WebLOAD Cloud User Guide

Version 12.0

WebLOAD Cloud User Guide

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Chapter 1

Introduction

RadView's WebLOAD Cloud provides a single unified command and control interface for creating, executing, scheduling, and analyzing tests – all directly from your web browser, either on-premises or in the Cloud.

Some of the tasks you can accomplish using WebLOAD Cloud include:

- Create and edit load tests – based on a WebLOAD script, a WebLOAD template, or using a single URL/API
- Upload, add and manage tests, resources, and sessions
- Execute and schedule test runs
- Analyze results using ready-made and self-configured dashboards
- Share tests and results with peers
- Manage access permissions for users and groups
- Download test results to your local machine for further analysis with WebLOAD Analytics

IMPORTANT NOTE: In previous WebLOAD versions, a WebLOAD script was called an "Agenda". From version 12.0, it is referred to simply as a script. Wherever "Agenda" is still displayed, we are referring to the WebLOAD script.

WebLOAD Recorder was formerly referred to as WebLOAD IDE.

WebLOAD Documentation

WebLOAD is supplied with the following documentation:

WebLOAD™ Installation Guide

Instructions for installing WebLOAD and its add-ons.

WebLOAD™ Recorder User's Guide

Instructions for recording, editing, and debugging load test scripts to be executed by WebLOAD to test your Web-based applications.

WebLOAD™ Console User's Guide

A guide to using WebLOAD console, RadView's load/scalability testing tool to easily and efficiently test your Web-based applications. This guide also includes a quick start section containing instructions for getting started quickly with WebLOAD using the RadView Software test site.

WebLOAD™ Analytics User's Guide

Instructions on how to use WebLOAD Analytics to analyze data and create custom, informative reports after running a WebLOAD test session.

WebRM™ User's Guide

Instructions for managing testing resources with the WebLOAD Resource Manager.

WebLOAD™ Scripting Guide

Complete information on scripting and editing JavaScript scripts for use in WebLOAD and WebLOAD Recorder.

WebLOAD™ JavaScript Reference Guide

Complete reference information on all JavaScript objects, variables, and functions used in WebLOAD and WebLOAD Recorder test scripts.

WebLOAD™ Extensibility SDK

Instructions on how to develop extensions to tailor WebLOAD to specific working environments.

WebLOAD™ Automation Guide

Instructions for automatically running WebLOAD tests and reports from the command line, or by using the WebLOAD plugin for Jenkins

WebLOAD™ Cloud User Guide

Instructions for using RadView's WebLOAD Cloud to view, analyze and compare load sessions in a web browser, with full control and customization of the display.

The guides are distributed with the WebLOAD software in online help format. The guides are also supplied as Adobe Acrobat files. View and print these files using the Adobe Acrobat Reader. Install the Reader from the Adobe website http://www.adobe.com.

Where to Get More Information

This section contains information on how to obtain technical support from RadView worldwide, should you encounter any problems.

Online Help

WebLOAD provides a comprehensive on-line help system with step-by-step instructions for common tasks.

You can press the **F1** key on any open dialog box for an explanation of the options or select **Help** > **Contents** to open the on-line help contents and index.

Technical Support Website

The technical support page on our website provides:

- The option of opening a ticket
- Links to WebLOAD documentation

Technical Support

For technical support in your use of this product, contact:

North American Headquarters	International Headquarters
e-mail: support@RadView.com Phone: 1-888-RadView (1-888-723-8439) (Toll Free) 908-526-7756 Fax: 908-864-8099	e-mail: support@RadView.com Phone: +972-3-915-7060 Fax: +972-3-915-7011

Note: We encourage you to use e-mail for faster and better service.

When contacting technical support please include in your message the full name of the product, as well as the version and build number.

Chapter 2

Installing WebLOAD Cloud

This section describes the standard WebLOAD Cloud installation process.

Installation Instructions

The WebLOAD Cloud is part of the regular WebLOAD installation.

To install the WebLOAD Cloud:

1. In the Select Components window of the WebLOAD installation wizard, select either of the following options:
   - Select **Full Installation** and check the **WebLOAD Cloud** checkbox to have the WebLOAD Cloud installed locally as part of a full installation. You can also optionally check the **WebLOAD Cloud as Service** checkbox to register the installed WebLOAD Cloud as a Windows service.
   - Select **Cloud Server** to only install the **WebLOAD Cloud**.

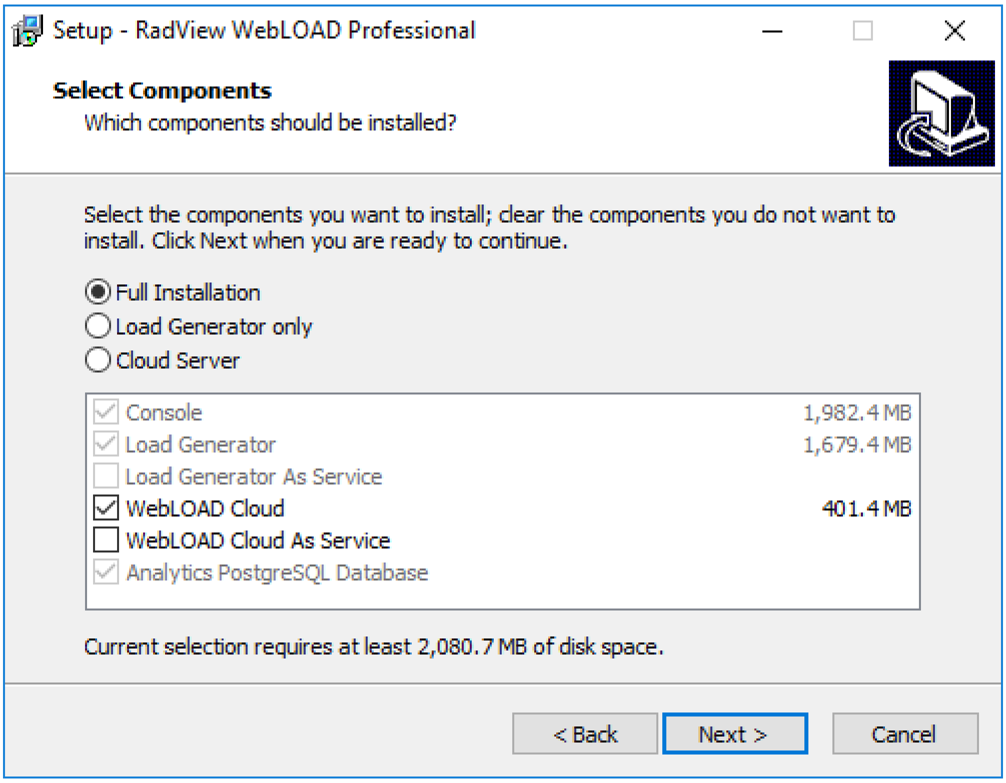


Figure 1: WebLOAD Cloud Installation Options

Enabling WebLOAD Cloud

As a prerequisite to using WebLOAD Cloud, you must first, in the WebLOAD Console (version 10.2 and up), enable the importing of sessions to the desired database as follows.

1. Select **Tools** > **Global Options** > **Database**.

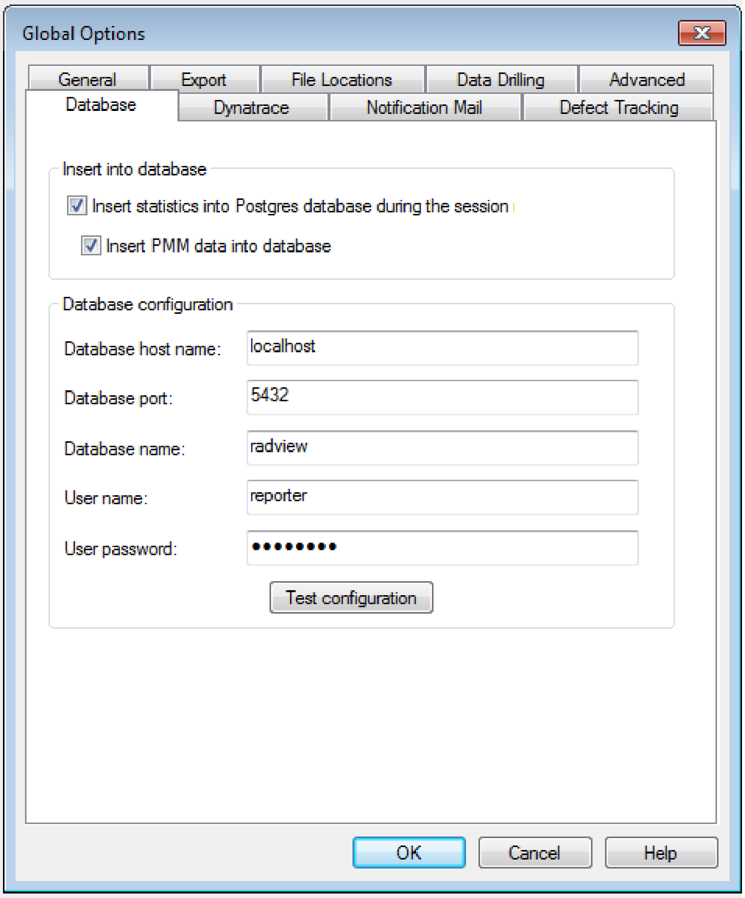


Figure 2: Console Global Options - Database Tab

2. Make sure the **Insert statistics into Postgres database during the session** checkbox is selected.
3. Select the **Insert PMM data into database** checkbox.

Chapter 3

Getting Started

Launching WebLOAD Cloud

To launch WebLOAD Cloud:

1. Select **Start** > **Programs** > **RadView** > **WebLOAD** > **Utilities**-> **Start WebLOAD Cloud**.

   This launches the WebLOAD Cloud server.

2. Navigate to **http://localhost:3000/**

   The WebLOAD Cloud login window appears. The default user is '**admin'** with password '**admin'**.

   Note that the default user is a Super Admin, as explained in *Super Administrators* (on page 80).

Figure 3: WebLOAD Cloud Login page

After login, the homepage appears, showing the latest sessions and tests with links to those sessions and tests, as well as links to creating new load tests in WebLOAD Cloud.

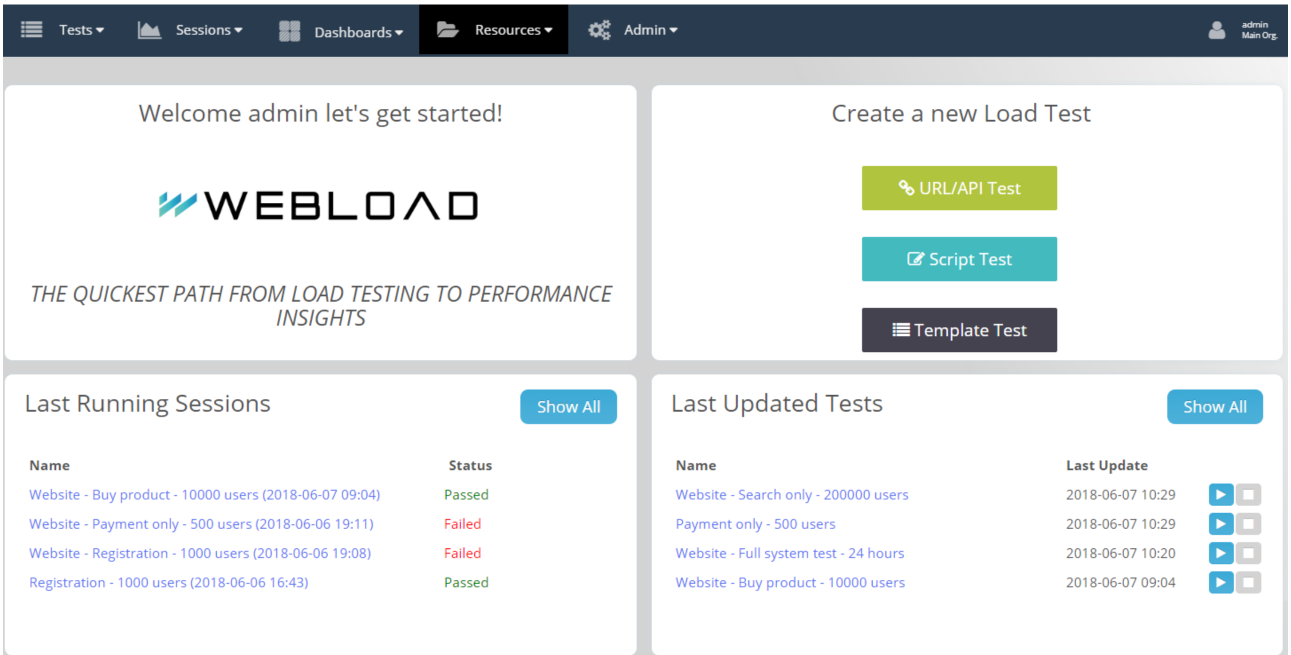


Figure 4: WebLOAD Cloud Homepage

Using the menu bar

The menu bar provides access to the various WebLOAD Cloud functions. Note that the Admin menu is available only for *Super Administrators*.

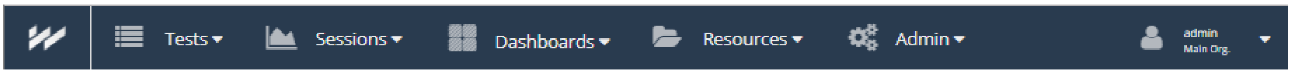


Figure 5: WebLOAD Cloud menu bar

Menu bar

The main components of the WebLOAD Cloud menu bar include:

Item	Description	For more information, see
Tests		
Search	View the list of Load Tests and their definitions, and perform operations on a selected Load Test: • Run test • Pause test • Edit test • View this test's sessions • Show this test's last session Delete test	*Viewing Tests* (on page 11)
New	Create a new Load Test	*Creating a new load test* (on page 12)

Item	Description	For more information, see
Sessions		
Search	Select a session for viewing and analysis	*Viewing Load Sessions* (on page 27)
Upload	Import a session into the database	*Uploading a session* (on page 29)
Dashboards		
Home	The Home dashboard, as configured in the user's Profile	*Setting the Default (Home) Dashboard* (on page 63)
Playlists	Create and play a dashboard that rotates through a list of dashboards	*Creating and Playing a Playlist* (on page 71)
+ New	Create a new dashboard	*Creating a New Dashboard* (on page 61)
+ Import	Import a dashboard that was saved in JSON file format	*Importing a Dashboard* (on page 59)
Resources		
Search	View the list of resources	*Viewing Resources* (on page 30)
Upload	Upload resources into the database	*Uploading Resources* (on page 32)
Admin – this tab is available only for Super Admin users		
Global Users	Manage users	*User Management by a Super Admin* (on page 81)
Global Orgs	Manage organizations	*Adding an Organization* (on page 87)
Load Generators	Define the available load generators	*Managing Load Generators* (on page 75)
Data Sources	A data source is a statistics data source. There are two types: • WebLOAD Data source – get information from a WebLOAD session. By default, this is the local installation, but it can be changed to point to a different one. Note – only one WebLOAD data source can be used at a time per organization (the default one) – to use more than one, create another organization and switch to it. • Other –WebLOAD Cloud can access other time based data sources and show them alongside the WebLOAD data.	*Changing the Back-End Server's Listening Port* (on page 94)

Item	Description	For more information, see
Plugins	List the installed plugins	
Server Settings	Show the current configuration	
Server Stats	Show the usage stats	
Logged in user		
You		
Profile	Change your user name, password, and UI preferences	
See EULA	View the End User License Agreement	
Sign out	Sign out	
Logged in user's Org		
Preferences	Change preferences at the Organizational level	*Managing Organizations* (on page 87)
Users	Manage the organization's users, including their roles (permissions)	*Managing Users* (on page 81)
API Keys	Manage API access	
Switch to	Switch between organizations in which you are a member. Note that when you switch to an organization, your permissions are the ones dictated by your role in that particular organization.	*User Editing by a Super Admin – Editing User's Permissions, Organizations, Roles and Details*
+ New Organization	Add an organization	*Adding an Organization* (on page 87)

Chapter 4

Managing Tests

Viewing Tests

You can view all the load tests you created in WebLOAD Cloud.

To view the load tests:

- In the menu bar, select **Tests** > **Search**.

The Load Tests page appears, listing the load tests in a table format.

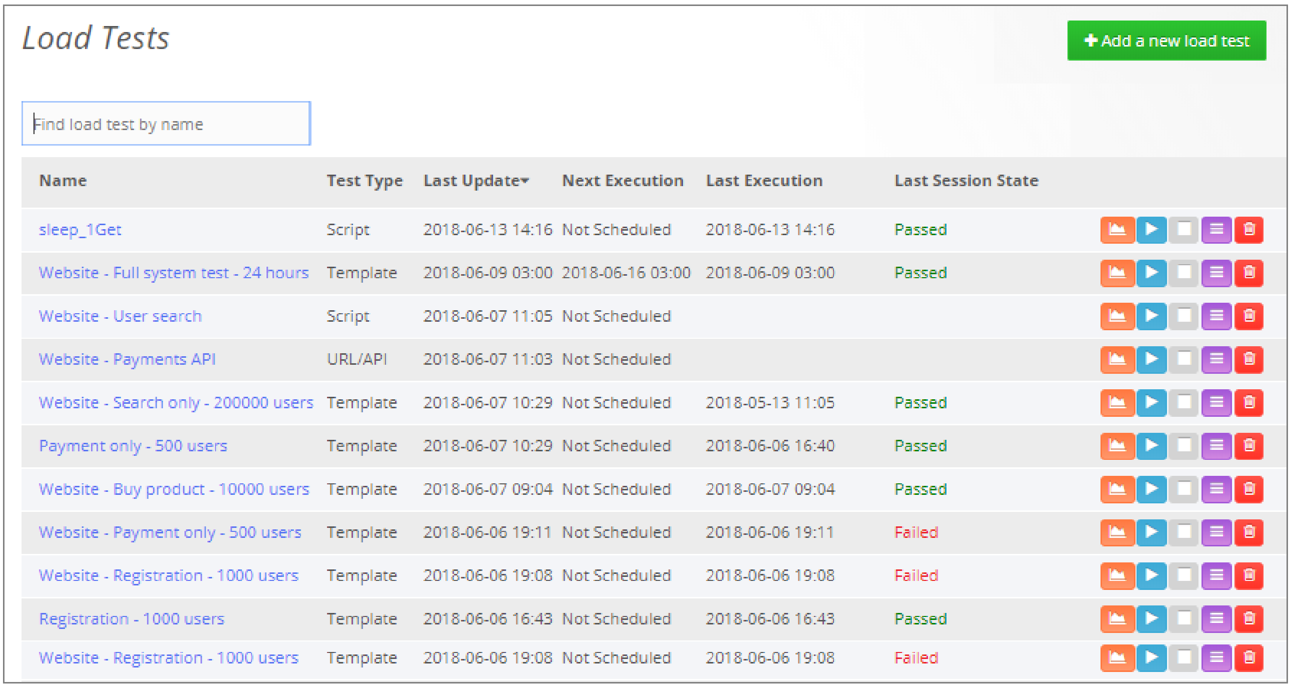


Figure 6: Load Tests table

The Load Tests table provides the following information and actions, for each Load Test:

Item	Description
Name	The name of the Load test. Clicking the name opens the test's definitions page, enabling you to edit them. Refer to *Editing a load test* (on page 25).

Item	Description
Test Type	The type of test: Either URL/API, Script, or Template.
Last Update	The date and time when the test definitions were last updated, or the test was run manually. This field shows no indication of whether the test is being executed in recurrence mode.
Next Execution	The date and time when the test is next scheduled to run. Refer to *Setting recurring test runs* (on page 23) and *Scheduling a one-time test* run (on page 24).
Last Execution	The date and time when the test last started running.
Last Session State	Whether the test passed or failed the last test execution.
	Enables viewing the last session of this test. Selecting this option opens a Dashboard page displaying the last session of the test. Refer to *Using Dashboards* (on page 35)
	Enables manually running this test now or at a specified time. Refer to *Scheduling a one-time test run* (on page 24).
	Instructs WebLOAD to stop the running test.
	Enables viewing all this test's sessions. Selecting this option opens a Load Sessions page (Figure 23) that displays all of this test's sessions.
	Instructs WebLOAD to delete the load test. Refer to *Deleting a load test* (on page 26).

Creating a new load test

You can create a new load test anytime.

To create a new load test:

1. Perform one of the following:
   - Select **Tests** > **New** and click **Add Load Test**. The Create a new Load Test page appears.
   - Select **Tests** > **Search**, and click **+ Add a new load test**. The Create a new Load Test page appears.
   - In the homepage, see the Create a new Load Test pane.

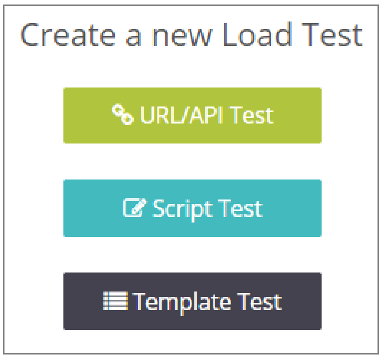


Figure 7: Selecting the type of load test to create

2. Select the type of test to create. Refer to the following for detailed explanations:
   - *Creating a URL/API Load Test* (on page 13)
   - *Creating a Script Load Test* (on page 16)
   - *Creating a Template Load Test* (on page 20)

Creating a URL/API Load Test

Use this option to instantly create a load test for testing a load on a URL and/or API.

After entering the load test specifications, WebLOAD automatically creates a test according to the specifications.

To create a URL/API load test:

1. Perform one of the following:
   - Select **Tests** > **New** and click **Add Load Test**. The Create a new Load Test page appears.
   - Select **Tests** > **Search**, and click **+ Add a new load test**. The Create a new Load Test page appears.
   - In the homepage, see the Create a new Load Test pane.

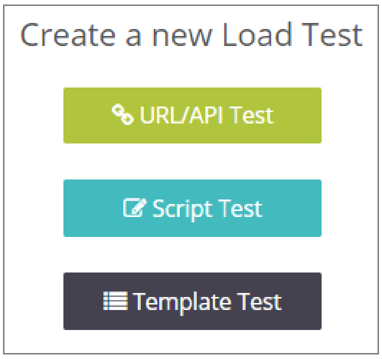


Figure 8: Selecting the type of load test to create

2. Select **URL/API Test**.

A Create Load Test page appears.

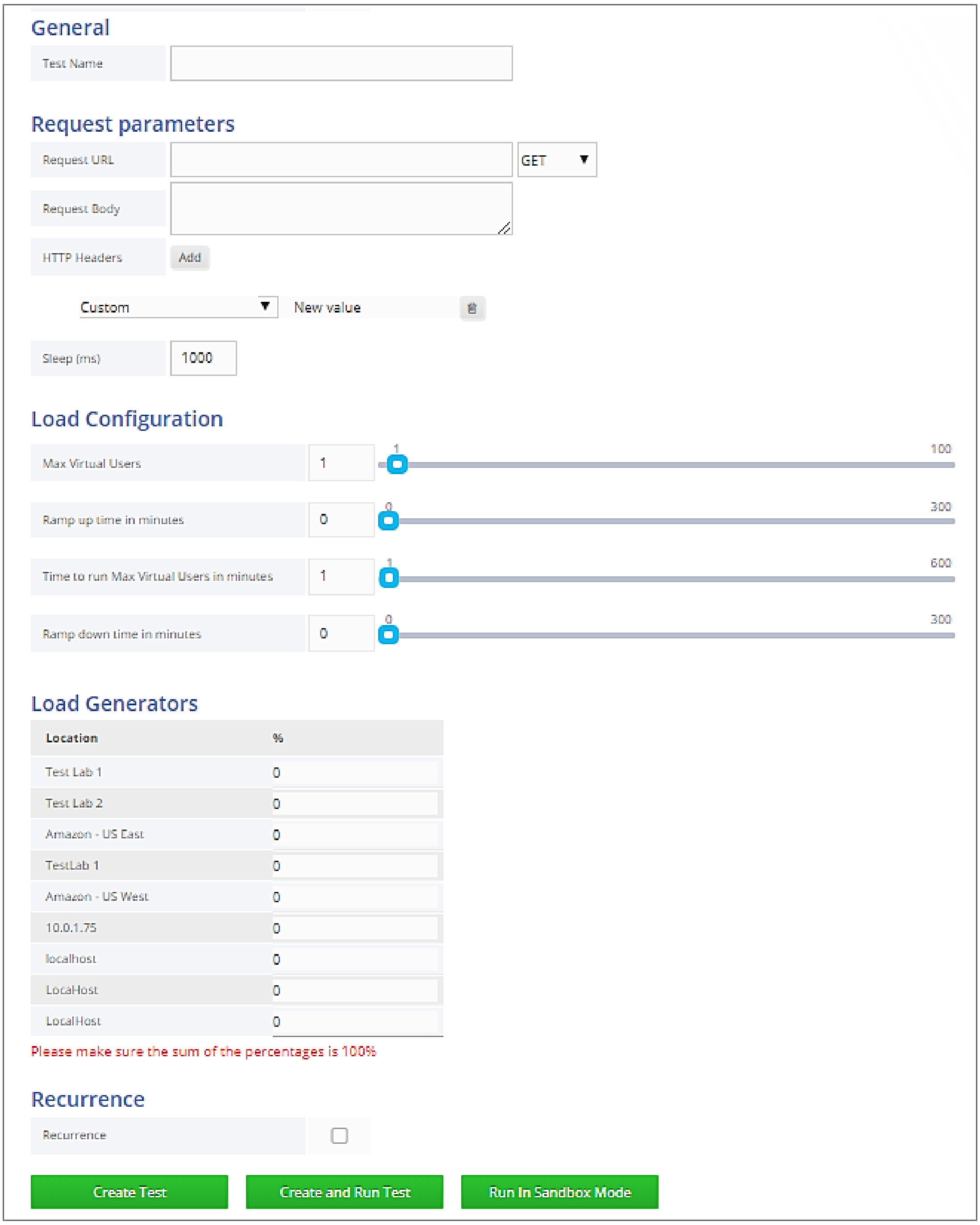


Figure 9 Creating a URL/API load test

3. Specify the test settings.

   The following table describes the information you need to provide for defining the URL/API Load Test:

Item	Description
General	
Test Name	The name of the Load test.
Request parameters	In this section, specify the URL of the site to be tested. You can in addition create an HTTP web service call.
Request URL	Specify the URL of the site to be tested.
Method	Optionally, specify a method for an HTTP web service call, from the drop-down list: **Get**, **Post**, **Put**, or **Delete**.
Request Body	Optionally, specify the web service body for the HTTP web service call.
HTTP Headers	Optionally, specify the web service header(s): Click **Add** for every header you wish to specify, and select the header from the dropdown list, or enter a custom header; then enter a value for the header.
Sleep	Specify the sleep time between each URL/API call.
Load Configuration	For each of the following, enter a number, or use the slider tool to specify the number.
Max Virtual Users	The maximum number of Virtual Users to generate.
Ramp up time in minutes	The time interval over which to increase the load from 0 Virtual Users to the number of virtual users specified in Max Virtual Users.
Time to run Max Virtual Users in minutes	The time interval during which to run the load at the max number of Virtual Users
Ramp down time in minutes	The time interval over which to decrease the load in order to return to 0 Virtual User
Load Generators	Select the load generator machines that will participate in the load test, as described in *Specifying Load Generators for a load test* (on page 22).
Recurrence	Select this option if you wish to schedule automatic periodic execution of the load test. Refer to *Setting recurring test runs* (on page 23).

