grant unlimited tablespace to *Tc-Oracle-user*;

4. Log off **sqlplus** by typing **exit**.

Install and configure Microsoft SQL Server

Install Microsoft SQL Server

The steps to install Microsoft SQL Server and to configure a database for Teamcenter depend on your operating system, your edition of SQL Server, and your selections during installation.

To optimize MS SQL Server database performance, consider the following steps:

- To implement a Teamcenter network incrementally at multiple sites, configure each site in a Multi-Site Collaboration environment with separate hosts for the MS SQL database server (including Multi-Site Collaboration), the rich client, and volume servers, starting with the first phase. This allows you to configure and manage the network consistently, as you scale it in each phase. You can add CPUs, memory, and disks to the appropriate servers or deploy additional servers as required, without moving or reconfiguring server processes on different hosts or changing operational procedures.

- For large or critical system implementations, implement high-availability systems with mirrored, dual-ported disk arrays. For the Teamcenter volume, consider a file server with storage attached network (SAN) or network attached storage (NAS) disk arrays.

- To minimize system maintenance interruptions, create separate file backup server hosts to process metadata and volume data backups in real time. While the primary disk sets remain online, you can take secondary MS SQL Server and volume disk sets offline simultaneously and back them up together (assuring MS SQL Server and Teamcenter volume synchronization). When the backup is complete, you can return the secondary disk sets online and resynchronize them with the primary disk sets. The file backup servers also serve as fail-over machines.

- To ensure correct character mapping, make sure the database and the Teamcenter server use the same encoding.

For certified versions of MS SQL Server, see the Hardware and Software Certifications knowledge base article on Support Center. **Install the MS SQL Server database server** before you begin installing Teamcenter.

The following steps reflect a typical installation on Microsoft Windows.

1. Log on to an account with system administrator privileges.

2. Launch the Microsoft SQL Server Installation Center application (**setup.exe**).

3. In the **SQL Server Installation Center** dialog box, click **Installation** in the navigation pane on the left side.

4. Click **New SQL Server stand-alone installation or add features to an existing installation**.

   The SQL Server Installation Center launches the SQL Server Setup wizard.

5. Proceed through the pre-installation tests and other initial setup panes to the **Install Setup Files** pane. Click **Install** to install SQL Server setup support files.

   After setup support files are installed, the wizard displays the **Install Rules** pane. Click **Next**.

6. In the **Feature Selection** pane, select **Instance Features→Database Engine Services** and any other features you want to include.

   Click **Next**.

7. In the **Instance Configuration** pane, select an instance type. Teamcenter supports both **Default Instance** and **Named Instance**.[1]

   A default instance in a Microsoft SQL Server installation uses the name **MSSQLSERVER**. Teamcenter's persistent object manager (POM) utilities cannot connect to an instance with this name. If you use a default instance, make sure you connect to the instance using a port connection rather than the name.

   If you use a named instance, make sure the instance has a unique name other than **MSSQLSERVER**.

8. Enter remaining instance configuration values, and then click **Next**,

9. Proceed to the **Server Configuration** pane.

   a. Click the **Service Accounts** tab.

   b. Enter account information for starting SQL Server services.

      The SQL Server Setup wizard validates user accounts for SQL Server services. Make sure the accounts you enter exist on the host.

   c. Click the **Collation** tab.

   d. On the **Collation** tab, click **Customize**.

      The wizard displays a customization dialog box for database engine collation.

   e. Select **Windows Collation designator and sort order**.

1 If you choose **Named Instance**, make sure you start the **SQL Browser** service before connecting to the database. If this service is not enabled, you can change these settings using the SQL Server Configuration Manager after installation is complete.

f. In the **Collation designator** box, select **Latin1_General** and then select **Binary**.

g. Click **OK**.

h. In the **Server Configuration** pane, click **Next**.

10. Proceed to the **Database Engine Configuration** pane.

a. Click the **Server Configuration** tab.

b. Under **Authentication Mode**, select **Mixed Mode** and define a password for the SQL Server **sa** logon account.

c. Specify at least one SQL Server administrator account.

d. Click **Next**.

11. Proceed to the **Ready to Install** pane and click **Install** to install.

Teamcenter requires the TCP/IP protocol to be enabled, but this protocol is disabled by default when you install Microsoft SQL Server. Before you install Teamcenter, make sure you enable the TCP/IP protocol.

For information about enabling the TCP/IP protocol in Microsoft SQL Server, see **http://technet.microsoft.com**.

Create an SQL Server database

Teamcenter Environment Manager (TEM) can create and populate a SQL Server database when you install a Teamcenter corporate server.[2] If you want TEM to create your Teamcenter database automatically, skip this topic. Otherwise, create your Teamcenter database using the SQL Server Management Studio.

1. Make sure you have access to the Teamcenter software kit.

2. Launch Microsoft SQL Server Management Studio:

Start→Programs→Microsoft SQL Server→SQL Server Management Studio

Alternatively, search the start menu for **SQL Server Management Studio**.

3. In the SQL Server **Connect to Server** dialog box, log on using the system administrator (**sa**) logon name and password.

2 In the **Database Engine Selection** panel, TEM prompts you for database information for the SQL Server database. To create a new database, enter new values. To connect to an existing database, enter values for the existing database. For information about installing a corporate server, see *Installing a Teamcenter corporate server*.

4. Choose **File→Open→File** or press Control+O.

5. Browse to the **tc\db_scripts\mssql** directory in the Teamcenter software kit.

6. Select the **create_database.sql.template** file and click **Open**.

   If SQL Server Management Studio prompts you to log on, enter the system administrator (**sa**) logon name and password.

7. Edit the database template (**create_database.sql.template**) to replace the necessary values.

   The following table describes the database parameters to replace in the template. Within the template file, there are also comments on values that must be replaced.

Parameter	Example value	Description
@DB_NAME@	**TC**	Name of the database to create.
@DATA_PATH@	**D:\MSSQL_DATA**	Path to the directory in which to place the data file.
@USER_NAME@	**tcdba**	Database logon name for the Teamcenter database.
@PASSWORD@	**tcdbapw**	Password for the database logon name.
@COLLATION@	**Latin1_General_BIN**	Collation sequence you want the Teamcenter database to use. Choose the **appropriate collation for your locale**. The collation value must end with **_BIN**.[3] *Collation* defines the alphabet or language whose rules are applied when data is sorted or compared. The collation value determines the character set used by the database server.
@LANGUAGE@	**us_english**	Database language.

8. Save the newly modified file as *filename*.**sql**, removing the **_template** extension.

9. Open the new file in Microsoft SQL Server Management Studio.

10. In the SQL Editor toolbar, click **Execute** (or choose **Query→Execute** to begin creating the database.

11. When creation of the MS SQL database instance is complete, verify the newly created database. In the **Object Explorer** pane, under the MS SQL Server host name, expand the **Databases** tree. Verify the new database name is included in the list of databases.

3 Do not use the default collation value that ends with **_CI_AS**.