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1 Overview

This document describes the configuration information you should pay attention to during and after database installation when iMC is used together with Microsoft SQL Server 2005. The document is applicable to both the SQL Server 2005 Enterprise edition and the SQL Server 2005 Express edition. The document also describes the configuration information specific to each edition. In the end, the document describes some problems you may encounter in uninstalling SQL Server 2005 and the countermeasures.

The database versions used in the documentation are SQL Server 2005 Workstation and SQL Server 2005 Express SP2, which may differ a little bit from other versions.

Before installing iMC, install SQL Server 2005 first. After installing SQL Server 2005, restart the operating system and then proceed to install iMC.

Currently, you can install the database on a separate database server and save the iMC data on the database server. To install the database on a separate database server, follow these guidelines:

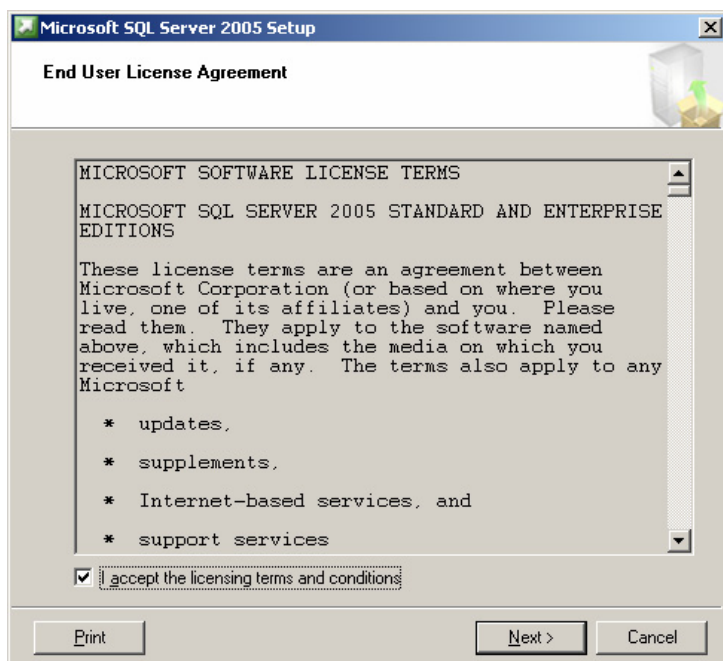
- On the iMC server, install an SQL Server client with the same version as the database.
- Create a data file folder on the database server, and input the path when deploying the iMC components.

2 Installing SQL Server 2005

Starting the Setup Program and Installing Required Components

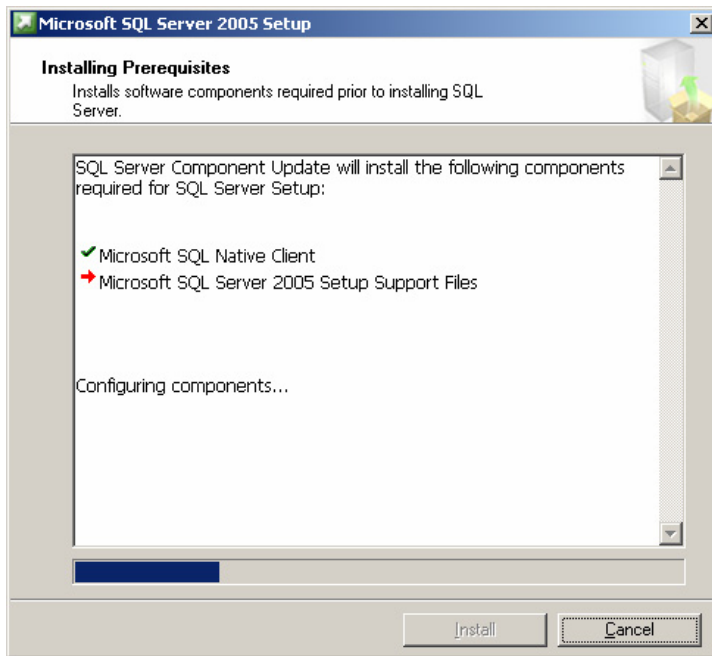
After you run the setup program, the **End User License Agreement** dialog box as shown in [Figure 2-1](#) appears:

Figure 2-1 End User License Agreement dialog box



Select **I accept the licensing terms and conditions** and then click **Next** to start installing required components.

Figure 2-2 Install required components



After installing the required components, click **Install** to start installing SQL Server 2005.

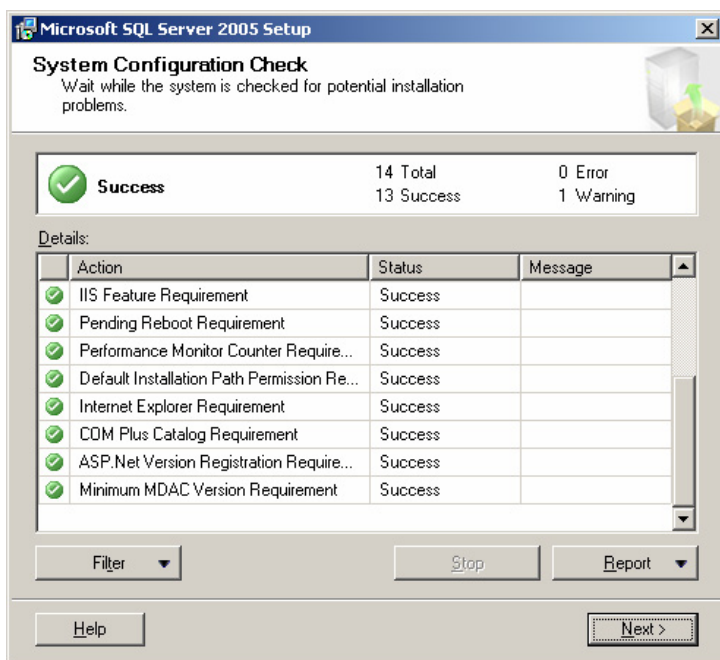
Making Configuration During Installation

The **Welcome to the Microsoft SQL Server Wizard** dialog box appears, as shown in [Figure 2-3](#):

Figure 2-3 Welcome to the Microsoft SQL Server Wizard dialog box

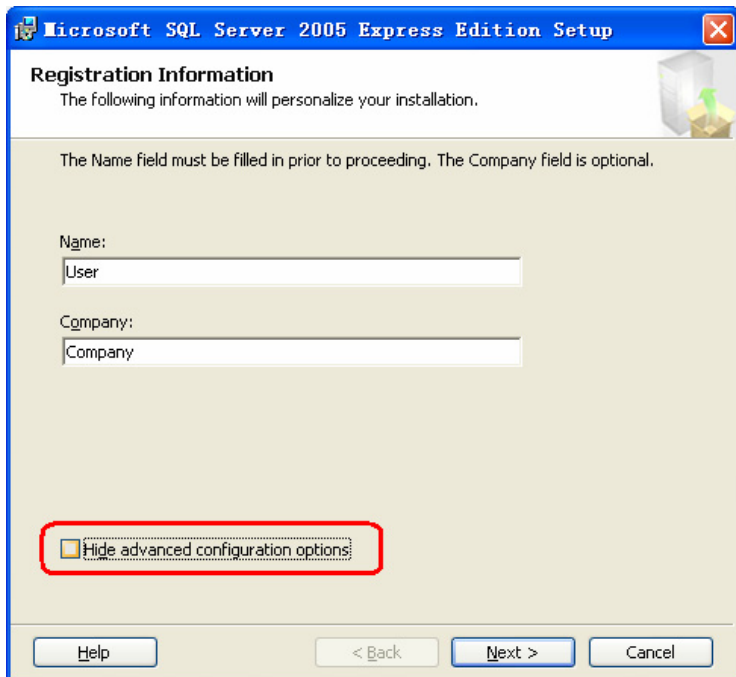


Click **Next** to execute system configuration check:

Figure 2-4 System Configuration Check dialog box

Click **Next** after system configuration check is completed. If the system configuration checker finds out a problem, click the corresponding link in the **Message** column to identify the cause and then solve the problem (if needed, you can use the SQL Server Help System). After solving all problems, click **Next**. The **Registration Information** dialog box appears.