The URL/API load test generates an increasing load over a set time frame until reaching a defined maximum load size. The maximum load size is then run for a set period after which the load is reduced back to the base load again over a time frame defined by the user. The load increments are calculated automatically by WebLOAD based on the parameters defined.

Thus, the load will start with 0 Virtual Users and increase over the time frame defined in the **Ramp up time** field to reach the number of Virtual Users defined in the **Max Virtual Users** field. The test will then continue running with the maximum number of Virtual Clients for the period of time defined in the **Time to run Max Virtual Users** field, after which load will return to 0 Virtual Users value over the time frame set in the **Ramp down time** field.

4. Select one of the following:
   - **Create Test** – The test definitions are saved.
   - **Create and Run Test** – The test definitions are saved, and the test starts running immediately.
   - **Run in Sandbox Mode** – The system saves all the test definitions, but runs a limited test on the settings specified in the **Request Parameters** section while ignoring all the settings in the **Load Configuration**, **Load Generators**, and **Recurrence** sections.
     This option is intended for SaaS users wishing to run a limited test prior to running the full test specified in the test definitions.

Creating a Script Load Test

Use this option to create a load test based on a WebLOAD script that was created in WebLOAD Recorder.

To create a script load test:

1. Perform one of the following:
   - Select **Tests** > **New** and click **Add Load Test**. The Create a new Load Test page appears.
   - Select **Tests** > **Search**, and click **+ Add a new load test**. The Create a new Load Test page appears.
   - In the homepage, see the Create a new Load Test pane.

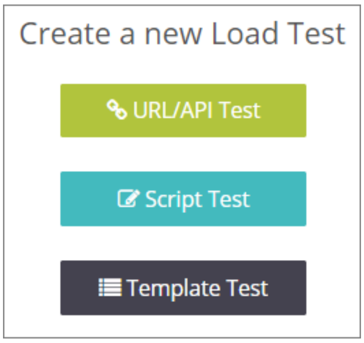


Figure 10: Selecting the type of load test to create

2. Select **Script Test**.

A Create Load Test page appears.

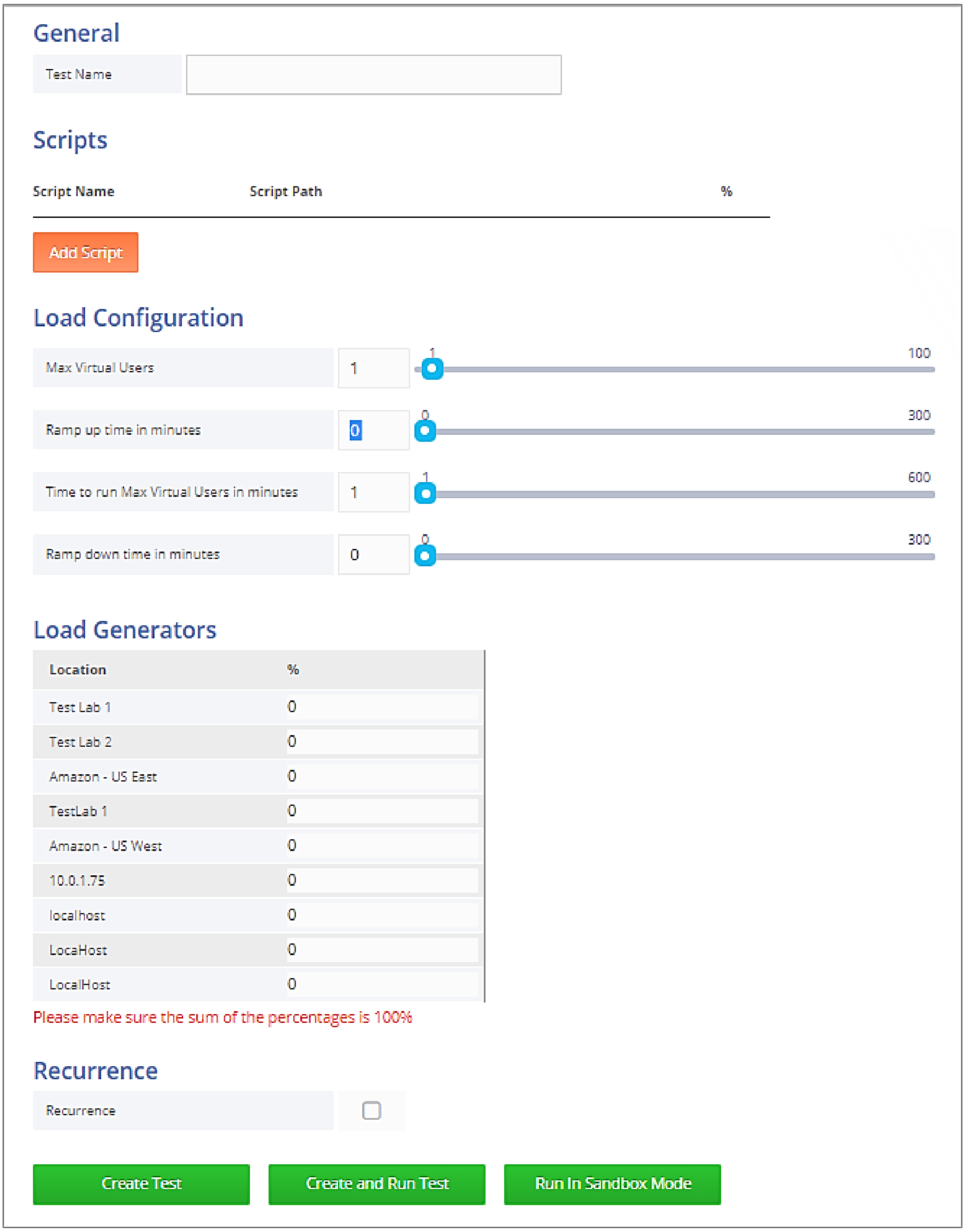


Figure 11 Creating a Script load test

3. Specify the test settings.

   The following table describes the information you need to provide for defining the Script Load Test.

Item	Description
General	The name of the Load test.
Scripts	Specify the scripts that will participate in the test, as well as their relative weights, as described in *Specifying Scripts for a load test* (on page 19).
Load Configuration	For each of the following, enter a number, or use the slider tool to specify the number.
Max Virtual Users	The maximum number of Virtual Users to generate.
Ramp up time in minutes	The time interval over which to increase the load from 0 Virtual Users to the number of virtual users specified in Max Virtual Users.
Time to run Max Virtual Users in minutes	The time interval during which to run the load at the max number of Virtual Users
Ramp down time in minutes	The time interval over which to decrease the load in order to return to 0 Virtual Users
Load Generators	Select the load generator machines as described in *Specifying Load Generators for a load test* (on page 22).
Recurrence	Select this option if you wish to schedule automatic periodic execution of the load test. Refer to *Setting recurring test runs* (on page 23).

The Script load test generates an increasing load over a set time frame until reaching a defined maximum load size. The maximum load size is then run for a set period after which the load is reduced back to the base load again over a time frame defined by the user. The load increments are calculated automatically by WebLOAD based on the parameters defined.

Thus, the load will start with 0 Virtual Users and increase over the time frame defined in the **Ramp up time** field to reach the number of Virtual Users defined in the **Max Virtual Users** field. The test will then continue running with the maximum number of Virtual Clients for the period of time defined in the **Time to run Max Virtual Users** field, after which load will return to 0 Virtual Users value over the time frame set in the **Ramp down time** field.

4. Select one of the following:

- **Create Test** – The test definitions are saved.
- **Create and Run Test** – The test definitions are saved, and the test starts running immediately.

- **Run in Sandbox Mode** – The system saves all the test definitions, but runs a limited test on the settings specified in the **Scripts** section while ignoring all the settings in the **Load Configuration**, **Load Generators**, and **Recurrence** sections.
  This option is intended for SaaS users wishing to run a limited test prior to running the full test specified in the test definitions.

Specifying Scripts for a load test

To specify the script participating in a *Script Load Test*:

1. For every script you want to include in the Script Load test, click **Add Script**.

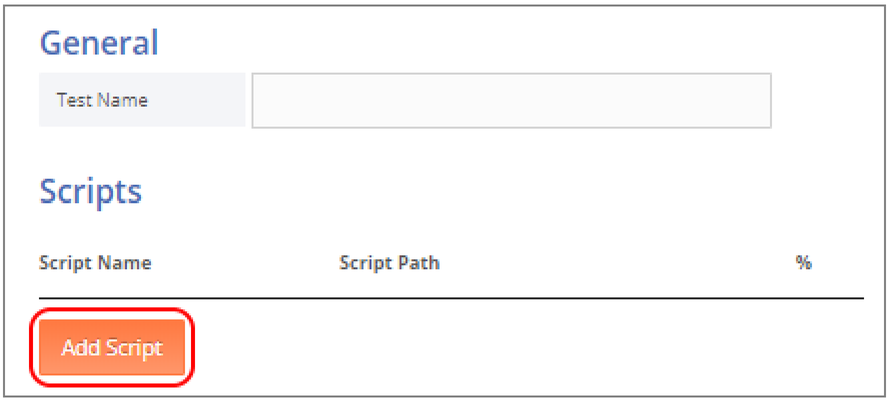


Figure 12 Selecting to add a script to a Script Load Test

The **Scripts** page appears.

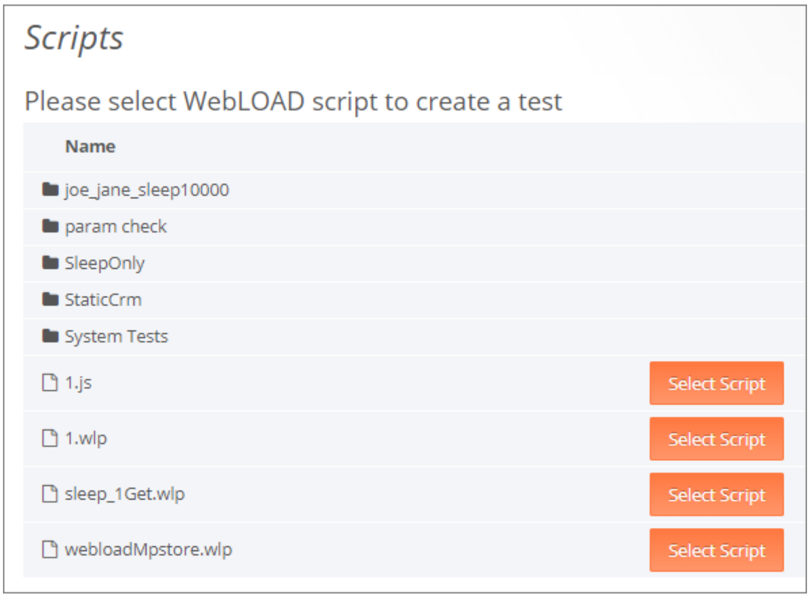


Figure 13 Selecting a script in the Scripts page

The Scripts page lists the scripts uploaded to the WebLOAD Cloud. For details how to upload a script, refer to *Uploading Resources* (on page 32). If a script was uploaded with the folder in which it is located, the folder name appears; in that case, click the folder name to navigate to the script itself.

2. Select a script by clicking **Select Script** in the corresponding line.

   You are returned to the Script Load Test page, with the selected script appearing in its **Scripts** list.

Figure 14: List of scripts participating in a Script Load Test

3. In the % column, specify the relative weight of each script. Make sure that the percentages all add up to 100%. If you wish to give the scripts identical weights, click **Make Equal**.

Creating a Template Load Test

Use this option to create a load test based on a WebLOAD template file that was created in WebLOAD Console.

To create a template load test:

1. Perform one of the following:
   - Select **Tests** > **New** and click **Add Load Test**. The Create a new Load Test page appears.
   - Select **Tests** > **Search**, and click **+ Add a new load test**. The Create a new Load Test page appears.
   - In the homepage, see the Create a new Load Test pane.

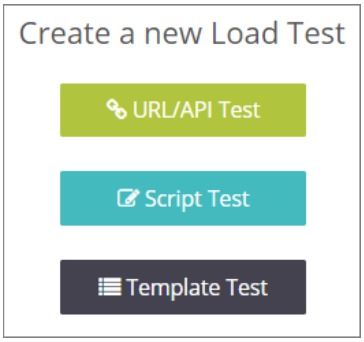


Figure 15: Selecting the type of load test to create

2. Select **Template Test**.

   A Create Load Test page appears.

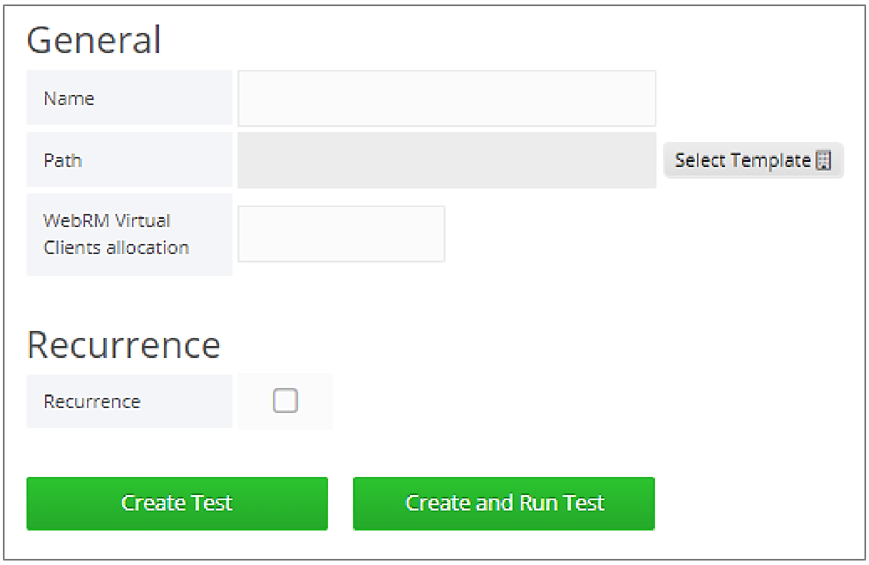


Figure 16 Creating a Template load test

3. Specify the test settings.

   The following table describes the information you need to provide for defining the Template Load Test:

Item	Description
General	
Name	The name of the Load test.
Path	Click **Select Template** to select a template from the list appearing in the **Resources** > **Templates** page that appears.
WebRM Virtual Clients allocation	This is relevant for a WebRM configuration. Specify the number of virtual users to allocate for this test from the floating WebRM license.

Item	Description
Recurrence	Select this option if you wish to schedule automatic periodic execution of the load test. Refer to *Setting recurring test runs* (on page 23).

4. Select one of the following:
   - **Create Test** – The test definitions are saved.
   - **Create and Run Test** – The test definitions are saved, and the test starts running immediately.

Specifying Load Generators for a load test

Load generators are machines that bombard tested site with transactions to test site scalability and integrity.

Both a *URL/API Load Test* and a *Script Load Test* require you to specify the load generators that will participate in the test.

Note that the list of available load generators is defined by a Super Admin, as described in *Adding Load Generators* (on page 75).

To specify the load generators participating in a load test:

1. Keep in mind that each Location in the list defines a group of one or more load generators having the same "Location" tag. For a detailed explanation, refer to *Setting Load Generators' Location Tag* (on page 77).
2. Select a group of load generators with an identical Location, by entering a non-zero percentage in the corresponding % column. The percentage specifies the relative weight of this group of load generators.

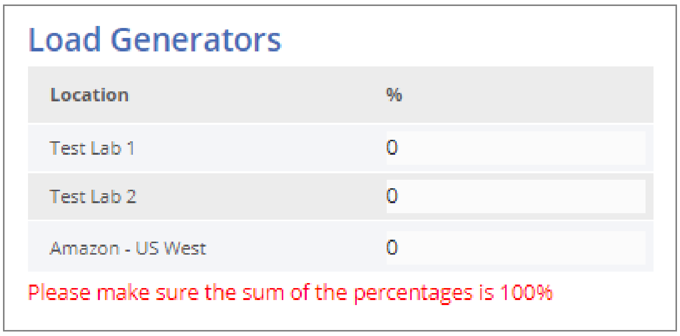


Figure 17: List of available load generators – as appearing in a load test page

3. Make sure the sum of all the percentages is 100%.

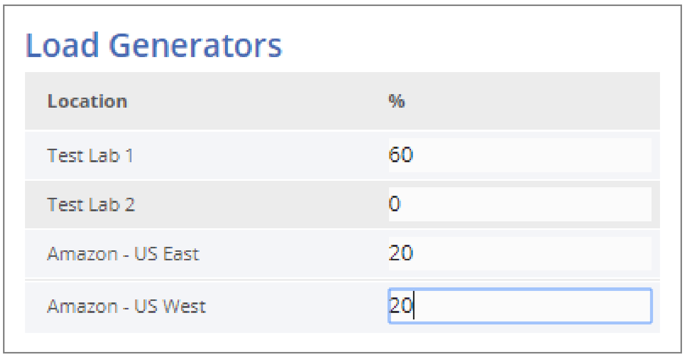


Figure 18: Specifying the load generators participating in a load test

Setting recurring test runs

For each load test you create – see *Creating a new load test* (on page 12) – you can schedule automatic periodic execution of the test.

Note that you can also, at any time, manually run or schedule a one-time test run. Refer to *Scheduling a one-time test run* (on page 24).

To set automatic periodic execution of a load test:

1. In the Create Load Test page, accessed as described in *Creating a new load test* (on page 12), select the **Recurrence** checkbox.

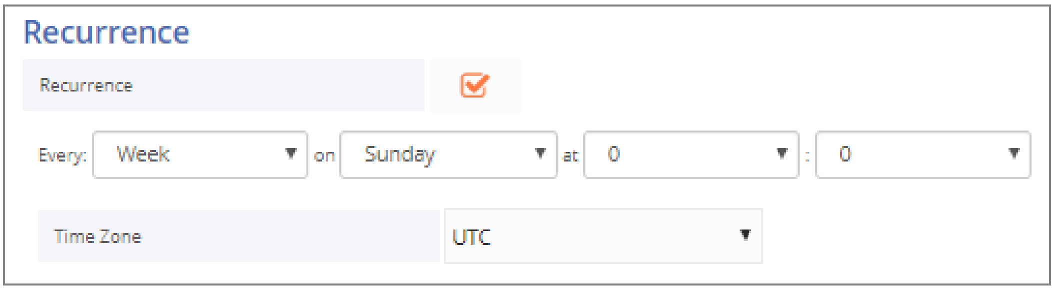


Figure 19: Setting test recurrence

2. Set the frequency: **Every Day** or **Every Week**.
3. For a weekly recurrence, specify the day of the week on which to run the test.
4. Define the exact time of day when to run the test.
5. Specify the **Time Zone** according to which the time is determined.

Scheduling a one-time test run

You can, at any time, manually run or schedule a one-time test run, as explained in this section.

Note that you can also schedule automatic periodic execution of a test, as part of test definition. Refer to *Creating a new load test* (on page 12).

To manually run a load test:

1. In the menu bar, select **Tests** > **Search**.

   The Load Tests table appears (Figure 6).

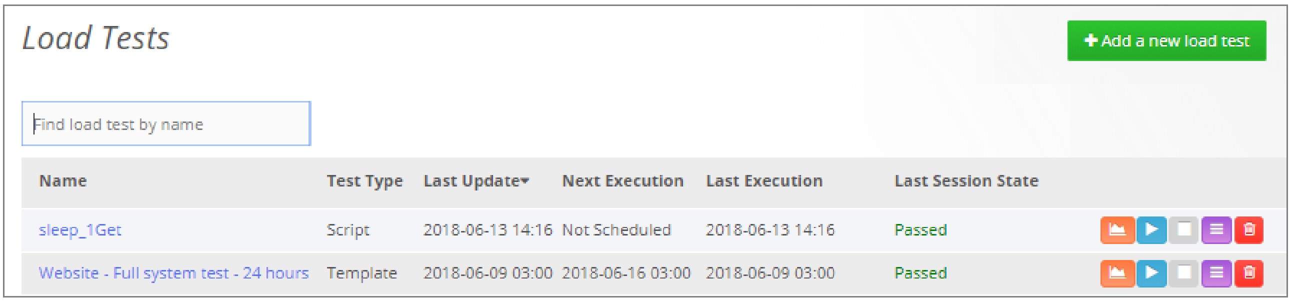


Figure 13: Load Tests page

2. In the line corresponding to the test you wish to run, click .

   A Run Test query is displayed.

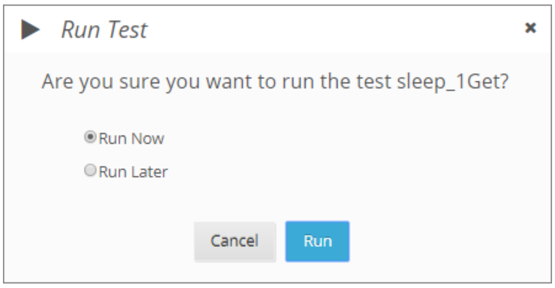


Figure 13: Run Test query

3. Do one of the following:

   - To run the test now, click **Run Now**.
   - To run the test at a specific later time, click **Run Later**, and specify the date and time for running the test.

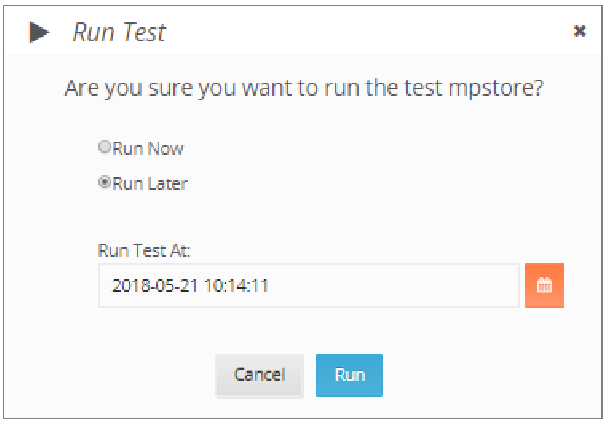


Figure 20: Specifying to run a load test at a later time

4. Click **Run**.

Editing a load test

To edit a load test:

1. In the menu bar, select **Tests** > **Search**.

   The Load Tests table appears (Figure 6).

2. In the **Name** column, click the name of the test you wish to edit.

   The test definition page appears. The following figure shows an example of the page that appears when selecting to edit a template load test.

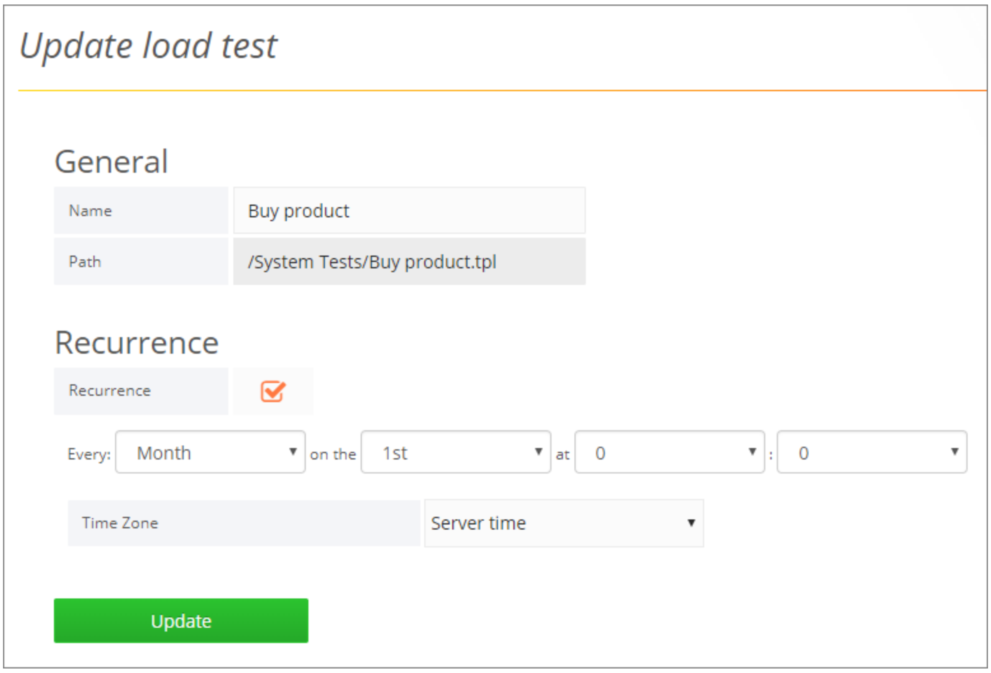


Figure 21: Editing a template load test

3. Edit the test definitions as desired. For an explanation of the various fields, refer to the relevant explanation in *Creating a new load test* (on page 12).
4. Click **Update**.

Deleting a load test

To delete a load test:

1. In the menu bar, select **Tests** > **Search**.

   The Load Tests table appears (Figure 6).

2. In the line corresponding to the test you wish to edit, click .

   A Delete Test page appears.

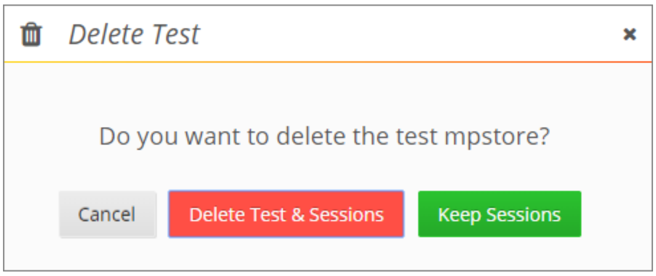


Figure 22: Deleting a load session

3. In the Delete Test page that appears, you can select between:
   - Deleting the load test and all its session.
   - Deleting only the load test, but keeping the test sessions.

Chapter 5

Managing Sessions

In WebLOAD Cloud you can manage the following types of sessions:

- The sessions of load tests created and run in the WebLOAD Cloud
- Sessions that were created in the WebLOAD Console, and uploaded to the WebLOAD Cloud. For instructions how to upload sessions to the WebLOAD Cloud, see *Uploading a session* (on page 29).

Viewing Load Sessions

To view the load sessions:

- In the menu bar, select **Sessions** > **Search**.

The Load Sessions table appears.

