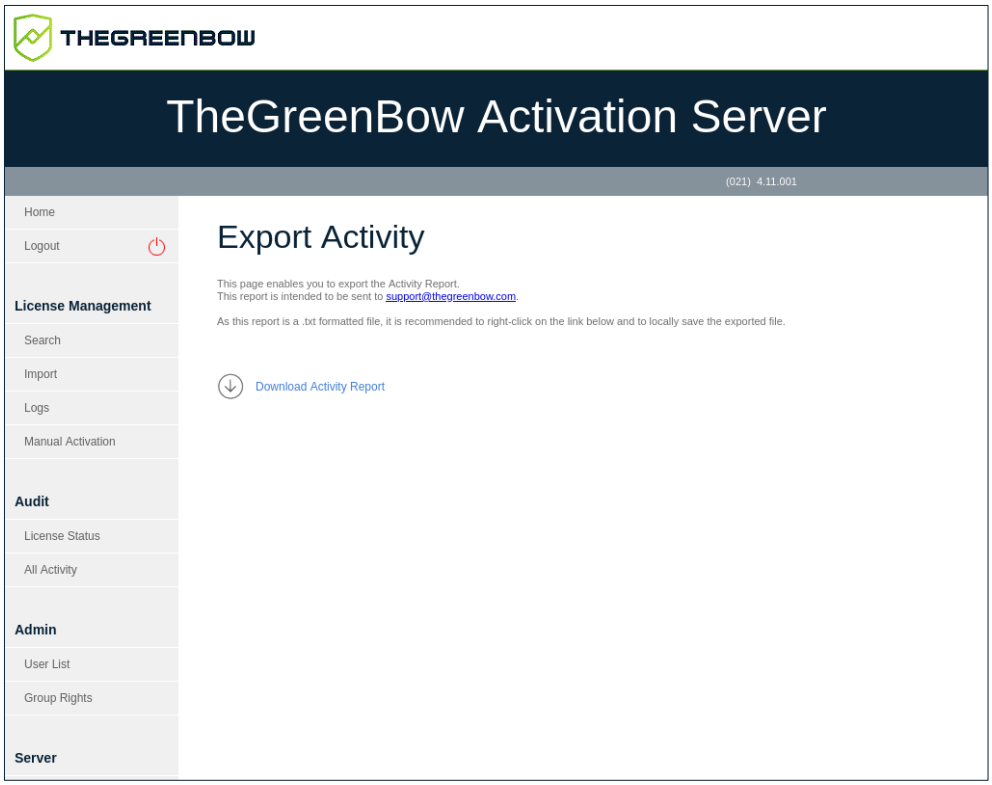
- License number
- Pack number
- Number of activations allowed
- Number of activations done
- Number of resets
- License expiration date
- Product name
- Signature

This CSV file is secured with a digital signature.

If our Support Team requests this file, click **Download exported file** to download the CSV file, and then send it to support@thegreenbow.com.

7.4.2 All Activity

The **All Activity** menu item opens the **Export Activity** page.



This page is used to generate, encrypt, and then export an Activity Report. The report is intended for our Support Team.

If our Support Team requests this file, right click **Download Activity Report** and choose **Save Links As...** (or equivalent depending on your browser) to save the text file to the location of your choice, and then send it to support@thegreenbow.com.

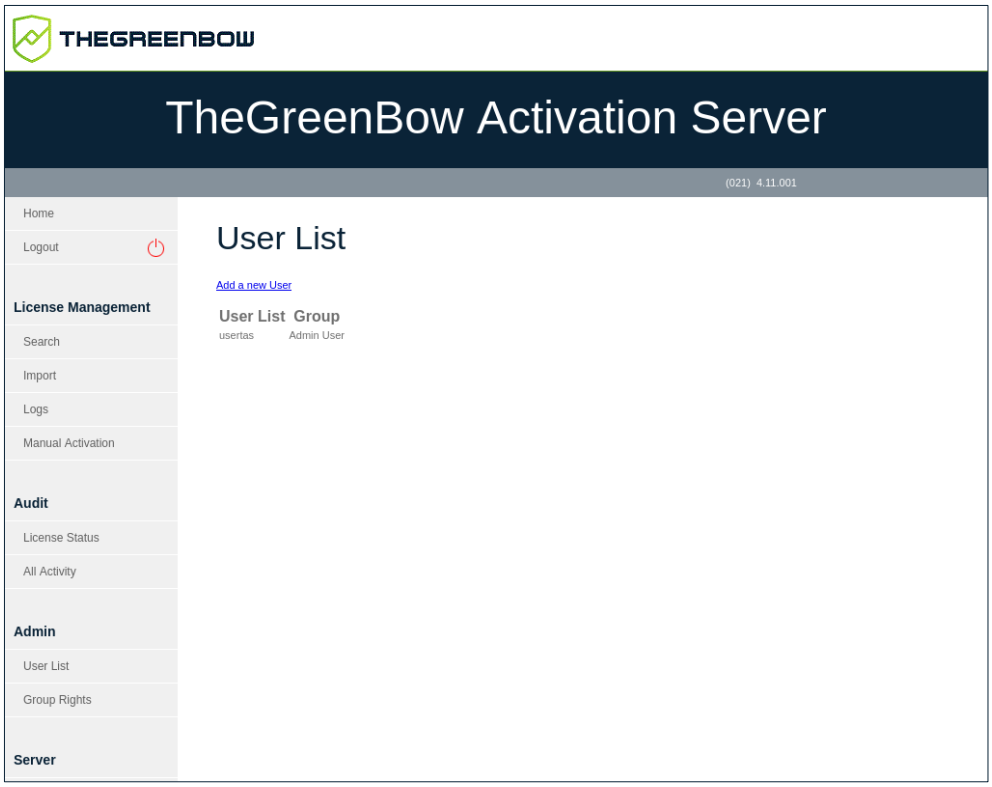
7.5 Admin

The **Admin** heading contains the following menu items:

- **User List** is used to manage TAS users (see section 7.5.1 User List).
- **Group Rights** is used to manage the rights of user groups (see section 7.5.2 Group Rights).

7.5.1 User List

The **User List** menu item opens the **User List** page.

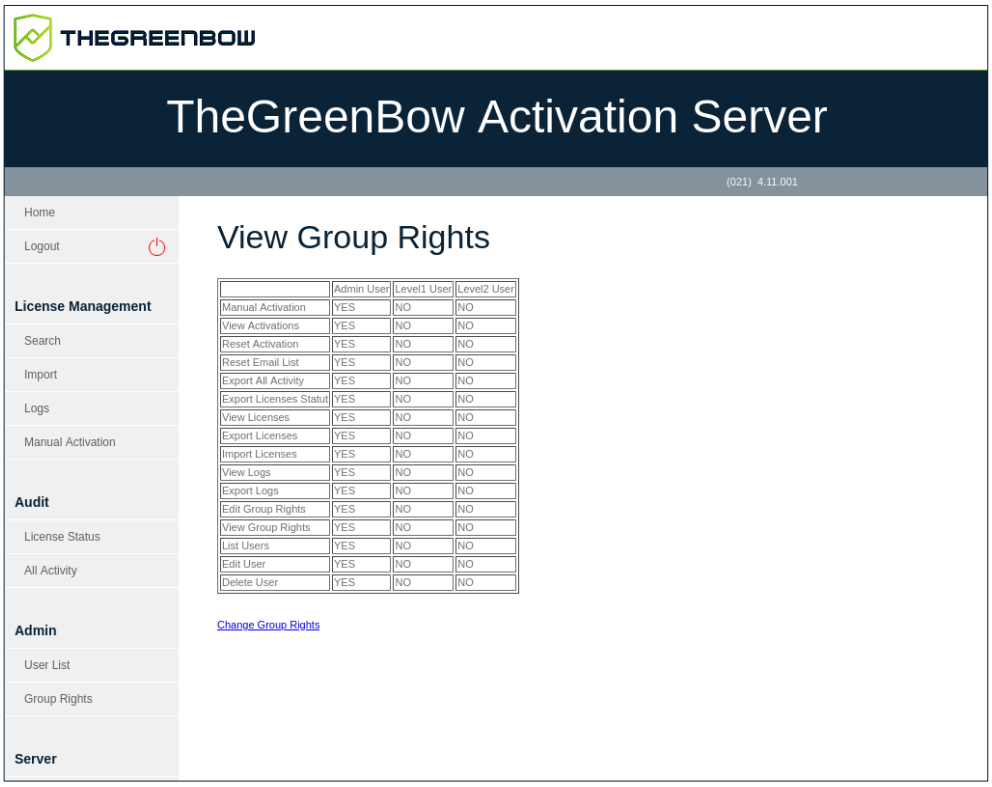


This page lists all TAS users and allows you to create, modify, and delete all TAS users except the default user `usertas`.

