

Chapter 8 – Database Operations

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Index

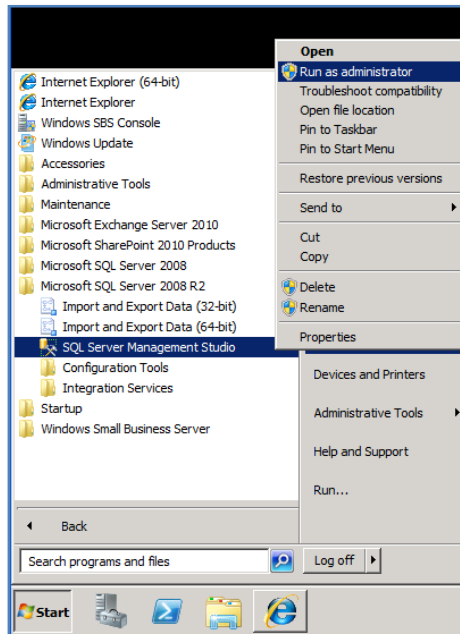
- 8.1 Scope**
- 8.2 Detaching a database**
- 8.3 Attaching a database**
- 8.4 Attaching a renamed database**
- 8.5 Enabling Binary Large Object Storage (BLOB) with SharePoint**
- 8.6 Compressing an SQL Database**
- 8.7 Restoring data from unattached database**
- 8.10 Conclusion**

Chapter 8 – Database Operations

8.1 Scope

SharePoint Foundation Server 2010 (WSF) depends on databases for both its configuration and content storage. Not only is it important to understand what database options are available and how to install them, it is also critical be able to maintain these to ensure that WSS v3 continues to run optimally.

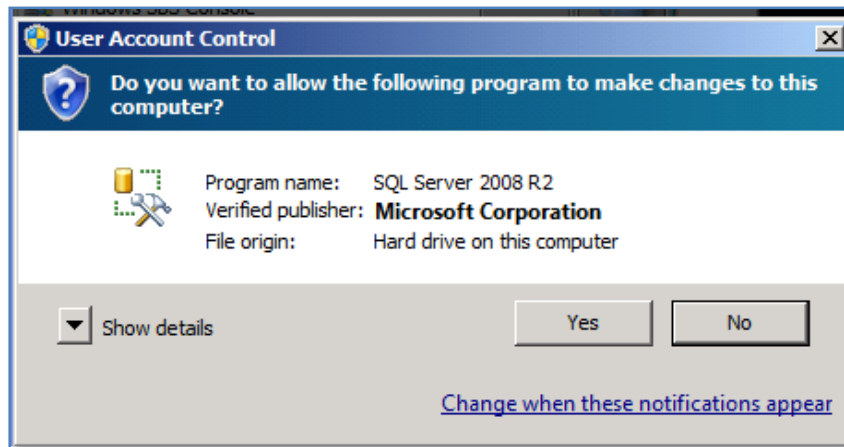
8.2 Detaching a database



The easiest way to detach an existing SQL database is to use the SQL Server Management Studio from the server console. To run this simply select **Start | All Programs** and then, in this case, **Microsoft SQL Server 200 R2** and finally **SQL Server Management Studio**.

In most cases you will need to run this as an administrator so **right mouse click** on the program icon and select **Run as Administrator** from the menu that appears.

Chapter 8 – Database Operations



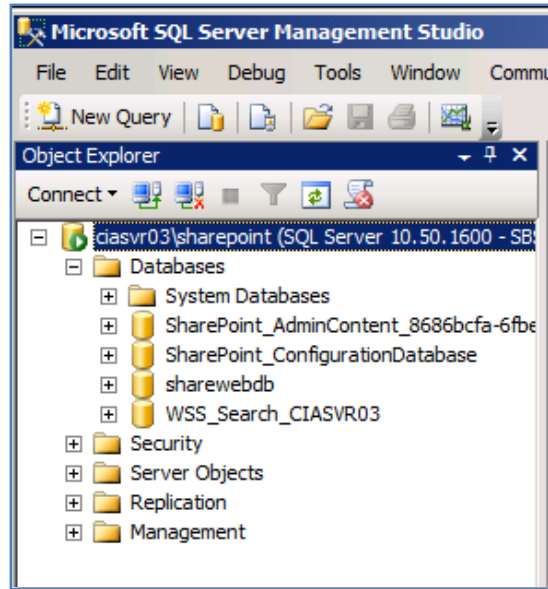
You will then need to accept the *User Account Control* dialog by pressing the **Yes** button.



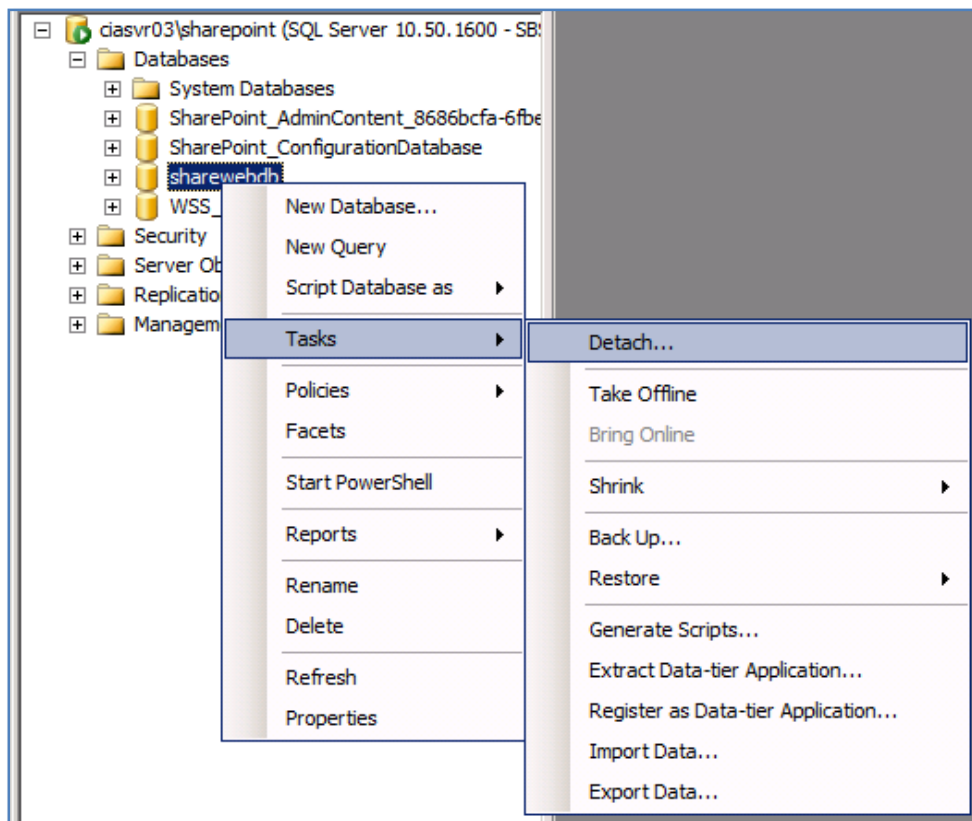
The next step is to connect to the appropriate SQL instance. This involves inserting the correct value into the *Server name* field. In this case we want to connect to the *SharePoint* instance on server *CIASVR03* so we enter **CIASVR03\SHAREPOINT** into the *Server name* field.

Press the **Connect** button to continue.

Chapter 8 – Database Operations

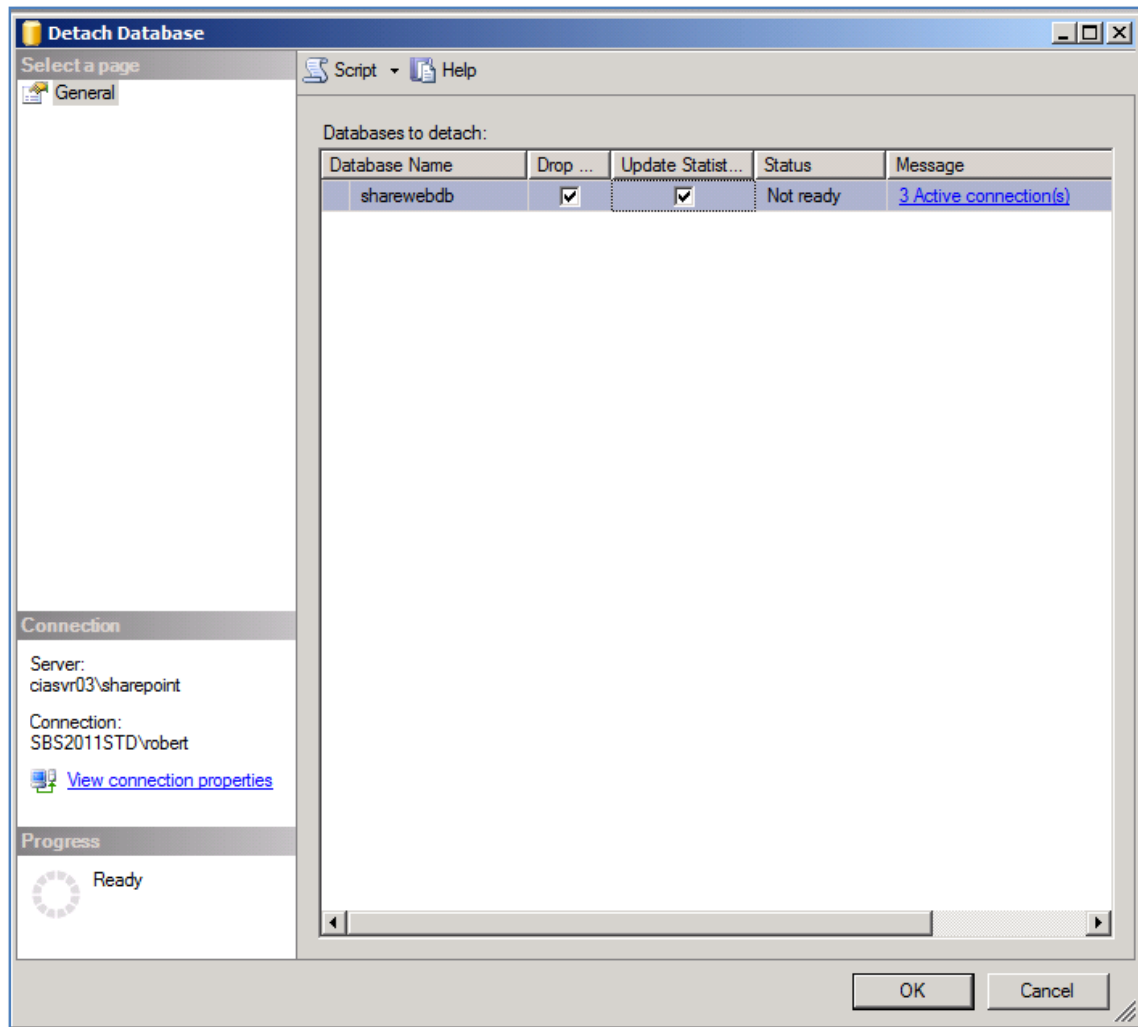


You should now see a number of folders on the right hand side. If you expand the folder *Databases* you should see a list of databases available in this instance as shown above.



To detach a database simply locate the database name under the *Databases* folder and **right mouse click** on it. From the menu that appears select **Tasks** then **Detach**.

Chapter 8 – Database Operations

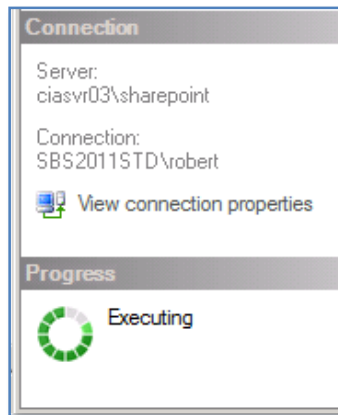


You should now see the *Detach Database* window as shown above. In here will be listed the name of the database you wish to detach along with two check boxes. It is recommended that you check both the *Drop Connections* and *Update Statistics* options prior to detaching. This will ensure that any remaining applications that are connected to this database are terminated before the detach.

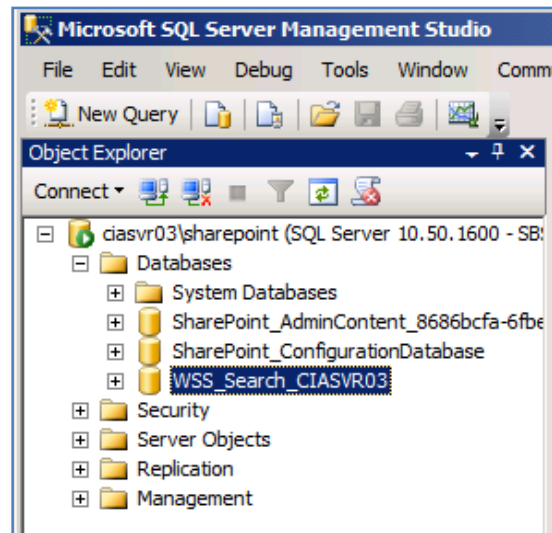
It is important to note that dropping connections will automatically terminate access any application has to this SQL database, active or not. It is always therefore important to ensure that no applications are actively using this database prior to the detach process. Even when this has happened, it is still possible that some remaining inactive connection remains and this is why it is recommended that you check both options.