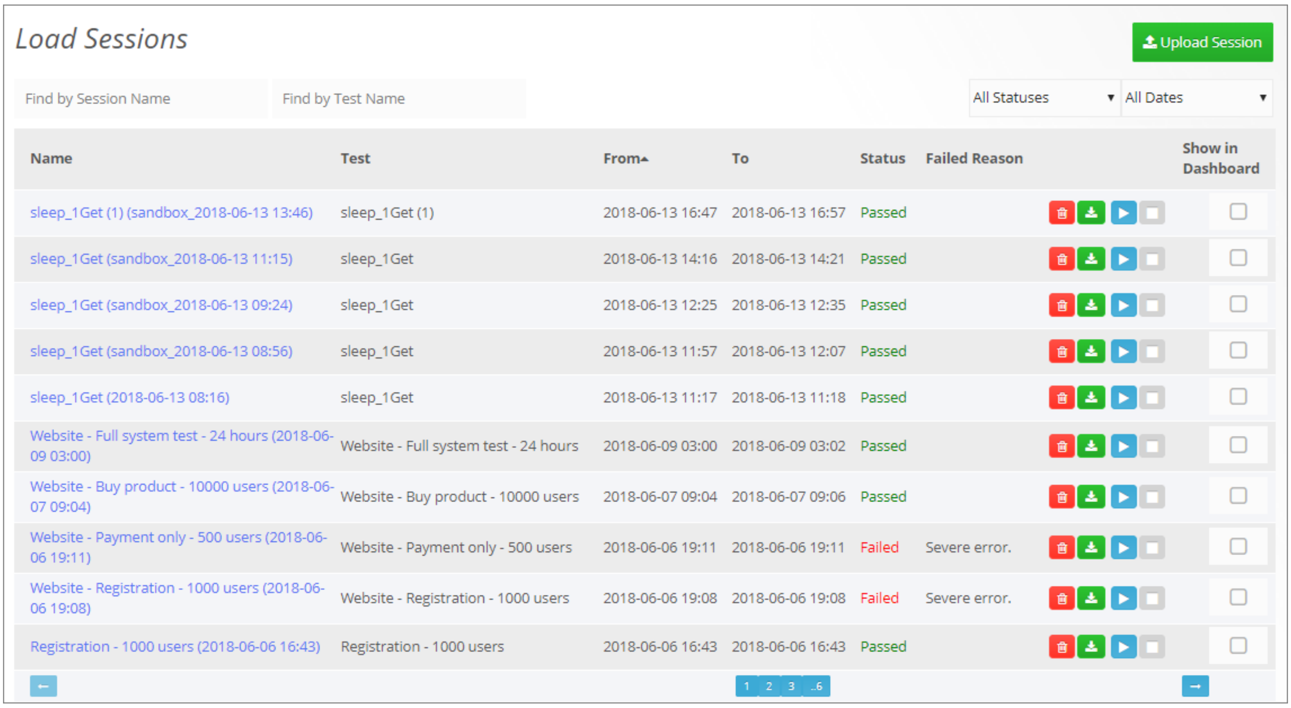


Figure 23: Load Sessions page

The Load Sessions table provides the following information and available actions, for each Load Session:

Item	Description
Name	The name of the load session. Clicking the name opens the Dashboard page for this session. enabling you to view the results of this session.
Test	The name of the corresponding load test.
From	The date and time when the load session started running.
To	The date and time when the load session finished running.
Status	Whether the test passed or failed test execution.
Failed Reason	If the test failed, displays the reason for failure.
	Instructs WebLOAD to delete this load session.
	Instructs WebLOAD to download the session results to the local computer. The results are downloaded as a zip file that contains the following files: .ls, .mdb, .sdb, .isd, .dat. You can then open the session in WebLOAD Console or WebLOAD Analytics.
	Enables manually running a test created in WebLOAD Cloud, now or at a specified time. Refer to *Scheduling a one-time test run* (on page 24).
	Instructs WebLOAD to stop running the test.
Show in Dashboard	Enables specifying which sessions to display in the dashboard. This is very useful for comparing the statistics from multiple sessions.

Filtering the Load Sessions display

The Filter bar, above the Load Sessions table, provides various options for filtering the display.

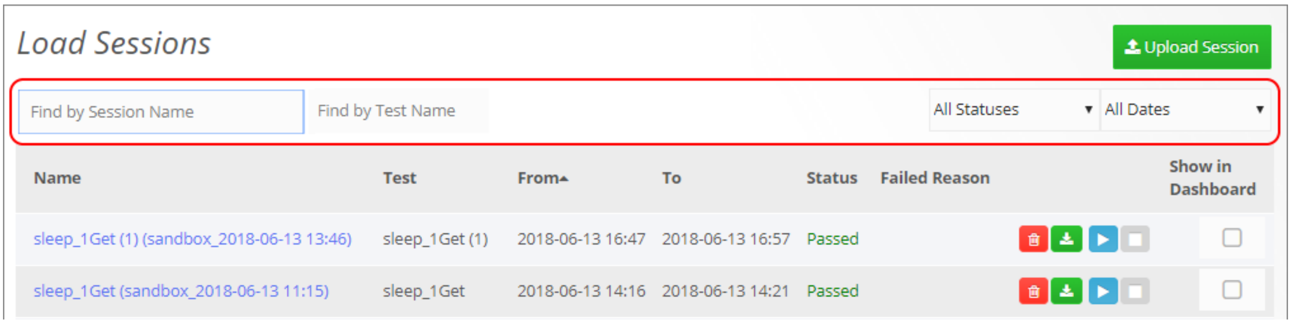


Figure 24: Options for filtering the Load Sessions list

You can filter the Load Sessions table display by:

- Session name, using the **Find by Session Name** box.
- Test name, using the **Find by Test Name** box.
- Test status, using the **All Statuses** drop-down box
- Test date, using the **All Dates** drop down box

Uploading a session

You can upload to WebLOAD Cloud, sessions that were created in the WebLOAD Console. Each session created in the WebLOAD Console consists of the following four types of files; to upload the session, you need to upload all four files:

- `.ls` – Load Session files
- `.dat` – Load Session data files
- `.sdb` – Statistics database files
- `.isd` – Index statistics database files

To upload a session:

1. Do one of the following:
   - In the menu bar, select **Session** > **Upload**

     Or
   - In the Load Sessions table, click **Upload Session**

   The Session Upload page is displayed.

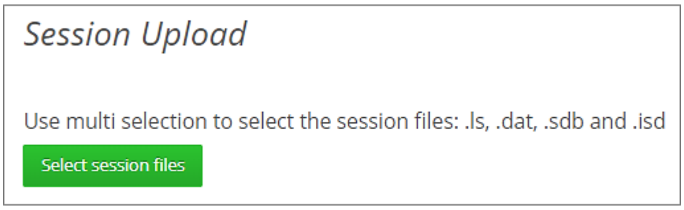


Figure 25: Session Upload page

2. Click **Select session files**.
3. In the file explorer dialog that appears, navigate to the load session's files, select them, and click **Open**.

Chapter 6

Managing Resources

The Resources tab enables loading any file type, to the WebLOAD Cloud's Resources folder. You can use this functionality to upload the files of tests you created in WebLOAD Console, such as templates, scripts, sessions, etc. and any file used to test your system. The Resources tab also offers the option of creating sub-folders. If you want the uploaded templates or script to continue working once they are uploaded to WebLOAD Cloud, you will need to create the same hierarchy as the original hierarchy of the files you are uploading.

Viewing Resources

To view the resources uploaded to WebLOAD Cloud:

1. In the menu bar, select **Resources** > **Search**.

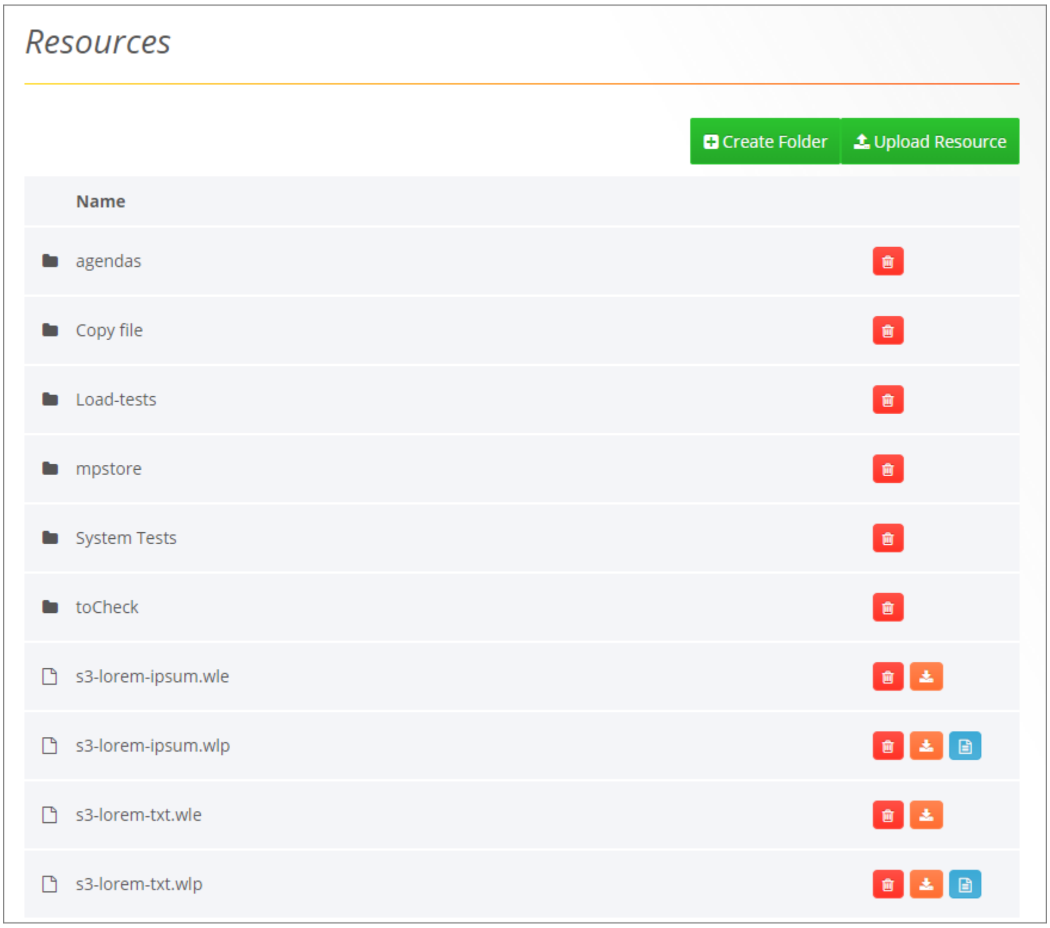


Figure 26: Resources page

The resources can be organized hierarchically in subfolders, or some or all of them can be located in the root of the Resources folder. To view the contents of a subfolder, click the subfolder name.

The Resources table provides the following information and available actions, for each resource or resource subfolder:

Item	Description
Name	The name of the resource or folder containing resources.
	Instructs WebLOAD to delete the resource or folder. Refer to *Deleting a Resource or Resources folder* (on page 33).
	Instructs WebLOAD to download the resource to the local computer.
	Enables creating a load test based on the resource. Refer to *Creating a Load Test Based on a Resource* (on page 33).

Uploading Resources

To upload a resource into WebLOAD Cloud:

1. In the menu bar, select **Resources** > **Search**.

   The Resources page appears (Figure 26).

2. If you wish to add a resource into the root folder of the WebLOAD Console Resources folder, click **Upload Resources** in the Resources page.

3. If you wish to add a resource into a subfolder of the WebLOAD Console Resources folder:

   a. Navigate to the subfolder in the folders tree displayed in the Resources page. If the sub folder does not yet exist, create it as described in *Creating a Resources subfolder* (on page 32)

   b. Click **Upload Resource**.

   The Upload Resources page appears.

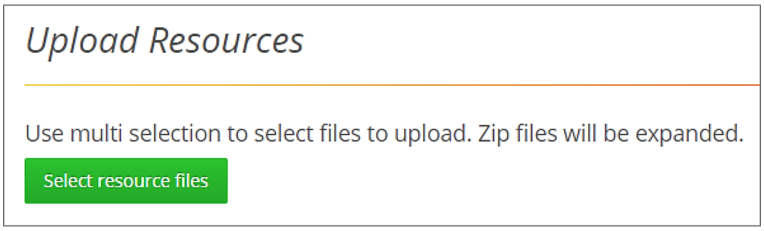


Figure 27: Upload Resources page

4. In the Upload Resources page, click **Select resource files**.

5. In the file explorer window that appears, navigate to the files and select them, and then click **Open**.

6. The files are uploaded to the folder you were in when you clicked **Upload Resource.**

Creating a Resources subfolder

To create a subfolder in the Resources folder:

1. In the menu bar, select **Resources** > **Search**.

   The Resources page appears (Figure 26).

2. If you wish to add a subfolder under the root folder of the WebLOAD Console Resources folder, click **Create Folder** in the Resources page.

3. If you wish to add a subfolder under a specific subfolder of the WebLOAD Console Resources folder, navigate to the specific subfolder in the folders tree displayed in the Resources page. Then click **Create Folder**.

The New Resource Folder page appears.

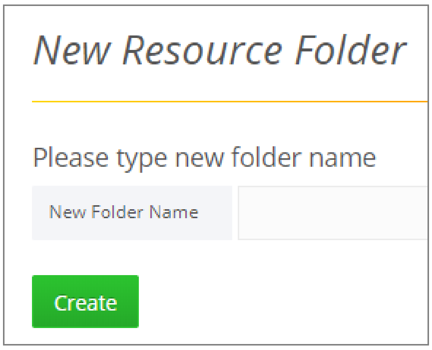


Figure 28: New Resource Folder page

4. Specify the subfolder's name, and click **Create**.

Creating a Load Test Based on a Resource

You can create a load test based on either of the following types of resources:

- .wlp – a script as well as resources related to the script
- .tpl – a template file

To create a load test based on a resource:

1. In the menu bar, select **Resources** > **Search**.
2. In the Resources table, click adjacent to a resource of type .wlp or .tpl.
3. If the resource was a .wlp file, the Create Load Test for a Script-type test appears, with the .wlp already appearing in the **Script** field. See *Creating a Script Load Test* (on page 16). Set or edit any of the fields, and click **Create Test**.
4. If the resource was a .tpl file, the Create Load Test for a template-type test appears, with the .tpl already appearing in the **Template** field. See *Creating a Template Load Test* (on page 20). Set or edit any of the fields, and click **Create Test**.

Deleting a Resource or Resources folder

1. In the menu bar, click **Resources** > **Search**.
2. Optionally navigate to a specific subfolder in the folders tree displayed in the Resources page.
3. Click adjacent to a resource or subfolder.
4. You are requested to confirm the delete operation.

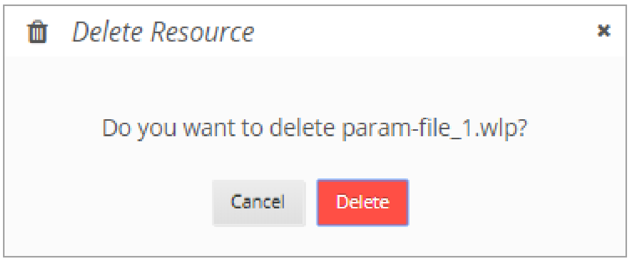


Figure 29: Requesting confirmation to delete a resource

5. If the resource is a template, you can select between:
   - Deleting the template as well as its associated test and sessions
   - Deleting only the template, but keeping the associated test and sessions.

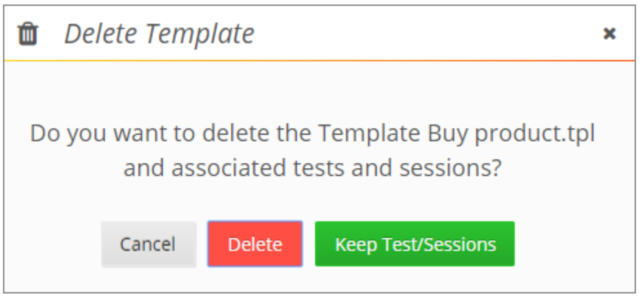


Figure 30: Specifying to delete a template resource

6. If you specified to delete a resources folder, keep in mind that although the templates located in this folder will be deleted, the tests and sessions from those folders will be kept for review and will be displayed in the Load Tests page and Load Sessions page (but without the ability to run them).

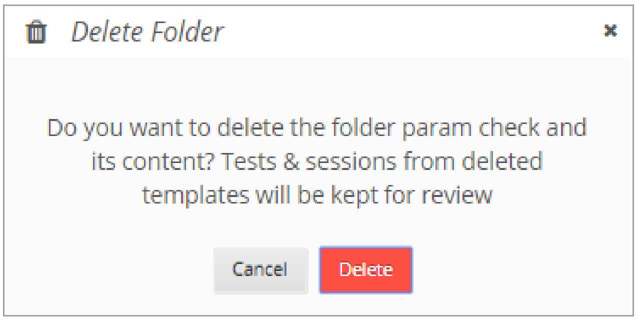


Figure 31: Specifying to delete a resource subfolder

Chapter 7

Using Dashboards

The **Dashboards** tab enables viewing, analyzing and comparing load sessions, with full control and customization of the display.

- For explanations of the various measurements in the graphs, refer to the *WebLOAD Console User's Guide*.
- For explanations of the log messages in the tables, refer to the *WebLOAD Console User's Guide*.

Dashboards tab components

The high level UI components of the **Dashboards** tab include:

- ***Header*** – Provides global settings, filters and controls
- ***Rows*** – Each row contains panels for data display
- ***Panels*** – Display data in graph, text, table, singlestat, Alert list, Dashboard list, or Plugin list format

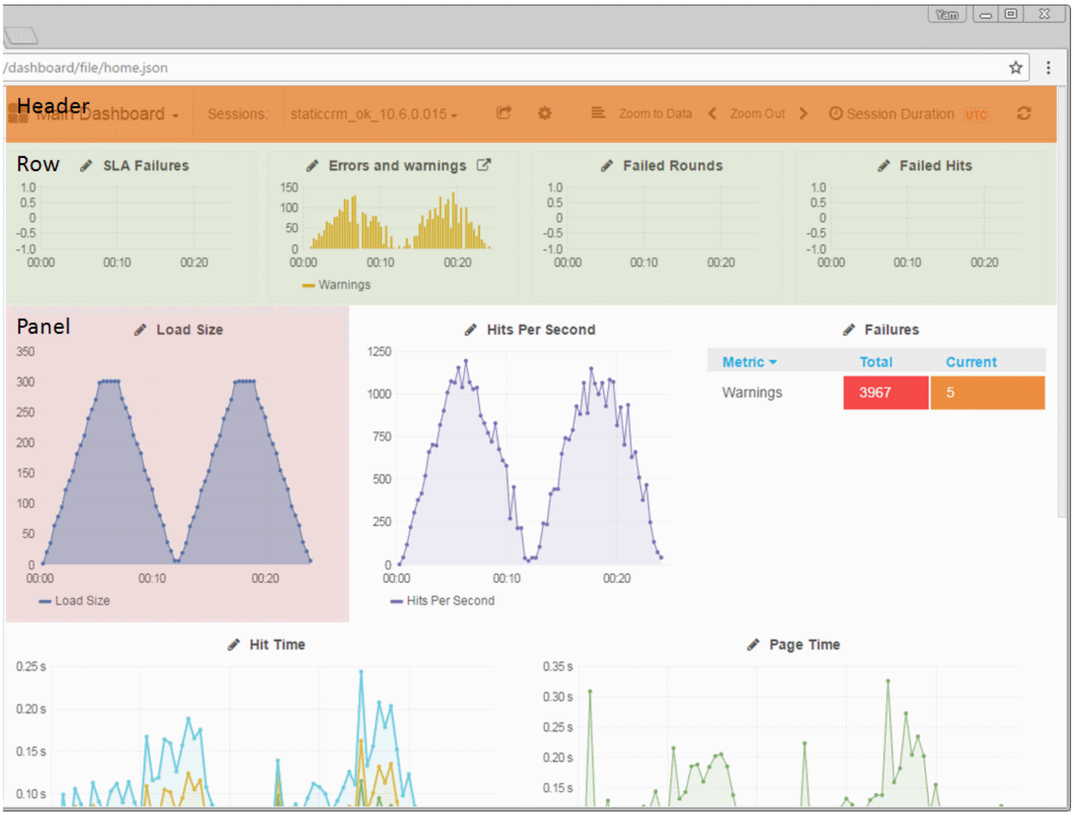


Figure 32: Dashboard Components

Dashboard Header

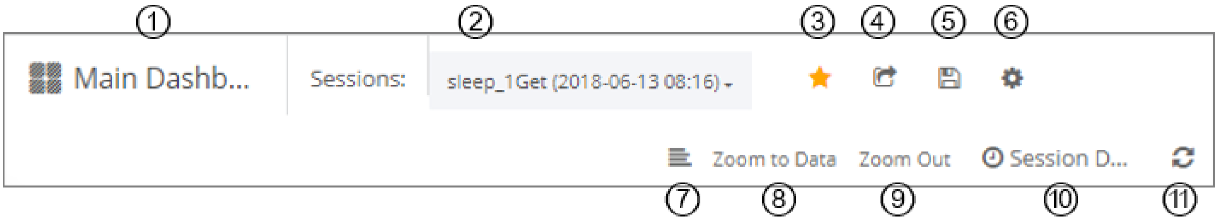


Figure 33: Dashboard tab header components

The main components of the dashboard tab header include:

Item	Description	For more information, see
1	Dashboard name and selection	*Loading a Dashboard* (on page 58)
2	Select session – Enables selecting the session(s) to be viewed and analyzed.	*Specifying the Sessions to view in the Dashboard* (on page 40)
3	Star or unstar a dashboard – Enables marking/unmarking a dashboard as a favorite for filtering purposes.	*Loading a Dashboard* (on page 58)
4	Share dashboard – Enables sharing the current state of the dashboard	*Sharing a Dashboard* (on page 65)

Item	Description	For more information, see
5	Save	*Saving your Customized Dashboard* (on page 62)
6	Settings – Enables configuring the dashboard's general settings	*Customizing General Dashboard Settings* (on page 54)
7	Time format: • **Relative Time** – Show the time since session start. Useful for session comparison • **Absolute** Time – Show the real time of the session when it ran. Useful for currently running sessions	*Selecting the Time Format* (on page 42)
8	Zoom to Data – Sets the time filter to the extent of the data. This is done automatically when selecting data or a new session.	
9	Zoom out	
10	Time picker	*Setting the Time Picker* (on page 44)
11	Refresh data	

Rows

A row is a horizontal container for panels. A row can be hidden (collapsed) and its height controls its panels' height.

- To add a new row, click **+ ADD ROW** at the bottom of a dashboard page.
- To edit a row, click the three grey dots and select the desired option. For more information, refer to *Customizing Rows* (on page 45).

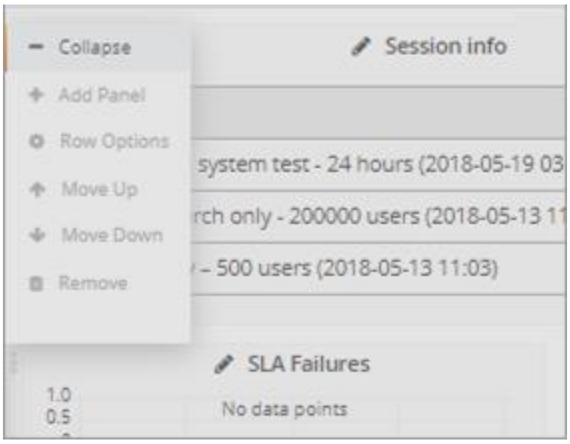


Figure 34: Row Editing Options

Panels

A panel is a data display unit. There are various types of panels – such as graph, text, table, singlestat, Alert list, Dashboard list, and Plugin list.

- To add a new panel, click the three grey dots of the desired row and select **Add Panel** (Figure 34).
- To edit a panel, click the panel title and click **edit** in the box that appears. For more information, refer to *Customizing Panels* (on page 46).

Graph Panel

A graph panel presents session measurement data in graphic format. In each graph panel you can display multiple measurements from multiple sessions. You can also set various display options, such as colors, graph style (lines, bars, points), Y-axis formats (bytes, milliseconds, etc.) and more.

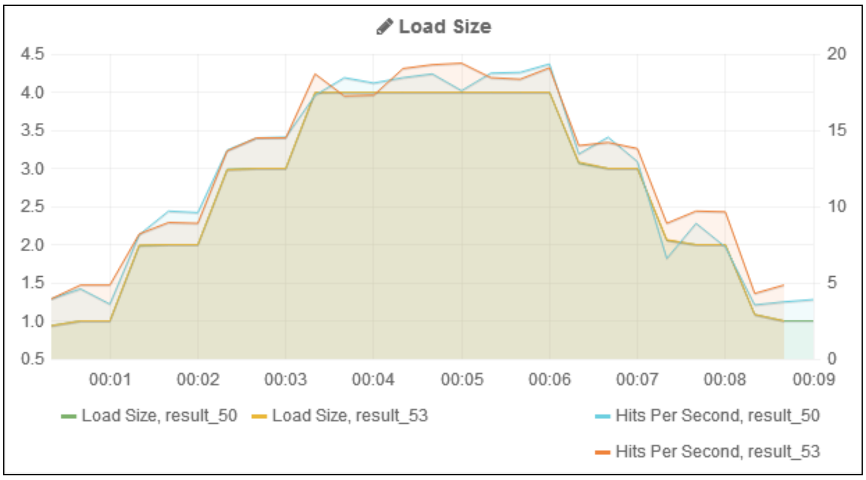
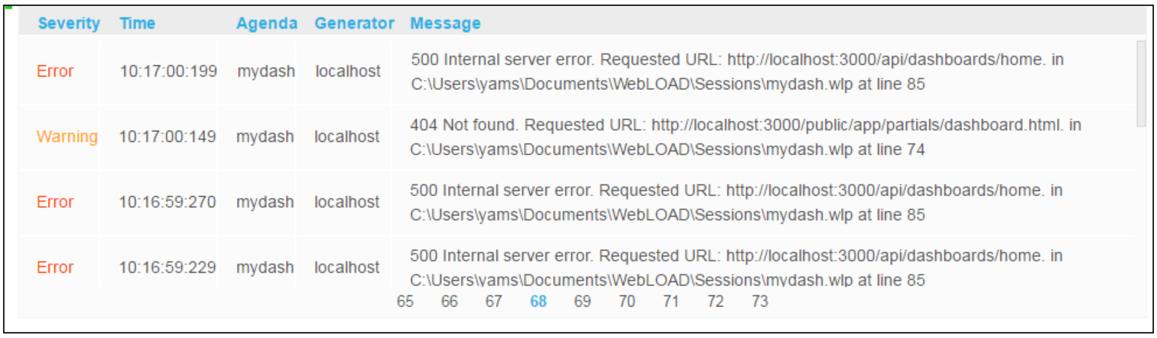


Figure 35: Graph Panel

Table Panel

A table panel presents data in table format; by default the log messages from specified sessions. You can sort the display by various parameters, and filter the display by severity.



