

SQream Dashboard Version 2.0.5

SQream Technologies

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Overview

This guide describes the functionality and benefits of the SQream Dashboard and is designed for SQream DB administrators and support team members.

1. The SQream Dashboard

The SQream Dashboard is your central monitoring and administration tool for the SQream database. It provides an overview on the health and availability of the SQream server components, including CPU, GPU, memory and disk usage.

It shows all current and historical activities running at the SQream DB server, such as query statements and their performance, possible locks, or database errors. All database related information is captured to internal log files for later and further analysis.

In addition, the SQream Dashboard allows you to manage users and their permissions to access either the SQream database or the SQream Dashboard.

SQream Dashboard is a web-application and currently supports the Chrome browser only.

2. Login

Open your browser and navigate to the URL of your SQream Dashboard. Typically this is port 3001 of your primary host machine of the SQream DB. <http://<SQream DB primary host IP>:3001>.

This is your login screen:

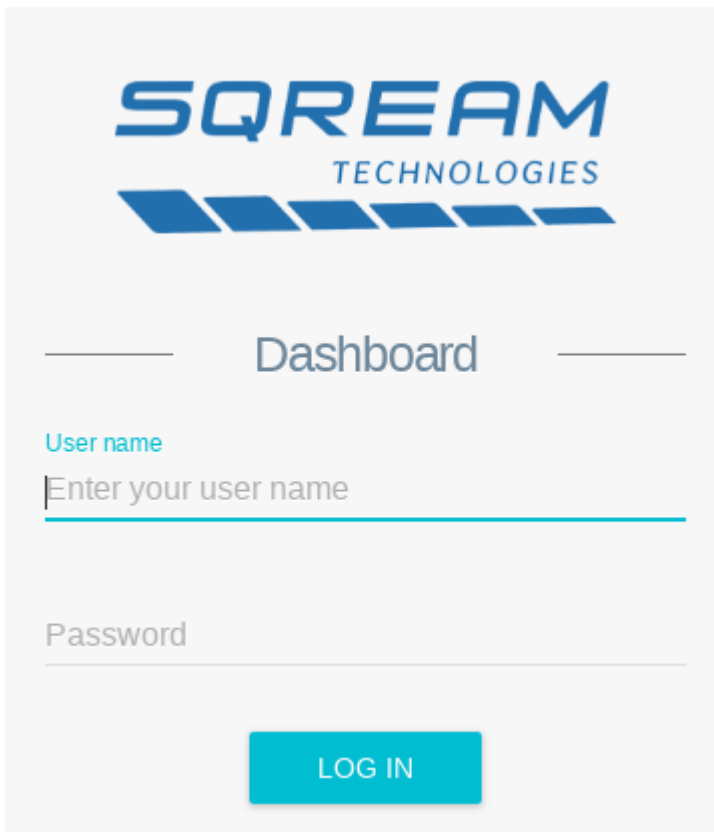


Figure 1. Login Screen

Enter the credentials of your dashboard user and click **LOG IN**.



Dashboard users are configured in the [Dashboard User Management](#) module.

3. The Dashboard

The main module of the dashboard provides an overview of various components in the system. Typically all components show information in nearly real time. The refresh rate can be configured on the [Dashboard Setup](#) page.

