

The Siemens logo is displayed in a white rectangular box in the upper left corner of the page. The logo itself is the word "SIEMENS" in a bold, teal, sans-serif font. The background of the entire page is a low-angle photograph of a modern glass skyscraper with a teal-tinted facade, set against a blue sky with scattered white clouds. The building's glass panels reflect the sky and other parts of the structure, creating a complex geometric pattern.

SIEMENS

Standard Parts Installation Guide

Standard Parts Installation Guide - 2021





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1. Setup overview

Standard Parts requires SQLExpress or SQLServer to be installed on the Standard Parts Administrator machine.

Note:

A minimum of SQLExpress 2012 SP1 or SQLServer 2012 are recommended for Windows 7, Windows 8.1, and Windows 10 operating system. If it is not already loaded on the system, Standard Parts Administrator installs SQLExpress 2017. For the SQL server administration, you can download the latest SQL Server Management Studio from <https://docs.microsoft.com/en-us/sql/ssms/download-sql-server-management-studio-ssms?view=sql-server-ver15>.

The installation of Standard Parts Administrator installs and configures SQL Express 2017 such that the *Administrator* and *Master Part Files* are available to use. When installing Standard Parts Administrator for the first time, installation of the *Master Part Files* is **on** by default.

The *Master Part Files* include free sample content. It is recommended that if this is the first time you are installing Standard Parts Administrator to install the sample files. This will create a database and configure the system so it is ready to use for a single user.

Note:

If the *Master Part Files* are not installed you will have to create a database and configure Standard Parts manually after installation is complete.

Standard Parts Administrator and SQL Server do not need to be installed on the client machines that access the components in the Standard Parts Database. They only need to be installed on the machine intended for Standard Parts administration.

Instructions on how to install and configure Standard Parts in the recommended manner are located in the following chapters.

2. Installing Standard Parts in an unmanaged environment

Follow these instructions to install Standard Parts in an environment where you manage files without a PDM system. Later sections describe how to install Standard Parts in environments where documents are managed with Teamcenter.

Note:

During Standard Parts Administrator installation, the setup checks for an existing installation of SQL. If SQL is not installed, or if it is older than version 2017, SQL Server Express and Local DB 2017 is installed.

If you are using an existing SQL Server installation (on a remote computer or on this computer), you can skip this step of installing SQL Server 2017 Express and only Administrator is installed. For setting the database and configuring the working folder using local SQL server or a remote SQL server, use the Configuration Wizard after installation is complete.

After any installation of SQL Server, restart your machine.

Standard Parts Administrator installation - demonstration or single user

1. Run the Standard Parts Administrator installation on the desired workstation with Solid Edge installed. If the default destination folder for Master Part Files, *C:\Solid Edge Standard Parts*, is predefined in the **Custom Setup** step needs to be changed, set another local or network folder.

Note:

The Master Part Files feature installs only a free sample set of standard parts. However installing this feature creates the necessary Solid Edge Standard Parts configuration folder structure and database. You can create this structure and database later using the **Solid Edge Standard Parts Configuration Wizard**.

2. Complete the installation.
After completing these steps, Standard Parts is ready to use with the free sample standard parts content. If you want to use the full content of Standard Parts libraries continue with the steps described in the section *Installing Parts Libraries*.

Standard Parts Administrator installation - multiple users

1. Run the Standard Parts Administrator installation on the workstation intended for Standard Parts administration. In the **Custom Setup** step, deselect *Installing Master Part Files*. Only the Standard Parts Administrator application is installed.
2. Complete the installation.

3. Choose **Start**→**Siemens Solid Edge 2021**→**Standard Parts**→**Configuration Wizard**.
4. In the **Step 1** area of the configuration wizard, specify the desired location of the Standard Parts configuration folder. You can use the **Browse** button to search for the appropriate folder. This location should be accessible with full permissions by all Standard Parts users. It is suggested that you specify this location as a UNC path, for example \\Server\Public\SEStdParts).

Note:

When you enter the Standard Parts configuration folder for the first time, default values are added to all settings in the **Step 2** area. If it is not the case click the **Defaults** button.

