

# **Server Assistant**

4PSA Server Assistant 2.5.0  
for Plesk 8.0.0 and newer versions  
User's Guide

For more information about 4PSA Server Assistant, check:  
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# User's Guide

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# Preface

## Who Should Read This Guide

This User's Guide must be read by the administrator of the Plesk server.



## Chapter 1

# The Administrator Module

The 4PSA Server Assistant administrator module can be accessed after you login to Plesk using the admin account. In order to open the 4PSA Server Assistant interface click the [4PSA Server Assistant](#) link available in the Custom navigation menu located on the left side of the Plesk interface.

The 4PSA Server Assistant toolbar is available on top of the application's interface. The toolbar makes it easy for the server administrator to perform the following operations:

- View graphs rendered for the monitored server parameters.
- view a 4PSA Server Assistant report.
- View statistics of the monitored server parameters and of the services uptime.
- Enable/disable server parameters and services monitoring.
- Change MRTG configuration settings, manage intervention options, change advanced settings.
- Modify interface settings.
- Manage 4PSA Server Assistant license.

## Monitored Server Parameters

4PSA Server Assistant monitors important server parameters in real time and renders graphs for a better understanding of the server evolution. Using these graphs, a skillful administrator can perform fine-tuning for the system configuration.

In the Monitored Server Parameters area the server administrator can view the server parameters that are being monitored.

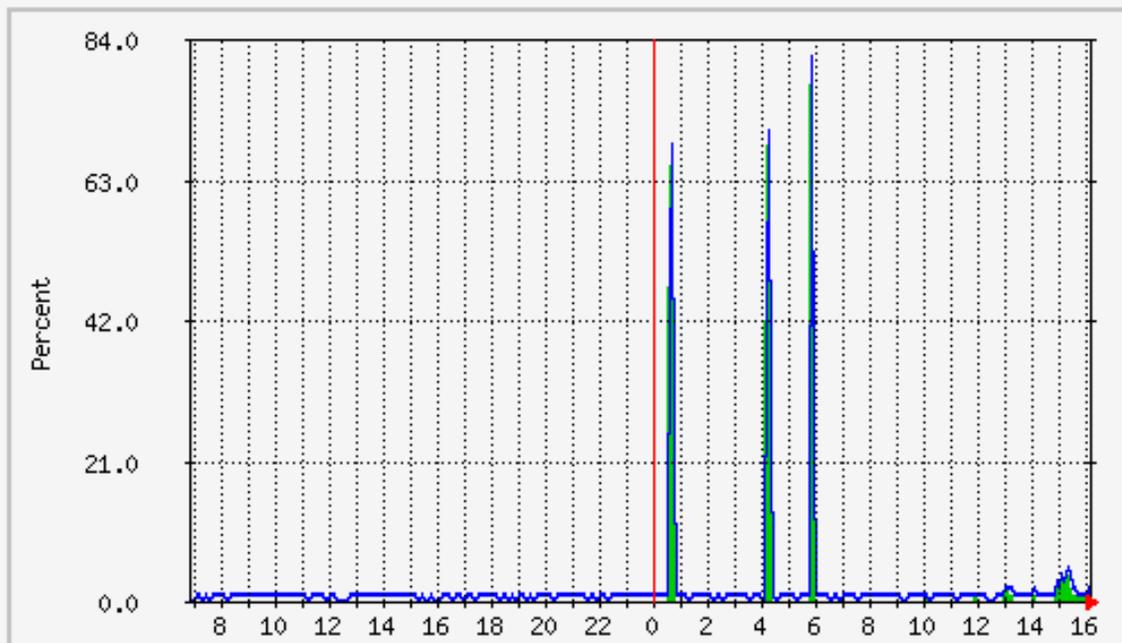
To access this section, click the Graphs button available in the toolbar.

The following server parameters can be monitored:

- CPU usage
- Memory usage
- Bandwidth usage
- Disk usage
- System load
- MySQL statistics
- QMail queue
- Number of Processes
- TCP and SQL Socket Connections
- Semaphores and Sockets

The recorded values are plotted on a graph according to the options enabled in the Server Parameters Monitoring area (accessible through the Settings button available in the toolbar).

