

Toad Edge™ 2.0 Preview

## User Guide



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# About Quest

## We are more than just a name

We are on a quest to make your information technology work harder for you. That is why we build community-driven software solutions that help you spend less time on IT administration and more time on business innovation. We help you modernize your data center, get you to the cloud quicker and provide the expertise, security and accessibility you need to grow your data-driven business. Combined with Quest's invitation to the global community to be a part of its innovation, and our firm commitment to ensuring customer satisfaction, we continue to deliver solutions that have a real impact on our customers today and leave a legacy we are proud of. We are challenging the status quo by transforming into a new software company. And as your partner, we work tirelessly to make sure your information technology is designed for you and by you. This is our mission, and we are in this together. Welcome to a new Quest. You are invited to Join the Innovation.

## Our brand, our vision. Together.

Our logo reflects our story: innovation, community and support. An important part of this story begins with the letter Q. It is a perfect circle, representing our commitment to technological precision and strength. The space in the Q itself symbolizes our need to add the missing piece – you – to the community, to the new Quest.

For sales or other inquiries, visit [www.quest.com/contact](http://www.quest.com/contact).

# About Toad Edge™

Toad Edge™ is a next-generation tool for today's complex database environments

Toad Edge™ is a flexible Java based toolset for the development and management of open source relational databases. It is built to reduce the learning curve for developers and DBAs working in next-generation database environments.

## Features

Toad Edge™ allows you to:

- Connect to your databases on premise or in cloud
- View, explore and edit database structure, database objects and properties
- Manage database objects, easily add, edit or drop objects in **Object Explorer**
- Manage data stored in your database, add, edit or remove records
- Write complex SQL code comfortably in **Worksheet**
- Monitor running SQL queries in progress
- Compare and synchronize databases using powerful **Schema Compare**
- Obtain detailed information about your databases
- Edit JSON script in an advanced **Editor**
- Take database **Snapshots** and much more

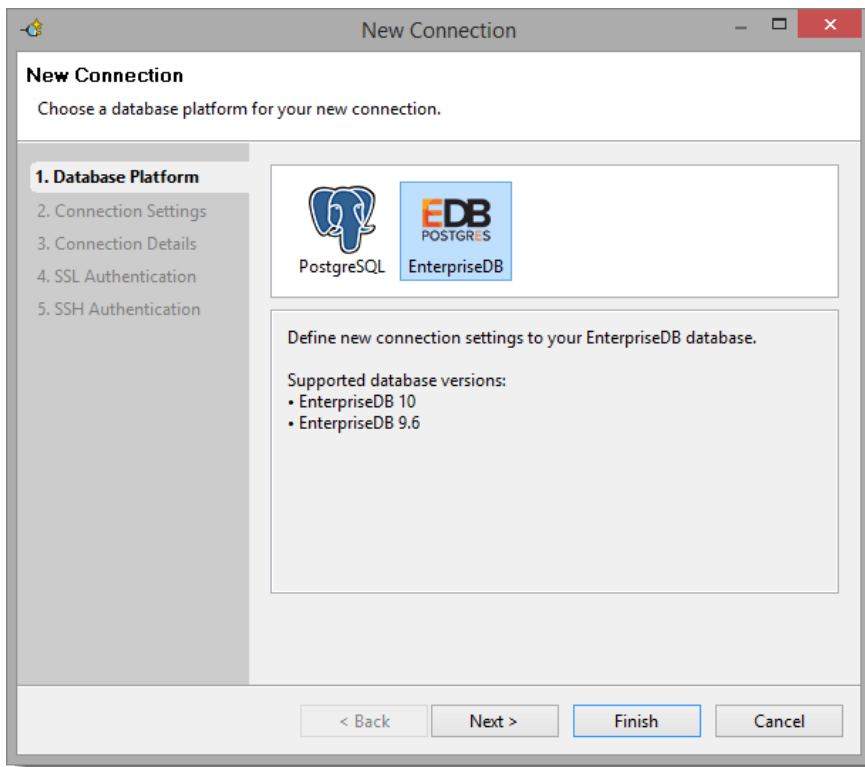
## New features of Toad Edge

In Toad Edge™ 2.0 the following new features were implemented:

### General features

#### New connection wizard

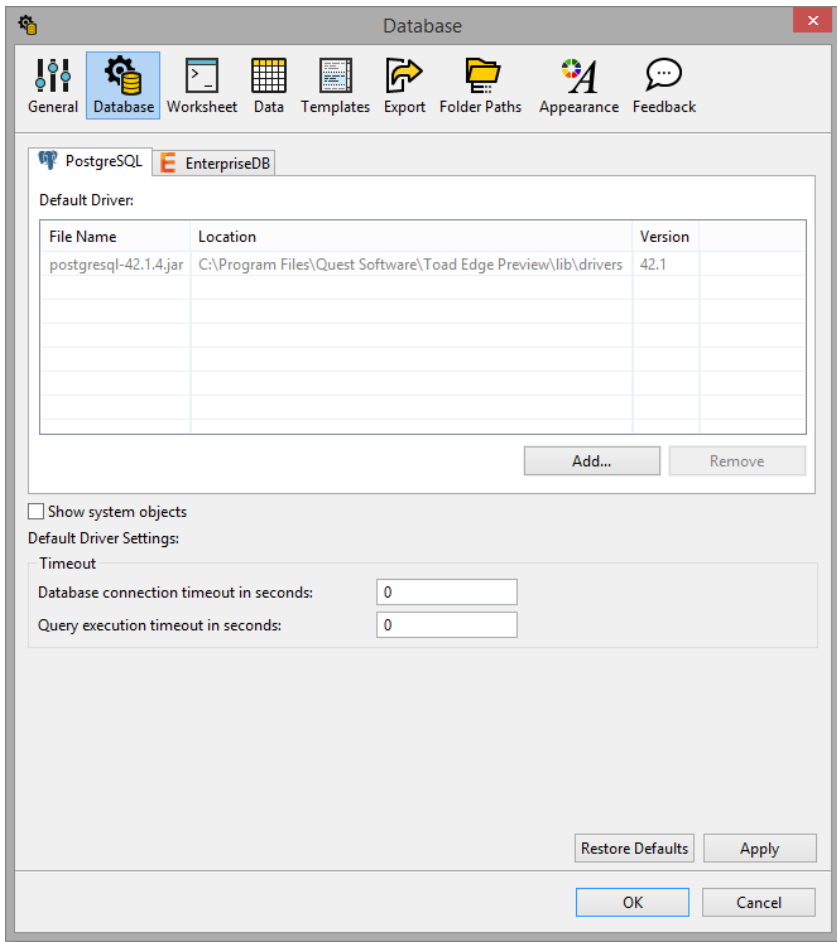
- Our **New Connection** wizard will quickly guide you through the process of creating a new PostgreSQL and EDB connection
- Add all connection details and test the new connection



## Platform-based preferences

- Add JDBC drivers for each database
- Edit connection details for every type of connection





## Database features

### Support for PostgreSQL and EnterpriseDB

- Toad Edge now supports connection to PostgreSQL and EDB™
- Toad Edge offers support for the following versions:

Supported database	Version
PostgreSQL	9.5, 9.6, 10
EnterpriseDB	9.6, 10

- Browse PG and EDB database objects in **Object Explorer** and edit them in **Object Details** editors
- Compare PG and EDB schemas and create reports
- Import and export data using **Object Explorer**

# Getting started with Toad Edge 2.0 Preview

## Contents of installation package

The Toad Edge release package contains the following:

- Installation file of Toad Edge 2.0 Preview (MSI or PKG)
- Product Documentation, including:
  - Release Notes
  - User Guide

### ***Installation Instructions***

- See [System requirements](#) before installation to avoid any possible issues during installation or later when using Toad Edge
- Launch Toad Edge installation file and follow the instructions in the installation wizard

### ***How to Install Java Cryptography Extension***

- Download the latest JCE files:
  - local\_policy.jar
  - US\_export\_policy.jar
- and use them to replace the files in Toad Edge security folder
  - (...)\Quest Software\Toad Edge\bin\jre\lib\security\

## Additional resources

Additional information is available from the following:

# Technical support resources

Technical support is available to Quest customers with a valid maintenance contract and customers who have trial versions. You can access the Quest Support Portal at <https://support.quest.com>.

The Support Portal provides self-help tools you can use to solve problems quickly and independently, 24 hours a day, 365 days a year. The Support Portal enables you to:

- Submit and manage a Service Request
- View Knowledge Base articles
- Sign up for product notifications
- Download software and technical documentation
- View how-to-videos
- Engage in community discussions
- Chat with support engineers online
- View services to assist you with your product

# About product improvement program

To prioritize enhancements in future releases, Toad Edge™ collects data about the use of its different features, and periodically, this data is communicated back to us. Initially, this usage data includes an IP address. Upon its receipt at a temporary server in the U.S.A., the IP address is removed, and then the anonymous data is aggregated before it is sent to our servers in California. Our product team analyses the aggregated data to understand our user community's preferences and common practices. This analysis influences our future releases.

- No personal information is collected
- You can stop participating at any time

## ***To initiate participation in Product Improvement Program***

Select **View | Preferences | Feedback | Product Improvement Program** and select **Yes, I want to participate**

## ***To cancel participation in Product Improvement Program***

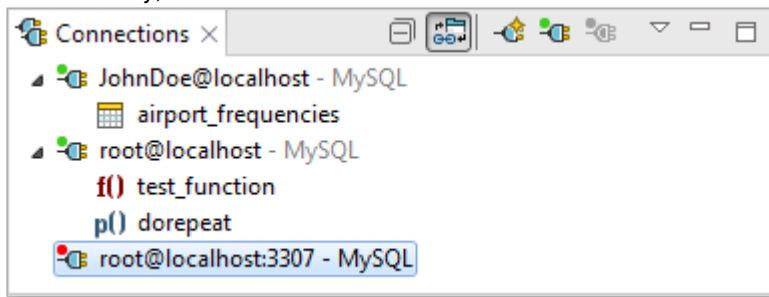
Select **View | Preferences | Feedback | Product Improvement Program** and select **No, thank you**





# Connections View

All of your existing connections can be found in this view. You can edit or delete them as well as add new ones.

## To create a new connection

1. Click the **New Connection** button or click the **Connect** button in application toolbar and select **New Connection**
2. In the dialog, first select whether you want to create a new connection using **Manual Settings** or enter a **Custom Connection String**
3. Fill in the **Connection Settings**. If you would like to use **SSL** or **SSH** connection, do not forget to enter their respective details as well
4. Next, enter the **Authentication** details
5. Note the **Options** where you can enable/disable **AutoCommit** and automatic restore of your windows and editors every time you connect to a database
6. Optionally, you can change the **Connection Name** and **Use Color** in order to distinguish windows and editors of different connections
7. You can **Test Connection** before you actually create it to see whether Toad Edge is able to connect to your database successfully
8. Finally, click **OK** to save the connection



Button	Option	Description
	Link with Editor	If enabled, bringing a window ( <a href="#">Worksheet</a> , <a href="#">Object Detail</a> and <a href="#">Describe Object...</a> ) into focus will highlight the window in Connections View and selecting the window in Connections view will bring it into focus
	New Connection	Displays a dialog where you can create a new connection as described above
	Connect Selected	Connects the selected connection
	Disconnect Selected	Disconnects the selected connection

## Connection properties

Existing connections, connection drivers and performance settings can be configured in this dialog.

### *To configure a connection*

- Right-click any connection in **Connections** and select **Properties**

<b>Tab</b>	<b>Description</b>
Connection	This tab contains connection settings identical to those that are set when a connection is created
JDBC Drivers	You can choose which available JDBC driver should be used by the connection. Toad Edge supplies a JDBC driver by default, but you can add other drivers if you wish. Note that you cannot remove available drivers until you disconnect all connections
Performance	This tab contains settings which determine the performance of the connection by loading objects in <b>Object Explorer</b> in a specific way. If you are unsure which option is the best for your database, you can click the <b>Calibrate and Auto Configure</b> button

# Error View

This view provides you with information about issues encountered during the execution of SQL statements.