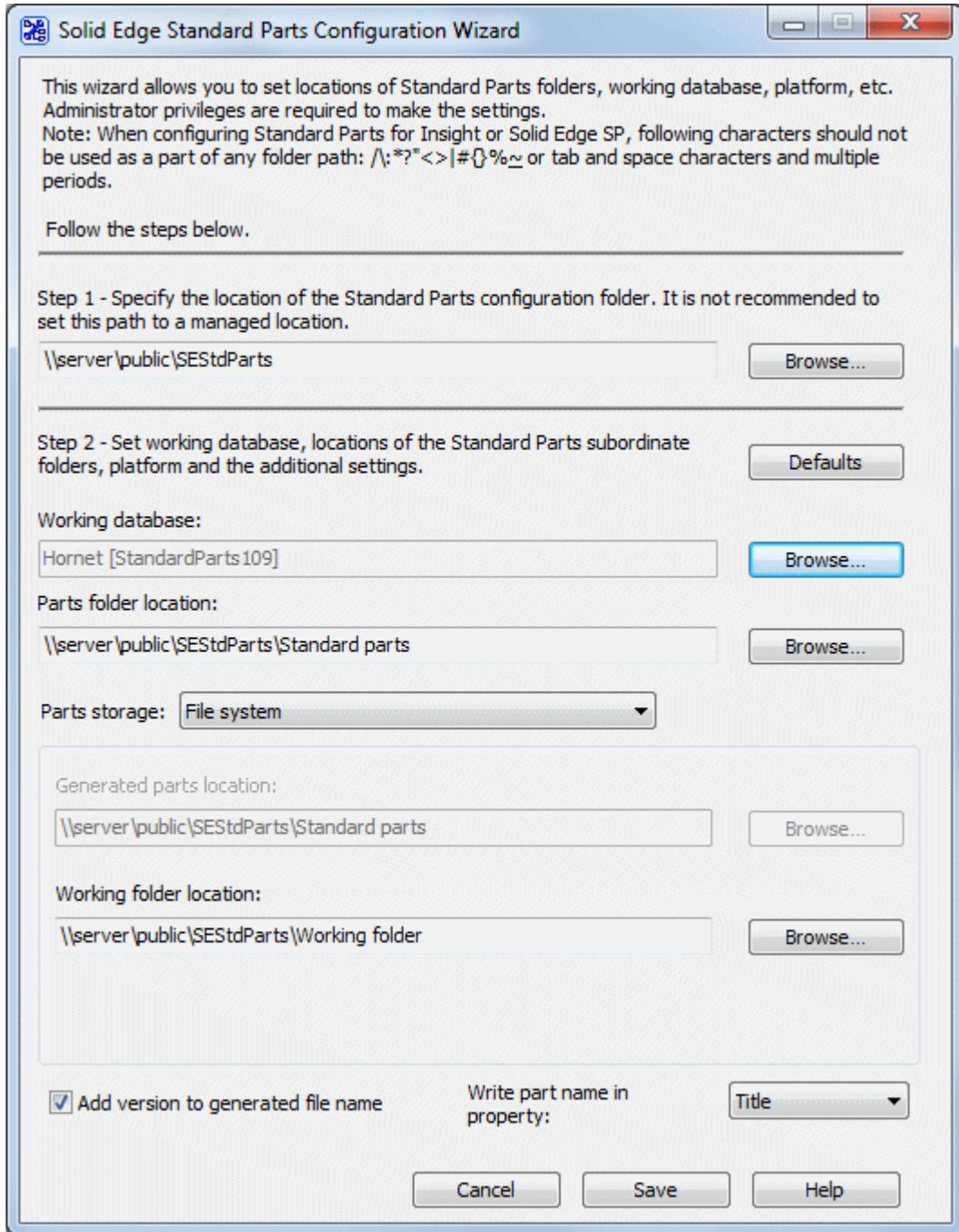
5. Choose **Browse** in the **Step 2** area to define the **Working Database**.
 - a. On the **Database Manager** dialog box, select the **External Network Database** option.
 - b. In the **External Database Server** dialog box, specify an SQL Server (name, user and password) accessible for all Standard Parts users. See *Configuring SQL Server* for details.
 - c. **New** button and enter a name for the new database.

Note:

This action creates two databases on the server – the Standard Parts working database. For example, *xse109_StandardParts109* and GUID database, *xCP_localGUIDdb95*.

- d. Click **OK** to accept the new working database.
6. On the **Configuration Wizard** dialog box, click **Save**.

After saving the configuration, the Solid Edge Standard Parts configuration folder is created. In this case at the location, \\Server\Public\SEStdParts. It contains *SMAPINIFile.sac*, which is the file containing the configuration, along with folders, *HTML*, *Standard Parts* and *Working* folder. For more details about folder structure, see the *Standard Parts User Guide*.



- If you want to use content from the Standard Parts libraries, proceed with the steps described in *Installing Parts Libraries*.

Standard Parts workstation setup

After you have set up the administration workstation, set the Standard Parts SAC file location on other workstations. The SAC file must be located in the UNC path that you defined during the Standard Parts configuration.

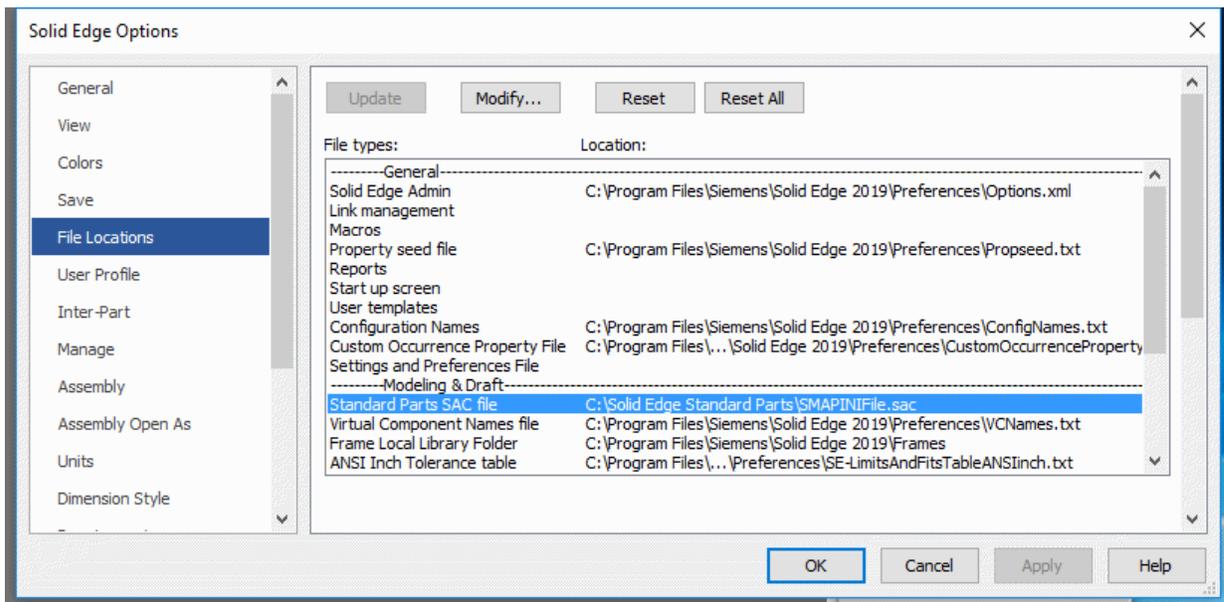
Set the Standard Parts SAC file location

1. Start Solid Edge and open an Assembly file.

Note:

The assembly file can be an existing document or a new one. It does not matter, because you will not save any changes to the document, you are just using it to get into the Assembly environment.

2. On the **Application** menu, click the **Settings**→**Solid Edge Options** button.
3. On the **Solid Edge Options dialog box**, click the **File Locations** tab.
4. In the list of file types, click **Standard Parts SAC file**, click **Modify**, and browse to the location of the *SMAPINIFile.sac* file in the configuration folder created Standard Parts configuration.



