



Product Documentation

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# Team Server / Repository

Administrator Guide

Version 2016 (16.1.4)

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# CONTENTS

Overview of the Team Server Architecture .....	6
Install and Configure Team Server and Repository.....	8
Overview of the Team Server Tools.....	19
Tomcat Configuration Application .....	20
General Tab .....	20
Log On Tab.....	21
Logging Tab.....	22
Java Tab .....	22
Startup Tab.....	23
Shutdown Tab.....	24
Team Server Configuration Manager.....	26
Starting Team Server.....	27
Stopping Team Server .....	28
Changing the Memory Limit of Team Server.....	29
Optimizing System Performance .....	30
Enabling Emailing Search Results and Reports.....	31
Modifying the User Session Idle Time Limit.....	32
Changing the Interface of Team Server .....	33
Configuring the Search Index.....	36
Excluding an ER Object Type.....	36
Excluding a Property .....	36
Admin .....	37
Non-Social Users .....	37
Interaction Settings .....	38
Licenses .....	39
License Add-on Status .....	39
Current User Sessions .....	40
Manage Users.....	42
New Users Creation.....	43
Manage Attachment Attributes .....	44
Object Alerts Tab .....	45
Solution Permissions .....	47
Solution Repository .....	47
Settings.....	47
Settings Table .....	48
Settings Actions.....	48
Add New Permission.....	48
Repository Management .....	50
Performing Maintenance Tasks.....	51
Topics .....	51
Cleaning the Content Repository .....	52
Updating the Search Index.....	53
Publisher Administration.....	54

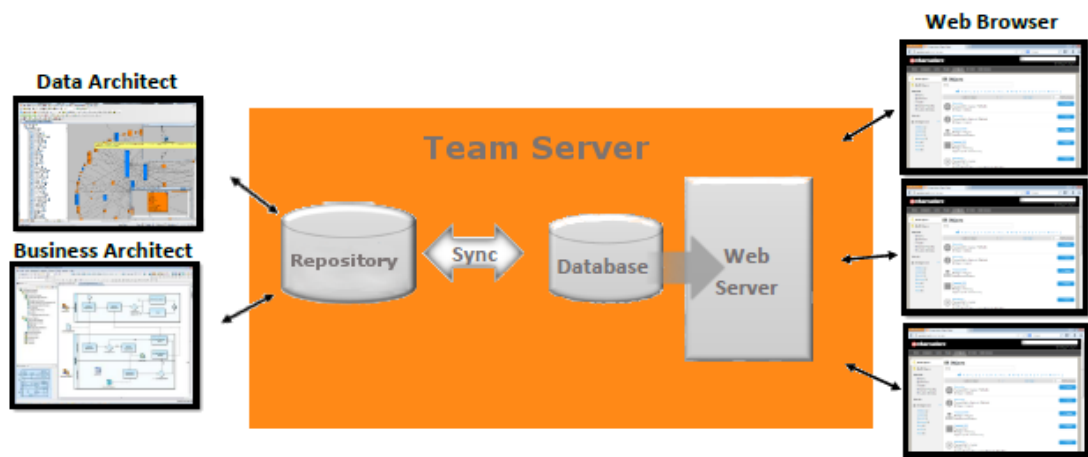
Subscriptions.....	55
Subscriptions Actions.....	55
Subscriptions Tables .....	56
Subscription Content Table.....	57
Access Control Permissions.....	59
Users Tab.....	59
Groups Tab .....	59
Topics .....	60
Manage User Permissions on a Resource .....	61
Manage Group Permissions on a Resource .....	63
Creating a Permissions Group.....	65
Deleting a Permissions Group.....	66
Password Locker Audit.....	67
Topics .....	67
Manage Search Results.....	68
Manage Glossary Tool Tips.....	70
Overview of Data Synchronization.....	72
Topics .....	72
ER/Studio Repository Data that Team Server Supports .....	73
ER Objects.....	73
Users and Roles.....	74
Non-Social Users .....	74
Overview of the Diagram Synchronization Process.....	75
Extracting Diagrams from ER/Studio Repository.....	75
Loading the Diagrams Data Back into Team Server.....	75
Viewing Synchronization Logs.....	77
Overview of Scheduling.....	78
Topics .....	78
Creating a Schedule.....	79
Editing a Schedule .....	80
Enabling Action Sequences for Scheduling.....	81
Action Sequences Details.....	81
Enabling an Action Sequence and Schedule for Subscription.....	83
Subscribing to an Action Sequence.....	84
Writing a CRON Expression .....	85
CRON Expression Format Details.....	85
Using Special Characters .....	86
CRON Expression Examples .....	88
Overview of Security.....	90
Topics .....	90
Overview of Connection Licenses.....	92
Topics .....	92
Overview of User Connections.....	93
Base - Admin Connection.....	93
ERSTeamServer - Team Server User Connection.....	93



TeamServer - Basic Connection .....	93
Concurrent User Connection.....	93
Exclusive User Connection.....	93
Overview of User Accounts.....	94
ER/Studio Repository User Accounts.....	94
LDAP User Accounts.....	94
Overview of User Authentication .....	95
Overview of User Experiences.....	96
Social Users .....	96
Non-Social Users .....	96
Overview of User Roles .....	97
Super User.....	97
Authenticated .....	97
Overview of User Permissions .....	98
Topics .....	98
Managing Permissions on Action Sequences.....	99
Topics .....	99
Adding Permissions on an Action Sequence.....	100
Editing Permissions on an Action Sequence .....	101
Removing Permissions on an Action Sequence .....	102
Overview of Stewards.....	103
Tracking User Activity.....	104
Uninstalling Team Server .....	105

# Overview of the Team Server Architecture

Team Server is a web server application with a database of its own, the Reporting Repository, which is synchronized with the Repository.



The following list describes the process of creating and accessing the metadata:

1. The metadata is created and maintained by ER/Studio clients.
2. That metadata is stored in the ER/Studio Repository database.
3. Through an [ETL](#) (extract, transform, and load) process that metadata is pulled into the Reporting Repository database, which is [synchronized on a scheduled basis with the ER/Studio Repository database](#).
4. Team Server users can then [browse](#), [search](#), and [generate reports](#) on the synchronized metadata in the Team Server Reporting Repository.

The **Reporting Repository** database contains properties for logical and physical model ER objects, and is optimized for quick and efficient reporting of business-related metadata. The Reporting Repository provides easy access, browser and searching features on the ER/Studio Repository metadata, and allows storing and managing reports from previous queries and the metadata they rely on.

**Note:** Initially, physical properties that are specific to a relational database platform and/or version will not be extracted from the Repository or transferred to the reporting database.

**Team Server** is also a communications hub and information center. Activity streams provide the following:

- Add, modify, and delete resource details are logged.
- Users can post comments on resources or to other users.

## See Also

- [Install and Configure Team Server and Repository](#)

# Install and Configure Team Server and Repository

Please ensure that you have read the [Installation Notes](#) before proceeding.



**Note:** Repository 2016 installation is now part of Team Server 2016 installation.

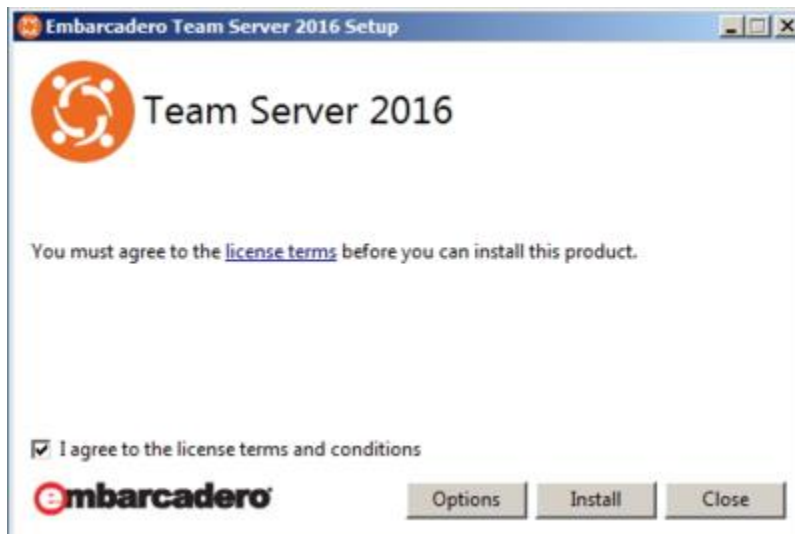
To install Team Server and Repository, you need to run the new installer and follow the steps. You need a user with administrative privileges to run the installation wizard.

In this page, you can find detailed information about the different steps of the installation wizard.



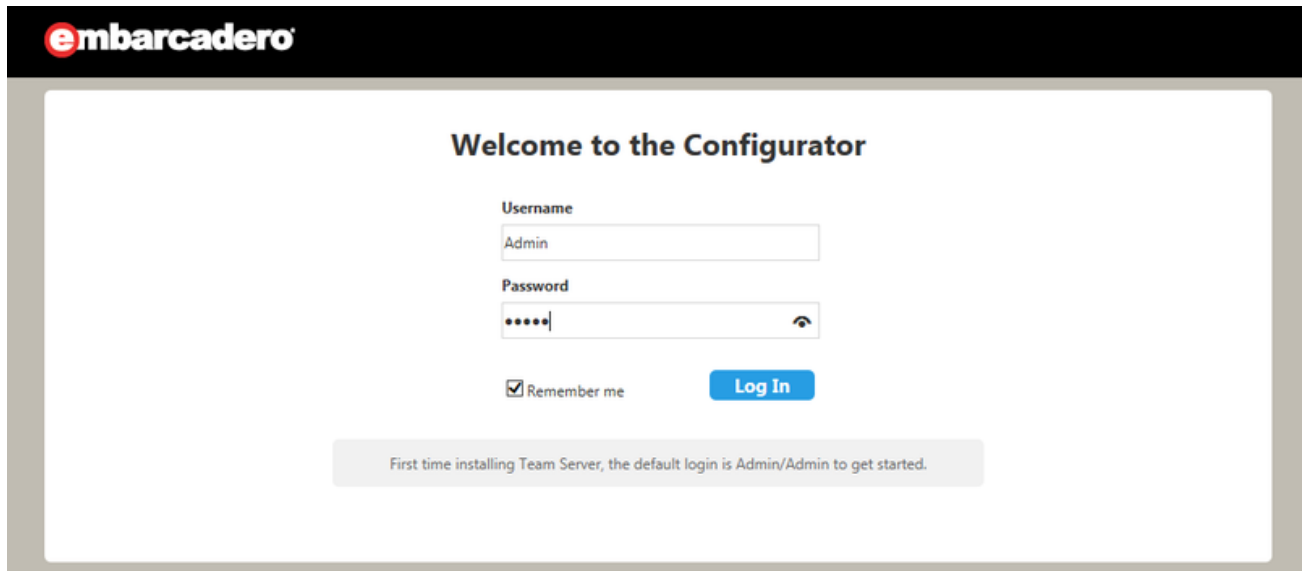
**Tip:** You may have to create a blank database before starting the installation, please check the [Installation Checklist](#).

1. Run the installation wizard. Select **I agree...** and click **Install**.

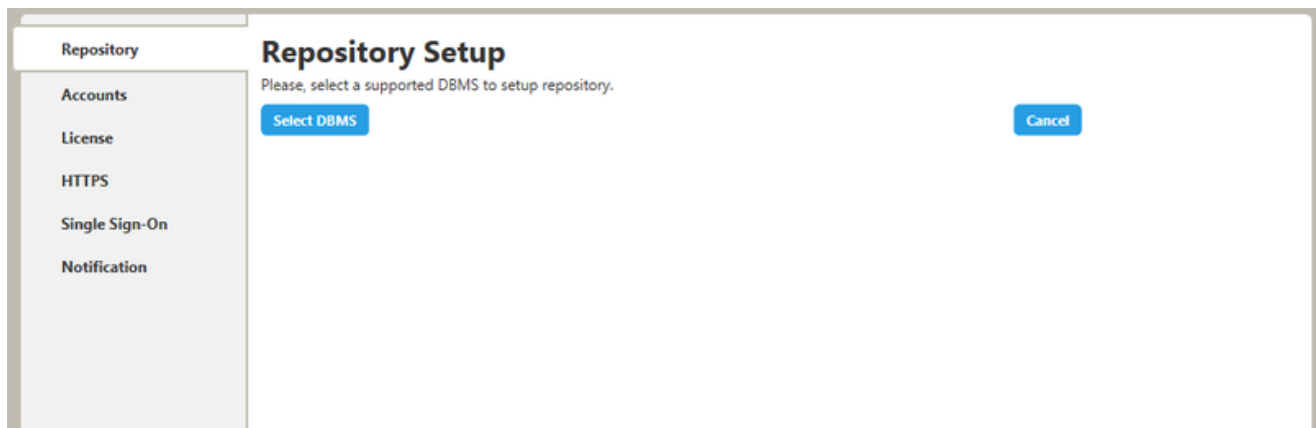


**Note:** In case you need to change the default Port or the Install location, please click **Options** previous to **Install**.

2. In the Configurator Welcome Page, use Admin/Admin (case-sensitive) as the login and password and click *Login* to start the configuration wizard.



3. In the **Repository** page, click on **Select DBMS** to start the Database configuration.



4. In the **Repository Setup** page, you need to specify the information to connect to your Repository database:
  1. Select the DBMS type.
  2. Complete the information about the Repository database:



**Note:** If you have installed Team Server, CONNECT, or Portal in the past, please see [Upgrading Team Server and Repository](#).

1. In the **Host Name:Port** field, enter the hostname of the machine that contains the Repository database. The port number appears by default. Change it if needed.
2. In the **Login** field, enter the username to access the Repository database.

3. In the **Password** field, enter the password for the user specified earlier.
4. On the **Database** field, enter the name of the database that you have previously created to be your Repository database.
5. Login credentials to be used by Team Server to interact with the database (case-sensitive).

**Additional Notes:** Depending on the database platform that you selected previously, complete the following fields:

If you selected **Oracle**:

- On the **SID** field, enter your database identifier.
- If you selected **Use Oracle Service Name**, the **SID** field will be **Oracle Service Name**. Enter the service name you use.

If you selected **Microsoft SQL Server**:

- If the database server is a named instance, specify the **Host Name** in the `HostName\NamedInstanceName` format. For example, `DEWKBOW01\DBServer`.
- Optionally, for Microsoft SQL Server 2012 and 2014 only, you can check **Use SSL** to enable the Secure Sockets Layer (SSL) communication protocol, which encrypts messages. When SSL is enabled, Team Server uses ports 80 and 443 for secure communications. Please check [SSL enablement requirements](#).
- It is possible to have the installer create your MSSQL database for you at this point. If you enter the name of a non-existent database, the installer will pop up a confirmation window and then create the database.
  1. Click **Next** to continue.