Severity	Time	Agenda	Generator	Message
Error	10:17:00:199	mydash	localhost	500 Internal server error. Requested URL: http://localhost:3000/api/dashboards/home. in C:\Users\yams\Documents\WebLOAD\Sessions\mydash.wlp at line 85
Warning	10:17:00:149	mydash	localhost	404 Not found. Requested URL: http://localhost:3000/public/app/partials/dashboard.html. in C:\Users\yams\Documents\WebLOAD\Sessions\mydash.wlp at line 74
Error	10:16:59:270	mydash	localhost	500 Internal server error. Requested URL: http://localhost:3000/api/dashboards/home. in C:\Users\yams\Documents\WebLOAD\Sessions\mydash.wlp at line 85
Error	10:16:59:229	mydash	localhost	500 Internal server error. Requested URL: http://localhost:3000/api/dashboards/home. in C:\Users\yams\Documents\WebLOAD\Sessions\mydash.wlp at line 85

65 66 67 68 69 70 71 72 73

Figure 36: Table Panel

Text Panel

A text panel presents text. You can edit the text.

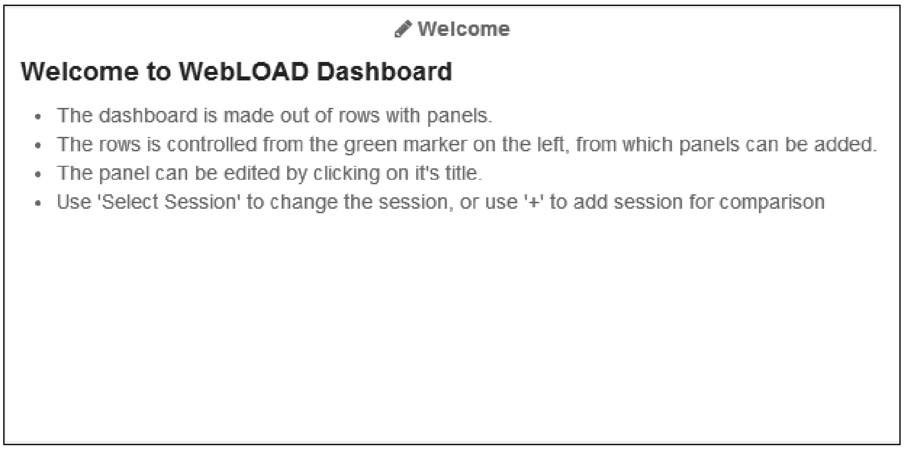


Figure 37: Text Panel

Singlestat Panel

A singlestat panel is similar to a graph panel, but shows only a single statistic, usually in numeric form. It may contain a 'sparkline', and may appear as a gauge.

Note that because a singlestat panel displays only one measurement, it is not suitable when comparing two or more sessions.

Figure 38: Singlestat Panel

Alert List Panel

Reserved for future use.

Dashboard List Panel

Reserved for future use.

Plugin List Panel

Reserved for future use.

Specifying the Sessions to view in the Dashboard

WebLOAD Cloud dashboards are useful both for analyzing the results of a specific session, and for comparing the results of different sessions.

To select a session for viewing in the dashboard tab:

Do any of the following:

- In the Load Sessions table (*Figure 23*), click the session name.
  The session appears in the currently selected dashboard.
- In Load Tests table (*Figure 6*), click the Show Last Session button .
  That last session appears in the currently selected dashboard.

To select multiple sessions for viewing in the dashboard tab:

Do any of the following:

- In the Load Sessions table (*Figure 23*), click **Show in Dashboard** for each session you wish to view in the Dashboard. As soon as you select a dashboard, the dashboard refreshes to show the selected sessions' data in the panels.
- In the **dashboard** page, select the session from the **Sessions** drop-down list (*Figure 39*). You can select as many sessions as you wish. You can use the search box to aid you in finding the sessions you wish to view.
  As soon as you select a session or sessions, the dashboard refreshes to show the sessions' data in the panels.

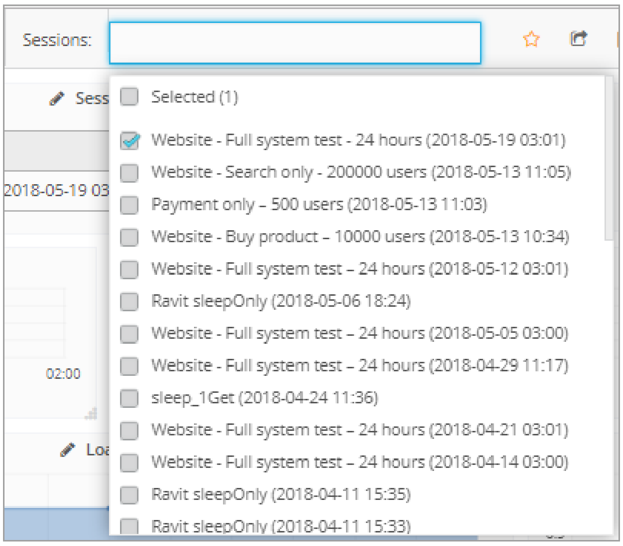


Figure 39: Selecting Sessions - from the Header

Specifying the Zoom

Using a graph panel's zoom option, you can set the time period for which all panels display information. For example, if you select to zoom into the time period from 00:30 to 01:00, all panels will refresh to show information for that time period only, and the metric panels, for example, will display metrics for that time period only.

To zoom in:

- Use the mouse to select a specific time range in the panel.

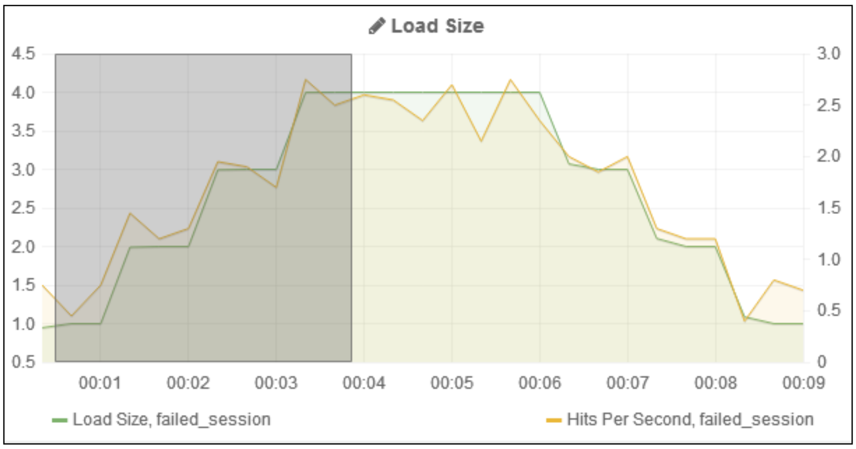


Figure 40: Selecting a Time Range

The dashboard refreshes to show the graph for the selected time range only.

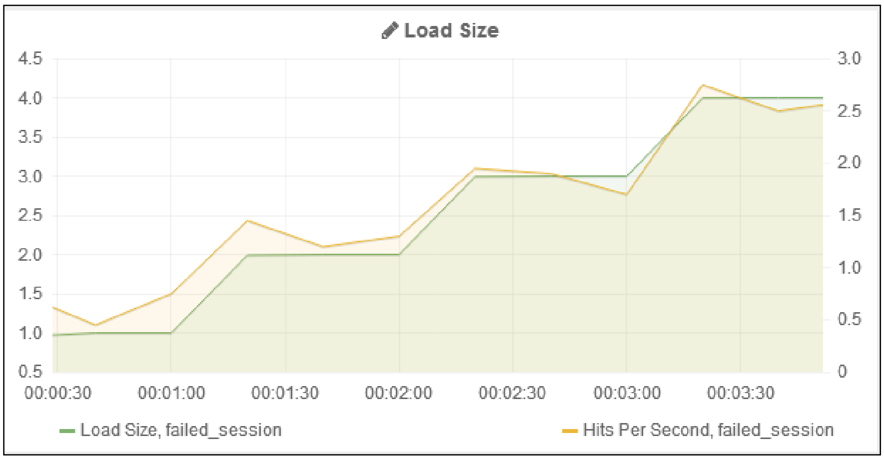


Figure 41: Display of a Selected Time Range

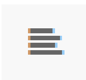
To zoom out:

Use the **Zoom to Data** or **Zoom Out** options in the dashboard *Header*.

Selecting the Time Format

You can view dashboard data in either Relative time or Absolute time (see item ⑦ in Figure 33). This affects the graphs' display as follows:

If you are viewing data for a single session:

-  **Relative time** – The start time is shifted over to zero.
-  **Absolute time** – Shows the real time. This format is useful for viewing currently running sessions.

If you are comparing sessions:

- **Relative time** – The graph shows the two sessions as if they occurred concurrently (within the same timeframe).

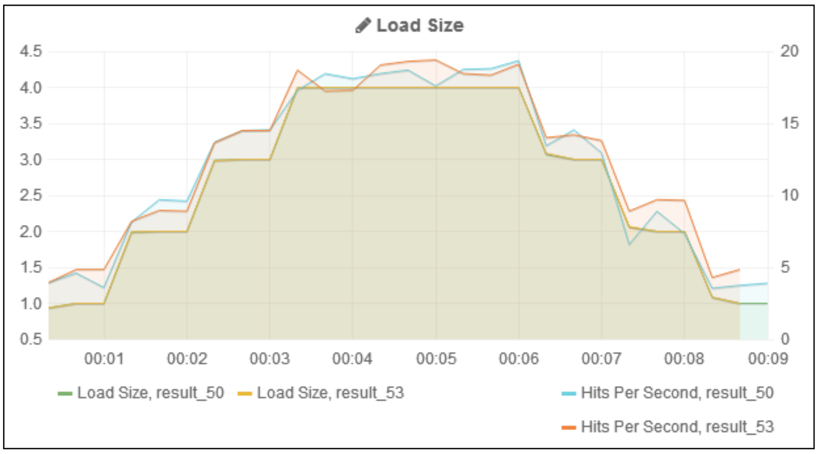


Figure 42: Comparing Sessions in Relative Time Display

- **Absolute time** – The graphs shows the real time.

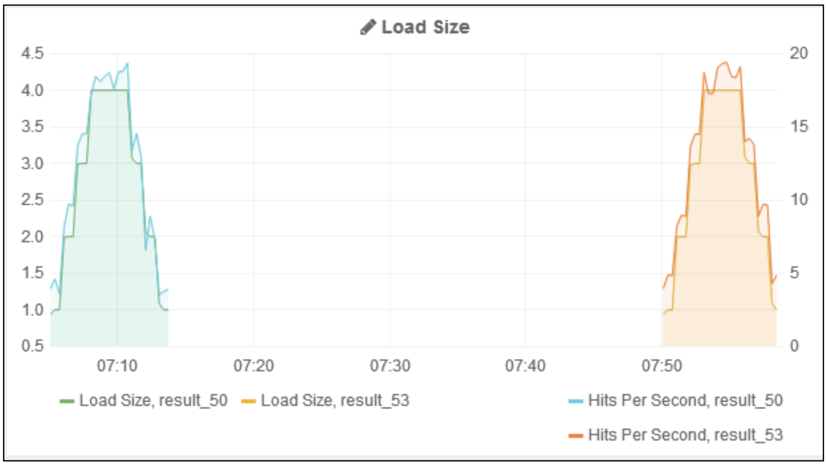


Figure 43: Comparing Sessions in Absolute Time Display

Setting the Time Picker

If you selected the Time Picker (see item ⑩in Figure 33), you can set various time settings.

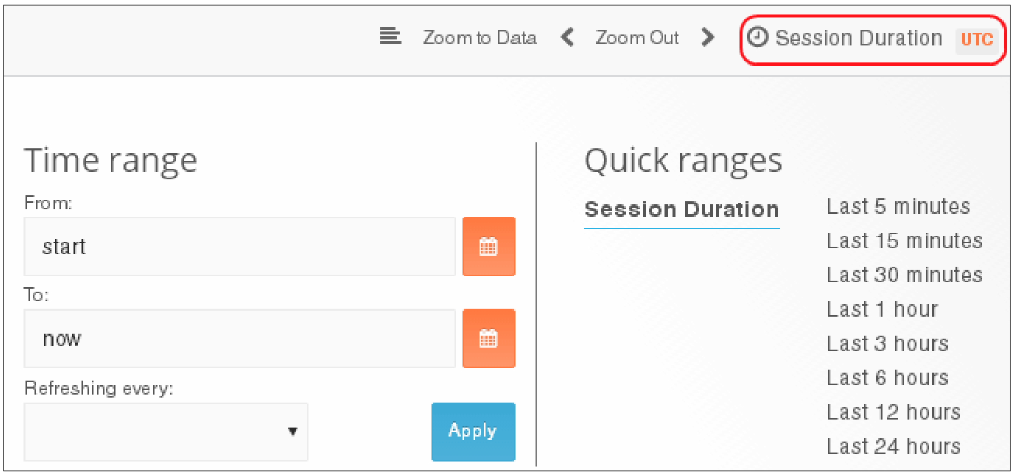


Figure 44: Time Filter Options

You can for example set the auto-refresh frequency.

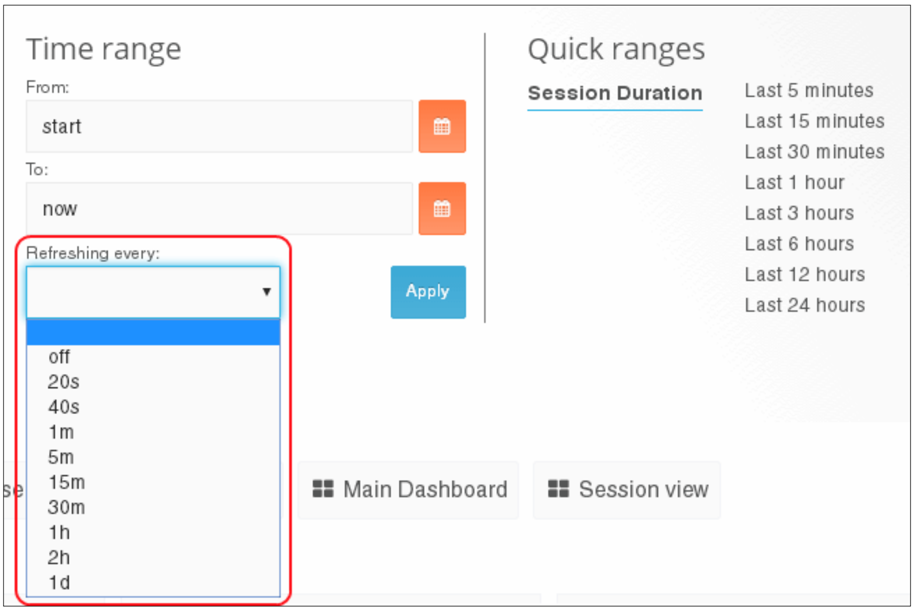


Figure 45: Auto-Refresh Options

Chapter 8

Customizing a Dashboard

You can customize a dashboard as desired, and then save the customized dashboard if you wish. Note however that two types of changes are not considered customizations and are not saved: the selected sessions and the selected time filter.

To save your customizations, refer to *Saving your Customized Dashboard* (on page 62).

Customizing Rows

Adding a row

To add a new row, click **+ ADD ROW** at the bottom of a dashboard page

Editing a Row

To edit a row, click the three grey dots to the left of the row and select the desired option.

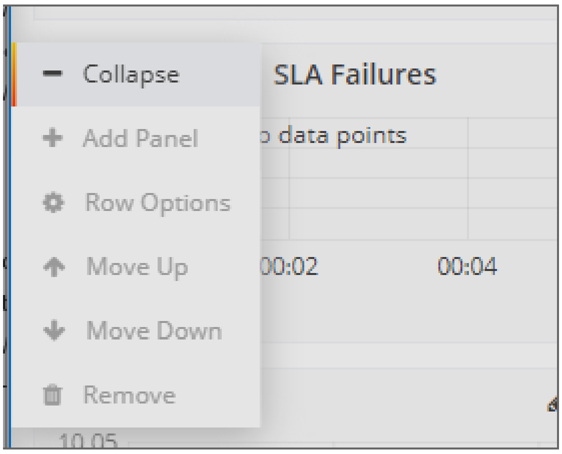


Figure 46: Row Editing Options

The available options include:

Item	Description
Collapse	Hides the row. To show the row again, press the ❯ button.
Add Panel	Adds a panel to the row, of the type you specify: Graph, Singlestat, Table, Text, Alert List, Dashboard List, or Plugin List.

Item	Description
Row Options	Enables editing a row's settings. For information, refer to *Editing a Row's options* (on page 46).
Move Up	Moves the row up.
Move Down	Moves the row down.
Remove	Deletes the row, following your confirmation.

Editing a Row's options

To edit a row's options, click the three grey dots to the left of the row and select **Row Options** (Figure 46).

A pane appears, for setting the row's options. Edit the row as desired.

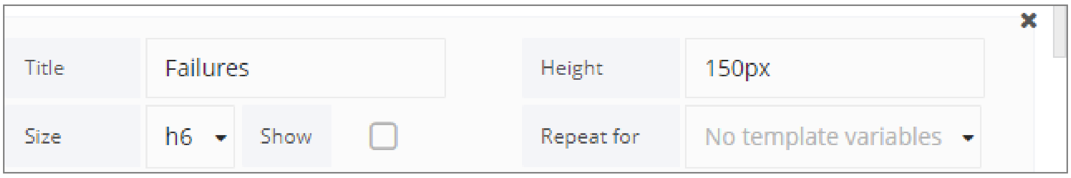


Figure 47: Row options

Deleting a Row

To delete a row, click the three grey dots to the left of the row and select **Remove** (Figure 46). Confirm the operation.

Customizing Panels

To edit a panel, click the panel title and click **edit** in the box that appears.

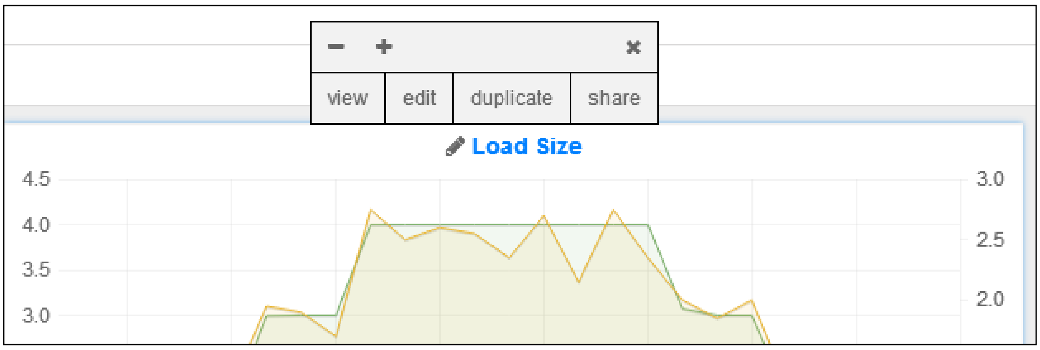


Figure 48: Panel Options

An editing pane appears, with various editing options that depend on the panel type (text, graph, table or singlestat), as described below.

Editing a Panel's General Options

Select the **General** tab to edit the panel's general options.

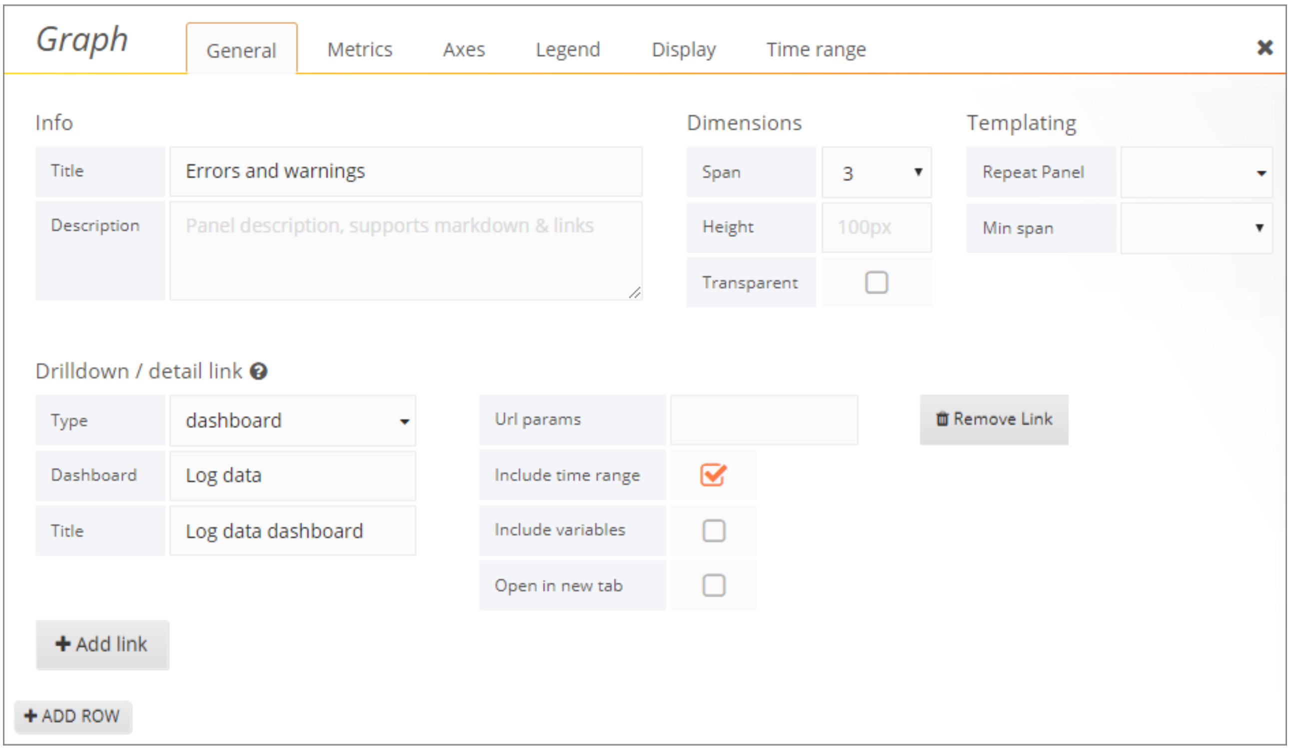


Figure 49: Edit Panel – General Options

Editing a Graph Panel

A graph panel can be customized in various ways, as described below.

Specifying the Metrics

You can specify which metrics to display for which sessions.

To specify the metrics:

1. Click the panel's title and select **edit**.
2. Select the **Metrics** tab. The metrics currently displayed in the graph are displayed in the table.

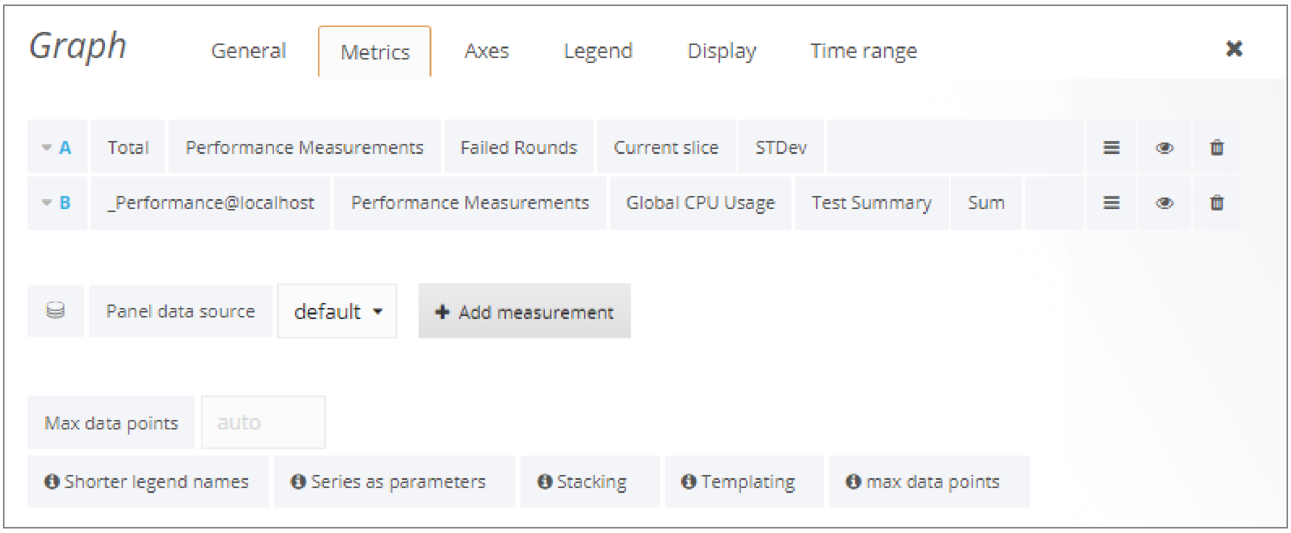


Figure 50: Graph Settings – Metrics

3. To add a measurement, click **Add Measurement**. A new line appears in the table.

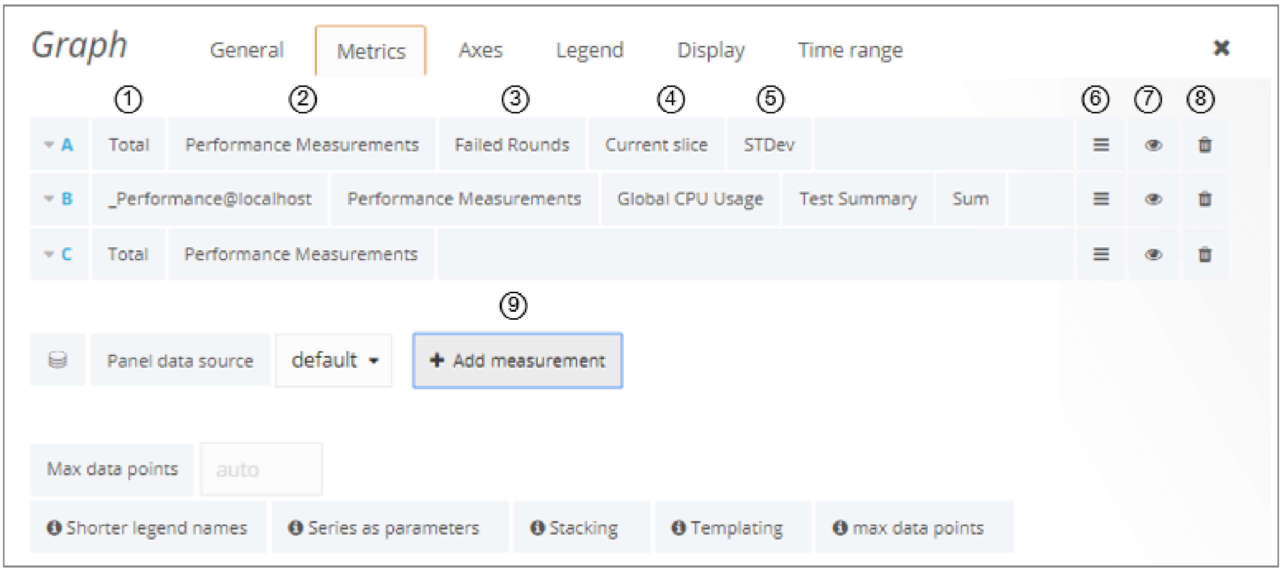


Figure 51: Graph Settings – Adding a New Measurement Line

4. Edit the new line:
   - Select metrics for the new line you added (columns ①, ②, ③, ④, ⑤ in Figure 51).
5. Optionally edit the selection of a metric in an existing line.

