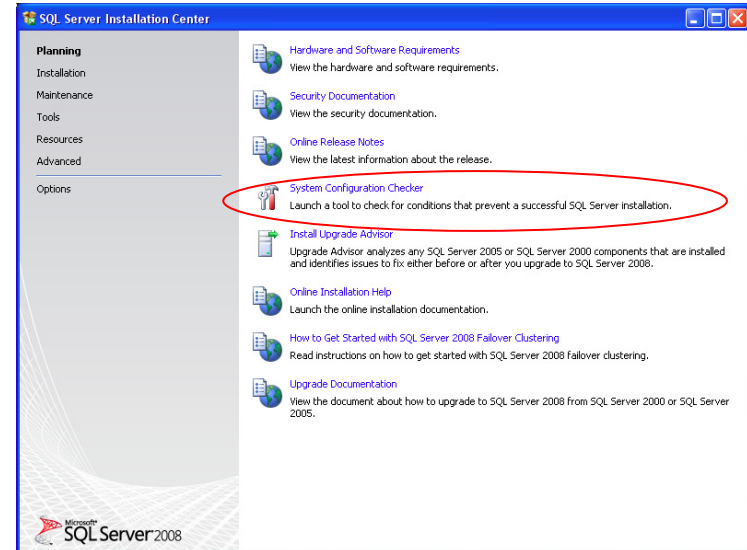


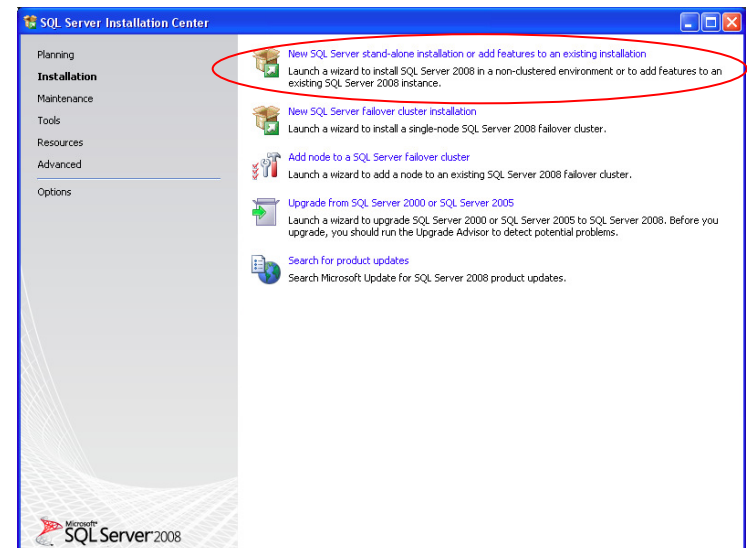
## Installing SQL Server Developer

Last updated 8/28/2010

1. Run Setup.Exe to start the setup of SQL Server 2008 Developer
2. On some OS installations (i.e. Windows 7) you will be prompted a reminder to install SP1 for compatibility purposes, select Run Program at this point.
3. Once the SQL Server Installation Center launches run the System Configuration Checker to make check for conditions that prevent SQL Server installation. This will tell you if you need to do anything before the install.
4. After you perform the required tasks in the previous step go to the Installation tab (second on the right)



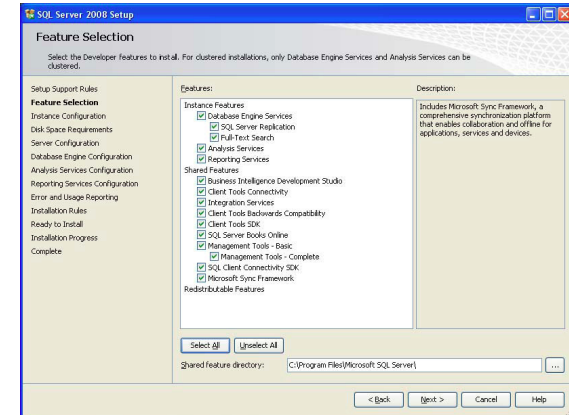
5. In most cases you will want to run a new SQL Server stand alone installation, but other options are available, for example if you have SQL Server 2005 installed, you have an option to update.
6. (CS779Note) If you are configuring the installation for CS779 and you might want to explore failover clustering. Note that you can go back and install this component at a later time.



