

INSTALLING SQL SERVER 2005 EXPRESS ADVANCED EDITION FOR REDHORSE CRM

This article will walk you thru the installation of SQL Server 2005 Express Advanced Edition.

Step 1: Download SQL Server 2005 Express Edition

SQL Server 2005 Express Edition with Advanced Services SP2 may be downloaded using this link:

<http://www.microsoft.com/downloads/details.aspx?FamilyId=5b5528b9-13e1-4db9-a3fc-82116d598c3d&displaylang=en>.

Please choose to Save this file to disk when downloading so that it may be used more than once. It is not recommended to choose to Run from the download site.

FEATURES	
Version	SQL Server 2005 Express Edition with Advanced Services
Database engine	X
Client software	X
Full-text search	X
Reporting Services	X
Management Studio Express	X

Step 2: Identify system requirements

SQL Server 2005 Express Edition does not have significant system overhead requirements, particularly given the overpowered nature of many of today's newest servers. The minimum system requirements for SQL Server 2005 Express Edition with Advanced Services are:

SYSTEM REQUIREMENTS	
Version	SQL Server 2005 Express Edition with Advanced Services SP1
RAM (minimum)	512 MB
RAM (recommended)	1 GB
Drive space	600 MB
Processor (minimum)	600 MHz
Processor (recommended)	1 GHz
IIS 5 or higher	Yes
Operating systems supported	Windows Server 2003 SP1, Windows Server 2003 Enterprise Edition SP1, Windows Server 2003 Datacenter Edition SP1, Windows Server 2003 Web Edition SP1, Windows Small Business Server 2003 Standard Edition SP1, Windows Small Business Server 2003 Premium Edition SP1, Windows XP Professional SP2, Windows XP Home Edition SP2, Windows XP Tablet Edition SP2, Windows XP Media Edition SP2, Windows 2000 Professional Edition SP4, Windows 2000 Server Edition SP4, Windows 2000 Advanced Edition SP4, Windows 2000 Datacenter Server Edition SP4
Software prerequisites	.NET Framework 2.0 & MSXML 6
Other requirements	Server joined to your Active Directory domain.

Step 3: Install database software prerequisites

There are a number of software prerequisites for SQL Server 2005 Express Edition. Before you can install the database software, you need to take the necessary steps to get these items installed.

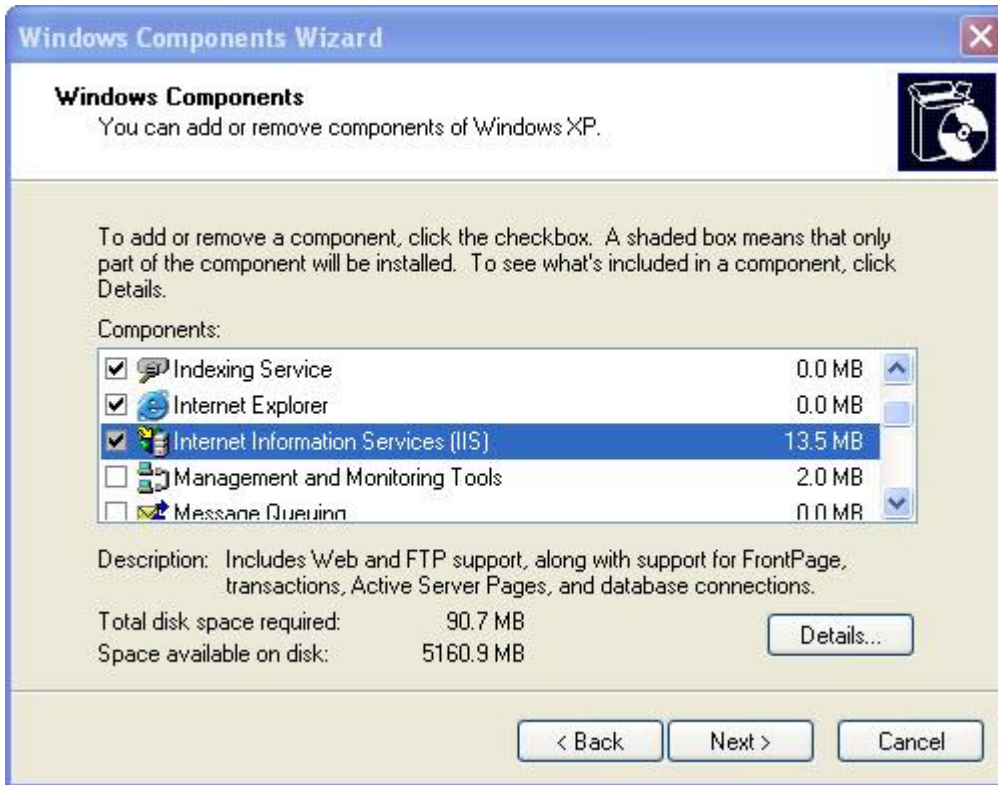
Install the following items in order.

Internet Information Server 5 or higher

IIS is required for Microsoft SQL Server 2005 Reporting Services (SSRS). If you will not be using Reporting Services, you will not need to install IIS.

Reporting Services will not install on operating systems that do not include Internet Information Services (IIS). This includes Windows XP Home Edition, which does not include IIS.

If your Windows server does not have IIS installed, go to Start | Control Panel | Add or Remove Programs | Add/Remove Windows Components. ASP.NET 2.0 is required for Reporting Services. When installing Reporting Services, SQL Server Setup will enable ASP.NET if it is not already enabled.



.NET Framework 2.0

Download the .NET Framework 2.0 using this link:

<http://www.microsoft.com/downloads/details.aspx?FamilyID=0856eacb-4362-4b0d-8edd-aab15c5e04f5&DisplayLang=en>

After downloading, execute *dotnetfx.exe* and follow the instructions to complete the installation.

MSXML6

Download MSXML6 using this link:

RedHorse Systems, Inc.
support@redhorsesystems.com
www.redhorsesystems.com

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<http://www.microsoft.com/downloads/details.aspx?familyid=993C0BCF-3BCF-4009-BE21-27E85E1857B1&displaylang=en>

Execute *msxml6.msi*. This is a quick installation.

Step 4: Create a SQL Server service account

From a security perspective, it's best to run SQL Server as a normal everyday user. When possible, don't use the built-in service accounts on your SQL Server as this practice does not limit your server's attack surface as much as using an unprivileged user account.

If you are installing on XP Pro or higher, or Server 2003 or higher, create a domain account named "SQLExpressUser" for this purpose. If you're joined to a domain -- which you should be -- use Active Directory Users and Computers. If you're just testing locally, use Computer Management to add the account. Make sure to also assign a strong password to the account.

Configure this user account so that the password does not expire. In addition, anyone logging in as this user -- no one should be doing that though -- will not be able to change the password.