3. Installing Standard Parts in a Teamcenter environment

This section describes how to set the Standard Parts system to store generated parts and newly created documents in a Teamcenter-managed environment.

All Teamcenter server and client installation requirements must be met prior to performing these installation steps. For more details about installation and working with Teamcenter, see the Teamcenter server and client installation documentation.

For more information about using Solid Edge in a Teamcenter-managed environment, refer to the Teamcenter Integration for Solid Edge (SEEC) Guide for Users and Administrators. Some Standard Parts themes are described in the Solid Edge help file.

Note:

During Standard Parts Administrator installation, the setup checks for an existing installation of SQL. If SQL is not installed, or if it is older than version 2017, SQL Server Express and Local DB 2017 is installed.

After any installation of SQL Server, restart your machine.

Standard Parts Administrator Installation

1. Install Teamcenter client and Solid Edge on the workstation intended for Standard Parts administration.
2. Run the Standard Parts Administrator installation on the workstation intended for Standard Parts administration. In the **Custom Setup** step, deselect **Installing Master Part Files** so only the Standard Parts Administrator application is installed.
3. Complete the installation.
4. Choose **Start**→**Siemens Solid Edge 2021**→**Standard Parts**→**Configuration Wizard**.
5. In the **Step 1** area of the configuration wizard, specify the desired location of the Standard Parts configuration folder. You can use the **Browse** button to search for the appropriate folder. This location should be accessible with full permissions by all Standard Parts users. It is suggested that you specify this location as a UNC path, for example \\Server\Public\SEStdParts).

Note:

When you enter the Standard Parts configuration folder for the first time, default values are added to all settings in the **Step 2** area. If it is not the case click the **Defaults** button.

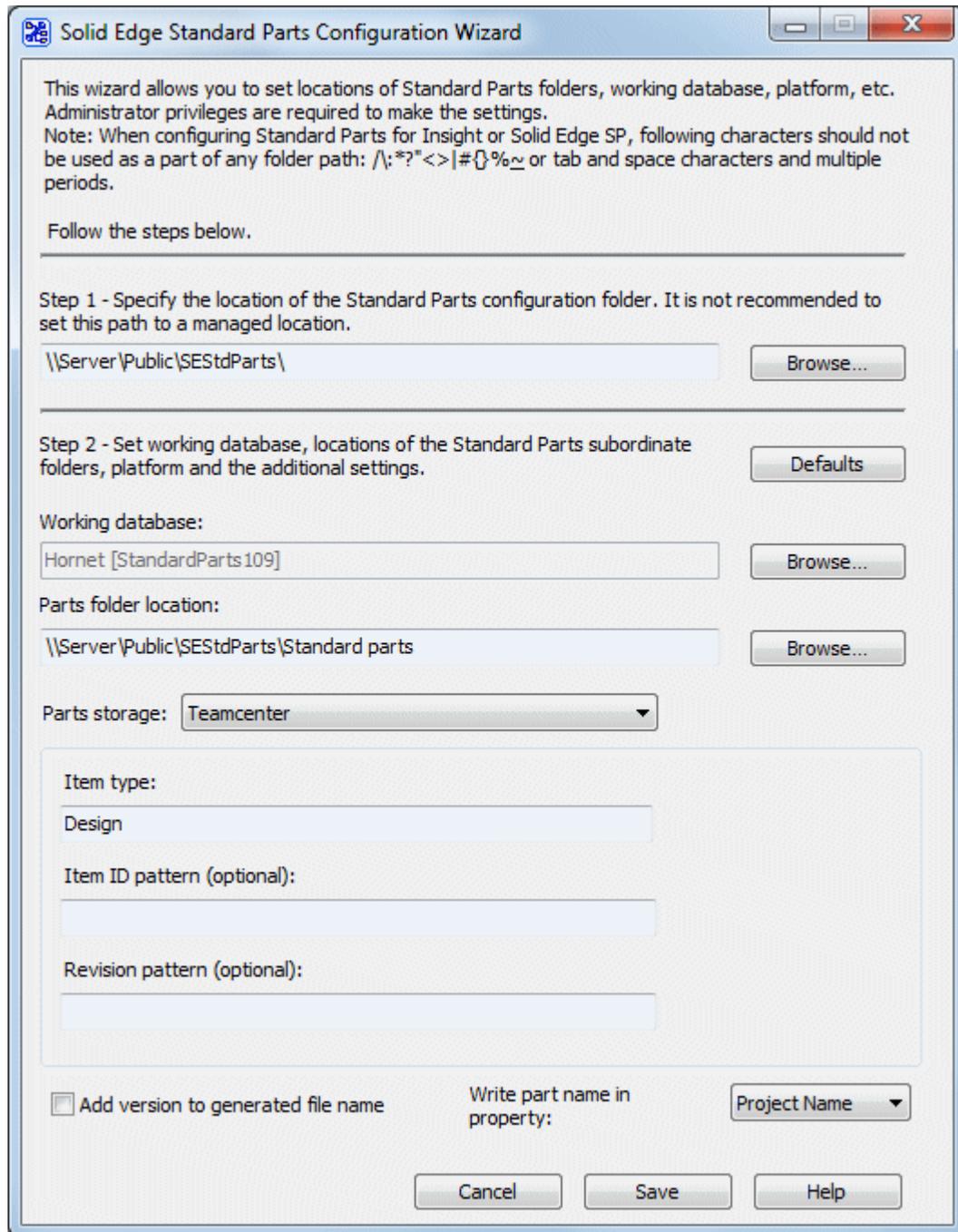
6. To define the Working Database, in the **Step 2** area, choose **Browse**.
 - a. On the **Database Manager** dialog box, select the **External Network Database** option.
 - b. In the **External Database Server** dialog box, specify an SQL Server (name, user and password) accessible for all Standard Parts users. See *Configuring SQL Server* for details.
 - c. Click the **New** button and enter a name for the new database.