Figure 2-5 Registration Information dialog box for SQL Server 2005 Express



On the **Registration Information** dialog box, input your user name in the **Name** text box and your company name in the **Company** text box. For the SQL Server 2005 Enterprise edition, you need to input the product key additionally; for the SQL Server Express edition, you need to clear the **Hide advanced configuration options** option, which is not available on the SQL Server 2005 Enterprise edition. Click **Next**, and the **Feature Selection** dialog box appears.

Figure 2-6 Feature Selection dialog box for SQL Server 2005 Express

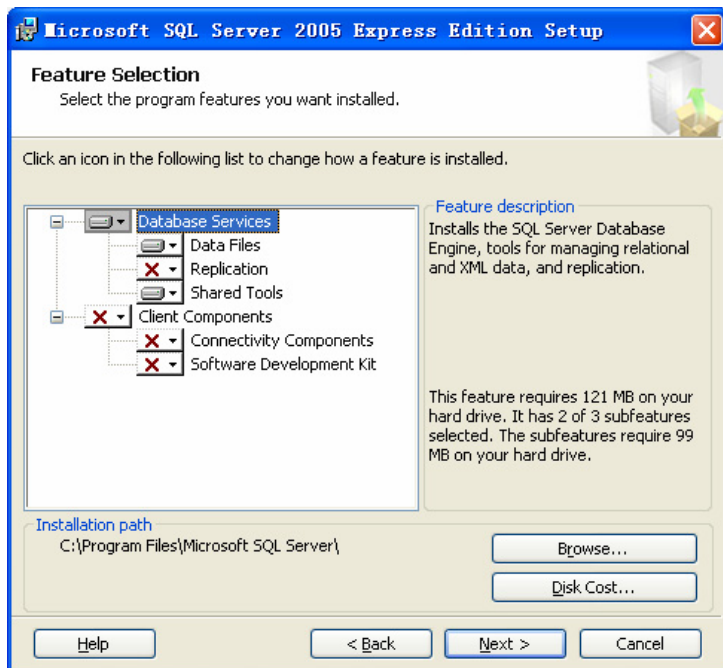
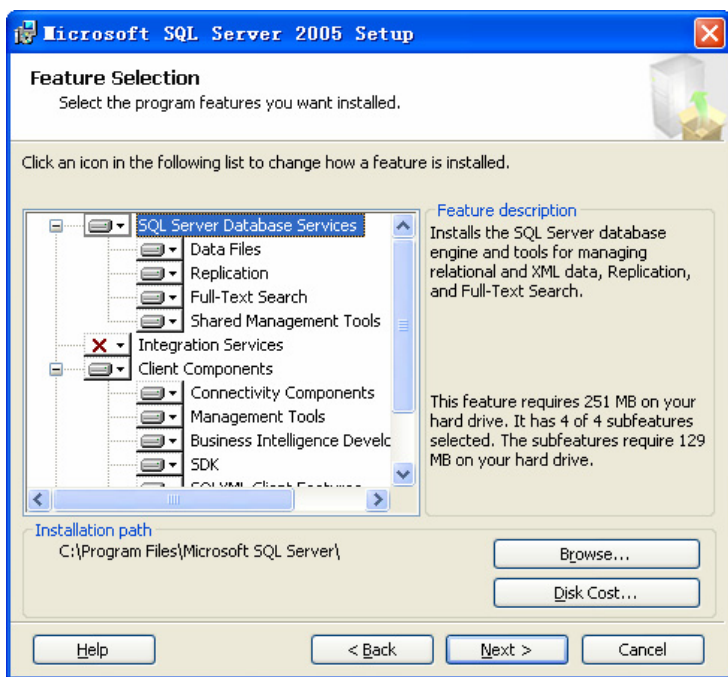
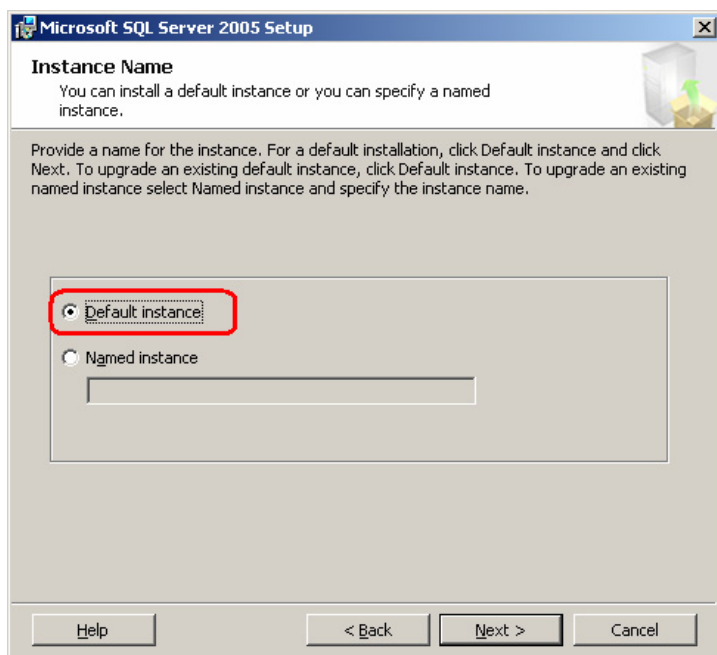


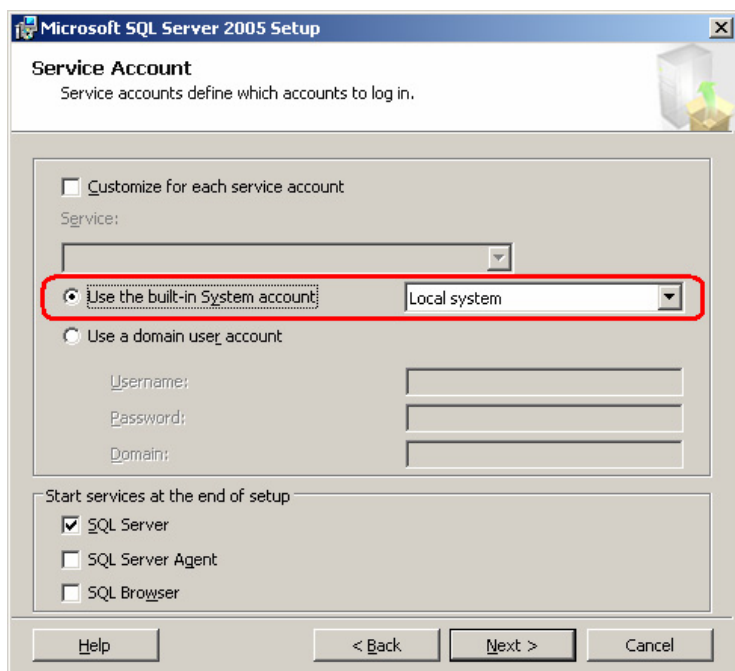
Figure 2-7 Feature Selection dialog box for SQL Server 2005

For the SQL Server 2005 Express edition, you do not need to modify the configuration on the dialog box; for the SQL Server 2005 enterprise edition, you need to select features under **SQL Server Database Services** at least.

