Database Configuration

Database Setup · https://toxicalldemo.com/docs/tox5/database-configuration/

Overview

toxiCALL® is designed to create and update your database automatically. In order for this to occur properly, a SQL account must be given the appropriate rights to ensure the database is maintained properly. However, you can setup accounts with specific rights that are used during the upgrade process while regular toxiCALL® users have limited account access. Some of these details are outlined below and are subject to change based on future features and testing.

toxiCALL® supports multiple database connections. You can have multiple instances of toxiCALL® running each connected to a different database if desired. This may be helpful if you need to manage two poison center's data and can connect to each database. This is also helpful when creating training and testing databases.

Demo Environment:
CAS provides a demo database which is hosted in Azure. This database is for testing only and access must be provided by our support team. You are welcome to leave this database configured, or remove it from the configuration window. If you are having trouble with the demo database, see the database troubleshooting section for more details.

New Installations and Upgrades

The SQL user accounts will require specific rights in order for the toxiCALL® application to function properly. This section will outline the rights needed.

SQL DBA - Create Database Rights (optional)

Some DBAs may wish to create the database for the toxiCALL® application. This is because there are unique settings which may be required including location of data files, size & growth limitations, and

more. However, testing environments will benefit from the ability to create databases, especially during migration testing.

- With this right enabled, the toxiCALL® application will create a new database using the default parameters configured on the SQL Server.
- The advantage is that a DBA does not need to create a database, especially during testing of migration and in testing environments.

SQL Database Rights

The minimum SQL User database rights are: **db_datareader**, **db_datawriter**, **db_ddladmin**

We are testing the necessity of db_ddladmin. toxiCALL® is designed to create the database, and update the data structure of the database. However, it may be possible to delegate the db_ddladmin right to specific user accounts such that it is not exposed to all users.

When assigning the db_ddladmin right, it may be necessary to DENY any create, drop, etc. table rights if this is a concern for non-essential users. We will continue to monitor the user rights needs and update this section as more testing environments become available.

Grant 'Execute' permission stored procedure

Additionally, you need to grant '**Execute**' **permission** for the '**GetNextSequentialNumber**' stored procedure.
To do this, follow the steps:

1. Connect to the SQL Server Management Studio.
2. Expand the "Databases" node and locate the “YOUR_DATABASE” database.
3. Expand the "Programmability" node and then expand the "Stored Procedures" node.
4. Right-click on the "GetNextSequentialNumber" stored procedure and select "Properties".
5. In the properties window, go to the "Permissions" tab.
6. Click on the "Search" button to select the user or role that needs the EXECUTE permission.
7. In the "Select Users or Roles" dialog, search for the user or role and click "OK".
8. In the "Permissions for [User/Role]" section, check the "Execute" permission.

9. Click "OK" to save the changes.

Update Database Structure Rights

This right is required by at least one account and is important when running a new version of toxiCALL® for the first time on your database.

- During installation and upgrades, toxiCALL® may modify the database structure by adding tables and columns as needed.
- It is always important to create a FULL backup prior to performing an upgrade on a production database.

Read/Write/Delete/Update Table Data Rights

These rights are important for all SQL accounts.

- Users will be updating a variety of tables within the toxiCALL® application. Internal controls limit the access and updating of data within the application.