Press the **OK** button when you are ready to proceed with the detach process.

Chapter 8 – Database Operations



Once you press the **OK** button you should see a green spinning icon in the lower left of the screen indicating the detach process is executing. This process may take a few seconds depending on the size of the database and the speed of your hardware.

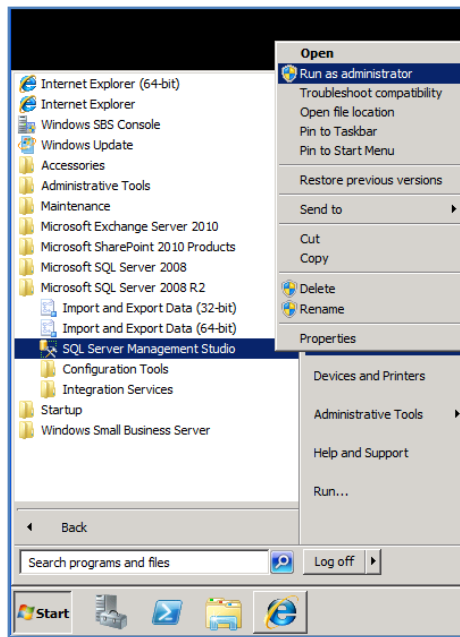


When the process is successfully completed you should be returned to the main window and no longer see the database you detached listed.

The source database files still remain on your hard disk, they simply are no longer managed by the instance of SQL you just detached from. You can now move these files to another location or attach them to another SQL instance if desired.

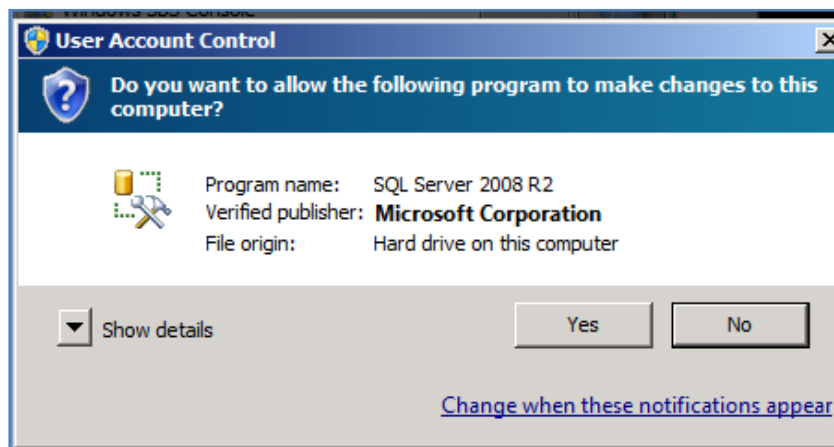
8.3 Attaching a database

Chapter 8 – Database Operations



The easiest way to attach an existing SQL database is to use the SQL Server Management Studio from the server console. To run this simply select **Start | All Programs** and then in this case **Microsoft SQL Server 2008 R2** and finally **SQL Server Management Studio**.

In most cases you will need to run this as an administrator so **right mouse click** on the program icon and select **Run as Administrator** from the menu that appears.



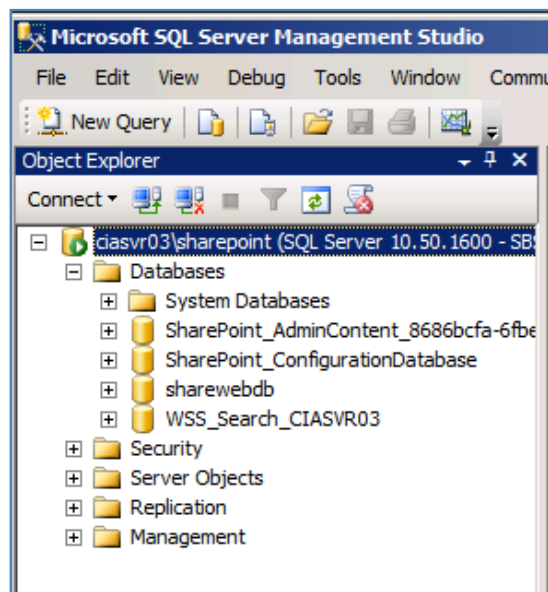
You will then need to accept the *User Account Control* dialog by pressing the **Yes** button.

Chapter 8 – Database Operations



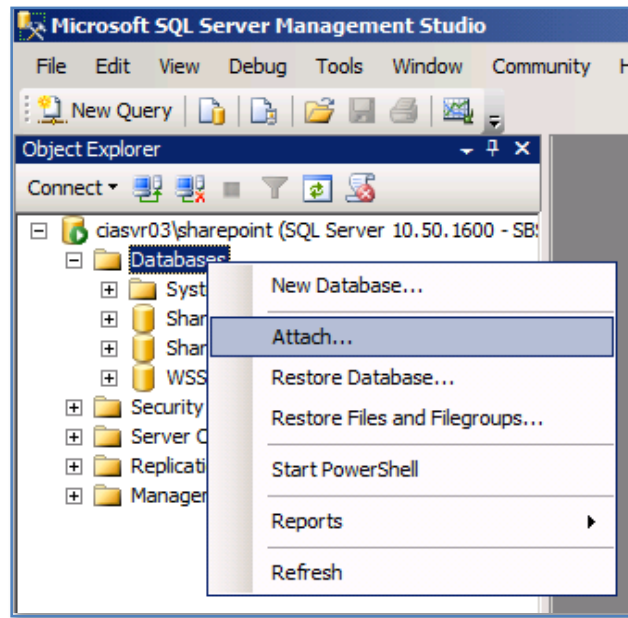
The next step is to connect to the appropriate SQL instance. This involves inserting the correct value into the *Server name* field. In this case we want to connect to the *SharePoint* instance on server *CIASVR03* so we enter **CIASVR03\SHAREPOINT** into the *Server name* field.

Press the **Connect** button to continue.

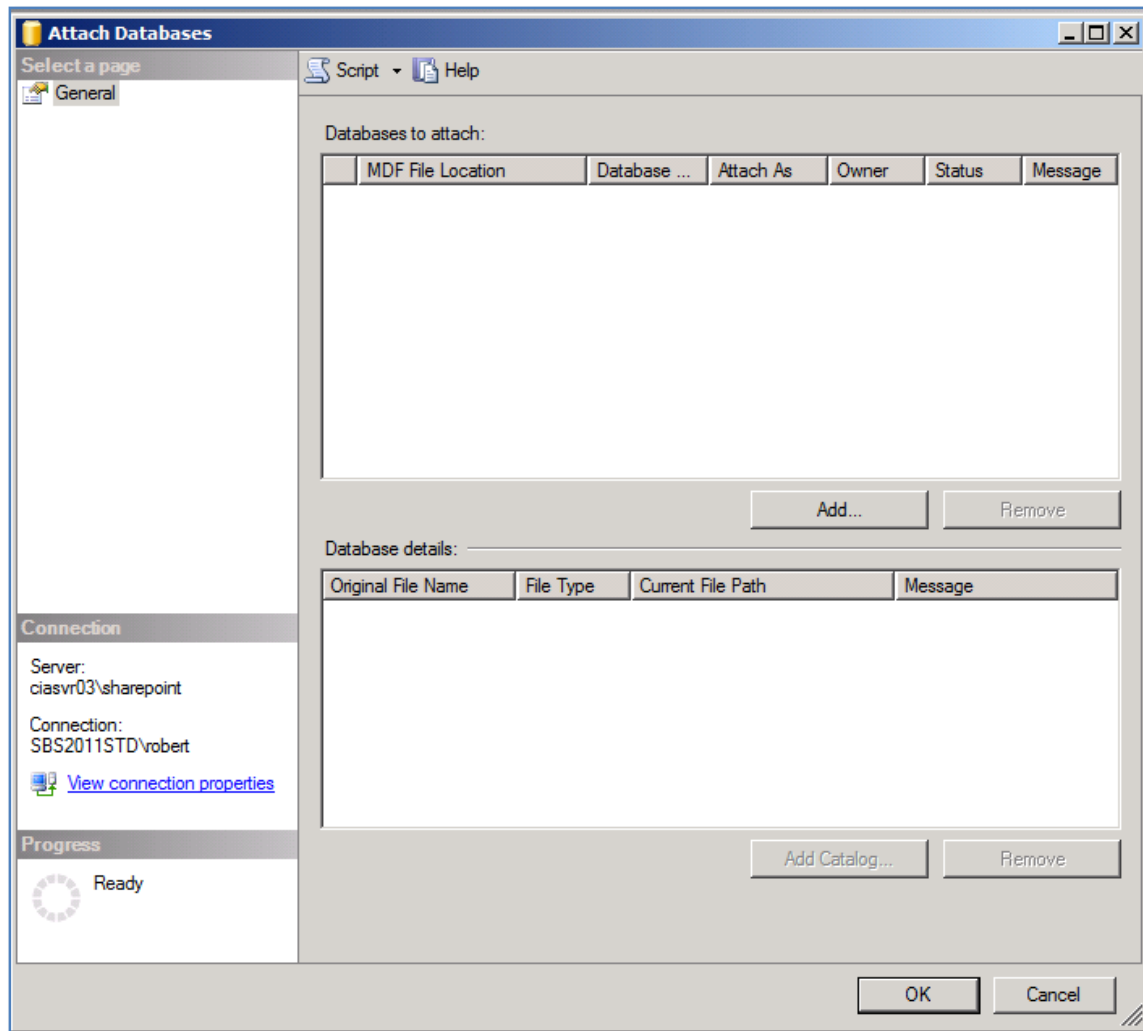


You should now see a number of folders on the right hand side. If you expand the folder *Databases* you should see a list of databases available in this instance as shown above.

Chapter 8 – Database Operations

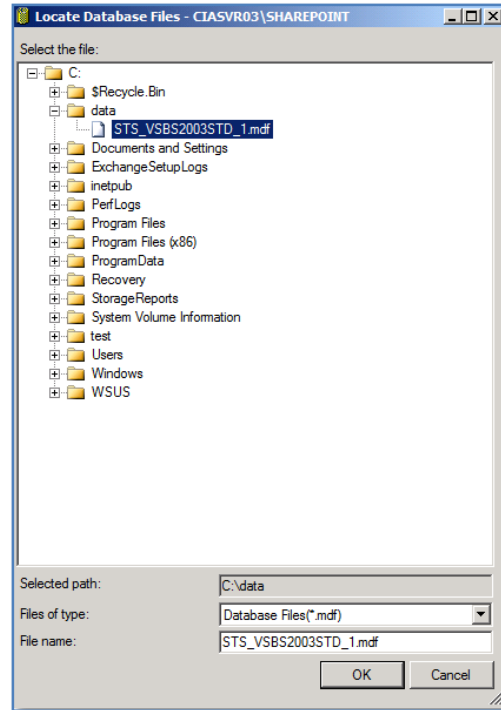


To attach database **right mouse click** on the *Database* folder and select **Attach** from the menu that appears.



In the *Attach Databases* window that appears press the **Add** button to locate the databases you wish to attach on your hard disk.

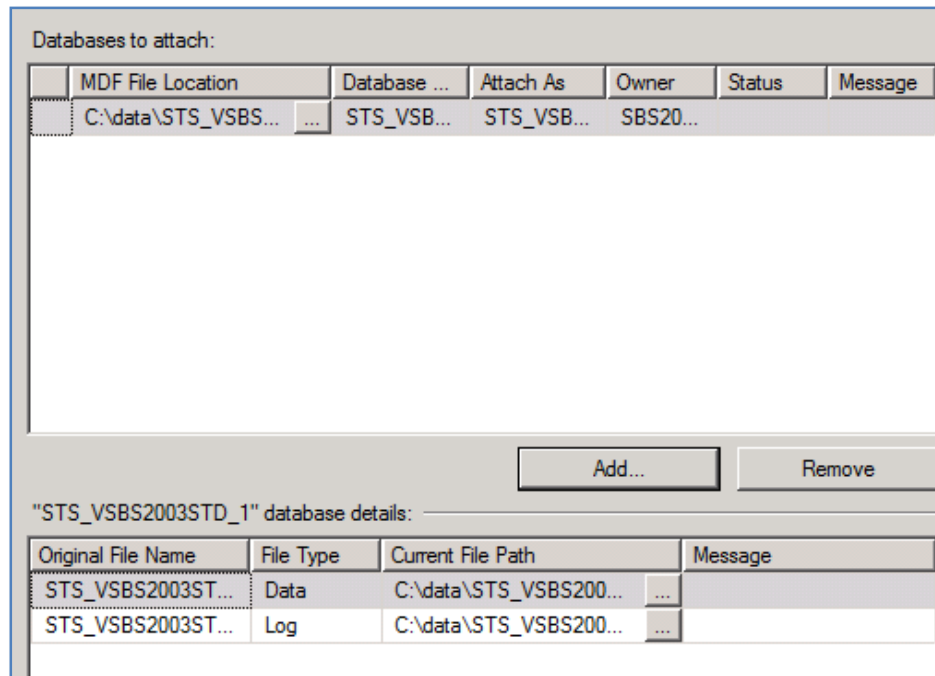
Chapter 8 – Database Operations



Use the explorer style window to locate the database you wish to attach. It is important that an SQL database consists of two files an MDF and a LDF file. Both of these must be present on the system for the attach to be successful.