7. The installer will check again to see if there are any issues with your system and prompt you to fix them (i.e. it will ask you to restart the computer), if everything passes press OK to continue.
8. Enter Product Key and agree to License Terms
9. Setup the Support Files (click Install). This will go through and install windows components for SQL Server.

**10. Feature installation:** Select the components of SQL server to install on your computer.

- a. Database Engine Services: This installs SQL Server engine on your system. (needed for both courses)
- b. SQL Server Replication: Allows for having synchronized copies of the data in two different locations. For example, this can be used in data distribution, synchronization, load balancing and disaster recovery.
  - i. (CS669) Not needed for this course
  - ii. (CS779) This is a worthy subject for a term project, and can be installed at a later time. Note that you may need two separate systems.
- c. Full Text Search: In some database implementations where there are a lot of text data that needs to be searched, full text search allows for additional indexing for faster data retrieval.
  - i. (CS669) Not needed for this course
  - ii. (CS779) This is a worthy subject for a term project, and can be installed at a later time.
- d. Analysis Services: Provides support for analytical processing (OLTP) and data mining, such as when you set up a data warehouse and want to perform some ad hoc queries against cubes
  - i. (CS669) Not needed for this course, as this is an advanced topic.
  - ii. (CS779) If you plan to do a Data Warehouse project or data mining you will need this.
- e. Reporting Services: Allows for creation of Reports based on data in Online Transaction Processing (most common databases) and Data Warehouses. The reports can be in the form of tables, charts, and other formats.
  - i. (CS669) Not needed for this course
  - ii. (CS779) This is a worthy component to explore as part of a term project.
- f. Business Intelligence Development studio: A version of Visual Studio 2008 with some DBMS components for Analysis services, Replication Services, etc.
  - i. (CS669) You will probably not need this component, but it is recommended that you install it for future courses as it's an integral part of SQL Server.
  - ii. (CS779) This component is needed for most advanced topics so it should be installed.