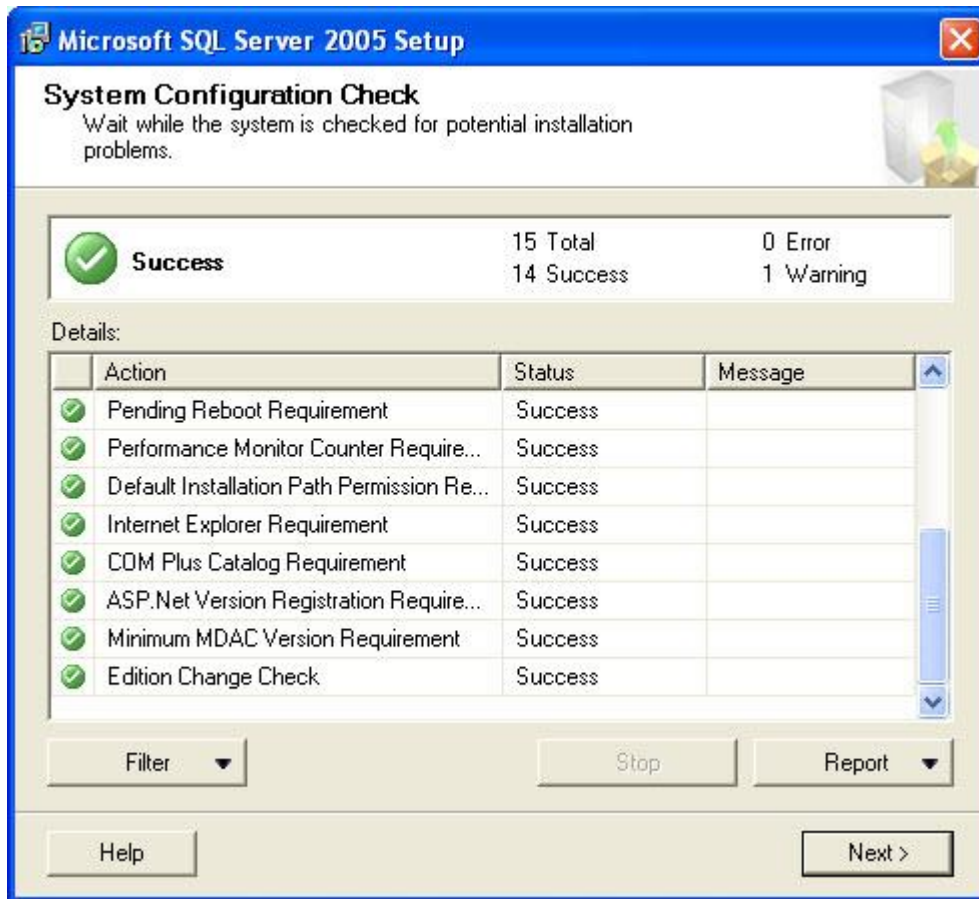
Step 5: Install SQL Server 2005 Express Edition

Double-click the file *SQLEXPRESS_ADV.EXE* to start the product installation. The contents of the file are extracted and the installation begins.

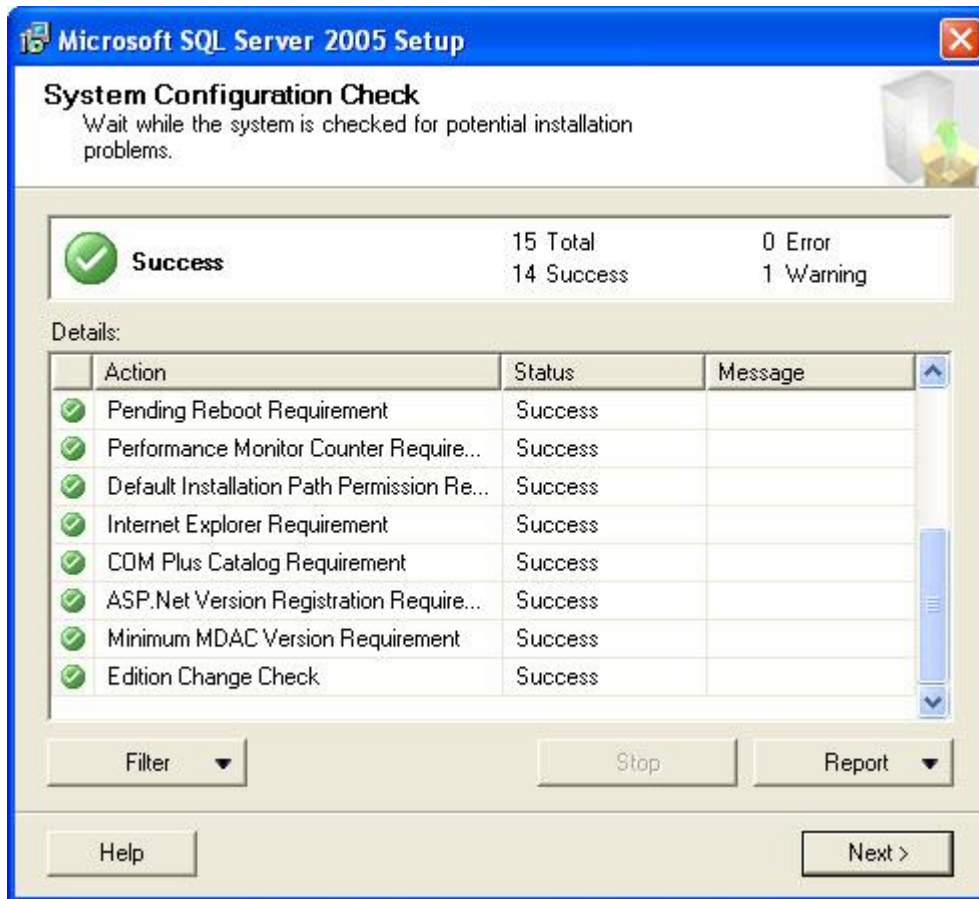
After you start the installation, agree to the End User License Agreement after which you're presented with a screen that shows you what prerequisites you need to get the express edition on your system. The installer will handle the installation of these prerequisites for you. Click the Install button to install these items. Once the items are installed, click the Next button.



Once the prerequisites are in place the SQL Server installation wizard will start. The first screen you're shown provides you with a list of items that may or may not give you trouble if you continue the installation. Note that the installer provides you with a complete status report to make it easy for you to determine what needs to be done. If you have any serious problems, correct them before you continue. Click Next to continue.

