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## Introduction

This installation guide includes information on installing Microsoft® SQL Server® Express Edition with Advanced Services, enabling it to store ArcSDE® geodatabases, and authorizing the instance with an ArcGIS® Server Workgroup license.

The files you will need for this installation are as follows:

- `Install_sqlexpress.htm`—This launches the installation guide. It contains instructions for installation and setup on Windows systems.
- `Documentation`—This is a folder that contains the installation guide files.
- `ArcSDESqlExpressWorkgroup.exe`—This launches the SQL Server Express with Advanced Services installation and the postinstallation setup wizard.
- `Support`—This is a folder that contains files to support the Microsoft SQL Server Express Edition with Advanced Services installation.

The installation and enabling of the ArcSDE component of ArcGIS Server Workgroup is a two step process.

1. Install Microsoft SQL Server Express Edition with Advanced Services.
2. Perform the postinstallation setup, which adds a server administrator to the SQL Server Express instance (referred to as a database server in the ArcCatalog interface), enables the SQL Server Express instance to store geodatabases, authorizes the software, and configures SQL Server Express to support remote connections.

The setup program will install the Microsoft Windows Installer if required and check the computer for Microsoft .Net 2.0 before continuing with the Microsoft SQL Server Express installation. If you do not have Microsoft .Net 2.0 installed on your computer, the setup program will close. You can download .Net 2.0 from the Microsoft site. Once it is installed, rerun the installation file for the ArcSDE component of ArcGIS Server Workgroup Edition.

When the SQL Server Express installation is complete, the installation wizard automatically continues with the postinstallation setup.

## Features of ArcSDE geodatabases for SQL Server Express licensed through ArcGIS Server Workgroup

These geodatabases have the following characteristics:

- Allow you to take advantage of ArcSDE functionality, such as versioned editing, history tracking, and geodatabase replication, at your desk or in the field without having to install and manage a large DBMS and ArcGIS Server Enterprise.

## Installation Guide: ArcSDE for SQL Server Express licensed through ArcGIS Server Workgroup

- Are intended for small organizations and projects for which departmental management of GIS database services is desired
- Are accessed and administered through ArcCatalog by creating connections to a database server instance (local or on the network)
- Use Microsoft SQL Server Express
- Are preconfigured for optimal performance
- Use Windows authenticated users and direct connections
- Require an ArcGIS Server Workgroup license key for installation

## System requirements

### Microsoft SQL Server Express with Advanced Services requirements

A list of the prerequisite software and minimum and recommended hardware and software requirements for running Microsoft SQL Server Express Edition with Advanced Services can be found at the [Microsoft support site](#).

If you will be running both ArcGIS Desktop and Microsoft SQL Server Express Edition with Advanced Services on the same computer, **at a minimum**, you should have:

- 1 GB of RAM
- A Pentium III compatible 1GHz processor that supports cache prefetching
- Microsoft Internet Explorer 6.0 SP1
- Operating system options:
  - Microsoft Windows 2000 Professional with service pack 4
  - Microsoft Windows 2003 Service Pack 1
  - Windows XP Professional SP2
  - Windows Vista

If you will be running SQL Server Express on a computer separate from the ArcGIS Desktop software, follow the individual requirements for each product.

# Installing SQL Server Express and enabling the ArcSDE component

## Installation overview

The installation wizard installs SQL Server Express with Advanced Services on your computer and enables the SQL Server Express instance to use the ArcSDE component of ArcGIS Server Workgroup. (The ArcSDE files themselves are included with the ArcGIS Desktop installation at the ArcEditor™ and ArcInfo® license level. You must have ArcGIS Desktop to administer ArcSDE geodatabases licensed through ArcGIS Server Workgroup.)

To perform the installation, you must have system administrator privileges on the computer on which SQL Server Express is to be installed and enabled to use the ArcSDE component of ArcGIS Server Workgroup.

The installation procedure includes the following steps:

### **Obtain an authorization file.**

Each server machine on which SQL Server Express will be installed and the ArcSDE component enabled requires an authorization file.

There are several ways to obtain an authorization file and register the software. You can visit <https://service.esri.com> to obtain an authorization file (by email, fax, phone, or mail) before running the ArcSDE component postinstallation steps. You can also obtain an authorization file and register the ArcSDE component of ArcGIS Server Workgroup using the Post Installation setup wizard (this is the recommended method). See the Software authorization section of [Postinstallation setup](#) for available registration methods.

### **Start the setup program.**

Insert the ArcSDE component DVD into the drive then browse to and launch the ArcSDESqlExpressWorkGroup.exe file. Follow the instructions in the installation wizard. For detailed installation instructions, see the topic [Installing SQL Server Express with Advanced Services](#).

### **Complete the Microsoft SQL Server 2005 Express Edition with Advanced Services setup.**

This is the main component of the setup and is done as part of the installation.

**Note:** If you were using geodatabases in SQL Server Express in 9.2, please see [Upgrading SQL Server Express](#) and [Upgrading geodatabases](#).

### **Complete the postinstallation setup.**

The postinstallation set up will add a database server administrator, enable SQL Server Express to store geodatabases, authorize the ArcSDE component of ArcGIS Server Workgroup, and configure SQL Server Express for remote connections. The postinstallation setup will automatically launch after installation is complete.

Postinstallation must be completed to successfully enable the ArcSDE component.  
For detailed instructions, see the topic [Postinstallation setup](#).