- Click the error description to highlight the statement that caused the problem while working with [Worksheet](#)



# Object Detail and Describe Object


**Object Detail** and **Describe Object** are the primary ways to view and modify objects in your database (especially data in [Data tab](#)). They are nearly identical except for one key difference:

- **Object Detail** is opened to view any database object of any connection
- **Describe Object** is opened for each connection to view all database objects of the connection

## To view an object in Object Detail window

- In **Object Explorer**, double-click the object you would like to view
- Note how each object is displayed in its own **Object Detail** window


## To view objects in Describe Object window

1. In **Object Explorer** toolbar, enable the  **Open Objects in Common Detail Window** option
2. Left-click any object in **Object Explorer** that you would like to view
  - Note how all objects of a connection are displayed in one **Describe Object** window

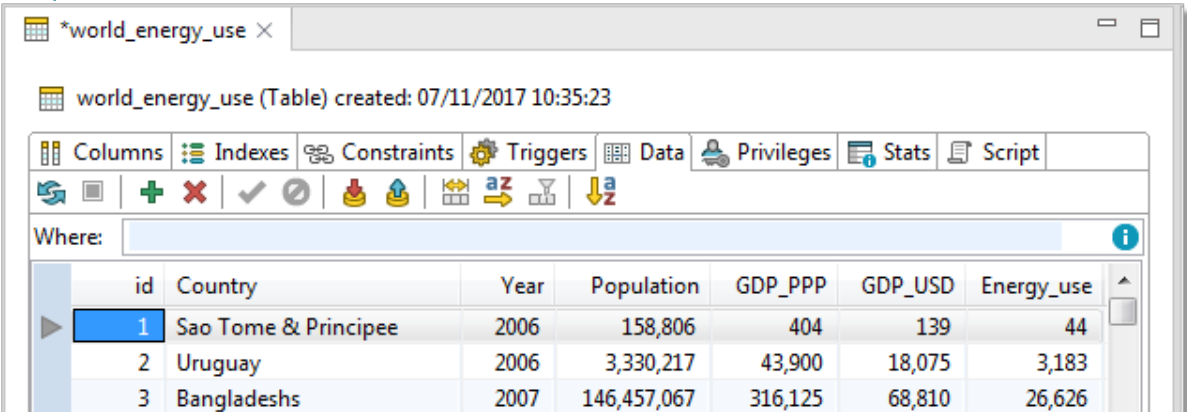
The tabs displayed in **Object Detail** and **Describe Object** depend on the specific type of an object you are trying to view. For example, if you open a table, you will see additional tabs such as Columns, Indexes and Constraints.

## Data tab

One of the most useful features of both **Object Detail** and **Describe Object** is this tab where you can view, filter and edit data in your tables and views without the need of writing complicated SQL queries.













**TIP:** While working with records in a child table, you can quickly move to the linked record in the parent table by pressing **CTRL** () and clicking on the record value in its foreign key column. You can recognize such values by hovering over them while holding the key - they will turn into a hyperlink.


comment_id	movie_comment	customer_id	movie_id
9	What a movie!	<a href="#">23</a>	1




id	Country	Year	Population	GDP_PPP	GDP_USD	Energy_use
1	Sao Tome & Principee	2006	158,806	404	139	44
2	Uruguay	2006	3,330,217	43,900	18,075	3,183
3	Bangladeshs	2007	146,457,067	316,125	68,810	26,626



Button	Option	Description
	Refresh Query	Refreshes the data currently visible in the grid
	Cancel Query	Cancels loading of the data in grid. Useful in cases where your tables/views have millions of rows and you have disabled the <a href="#">Use fetch limit</a> option
	Insert Row	Creates a new record in the table, simply fill in the values for all columns
	Delete Rows	Deletes the selected row(s)
	Apply Changes	Saves the value that is currently being edited
	Discard Changes	Restores the original data in the value that is currently being edited
	Commit Transaction	Commits the changes you have made to the table. See <a href="#">AutoCommit</a> for more information
	Rollback Transaction	Rolls back the changes you have made to the table. See <a href="#">AutoCommit</a> for more information
	Resize Columns to Data	Resizes columns so they fit the values they contain
	Sort Columns Alphabetically	If enabled, the columns are ordered alphabetically
	Select Visible Columns	Opens a dialog where you can select which columns you would like to display or hide
	Sort Data	Opens a dialog where you can sort the records by one or more column values in ascending or descending order

Where:  Country="Uruguay" Filter × i

Filters the currently shown data. Use the same notation as you would in the WHERE clause in a query. In case of multiple conditions, put "and" between them

**i** **TIP:** The light bulb icon  suggests that there is an available history of your Where conditions. Press *CTRL (⌘) + ARROW DOWN* while typing in the field to view it.

# Object Explorer

Object Explorer allows you to comfortably navigate your databases and view their objects. The contents of the explorer change depending on the currently selected connection in [Connections View](#). There are various options available in the context menu depending on the type of object you select.

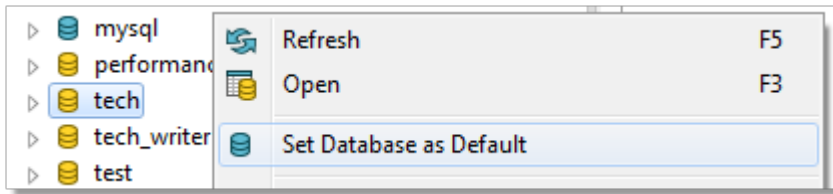
**i** | Note: To quickly find a specific object in any database of a connection, use the [Object Search](#) function (**CTRL (⌘) + SHIFT + D**)

## Default database








You can set any of your databases as **default**. This means that scripts in [Worksheet](#) will be executed on the selected database by default if you do not specify another database.

### To set a default database

- In Object Explorer, right-click any database and select **Set Database as Default**



## Object Explorer toolbar

Button	Option	Description
	Link with Editor	If enabled, bringing a window ( <a href="#">Worksheet</a> , <a href="#">Object Detail and Describe Object...</a> ) into focus will highlight the window in <a href="#">Connections View</a> and selecting the window in <a href="#">Connections view</a> will bring it into focus
	Define Visible Categories	Opens a dialog where you can set which categories / object types should be shown or hidden
	Open Objects in Common Detail Window	If enabled, allows you to use the <b>Describe Object</b> window. See <a href="#">Object Detail and Describe Object</a> for more information
	Refresh	Refreshes the status of the selected object / object type / database
	Rename Selected Object	Opens a dialog where you can change the name of the selected object
	Drop Selected Objects	Deletes the selected object(s) from the database
	New *object*	Creates a new specific object depending on the object type you are currently viewing

Filter:  Filter 

Filters the objects in Object Explorer according to the input. It is possible to use wildcards (? and \*) and regular expressions as well as filter by multiple comma separated values

# Object Search

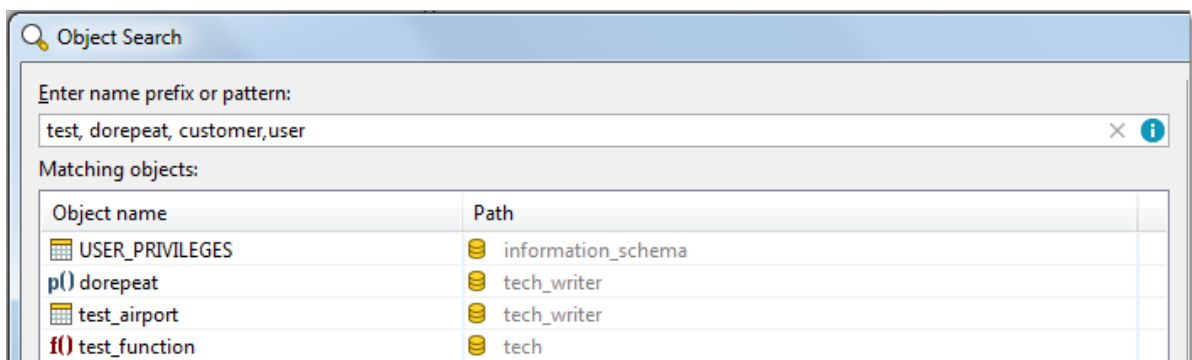
This tool allows you to search for any database object of the currently selected connection in [Connections View](#).

## To search for object(s)

1. Open Object Search window by clicking the **Object Search** button in the application toolbar or by pressing **CTRL (⌘) + SHIFT + D**
2. From the **Databases** section, select databases that should be searched
3. In the **Object types** section, check the object types that should be included in the search
4. Start writing the object name. The search results will be displayed as you write

You can use any of the following in your search query:

- **Simple text** - Toad Edge will look for the literal text string, the search is case insensitive
  - For example, "air" will match "airport\_frequencies", but not "test\_airport"
- **Wildcard characters** - where a question mark (?) represents any one character and an asterisk (\*) any number of any characters
  - For example, "?cc\*s" will match "ACCESS\_TIME" as well as "accounts", but not "accident\_data"
- **Multiple values** - use multiple search patterns, separated by commas (,)
  - For example, "test, customer" will match both "test\_function" and "customer\_id"
- **Regular expressions** - enclosed in square brackets ([regex])
  - For example, "[^[cd]u+]" will match "DURATION" or "customer\_id", but not "concurrent\_connections"



# Outline View

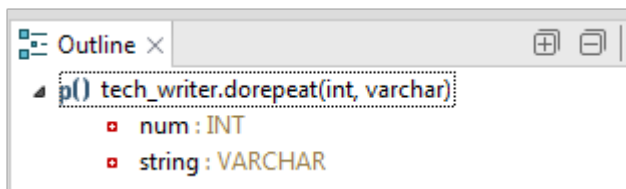
The contents of the View change depending on what are you doing in Toad Edge. Its functionality can be divided into several modes:

- [Code outline](#)
- [Database object outline](#)
- [JSON outline](#)
- [Schema Compare settings](#)

**i** **TIP:** In all modes except for **Schema Compare**, you can click on any item in the **Outline** to navigate to the object quickly in the other UI element. For example, clicking on a specific constraint in database object outline mode switches **Object Detail/Describe Object** to **Constraints** tab and highlights the selected constraint.

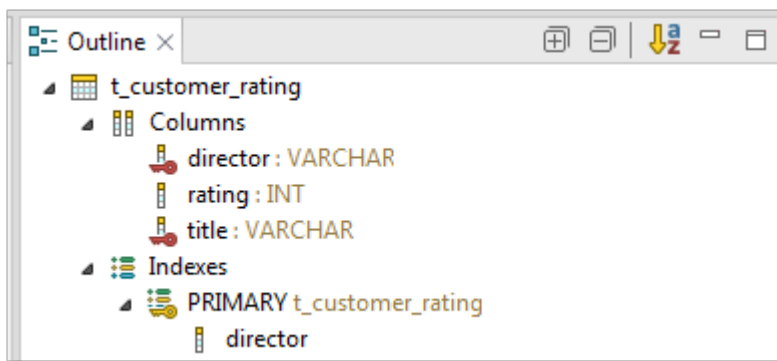
## Code outline

When editing procedures, functions, etc., **Outline** displays the code structure, including variables.



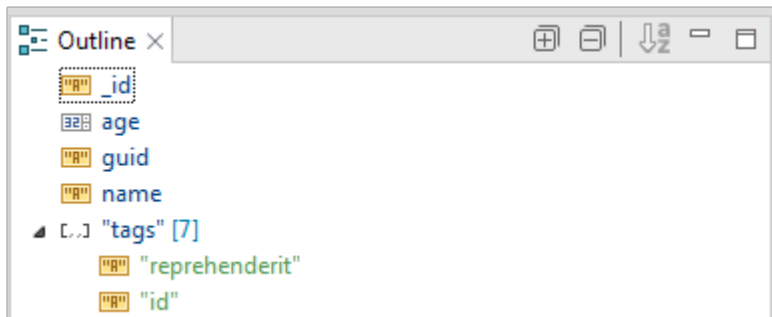
## Database object outline

In this mode, **Outline** displays important details of database objects displayed in [Object Detail and Describe Object](#).



## JSON outline

This mode is triggered by opening a JSON column value in [JSON Editor](#). In this case, the complete structure of the current JSON value, including nested values, is shown.