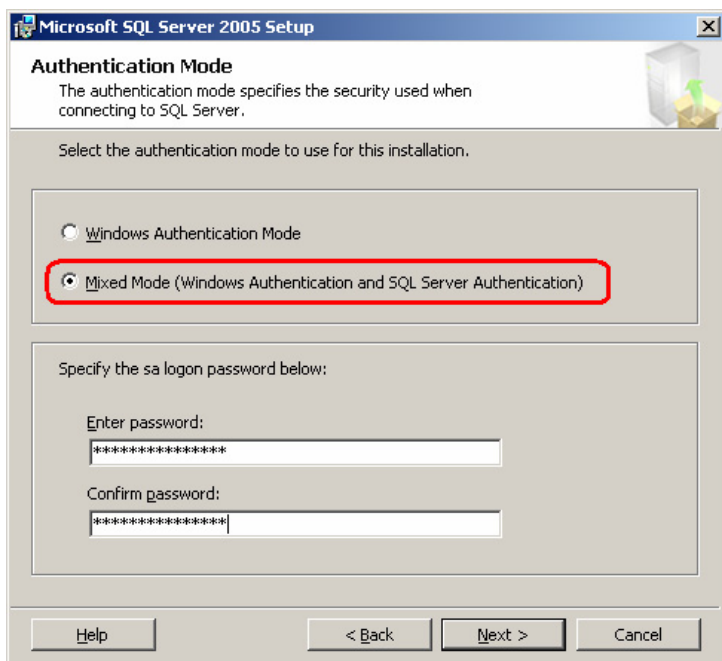
After this configuration is completed, click **Next**. The **Instance Name** dialog box appears.

Figure 2-8 Instance Name dialog box

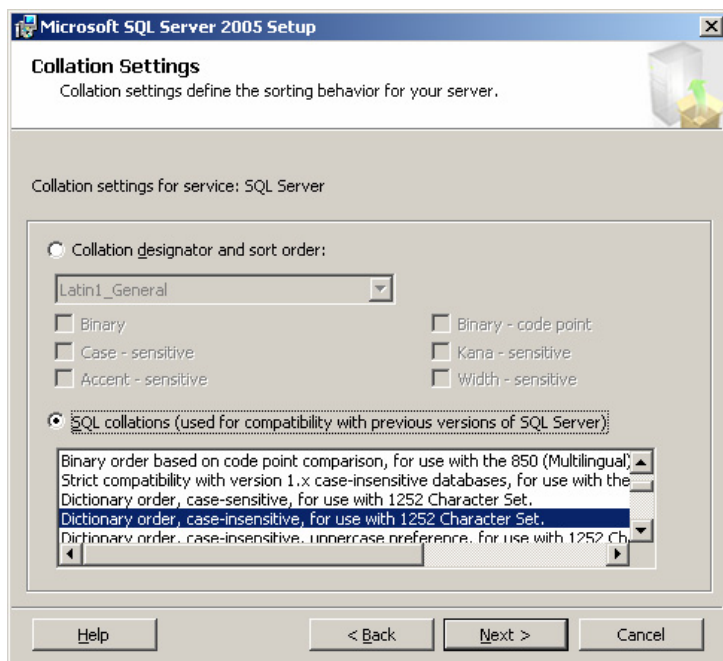
Select the **Default Instance** option, and then click **Next**. The **Service Account** dialog box appears.

Figure 2-9 Service Account dialog box

Make sure that the **Use the built-in System account** option is selected, and change the account name to **Local system**. After this configuration, click **Next**. The **Authentication Mode** dialog box appears.

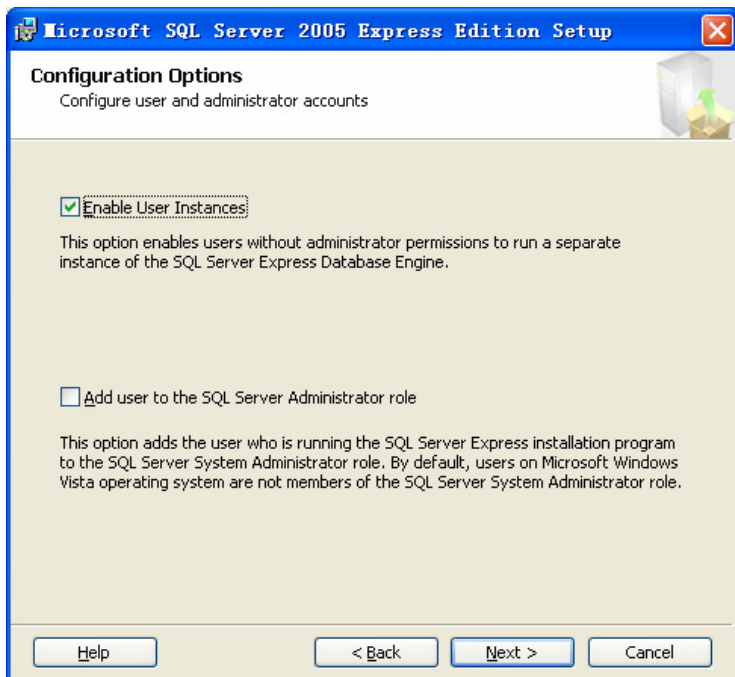
Figure 2-10 Authentication Mode dialog box

Set the authentication mode to mixed mode by selecting the **Mixed Mode** option, and then specify the **sa** login password. SQL Server 2005 has certain requirements for password complexity. For information about password complexity, refer to the SQL Server 2005 Help System. After this configuration is completed, click **Next**. The **Collation Settings** dialog box appears.

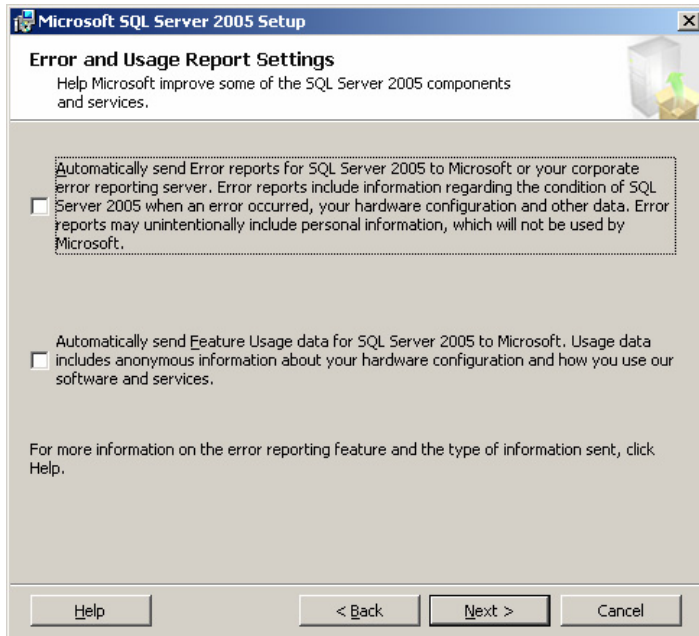
Figure 2-11 Collation Settings dialog box

Use the default settings displayed on the dialog box, and click **Next**. Proceed to perform account configurations (for SQL Server Express).