## Installing SQL Server Express with Advanced Services

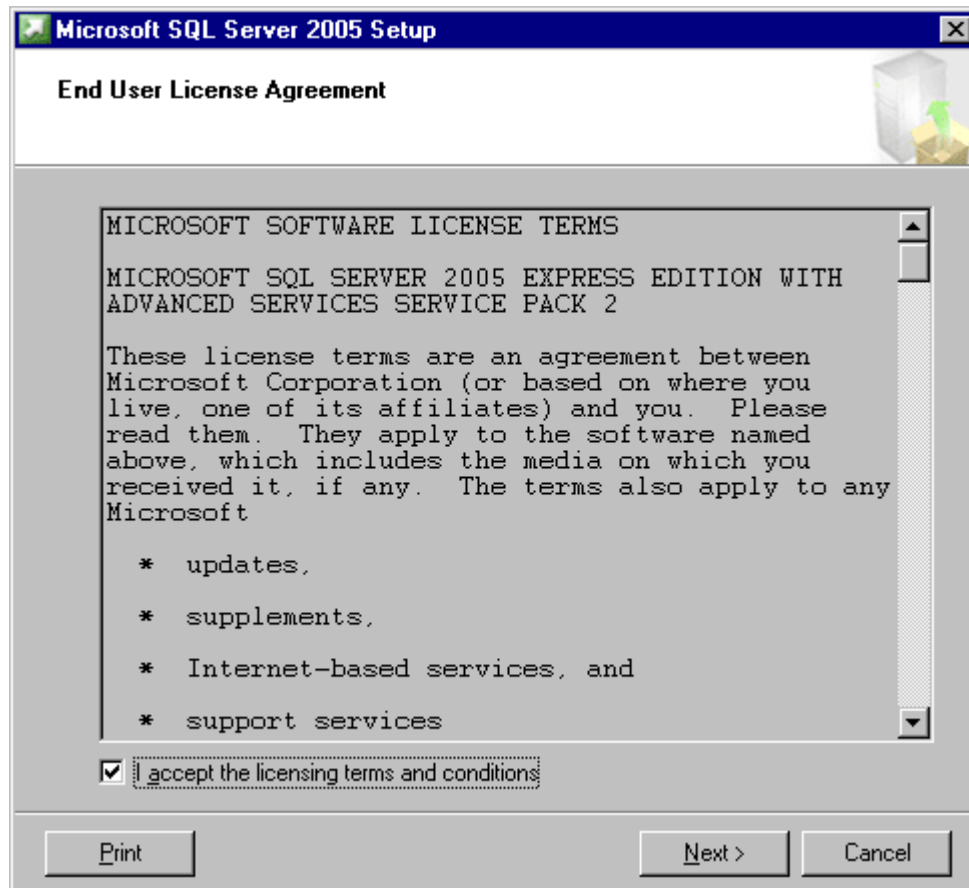
Follow the "How to prepare to install" and the "How to install SQL Server Express with Advanced Services" steps below to install SQL Server Express on your computer.

### How to prepare to install

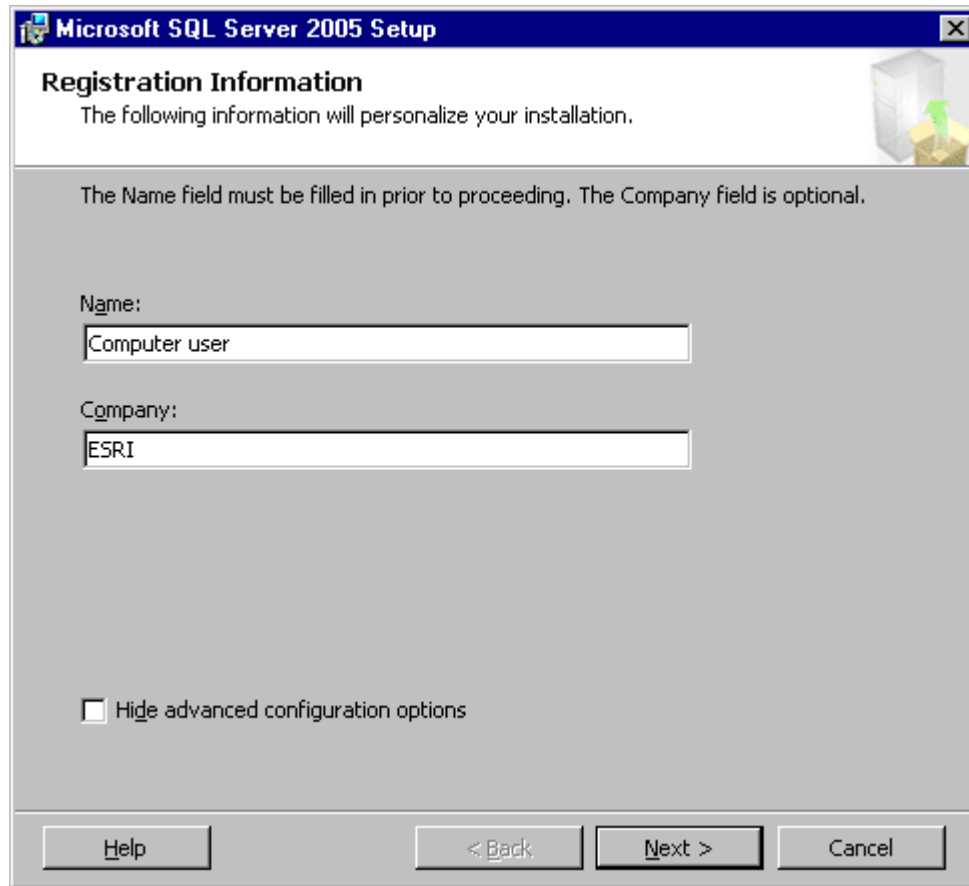
1. Obtain your authorization file.
2. Log into the computer as a user with administrative privileges.
3. Close all applications on your computer.
4. Insert the ArcGIS Server Workgroup DVD and follow the directions below on How to install SQL Server Express with Advanced Services. (If you already have an instance of SQL Server Express with Advanced Services installed that you want to use, uncheck the Microsoft SQL Server Express Edition option checked on the ArcSDE for SQL Server Express Installation Options dialog box and skip to the [postinstallation](#).)

### How to install SQL Server Express with Advanced Services

1. When the installation options screen appears, click ArcSDE for SQL Server Express. Or, if the installation options screen does not launch, navigate to the ArcSDE Workgroup folder on the ArcGIS Server Workgroup DVD and launch the ArcSDESqlExpressWorkGroup.exe file to begin the installation.
2. Install Microsoft SQL Server 2005 Express Edition with Advanced Services by leaving the Microsoft SQL Server Express Edition option checked on the ArcSDE for SQL Server Express Installation Options dialog box and clicking Install.
3. Use the Microsoft SQL Server 2005 Express Edition with Advanced Services installation wizard as follows:
  - a. Accept the Microsoft SQL Server 2005 Express Edition with Advanced Services license agreement. If you do not accept, the setup will exit and you will not install SQL Server Express.