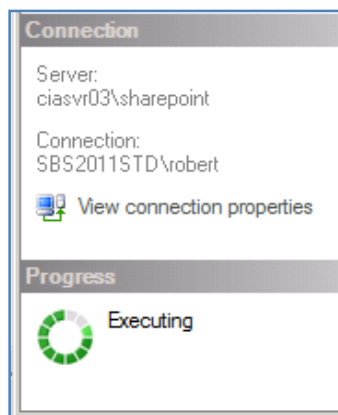
Select the database you wish to attach (in this case STS_VSBS2003STD_1) and press the **OK** button.

Chapter 8 – Database Operations



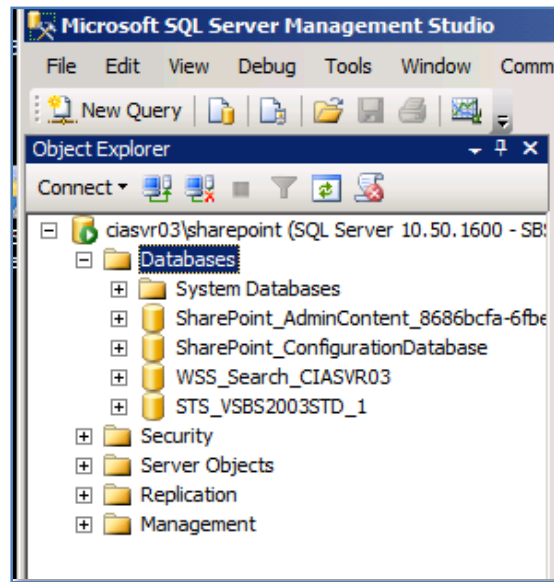
You should now see listed the database to attach in the top window as well as the files that constitute this database in the windows below (an MDF and LDF file).

Press the **OK** button to attach this database.



Once you press the **OK** button you should see a green spinning icon in the lower left of the screen indicating the detach process is executing. This process may take a few seconds depending on the size of the database and the speed of your hardware.

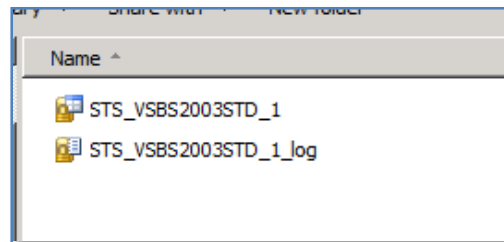
Chapter 8 – Database Operations



When the process is successfully completed you should be returned to the main window and no see the database you attached listed.

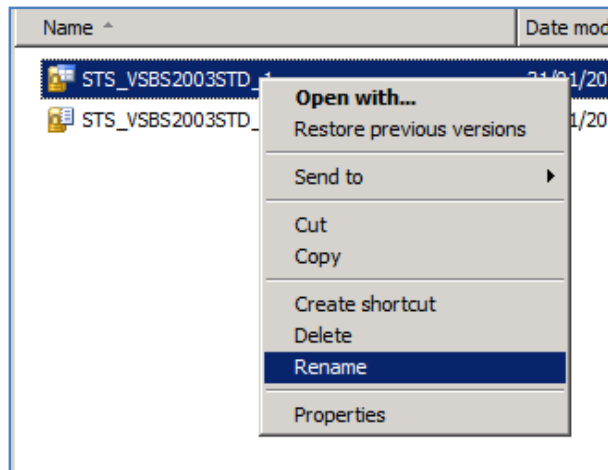
This database is now connected to and managed by this instance of SQL. This means that applications can connect to this instance of SQL and take advantage of this database for their needs while having SQL manage the information for them.

8.4 Attaching a renamed database

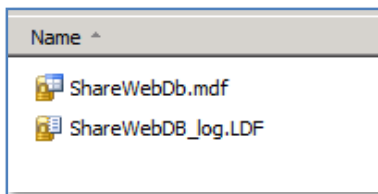


There may be cases where you wish to attach databases to an SQL server but you wish them to appear as a different name in the new instance of SQL.

Chapter 8 – Database Operations



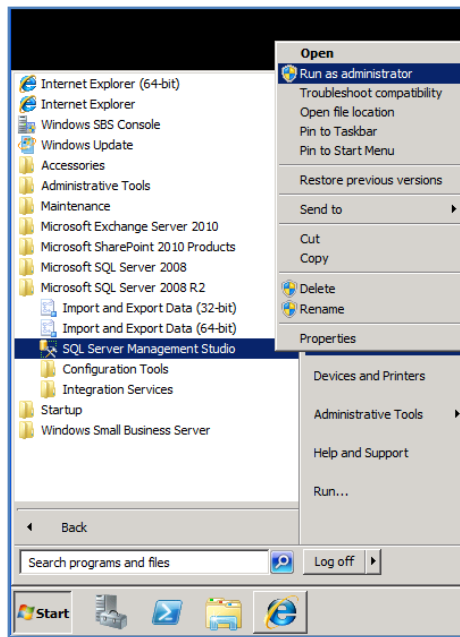
Once the original database files (MDF and LDF) have been detached and copied to their new location you can simply rename them using the file system by **right mouse clicking** on the filename and selecting **Rename** from the menu that appears.



It is recommended that you retain the naming convention of the LDF file by leaving the _log suffix to assist with identification in the future.

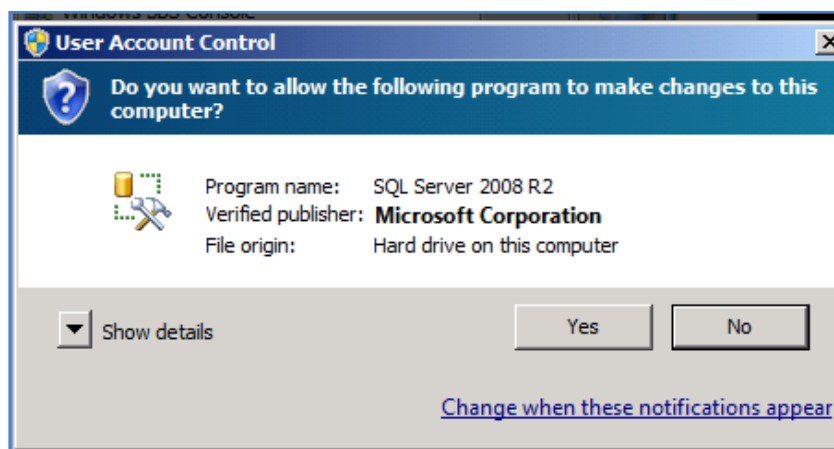
As you can see from the above screen shot the files have now been renamed to ShareWebDB.mdf and ShareWebDB_log.ldf.

Chapter 8 – Database Operations



The easiest way to attach an existing SQL database is to use the SQL Server Management Studio from the server console. To run this simply select **Start | All Programs** and then in this case **Microsoft SQL Server 200 R2** and finally **SQL Server Management Studio**.

In most cases you will need to run this as an administrator so **right mouse click** on the program icon and select **Run as Administrator** from the menu that appears.



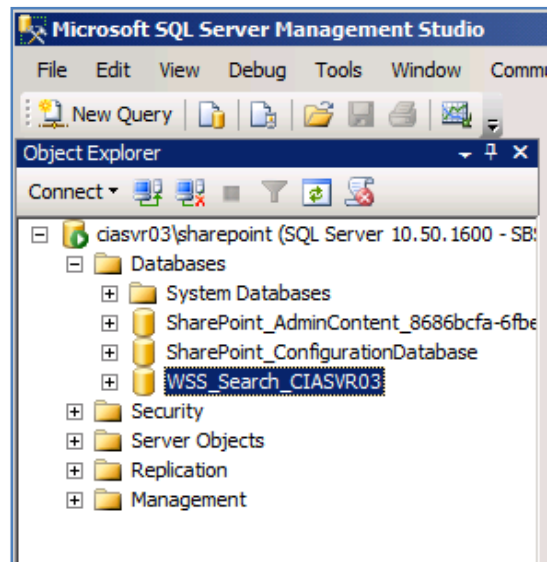
You will then need to accept the *User Account Control* dialog by pressing the **Yes** button.

Chapter 8 – Database Operations



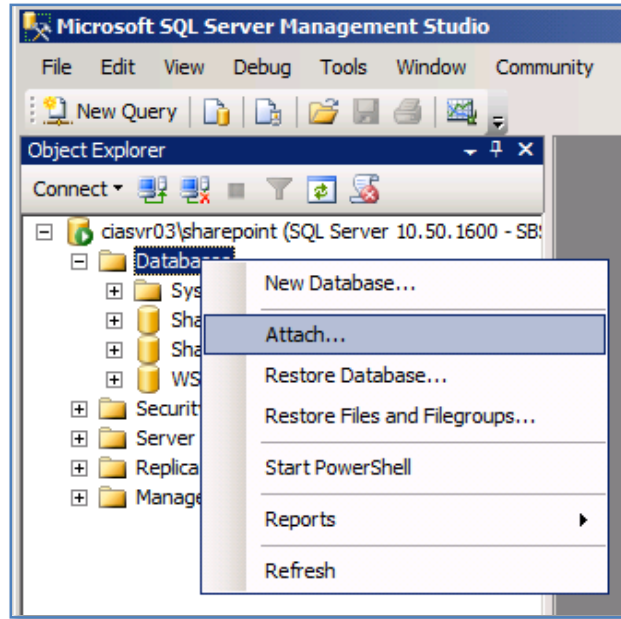
The next step is to connect to the appropriate SQL instance. This involves inserting the correct value into the *Server name* field. In this case we want to connect to the *SharePoint* instance on server *CIASVR03* so we enter **CIASVR03\SHAREPOINT** as the Server name.

Press the **Connect** button to continue.

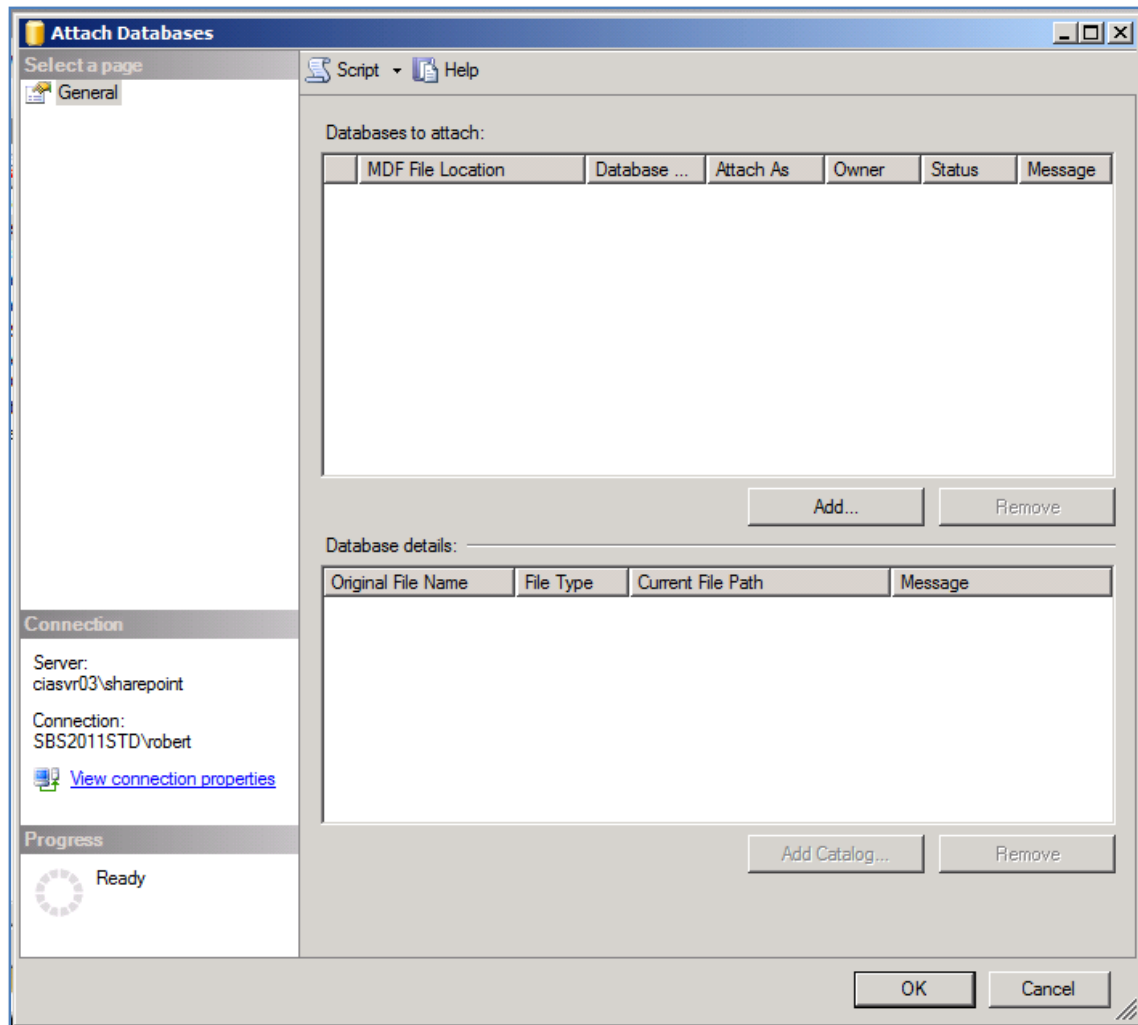


You should now see a number of folders on the right hand side. If you expand the folder *Databases* you should see a list of databases available in this instance as shown above.

