



TestTrack

Server Admin Guide

Version 2012

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Getting Started

TestTrack's scalable client/server model allows you to easily track and manage projects from a central location. Each TestTrack Server contains information about projects, the server log, server users, the mail queue, and server options. The TestTrack Server Admin Utility is used to manage these components.

The TestTrack Server Admin Utility is generally installed on the server computer and the server administrator's computer. You add connections to the servers you want to administer.

Starting the Seapine License Server

The Seapine License Server must be running before the TestTrack Server or the TestTrack Server Admin Utility are started.

- **Windows**—If the Seapine License Server is installed as a service, it starts automatically. If the license server is installed as an application, choose **Programs > Seapine Software > Seapine License Server > Seapine License Server** from the Start menu.
- **Mac**—Click **Seapine License Server** in the System Preferences. If you want to set the server to start automatically, click the lock and select **Start Seapine License Server when this computer starts up**.
- **Linux**—Enter `/usr/bin/spls start`

If there is a problem starting the server, make sure the server computer is online, check the IP address and port number, and make sure you are connected to the network, intranet, or Internet.

Starting the TestTrack Server

The TestTrack Server must be running before you start the TestTrack Server Admin Utility.

- **Windows**—If the TestTrack Server is installed as a service, it starts automatically. If the server is installed as an application, choose **Programs > Seapine Software > TestTrack > TestTrack Server** from the Start menu.
- **Mac**—Click **TestTrack** in the System Preferences. If you want to set the server to start automatically, click the lock and select **Start TestTrack Server when this computer starts up**.
- **Linux**—Enter `/usr/bin/ttstudio start`

If there is a problem starting the server, make sure the server computer is online, check the IP address and port number, and make sure you are connected to the network, intranet, or Internet.

Starting the TestTrack Server Admin Utility

Make sure the Seapine License Server and TestTrack Server are running before starting the TestTrack Server Admin Utility.

Note: A default administrative user is created during installation. Log in as this user the first time you start the TestTrack Server Admin Utility. The username is **Administrator** and there is no password. To prevent unauthorized access, create a password for this user.

1. **Windows**—Choose **Programs > Seapine Software > TestTrack > TestTrack Server Admin** from the Start menu.

Mac—Double-click the **TestTrack Server Admin Utility** icon in the Applications/TestTrack folder.

Linux—Enter `/usr/bin/ttadmin`.

The TestTrack Server Admin Utility Login dialog box opens.

2. Select the **Server** you want to connect to. See [Adding server connections, page 3](#) if you need to add a server.
3. Enter your **Username** and **Password** or select **Use single sign-on** to log in with your network credentials.

Note: Single sign-on is only available for Windows and Mac.

4. Click **Connect**.

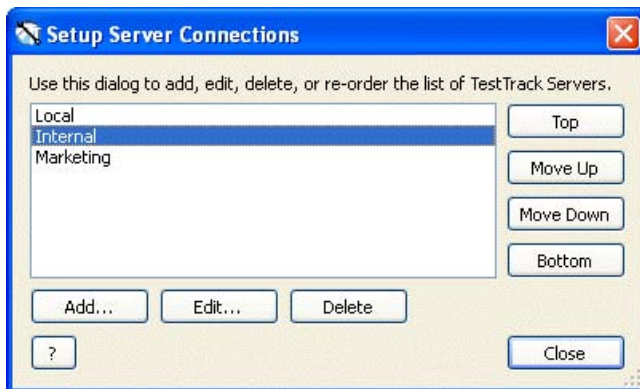
The TestTrack Server Admin Utility starts.

Setting up server connections

The TestTrack Server Admin Utility connects to the TestTrack Server via TCP/IP. Projects are located on a central TestTrack Server that is accessed by multiple remote client computers. Before you can access a server, you need to add a server connection.

1. Choose **File > Connect to Server** to open the login dialog box.
2. Click **Setup**.

The Setup Server Connections dialog box opens.



3. Click **Add** to create a server connection. See [Adding server connections, page 3](#).
4. Select a server and click **Edit** to change the server address or port number. See [Editing server connections, page 3](#).
5. Select a server and click **Delete** to delete the connection.
6. Select a server and click **Top**, **Move Up**, **Move Down**, or **Bottom** to reorder the list.
You may want to move the servers you access most frequently to the top of the list.
7. Click **Close** to close the Setup Server Connections dialog box.

Adding server connections

You need to add TestTrack Server connections to access projects.

1. Choose **File > Connect to Server** to open the login dialog box.
2. Click **Setup**.

The Setup Server Connections dialog box opens.

3. Click **Add**.

The Add TestTrack Server dialog box opens.



4. Enter a **Server Name**.

Use a unique name to help users easily identify the server. For example, use your company name instead of a generic name like server1.

5. Enter the **Server Address** of the computer the TestTrack Server application is installed on.

You can enter a domain name but a static IP address is recommended. The server admin utility uses TCP/IP to connect to the server.

6. Enter the **Port** number.

TestTrack clients connect to the server on this port via TCP/IP. Valid values are 1-65535.

7. Click **OK**.

The server connection is added. You return to the Setup Server Connections dialog box.

8. To reorder the servers, select a server and click **Top**, **Move Up**, **Move Down**, or **Bottom**.

You may want to move the servers you log in to most frequently to the top of the list.

9. Click **Close** to close the Setup Server Connections dialog box.

Editing server connections

1. Choose **File > Connect to Server** to open the login dialog box.
2. Click **Setup**.

The Setup Server Connections dialog box opens.

3. Select the server and click **Edit**.
4. Make any changes and click **OK**.

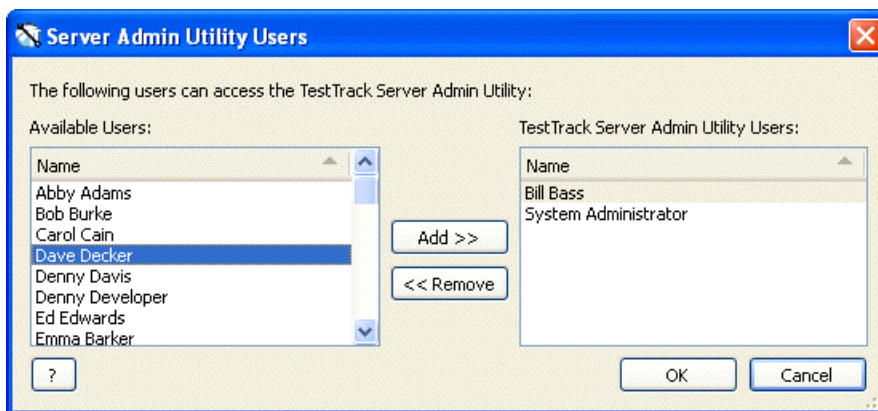
Deleting server connections

1. Choose **File > Connect to Server** to open the login dialog box.
2. Click **Setup**.
The Setup Server Connections dialog box opens.
3. Select the server and click **Delete**.
You are prompted to confirm the deletion.
4. Click **Yes**.
The server is deleted.

Adding server users

Most companies generally limit access to the TestTrack Server Admin Utility to administrators or other high-level users. All users, including server admin utility users, are created on the Seapine License Server. Server users are not the same as project users and cannot automatically access projects.

1. Choose **View > Server Users**.
The Server Admin Utility Users dialog box opens.



2. Select a user in the Available Users list and click **Add**.
You cannot set security permissions for admin utility users. Make sure you want the selected user to have unrestricted access to the admin utility.
3. Click **OK** when you finish adding users.

Removing server users

1. Choose **View > Server Users**.
The Server Admin Utility Users dialog box opens.
2. Select a user in the TestTrack Server Admin Utility Users list and click **Remove**.
The user can no longer access the server admin utility.
3. Click **OK** when you finish removing users.

Connecting to a different server

You can connect to a different server without closing the TestTrack Server Admin Utility. This command is only used if the TestTrack Server is installed on multiple computers.

1. Choose **File > Connect to Server**.

You are prompted to confirm that you want to disconnect from the current TestTrack Server.

2. Click **Yes**.

The login dialog box opens.

3. Select the **Server** you want to connect to.
4. Enter your **Username** and **Password**.
5. Click **OK**.

Creating Projects

TestTrack projects contain the information you track including issues, test cases, test runs, requirements, requirement documents, security groups, users, customers, filters, test configurations, and workbook tasks. Projects are defined on the TestTrack Server and managed using the TestTrack Server Admin Utility. The TestTrack Server maintains the data for each project in a separate cache in memory on the server.

TestTrack supports TestTrack native and RDBMS projects. See the [Choosing a TestTrack Database Format](http://www.seapine.com/kb/questions/1354) knowledgebase article (www.seapine.com/kb/questions/1354) for information about each database type.

Your use of projects depends on your company's business processes. If you are using TestTrack to track software issues, you may want to create a project for each release, for feature requests, or for specific customers. You can also customize TestTrack for other types of tracking. For example, you can customize fields, terminology, and the workflow to help your human resources personnel track employees.

Creating TestTrack native projects

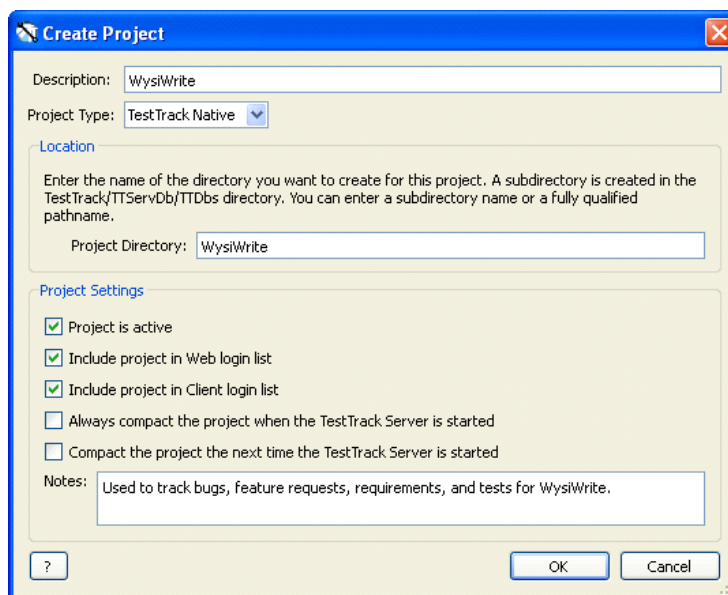
TestTrack uses SQLite as the native backend database by default. All TestTrack native project files, including the SQLite database file, are stored in a directory on the local hard drive of the TestTrack Server computer or a mapped network drive. Only one project is stored in each project database.

1. Choose **View > Projects**.

The Projects dialog box opens.

2. Click **Create**.

The Create Project dialog box opens.



3. Enter a **Description**.

This is the name displayed when users log in to TestTrack.

4. Select **TestTrack Native** from the Project Type list.
5. Enter a **Project Directory** name.

A project directory with this name is created in the TTServDb/TTDBs directory in the TestTrack application directory by default. The project directory contains the project database file and subdirectories for attachments, SoloBug files, and report stylesheets. The TestTrack Server may be configured to use a different default path, which is displayed in the Location area. You may be able to enter a full path depending on the server settings. The path cannot exceed 247 characters, including the drive specifier (e.g., C:\) and names of subdirectories that TestTrack creates in the specified directory.

Note: The default path for new projects and the ability to enter fully qualified pathnames is controlled using the TestTrack Registry Utility. See the [TestTrack Registry Utility Guide](http://downloads.seapine.com/pub/docs/ttregistryutilityguide.pdf) (<http://downloads.seapine.com/pub/docs/ttregistryutilityguide.pdf>) for information.

6. Select any **Project Settings**.
 - **Project is active** creates an active project. Users cannot access inactive projects.
 - **Include project in Web login list** makes the project available in the TestTrack Web login list.
 - **Include project in Client login list** makes the project available in the TestTrack Client login list.
 - **Always compact the project when the TestTrack Server is started** compacts the project when the server starts. Compacting removes space and rebuilds the index files but may increase initialization time.
 - **Compact the project the next time the TestTrack Server is started** compacts the project the next time the server starts.
7. Enter any project **Notes**. For example, you can enter notes about what the project is used for or why it was created.
8. Click **OK**.

The project is created.

Creating RDBMS projects

You can store TestTrack projects in a Relational Database Management System (RDBMS). Using an RDBMS allows you to distribute projects between multiple databases if you have a large TestTrack installation, leverage your existing database administration processes, and use standard database tools.

1. Create a connection to the RDBMS you want to store the project in. See [Setting RDBMS connection options, page 21](#).
2. Choose **View > Projects**.

The Projects dialog box opens.
3. Click **Create Project**.

The Create Project dialog box opens.

4. Enter a **Description**.

This is the name displayed when users log in to TestTrack.

5. Select **RDBMS** from the Project Type list.

6. Select the **Connection** for the RDBMS database you want to add the project to.

7. Enter a unique **Project Name**.

This is the name displayed for the project in the server admin utility.

8. Enter the **Project Directory** name.

A project directory with this name is created in the TTServDb/TTDBs directory in the TestTrack application directory by default. The project directory contains subdirectories for attachments, SoloBug files, and report stylesheets. The TestTrack Server may be configured to use a different default path, which is displayed in the Location area. You may be able to enter a full path depending on the server settings. The path cannot exceed 247 characters, including the drive specifier (e.g., C:\) and names of subdirectories that TestTrack creates in the specified directory.

Note: The default path for new project directories and the ability to enter fully qualified pathnames is controlled using the TestTrack Registry Utility. See the [TestTrack Registry Utility Guide](http://downloads.seapine.com/pub/docs/ttregistryutilityguide.pdf) (<http://downloads.seapine.com/pub/docs/ttregistryutilityguide.pdf>) for information.