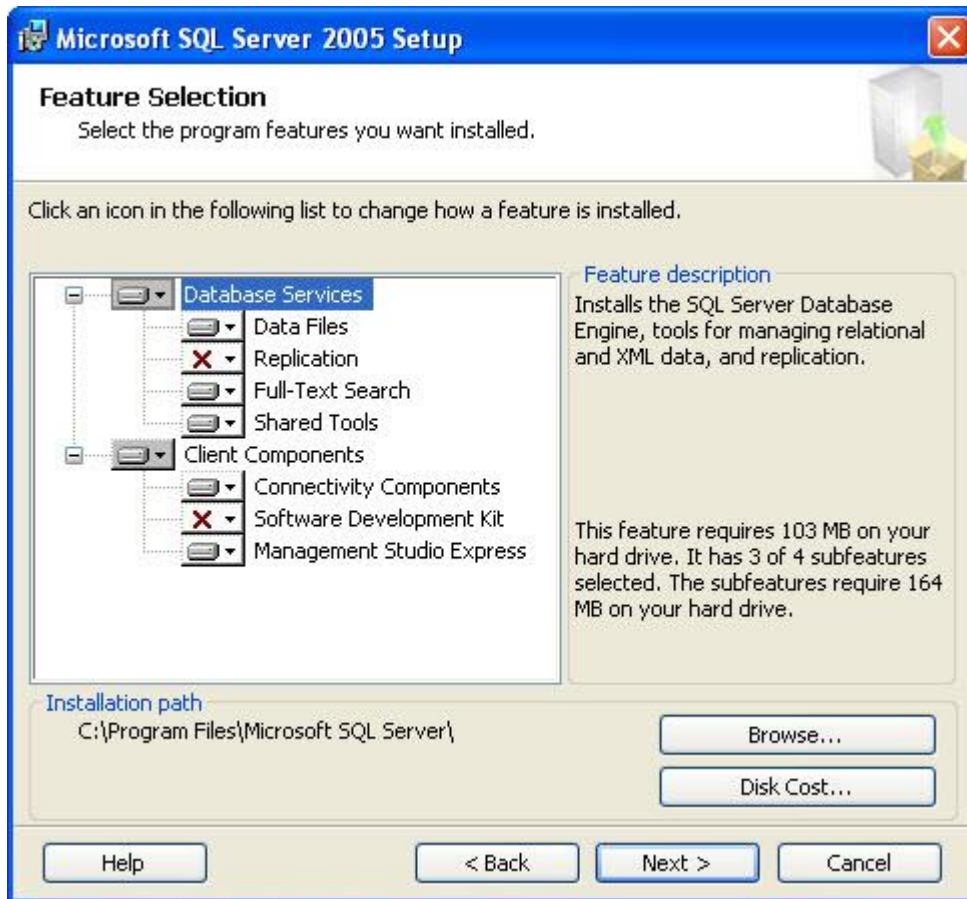


Next provide your name and your company's name. Unchecked the box marked "Hide advanced configuration options".

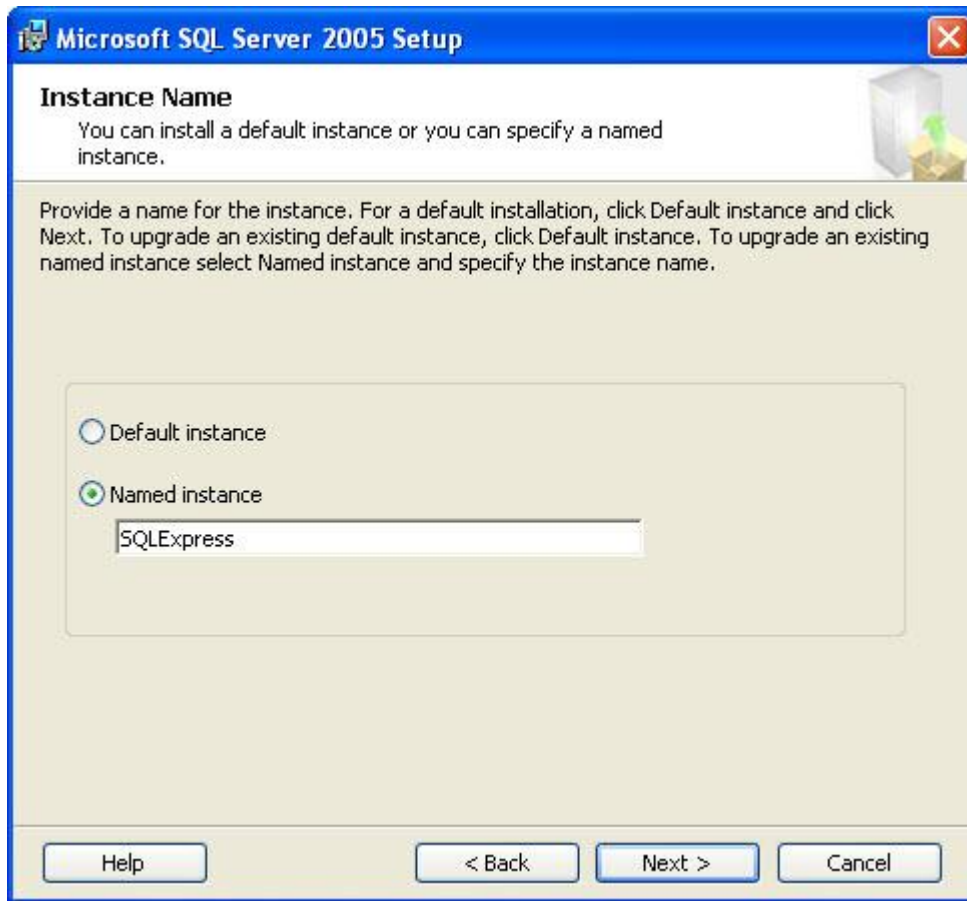


Next, you will choose which features to install. Even though the Express Edition is free, it includes many of the features found in the Standard and Enterprise editions. In this step, you will choose Database Services (Data Files, Full-Text Search and Shared Tools) and Client Components (Connectivity Components and Management Studio Express). Instructions for installing SQL Reporting Services are provided after installing the database engine.

Choose the default location, *C:\Program Files\Microsoft SQL Server*, or if you want to install to a different location, click the Browse button to choose this new location.



Install SQL Server 2005 Express Edition using the default setting of Named Instance called "SQLEXPRESS", unless other SQL Servers are located on the same machine.



Service accounts are used in order to better protect your SQL Server -- and the rest of your network -- in the event of a security breach. If you run your SQL Server under an administrative account, you run the risk of additional damage should your server be compromised. Therefore, run SQL Server 2005 Express Edition under a user account with few, if any, rights. Use the account you created before as the service account for SQL Server 2005.



Using a domain user account is not available in XP Home. When installing on XP Home, select the built-in system account of Network service.