Chapter 8 – Database Operations

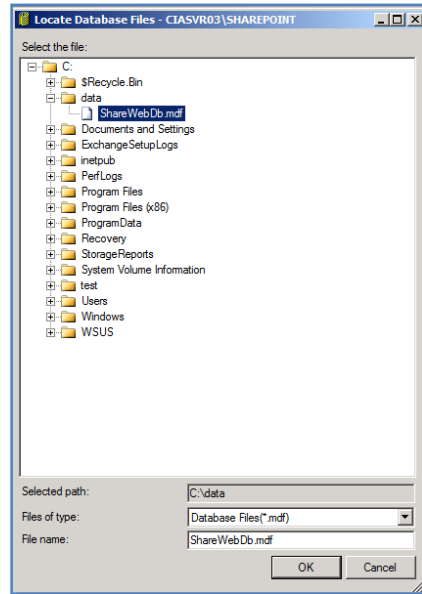


To attach database **right mouse click** on the *Database* folder and select **Attach** from the menu that appears.



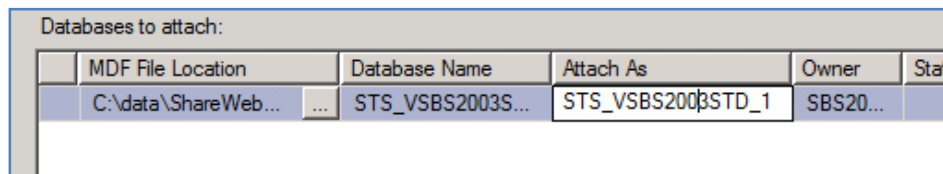
In the *Attach Databases* window that appears press the **Add** button to locate the databases you wish to attach on your hard disk.

Chapter 8 – Database Operations

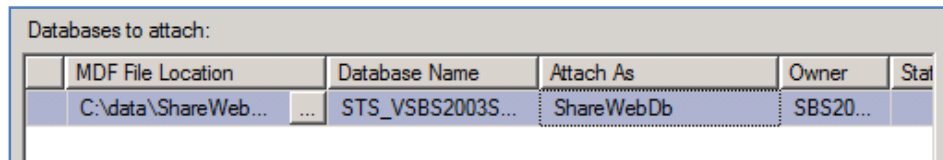


Use the explorer style window to locate the database you wish to attach. It is important that an SQL database consists of two files an MDF and a LDF file. Both of these must be present on the system for the attach to be successful.

Select the database you wish to attach (in this case ShareWebDB) and press the **OK** button.



In the top part of the *Attach Databases* window you will see the MDF file location you have selected but you will see under that *Attach As* column the original name of the database. Simply click in this field and edit the entry to be name of the new database. In this case we change the name from STS_VSBS2003STD_1 to ShareWebDb.



After the change the *Attach As* column should display the name of the new database (in this case ShareWebDB). Check the display to ensure it is spelt correctly.

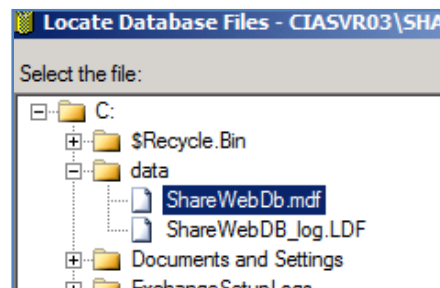
Chapter 8 – Database Operations

"STS_VSBS2003STD_1" database details:

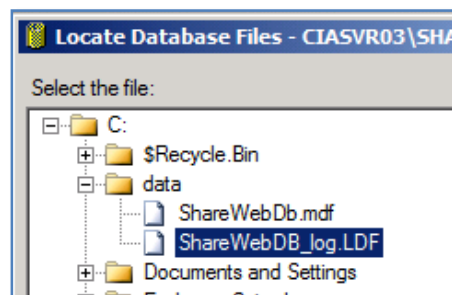
Original File Name	File Type	Current File Path	Message
STS_VSBS2003STD_1.mdf	Data	C:\data\STS_VSBS200...	Not Found
STS_VSBS2003STD_1_log.LDF	Log	C:\data\STS_VSBS200...	Not Found

In the bottom part of the *Attach databases* window under the *database details* section you will again see the name of the original database. You will also notice that the *Current file* path also lists the name of the old database and the final column will display *Not Found*.

To update the file details press the browse button (the one with the three dots) at the right of the *Current File Path* field.



This will now display a file explorer that allows you highlight the location of the MDF file. Simply select the file and press the **OK** button.



Repeat the process for the LDF file but in this case select the appropriate LDF file. Press the **OK** button when complete.

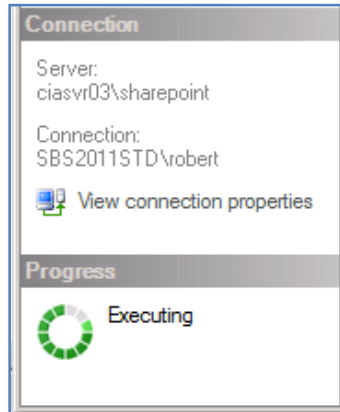
"STS_VSBS2003STD_1" database details:

Original File Name	File Type	Current File Path	Message
ShareWebDb.mdf	Data	C:\data\ShareWebDb.mdf	
ShareWebDB_log.LDF	Log	C:\data\ShareWebDB_log.LDF	

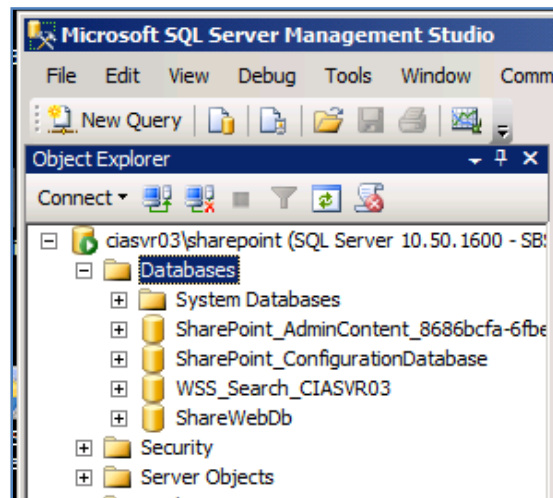
Chapter 8 – Database Operations

The *database details* window should now display the new database name for both the MDF and LDF files. You should also see that no messages are displayed in the *Message* column.

Press the **OK** button to attach the database.

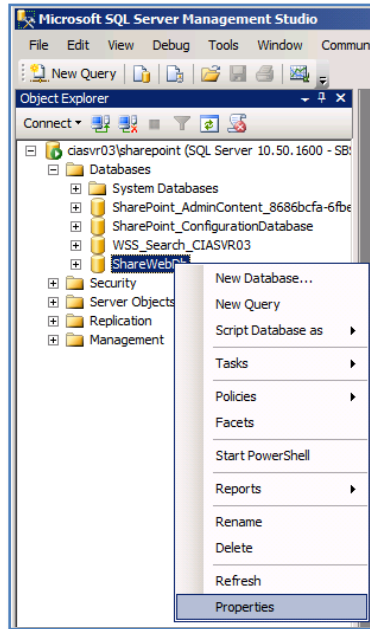


Once you press the **OK** button you should see a green spinning icon in the lower left of the screen indicating the detach process is executing. This process may take a few seconds depending on the size of the database and the speed of your hardware.

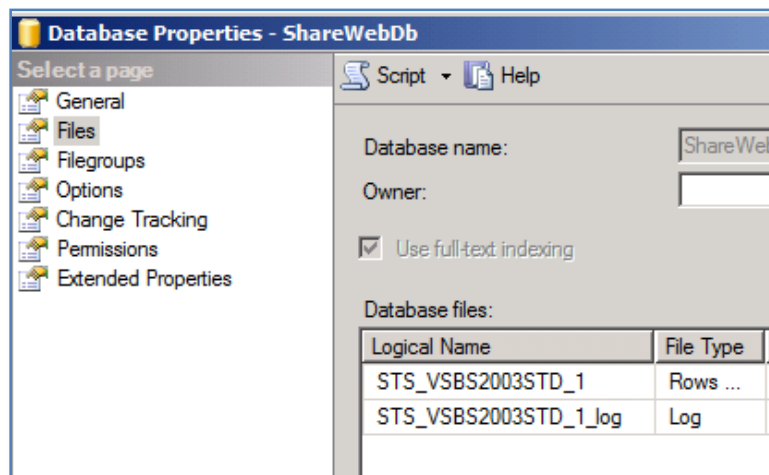


You should now see the new name of the database listed under the *Databases* folder.

Chapter 8 – Database Operations

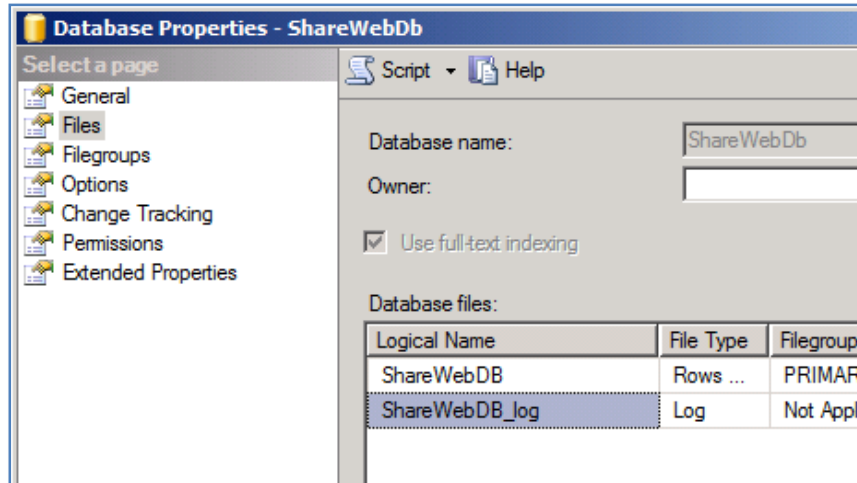


Right mouse click on the database name you just attached and select **Properties** from the menu that appears.



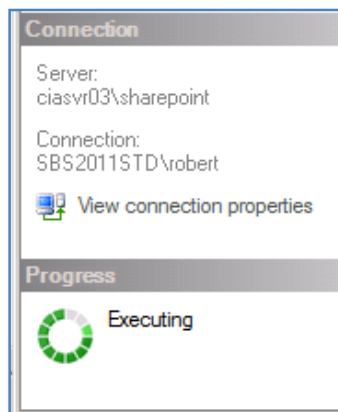
Select the **Files** options on the right. On right you will again see the name of the old database files under the *Logical Name* column.

Chapter 8 – Database Operations

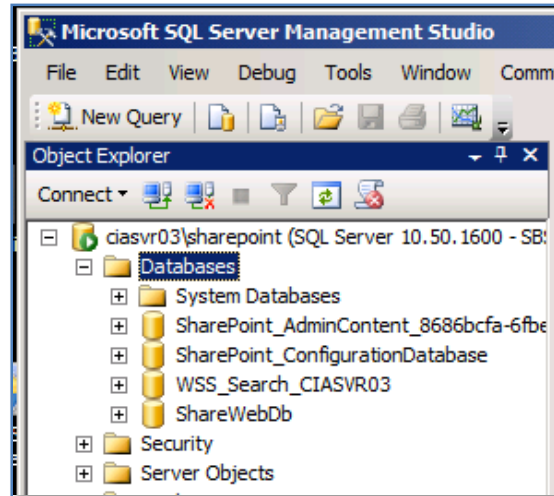


To update these to the name of the new database simply click in the field and edit the entry. Ensure that you enter the correct details for each file (MDF and LDF) and check for any spelling mistakes.

