

# SmartSystems Foundation

**Installation Guide**

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# SmartSystems Foundation Installation Guide

SmartSystems™ Foundation gives you a consistent and centralized platform so that you can easily manage and monitor your deployed Intermec devices, such as mobile computers, printers, RFID readers, and other peripheral and network devices.

Use this guide to help you install the following onto your PC:

- SmartSystems Foundation
- ScanNGo
- Remote Viewer
- Software Bundle Wizard

The SmartSystems Bundle Tool is not a part of this installation. If you are planning to use the Bundle Tool, you must install it before you install SmartSystems Foundation.

For more information about SmartSystems Foundation, see the [\*SmartSystems Foundation Quick Start Guide\*](#).

## Installation Requirements

This section explains the minimum hardware, software, and port requirements for SmartSystems Foundation.

### Hardware Requirements

Your PC needs to have the following hardware installed:

- 2 GHz or faster processor
- 2 GB RAM

Additionally, the PC must:

- have each user as a SmartSystems user on the PC.
- not be used as a domain controller.
- have no Microsoft beta products installed.

## Software Requirements

Your PC needs to have the following software installed:

- One of the following operating systems:
  - Windows XP Professional with SP3
  - Windows Vista Business or Ultimate (32-bit)
  - Windows 7 Professional, Enterprise, or Ultimate (32-bit and 64-bit)
  - Windows Server 2003 R2 with SP2
  - Windows Server 2008 Enterprise (32-bit)
- One of the following Microsoft SQL Server editions:
  - Microsoft SQL Server 2005 or 2005 Express
  - Microsoft SQL Server 2008 or 2008 Express
  - Microsoft SQL Server 2008 R2 (required for Windows 7)
- Microsoft Internet Explorer 6.01 SP1 or later
- Microsoft ActiveSync 4.5 or later (not needed for Windows 7)
- Microsoft .NET Framework 3.5 with SP1
- Windows Powershell 1.0
- Windows Installer 4.5

## Port Requirements

Use the following table to help you identify what UDP and TCP ports are used by SmartSystems Foundation.

### ***UDP and TCP Port Descriptions***

<b>Port</b>	<b>Description</b>
UDP 49111	Required for Discovery of devices when it is not associated with a known server.
UDP 1758-1768	Required for Multicast communications for use with AutoDeploy.
UDP 8791	Required for the Upgrade Process.
UDP 8792	Required for the Upgrade Monitor Online Status.

### ***UDP and TCP Port Descriptions (continued)***

<b>Port</b>	<b>Description</b>
UDP 161	Required for SNMP.
UDP 162	Required for the Trap port.
TCP 62241	Required for communication between the server and associated devices.
TCP 8789	Required for HTTP.

## **Downloading SQL Server**

Intermec recommends you download one of the SQL Server editions listed below to use with SmartSystems Foundation:

- [\*\*SQL Server 2008 R2 Express\*\*](#)
- [\*\*SQL Server 2008 R2 Express with Advanced Services\*\*](#)

To install SmartSystems Reporting Services, you need to download SQL Server 2008 R2 with Advanced Services. For more information on installing Reporting Services, see the [\*SmartSystems Reporting Services Installation Guide\*](#).

## **Installing SmartSystems Foundation**

You can install SmartSystems Foundation in one of two ways:

- Install SmartSystems Foundation and SQL Server locally onto the same PC. For more information, see the next section.
- Install SmartSystems Foundation on one PC, and SQL Server remotely onto another PC. For more information, see [\*\*“Installing SmartSystems Foundation Remotely” on page 14\*\*](#).

# Installing SmartSystems Foundation Locally

When you install SmartSystems Foundation as a local installation, it means that you are going to install SmartSystems Foundation and SQL Server onto the same PC. In order to install SmartSystems Foundation locally, you must:

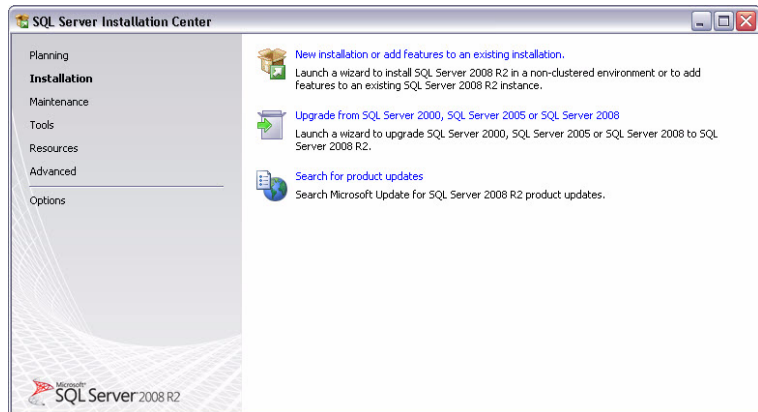
- Install SQL Server.
- Install SmartSystems Foundation.

## Installing SQL Server onto a Local PC

This section explains how to install SQL Server 2008 R2 Express with Advanced Services. Depending on your hardware, software, and SQL Server version, the steps that appear on your PC may be different than what is shown in this installation guide.