# Install and Configure Team Server and Repository

### Repository Setup

Please select the DBMS type you would like to use for Team Server repository

Oracle 11g-12c  
 MS SQL Server 2008-2014  
 IBM UDB 9.x-10.x (DB2 will not work with Performance IQ, choose either SQL Server or Oracle to host repository)

[Read about configuring ER/Studio Repository database >](#)

**Repository DB**  
If you have installed Team Server, CONNECT or Portal in the past,  
 Specify location of Team Server database if it exists

Host Name	Port
SUPESW2012R202	1433

Use SSL

Authentication, create database privilege required

**Login**  
sa

**Password**  
.....

**Database**  
TS\_2016

Use existing tables or create them if they do not exist  
 Overwrite existing tables or create them if they do not exist

Specify Login credentials to be used by Team Server to interact with database

**!** Team Server will restart after repository is created, you may be asked to log in again before you can continue.

[Next](#) [Cancel](#)

### Repository Setup

Please select the DBMS type you would like to use for Team Server repository

Oracle 11g-12c  
 MS SQL Server 2008-2014  
 IBM UDB 9.x-10.x (DB2 will not work with Performance IQ, choose either SQL Server or Oracle to host repository)

[Read about configuring ER/Studio Repository database >](#)

**Repository DB**  
If you have installed Team Server, CONNECT or Portal in the past,  
 Specify location of Team Server database if it exists

Host Name	Port
eslabertsRepo03	50000

Authentication, create database privilege required

**Login**  
db2admin

**Password**  
.....

**Database**  
PORTAL

Use existing tables or create them if they do not exist  
 Overwrite existing tables or create them if they do not exist

Specify Login credentials to be used by Team Server to interact with database

**!** Team Server will restart after repository is created, you may be asked to log in again before you can continue.

[Next](#) [Cancel](#)

## Repository Setup

Please select the DBMS type you would like to use for Team Server repository

- Oracle 11g-12c
- MS SQL Server 2008-2014
- IBM UDB 9.x-10.x (DB2 will not work with Performance IQ, choose either SQL Server or Oracle to host repository)

[Read about configuring ER/Studio Repository database >](#)

### Repository DB

If you have installed Team Server, CONNECT or Portal in the past,

Specify location of Team Server database if it exists

Host Name : Port  
eslabertsRepo02 : 1521

Use Oracle Service Name

Authentication, create database privilege required

Login

PORTAL

Password

\*\*\*\*


Oracle SID

orcl

Specify Oracle Client service name for ER/Studio Repository

- Use existing tables or create them if they do not exist
- Overwrite existing tables or create them if they do not exist

Specify Login credentials to be used by Team Server to interact with database

 Team Server will restart after repository is created, you may be asked to log in again before you can continue.

Next Cancel



Note: If you want to just install the Repository, exit the configurator at this point and [stop](#) the Tomcat service (Team Server).

5. In the Accounts page:

1. In the **Windows User** field, enter the name of a Windows user that Team Server can use to log into the system. The user account must have local administrative privileges. The name should be in the format "machine\_name\username".
2. In the **Password** field, enter the password of the Windows user.
3. Login credentials to be used by Team Server to interact with repository (case-sensitive):
  - Leave it in blank to keep using Admin/Admin to log into ER/Studio Repository.
  - If you want to modify the super user login to enter into ER/Studio Repository, introduce the information. If the login does not exist, it will be created.
4. Click **Next** to continue.



The screenshot shows the 'Windows Service Account' configuration page. On the left is a navigation menu with 'Repository' selected, and sub-items for 'Accounts', 'License', 'HTTPS', 'Single Sign-On', and 'Notification'. The main content area has the title 'Windows Service Account' and a sub-header 'Accounts'. Below this is a warning message: 'Windows User Access Control must be turned off in order for Team Server to work properly'. There are two input fields: 'Windows User (domain\user name)' with the value 'lauraserver\LocalAdmin' and 'Password' which is masked with dots. Below these is the 'ER/Studio Model Repository Account' section with a question about the admin login password. It has two input fields: 'Model Repository User' with the value 'Admin' and 'Model Repository Password' which is masked with dots. At the bottom right are three buttons: 'Back', 'Next', and 'Cancel'.

6. In the **License** page, you can register your licenses.
  1. In the **EDN Login or Email Address** field enter your existing Developer Network account. If you need a new user account, click **Create Account**. Fill in the required information.
  2. In the **Password** field, enter your EDN password.
  3. Specify the serial number to register in the **Serial Number** field.
  4. Click **Next**.



**Note:** If you have a license file, please use the **Import from file** button to register.

**Repository**

**Accounts**

**License**

**HTTPS**

**Single Sign-On**

**Notification**

### Retrieve a License (Optional)

Using your Embarcadero Developer Network (EDN) account you can retrieve your purchased license or start a trial.

**EDN Login or Email Address**  
laura.munozembarcadero.com [Create Account](#)

**Password**  
••••••••

**Serial Number**  
[REDACTED]

[Request Trial](#)

[Trouble connecting? Use Embarcadero Web Registration](#)

[Import from file](#) [Back](#) [Next](#) [Cancel](#)

7. In the **HTTPS Setup** page, you can optionally choose to enable HTTPS (SSL). It is recommended that you enable secure communications as this will keep your password transmissions secure.
  1. Optionally, select **Enable Secure Communication (HTTPS)** to enable it.
  2. If you do not have SSL set up on your server, you can click the **Self-Signed** button to walk you through the short wizard that will create a Keystore file allowing you to use encryption.
    - Fill out the fields of the *Self-Signed wizard* and click **Generate**. The Keystore file will be created in the location of your choosing.

3. If you already have SSL set up on your server, directly enter the information required.
4. Click Next.

8. In the Single Sign-On via LDAP page, optionally, check **Use LDAP server for authentication** to use the *Lightweight Directory Access Protocol* (LDAP) and enable the ability for users to [log into Team Server](#) using their domain username and password. You can [enable LDAP authentication anytime later](#):

1. In the LDAP URL field, enter the URL of the server running LDAP.

2. In the **Manager DN** field, enter the distinguished name for the user that is used to authenticate users. Team Server uses this to connect to the LDAP server and validate user credentials. For example, CN=administrator,CN=Users,DC=mydomain,DC=com.



**Note:** In this example, administrator has been used. In which case, **Users** is defined as a container rather than an organizational unit as is the Microsoft Active Directory default. Your user accounts may be in an organizational unit; in this case, you would specify it differently, for example, CN=user1,OU=sales,DC=mydomain,DC=com.

3. In the **Manager Password** field, enter the password for the administrative user.
4. In the **Search Base DN** field, enter the name of the root node in LDAP from which to search for users. For example, CN=Users,DC=mydomain,DC=com.
5. In the **Search Attribute** field, enter the attribute in LDAP holding the user's login name. For example, sAMAccountName (for ActiveDirectory).
6. In the **Test User/Password** field, enter the username and password of a sample user to attempt to authenticate against the LDAP server. The installer uses this information to validate the given LDAP information before moving to the next page.
7. Click **Test Connection**. If it is ok, this will enable the **Next** button.
8. Click **Next**.

**Repository**

**Accounts**

**License**

**HTTPS**

**Single Sign-On**

**Notification**

### Single Sign-On via LDAP (Optional)

Team Server can authenticate users via LDAP server.

Use LDAP server for authentication

**LDAP URL**  
ldap://10.10.1.110

**Manager DN**  
cn=administrator, cn=users, dc=embarcadero, dc=com

**Manager Password**  
••••••

**Search Base**  
dc=embarcadero, dc=com

**Search Attribute**  
sAMAccountName

**Test User**  
lauram

**Test Password**  
••••••••

**Test connection** **Back** **Next** **Cancel**

9. In the **Notification Enablement** page, optionally, check **Enable Email Notifications via SMTP** to allow users to send search results and reports by email directly from Team Server. You can [enable notifications anytime later](#):
  1. In the **Email Address** field, enter the email address that you want to use as the sender of the emails sent from Team Server. You may want to prepare a special email address on your email server for this purpose.
  2. In the **Server/Port** field, enter the host name of the email server (for example, "mail"), the fully qualified network name (for example: "mail.example.com"), or the IP address (for example: "10.10.23.250") and the port number where the email server is listening. The default port is 25.
  3. Optionally, check "Requires Authentication" if your email server requires authentication. When you check this option, the **User Name** and **Password** fields are highlighted. Fill them with the required values to authenticate Team Server against your SMTP server.
  4. Click **Next**.

**Notification Enablement (Optional)**

Enable Email Notifications via SMTP

Team Server can use SMTP to send notifications and alerts to users.

**Email Address**  
teamserver@escmlauram02.com

**Server** : **Port**  
192.168.95.110 : 25

Use TLS

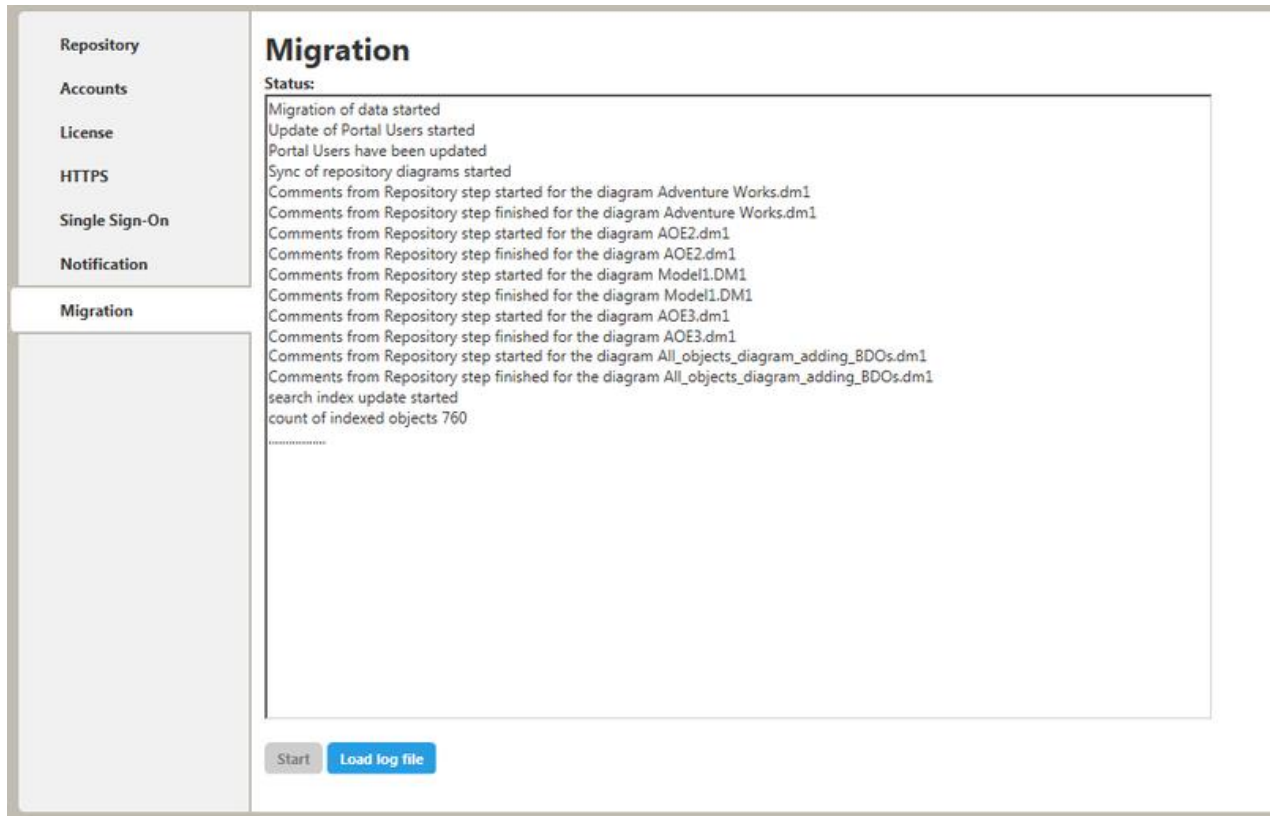
Requires Authentication

**User Name**  
teamserver

**Password**  
\*\*\*\*\*

[Back](#) [Finish](#) [Cancel](#)

10. In the **Migration** page, you perform the data migration during an upgrade. Click the **Start** button for this purpose. You can load or save the log file generated by clicking **Load log file**.



The screenshot shows a web-based configurator interface. On the left is a vertical navigation menu with the following items: Repository, Accounts, License, HTTPS, Single Sign-On, Notification, and Migration. The 'Migration' item is selected and highlighted. The main content area is titled 'Migration' and contains a 'Status:' section with a text box displaying the following log entries:

```
Migration of data started
Update of Portal Users started
Portal Users have been updated
Sync of repository diagrams started
Comments from Repository step started for the diagram Adventure Works.dm1
Comments from Repository step finished for the diagram Adventure Works.dm1
Comments from Repository step started for the diagram AOE2.dm1
Comments from Repository step finished for the diagram AOE2.dm1
Comments from Repository step started for the diagram Model1.DM1
Comments from Repository step finished for the diagram Model1.DM1
Comments from Repository step started for the diagram AOE3.dm1
Comments from Repository step finished for the diagram AOE3.dm1
Comments from Repository step started for the diagram All_objects_diagram_adding_BDOs.dm1
Comments from Repository step finished for the diagram All_objects_diagram_adding_BDOs.dm1
search index update started
count of indexed objects 760
.....
```

At the bottom of the status box are two buttons: 'Start' and 'Load log file'.



**Note:** Please note that the configurator will show the **Migration** tab only if you are upgrading.

Team Server and Repository are now installed and configured on your system.

### Modify Configuration

You can modify the configuration at any moment:

- Use Configure Team Server. From Windows: **Start > All Programs > Team Server 2016 > Configure Team Server**.
- Select **My Setting > Configurator** once you are logged as Admin in Team Server.

### See Also

- [Tomcat Configuration Application](#)
- [Upgrading Team Server and Repository](#)

# Overview of the Team Server Tools

Team Server provides some tools for you to customize the configuration of your Team Server installation:

- [Tomcat Configuration Application](#). Start, stop and restart the Team Server server, and to change configuration parameters such as the amount of memory assigned to the Team Server server.
- [Team Server Configuration Manager](#). Change settings that you chose when you [installed Team Server](#).

## See Also

- [Admin](#) page

# Tomcat Configuration Application

From Windows: [Start > All Programs > Team Server 2016 > Configure Tomcat Service](#)

You can use the **Tomcat Configuration Application** to start, stop and restart the **Team Server** server, and to change configuration parameters such as the amount of memory assigned to the Team Server server.

After you perform any change in this configuration application, click **OK** to apply the changes and close the dialog. You can click **Apply** to apply your changes immediately without closing the **Tomcat Configuration Application**, or **Cancel** to exit the configuration application without saving any change that you did not apply yet.

The **Tomcat Configuration Application** provides the following tabs:

- [General](#)
- [Log On](#)
- [Logging](#)
- [Java](#)
- [Startup](#)
- [Shutdown](#)

## General Tab

On the **General** tab you can access the following items:



Item	Description
Service Name	The name of the Team Server system service. You cannot change this name.
Display Name	The display name of the Team Server system service.
Description	A description of the Team Server system service.
Path to executable	Path to the executable that starts the service.
Startup type	Use this combo box to choose how to start Team Server up. You can select any of the following options: <ul style="list-style-type: none"> <li>○ <b>Automatic.</b> Windows starts the service automatically when the system starts.</li> <li>○ <b>Manual.</b> Windows only starts the service when another service needs it, or if you start the service manually.</li> <li>○ <b>Disabled.</b> Windows disables starting the service. You cannot start the service, not even manually.</li> </ul>
Service Status	Indicates whether Team Server is running ("Started") or not ("Stopped").
Start (only when Team Server is stopped)	Starts the Team Server system service.
Stop (only when Team Server is running)	Stops the Team Server system service.
Pause	Pauses the Team Server system service.
Restart	Restarts the Team Server system services.

## Log On Tab

On the **Log On** tab you can choose which account you want to use when you start the Team Server system service.