3.1. Hosting Server

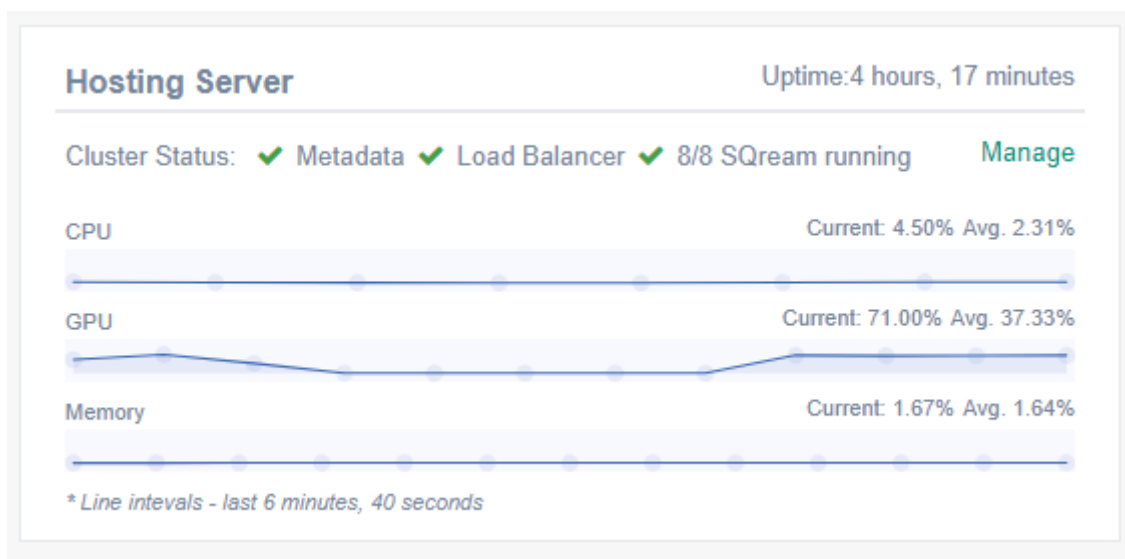


Figure 2. Hosting Panel

The Hosting Server panel displays information about the machine, OS and SQream DB services. The information includes:

- SQream DB component status
- System uptime
- CPU usage
- GPU utilization
- Memory usage

Click the green **Manage** link to stop or start the SQream DB server.



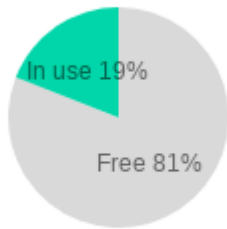
These markers do not log historical data, and will only show information from the moment the dashboard page has been opened in your browser.

3.2. Database Disk Distribution

The Database Disk Distribution panel shows the disk-space used by each database in the SQream DB storage.

3.3. Disk Usage

Disk Usage



Size	Used	Available	Usage %
1.7T	308G	1.4T	19%

Figure 3. Disk Usage

The Disk Usage panel shows the total disk-space used and available for the entire SQream DB storage.

3.4. Active Statements

The Active Statements panel shows the currently running statements, along with basic details like: Statement ID, the User running the statement, Start Time, Status and more.

Active Statements						
Stmt Id	User	Start Time	Status	Database	Statement	
86358	sqream	29-01-2018 14:53:27	Executing	telecom	SELECT TOP 1000 Calendar_Year, Calendar_Year_M...	
86360	sqream	29-01-2018 14:53:29	Waiting	telecom	SELECT TOP 1000 Calendar_Year, Calendar_Year_M...	

Figure 4. Active Statements

There are 2 icons for each active statement:

- **Stop Statement** - Allows you to stop a currently running statement.
- **Show Node Info** - Allows you to bring up query statistics such as the query's execution plan and performance metrics during execution.

Show Node Info

Click the **Show Node Info** icon to review the query statistics. They can be saved to a file using the **Save to File** option. This feature is an advanced monitoring tool. It is typically used when you encounter performance issues and you want to send more information to the SQream support team.

Show Node Info

[REFRESH](#)

node_id	node_type	rows	chunks	avg_rows_in_chunk	time	parent_node_id	timeSum
1	18StatementRechunker	12	1	12	2018-01-29 15:31:23	-1	0.0000
2	14ReorderColumns	12	1	12	2018-01-29 15:31:23	1	0.0000
3	15SeparatedGather	12	1	12	2018-01-29 15:31:23	2	0.0000
4	14ReorderColumns	12	1	12	2018-01-29 15:31:23	3	0.0000
5	8Gpu2Host	12	1	12	2018-01-29 15:31:23	4	0.0000
6	6OldTop	12	1	12	2018-01-29 15:31:23	5	0.0000
7	11Transforms2	12	1	12	2018-01-29 15:31:23	6	0.0000
8	8Host2Gpu	12	1	12	2018-01-29 15:31:23	7	0.0001
9	14ReorderColumns	12	1	12	2018-01-29 15:31:23	8	0.0000

[SAVE TO FILE](#)
[CLOSE](#)

Figure 5. Show Node Info

3.5. Last Statements

The Last Statements panel shows the last 30 statements (default configuration), as they appear in the SQream DB Log. This includes both successful and failed statements.








