RFMS, INC.

Reference Library Documentation

RFMS SQL Conversion Manual

Microsoft SQL

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General Information for SQL RFMS

Since this is a Major Data Conversion We recommend that you have your IT Professional perform this conversion and if need be, schedule an appointment prior to the installation with any questions. We strongly recommend a TRIAL CONVERSION be performed on a copy of the RFMS Folder and tested fully prior to the REAL CONVERSION. To create a test company for RFMS version 9, make a copy of the RFMS folder while everyone is out of RFMS and then run the conversion on the Copy of the RFMS Folder. This will allow you to test out the program in addition to the following:

- Get a more accurate timeframe for the conversion
- See the new features of RFMS Version SQL
- Ensure that custom configuration files, if any, are working. If not we can get the file to the Development Team and convert it before running the real conversion.
- You can also run reports on version 9 and compare to the trial conversion.

Two major considerations for the MS SQL Express Version is database size and user count. If your database is less than 1 GB and you have less than 15 users you can use the MS SQL Express. If you have a database over 1 GB or you have more than 15 users you will need to purchase MS SQL Workgroup or MS SQL Standard. You will want to check with your Local IT Professional on which one is more suitable for your environment. If installing MS SQL Express manually or if you are using MS SQL Workgroup or Standard, make sure to set for Mixed Mode (SQL Authentication and Windows Authentication).

Pointers / Tips

1.) Remember Dos RFMS goes away with SQL RFMS.
2.) Make sure all outstanding receipts have been posted to the bank before running this conversion.
3.) If you have any crystal reports or other reporting modules, you will need to re-write them to use the new database structure.
4.) Make sure to run all RFMS Updates prior to doing the conversion and launch to make sure all is fine prior to the conversion.
5.) Make sure to run all windows updates on the server making sure to reboot afterwards and checking before Installing SQL.
6.) Make sure E-Commerce is stopped at the server, if using this program.
7.) We recommend a TRIAL CONVERSION and TESTING for about a week to make sure everything is fine prior to the REAL CONVERSION.
8.) While testing out the modules and data, make sure to test printing from the modules to make sure that any custom configurations you may have are ok.
9.) The System Recommendations are minimum, unless otherwise noted.
10.) **The attached document is for converting an existing Server with Pervasive 2000i or later installed already. Please contact RFMS if you have a previous version of Pervasive installed or if you are moving to a new Server.**
11.) Please let us know if you have ANY open orders that have been DOS Partial Billed.

RFMS System Requirements and Recommendations

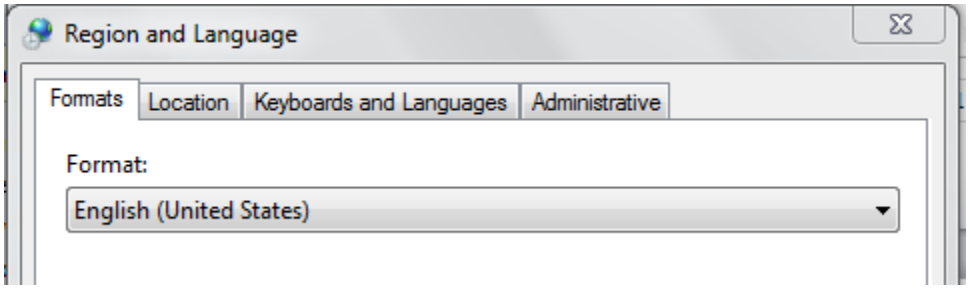
The RFMS System Specifications can be found at the following link. We have also included them in pdf format and should be in the email you received.

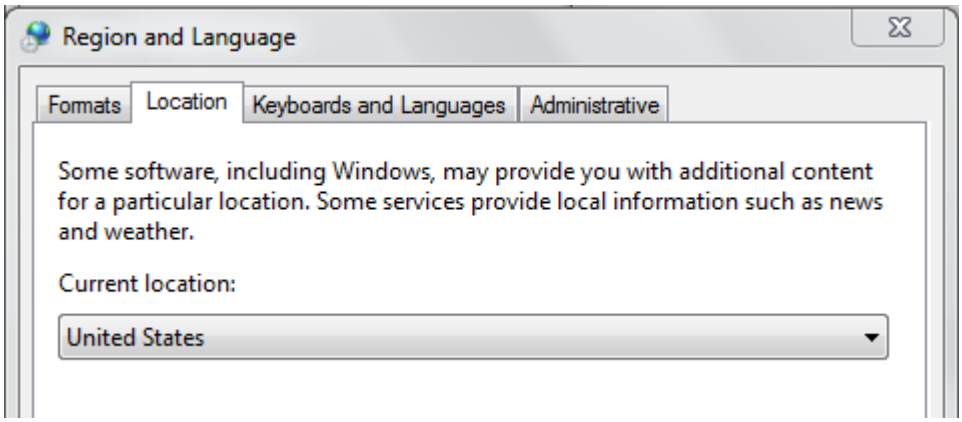
http://www.rfms.com/Documents/RFMSSQLSystemSpecifications.pdf

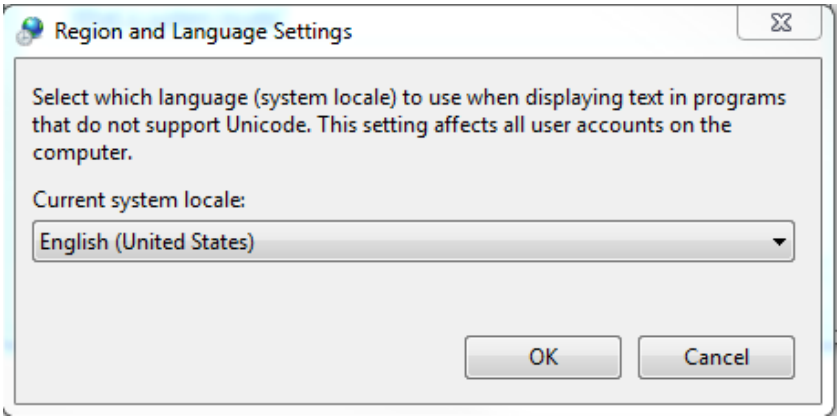
Server Collation

1. Prior to installing Microsoft SQL, please confirm that the following are selected so that the proper Collation will be used for Microsoft SQL.: SQL_Latin1_General_CP1_CI_AS.

2. This can be done by going to Control Panel – Region and Language and modifying the “Formats” tab, “Location” tab, and “Locale” tabs to English (United States).







3. During the installation of Microsoft SQL, there will be a screen showing the collation of SQL_Lating1_General_CP1_CI_AS, which can also be confirmed after installing by going to SQL Server Management Studio and once logged in right click on the Server and go to properties. You should see the following:

4. Once SQL has been installed and configured, you are welcome to go back into the Region and Language and select the appropriate Format and Location.

SQL Server 2008 Express Program Requirements

Note: Make sure that all Windows Updates are loaded including the below

1. Download the .NET from the below link if running Server 2003 or XP as a Server.

   http://www.microsoft.com/downloads/details.aspx?FamilyId=AB99342F-5D1A-413D-8319-81DA479AB0D7&displaylang=en

2. Download the Power Shell from the below link running Server 2003 or XP as a Server.

   http://www.microsoft.com/windowsserver2003/technologies/management/powershell/download.mspx

3. Download the Windows Installer from the below link if running Server 2003 or Windows XP or 7 as a Server.

   http://www.microsoft.com/downloads/details.aspx?FamilyId=5A58B56F-60B6-4412-95B9-54D056D6F9F4&displaylang=en

4. Download the SQL Install with Management Tools from the below link.

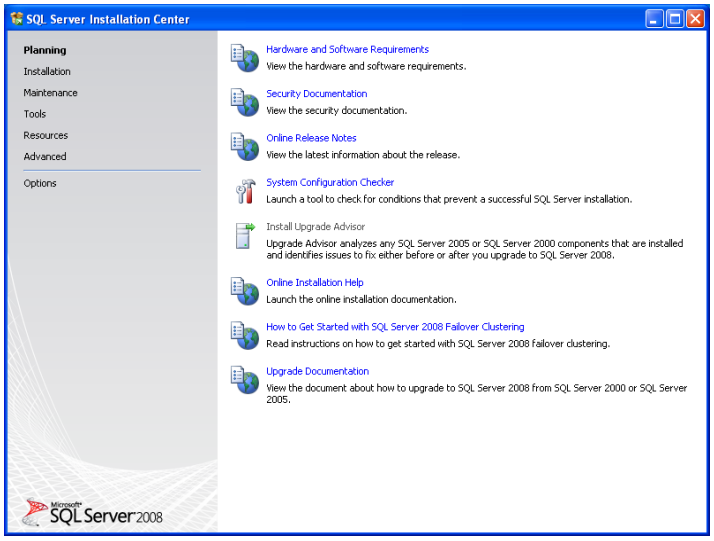
   Note: This can be obtained from Microsoft Web Site

Note: Make sure to download the appropriate files above for your operating system. If you have questions on this, consult with your Local IT Professional.