To use a local system account, check "Local System account" and optionally check "Allow service to interact with desktop" if you need to be able to interact with the Team Server system service from a graphical application.

If you want to use a custom user account for the Team Server system service, check "This account" instead, and enter a custom username and a password.

## Logging Tab

On the Logging tab you can access the following items:

Item	Description
Level	Team Server only logs messages that have the level of severity specified here. By default, Team Server logs only information messages.
Log path	Path to the folder where logs are saved.
Log prefix	Prefix of the Team Server system service log files. The name of the resulting log file is <prefix>.<year>-<month>-<day>.log . For example: mylog-2016-05-24.log .
Pid file	If you specify here the path to a file, Team Server stores its process identifier in that file.
Redirect Stdout	Where to redirect the standard output. Enter "auto" to use the default value, or click the ... button to select a file to write the output.
Redirect Stderror	Where to redirect the standard error output. Enter "auto" to use the default value, or click the ... button to select a file to write the output.

## Java Tab

On the Java tab you can access the following items:

Item	Description
Use default	Check this option to use the default Java Virtual Machine.
Java Virtual Machine	Path to the Java Virtual Machine.
Java Classpath	List of locations to look for Java classes and packages.
Java Options	Additional startup options to use when Team Server starts the Java Virtual Machine.
Initial memory pool	The initial amount of memory that Team Server uses, in MB.
Maximum memory pool	The maximum amount of memory that you allow Team Server to use, in MB.  <b>Note:</b> The Java Virtual Machine cannot use more than 1.5 GB of memory.
Thread stack size	Maximum size of the <a href="#">thread stack</a> , in KB.

## Startup Tab

On the **Startup** tab you can access the following items:

Item	Description
Class	Main Java class to start Team Server.
Image (only in exe mode)	Image to start Team Server.
Working Path	Working path to start Team Server. Team Server relative paths are relative to this path.
Method	Method to invoke on start.
Arguments	Arguments to include on the start command.
Timeout	Maximum startup time, in seconds. If the startup take more time, it automatically fails.
Mode	How to start Team Server. You can choose any of the following modes: <ul style="list-style-type: none"> <li>○ <b>exe.</b> Use a Windows executable to start Team Server.</li> <li>○ <b>jvm.</b> Use the Java Virtual Machine to start Team Server.</li> <li>○ <b>Java.</b> Use the Java executable to start Team Server.</li> </ul>

## Shutdown Tab

On the **Shutdown** tab you can access the following items:

Item	Description
Class	Main Java class to shutdown Team Server.
Image (only in exe mode)	Image to shutdown Team Server.
Working Path	Working path to shutdown Team Server. Team Server relative paths are relative to this path.
Method	Method to invoke on shutdown.
Arguments	Arguments to include on the shutdown command.
Timeout	Maximum shutdown time, in seconds. If the shutdown take more time, it automatically fails.
Mode	<p>How to shutdown Team Server.</p> <p>You can choose any of the following modes:</p> <ul style="list-style-type: none"> <li>○ <b>exe</b>. Use a Windows executable to shutdown Team Server.</li> <li>○ <b>jvm</b>. Use the Java Virtual Machine to shutdown Team Server.</li> <li>○ <b>Java</b>. Use the Java executable to shutdown Team Server.</li> </ul>

## See Also

- [Team Server Configuration Manager](#)

# Team Server Configuration Manager

From Windows: [Start > All Programs > Team Server 2016 > Configure Team Server](#)

You can use the **Configure Team Server** tool to change the settings that you can choose when you first [install and configure Team Server and Repository](#).

After you perform any change in this configuration application, click **Next** to apply the changes and go to the next tab. You don't need to modify every tab each time, any time you want to exit the configurator just close the windows. You can click **Cancel** to exit the configuration application without saving any change.

The **Configure Team Server** tool provides the following tabs:

- [Repository Setup](#)
- [Accounts](#)
- [License](#)
- [HTTPS Setup](#)
- [Single Sign-On via LDAP](#)
- [Notification Enablement](#)
- [Migration](#)

## See Also

- [Install and Configure Team Server and Repository](#)
- [Tomcat Configuration Application](#)

# Starting Team Server

To start Team Server:

1. From Windows, select **Start > All Programs > Team Server 2016 > [Configure Tomcat Service](#)**.
2. On the **General** tab, click **Start**.

Notes:

- If the **Start** button is disabled, Team Server is already running.
- If **Team Server** fails to start, check that you have [assigned enough memory](#).

A dialog box with a progress bar appears. The dialog box closes automatically when Team Server is completely started.

## See Also

- [Connecting to Team Server](#)
- [Restarting Team Server](#)
- [Stopping Team Server](#)
- [Tomcat Configuration Application](#)
- [Team Server Configuration Manager](#)

# Stopping Team Server

To stop Team Server:

1. From Windows, select **Start > All Programs > Team Server 2016 > [Configure Tomcat Service](#)**
2. On the **General** tab, click **Stop**.

**Note:** If the **Stop** button is disabled, Team Server is not running.

A dialog box with a progress bar appears. The dialog box closes automatically when Team Server is completely stopped.

To avoid Team Server service to automatically start again if the server machine reboots, change the **Startup type** to **Manual**, and then click **OK**.

## See Also

- [Starting Team Server](#)
- [Restarting Team Server](#)
- [Tomcat Configuration Application](#)
- [Team Server Configuration Manager](#)



# Changing the Memory Limit of Team Server

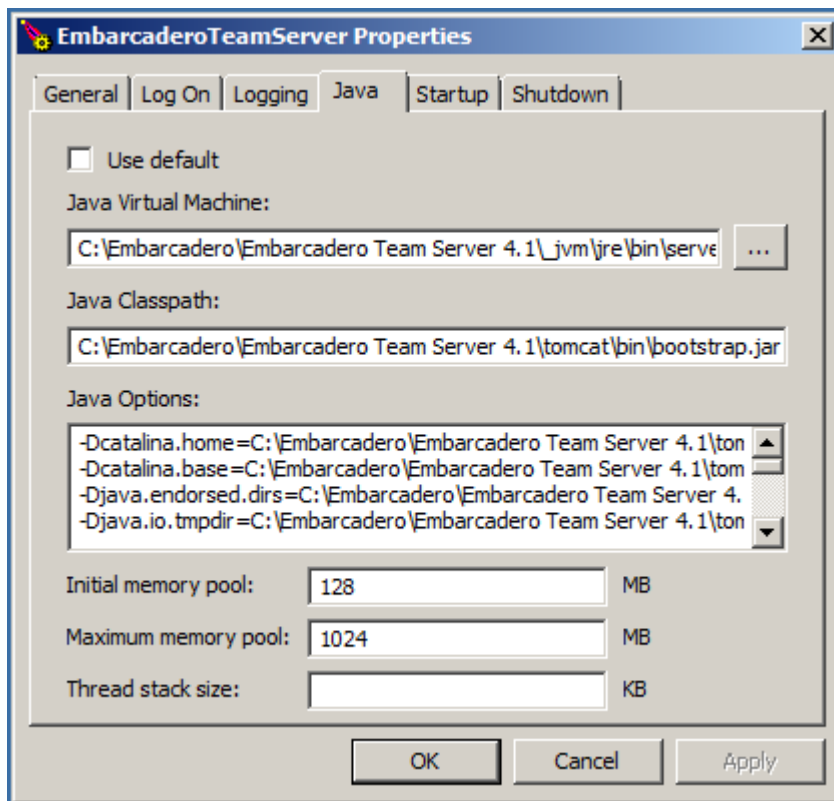
You can use the [Tomcat Configuration Application](#) to configure the maximum amount of memory that Team Server can use.

To change the memory limit of Team Server:

1. From Windows, select **Start > All Programs > Team Server 2016 > [Configure Team Server](#)**.
2. On the **Java** tab, change the number on the **Maximum memory pool** field.

**Note:** The Java Virtual Machine cannot use more than 1.5 GB of memory.

3. Click **Apply** to apply your changes.



For the changes to take effect, you need to [restart Team Server](#).

## See Also

- o [Tomcat Configuration Application](#)

# Optimizing System Performance

To get the best performance from your Team Server installation, there are a couple of changes of the underlying system that will benefit your installation by granting more system resources.

1. Increase the physical memory on the Operating System to be 5GB of RAM.
2. Increase the Maximum Memory Pool for the Java Virtual Machine.

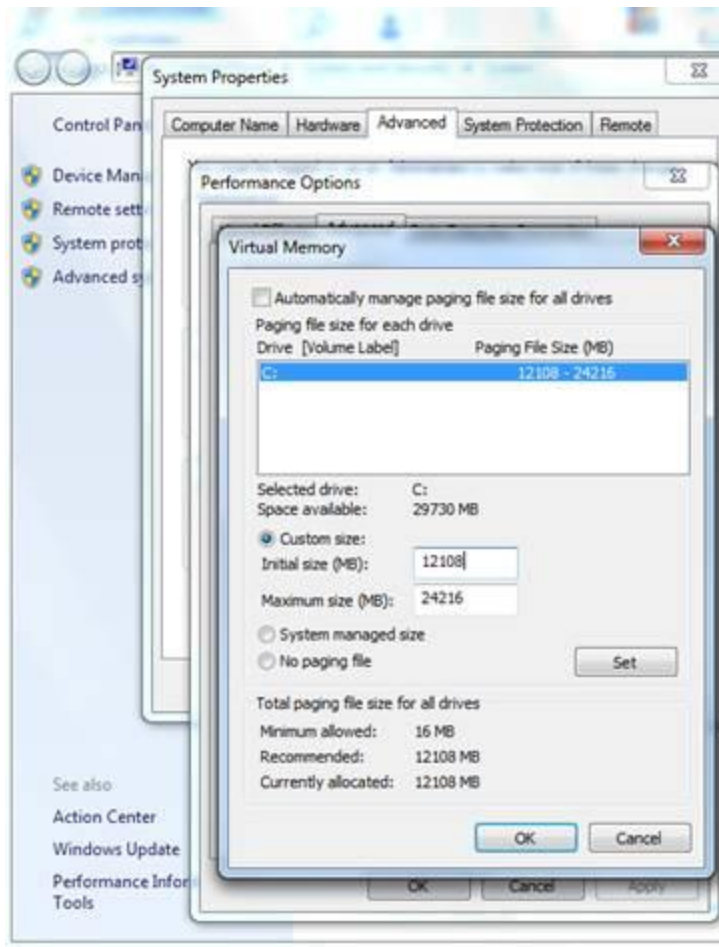
The connect service available memory was increased to the maximum size, following the procedure as listed in [Changing the Memory Limit of Team Server](#).



**Note:** On systems running faster SSD drives, benefits can also be made from increasing Virtual Memory settings.

- o Recommended Virtual Memory settings:

Set initial size to 1.5x that of the system RAM. Set max size to 2x that of the initial virtual memory size.



# Enabling Emailing Search Results and Reports

If you have an email server, you can configure Team Server to allow sending [shared reports](#) by email.

Enabling email sending from Team Server is a two-steps process. First you must configure the connection to your email server:

1. Open the [Team Server Configuration Manager](#) and enable notifications.

After the connection to the email server is properly configured:

1. [Start Team Server](#) and [log in as a super user](#).
2. Select **My Settings** > [Admin](#).
3. On the page that opens, click [Interaction Settings](#) on the sidebar.
4. Click **Edit**.
5. Check the email options:
  1. "Enable Sending of Standard Reports by Email".
  2. "Enable Sending of Search Results by Email". **This option is available just for old Portal licenses.**
6. Click **Apply Changes** to save your changes.

Team Server users can now [send reports by email](#).

## See Also

- o [Team Server Configuration Manager](#)

# Modifying the User Session Idle Time Limit

By default, after 30 minutes of user inactivity, Team Server ends user sessions.

To change this value:

1. Open the `web.xml` file, inside the `\tomcat\webapps\ROOT\WEB-INF\` directory within the installation folder.
2. Change the integer value (in minutes) of the session-timeout:

```
<session-config>  
  <session-timeout>30</session-timeout>  
</session-config>
```


Your change has effect as soon as you [restart Team Server](#).

## See Also

- o [Overview of User Authentication](#)

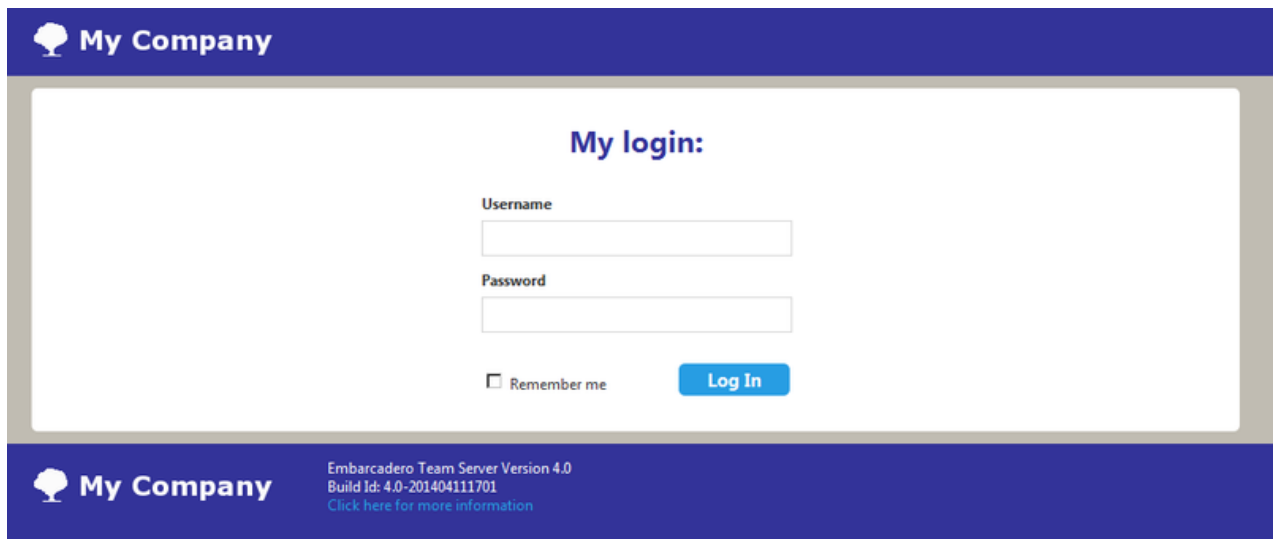
# Changing the Interface of Team Server

You can change some aspects of the Team Server interface to your own liking by editing the HTML and images in the program folders.

 **WARNING:** The interface is not meant to be changed and any changes made will be overwritten if the product is reinstalled or upgraded. These instructions are solely for those who require changes and any files you intend to change should be backed up prior to making any changes.

To change the Login page of Team Server:

1. From Windows, browse to your install directory. `..\Embarcadero Team Server 2016\tomcat\webapps\ROOT\jsp>Login.jsp` .
2. Open Login.jsp in a text editor (For example: Notepad.exe), scroll down to the section beginning `<divid="site-content">`
3. Change the text inside the header tags `<h1>Welcome to Embarcadero Team Server</h1>` to change the title of the login page to the text of your choice.



There are two methods to change the Embarcadero logo to your own image:

1. From Windows, browse to your install directory. Open `..\Embarcadero Team Server 2016\tomcat\webapps\ROOT\themes\new\assets`
2. Replace the `embarcadero_logo.png` with an image of equal size and name.