Last 30 Statements						
Id	Start Time	Elapsed sec	Status	Returned Rows	Statement	
90935	2018-01-29 16:02:32	11	Success	12	SELECT TOP 1000 Calendar_Year, Calendar_Year_Month, Plan_Name, S...	
90928	2018-01-29 16:02:26	0	Failed 		SELECT TOP 1000 Calendar_Year, Calendar_Year_Month, Plan_Name, S...	
90916	2018-01-29 16:02:17	0	Failed 		Select id, insert_datetime, joinid, messageid, responseid, enterpriseid, m...	
88869	2018-01-29 15:31:13	10	Success	12	SELECT TOP 1000 Calendar_Year, Calendar_Year_Month, Plan_Name, S...	
87755	2018-01-29 15:14:24	10	Success	12	SELECT TOP 1000 Calendar_Year, Calendar_Year_Month, Plan_Name, S...	

Figure 6. Last Statements

From the top right corner of the Last Statement panel you can perform the following actions:

- **Open SQream DB Log** - Jumps to the [SQream DB Log](#) page.
- **Download all log files** - Allows you to download and save all log files. This includes information about the SQream server activity, logs, statements, execution and exceptions.
- **Refresh** - Refresh the list of Last Statements.

Use the **Copy** icon at the statement line to copy the single query statement to the clipboard.



The number of statements in this list is configurable in the [Dashboard Setup](#) page.

4. Import Data from a CSV File

The **Import CSV** tool assists in uploading data from CSV files into the SQream DB. It is designed as a 4-step wizard:

Figure 7. Import CSV

4.1. Select Source

You can import data using one of the following options:

- **File upload** - Allows you to upload a CSV file from your local computer and import the data. For this option you can either drag and drop the file or select it using the **Open File** dialog.
- **Local file** - Allows you to import data from a CSV file, located on your server machine. Specify the full file path, including folder and file name.



Select the **Directory** checkbox to import all CSV file located in a specific directory. This option is relevant only for imports from a **Local file**.

4.2. Import Setting

Under **Import Setting** you configure the layout of the CSV file you want to import.

Basic settings include:

- **Delimiter** - Specify the correct column delimiter, like **,**, **\t**, **|**, or any other single character. Comma is the default delimiter.
- **Header line** - Check this checkbox to skip the first line of the file.

More advanced settings are accessible via **Advanced Settings** link. Refer to SQream SQL Reference Guide under the "[COPY FROM \(bulk import\)](#)" section for more information about these settings.

Click **Next** to move to the next step.

4.3. Select Target

In the **Select Target** step you can preview the first few rows of the CSV file and then specify the target database and table for the import.

Selecting the correct target for bulk import

1. Select the target database
2. Select target table
3. Map the columns

Once the table is specified, the columns are displayed on the left-hand list (under **All columns**). You must select the columns and their order to be populated by the CSV file.

- a. Select a single column by clicking the **+** icon, or select all columns by using **SELECT ALL**.
 - b. You can search for specific columns by using the search bar.
4. Remove columns or reorder columns:
 - a. After selecting columns, you can remove them with the **X** icon.
 - b. To reorder drag and drop the **selected** columns up or down.

Click **Next** to start the import.

4.4. Results

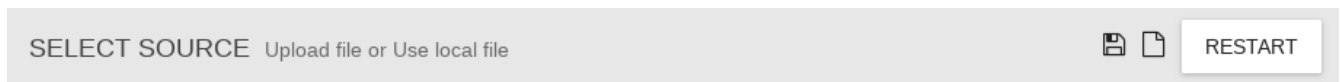
Once the import process started the Results step opens. It shows the progress of the import process and finally the status: Success or Error.

In addition you can see the executed statement and in case of an error, it allows you to download the error log file.



The error log file is generated in same directory as the csv file.

4.5. Save and Load Import CSV Settings



From the top right corner of the Import CSV wizard you can perform the following actions:

- **Save Import CSV Setting** - Allows you to save the setting of your last import activity, including the file name (if you loaded data from a local file), the Import settings, and Target configuration.
- **Load Import CSV Setting** - Allows you to perform a CSV import based on a previously saved setting.
- **RESTART** - Starts a new Import CSV process from scratch.

5. Documentation



Use the documentation icon at your top right corner to open the list of available SQream support documentation.

6. SQream DB Logs

The SQream DB Logs module allows you to review the last 500,000 query statements that were performed by the various clients. Statements that failed are shown in red.