Refer to section 7.10 User management for more information on how to add, edit, or delete users.

7.5.2 Group Rights

The **Group Rights** menu item opens the **View Group Rights** page.



This page lists the various rights assigned to each user group.

Refer to section 7.10 User management for more information on how to edit group rights and assign a user to a group.

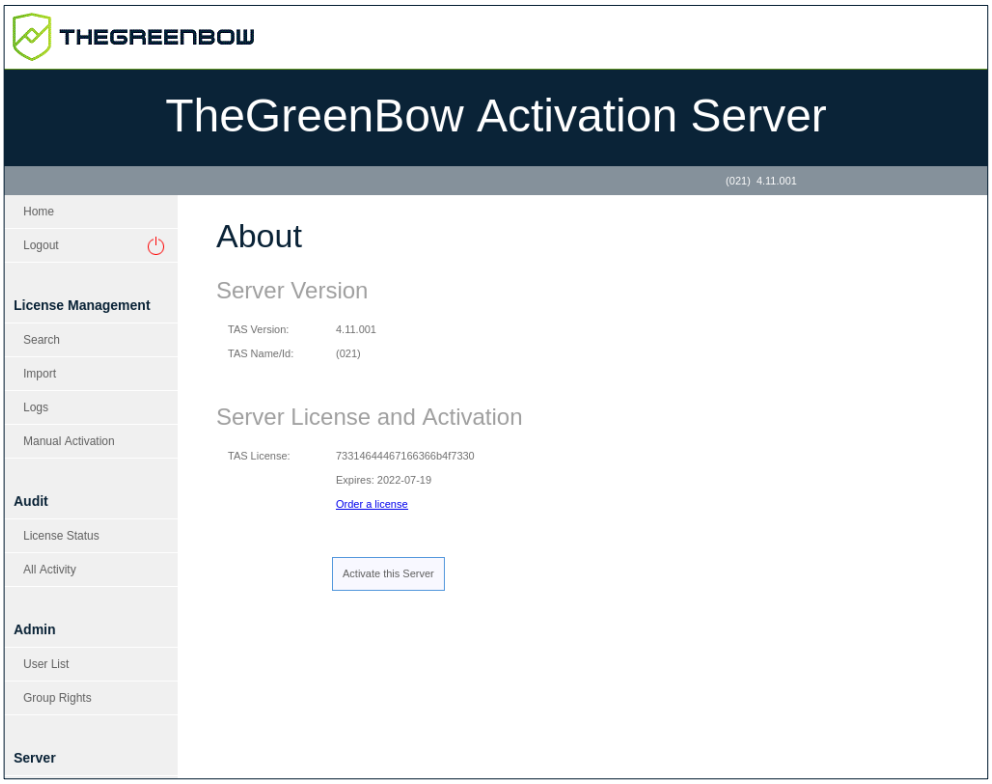
7.6 Server

The **Server** heading contains the following menu items:

- **About** displays information about the TAS version and license (see section 7.6.1 About).
- **Settings** is used to manage TAS settings (see section 7.6.2 Settings).

7.6.1 About

The **About** menu item opens the **About** page.



This page displays information about the server version and license.

It also allows you to reactivate the server after having renewed a subscription. To do so, click **Activate this Server**.

If you need to renew your license, click **Order a license**. This will open an e-mail in your default e-mail client, allowing you to send an e-mail to our Sales Team.

7.6.2 Settings

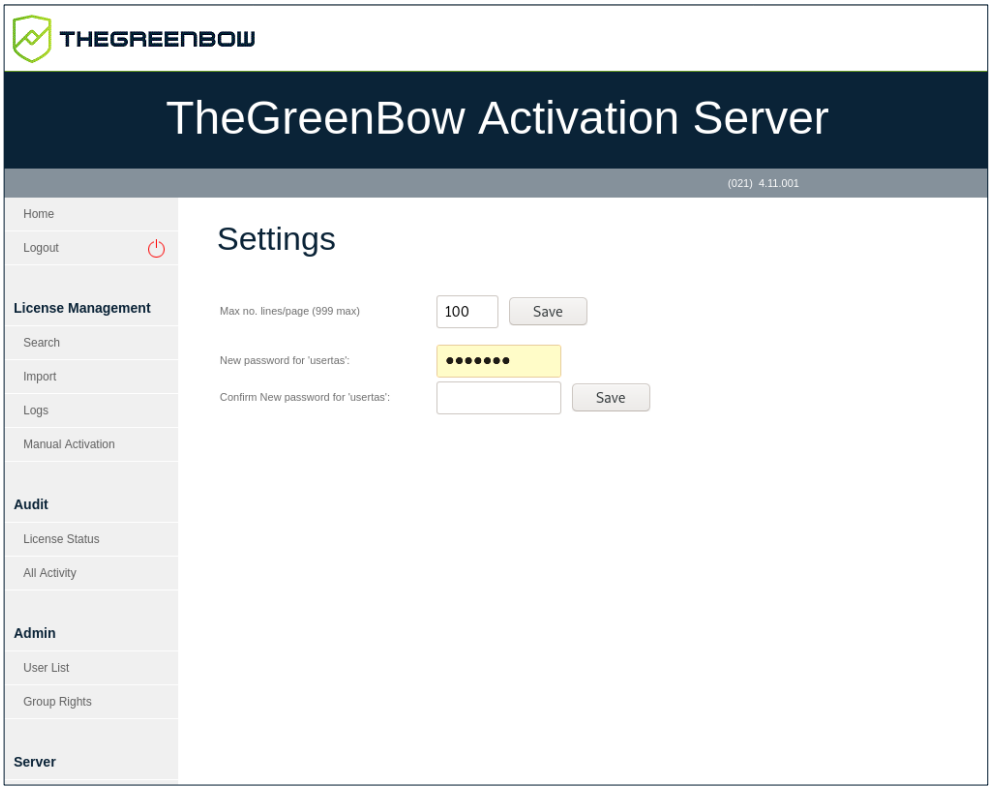
The **Settings** menu item opens the **Settings** page.

The **Settings** page allows you to define the following settings for TAS:

- Number of lines per page
- Password for default user

To access the **Settings** page, in the left menu, under **Server**, click **Settings**.

The **Settings** page is displayed:



If a search returns a very large amount of data, you can set the number of lines displayed per web page under **Max no. lines/page (999 max)**. The number of lines per page may not exceed 999.

To define a new password for the default user `usertas`, proceed as follows:

1. Enter the new password in the **New password for 'usertas'** field.
2. Confirm the password in the **Confirm New password for 'usertas'** field.
3. Click **Save**.