## Schema Compare settings

When in Schema Compare, **Outline** displays comparison settings which determine what is considered a difference and what should be ignored.

**Difference Fragmentation** slider further determines the precision of difference finding. The further it goes left, the smaller and more precise the differences are, such as specific values or words. The further it goes right, the looser and more flexible the differences are, such as entire statements or blocks of code.

### Slider position

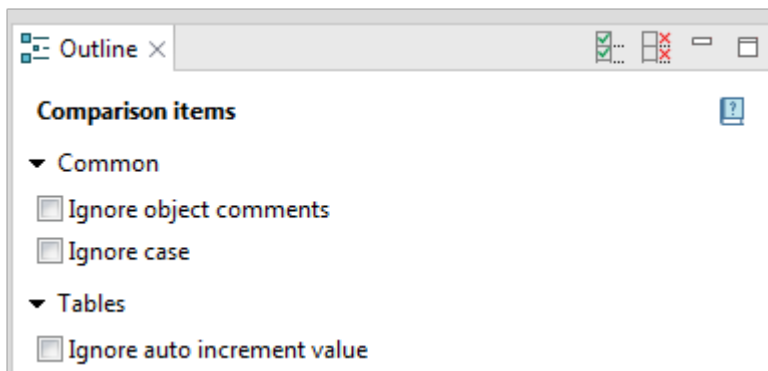
### Difference precision



`ELSEIF (bonus <= 1000 AND bonus >= 1000)`



`ELSEIF (bonus <= 1000 AND bonus >= 1000)`



# Quick Doc View

**Quick Doc** displays brief, relevant information about the currently selected objects.

**Quick Doc** has two modes:

- **Object Explorer mode**
- **Comparison mode**

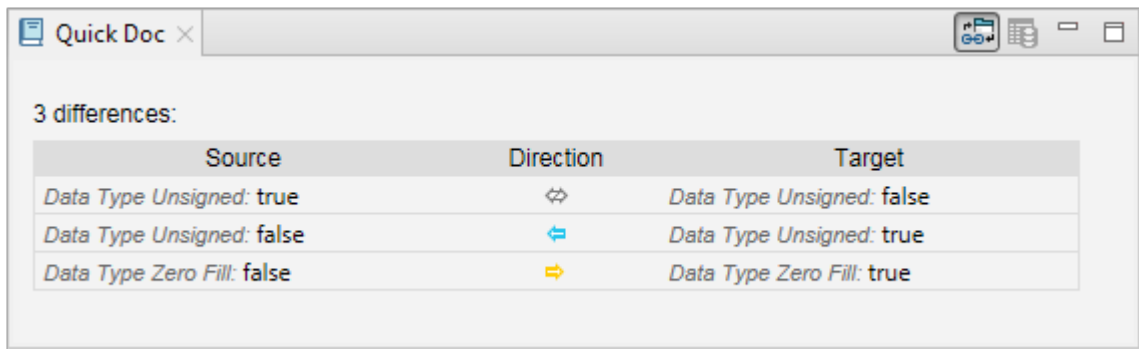
## Object Explorer mode

This mode is used most of the time. As you select various objects in [Object Explorer](#), **Quick Doc** displays basic information about them.




## Comparison mode

This mode is triggered when you work with [Overview Grid](#) as part of [About Schema Compare](#) or [Repository](#). It displays specific differences between two objects in a row that is currently selected in the grid. The view becomes very useful in cases where there are many differences.



## Quick Doc view toolbar

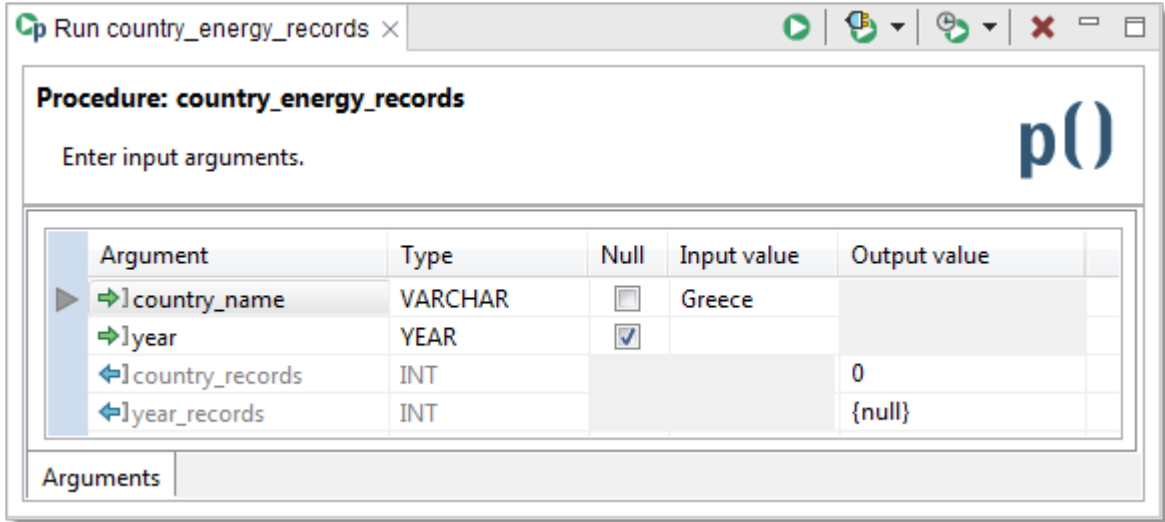
Button	Option	Description
	Link with Selection	If enabled, <b>Quick Doc</b> automatically displays information every time you select an object in <b>Object Explorer</b> or a record in the <b>Overview Grid</b>







Open Declaration (Object Explorer mode only) Opens the currently described object in [Object Detail and Describe Object](#)

# Run Routines

The results of all executed routines (procedures and functions) are shown in this view. You can rerun routines using the same arguments or view past results.




Button	Option	Description
	Run	Runs the routine using the argument values entered in the grid
	Select Connection	If you executed a routine with the same name from multiple connections, you can specify the connection from which the routine should be executed using this drop down menu
	Show Results	Displays the results of routines you executed in the past
	Remove Execution Result	Removes the current routine result from the view

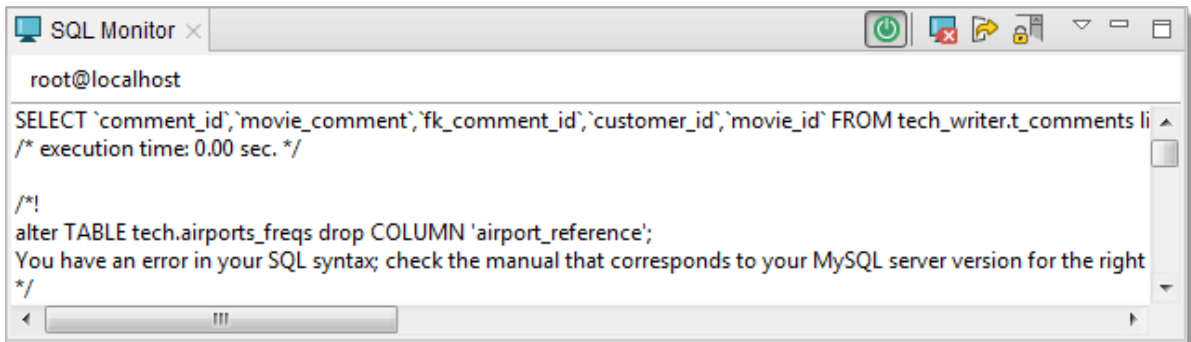







# SQL Monitor

**SQL Monitor** displays all internal/user executed SQL queries as well as their execution time. Any queries that fail during the execution are commented out in the monitor and the error description is attached.

**i** | **NOTE:** Internal queries refer to queries automatically performed by Toad Edge during certain actions (e.g. viewing table data in **Object Detail**)

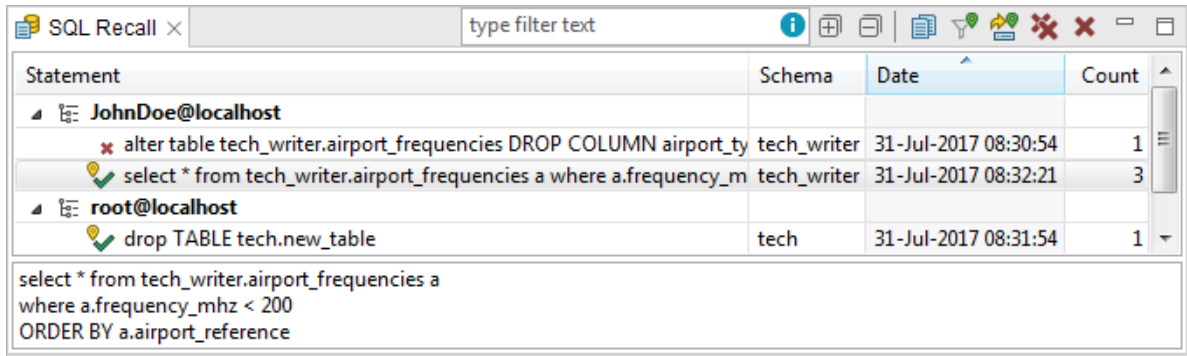
**SQL Monitor** is disabled by default and you will have to enable it by clicking the  **Enable/Disable Output** button in order to monitor queries.



Button	Option	Description
	Enable/Disable Output	Enables/disables SQL query monitoring
	Clear Console	Deletes the contents of the view
	Export Script	Exports the contents of the view to a SQL file
	Scroll Lock	If enabled, your current position in the monitor is not changed even as new information is being displayed. Otherwise, the position changes to display the newest information
	View Menu	This menu allows you to enable/disable monitoring of internal/user queries

# SQL Recall

**SQL Recall** displays the last 100 executed SQL statements. The statements are grouped by connection and can be filtered and pinned. You can view the entire statement simply by selecting in the view. Double-clicking a statement will cause it to be pasted into the currently active [Worksheet](#).



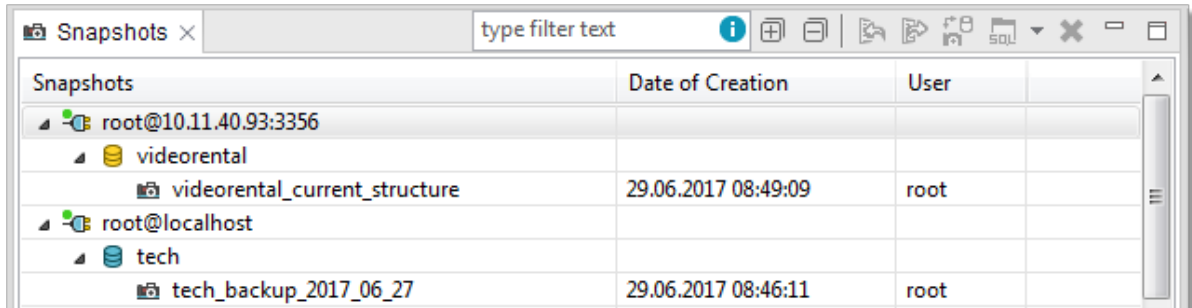
Button	Option	Description
--------	--------	-------------







Filter:  **Filter** Filters the statements according to the input. It is possible to use wildcards (? and \*) and regular expressions as well as filter by multiple comma separated values

	Expand All	Expands all connections to display their statements
	Collapse All	Collapses all connections, hiding all statements
	Copy	Copies the currently selected statement to clipboard. You can copy multiple statements at once
	Hide Unpinned Entries	Hides statements that are not pinned
	Pin Entry	Pins the selected statement(s) so they can be filtered using the option above
	Delete All	Deletes all statements from the view
	Delete	Deletes the selected statement(s) from the view

# Snapshots View

This view displays all taken [Snapshots](#), grouped by connection and database. From here you can filter, export/import and also delete snapshots.