SQream DB Log										SQream DB Log	
Search: in Statement or Error		Filter Database	2018-01-14 00:00		2018-01-30 23:59		Status	First	Last	Roles & Permissions	
Server Ip	Port	Database	Client Ip	User	Stat. Id	Start Time	End Time	Elapsed	Status	Show Locks	
192.168.0.251	5000	master	192.168.0.251	sqream	99510	2018-01-30 14:50:52	2018-01-30 14:50:52	0	Success	Dashboard Users	
192.168.0.251	5000	master	192.168.0.251	sqream	99512	2018-01-30 14:50:52	2018-01-30 14:50:52	0	Success	Dashboard Setup	
192.168.0.251	5000	master	192.168.0.251	sqream	99507	2018-01-30 14:50:51	2018-01-30 14:50:52	1	Success	About	
192.168.0.251	5000	master	192.168.0.251	sqream	99505	2018-01-30 14:50:51	2018-01-30 14:50:51	0	Failed	Sign out	
192.168.0.251	5000	master	192.168.0.251	sqream	99500	2018-01-30 14:50:50	2018-01-30 14:50:50	0	Success		
192.168.0.251	5000	master	192.168.0.251	sqream	99497	2018-01-30 14:50:34	2018-01-30 14:50:35	1	Success		
192.168.0.251	5000	master	192.168.0.251	sqream	99487	2018-01-30 14:50:33	2018-01-30 14:50:34	1	Success		
192.168.0.251	5000	master	192.168.0.251	sqream	99484	2018-01-30 14:50:30	2018-01-30 14:50:31	1	Success		
192.168.0.251	5000	master	192.168.0.251	sqream	99482	2018-01-30 14:44:27	2018-01-30 14:44:28	1	Failed		
192.168.0.251	5000	ba_database1	192.168.0.251	sqream	99470	2018-01-30 14:39:26	2018-01-30 14:39:27	1	Success		

Figure 8. SQream DB Log

6.1. Filter the Statements

Use the various filter options to narrow down the displayed statements. You can use one or multiple filter options offered in the top part of the screen:

- **Search** - Search for a key word in the Query Statement or Error Message.
- **Filter by database** - From the dropdown list select a specific database.
- **From ... to ...** - Use the calendar and time icons to set the start and end time of your filter condition.
- **Status** - From the dropdown list select a specific status.

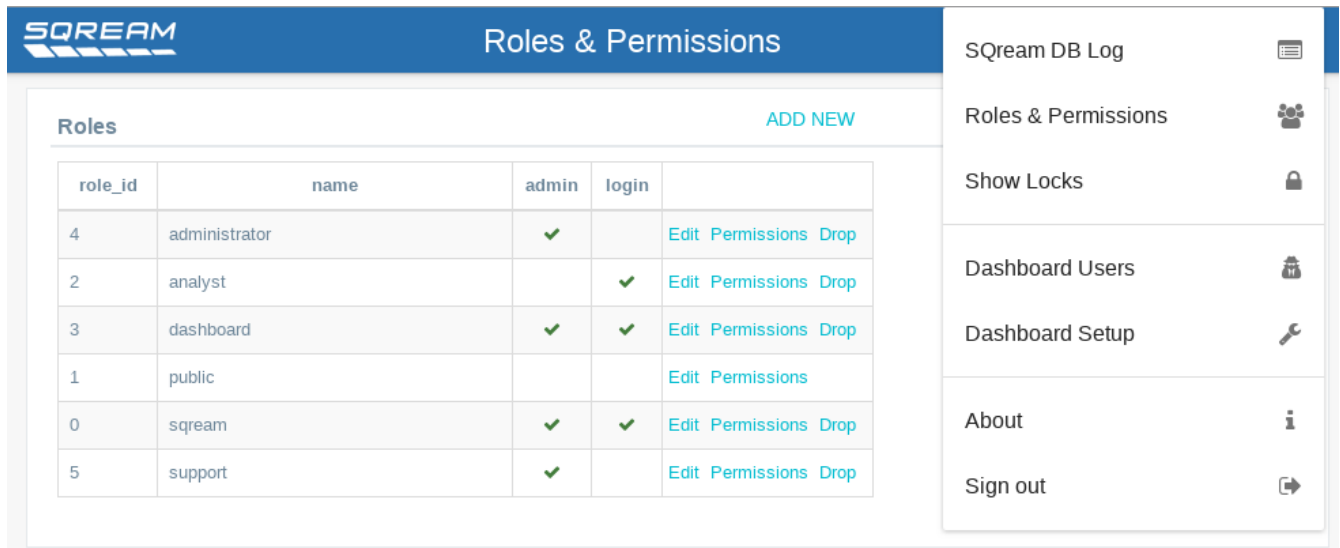
6.2. Copy

Use the **Copy** icon at the statement line to copy the single query statement or the error message to the clipboard.