Figure 2-12 Configuration Options dialog box for SQL Server 2005 Express

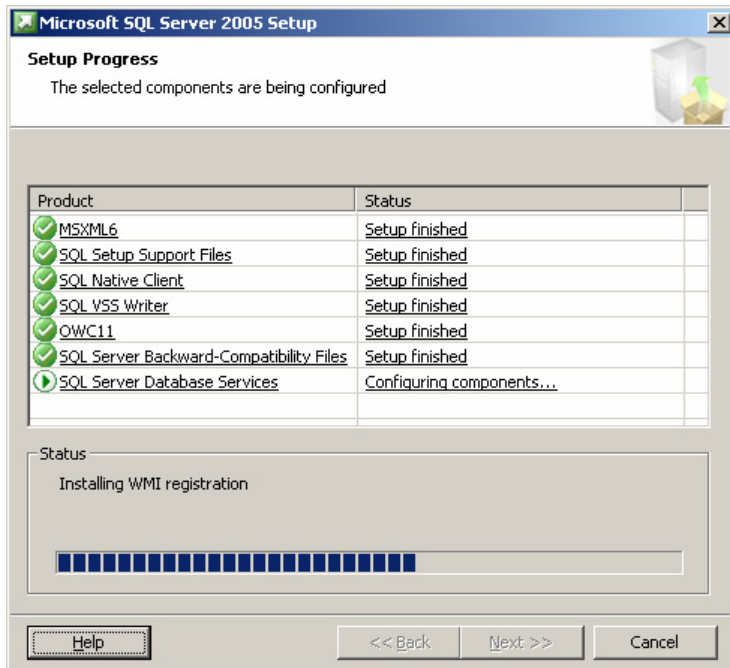


SQL Server 2005 Enterprise edition may not display the dialog box shown in [Figure 2-12](#). Use the default settings displayed on the dialog box, and click **Next**. Proceed to configure error and usage report settings.

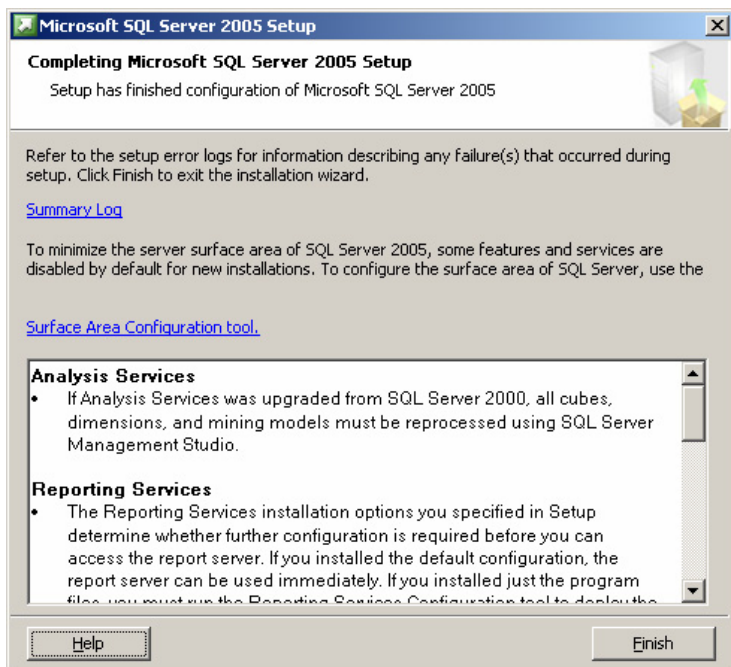
Figure 2-13 Error and Usage Report Settings dialog box

Use the default settings displayed on the dialog box, and click **Next**. The **Ready to Install** dialog box appears.

Confirm the installation information, and click **Install** to start installing SQL Server 2005.

Figure 2-14 Install SQL Server 2005

The components to be installed depend on the features you selected on the **Feature Selection** dialog box. After the installation is completed, click **Next**. The **Complete Microsoft SQL Server 2005 Setup** dialog box appears.

Figure 2-15 Complete Microsoft SQL Server 2005 Setup dialog box

Click **Finish** to close the dialog box.

3

Setting Up SQL Server 2005

Configuring Remote Connections for Surface Area

Before installing iMC, you should configure some parameters on SQL Server 2005.

Select **Start > Programs > Microsoft SQL Server 2005 > Configuration Tools > SQL Server Surface Area Configuration**.

Figure 3-1 SQL Server Surface Area Configuration

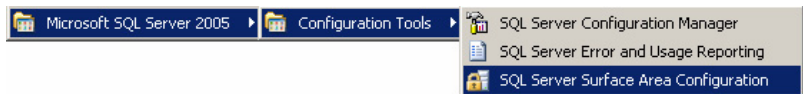


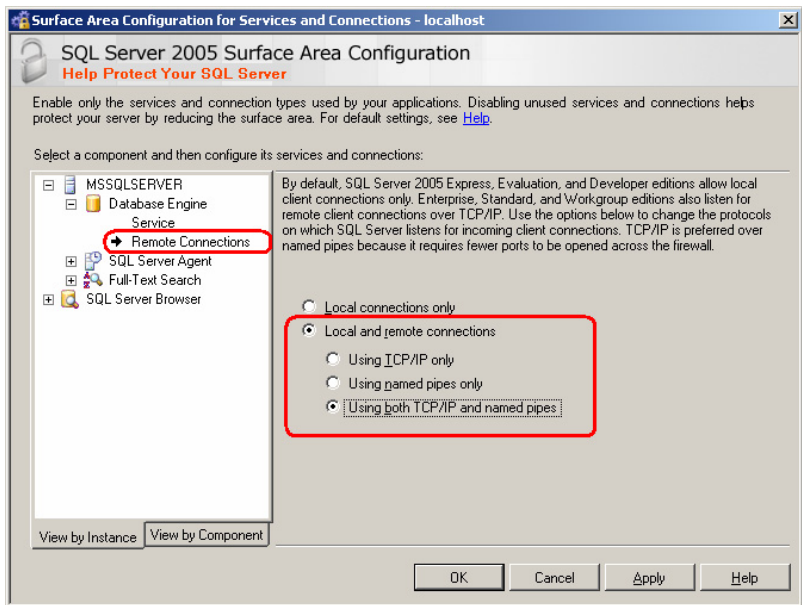
Figure 3-2 SQL Server Surface Area Configuration of SQL Server

2005



Click **Surface Area Configuration for Services and Connections**, and the dialog box as shown in [Figure 3-3](#) appears.