The following table describes some of the operations available in the **Metrics** tab.

Item	Description
1	Enables selecting a category of statistics: • **Total** – Sums the values for each statistic across all the Scripts running during the test. • **ScriptName::Total** – Sums the values for each statistic across all instances of the specified script running during the test. • **ScriptName@LoadGenerator** – Sums the values for each statistic across all instances of the specified script running under the specified Load Generator during the test.
2	Depending on your choice in ①, enables selecting a sub-category of statistics.
3	Depending on your choice in ②, enables selecting a sub-category of statistics.
4	Depending on your choice in ③, enables selecting a sub-category of statistics.
5	Depending on your choice in ④, enables selecting a statistic.
6	Enables: • Toggling between Edit mode and Display mode • Duplicating a line • Moving a line up • Moving a line down
7	Toggles between showing and hiding the metrics in the graph
8	Deletes the line.
9	Adds a new line in the table for defining a new metric in the graph.

Defining the Axes Display

To edit a panel's axes display:

1. Click the panel's title and select **edit**.
2. Select the **Axes** tab.

A pane appears, displaying the current axes definitions. You can change any of the definitions, and the graph display changes accordingly.

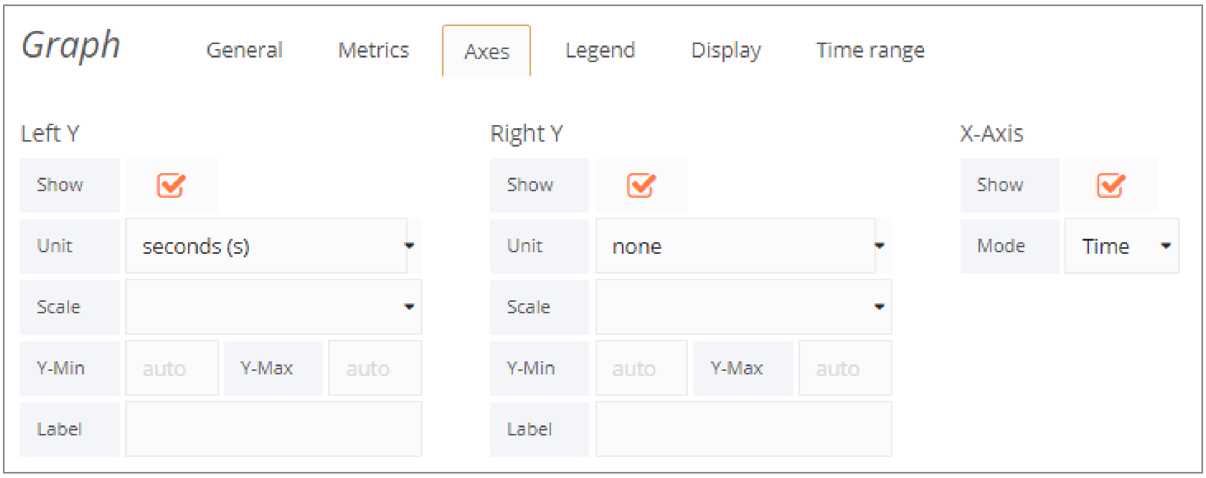


Figure 52: Graph Settings – Axes

Defining the Legend

To edit a panel's legend:

1. Click the panel's title and select **edit**.
2. Select the **Legend** tab.

A pane appears, displaying the legend definitions. You can change any of the definitions, and the graph display changes accordingly.

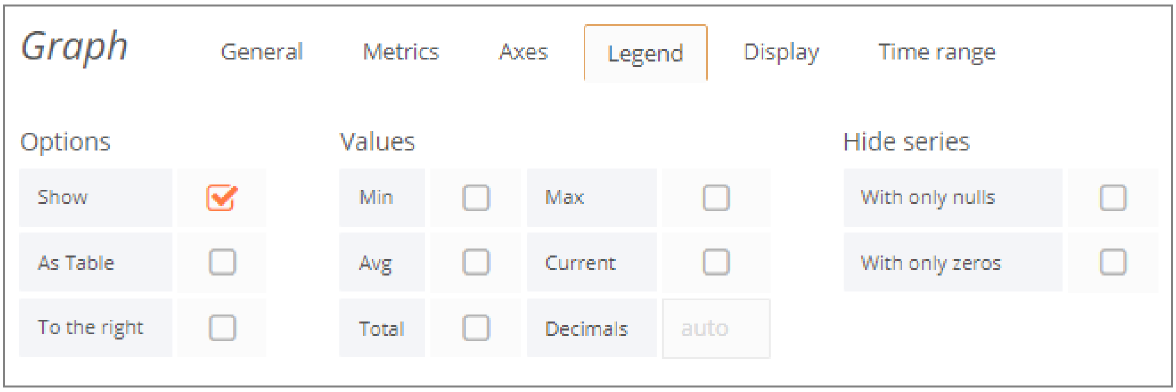


Figure 53: Graph Settings – Legend

Defining the Display

To edit a panel's display:

1. Click the panel's title and select **edit**.
2. Select the **Display** tab.

A pane appears, displaying the display definitions. You can change any of the definitions, and the graph display changes accordingly.

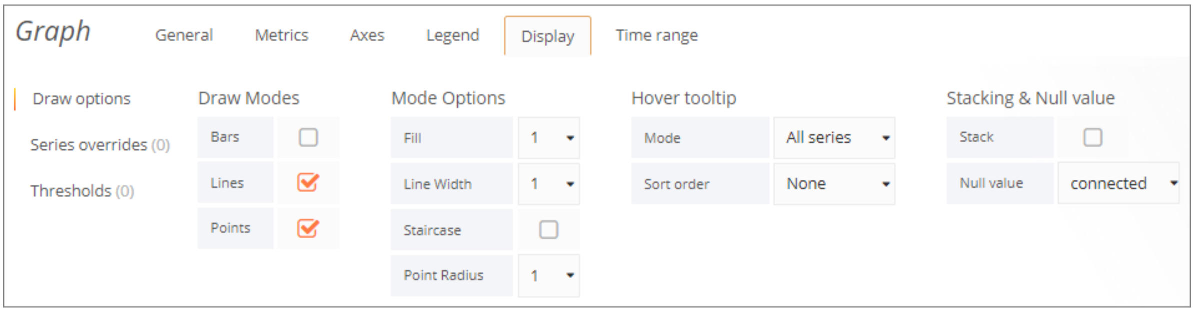


Figure 54: Graph Settings – Display Styles

Defining the Time Range

To edit a panel's time range:

1. Click the panel's title and select **edit**.
2. Select the **Time range** tab.

A pane appears, displaying the time range definitions. You can change any of the definitions, and the graph display changes accordingly.

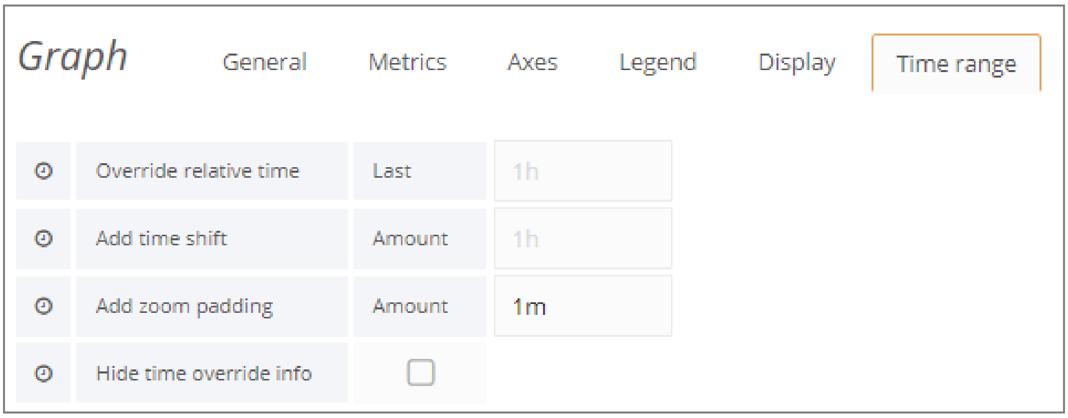


Figure 55: Graph Settings – Time Range

Editing a Singlestat Panel

Working with a singlestat panel is similar to working with a graph panel. A measurement is selected in same way (refer to *Specifying the Metrics*), but you can only select a single measurement for a singlestat panel. Note that this makes singlestat panels unsuitable when working with multiple sessions.

Defining the Singlestat Display Options

To edit a singlestat panel's display:

1. Click the panel's title and select **edit**.
2. Select the **Options** tab.

A pane appears, displaying the display definitions. You can change any of the definitions, and the graph display changes accordingly.

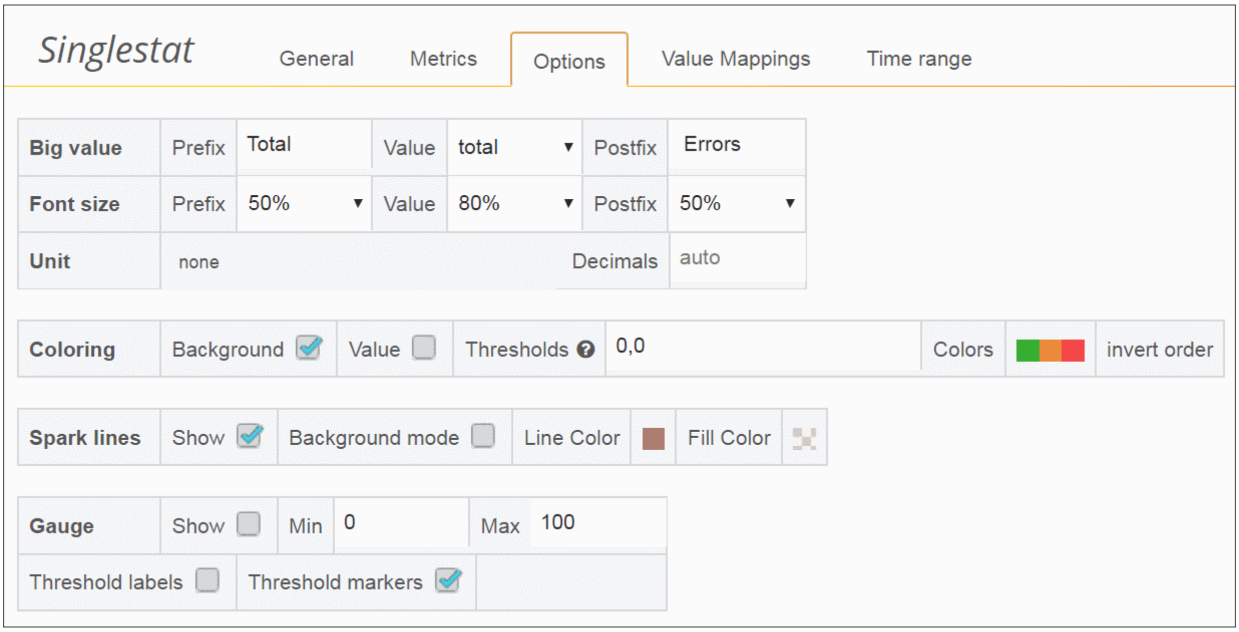


Figure 56: Singlestat Settings – Display Options

Editing a Table Panel

You can customize a table panel's display directly in the dashboard.

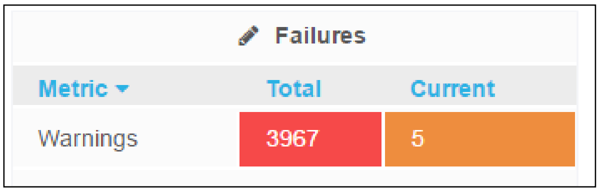


Figure 57: Table Panel Header

The header of the table panel provides the following options:

- Sorting the table display – Clicking any column head sorts the table by that column in ascending or descending order.
- Filtering by severity – By clicking the down arrow in the **Severity** column head, you can select whether to view messages of all severity types, or of a certain type.

Editing a Text Panel

To edit the text in a Text panel, click the panel's title and select **edit** (Figure 48), and then select the **Panel** tab.

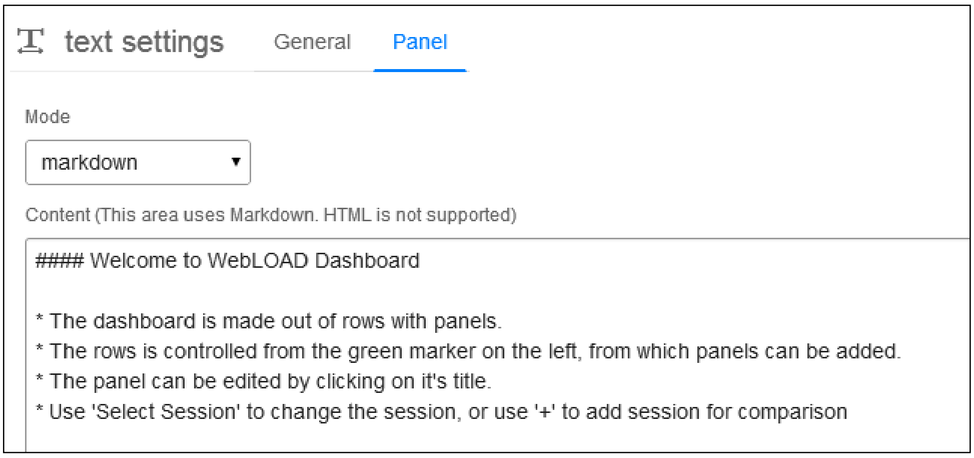


Figure 58: Text Settings – Panel Tab

You can:

- Select the mode:
  - **Text** – Plain text
  - **Html** – HTML
  - **Markdown** - Markdown markup syntax
- Edit the text as desired.

Adding Panels

To add a panel in a row, click the three grey dots to the left of the row and select **Add Panel** (Figure 46). Select the panel type: Graph, Singlestat, Table, Text, Alert List, Dashboard List, or Plugin List..

A new empty panel of the selected type appears in the row.

Define the display in the panel by editing the panel, as described above.

Duplicating a Panel

The duplication feature is useful if you wish to create a panel that is very similar to an existing one, or that is based on an existing panel.

To duplicate a panel:

1. Click the panel's title and select **Duplicate**.

A new panel – a duplicate of the original – is created in the dashboard. You can now edit it as desired.

Deleting a Panel

To delete a panel:

1. Click the panel's title and select the **Delete** icon the top right corner.

Figure 59: Delete Panel button

2. Confirm the deletion.

Customizing General Dashboard Settings

You can customize various general dashboard settings.

To configure general dashboard settings:

1. Click the Manage Dashboard Settings icon ⚙ in the middle of the dashboard header, and select **Settings**.

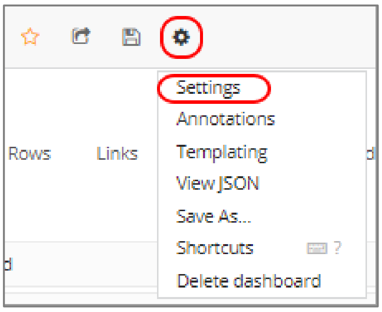


Figure 60: Selecting to Configure Dashboard Settings

A Dashboard **Settings** pane appears, with multiple tabs.

2. Set the **General** settings as desired.

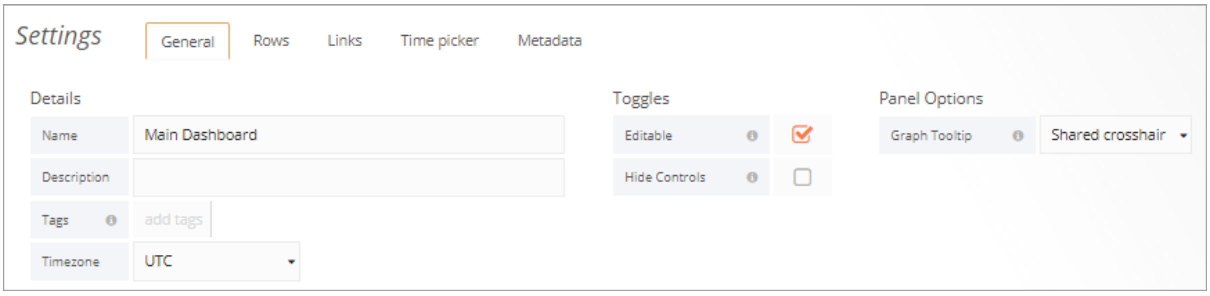


Figure 61: Dashboard Settings – General

For example, if you select **Shared Crosshair**, then hovering over one the graphs causes a corresponding crosshairs to appear in all the graphs.

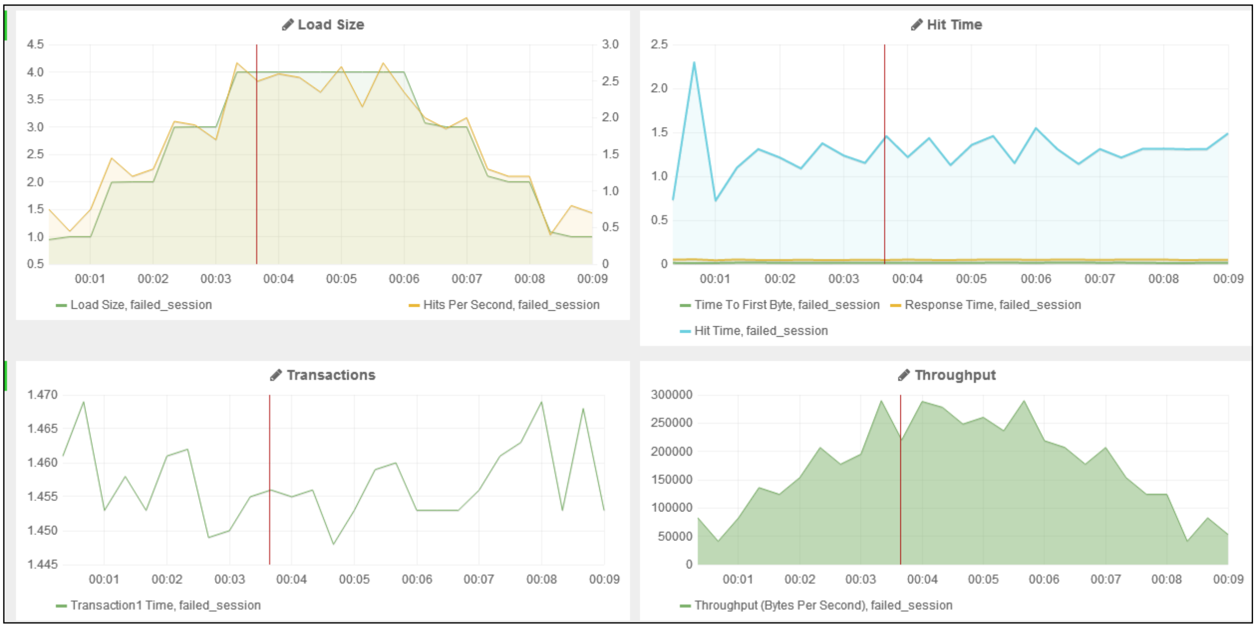


Figure 62: Shared Crosshair

3. Set the **Rows** settings as desired. For example, use the up and down arrows to switch between the locations of rows in the dashboard.

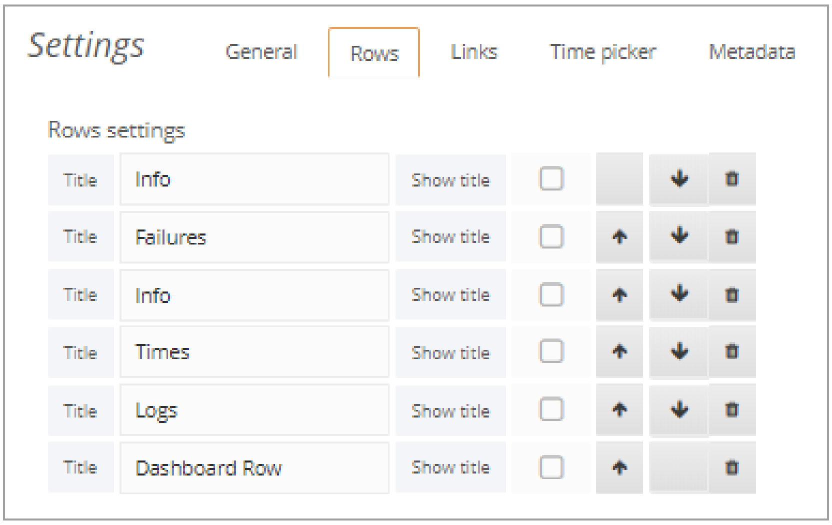


Figure 63: Dashboard Settings – Rows

4. Set the **Links** settings as desired. This enables adding links that appear under the Dashboard header. You can add a link to any site, or to a dashboard.

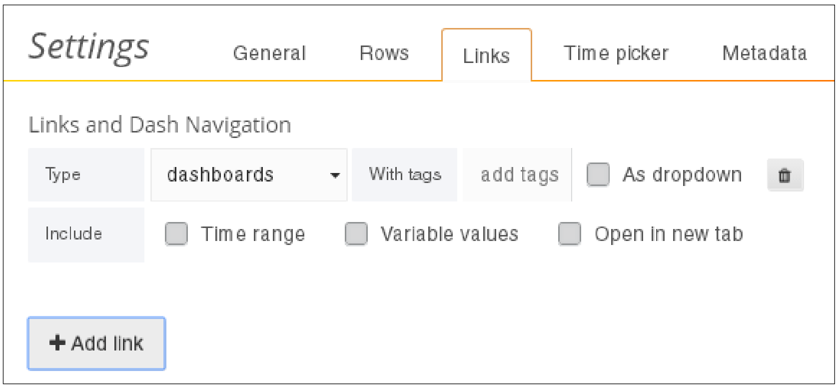


Figure 64: Dashboard Settings – Links

5. Set the **Time picker** settings as desired. For example, you can set the **Auto-refresh** options that appear in the **Refreshing every** dropdown (Figure 45).

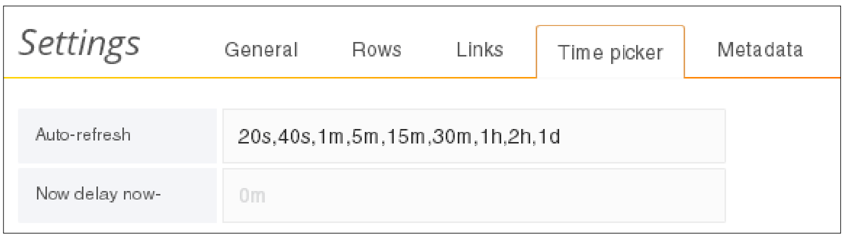


Figure 65: Dashboard Settings – Time picker

6. Click **Metadata** to view the dashboard's metadata. This includes information about dashboard creation and updating.

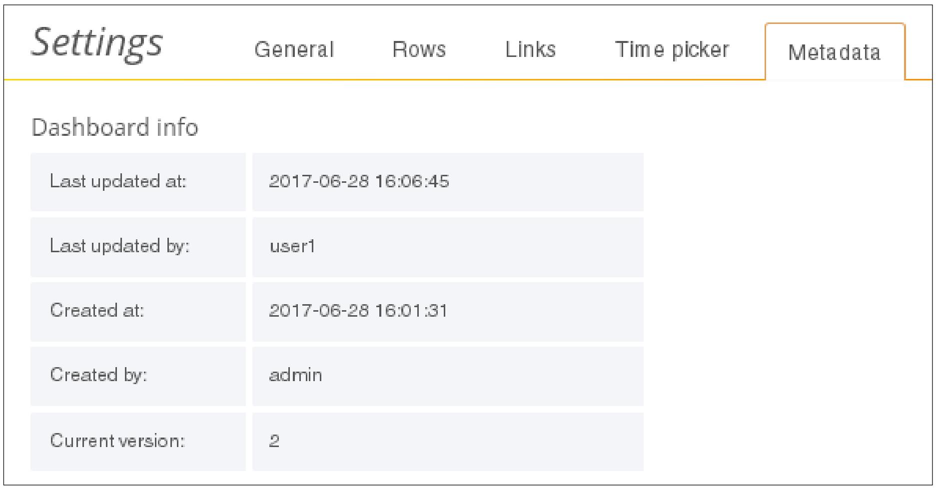


Figure 66: Dashboard Settings – Metadata

Templating a Dashboard

Templating enables the creation of highly interactive and dynamic dashboards. Instead of hard-coding things like server, application and sensor name in you metric queries you can use variables in their place. Variables are shown as dropdown select boxes at the top of the dashboard. These dropdowns make it easy to change the data being displayed in your dashboard.

For more information, refer to http://docs.grafana.org/reference/templating/.

Annotating a Dashboard

Annotations provide a way to mark points on the graph with rich events. When you hover over an annotation you can get title, tags, and text information for the event.

For more information, refer to http://docs.grafana.org/reference/annotations/.

Chapter 9

Managing Dashboards

In WebLOAD Cloud you can manage any dashboard saved in the database, as well as create new dashboards, delete dashboards, import and export dashboards in JSON format, and save your customized dashboards.

Loading a Dashboard

When you access WebLOAD Cloud, the default Home dashboard is displayed. You can however select to display any other dashboard from the database, as described in this section.

Note that you can also import a dashboard that was saved as a JSON file, as described in *Importing a Dashboard* (on page 59).

To load a dashboard:

1. In the menu bar, select **Dashboards** > **Main Dashboard**.
2. Click the dashboard drop-down in the dashboard header.

   A list of all the dashboards in the database is displayed.

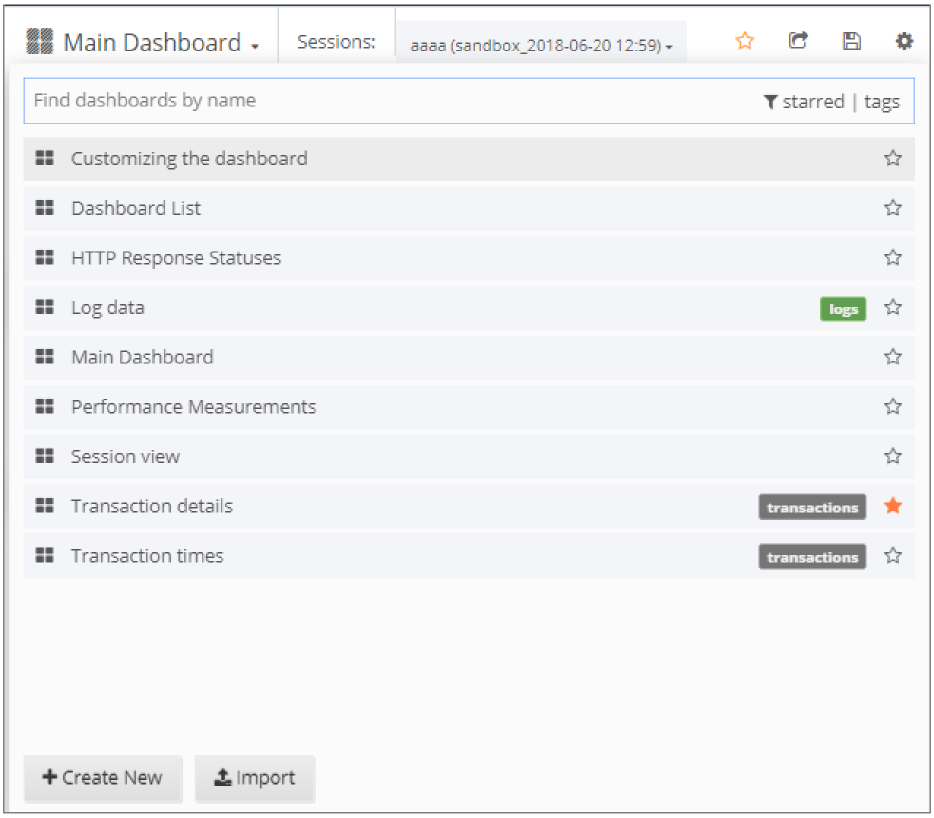


Figure 67: Dashboards List

3. Optionally enter a text string in the Search box to filter the display by dashboards whose name contains that text string.
4. Optionally, click **starred** in the right side of the Search box to filter the display by your favorite dashboards (= dashboards you had starred).
5. Select a dashboard from the list. WebLOAD Cloud displays the selected dashboard.