7. Roles and Permissions

The Roles and Permissions module allows you to create and manage SQream DB users/roles and their permissions. These are the users/roles to access the SQream database.

More information about SQream DB's roles and permissions system can be found in our SQL Reference Guide under the "[Managing Database Roles and Permissions](#)" section.



role_id	name	admin	login	
4	administrator	✓		Edit Permissions Drop
2	analyst		✓	Edit Permissions Drop
3	dashboard	✓	✓	Edit Permissions Drop
1	public			Edit Permissions
0	sqream	✓	✓	Edit Permissions Drop
5	support	✓		Edit Permissions Drop

Figure 9. Roles and Permissions

7.1. Add a New Role

Click the **ADD NEW** link to add a new role.

Fill in the required details and click **SAVE**.

7.2. Update an Existing Role

From the list of existing roles click the **Edit** link to open the **Update SQream Role** dialog.

If you do not want to change the password leave the password fields unchanged.

Click **SAVE** to save the changes.

7.3. Update Role Permissions

The **Permissions** link in the roles table opens the **SQream Role Management** dialog.



SQL Preview

To preview the SQL query for the upcoming changes, click the **SHOW SQL** link.

Click **SAVE** to save the changes.

Changing permissions generates one or more SQL statements. These statements are shown on the

screen. Successful statements are show in green, failed statements are red.

7.3.1. Role Inheritance

To inherit one role to the other. **Edit** the role. You can assign roles to other roles (inherit one role to other). In the role sections, check or uncheck roles that you would like to inherit from, to the current role.

7.3.2. Databases, Schemas, Tables

In this section, you can GRANT and REVOKE permissions on the database level.

Upon selecting a database and schemas, all tables will be shown - allowing GRANT and REVOKE operations.

7.4. Drop a Role

From the list of existing roles click the **Drop** link. If this role is used by other roles, the system will show you the dependant roles.



If a role is used by other roles you can force a drop. Use the **DROP ROLE** button.

More information about SQream DB's roles and permissions system can be found in our SQL Reference Guide under the "[Managing Database Roles and Permissions](#)" section.

8. Show Locks

The Show Locks module allows you to review database locks that currently occur in your system, also referred to as active locks. If required you can release a lock by stopping the statement.

The screenshot displays the 'Show Locks' module in the SQream interface. At the top, there's a header with the SQream logo and the title 'Show Locks'. Below the header, there are filters for 'telecom' (a dropdown), 'Select Table' (a dropdown with an 'x' icon), 'Select user' (a dropdown with an 'x' icon), and 'Simple' (a dropdown). A timestamp 'Last fetch: 2018-01-31 13:39:15' is shown. The main content area is titled 'Locks' and contains a table with the following data:

Statement id	Statement	Username	Server	Port	Locked object	Lock mode
107399	insert into customers_details_dim select * from customers_details_dim;	sqream	192.168.0.251	5000	table\$telecom\$public\$customers_details..	Inclusiv

On the right side, there is a sidebar with the following navigation items: 'SQream DB Log' (with a document icon), 'Roles & Permissions' (with a group of people icon), 'Show Locks' (with a lock icon), 'Dashboard Users' (with a user icon), 'Dashboard Setup' (with a wrench icon), 'About' (with an information icon), and 'Sign out' (with a logout icon).

Figure 10. Show Locks

8.1. Show Locks and Filter

telecom	Select Table	Select user	Simple	FETCH
---------	--------------	-------------	--------	-------

Last fetch: 2018-01-31 13:39:15

Locks									
Statement id	Statement	Username	Server	Port	Locked object	Lock mode	Statement start time	Lock start time	
107399	insert into customers_details_dim select * from customers_details_dim;	sqream	192.168.0.251	5000	table\$telecom\$public\$customers_details..	Inclusive	31-01-2018 13:39:13	2018-01-31 13:39:13	STOP

- **Show Locks** - Select a specific database from the dropdown list and click **FETCH**.
- **Filter** - Use additional filter conditions per table and/or user to filter for specific locks.

8.2. Release a Lock

To release a lock you can stop a query statement by using the **STOP** link at the statement line.

9. Dashboard Users

The Dashboard Users module allows you to add and maintain users that can access the SQream Dashboard.