7.7 Resetting license numbers

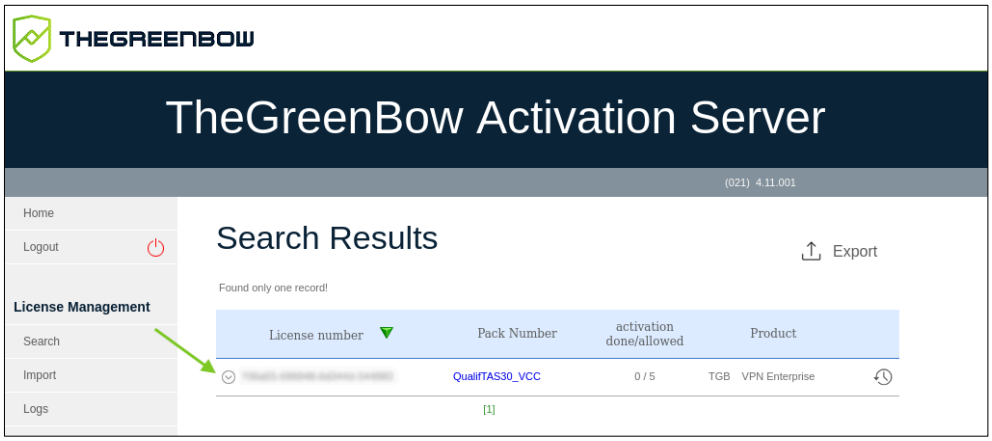
TAS allows you to reset a license activation to reuse the license for activation on another computer, in the event of a lost computer or crashed disk.

7.7.1 Resetting a single activation

To reset a single activation, proceed as follows:

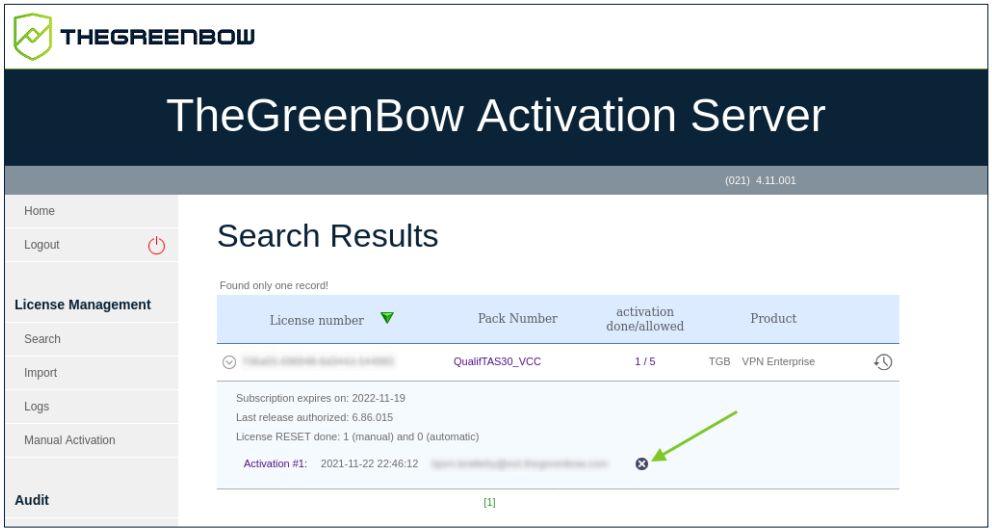
1. From the left menu, under **License Management**, click **Search** to display the **Search License Numbers** page.
2. Use any of the search fields to search for the license that needs to be reset so that it can be activated on another computer. You can search

for licenses based on the activation e-mail or the actual license number (see section 7.3.1 Search). The **Search Results** page is displayed:



3. Click the arrow icon next to the license number to show the details regarding this activation.

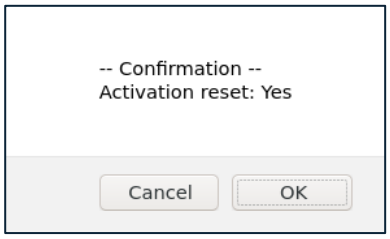
   The page then appears as follows:



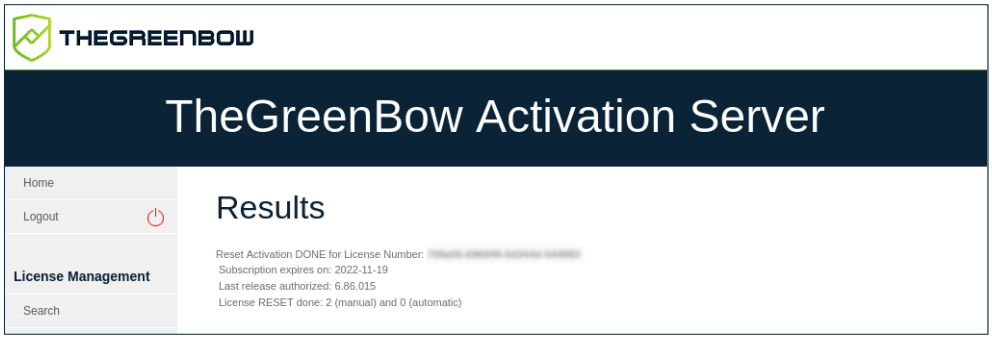
4. Click the reset icon (⊗) to the right of the activation that you want to reset.

The **Reset Activation** page is displayed:

5. Select **Yes**, and then click **Submit**. The following confirmation prompt is displayed:



6. Click **OK**. The **Results** page is displayed with information about the reset you just performed:

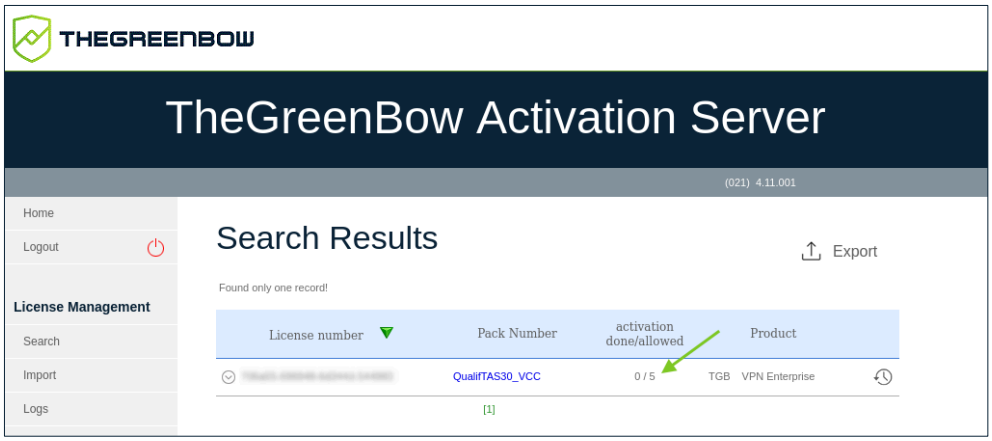


You have successfully reset the activation for this license. You can now activate the license on another computer.