### To install SQL Server onto a local PC

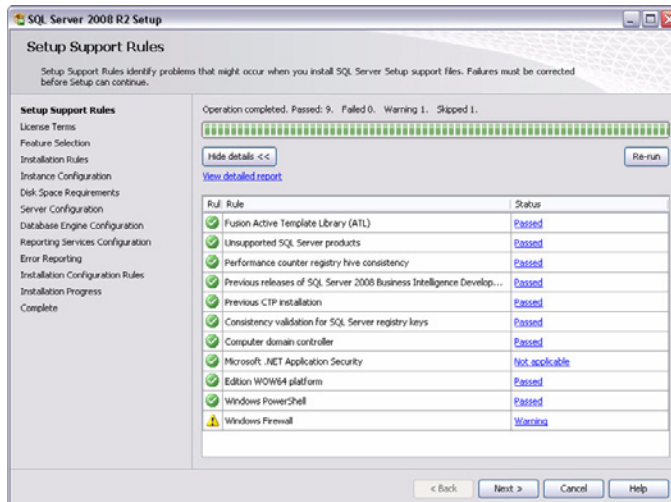
- 1 Download and run the SQL Server .exe file.
- 2 When the SQL Server Installation screen appears:
  - a From the navigation menu, select **Installation**.



- b Select **New installation or add features to an existing installation**.

**3** When the Setup Support Rules screen appears:

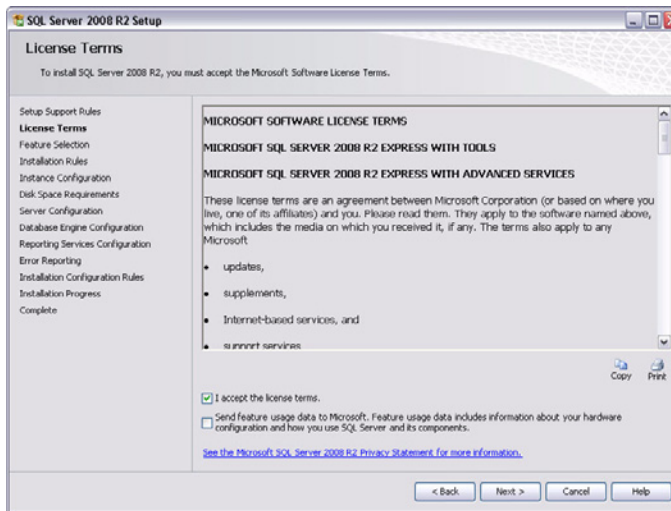
- a** Check to see if there are any failures. If there are, fix them and continue onto the next step.



- b** Once the rules are successfully checked, click **Next**.

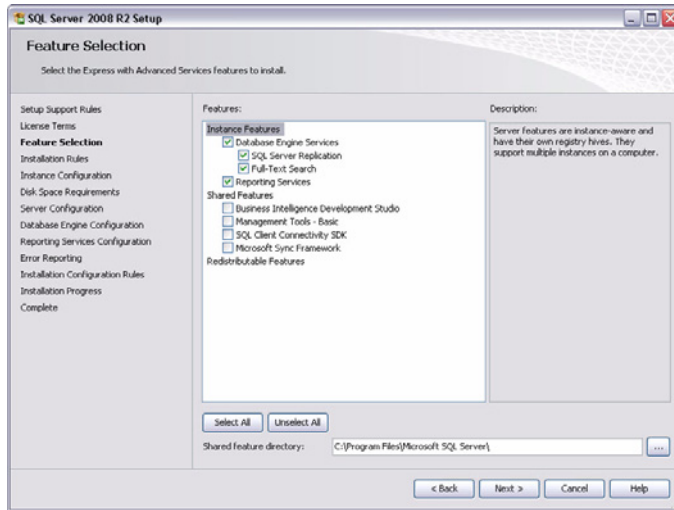
**4** When the License Term screen appears:

- a** Read the license terms, and select **I accept the license terms**.

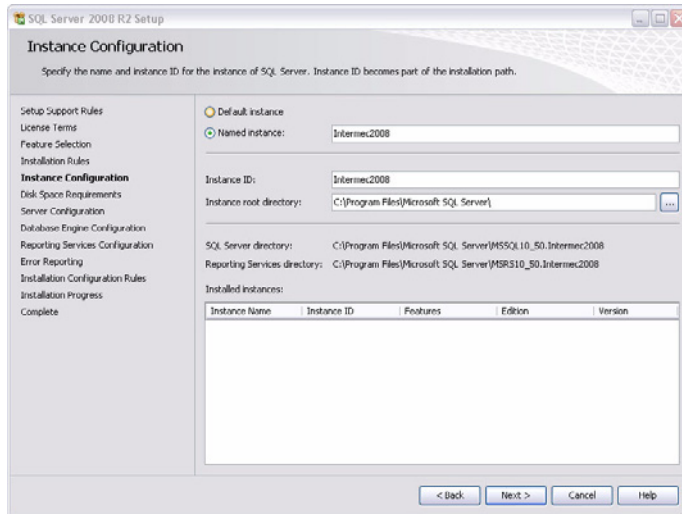


- b** Click **Next**.