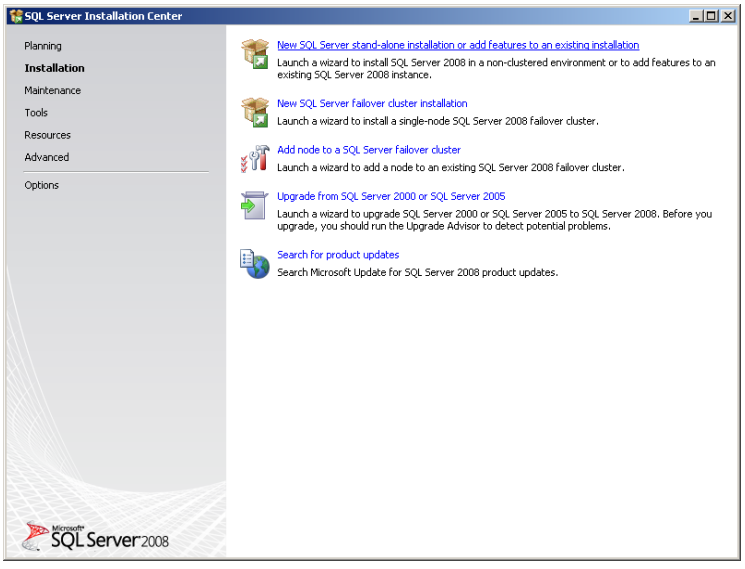
Instructions for the (.Net, PowerShell, and Windows Installer). SQL Install in next Section

- Run the file
- Select 'Next' on the install wizard
- Select 'I Agee', then 'Next'
- You should see the install procedure begin
- Once it completes, click 'Finish'
- Note that Windows Installer may need to restart your computer to complete the installation
-

1. When the SQL 2008 with Management Tools Installation is started, a screen like below will display, select “Installation” on the left hand side.

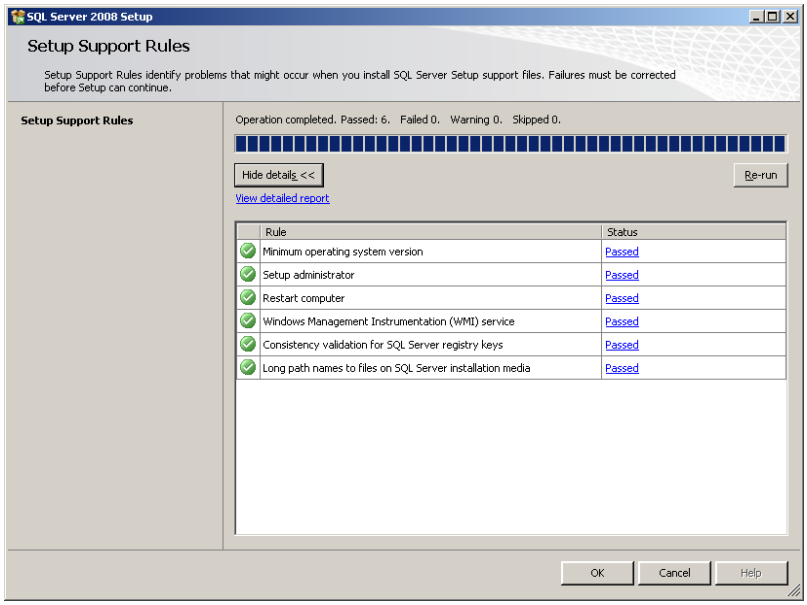


2. On the next screen select “New SQL Server stand-alone Installation…” option.

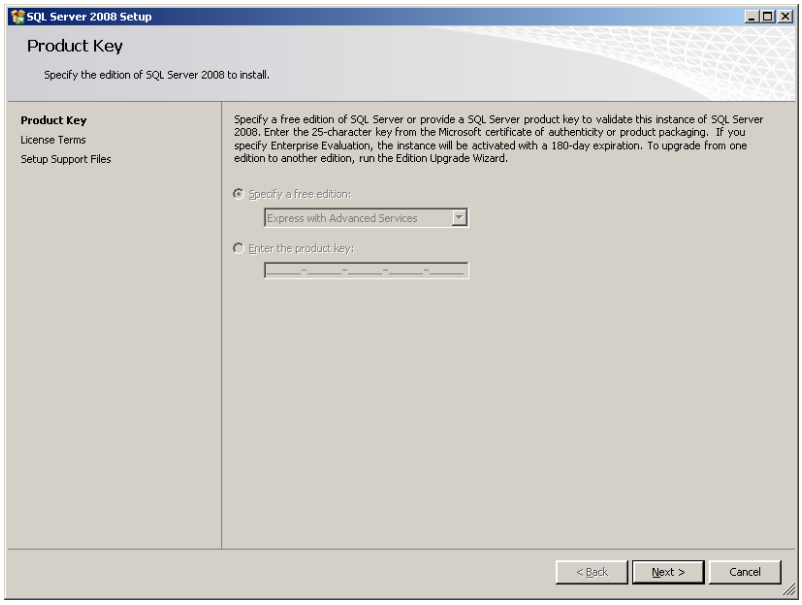


3. This starts the installer, a screen like below is displayed. If not select the “Show Details” to view the Testing Results.

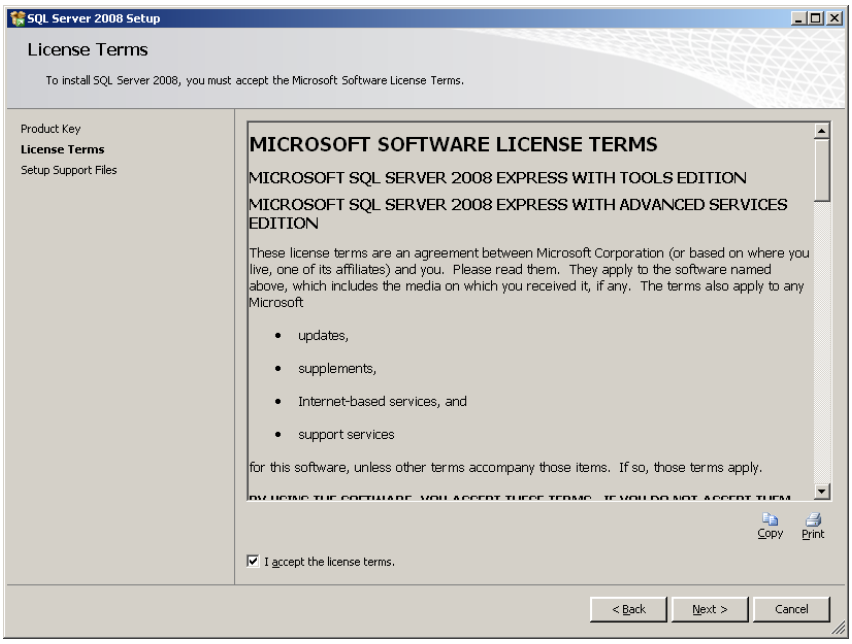
Note: If all Items pass, select “OK”. If something fails, check with your Local IT Professional as to the correction path



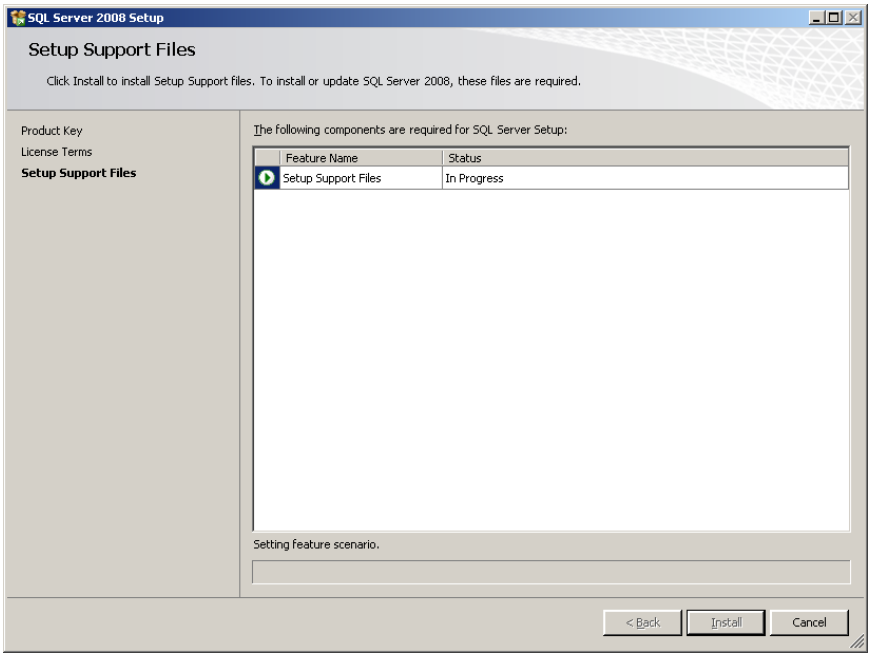
4. On the next screen simply select “Next”, unless this installation is a version other than the Express Version. If so enter the product key and select “Next”