Database Configuration Window

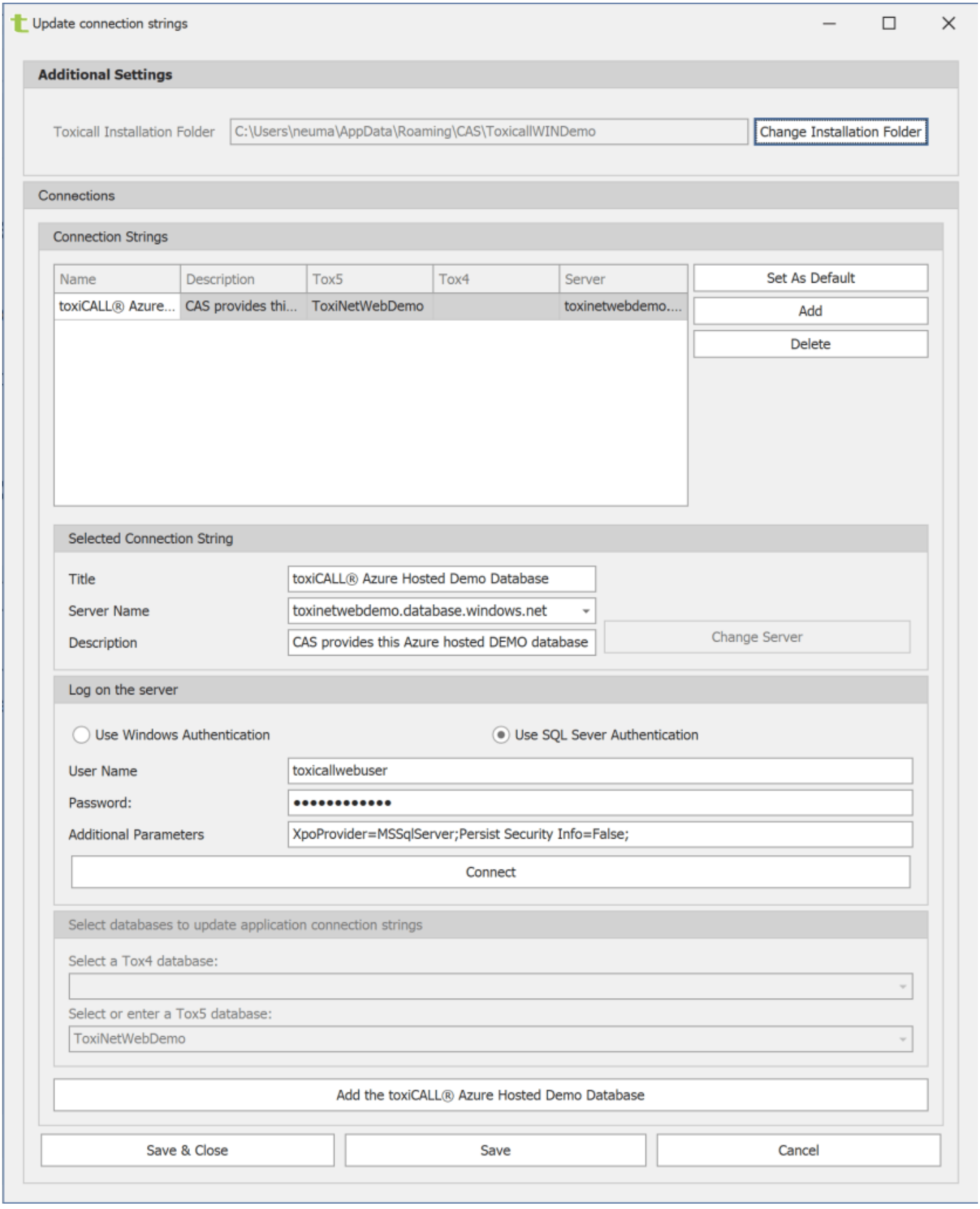
IMPORTANT:
We suggest that your **New Database** is configured with the **Simple Recovery Model** while performing the migration. This will keep the log size smaller and minimize the amount of time required to migrate a large number of cases. The recover model can be changed again after the migration is complete. As of July 2022 your Database Administrator will need to set the appropriate recover model for your database.

The database configuration window can be accessed from within toxiCALL® as well as during startup.

To access the configuration external to toxiCALL®, press and hold the SHIFT key to start toxiCALL®.

To access the configuration window while in toxiCALL®

Important:
Each database requires a license. We are also working on license pooling to include limited testing environments within a single license.


