

# Permissions



Unless you use different Postgres users for each connection (see last section of this page), **all users will always be able to query, edit and delete all data** from all schemas/spaces. You should also consider that this kind of software allows by definition "SQL Injections", since a core principle of the software is to allow users to write SQL in various places of the application, and therefore it is always possible for an attacker to view, edit and delete data which he doesn't necessarily see through other views.

Users need permissions to create new queries, but, using existing queries, they can use SQL tricks such as filtering (which is done in SQL, hence they can specify their WHERE clause, therefore they can call a stored procedure, etc) to access data from other spaces or schemas.

See our [Known limitations](#).

## Spreadsheets and Queries

Spreadsheets and queries are local to a [Space](#), so they inherit the same permissions.

Space Permissions	Query permission	Spreadsheet permission
View	View, sort, filter*	View, sort, filter*
Create page	Can edit existing queries, but not save them	Can add and edit spreadsheets
Remove page	Can edit and save existing queries	Can remove spreadsheets
Space Admin (if configured in Play SQL Settings) or Confluence Admin	Can edit the datasource	Can edit the datasource

\* Sorting and filtering is done in SQL. It makes it possible to use unfiltered SQL (which is intended), but it also makes it possible to call SQL stored procedures or anything that the SQL connection allows. If you want to ensure no other data is accessed, you need to use the "Space-level permissions" (see below).

## Cross-space macros

When you insert a macro, the "Recently Viewed Spreadsheets" shows spreadsheets from other spaces:

Insert 'Play SQL Spreadsheet' Macro

Inserts an SQL Spreadsheet or a Joint Table. [Documentation](#)

Choose a spreadsheet \*

- ✓ Select a value
- Recently viewed
  - Small Spreadsheet in space Space1
  - Mobile Phones in space Space1

Comma-separated list of the columns to display, respecting the case. Empty to display all columns.

Filter

Contents of the WHERE clause. Example: "age > 17"

Order

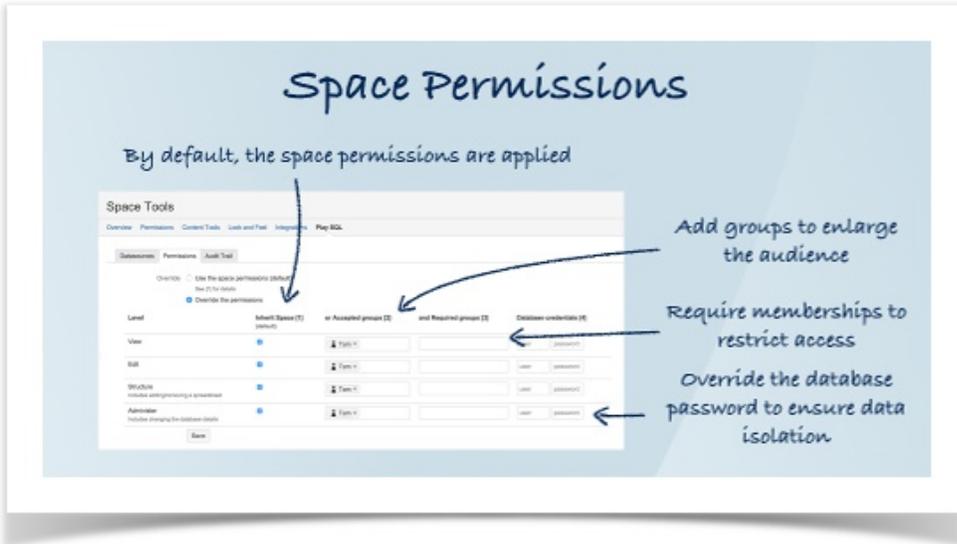
Select macro Insert Cancel

Don't forget that the permissions of the original space apply to the data. Therefore if the audience of the new space doesn't match, you'll have to tune the permissions. See next paragraph.

## Space-level permissions

Since [PLAYSQL-135 - Permissions to restrict editing of spreadsheets](#) CLOSED, it is possible to change the permissions of spreadsheets at a space level.

- By default in Play SQL, there are permissions for:
  - View: Viewing all data, filtering and sorting,
  - Edit: Edit rows, add rows,
  - Structure: Edit columns, change types,
  - Admin: Change the datasource properties.
- The space permissions apply: Only users who can view the space can view spreadsheets, etc.
- It is possible to enlarge the audience: "Accepted Groups" are groups which are accepted in addition to the space users. If the "Inherit from space" checkbox is unticked, only the accepted groups will be allowed.
- It is possible to restrict the audience: For example administrators could decide that only Board Members can see the data. The group "Board Members" will be added to Required Groups.
- It is possible to specify a database password for each level.



## Database schema visibility

By default, Play SQL creates one schema per space:

- You can always access a table from another schema using `SPACE_[space key].TABLE_NAME`.
- If you want to isolate schemas, you'll need to create a separate Postgres user for each schema and configure a separate connection for each.