5. This screen is the License Terms from Microsoft, review and select “I Accept” and “Next” to continue.

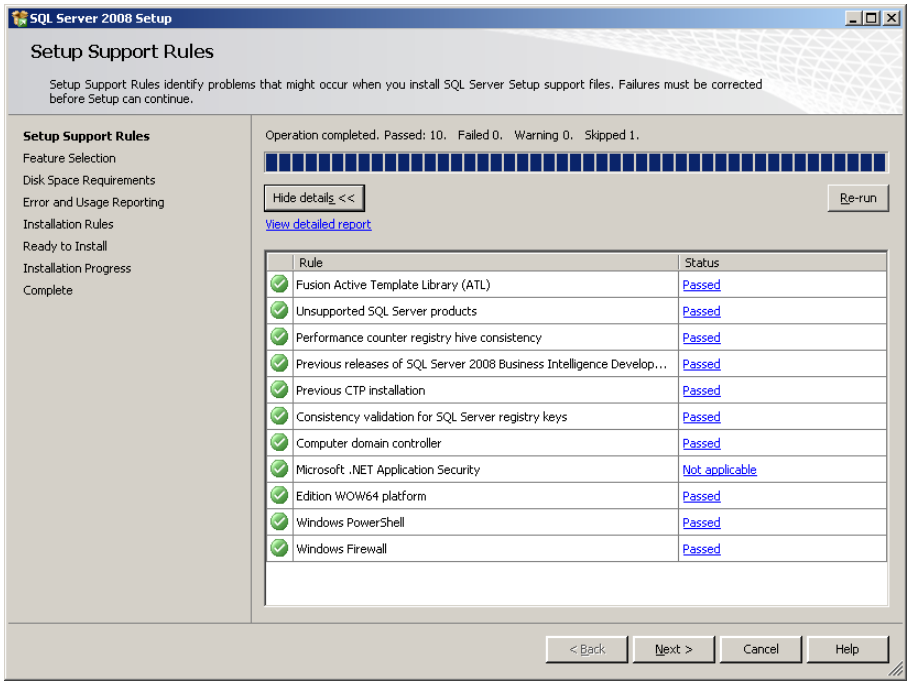


6. At this point click “Install” to begin.

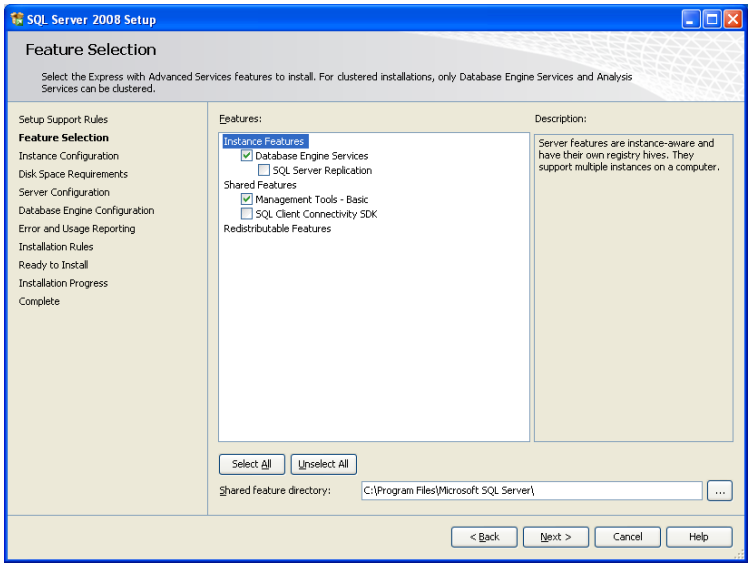


7. A screen like below should display, if not select “Show Details”. If all looks ok, select “Next”. If there are any issues, check with your Local IT Professional as to steps to correct.

Note: “Microsoft .NET… may say ‘Not applicable’. This is ok since this was loaded previously.



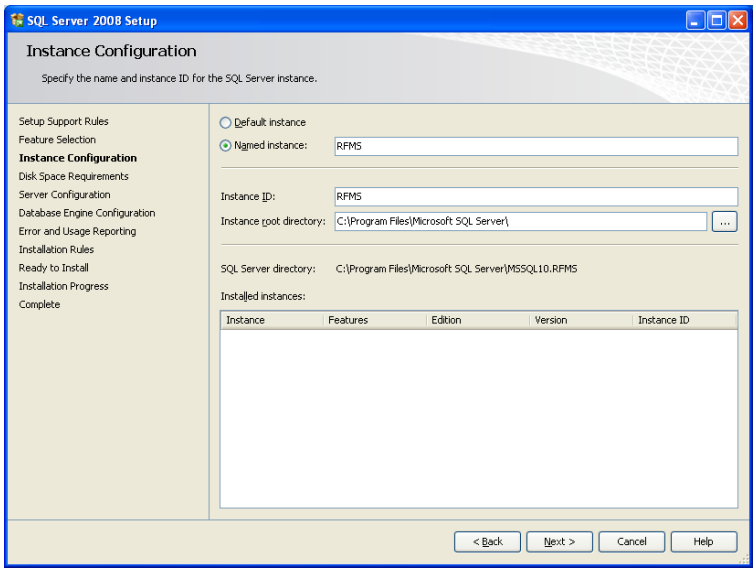
8. Select Database Engine Service and Management Tools and Next to continue.



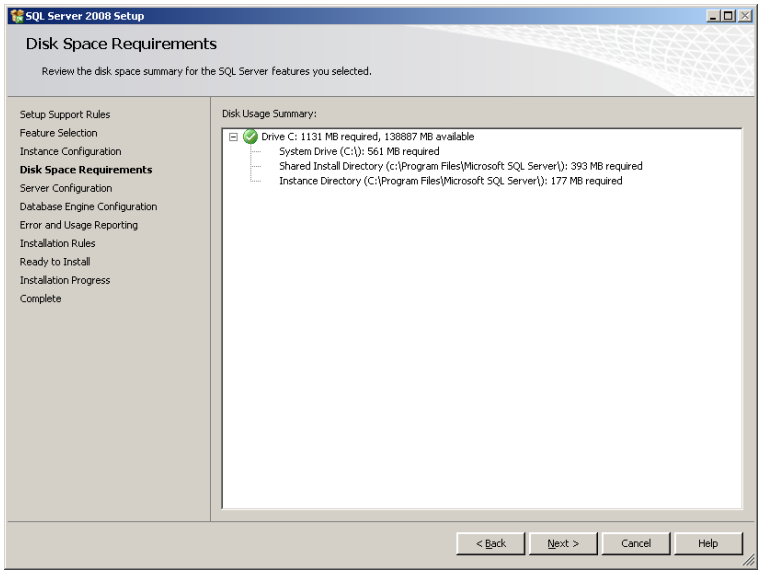
Note: If running the install and Management Tools is not present, please stop the install now and download the SQL 2008 with Management Studio.

9. This screen allows an Instance name to be input. We recommend this to ensure that any previous versions of SQL are not accidentally upgraded to SQL 2008. Select “Named Instance” and input the instance name to use. When finished, select “Next”.

    Ex. Named Instance = ‘Your ServerName\RFMS’

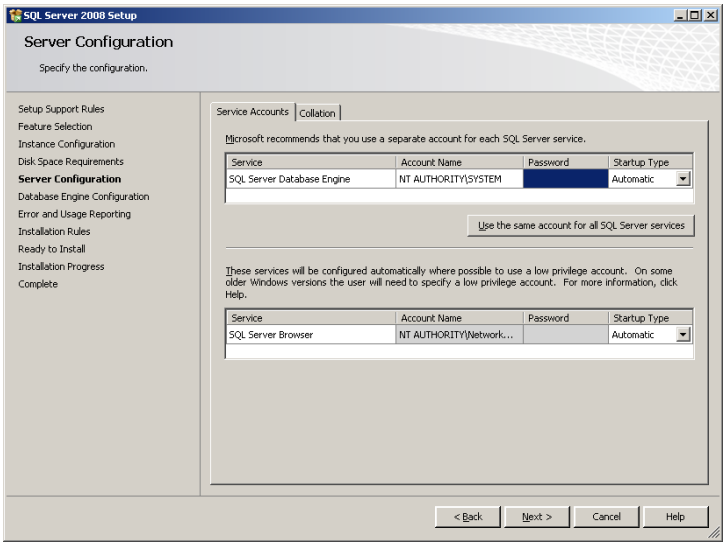


10. This is a confirmation screen, review and select “Next

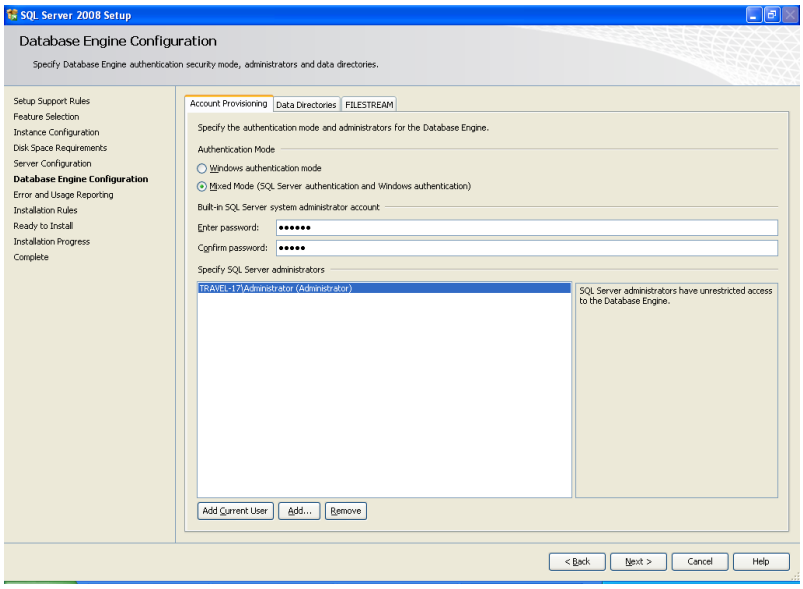


11. Select the drop down box under ‘Account Name’ and select the appropriate item then select “Next”. If unsure select *“NT AUTHORITY\SYSTEM”*