9. Select the **Project Settings**.

- **Project is active** creates an active project. Users cannot access inactive projects.
 - **Include project in Web login list** makes the project available in the TestTrack Web login dialog box.
 - **Include project in Client login list** makes the project available in the TestTrack Client login dialog box.
10. Enter any project **Notes**.
For example, you can enter notes about what the project is used for or why it was created.
 11. Click **OK**.
A progress dialog box opens, displaying actions as the project is created. You return to the Projects dialog box after the project is created.
 12. If the connection does not contain any TestTrack tables, you are prompted to manually or automatically create them.
 - Click **OK** if you want TestTrack to automatically create the tables. See [Automatically creating TestTrack database tables, page 46](#).
 - Click **Cancel** if you want to manually create the tables.

Note: We recommend manually creating the tables. A DBA can perform capacity planning before creating the database and tables, plan and implement database backup and recovery, implement and enforce proper security for the database and tables, and configure the database and tables to ensure proper performance and maximum database stability. See [Setting Up RDBMS Databases, page 51](#).

Creating a project from a template

You can create a project based on an existing project. The new project is populated with users, security groups, customers, filters, test configurations, and reports from the existing project. Issues, requirements, requirement documents, test cases, test runs, and workbook tasks are not copied.

Note: Legacy TestTrack 2011.1 or earlier native projects must be upgraded before they can be used as templates for new projects.

1. Choose **View > Projects**.
The Projects dialog box opens.
2. Select the project you want to use as a template.
3. Click **Create from Template**.
The Create Project from Template dialog box opens.
4. Enter a **Description**.
This is the name displayed when users log in to TestTrack.
5. Select a **Project Type**.
6. If you are creating a TestTrack native project, enter the **Project Directory** name.

If you are creating an RDBMS project, select the **Connection** for the database you want to add the project to, enter the **Project Name** to display in the server admin utility, and enter the **Project Directory** name.

A project directory is created in the TTServDb/TTDBs directory in the TestTrack application directory by default. The project directory contains subdirectories for attachments, SoloBug files, and report stylesheets. For TestTrack native projects, the directory also contains the project database file. The TestTrack Server may be configured to use a different default path, which is displayed in the Location area. You may be able to enter a full path depending on the server settings.

Note: The path cannot exceed 247 characters, including the drive specifier (e.g., C:\) and names of subdirectories that TestTrack creates in the specified directory.

7. Select the **Project Settings**.
8. Enter any project **Notes**.
9. Click **OK**.

The project is created.

Configuring Server Options

TestTrack's client/server design centralizes mail, logging, and other options and shares them across projects.

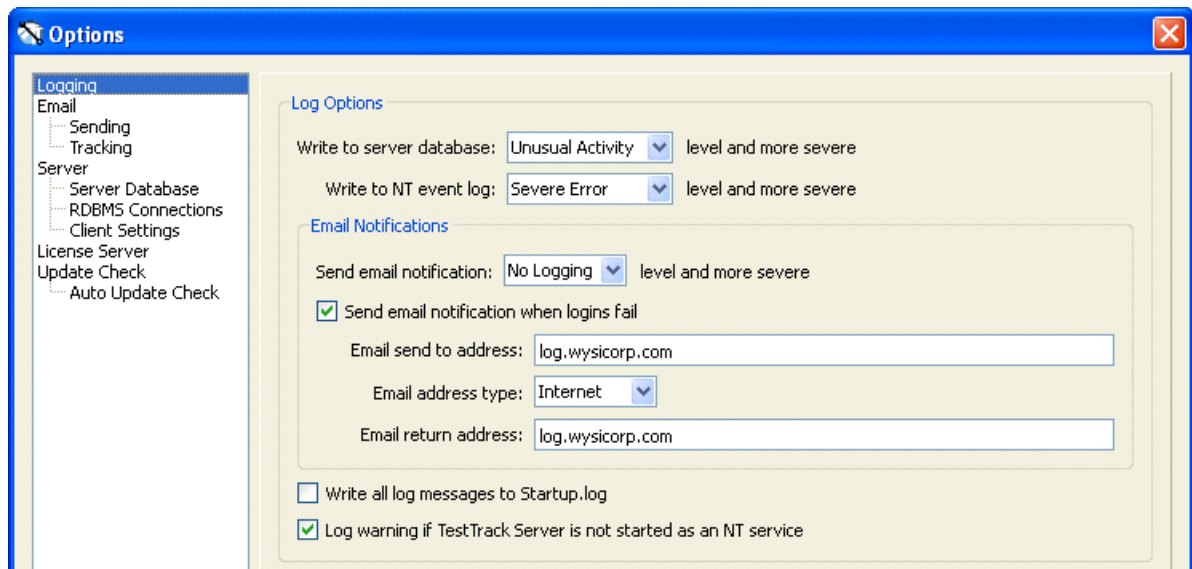
Setting log options

The TestTrack Server creates log files that record events, such as severe errors or unusual activity, and help you monitor the server's operation. The server can also send email notifications based on these events.

See [Working with the Server Log, page 47](#) for information about viewing the server log.

1. Choose **View > Server Options**.

The Options dialog box opens with the Logging category selected.



2. Select **Log Options**.
 - The **Write to server database** level specifies the events written to the server database log.
 - The **Write to NT event log** or **Write to Unix system log** levels specify the events written to the NT/2000 event log or the Unix system log.
3. Select **Email Notifications** options to send an email notification when specific events occur.
 - The **Send email notification** level specifies the types of events to email notifications for. Select **No Logging** if you do not want to receive emails.
 - **Send email notification when logins fail** sends email when login attempts fail.
 - Enter the **Email send to address**. All notifications are sent to this address.
 - Select the **Email address type**.
 - Enter the **Email return address**. Returned notifications are forwarded to this address.
4. Select **Write all log messages to Startup.log** to write errors to the log file.

Select this option if you are experiencing problems and want to log messages that occur after startup. The log file is generally stored in the same directory as the TestTrack Server application.

5. Select **Log warning if TestTrack Server is not started as an NT service** to log a warning if the server is started as an application. This option is only available if the server is running on Windows.

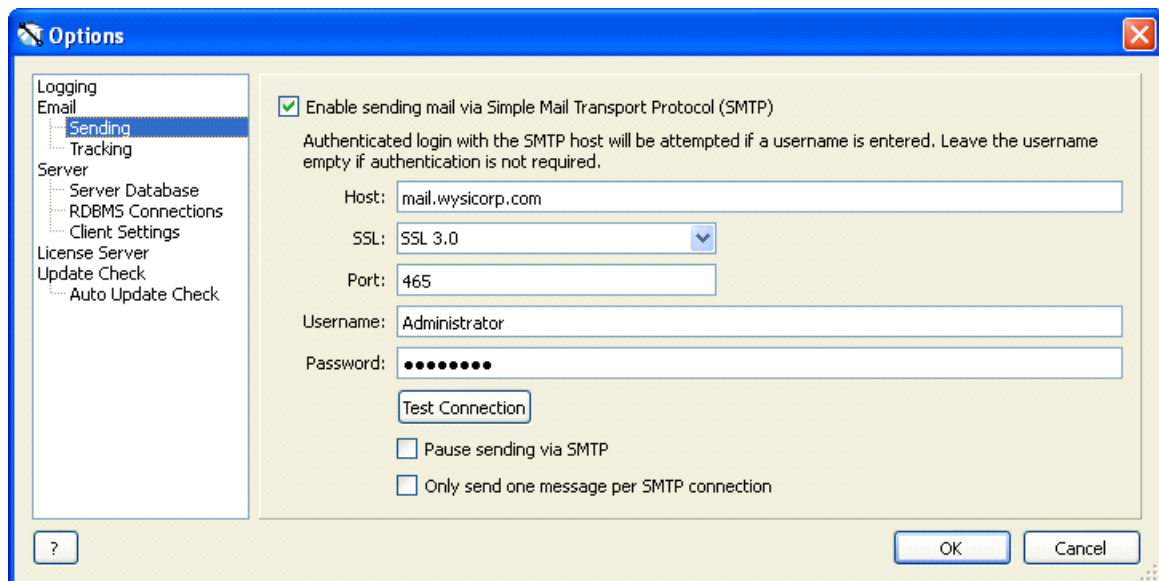
Most companies run the server application as a service. If it is started as an application, the TestTrack Server is shut down by the operating system as soon as a user logs out, which can negatively affect other users.

6. Click **OK** to save the settings.

Setting email sending options

You must enable email and configure email server settings before TestTrack users or the TestTrack Server application can send email.

1. Choose **View > Server Options**.
2. Select **Sending** from the Email category.



3. Select **Enable sending mail via Simple Mail Transport Protocol** to send email via SMTP.
 - Enter the **SMTP Host** used to send outgoing mail. Enter an IP address (e.g., 123.34.5.26) or your mail server's fully qualified domain name (e.g., mail.yourcompany.com).
 - Select the **SSL** protocol to use to encrypt communication between the mail server and TestTrack Server. You can use the SSL 3.0, TLS 1.0, Negotiate, or STARTTLS 1.0 protocols. Select **<not set>** if you do not want to use a secure protocol.
 - Enter the **Port** number. The default POP port is 995 if you select an SSL protocol and 110 if you do not. The default IMAP port is 993 if you select an SSL protocol and 143 if you do not.
 - Enter a **Username** and **Password** if the SMTP host requires an authenticated login. Leave these fields empty if the host does not require authenticated login.

- Click **Test Connection** to validate the connection to the mail server. The Connection Test Results dialog box opens. If the test connection fails, you can copy and paste the text into an email or text file and send it to your system administrator for help.
 - Select **Pause sending via SMTP** if you are experiencing SMTP problems. Only select this option to troubleshoot the problem because outgoing mail will back up in the queue.
 - Select **Only send one message per SMTP connection** to send one message per connection. Enable this option if the TestTrack error log contains entries stating 'The SMTP host's reply code to the MAIL command was 503' or an entry stating 'only one MAIL per message'.
4. Click **OK** to save the settings.

Setting email tracking options

Email tracking saves emails sent about specific issues, requirements, requirement documents, test cases, and test runs with the item. Users can view tracked emails on the item Overview or Email tab.

When a tracked email is sent, it includes a tracking cookie that identifies the TestTrack project, the email, and the item it was sent from. The SMTP headers are configured to use either the user's email address or the project email notification account email address (if the email is sent by an automation rule) as the 'From' user. The TestTrack email tracking account name is used as the 'Reply To' email address in the SMTP header of the tracked email.

If a tracked email is replied to, the email is sent to the email tracking account specified in the 'Reply To' SMTP header. The TestTrack Server retrieves the email from the tracking account and uses the tracking cookie to identify the project and the email the reply was sent about. The reply email is then attached as a reply to the original email and forwarded to the email account of the user who sent the original email.

1. Choose **View > Server Options**.
2. Select **Tracking** from the Email category.

Options

Logging
 Email
 Sending
 Tracking
 Server
 Server Database
 RDBMS Connections
 Client Settings
 License Server
 Update Check
 Auto Update Check

Enable tracking mail

TestTrack requires a dedicated email account. Do not use a personal account because all email is imported into the project then deleted from the account.

Protocol: POP

Host: mail.wysicorp.com

SSL: SSL 3.0

Port: 995

Username: trackedmail@wysicorp.com

Password: ●●●●●●●●

Return email address: returnedmail@wysicorp.com

Test Connection

Time to wait for initial connection response (seconds): 1

Time to wait for other connection responses (seconds): 20

Automatically remove emails without tracking cookies from the mail server

? OK Cancel

3. Select **Enable tracking mail** to track emails.

Note: Use a dedicated account for email tracking purposes. All email received by the account is imported to TestTrack and then deleted from the account. TestTrack cannot differentiate between personal and business email.

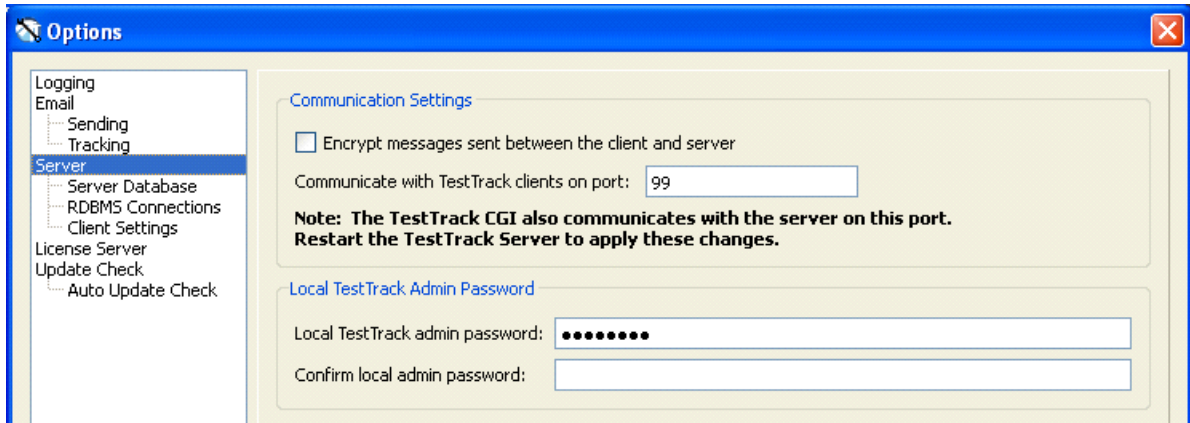
- Select the email **Protocol** to use to receive tracked email. You can use POP or IMAP.
 - Enter the **Host** IP address or domain name.
 - Select the **SSL** protocol to use to encrypt communication between the mail server and TestTrack Server. You can use the SSL 3.0, TLS 1.0, Negotiate, or STARTTLS 1.0 protocols. Select **<not set>** if you do not want to use a secure protocol.
 - Enter the **Port** number. The default POP port is 995 if you select an SSL protocol and 110 if you do not. The default IMAP port is 993 if you select an SSL protocol and 143 if you do not.
 - Enter the **Username** and **Password** if the host requires an authenticated login. The TestTrack Server uses this information to log in to the email server to retrieve tracked email. Leave these fields empty if the host does not require authenticated login.
 - Enter the **Return Email Address**. This address is used to send tracked email.
 - Click **Test Connection** to validate the connection to the mail server. The Connection Test Results dialog box opens. If the test connection fails, you can copy and paste the text into an email or text file and send it to your system administrator for help.
4. Enter the **Time to wait for initial connection response**.