- 5 When the Features Selection Screen appears:
  - a Select **Database Engine Services**. If you are planning on installing Reporting Services, select **SQL Server Replication**.



- b Click **Next**.
- 6 When the Instance Configuration screen appears:
  - a Select **Named instance** and type **Intermec2008**.



**b** Click **Next**.

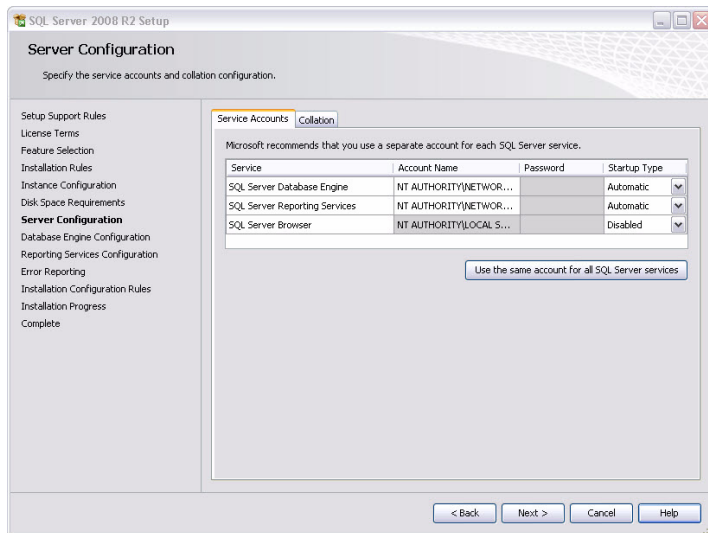
**7** When the Server Configuration screen appears:

**a** In SQL Server Database Engine **NT AUTHORITY\NETWORK SERVICE** as the Account Name.



**Note:** Using this account name allows you to use the default authentication settings, which Intermec recommends. If you have any questions on Service Accounts for SQL Server services, click the **Help** button and review the topic.

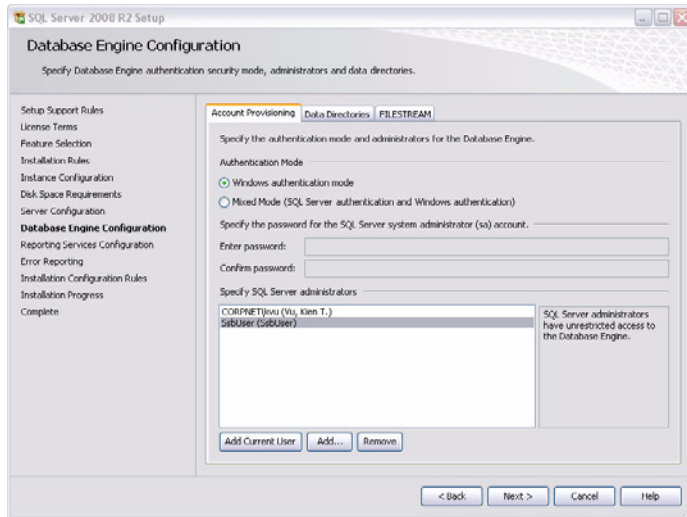
If the computer is in a work group or not on a domain, select **NT AUTHORITY\SYSTEM**.



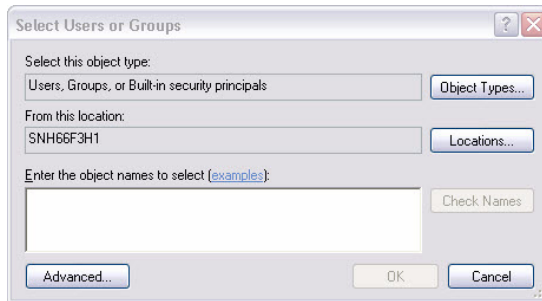
**b** Click **Next**.

**8** When the Database Engine Configuration screen appears:

**a** Select **Windows authentication mode**.



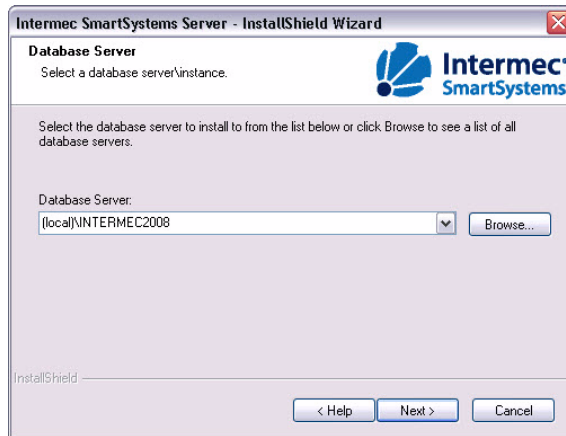
- b** Add yourself as an administrator by clicking **Add Current User**.
- 9** (Optional) Add other SQL Server Administrators other than yourself.
  - a** Click the **Add** button.