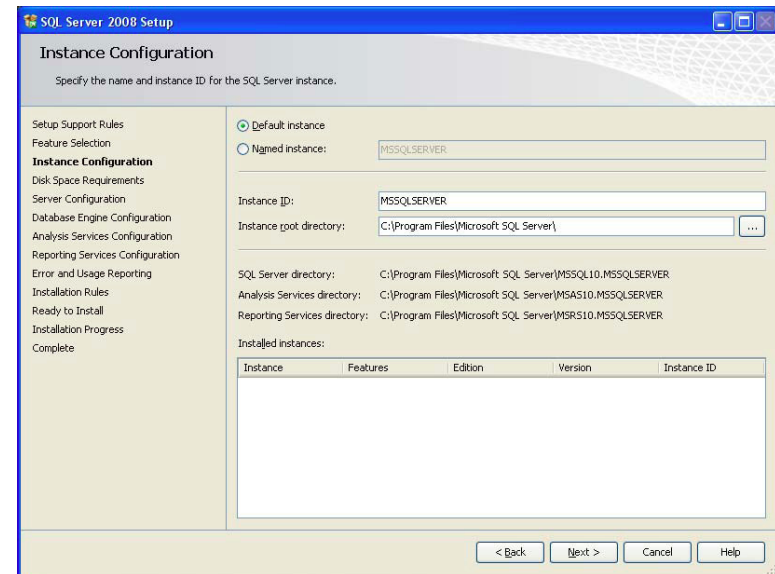


- g. Client Tools Connectivity: components to communicate between clients and servers. (This is needed for all courses)
- h. Integration Services: This is needed for data warehouse Extraction Transformation Loading Processes when data needs to be transformed and loaded into the database.
  - i. (CS669) Not needed for this course
  - ii. (CS779) If you plan to do a DW project or data mining you will need this.
- i. Client Tools Backwards Compatibility: This is not needed for the courses in this program, but in production environments if you connect to older versions of SQL Server from management tools this option is needed.
- j. Client Tools SDK: Additional Software Development Kit with recourses for developers.
  - i. (CS669) Not needed for this course
  - ii. (CS779) You might want to do some research to see if there might be anything here of interest for a term project, especially if you enjoy programming in Object Oriented languages.
- k. SQL Server Books Online: This is the documentation for SQL Server. Note that this information is also available online.
- l. Management Tools Basic & Complete: you will need this to work with SQL server, this is the GUI interface that include components such as the GUI Query interface as well as components for advanced topics such as analysis and integration services as well as the database tuning advisor. It is recommended that you install the Management Tools Complete for all courses.
- m. SQL Client Connectivity SDK: Additional Software Development Kit with recourses for developers.
  - i. (CS669) Not needed for this course
  - ii. (CS779) You might want to do some research to see if there might be anything here of interest for a term project.
- n. Microsoft Sync Framework- Synchronization platform for collaboration with offline applications
  - i. (CS669) Not needed for this course
  - ii. (CS779) You might want to do some research to see if there might be anything here of interest for a term project.

## 11. Feature Configuration

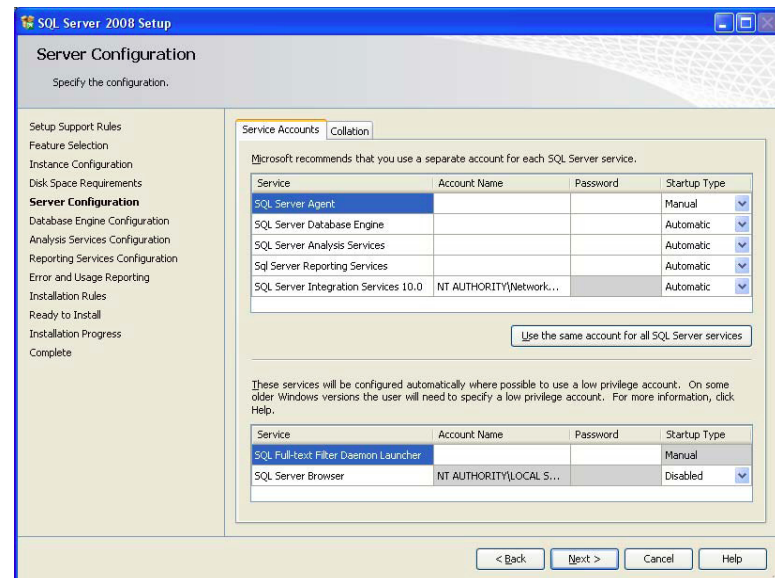
- a. Generally you can leave the Default Instance. The Named instances would be used if you want to create multiple instances of SQL Server on the same machine. If you are installing SQL Server for CS779 this might be a worthy topic to explore for the term project.
- b. Choose the installation path for SQL Server (default is Program Files folder within C drive.)

## 12. Review the Disk Space Requirements and click next



## 13. Under Server Configuration set both SQL Server Agent and SQL Server Database Engine to Manual (unless you want it to run all the time with your system which will use up a lot of system resources when you are not using the sql server). These are services that run components of SQL Server.