This is the time the TestTrack Server waits for an initial response from the email server. The valid range is 1-32767 seconds.
 5. Enter the **Time to wait for other connection responses**.

This is the time the TestTrack Server waits for connection responses from the email server. The valid range is 1-32767 seconds.
 6. Select **Automatically remove emails without tracking cookies from the mail server** to delete emails that do not include a tracking cookie. You may want to select this option if the email tracking account receives spam or other email you do not want to import into TestTrack.
 7. Click **OK** to save the settings.

Setting server options

1. Choose **View > Server Options**.
2. Select the **Server** category.



3. Select **Encrypt messages sent between the client and server** to encrypt TestTrack Server communication with the TestTrack Client, the TestTrack Server Admin Utility, and the TestTrack CGI applications.

Encryption increases security but may slightly affect performance.

4. Enter the port number the TestTrack Server uses to communicate with TestTrack clients.

If you change the port, make sure users update their TestTrack Server connections. The valid range is 1-65535.

5. Enter and confirm a new password to change the **Local TestTrack admin password**.

If your existing administrative username and password are not recognized, you can log in using the local TestTrack admin password. This password only provides access to server options and server users.

We strongly recommend that you change this password. The default password, **admin**, is not secure and allows any user to log in and access server options and server users.

Note: You can also use this password to correct license server communication settings if the TestTrack Server cannot connect to the Seapine License Server.

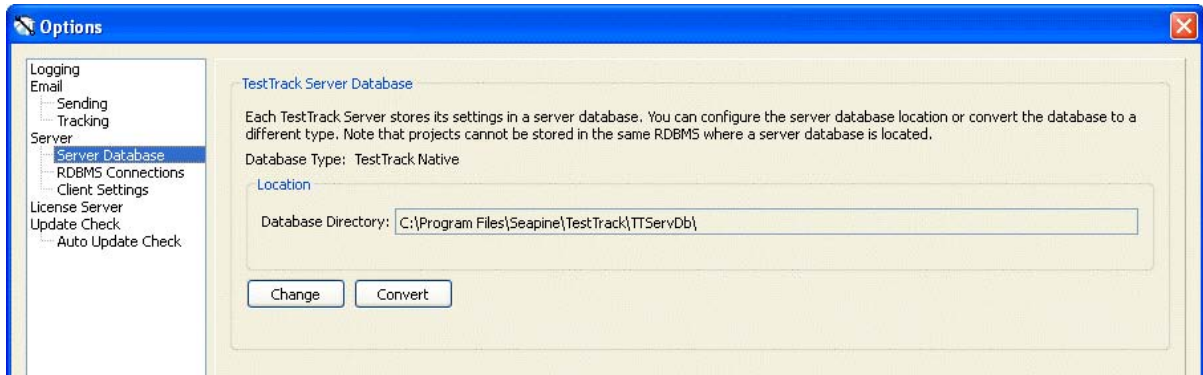
6. Click **OK** to save the settings.

Setting server database options

TestTrack Server settings are stored in the server database. Each server has its own database. You can change the location of the server database or convert the database to a different type.

1. Choose **View > Server Options**.
2. Select **Server Database** from the Server category.

The current server database type and location are displayed.



3. Click **Change** to change the database location. See [Changing the server database, page 20](#).
4. Click **Convert** to convert the database to a different type. See [Converting the server database, page 18](#).

Converting the server database

You can convert the server database to TestTrack native, SQL Server, Oracle Native, or PostgreSQL format. Keep the following in mind before you start the conversion:

- All other users must be logged out of the TestTrack Server.
- The destination database cannot be in use by another server.
- All of the tables in the destination database must be empty except for the serverid, ownerlck, and RDBMSOptions tables.
- Legacy TestTrack 2011.1 or earlier native server databases must be upgraded or converted to RDBMS before upgrading to the 64-bit TestTrack Server.

Note: If you are converting to a SQL Server database, we recommend that you manually create the server database tables. See [Setting Up RDBMS Databases, page 51](#) TestTrack can also create the tables during the conversion. See [Automatically creating TestTrack database tables, page 46](#).

1. Make sure you are logged into the TestTrack Server you want to convert.
Choose **File > Connect to Server** to connect to a different server.
2. Choose **View > Server Options**.
3. Select **Server Database** from the Server category.
4. Click **Convert**.
The TestTrack Server Database Conversion dialog box opens.

5. Select a **Database Type**. The available fields depend on the selected type.
6. Enter the **Connection Information**.

You are not prompted for connection information or to test the connection if you are converting to TestTrack native format. The existing server database is moved to the old subdirectory in the TestTrack database directory when the conversion finishes.

7. Click **Test** to test the connection.

The Test Connection dialog box opens and displays the results. If the test connection fails, you can copy and paste the text into an email or text file and send it to your DBA for help.

8. Click **Close** to close the Test Connection dialog box.

You return to the TestTrack Server Database Conversion dialog box.

9. Click **OK** to convert the database.

The server database conversion information is sent to the TestTrack Server for validation.

- If the validation succeeds, you are prompted to start the conversion. Remember that users cannot log in during the conversion process.
- If the validation fails, make sure the TestTrack tables exist and are empty, except for the serverid, ownerlck, and RDBMSOptions tables. You should also make sure that all other users are logged out of the server and that another server is not using the database.

10. Click **Yes**.

The conversion starts. The Conversion Status dialog box opens.

11. Click **Close** when the conversion finishes. You are prompted to use the converted server database.
12. Click **Yes**. You must stop and restart the TestTrack Server to complete the conversion.

Note: You can also manually change the database the TestTrack Server is using. See [Changing the server database, page 20](#).

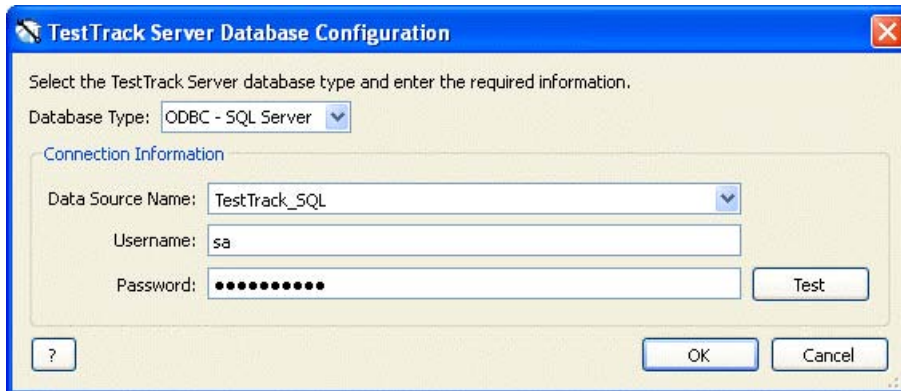
Changing the server database

You can configure the TestTrack Server to use a different database. For example, you can change the database if you move it to another computer or experience problems and want to use a backup copy of the database. You should not need to frequently change the server database.

Note: When you start the 64-bit TestTrack Server for the first time, a TestTrack native server database is automatically created if one does not exist.

1. Make sure you are logged in to the server you want to change.
Choose **File > Connect to Server** to connect to a different server.
2. Choose **View > Server Options**.
3. Select **Server Database** from the Server category.
4. Click **Change**.

The TestTrack Server Database Configuration dialog box opens.



5. Select a **Database Type**. The available fields change depending on the selected type.
6. Enter the **Connection Information**.
You are not prompted for connection information or to test the connection if you are changing to TestTrack native format. The server automatically points to the database in the TestTrack database directory on the server computer.
7. Click **Test** to test the connection.
The Test Connection dialog box opens and displays the results. If the test connection fails, you can copy and paste the text into an email or text file and send it to your DBA for help.
8. Click **Close** to close the Test Connection dialog box.
You return to the TestTrack Server Database Configuration dialog box.
9. Click **OK** to change the database location.

The following information is verified if you selected an RDBMS database:

- The specified connection information leads to a valid RDBMS.
- A TestTrack Server application is not configured for the selected server database.

- All of the required database tables exist and are accessible. If the database does not contain any TestTrack tables, you are prompted to create them. See [Automatically creating TestTrack database tables](#), page 46.

Note: If the selected server database is in use by another TestTrack Server, you can 'steal' it. This allows you to associate a server database with a new installation of TestTrack in situations where the TestTrack Server becomes unusable.

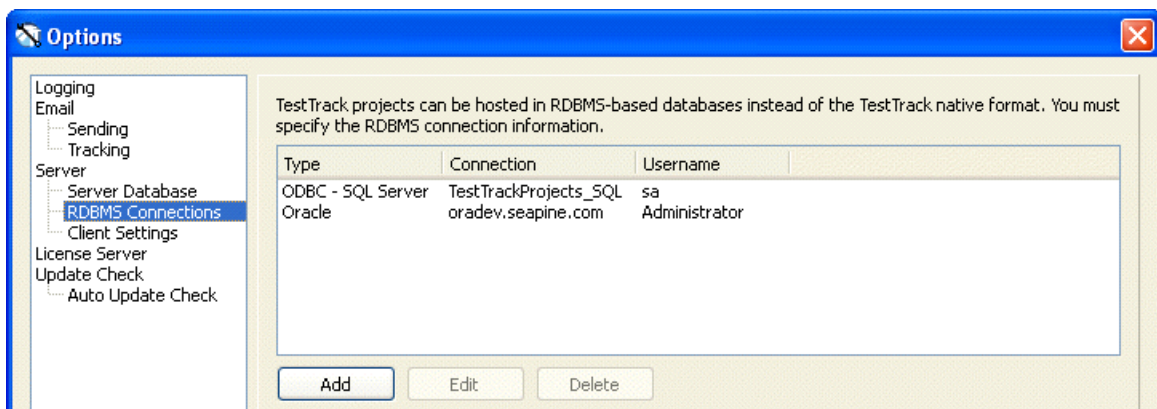
10. You return to the Options dialog box. Click **OK** to apply the changes.

You must stop and restart the TestTrack Server to complete the process.

Setting RDBMS connection options

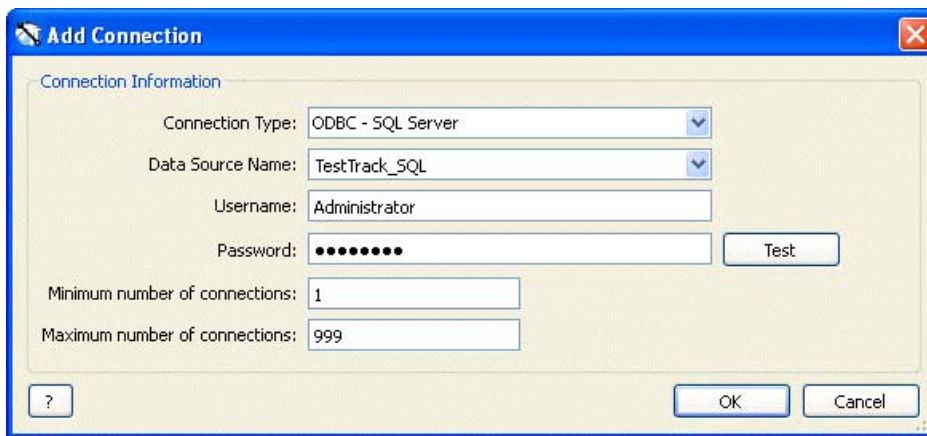
You can store the TestTrack Server database and projects in a different RDBMS if you do not want to use the TestTrack native database (SQLite). You must create connections to the RDBMS databases you want to use.

1. Choose **View > Server Options**.
2. Select **RDBMS Connections** from the Server category.



3. Click **Add** to add a new RDBMS connection.

The Add Connection dialog box opens.



4. Select a **Connection Type**. The available fields depend on the selected type.

5. Enter the RDBMS connection information.
 - **Oracle**—Enter the **Service Name** of the host to connect to, **Port** number, and **Username** and **Password**.
 - **PostgreSQL**—Enter the **Database Name**, **Host Name**, **Port** number, and **Username** and **Password**.
 - **ODBC - SQL Server**—Select or enter a **Data Source Name** (DSN). Only ODBC system DSNs are supported. Enter the **Username** and **Password**. If you are using Windows NT authentication, leave these fields empty. The username and password of the logged in user on the TestTrack Server computer is automatically used.
6. Enter the **Minimum number of connections** to specify the smallest number of connections to store in the database connection pool.

When the TestTrack Server starts, it automatically creates the specified number of database connections. Increasing this number can improve performance because the server will not need to create a database connection later. If you increase this number, you may need to purchase additional licenses from the database vendor.

7. Enter the **Maximum number of connections** to specify the largest number of connections to store in the database connection pool.