Button	Option	Description
	Import Snapshot	When a database is selected, you can import a snapshot from file (.json). This snapshot will be then listed under the database in the view
	Export Snapshot	Exports the selected snapshot as a JSON file
	Compare Snapshot with Active Database	Compares the selected snapshot with the database that is currently marked as <b>Default</b> in <a href="#">Object Explorer</a> . Note that the currently selected connection in <a href="#">Connections View</a> must have a default database for this option to be available
	Compare with Each Other	When you select two snapshots, you can compare them with each other using this option
	Generate Script	Generates a create script based on the selected snapshot. The script can be generated to clipboard, a worksheet or to a file
	Delete Snapshot	Removes the selected snapshot from the view and deletes the snapshot file

# Text Search and Search View

Not to be confused with [Object Search](#), **Text Search** allows you to find specific strings in database scripts of certain object types:

- Procedures
- Functions
- Events
- Triggers
- Views

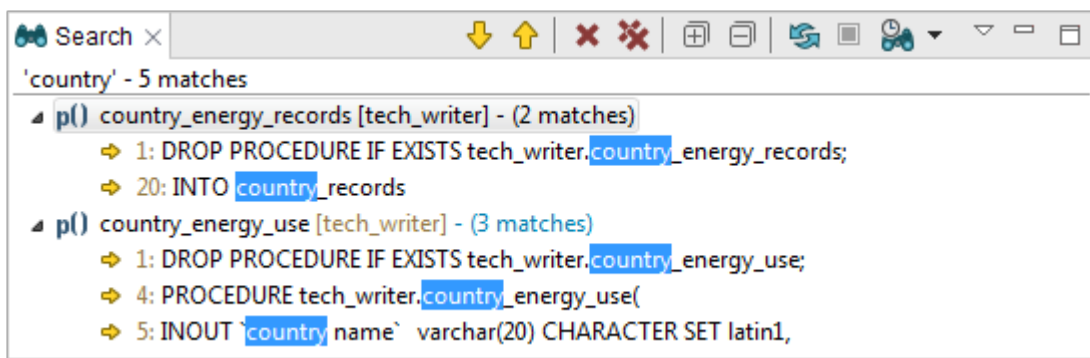
## To search for specific text in object scripts










1. Select **Database Menu | Text Search** or by pressing *CTRL + H*
2. Enter the text you want to look for into the **Containing text** field
3. The other field, **Object name patterns**, allows you to search only in objects that match the given pattern
  - For example, `"*energy*"` will cause the application to only search for text in objects whose names contain "energy"
4. Select the **Databases** that you want to search in as well as the **Object types**
5. Once finished, click **Search**. The results will be shown in **Search View**

**i** **NOTE:** You can use standard wildcard characters in both fields mentioned above. Use question mark (?) to match one character, asterisk (\*) to match multiple characters and back slash (/) to escape literal characters.  
You can also use multiple search patterns in the **Object name patterns** field as long as you separate them with commas.

## Search View


The results of Text Search are displayed in this window. By double-clicking any match, you can open the respective object in Object Detail and highlight the match.



Button	Option	Description
	Show Next Match	Jumps to the next match, automatically displaying it in Object Detail
	Show Previous Match	Jumps to the previous match, automatically displaying it in Object Detail
	Remove Selected Matches	Removes the selected matches from the view
	Remove All Matches	Removes all matches from the view
	Expand All	Expands all objects and their matches
	Collapse All	Collapses all matches to their respective objects
	Refresh the Current Search Again	Performs the current search again
	Cancel Current Search	Cancels the currently undergoing search
	Show Previous Searches	Contains a history of past searches that you can perform again

# Worksheet










Worksheet is one of the most basic tools in Toad Edge. It is used to interact with a database using SQL scripts and queries. Coupled with additional features such as [Content Assist](#) and [Outline View](#), you can create and modify queries in a fast and efficient manner.

 **NOTE:** If you do not specify a database, the scripts and queries will be executed on the [Default database](#)

## To open a Worksheet

- Click the **Worksheet** button on main toolbar to open a blank Worksheet

## Worksheet toolbar

Button	Option	Description
	Execute All Statements	Executes all statements in the query
	Execute From Current Position	Executes all statements from the current cursor position in the query
	Execute to Current Position	Executes all statements up to the current cursor position in the query
	Execute SQL Statement	Executes the statement where the cursor is currently placed. Can be used to execute multiple selected statements at once
	Cancel Query	Stops the query that is currently being executed
	Commit Transaction	Commits the changes included in the current transaction. See <a href="#">AutoCommit</a> for more information
	Rollback Transaction	Cancels the changes included in the current transaction. See <a href="#">AutoCommit</a> for more information
	Select Connection	Allows you to select a connection using which the query should be executed
	Show Result Set	Displays <b>Result Set</b> either in <b>Vertical Layout</b> or <b>Horizontal Layout</b>

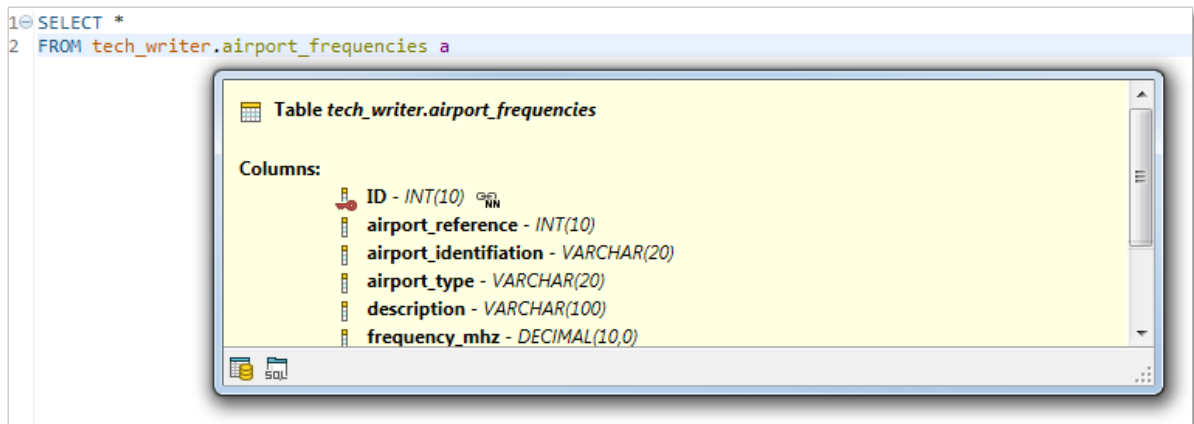
## Worksheet context menu options

Option	Description
Revert	Restores the last saved state of the Worksheet
Open	Opens the selected object in <b>Object Detail</b> . Note that this option only works when you place the cursor in or select a highlighted object name, i.e. an object that already exists in the database
Make Code Statement	Generates Java code which recreates the selected query as a <code>StringBuilder</code> object. The code is copied to clipboard
Strip Code	When selecting Java code which contains a SQL query, this option will strip away the Java code

Statement	and keep the SQL code. The code is copied to clipboard
Formatting	Provides options to switch the selected text to uppercase/lowercase or to enclose it in text/object quotes
Quick Outline	Displays the basic structure of a Worksheet if it contains multiple queries
Toggle Comment	Comments out the selected lines

## Hint Window

When you hover over a database object name, **Hint Window** is displayed to provide you with quick information about the object. Hover over the bottom bar of the window to see additional options.



Button	Option	Description
	Open Declaration	Opens the object in <b>Object Detail</b>
	Show Script	Displays the object SQL code in a new Worksheet

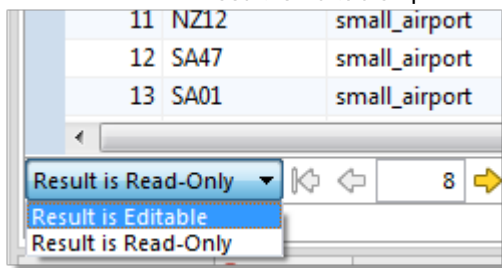
# Result

When you execute a SELECT statement in Worksheet, the result is displayed in the Result. The rows and cell values here can be conveniently exported to multiple formats and you can even edit the cell values in-place.

**i** | **NOTE:** Currently, the Result is only displayed if you execute a SELECT statement alone and not as a part of a query.

## To switch Result to editable mode

- Select the **Result is Editable** option in the drop down menu in the bottom-left corner of the Result









**i** | **NOTE:** The SELECT statement must satisfy several conditions in order for the Result to be editable. Specifically, the statement must not contain:

- Aggregation functions (count, max, sum...)
- Set operators (join, union...)
- Nested SELECT statements

Additionally, the Result is not editable when selecting from a view or when the selection does not include at least one identification key column (e.g. primary key).

## To navigate and manipulate results

Button	Option	Description
	Go to Beginning	Goes to the first page of the Result Set
	Go to Previous Page	Goes to the previous page of the Result Set
<input type="text" value="55"/>	Selected Row	Displays the number of the currently selected row
	Go to Next Page	Goes to the next page of the Result Set
	Go to End	Goes to the last page of the Result Set
	Drop Selected Rows	Deletes the selected rows
	Apply Changes	After editing a value, applies the changes





Restore Original Values

After editing a value, cancels the changes

### Result context menu options

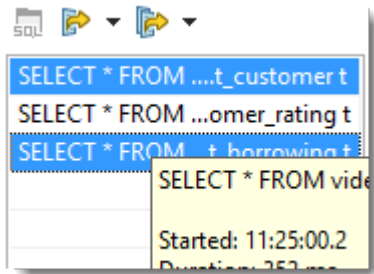
Option	Description
Define in Editor	Edits the selected cell value in a type-specific editor
Set Null	Sets the selected cell value to null
Export BLOB to file	(BLOB columns only) Exports the binary object of the selected cell as a file
Import BLOB from file	(BLOB columns only) Imports a file as a binary object and places it into the selected cell
Export Selection	Exports the currently selected rows as SQL code or to a CSV/HTML/XML file
Export Query Result	Exports the entire result as SQL code or comma separated values

## Multiple Result Set

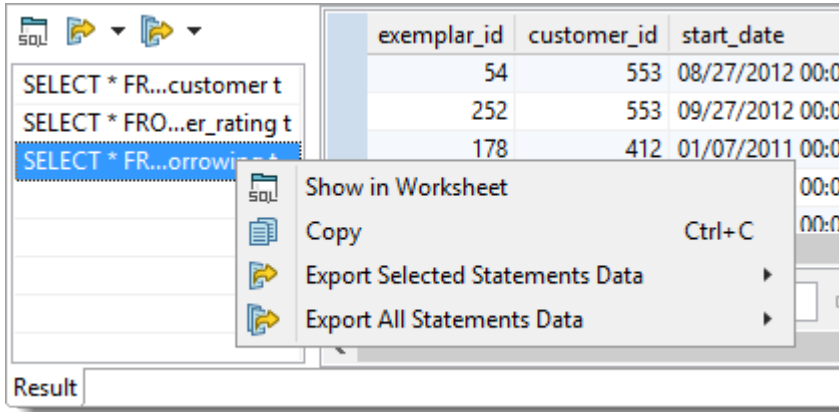
Toad Edge supports working with more than one result sets. Type your SELECT queries into **Worksheet** and click **Execute All Statements**. Result sets from all queries will be displayed in a new **Result** view, where you can easily switch between results, display them side-by-side, edit and export them

### To work with multiple results

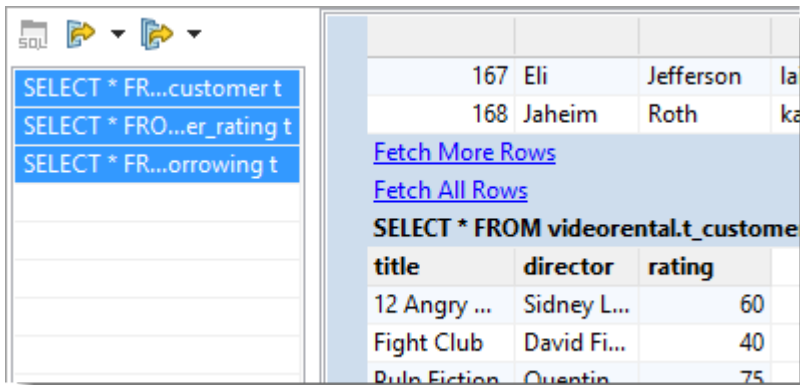
- Left-click a result to select it
- Hold Shift/Ctrl + left-click multiple results to select them