Exporting & Importing a Dashboard in JSON Format

You can export a dashboard as a JSON file, and import dashboards that were saved in JSON file format.

For instructions how to import a dashboard that was saved as a JSON file, refer to *Exporting a Dashboard as a JSON File*.

Importing a Dashboard

To import a dashboard that was saved in JSON file format:

1. Do either of the following:
   - In the menu bar, select **Dashboards** > **Import**.

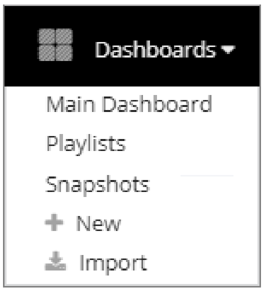


Figure 68: Dashboard Menu

- In the Dashboard header, click the dashboard drop-down and select Import.

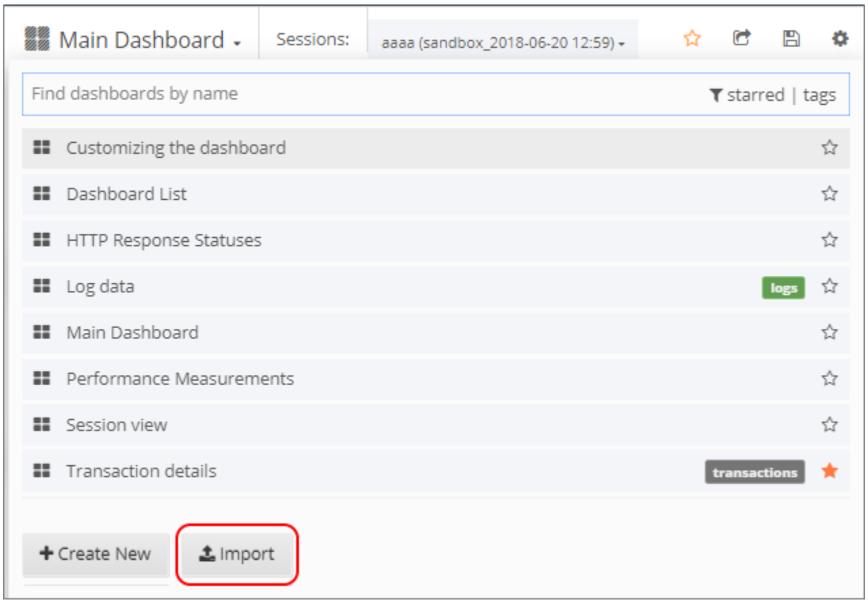


Figure 69: Selecting to Import a Dashboard – from the Header

2. In the Import Dashboard window that appears, select **Upload .json File**, and specify the desired JSON file.
   Alternatively, paste JSON content into the Import Dashboard window and click **Load**.

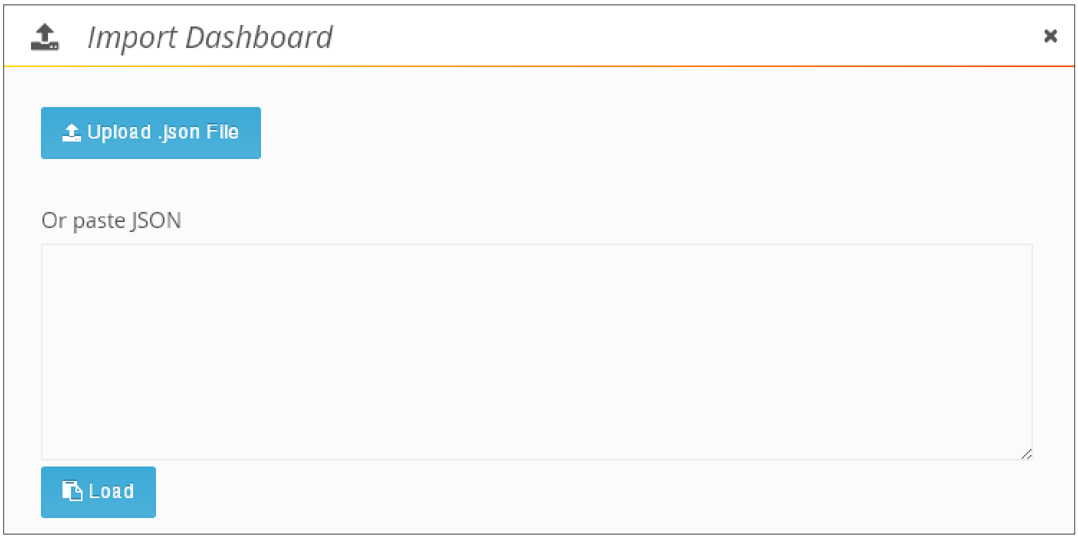


Figure 70: Import Dashboard window

WebLOAD Cloud displays the selected dashboard.

Creating a New Dashboard

You can create a new empty dashboard and define it as desired.

To create a new dashboard:

1. Do either of the following:
   - In the menu bar, select **Dashboards** > **+ New**.

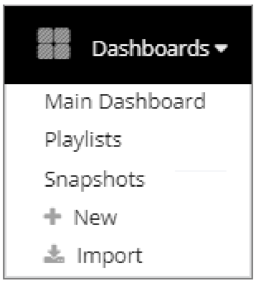


Figure 71: Dashboard Menu

   - In the Dashboard header, click the dashboard drop-down and click **+ Create New**.

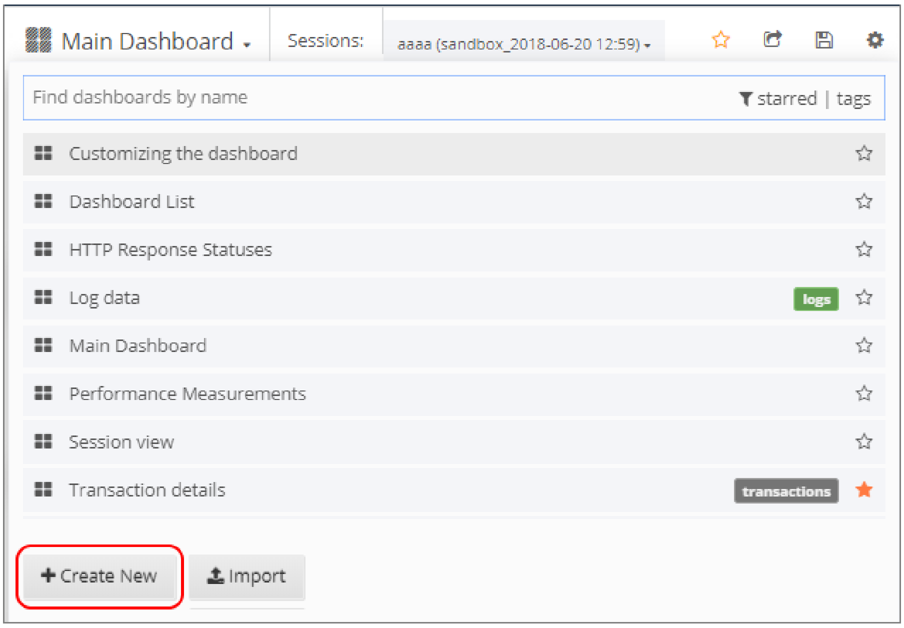


Figure 72: Selecting to Create a New Dashboard – from the Header

A new empty dashboard appears.

2. Configure the dashboard as desired. Refer to *Customizing a Dashboard* (on page 45) for more information.

Saving your Customized Dashboard

After changing a dashboard as desired, you can save the customized dashboard to keep all the changes. Note that two changes are not saved: the selected sessions and the selected time filter.

To save a customized dashboard:

1. Click the Manage Dashboard Settings icon ⚙ in the middle of the dashboard header, and select **Save As**.

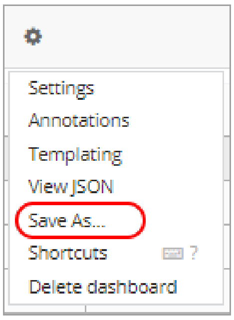


Figure 73: Saving a Customized Dashboard

2. Give your dashboard a unique name by editing the current name, which appears in the **New name** field.

Setting the Default (Home) Dashboard

You can set any desired dashboard as your Home (default) dashboard, and you can also revert to the global WebLOAD Cloud default any time.

To set the Home dashboard:

1. In the right side of the menu bar, click the down arrow adjacent to your user name.

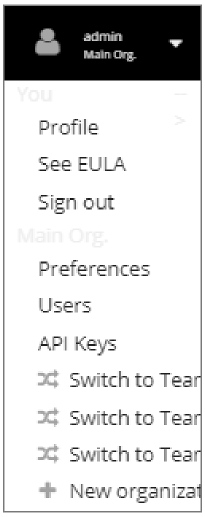


Figure 74: Options of the Logged-in User

2. In the dropdown list that appears:

   - To set the default dashboard at the user level, select **Profile** and then in the Profile window, set the **Home Dashboard** in **Preferences**.
   - To set the default dashboard at the organization level, select **Preferences** and then in the Org Preferences window, set the **Home Dashboard** in **Preferences**.

   Note that your personal default takes precedence over the Org default, which takes precedence over the global default.

3. To revert to the global default, select **Preferences** and then in the Org Preferences window, set the **Home Dashboard** to **Default**.

Deleting a Dashboard from the Database

To delete a dashboard from the database:

1. Click the Manage Dashboard Settings icon in the middle of the dashboard header, and select Delete dashboard.

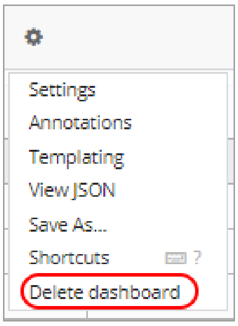


Figure 75: Selecting to Delete a Dashboard

2. Confirm the operation.

Chapter 10

Sharing a Dashboard or Panel

The WebLOAD Cloud provides several options for sharing a dashboard or a panel.

Sharing a Dashboard

There are several options for sharing a dashboard:

- **Link to Dashboard** – Produce a link for sharing a dashboard with other WebLOAD Cloud users.
- **Export** – Export the dashboard as a JSON file.

Accessing the Share Dashboard Options

To access the dashboard sharing options:

1. Select the **Share Dashboard** icon in the dashboard header.

   A Share window appears, displaying a link to the dashboard.

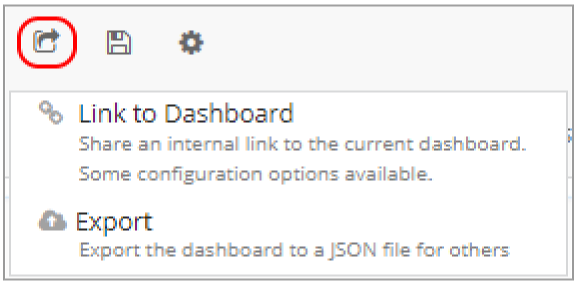


Figure 76: Share Dashboard – Options

2. Click any of the options: **Link to Dashboard**, or **Export**

   A Share Dashboard window appears.

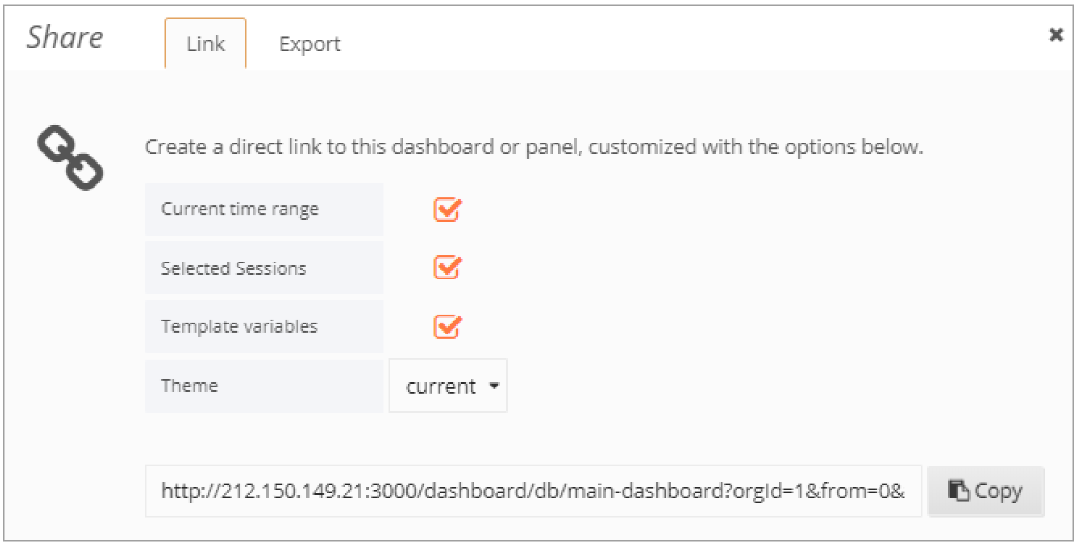


Figure 77: Share Dashboard– Link tab

Sharing a Link to a Dashboard

You can easily share an entire dashboard, by providing the appropriate URL.

To share a link to a dashboard:

1. Access the Share Dashboard window (Figure 77), as described in *Accessing the Share Dashboard Options*.
2. Select the **Link** tab (Figure 77).
3. Using the options in the Share Link window, you can produce a link to various variants of the dashboard, as described in the following table.

Item	Description
Current time range	Determines whether the linked page will display data for the selected time range or for the entire session time range.
Selected Sessions	Determines whether the linked page will displays the data for the currently selected session(s), or for the sessions appearing when the dashboard was last saved.
Template variables	Determines whether the linked page will include template variables.
Theme	Determines whether the linked page will display the current theme, the default light theme, or the default dark theme.

4. Click **Copy** to copy the URL displayed in the window, and send it to those with whom you want to share the dashboard.

Exporting a Dashboard as a JSON File

You can export a dashboard as a JSON file, and import dashboards that were saved in JSON file format. For instructions how to import a dashboard that was saved as a JSON file, refer to *Importing a Dashboard*.

To export a dashboard as a JSON file:

1. Access the Share Dashboard window (Figure 77), as described in *Accessing the Share Dashboard Options*.
2. Select the **Export** tab.

   An Export dashboard window appears.

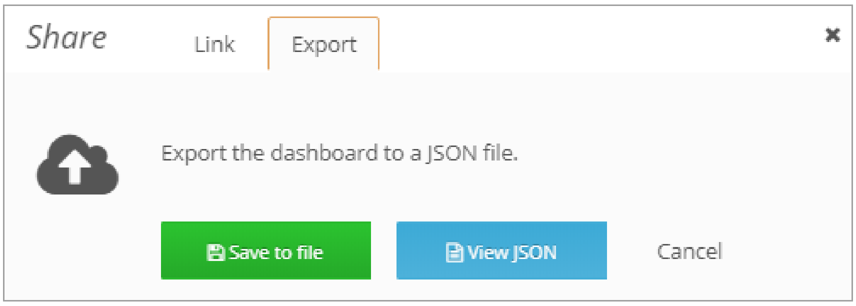


Figure 78: Export Dashboard window

3. Optionally click **View JSON** to view the file.
4. Click **Save to file** to save in a desired location.

   A JSON file of the dashboard is created in your Downloads directory. Its name is the dashboard name followed by the current timestamp.

Note that you can view the contents of the JSON file in the dashboard. To do so, click the Manage Dashboard Settings icon in the middle of the dashboard header, and select **View JSON**.

Sharing a Panel

Sharing a panel is similar to sharing a dashboard. Panel sharing is often useful when you want to share a specific segment (time range) of a panel. The following panel sharing options are available:

- **Link** - Produces a link for sharing, with other WebLOAD Cloud users, this panel with the current time range and selected template variables.
- **Embed** - Produces the HTML code that you need to use if you wish to embed a panel using an iframe on another web site.

Accessing the Share Panel Options

When you share a specific panel, you are actually sharing the dashboard, with the specific panel enlarged.

To access the panel sharing options:

1. Optionally select a specific time range in the panel. Refer to *Specifying the Zoom* (on page 41).
2. Click the panel's title and select **share**.

A Share Panel window appears, with the **Link** tab selected.

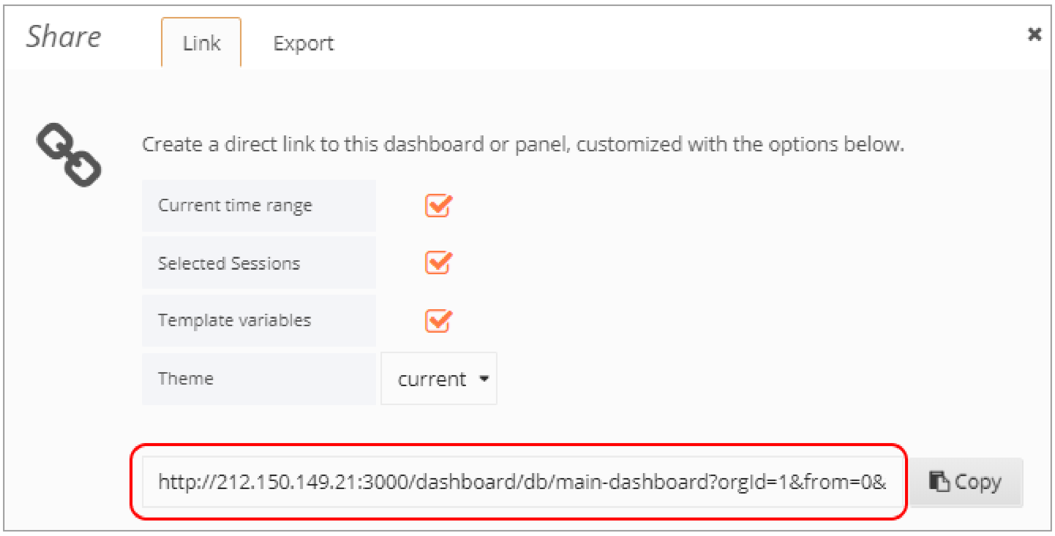


Figure 79: Share Panel – Link tab

Sharing a Link to a Panel

The Link option produces a link that will take you to exactly this panel with the current time range and selected template variables.

To share a link to a panel:

1. Access the Share Panel window (Figure 79), as described in *Accessing the Share Panel Options*.
2. Select the **Link** tab (Figure 79).

Using the options in the Share Link window, you can produce a link to various variants of the panel, as described in the following table.

Item	Description
Current time range	Determines whether the linked page will display data for the selected time range or for the entire session time range.

Item	Description
Selected Sessions	Determines whether the linked page will displays the data for the currently selected session(s), or for the sessions appearing when the dashboard was last saved.
Template variables	Determines whether the linked page will include template variables.
Theme	Determines whether the linked page will display the current theme, the default light theme, or the default dark them.

3. Click **Copy** to copy the URL displayed in the window, and send it to those with whom you want to share the dashboard.

Sharing a Panel by Embedding its HTML Code

You can embed a panel using an iframe on another web site. The Embed option produces the HTML code that you need to use. Note that unless anonymous access is enabled, the user viewing that page needs to be signed into WebLOAD Cloud for the graph to load.

To share a panel by embedding its HTML code:

1. Optionally select a specific time range in the panel. Refer to *Specifying the Zoom* (on page 41).
1. Access the Share Panel window (Figure 79), as described in *Accessing the Share Panel Options*.
2. Select the **Embed** tab.

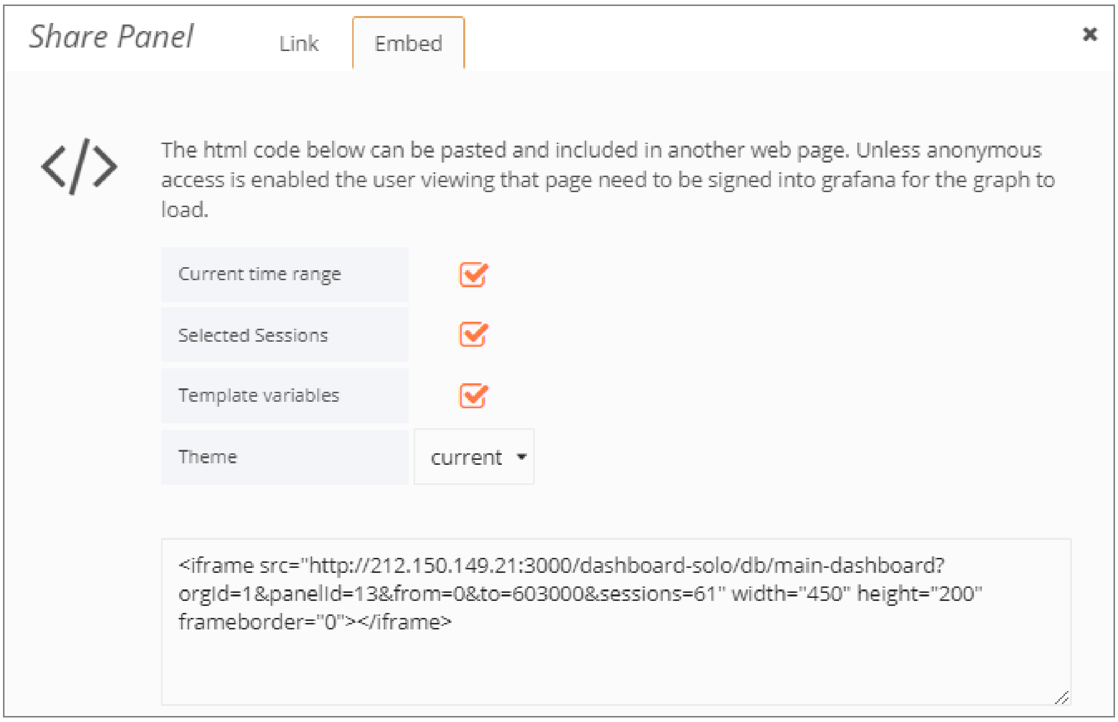


Figure 80: Share Panel – Embed tab

Using the options in the Embed window, you can produce the source HTML code of various variants of the panel, as described in the following table.

Item	Description
Current time range	Determines whether the HTML code will be rendered as a page that displays data for the selected time range or for the entire session time range.
Selected Sessions	Determines whether the HTML code will be rendered as a page that displays the data for the currently selected session(s), or for the sessions appearing when the dashboard was last saved.
Template variables	Determines whether the HTML code will be rendered as a page that will include template variables.
Theme	Determines whether the HTML code will be rendered as a page that will display the current theme, the default light theme, or the default dark them.

Chapter 11

Creating and Playing a Playlist

You can play a playlist of specific dashboards.

Creating a Dashboards Playlist

To create a dashboard playlist:

1. In the menu bar, select **Dashboards** > **Playlists**.

   The Saved Playlists window appears.

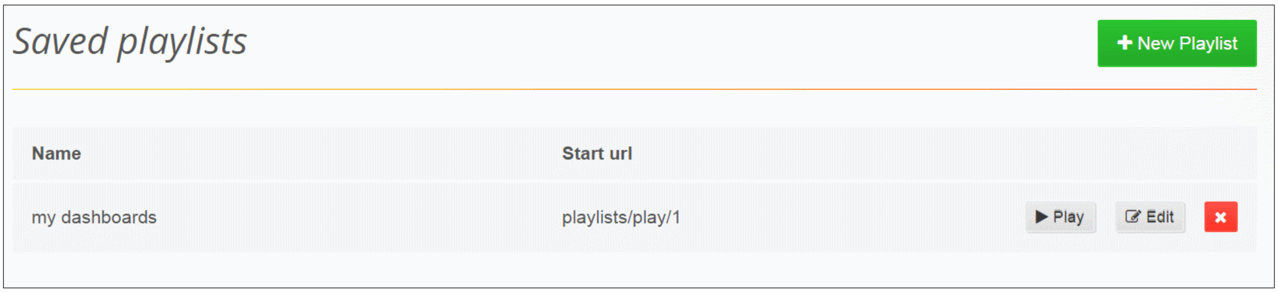


Figure 81: Playlists window

2. Click **+ New Playlist**.

   A New Playlist window appears.

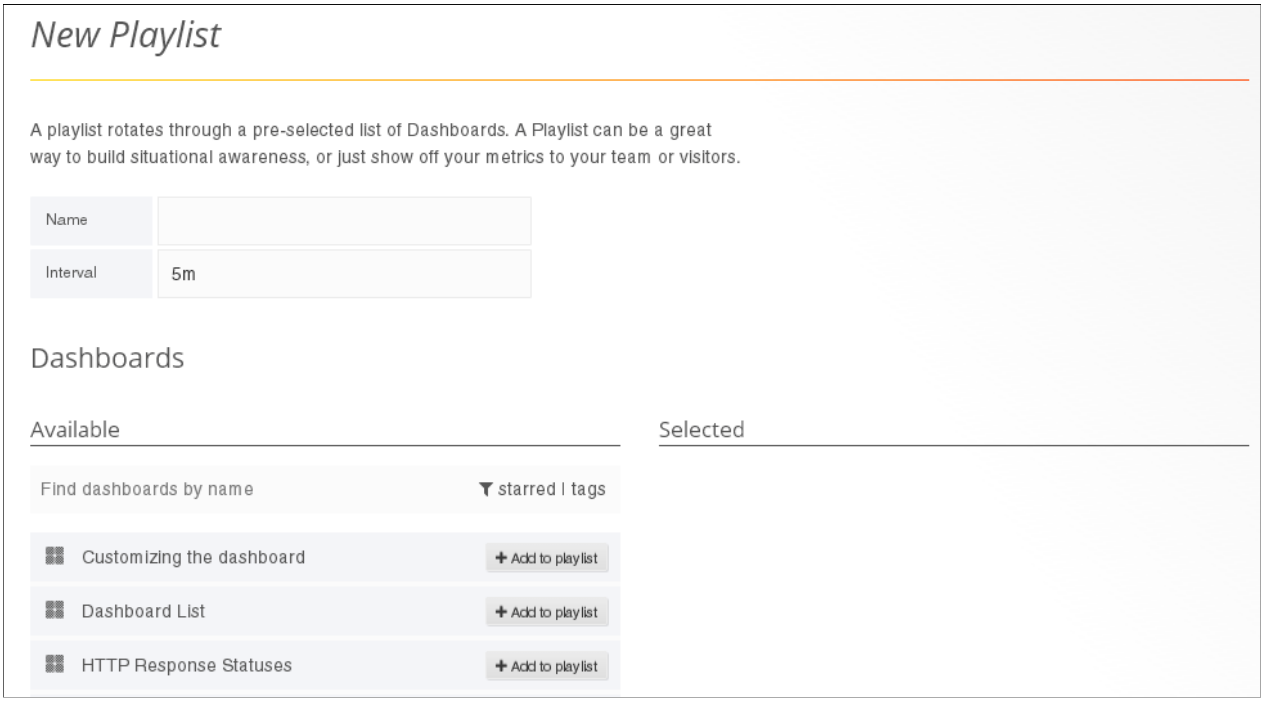


Figure 82: Selecting Playlist

3. Give the new playlist a **Name** and configure the time **Interval** to wait while displaying each dashboard before advancing to the next one on the Playlist.
4. Add dashboards to the playlist as follows:
    a. Optionally search for dashboards by name (or use a regular expression) or you could add tags which will include all the dashboards that belongs to a tag when the playlist start playing. By default, your starred dashboards will appear as candidates for the Playlist.
    b. In the **Available** column, add a dashboard to the Playlist by clicking **Add to playlist** adjacent to the dashboard name.