OR:

1. From Windows, browse to your install directory. Open `..\Embarcadero Team Server 2016\tomcat\webapps\ROOT\WEB-INF\jsp\template` directory.
2. Here there are jsp files that have entries referencing the CSS files. Open the jsp files in a text editor (notepad.exe) and scroll to the sections you wish to view.

#### NewMainTemplate.jsp

- `<title>Embarcadero Team Server</title>` is the title of the page in the browser.
- `<divid="site-footer">` is the CSS match for the page footer.
- `<divid="site-header">` is the CSS match for the page header.

#### Header.jsp

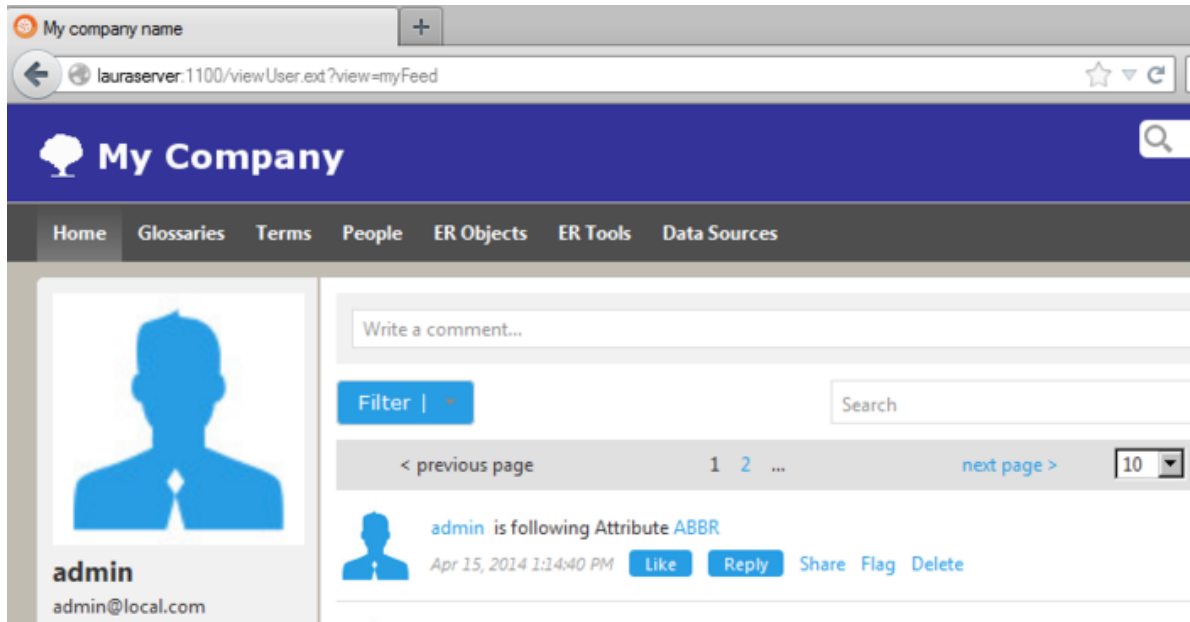
- `<divid="company-logo"></div>` is the match for the logo in the CSS file.

`Footer.jsp` is where you will find CSS references for the logo at the bottom of the web page and the version number.

3. The CSS matches in the previous jsp files are referenced in `..\Embarcadero Team Server 2016\tomcat\webapps\ROOT\themes\new\global.css`. You can see all the referenced areas that you may wish to change. For example, in the below selection from the CSS file, you can see the position, size and name of the PNG image file used for the logo. This is the image you would change to affect the site-header and company-logo in the templates.

```
#site-header #company-logo {
    position: absolute;
    top: 18px;
    left: 0;
    width: 200px;
    height: 28px;
    background: url('assets/embarcadero_logo.png') no-repeat;
}
```

## Changing the Interface of Team Server



For the changes to take effect, you may need to refresh/restart your browser.

## See Also

- [Tomcat Configuration Application](#)

# Configuring the Search Index

You can configure Team Server to apply custom filters to searches, so that you can exclude certain ER object types and properties from the search index and results.

Filters may work either on a certain ER object type and all its properties, or on a specific property of an ER object type. An ER object or property affected by a filter does not appear in the [search page](#), neither among the results.

To exclude an [ER object type](#) or [property](#) from the search results, edit the `RepoRpt.xml` configuration file. You can find this file inside the `solutions\etl\config` directory, within the Team Server installation folder.

All the various ER objects types and combinations of ER object types and properties are included in `RepoRpt.xml`, commented. All you have to do is uncomment the appropriate line in the XML file to create a search filter.

After you change the content of the `RepoRpt.xml`, [update the search index](#).

## Excluding an ER Object Type

To exclude an ER object type and all its properties, add an Object element to `RepoRpt.xml`, inside the Objects element, using the following syntax: `<ObjectOBJECT_TYPE="ER Object Type"SEARCH="FALSE"/>`; where **ER Object Type** is the type of ER object to exclude.

For example, to filter [tables](#):

```
<Object OBJECT_TYPE="Table" SEARCH="FALSE"/>
```

## Excluding a Property

To exclude a specific property of an ER object type, add an Object element to `RepoRpt.xml`, inside the Objects element, using the following syntax: `<ObjectOBJECT_TYPE="ER Object Type"PROPERTY_TYPE="Property"SEARCH="FALSE"/>`; where **ER Object Type** is the type of ER object that contains the property, and **Property** is the name of the property to exclude.

For example, to filter the `DataType` property of [columns](#):

```
<Object OBJECT_TYPE="Column" PROPERTY_TYPE="DataType" SEARCH="FALSE"/>
```

## See Also

- [Search Pages](#)
- [Searching for a Resource of a Specific Resource Type](#)



# Admin

[My Settings](#) > [Admin](#) ([super users](#))

This section gives you access to pages where you can perform administrative tasks:

Item	Description
<a href="#">Repository Management</a>	Lets you manage the <a href="#">Reporting Repository</a> .
<a href="#">Licenses</a>	Use this page to <a href="#">manage your Team Server licenses</a> and check the activity of the logged-in users.
<a href="#">Solution Permissions</a>	Lets you <a href="#">manage permission on Action Sequences</a> for user and roles.
<a href="#">ER/Studio Publications</a>	Use this page to define the privacy level of the diagrams uploaded from ER/Studio Data Architect.
<a href="#">Subscriptions</a>	A subscription binds an administrative function such as cleaning or synchronizing the repository to a schedule. Use this page to create and manage subscriptions, subscription schedules, and scheduled jobs. See <a href="#">Overview of Scheduling</a> .
<a href="#">Managed Attributes</a>	Use this page to manage the attachment attributes of your <a href="#">ER objects</a> .
<a href="#">Interaction Settings</a>	Use this page to manage user interaction settings. You can allow/disallow users to moderate comments, provide the email address of the moderator, enable/disable sending emails for search results and reports.
<a href="#">Object Alerts</a>	Use this page to access and <a href="#">edit</a> any <a href="#">alert condition</a> defined in <b>Team Server</b> .
<a href="#">Term Entity Types</a>	Use this page to add, edit, or delete Term Entity Types.
<a href="#">Manage Search Results</a>	Use this page to choose which fields are displayed in the search results for <a href="#">Data Sources</a> .
<a href="#">Glossary Tool Tip</a>	Use this page to manage the <a href="#">glossaries</a> to be returned for each URL Pattern.
<a href="#">Permissions</a>	Use this page to manage permissions for users and groups.
<a href="#">Password Locker Audit</a>	Use this page to audit every connection to Password Lockers.

## Non-Social Users

For Non-Social users please see: [Admin Page](#)

# Interaction Settings

[My Settings](#) > [Admin](#) > [Interaction Settings](#) ([super users](#))

## Interaction Settings

Use this page to manage settings related to user interaction within the Embarcadero Team Server.

### Actions

[Edit](#)

### Reports

Enable Sending of Standard Reports by Email

### Searches

Enable Sending of Search Results by Email

From this page you can control whether you must accept or reject comments before they are visible in Team Server, and whether users can email search and report results.

To edit your preferences, click **Edit**. After you update your preferences, click **Apply Changes** to save your changes, or **Cancel Changes** to discard them.

In this page you can edit the following settings:

Item	Description
<b>Reports</b>	
Enable Sending of Standard Reports by Email	Check this option to allow users to send standard reports by email.
<b>Searches</b>	
Enable Sending of Search Results by Email	Check this option to allow users to send search results by email.

## See Also

- [Enabling Emailing Search Results and Reports](#)
- [Administrator Guide](#)

# Licenses

[My Settings](#) > [Admin](#) > [Licenses](#) ([super users](#))

This page displays information related to the registered Team Server licenses. The information is divided in two sections:

- [License Add-on Status](#).
- [Current User Sessions](#).

- ⚙ Repository Management
- ⚙ Licenses
- ⚙ Solution Permissions
- ⚙ ER/Studio Synchronization
- ⚙ Schedules
- ⚙ Subscriptions
- ⚙ Managed Attributes
- ⚙ Interaction Settings
- ⚙ Object Alerts
- ⚙ Term Entity Types
- ⚙ Manage Search Results

## Licenses

Use this page to manage your Team Server licenses

License Add-on Status: 1 base administrator connection, UNLIMITED ERS Team Server user connections.

Serial No.	Days Left	Connections	Capacity	License Type
024B-SUBSF-02MBAC-048H	UNLIMITED	UNLIMITED	100	ER/Studio Team Server Core
024D-SUBSF-02MBAC-048H	UNLIMITED	UNLIMITED	100	ER/Studio Team Server Core

Total amount of space used by data sources being monitored: No DBArtisan Team Server licenses registered

**Actions**  
[Refresh](#) | [Register Add-on License](#) | [Manage Users](#)

Current User Sessions: 1 base administrator, 0 Team Server.

#	User Name	Remote Host	Remote IP	Logged In Since	Inactive For (mm:ss)	Connection Type	Action
1	admin	ESWLAURAM01	10.150.40.136	Wed Jul 29 12:11:23 CEST 2015	52:24	Base	

## License Add-on Status

A license add-ons provides a certain number of connections of a certain connection type for a defined number of days, and is assigned an unique serial number. You register license add-ons to extend the number of user connections that your Team Server installation can have.

At the beginning of the page you can see the total number of available [connections](#), followed by a table which shows a row for each registered and activated license add-on with the following columns:

## Licenses

Column	Description
Serial No.	The serial number of the license add-on.
Days Left	The number of days until the license add-on expires. "UNLIMITED" means that your license add-on never expires.
Connections	The number of connections the license add-on allows. The number of connections might mean the number of simultaneous user sessions or the total number of user accounts, depending on the <a href="#">connection type</a> .
Connection Type	The type of connections the license add-on provides. For more information, see <a href="#">Overview of User Connections</a> .

Below the license add-ons table, there is a list of **Actions**:

Item	Description
Refresh	Updates the licensing module (by reloading the license file from disk) and refreshes the current page to show you the latest licensing information.
Register Add-on License	Opens the registration page and populates the registration code with a unique number, generated by the licensing module, that identifies the machine on which Team Server is installed. Here you can enter the serial number provided to you when you purchased the license.
Manage Exclusive Connections	Opens the <b>Exclusive Connection Administration</b> page where the super user can allocate exclusive licenses to <b>ER/Studio Enterprise</b> users, up to the maximum number shown in the <b>License Add-on Status</b> .
Manage Users	Opens the <a href="#">Manage Users</a> page.

## Current User Sessions

At the bottom of the page you can see the total number of connections of each type currently in use, followed by a table which shows a row for each active user session with the following columns:

Column	Description
#	The user ID.
User Name	The name of the user.
Remote Host	The hostname of the machine from which the user is connected.
Remote IP	The IP address of the access point from which the user is connected.
Logged In Since	The date when the current user session started.
Inactive For (mm:ss)	The time since the last user interaction. See <a href="#">Overview of User Authentication</a> .
Connection Type	The <a href="#">connection type</a> that the user is consuming.
Action	Allows the super user to log off (disconnect) users. You cannot disconnect yourself.

## See Also

- [Overview of Connection Licenses](#)
- [Activity](#) page

# Manage Users

[My Settings](#) > [Admin](#) > [Licenses](#) > [Manage Users](#)

## Manage Users

Use this page to manage Users

Actions

[Refresh User List](#) | [Apply Changes](#)

User Name	User Description	License Type	Email	Domain	Enabled
admin	Default Administrator	<input checked="" type="radio"/> Base <input type="radio"/> ERSTeamServer <input type="radio"/> TeamServer <input type="radio"/> Portal Concurrent <input type="radio"/> Portal Exclusive <input type="radio"/> NULL			
martino	LDAP user	<input type="radio"/> Base <input type="radio"/> ERSTeamServer <input checked="" type="radio"/> TeamServer <input type="radio"/> Portal Concurrent <input type="radio"/> Portal Exclusive <input type="radio"/> NULL		embarcadero	<input checked="" type="checkbox"/>

The **Manage Users** page lets you manage user connection licenses and enable or disable user connections.

The page shows a table of users with the following columns:

Item	Description
User Name	Username (login name) of the user.
User Description	Description of the user.
License Type	Type of <a href="#">user connection</a> assigned to the target user. To change the type of license associated to the target user, select the radio button of a different license and click <b>Apply Changes</b> . You can only select a license type if you have licenses of that type available. See <a href="#">Overview of Connection Licenses</a> .
Email	Email address of the user.
Domain	Name of the user domain.
Enabled	Checked if the user account is enabled. To disable a user account, uncheck this option and click <b>Apply Changes</b> .

Both above and below the table of users there is a list of **Actions**:

## Manage Users

Item	Description
Refresh User List	Updates the list of users.
Apply Changes	Saves your changes in the <b>Manage Users</b> page.

## New Users Creation

A blue rectangular button with rounded corners containing the text "New User" in white.

[Creating user](#) is also possible by clicking the **New User** button.

These users will be just **Team Server** exclusive users, not being able to connect to Repository.

## See Also

- [Overview of Connection Licenses](#)

# Manage Attachment Attributes





[My Settings](#) > [Admin](#) > [Managed Attributes](#) ([socialsuper users](#))

The **Manage Attachment Attributes** page you can associate enterprise data dictionary [attachments](#) with the following Team Server resource types: [glossaries](#), [terms](#), [people](#), [data sources](#), and the following [ER objects](#): [tables](#), [columns](#), [logical entities](#), [logical attributes](#), [business entities](#) and [business attributes](#).

The page contains a tab for each resource type that you can associate with an enterprise data dictionary attachment. In each of tabs you can see two columns:

- On the left-hand side column you can see the enterprise data dictionary attachments available in Team Server that are not currently associated with the current resource type.
- On the right-hand side column you can see the enterprise data dictionary attachments associated with the current resource type.

On the right-hand side of each column you can access the following icons that let you manage the enterprise data dictionary attachments associated with the current resource type:

Item	Description
 Add attachment	Adds the attachment selected in the left-hand side column to the right-hand column.
 Remove attachment	Removes the selected attachment from the right-hand side column. As a result, the attachment becomes available in the left-hand side column, so that you can add it back.
 Move attachment up	Moves the selected attachment one position up in the right-hand side column.
 Move attachment down	Moves the selected attachment one position down in the right-hand side column.