- Click **SQL** button to highlight a specific statement in **Worksheet**
- Right-click a statement in **Result** and click copy to copy the statement and later paste it into **Worksheet**

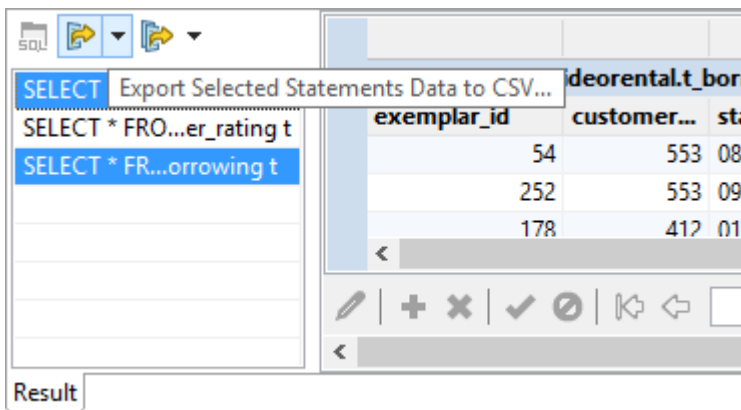


- Only a certain number of results will be fetched on execution. Scroll down to reveal more results when one result is selected. Set the number of fetched rows in **View | Preferences | Data | Use fetch limit**
- When more result sets are selected, click **Fetch More Rows** or **Fetch All Rows** to load more data



### To export results

- Click **Export Selected Statements Data to CSV/SQL** to export some of the result sets
- Click **Export All Statements Data to CSV/SQL** to export all of the result sets



- Configure destination and format options in the next step:

Feature	Description
Export As	<p>Select the desired option:</p> <ul style="list-style-type: none"> <li>• SQL - INSERT statements - exports the data as INSERT SQL statements into the selected destination</li> <li>• SQL - MERGE statements - exports the data as MERGE SQL statements into the selected destination</li> <li>• CSV - exports the data as comma separated values into the selected destination</li> </ul>
Line Terminator	<p>Select from:</p> <ul style="list-style-type: none"> <li>• Environment default</li> <li>• Mac/Unix</li> <li>• Windows</li> <li>• Mac OS Classic</li> </ul>
Destination for exported data	<p>Exported data are displayed in:</p> <ul style="list-style-type: none"> <li>• Worksheet - Toad Edge exports the data into a new instance of <b>Worksheet</b></li> <li>• Clipboard - Exports data into system clipboard</li> <li>• Single file - Click browse button to select the name for the exported file and its location. All result sets will be saved in one file.</li> <li>• Separate files - Click browse button to select the name for the exported file and its location. Files will named automatically.</li> </ul>
Compress file in ZIP format	Available for exporting as files.
Open directory after finishing the export	Opens the destination directory after a successful export.
Format exported queries	Check to export data in an easier-to-read format with indentations and extra lines.

# Keyboard Shortcuts

This topic lists all shortcuts that you can use in Toad Edge.

## General shortcuts

Option	Shortcut
Open SQL <a href="#">Worksheet</a>	CTRL (⌘) + N
Close	CTRL (⌘) + W
Close All	CTRL (⌘) + SHIFT + W
Save	CTRL (⌘) + S
Print	CTRL (⌘) + P
Undo	CTRL (⌘) + Z
Redo	CTRL (⌘) + Y
Cut	CTRL (⌘) + X
Copy	CTRL (⌘) + C
Paste	CTRL (⌘) + X
Delete	DELETE
Select All	CTRL (⌘) + A
<a href="#">Object Search</a>	CTRL (⌘) + SHIFT + D
Text Search	CTRL (⌘) + H
Enable / Disable <a href="#">AutoCommit</a>	CTRL (⌘) + ALT ( ) + A
Manage Connections	CTRL (⌘) + ALT ( ) + C
New Connection	CTRL (⌘) + ALT ( ) + N
Disconnect	CTRL (⌘) + ALT ( ) + D
Reconnect	CTRL (⌘) + ALT ( ) + R
Preferences	ALT ( ) + P
Maximize Window	CTRL (⌘) + M
Reset Application Layout	ALT ( ) + SHIFT + L
Help	F1
Open Tab Dropdown Menu	CTRL (⌘) + E
Next Tab	CTRL (⌘) + F6
Previous Tab	CTRL (⌘) + SHIFT + F6
Next View	CTRL (⌘) + F7
Previous View	CTRL (⌘) + SHIFT + F7

## New object shortcuts

Option	Shortcut
Table	ALT ( ) + SHIFT + T
View	ALT ( ) + SHIFT + V
Procedure	ALT ( ) + SHIFT + P
Function	ALT ( ) + SHIFT + F
Trigger	ALT ( ) + SHIFT + R
Event	ALT ( ) + SHIFT + E
User	ALT ( ) + SHIFT + U
Database	ALT ( ) + SHIFT + D

## Worksheet shortcuts

Use these shortcuts while working with [Worksheet](#). Some of these shortcuts also work in **Source** of procedures and functions opened in **Object Detail**.

Option	Shortcut
Find and Replace	CTRL (⌘) + F
Find Next	CTRL (⌘) + K
Find Previous	CTRL (⌘) + SHIFT + K
Format Code	CTRL (⌘) + SHIFT + F
Make Code	ALT ( ) + SHIFT + C
Strip Code	ALT ( ) + SHIFT + P
Open (cursor located in an existing object name)	F3
Rename/refactor (cursor located in an existing object name or alias)	F2
Add Object Quotation Marks	CTRL (⌘) + SHIFT + Q
Add Text Quotation Marks	CTRL (⌘) + ALT ( ) + SHIFT + Q
To Upper Case	CTRL (⌘) + SHIFT + X
To Lower Case	CTRL (⌘) + SHIFT + Y
Execute All Statements	CTRL (⌘) + SHIFT + ENTER
Execute Selected	CTRL (⌘) + ENTER
Execute To Current Position	CTRL (⌘) + SHIFT + UP ARROW
Execute From Current Position	CTRL (⌘) + SHIFT + DOWN ARROW
Quick Outline	CTRL (⌘) + O
Toggle Comment	CTRL (⌘) + /

Option	Shortcut
Content Assist	CTRL (⌘) + SPACE
Surround with Parentheses	CTRL (⌘) + ALT (⌥) + 1
Surround with Brackets	CTRL (⌘) + ALT (⌥) + 2
Surround with Braces	CTRL (⌘) + ALT (⌥) + 3
Delete Line	CTRL (⌘) + D
Find Incremental	CTRL (⌘) + J
Reverse Find Incremental	CTRL (⌘) + SHIFT + J
Go to Line	CTRL (⌘) + L
Scroll Line Up	CTRL (⌘) + UP ARROW
Scroll Line Down	CTRL (⌘) + DOWN ARROW
Additional context menu	CTRL (⌘) + F10
Go to Last Edit Position	CTRL (⌘) + Q
Move Line Up	ALT (⌥) + UP ARROW
Move Line Down	ALT (⌥) + DOWN ARROW
Join Lines	CTRL (⌘) + ALT (⌥) + J
Object Information (cursor located in an existing object name)	F6
Hippie Completion	ALT (⌥) + /

## Object Detail | Data

Option	Shortcut
Insert Row	INSERT
Delete Selected Row	SHIFT + DELETE
Apply Changes	SHIFT + ENTER
Discard Changes	ESC

## Editable Result Set

Option	Shortcut
Edit Value	ENTER
Open Value in Editor	CTRL (⌘) + ENTER
Insert Null	DELETE
Delete Row	SHIFT + DELETE
Apply Changes	SHIFT + ENTER
Restore Original Values	ESC

## Object Detail | Source (procedures and functions)

Option	Shortcut
Refresh	F5
Execute SQL Statement	SHIFT + ENTER
Run	CTRL (⌘) + R

## Connections

Option	Shortcut
Copy Connection	CTRL (⌘) + C
Reconnect	F5
Properties	F2

## Search

Option	Shortcut
Next Match	CTRL (⌘) + .
Previous Match	CTRL (⌘) + ,
Remove Selected Matches	DELETE

# AutoCommit

By default, every DML (data manipulation language - INSERT, UPDATE, ALTER, DELETE...) transaction is committed immediately by the database. This is the default setting in Toad Edge known as AutoCommit. However, you can also disable AutoCommit for each connection and control the commits manually.

## To enable/disable AutoCommit



- Double-click the **AutoCommit** button in the bottom application bar whenever you work with **Worksheet** or **Object Detail**



- You can also right-click a connection in the **Connections View**, select **Properties** and then (un)check the **Enable AutoCommit** option
- The last option is to go to the **Database menu** and select **Enable/Disable AutoCommit**

When you disable AutoCommit, you will have to commit or rollback your transactions manually. Whenever you execute a DML statement in **Worksheet** or make any modification using **Object Detail**, the changes will be applied only in your session. They will not be applied in the database unless you commit them.

There are two buttons that can be used to manually control the process:

- **Commit Transaction**  - the changes you have made will be committed and applied in the database
- **Rollback Transaction**  - the changes you have made will be discarded and the database will not be modified

**i** | **NOTE:** These buttons are disabled when AutoCommit is enabled.

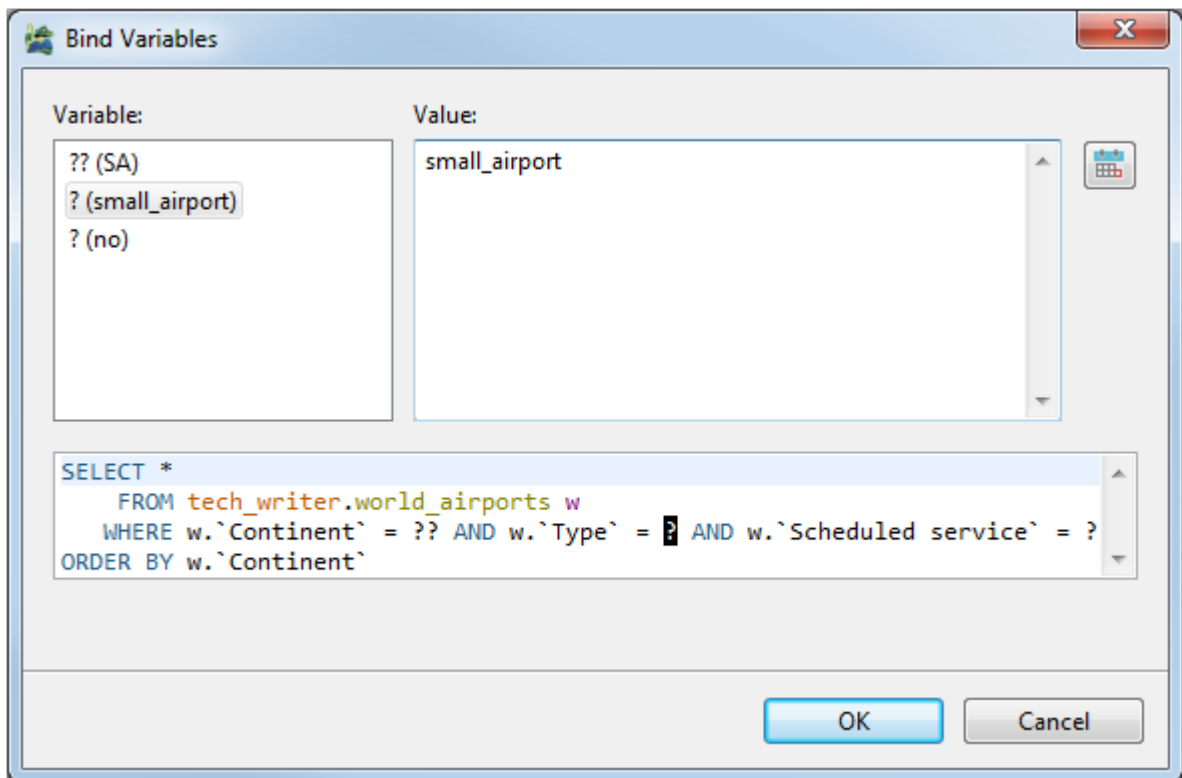


# Bind Variables

Toad Edge provides a way to reuse queries by using variables instead of specific values. These variables can be given value each time you execute a query.