- b** Type in a user name in the **Enter the object name to select** text box.
- c** Click **OK** to add the user as a SQL Server Administrator.
- d** When you are finished, click **Next**.
- 10** Continue to the next section to learn how to install SmartSystems Foundation.

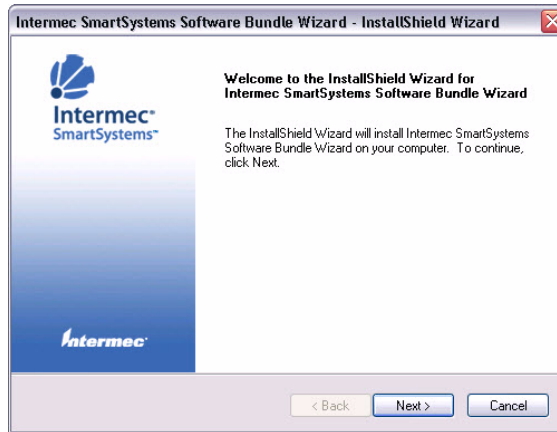
# Installing SmartSystems Foundation Locally

- 1 Download SmartSystems Foundation from the Intermec web site at [www.intermec.com/smartsystems](http://www.intermec.com/smartsystems).
- 2 Double-click the SmartSystems Foundation .exe file.
- 3 In the drop-down list, select the database server that you created, or click **Browse** to see a list of available databases.



- 4 Click **Next**.
- 5 When the Welcome screen appears, click **Next**.
- 6 Select **I accept the terms of the license agreement** and click **Next**.
- 7 Select the installation destination and click **Next**. SmartSystems Foundation installs onto your PC.

- 8 When the Software Bundle Wizard Installation screen appears, click **Next**.



- 9 When the Software Bundle Wizard is installed, click **Finish**.
- 10 Select **Yes, I want to restart my computer now** and click **Finish**.

## Installing SmartSystems Foundation Remotely

When you install SmartSystems Foundation as a remote installation, it means that you install SmartSystems Foundation on one PC, and SQL Server on another. When you do this, SmartSystems Foundation accesses SQL Server through your network to manage your devices. In order to install SmartSystems Foundation remotely, you need to do the following:

- Verify your local user accounts, and make sure that the SmartSystems Foundation PC and the SQL Server PC are on the same Workgroup or Domain.
- On the SQL Server PC:
  - Create a Local SmartSystems Account.
  - Create an **Administrators** and **Managers** group. Once it is created, add **SSbUser** to the Local Administrators and the SmartSystems Administrators group.
  - Install SQL Server to the remote PC.
  - Configure SQL Server to run on a remote PC.

- Install SmartSystems Foundation.

## Verifying Local User Accounts

Before you can install SmartSystems Foundation Remotely, you must verify that:

- the PC where SQL Server and the PC where SmartSystems will be installed are either in the same workgroup or in the same domain.
- both the SQL Server PC and the SmartSystems PC have a user account with the same name. These two accounts cannot be the Administrator account, but must be a part of the Local Administrators group. Additionally, the passwords on both accounts must be the same on both PCs.



**Note:** Make sure that the password for the user matches the SQL Server password requirement. For more information, see the MSDN web site at

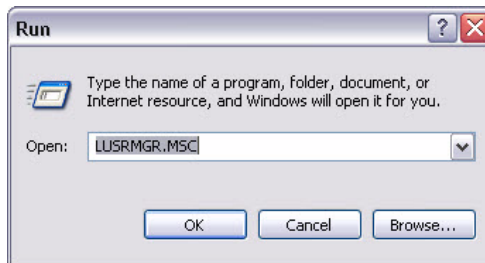
<http://msdn.microsoft.com/en-us/library/ms161962.aspx>.

If you need to create a local user account, see the Microsoft Windows documentation. After you are finished, continue to the next section to learn how to create a Local SmartSystems account.

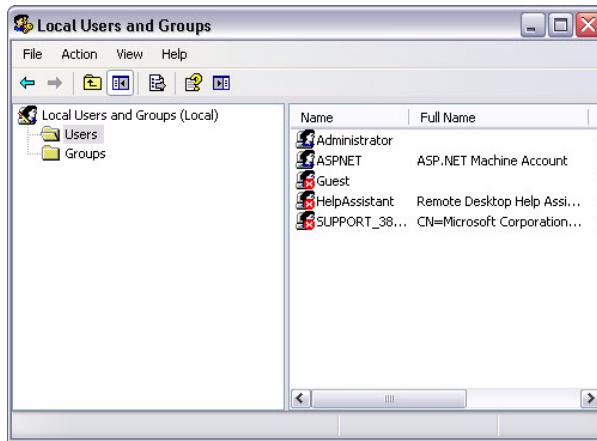
For help on creating local user accounts, see the Microsoft Windows documentation.