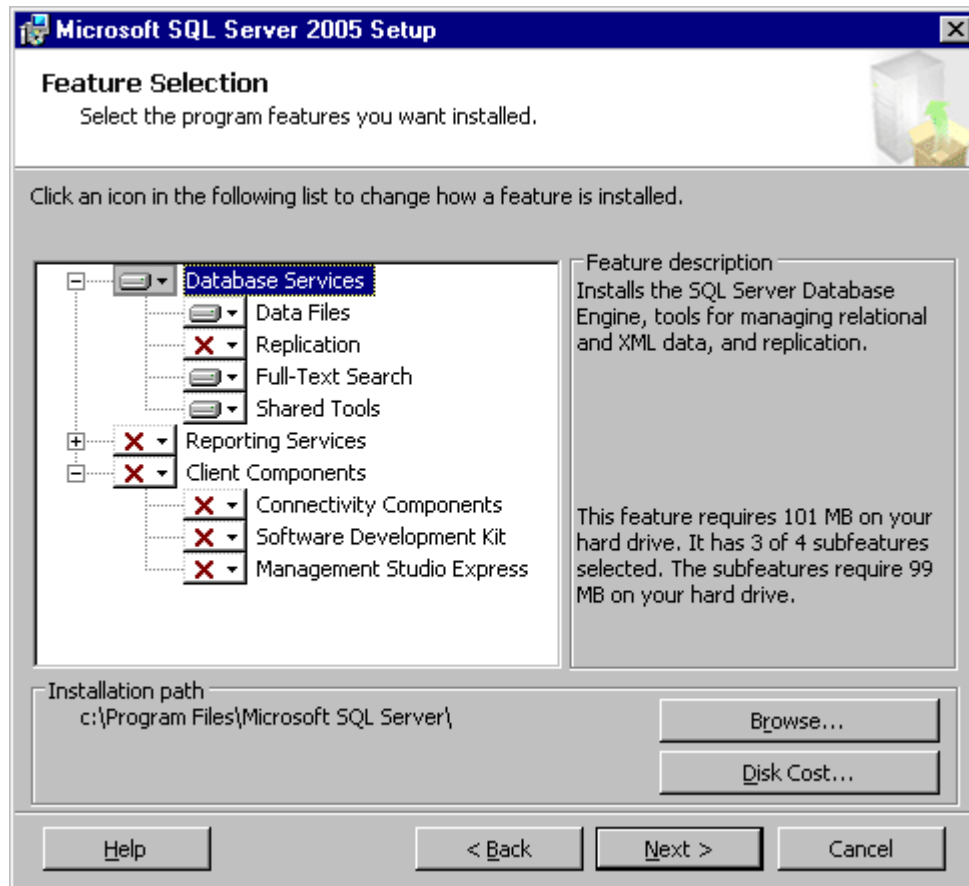


- b. Next, the setup checks your computer for the Microsoft Windows Installer 3.1 and .NET 2.0 Framework, which are required by SQL Server 2005 Express. If the Windows Installer 3.1 is not installed, the setup will install it for you. If you do not have the .NET 2.0 Framework, the setup will exit. You must install the .NET 2.0 Framework separately then restart the SQL Server Express installation. If your computer has all the required files, it will pass this check. Click Next to proceed to the next dialog box.
- c. On the Microsoft SQL Server 2005 Setup/Welcome to the Microsoft SQL Server Installation Wizard dialog box, click Next.
- d. Microsoft will do another system configuration check. When it completes, click Next.
- e. On the Registration Information dialog box, provide a name for the registration and uncheck Hide advanced configuration options.



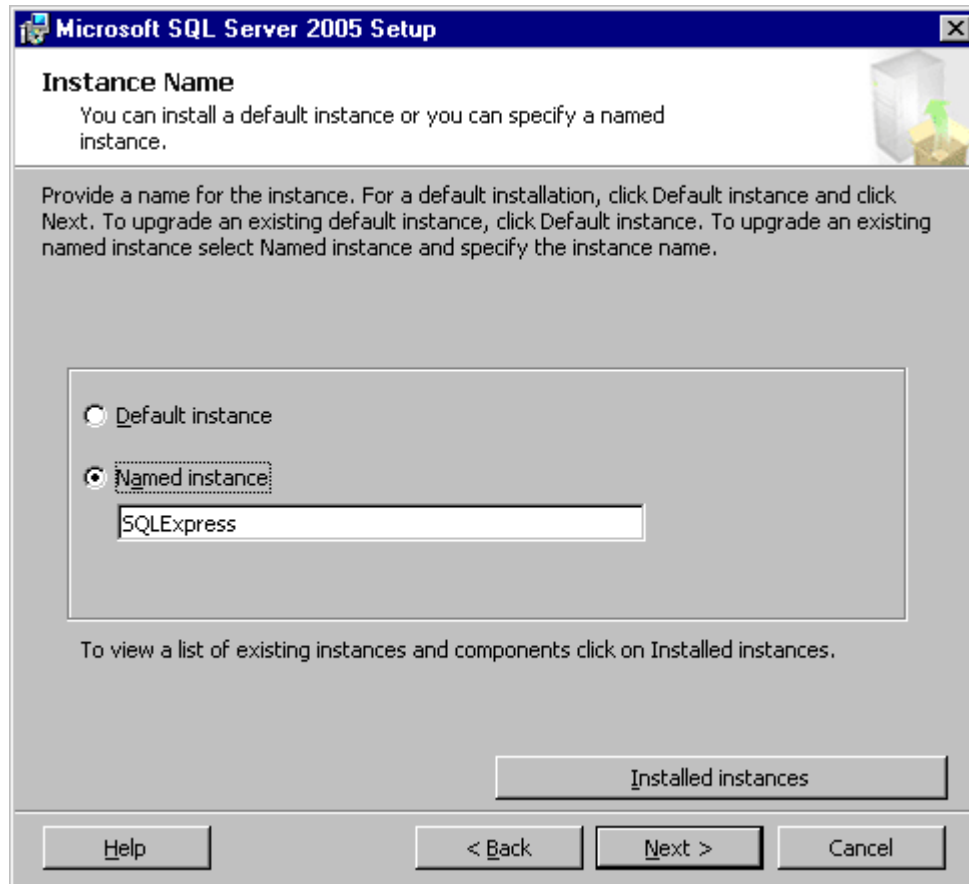
- f. On the Feature Selection dialog box, expand Database Services. Choose to install the Full-Text Search feature by clicking the drop-down box next to Full-Text Search and clicking Entire feature will be installed on local hard drive. Click Next.