Note:

This action creates two databases on the server – the Standard Parts working database. For example, *xse109_StandardParts109* and GUID database, *xCP_localGUIDdb95*.

- d. Click **OK** to accept the new working database.
7. Set **Parts storage** to Teamcenter.
8. Set the desired Item type for generated standard parts. It must be a valid Item type for your Teamcenter. If the selected Item type allows it, you can also specify *Item ID* and *Revision pattern*.
9. On the **Configuration Wizard** dialog box, click **Save**.

After saving the configuration, the Solid Edge Standard Parts configuration folder is created. In this case at the location, `\\Server\Public\SEStdParts`. It contains *SMAPINIFile.sac*, which is the file containing the configuration, along with folders, *HTML*, *Standard Parts* and *Working* folder. For more details about folder structure, see the *Standard Parts User Guide*.



10. If you want to use some content of the Standard Parts libraries, proceed with the steps described in *Installing Parts Libraries*.

Standard Parts workstation setup

If the administrator workstation is set up, on other workstations, set the Standard Parts SAC file location: in the Solid Edge Assembly environment, on the Solid Edge **Options** dialog box, on the

File Locations tab, set the Standard Parts SAC File location the same as for a local or network installation.

Note:

The Teamcenter client and Solid Edge with a license for the Teamcenter Integration for Solid Edge must be installed on all workstations.

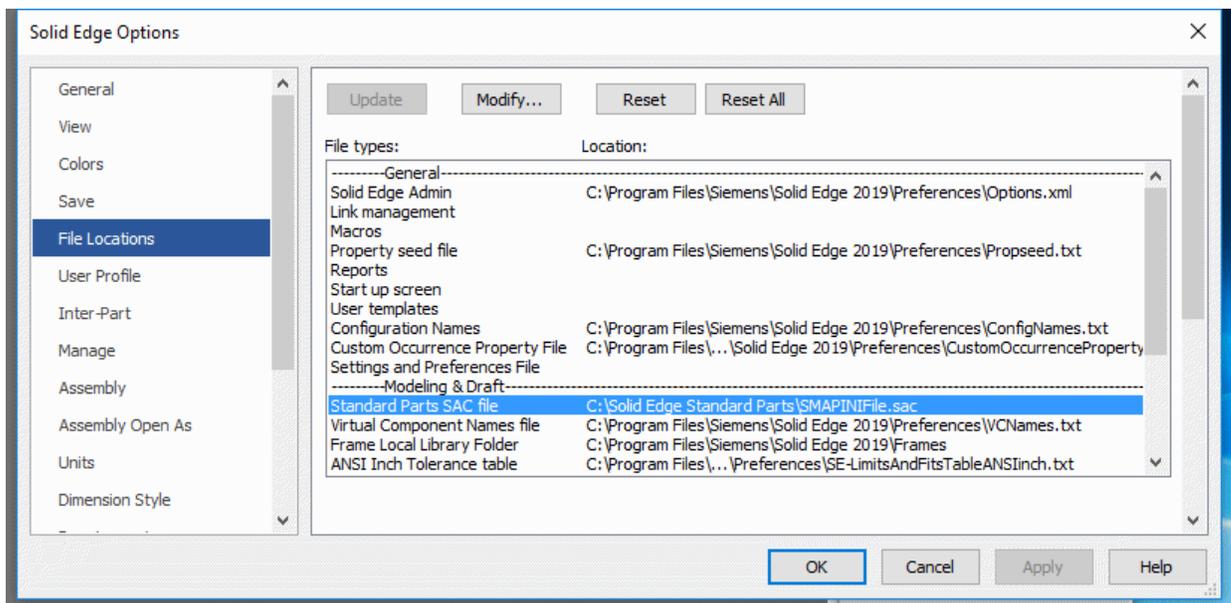
Set the Standard Parts SAC file location

1. Start Solid Edge and open an Assembly file.

Note:

The assembly file can be an existing document or a new one. It does not matter, because you will not save any changes to the document, you are just using it to get into the Assembly environment.

2. On the **Application** menu, click the **Settings**→**Solid Edge Options** button.
3. On the **Solid Edge Options dialog box**, click the **File Locations** tab.
4. In the list of file types, click **Standard Parts SAC file**, click **Modify**, and browse to the location of the *SMAPINIFile.sac* file in the configuration folder created Standard Parts configuration.



4. Upgrading Standard Parts

When upgrading Solid Edge and Standard Parts (version ST5 or newer) to the current version, there is no need to create new Standard Parts configuration folder. It is possible to simply use the existing configuration folder and migrate the database.

All installation requirements for the given platform (file system or Teamcenter) must be met prior to performing these installation steps.

Standard Parts Administrator installation

1. Run the Standard Parts Administrator installation on the workstation intended for Standard Parts administration. In the **Custom Setup** step, deselect **Installing Master Part Files** so only the Standard Parts Administrator application is installed.
2. Complete the installation.
3. Choose **Start**→**Siemens Solid Edge 2021**→**Standard Parts**→**Configuration Wizard**.
4. In the **Step 1** area of the configuration wizard, specify the desired location of the Standard Parts configuration folder. You can use the **Browse** button to search for the appropriate folder.

Note:

After entering the Standard Parts configuration folder the settings are loaded.

5. On the **Configuration Wizard** dialog box, click **Save**.
6. Click the **Yes** button to confirm the information about migrating the database. After finishing the configuration wizard, the Solid Edge Standard Parts configuration folder is set and the database migrated to the current version. So it is not necessary to add parts to the database again. However, you might proceed with Standard Parts libraries installation to upgrade the installed standard parts to the newly delivered version. To do so, proceed with the steps described in *Installing Parts Libraries*.

Standard Parts workstation Setup

After you have set up the administration workstation, set the Standard Parts SAC file location on other workstations. For detailed instructions, see the chapter corresponding to the given platform (file system or Teamcenter).