## Creating a Local SmartSystems Account

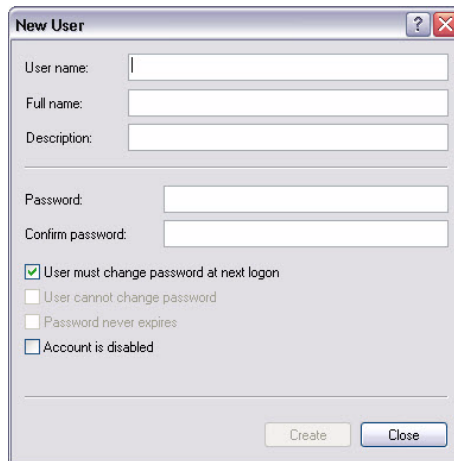
- 1 On the PC that SQL Server will reside on, click **Start > Run**.



**2** Type **LUSRMGR.MSC** and click **Run**.



**3** Right-click **Users**, and select **New User**.



**4** In **Username**, type **SsbUser**.

**5** In **Password**, type **CR52401&10425rc**.

**6** Select **User cannot change password**.

**7** Select **Password never expires**.

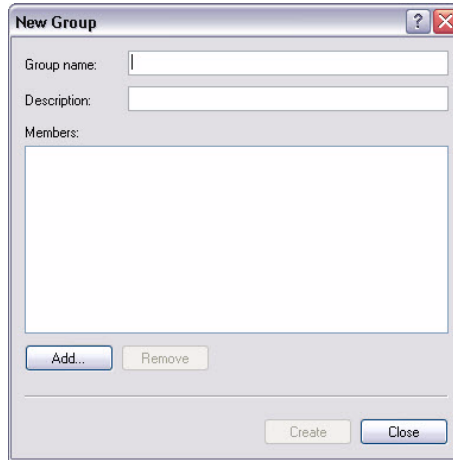
**8** Click **Create**.

**9** Click **Close**. The local user account is created.

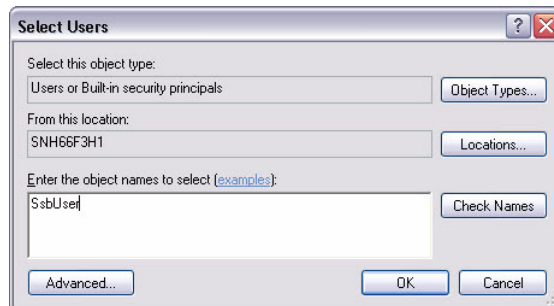
- 10 Continue to the next section to learn how to create an Administrators and Managers group.

## Creating an Administrators and Managers Group

- 1 On the Local Users and Groups screen, right-click **Groups** and select **New Group**.



- 2 In **Group name**, type **SmartSystems Managers**.
- 3 Click **Create**. The SmartSystems Managers Group is created.
- 4 In **Group name**, type **SmartSystems Administrators**.
- 5 Click **Add**.



- 6 Type **SsbUser** and click **OK**.
- 7 Click **Create**.

- 8 Click **Close** to exit the Local Users and Groups Screen.
- 9 Continue to the next to learn how to install SQL Server onto a remote PC.

## Installing SQL Server onto a Remote PC

This section explains how to install SQL Server 2008 R2 Express with Advanced Services. Depending on your hardware, software, and SQL Server version, the steps that appear on your PC may be different than what is shown in this installation guide.

### To install SQL Server onto a remote PC

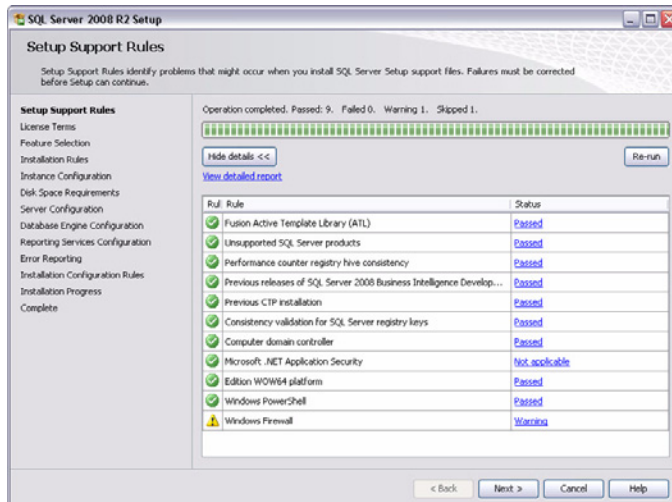
- 1 On the PC you plan on installing SQL Server, login into the user account that you created in, **“Verifying Local User Accounts” on page 15**.
- 2 Download and run SQL Server .exe file.
- 3 When the SQL Server Installation screen appears:
  - a From the navigation menu, select **Installation**.



- b Select **New installation or add features to an existing installation**.