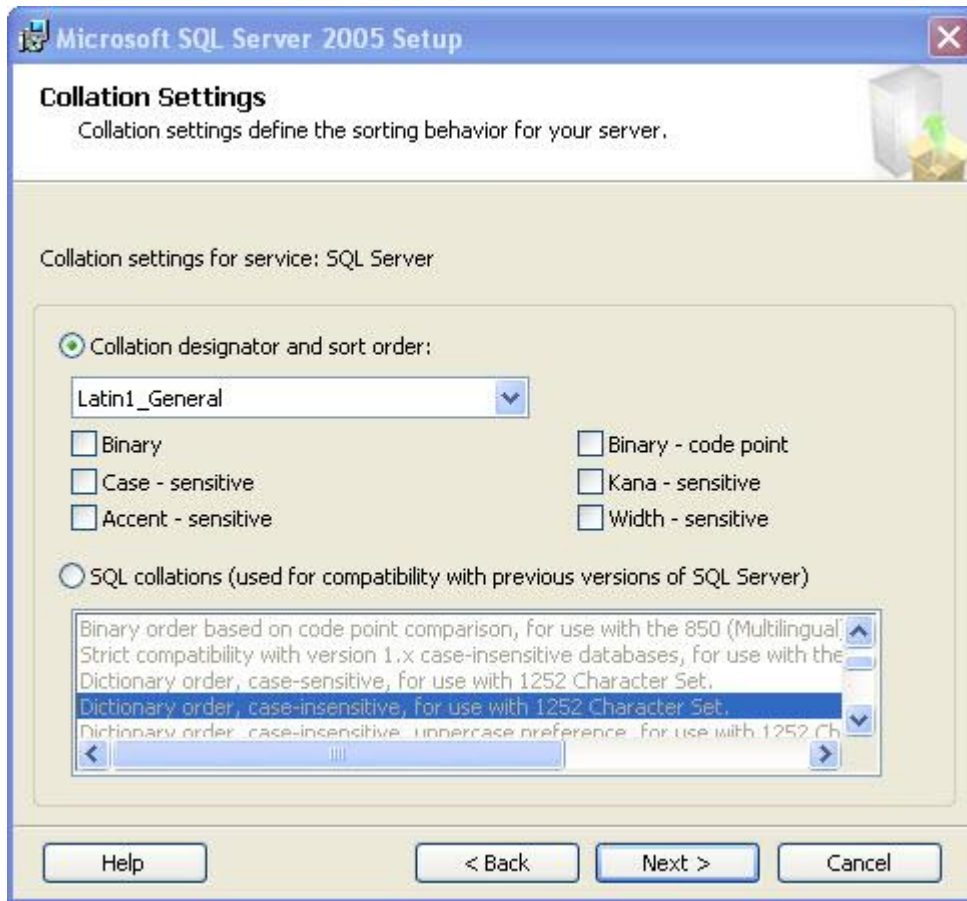


SQL Server can authenticate users in two ways: (1) directly against Active Directory (Windows Authentication Mode); (2) against its own database (Mixed Mode, since Windows Authentication is also supported). From a security perspective, Windows Authentication mode is highly preferred. First off, you have only a single user database -- Active Directory -- to worry about.

Either mode is available when using RedHorse CRM and it is recommended to install SQL Server in Mixed Mode. When you choose Mixed Mode, you will also need to provide a password for the SQL Server "sa" user. You must assign a strong password.

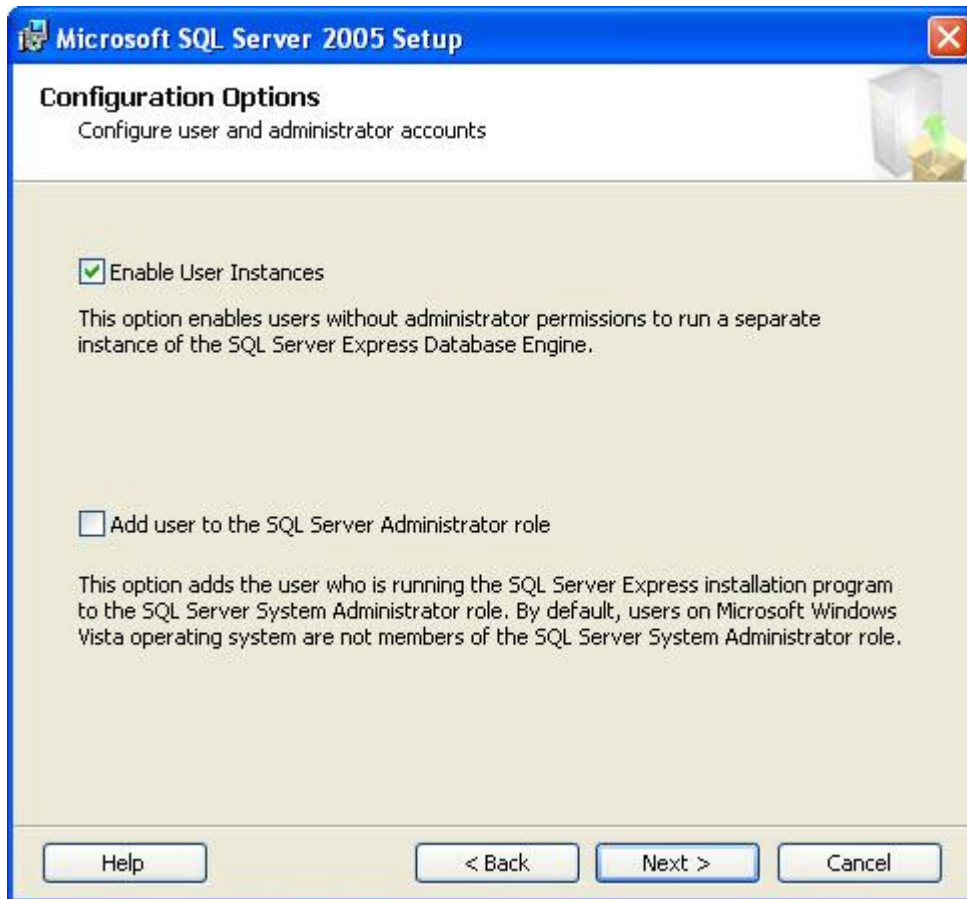


The next step of the installation involves selecting a collation method, which defines the way that your SQL Server will sort data. Choose the Latin1_General collation method, unless, of course, you're using a different language. Or choose SQL Collations if you need to maintain backward compatibility with older versions of SQL Server.