The feature selection dialog box should have the components selected as shown below.

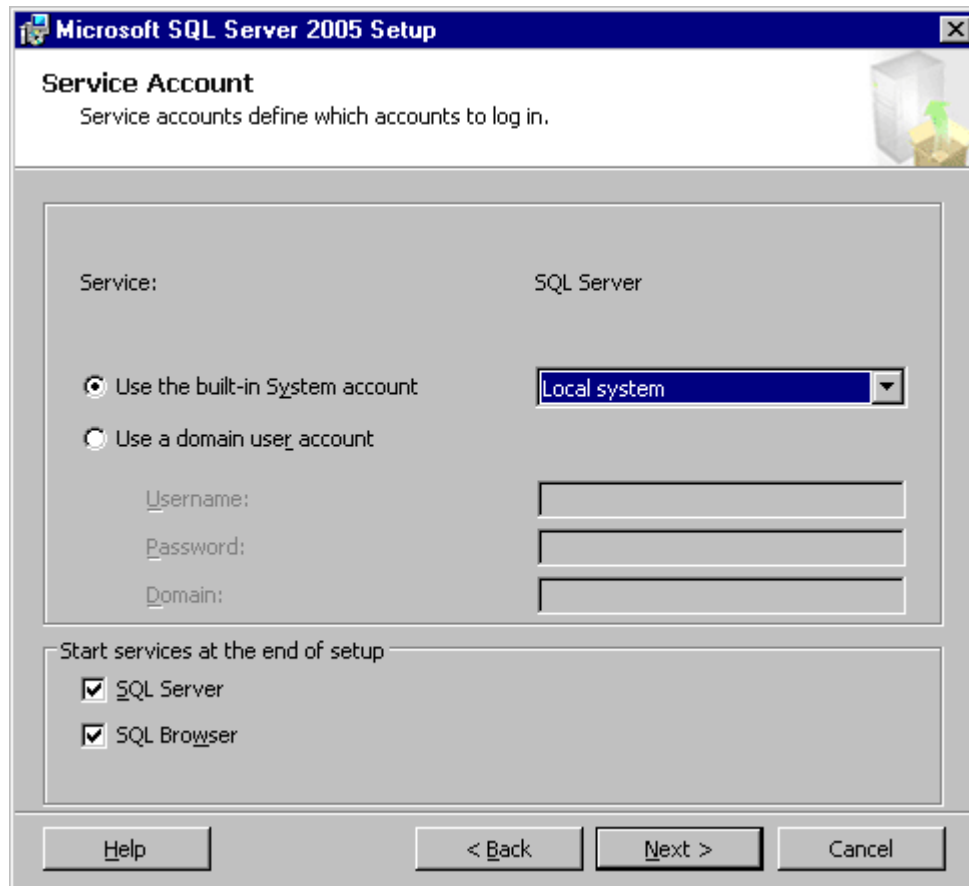


- g. On the Instance Name dialog box, use a Named instance. The default name is SQLEXPRESS. You can accept this name or type a different name and click Next. Note that the instance name cannot exceed 16 characters, must start with a letter, cannot contain spaces or special characters, and must be unique.

## Installation Guide: ArcSDE for SQL Server Express licensed through ArcGIS Server Workgroup



- h. Click Next on the Existing Components dialog box.
- i. For the Service Account, keep Use the built-in System account selected. From the drop-down list, choose the Local system account. Make sure the SQL Server and SQL Browser services remain checked to be started automatically at the end of the setup. Click Next.



- j. By default, Microsoft SQL Server Express 2005 uses Windows Authentication Mode. Geodatabases stored in SQL Server Express can only accept Windows logins; therefore, there is no need to change the authentication mode. Click Next.



- k. If you need to alter the collation settings to use a different collation, you can do so on the Collation Settings dialog box. Click Next. **Note:** Be sure to use a case insensitive collation; case sensitive collations are not supported.
- l. You can accept the default on the User Instances dialog box and click Next. If you are installing on a Windows Vista machine, you could add an administrative user at this time by checking "Add user to the SQL Server Administrator Role". Follow the instructions to add a user to the DBO server role.
- m. On the Error and Usage Report settings dialog box, you can optionally choose to send information to Microsoft.
- n. Click Install to proceed with the SQL Server Express installation. When the installation completes, click Finish.

The postinstallation setup will launch automatically after the SQL Server Express with Advanced Services installation completes. See the topic [Postinstallation setup](#) for instructions.

## Postinstallation setup

The postinstallation setup designates the SQL Server Express instance to be used as the database server, adds an administrator login to the database server, enables the SQL Server Express instance to work with the ArcSDE component of ArcGIS Server Workgroup, and authorizes the software.

### Choose the instance and add an administrator

1. For SQL Server instance name, choose from the drop-down list the name of the SQL Server Express instance you just installed; for example, MyServer\SQLExpress