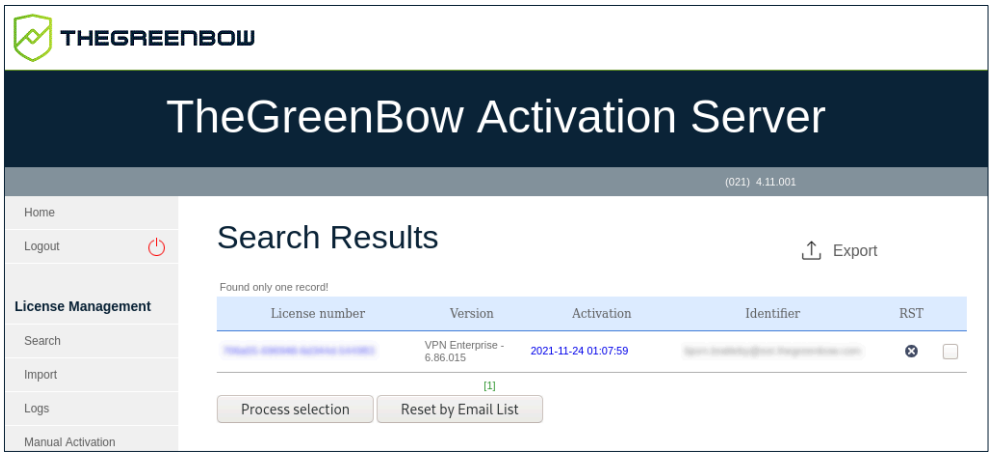
7.7.2 Resetting multiple activations

To reset multiple activations, proceed as follows:

1. Repeat steps 1 and 2 under section 7.7.1 Resetting a single activation to search for a license or group of licenses.



2. On the **Search Results** page, click the numbers in the **activation done/allowed** column. This will display a view of the **Search Results** page with all the activations for the corresponding license:



3. Reset one or several activations in either of the following ways:
   - Clicking the reset icon (⊗) in the **RST** column on the line corresponding to the activation that you want to reset
   - Checking the box at the end of each line that you want to reset, and then clicking **Process selection**
   - Clicking the **Reset by Email List** button

In the first two cases, the **Reset Activation** page is displayed prompting you to confirm your request (same as in step 4 in section 7.7.1 Resetting a single activation above). Select **Yes**, and then click **Submit**. A prompt asks you for a final confirmation before the reset is performed.

In the third case, the **Reset Email ID List** page is displayed (see section 7.7.3 Resetting activations from a list of e-mail addresses/IDs below).

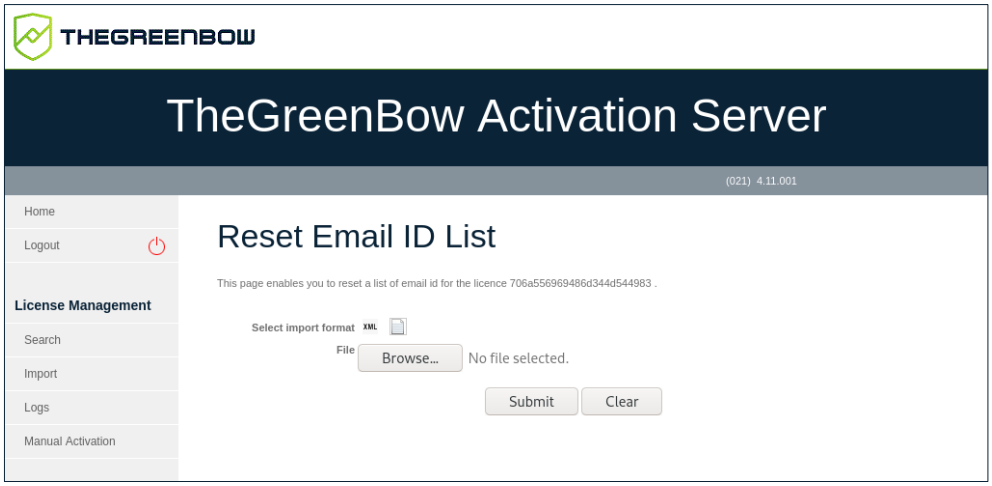
7.7.3 Resetting activations from a list of e-mail addresses/IDs

To reset activations from a list of e-mail addresses/IDs, proceed as follows:

1. Repeat steps 1 and 2 under section 7.7.2 Resetting multiple activations above.
2. Click the **Reset by Email List** button. The **Reset Email ID List** page is displayed:

3. Paste a list of e-mail addresses/IDs that you want to reset into the field provided for this purposes (one per line), and then click **Submit**.

   As an alternative, you can or click the file icon to select a file containing a list of e-mail addresses/IDs that you want to reset. The view of the **Reset Email ID List** page changes as follows:



   Click **Browse**, select the desired file, and then click **Submit**.

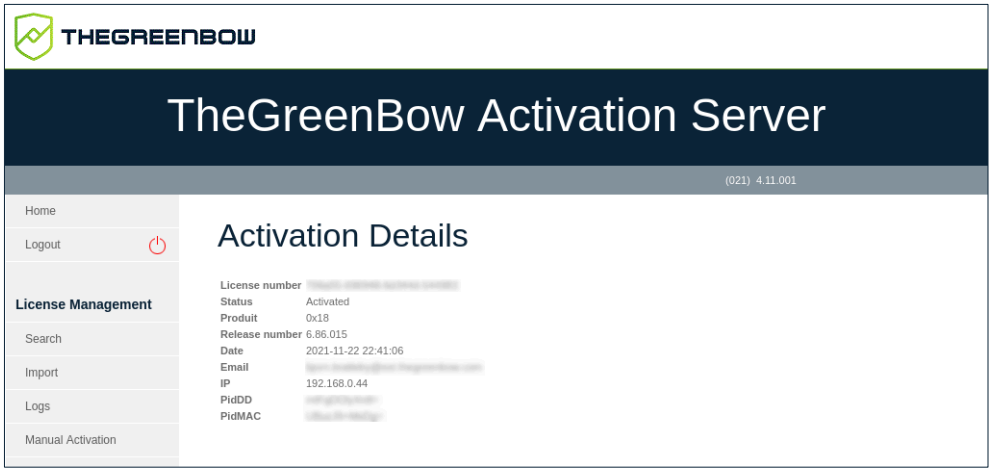
4. In both cases, the **Reset Activation** page is displayed after you click **Submit**, prompting you to confirm your request (same as in step 4 in section 7.7.1 Resetting a single activation above). Select **Yes**, and then click **Submit**. A prompt asks you for a final confirmation before the reset is performed.

7.7.4 Displaying activation details

You can display an **Activation Details** page with further details regarding a given activation in either of the following ways:

- From the **Search Results** page, click the arrow icon next to the license number to show the details regarding this activation. Now, click the link corresponding to the activation for which you want to view the details.
- From the **Search Results** page, click the numbers in the **activation done/allowed** column to show the list of activations for this license. Now, click the activation date in the **Activation** column.

In both cases, an **Activation Details** page such as the following will be displayed:

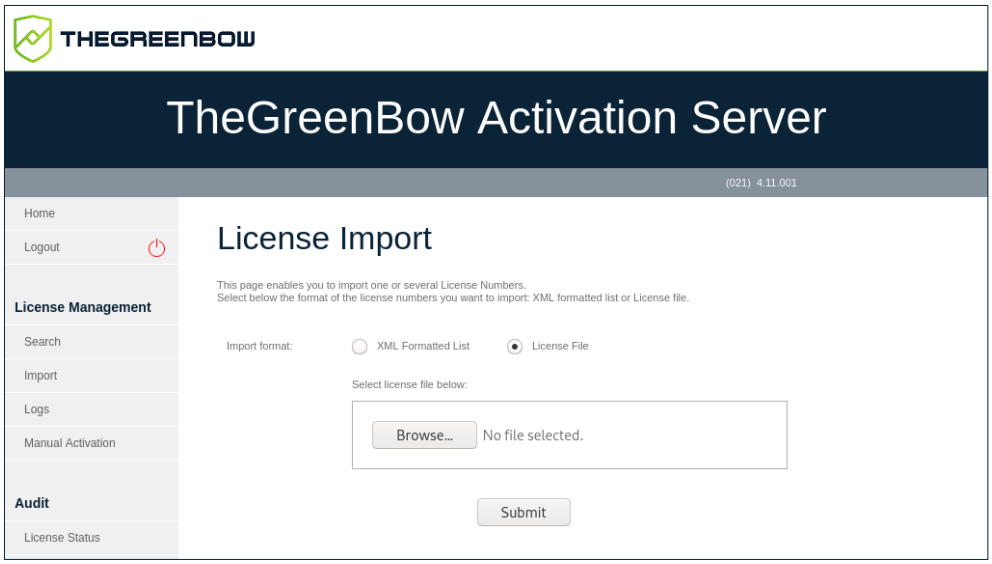


7.8 Importing license numbers

TheGreenBow Activation Server does not come with any VPN Client license numbers when it is installed. TheGreenBow will provide license numbers in XML files that you can import.