Update connection strings
Additional Settings
Toxicall Installation Folder
C:\Users\neuma\AppData\Roaming\CAS\ToxicallWINDemo
Change Installation Folder
Connections
Connection Strings
Name
Description
Tox5
Tox4
Server
toxiCALL® Azure...
CAS provides thi...
ToxiNetWebDemo
toxinetwebdemo....
Set As Default
Add
Delete
Selected Connection String
Title
toxiCALL® Azure Hosted Demo Database
Server Name
toxinetwebdemo.database.windows.net
Description
CAS provides this Azure hosted DEMO database
Change Server
Log on the server
Use Windows Authentication
Use SQL Sever Authentication
User Name
toxicallwebuser
Password:
Additional Parameters
XpoProvider=MSSqlServer;Persist Security Info=False;
Connect
Select databases to update application connection strings
Select a Tox4 database:
Select or enter a Tox5 database:
ToxiNetWebDemo
Add the toxiCALL® Azure Hosted Demo Database
Save & Close
Save
Cancel

SQL Errors During Connection or Updates

If you are having trouble connecting to the SQL Database or running the create process, ensure the following protocols are enabled on the SQL Server Instance:

- Named Pipes
- TCP/IP

TLS 1.2 is supported

toxiCALL® Installation Folder

The installation folder defaults to the location where toxiCALL® is installed. There should not be a need to change this setting and made available for reference.

Connection Strings

The list of configured connection strings is available here. The top connection string is the **default** connection which will be used by toxiCALL®.

When multiple connection strings are configured, the login screen will have a dropdown allowing the selection of the database to be used. The default will automatically be selected eliminating the need for user interaction if there is no need to change databases.

If only one database is configured, the database selection dropdown will not be displayed.

Migration:
The migration tool will use the Default database connection string when performing the migration.

Selected Connection String

Title

The title is a descriptive name of your database. This will make it easier for your users to understand which database is being used.

Server Name

The server name identifies the SQL Server which hosts the database for the connection.

Description

The description allows you to provide a more descriptive explanation of the database and its use.

Log on the Server

Here you will provide the login credentials when connecting to your SQL Server. toxiCALL® supports Windows Authentication as well as SQL Server authentication. This allows you to choose the authentication method which best suits your security needs.

Security Note:
Using Windows authentication will ensure the toxiCALL® Windows application conforms to your Active Directory authentication policy. While the toxiCALL® application has security credentials, access to SQL Server can be restricted through the Windows account as well.

When using SQL Authentication, provide the username and password as configured for your SQL Server account.

Be sure to press **Connect** to ensure the database configuration is correct. This will also populate the database names in the database selections below.

The additional parameters section will allow additional connection parameters. A common parameter will be:

SQL Connection Time

ConnectionTimeout=90;
Value to change the length of time before a SQL Connection Error is reported. Set to 0 for no timeout.

SQL Query Execution Time

CommandTimeout=300;
Value to change the length of time before a SQL Query Error is reported. Set to 0 for no timeout.

This option is helpful when running complex queries on a large dataset. If query timeout errors are experienced, this parameter can be added instructing toxiCALL® to wait longer before reporting an error.

Select Database

toxiCALL® 4 Database (optional)

Optionally configure the toxiCALL® 4 database which is located on the same server.

Important Backwards Compatibility:
This database will be used for reverse migration to ensure your toxiCALL® 4 application can be used for reporting purposes.

toxiCALL® 5 Database

Enter the name of the toxiCALL® 5 database. We suggest a name similar to ToxiNet, such as ToxiNetWin.

toxiCALL® 5 no longer requires a secondary database as is required for toxiCALL® 4.

Add Azure Hosted Demo Database

This button will add the default connection to our testing database.

Save the Configuration

The two Save options will allow you to save your configuration and close, or continue adding connection details.

If a database is not found, you will be prompted with an option to create the database. The necessary data tables will also be created with the new database.

After exiting the Configuration window, you can start toxiCALL® again using the new database connections.

Important:

If your Database Administrator has created the, toxiCALL® will automatically add the tables with the new database. It will be important to have the appropriate rights to create the tables in order to properly complete the configuration.

Note:

If you are unable to connect to the database, or create the necessary tables, the configuration cannot be saved.

Discover more from toxiCALL® 5 Updates

Subscribe to get the latest posts sent to your email.