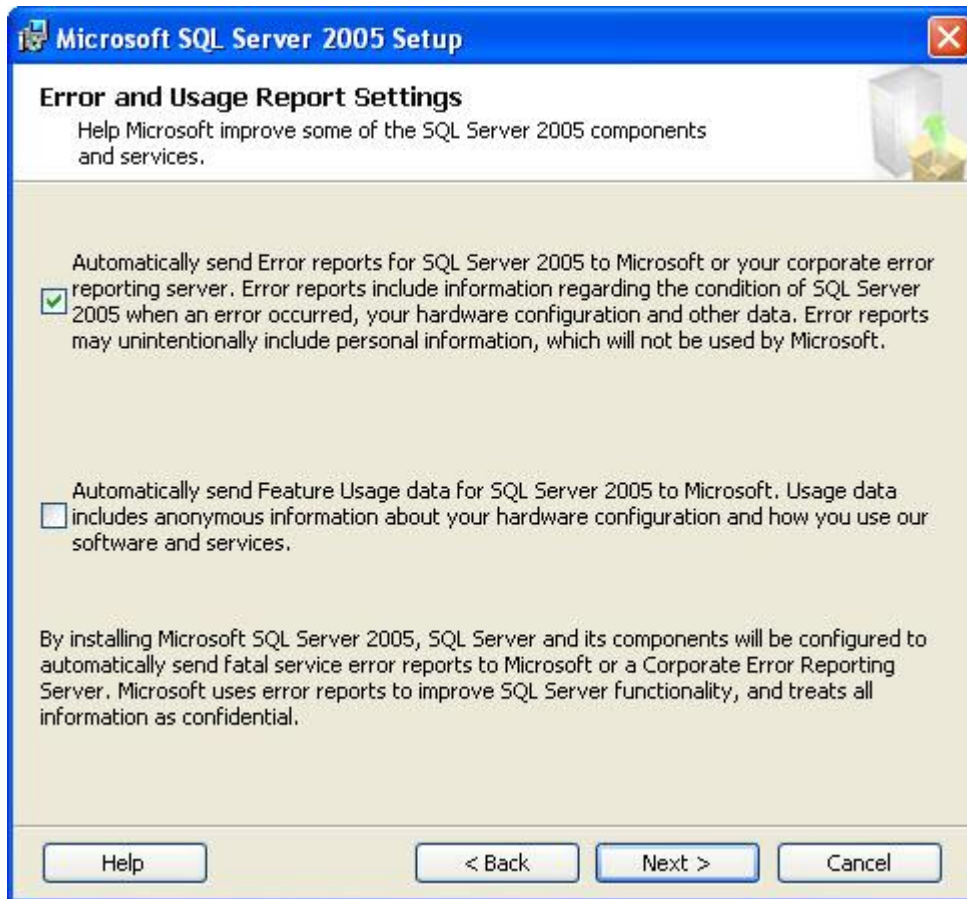


SQL Server 2005 Express provides a new feature: The ability to run sub-instances of the product under a normal user account. User instances are useful in situations in which users are logged into Windows under a least-privileged user account. Using user instances, the user can still have SQL system administrator privileges to their SQL "sandbox", but the rest of the system is protected since the user's primary account does not have rights to make global changes. Databases housed under user instances support only a single connection and higher-end features such as replication are not supported.

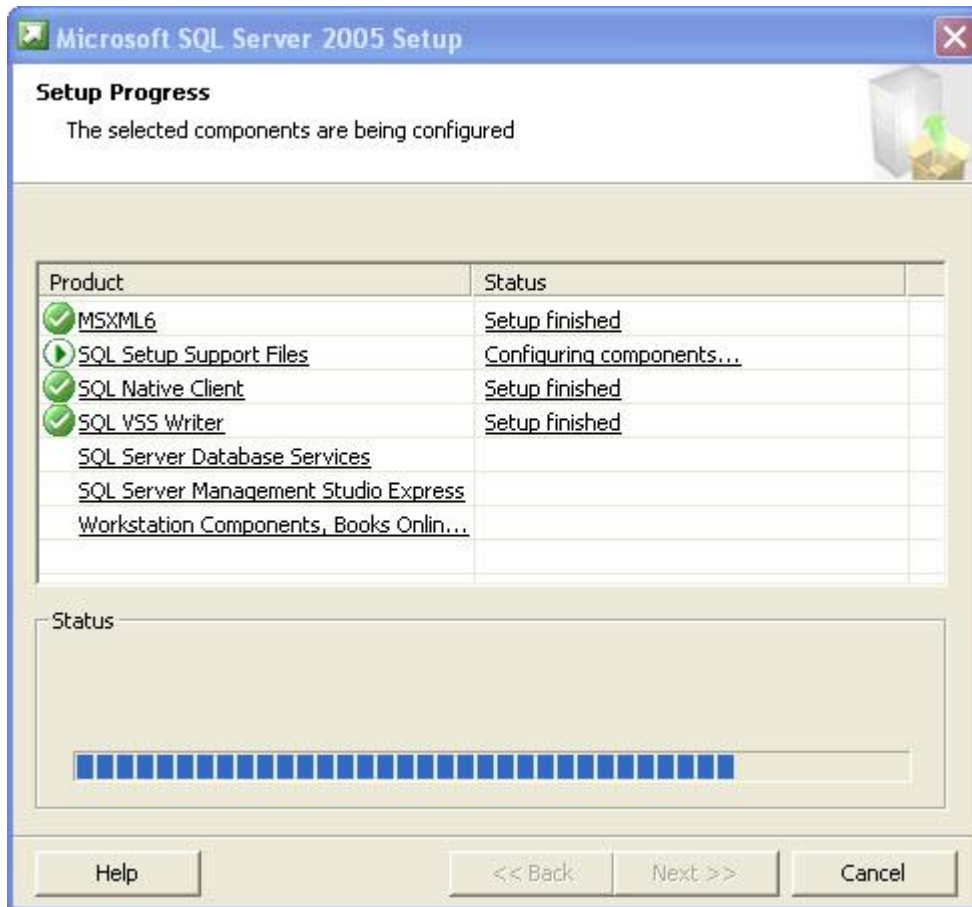
If you want to support user instances in your installation, make sure the checkbox next to "Enable User Instances" is selected.



Microsoft has included an error reporting tool in other applications for quite some time. This feature is now optionally included in SQL Server 2005 Express. Further, Microsoft wants you to send them anonymous usage data about your installation. Neither option is enabled by default. You may decide what information you want to send.



These are all of your options for SQL Server 2005 Express Edition. Continue on to install the product using these selections.



In some cases, your installation may fail with errors reported for the SQL Native Client and the SQL Server Database Services. In addition, the Workstation Components selection may indicate a failure. If this happens to you, it may be because you formerly had a conflicting SQL Server service on the machine and the Native Client previously installed is creating a problem. If this is the case for you, follow these steps:

1. Change to the directory in which you saved the downloaded SQL Server Express 2005 installer.
2. Extract the contents of the installer to a new directory: `SQLEXPRESS_ADV.EXE /x:c:\sqltmp`. If you are using the download that does not contain the advanced services, this command is `SQLEXPRESS.EXE /x:c:\sqltmp` instead.
3. Change to `C:\sqltmp\setup`.
4. Execute `"sqlncli.msi"`
5. Choose the `"Uninstall"` option.
6. Reboot your server.
7. Run the SQL Server Express 2005 installer again. It should be successful this time around.