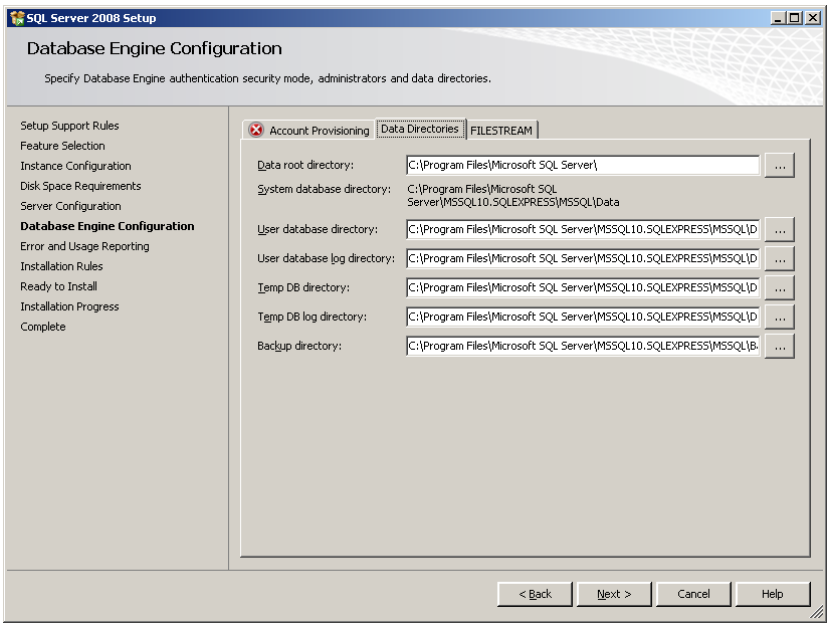
Note: Make sure that the SQL Server Browser is set to “Automatic”



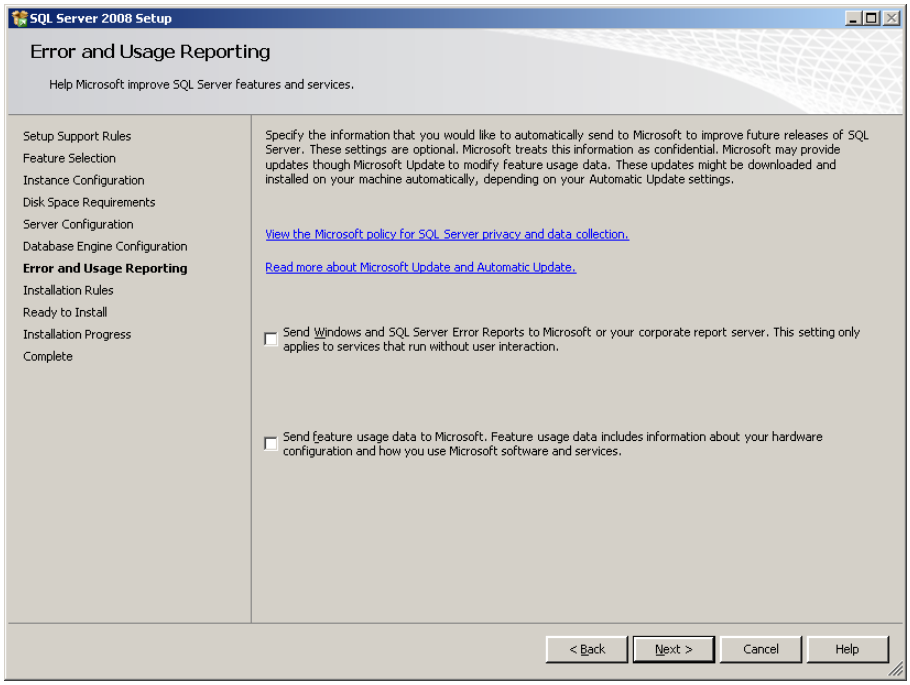
12. Select “Mixed Mode” and input a password. Remember this password as it will be needed on the installation of RFMS. Next click on the “Add Current User” and “Next”



Note: If you wish to change the location of the SQL Directories, Select the "Data Directories" tab and do so here.

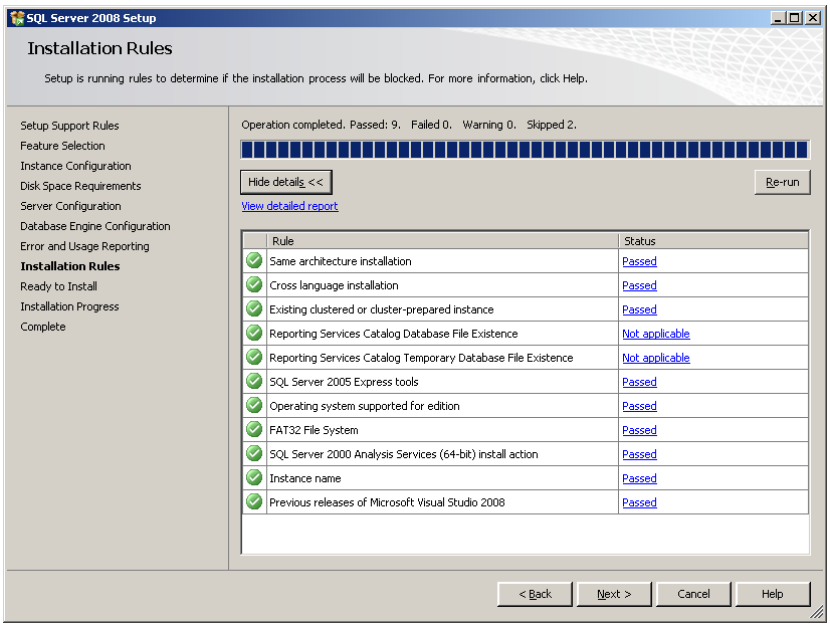


13. Leave as default and select "Next"

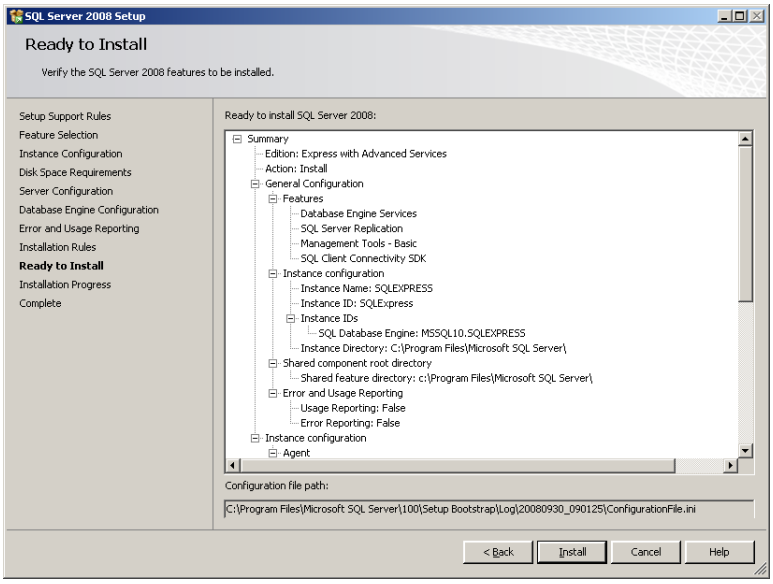


14. On the next screen we have one final test of the system. If this is not shown, select “Show Details”. If all passed then select “Next”. If something did not pass, check with your Local IT Professional.

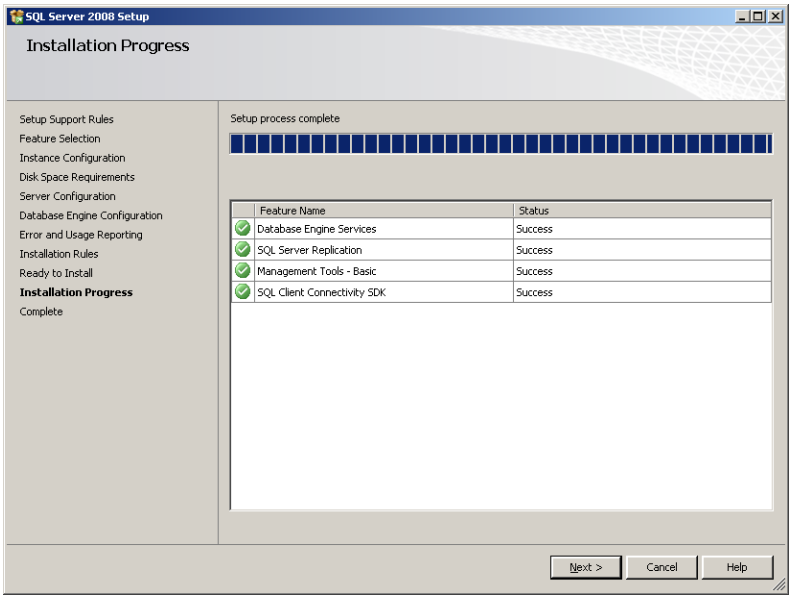
Note: ‘Reporting Services…’ will say ‘Not applicable which is fine since in previous screen we chose not to install