## See Also




- [Adding an Attachment Attribute to a Resource Type](#)



# Object Alerts Tab

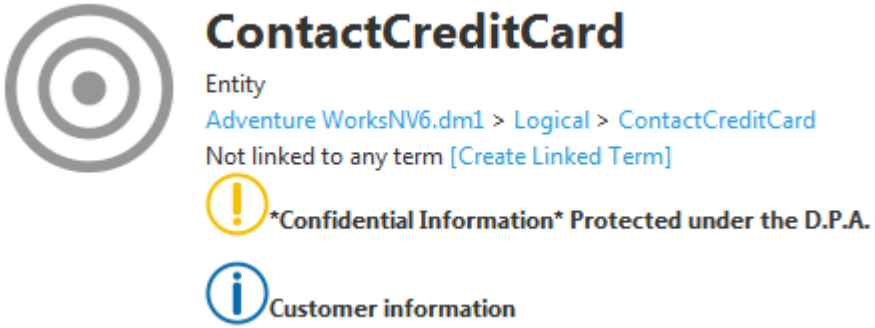
My Settings > Admin > Object Alerts ([super users](#))

## Object Condition Alerts

	<a href="#">Data Security Classification &gt; Privacy Level</a> <b>Warning</b> Match value: Highly Confidential Notification text: *Confidential Information* Protected under the D.P.A.	<a href="#">Edit</a> <a href="#">Delete</a>
	<a href="#">Data Security Classification &gt; Privacy Level</a> <b>Info</b> Match: [Bound Object] Notification text: Customer information	<a href="#">Edit</a> <a href="#">Delete</a>
	<a href="#">Data Security Classification &gt; Security Impact</a> <b>Warning</b> Match: [Bound Object] Notification text: High Security Item	<a href="#">Edit</a> <a href="#">Delete</a>

You can use the **Object Alerts** page to access, [edit](#) or delete any [alert condition](#) defined in **Team Server**.

For each existing alert condition, **Team Server** displays in this page an alert condition entry with the following fields:

Item	Description
<ER Object and Parent Name>	<p>The first line of an alert condition entry shows the name of the security property or attachment that contains the alert condition, as well as the name of its parent ER object.</p> <p>Both of them link to the <a href="#">Alerts</a> subpage of the security property or attachment that contains the alert condition, where you can <a href="#">delete this and other alert conditions</a> or <a href="#">add new alert conditions</a> to the target security property or attachment.</p>
Show Alert for Matching	<p>Here you can define the condition that should result in showing the target alert on any matching ER object. You may choose any of the following values:</p> <ul style="list-style-type: none"> <li>○ <b>Bound Object.</b> Show the target alert for any object bound to the current security property or attachment.</li> <li>○ <b>Value.</b> Show the target alert for any object bound to the current security property or attachment where the security property or attachment has the specified value. You can specify the target value on the text input field on the right-hand side of <b>Value</b>.</li> </ul>
Alert Level	<p>The level of the alert, determining which icons <b>Team Server</b> displays along with the defined <b>Notification Text</b>. You may choose any of the following values:</p> <ul style="list-style-type: none"> <li>○ <b>Info</b></li> <li>○ <b>Warning</b></li> </ul> <p>The following image shows the header of an ER object with one alert of each type and a <b>Notification Text</b> equal to the name of the chosen <b>Alert Level</b>.</p> <div style="text-align: center;">  <p><b>ContactCreditCard</b>                      Entity                      Adventure WorksNV6.dm1 &gt; Logical &gt; ContactCreditCard                      Not linked to any term [Create Linked Term]                      ! *Confidential Information* Protected under the D.P.A.                      i Customer information</p> </div>
Notification Text	<p>Text of the alert.</p> <p><b>Team Server</b> displays this text on the header of matching ER objects, on the right-hand side of the icon representing the <b>Alert Level</b>.</p>

## See Also

- [Configuring Sensitive Data Alerts](#)

# Solution Permissions

[My Settings](#) > [Admin](#) > [Solution Permissions](#) ([super users](#))

This page lets you manage user permissions to access certain content and features.

## Solution Permissions

The screenshot displays the 'Solution Permissions' interface. On the left is the 'Solution Repository' tree view with folders like 'admin', 'dashboards', 'activity', 'explore', 'home', 'eti', 'reports', and 'useractions'. The main area is split into two sections: 'Settings' and 'Add New Permission'.

**Solution Repository**

- /
- admin
- dashboards
  - activity
  - explore
  - home
- eti
- reports
- useractions

**Settings**

File:/dashboards/activity

Delete	Role	Write	Execute	Subscribe
<input type="checkbox"/>	Super User	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	Authenticated	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Update... Reset Add

**Add New Permission**

Role

**Roles**

- Testing role

**Users**

- Admin
- Embt
- lauram
- OlgaK

Write Execute Subscribe

Add Cancel

The Solution Permissions page provides the following columns:

- o [Solution Repository](#), a tree view with content that you can limit.
- o [Settings](#), which displays the user permissions settings for the selected item from the [Solution Repository](#).
- o [Add New Permission](#), to create new permission entries in the [Settings](#) column.

## Solution Repository

This tree view provides a list of items. To browse the items in the tree, click the + button to expand collapsed items or collapse expanded items.

You can limit user access to any those items using the [Settings](#) column. To load an item in the Settings column, click the target item in the Solution Repository.

## Settings

The settings column displays:

- The path (**File**) to the selected item from the [Solution Repository](#).
- A [table of roles and permissions](#).
- A [set of actions](#) to modify those permissions.

## Settings Table

To save your changes to the settings table, click **Update**. For example, to delete an item, check the **Delete** checkbox and click **Update**.

The settings table provides the following columns:

Item	Description
Delete	Check this option to delete the target permission.
Role	Role or user affected by the permission set defined in the row.
Write	Check to enable <b>Write</b> permission for the target role or user.
Execute	Check to enable <b>Execute</b> permission for the target role or user.
Subscribe	Check to enable <b>Subscribe</b> permission for the target role or user.

## Settings Actions

You can use the following actions to interact with the settings table:

Item	Description
Update	Saves your changes to the settings table.
Reset	Restores the saves status of the settings table. For example, if you check a permission in the settings table and click <b>Reset</b> , Team Server unchecks that permission.
Add	Shows the <a href="#">Add New Permission</a> column to add a permission set to the Settings column.

## Add New Permission

This column lets you add a permission set to the [Settings table](#). It provides the following fields:

## Solution Permissions

Item	Description
Role	Roles and users to be affected by the new permission sets. Click a role or user to select it. You can use the <code>Ctrl</code> or <code>Shift</code> keys to select multiple roles and users at once.
Write	Check to enable <b>Write</b> permission for the target roles and users.
Execute	Check to enable <b>Execute</b> permission for the target roles and users.
Subscribe	Check to enable <b>Subscribe</b> permission for the target roles and users.
Add	Adds the specified permission sets to the <a href="#">Settings table</a> , and closes the column.
Cancel	Closes the column without adding any permission set to the <a href="#">Settings table</a> .

## See Also






- [Managing Permissions on Action Sequences](#)

# Repository Management

[My Settings](#) > [Admin](#) > [Repository Management](#) ([super users](#))

The [Repository Management](#) page lets you manage the [Reporting Repository](#).

This page provides the following actions:

Item	Description
 Update Solution Repository	Reads all of the solution files and updates the <a href="#">Reporting Repository</a> . You can execute this action to update Team Server after you add new content to your repository, to refresh the repository from the file system.
 Restore Solution Repository	Reloads all repository files from the file system and restores all Access Control Lists (ACL) to the defaults stored in <code>pentaho.xml</code> , inside the <code>solutions\system</code> directory within the Team Server installation folder. You can execute this action to reset your repository to the its factory default state.
 Update Search Index	Rebuilds the search index based on the data in the <a href="#">Reporting Repository</a> . Team Server rebuilds the search index automatically after a synchronization process. However, you should manually update the search index after you: <ul style="list-style-type: none"> <li>○ <a href="#">Upgrade Team Server and Repository</a> and chose to connect to an existing Reporting Repository.</li> <li>○ Use the <a href="#">Team Server Configuration Manager</a> to change the Team Server configuration.</li> <li>○ <a href="#">Configure the search filters</a> editing the <code>RepoRpt.xml</code> file.</li> </ul>
 Clean Content Repository	Removes files from the content repository that are more than 180 days old. See <a href="#">Cleaning the Content Repository</a> .
 Schedule Cleaning of Content Repository	Schedules the <b>Clean Content Repository</b> action to run daily.
More	Opens the <a href="#">Publisher Administration</a> page, which provides additional actions.

## See Also

- [Tomcat Configuration Application](#)
- [Team Server Configuration Manager](#)

# Performing Maintenance Tasks

Here you can find a list of topics that can help you keep Team Server in good shape.

## Topics

- [Cleaning the Content Repository](#)
- [Updating the Search Index](#)
- [Updating Reports](#)

## See Also

- [Repository Management](#) page

# Cleaning the Content Repository

The content repository consists of temporary files, such as run-time and history information maintained by the [Pentaho BI Platform](#). Cleaning the content repository consists of removing files from the content repository that are more than 180 days old.

To clean the content repository:

- Select **My Settings > Admin > [Repository Management](#)**.
- Click **Clean Content Repository** ().

A dialog box appears with the following message confirming that Team Server successfully completed the task:

"Action Successful! Found and deleted <number> file(s) more than 180 days old."


## See Also

- [Repository Management](#) page



# Updating the Search Index

To update the search index:

- Select [My Settings](#) > [Admin](#) > [Repository Management](#).
- Click [Update Search Index](#) ()
- Click OK on the confirmation dialog that appears.

A dialog box appears confirming that Team Server successfully completed the task.

## See Also

- [Configuring the Search Index](#)
- [Repository Management](#) page

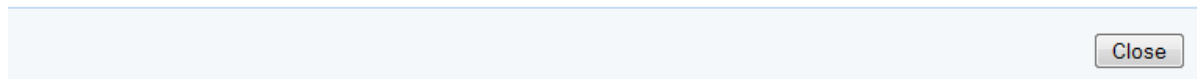
# Publisher Administration

[My Settings](#) > [Admin](#) > [Repository Management](#) | click [More \(super users\)](#)

The **Publisher Administration** page provides additional actions to manage the [Reporting Repository](#) that are not available in the [Repository Management](#) page.

## Publisher Administration

Publisher	Description	Actions
Refresh System Settings	Refresh all of the system settings based on files from the file system	<a href="#">Publish</a>
Execute Global Actions	Execute all of the defined global system actions	<a href="#">Publish</a>
Refresh Reporting Metadata	Refresh the metadata used for ad hoc reporting	<a href="#">Publish</a>



Actions are displayed in a table. To execute an action, click **Publish** on the right-hand side of the action row. Team Server displays a message when it completes an action that you execute.

This page provides the following actions:

Item	Description
Refresh System Settings	Refreshes all of the system settings, based on files from the file system.
Execute Global Actions	Executes all of the defined global system actions.
Refresh Reporting Metadata	Refreshes the metadata used for <i>ad hoc</i> reporting.

## See Also

- [Administrator Guide](#)
- [Overview of the Team Server Architecture](#)

# Subscriptions

[My Settings](#) > [Admin](#) > [Subscriptions](#) ([super users](#))

From the **Subscriptions** page you can create and manage subscriptions, subscription schedules and scheduled jobs.

## Subscriptions

Use this page to create and manage subscriptions, subscription schedules and scheduled jobs

Scheduler Status:

Scheduler Status:Normal

Actions

[Suspend](#)|[Add Schedule](#)|[Set Content](#)|[Import Schedules and Content](#)|[Refresh](#)|[Show Subscriptions](#)

Scheduled Subscriptions

Job - Name / Title	Description	CRON Expression	Fire Time - Last / Next	# Subs	State	Action
Name 1 Title 1	Description 1	0 0/5 * * * ?	2013-06-11 16:45:00.037 Tue Jun 11 16:50:00 CEST 2013	0	Normal	<a href="#">Suspend</a> <a href="#">Run Now</a> <a href="#">Edit</a>

Subscription Content

Action Sequence	Action
admin/clean_repository.xaction	<a href="#">Edit</a>   <a href="#">Delete</a>
etl/actions/Synchronize.xaction	<a href="#">Edit</a>   <a href="#">Delete</a>

The Subscriptions page provides:

- The **Scheduler Status**, at the beginning of the page.
- A [set of actions](#).
- A **Warning** if there are subscriptions that are not scheduled to run.
- A [table of scheduled subscriptions](#).
- A [table of subscriptions without scheduled jobs](#).
- A [table that displays actions](#) available for the content that you select with the **Set Content** command.

## Subscriptions Actions

The Subscriptions page provides the following actions:

## Subscriptions

Item	Description
Suspend	Pauses all scheduled jobs until you restart them manually.
Add Schedule	Opens a page to create a new schedule. See <a href="#">Creating a Schedule</a> .
Set Content	Opens a page to select subscription content from all available action sequences. See <a href="#">Enabling Action Sequences for Scheduling</a> .
Refresh	Updates the <a href="#">Subscription Content table</a> to show any additions or changes.

## Subscriptions Tables

The Subscriptions page provides two tables of subscriptions: **Scheduled subscriptions** and **Subscription Content**.

Both tables provide the following columns:

## Subscriptions

Item	Description												
Job - Name / Title	The name and the title of the job.												
Description	A description of the job.												
CRON expression	The <a href="#">CRON Expression</a> that determines the schedule of the job.												
Fire Time - Last / Next	The time and date of the last execution and the next scheduled execution of the job.												
# Subs	Number of subscriptions.												
State	State of the job.												
Action	Actions that you can perform on the job. The following actions are available on each item:												
	<table border="1" style="width: 100%;"> <thead> <tr> <th style="text-align: center;">Action</th> <th style="text-align: center;">Description</th> </tr> </thead> <tbody> <tr> <td>Resume (only paused scheduled subscriptions)</td> <td>Resumes the job.</td> </tr> <tr> <td>Suspend (only running scheduled subscriptions)</td> <td>Suspends the job.</td> </tr> <tr> <td>Run Now (only scheduled subscriptions)</td> <td>Runs the job immediately.</td> </tr> <tr> <td>Schedule (only subscriptions without scheduled jobs)</td> <td>Schedules the job.</td> </tr> <tr> <td>Edit</td> <td>Opens a page to edit the scheduler job. See <a href="#">Editing a Schedule</a>.</td> </tr> </tbody> </table>	Action	Description	Resume (only paused scheduled subscriptions)	Resumes the job.	Suspend (only running scheduled subscriptions)	Suspends the job.	Run Now (only scheduled subscriptions)	Runs the job immediately.	Schedule (only subscriptions without scheduled jobs)	Schedules the job.	Edit	Opens a page to edit the scheduler job. See <a href="#">Editing a Schedule</a> .
	Action	Description											
	Resume (only paused scheduled subscriptions)	Resumes the job.											
	Suspend (only running scheduled subscriptions)	Suspends the job.											
	Run Now (only scheduled subscriptions)	Runs the job immediately.											
	Schedule (only subscriptions without scheduled jobs)	Schedules the job.											
Edit	Opens a page to edit the scheduler job. See <a href="#">Editing a Schedule</a> .												

On top of the **Subscriptions without scheduled jobs** table, you can click **Schedule All** to schedule all jobs at once.

## Subscription Content Table

This table displays the actions available for the content that you select with the [Set Content](#) command.

## Subscriptions

Item	Description						
Action Sequence	Path of the action sequence.						
Action	The following actions are available on each item:						
	<table border="1"><thead><tr><th>Action</th><th>Description</th></tr></thead><tbody><tr><td>Edit</td><td>Opens the <a href="#">Edit Action Sequence Page</a>.</td></tr><tr><td>Delete</td><td>Removes the target item from the list.</td></tr></tbody></table>	Action	Description	Edit	Opens the <a href="#">Edit Action Sequence Page</a> .	Delete	Removes the target item from the list.
	Action	Description					
	Edit	Opens the <a href="#">Edit Action Sequence Page</a> .					
Delete	Removes the target item from the list.						