The default number of connections is 999. You should only change this number if you have a large number of projects and are using too many connections to the backend database.

Note: If you are using Oracle, you may need to decrease this number to match the number of Oracle connections you have licensed.

8. Click **Test** to validate the connection.

The Test Connection dialog box opens and displays the results. If the test connection fails, you can copy and paste the text into an email or text file and send it to your DBA for help.
9. Click **Close** to close the Test Connection dialog box.

You return to the Add Connection dialog box.
10. Click **OK** to add the connection.

Editing RDBMS connections

You can edit the information for an RDBMS connection. If the connection is in use by active projects, or inactive projects with logged in users, you can only change the number of connections.

1. Select the **RDBMS Connections** category.
2. Select a connection and click **Edit**.

The Edit Connection dialog box opens.
3. Make any changes and click **OK**.

The changes are saved.

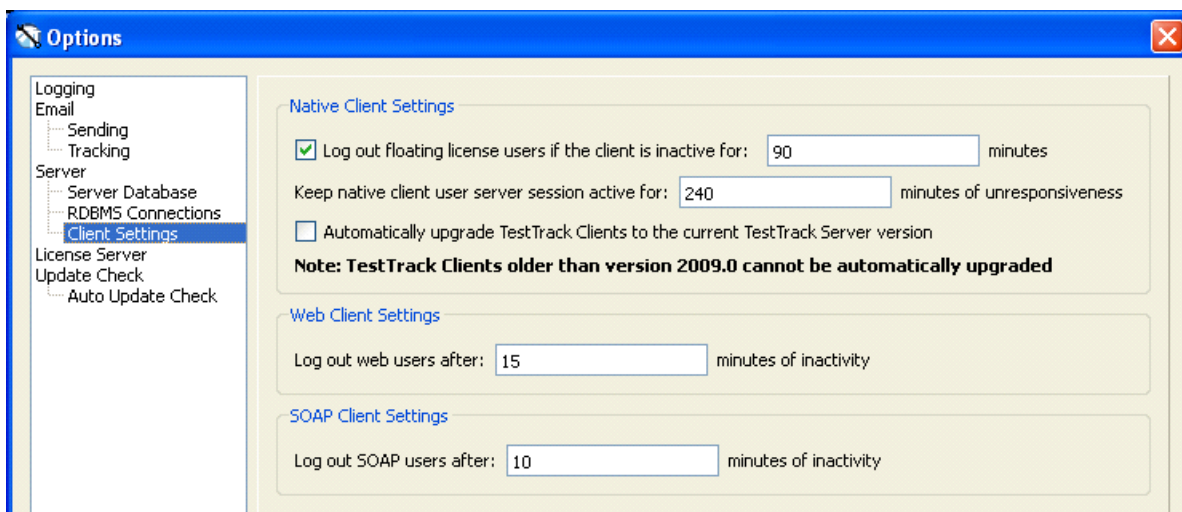
Deleting RDBMS connections

You cannot delete an RDBMS connection if it is in use by a project.

1. Select the **RDBMS Connections** category.
2. Select a connection then click **Delete**.
You are prompted to confirm the deletion.
3. Click **Yes**.
The connection is deleted.

Setting client settings

1. Choose **View > Server Options**.
2. Select **Client Settings** from the Server category.



3. Select **Log out floating license users if the client is inactive** to log out floating license users from the TestTrack Client if they do not interact with it for the specified number of minutes.

A warning dialog box is displayed in the TestTrack Client if users do not click the mouse or use the keyboard before the inactivity limit is reached. Users have 60 seconds to choose to stay logged in before all windows and dialog boxes are closed and any unsaved changes are lost. The valid range of inactivity minutes is 5-1440.

Note: Users are not logged out if the TestTrack Client is performing an action that displays a status or progress dialog box, such as duplicating records or importing an XML file. The inactivity timer continues when the action is complete.

4. Enter the number of minutes to **Keep native client user server session active**.
The TestTrack Client pings the TestTrack Server every 60 seconds. If the client cannot communicate with the server within the specified number of minutes, the user session is terminated. The client and server cannot communicate if the network connection is lost or if the client is closed. The default is 240 minutes.
5. Select **Automatically upgrade TestTrack Clients to the current TestTrack Server version** to enable automatic upgrading of all TestTrack clients connecting to the TestTrack Server.
Enabling automatic upgrades ensures that all users are running the correct TestTrack version.
6. Enter the number of minutes of inactivity before automatically logging out TestTrack Web users.

TestTrack Web users are logged out if they remain on a page for the specified number of minutes without submitting a request to the TestTrack Server. Keep in mind that closing the browser without logging out first may not close the session and release the license. Setting the inactivity limit ensures that licenses are eventually released. Consider increasing the timeout limit if users take a long time to enter descriptions or other information. The valid range is 5-1440.

7. Enter the number of minutes of inactivity before automatically logging out SOAP users.

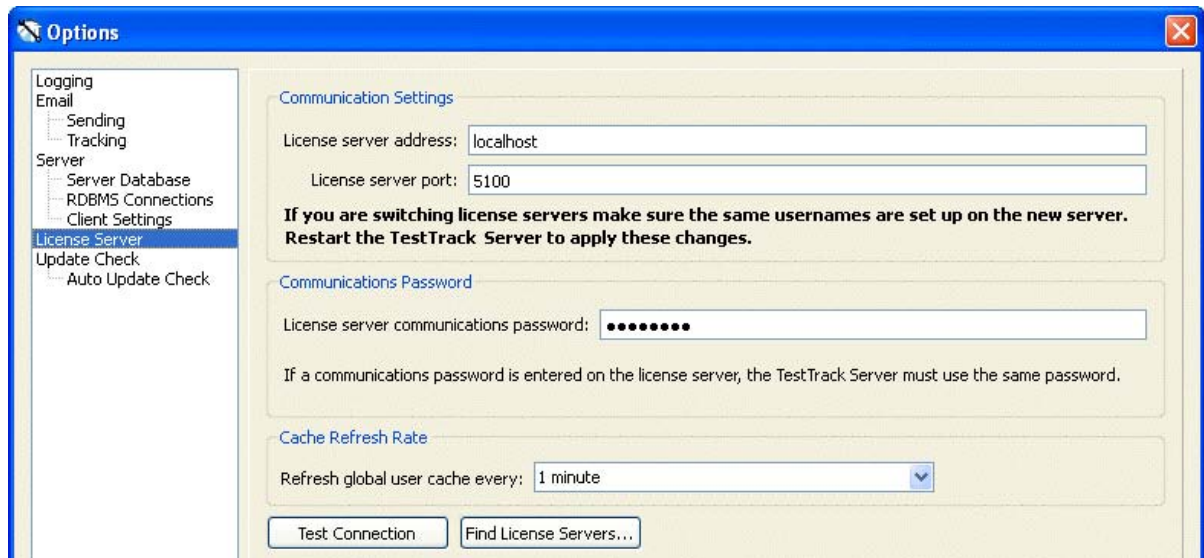
SOAP users are logged out of if they do not submit a request to the TestTrack Server within the specified number of minutes. If the SOAP application does not call the Logout() method, the session remains active and the license is not released. Setting the inactivity limit ensures that licenses are eventually released. The valid range is 5-1440.

Note: SOAP users are not prompted if the period of inactivity is reached and they are logged out.

8. Click **OK** to save the settings.

Setting license server options

1. Choose **View > Server Options**.
2. Select the **License Server** category.



3. Enter the **License server address** and **port** you want the TestTrack Server to connect to. Click **Find License Servers** to search for available servers. See [Finding license servers, page 25](#).

Note: If you change the license server address or port, you must restart the TestTrack Server to apply the changes.

4. Optionally enter a **License server communications password**.
The password provides additional security by preventing unauthorized users from using licenses. If you change the Seapine License Server communications password, you must use the same password in TestTrack. Users cannot log in to TestTrack if the passwords do not match.
5. Select a **Cache Refresh Rate**.

This specifies how often the TestTrack Server checks with the license server for new users or changes to existing users.

6. Click **Test Connection** to test the license server connection.

If the connection is not successful, check the address, port number, and password.

7. Click **OK** to save the settings.

Finding license servers

1. Select the **License Server** category in the Options dialog box.
2. Click **Find License Servers** to find all license servers on the network.

When the search is complete, the Find License Servers dialog box opens. To find servers with an IPv6 address, select **Include IPv6 in scan** and click **Refresh**.

3. Select the license server you want to use.
4. Click **Select**.

The license server is selected.

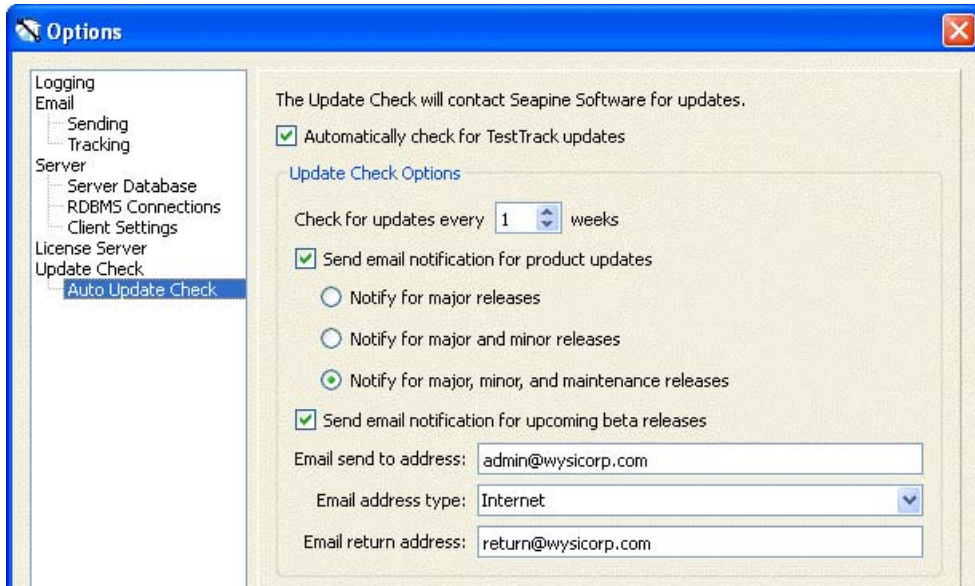
Setting software update check options

You can configure TestTrack to check for updates or to notify you about beta releases. Software is not automatically downloaded and installed.

The TestTrack Server encodes the following information and sends it to the Seapine update server, which returns update information.

- Unique user ID—A unique ID, generated by the TestTrack Server, that is used to identify each TestTrack Server. It does not include any information that identifies your company.
- TestTrack version—The TestTrack version installed on the TestTrack Server.
- Operating system and version—The operating system and version of the TestTrack Server computer.
- Client connections—The last time a TestTrack client connected to the server grouped by operating system and version, by type (TestTrack client, web, SOAP, and integrations), by browser and version, and by SCC connection.
- Licenses—The number of TestTrack Pro, TestTrack RM, and TestTrack TCM licenses on the Seapine License Server, and if the licenses are evaluation licenses.
- Product components—Specifies if the following components are used: TestTrack Pro, TestTrack RM, TestTrack TCM, SoloSubmit, multiple logins, stamping, email tracking, email sending, controlled hyperlinks, RSS feeds, audit trail, and electronic signatures.
- Configuration settings—Specifies if the following items are configured: security groups, triggers, reports, filters, custom fields, pop-up menu values, folders, and link definitions.

1. Choose **View > Server Options**.
2. Select **Auto Update Check** from the Update Check category.

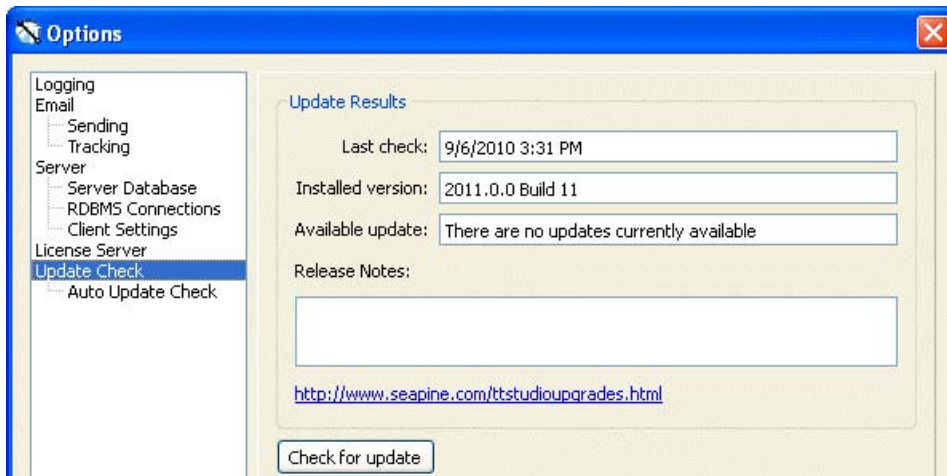


3. Select **Automatically check for TestTrack updates** to enable the update check.
After an update check is performed, information is displayed in the Update Check category. See [Viewing software update information, page 26](#).
4. Select any **Update Check Options**.
 - Enter how often TestTrack should check for updates.
 - Select **Send email notification for product updates** to receive emails about updates. The email includes the product version and release notes. Select the type of releases you want to be notified about.
 - Select **Send notification for upcoming beta releases** to be notified about beta programs.
 - Enter your email information if you enabled either notification option.
5. Click **OK** to save the settings.

Viewing software update information

You can manually check for TestTrack software updates or view update information after an automatic update check is performed.

1. Choose **View > Server Options**.
2. Select the **Update Check** category.



3. Click **Check for Update**.

If an update is available, the release notes are displayed. To download an update, click the link to go to Seapine's web site.