#### 4 When the Setup Support Rules screen appears:

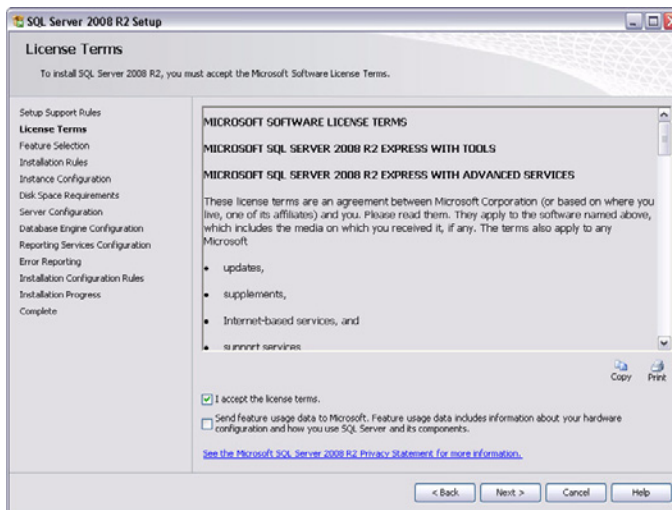
- a Check to see if there are any failures. If there are, fix them and continue onto the next step.



- b Click **Next** once the rules are successfully checked.

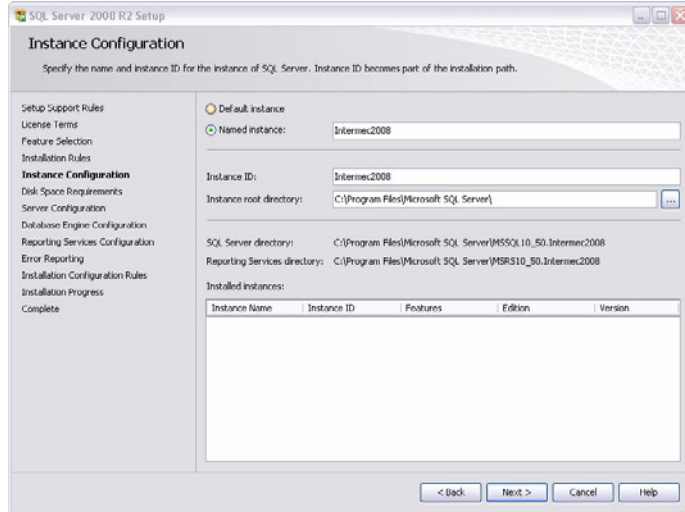
#### 5 When the License Term screen appears:

- a Check the **I accept the license terms** check box.



- b Click **Next**.

- 6 When the Features Selection Screen appears:
  - a Select **Database Engine Services**. If you are planning on installing Reporting Services, select **Reporting Services**.
  - b Click **Next**.
- 7 When the Instance Configuration screen appears:
  - a Select **Named instance**, and type **Intermec2008**.

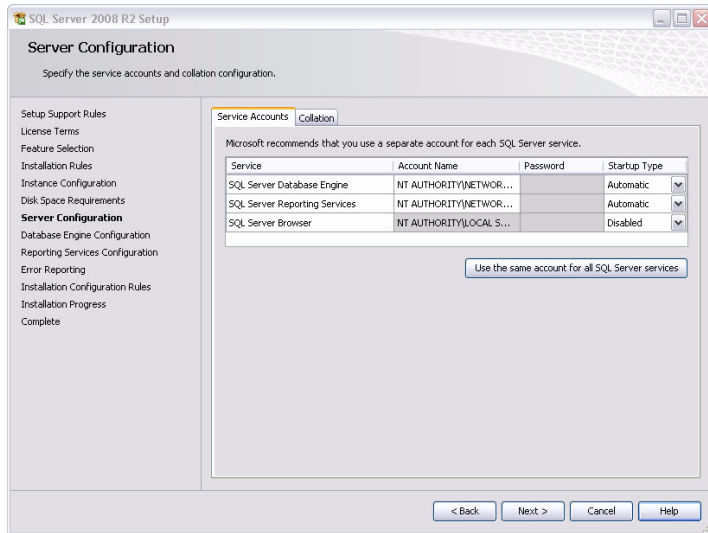


- b Click **Next**.
- 8 When the Server Configuration screen appears:
  - a Select **NT AUTHORITY\NETWORK SERVICE** as the Account Name.



**Note:** Using this account name allows you to use the default authentication settings, which Intermec recommends. If you have any questions on Service Accounts for SQL Server services, click the **Help** button and review the topic.

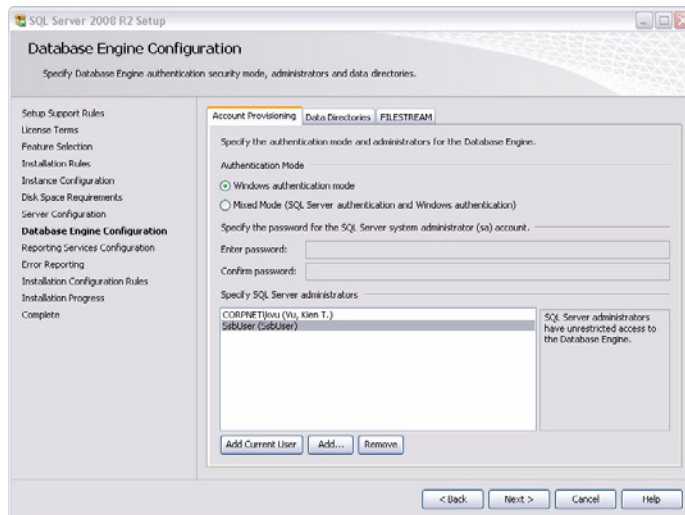
If the computer is in a work group or not on a domain, select **NT AUTHORITY\SYSTEM**.