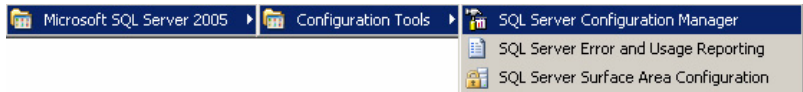
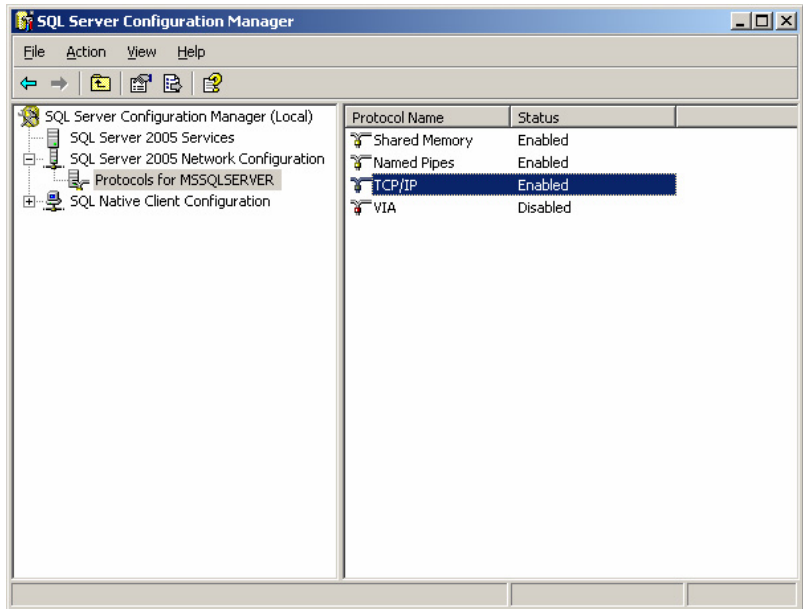
Figure 3-3 Surface Area Configuration for Services and Connections dialog box



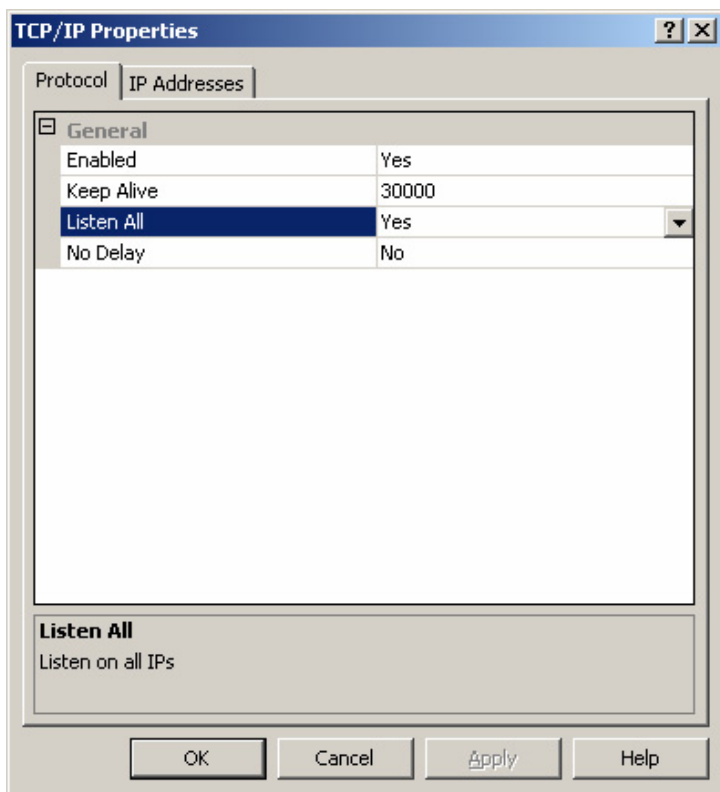
Select **Remote Connections** on the tree on the left, and then select **Local and remote connections** in the content pane on the right and **Using both TCP/IP and named pipes** in the sub options. Click **OK** to save the configuration. Click **OK** when the message box saying “Changes to Connection Settings will not take effect until you restart the Database Engine service” appears.

Configuring TCP/IP Properties

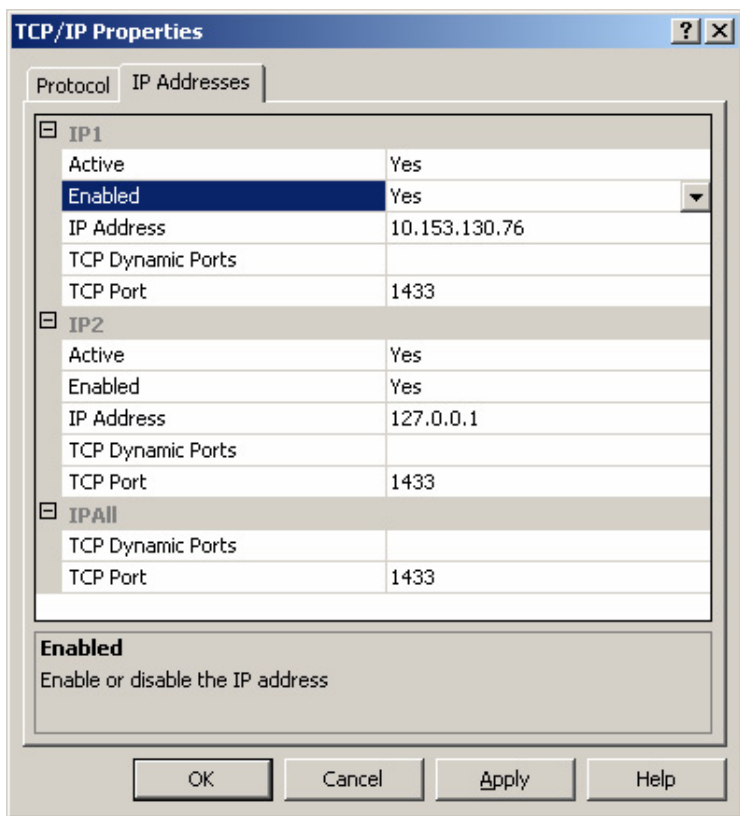
Select **Start > Programs > Microsoft SQL Server 2005 > Configuration Tools > SQL Server Configuration Manager**.

Figure 3-4 SQL Server Configuration Manager**Figure 3-5** SQL Server Configuration Manager window

On the **SQL Server Configuration Manager** window, click **SQL Server 2005 Network Configuration** and then **Protocols for MSSQLSERVER** on the tree on the left, and then double-click **TCP/IP** on the right (or click **TCP/IP** and then click the **Properties** button on the toolbar). The **TCP/IP Properties** dialog box appears.

Figure 3-6 Configure TCP/IP properties

On the **Protocol** configuration interface, make sure **Yes** is selected for **Listen All**; on the **IP Address** configuration page, select **Yes** for the **Enabled** option of each IP address, and change **TCP Port** to 1433, as shown in [Figure 3-7](#).

Figure 3-7 Configure IP addresses for TCP/IP

Click **OK** to save the configuration. Click **OK** when the message box saying “Changes to TCP/IP properties will not take effect until you restart the service” appears.