Managing Projects

The TestTrack Server Admin Utility is used to manage TestTrack native and RDBMS projects. In addition to project maintenance activities, you can also upgrade projects to the current version, convert TestTrack native projects to RDBMS projects, and change RDBMS projects to use different databases.

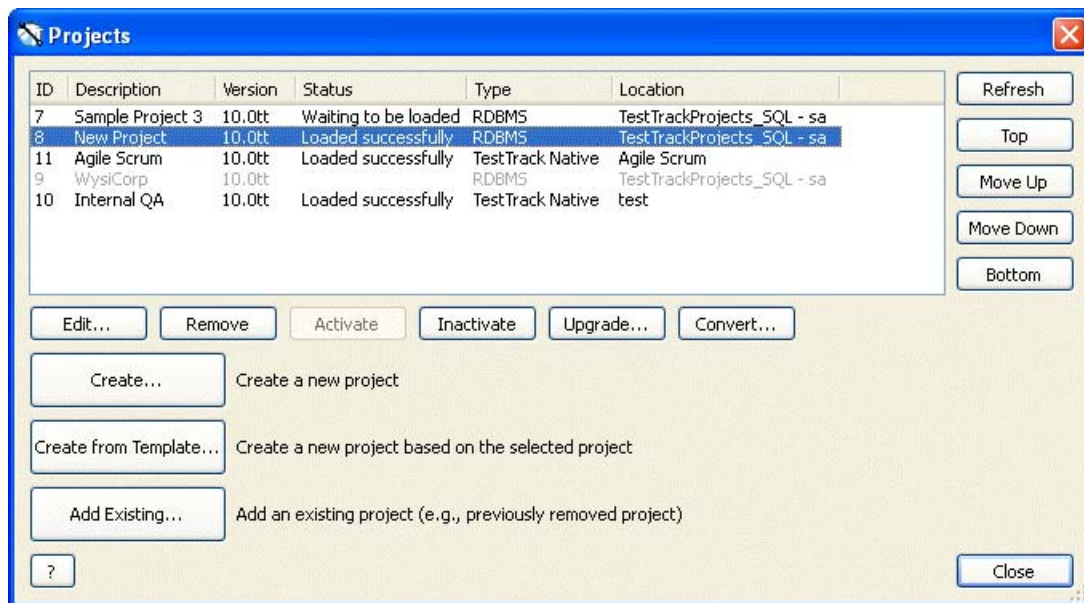
Note: You should back up TestTrack projects frequently. Hard drive crashes or user error can result in the loss of important data. It is important to perform routine backups. See [Backing up TestTrack databases](#), page 38.

About the projects list

The projects list displays project information and is the starting point for managing projects.

1. Choose **View > Projects**.

The Projects dialog box opens.



Tip: If you have a large number of projects, you may want to reorder them so the most frequently used ones are displayed at the top of the TestTrack login dialog boxes.

Adding existing TestTrack native projects

If you removed a TestTrack native project and did not delete any of the files, you can re-add it to the TestTrack Server.

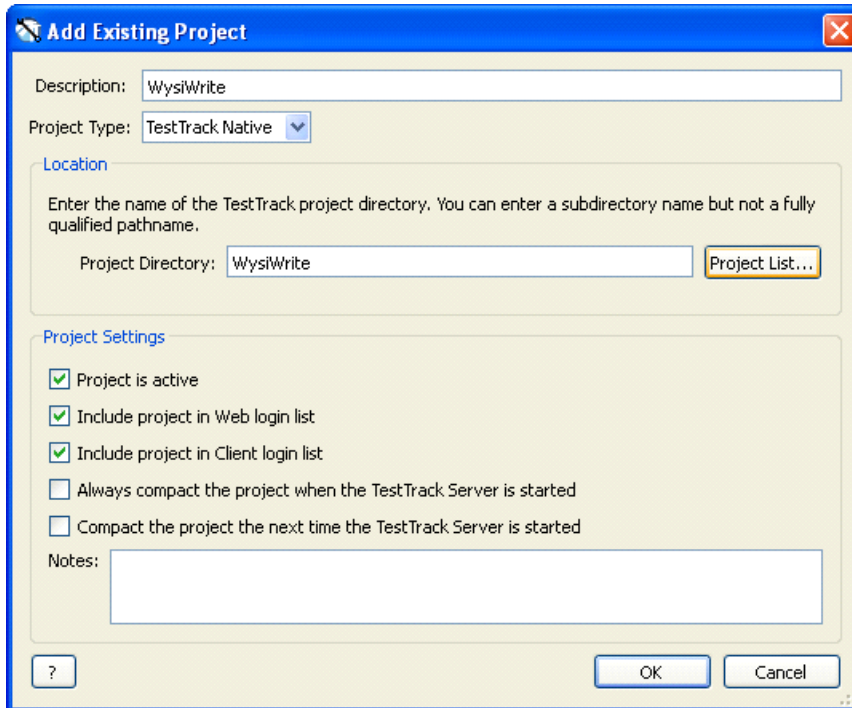
Note: If you use the 64-bit server, you must upgrade legacy TestTrack 2011.1 or earlier native projects before adding them.

1. Choose **View > Projects**.

The Projects dialog box opens.

2. Click **Add Existing**.

The Add Existing Project dialog box opens.



3. Select **TestTrack Native** from the Project Type list.
4. Enter the name of the **Project Directory** to re-add or click **Project List** to select a removed project.

Projects are stored in the TTServDb/TTDBs directory in the TestTrack application directory by default. You may be able to enter a full directory path depending on the server settings.

Note: The path cannot exceed 247 characters, including the drive specifier (e.g., C:\) and names of subdirectories that TestTrack creates in the specified directory.

5. Enter or change the **Description**.
6. Select the **Project Settings**.
 - **Project is active** creates an active project. Users cannot access inactive projects.
 - **Include project in Web login list** makes the project available in the TestTrack Web login list.
 - **Include project in Client login list** makes the project available in the TestTrack Client login list.
 - **Always compact the project when the TestTrack Server is started** compacts the project when the server starts. Compacting removes space and rebuilds the index files but may increase initialization time.
 - **Compact the project the next time the TestTrack Server is started** compacts the project the next time the server starts.
7. Enter any project **Notes**.
8. Click **OK**.

The project is re-added to the server and displayed in the projects list.

Adding existing RDBMS projects

If you removed an RDBMS project but did not delete the records from the RDBMS database, you can re-add it to the TestTrack Server.

When you add an existing project, you must specify a directory to store attachments, SoloBug files, and report stylesheets in, which are stored on the TestTrack Server and not in the database.

Note: If the project directory has not been created, you must manually create it before adding the project.

1. Choose **View > Projects**.

The Projects dialog box opens.

2. Click **Add Existing**.

The Add Existing Project dialog box opens.

The screenshot shows the 'Add Existing Project' dialog box. The 'Description' field is 'WysiWrite'. The 'Project Type' is 'RDBMS'. Under 'Location', the 'Connection' is 'TestTrack_SQL2 - sa'. The 'Connection Information' shows 'Data Source/Service Name: TestTrack_SQL2' and 'Username: sa'. The 'Project Name' is 'WysiWrite'. The 'Project Directory' is 'WysiWrite'. The 'Project Settings' section has three checked options: 'Project is active', 'Include project in Web login list', and 'Include project in Client login list'. The 'Notes' field is empty.

3. Select **RDBMS** from the Project Type list.
4. Select a **Connection**.
5. Select the project you want to add from the **Project Name** list.

Optionally select **Show projects that are currently in use by other servers** to add a project from a server that is experiencing problems. You should only select a project that another server is using if the server computer is experiencing problems and you want to move the project to another server.

6. Enter the name of the **Project Directory** you want to add the project files to or click **Project List** to use an existing project directory.

Project directories are stored in the TTServDb/TTDBs directory in the TestTrack application directory by default. The project directory contains subdirectories for attachments, SoloBug files, and report stylesheets. You may be able to enter a full path depending on the server settings.

Note: The path cannot exceed 247 characters, including the drive specifier (e.g., C:\) and names of subdirectories that TestTrack creates in the specified directory.

7. Select the **Project Settings**.
 - **Project is active** creates an active project. Users cannot access inactive projects.
 - **Include project in Web login list** makes the project available in the TestTrack Web login list.
 - **Include project in Client login list** makes the project available in the TestTrack Client login list.

8. Enter any project **Notes**.

9. Click **OK**.

The project is re-added to the server and displayed in the projects list.

Editing project settings

You can edit a project's description, directory location, settings, and notes. Keep the following in mind:

- If you want to change the project directory location, you must inactivate the project first. See [Moving project directories](#), page 32 or [Moving RDBMS projects](#), page 33.
- If you want to change the project type, you must convert the project. See [Converting TestTrack 6.0 and later projects](#), page 42.

1. Choose **View > Projects**.

The Projects dialog box opens.

2. Select the project you want to edit and click **Edit**.

The Edit Project dialog box opens.

3. Make any changes and click **OK**.

Note: If you change the project directory location, you are prompted to copy the directory to the new location before saving the changes. Move the directory and then click **Save Changes**.

Moving project directories

By default, project files are located in the TTServDb\TTDBs directory in the TestTrack application directory. The project directory includes attachments, SoloBug files, and report stylesheets. For TestTrack native projects, the directory also includes the project database file.

You can move project files to any directory on the server computer's local hard drive or a mapped network drive.

Note: The following steps explain how to move TestTrack native projects and project data stored on the TestTrack Server for both native and RDBMS projects. See [Moving RDBMS projects, page 33](#) for information about moving RDBMS projects to a different database or different TestTrack Server.

1. Inactivate the project you want to move. See [Inactivating and activating projects, page 34](#).
2. Make a backup copy of the project directory you want to move, including all subdirectories.

By default, project directories are in the following locations:

- Windows—C:\Program Files\Seapine\TestTrack\TTServDB\TTDBs
- Mac OS X—/Applications/TestTrack/TTServDB/TTDBs
- Linux—/var/lib/TestTrack/TTServDB/TTDBs

3. Copy the project directory and all subdirectories to the new location.
4. Select the inactive project you want to move in the projects list and click **Edit**.

The Edit Project dialog box opens.

5. Enter the new **Project Directory** name or the full path to the project directory.

The path cannot exceed 247 characters, including the drive specifier (e.g., C:\) and names of subdirectories that TestTrack creates in the specified directory. The default directory path for projects and the ability to enter fully qualified pathnames is controlled using the TestTrack Registry Utility.

See the [TestTrack Registry Utility Guide](#)

(<http://downloads.seapine.com/pub/docs/ttregistryutilityguide.pdf>) for information.

Note: If a 'Directory name cannot contain any of the following characters' error is returned when you save the project changes, you do not have permission to enter the full path.

6. Select **Project is active** to reactivate the project.
7. Make any other changes to the project information.
8. Click **OK**.

You are prompted to move the project directory to the new location. Copy the project directory to the new location if you have not already.

9. Click **Save Changes**.

The project is moved.

Note: See the [Moving TestTrack Databases and Projects](#) knowledgebase article (www.seapine.com/kb/questions/1232) for troubleshooting information.

10. Optionally delete the project directory in the old location.

Moving RDBMS projects

You can move RDBMS projects to different RDBMS databases or TestTrack Servers.

Note: For troubleshooting information, see the [Moving TestTrack Databases and Projects](http://www.seapine.com/kb/questions/1232) knowledgebase article (www.seapine.com/kb/questions/1232).

Moving projects to a different database

Projects can be hosted in multiple RDBMS databases. This may help alleviate performance or disk space restriction issues. To move a project to a different database, you need to convert it. During the conversion, project data is copied to the destination RDBMS database and is not deleted from the original database.

1. Inactivate the project you want to move. See [Inactivating and activating projects, page 34](#).
2. Convert the project to copy it to the other database. See [Converting TestTrack 6.0 and later projects, page 42](#).
3. Activate the project. See [Inactivating and activating projects, page 34](#).
4. Optionally delete the project tables from the original RDBMS database. You must manually delete the project from the RDBMS unless you have permission to permanently delete RDBMS projects. Ask your DBA for help deleting tables.
5. Repeat steps 1 - 4 for each project you want to copy to the new RDBMS database.

Moving projects to a different TestTrack Server

If you want to host an RDBMS project on a different TestTrack Server, you need to move the project files from the old server to the new server.

1. Inactivate the project you want to move. See [Inactivating and activating projects, page 34](#).
2. Remove the project from the current server. See [Removing projects, page 35](#).
3. Move the project files to the new server. See [Moving project directories, page 32](#).
4. Log in to the new server.
5. Add the project to the new server. See [Adding existing RDBMS projects, page 31](#).

Inactivating and activating projects

Users can only access and work with active projects. You can inactivate projects that you do not want users to access but do not want to remove.

1. Choose **View > Projects**.
The Projects dialog box opens.
2. To inactivate a project, select the project and click **Inactivate**. The project is inactivated and displayed in gray.
To activate a project, select the inactive project and click **Activate**. The project is activated and can be accessed by TestTrack users.

Removing projects

Removing projects allows you to save project data and re-add the projects in the future. When you remove a project, users can no longer access it but the project files are not deleted.

1. Choose **View > Projects**.

The Projects dialog box opens.

2. Select the project you want to remove and click **Remove**.

You are prompted to confirm the project removal.

3. Click **Yes**.

The project is removed. A dialog box opens with information about the removed project.

4. Click **OK** to close the dialog box.

Deleting TestTrack native projects

To delete a TestTrack native project, you must manually delete the project directory and files from the server computer. You cannot delete these projects using the TestTrack Server Admin Utility.