## To bind and use variables

1. Open a new **Worksheet** and start writing your query. Use a single or double question mark ("?" or "??") to bind variables
2. Execute the query
3. **Bind Variables** dialog appears. You can give each variable a value and then finish executing the query



# Content Assist

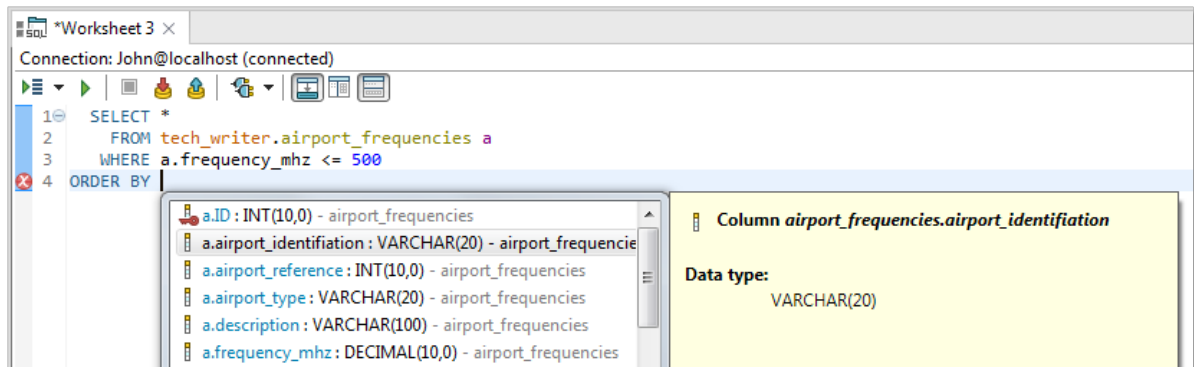
To make writing scripts and editing JSON data easier, Toad Edge offers a convenient tool - Content Assist (also known as Intellisense). This utility automatically suggests keywords or templates you might want to use when you are working with [Worksheet](#) or [JSON Editor](#).

Content Assist can be displayed in two ways:

- Type any Content Assist trigger character and wait a set delay (configurable in Preferences | [Content Assist / Autocompletion](#) on page 60)
- Manually by pressing *CTRL (⌘) + SPACE*

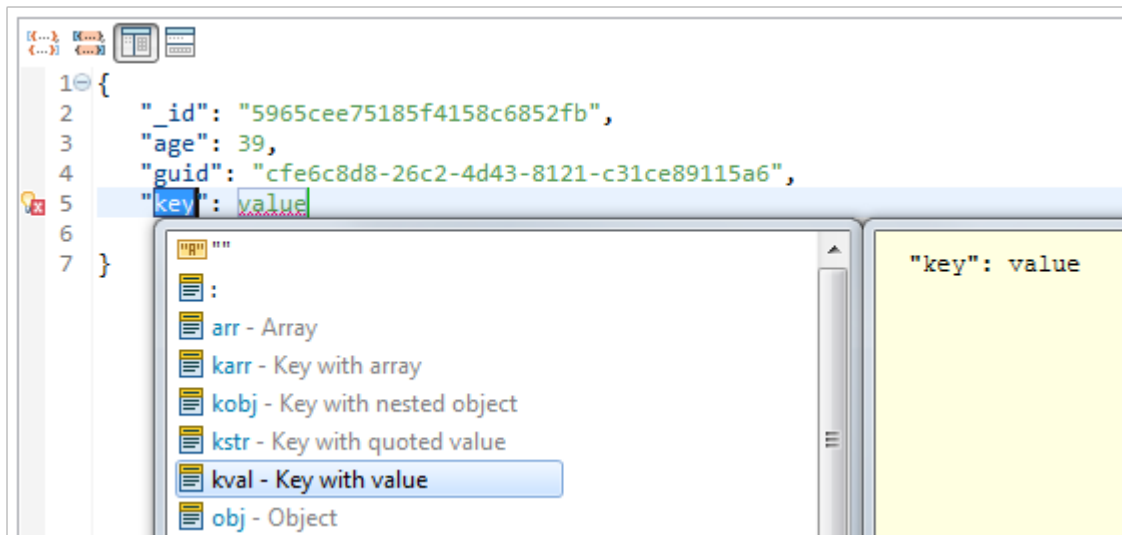
## Content Assist - SQL

In this environment, Content Assist suggests various relevant SQL keywords depending on the context of your query. It also suggests default or custom [Templates](#).



## Content Assist - JSON

Once you open JSON Editor, you can invoke Content Assist to utilize JSON templates. Instead of worrying about closing brackets and quoting keys properly, you can simply insert the key-value structure and just fill in the values.



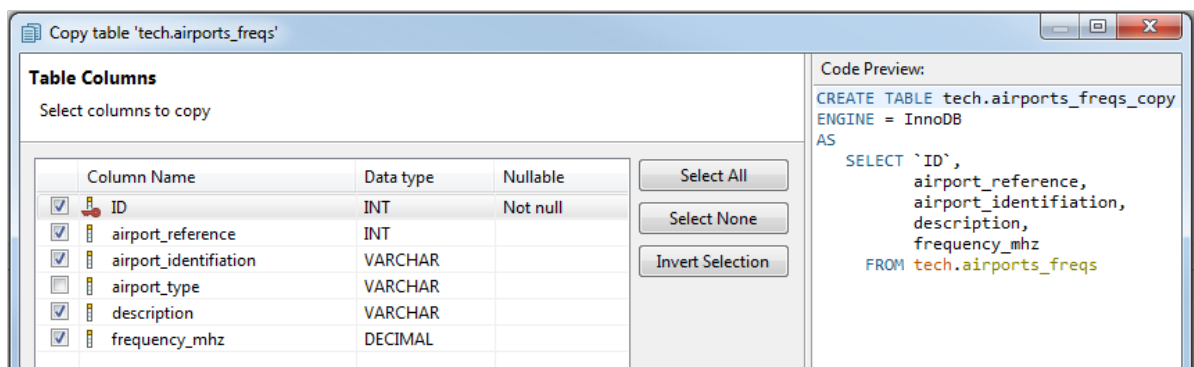
# Copy Table

The Copy Table tool is convenient for when you need to copy an entire table with all its contents to the same or a different database.

**i** | **NOTE:** You can only copy tables between databases of the same connection.

## To copy a table:

- In **Object Explorer**, right-click the table you want to copy and select **Copy Table...**
- In the first dialog of **Copy Table wizard**, select the destination **Database** and enter the copied **Table name**
- In the last dialog, you can select which table columns should be copied





# Data Export

Toad Edge allows you to export various data from [Object Explorer](#), [Object Detail](#) and [Describe Object and Result Set](#).

## Exporting data from Object Explorer

There are two kinds of exports available in **Object Explorer**:

- **Export Script**  - exports the SQL create script for any object
- **Export Data**  - exports table records

You can export data in SQL (INSERT/MERGE ) or CSV format.

### *To export script of an object in Object Explorer*



1. Right-click an object and select **Export Script**
2. Select **Destination** and configure **Script Options**

### *To export table data in Object Explorer*

1. Right-click a table and select **Export Data**
2. In the first dialog of the wizard, you can **Add** other tables to the export. If your table is linked to other tables by a relationship, you can also **Add Children/Parent** tables
3. In the next dialog, select the export **format** and its **Destination**
4. The next dialog presents you with a grid where you can exclude specific data type columns from the export
5. If you want to exclude specific columns rather than column data types, you can do so in the following dialog
6. The last dialog contains a couple more **SQL Settings**. Once you are done with the configuration, click **Finish**

## Exporting data from Object Detail and Result Set

There are two kinds of exports available in **Object Detail | Data tab** and **Result Set**:

- **Export Grid Selection**  - exports the rows that you have selected in grid
- **Export Query Result**  - exports the entire contents of the grid

You can export data in CSV and SQL (INSERT/MERGE statements) format. Grid selection can be additionally exported in HTML and XML format.

### ***To export data from Object Detail or Result Set***


1. Open a table or a view in **Object Detail | Data tab** or execute a query to display the **Result Set**
2. Right-click anywhere in the grid and select **Export Grid Selection** or **Export Query Result**
3. If exporting to XML/HTML, simply choose the destination path and **Save** the export
4. If exporting to CSV/SQL, select the **format** of the export and its **Destination**
5. In the last dialog, configure the final **SQL/CSV Settings** to your liking and click **Finish**

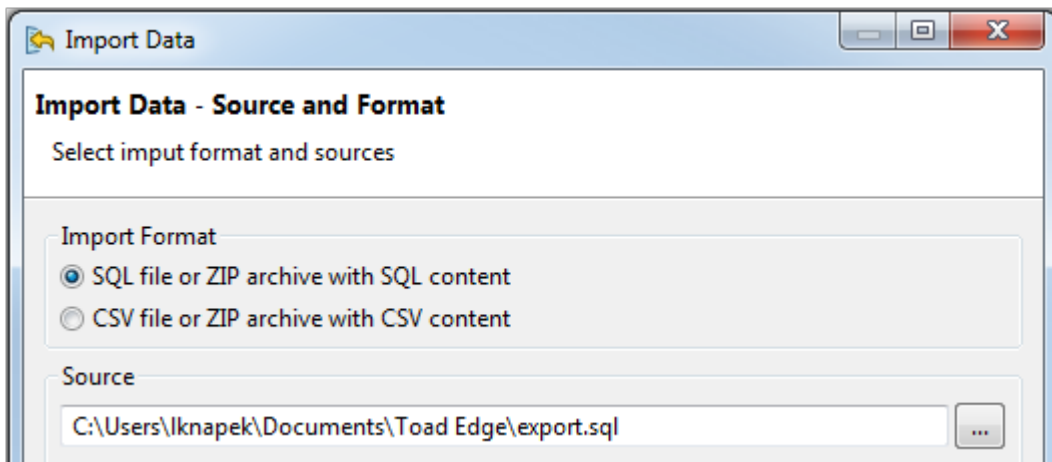
# Data Import

Importing data is the fastest way to populate your tables. Toad Edge offers data import from SQL (INSERT or MERGE statements) or CSV files. You can even import data from ZIP archives that contain these files.

**i** | Note: CSV file import currently allows importing data only into one table at a time.

## To import data into a table:

1. In **Object Explorer**, right-click the table you want to import data into and choose **Import Data...** 
2. In the **Import Data wizard**, choose the import file format, the **Source** path and encoding. The encoding field is editable in case encoding is not detected correctly
3. The final dialog depends on whether you import a SQL or a CSV file:
  - SQL file - you can configure additional **SQL Format Settings**, for example, you may want to remove the database name from the code or open it in [Worksheet](#)
  - CSV file - you can configure various **CSV Format Settings** such as delimiters, date and time formats...
4. Once you are done with the final configuration, click **Finish**



# Management of BLOBs

There are several tools that can be used to work with BLOBs (Binary large objects). You can open them in application of your choice and you can also import/export BLOB values directly in **Object Detail**.