## See Also

- [Writing a CRON Expression](#)

# Access Control Permissions

Team Server gives administrative permissions to users with the [Super User](#) role by default. Users assigned to the Super User role in ER/Studio can assign permissions to other users in ER/Studio Team Server and limit the actions that specific users or groups of users can perform over a [resource](#) from the Access Control List page.

The page is divided in two tabs, which are described below.

## Users Tab

The [Users Tab](#) displays a list of users available to assign permissions. To [manage the permissions of each user](#), click the Edit button.

### Permissions

Use this page to manage the permissions for users and groups.

Users	Groups
 admin	<a href="#">Edit</a>
 embt	<a href="#">Edit</a>
 lauram	<a href="#">Edit</a>
 olgak	<a href="#">Edit</a>

## Groups Tab

The [Groups Tab](#) displays a list of groups available to assign permissions. It allows you to:

- [Create a New Group](#).
- Mark a group as default. If you click the **Mark as default group** button, Team Server will assign this default group to each new user. To clear a group as default, you can click the **Unmark as default group** button.
- [Manage permissions for groups](#).
- [Delete a group](#).

## Permissions

Use this page to manage the permissions for users and groups.

The screenshot shows a web interface for managing permissions. At the top, there are two tabs: 'Users' and 'Groups', with 'Groups' being the active tab. A 'New Group' button is located in the top right corner. Below the tabs, there is a list of three groups, each with a user icon, a name, a description of permissions, and a set of action buttons.

Group Name	Permissions	Actions
Authors	Read and create allowed for all types	Unmark as default group, Edit, Delete
Managers	All permissions allowed for all types	Mark as default group, Edit, Delete
Readers	Read allowed for all types	Mark as default group, Edit, Delete

## Topics

- [Manage User Permissions on a Resource](#)
- [Manage Group Permissions on a Resource](#)
- [Manage Permissions for Individual Resources](#)
- [Creating a Permissions Group](#)
- [Deleting a Permissions Group](#)

## See Also

- [Manage Users](#)
- [Working with Resources](#)
- [Working with Login Credentials](#)



# Manage User Permissions on a Resource

To manage User Permissions:

1. Select the **Permissions** page and then select the Users tab.
2. Click the **Edit** button on the upper-right corner.

**Permissions**  
Manage User Permissions

**admin**

**Permissions**

Element Type	List/View	Create	Update/Delete	Stewards	Execution
Glossaries	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
ER Objects	<input type="checkbox"/>		<input type="checkbox"/>		
Data Sources	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Login Credentials	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>
Reports	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Applications	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Metrics	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Alerts	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Blackouts	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Groups	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

**Groups Membership**

Available Groups

- Authors
- Managers
- Readers

➔

➜

Groups user currently belongs to

[Save](#) [Cancel](#)

The Manage User Permissions page shows a permissions table where you can set specific permissions for Glossaries, ER Objects, Datasources, Login Credentials, Reports and Applications.

It shows the following options for each element type:

Item	Description
List/View	Check this option to allow read-only permissions.
Create	Check this option to allow creating the resources.
Update/Delete	Check this option to allow editing and deleting the resources.
Stewards	Check this option to allow user to manage the <a href="#">Stewards</a> of a resource.

The Groups Membership table allows you to include the user on permissions groups. Click the **Save** button to save your settings.

### See Also

- [Admin](#)
- [Manage Group Permissions on a Resource](#)
- [Deleting a Permissions Group](#)

# Manage Group Permissions on a Resource

To manage Groups Permissions:

1. Select **Permissions** page and then select **Groups** tab.
2. Click the **Edit** button on the upper-right corner.

**Permissions**  
Manage Group Permissions

**Name**  
Authors

**Definition**  
Read and create allowed for all types

**Permissions**

Element Type	List/View	Create	Update/Delete	Stewards	Execution
Glossaries	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
ER Objects	<input checked="" type="checkbox"/>		<input type="checkbox"/>		
Data Sources	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Login Credentials	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>
Reports	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
Applications	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Metrics	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Alerts	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Blackouts	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Groups	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

**Members**

Available Users  
admin

Users currently in this group

↔

**Save** **Cancel**

The Manage Groups Permissions page shows a permissions table where you can set specific permissions for Glossaries, ER Objects, Datasources, Login Credentials, Reports and Applications.

It shows the following options for each element type:

## Manage Group Permissions on a Resource

Item	Description
List/View	Check this option to allow only read permissions.
Create	Check this option to allow creating the resources.
Update/Delete	Check this option to allow editing and deleting the resources.
Stewards	Check this option to allow user to manage the <a href="#">Stewards</a> of a resource.

The Members table allows you to include the user on permissions groups.

You can also modify the name and the description of the group on this page.

Click **Save** button to save your settings.

## See Also

- [Admin](#)
- [Manage User Permissions on a Resource](#)
- [Deleting a Permissions Group](#)

# Creating a Permissions Group

To create a Permissions Group:

1. Select Access Control List page and then select Groups tab.
2. Click the **New Group** button on the upper-right corner.
3. On the **New Group** dialog box that opens:
  1. Define the **Name** of your new permissions group.
  2. Write a **Description** that provides detailed information about the group, such as its purpose and privileges.
  3. Click **Save** to save your new permissions group.

## See Also

- [Admin](#)
- [Manage Group Permissions on a Resource](#)
- [Deleting a Permissions Group](#)

# Deleting a Permissions Group

To delete a Permissions Groups from Team Server:

1. Select Access Control List page and then select Groups tab.
2. Click the **Delete** button on the right-hand side of the groups entries.
3. On the confirmation dialog box that opens, click **OK**.

The target group is not available anymore in Team Server.

**Note:** Deleting a Permissions Group does not delete any users belonging to it.

## See Also

- [Admin](#)
- [Creating a Permissions Group](#)
- [Manage Group Permissions on a Resource](#)

# Password Locker Audit

[My Settings](#) > [Admin](#) > [Password Locker Audit](#)

Application	User Name	Login Credentials
DB Artisan	davidc	dba user
DB Artisan	antoniom	dba admin
Change Manager	davidc	guess user
DB Artisan	patriciam	guess user
DB Optimizer	yolandap	yolandap
DB Artisan	patriciam	guess user
Change Manager	davidc	guess user
DB Optimizer	yolandap	yolandap
DB Optimizer	yolandap	yolandap

Management of the [Login Credentials](#) is quite important now that Team Server share them with other applications as DBArtisan. The **Password Locker Audit** page allows administrators to consult when a login credential is used, on which application and by which user.

The page contains:

- A filter line where you can filter the info by application, login credential and between two dates.
- A table that shows the information in for columns.

## Topics

- [Auditing the Usage of Login Credentials by other Product](#)

## See Also

[Admin Page](#)

[Login Credentials](#)

# Manage Search Results

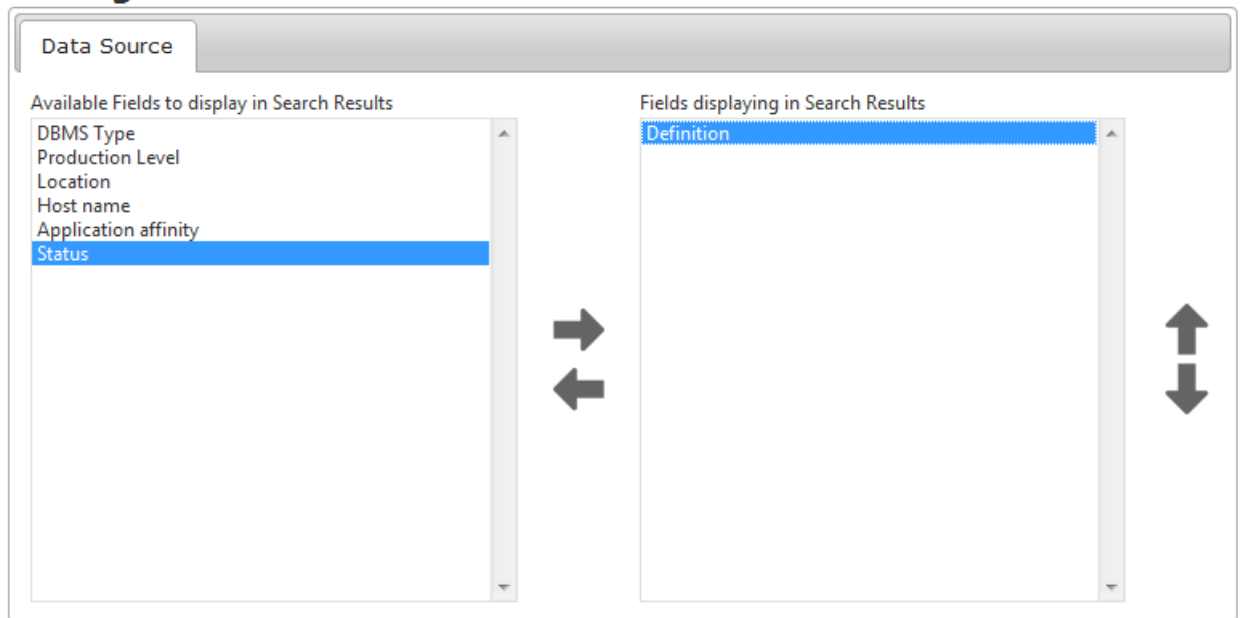
[My Settings](#) > [Admin](#) > [Managed Search Results](#)

The **Manage Search Results** page allows administrators to choose which fields are displayed in the search results for [Data Sources](#). **Name** is always displayed and **Definition** is selected by default for display.

The page contains a tab for Data Sources allowing you to selectively manage the search results that appear when users perform a search. There are two columns:

- On the left-hand side column you can see the search fields available in Team Server that are not currently displayed in the results.
- On the right-hand side column you can see the search fields currently displayed in the search results.





## Manage Search Results



On the right-hand side of each column you can access the following icons that let you manage the search fields associated with the Data Source search:



## Manage Search Results

Item	Description
 Add search field	Adds the search field selected in the left-hand side column to the right-hand column, causing that field to appear in the search results.
 Remove search field	Removes the selected search field from the right-hand side column, removing it from the search results. As a result, the search field becomes available in the left-hand side column, so that you can add it back.
 Move search field up	Moves the selected search field one position up in the right-hand side column. This changes the position of the field when the search results are displayed by moving it up the results.
 Move search item down	Moves the selected search field one position down in the right-hand side column. This changes the position of the field when the search results are displayed by moving it further down the results.

## See Also

- [Admin Pages](#)
- [Search Pages](#)

# Manage Glossary Tool Tips

[My Settings](#) > [Admin](#) > [Glossary Tool Tip](#) ([super users](#))

The Glossary Tool Tip Admin page allows administrators to choose which web sites are associated with [Glossary Tool Tips](#) and to which [Glossaries](#).

## Glossary Tool Tip

[New Association](#)

Use this page to manage the glossaries that be returned for each URL Pattern.

The patterns matches URLs using the following rules:

? matches one character

\* matches zero or more characters

\*\* matches zero or more 'directories' in a path

URL Patterns	Glossaries	Definition	Action
<a href="http://en.wikipedia.org/**">http://en.wikipedia.org/**</a>	Business Glossary	Tool Tip Connection	<a href="#">Edit</a>   <a href="#">Delete</a>

To associate a URL to a specific Glossary:

1. Click [My Settings](#) > [Admin](#)
2. From the left navigation bar, click [Glossary Tool Tip](#).
3. In the top right of the page, click [New Association](#).
4. Fill out the fields of the **New Association** pop-up window, clicking **Add** to save each field before adding another.
  1. URL Patterns - The URL list of the web sites/pages that you would like to associate with your Glossary. There are *wildcard* matches available:
    - ? To match a single character.
    - \* To match zero or more characters.
    - \*\* To match zero or more directories.

**Tip:** You will see from the example image that the wikipedia URL concludes with a double asterisk (\*\*) rather than a single asterisk (\*). In this example we want to include all sub directories. A single asterisk would only match zero or more characters rather than a general wildcard for all directories and characters as it is sometimes used.

2. Glossaries - A list of one or more Glossaries that you would like to associate with the web sites in the *URL Patterns* field.
3. Definitions - You can add a definition of your association between the URL and Glossary.

**New Association** [X]

**URL Patterns**  
http://en.wikipedia.org/\*\* [Add]

**Glossaries**  
Business Glossary [Add]

**Definition**  
[Empty text area]

[Save] [Cancel]

5. Click Save.

## See Also

- [Admin Pages](#)
- [Glossary Tool Tip](#)
- [Installing Glossary Tool Tips](#)

# Overview of Data Synchronization

Team Server provides features on top of data from the **Repository**, which can store data from ER/Studio Business Architect, ER/Studio Data Architect, DBArtisan and Rapid SQL.

However, the data you see in **Team Server** does not come directly from the **Repository**. Instead, **Team Server** has a [database](#) of its own, which holds a copy of the data from the **Repository**. As data changes in the **Repository** (ER objects, users and roles are added, deleted or updated), **Team Server** database is updated to keep both repositories in sync.

See in [ER/Studio Repository Data that Team Server Supports](#) which data you can synchronize with Team Server.



**Note:** Files saved in later versions of ER Studio Data Architect may not work with Team Server if they use new features. For example, if you use SQL Server 2014 for your Physical Model in ER Studio DA 9.7, you will need to update to the corresponding version of Team Server for those files to synchronize.

## Topics

- [ER/Studio Repository Data that Team Server Supports](#)
- [Viewing Synchronization Logs](#)
- [Overview of the Diagram Synchronization Process](#)

## See Also

- [DBArtisan/Rapid SQL Wiki](#)

# ER/Studio Repository Data that Team Server Supports

Team Server can synchronize the following data from ER/Studio Repository:

- [Most ER objects.](#)
- [Users and roles.](#)

## ER Objects

Team Server can synchronize the following ER/Studio object types from ER/Studio Repository:

ER/Studio Business	ER/Studio Data Architect		
Architect Object	Model Object	Dictionary Object	Data Lineage Object
Assignment	Attribute	Attachment Text	Comment
Attribute	Comment	List	Data Flow
Business Data Object	Diagram	Attachment Type	Data Lineage Column
Comment	Business Data	Bound Attachment	Data Lineage Component
Incoming/Outgoing	Object	Bound Domain	Data Lineage Component
Condition	Entity	Bound Default	Display
Description	Entity Display	Bound Rule	Data Lineage Display
Entity	Project	Bound Reference	Data Lineage Rule
Event	Relationship	Value	Data Lineage Source
Gateway	Relationship	Bound Security	Data Lineage Table
Group	Display	Property	Data Lineage View
Interaction	Submodel	Bound User	Data Movement Column
Link	Nested Submodel	Datatype	Data Movement Model
Message Flow	View	Comment	Data Movement Rule Link
Model	View Column	Domain Dictionary	Data Stream
Notes	View Display	Default	Transformation Display
Project		Dictionary	Transformation Field
Property		Reference Value	Transformation Object
Process		Reference Value	
Relationship		Pair	
Sequence Flow		Rule	
Subject Area		Security Property	
Task		Security Text List	
Trigger		Security Type	
Usage (CRUD)		User Datatype	
Verb/Inverse Verb Phrase			
Workspace			

## Users and Roles

Team Server synchronizes users and roles from ER/Studio Repository. This means that users of ER/Studio Repository [can log in to Team Server](#) using the same user credentials that they use to log in to ER/Studio Repository.