Note: You must remove the project before it can be deleted. See [Removing projects, page 35](#).

1. Log in to the computer that hosts the TestTrack Server.
2. Delete the subdirectory that contains the project you want to delete.

By default, each TestTrack project is stored in a subdirectory of the TTServDb/TTDBs directory in the TestTrack application directory.

Deleting RDBMS projects

To save project data, you may want to remove projects instead of deleting them. See [Removing projects, page 35](#).

Note: You can only delete projects if the **Allow administrator to permanently destroy inactive projects** option is selected in the TestTrack Registry Utility. See the [TestTrack Registry Utility Guide](http://downloads.seapine.com/pub/docs/ttregistryutilityguide.pdf) (<http://downloads.seapine.com/pub/docs/ttregistryutilityguide.pdf>) for information.

1. Choose **View > Projects**.

The Projects dialog box opens.

2. Select the inactive RDBMS project and click **Delete**.

You are prompted to confirm the deletion.

3. Click **Permanently Delete** to delete the project.

The local directory and all files in it are deleted. Project table entries are also deleted from the database.

Managing Databases

Each TestTrack Server has a server database, which stores configuration information for the server. Every TestTrack project is stored in its own database, which contains all project information, including issues, requirements, requirement documents, test cases, test runs, local customers and users, filters, test configurations, security groups, and reports.

Whether you store the server database and projects in a TestTrack native database or RDBMS databases, it is important to regularly back up the server database and projects, and to use caution when modifying data directly in the database.

Modifying TestTrack databases

You may store TestTrack data in an RDBMS database instead of the TestTrack native database format. You can modify the internal TestTrack database format and data from the RDBMS, but we do not recommend it. Your TestTrack maintenance contract does not include support for recovering from these types of database changes.

Configuration changes

For both TestTrack native databases and RDBMS databases, you can configure field names, custom fields, workflow processes, notification rules, and more. We recommend making these changes using the TestTrack Client rather than at the database level. Making changes directly in the database requires a full understanding of the TestTrack database format and the rules enforced at the software level.

Database table changes

Do not reconfigure the TestTrack database format. When you rename a field in the client application, the database column names do not reflect this change. Do not change database tables/column names, modify column size/attributes, or make any other structural database changes because it will result in errors running TestTrack.

Live updates

TestTrack caches data to improve the performance of complex reports and filters. Do not perform live updates of TestTrack at the database level unless the TestTrack Server has been shut down. Adding, editing, or deleting data while the server is running results in errors and potential data loss. Your changes may be overwritten next time the record is modified because database changes are not immediately read into the TestTrack memory cache.

The TestTrack native database format prevents users from opening the database in read/write mode while the TestTrack Server is running. However, TestTrack does not implement similar locks when running against an RDBMS database. To perform live TestTrack data updates, use SOAP, bulk field changes, or other methods available in TestTrack clients.

Note: You can read and view TestTrack information from the database via ODBC or database vendor-specific methods.

Backing up TestTrack databases

The TestTrack Server database and projects should be backed up regularly.

TestTrack native databases

By default, native TestTrack Server databases are stored in the following locations on the TestTrack Server computer:

- Windows—C:\Program Files\Seapine\TestTrack\TTServDb
- Mac OS X—/Applications/TestTrack/TTServDb
- Linux—/var/lib/TestTrack/TTServDb

Projects are each stored in a subdirectory in the TTServDb directory. Keep in mind that projects may be stored in other locations depending on your configuration.

1. Stop the TestTrack Server.
2. Copy the directories you want to back up:
 - To copy the server database and all projects, copy the TTServDb directory and all subdirectories.
 - To copy all projects, copy the TTDbs directory and all subdirectories.
 - To copy an individual project, copy the appropriate directory in the TTDbs directory and all subdirectories.
3. Restart the TestTrack Server.

RDBMS databases

If the TestTrack Server database or projects are stored in RDBMS databases, ask your DBA for help with backups.

When you back up the server database and projects from the RDBMS, you should also back up the project directories on the TestTrack Server that contain attachments, SoloBug files, and report stylesheets. By default, these files are located in subdirectories in the TTServDb subdirectory in the TestTrack application directory. Copy the project subdirectories to back them up.

Upgrading and Converting Projects

Upgrading projects

You need to upgrade projects to the current format as part of the TestTrack upgrade process. See [Upgrading TestTrack 6.0 and later projects, page 39](#) or [Upgrading TestTrack 5.0 and earlier projects, page 39](#).

Converting projects

If you use TestTrack 7.0 or later, you can store data in an RDBMS, such as Oracle or Microsoft SQL Server. You must convert projects to the selected format. See [Converting TestTrack 6.0 and later projects, page 42](#) or [Converting TestTrack 5.0 and earlier projects, page 44](#).

Upgrading TestTrack 6.0 and later projects

You can upgrade projects to the current TestTrack version.

1. Choose **View > Projects**.

The Projects dialog box opens.

Tip: To upgrade a project that is not in the projects list, you must first add it. See [Adding existing TestTrack native projects, page 29](#) or [Adding existing RDBMS projects, page 31](#).

2. Select the project you want to upgrade.

You can select multiple projects. It may take several minutes to upgrade each project.

Note: If you upgrade an RDBMS project, all projects in the database are also upgraded.

3. Click **Upgrade**.

The Confirm Project Upgrade dialog box opens.

4. Click **Yes** to start the upgrade.

You return to the Projects dialog box and the upgrade starts. The Status column displays upgrade progress information.

Upgrading TestTrack 5.0 and earlier projects

When you upgrade projects, the Seapine License Server is populated with user data. You are prompted to select user conflict resolution options before the upgrade starts.

1. Choose **View > Projects**.

The Projects dialog box opens.

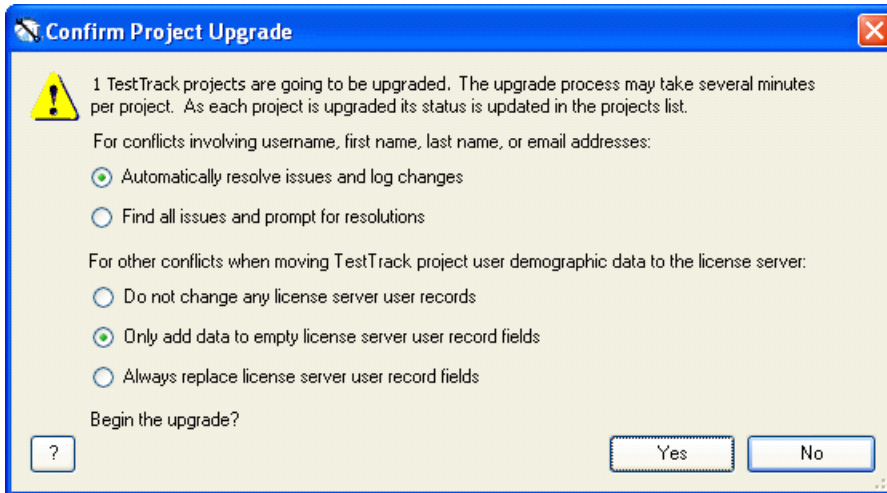
Tip: To upgrade a project that is not in the projects list, you must first add it. See [Adding existing TestTrack native projects, page 29](#).

2. Select the project you want to upgrade.

You can select multiple projects. It may take several minutes to upgrade each project.

3. Click **Upgrade**.

The Confirm Project Upgrade dialog box opens.



4. Select a user record conflict resolution option.

- **Automatically resolve issues and log changes** automatically resolves user conflicts. See [Resolving user conflicts, page 40](#).
- **Find all issues and prompt for resolutions** prompts you to manually resolve user conflicts. See [Resolving user conflicts, page 40](#).

5. Select a user demographic data conflict resolution option.

- **Do not change any license server user records** does not change the license server data.
- **Only add data to empty license server user record fields** adds user data to empty license server record fields. Usernames and passwords are not replaced.
- **Always replace license server user record fields** replaces the user data on the license server. Usernames and passwords are not replaced.

6. Click **Yes** to start the upgrade.

You return to the Projects dialog box. The projects list is automatically refreshed every 15 seconds until the upgrade is complete.

Note: You may be prompted to resolve conflicts depending on the upgrade options you selected.

Resolving user conflicts

When you upgrade TestTrack 5.0 and earlier databases, you can manually or automatically resolve user conflicts.

Manually resolving conflicts

If you choose to manually resolve conflicts, you are prompted if conflicts are found. You must resolve them before the upgrade can continue.

1. The User Conflicts dialog box opens if conflicts are found.
2. Select a record and click **Resolve**.

The Conflict Resolution dialog box opens. An arrow is displayed next to each conflict.

The following information conflicts:

	Project: SampleDB_TTPro_5	License Server
Username	mickeymouse	mmouse
First Name	▶ Mickey	▶ Mickey
Last Name	▶ Mouse	▶ Mouse
Email		

Select an action to resolve the conflict

Add as a new global user to the license server:

Username:

First Name:

Last Name:

Merge user information:

Note: The license server username and password always overrides the TestTrack username and password.

Accept user information as is

3. Select a conflict resolution action.
 - To create a new user, select **Add as a new global user to the license server** and then enter a unique username, first name, and/or last name.
 - To merge the license server and TestTrack data, select **Merge user information** and then select an option from the list. You can keep the license server data, replace empty license server data with TestTrack data, or replace all license server data with TestTrack data.
 - If the last name and email address are the same, select **Accept user information as is** to add the TestTrack user to the license server. This option is only available if the last name/email address are the same.

Note: You can edit most of the user data on the Seapine License Server. See the [Seapine License Server Admin Guide](http://downloads.seapine.com/pub/docs/licenseserveradmin.pdf) (<http://downloads.seapine.com/pub/docs/licenseserveradmin.pdf>) for additional information.

4. Click **OK**.

The upgrade continues after you finish resolving all conflicts.

Automatically resolving conflicts

The following information can help you understand how data is merged when you choose to automatically resolve conflicts. In most cases, the Seapine License Server user data is retained.

- A local user has the same username as a license server user with a different first and/or last name. The license server data is retained. If the license server user is missing data, such as an email address or phone number, and this information is available in the project, the missing information is added to the license server user data.
- A local user has the same first and/or last name as a license server user with a different username. The license server data is retained. If the license server user is missing data, such as an email address or phone number, and this information is available in the project, the missing information is added to the license server user data. The project username is also added to that user's history on the license server.
- A local user has the same first name, last name, and username as a license server user. The license server data is retained. If the license server user is missing data, such as an email address or phone number, and this information is available in the project, the missing information is added to the license server user data.

Note: A text file named 'userconflictconvnotes' is created in the TestTrack application directory. As each project is upgraded, conflict resolution details are added to this file.

Converting TestTrack 6.0 and later projects

You can convert TestTrack 6.0 and later projects from TestTrack native to RDBMS and vice versa. If you are converting a pre-7.0 project, you can also upgrade it as part of the conversion.

- TestTrack native projects can only be converted to RDBMS. RDBMS projects can be converted to TestTrack native or to a different RDBMS connection.
- TestTrack 7.0 and later projects must be inactivated before they can be converted. See [Inactivating and activating projects, page 34](#).
- Legacy TestTrack2011.1 or earlier native projects must be upgraded or converted to RDBMS before upgrading to the 64-bit server.

1. Choose **View > Projects**.

The Projects dialog box opens.

Note: To convert a project that is not in the projects list, you must first add it. See [Adding existing TestTrack native projects, page 29](#) or [Adding existing RDBMS projects, page 31](#).

2. Select the project you want to convert.

You can select multiple projects. It may take several minutes to convert each project.

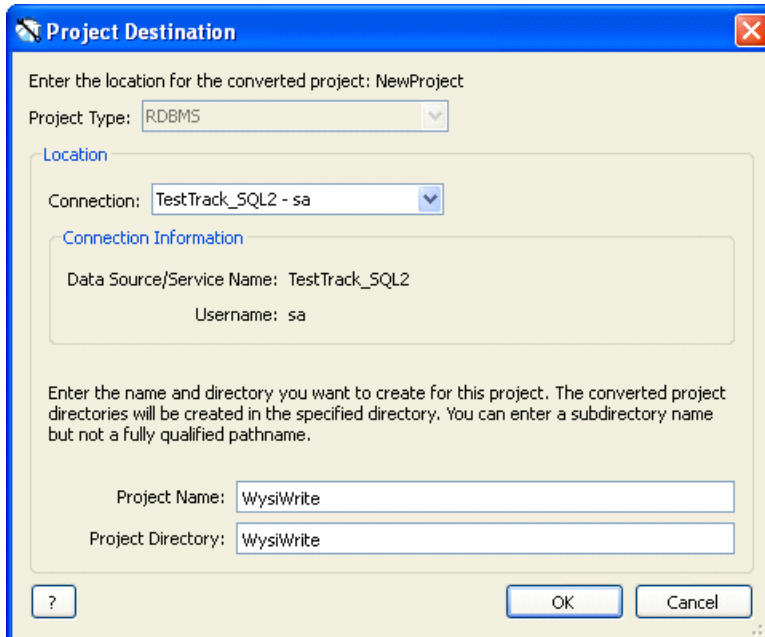
3. Click **Convert**.

The Project Destination dialog box opens.

4. If you are converting the project to RDBMS format, select a **Connection** and enter a **Project Name** and **Project Directory**.