5. Configuring SQL Server

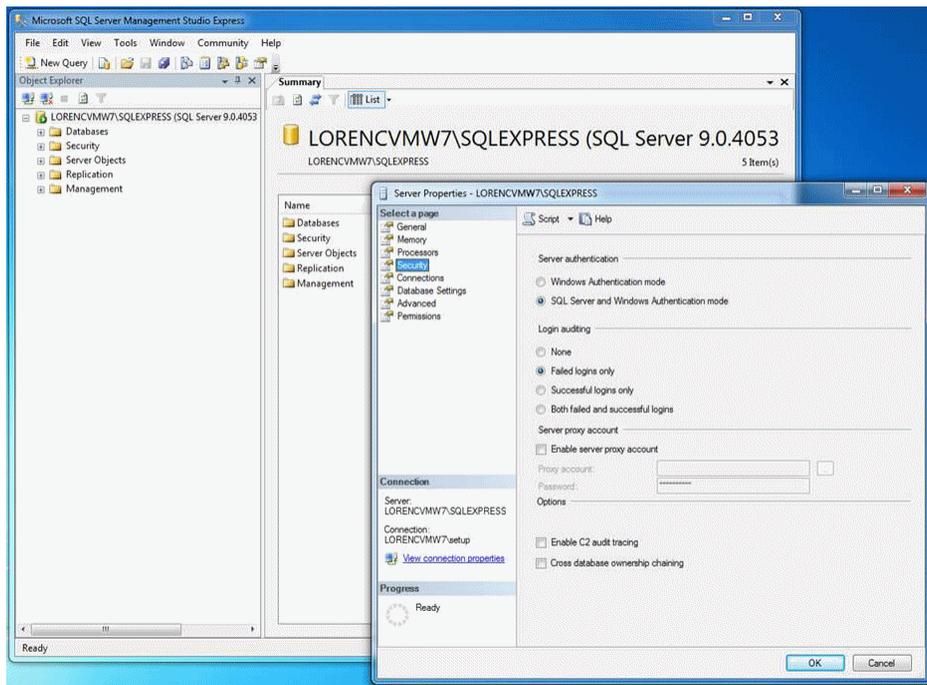
To manually configure SQL Server or SQL Express for Standard Parts so that it will accessible for users across a network perform the following steps:

Note:

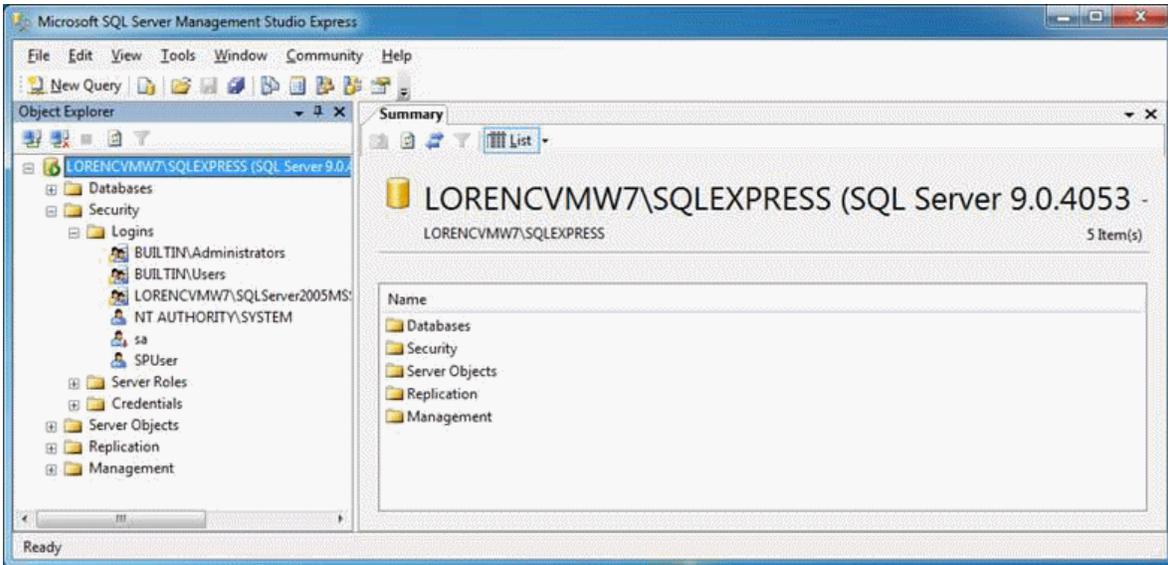
These instructions use SQL Server Management Studio from Microsoft. This is a free database maintenance tool that can be download, for example, from the following link:

<http://www.microsoft.com/en-us/download/details.aspx?id=29062>

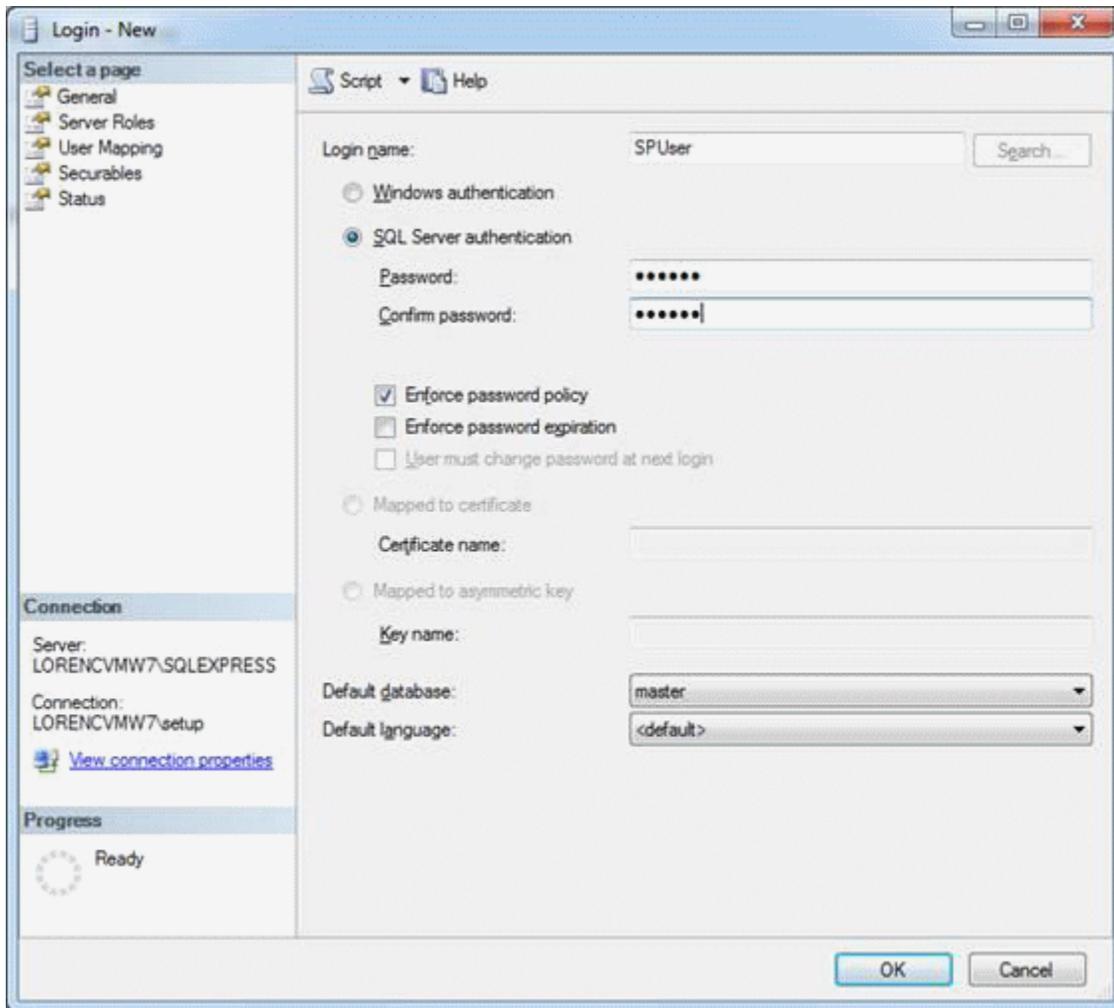
1. Start SQL Server Management Studio and change the authentication mode of the database to **Mixed Mode (SQL Server and Windows Authentication)** in the database properties:



- In the object explorer, right-click **Database**, on the short-cut menu choose **Properties**.
 - In the **Server Properties** dialog box, click the **Security** page, and in the **Server Authentication** section, set the **SQL Server and Windows Authentication** mode.
2. Create a login for external users that uses SQL Server authentication:
 - In the Object Explorer, expand **Security** > **Logins**.
 - Right-click **Logins**, and on the shortcut menu, choose **New Login**.



3. Define the new login:

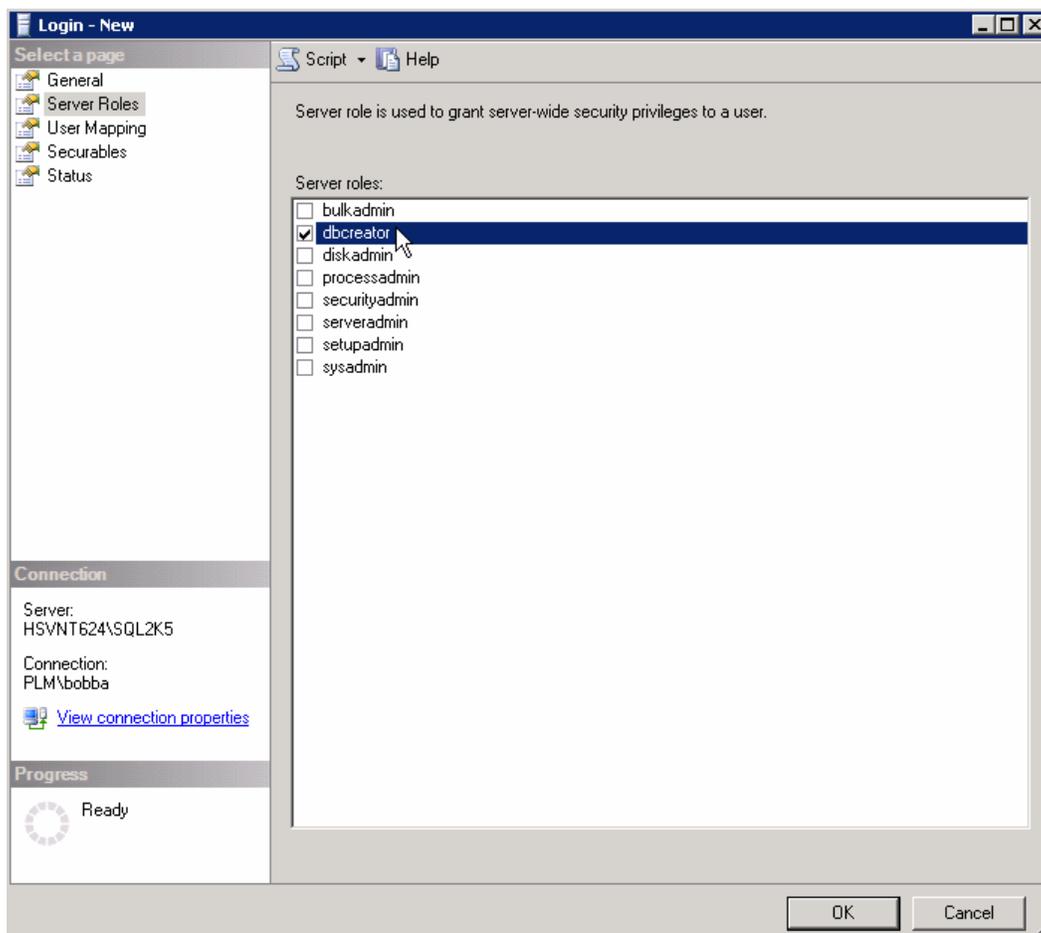


- Define the login name, set the **SQL Server Authentication** mode, and specify a password.
- The new login is now available for users from other machines in the network.
- On network machines that will access and modify the database (machines with Standard Parts Administrator installed) use the *Standard Parts Configuration Wizard* to connect to the External network database using the server machine name and login.
- On the server machine you may continue to use the localhost or set the database as external using the server machine name and login.