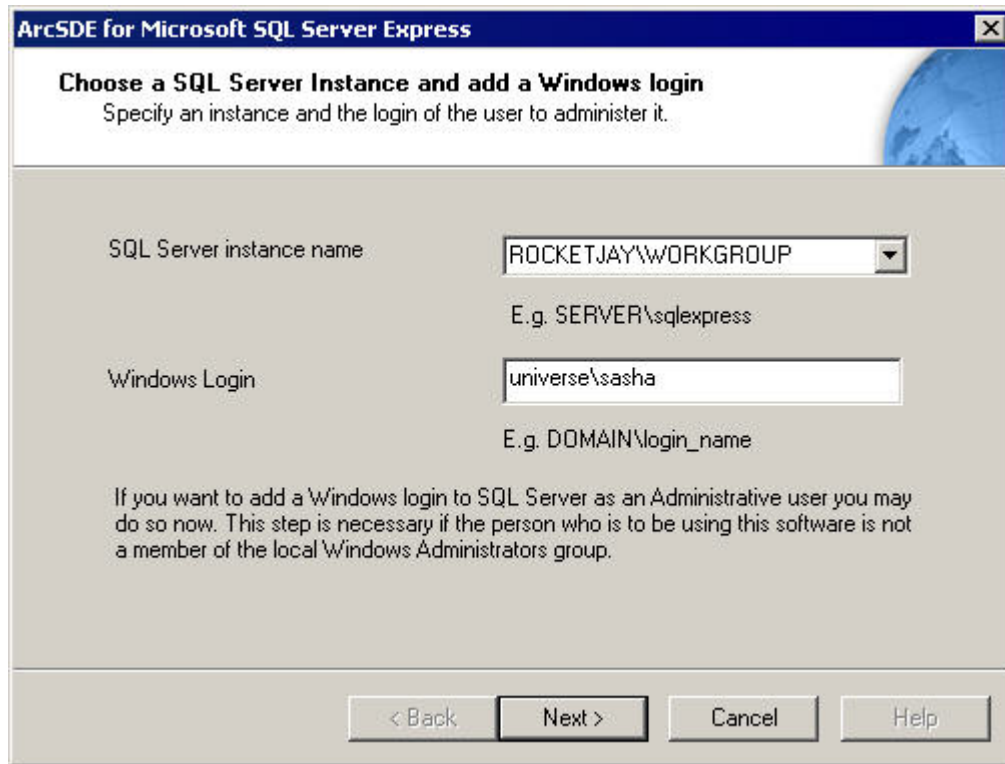
. If you are using a previously installed SQL Server Express instance, choose it from the drop-down list. **Be sure to choose the correct instance!** If you mistakenly choose, for instance, a SQL Server Enterprise Edition instance, the ArcSDE component of ArcGIS Server Workgroup will not be properly enabled and you will not be able to create any geodatabases in SQL Server Express.

2. If the person who will be administering the ArcSDE Workgroup database server is not a member of the local Windows Administrators group, you must add him or her as a database server administrator to the SQL Server Express instance you just installed. This user will not have any additional permissions at the operating system level but will be able to perform all necessary administrative functions on the database server.

You can add the login for the database server administrator by typing the domain or machine name followed by a backslash (\) and the login name; for example, WORLD\David.

If you do not need to add a database server administrator user to the SQL Server Express instance, don't type anything in the Windows Login field.

**Note:** If you are installing on Windows Vista, you **must** add a database server administrator user during postinstallation. If you do not, you will not be able to connect to your database server.



3. Click Next.

## Software authorization

1. Click Next to proceed with the authorization.
2. On the Registration Options dialog box, choose the option that applies to your situation.
  - If you have not registered ArcGIS Server or need to register additional components, choose the first or second registration option, choose ArcGIS Server from the Product to be Registered, and click Next. This will take you to the Registration Method dialog box. From here, choose the method you want to use to register your software and click Next. (**Note:** To use either the first or second option, you must have Internet access.) If you choose the first, third, or fourth option and click Next, you will need to provide your registration information, which will be submitted to ESRI. If you choose to use the ESRI customer service Web site and click Next, the customer service site will automatically launch. Follow the instructions on the customer service site to register your software. Once you receive your license file, rerun the postinstallation setup to authorize the ArcSDE component of ArcGIS Server Workgroup.
  - If you already registered your software and have received your license file, choose the third registration option and click Next. On the Software Authorization dialog box, you will either choose to browse to the location of the license file that was emailed to you, or choose to manually register the authorization information.

To complete the authorization, click Finish.

Your database server (SQL Server Express with Advanced Services instance) is now ready for use. Consult the ArcGIS Server or ArcGIS Desktop help for information on adding the database server to ArcCatalog and creating geodatabases in SQL Server Express.

## Accessing documentation for the next steps

After you finish the postinstallation setup, you're ready to add the database server (the SQL Server Express instance) to ArcCatalog and connect to the geodatabases, add other users and grant them permissions, and add data to your geodatabase. The following is a list of topics to assist you in these tasks. Use the links below to open the topics in the ArcGIS Desktop online help (<http://webhelp.esri.com/arcgisdesktop/9.3>), or open the help system indicated below and search for the titles.

TASK	RELATED TOPICS	HELP SYSTEM
Adding a database server and connecting to geodatabases	<ol style="list-style-type: none"> <li>1. <a href="#">An overview of database server connections</a></li> <li>2. <a href="#">Adding an ArcSDE database server</a></li> <li>3. <a href="#">Saving a geodatabase connection</a></li> <li>4. <a href="#">Troubleshooting connections to the database server</a></li> </ol>	All topics can be found in the ArcGIS Desktop or ArcGIS Server help
Administer geodatabase users	<ol style="list-style-type: none"> <li>1. <a href="#">Adding and removing users or groups for ArcSDE database servers</a></li> <li>2. <a href="#">Administering user permissions for ArcSDE database servers</a></li> <li>3. See the topics in the "GIS Server post installation" section of the ArcGIS Server installation guides for information on setting up the SOM and SOC accounts</li> <li>4. See the section "Setting up access to data in a geodatabase" in the topic "Preparing</li> </ol>	<ol style="list-style-type: none"> <li>1. and 2. can be found in the ArcGIS Desktop or ArcGIS Server help.</li> <li>3. Can be found in the ArcGIS Server Java and ArcGIS Server Microsoft .NET installation guides. (<a href="#">Install_serverjava.htm</a> and <a href="#">Install_servernet.htm</a>)</li> <li>4. Can be found in the ArcGIS Server help</li> </ol>

	resources for publishing as services" information on granting the SOC account proper permissions in the geodatabase	
Adding data	<a href="#">An overview of adding datasets to the geodatabase</a>	This and related topics can be found in the ArcGIS Desktop or ArcGIS Server help