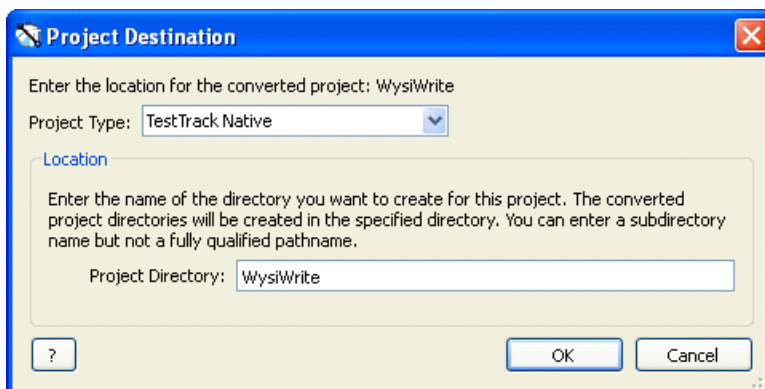
You can only select one RDBMS destination. If you convert multiple projects, they are all added to the selected RDBMS. TestTrack also automatically generates project names based on current names. By default, projects are created in the TTServDb/TTDBs directory in the TestTrack application directory. You may be able to enter a full path depending on the server settings.

Note: The path cannot exceed 247 characters, including the drive specifier (e.g., C:\) and names of subdirectories that TestTrack creates in the specified directory.



5. If you are converting the project to TestTrack native format, enter a **Project Directory** name.

By default, projects are created in the TTServDb/TTDBs directory in the TestTrack application directory. You may be able to enter a full path depending on the server settings.



6. Click **OK**.

The Confirm Project Conversion dialog box opens. The available options depend on the project type.

7. Select **Store file attachments** and enter a file size if you are converting a TestTrack native project to RDBMS format and want to store file attachments in the database.

The minimum value is 1 MB and the maximum value is 25 MB. Any attachment larger than the size you enter is stored as a file on the TestTrack Server.

8. Click **Yes** to start the conversion.

Note: If you converted a TestTrack 7.0 project, make sure you activate it after the conversion.

Converting TestTrack 5.0 and earlier projects

You can convert pre-6.0 TestTrack projects directly to RDBMS format. This allows you to upgrade the projects to the current format and convert them to a different database type in one step.

Note: Legacy TestTrack2011.1 or earlier native projects must be upgraded or converted to RDBMS format before upgrading to the 64-bit server.

1. Choose **View > Projects**.

The Projects dialog box opens.

Note: To convert a project that is not in the projects list, you must first add it. See [Adding existing TestTrack native projects, page 29](#).

2. Select the project you want to convert.

You can select multiple projects. It may take several minutes to convert each project. All selected projects are added to the selected RDBMS.

3. Click **Convert**.

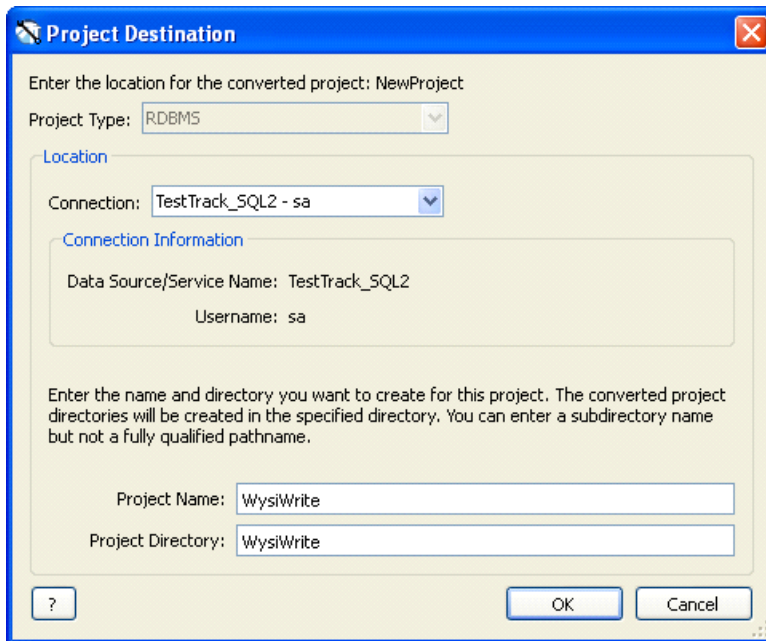
The Project Destination dialog box opens.

4. Select an RDBMS **Connection**.

5. Enter a **Project Name** and **Project Directory**.

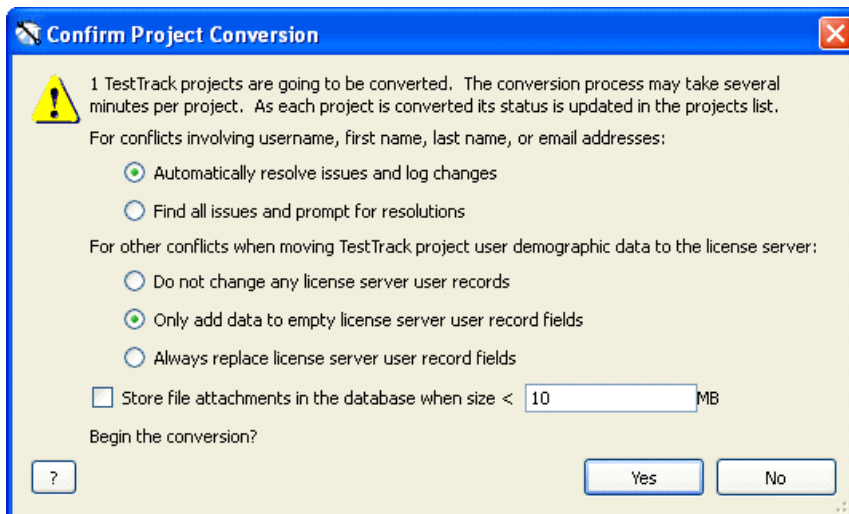
You can only select one RDBMS destination. If you convert multiple projects, they are all added to the selected RDBMS. TestTrack also automatically generates project names based on current names. By default, projects are created in the TTServDb/TTDBs directory in the TestTrack application directory. You may be able to enter a full path depending on the server settings.

Note: The path cannot exceed 247 characters, including the drive specifier (e.g., C:\) and names of subdirectories that TestTrack creates in the specified directory.



6. Click **OK**.

The Confirm Project Conversion dialog box opens.



7. Select a user record conflict resolution option.
 - **Automatically resolve issues and log changes** automatically resolves user conflicts. See [Resolving user conflicts, page 40](#).
 - **Find all issues and prompt for resolutions** prompts you to manually resolve user conflicts. See [Resolving user conflicts, page 40](#).
8. Select a user demographic data conflict resolution option.

- **Do not change any license server user records** does not change license server data.
 - **Only add data to empty license server user record fields** adds user data to empty license server record fields.
 - **Always replace license server user record fields** replaces the user data on the license server.
9. Select **Store file attachments in the database** and enter a file size if you are converting the project to RDBMS format and want to store file attachments in the database.

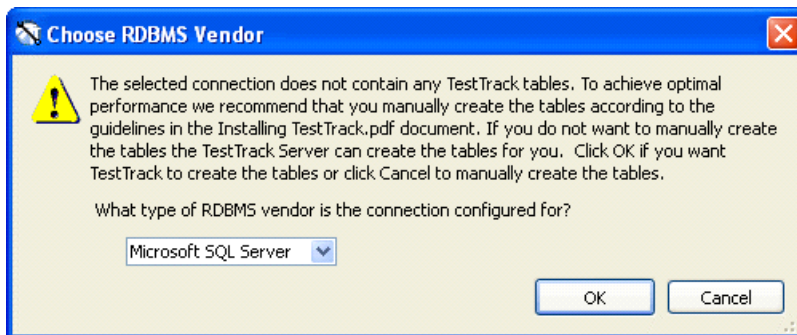
The minimum value is 1 MB and the maximum value is 25 MB. Any attachment larger than the size you enter is stored as a file on the TestTrack Server.
 10. Click **Yes** to start the conversion.

Note: You may be prompted to resolve conflicts depending on the upgrade options you selected. See [Resolving user conflicts](#), page 40.

Automatically creating TestTrack database tables

When you upgrade or convert projects or the server database, the physical database and empty TestTrack Server tables must be created before the data can be converted. If the tables do not exist, you are prompted to allow TestTrack to create the tables.

1. Select the **RDBMS vendor** and click **OK**.



2. The server loads the corresponding table creation script and sends it to the database server.

Note: The table creation scripts are stored in a configuration text file used by the TestTrack Server. The script for each server type is stored in the configuration file, allowing DBAs to use the script for help manually creating tables or editing database attributes.

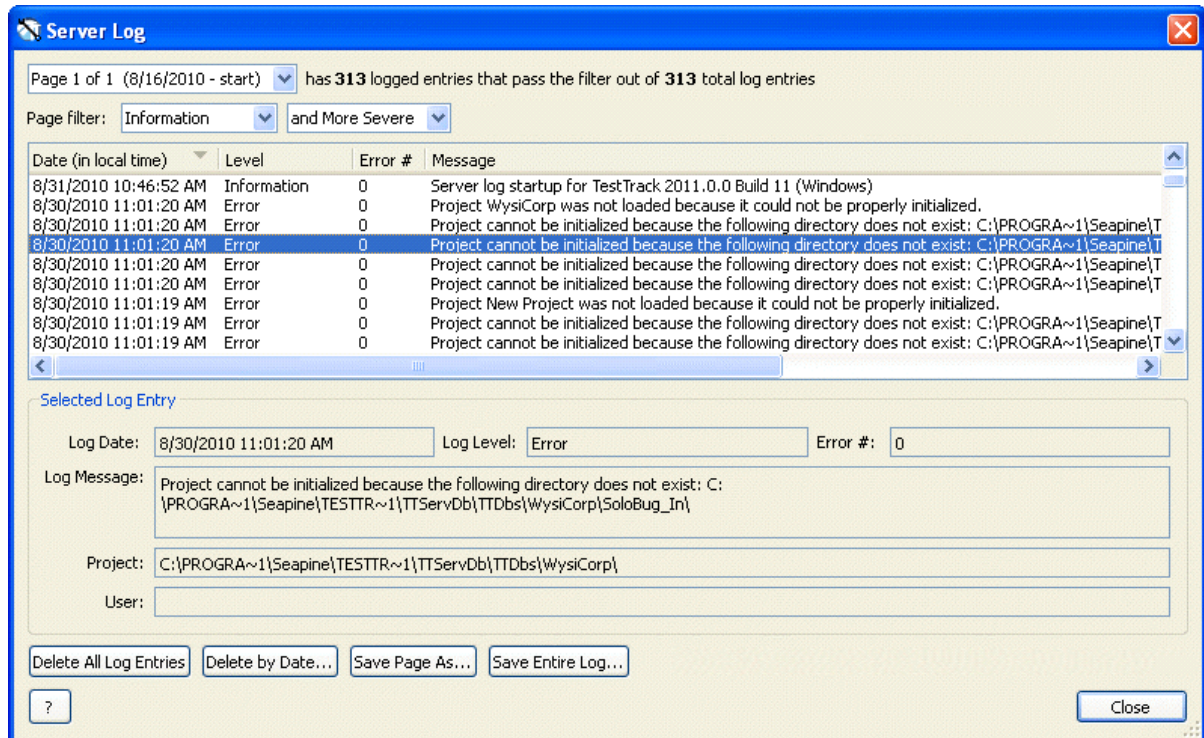
Working with the Server Log

The server log records TestTrack Server events, such as severe errors or unusual activity, and helps you monitor the server's operation.

The amount of information in the log depends on the server options you set. The server can also send email notifications based on events. See [Setting log options, page 13](#).

1. Choose **View > Server Log**.

The Server Log dialog box opens.



2. Select a **Page filter** to filter the entries by log level. See [Server log levels, page 48](#).

Select one of the following options to further narrow the log entries displayed:

- **and Less Severe** includes the filtered log entries plus less severe entries.
- **and More Severe** includes the filtered log entries plus more severe entries.
- **Only** limits to the filtered log entries.

Note: The read-only logged entries field displays how many entries match the selected restrictions.

3. Select the entry you want to view.

The details are displayed in the Selected Log Entry area.

4. Click **Save Page As** to save the current page of log entries or click **Save Entire Log** to save all log entries. The log is saved as a text file that can be used for analysis or report generation with other tools.

The Export File dialog box opens. Select a Save in location, enter a File name, and click **Save**.

5. Click **Delete All Log Entries** to delete all the log entries or click **Delete by Date** to delete log entries created before the specified time and date.
6. Click **Close** when you finish working with the server log.

Server log levels

The level of logging selected defines how detailed the log is. A lower level, such as Unusual Activity, provides greater detail because more types of events are logged. See [Setting log options, page 13](#).

Level	Description
Severe Error	An event is written to the log when a severe problem or critical condition occurs, such as a server failure.
Error	An event is written to the log when an error condition occurs, such as when a connection attempt to a client fails.
Warning	An event is written to the log when a warning condition occurs, such as RDBMS connection problems.
Unusual Activity	An event is written to the log when unusual activity occurs, such as a user trying to log in with an incorrect username.
Information	An event is written to the log for every significant action, such as a TestTrack Web user timing out.

Note: Events for the selected level and all higher levels are logged. If you select Unusual Activity in the server options, the server logs all severe error, error, warning, and unusual activity events.