To view the graphs rendered for a monitored parameter click the name of the chosen parameter. A new page will open displaying the Daily, Weekly, Monthly and Yearly graphs.



Legend	Now	Average	Max
User processes	3.0 %	2.1 %	77.0 %
Overall (user + system)	4.0 %	2.9 %	81.0 %

Example: daily CPU Usage

Under every graph, you can find a table that contains:

- The graph legend.
- The instantaneous, average and maximum values in the graph.

Although the instantaneous and maximum values can be viewed on the graph quite easily, the average value cannot be guessed from the graph.



#### Note

Pay attention to peak values! It is not uncommon to get peak values ten times higher than the average, but when certain values are exceeded you should consider finding out the source of the peak value, or adding supplementary hardware to the server to handle the load.

## Server Traffic

To access this area, click the Bandwidth Usage link, and then click the Show traffic button. A new page will open asking you to select the time interval for which you want to view a traffic report. Enter the starting and the ending periods for the traffic computation and click Show traffic. A new page will open where you can see the following information:

- Total output traffic – The total output traffic of the server in the selected time interval.
- Total input traffic - The total input traffic of the server in the selected time interval.
- Maximum output bandwidth - The maximum output bandwidth of the server in the selected time interval and the exact date and time when this was registered.
- Maximum input bandwidth - The maximum input bandwidth of the server in the selected time interval and the exact date and time when this was registered.



### Note

This is the total server traffic that passed through the monitored server Ethernet interface.

## Monitored Services Uptime Statistics

In this area the server administrator can view and search service uptime statistics for a selected time interval. The monitoring feature is able to check the most important services on the server. When an exception occurs (service down, not functional, or poor performance) a predefined action is taken and the system administrator is notified about the problem.

To access this section, click the Statistics button available in the toolbar.

The system is able to perform uptime calculations based on the monitored data. You will know the exact server services uptime so you will be able to bill customers based on SLA agreements. These statistics are a vital necessity, if you want to relate specific events.

To select the period for the uptime statistics to be rendered choose the Year, Month and Week starting on details, and then click Update.

In the Results area, the uptime statistics for the selected time period will be displayed on Daily, Weekly, and Monthly basis. Six statistics are available:

- Apache – Uptime statistics for the Apache server.
- MySQL – Uptime statistics for the MySQL server.
- PostgreSQL – Uptime statistics for the PostgreSQL server.
- Named – Uptime statistics for the Named server.
- QMail – Uptime statistics for the QMail server.
- Plesk – Uptime statistics for the Plesk admin server.



#### Note

“-“ will be displayed in the columns corresponding to the services that do not have uptime statistics available.

In order for these statistics to reflect realistic data you must have the service monitoring enabled in Monitoring area. When a service is not monitored, it is assumed that it works in such way that it does not affect the statistics.

## Server Assistant Settings

In this area, the server administrator can perform the following operations:

- View a 4PSA Server Assistant report.
- Enable/disable server parameters and services monitoring.
- Modify interface settings.

To access this area, click the Settings button available in the toolbar.



#### Note

Before running 4PSA Server Assistant for the first time you must adjust the settings in this area.

## 4PSA Server Assistant Reports

The Product version field displays the version of the 4PSA Server Assistant installed on the server.

## Server Parameters Monitoring

In this section, the server administrator can select the server parameters that will be monitored. The links displayed in the Graphs page correspond to the services that have the monitoring option enabled in the Settings page.



### Note

Please keep in mind that a monitoring application is designed to keep track of the most important system parameters, but it should not put additional load on the server.

The following options are available:

- CPU usage - When this option is enabled, 4PSA Server Assistant will monitor the CPU usage.
- Memory usage - When this option is enabled, 4PSA Server Assistant will monitor the memory usage.
- Bandwidth usage - When this option is enabled, 4PSA Server Assistant will monitor the bandwidth usage.
- Disk usage - When this option is enabled, 4PSA Server Assistant will monitor the disk usage.
- System load - When this option is enabled, 4PSA Server Assistant will monitor the system load.
- MySQL statistics - When this option is enabled, 4PSA Server Assistant will monitor the MySQL statistics.
- QMail queue - When this option is enabled, 4PSA Server Assistant will monitor the Qmail queue.
- Number of Processes - When this option is enabled, 4PSA Server Assistant will monitor the number of processes.
- TCP and SQL Socket Connections - When this option is enabled, 4PSA Server Assistant will monitor the TCP and SQL socket connections.
- Semaphores and Sockets - When this option is enabled, 4PSA Server Assistant will monitor the semaphores and sockets statistics.