Note:

In the next step grant database creation privileges to this user. This is required for the first time the database is being created.

4. Grant database creation privileges to the user:



- On the **New Login** dialog box, click the **Server Roles** page.

- In the **Server Roles** list, set the **dbcreator** option.
 - Click **OK** on all dialogs to accept the changes.
5. Make sure that SQL Server is allowed through the firewall.

6. Installing Parts Libraries

The setup of Standard Parts libraries for Solid Edge 2021 brings the possibility to add the installed parts to the database directly (as a part of the library setup). However, it is still possible to install the libraries and add the parts to the database later using the Solid Edge Standard Parts Administrator.

Installation

1. Run the installation of the selected Standard Parts library.
2. During the **Custom Setup** step of the installation wizard, you can do following:
 - a. Select the standards (ANSI, DIN, etc.) of the parts you want to install.
 - b. Select the destination folder. The active Standard Parts configuration folder (set in Step 1 of Standard Parts Configuration Wizard) is used by default. The library content is copied to its subfolder "Standard Parts" that is usually defined as Parts folder (in Step 2 of Standard Parts Configuration Wizard).
 - c. Activate the option to add the installed parts to the database as part of the library setup. If this is the initial Standard Parts library installation (no other version has been installed before), select the **AddAndUpdateAll** option. This automatically add parts of all selected standards to the database. The other options can be used by the users which had installed some previous Standard Parts version. The **Update New** option updates only the parts which were installed in a previous version and have some changes in the delivered version. The **Update All** option updates the parts which were installed in a previous version to the current version (regardless on changes between the versions).

Note:

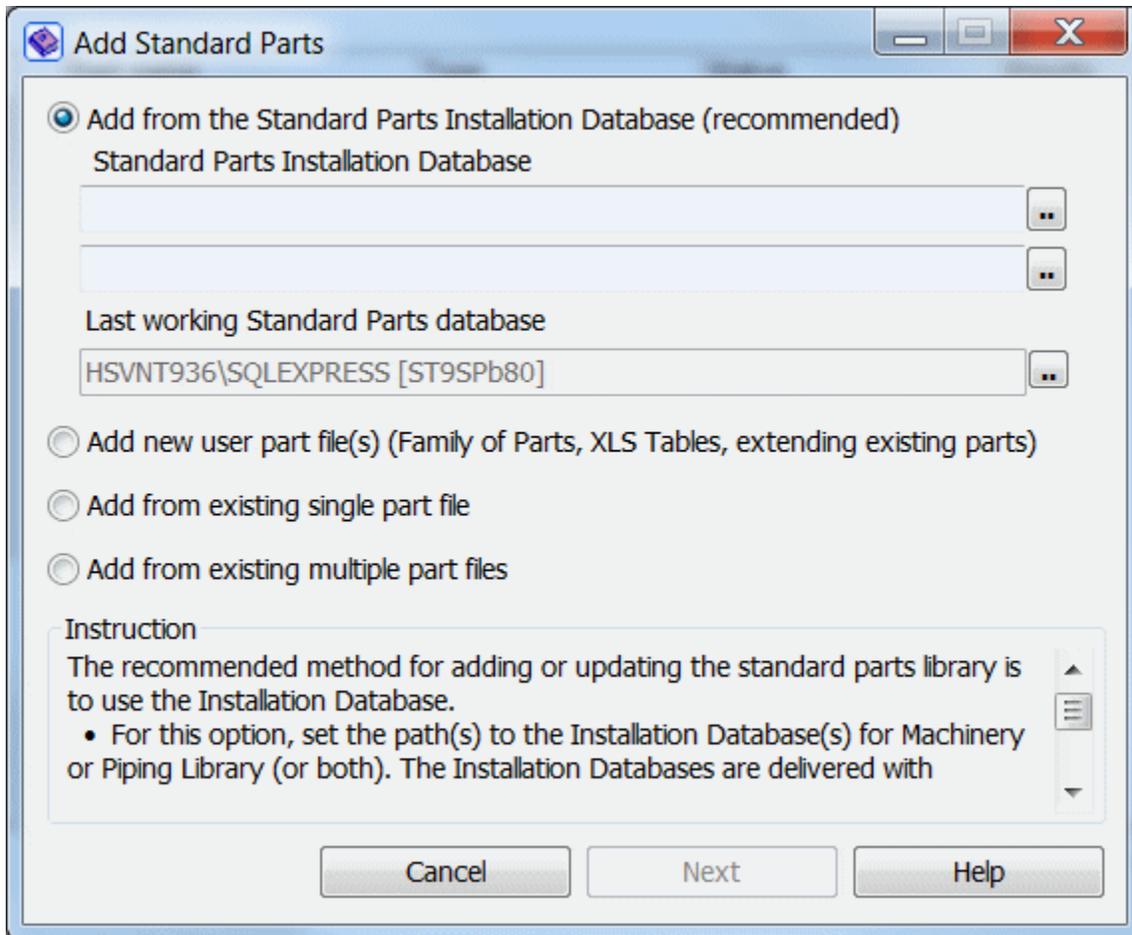
The direct adding of installed parts to the database may significantly extend the installation time. Depending on the number of selected standards, the installation may take hours. However, you will not spend the same time later by adding parts to the database by means of Solid Edge Standard Parts Administrator.

3. In the **Delivery Content Database** step select the language version for the delivery Content Database (Standard Parts Installation Database). It can be used later when adding parts to the database using the **Add** from the **Standard Parts Installation Database** option.
4. If you complete the library installation without direct adding parts, launch the Solid Edge Standard Parts Administrator and click **Add Parts**.

Adding Parts

The following options can be used for adding parts from the installed Standard Parts libraries.