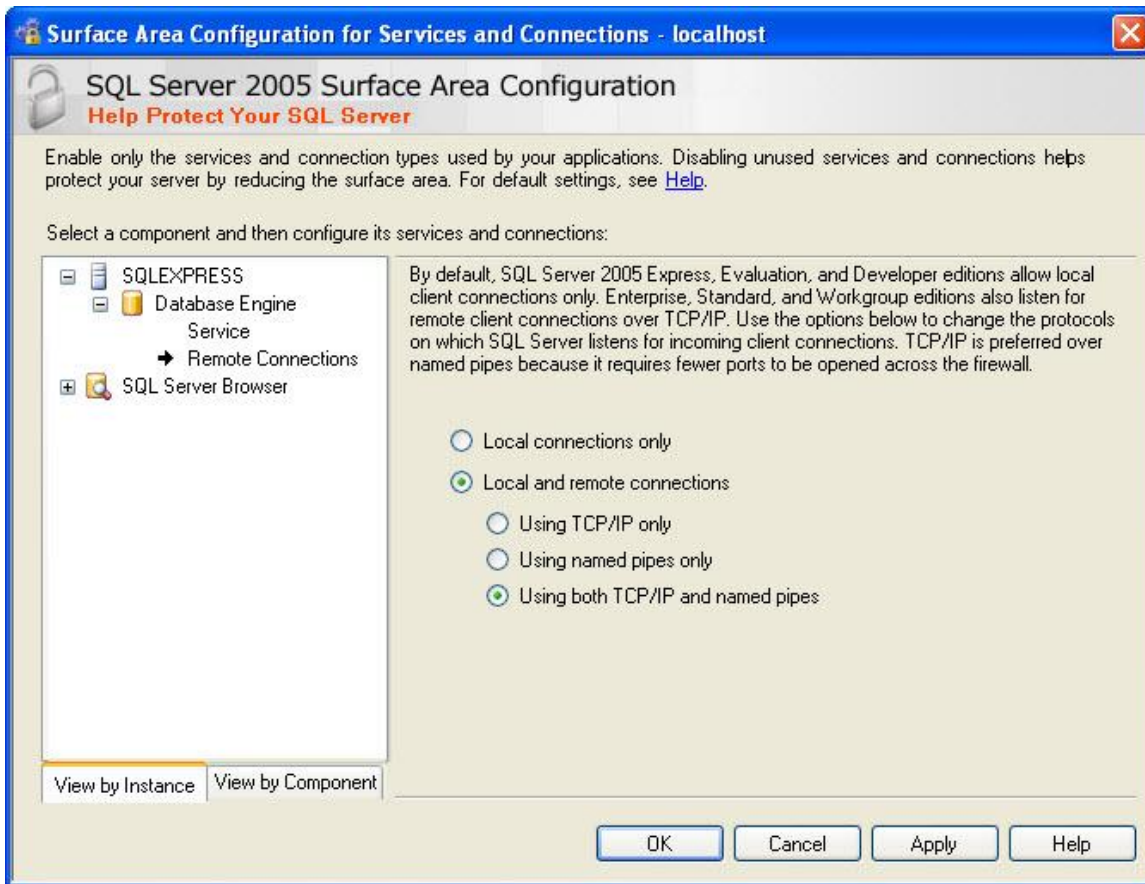
Step 6: Enabling Remote Access

At this point, SQL Server 2005 Express Edition is installed and can be managed using the SQL Server Management Studio Express tool that was installed along with the database server.

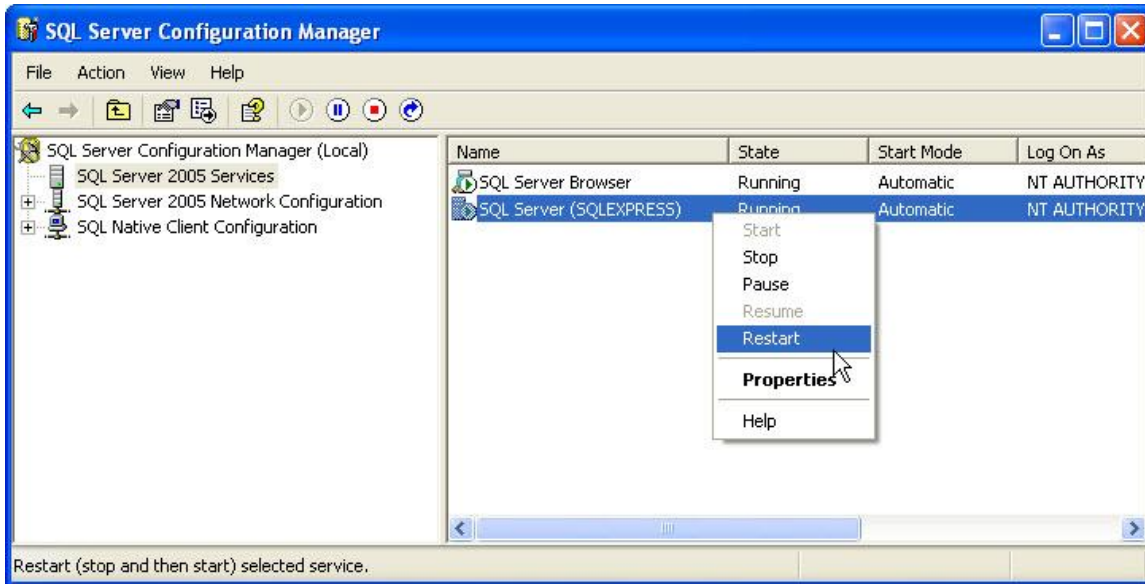
Next, remote access must be enabled for SQL Server. In the start menu, go to All Programs, Microsoft SQL Server 2005, Configuration Tools and run SQL Server Surface Area Configuration. Select Surface Area Configuration for Services and Connections.



Choose Remote Connections under the Database Engine, and select Local and remote connections, using both TCP/IP and named pipes.



When you click OK, you will receive a warning that the changes will not take effect until you restart the Database Engine service. You may close the Surface Area Configuration Manager. Then open the SQL Server Configuration Manager by going to Start, All Programs, Microsoft SQL Server 2005, SQL Server Configuration Manager. Choose SQL Server 2005 Services on the left, then right click on SQL Server on the right and select Restart. This will stop and start the SQL Service to allow remote connections and the installation of RedHorse CRM. When the restart is completed, you may close the Configuration Manager.



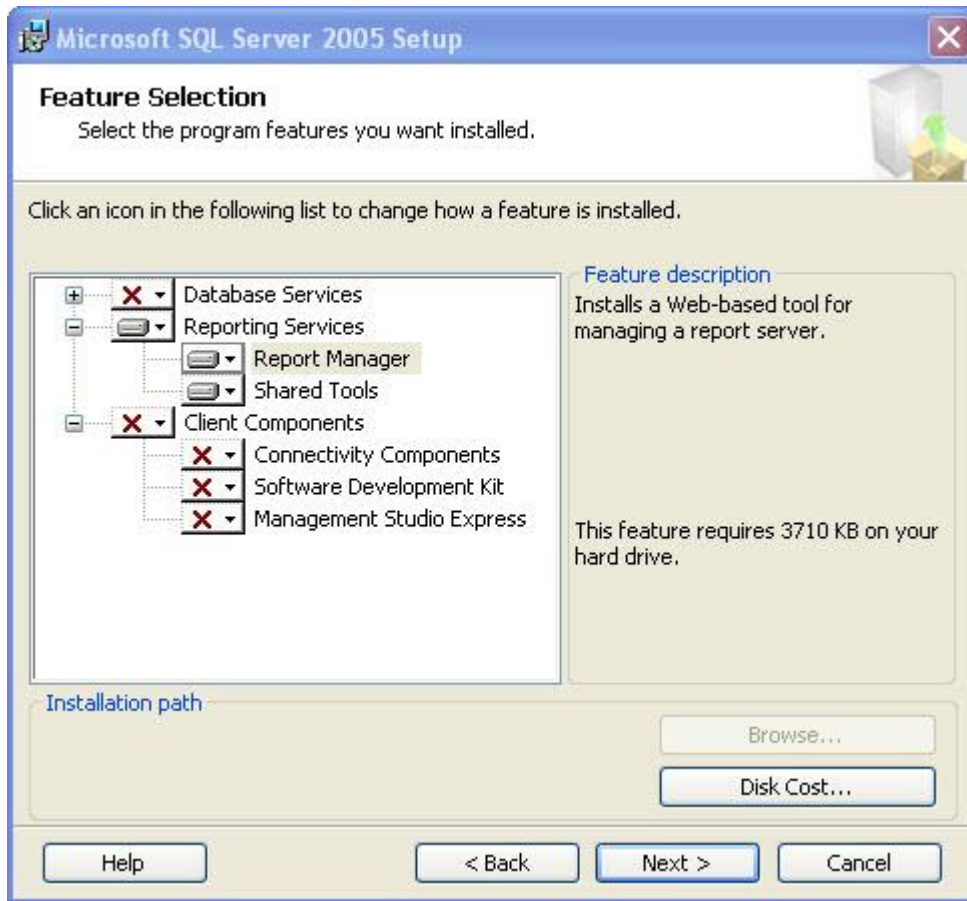
Step 7: Install SQL Server 2005 Reporting Services