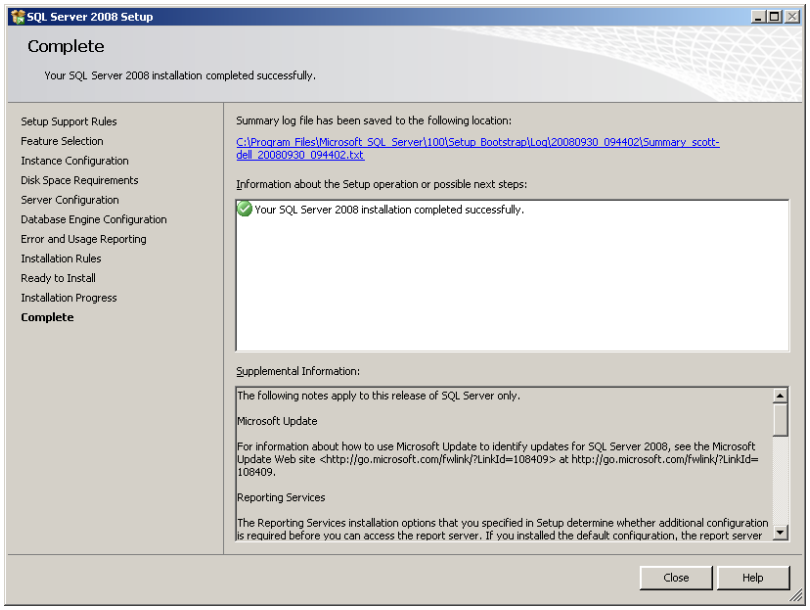
15. Click “‘Install” on this screen



16. If everything shows status of “Success”, select Next. Otherwise check with your local IT Professional.



17. This is the Summary Screen for the Installation of SQL Express. If it shows successfully installed, select “Close” to finish the Installation Process.



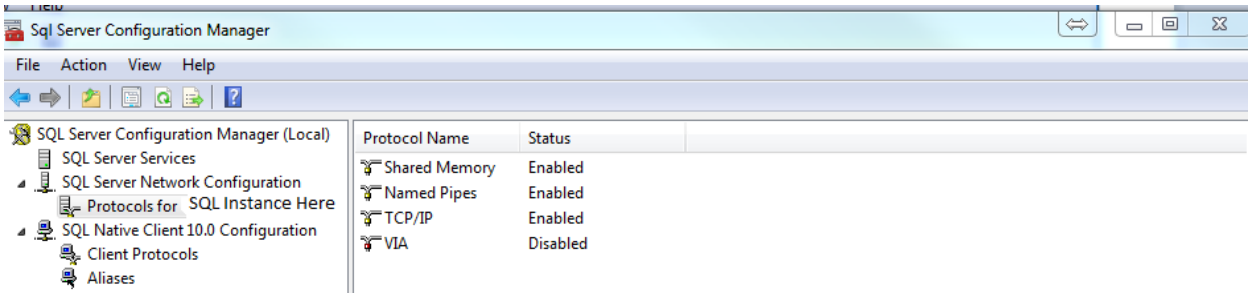
SQL Remote Connections

We recommend that you have your IT Professional perform this installation and if need be, schedule an appointment prior to the installation with any questions.

1. Go to Start – Programs - Microsoft SQL 2005 or Microsoft SQL 2008 - Configuration Tools – SQL Server Configuration Manager.

2. Expand "SQL Server Network Configuration and highlight Protocols for SQL Instance. Enable both Named Pipes and TCP/IP by right clicking on the status for each and changing.

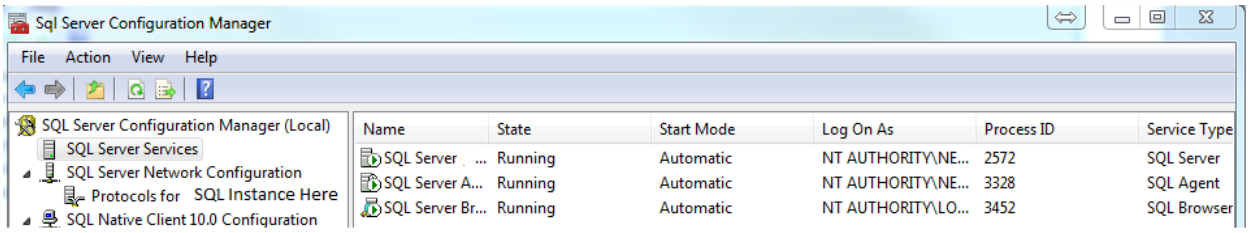
Note: Both do not have to be enabled. We recommend enabling both in order to ensure RFMS is working. From there restricting to one protocol can be done. If just one protocol will be used, make sure that the protocol is configured to work on both workstations and Server and firewall ports open if needed. Consult your local IT Professional.



3. Expand "SQL Native Client Configuration and highlight Client Protocols. Make sure TCP/IP and Named Pipes are Enabled

Note: Once done, it will be necessary to restart SQL, hold off on this until after Step 4

4. Next highlight SQL Server Services and make sure that both the SQL Server and SQL Server Browser are set to Automatic and running. If not do so now and then restart both to complete.

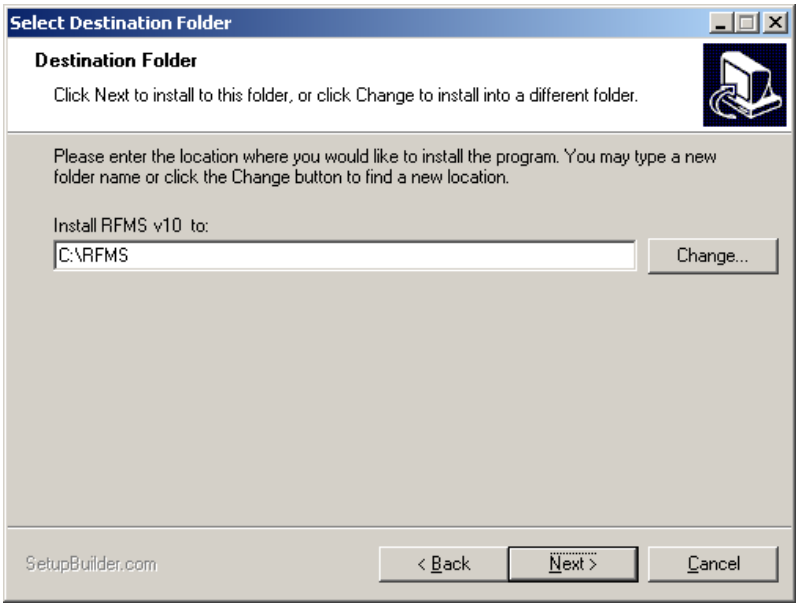


SQL RFMS Conversion

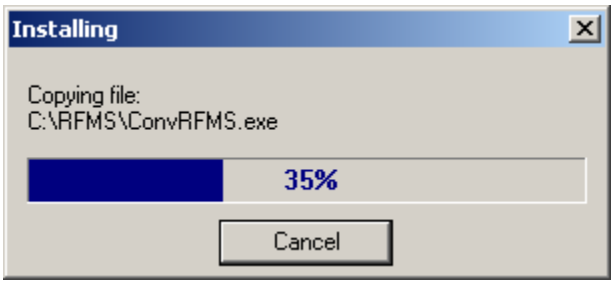
Note: Make sure you have SQL installed before running setup.exe.

1. Browse the RFMS Conversion CD and double click on the Setup.exe file. This will begin the Conversion to RFMS SQL.

2. Select next on the welcome screen, which will take you to a screen like below. By default, the installation will select C:\rfms as the installation folder. If you have installed RFMS to a different location, simply select the "*Change…"* button and browse to another location or type in the location and select next.



3. The next screen is a confirmation screen, if all looks correct hit "Next". After hitting next to start the conversion, you will see a screen like below.



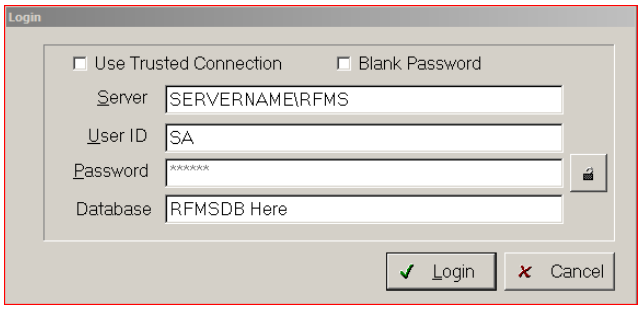
4. When this process is finished, you will be directed to a Login Screen. The Boxes should auto fill with the following information. Simply select Login once all of this is correct to begin the conversion.

    - Server Name – (make sure this information matches the information from the SQL Management Studio Login for the Server Name) as shown below

    - user ID – SA is the default User ID used for the conversion
    - Password – See Note 1
    - Database Name – The default name is *RFMS*, however, it is recommended that you change this name.