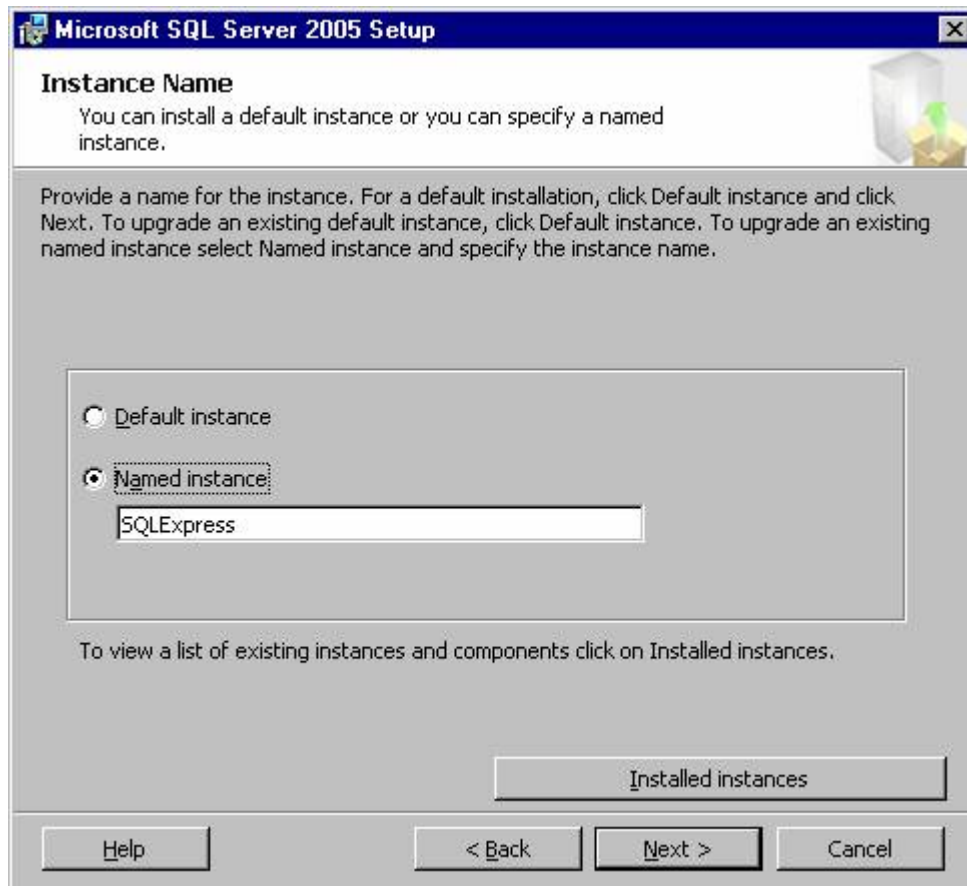
**Note:** The ArcGIS Desktop help system and ArcGIS Server help (on Windows) can be accessed from the Start menu on the machine where ArcGIS Desktop or ArcGIS Server are installed. To launch the ArcGIS Server help on UNIX machines, open the index.htm file in the documentation folder that is installed with ArcGIS Server. Java and .NET installation guides can be found on the ArcGIS Server installation media.

## Upgrading

### Upgrading your SQL Server Express instance

The SQL Server Express instances installed with ArcGIS Server for SQL Server Express prior to 9.3 did not include Advanced Services. To move your SQL Server Express instance and geodatabases to SQL Server Express with Advanced Services, you can upgrade the SQL Server Express instance. **Note:** You must be a Windows administrator on the computer where SQL Server Express is installed to perform this upgrade.

1. Before upgrading the SQL Server Express instance, **create backups of all your geodatabases**. For instructions on creating geodatabase backups, see [Back up and restore geodatabases on an ArcSDE database server](#) in the ArcGIS Server or ArcGIS Desktop help.
2. Insert the ArcGIS Server Workgroup DVD to a drive on the computer where SQL Server Express is installed.
3. When the installation options screen appears, click ArcSDE for SQL Server Express. Or, if the installation options screen does not launch, navigate to the ArcSDE Workgroup folder on the ArcGIS Server Workgroup DVD and launch the ArcSDESqlExpressWorkGroup.exe file to begin the upgrade.
4. Leave the Microsoft SQL Server Express Edition option checked on the ArcSDE for SQL Server Express Installation Options dialog box. If you have a new ArcGIS Server Workgroup license, leave the postinstallation option checked. If not, uncheck the postinstallation option and click Install.
5. Accept the Microsoft SQL Server 2005 Express Edition with Advanced Services license agreement. If you do not accept, the setup will exit and you will not install SQL Server Express.
6. Next, the setup checks your computer for the Microsoft Windows Installer 3.1 and .NET 2.0 Framework, which are required by SQL Server 2005 Express. Since SQL Server Express is already installed, these components are already present. Click Next to proceed to the next dialog box.
7. On the Microsoft SQL Server 2005 Setup/Welcome to the Microsoft SQL Server Installation Wizard dialog box, click Next.
8. Microsoft will do another system configuration check. When it completes, click Next.
9. On the Instance Name dialog box, click the Installed instances button. Choose the instance you want to upgrade and click OK. **Be sure to choose the correct instance!** This will take you back to the Instance Name dialog box. Click Next to continue.



10. The next dialog box—the Existing Components dialog box—will indicate you will be upgrading the SQL Server Express instance. Click Next to proceed with the upgrade.
11. If the upgrade completes successfully, your instance now has the Advanced Services (including the full text search) installed. If you want to take advantage of full text indexing, you must create new geodatabases on your upgraded instance in ArcCatalog and copy your existing data into these new geodatabases. (Remember, geodatabase names must be unique, so your new geodatabases will have to have different names than your original geodatabases.) Your existing geodatabases will likely need upgrading before you can access the data contained in them. See [Upgrading geodatabases](#) for information on geodatabase upgrades.

If the SQL Server Express upgrade did not successfully complete, you will need to uninstall your existing SQL Server Express instance and do a new installation of SQL Server Express with Advanced Services. To remove the SQL Server Express instance, see [Uninstalling SQL Server Express](#).

Once you have finished uninstalling the old SQL Server Express instance, do the following:

- a. Proceed with the new installation of SQL Server Express with Advanced Services by following the instructions in [Installing SQL Server Express with Advanced Services](#).