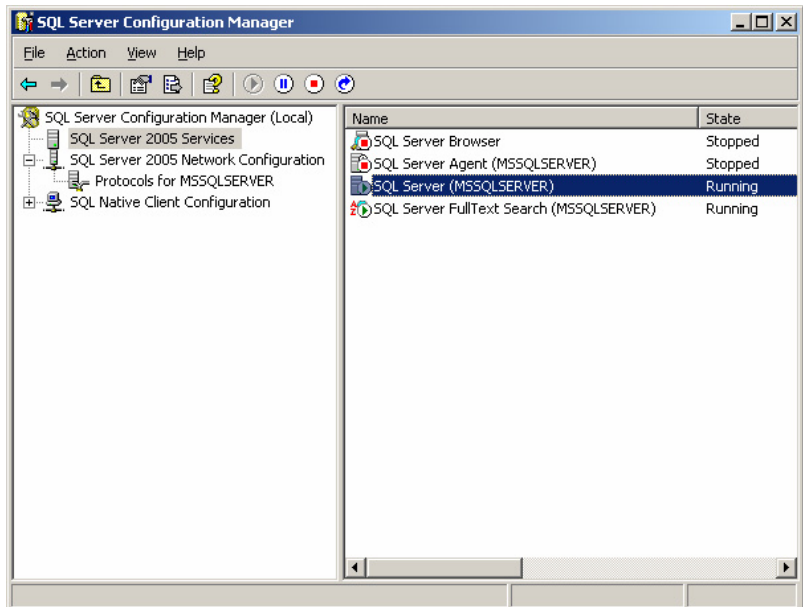
**Note**

If you have not selected **Yes** for **Listen All** on the **TCP/IP Properties** dialog box, enter the dialog box to update the previously-configured IP addresses if the server IP address changes after installing SQL Server 2005. Otherwise, you cannot connect to the database.

Configuring the SQL Server Service to Log On As Local System

On the **SQL Server Configuration Manager** window, click **SQL Server 2005 Services** on the tree on the left, and you can see the operational status of SQL Server 2005 services on the right.

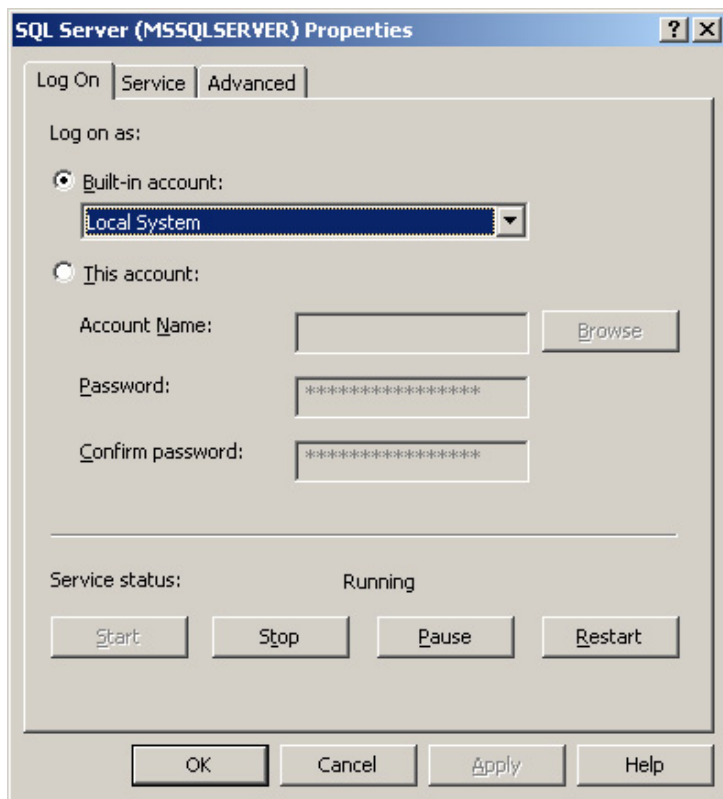
Figure 3-8 Operational status of SQL Server 2005 services



Check the **Log On As** column of the SQL Server, and make sure its value is **LocalSystem**.

The value is sure to be **LocalSystem** if you strictly follow the installation steps mentioned above. If you did not strictly follow the installation steps mentioned above, the value may be **NetworkService**. In this case, double-click the row (or select the row and then click the **Properties** button on the toolbar), and the **SQL Server Properties** dialog box as shown in [Figure 3-9](#) appears. On the dialog box, change the **Log on as** property into **Local System** in the **Built-in account** option.

Figure 3-9 Configure the **Log on as** property on the **SQL Server Properties** dialog box



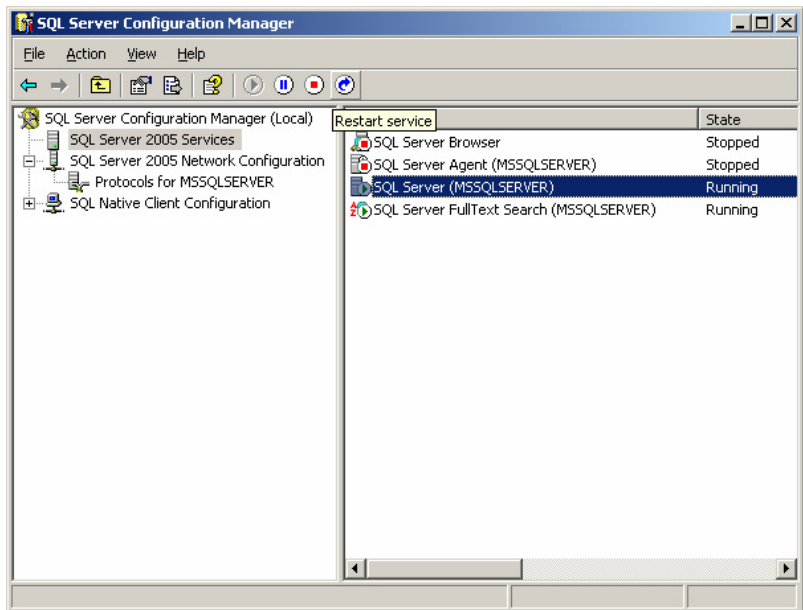
After the change, click OK to save the configuration.

Restarting the SQL Server Service

After completing the preceding configurations, you must restart the SQL Server service to make the configurations take effect.

On the **SQL Server Configuration Manager** window, click **SQL Server 2005 Services** on the tree on the left, select **SQL Server (MSSQLSERVER)** on the right, and then click the **Restart service** button on the toolbar.

Figure 3-10 Restart the SQL Server service





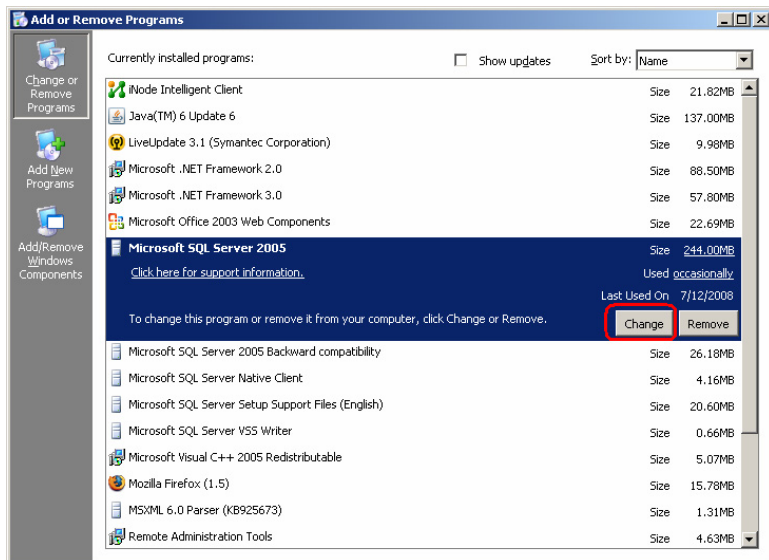
Note

Alternatively, you can restart the service by rebooting the Windows operating system. As rebooting the operating system is required for installing iMC after the SQL server installation is completed, you do not need to restart the SQL server service separately.