### Note

If you are not interested in monitoring a certain parameter, you may want to disable the monitoring to save resources; deselect the check box corresponding to the unwanted service.

The server administrator can also modify the settings used to generate the graphic images. These graphs can be viewed on the Monitored Server Parameters area (click the Graphs button in the toolbar) when you click the name of the monitored parameter. You can edit the following settings:

- Daily Graph - Enable it to generate the daily graph. The plotting interval (resolution) for the daily graph is five minutes.
- Weekly Graph - Enable it to generate the weekly graph. The plotting interval (resolution) for the weekly graph is thirty minutes.
- Monthly Graph - Enable it to generate the monthly graph. The plotting interval (resolution) for the monthly graph is two hours.
- Yearly Graph - Enable it to generate the yearly graph. The plotting interval (resolution) for the yearly graph is one day.
- Update values and graphs every X minutes - Set the monitoring interval. We recommend that you leave the value at 5 minutes for the best results.

## Interface Settings

In this section, the server administrator can edit the following interface settings:

- Custom button title - The name of the custom button in the left panel. The server administrator can change the default 4PSA Server Assistant with a more descriptive name for his clients.
- Context help - The description for the 4PSA Server Assistant application that will appear in the navigation panel on the left.
- Language - Here all installed language packs are displayed. The interface will use the language pack setup in your account preference in Plesk. If this language pack is not available, the system will default to English. You can use only languages that have been installed in the Plesk interface.

## Services Monitoring & Intervention

4PSA Server Assistant is able to monitor system services and react when a particular service does not perform as expected. In this area, the server administrator can perform the following operations:

- Modify various settings that control service monitoring.
- Change intervention options.

- Manage advanced settings.

To access this section, click the Settings button available in the toolbar.

## General Settings

In this section, the server administrator can set the settings that will be used for all monitored services:

- Send email alerts to - When a system action is taken, a notification email is sent to this email address. If you do not want to receive email alerts, you should leave this field blank.
- Force services restart - When enabled, 4PSA Server Assistant will force the restart of the monitored services. This is useful when the rc scripts can no longer control the service.
- Content of email sent when a service is restarted – This option allows you to customize the text of the alert message.



### Note

You can also customize the text of the alert message; click the  icon and a new page opens allowing you to view and edit the body of the email notification.

## Services Monitoring & Intervention Settings

In this section, the server administrator can manage the reactions of 4PSA Server Assistant in different situations.

### Server Load Monitoring and Intervention

- Enabled – When this option is enabled, 4PSA Server Assistant will monitor the server load. When the system load reaches warning level and/or critical level, a predefined action will be performed.
- Maximum number of load alert emails per day – This option allows you to set a limit for the notification emails you receive daily; it prevents spamming from the server.
- Warning load level – Use this text box to define the warning level. When this level is reached, a predefined action is performed.
- Command to execute when warning level is reached – Use this text box to define the action that will be executed when a warning level is reached.

- Critical load level – Use this text box to define the critical level. When this level is reached, a predefined action is performed.
- Command to execute when critical level is reached – Use this text box to define the action that will be executed when a critical level is reached.

### Program Load Monitoring and Intervention

- Enabled – When this option is enabled, 4PSA Server Assistant will monitor the server's program load.
- Maximum CPU usage for a program – If a program exceeds this limitation, 4PSA Server Assistant will count the time the program is out of range.
- Maximum Memory usage for a program – If a program exceeds this limitation, 4PSA Server Assistant will count the time the program is out of range.
- Keyword to ignore in the program load monitoring – Use this text box to specify all the programs that should be ignored in the monitoring process.