## Installation Guide: ArcSDE for SQL Server Express licensed through ArcGIS Server Workgroup

- b. Add the new SQL Server Express with Advanced Services instance (database server) to ArcCatalog by double-clicking Add database server and typing the machine and instance name of the new instance.
- c. Restore the geodatabases of which you made a backup in step 1 by right-clicking the database server, clicking Restore, browsing to the location of the backup file, and clicking OK.
- d. If you want to upgrade the geodatabase at this time, follow the instructions in [Upgrading geodatabases](#).
- e. If you want to use full text indexing, you must create new geodatabases on your new instance in ArcCatalog and copy your existing data into these new geodatabases. To create new geodatabases, right-click the database server, click New Geodatabase, type a name, and click OK. (Remember, geodatabase names must be unique, so your new geodatabases will have to have different names than your original geodatabases.)

For information on copying data from one geodatabase to another, see the topic [Copying feature datasets, classes, and tables to another geodatabase](#) in the ArcGIS Server or ArcGIS Desktop help.

## Upgrading geodatabases on ArcSDE Database Servers

How you upgrade depends on whether or not you have installed the ArcGIS Pre 9.3 geodatabase direct connect drivers. Follow the first set of instructions to upgrade if you have installed the 9.2 drivers on the machine from which you are running the instance of ArcCatalog you will use to upgrade the geodatabases. Follow the second set of instructions if you have not installed these drivers.

**Note:** No other users should be connected to the geodatabase when you upgrade it. If there are other users connected, the upgrade will fail.

### Upgrading from a client that has the 9.2 direct connect drivers installed

1. Before installing a new version of ArcGIS Desktop, **create backups of all your geodatabases** stored in SQL Server Express. For instructions on creating geodatabase backups, see [Back up and restore geodatabases on an ArcSDE database server](#) in the ArcGIS Server or ArcGIS Desktop help.
2. Follow the instructions provided with ArcGIS Desktop for installing a newer version of the Desktop software.
3. Upgrade your geodatabases. To do this, you must log into the database server with a login that is a server administrator or a geodatabase administrator. As the database server administrator, open ArcCatalog and right-click on the first geodatabase on the ArcSDE database server and click Properties. Or, as the geodatabase administrator, right-click the first geodatabase on the database server to which you have administrator privileges and click Properties.
4. On the General tab, if the geodatabase needs to be upgraded, the Upgrade Geodatabase button will be active. Clicking this will upgrade the geodatabase.
5. After you upgrade the geodatabase, you may receive a message box telling you to disconnect from and reconnect to the database server. Click OK to dismiss the message box.
6. Click OK to close the Database Properties dialog box.
7. If you have additional geodatabases to upgrade, repeat steps 3 through 5 until all the geodatabases you need to upgrade have been upgraded.
8. Right-click the database server and click Disconnect.
9. If you need to do more work with the geodatabases on the database server at this time, either double-click the database server or right-click it and click Connect to reconnect to it.

**Note:** You are not required to upgrade the geodatabase; however, if you do not, you will not be able to use any new geodatabase functionality the upgrade would allow.

## Upgrading from a client that does not have the 9.2 direct connect drivers installed

1. Before installing a new version of ArcGIS Desktop, **create backups of all your geodatabases** stored in SQL Server Express. For instructions on creating geodatabase backups, see [Back up and restore geodatabases on an ArcSDE database server](#) in the ArcGIS Server or ArcGIS Desktop help.
2. Follow the instructions provided with ArcGIS Desktop for installing a newer version of the Desktop software.
3. Upgrade your geodatabases. To do this, you must log into the database server with a login that is a server administrator or a geodatabase administrator. As the administrator, open ArcCatalog and double-click the first geodatabase. You will be prompted to upgrade the ArcSDE system table. Click Yes to upgrade. If you do not, click Yes, you will not be able to connect to the geodatabase from the 9.3 client.

**Note:** Once you upgrade the ArcSDE system tables, any 9.2 clients prior to SP5 will not be able to connect to the geodatabase.

4. Right-click the geodatabase and click Properties. On the General tab, check the Upgrade Status. If the Upgrade Geodatabase button is active, you can click it to upgrade the geodatabase system tables.

**Note:** You are not required to upgrade the geodatabase system tables; however, if you do not, you will not be able to use any new geodatabase functionality the upgrade would allow.

5. Click OK to close the Geodatabase Properties dialog box.

## Updating license keys

If you need to authorize your database server with a new ArcGIS Server Workgroup license key, such as when converting your ArcSDE for SQL Server Express database server licensed through ArcGIS Desktop to an ArcSDE for SQL Server Express database server licensed through ArcGIS Server Workgroup or if you had an ESRI Developer Network (EDN) license and are moving to a production ArcGIS Server Workgroup license, you need to update the license key on your database server and on each existing geodatabase.

### Update the license key on the database server

To change the license key on a database server from an ArcGIS Desktop (or ArcGIS Engine Runtime) license to ArcGIS Server Workgroup license or from an ArcGIS Server Workgroup license to an ArcGIS Desktop (or ArcGIS Engine Runtime) license, you can run the appropriate postinstallation setup.

1. As a Windows Administrator, log into the computer on which the SQL Server Express instance is installed.
2. If you are changing the licensing on your ArcSDE for SQL Server Express database server from ArcGIS Desktop to ArcGIS Server Workgroup, insert your ArcGIS Server Workgroup DVD into the drive. When the installation options screen appears, click ArcSDE for SQL Server Express. (Or, if the installation options screen does not launch, navigate to the ArcSDE Workgroup folder on the ArcGIS Server Workgroup DVD and launch the ArcSDESqlExpressWorkGroup.exe file to access the postinstallation setup.)

If you are changing your license from an ArcGIS Server Workgroup to an ArcGIS Desktop license, insert your ArcGIS Desktop DVD into the drive. **Note:** You must have at least an ArcEditor Desktop license to license the database server through ArcGIS Desktop. When the installation options screen appears, click ArcSDE for SQL Server Express. (Or, if the installation options screen does not launch, navigate to the ArcSDE Personal folder on the DVD and launch the ArcSDESqlExpressPersonal.exe file to access the postinstallation setup.)

3. On the ArcSDE Installation Options dialog box, uncheck Microsoft SQL Server Express Edition and click Install.
4. From the drop-down menu, choose the name of the SQL Server Express instance for which you want to change the license key and click Next.
5. If you are changing from an ArcGIS Desktop license to an ArcGIS Server Workgroup license, you will now authorize the ArcSDE component of the ArcGIS Server Workgroup software by navigating to the ArcGIS Server Workgroup license key. See the instructions on software authorization in the [Postinstallation setup](#) topic.
6. When the postinstallation is finished, click Finish.