## Non-Social Users

For Non-Social users please see:

[http://docwiki.embarcadero.com/TeamServer/ERStudio/XE7/en/ER/Studio\\_Repository\\_Data\\_that\\_ER/Studio\\_Team\\_Server\\_Supports](http://docwiki.embarcadero.com/TeamServer/ERStudio/XE7/en/ER/Studio_Repository_Data_that_ER/Studio_Team_Server_Supports).

## See Also

- [Overview of Data Synchronization](#)
- [Overview of Security](#)

# Overview of the Diagram Synchronization Process

When you [the synchronization process happens](#), Team Server uses a separate Java Virtual Machine (JVM) invocation for the synchronization process.

When the synchronization process starts, Team Server detects which diagrams in ER/Studio Repository have changed since the last synchronization. Team Server selects those diagrams and spawns another instance of a JVM for each diagram. This allows diagrams to be processed one at a time so that access to a particular diagram becomes available within the portal as soon as possible.

## Extracting Diagrams from ER/Studio Repository

Team Server follows these steps to extract each selected diagram:

**Note:** If diagram extraction takes longer than three hours, Team Server presumes an error has occurred and terminates the extraction.

1. Uses the `RepoGetDiagram` function to download the DM1 file from ER/Studio Repository.
2. Creates an XML file containing the latest data for all in-scope objects in the diagram.
3. Creates a JPEG image file for each submodel in the diagram.

**Note:** Images are stored in the Team Server web server, not in the [Reporting Repository database](#), so that you can access them from the model and submodel the model and submodel detail reports.

The extraction of data from ER/Studio Repository relies on invoking `ERSTUDIO.EXE`, or its equivalent, to access the ER/Studio object API. During the data extraction, object metadata is output in XML format by using Microsoft's XML v6 parser.

## Loading the Diagrams Data Back into Team Server

Diagrams of the [Team Server Reporting Repository](#) are stored in XML files on the Team Server web server.

Team Server follows these steps to process each diagram and update its data with the new data from ER/Studio Repository:

1. Removes all the current data, if any, in the Reporting Repository database for that diagram. This includes purging the submodel image files on the server and the properties from the search index.
2. Populates the appropriate table(s) for each object.

3. Populates the search index as appropriate for each text field that is searchable. By default, all text properties are searchable, but you can [exclude ER object types and properties from being processed](#).
4. Archives the diagram XML files to a backup folder.

## See Also

- [ER/Studio Repository Data that Team Server Supports](#)



# Viewing Synchronization Logs

Logs are located in the Team Server installation directory, inside `etlvar\log\`. There, each synchronization process has its own directory, called `log_<timestamp>`. For example: `etlvar\log\log_20081119210946\`.

To save disk space, Team Server creates `.zip` files from previous synchronization logs, and removes their directory. For example, during the next synchronization the `etlvar\log\log_20081119210946\` directory becomes the `etlvar\log\log_20081119210946.zip` archive.

Because Team Server archives previous synchronization logs, when the synchronization process fails for an ER object, you can only see the error log if the synchronization of the ER object failed during the latest synchronization process. To access logs of previous synchronization processes, you cannot use the Team Server web interface. You must access the logs folder in the Team Server server instead. server file system.

## See Also

- [My Reports](#)
- [ER/Studio Publications](#)

# Overview of Scheduling

Team Server lets any user [with permissions enough](#) to schedule an action sequence for execution, that is, to have Team Server execute an action sequence following a schedule.

Action sequences are sets of actions that you can execute. Action sequences may take input and generate output, and [reports](#) are based on them; that is, Team Server reports are action sequences that take some input (the report settings) and generate a report as output.

Team Server comes with several action sequences. To see a list of all the action sequences that you can schedule for execution, select **My Settings > Admin > Subscriptions** and click **Set Content**. You can also use the [Web Adhoc Query and Reporting wizard](#) to create action sequences that can generate custom reports from input parameters, or [create your own action sequences from scratch](#).

To schedule an action sequence for execution, as a [super user](#) you must enable the combination of the target action sequence and a schedule for subscription:

1. [Create a schedule](#) that defines when to execute the target action sequence.
2. [Enable the target action sequence for scheduling](#).
3. [Enable the target action sequence and the created schedule for subscription](#).
  - **Note:** For subscription purposes, you can associate several action sequences with the same schedule, and associate an action sequence with several schedules.

Once you enable the combination of the action sequence and the schedule for subscription, users [with enough permissions](#) such as yourself can [subscribe to that combination](#). Subscribing to a combination of an action sequence and a schedule enables that combination in the Team Server scheduler. **That is, as long as there is at least one user subscribed to a combination of an action sequence and a schedule, Team Server executes that action sequence following the defined schedule.**

## Topics

- [Creating a Schedule](#)
- [Enabling Action Sequences for Scheduling](#)
- [Enabling an Action Sequence and Schedule for Subscription](#)
- [Subscribing to an Action Sequence](#)
- [Editing a Schedule](#)
- [Writing a CRON Expression](#)

# Creating a Schedule

To add a new schedule to Team Server:

1. Select **My Settings > Admin > [Subscriptions](#)**.
2. Click **Add Schedule**.
3. In the page that opens:
  1. Enter the name of a **Group** for the new schedule.
  2. Enter a descriptive, short **Name**.
  3. Enter a **Title** for the schedule. You can see the title of the schedule when you [subscribe to an action sequence](#).
  4. Provide a complete **Description** of the schedule.
  5. In the **Cron Exp** field, enter a [CRON expression](#) that determines when to run the schedule.
  6. Click **Add** to add the new subscription.

## See Also

- o [Subscriptions](#) page

# Editing a Schedule

To edit a scheduler job:

1. Select [My Settings](#) > [Admin](#) > [Subscriptions](#).
2. Locate the target scheduler job in one of the [subscriptions tables](#).
3. On the row of the target scheduler job, click **Edit** in the **Action** column.

In the page that opens you can edit the scheduler job properties and the action sequences associated with the scheduler job.

To modify the properties of the scheduler job, change their values in the fields at the beginning of the page, and click **Modify** when you finish to save your changes.

To add or remove action sequences from the scheduler job:

1. Click **Set content for this schedule**.
2. On the page that opens:
  1. Check or uncheck action sequences from the list of [enabled action sequences](#) to add or remove them from the scheduler job, respectively.
  2. Click **Submit** to save your changes.

## See Also

- [Subscriptions](#) page

# Enabling Action Sequences for Scheduling

To enable (or disable) action sequences so that Team Server includes them in the list of action sequences that you can run on a schedule:

1. Select [My Settings](#) > [Admin](#) > [Subscriptions](#).
2. Click **Set Content**.
3. On the page that opens:
  1. Check or uncheck the actions sequences in the tree view to enable or disable them, respectively. For example, if you wanted to run a synchronization action, expand **etl : actions :** and then select the **Synchronize.xaction** option.
  2. Click **Set Content** at the end of the page to save your changes.

## Action Sequences Details

Team Server comes with several action sequences. The following table lists some examples of the action sequences that you can schedule for execution:

## Enabling Action Sequences for Scheduling

Action Sequence	Purpose
clean_repository.xaction	Removes files from the content repository that are more than 180 days old.
schedule-clean.xaction	Schedules the clean content repository action to run daily.
schedule-etl.xaction	Schedules the ER/Studio repository synchronization.
ObjectHistoryDetail.xaction	Recent object activity for the Authenticated User.
ReindexAll.xaction	Schedules the ER/Studio repository reindex action.
Synchronize.xaction	Configure the synchronization process schedule.
SynchronizeDebug.xaction	Data Integration Synchronization.
CommonReferenceValues.xaction	Run a report that includes information about the reference values for attributes within a specified entity..
EntitySubmodelModelDiagram.xaction	Run a report that includes information about all of the entities in a specified diagram.
GetUserName.xaction	Get Logged in User.
SecurityClassifications.xaction	Run a report that includes information about the security classifications of a specified entity..

## See Also

- [Subscriptions](#) page

# Enabling an Action Sequence and Schedule for Subscription

After you [create a schedule](#) and [enable an action sequence for scheduling](#), you can enable their combination for scheduling, so users [with enough permissions](#) can [subscribe to them](#).

To enable the combination of your action sequence and your schedule for subscription:

1. Select **My Settings > Admin > Subscriptions**.
2. Locate the target action sequence in the **Action Sequence** list.
3. In the **Action** column, click **Edit**.
4. In the next page, click **Set schedules for this content**.
5. The page that opens contains a list of [schedules](#). Mark the checkboxes on the **Schedule** columns of those schedules that you want to enable for subscription with the target action sequence.
6. Click **Submit** to apply your changes.

You can now [subscribe to the target action sequence using the selected schedule](#).

Alternatively, you can enable a combination of an action sequence and a schedule the other way around, editing the schedule instead of the action sequence:

1. Select **My Settings > Admin > Subscriptions**.
2. Locate the target schedule in the **Scheduled Subscriptions** list.
3. In the **Action** column, click **Edit**.
4. In the next page, click **Set content for this schedule**.
5. The page that opens contains a list of [action sequences](#). Mark the checkboxes on the left-hand side of those action sequences that you want to enable for subscription with the target schedule.
6. Click **Submit** to apply your changes.

## See Also

- [Creating a Schedule](#)
- [Enabling Action Sequences for Scheduling](#)
- [Subscriptions](#) page

# Subscribing to an Action Sequence

To make Team Server execute an action sequence following a [schedule](#), you must [enable the combination of both for scheduling](#) and subscribe to that combination. Team Server only executes an action following a schedule if there is at least a user subscribed to that combination of an action sequence and a schedule.

To subscribe to an action sequence on a schedule:

1. Enter in your web browser the following URL:

<http://domain:port/ViewAction?solution=solution&path=path&action=action&subscribe=yes>

- **domain** is the domain name, host name or IP address of the machine running your Team Server web server. You only need to specify the **port** number if you changed the default port number (80) [during the installation](#).
  - The values of **solution**, **path** and **action** depend on the action sequence you want to subscribe. For example:
    - To subscribe to [etl\actions\Synchronize.xaction](#), **solution** is "etl", **path** is "actions", and **action** is "Synchronize.xaction". For example  
<http://localhost/ViewAction?&solution=etl&path=actions&action=Synchronize.xaction&subscribe=yes>
    - To subscribe to [admin\clean\\_repository.xaction](#), **solution** is "admin", **action** is "clean\_repository.xaction", and there is no **path**. If there is no path, you must specify it in the URL without a value:  
[http://localhost/ViewAction?solution=admin&path=&action=clean\\_repository.xaction&subscribe=yes](http://localhost/ViewAction?solution=admin&path=&action=clean_repository.xaction&subscribe=yes)
2. On the page that opens:
    1. Click **Show Scheduling Options**.
    2. Write a report name in the **Report Name** text field. This is the name that Team Server shows in your [My Reports](#) page.
    3. Select the target schedule from the **Schedule For** combo box.
    4. Click **Save** to subscribe.

You can now access the output of any future execution of the target action sequence from your [My Reports](#) page. There you can also run the target action sequence instantly.

## See Also

- [Enabling an Action Sequence and Schedule for Subscription](#)



# Writing a CRON Expression

A CRON expression is a string of 6 or 7 fields, separated by a white space, that represents a schedule.

A CRON expression takes the [following format](#) (years are optional):

```
<seconds> <minutes> <hours> <days of month> <months> <days of week>
<years>
```

The string represents a set of times, which are the times that match the CRON expression. For example, `0 0 0 * * *` is a daily schedule, because it matches combinations of date and time where seconds, minutes and hours are 0. If you change the hours field to 6, `0 0 6 * * *`, your string represents every day at 6:00 AM. For more examples, see the [list of examples](#) later in this topic.

In each field you can use a number, a special character, or a combination of both. See [Using Special Characters](#).

## CRON Expression Format Details

Use the following rules to create a CRON expression:

Field	Allowed Values	Allowed <a href="#">Special Characters</a>
Seconds	0-59	, - * /
Minutes	0-59	, - * /
Hours	0-23	, - * /
Day of month	1-31	, - * ? / L W
Month	1-12 or JAN-DEC	, - * /
Day of week	1-7 or SUN-SAT	, - * ? / L #
Year (optional)	1970-2099	, - * /

### Notes:

- You must specify either day of month or day of week, but not both. Insert a question mark (?) as a placeholder for the one not specified.
- If you do not specify the year, the year will be automatically determined by taking into consideration whether the date (month and day) inserted has already passed when compared with the current date of the system. If the date has not already passed, the current year is inserted. If the date has already passed, the next year is inserted.

- The names of months and days of the week are not case sensitive. "MON" is the same as "mon".

## Using Special Characters

The following table describes the legal special characters and how you can use them in a CRON expression:

## Writing a CRON Expression

Special Character	Description
* (all values)	Selects all values within a field. For example, * in the minute field selects "every minute".
? (no specific value)	Used to specify something in one of the two fields in which the character is allowed, but not the other. For example, to make the trigger fire on a particular day of the month (say, the 10th), when it does not matter what day of the week that happens to be, put 10 in the day-of-month field, and ? in the day-of-week field.
- (range)	Used to specify ranges. For example, 10-12 in the hour field selects the hours 10, 11 and 12.
, (comma)	Used to specify additional values. For example, MON, WED, FRI in the day-of-week field means the days Monday, Wednesday, and Friday.
/ (forward slash)	Used to specify increments. For example, 0/14 in the seconds field means the seconds 0, 14, 28, and 42; and 2/14 in the seconds field means the seconds 2, 16, 30, and 44.
L (last)	Used differently in each of the two fields in which it is allowed: <ul style="list-style-type: none"> <li>○ In the day-of-month field, L selects the last day of the month, which is 31 for January and 29 for February on leap years.</li> <li>○ When used in the day-of-week field by itself, it means Saturday. But if used in the day-of-week field after another value, L selects the last xx day of the month. For example, 6L selects the last Friday of the month.</li> </ul> <p>When using the L special character, do not specify lists, or ranges of values, because this may give confusing results.</p>
W (weekday)	Used to specify the weekday (Monday-Friday) nearest to the given day. For example, if you specify 15W as the value for the day-of-month field, the nearest weekday to the 15th of the month is selected. So if the 15th is a Saturday, Friday the 14th is selected. If the 15th is a Sunday, Monday the 16th is selected. If the 15th is a Tuesday, Tuesday the 15th is selected.  However if you specify 1W as the value for day-of-month, and the 1st is a Saturday, Monday the 3rd is selected, as the selection rules do not allow for crossing over the boundary of a month's days to the previous or the subsequent month.  The w character can only be used to specify a single day, not a range or list of days.

#	Used to specify the nth XXX (or XX) day of the month. For example, the value <code>FRI#3</code> or <code>6#3</code> in the day-of-week field means the third Friday of the month ( <code>6</code> or <code>FRI</code> = Friday, and <code>#3</code> = the 3rd one in the month).
---	---

**Note:** The `L` and `W` characters can also be combined in the day-of-month field to yield `LW`, which translates to "last weekday of the month".