New you will install SQL Server 2005 Reporting Services. This is necessary only if you will be using SQL Reports with RedHorse CRM. Reporting Services will not install on operating systems that do not include Internet Information Services (IIS). This includes Windows XP Home Edition, which does not include IIS.

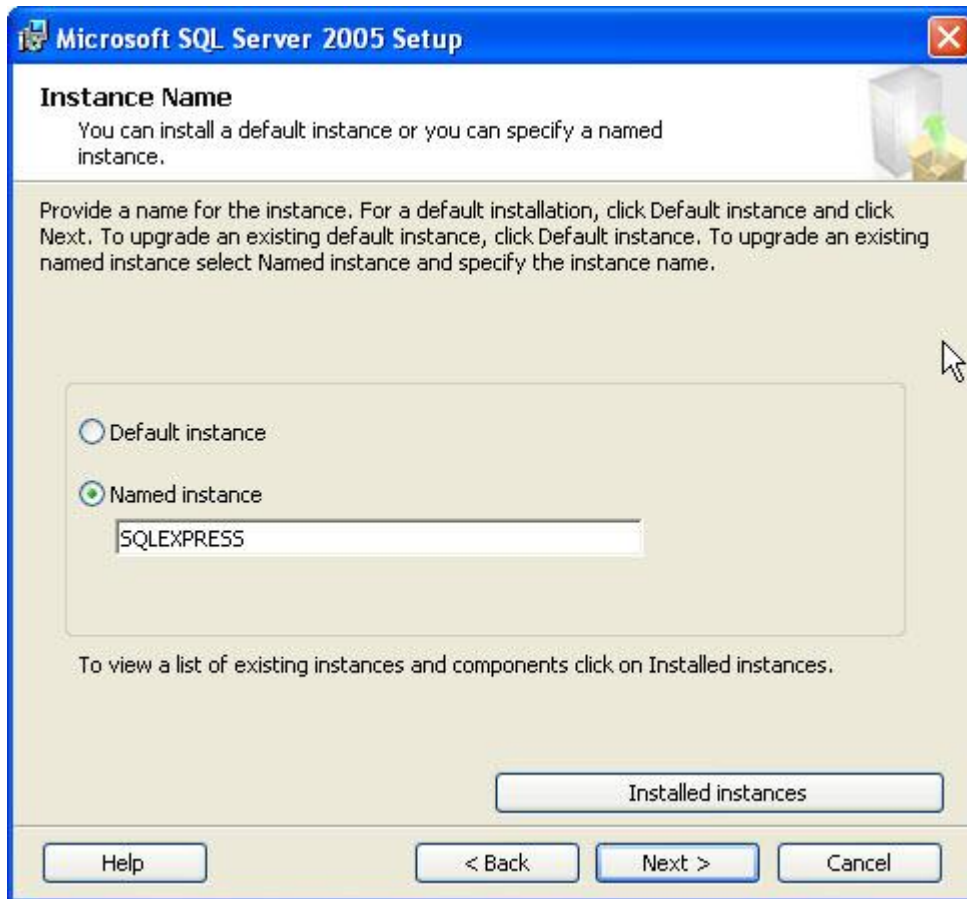
Double-click the file *SQLEXPRESS_ADV.EXE* to start the product installation. The contents of the file are extracted and the installation begins. Agree to the End User License Agreement. The installer will then handle any installation prerequisites and notify you of any system configuration issues that should be addressed. Next provide your name and your company's name. It is not necessary to uncheck the box marked "Hide advanced configuration options".

Next, you will choose which features to install. In this step, you will deselect Database Services and select Reporting Services (Report Manager and Shared Tools).

Choose the same location that was used in the initial installation of SQL Server 2005 Express. The default location was *C:\Program Files\Microsoft SQL Server*.

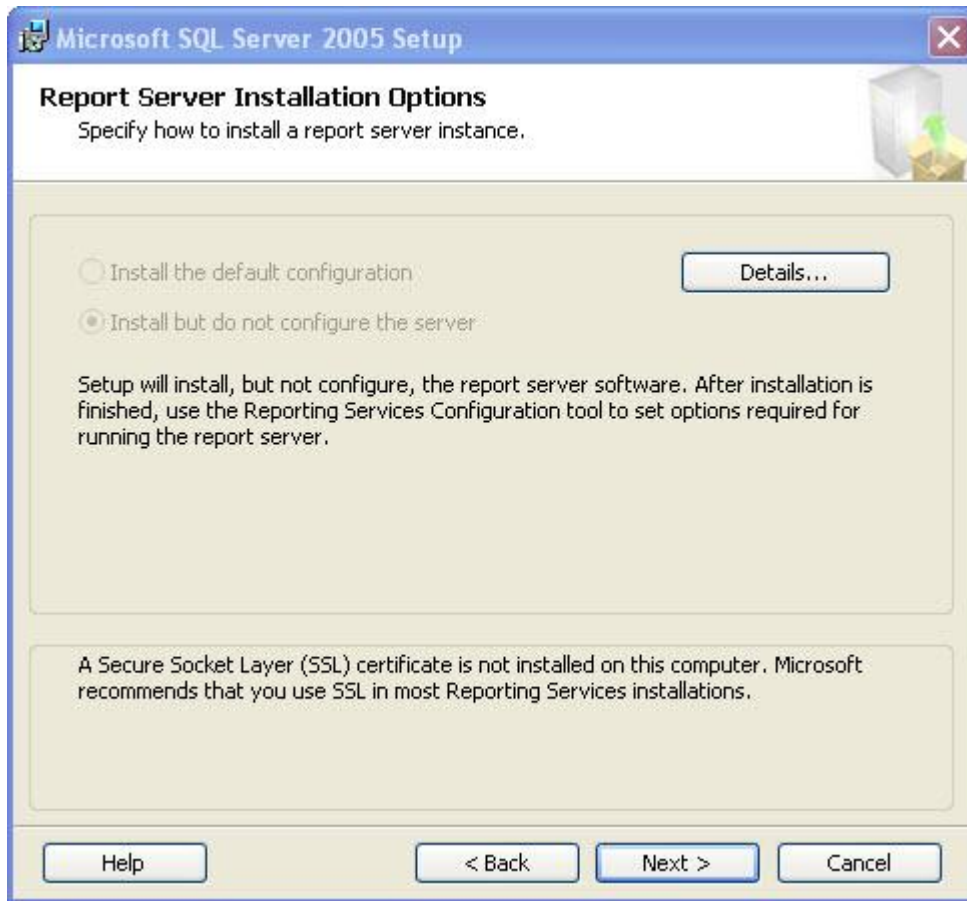


Select the same instance that was used for the original installation of SQL Server 2005 Express. The default setting is a Named Instance called "SQLEXPRESS".