When complete press the **OK** button.



Once you press the **OK** button you should see a green spinning icon in the lower left of the screen indicating the detach process is executing. This process may take a few seconds depending on the size of the database and the speed of your hardware.



When the process is successfully completed you should be returned to the main window and no see the database you attached listed.

This database is now connected to and managed by this instance of SQL. This means that applications can connect to this instance of SQL and take advantage of this database for their needs while having SQL manage the information for them.

8.5 Enabling Binary Large Object Storage (BLOB) with SharePoint

One of the major things that occurs with SharePoint is the storage of files. In most cases these files are greater than 1MB in size. Storing such information into a database is generally not the best method of saving such data because:

- It consumes a large amount of space.
- It is unable to leverage the advantages that SQL storage provides including such things as the query language.
- Can contribute to fragmented and unoptimized databases when frequent large data is transacted.

To overcome these issues it is possible to store this Binary Large Object (BLOB) data outside the SQL databases in network shares but still be accessed by SQL. Storing data with this method also allows you to overcome the typical database size limitations you experience with Microsoft SQL Express versions (in the case of SQL Express 2008 R2 there is a 10GB database limit).

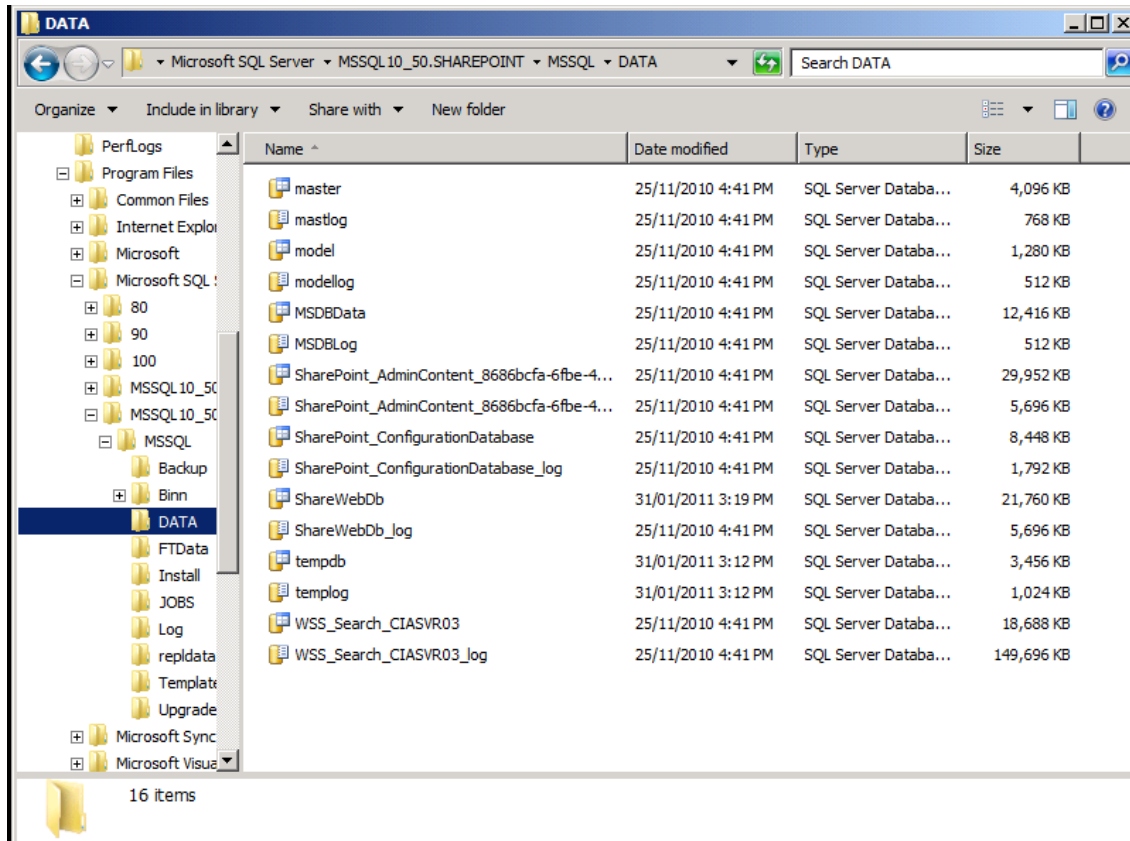
However, there are also some significant disadvantages to configuring BLOB storage for SharePoint 2010. These include, but not limited to:

Chapter 8 – Database Operations

- BLOB storage adds complexity to SharePoint. How do you backup and restore BLOBs? How do you configure and enable it? What happens when you need to migrate data?
- If you work with a lot of files and BLOB storage you may end up with lots of orphaned BLOB stores which will require tidy up.
- You cannot assume that your current implementation using the present version of the software will be compatible with future versions of Microsoft Office or SharePoint Foundation (this straight from the Microsoft technical document).
- No utility is available for moving BLOB data from an existing content database into the external BLOB store. After you enable BLOB storage on SQL server all new BLOB data will end up in the Remote BLOB Storage (RBS) location.
- Some backup and restore functions in SharePoint Foundation operate on the content databases but not on the external BLOB store. You must handle the backup and restore of external BLOB data differently to standard SharePoint.
- Microsoft recommends that if the content databases become larger than 16GB you upgrade to the full version of SQL Server that provides for unlimited database sizes.
- Remote BLOB storage is most useful for large file storage, typically in environments that require archiving.
- Once you enable remote BLOB storage all BLOB data ends up there. This means that if you have lots of small BLOB files accesses regularly you may experience latency.
- SQL BLOB Storage using FILESTREAM with SharePoint Foundation can only be to the local drives and it does not support snapshot backups.

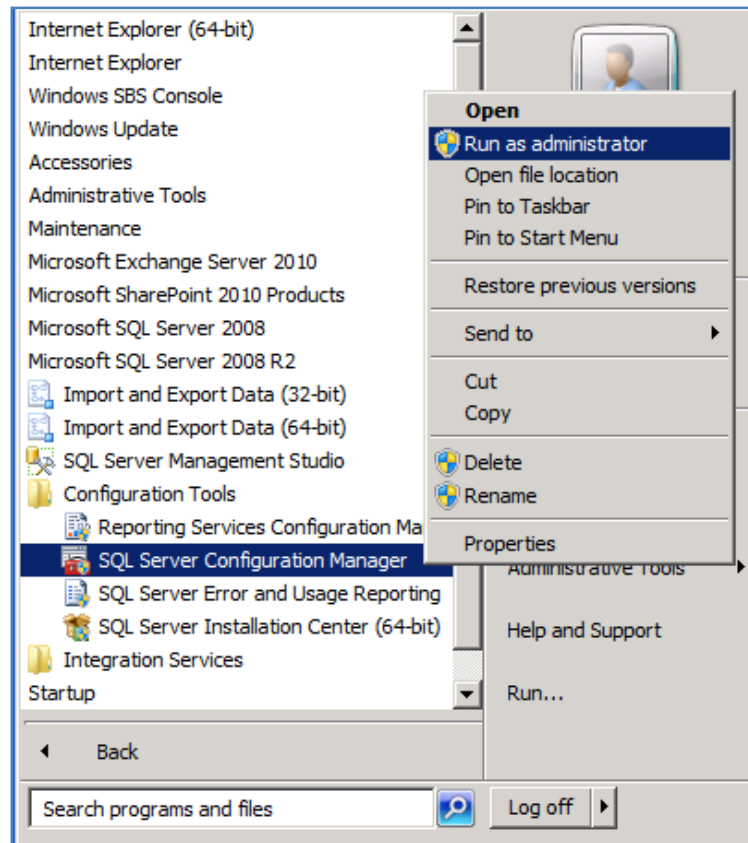
The following procedure illustrates how to configure and enable Remote BLOB Storage (RBS) for SharePoint 2010 but it would not be generally recommended that you implement this.

Chapter 8 – Database Operations

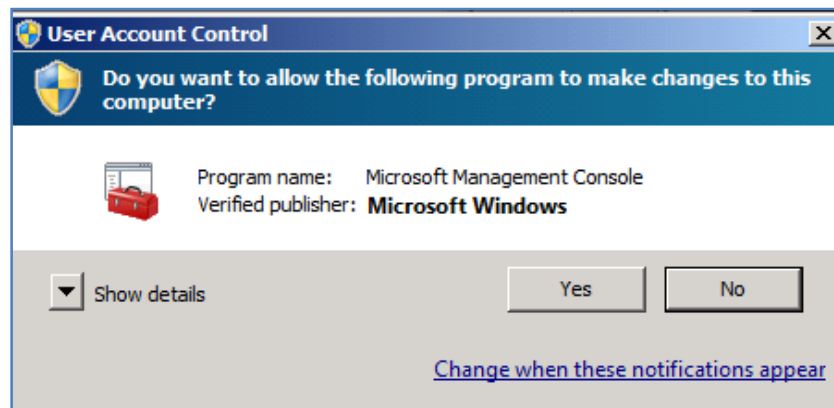


By default all SharePoint content is stored in SQL databases. This also includes any file items. As the size of the SharePoint site grows this will also mean that the size of the SQL databases grow. By implementing Remote BLOB Storage (RBS) you can store large binary data (typically files) into the standard file system.

Chapter 8 – Database Operations

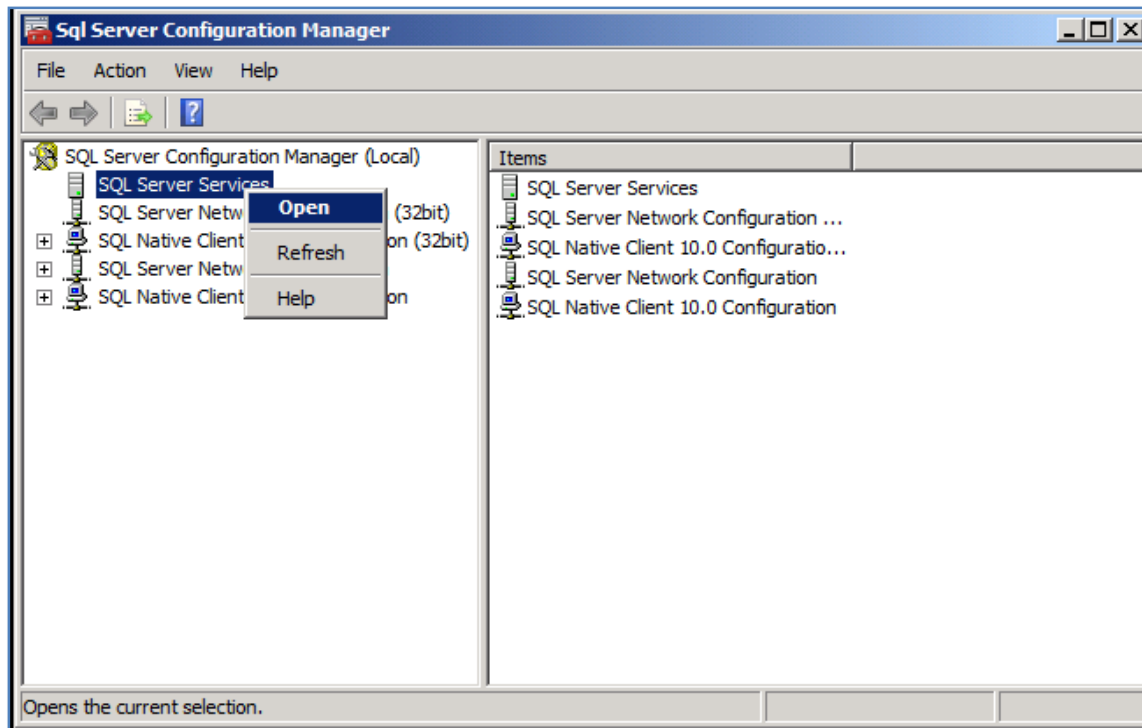


On the SharePoint server where SQL is also installed select **Start | All Programs | Microsoft SQL Server 2008 R2 | Configuration tools**. Right mouse click on *SQL Server Configuration Manager* and select **Run as Administrator** from the menu that appears.