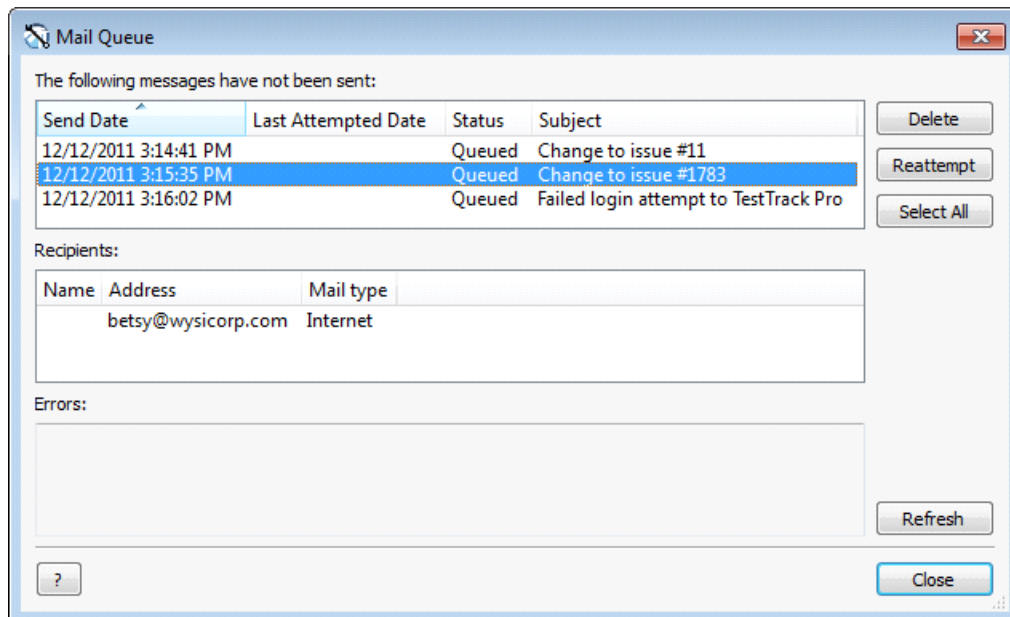
Managing Mail

Users can send email from TestTrack. TestTrack also generates email notifications. When TestTrack sends email, it is placed in the mail queue for processing by the server.

The mail queue only contains unsent emails. Email is generally sent and removed from the mail queue in less than 60 seconds. An email can get stuck in the mail queue if sending is paused, the SMTP options are not properly configured, or the SMTP host is experiencing problems.

1. Choose **View > Mail Queue**.

The Mail Queue dialog box opens. Unsent emails are displayed.



2. Select an email to view the details.

The name, email address, and mail type are displayed in the recipients area. The send error is displayed in the Errors area.

3. Click **Reattempt** to resend the selected email. See [Resending mail, page 49](#).
4. Click **Delete** to delete the selected email. See [Deleting mail, page 50](#).
5. Click **Close** when you finish viewing the mail queue.

Resending mail

1. Choose **View > Mail Queue**.

The Mail Queue dialog box opens.

2. Select the email you want to resend and click **Reattempt**.

You are prompted to confirm the resend.

3. Click **Yes**.

The TestTrack Server resends the email.

Note: Check the server log for errors if the email cannot be sent. See [Working with the Server Log](#), page 47.

Deleting mail

1. Choose **View > Mail Queue**.

The Mail Queue dialog box opens.

2. Select the emails you want to delete. To delete all mail in the queue, click **Select All**.

3. Click **Delete**.

You are prompted to confirm the deletion.

4. Click **Yes**.

The email is deleted.

Setting Up RDBMS Databases

TestTrack projects and the server database are stored in a Relational Database Management System (RDBMS). The TestTrack database is stored in SQLite, which is the default, native database type. ODBC (Microsoft SQL Server), Oracle, and PostgreSQL, are also supported. Information about supported platforms and databases is available in the [TestTrack RDBMS Support](http://www.seapine.com/kb/questions/1527) knowledgebase article (www.seapine.com/kb/questions/1527).

TestTrack native databases do not require any setup or configuration before or after installation. PostgreSQL is also supported out of the box. If you use Oracle or SQL Server, review the following information for help setting up databases.

Note: By default, the Seapine License Server database is also stored in SQLite, but other RDBMS types are also supported. See the [Seapine License Server Admin Guide](http://downloads.seapine.com/pub/docs/licenseserveradmin.pdf) (<http://downloads.seapine.com/pub/docs/licenseserveradmin.pdf>) for information about setting up license server databases.

Setting up PostgreSQL databases

Seapine does not provide support for installing, configuring, or maintaining PostgreSQL. A qualified PostgreSQL database administrator should install and configure the database.

Keep the following in mind:

- Do not add, delete, or modify any fields in the TestTrack tables.
- Do not directly add, edit, or delete any data in the tables.
- Do not create different primary keys. This will adversely affect application performance.
- Do not create complex triggers on any of the tables. Triggers may cause severe database issues and correcting these issues is not covered by Seapine Software.
- Create a process to back up database tables on a regular schedule.
- Running PostgreSQL and the TestTrack Server on the same computer can result in slow performance if not configured properly. Make sure PostgreSQL is properly configured to avoid using all the system memory.

Creating server database tables

The TestTrack Server automatically creates tables in PostgreSQL when you start the server or convert the server database. The TTServerDB.sql script file, which is located in the PostgreSQL directory in the TestTrack application directory, is used to create the tables.

Setting up Oracle databases

Seapine does not provide support for installing, configuring, or maintaining Oracle. A qualified Oracle database administrator should install and configure the database and create the necessary schemas and tablespaces.

Keep the following in mind:

- Do not add, delete, or modify any fields in the TestTrack tables.
- Do not directly add, edit, or delete any data in the tables.
- Do not create different primary keys. This will adversely affect application performance.
- Do not create complex triggers on any of the tables. Triggers may cause severe database issues and correcting these issues is not covered by Seapine Software.
- Create a process to back up database tables on a regular schedule.
- Running Oracle and the TestTrack Server on the same computer can result in slow performance if not configured properly. Make sure Oracle is properly configured to avoid using all the system memory.

Connecting to Oracle

The recommended method for using Oracle is via Oracle Call Interface (OCI). A separate installer that includes the required Oracle Instant Client libraries can be downloaded from Seapine's web site.

- Windows—<http://downloads.seapine.com/pub/software/OracleInstantClientInstaller.exe>
- Mac OS X—<http://downloads.seapine.com/pub/software/oraclemacosjavainstall.zip>
- Linux—<http://downloads.seapine.com/pub/software/oraclelinuxjavainstall.tar.gz>

Creating database tables

The TestTrack Server automatically creates tables when you start the server or convert the server database. The TTServerDB.sql script file, which is located in the Oracle directory in the TestTrack application directory, is used to create the tables.

Creating Oracle users

You must create an Oracle user for the TestTrack Server. The user only requires default connection privileges and should not have any Oracle DBA privileges. Use your preferred tablespace management for the users. An easy method is to set up the user to share the USERS tablespace and to enable an unlimited quota.

Database character set

Oracle only converts characters when the Oracle client's character set, specified by NLS_LANG, does not match the character set stored in the database. If the character set is not UTF-8, VARCHAR2 fields may not be able to correctly store data. If this happens, the following misnomer of an error is returned: 'ORA-01461: can bind a LONG value only for insert into a LONG column'. The Oracle database character set should be AL32UTF8 or UTF8.

Sizing, memory, and tuning

Oracle sizing and tuning settings should be consistent with your corporate standards. Review the SQL scripts for schema creation installed with TestTrack Server to determine the appropriate settings.

Setting up SQL Server databases

Seapine does not provide support for installing, configuring, or maintaining SQL Server. A qualified SQL Server database administrator should install and configure the database.

Keep the following in mind:

- Do not add, delete, or modify any fields in the TestTrack tables.
- Do not directly add, edit, or delete any data in the tables.
- Do not create different primary keys. This will adversely affect application performance.
- Do not create complex triggers on any of the tables. Triggers may cause severe database issues and correcting these issues is not covered by Seapine Software.
- Create a process to back up database tables on a regular schedule.
- Running SQL Server and the TestTrack Server on the same computer can result in slow performance if not configured properly. Make sure SQL Server is properly configured to avoid using all the system memory.

Note: You must be a member of the db_ddladmin role and have the CREATE TABLE, CREATE PROCEDURE, and CREATE VIEW permissions to create the TestTrack tables.

Connecting to SQL Server

The only supported method for using SQL Server is via an ODBC connection. Use the ODBC Data Source Administrator to add a SQL Server data source name (DSN) on the TestTrack computer.

- SQL Server must contain a TestTrack database before you create the DSN.
- You must use a system DSN.
- Make sure you change the default database to the TestTrack database. Do not use the master database.
- Make sure the **Use ANSI quoted identifiers, ANSI nulls, padding, and warnings**, and **Perform translation for character data** options are selected.

Creating server database tables

The TestTrack Server automatically creates tables when you start the server or convert the server database. The TTServerDB.sql script file, which is located in the SQLServer directory in the TestTrack application directory, is used to create the tables.

Troubleshooting RDBMS connections

The following information can help you troubleshoot common RDBMS issues. Refer to the database vendor documentation for additional help.

Note: If the TestTrack Server cannot connect to the server database, errors are added to the Startup.log file in the TestTrack application directory.

Server database cannot be shared

The Seapine License Server, Surround SCM Server, and TestTrack Server store server configuration information in a server database. The server databases cannot be located in the same RDBMS database.

Dropped tables or change database configuration

You must stop and restart the TestTrack Server if you drop server or tables from an RDBMS and need to re-create them. You must also stop and restart the server if you reconfigure the destination database in the ODBC Data Source Administrator.

The TestTrack Server caches data from the database. If the underlying database is modified, the cached data no longer matches the data in the database. The connection fails if the server identifies that the backend database is different and the following error is logged: 'The server failed to initialize a connection for XYZ. The destination RDBMS database was changed'.

Mismatched UUID affects server database lock

This error occurs when the database is in use by a different TestTrack Server. You are prompted to reconfigure the database. Do not reconfigure the database if it is used on a different computer. You must manually modify the TestTrack Server connection information to point to a different database and restart the server. If the database is no longer in use by a different server, reconfigure the database connection information to allow the current TestTrack Server access to the database.

ODBC connection issues

Try the following if you are experiencing ODBC connection problems.

1. Test the ODBC connection in the ODBC Data Source Administrator.

If you cannot connect to the RDBMS, click the Test Connection button in the ODBC Data Source Administrator to test the connection.

2. Make sure the DSN is a system DSN.

The data source you are trying to connect to must be configured as a system DSN in the ODBC Data Source Administrator. The TestTrack Server Admin Utility only displays system DSNs.

ODBC connection errors

Error	Cause
[Microsoft][ODBC Driver Manager] Data source name not found and no default driver specified QODBC3: Unable to connect	An ODBC data source with the specified DSN was not set up in the ODBC Data Source Administrator. The DSN must be a system DSN.

SQL Server connection errors

Error	Cause
[Microsoft][ODBC SQL Server Driver][SQL Server]Login failed for user '(null)'. Reason: Not associated with a trusted SQL Server connection. QODBC3: Unable to connect	Occurs on Windows. A username is not specified for the RDBMS connection and the ODBC data source was not configured to run 'With Windows NT authentication using the network login ID' in the ODBC Data Source Administrator.
[Microsoft][ODBC SQL Server Driver][SQL Server]Login failed for user 'xxx'. QODBC3: Unable to connect	The username or password entered in the RDBMS connection information is not valid.

Oracle connection errors

Error	Cause
ORA-06401: NETCMN: invalid driver designator QOCI: Unable to logon	The Oracle Instant client drivers are not installed. See Setting up Oracle databases, page 51 for information about downloading the installers.
ORA-12705: invalid or unknown NLS parameter value specified QOCI: Unable to logon	<p>The full Oracle client is installed on the same computer with a language setting other than UTF8. To resolve this issue, set the following environment variable:</p> <ul style="list-style-type: none"> ▪ Windows—<code>NLS_LANG=AMERICAN_AMERICA.WE8MSWIN1252</code> ▪ Linux and Mac OS X—<code>NLS_LANG=American_America.UTF8</code> <p>You can also remove the following registry entry to help resolve the issue: HKEY_LOCAL_MACHINE\SOFTWARE\ORACLE\NLS_LANG</p> <p>Note: Refer to Oracle Metalink article 179133.1, “The Correct NLS_LANG in a Windows Environment,” for information about the correct setting, which varies based on the Windows version.</p>
ORA-12514: TNS:listener does not currently know of service requested in connect descriptor QOCI: Unable to logon	<p>The service name specified in the RDBMS connection information does not exist. Make sure that an Oracle listener was created with the specified service name on the host computer.</p> <p>This error can also occur if a version of the full Oracle client older than 10g is installed. If the full client appears in the PATH environment variable, the older oci.dll may be loaded. To resolve this issue, search for all instances of the oci.dll file. If multiple copies are found, remove the other copies or remove their directory reference from the PATH environment variable.</p>

Error	Cause
ORA-12154: TNS:could not resolve the connect identifier specified QOCI: Unable to logon	The computer specified in the RDBMS connection host name cannot be found. Make sure the host name is correct and the host computer is running.
ORA-12541: TNS:no listener QOCI: Unable to logon	The port number specified in the RDBMS connection information is not a valid TNS listener port on the specified host computer. Check the host port number.
ORA-01017: invalid username/password; logon denied QOCI: Unable to logon	The username or password specified in the RDBMS connection information is not valid. Check the username and password.

PostgreSQL connection errors

Error	Cause
Opening the database connection failed because the TestTrack Server could not connect to the server or translate the host name	<p>The TestTrack Server cannot connect to the PostgreSQL service. Check the following and then restart the server:</p> <ul style="list-style-type: none"> ■ The PostgreSQL service is running. ■ The host name and port number are correct. ■ A firewall is not blocking the port. ■ If connecting to a remote PostgreSQL server, the server is configured to accept remote connections.

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