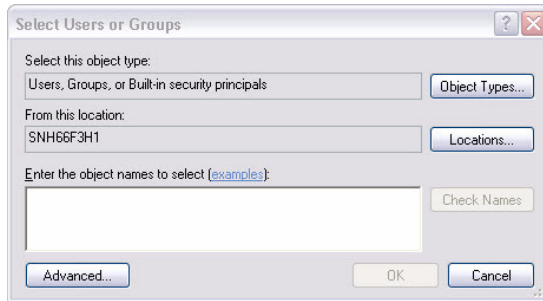
**b** Click **Next**.

**9** When the Database Engine Configuration screen appears:

**a** Make sure that the **Windows authentication mode** radio button is selected.



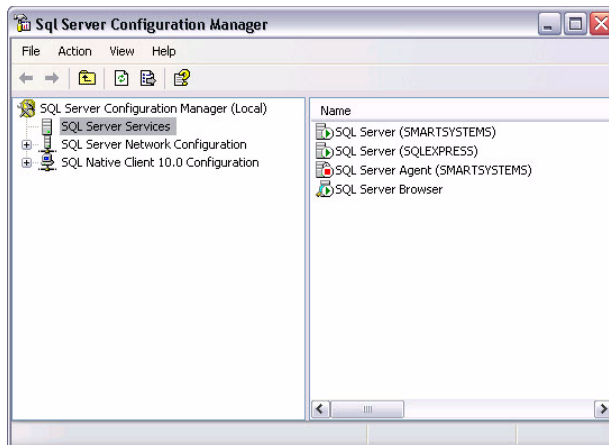
- b Click the **Add Current User** button to add yourself as an Administrator.
- c Click **Add**. The Select Users or Groups screen appears.



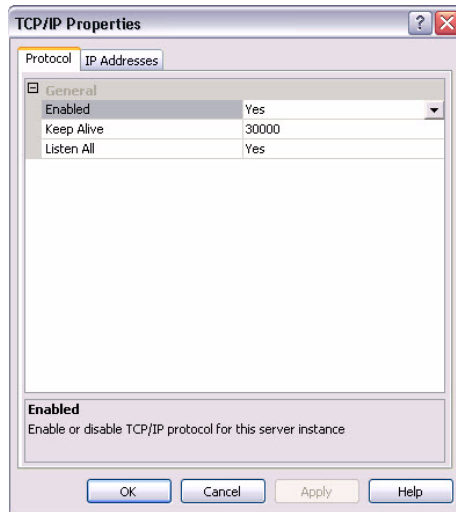
- d Type in **SsbUser** in **Enter the object name to select** text box.
  - e Click **OK** to close the Select Users or Groups screen.
- 10 When you are finished adding SQL Server Administrators, click **Next**. SQL Server installs onto your computer.
  - 11 Continue to the next section to learn how to configure SQL Server to run on a remote PC.

## Configuring SQL Server to Accept Remote Connections

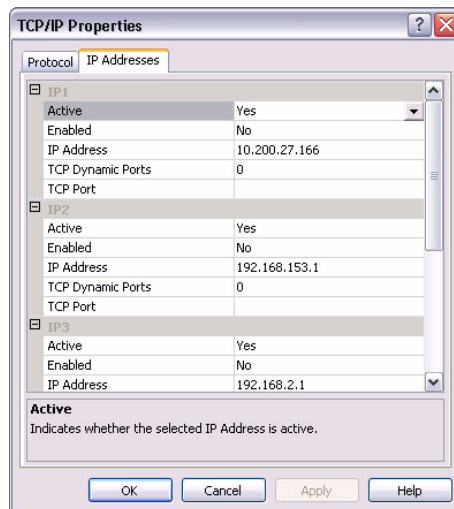
- 1 On the PC you installed SQL Server, select **Start > Programs > Microsoft SQL Server 2008 > Configuration Tools > SQL Server Configuration Manager**.



- 2 Double-click **SQL Server Network Configuration**.
- 3 Select **Protocols for Intermec2008**.
- 4 Right-click **TCP/IP** and select **Enable**.
- 5 Right-click **TCP/IP** and select **Properties**. The TCP/IP Properties screen appears.



- 6 Select the **IP Addresses** tab.