To import an XML license file, proceed as follows:

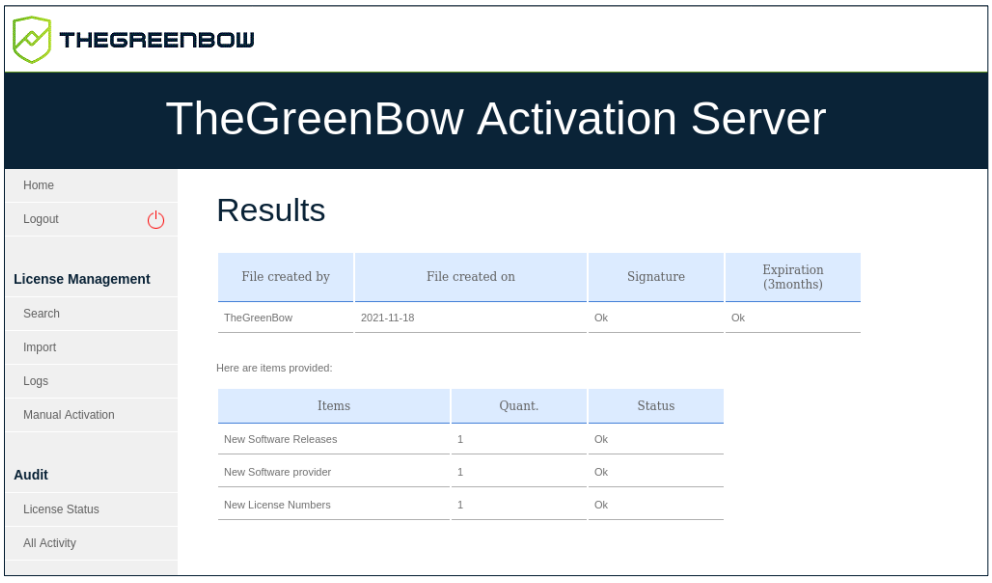
1. From the left menu, under **License Management**, click **Import** to display the **License Import** page.



2. Under **Import format**, click **License File**. A **Browse...** button (or equivalent depending on your browser) appears. Click **Browse...**, select the XML license file that you want to upload, and then click **Submit**.

Alternatively, you can click **XML Formatted List**, paste the contents of the file in the field provided for this purpose, and then click **Submit**.

3. All the license numbers will be imported automatically, and a **Results** page will be shown with information similar to the following:



If the XML license file has been altered or its signature is incorrect, an alert will be shown. In this case, contact support https://www.thegreenbow.com/en/contact-us/.

7.9 Exporting results

Some pages, such as the **Search Results** pages for licenses and activations, and the **Log Search** page, allow you to export their content to a CSV file.

To export the page content, proceed as follows:

1. Click the **Export** button at the top right of the page.

2. A **Download exported file** link is shown.

3. Right-click the link and choose **Save Link As...** (or equivalent depending on your browser) to download the CSV file and save it to the destination of your choice.

7.10 User management

TheGreenBow Activation Server (TAS) can be run with the default user. However, depending on the size of your organization, you may want to share administration tasks with other team members.

To find out how to add users, refer to section 7.10.1 Adding a user.

Furthermore, you may want to assign different rights to different users. TAS therefore allows you to assign users to three different user groups:

- Admin
- Level 1
- Level 2

You can define the rights assigned to each user group and change these rights at any time.

To find out how to define group rights, refer to section 7.5.2 Group Rights.

Typically, administrators will have all rights, whereas support team members will only be able to reset and activate licenses. Another group of users may focus on viewing, importing, and modifying licenses.

You may want to limit the number of users who have export rights, as the exported files contain the machine names.

The default user has administrator rights and cannot be deleted.

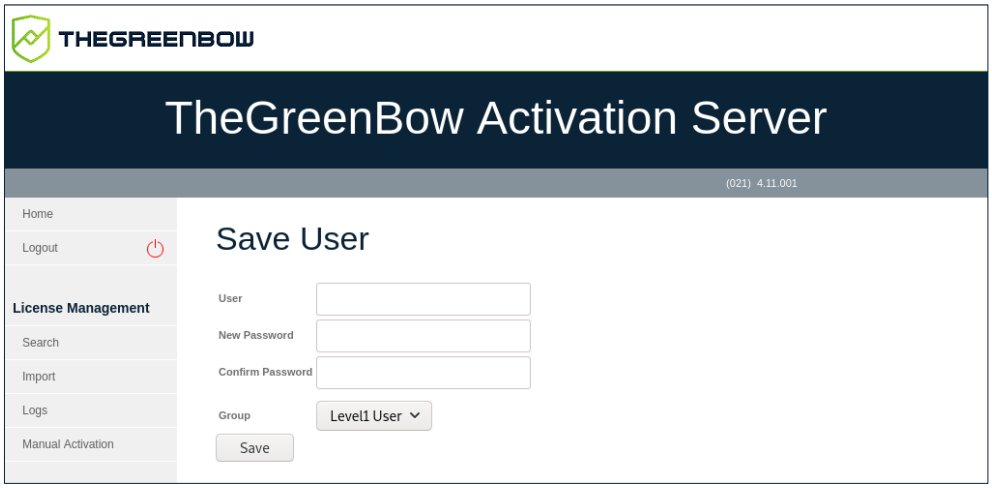
7.10.1 Adding a user

To add a user, proceed as follows:

1. From the left menu, under **Admin**, click **User List** to display the **User List** page.

2. Click **Add a new User**.

The **Save User** page is displayed:



3. Enter a username in the **User** field. Enter a password in the **New Password** field and confirm the password in the **Confirm Password** field.
4. Select a user group in the **Group** dropdown list. You can choose from the following three user groups:
    - Admin User
    - Level1 User
    - Level2 User

Refer to section 7.10.4 Editing group rights for more information about user groups.

5. Click **Save**. A confirmation message is displayed with the username and password.

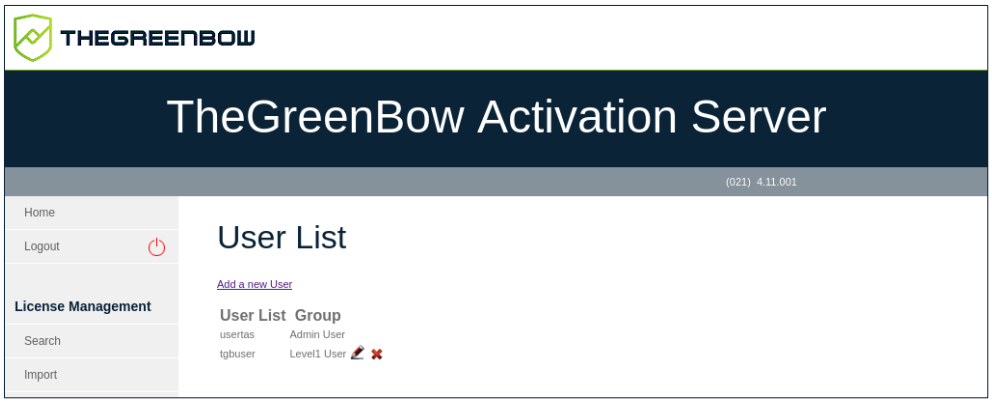
Once you have created at least one user in addition to the default user, you can modify or delete the users that you have added (see section 7.10.2 Editing a user's settings). You cannot modify or delete the default user `usertas`.