Dashboard Users

Dashboard Users

ADD NEW

id	email	name	status	delete
6	sqream	sqream	Active	DELETE
10	dashboardadmin@abc.com	dashboardadmin	Disabled	DELETE

SQream DB Log

Roles & Permissions

Show Locks

Dashboard Users

Dashboard Setup

About

Sign out

Figure 11. Dashboard Users

Click the **ADD NEW** link to add a new dashboard user.

Fill in the required details and click **SAVE**.



Dashboard users typically do not have access to data in the SQream DB. The list of dashboard users is therefore handled as a separate and independent list. Dashboard users are different than the SQream DB users.

10. Dashboard Setup

The Dashboard Setup module allows you to configure dashboard related settings.

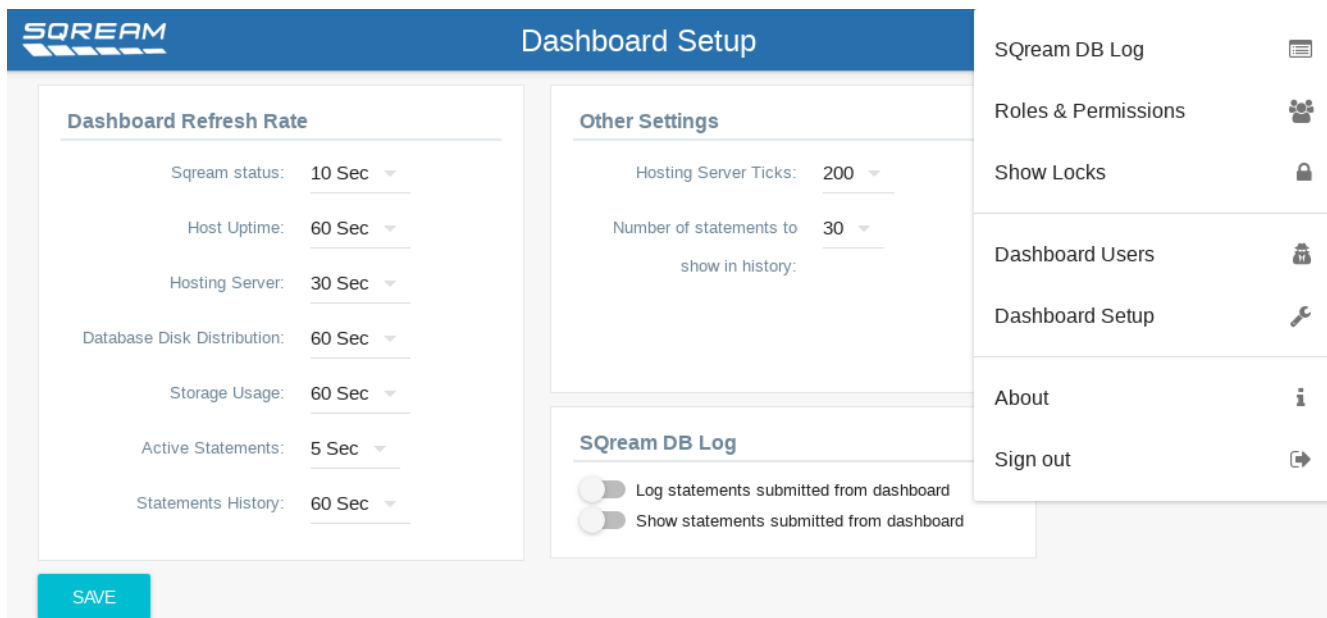


Figure 12. Dashboard Setup

- **Dashboard Refresh Rate:** For each element in the dashboard configure how often to refresh the data. Select a specific refresh rate or allow Manual refresh only.
- **Hosting Server Ticks:** This parameter is used by the Host Server panel on the main module. It has an impact on the displayed line interval (for CPU, GPU and memory).
- **Number of statements to show in history:** This is the number of statements to show in the **Last X Statements** pane of the main module.
- **SQream DB Log:** System internal statements performed by the dashboard can be shown and/or logged to the system log files. By default these parameters are set to NO.

11. About Window

The About Window shows information about:

- **Installed Versions:** Installed versions of SQream database, SQream dashboard and SQream Editor.
- **License Information**



SQream version: v2.1.1
Dashboard version: 0.9.7
SQL Editor version: 0.9.2

License Information

Company:
Issued to:
License valid until: October 19th 2017

[CHECK FOR SOFTWARE UPDATES](#)

CLOSE

Figure 13. About Window

Click the **CHECK FOR SOFTWARE UPDATES** link to check if a newer version is available.

Copyright

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