## **To view the contents of a BLOB value**

1. Open a table with BLOB values in **Object Detail** and switch to the **Data tab**
2. Double-click any BLOB value to open it in its associated application

**i** | **NOTE:** The application in which the BLOB value will be opened depends on current settings. See [BLOB Viewers](#)

## **To export BLOB values**

1. Open a table with BLOB values in **Object Detail** and switch to the **Data tab**
2. Right-click any BLOB value and select **Export BLOB to File**
3. Choose the destination for the file and click **Save**

## **To import BLOB values**

1. Open a table with BLOB values in **Object Detail** and switch to the **Data tab**
2. Right-click any BLOB value and select **Import BLOB from File**
3. Select the file that you would like to import as a BLOB value and click **Open**

**i** | **NOTE:** The imported file must not exceed the maximum size of the destination BLOB column type. The maximum size of a BLOB column value of each type is:

- TINYBLOB - 255 bytes
- BLOB - 64 KB
- MEDIUMBLOB - 16 MB
- LONGBLOB - 4GB

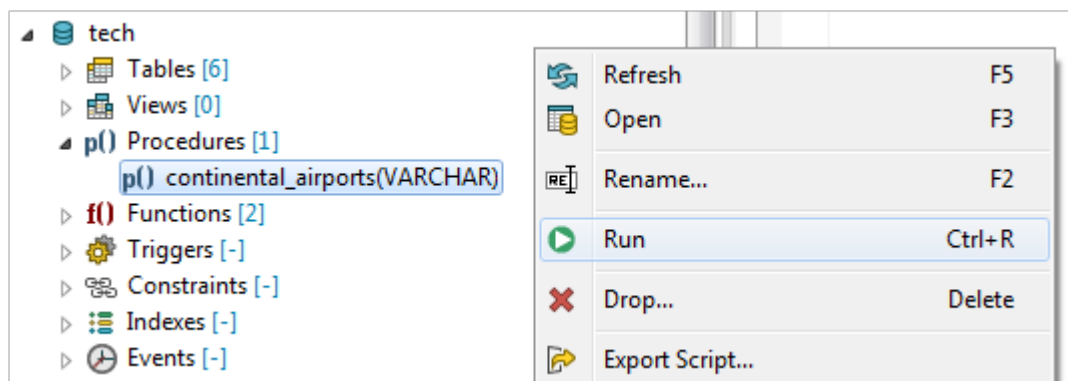


# Running Stored Procedures and Functions

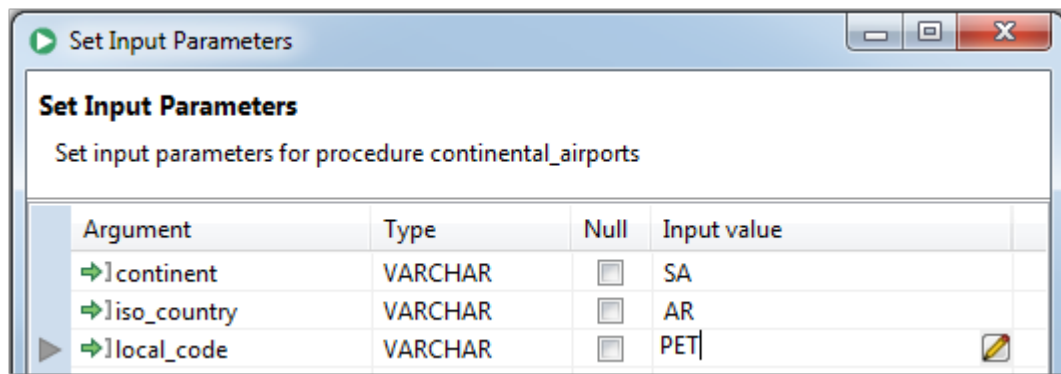
Procedures and functions stored in your database can be executed right from the **Object Explorer**. Once the procedure/function is executed, you can display the results in the **Run Routines** window. See [Run Routines](#) for more information.

## To run a stored procedure

- Right-click a procedure/function and select **Run**



- If your procedure or function accepts parameters, you will be able to enter them before execution in the **Set Input Parameters** window



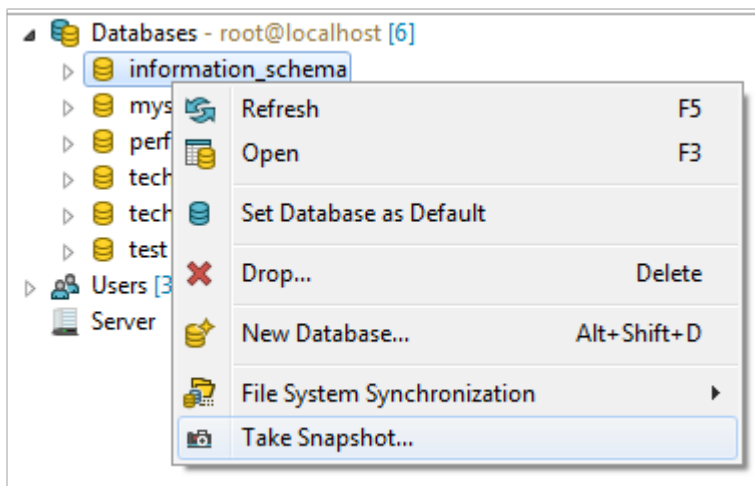
# Snapshots

In Toad Edge, snapshots are a way of storing database structure (without data) as a readable JSON file. This file can be subsequently used as a create script source or as a **Schema Compare** source/target in **Continuous Integration and Delivery (CI/CD)**.

There is also another type of snapshot - **baseline snapshot**. It is nearly identical to regular snapshot except it can be used in CI/CD in the **Compare database with baseline** build step. This build step will return an error if the database is different from the baseline snapshot. See [Continuous Integration and Delivery Wizard](#) for more information.

## To take a snapshot of a database

1. In **Object Explorer**, right-click any database and select **Take Snapshot**
2. Change the snapshot name if you wish. Then click **OK**



Snapshots are stored in the Toad Edge folder structure. You can access the snapshot files in [Snapshots View](#).

# Templates

Templates are script snippets that can be reused in various editors. In Toad Edge, templates can be defined in three contexts:

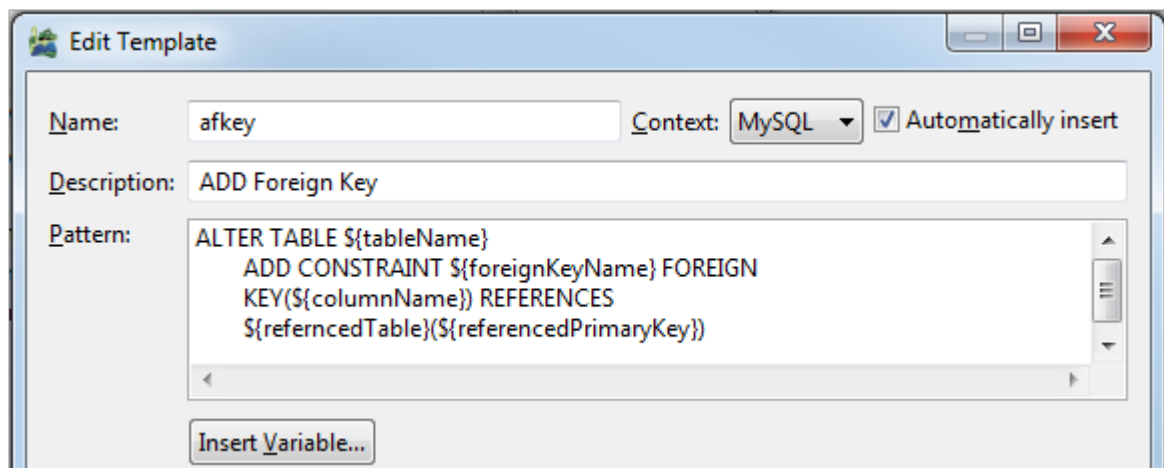
- **SQL** - usable in [Worksheet](#) while working with all databases
- **JSON** - usable in [JSON Editor](#)
- *Database specific* - usable in [Worksheet](#) while working with the specific database

## To configure templates

1. Go to **Preferences (View menu | Preferences** or press *ALT + P*)
2. Switch to the **Templates** tab. Here you can add/edit/remove templates

**i** **TIP:** You can use variables in the code of your templates by typing `${variableName}`. If you need to enter a literal dollar symbol, enter two dollar characters in sequence `$$`.

When a template is used, its variables can be quickly set to specific values. You can also jump between the variables by pressing *TAB* and *SHIFT + TAB*.



# About Schema Compare

With Toad Edge, you can compare database objects of two databases/schemas. Based on the result, you can generate an HTML report or change scripts for both the source and the target to deploy changes immediately.

**i** | **NOTE:** Although possible, it is not recommended to compare two databases of different database versions (e.g. MySQL 5.6 and MySQL 5.7).

## *To quickly compare two databases/schemas*

- Select any two databases in **Object Explorer**, right-click and select **Compare Schemas**

## *To configure comparison settings before performing Schema Compare*

1. Click the **Compare** button on main toolbar and select **New**
2. Specify the Source and Target schemas and select the desired **Object Types** and **Comparison Rules**
3. Click **Compare**




This comparison process may take a while depending on the number of objects in both databases. Once it is completed, you can see all the differences between the source and the target and perform various actions.

**Schema Compare** consists of three parts:

- **Overview Grid** - Displays differences between databases. The differences can be resolved and marked as read/unread, important or excluded
- **Comparison Area** - Shows the specific differences in SQL code between the source/target database objects
- **Outline View** - Contains settings that determine which types of differences should be considered or ignored

# Overview Grid

The main purpose of the grid is to resolve differences between database objects as a part of **Schema Compare**. You can also use other tools to filter the differences or mark them via context menu as:

- **Read/Unread**  - signifies whether you have already reviewed the difference or not
- **Important**  - simply marks the difference as important, has no influence on the result of the comparison
- **Excluded**  - the difference is ignored and removed from the grid unless you enable the **Show Excluded Items** option

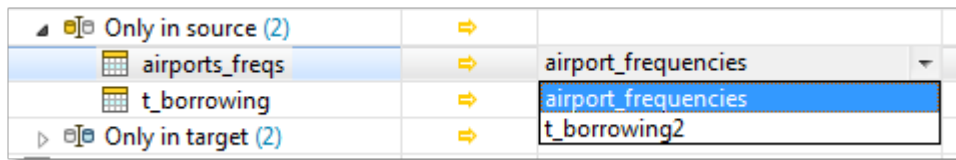
There are two main types of differences:


- **Only in source/target** - objects that are found only in one of the two compared databases
- **Different** - objects that are linked (same name or linked by user) but their SQL code is different

In case you want to compare an unlinked object in source with an unlinked object in target, you will have to map them.

## ***To map an unlinked object to any other unlinked object***

1. In the grid, find an object that is not linked yet by looking in the **Only in source/target** nodes
2. Notice the [map] text in the other database column. It is a drop down menu from which you can select the object that should be mapped to your original object







3. After selecting the object, the two objects are now linked. You can unlink them again by clicking the unlink icon 

Once you link objects as you wish, you can go through the differences and decide on how to resolve them.








## ***To resolve differences between two database objects***








1. In the Overview Grid, locate any row that marks a difference between two objects
2. Click on the arrow in the cell between the object names to specify how the difference is going to be resolved.

The following table lists all possible resolution actions and their meanings:

Action	Action description	Resolution description
	Change target	The generated change script will change target so it matches source
	Change source	The generated change script will change source so it matches target
	Change both	<b>(Different objects only)</b> All differences between the two objects are marked as ignored. You can go through the specific differences one by one and resolve them in the <a href="#">Comparison Area</a>
	Ignore	The differences between the two objects are ignored and not included in the generated change script

## Overview Grid Toolbar

UI Element	Option	Description
	Recompare All	Compares the source and the target again
	Save As	Saves the comparison as a .compare file that can be loaded and displayed at any time
	Previous Unread Change	Switches to the previous difference marked as unread ( ● )
	Next Unread Change	Switches to the next difference marked as unread ( ● )
	Export Report	Exports an HTML report detailing the detected differences
	Generate Script for Source	Generates a change script for the source schema/database according to the resolution actions you have set. The script can be generated to clipboard, a worksheet or a file
	Generate Script for Target	Generates a change script for the target schema/database according to the resolution actions you have set. The script can be generated to clipboard, a worksheet or a file

UI Element	Option	Description
	Update Objects in Database	( <a href="#">Repository</a> only) Updates objects in database according to the resolution actions you have set. The drop down menu allows you to only generate a change script instead. The script can be generated to clipboard, a worksheet or a file
	Overwrite Files on File system	( <a href="#">Repository</a> only) Updates objects in file system repository according to the resolution actions you have set. The drop down menu allows you to only generate a change script instead. The script can be generated to clipboard, a worksheet or a file
	Filter by Action	Displays only the differences that you have resolved by the selected action(s)
Group by: <input type="text" value="Object Type and Status"/>	Group by	Groups the differences by the selected criteria
Filter: <input type="text" value="type filter text"/> 	Filter	Filters the differences according to the input. It is possible to use wildcards (? and *) and regular expressions as well as filter by multiple comma separated values
	Show/Hide Excluded Items	Shows/Hides differences marked as <b>Excluded</b>
	Hide Empty Nodes	Hides object type nodes with no detected differences
	Export Settings	Exports the Schema Compare settings and <b>Detailed Settings</b> which can be configured in the <a href="#">Outline View</a>

# Comparison Area

This part of Schema Compare displays specific differences between the SQL code of two given database objects. It also allows you to export the SQL code of any of the two objects in various ways and you can also deploy changes based on the actions that you have used to resolve the differences.