## Update the license keys on the geodatabases

To update the license keys of the existing geodatabases on the database server for which you just changed license keys, you will need to detach and attach each geodatabase.

1. Open ArcCatalog.
2. Connect to the database server for which you changed license keys.
3. Right-click a geodatabase on the database server, point to Administration, and click Detach. Make note of where the database file is located so you know where to look for it to reattach it.
4. Confirm you want to detach the geodatabase by clicking Yes. The geodatabase should disappear from the database server connection in the ArcCatalog tree.  
**Note:** There can be no other existing connections to a geodatabase when you detach it; if there are, the detach will fail.
5. Right-click the database server, and click Attach.
6. In the Attach Geodatabase dialog box, browse to the .mdf file of the geodatabase you just detached. (This is usually C:\Program Files\Microsoft SQL Server\MSSQL\Data.) Click OK on the Browse dialog box.
7. Click OK on the Attach Geodatabase dialog box.
8. Repeat steps 3 through 7 above to update the license key of all other geodatabases on the database server.

If you do not update the license key on the geodatabases, they will retain their original key information in the database. That means, if you were using an ArcSDE database server licensed through ArcGIS Desktop, you will still be restricted to three users for those geodatabases. Similarly, if your EDN license has expired and you don't update the license key in each geodatabase, they will be inaccessible.

## Uninstalling ArcSDE database servers

### Uninstalling SQL Server Express

1. Open the Windows Control Panel and double-click the Add/Remove Programs icon.
2. Select Microsoft SQL Server 2005 from the program list, and click the Remove button. **Note:** You must be a Windows administrator to remove programs.
3. For Component Selection, select the correct instance to remove. For example, if you used the default instance name of SQLExpress, choose SQLEXPRESS:Database Engine.
4. Click Next.
5. Confirm you want to uninstall this instance by clicking Finish.

Uninstalling SQL Server Express removes the SQL Server Express software, but the geodatabase files you created remain. If you reinstall SQL Server Express and want to use the geodatabase files you had previously created, you will need to attach them or restore them from backup files.

## Troubleshooting

To successfully run geodatabases in SQL Server Express, the SQL Server TCP/IP network protocol must be enabled and both the SQL Server Express and SQL Server Browser services must be started. In addition, to use a particular ArcSDE database server, your login must be recognized by the SQL Server Express instance. These topics are covered below.

### Enabling the TCP/IP protocol

Upon completion of this install, if you have trouble making remote connections to the database server, please do the following to ensure that SQL Server Express has been correctly configured.

#### Start the SQL Server Configuration Manager

1. Click the Start button on the Windows task bar, point to All Programs, point to Microsoft SQL Server 2005, point to Configuration Tools, and click SQL Server Configuration Manager.

#### Check the Network Configuration

1. In the left-hand Table of Contents, expand SQL Server 2005 Network Configuration.
2. Click Protocols for <instance\_name>. If you used the default instance name, this will be SQLEXPRESS.
3. Verify that TCP/IP status is Enabled. If it is not enabled:
  - a. Right-click TCP/IP and click Properties.
  - b. On the Protocol tab, click Enabled and choose Yes from the drop-down list on the right.
  - c. Click OK.
  - d. Click OK when the message 'Any changes made will be saved; however, they will not take effect until the service is stopped and restarted' appears. You will restart the service shortly.

### Ensuring the services are running

#### Check the SQL Server 2005 services

1. In the left-hand Table of Contents, click SQL Server 2005 Services.
2. Verify that the SQL Server (SQLEXPRESS) service and the SQL Server Browser service have both been started. If the services are started, their State will be Running and the service icon has a green arrow on the lower right corner. (A red square indicates that the service is stopped.) If they have not been started:

- a. Right-click the service and click Start. If no Start item appears on the context menu and the Start Mode is listed as 'Other' or 'Disabled', you will need to enable the service before it can start. To enable the service:
  - Right-click the service and click Properties.
  - On the Service tab, change the Start Mode to Automatic by clicking Start Mode and choosing Automatic from the drop-down list.
  - Click OK.
  - Now you can start the service by right-clicking it and clicking Start.
- b. *If you have enabled the TCP/IP protocol, you must restart the SQL Server (SQLEXPRESS) service before this change will take effect. If the SQL Server (SQLEXPRESS) service is already running, right-click it and click Restart. This will stop and then restart the service.*
- c. *If a service will not start due to a timeout error, verify that the Start Mode is Automatic and reboot the computer. An Automatic Start Mode means that the service will start automatically on boot.*

If the TCP/IP network protocol and both the SQL Server (SQLEXPRESS) and SQL Server Browser services have been started, close the SQL Server Configuration Manager. SQL Server has been configured correctly and you can now begin working with ArcSDE Personal or Workgroup Edition.

## Making sure a user has permission to add the database server

Users who are administrators on the computer on which the SQL Server Express instance is installed are automatically administrators in the database server. If additional users need to access the database server, either locally or remotely, their logins must be added to the database server.

To do this, a user can be added during the [postinstallation setup](#).

Alternatively, after postinstallation is complete, the administrative user who installed SQL Server Express and ArcSDE can add users through ArcCatalog.

1. With a Windows administrator login, log into the computer where SQL Server Express is installed.
2. Open ArcCatalog.
3. Expand the Database Servers folder in the Catalog tree and double-click Add Database Server.
4. Type the name of the server and the name of the SQL Server Express instance in the Database Server text box; for example, COMP\sqlexpress. Click OK.
5. The database server will be added to the Database Servers list in the Catalog tree. Right-click it and click Permissions.
6. Click Add User and browse to the login you want to add as a user. Since ArcSDE Personal and Workgroup use Windows logins, a local or network login must

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already exist for the user. **Note:** A user's local login (such as, CANINE\rocky) is not the same as his or her network login (such as, GLOBAL\rocky). If a user needs to connect to the database server with his/her local login—for instance, if the database server is installed on a laptop that will be used detached from the network—you need to be sure to add the user's local login to the database server.

7. Click OK.

For additional troubleshooting tips, see the topic [Troubleshooting connections to the database server](#) in the ArcGIS Desktop or ArcGIS Server Help.