#### Note

If you want to fill in several program names, separate them by spaces. For example `root httpd`.

- React if the service was out of boundaries for – This text box contains the number of minutes during which a program is allowed to exceed its CPU or Memory usage limitations before any action is performed.
- Action to perform when the program is found out of boundaries – Use this drop-down list to select one of these actions:
  - Nothing
  - Alert
  - Kill process
- Maximum number of program load alert emails per day – This option allows you to set a limit for the notification emails you receive daily; it prevents spamming from the server. See the note about customizing alert messages [above](#) .

### Bandwidth Monitoring

- Enabled – When this option is enabled, 4PSA Server Assistant will monitor the server's bandwidth.

- Alert if incoming bandwidth is higher than – If the server uses more incoming bandwidth than the value specified in this text box, the administrator will be notified.
- Alert if outgoing bandwidth is higher than – If the server uses more outgoing bandwidth than the value specified in this text box, the administrator will be notified.
- Maximum number of bandwidth alert emails per day – This option allows you to set a limit for the notification emails you receive daily; it prevents spamming from the server. See the note about customizing alert messages [above](#) .

### Disk Space Monitoring

- What to check – Use this drop-down list to select one of the options:
  - Do not check – 4PSA Server Assistant will not check if the used disk space exceeds any limits.
  - Absolute limit – 4PSA Server Assistant will check the amount (in MB) of free disk space on a partition.
  - Relative limit – 4PSA Server Assistant will check the percentage of free disk space on a partition.
  - Both absolute and relative limits
- Alert if a partition was less than – If the free disk space on a partition is less than the value specified by this text box, the administrator will be notified.
- Alert if a partition was less than – If the percentage of free disk space on a partition is less than the value specified by this text box, the administrator will be notified.
- Exclude partitions from check – Use this text box to ignore certain partitions in the monitoring process. For example, you may choose to exclude: `/boot /tmp /dev/shm` etc.
- Maximum number of disk alert emails per day – This option allows you to set a limit for the notification emails you receive daily; it prevents spamming from the server. See the note about customizing alert messages [above](#) .

### Ports and Sockets Monitoring

- Enabled – When this option is enabled, 4PSA Server Assistant will monitor connections established through server ports and sockets.

- Exclude services from monitoring – Use this text box to ignore certain services from the monitoring process. You may specify a service name, socket name or socket type.
- Maximum number of ports and sockets alert emails per day – This option allows you to set a limit for the notification emails you receive daily; it prevents spamming from the server. See the note about customizing alert messages [above](#) .

### Apache Monitoring and Intervention

- Enabled – When this option is enabled, 4PSA Server Assistant will monitor the Apache server. The action performed when Apache does not respond is restart.
- Apache URL Monitoring – When this option is enabled, 4PSA Server Assistant will monitor the Apache URL specified in the field below.
- Apache Test URL – This is the Apache URL that will be monitored, when Apache URL Monitoring option is enabled.
- Apache semaphores clean – When this option is enabled, 4PSA Server Assistant will clear all the semaphores when restarting the Apache server.



#### Note

When Apache is restarted, it may or may not clear the semaphores. Use this option to make sure you clean your working space when restating Apache.

- Maximum number of Apache restarts per day – Use this text box to set the maximum number of service restarts per day.



#### Note

When a service is down or found missing, it is restarted. However, it is not advisable to keep trying to restart a service for too many times because problems could escalate. If you only want to monitor the services, you can set this option at '0'. Please note that no action will be taken regardless of the service state.

- Maximum number of Apache alert emails per day – This option allows you to set a limit for the notification emails you receive daily; it prevents spamming from the server.

### MySQL Monitoring and Intervention

- Enabled – When this option is enabled, 4PSA Server Assistant will monitor the MySQL server. The action performed when MySQL does not respond is restart.
- Maximum number of MySQL restarts per day – Use this text box to set the maximum number of service restarts per day. See the note about restarting services [above](#) .
- Maximum number of MySQL alert emails per day – This option allows you to set a limit for the notification emails you receive daily; it prevents spamming from the server.