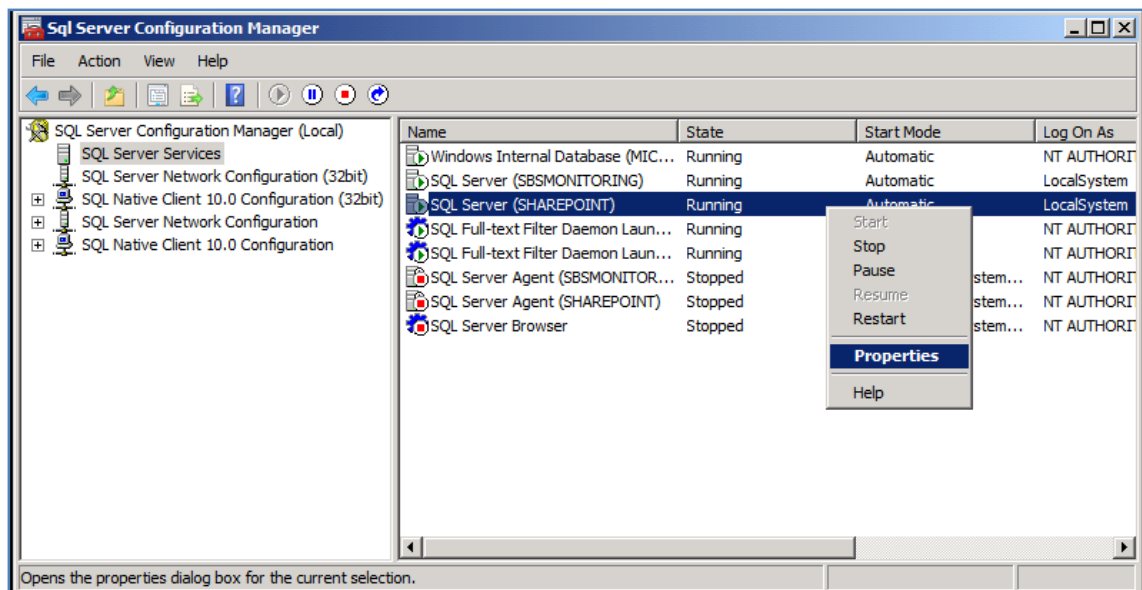


Accept the *User Access Control* window that appears by pressing the **Yes** button.

Chapter 8 – Database Operations

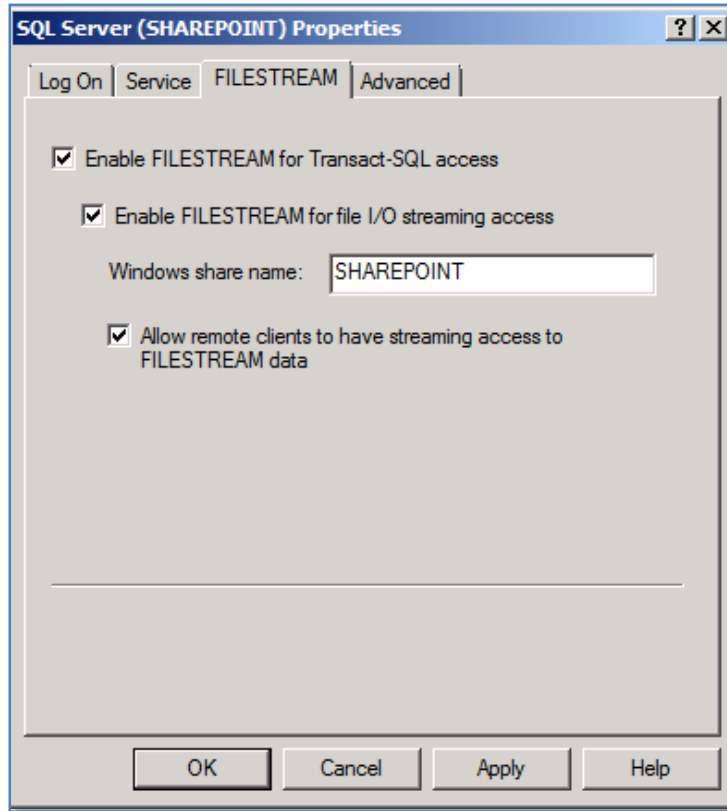


On the right hand side locate the node *SQL Server Services*. **Right mouse click** on this and select **Open** from the menu that appears.



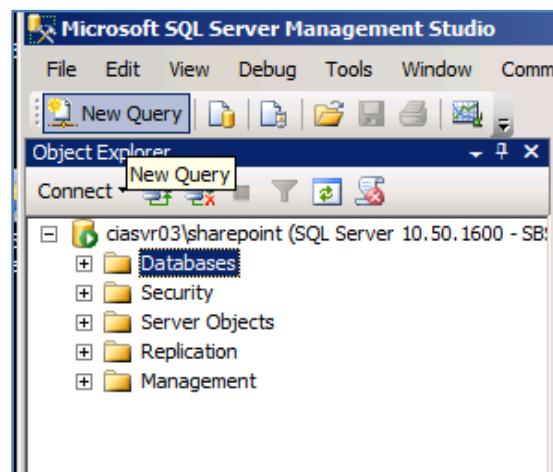
On the left hand window locate the *SQL Server (Instance)*, in this case **SQL Server (SHAREPOINT)**. **Right mouse click** on the entry and select **Properties** from the menu that appears.

Chapter 8 – Database Operations



Select the **FILESTREAM** tab and then check all the options displayed as shown above. If an entry in the *Windows share name* option doesn't appear enter a meaningful share name.

Press the **OK** button to save the configuration.

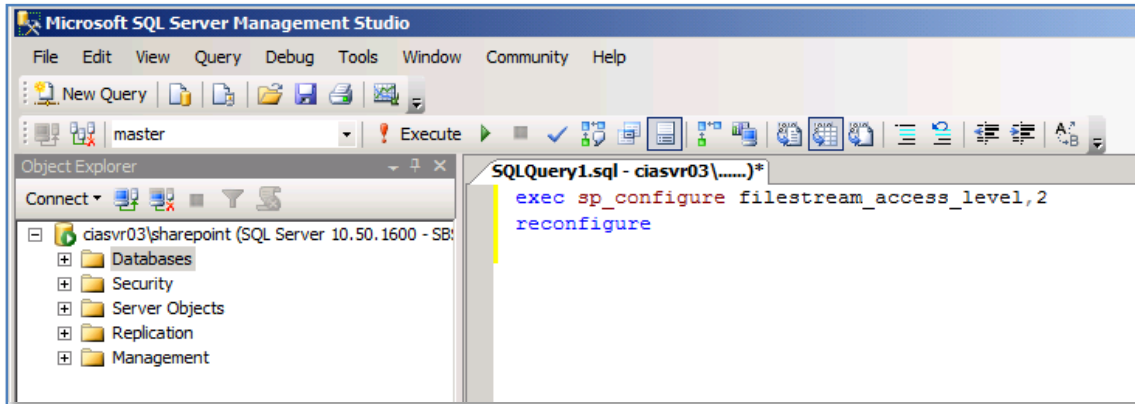


Close the *SQL Server Configuration Manager* and run the *Microsoft SQL Server Management Studio* (once again ensuring that you do so as an administrator). This

Chapter 8 – Database Operations

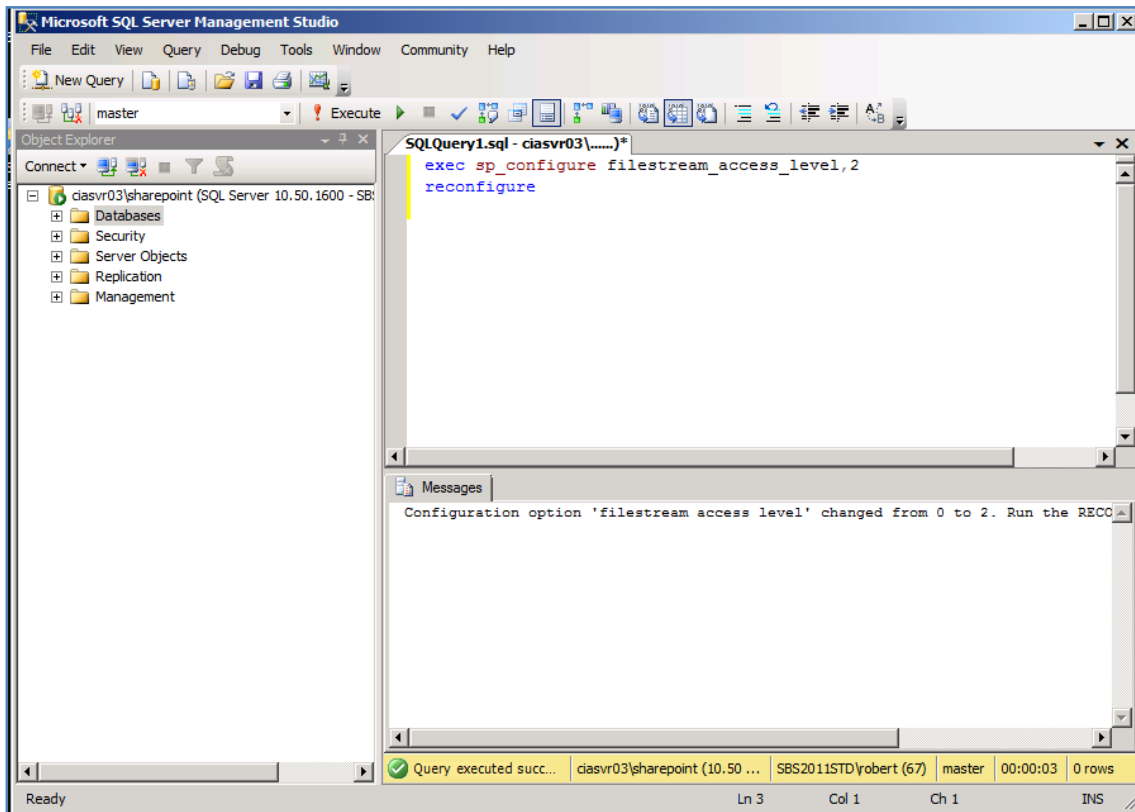
program can normally be found via **Start | All Programs | Microsoft SQL Server 2008 R2 | Microsoft SQL Management Studio**.

Select the **New Query** button just under the *File* menu option in the top right of the screen. This should open up a area to the right into which you can type text.



Into the *Query* area on the right type the following:

```
Exec sp_configure filestream_access_level,2
Reconfigure
```



Chapter 8 – Database Operations

Press the **Execute** button just next to the *Exclamation Mark* command on the menu bar to run the script.

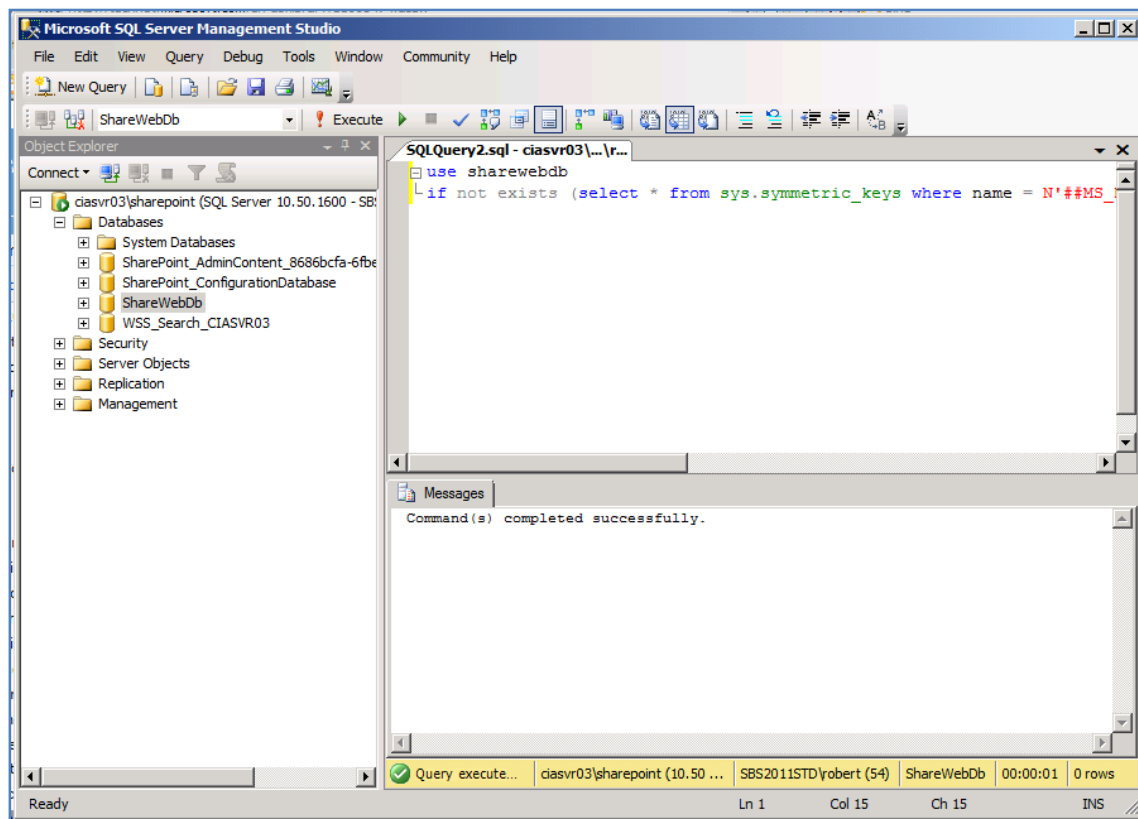
If there are no errors you should see the status confirming that the query ran successfully at the bottom of the screen with the results displayed above.