There is no limit to the number of users you can add.

7.10.2 Editing a user's settings

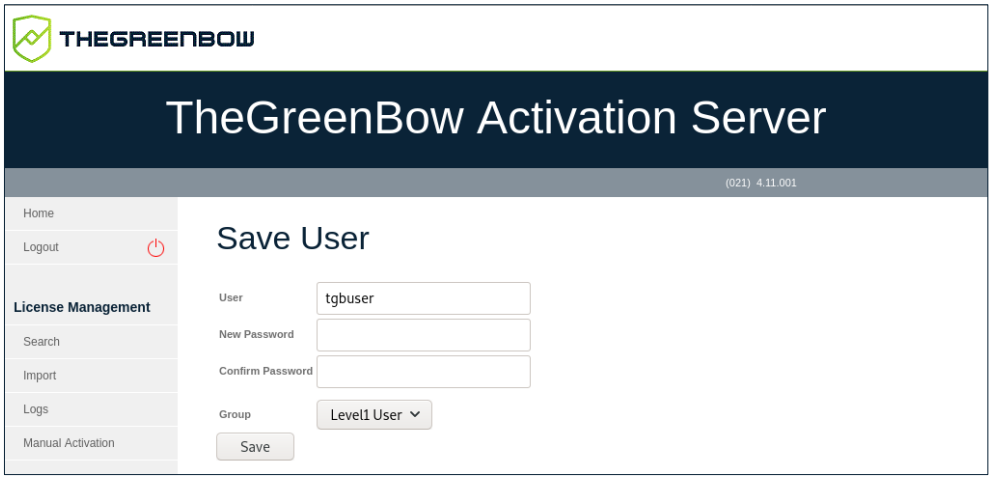
To edit a user's settings, proceed as follows:

1. From the left menu, under **Admin**, click **User List** to display the **User List** page.



2. Click the pencil icon next to the name of the user that you want to edit.

The **Save User** page is displayed:

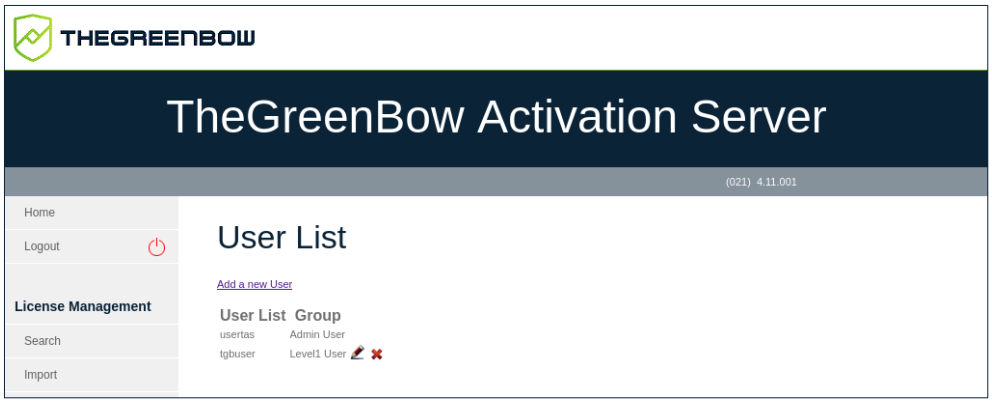


3. You can now change the user's password and assign the user to another group. Make the required changes and then click **Save**.

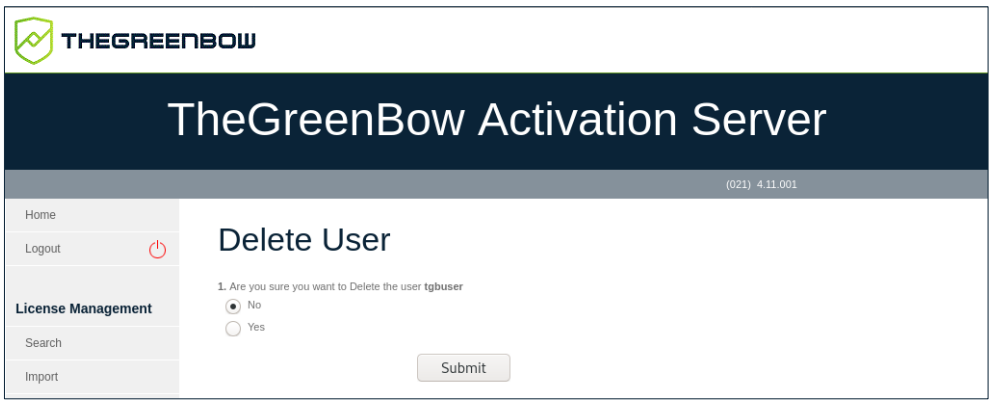
7.10.3 Deleting a user

To delete a user, proceed as follows:

1. From the left menu, under **Admin**, click **User List** to display the **User List** page.



2. Click the red cross next to the user that you want to delete. The **Delete User** page is displayed prompting you to confirm the deletion:



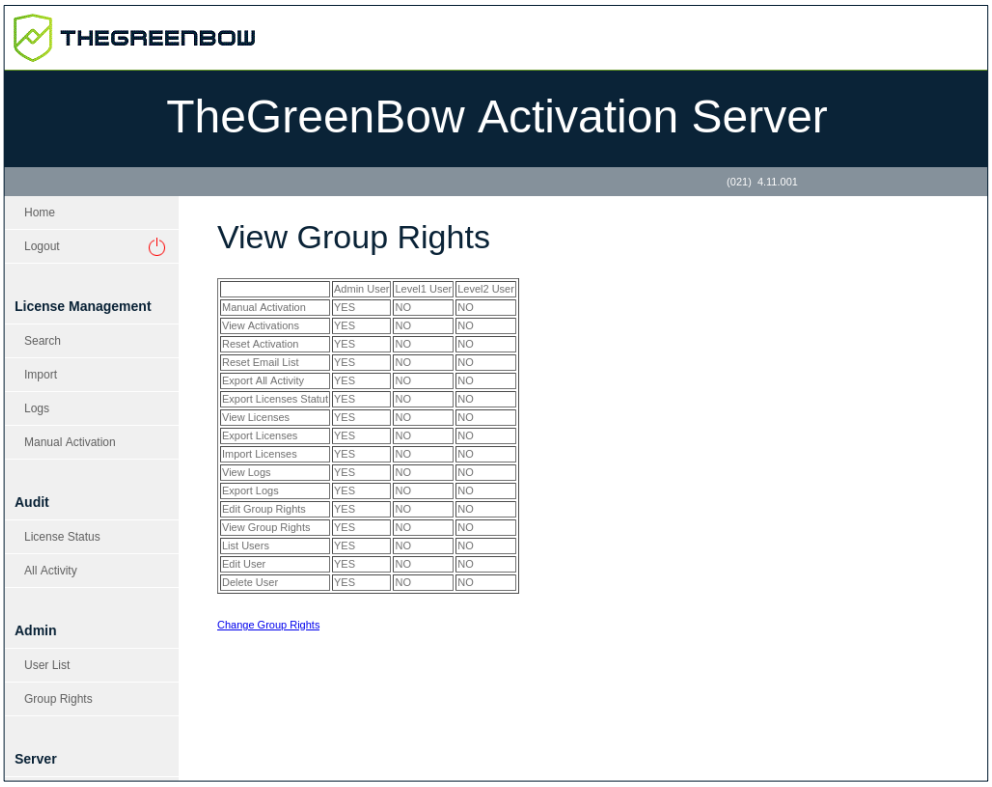
3. Click **Yes**, and then **Submit**.