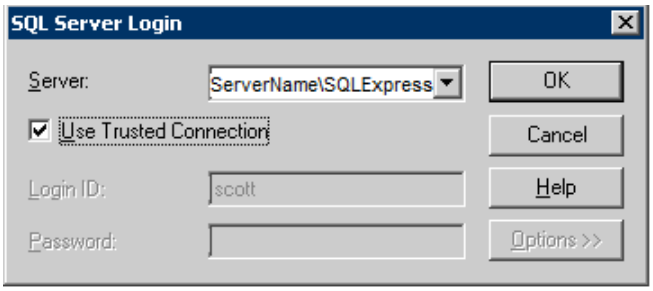
Note 1: You will need to click on the lock icon on the right side next to the password field and type the SA password that was entered in step 12 of the SQL Server 2008 Express with Management Studio Install Section.

Note 2: Make sure the server name is correct and select login. You may need to put your SQL Instance in after the Server Name. If your Server is ServerName and your SQL Instance is RFMS, then you would type in ServerName\RFMS



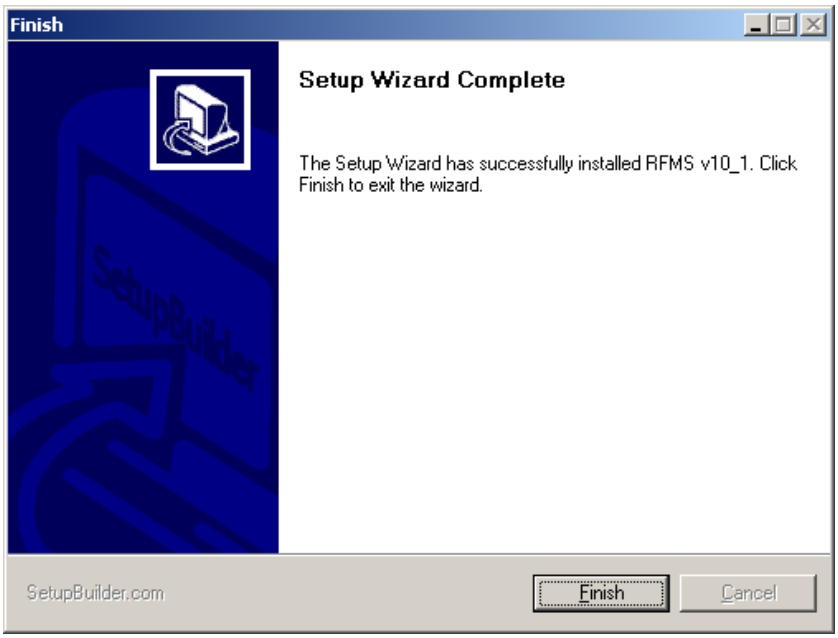
Note: If you get a message about unable to login, go to SQL Management Studio and change authentication mode from "Windows Authentication" to SQL Authentication". Then put SA for username and the SA Password you used during installation of SQL. If this works, confirm correct Server Name and instance name is used. If this doesn't work then make sure that SQL is in mixed mode.

5. Once you select Login, the installation should continue. If you get a box like below, check the box for "Use Trusted Connection" and click ok.



6. The databases will now be converted from a Pervasive DB to MS SQL DB. This operation takes about 1 hour for every 500mb of database size. To find out the size of your database, navigate to the RFMS folder, sort by type, highlight all the .dat files and select properties.

7. Once the conversion completes, click Finish and check the SQL10.log file for errors. This file will be in the RFMS Folder. It is imperative that you test the RFMS Program (reports, printing, operation, etc…) prior to performing real conversion or before going live.



Backing up a SQL Database: General Information

This document is to assist your IT Professional in making a backup of your SQL Database. Once you have this configured and a Windows Scheduled Task set up to run these, your IT Professional will need to ensure that the Backup Solution is backing up the folder specified later in this document. If you are running Microsoft SQL Express, follow this document, to configure backups of the RFMS Database. The other versions of Microsoft SQL contain a Maintenance Option that you can configure for your backup solution. You may also use the SQL Agent on any backup software you might have.

Your Local Computer Technician should perform the following steps, since it involves configuring both your SQL settings on the server and configuring and testing a backup routine. The following document discusses configuring Microsoft SQL Express 2008, modifying batch files and SQL files, running SQL Scripts, and setting up scheduled tasks.

It is imperative that your computer technician ensure that not only are you backing up the db properly and RFMS Folder to the Server, but also to a separate device (i.e.…tape drive). Failure to run the Transaction File Backup will result in the Transaction Log File filling up the Free Space on your Hard Drive, Performance Issues, etc… Failure to backup the database will result in no backups to go back to in the case of a System Failure.

RFMS is not responsible for performing daily backups, maintaining the backup schedule, performing integrity checks of the tapes / jobs, or running Integrity Checks on Databases or backups. **RFMS also recommends multiple backup sets, rather than having one media and overwriting every day; as well as, testing your backups periodically to ensure stability of your Backup Solution**.

If running Microsoft SQL Standard or Workgroup, configure the Maintenance Plan to run both the Log backup (transaction) and the Full backup. Additionally, if you have a backup solution that can successfully backup SQL Databases, you can use that. Otherwise, we recommend using one of the below methods.

Ways to Perform a SQL Backup

There are different ways of backing up a SQL Database; here we are going to discuss three of them.

1. **Backup Program with SQL Agent:** If running a Backup Program with a SQL Agent, your technician can configure the Backup Job to backup the Databases and Program Files and pull to an external device (i.e.… tape drive).

2. **Microsoft SQL Maintenance Plan and Backup Program**: If running Microsoft SQL Workgroup or Microsoft SQL Standard, your technician can set up Maintenance Plans. The Maintenance Plans can be configured to do a Full Backup and a Transaction Backup. Once a Scheduled Task is set up to run both the Full Backup and Transaction Backup, you can use your Backup Program to back up both the Program Files and Program Files and pull to an external device (i.e.… tape drive).

3. **Non Microsoft SQL Maintenance Plan and Backup Program:** If running Microsoft SQL Express, there is no Maintenance Plan. However, we provide a way to do the same process with the configuration of a few files and setting a scheduled task to run. Then you can use your Backup Program to back up both the Program Files and Program Files and pull to an external device (i.e.… tape drive).

Note: It is imperative to make sure that your Backup Solution is performing both a Full Backup and the Transaction Backup. Failure to backup the full database will result in RFMS data not being backed up. Failure to backup the transaction log will result in the SQL Log file building in size daily until the hard drive runs out of space.

Note: Some setups of Scheduled Tasks require Administrator User Information under the Security Section. This being said, if you change your Administrator Password, you will have to change this on the Scheduled Task(s).

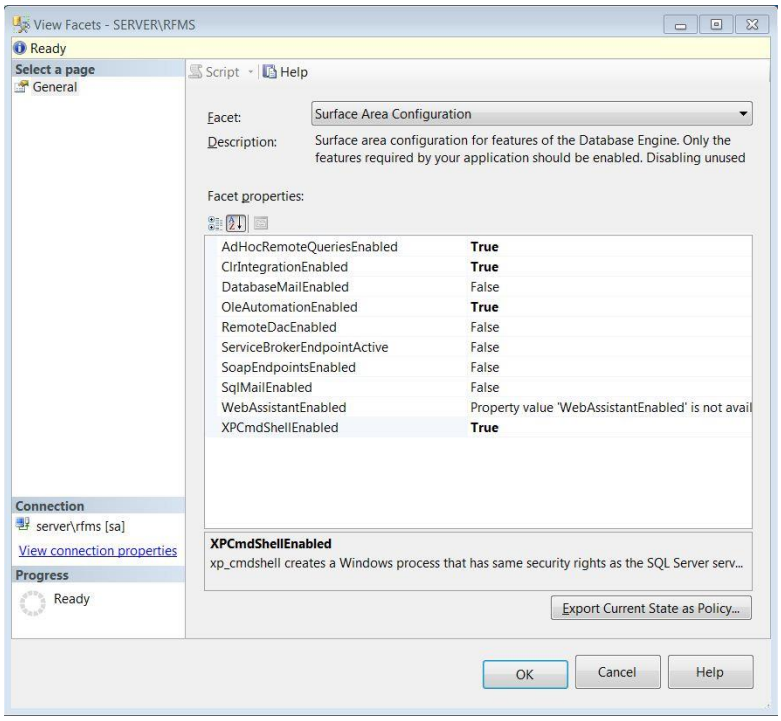
SQL Data Backup Verification

In addition to backing up your RFMS database and Program Files, it is a good idea to check that the files are being backed up to tape properly. This quality control function will give you the peace of mind knowing that your backups are running and being put to tape on a regular basis. We recommend the following:

1. A report generation showing that the backup completed successfully (this can be done through most backup programs. If you can't run the report, then get your IT Professional to show you a way to browse the backup confirmation log or tape to ensure that your files are being backed up.