Next choose the account that will be used to run the Reporting Service. You may use the same account that was used for the original installation of SQL Server 2005 Express. If you are installing on XP Home, choose the built-in system account called Network Service.

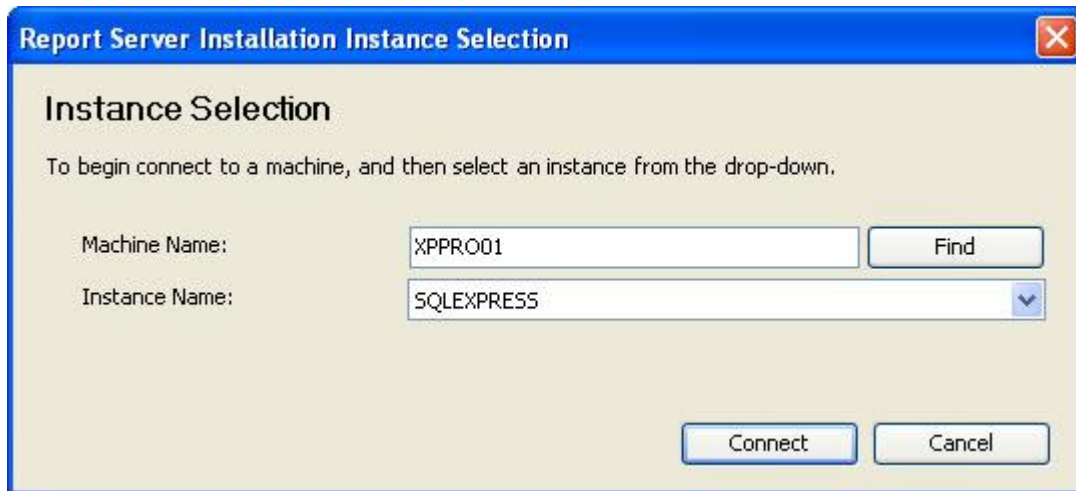
The installer will let you know that it is going to install but not configure the Reporting server and that an SSL should be installed if it has not been done already.



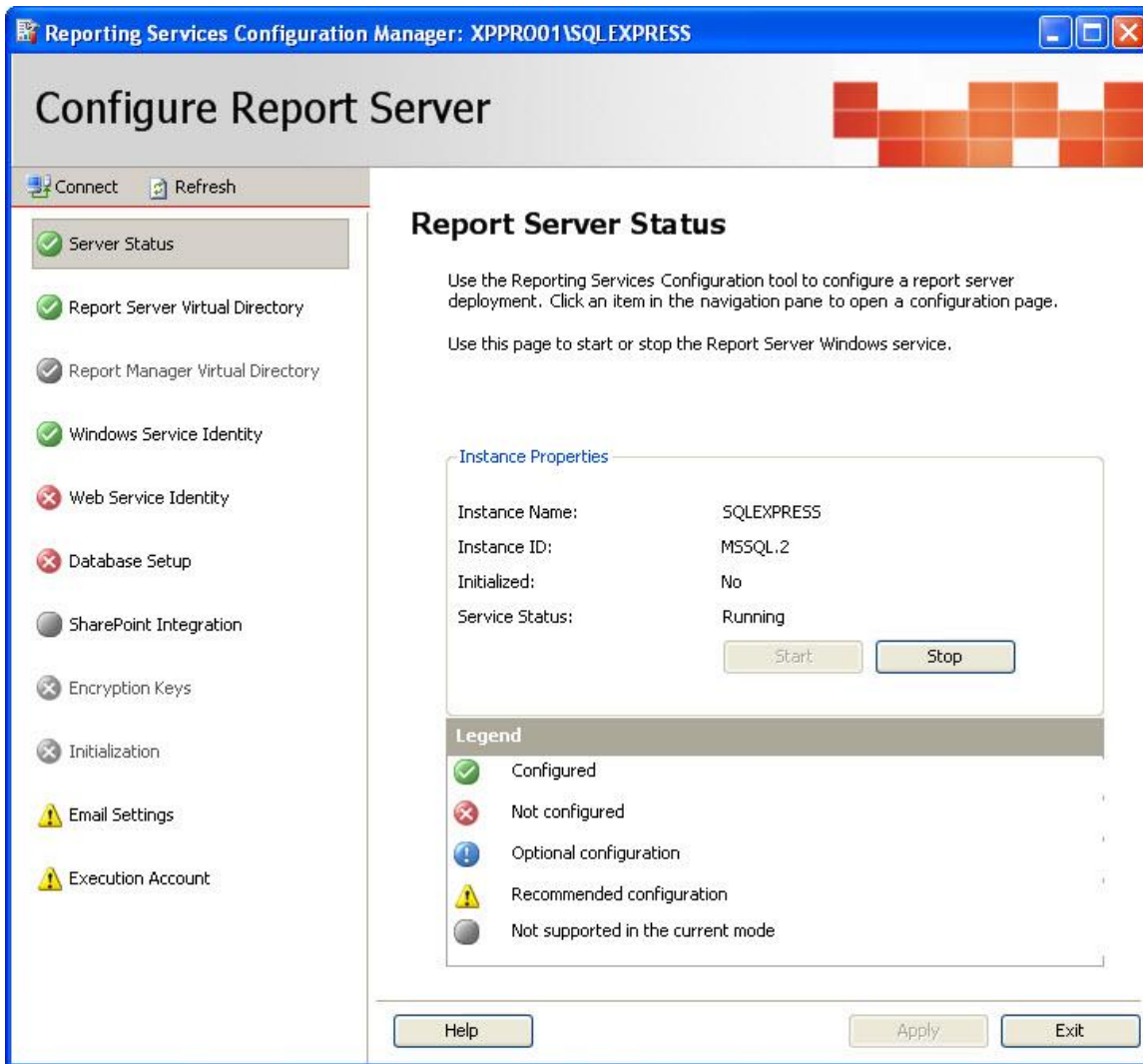
Choose which items you want to send to Microsoft and then begin the Installation.

Step 8: Configuring Reporting Services

Reporting Services is configured using the SQL Server Reporting Services Configuration Manager, which is found by going to Start, All Programs, Microsoft SQL Server 2005, Configuration Tools, Reporting Services Configuration. The first time you run this tool, you will be asked to select the correct instance of SQL Server to configure. Select the instance of SQL Express just installed.



You will then be able to view the configuration manager and set up Reporting Services.



Please see a separate article on [Configuring SQL Server Reporting Services](#) for complete help with this topic.

Installed and ready

SQL Server 2005 Express is now installed and ready. You may now proceed to install RedHorse CRM.