4 Uninstalling SQL Server Database

If you uninstall the SQL Server database with the **Remove** function on the **Control Panel > Add or Remove Programs** page, you may fail to uninstall the database completely (the setup.exe process hangs) because of operating system configuration problems. As a solution, you can use the **Change** function on the page to remove the features of the database one by one, and uninstall SQL Server 2005 completely at last.

Figure 4-1 Uninstall SQL Server 2005 with the **Change** function



5 Installing the Embedded Database

To simplify the installation and maintenance, the standard and Lite Editions support automatic installation and configuration of the embedded database. Thus, you can directly install and deploy iMC on a Windows-based machine without a database system.

Requirements for Installing the Embedded Database

The embedded databases used by the standard and Lite Editions are Microsoft SQL Server 2005 Express. iMC standard edition does not provide an embedded database. This database supports only limited data space, so you are recommended to use its business Edition.

When using this embedded database, limit the number of iMC managed devices to 50 to ensure stable performance.

Before installing SQL Server 2005 Express, you need to install the following software:

- Windows Installer 3.1
- Net Framework 2.0
- MDAC 2.8 SP1
- Internet Explorer 6.0 SP1 or higher

If you wish to download these add-ons, visit the following URL:

<http://www.microsoft.com/downloads>

**Note**

Microsoft SQL Server 2005 Express can be installed only in the partition where Windows is installed and it requires about 400 MB of free disk space.

Preparations for Installing the Embedded Database

Before installing the embedded database to a server, make sure that the server does not have SQL Server 2000 or SQL Server 2005.

If the server has SQL Server 2000, delete the following registry entries before installing the embedded database:

- HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Windows\CurrentVersion\Uninstall\Microsoft SQL Server 2000
- HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Microsoft SQL Server\80\Tools

If the server has SQL Server 2005, delete the following registry entries before installing the embedded database:

- HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Windows\CurrentVersion\Uninstall\Microsoft SQL Server 2005
- HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Microsoft SQL Server\90\Tools

**Note**

With the above-mentioned registry entries, you cannot install the embedded database normally.

Installing the Embedded Database

You can install the embedded database when deploying iMC components.

In the deployment of the Mini iMC and Standard Editions, if the component being deployed needs database support while SQL Server is not present on the server, a message will appear in the **Data Configuration Info** window of the deployment wizard, asking you to install the embedded database.

If the requirements for installing SQL Server 2005 Express are met, perform the following steps:

- 1) In the **Data Configuration Info** window of the deployment wizard, select the **Install embedded database** checkbox.
- 2) Click **Next** to enter the **Configure Web Service Port** window.
- 3) Click **Deploy**.

Then, iMC will automatically install SQL Server 2005 Express. After the installation finishes, you can deploy the components.

If the requirements for installing SQL Server 2005 Express are not met, a message will appear in the **Data Configuration Info** window telling you that the requirements are not met. You can install the database and deploy components only when the requirements are met.



Note

- The same procedure is used for the installation of the embedded database on the master and slave servers.
 - SQL Server 2005 Express will be automatically installed in the partition where Windows is installed. The login password for the sa user is iMC-Install2005.
-

Requirements for Removing the Embedded Database

Removing iMC will not remove the embedded database. You can remove the embedded database only by selecting **Control Panel > Add or Remove Programs**.



Note

In some operating systems, you cannot remove SQL Server 2005 Express by clicking **Remove** in the **Add or Remove Programs** dialog box. In this case, click **Change**.

6 FAQs

Will Changing the Computer Name Affect the Database? How to Restore the Database?

Changing the name of a computer running SQL Server 2005 may cause some database operation failures.

In this case, perform the following operations to update the computer name saved in the database:

Suppose the old computer name is **SERVER_1** and the new one is **SERVER_2**. Open cmd.exe of Windows and execute the following scripts (assuming that the login user name is **sa** and the password is **iMC-Install2005**):

```
osql -Usa -PiMC-Install2005
select @@SERVERNAME
go
```

The old computer name **SERVER_1** is displayed on the interface.

Continue to execute the following commands to modify the computer name saved in the database:

```
sp_dropserver @server='SERVER_1', @droplogins=NULL
go
sp_addserver @server='SERVER_2', @local='local',
@duplicate_ok= 'duplicate_OK'
go
exit
```

The commands above first delete the old computer name

SERVER_1 and then add a new one **SERVER_2**.

After the modification above, you must **restart the SQL Server service** in the Windows Service Manager to restore the database.

During the iMC Installation, "MS SQLServer Is not Installed Correctly, MSSQLSERVER Service Does not Exist" Is Displayed. What Shall I Do?

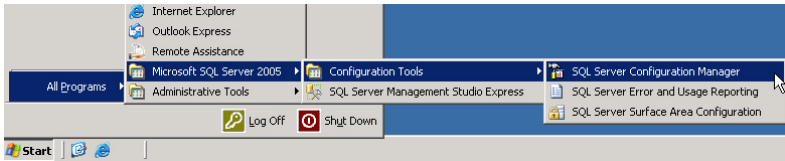
MSSQLSERVER is the default instance name of the Microsoft SQL Server used by iMC to connect with the SQL Server database. The default instance name needs to be selected when you install the database. For detailed configurations, refer to the configuration of the **Instance Name** dialogue box in Making Configuration During Installation. After creating a database, you cannot change its name. If you did not select **Default Instance** in the **Instance Name** dialogue box, you need to re-install the database. For the procedure of uninstalling the database, refer to Uninstalling SQL Server Database.

During the iMC Installation, "Database Service MSSQLSERVER Is not Configured to Be Started with LocalSystem" Is Displayed. What Shall I Do?

During the installation, iMC needs to create its own database file. If the MSSQLSERVER service is not configured to run as the LocalSystem user, iMC will fail to be installed because of the disc access restriction. To solve the problem, do as follows:

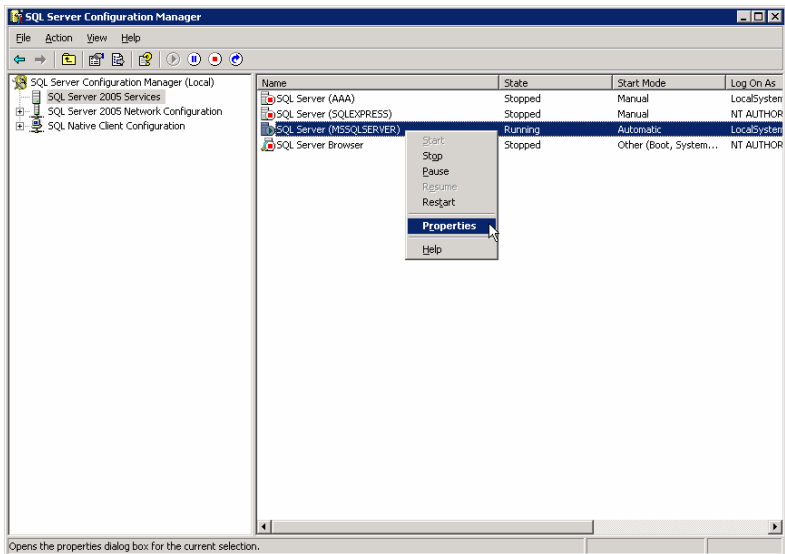
Select **Start > All Programs > Microsoft SQL Server 2005 > Configuration Tools > SQL Server Configuration Manager** as shown in [Figure 6-1](#).