## CRON Expression Examples

The following table lists some examples of CRON expressions:

## Writing a CRON Expression

CRON Expression	Meaning
0 0 12 * * ?	12 PM (noon) every day.
0 15 10 ? * *	10:15 AM every day.
0 15 10 * * ?	10:15 AM every day.
0 15 10 * * ? *	10:15 AM every day.
0 15 10 * * ? 2005	10:15 AM every day during the year 2005.
0 * 14 * * ?	Every minute starting at 2 PM and ending at 2:59 PM, every day.
0 0/5 14 * * ?	Every 5 minutes starting at 2 PM and ending at 2:55 PM, every day.
0 0/5 14,18 * * ?	Every 5 minutes starting at 2 PM and ending at 2:55 PM, and every 5 minutes starting at 6 PM and ending at 6:55 PM, every day.
0 0-5 14 * * ?	Every minute starting at 2 PM and ending at 2:05 PM, every day.
0 10,44 14 ? 3 WED	2:10 PM and at 2:44 PM every Wednesday in the month of March.
0 15 10 ? * MON- FRI	10:15 AM every Monday, Tuesday, Wednesday, Thursday and Friday.
0 15 10 15 * ?	10:15 AM on the 15th day of every month.
0 15 10 L * ?	10:15 AM on the last day of every month.
0 15 10 ? * 6L	10:15 AM on the last Friday of every month.
0 15 10 ? * 6L 2002-2005	10:15 AM on every last Friday of every month during the years 2002, 2003, 2004 and 2005.
0 15 10 ? * 6#3	10:15 AM on the third Friday of every month.
0 0 12 1/5 * ?	12 PM (noon) every 5 days every month, starting on the first day of the month.
0 11 11 11 11 ?	Every November 11th at 11:11 AM.

## See Also

- [Creating a Schedule](#)
- [Subscriptions](#) page

# Overview of Security

To log in to Team Server you need both a valid user connection and a valid user account.

[User connections](#) determine the user sessions that Team Server can host, and the type of [user experience](#) of each one of those sessions. You can purchase licenses for different number of user connections (Platinum, Gold, Silver and Bronze Edition), and [register these licenses in Team Server](#) to enable your user connections.

To [log in to Team Server](#), you must use the credentials of a **Repository** user account or, if you [configure Team Server to support LDAP](#), the credentials of an LDAP user account. Now you can also [create users](#) within Team Server.

When you first log in to Team Server, the [authentication process](#) assigns you a [user experience](#) based on the available [user connections](#) and the [access control permissions](#) group defined by default. Depending on your user experience, Team Server provides a different [user interface](#) with access to a different set of features.

Once you are logged in, your [user account](#), [roles](#), and [access control permissions](#) determine what content of Team Server you can access and which actions you can perform. Some of those restrictions come from **Repository**, other restrictions are specific to Team Server and [super users](#) can [configure them in Team Server](#).

When you create resources in Team Server ([glossaries](#), [terms](#), [data sources](#), etc), you become their author. Only authors, [super users](#) and [stewards](#) can edit those resources and [add or remove stewards from them](#). This does not apply to Reader licenses as the read-only license cannot be assigned as Steward. Nor create, modify, or delete Team Server objects. To change an Author licensed user to a Reader, they can not be a current [Steward](#) of any resources.

## Topics

- Overview:
  - [Connection Licenses](#)
  - [User Accounts](#)
  - [User Authentication](#)
  - [User Experiences](#)
  - [User Roles](#)
  - [User Permissions](#)
  - [Stewards](#)
- [Access Control Permissions](#)
- [Enabling Secure HTTP Connections](#)

- [Modifying the User Session Idle Time Limit](#)
- [Tracking User Activity](#)

## See Also

- [Overview of the Team Server Architecture](#)
- [Overview of Data Synchronization](#)

# Overview of Connection Licenses

To log in to Team Server you need a valid user connection. [User connections](#) and [access control permissions](#) provided determine the type of [user experience](#) of each one of those sessions.

When you log in, Team Server assigns you a [user experience](#) based on the available [user connections](#) and the default ACL group. You need to [register your licenses in Team Server](#) to enable your user connections.

Team Server ships with a free [social super user connection](#) that you can use to [connect to Team Server](#) and [configure your Team Server licenses](#).

## Topics

- [User Connections](#)
- [Manage Licenses](#)

## See Also

- [Licenses page](#)
- [Access Control Permissions](#)



# Overview of User Connections

Team Server supports the following types of user connection:

## Base - Admin Connection

This [social super user](#) connection comes for free with Team Server so that you can [connect to Team Server](#) and [configure your Team Server licenses](#).

By default, you can [log in to Team Server](#) with this account using the credentials of your Admin account from ER/Studio Repository.

This user connection provides [social user access](#).

## ERSTeamServer - Team Server User Connection

This is the standard Team Server license. Users with a Team Server user connection can connect to Team Server and access all features.

This connection provides [social user access](#).



**Note:** [LDAP users](#) can only use this type of connection.

## TeamServer - Basic Connection

This basic unlimited connection comes for free with Team Server. The [basic navigation menu](#) will be available.

## Concurrent User Connection

Deprecated but still supported. This is a license for the older Portal product.

This connection provides [non-social user access](#).

## Exclusive User Connection

Deprecated but still supported. This is a license for the older Portal product.

This connection provides [non-social user access](#).

## See Also

- [Overview of User Experiences](#)

# Overview of User Accounts

To log in to Team Server, you need a valid user account.

[User roles](#) are not defined within Team Server itself. But now User Accounts can be created on Team Server just as Team Server users. To [log in to Team Server](#), you must use the credentials of a user account from one of the following sources:

- [ER/Studio Repository](#).
- [LDAP](#), if you enable LDAP support in Team Server.
- [Creating a new user](#) within Team Server.

## ER/Studio Repository User Accounts

You can use any ER/Studio Repository user account to log in to Team Server. Users and roles of ER/Studio Repository [are synchronized with Team Server](#).



**Note:** Users of Team Server do *not* have to be users ER/Studio Data Architect or ER/Studio Business Architect. The licensing for Team Server is separate from that of ER/Studio Data Architect and ER/Studio Business Architect.

## LDAP User Accounts

If you [install Team Server](#) with [\[support for the Lightweight Directory Access Protocol \(LDAP\)\]](#), users can log in to Team Server using their domain username and password. To ensure security of domain passwords across the network, [encryption](#) should be enabled.

Team Server assigns LDAP users the [authenticated](#) user role.

## See Also

- [Overview of User Connections](#)
- [Overview of User Experiences](#)
- [Overview of Stewards](#)

# Overview of User Authentication

When you try to [log in to Team Server](#), Team Server follows these steps after it confirms that your credentials are valid:

1. If there is a [Team Server user connection](#) associated with your account, Team Server logs you in as a [social user](#).
2. If there is no Team Server user connection associated with your account, but there is a [concurrent user connection](#) available, Team Server logs you in as a [non-social user](#).
3. If you are trying to log in with the [base super user connection](#), Team Server logs you in as a [non-social user](#).
4. If there is no concurrent user connection available, you cannot access Team Server.

Inactive users are automatically timed out 30 minutes after the last user interaction, to free [concurrent user connections](#) even if users forget to close the web browser or log out. See [Modifying the User Session Idle Time Limit](#).

**Note:** Each web browser manage user sessions in a different way. Depending on your web browser, you might not be able to log in using the same user credentials for two different sessions, or using two different sets of user credentials. Some web browsers treat windows and tabs as one instance, and will not let you run two sessions simultaneously. However, you can open multiple instances of Internet Explorer and log in multiple time using the same concurrent user credentials, or create several different sessions using a mix of concurrent and social connections.

## See Also

- [Tracking User Activity](#)
- [Overview of Connection Licenses](#)
- [Modifying the User Session Idle Time Limit](#)

# Overview of User Experiences

Team Server provides two different user experiences: [social](#) and [non social](#). You can enjoy either of them, depending on the [Overview of User Connections|user connection]] that a [super user](#) assigns you for connecting to **Team Server**.

The interface of Team Server is different for each type of user, and the available features change as well. For example, [special search pages](#) are only available for [social users](#).

The following sections provide an overview of the differences between each type of user. In the [User Guide](#) you can find separated sections for social and non-social users that might help you understand the differences as well.

## Social Users

Social users have access to several features and additional data of the ER/Studio Repository database that [non-social users](#) cannot access, including:

- [ER Object activity](#):
  - Metadata changes (additions, deletions, modifications).
  - Changes to domains and terms pages.
  - Domain and term page wiki edits.
- Activity of other Team Server users:
  - User comments in metadata, glossaries, terms, and domain pages.
  - New friends added to pages.
  - [Reports](#) (new, changed, deleted reports).
  - [Shared searches](#) (additions, deletions, modifications).
- [Create data sources](#).

You can restrict social users from accessing specific diagrams. You can also assign a read-only access to them.

## Non-Social Users

For Non-Social users please see: [Overview of User Experiences](#)

## See Also

- [Overview of User Roles](#)

# Overview of User Roles

User roles, as [user accounts](#), are not defined within Team Server itself. Users and roles of ER/Studio Repository [are synchronized with Team Server](#).

In ER/Studio Repository, the following user roles are available by default:

- [Super User](#).
- [Authenticated](#).

## Super User

Super users can perform actions that [authenticated users](#) cannot perform, such as [managing licenses](#), [permissions](#), [data synchronization](#), [schedules](#), and refreshing Team Server settings on the [Admin](#) page.

Team Server provides a social super user [Admin](#) account for free, giving instant access to the new [social](#) user experience.

## Authenticated

Authenticated users have a set of permissions more limited than that of [administrators](#). Enough permissions to use all Team Server features, but not to manage Team Server.

## See Also

- [Overview of User Permissions](#)
- [Overview of Connection Licenses](#)
- [Overview of Stewards](#)

# Overview of User Permissions

Team Server can limit the access and permissions on [ER objects,resources](#), activities, and [reports](#).

If Repository Permission Precedence is selected on [Preferences page](#), Team Server applies ER/Studio Repository users the access restrictions configured in ER/Studio Repository. ER/Studio Repository users can only access in Team Server those ER objects that they can access from ER/Studio Repository as well. Administrator needs to change the [global permission precedence](#) to Social Permission Precedence for [Access Control Permissions](#) to be applied.

You can define permissions for specific [user roles](#) and [user accounts](#) to limit the use of action sequences in Team Server.

## Topics

- [Access Control Permissions](#)
- [Managing Permissions on Action Sequences](#)
- [Preferences](#)

## See Also

- [Overview of User Accounts](#)
- [Overview of User Roles](#)
- [Overview of Stewards](#)

# Managing Permissions on Action Sequences

You can limit the use of action sequences in Team Server using [roles](#) and [users](#).

Team Server gives administrative permissions to users with the "Super User" role by default. Users assigned to the [Super User](#) role in ER/Studio can assign permissions to other roles and users in Team Server from the [Solution Permissions](#) page.

In the [Solution Permissions](#) page there is a tree view of items. You can configure access permissions for every item in the tree. Higher level entries provide the default setting for lower level entries. Lower level entries override higher level entries.

For each item in the tree view you can define a list of roles and users, and the permissions each of them has on the target item. You can assign any combination of the following permissions to any role or user:

- **Execute.** Ability to run the target [actions sequence](#).
- **Subscribe.** Ability to [subscribe to the target action sequence](#).
- **Write.** Provides both the **Execute** and **Subscribe** permissions.

Team Server only applies your changes to permissions after a [restart](#).

## Topics

- [Adding Permissions on an Action Sequence](#)
- [Editing Permissions on an Action Sequence](#)
- [Removing Permissions on an Action Sequence](#)

## See Also

- [Solution Permissions page](#)

# Adding Permissions on an Action Sequence

To add permissions to a role or user over an item:

1. Select [My Settings](#) > [Admin](#) > [Solution Permissions](#).
2. Select the target item from the **Solution Repository** column.
3. Click **Add** in the **Settings** column.
4. In the **Add New Permission** column:
  1. Select under **Role** the target role or user.
  2. Check the permissions that you want the target role or user to have (**Write, Execute, Subscribe**).
  3. Click **Add**.

Team Server add the new permissions entry to the table in the **Settings** column.

**Note:** You need to [restart Team Server](#) for your changes to take effect.

## See Also

- [Editing Permissions on an Action Sequence](#)
- [Removing Permissions on an Action Sequence](#)



# Editing Permissions on an Action Sequence

To edit the permissions of an item:

1. Select [My Settings](#) > [Admin](#) > [Solution Permissions](#).
2. Select the target item from the **Solution Repository** column.
3. Check or uncheck the **Write**, **Execute** and **Subscribe** columns to set or unset (respectively) those permissions.
4. Click **Update** to save your changes.

Note: You need to [restart Team Server](#) for your changes to take effect.

## See Also

- [Adding Permissions on an Action Sequence](#)
- [Removing Permissions on an Action Sequence](#)

# Removing Permissions on an Action Sequence

To remove the permissions of a role or user over an item:

1. Select [My Settings](#) > [Admin](#) > [Solution Permissions](#).
2. Select the target item from the **Solution Repository** column.
3. Check the **Delete** field of the row of the target role or user.
4. Click **Update** to remove the role or user permissions from the list.

**Note:** You need to [restart Team Server](#) for your changes to take effect.

## See Also

- [Adding Permissions on an Action Sequence](#)
- [Editing Permissions on an Action Sequence](#)

# Overview of Stewards

The stewards of a resource ([glossaries](#), [terms](#), or [data sources](#)) are users who are neither the authors or the resource nor [super users](#), but who are allowed to modify or remove that resource.

The author of a resource, its stewards and any [super user](#) can [add or remove stewards from a resource](#).

**Note:** You can add or remove authors or super users from the list of stewards of a resource. However, even if you remove them, they still have the permissions that being an author or a super user grants them.

## See Also

- [Editing the Stewards of a Resource](#)
- [Overview of User Accounts](#)
- [Overview of User Roles](#)
- [Overview of User Permissions](#)

# Tracking User Activity

You can view the current user sessions in Team Server on the [Licenses](#) page. The Licenses page displays the amount of time users have been inactive.

The user activity is archived so that you can see how the activity has evolved over time, and determine if you need to purchase more licenses. The [Activity](#) page shows information on both login and connection activity that can help you determine whether you need to purchase new licenses.

## See Also

- [Overview of User Authentication](#)
- [Activity](#) page

# Uninstalling Team Server

To remove an [installation of Team Server and Repository](#):

1. Select **Start > Programs > Team Server X.X > Uninstall Team Server** to start the uninstallation wizard.
2. On the **Welcome** page, click **Next**.
3. On the **Summary Information** page, review the information and click **Uninstall**.
4. Once the uninstallation process is completed, click **Finish** to close the uninstallation wizard.
5. After you close the uninstallation wizard, you are given the choice to reboot immediately or at a later time. For a complete uninstallation, a system reboot may be required. Make your selection and click **Finish**.

## Notes:

- The Team Server uninstaller does not uninstall the [Team Server Reporting Repository database](#). It is the Database Administrator's responsibility to delete the Reporting Repository database if you decide to permanently delete Team Server.
- When Team Server is uninstalled, the backup folder remains in the disk. In case you are uninstalling Team Server with no plans to install it again, remember you can delete this folder manually. You may find backup folder in the following location:
  - Team Server 4.0.8 and previous versions: `C:\Program Files (x86)\Common Files\ersEnterprisePortalBackup`
  - Team Server 4.1: `C:\Program Files\Common Files\ersEnterprisePortalBackup`
  - Team Server 2016:  
`C:\Users\username\AppData\Local\Temp\ersEnterprisePortalBackup`  
(Please see [known issue](#) about backing up 16.0.0 version.)

## See Also

- [Install and Configure Team Server and Repository](#)
- [Upgrading Team Server and Repository](#)