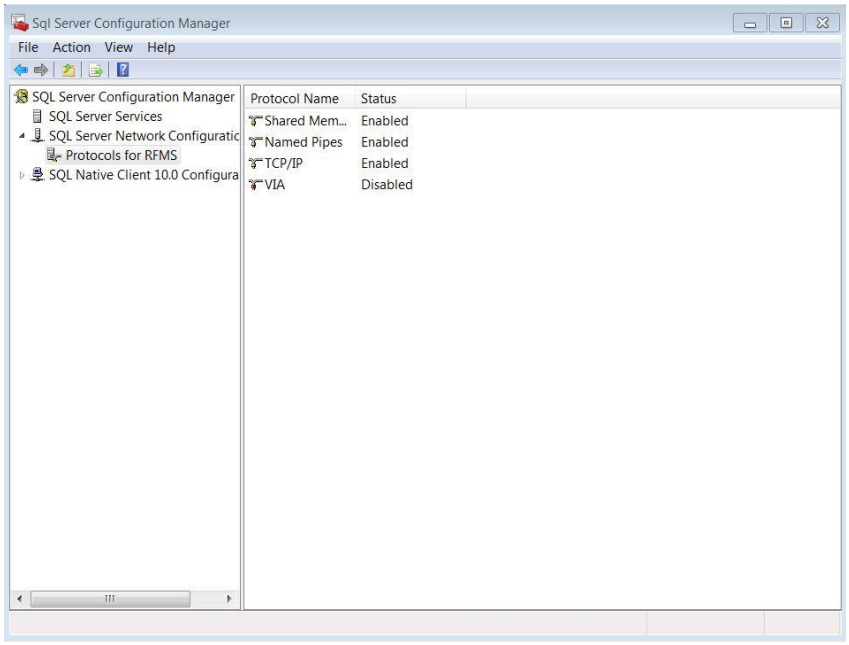
2. We also recommend that you test your tapes periodically. For example, pull a tape out of rotation, restore that tape to a blank database and launch that test database to confirm that your data is there. It is IMPERATIVE to restore to the TEST DATA BASE and not to the real/actual/working data base. If this procedure is not followed, you will overwrite your current data base.

1. Go to SQL Management Studio and Login
2. Right click on Server Name and choose “Facets”
3. On the Facet Menu choose “Surface Area Configuration” and configure as shown

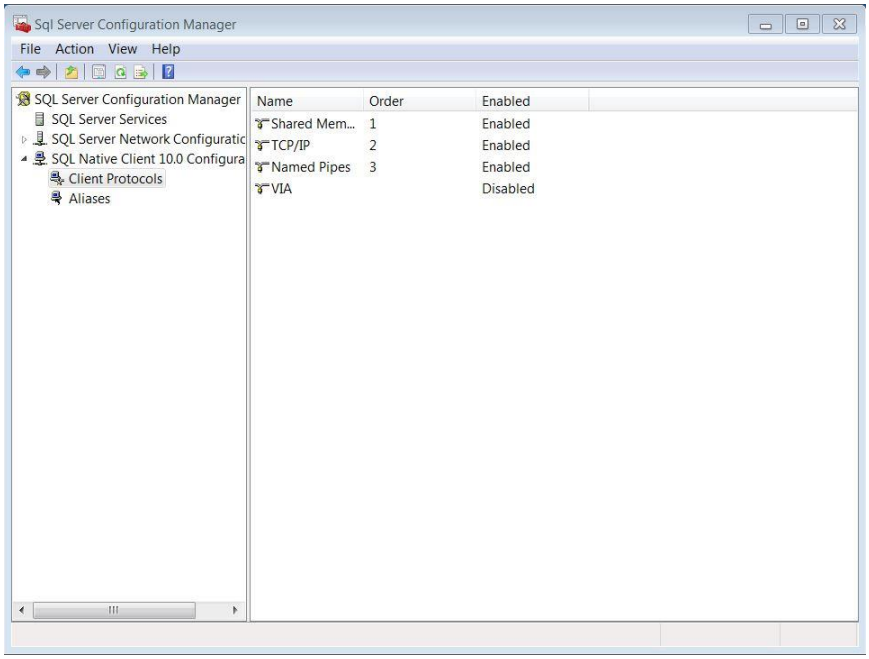


4. Hit “ok” and then right click on the Server Name and select “Restart”

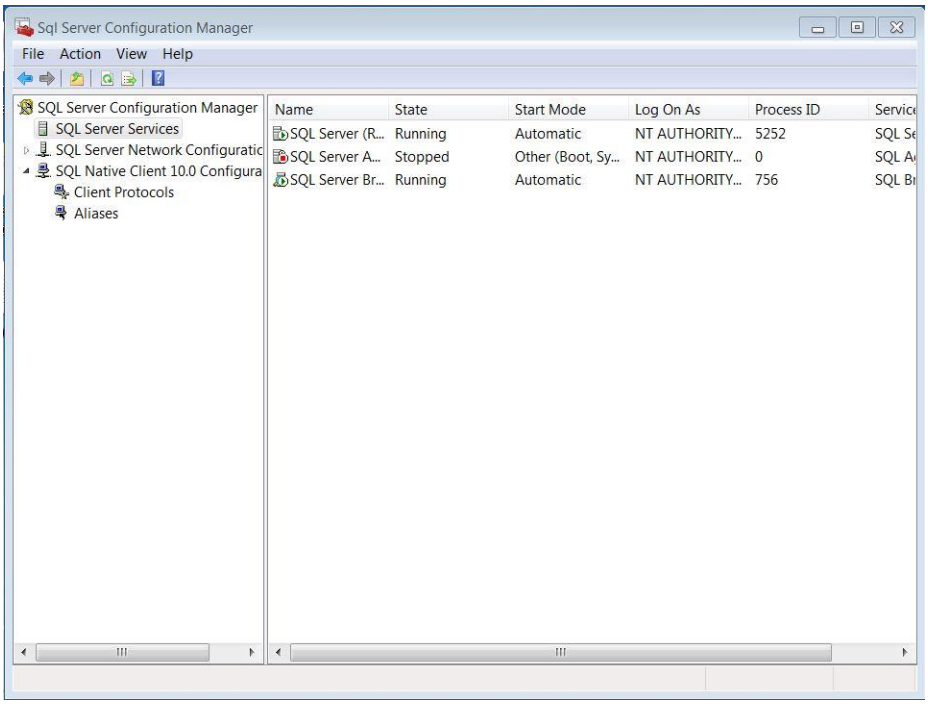
5. Next go to Start – Programs – Microsoft SQL Server 2008 – Configuration Tools – SQL Server Configuration Manager. Expand SQL Server Network Configuration and click on "Protocols for Instance", here we used RFMS Instance. Change the screen as shown.



6. Next expand SQL Native Client Configuration and click on "Client Protocols". Change the screen as shown

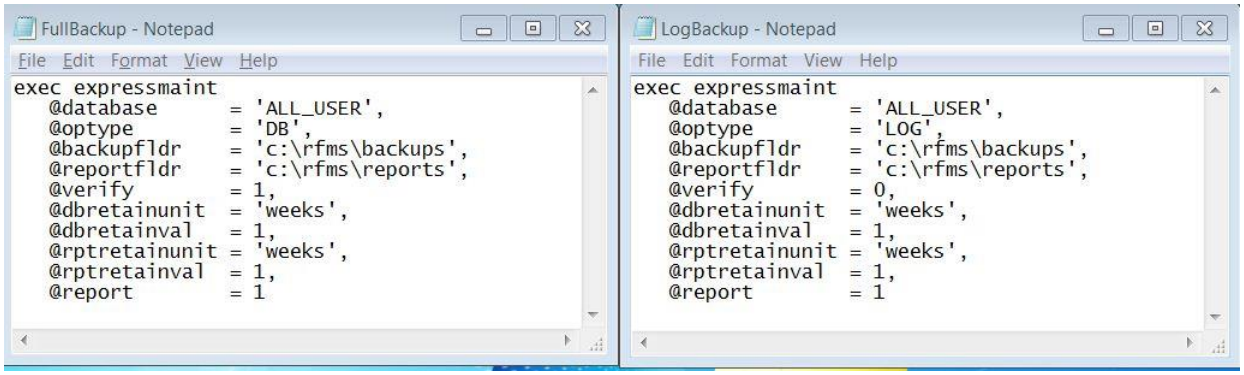


7. The last step to this section is to click on the SQL Server Services as shown. Modify as shown below and then right click on both that are running and select "restart".



8. Once the last section is completed, you need to create two folders called *Backups* and *Reports*. You can put these anywhere you would like. The path to where you created them will be used in the next step.

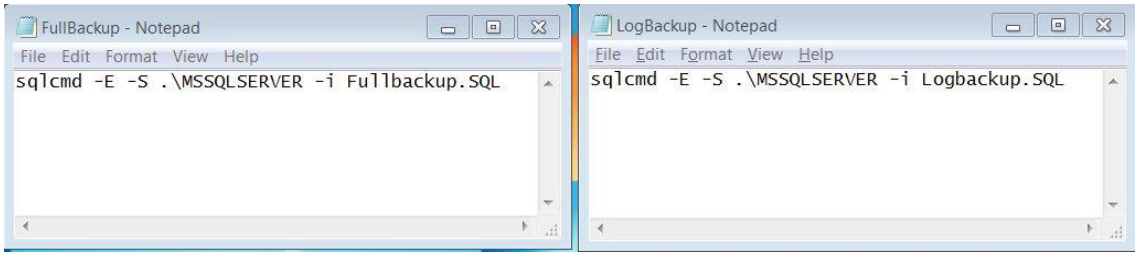
9. Open the RFMS Folder and find the *fullbackup.sql* file and the *logbackup.sql* file. If prompted for what program to open the file with, choose notepad. Then modify the ***@backupfldr*** and ***@reportfldr*** to reflect where you want the backup to store these files. Use the path created in the previous step. Make sure that your Tape Backup Program knows to backup this folder. Do the same for the *logbackup.sql* file. The screens will be similar to below.