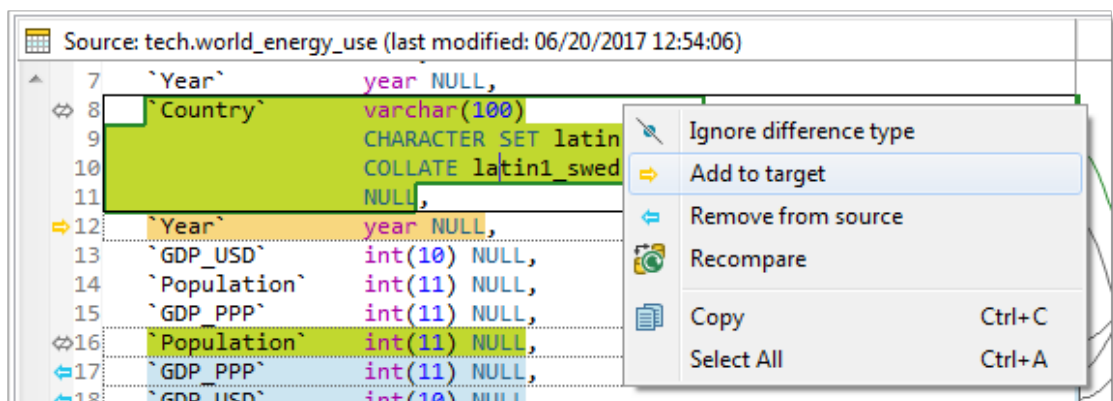
Comparison Area has the following tabs:

- **Script Definition** - displays the SQL code of both objects and the differences between them
- **Change Script** - displays the change script SQL code that will be generated in order to resolve the differences

In the Script Definition tab, differences can be resolved one by one with different actions.

## To resolve differences between two objects in Script Definition

1. In [Overview Grid](#), select a row with two different objects
2. You should now see the specific differences displayed in the **Comparison Area | Script Definition** tab
3. Select a specific difference by simply clicking on it. A border should appear to signal that the difference is currently selected
4. Right-click and select the action that you would like to use to resolve the difference




Once you resolve all the differences, you will probably want to deploy the changes. This can be done in two scopes:

- **Deploy changes of all objects** - in this case, you generate and execute a change script for all objects that are resolved/not excluded in the [Overview Grid](#)
- **Deploy changes of a single object** - this method uses the Change Script tab




## To deploy changes of a single object

1. Resolve all differences as described in the walkthrough above
2. When you are done, switch to the **Change Script** tab



- You should see a generated change script that is based on the resolution actions you have used. To deploy the changes, simply click the **Deploy** button . If you just want to generate the script rather than deploy it immediately, use one of the three buttons to the right of the Deploy button

## Comparison Area Toolbar

Button	Option	Description
	Deploy	Executes the generated change script in the source/target to address the differences
	Export/Copy/Open SQL Worksheet	Exports the generated change script for source/target to a file/clipboard/Worksheet
	Set Action	Resolves <b>all</b> differences between the two objects using the selected action

# Preferences

Many aspects of Toad Edge and its behavior can be configured in the Preferences.

## To open Preferences

- On Windows: Select **View | Preferences** or press ALT + P
- On macOS: Select **Toad Edge | Preferences** or press **⌘ + P** or **⌘ + ,**

The settings are divided into several categories:

- [General](#)
- [Database](#)
- [Worksheet](#)
- [Data](#)
- [Templates](#)
- [Export](#)
- [Folder Paths](#)
- [Appearance](#)
- [Feedback](#)

## General

### Startup Options

Option	Description
Restore active connections	If enabled, database connections that were active before exiting the application will be reconnected again on startup
Verify drivers existence on application start	If enabled, automatically check whether the drivers listed in the <b>Database</b> tab actually exist
Play Toad wave on application start	By default, Toad Edge plays a toad sound when it is launched. Uncheck this box to disable the sound

### Dialogs and Wizards

Option	Description
Use quotation marks in SQL output	This option concerns mostly new database object wizards. If enabled, names of database objects created via these wizards will be quoted if necessary (e.g. when the name uses both uppercase and lowercase letters or if it contains special characters)

## User Interface

Option	Description
Number of connections in application toolbar	Determines the number of connections that appear in the <b>Connect</b> button drop down menu in the application toolbar. If you have more connections than the number set here, they will be shown in the order in which they were last used or modified
Show database object count in Object Explorer	If enabled, the number of objects of each type is shown next to the object node in the <b>Object Explorer</b>
Format script on load	This option automatically formats SQL scripts in <b>Object Detail   Script tab</b> and also whenever you export a script to <b>Worksheet</b>
Confirm before closing Toad Edge	If enabled, a prompt is displayed when you attempt to close the application

## Database

Option	Description
Drivers	Contains a list of all available drivers used to establish connection to your databases. You can add new drivers or remove the listed ones

## Timeout Settings

Option	Description
Database connection timeout in seconds	Sets the timeout for database connections. If Toad Edge is unable to establish connection to a database within the timeout period, the connection will fail automatically
Query execution timeout in seconds	Sets the timeout for query execution. If the database is unable to execute a query within the timeout period, it will automatically fail

## Worksheet

### SQL Worksheet

Option	Description
Enable Syntax Highlighting	Highlights SQL keywords, database objects and aliases by default
Enable Syntax Check	By default, checks the syntax of SQL code in <a href="#">Worksheet</a> and underlines errors
Hide results when typing	If enabled, automatically hides <a href="#">Result</a> when you start typing in <a href="#">Worksheet</a>
Vertical layout of result set	If enabled, vertical layout of Result Set is used by default. Otherwise, horizontal layout is used

Show line numbers	Shows/hides line numbers in <a href="#">Worksheet</a>
Show range indicator	If enabled, highlights SQL statement line ranges (e.g. lines 9-13) in the vertical bar on the left side of the <a href="#">Worksheet</a>

## Content Assist / Autocompletion

Option	Description
Enable Content Assist	Enables/disables <b>Content Assist</b> entirely
Activate automatically	By default, <b>Content Assist</b> is automatically activated when you type a specific character and wait for a set amount of time. You can disable this option and instead activate the tool manually by pressing ( <i>CTRL</i> ( $\#$ ) + <i>SPACE</i> )
Delay in milliseconds	This determines the delay between typing a <b>Content Assist</b> trigger character and the suggestion popup appearing
Content Assist trigger characters	Specifies which characters can be used to activate <b>Content Assist</b> . Once you type any of them and wait for a set amount of time, the suggestion popup will appear
Sorting and Filtering	Determines how the suggestions will be sorted
Alias Handling	Enables/disables the use of aliases when using <b>Content Assist</b> to autocomplete your queries

## Data

### Data Grid Options

Option	Description
Display {null} for NULL values	If enabled, NULL values are represented by the {null} string. Otherwise, blank cells are shown instead
Show tooltips over results	By default, tooltips are displayed when you hover over data values that have been truncated due to the small column width
Show web links preview	You can enable this option to view website previews when you hover over data values that contain a website address
Use fetch limit	The fetch limit determines how many rows should be fetched from a table at once. If you disable this option, Toad Edge will fetch all rows at once. This might hinder Toad Edge performance depending on the size of the tables fetched
Number of fetched rows	If the fetch limit is enabled, this option determines how many rows should be fetched from a table. Once you scroll past the fetched rows, another set of rows is fetched

## Data Manipulation

Option	Description
Confirm any DROP, REVOKE and TRUNCATE actions	If enabled, you will be prompted before performing some actions using Toad Edge such as dropping objects, truncating tables or revoking permissions. Note that you will not receive a prompt when you try to perform the above actions using a SQL query in <b>Worksheet</b>
Confirm record deletion	If enabled, you will be prompted every time you try to delete rows from a table in <b>Object Detail</b>
Trim leading spaces in string data before INSERT/UPDATE	Removes spaces in front of the string values you insert into your table when you edit its values directly (in <b>Object Detail</b> or <b>Result Set</b> )
Trim trailing spaces in string data before INSERT/UPDATE	Removes trailing spaces in the string values you insert into your table when you edit its values directly (in <b>Object Detail</b> or <b>Result Set</b> )

## Date and Time Data Format

Option	Description
Date format	Determines the format of Date and Datetime types
Time format	Determines the format of Time and Datetime types

## Numeric Data Format

Option	Description
Decimal symbols	Sets the symbol used to separate integers and decimals in number data types
Digit grouping symbol	Sets the symbol used to separate thousands in number data types
No. of digits after decimal	Determines how many decimal digits are shown for Decimal type values. The actual maximum number of decimals is always limited by the scale of the specific decimal type column

## JSON Data Settings

Option	Description
Number of records used for JSON schema recognition	Values in JSON data type column can have a varying number of different columns. Toad Edge analyzes the first X number of records and generates the column structure in <b>Object Explorer</b> based on the columns of these records. The number of analyzed records can be changed here. See <a href="#">JSON support and JSON Editor</a> for more information
Max number of keys in the same level	Determines how many key of the same depth level will be displayed in JSON column structure in <b>Object Explorer</b>
Max number	Determines how many nested levels will be displays in JSON column structure in <b>Object</b>

of levels	<b>Explorer</b>
Load keys on demand	If enabled, the records used to model JSON column structure in <b>Object Explorer</b> will be loaded only when you expand the JSON column node

## BLOB Viewers

Option	Description
File Viewers	<p>In this section you can configure which viewer should be used to open BLOBs (binary large objects) of specific formats:</p> <ul style="list-style-type: none"> <li>• Default - if possible, BLOBs are opened in an internal Eclipse editor. If not, default system application is used instead</li> <li>• System - BLOBs are opened in default system application associated with the specific file format</li> <li>• Text - BLOBs are opened in a plain text editor</li> </ul>

## Templates

This section allows you to define and customize your own code templates. See [Templates](#) for more information.

## Export

Option	Description
Open file after execution	Determines whether exported XML and HTML files should be automatically opened after the export is completed

## XML

Option	Description
Encoding	Sets the default encoding for exported XML files

## Naming

Option	Description
Name of the root tag	Determines the name of the tag that should be used in XML to indicate the start and the end of the entire row/record section
Name of the row tag	Determines the name of the tag that should be used in XML to indicate the start and the end of a single row/record

## Options

Option	Description
Trim string values	Removes leading and trailing spaced from exported string values if enabled

Include null fields	If enabled, null values are listed in exported XML files as {null}
Indent size	Determines the indentation size of tags in exported XML files
CDATA export selection	Here you can configure which data type values should be enclosed in character data (CDATA) tag

## HTML

Option	Description
CSS Style	You can choose the CSS style applied to exported HTML files here

## Folder Paths

Option	Description
Document path	This path is used as a default for many file related operations in Toad Edge such as exporting/importing and saving/loading files
Repository mapping mask	The default file path used when creating a repository. See <a href="#">Repository</a> for more information

## Appearance

This sections contains settings related to colors and fonts used in the application. For example, you can change syntax highlighting colors, Worksheet fonts or background colors of certain UI elements.

## Feedback

If you want to, you can provide anonymous information to the application developers in order to further enhance Toad Edge. Please see [About product improvement program](#) for more information.

Option	Description
Error Reporting	Toad Edge can detect unexpected termination and then send an anonymous error log to the application developers. The specific settings can be configure here

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MySQL Connector/J 5.1

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