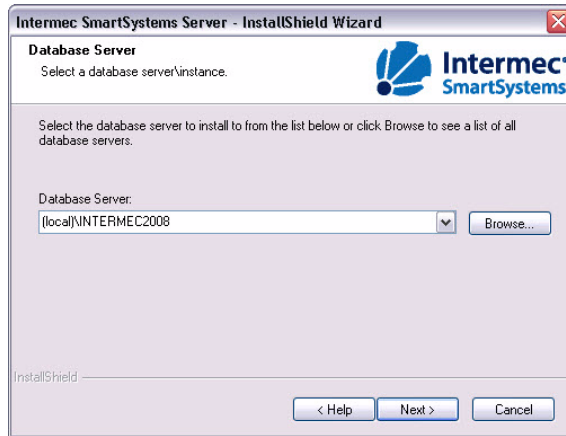


- 7** In the **IP1** and **IP2** menu, remove all values (including zeros) from TCP Dynamic Ports.
- 8** In the **IPAll** menu, set the **TCP Port** to **60000**.
- 9** Click **OK** to close the TCP/IP Properties screen.
- 10** In the SQL Server Configuration Manager screen, double-click **SQL Server Services**.
- 11** Right-click **SQL Server (Intermec2008)** and select **Restart**.
- 12** Right-click **SQL Server Browser** and select **Start**.
- 13** If you have a firewall turned on, make sure you add port 60000 to your list of firewall exceptions.
- 14** Continue to the next section to install SmartSystems Foundation onto your PC.

## Installing SmartSystems Foundation Remotely

- 1** On the PC you plan on installing SmartSystems Foundation, log in to the user account that you created in, “[Verifying Local User Accounts](#)” on page 15.
- 2** If you are using Windows XP SP3, you need to enable SQL discovery over TCP:
  - a** Click **Start > Run**.
  - b** Type **cliconfg.exe**. The SQL Server Client Network Utility appears.
  - c** Select **TCP/IP** from the **Disabled protocols** box and click **Enable**.
- 3** Click **OK**.
- 4** If you have a firewall turned on, make sure you add port 60000 to your list of firewall exceptions.
- 5** On the PC you are installing SmartSystems Foundation on, download SmartSystems Foundation from the Intermec web site at [www.intermec.com/smartsystems](http://www.intermec.com/smartsystems).
- 6** Double-click the SmartSystems Foundation .exe file.

7 Click **Browse** to see a list of available databases.



8 Select the remote database you created.

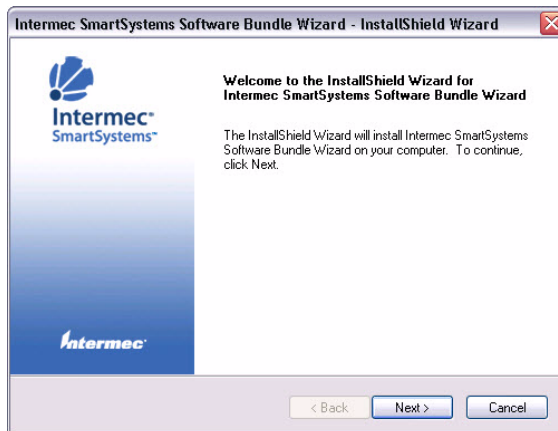
9 Click **Next**.

10 When the Welcome screen appears, click **Next**.

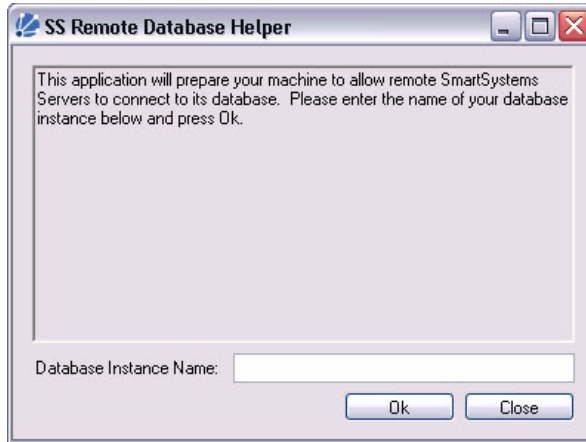
11 Select **I accept the terms of the license agreement** and click **Next**.

12 Select the installation destination and click **Next**. SmartSystems Foundation installs onto your PC.

13 When the Software Bundle Wizard Installation screen appears, click **Next**.



- 14 When the Software Bundle Wizard is installed, click **Finish**.
- 15 Browse to **c:\Program Files\Intermec\SmartSystem**, and find the **SmartSystemsRemoteDbSetup.exe** file.
- 16 Copy the .exe file to an external storage device and load it onto the remote PC that has the SQL Server installation.
- 17 Double-click **SmartSystemsRemoteDbSetup.exe**. The SS Remote Database Helper application opens.



- 18 In **Database Instance Name**, type **Intermec2008**.
- 19 Click **OK**. The Database Helper adds **SsbUser** to the internal user database in SQL Server, and verifies that a connection between SmartSystems Foundation and SQL Server are present.
- 20 Once a database connection is established, click **Close**.
- 21 Return to the PC where you are installing SmartSystems Foundation on, select **Yes, I want to restart my computer now** and click **Finish**.





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## SmartSystems Foundation Installation Guide



P/N 932-015-003