- **Add from the Standard Parts Installation Database:** launches the Smart Installer application. See the *Adding Standard Parts Using Installation Database* topic of the *Standard Parts User Guide* for details.
- **Add from existing multiple part files:** registers all standard parts from a selected location. See *Adding Existing Part Files* for details.
- **Add from existing single part file:** adds a selected part (single or parent part) file to the database. See the *Adding Single Part File* topic of the *Standard Parts User Guide* for details.



Adding custom properties

Custom properties are generated automatically when you generate a part. As an administrator you are not required to create and populate the custom properties in advance for each non-generated part. However, if you have specific requirements for either a category or part, you can create the custom properties and set the values that are used when those parts are generated.

You can use the **Add Custom Property** command to create custom properties for all non-generated parts within a selected category. See the *Adding Custom Properties* topic of the *Standard Parts User Guide* for details.

7. Standard Parts Library Quick setup

The Standard Parts Library quick setup provides a way to quickly install and populate standard parts libraries. You can install the piping library, the machine library, or both. This setup is only useful if you are adding parts to an empty database.

This setup is useful in following scenarios:

- Completely new installation of Standard Parts.
- New database creation for existing Standard Parts installation.

You cannot use this setup to update the existing databases of standard parts. For updating the existing database use the regular libraries setup and use the **Add Parts** command from Standard Parts Administrator.

Note:

Standard Parts Quick setup checks for SQL and if 2017 or newer version is not installed, a message is displayed and SQL is installed.

After any installation of SQL Server, restart your machine.

Running the Solid Edge Standard Parts Library Quick setup

Before running the quick setup:

- Install Solid Edge.
- Install Solid Edge Standard Parts Administrator.
When installing Solid Edge Standard Parts Administrator, on the **Custom Setup** dialog box, click the down arrow next to **Master Part Files** and then click **This Feature will not be Available**. This creates an empty database.

Note:

Even if you have Solid Edge Standard Parts Administrator and have parts in a database, you need to create an empty working database.

To run Standard Parts Library Quick Setup:

1. Launch **Standard Parts Library Quick Setup** *setup.exe*.
2. On the **Welcome to the InstallShield for Siemens Solid Edge Standard Parts Library – Quick Setup** dialog box, click Next.

3. On the **License Agreement** dialog box, check **I accept the terms in the license agreement**, and click **Next**.
4. On the **Customer Information** dialog box, enter your information and click **Next**.
5. On the **Custom Setup** dialog box:
 - a. Select the library or libraries that you want to install.
 - b. Specify how a feature is installed.
 - c. Specify a folder where you want to install the parts.

Note:

The folder location is pre-populated if Standard Parts Administrator is already installed.

- d. Click **Next**.
6. On the **Delivery Content Database** dialog box, select the language for the delivery content database, and click **Next**.
7. On the **Ready to Install the Program** dialog box, click **Install**, and click **Next**.

The **Installing Siemens Solid Edge Standard Parts Library – Quick Setup** dialog box displays the status of the installation.

After the installation is complete, the **InstallShield Wizard Completed** dialog box is displayed

8. Click **Finish**.

8. Basic Definitions

Standard Parts

The main application. It lets you find and place parts from the Standard Parts database.

Solid Edge Standard Parts Administrator

The application for database administration.

Standard Parts Database

The information storage structure for information about all Standard Parts documents.

Solid Edge Standard Parts Configuration Wizard

The application for managing Solid Edge Standard Parts global configuration.

BulkPartAdder

The application for creating Customer Standard Parts from existing Solid Edge documents. BulkPartAdder is a part of Solid Edge Standard Parts Administrator.

Smart Installer

The application for installing and updating Standard Parts within a Standard Parts database. Smart Installer is a part of the Solid Edge Standard Parts Administrator.

PartEditor

The application for managing content, such as properties, categorization, and streams of standard part files.

Standard Parts Installation Database

A database file (*.ddb) that contains information on parts in the Standard Parts Library. This information serves mainly to keep parts registered in the database up-to-date. This ensures that if a new version of Standard Parts Libraries becomes available, only parts that have changed compared to older versions will be updated in working (active) Standard Parts database.

Solid Edge Machinery and Piping Library

Sets of standard parts for machinery (fasteners, bearings, structural shapes) and piping (pipes, fittings, valves) design. Libraries contain international norms of standard such as US standards (ANSI, ASME, etc.), DIN, ISO, BS, UNI, GB, JIS, GOST, CNS, IS, CSN, KS, etc.

Standard Parts configuration folder

The main (usually root) folder of the Standard Parts system. This folder contains subfolders with Library parts, configuration files, and other system files. For more details, see the description of the Solid Edge Standard Parts Configuration Wizard.

Standard Parts folder

The folder with your standard parts. For more details, see the description of Solid Edge Standard Parts Configuration Wizard and Standard Parts.

Standard Part

A part of Standard Parts Machinery or Piping Library. It can be a parent or single part.

Custom Standard Part

A customer-specific Standard Part that you can create from an existing Solid Edge using the BulkPartAdder or PartEditor.

Parent part

The Standard Parts Library global file. It contains definitions of all relevant Single parts within the same category. It is delivered with the Standard Parts Library to a version-specific folder.

Single part

A generated (final) standard part, derived from the Parent part.

Part name

A global part identifier. It should be a full, detailed and unique descriptor for each file in the Standard Parts database. It supports fast and correct identification of parts in Standard Parts applications.

Category

A collection of parts, classified to sub-categories, and finally to end categories, that have some common feature. This can be standard (such as ANSI and DIN), part type (such as bolt, nut, and pipe) and so forth.

End category

A collection of similar parts that differ typically by some parameters, set by characteristic values. All parts included in an end category must have the same set of characteristics.

Characteristic

A parameter that varies among parts within an end category. Characteristics usually correspond to some property of the single part, such as length, thread diameter, nominal size, material, and so forth. Each part within an end category must have a unique combination of the characteristic values.

SAC file

The global definition and settings file named *SMAPINIFile.sac*.

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