The dashboard you added appears in the **Selected** column.

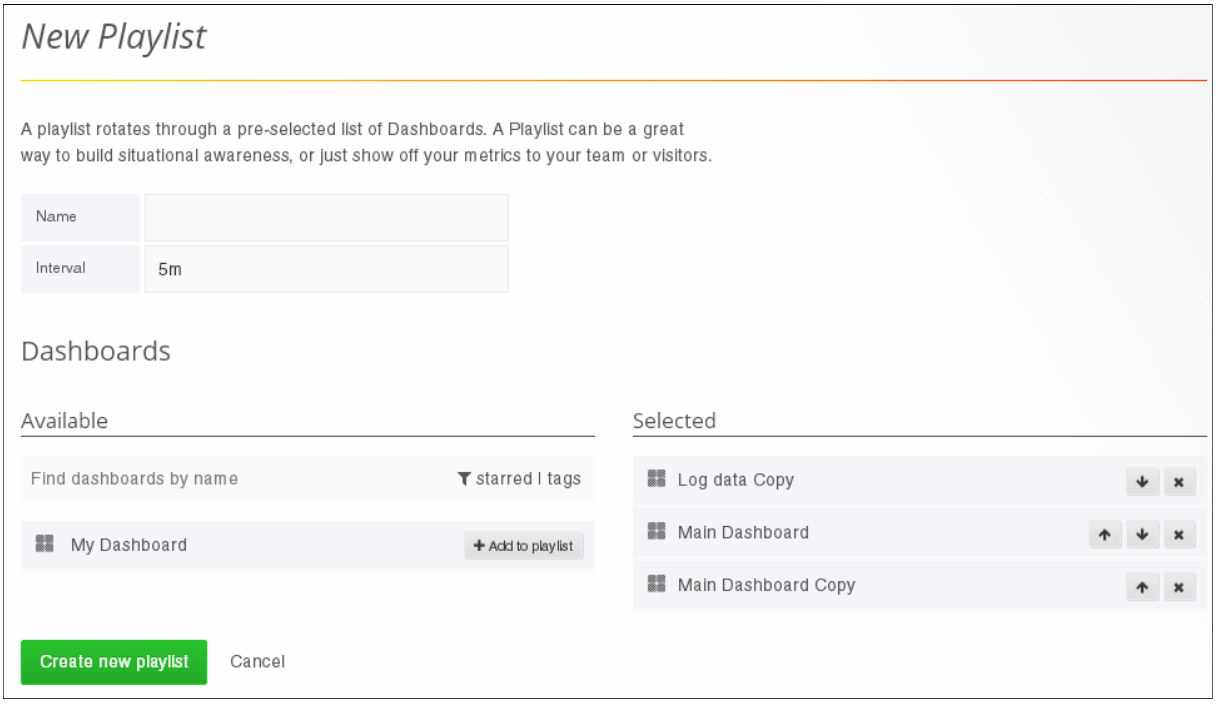


Figure 83: New Playlist window

5. Optionally rearrange the order in which the dashboards will be played, using the arrows in the **Selected** columns
   To remove a dashboard from the playlist, click the **x** button.
6. Click **Create new playlist**.

Playing a Dashboards Playlist

To play a dashboard playlist:

1. In the menu bar, select **Dashboards** > **Playlists**.

   The Saved Playlists window appears.

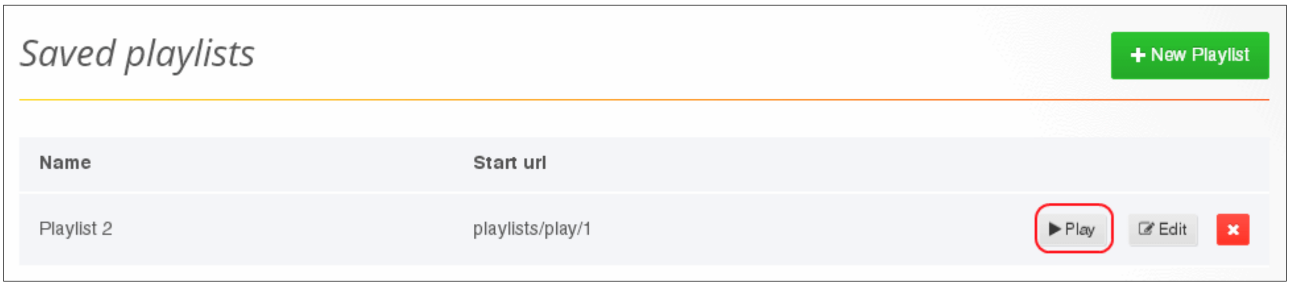


Figure 84: Selecting to Play a Playlist

2. In the row displaying the desired playlist, click **Play**.

The playlist start running. Note that most menu buttons and dashboard controls are hidden while the playlist is running.

3. Optionally control the playlist manually using the playlist controls appearing at the top of screen when in Playlist mode: 
   - Click the stop button to stop the playlist, and exit to the current dashboard. A playlist continues running indefinitely until stopped.
   - Click the next button to advance to the next dashboard in the playlist.
   - Click the back button to rewind to the previous dashboard in the playlist.

Editing or Deleting a Dashboards Playlist

To edit or delete a dashboard playlist:

1. In the menu bar, select **Dashboards** > **Playlists**.

   The Saved Playlists window appears.

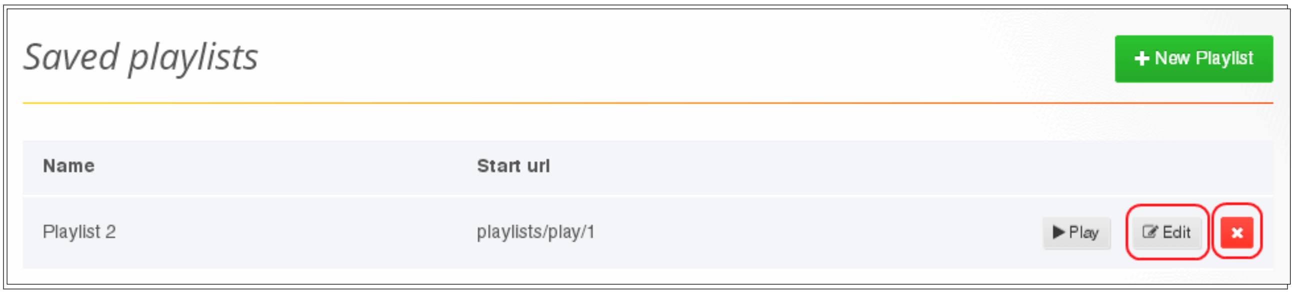


Figure 85: Selecting to Edit or Delete a Playlist

2. To edit the playlist, click **Edit** in the row displaying the playlist. An Edit Playlist window appears, similar to the New Playlist window (Figure 83). You can edit the playlist name, interval, list of dashboards or the order in which they will be played.
3. To delete a playlist, click the **x** in the row displaying the playlist. Confirm the deletion operation.

Chapter 12

Managing Load Generators

Both a *URL/API Load Test* and *Script Load Test* require you to specify, from among the available load generators, which load generators to include in the test. However, the list of available load generators can only be defined by a Super Admin.

Adding Load Generators

To add a new load generator:

1. In the menu bar, select **Admin** > **Load Generators**.

   The Load Generators window appears.

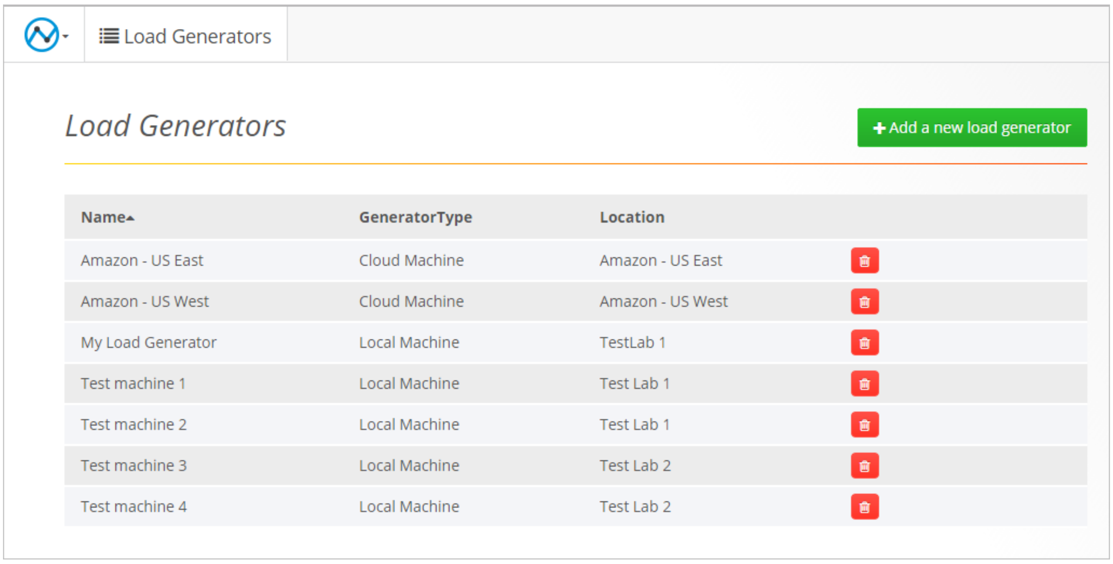


Figure 86: Load Generators page

2. Click **+Add a new load generator**.

   An Add New Load Generator window appears.

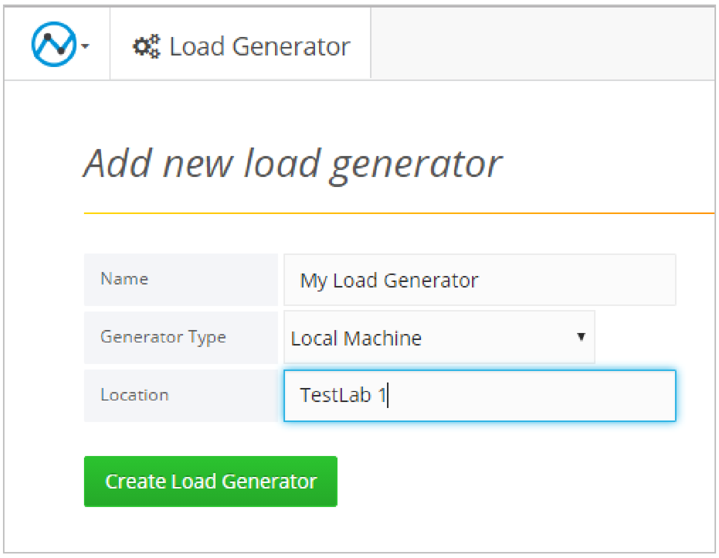


Figure 87: Add new load generator

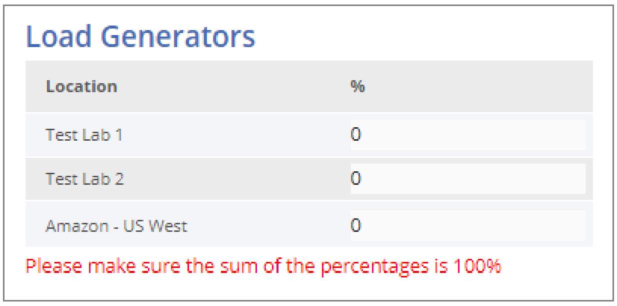
3. In the **Name** field, specify the load generator's IP address or host name.
4. In **Generator Type**, select whether the generator is a **Local Machine** or a **Cloud Machine**.

   If you want to specify a Cloud Machine, first make sure it was specified as a Cloud Host in the WebLOAD Console. Refer to *Specifying a Cloud Host as a Load Generator* (on page 78).
5. In **Location**, enter a human-readable field. This value does not have to be unique per load generator machine, and has an important role, as described in *Setting Load Generators' Location Tag* (on page 77).

   Note that if you leave the **Location** field empty, the system will automatically give this field the value entered in the **Name** field.

Setting Load Generators' Location Tag

Load Generators are defined by Name and Location. However, in the test-creation pages, the load generators are listed by Location only (and not by Name).



This is helpful when defining a load test, because of the relationship between Name and Location, as follows:

- Multiple separate machines can have the same **Location** (by defining multiple load generators whose **Locations** are identical but whose **Names** are not). For example:
  - If:
    You want all load generators in Test Lab 1 to participate in certain tests.
  - Then
    Give the same "Test Lab 1" **Location** to all the load generator machines located in Test Lab 1.
  - Finally:
    You need only to select "Test Lab 1" in the Load Generators section of the Create Load Test page, and all the load generators whose Location is "Test Lab 1" will be included.
- Likewise, any one machine can be given multiple different **Locations** (by defining multiple load generators whose **Names** are identical but whose **Locations** are not). For example:
  - If:
    You sometimes want to choose load generators based on their operating system, and other times based on their geographical location.
  - Then:
    Define each load generator twice, once with **Location** describing its OS (Windows or Linux), and once with **Location** describing its geographical location (New York or London).
  - Finally:
    You need only to select "Windows", "Linux", "New York" or "London" in the Load Generator section of the Create Load Test page, and only the load generators fitting that description will be included.

Specifying a Cloud Host as a Load Generator

If you want to specify a cloud machine as a load generator, you need to first define the cloud host machine in the WebLOAD Console.

To define a cloud host in WebLOAD Console:

1. In WebLOAD Console, set up a WebLOAD cloud Account as follows:
   a. Create an Amazon EC2 account.
   b. Click **Cloud Options** in the **Tools** tab of the ribbon to create a WebLOAD cloud account in which you specify your Amazon security credentials, the specific Amazon region where the machines should be located, and the WebLOAD image to install on the Amazon machines.

   For a full description , refer to *Setting Up Cloud Computers* in the *WebLOAD Console User Guide*.
2. In WebLOAD Console, define cloud host computers as follows:
   a. Click **Add** in the Host Selection window of the WebLOAD wizard.
   b. In the Add Host Computer window that appears, select **Add Cloud host** .

   For a full description , refer to *Adding Host Computers* in the *WebLOAD Console User Guide*.

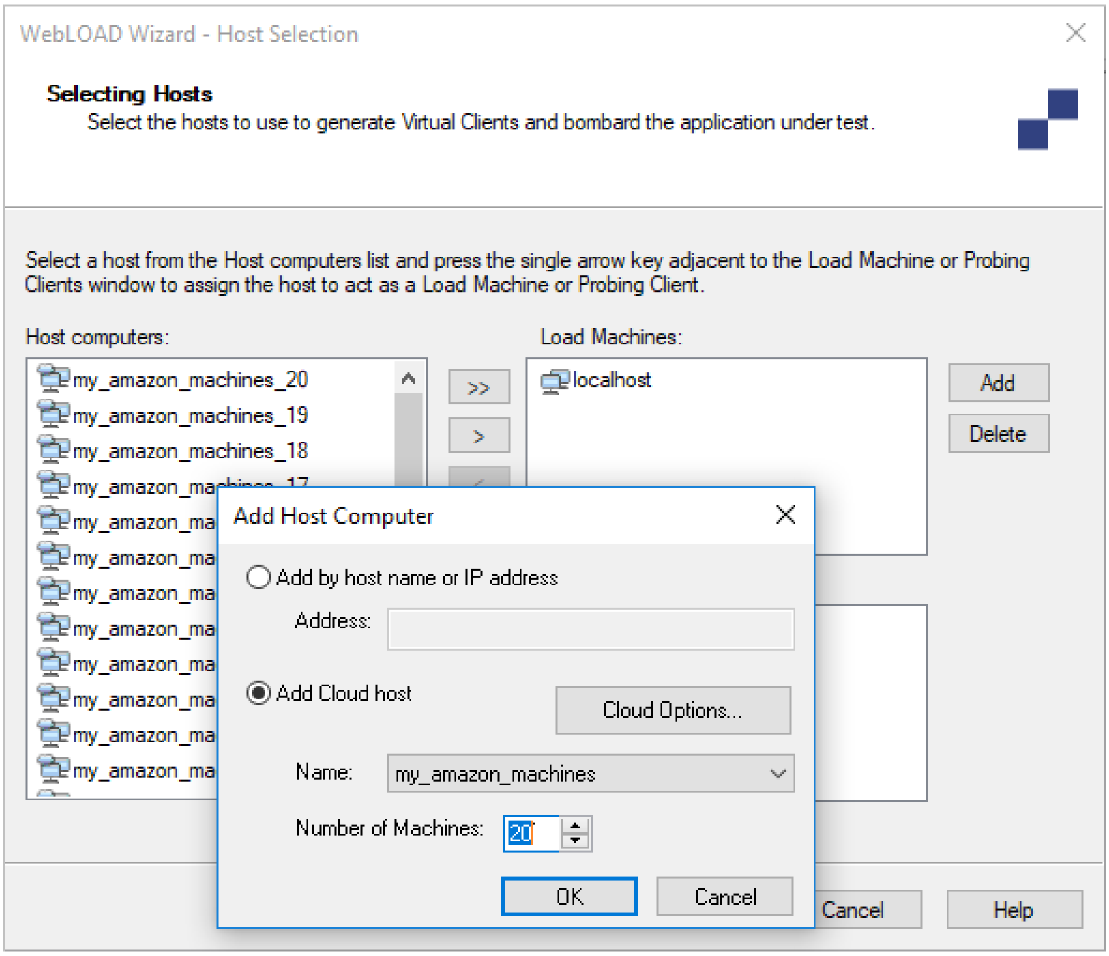


Figure 88: Defining cloud host computers in WebLOAD Console

Chapter 13

Managing Organizations, Users and Admins

Understanding Organizations and Admins

Organizations and Admins

Organizations are a method of compartmentalizing dashboards, data source and users. You do not need to create multiple organizations if you want all your users to have access to the same set of dashboards and data. If however you do not want all users to access the same dashboards and data sources, define organizations as described in *Adding an Organization*.

If you will be defining organizations, you can have two levels of administrators:

- Organizational administrators: These admins can manage users within specific organizations in a particular WebLOAD Cloud installation.
- Super administrators: These super admins can manage users across all organizations in a WebLOAD Cloud installation. They can also change and access system-wide settings.

Organizational Administrators

As an Organizational administrator, you can add Data Sources, add Users to your Organization and modify Organization details and options.

Super Administrators

As a Super Administrator, you have complete access to any Organization or User in a specific WebLOAD Cloud installation. When logged in as super admin, the menu bar contains an additional **Admin** option to enable you to perform global administration actions.

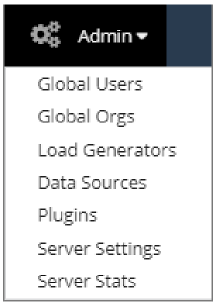


Figure 89: Admin Options for Super Admin Users

Managing Users

Organizational admins can manage users within the specific organization, while super admins can manage all users, across all organizations.

User Types

There are two main types of users:

- **Super admin user** – has full permissions to all of the WebLOAD Cloud's options and settings.
- **Organizational user**. Within the organization, a user can have any of the following roles:
  - **Viewer** – Can only view the Dashboard
  - **Read-Only Editor** – Can edit dashboards, but cannot save the changes
  - **Editor** – Can manage, create and execute tests and sessions, create and update dashboards, upload resources, and save the changes. This is the typical WebLOAD Cloud user.
  - **Organizational Admin** – has full permissions to all of the organization's options and settings: can edit, save, and make changes at the organizational level, including creating organizational users and editing organizational users.

User Management by a Super Admin

Super admins can add users of any type, to any organization.

User Creation by a Super Admin

To add a user of any type:

1. In the Menu bar, select your user name and then select **Admin** > **Global Users**.
2. In the User window that appears, click **+ Add new user**.

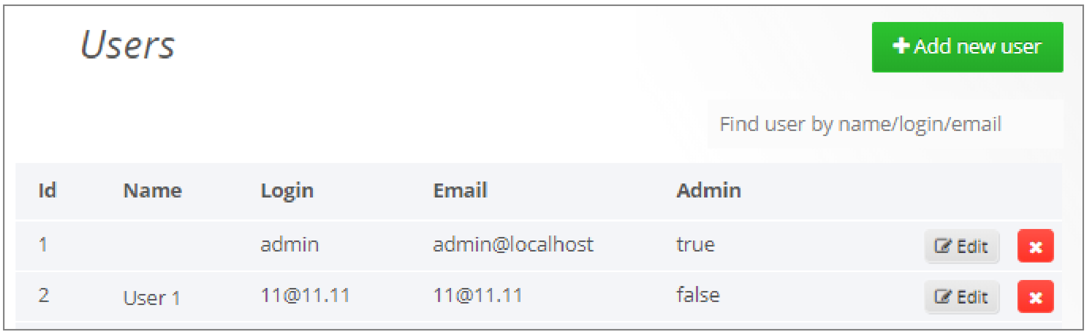


Figure 90: Users window

3. In the Add New User window that appears, enter the new user name, email, username and password. Then click **Create**.

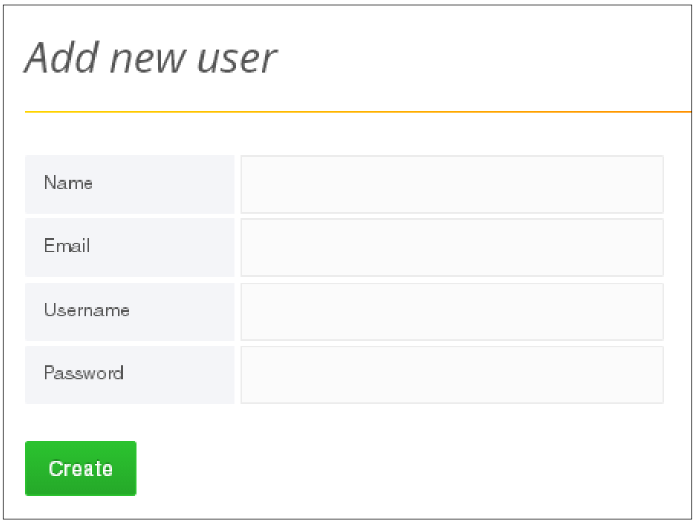


Figure 91: Add New User window

4. The new user is created, and appears in the table in the Users window (Figure 90).

5. The new user's settings can now be defined/edited.

   - A super admin can set the new user's permissions and other settings, by clicking **Edit** in the respective row in the Users window (Figure 90). For instructions, refer to *User Editing by a Super Admin – Editing User's Permissions, Organizations, Roles and Details*.

   - An organizational admin can set the new user's role in the organization. For instructions, refer to *User Editing by an Organizational Admin – Editing User's Role*.

User Editing by a Super Admin – Editing User's Permissions, Organizations, Roles and Details

A super admin can set a user's permissions, organizational roles, and other settings.

To edit a user:

1. In the Menu bar, select your user name and then select **Global Users**.
2. In the Users window that appears, click **Edit** in the row of the user you wish to edit.

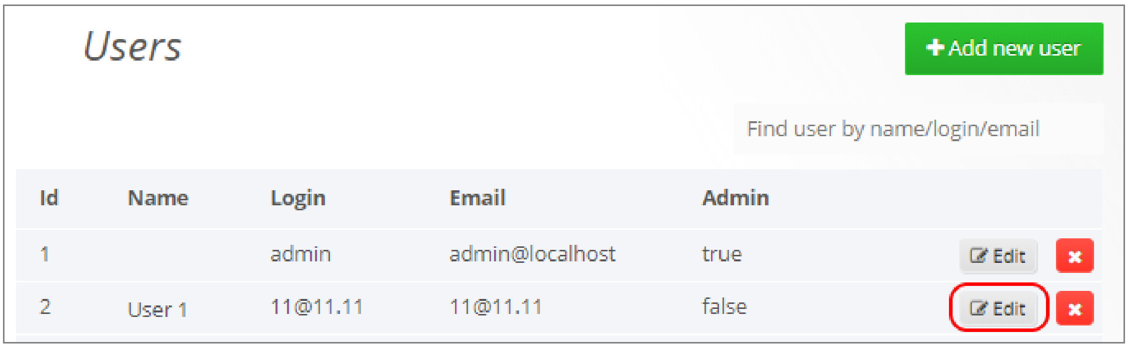


Figure 92: Users window

The Edit User window appears, enabling you to edit various user settings.