Note: Our RFMS folder is located at c:\rfms, and we created the backup folder inside of it, so the new lines would be c:\rfms\backups and c:\rfms\reports. Once done, go to file and select save. Then go to file and select exit.

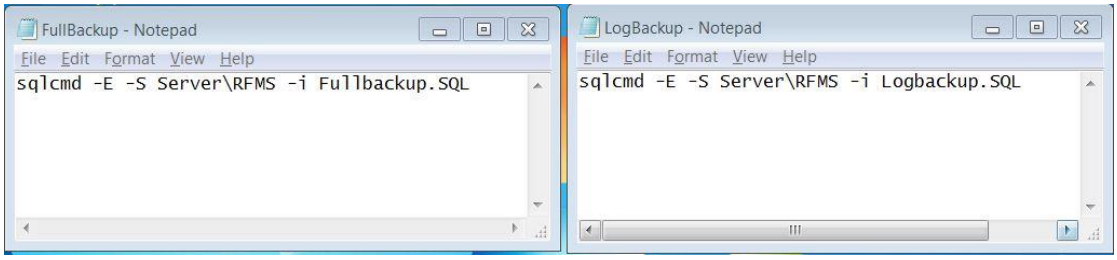
10. Next, you will need to look at the *fullbackup.bat* and *logbackup.bat file*. By default, it will look like below.

Before Modification



Note: The only section of the line that needs modified is the ".\MSSQLSERVER". This needs to be modified to match the Server Information from Step 19 in the "Installation of SQL Express Section". Since our Server Name was Server and our SQL Instance was RFMS, we used Server\RFMS

After Modification



11. Next browse to the RFMS Folder and launch *expressmaint.sql* by double clicking on the file. It should open with SQL Management Studio Express Tools. If it doesn't close it down and right click on the file. Choose Open With and choose SQL Management Tools from the list. Login using windows authentication and then once everything is loaded hit Execute. If this file is not in the RFMS folder, check your Backup folder and move from there to the RFMS folder. If it is not there or this does not launch, contact RFMS Support for assistance.

12. Next set up a Windows Scheduled Task to run both the fullbackup.bat and logbackup.bat files. The fullbackup.bat will back up the Database and the logbackup.bat will back up the transaction logs. Set a scheduled task to run these two files. We recommend running the fullbackup.bat after hours and prior to your Tape Backup Software and running the logbackup.bat file every hour of operation. This will get a backup of the Transactions through the day and assist the fullbackup.bat in data restores. These files will place the backups in the folder specified in step 9 of this document. Once done, check to make sure that they both run by right clicking on each of the backup batch files and selecting run. Then when complete check the Backups folder you created in step 9

13. Set your Backup Program to run after these backups are scheduled to run. Make sure that it is backing up the files stored in the backups and reports folder that you set in step 9, as well as, the RFMS Folder. This way you have both the SQL Database and the RFMS program files.

Note: It is a good idea to check your backups and reports folders to make sure that your scheduled tasks are running when designated to run. In addition to this, it is a good idea to do a Quality Control Check from time to time of your Backup Tapes to make sure that everything is getting backed up properly. Make sure that this Quality Control Method is done in a Separate Folder than your RFMS Folder.

Workstation Setup

We recommend that you have your IT Professional perform this document since it does involve Networking and possibly will need certain administrative rights other information related to your Network.

1. Network the workstation to the same Network as the Server. Make sure that you can browse the Server by name.

2. Map a drive to the RFMS Folder on the Server

Note: UNC Mapping can also be utilized

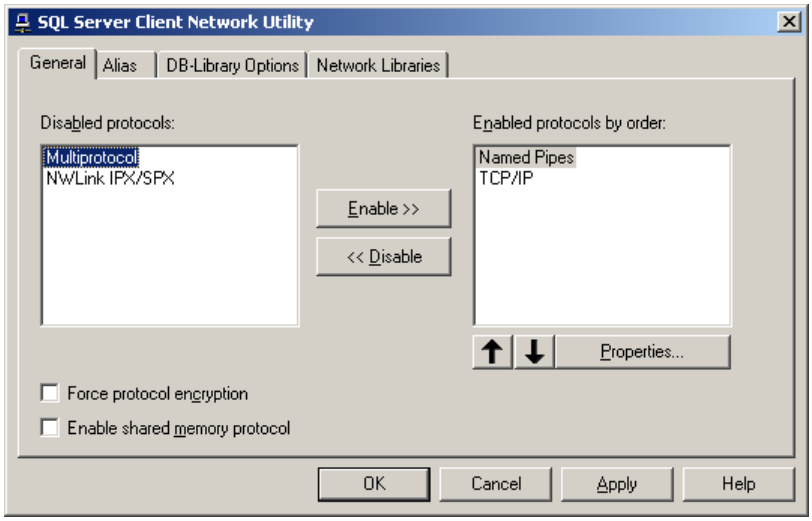
3. Create an icon to the RFMSNav.exe file located in the RFMS Folder. To do this part, browse to the mapped drive for your server. Right click on the RFMSNav.exe file and select “copy”. Then Go to the desktop and Right Click on the Desktop and select “Paste Shortcut”.

4. Launch RFMS. If RFMS returns an error message relating to RFMSLogon, use the Next Section to set up a Client Connection to the SQL Server.

Cliconfg Utility

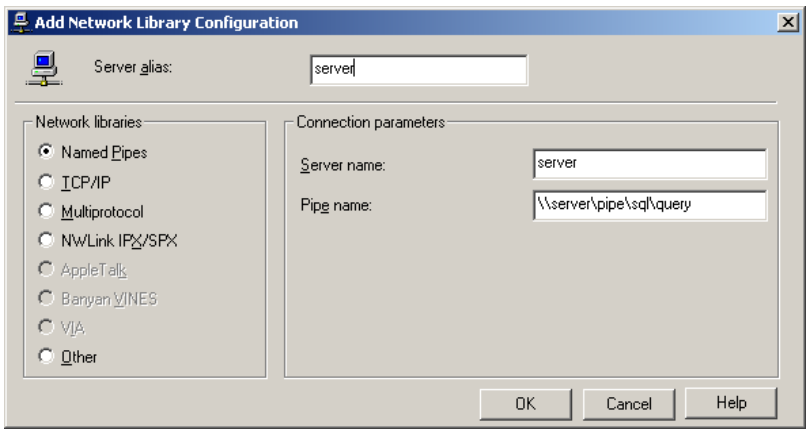
1. Before proceeding, you must know the SQL Server and SQL Instance Name. To get this go to the SQL Server and go to Start – Programs – Microsoft SQL Server – SQL Server Management Studio Express. You will see a screen like below, write down the information for the Server Name. This will be used later in this document.

2. On the workstations, Go to Start – run and type in cliconfg, you should see a screen like below. Add both the Named Pipes and TCP/IP over to the "Enabled Protocols by Order:"

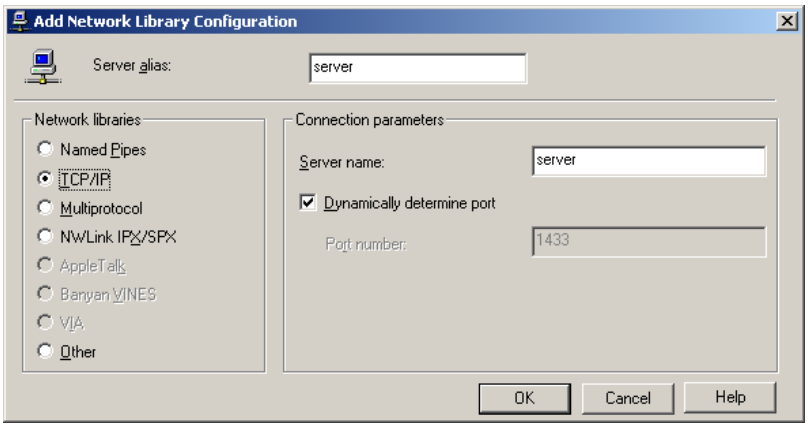


Note: Again both do not have to be enabled. We recommend enabling both in order to ensure RFMS is working. From there restricting to one protocol can be done. If just one protocol will be used, make sure that the protocol is configured to work on both workstations and Server and firewall ports open if needed. Consult your local IT Professional.

3. Next click on the Alias Tab. Type in the Server Name with alias if you installed SQL with an instance name. ***(Use information from Step 1.)*** Also select the Named Pipes option and hit ok on both screens and try to run RFMS. If it still doesn't launch then do step 4.



4. Go back into Cliconfg as in step 2, click on the Alias Tab and remove what was done in step 3. Next do the same as step 3 except this time select TCP\IP instead of Named Pipes and try launching RFMS.



5. If this does not allow connections, try turning off the firewall on both the Server and the Workstation to see if that allows connection. If so then have your IT Professional enable ports 1433 for UDP and TCP/IP, as well as port 1434 for UDP at the Server. Make sure that there is a separate firewall on the Internet Side of the router to protect your Server.

6. If none of the above allows a connection and other workstations are connecting, then try creating an ODBC connection to the SQL Server, if this too fails, then there is something blocking access to the Server from this workstation.