Press the **New Query** button again to open a fresh query. In the window that appears type the following:

```
use [ContentDbName]
if not exists (select * from sys.symmetric_keys where name =
N'##MS_DatabaseMasterKey##')create master key encryption by password =
N'Admin Key Password !2#4'
```

where *ContentDBName* is the name of the SharePoint content database (in this case **ShareWebDb**).

Press the **Execute** button again to execute the script.



Again you should see that the script has executed successfully.

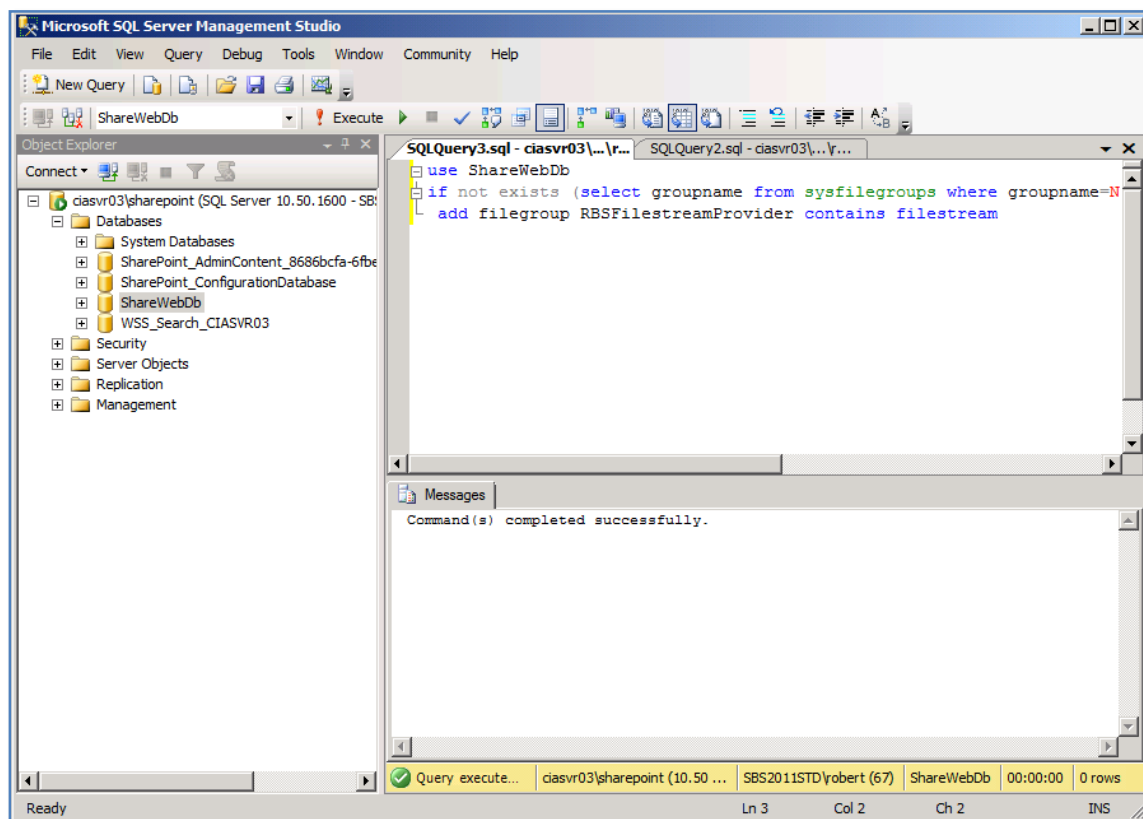
Chapter 8 – Database Operations

Press the **New Query** button once more to open a fresh query. In the window that appears type the following:

```
use [ContentDbName]
if not exists (select groupname from sysfilegroups where
groupname=N'RBSFilestreamProvider')alter database [ContentDbName]
add filegroup RBSFilestreamProvider contains filestream
```

where once again *ContentDbName* is the name of the SharePoint content database (in this case **ShareWebDB**).

Press the **Execute** button again to execute the script.



Again you should see that the script has executed successfully.

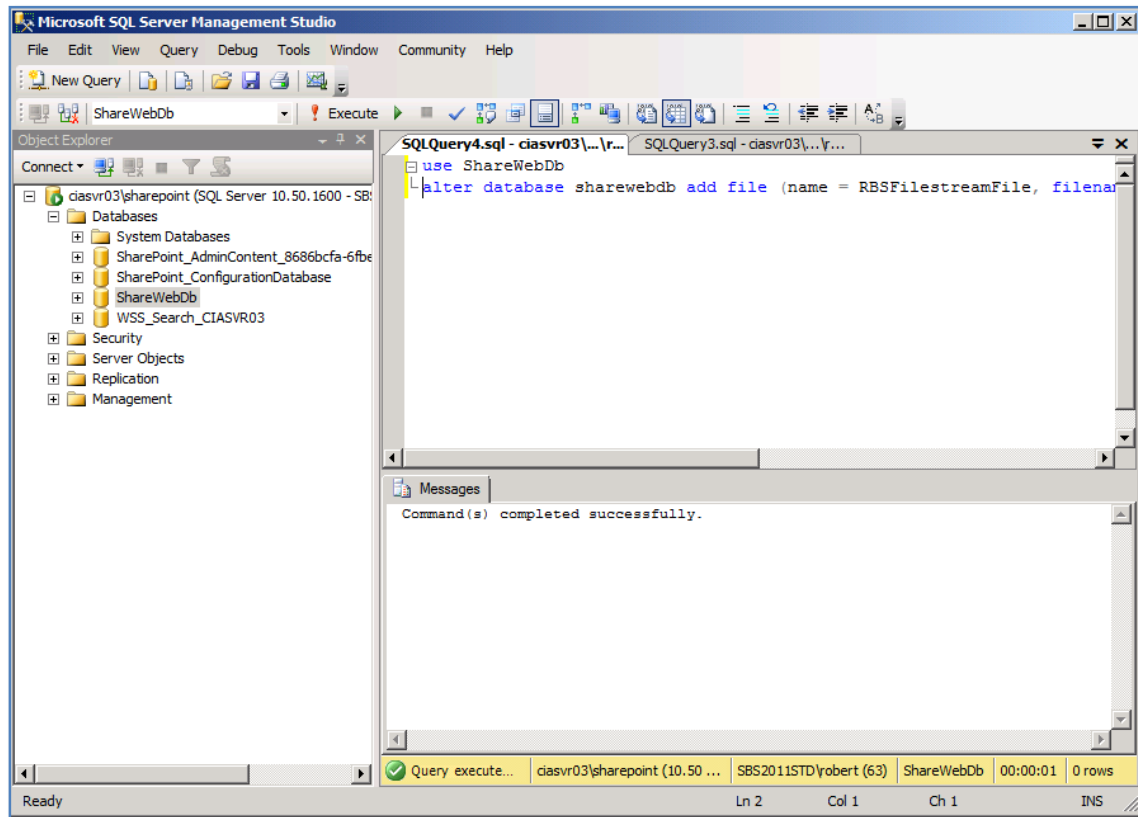
Press the **New Query** button again to open a fresh query. In the window that appears type the following:

```
use [ContentDbName]
alter database [ContentDbName] add file (name = RBSFilestreamFile, filename =
'c:\Blobstore') to filegroup RBSFilestreamProvider
```

Chapter 8 – Database Operations

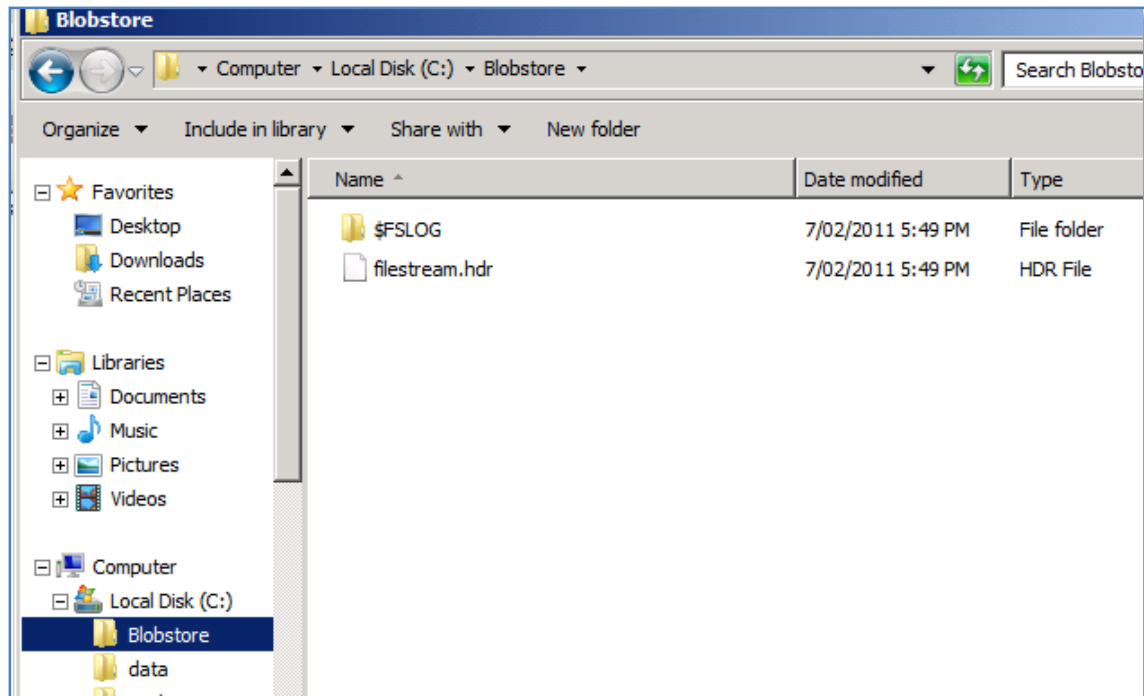
where once again *ContentDbName* is the name of the SharePoint content database (in this case **ShareWebDB**). You can also elect to change the location where the new BLOB storage will be located. In this case it will be configured at *c:\blobstore*. This directory should not already exist on your machines as this process will create it for you.

Press the **Execute** button again to execute the script.



Again you should see that the script has executed successfully.

Chapter 8 – Database Operations

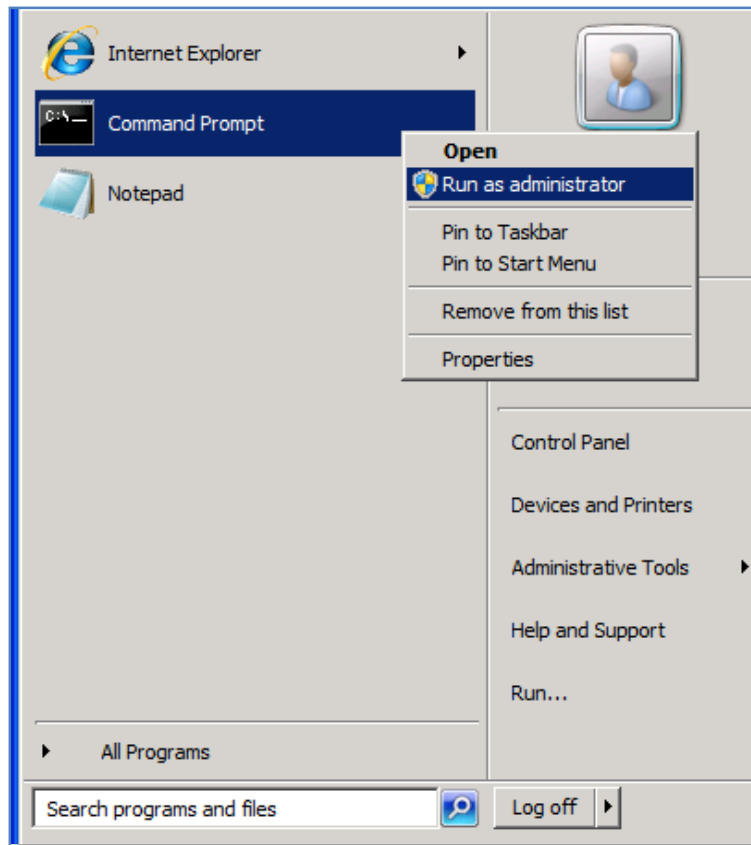


You should then find a new directory on your computer in the location where you nominated to have configured (in this case `c:\blobstore`).