The default user named `usertas` cannot be modified here and its password must be changed on the **Server** > **Settings** page. Refer to section 7.6.2 Settings to find out how to change the default user's password.

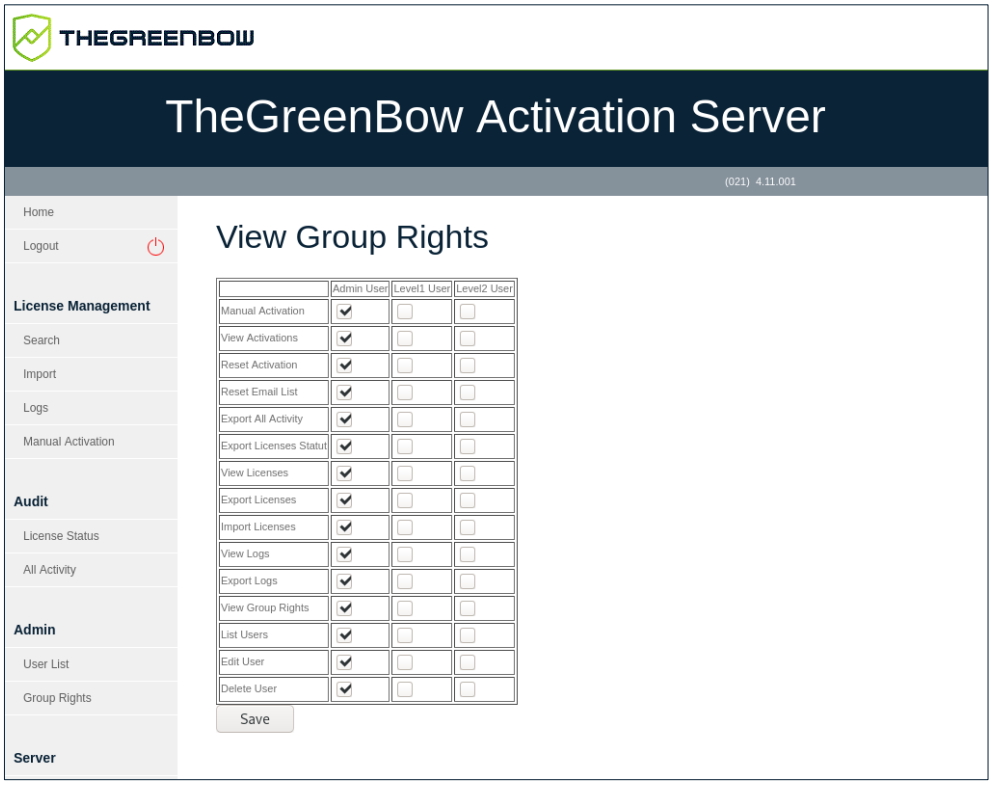
7.10.4 Editing group rights

To edit the group rights, proceed as follows:

1. From the left menu, under **Admin**, click **Group Rights** to display the **View Group Rights** page.



2. Click **Change Group Rights**. The table in the **View Group Rights** page becomes active with checkboxes in each cell.



By default, all rights are granted to the **Admin User** group and no rights are granted to the other two groups.

3. Check or uncheck the boxes in each cell to assign the corresponding right to the desired user group, then click **Save**. The following confirmation is displayed:

4. Click **Return to Group Rights** to return to the **View Groups Rights** page with the updated list of group rights.

You can define the rights assigned to each group according to the needs in your organization.

The default user named `usertas` does not belong to any of the groups. It is an administrator and thus has all rights. For safety reasons, it cannot be deleted.

8 Troubleshooting

Below you will find common issues that you may encounter and suggested remedies.

A blank page is displayed after installing the TAS application:

- Make sure the mySQL module is enabled in PHP
- Check file permissions to ensure that all HTML/PHP files can be executed
- Make sure that you have entered the correct mySQL root password in the PHP settings file

Error code 33 is displayed when I attempt to activate my TAS:

- Contact support@thegreenbow.com to reset your TAS license

An error occurs when I attempt to upload the XML file:

- Try the copy & paste option
- Check to make sure that the PHP directive `upload_tmp_dir` has been enabled

If you are unable to resolve the issues, contact customer support: https://www.thegreenbow.com/form.html?lang=en.

9 Appendix

9.1 Installing required components step by step

9.1.1 Web server

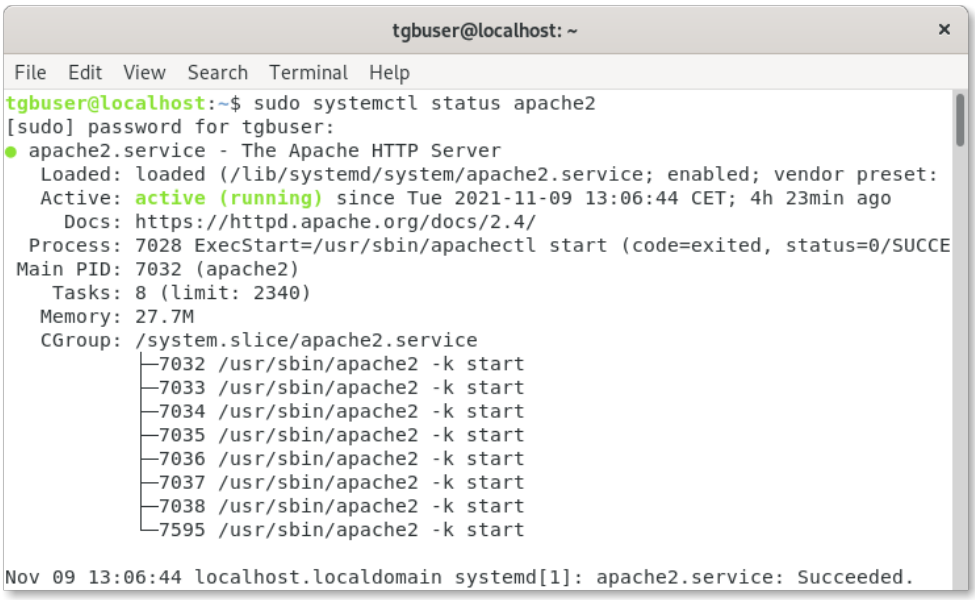
The packages for the Apache web server are available in the default Debian repositories.

9.1.1.1 Checking the Apache status

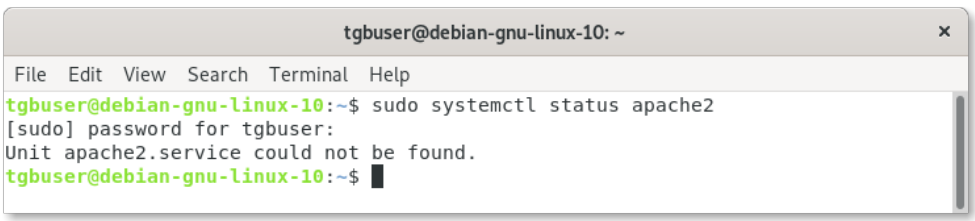
To check whether the Apache web server is already installed and find out its status, open a Terminal window and run the following command:

```
sudo systemctl status apache2
```

If the web server is installed, you should see something like the following:



However, if the following information is displayed, you will need to install the Apache web server as described in section 9.1.1.2 Installing the Apache web server below:



9.1.1.2 Installing the Apache web server

If the Apache web server is not installed, you merely need to update the package index and install the web server. To do so, open a Terminal window and run the following commands successively:

```
sudo apt update
sudo apt install apache2
```