#### QMail Monitoring and Intervention

- Enabled – When this option is enabled, 4PSA Server Assistant will monitor the QMail server. The action performed when QMail does not respond is restart.
- Maximum number of Qmail restarts per day – Use this text box to set the maximum number of service restarts per day. See the note about restarting services [above](#) .
- Maximum number of Qmail alert emails per day – This option allows you to set a limit for the notification emails you receive daily; it prevents spamming from the server. See the note about customizing alert messages [above](#) .
- Alert when the number of messages in the Qmail queue is higher than – When the number of messages in the queue exceeds this value, the administrator will be notified.

#### Named Monitoring and Intervention

- Enabled – When this option is enabled, 4PSA Server Assistant will monitor the Named server. The action performed when Named does not respond is restart.
- Maximum number of Named restarts per day – Use this text box to set the maximum number of service restarts per day. See the note about restarting services [above](#)
- Maximum number of Named alert emails per day – This option allows you to set a limit for the notification emails you receive daily; it prevents spamming from the server.

#### Plesk Monitoring and Intervention

- Enabled – When this option is enabled, 4PSA Server Assistant will monitor the Plesk admin server. The action performed when Plesk does not respond is restart.

- Maximum number of Plesk restarts per day – Use this text box to set the maximum number of service restarts per day. See the note about restarting services [above](#) .
- Maximum number of Plesk alert emails per day – This option allows you to set a limit for the notification emails you receive daily; it prevents spamming from the server.

#### PostgreSQL Monitoring and Intervention

- Enabled – When this option is enabled, 4PSA Server Assistant will monitor the PostgreSQL server. The action performed when PostgreSQL does not respond is restart.
- Maximum number of PostgreSQL restarts per day – Use this text box to set the maximum number of service restarts per day. See the note about restarting services [above](#) .
- Maximum number of PostgreSQL alert emails per day – This option allows you to set a limit for the notification emails you receive daily; it prevents spamming from the server.

#### SpamAssassin Monitoring and Intervention

- Enabled – When this option is enabled, 4PSA Server Assistant will monitor the SpamAssassin service. The action performed when SpamAssassin does not respond is restart.
- Maximum number of SpamAssassin restarts per day – Use this text box to set the maximum number of service restarts per day. See the note about restarting services [above](#) .
- Maximum number of SpamAssassin alert emails per day – This option allows you to set a limit for the notification emails you receive daily; it prevents spamming from the server.

#### Mailman Monitoring and Intervention

- Enabled – When this option is enabled, 4PSA Server Assistant will monitor the Mailman server. The action performed when Mailman does not respond is restart.



#### Note

Mailman can not be monitored under FreeBSD as it is a cron scheduled service.

- Maximum number of Mailman restarts per day – Use this text box to set the maximum number of service restarts per day. See the note about restarting services [above](#) .
- Maximum number of Mailman alert emails per day – This option allows you to set a limit for the notification emails you receive daily; it prevents spamming from the server.



#### Note

Services monitoring has to be enabled for the uptime statistics to function correctly.

## License Management

In this area, you can manage the 4PSA Server Assistant license. The product requires a license key in order to work. The license key will be generated by 4PSA based on the server IP and Plesk version installed on the server.

You can use the following fields and controls to update or monitor your license:

- License key status
  - Your server IP – This is the main IP address of your server. The license key must be specifically issued for this IP otherwise it will not work.
  - License key status – The status of the currently loaded license key.
- Upload license key
  - License file – You can use this form to upload the license key to the server.



#### Note

If you can access other pages in 4PSA Server Assistant, this means that your license is valid and you do not have to upload a new one.

- Get license key from licensing server – This form can be used to query the licensing server, using the activation code for your license key. This function can only be used when there is a license key loaded on the server. The first time you install the product you will be required to upload the license key.
- License by activation code – This form can be used to query the licensing server, using the activation code of your license key.

- License key properties – This section contains details about the current license.
  - Key number - The number of the license key.
  - Key ownership - The type of the license key ownership.
  - Maximum number of domains - The maximum number of allowed domains.
  - License key must autorenew before - The date when the license key expires and must be renewed.
  - Key renewed on - Last key renewal date.



Note

The Owned and Leased licenses automatically renew before the **License expire date**.