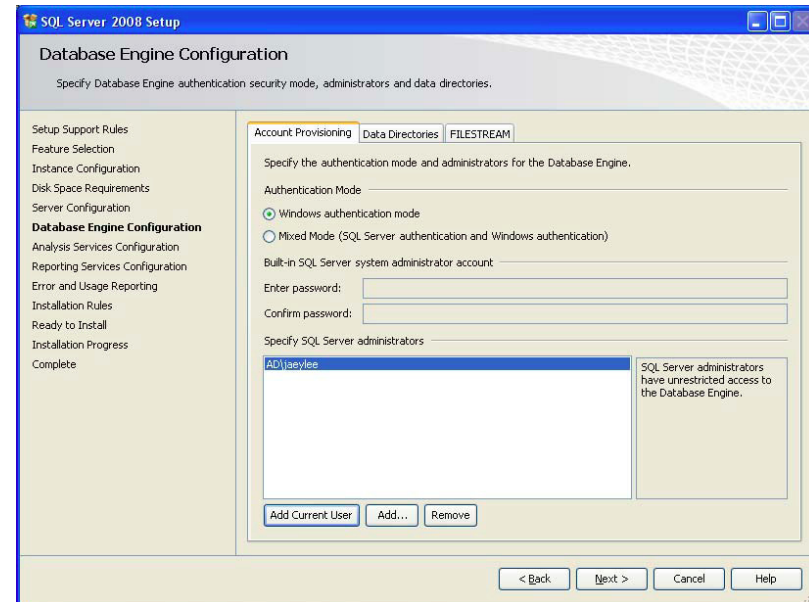
- a. **SQL Server Agent** is used for running scheduled jobs, such as backups, scheduled sql scripts and db maintenance. If this was a production environment you would want this service set to automatic.
- b. You will need **SQL Server Database Engine** to run SQL Server. Since DBMS uses a lot of system resources I would recommend to run it manually when you need it.
- c. If you installed other components for SQL Server for advanced topics, you should also set them to manual so that they don't run on system startup.



- d. Select **Use the same account for all SQL Server Services** and select **NT AUTHORITY\SYSTEM**. This will allow the services to run with your system account.
- e. SQL Server Browser can be left disabled.
- f. Check the collation tab at the top. For our purposes this can be left at default SQL\_Latin1\_General\_CP1\_CI\_AS which is Latin1-General case insensitive. This drives how SQL server recognizes commands, for example you can choose a different language or set it to be case sensitive. Some applications require for you to choose a specific collation.

## 14. Database Engine Configuration

- a. Account Provisioning:
  - i. Choose the authentication mode for the system. Windows authentication will use your windows account privileges to connect to SQL Server. I recommend using Mixed Mode so that there is an additional built in SA account with a separate user name and password as well as your built in windows account.
  - ii. Make sure to add users (such as your account) to SQL Server Administrators (click on Add Current User).
  - iii. These accounts will allow you to log into SQL Server.
  - iv. Note that the server itself does not need these accounts and runs as a service which you specified in previous step.
- b. You can leave Data Directories to defaults. Data Directories can be changed if you have a multiple disk environment and for performance want to separate out where different parts of the DBMS go. For example, in production environments the LOG components should go on a separate disk array, which will improve performance of the system.
- c. If you are installing SQL Server for CS779 you might want to enable FILESTREAM if you plan to explore large file types such as Binary language objects (BLOB)



15. (CS779 Only) If you selected Analysis Services during the install, you will need to provision accounts for those services. You can just click on the “Add Current User”.

16. (CS779 Only) If you selected Reporting Services during the install, choose the native mode to enable it after install.
17. It's up to you to select Error and Usage Reporting, click next.
18. Run the Installation Rules so that the installer can double check the installation options.
19. Ready To Install reviews your configuration.-Click Install (this will take some time)
20. Once the installation is complete, run a service pack installation. You can download the latest service pack from here:  
<http://support.microsoft.com/kb/968382>

### **Installing service Pack**

1. Start the Service Pack Installer after you download it.
2. Agree to the License Terms
3. Confirm the Installed Features (this is what you installed earlier)
4. Check File Use, if some components of SQL Server are running, the system will shut them down/reboot as part of the install. Make sure to wait for the check to complete before clicking Next.
5. Ready to Update will confirm what will be updated. – Click on Update to start the process.

You are now ready to use SQL Server.

## **Working with SQL Server 2008**

### **Starting SQL Server**

If during setup you selected for SQL Server to start manually then you will need to go to the Windows Control Panel->Administrative Tools->Services

- Start the following service: SQL Server (Instance Name)
- Note that when you are no longer using SQL Server you can shut the service down to save on system resources.
- You may want to put the services shortcut to your desktop for quick access

### **Logging into SQL Server**

- To work with SQL Server you will use the SQL Server Management Studio. You will find it under Microsoft SQL Server 2008 program group.
- In the Connect to Server dialog box you can choose the Windows Authentication and your account or the SA account that you created earlier.