Figure 6-1 Select the SQL Server Configuration Manager from the **Start** menu

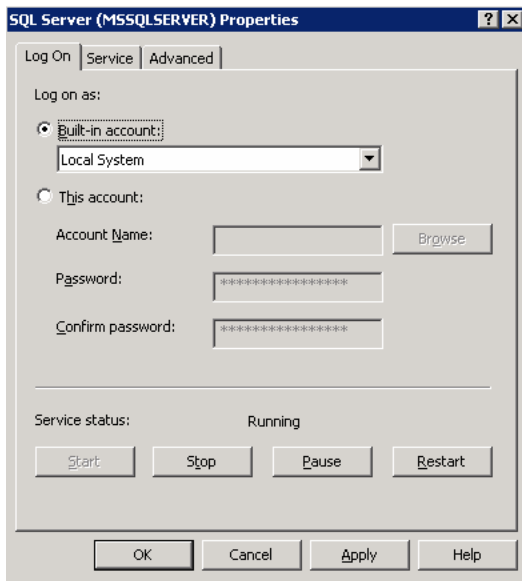


Right-click **SQL Server (MSSQLSERVER)** on the **SQL Server Configuration Manager** window and choose **Properties**, as shown in [Figure 6-2](#).

Figure 6-2 SQL Server Configuration Manager window



On the **SQL Server (MSSQLSERVER) Properties** window, click on the **Built-in account** radio button, select **Local System** from the drop-down list, and then click **OK**.

Figure 6-3 SQL Server (MSSQLSERVER) Properties window

After completing preceding configurations, you need to restart the SQL Server (MSSQLSERVER) service on the **SQL Server Configuration Manager** window. After that, configurations take effect.

During the iMC installation, "The ADO1.5 Component Is not Found in Current System" Is Displayed. What Shall I Do?

iMC uses ADO 1.5 to connect the database. ADO 1.5 is provided by the operating system. This error indicates that ADO 1.5 is corrupted. To solve the problem, you can re-install ADO.

During the iMC Installation, "Provider Cannot Be Found" Is Displayed. What Shall I Do?

This error indicates that MDAC is not installed on the server or that your MDAC installation is corrupted. MDAC corruption usually occurs when some application programs erroneously attempt to install a partial version of MDAC. To solve the problem, you can re-install MDAC. You can download the installation program mdac_typ.exe from Microsoft's website. If MDAC installation fails, you can do as follows:

- 1) In Windows Explorer, open the **C:\WINDOWS\inf** folder. Note that the folder may be hidden.
- 2) Right-click the **mdac.inf** file in the folder and choose **Install**. During the installation, multiple files need to be located. You can select each file from Service Pack CD-ROM, or from the current operating system.
 - If you want to select files from Service Pack CD-ROM, locate the **i386** directory from the CD-ROM drive. For example, if the CD-ROM drive is D:, you need to select the **D:\i386** directory.
 - If you want to select files from the current operating system, click **Browse** to select files. Select a file and click **Retry**.
- 3) MDAC is installed successfully if no error is displayed after you complete the installation.

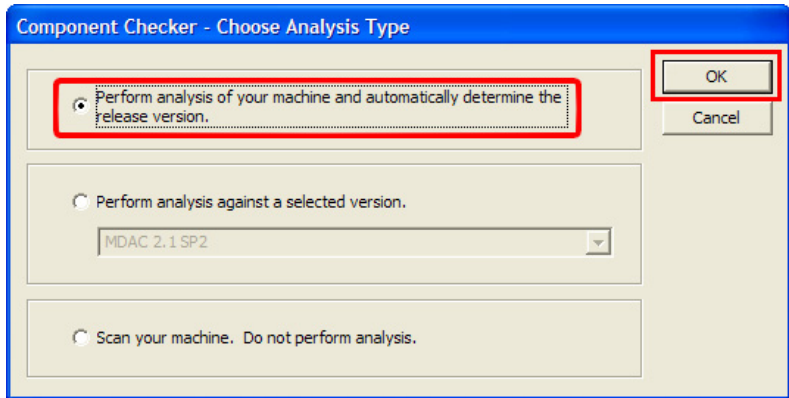
Files to be located during the installation and their locations are as follows:

- File name: adcjvas.inc
- Location: C:\Program Files\Common Files\System\msadc

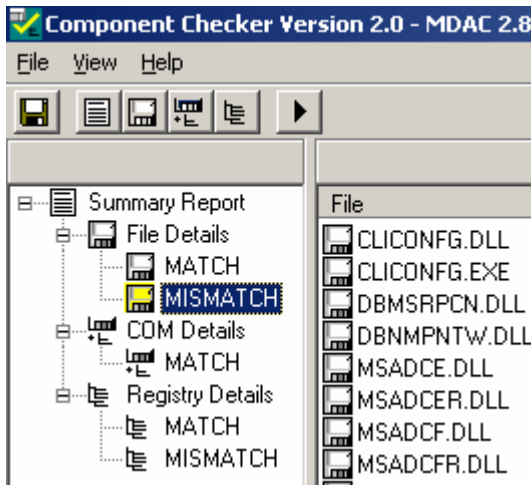
- File name: adojavas.inc
- Location: C:\Program Files\Common Files\System\ado

- File name: msdadc.dll
- Location: C:\Program Files\Common Files\System\ole db
- File name: dao360.dll
- Location: C:\Program Files\Common Files\Microsoft shared\dao
- File name: handler.reg
- Location: C:\Program Files\Common Files\System\msadc
- File name: oledbjs.inc
- Location: C:\Program Files\Common Files\System\ole db
- File name: MDACRdMe.htm
- Location: C:\Program Files\Common Files\System\ado. If you cannot find the MDACRdMe.htm, change the name of the file **MDACReadme.htm** to **MDACRdMe.htm**.

After the installation, you need to reboot the operating system. If the problem is not solved, you can use the MDAC Component Checker provided by Microsoft to locate MDAC installation problems. Download a free MDAC Component Checker, **cc_pkg.exe** from the Microsoft website, decompress it to the **C:\ComponentChecker** directory, click on the first radio button in the window as shown in [Figure 6-4](#), and click **OK**.

Figure 6-4 Component Checker window

After a short time analysis, useful information is displayed, as shown in [Figure 6-5](#). Pay attention to the information about **MISMATCH** under **File Details**. The MISMATCH information indicates the potential problems of the MDAC installation.

Figure 6-5 Information about **MISMATCH** under **File Details**

Click **MISMATCH** and view files in the right window. These file versions are different from the MDAC version. The **Mismatch Field** column displays expected file versions. The **File Version** column displays actual file versions.

When version mismatch cannot be solved through MDAC installation, you need to copy files to the corresponding directories. Locate the **mdacxpak.cab** file from the depressed path of **MDAC_TYPE.exe** and use WinZip to decompress the **mdacxpak.cab** file. The file contains most of the important MDAC files. Copy the depressed files to corresponding paths shown in **MISMATCH**. Reboot the operating system.

If you still cannot solve the problem, you are recommended to re-install your operating system and databases, or contact the technical support department.

6.6 In the iMC installation procedure, the system prompts “Failed to run bcp.exe, Database tools not installed or Windows not restarted after MS SQLServer installed” . How to solve this problem?

When you select to use a remote database server, a server which the business components are not on, iMC needs to use a tool such as bcp.exe to access the database. You should manually install Connectivity Components client tools on the iMC server. For the detailed installation procedures, refer to the **Feature Selection** dialog box in Figure 2-6 or Figure 2-7. Additionally, after installing the Connectivity Components, you should restart the Windows to make the client software bcp.exe take effect.