9.1.2 Database system

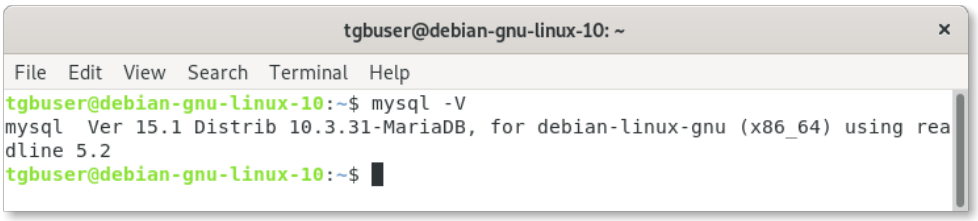
9.1.2.1 Checking which database system is installed

If you are not sure which database system is installed on your server, open a Terminal window and run the following command:

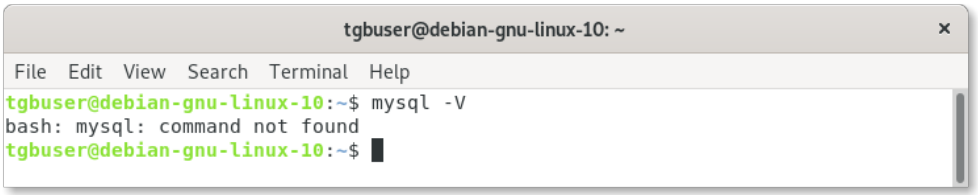
```
mysql -V
```

This command works for both MariaDB and mySQL. Refer to section 1.5 Minimum requirements for the required version.

If MariaDB Server is installed, you should see something like the following:



However, if the following information is displayed, you will need to install or update MariaDB Server, as described in section 9.1.2.2 Installing MariaDB Server below:



9.1.2.2 Installing MariaDB Server

If you have not yet installed a database system on your server, we recommend installing MariaDB 10.4 or later. To do so, open a Terminal window and run the following commands:

```
sudo apt update
sudo apt install mariadb-server
sudo mysql_secure_installation
```

For more information on how to install MariaDB Server, refer to: https://mariadb.com/kb/en/installing-mariadb-deb-files/#installing-mariadb-packages-with-apt.

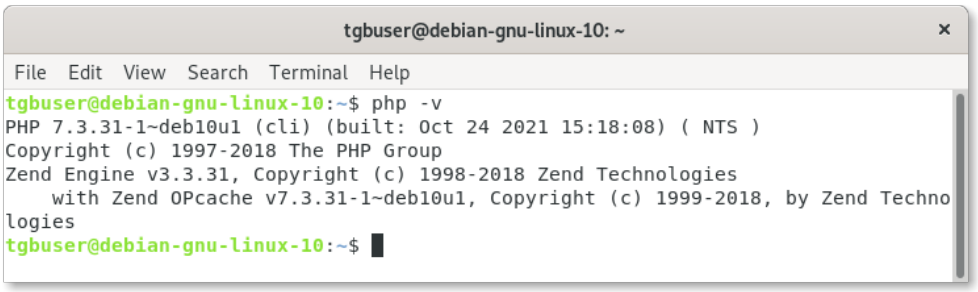
9.1.3 PHP

9.1.3.1 Checking the PHP version

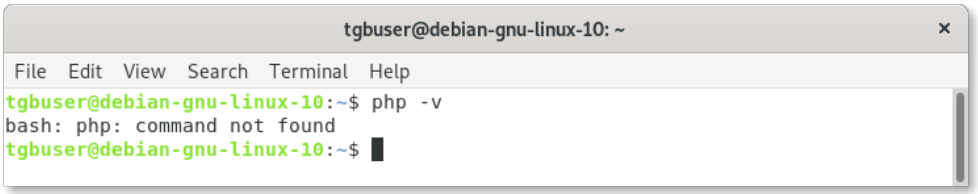
If you are not sure which version of PHP is installed on your server, open a Terminal window and run the following command:

```
php -v
```

If the following information is displayed, the correct version of PHP is installed:



However, if the following information is displayed, you will need to install or update PHP as described in section 9.1.3.2 Installing PHP below:



9.1.3.2 Installing PHP

If you have not yet installed PHP on your server, we recommend installing PHP 7.3 with the following extensions:

- MySQLi
- XML
- Multibyte String

To do so, open a Terminal window and run the following command:

```
sudo apt -y install php php-common php-mysql php-xml
php-mbstring
```

9.2 FAQ

9.2.1 Installing required components all in one go in CentOS/RHEL

If you're starting out from scratch on a new machine that does not have a database system, PHP, or web server installed, you can perform all the required installation steps using the commands below.

To install or update the Apache web server, MariaDB server, and PHP extensions all in one go, run the following command as root:

```
sudo yum -y update && sudo yum -y install httpd php
mariadb-server mariadb php-mysqli php-mbstring php-xml
```

In CentOS/RHEL, you must also run several commands to start several daemons and enable them at startup.

To run the database engine daemon and enable it at startup, run the following commands:

```
sudo systemctl start mariadb.service && sudo systemctl
enable mariadb.service
```

If you do not start and enable the daemon, the `mysql_secure_installation` command used later on will not run correctly.

To run the web engine daemon and enable it at startup, run the following commands:

```
sudo systemctl start httpd.service && sudo systemctl
enable httpd.service && sudo systemctl restart
httpd.service
```

Moreover, you must also configure the firewall to authorize external access to the `http` and `https` ports. To do this, run the following commands:

```
sudo firewall-cmd --permanent --zone=public --add-
service=http && sudo firewall-cmd --permanent --
zone=public --add-service=https && sudo firewall-cmd --
reload
```

9.2.2 Installing OpenSSL in CentOS/RHEL

If you need to install or update OpenSSL, run the following command:

```
sudo yum install openssl
```

9.2.3 Updating the Apache configuration file in CentOS/RHEL

In CentOS/RHEL, the Apache configuration file is named `httpd.conf`.

9.2.4 Granting full access rights on the application folder in CentOS/RHEL

In CentOS/RHEL, you must use the `semanage` and `restorecon` commands to set permissions.

⚠ Do not use the `chcon` command as it only makes temporary changes to permissions.

Below, you will find a few examples of command lines with the default directories:

```
sudo semanage fcontext -a -t httpd_sys_rw_content_t
'/var/www/html/osace_files'
sudo restorecon -v '/var/www/html/osace_files'
sudo semanage fcontext -a -t httpd_sys_rw_content_t
'/var/www/html/osace_files/osace/LOG'
sudo restorecon -v
'/var/www/html/osace_files/osace/LOG'
sudo semanage fcontext -a -t httpd_sys_rw_content_t
'/var/www/html/osace_files/osace/EXPORTS'
sudo restorecon -v
'/var/www/html/osace_files/osace/EXPORTS'
sudo semanage fcontext -a -t httpd_sys_rw_content_t
'/var/www/html/http_upload'
sudo restorecon -v '/var/www/html/http_upload'
```

10 Contact

10.1 Information

All the information on TheGreenBow products is available on our website: https://thegreenbow.com/.

10.2 Sales

Phone: +33.1.43.12.39.30

E-mail: sales@thegreenbow.com

10.3 Support

There are several pages related to the software's technical support on our website:

Online help

https://www.thegreenbow.com/en/support/online-support/

FAQ

https://www.thegreenbow.com/en/frequently-asked-questions/

Contact form

Technical support can be reached using the form on our website at the following address: https://www.thegreenbow.com/en/support/online-support/technical-support/.

Protect your connections
in any situation

28, rue Caumartin
75009 Paris – France

sales@thegreenbow.com

www.thegreenbow.com