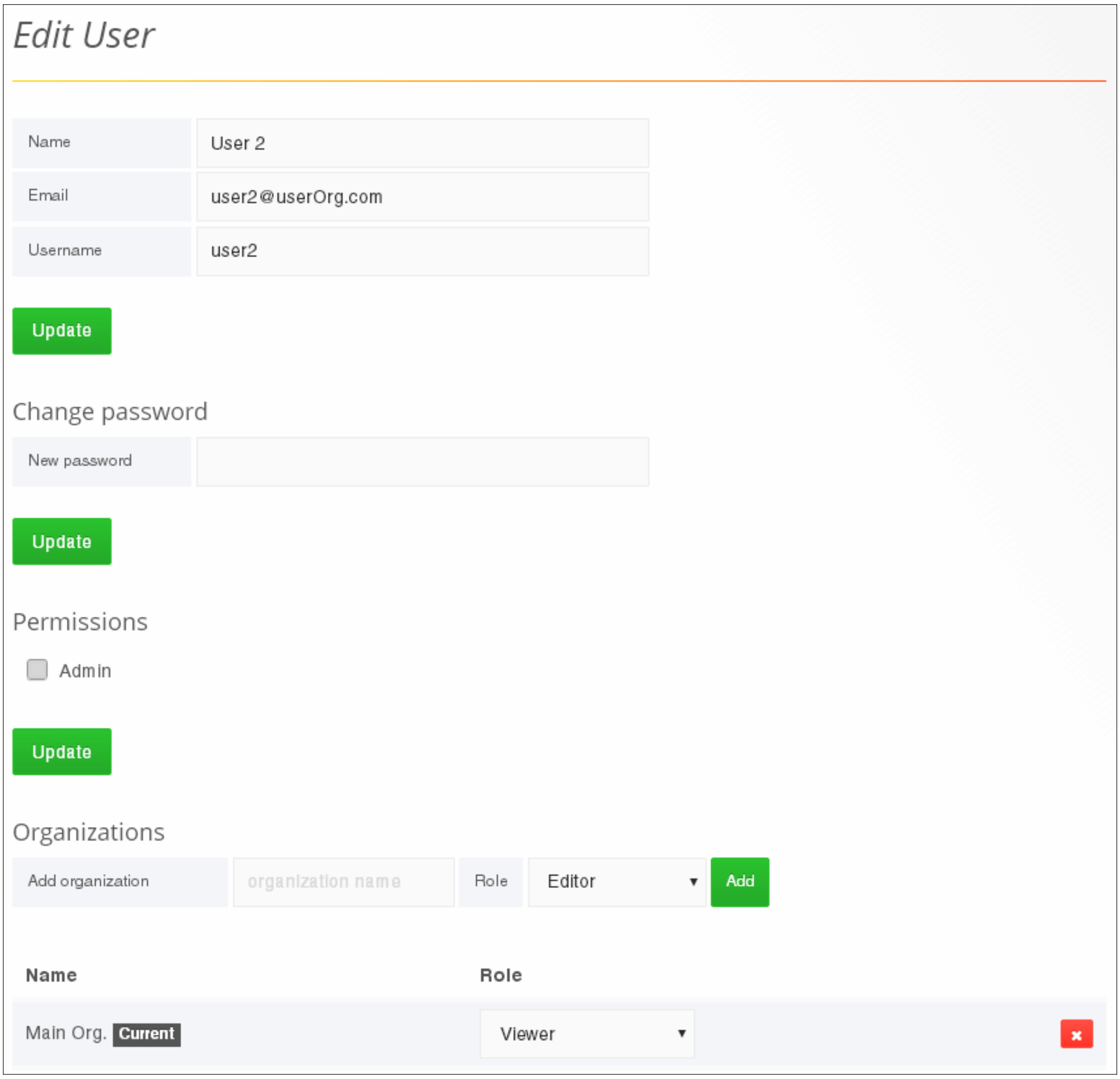


Figure 93: Edit User window

3. You can make the user a super administrator by selecting the **Admin** checkbox in the **Permissions** section.
4. In the **Organizations** section you can specify in which **Organizations** the user is a member, and specify the user's **Role** in each. The available organizational roles and their permissions are described in **Organizational user** (on page 81).
5. You can edit the user's name, email, username, and change his password.

User Management by an Organizational Admin

An organizational admin can add existing users to the organization, and edit the roles of the organizational users.

User Addition by an Organizational Admin

To add a user to the organization:

1. In the Menu bar, select your user name and then select **Users**.

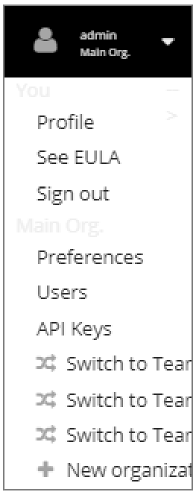


Figure 94: Selecting to Access Organizational User Definitions

2. In the Organization Users window that appears, click **+ Add or Invite**.

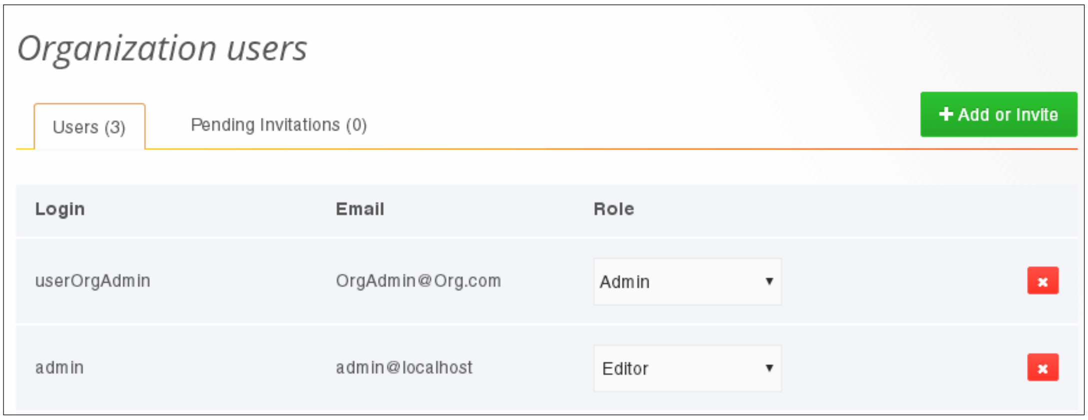


Figure 95:

3. Enter the **Email or Username**, and optionally the **Name**, of the user you wish to invite. For each additional user you wish to add, click **Invite another** and enter that user's details. Then click **Invite Users**.

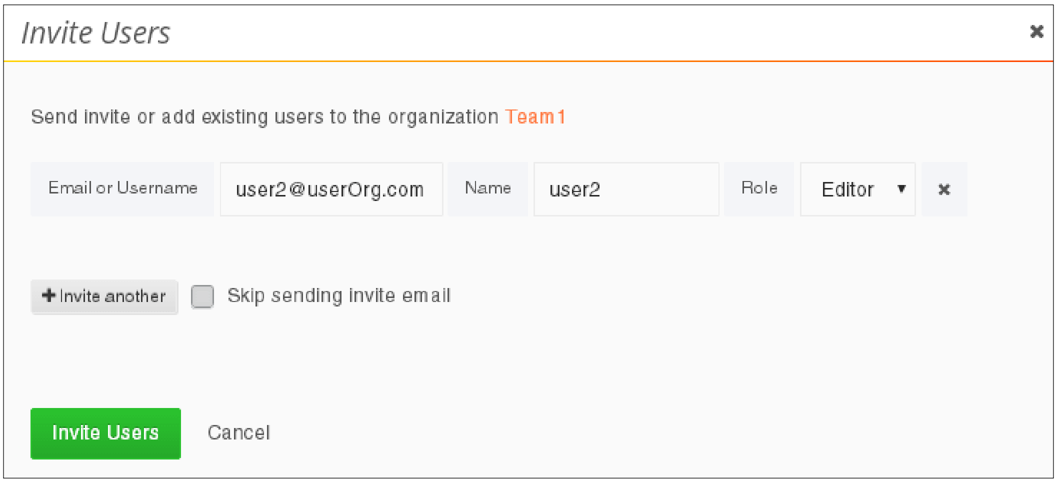


Figure 96: Invite Users window

User Editing by an Organizational Admin – Editing User's Role

An organizational admin can set a user's role in the organization.

To edit a user's role:

1. In the Menu bar, select your user name and then select **Users**.

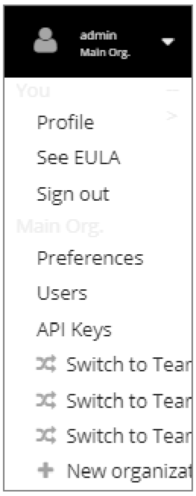


Figure 97: Selecting to Access Organizational User Definitions

2. In the Organization Users window that appears, you can set the **Role** of each organizational user.

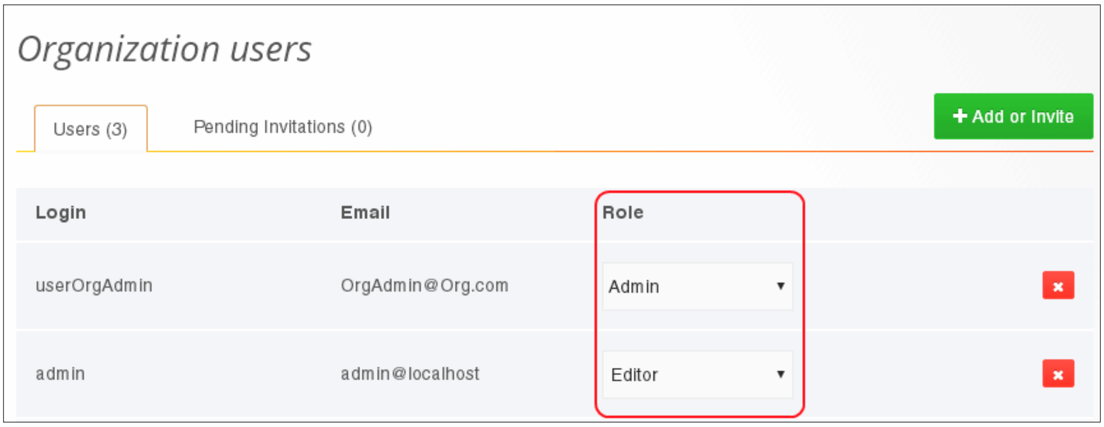


Figure 98: Setting an Organizational User's Role

Managing Organizations

Super admin users can add organizations (for an explanation of Organizations, refer to *Organizations and Admins*).

Adding an Organization

To add an organization:

1. In the Menu bar, select your user name, and then select **New Organization**.

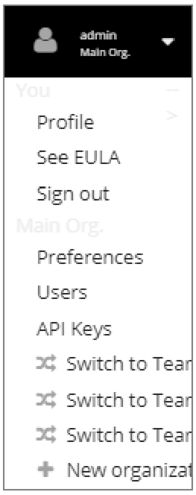


Figure 99: Selecting to Add an Organization

2. In the New Organization window that appears, enter an **Org. name**, and click **Create**.

Figure 100: New Organization window

The Org Preferences window appears, populated with the new organization's name, enabling you to edit various organization's settings

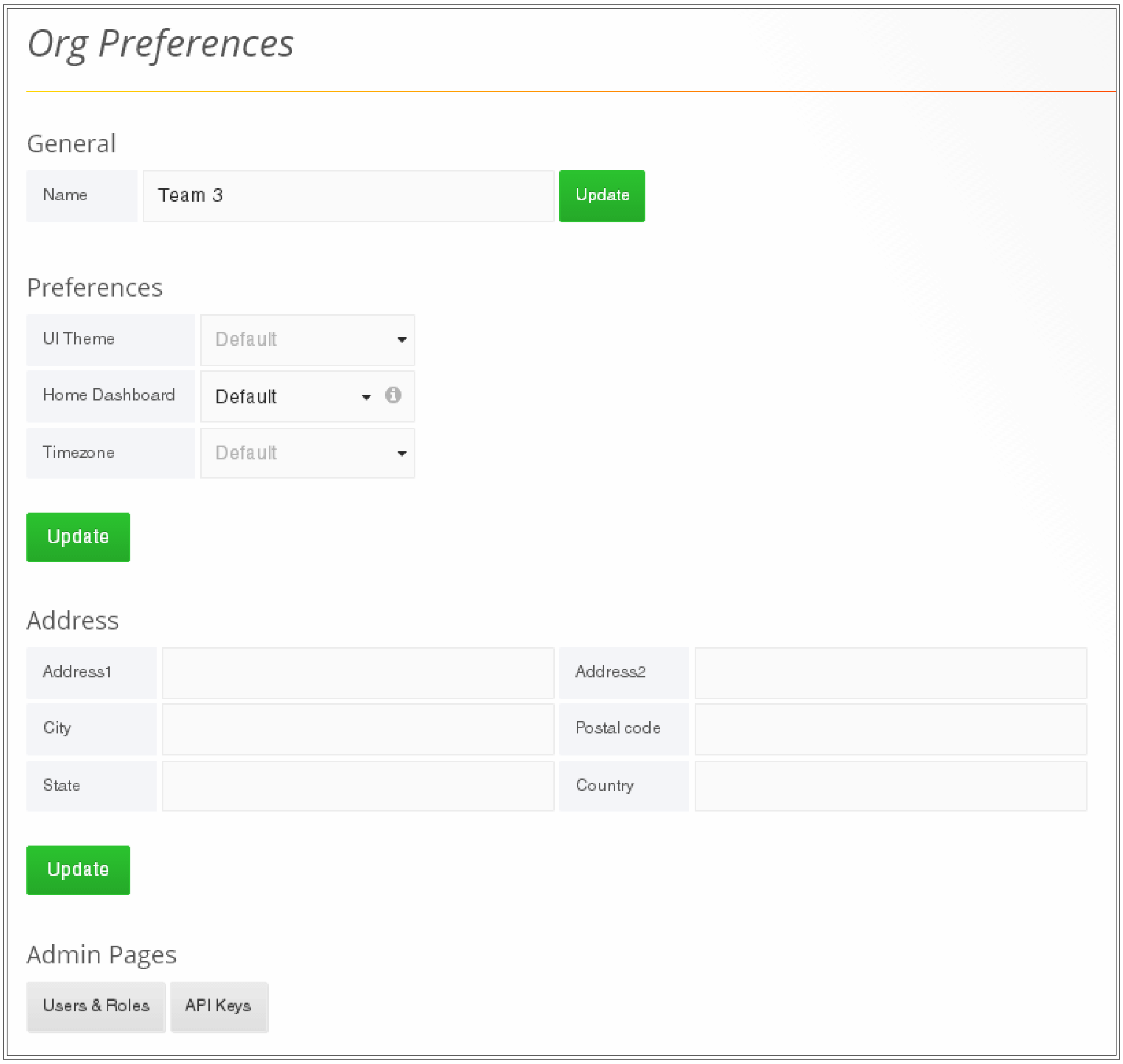


Figure 101: Org Preferences window

To set the new organization's settings, refer to the instructions in *Editing an Organization's Settings*.

Editing an Organization's Settings

To edit an organization's settings:

1. In the Menu bar, select your user name and make sure the organization name appearing below the user name, is the name of the organizations whose settings you wish to edit. If it is not, select **Switch to** in order to switch to that organization.

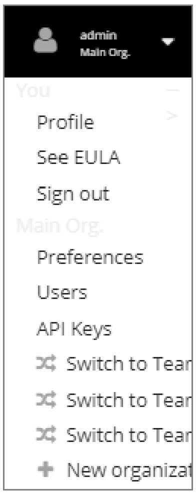


Figure 102: Switching to Another Organization

2. In the Menu bar, select your user name and then select **Preferences**.

   The Org Preferences window appears, enabling you to edit various organization's settings

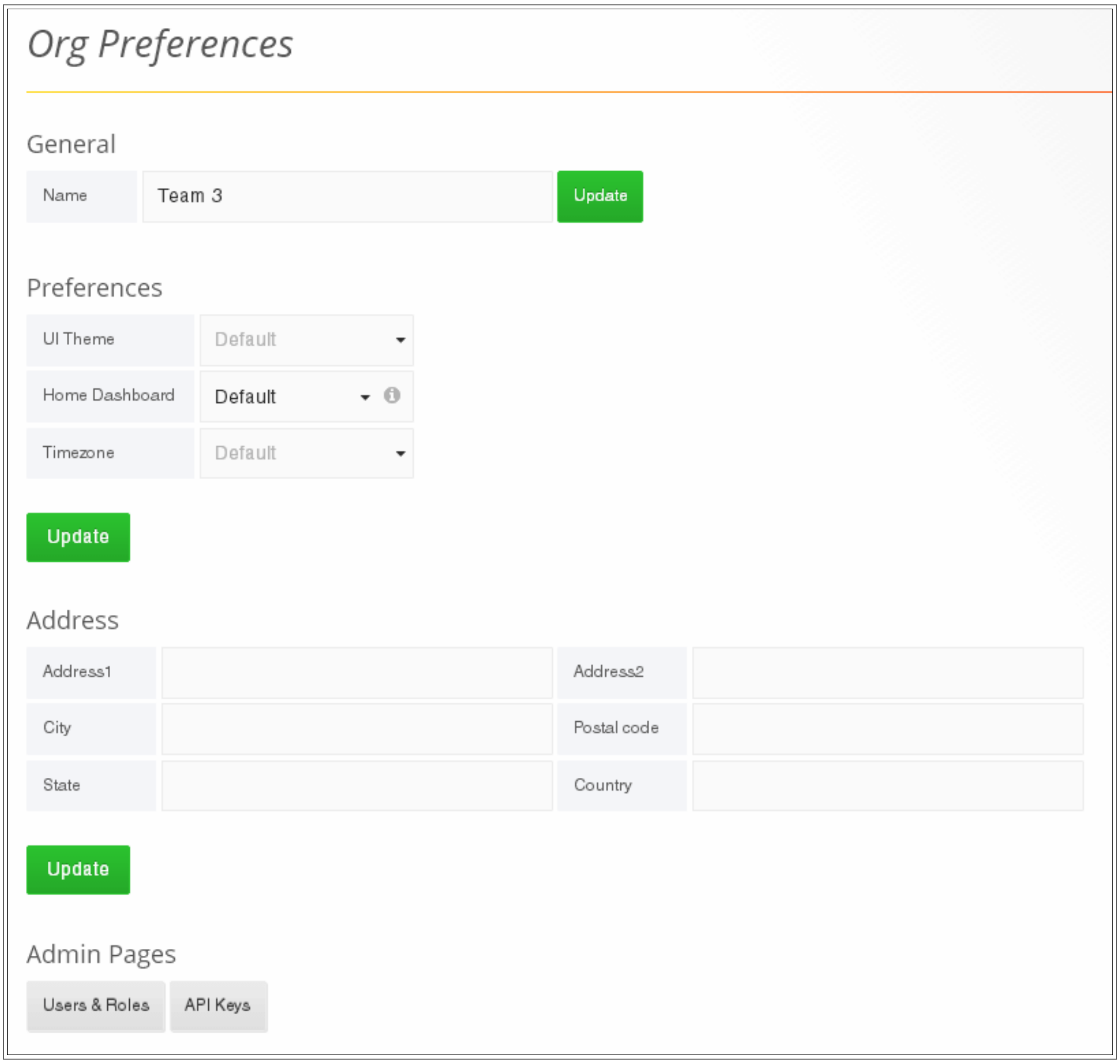


Figure 103: Editing Organization's Settings

3. You can edit the organization's name and address.
4. You can edit the organization's preferences: **UI theme**, **Home dashboard**, and **Timezone**.
5. You can change mange the organization's users by clicking **Users & Roles** under **Admin Pages**. In the Organization Users window that appears, you can:
   - Add users
   - Delete users
   - Set the **Role** of each organizational user.

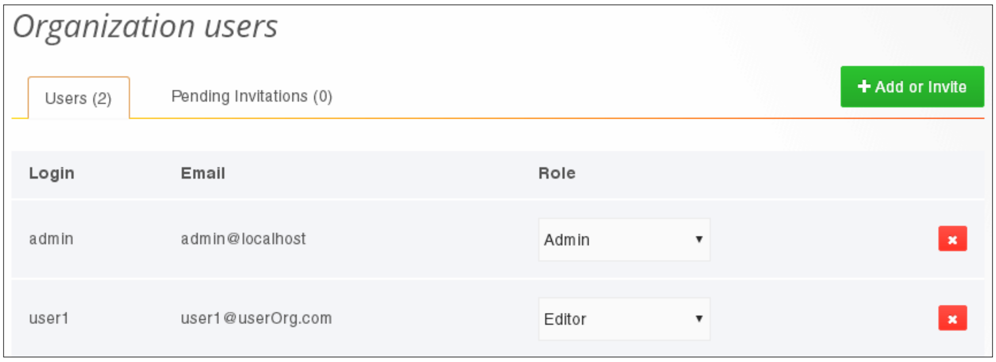


Figure 104: Organization Users window

6. You can use API keys to access some functionality in a REST API, by clicking **API Keys** under **Admin Pages**.

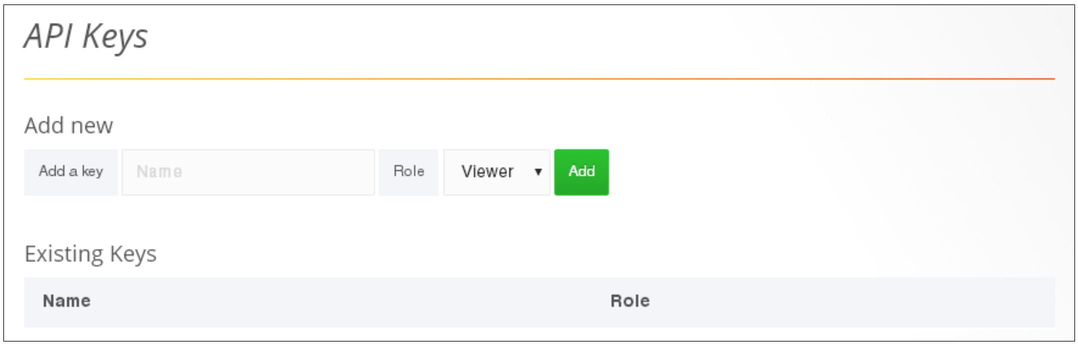


Figure 105: API Keys window

Appendix A

Editing WebLOAD Cloud Configuration

WebLOAD Cloud Components

The WebLOAD Cloud includes the following main components:

- Back-end server, which listens on port 3000 by default.
- Datasource server, which listens on port 8080 by default
- Database server

Editing Back-end Configuration

Changing Back-end configuration

You can change the back-end configuration by creating a file called `custom.ini` in `C:\Program Files (x86)\RadView\WebLOAD\dashboard\grafana\conf`.

Use the `default.ini`, located in the same location, to see the available configuration options. The following lists some common options. For a full description of all options, refer to the Grafana documentation at http://docs.grafana.org/installation/configuration/

```
[server]
# Protocol (http or https)
protocol = http
# The ip address to bind to, empty will bind to all
interfaces
http_addr =
# The http port to use
http_port = 3000
# The public facing domain name used to access from a
browser
domain = localhost
[security]
# default admin user, created on startup
admin_user = admin
# default admin password, can be changed before first
start of grafana, or in profile settings
admin_password = admin
[users]
# disable user signup / registration
allow_sign_up = true
```

Changing the Back-End Server's Listening Port

You can change the port that the back-end server listens on, which is 8080 by default.

To change the back-end server's listening port:

1. Change the listening port value in the datasource configuration file, located in: `C:\Program Files (x86)\RadView\WebLOAD\dashboard\webdashboard\dashboard.settings.bat`.
2. If you change the listening port in the datasource configuration file, you must reflect that change in the datasource configuration, as follows:
   a. Select **Admin** > **Data Sources** in the WebLOAD Cloud menu bar.
   b. Click the **WebLOAD** data source,
   c. In the Edit Data Source window that appears, change the **URL** to reflect the new address.

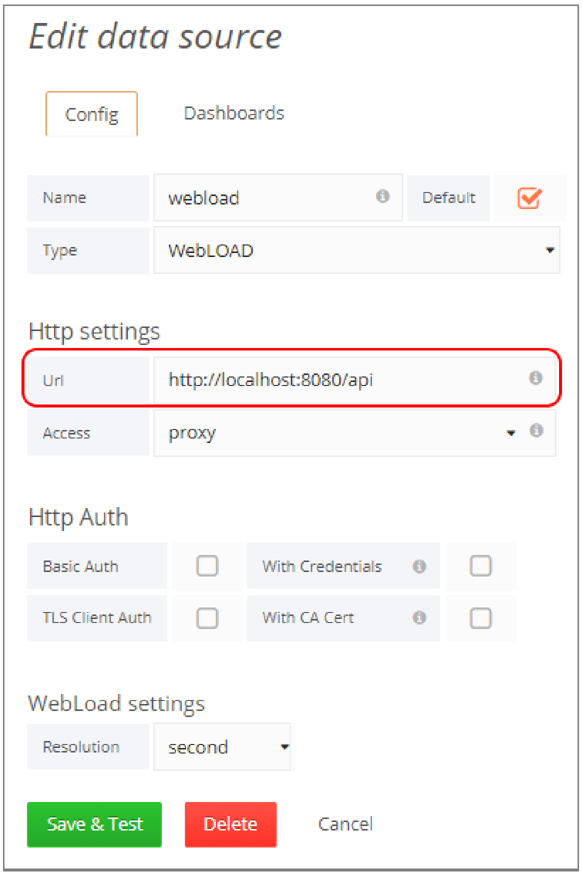


Figure 106: Edit Data Source window

Changing the WebLOAD Cloud Database

You can set which database the WebLOAD Cloud is using, by specifying the database in the datasource configuration file, located in `C:\Program Files (x86)\RadView\WebLOAD\dashboard\webdashboard\dashboard.settings`.bat

Note that also the remote database itself must be configured for remote connections. Refer to *Configuring PostgreSQL to Allow Remote Database Connections* in the *WebLOAD Installation Guide*.

In addition, if you wish to import remote database sessions from the WebLOAD Console to the WebLOAD Cloud while the sessions are running, do the following in the WebLOAD Console:

1. Select **Tools** > **Global Options** > **Database**.

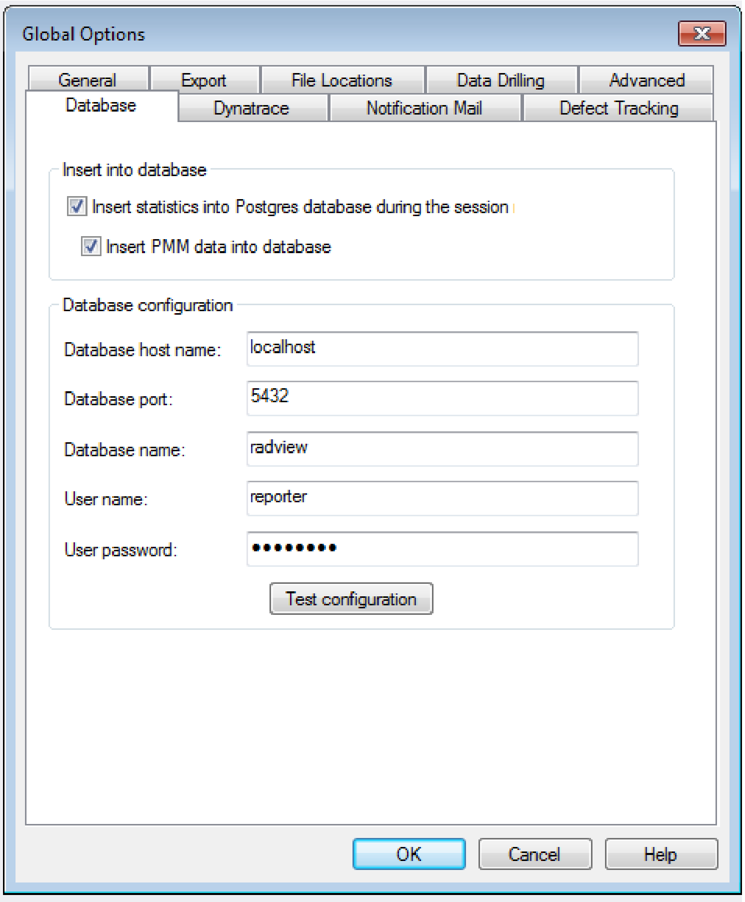


Figure 107: Console Global Options - Database Tab

2. In the **Database configuration** section, enter the details of the remote database.

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