You will now need to download and install the Remote BLOB Storage (RBS) provider for your version of SQL. The link for SQL Server 2008 R2 64 bit edition is:

<http://go.microsoft.com/fwlink/?LinkID=188395&clcid=0x409>

Download the file `rbs.msi` onto your machine but do not run it.



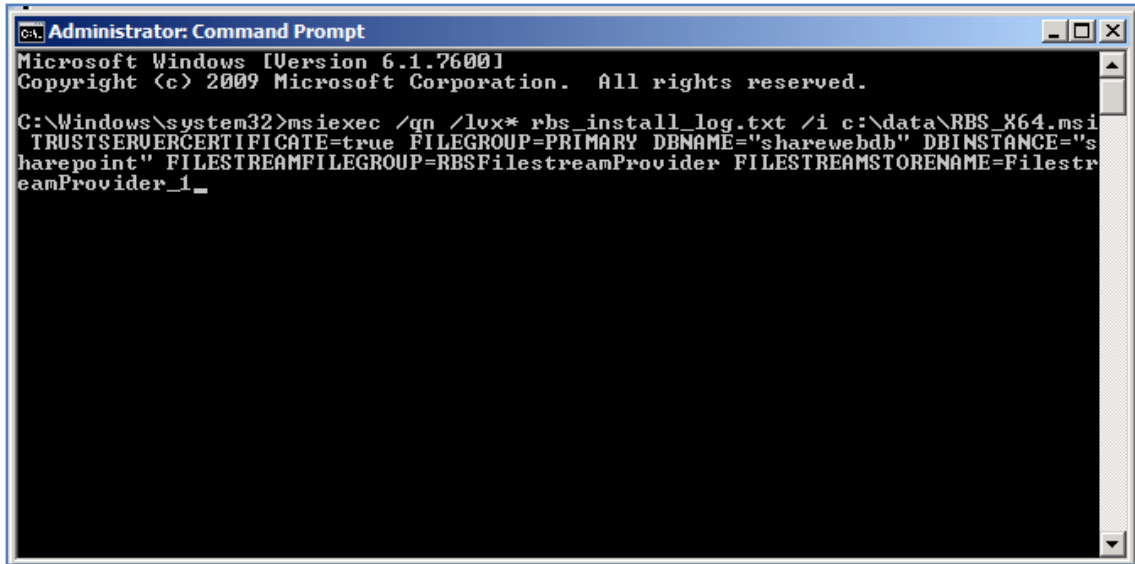
Run a Command Prompt as an administrator by selecting **Start | Command Prompt**, **right mouse clicking** on the entry and selecting **Run as Administrator** from the menu that appears.

Change directory to the location where you saved the downloaded Remote Blob Storage Provider file you downloaded. Type the following command.

```
msiexec /qn /lvx* rbs_install_log.txt /i RBS.msi DBNAME="ContentDbName"  
DBINSTANCE="DBInstanceName"  
ADDLOCAL="Client,Docs,Maintainer,ServerScript,FilestreamClient,FilestreamServ  
er"
```

where *ContentDbName* is the name of the SharePoint content database (in this case **ShareWebDb**) and *DBInstanceName* is the name of the SQL Server instance running SharePoint (in this case **SHAREPOINT**).

Chapter 8 – Database Operations



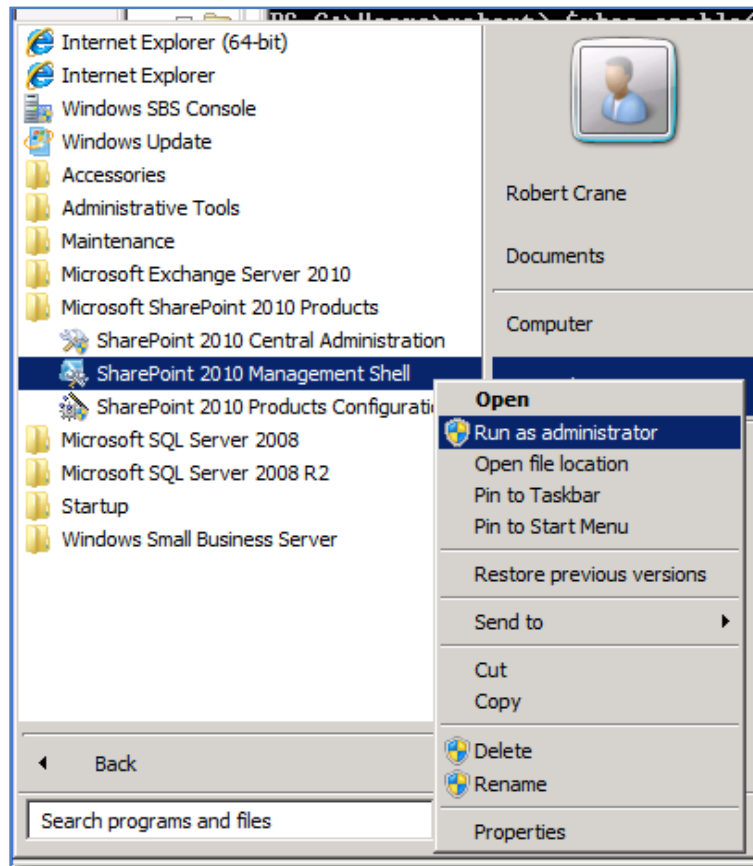
```
Administrator: Command Prompt
Microsoft Windows [Version 6.1.7600]
Copyright (c) 2009 Microsoft Corporation. All rights reserved.

C:\Windows\system32>msiexec /qn /lvx* rbs_install_log.txt /i c:\data\RBS_X64.msi
TRUSTSERVERCERTIFICATE=true FILEGROUP=PRIMARY DBNAME='sharewebdb' DBINSTANCE='s
harepoint' FILESTREAMFILEGROUP=RBSFilestreamProvider FILESTREAMSTORENAME=Filestr
eamProvider_1_
```

Note that this installation is silent and will not prompt you for any options. It will take approximately 2 minutes to complete on most systems. You can find a log file *c:\windows\system32\rbs_install.log*. That file should contain the following line:

Product: SQL Server 2008 R2 Remote Blob store – Installation completed successfully

Chapter 8 – Database Operations



Now launch the *SharePoint Management Shell* via **Start | All Programs | Microsoft SharePoint 2010 Products** and **right mouse click** on **SharePoint 2010 Management Shell** and select **Run as administrator** from the menu that appears.

A screenshot of a PowerShell command prompt window titled 'Administrator: SharePoint 2010 Management Shell'. The window shows the following commands and output:

```
PS C:\Users\robert> $cdb=get-spcontentdatabase sharewebdb
PS C:\Users\robert> $rbss=$cdb.remotestorageblobsettings
PS C:\Users\robert> $rbss.installed()
True
PS C:\Users\robert> $rbss.enable()
PS C:\Users\robert> $rbss.setactiveprovidername($rbss.getprovidername()[0])
PS C:\Users\robert> $rbss
```

Enabled	ActiveProviderName	MinimumBlobStorageSize	UpgradedPersistedProperties
True	FilestreamProvid...	0	<>

```
PS C:\Users\robert> _
```

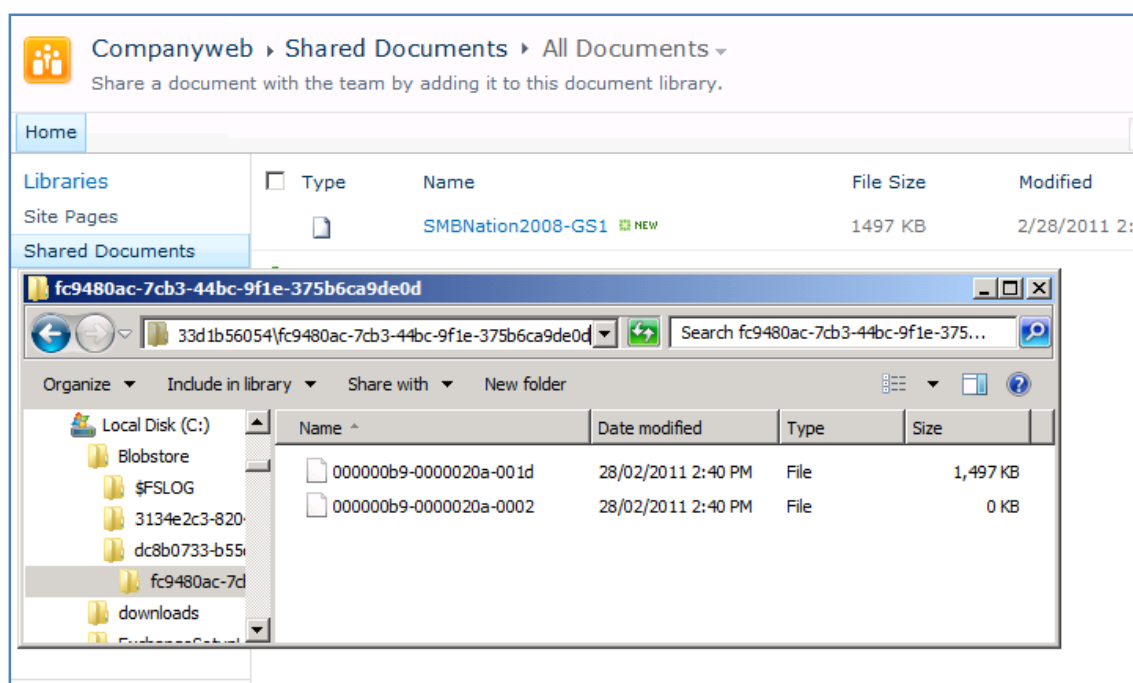
Chapter 8 – Database Operations

Type each the following commands into the console and press <ENTER> at the end of each line:

```
$cdb = Get-SPContentDatabase [ContentDBName]
$rbss = $cdb.RemoteBlobStorageSettings
$rbss.Installed()
$rbss.Enable()
$rbss.SetActiveProviderName($rbss.getprovidernames()[0])
$rbss
```

Where *ContentDBname* is the name of the SharePoint content database (in this case **ShareWebDB**).

You should find that BLOB storage is now enabled.

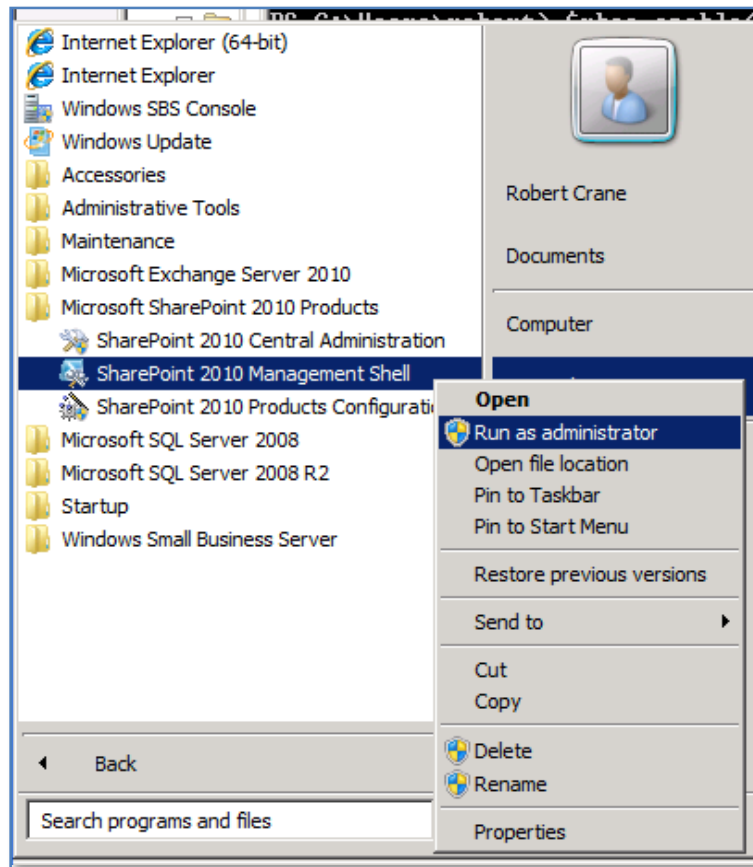


To verify BLOB storage is operational, upload a large document to SharePoint. If you then drill down into the subfolders under the Remote BLOB Storage location (in this case *c:\blobstore*) you should find a file that matches the size of the file you just uploaded as shown above.

Remember, that only new BLOB files will now end up in the RBS location on the hard disk, existing unchanged files will remain in the SQL database. However, if any of these files are updated they will be relocated to BLOB storage when they are update in SharePoint.

Chapter 8 – Database Operations

Disabling Remote BLOB Storage



Launch the *SharePoint Management Shell* via **Start | All Programs | Microsoft SharePoint 2010 Products** and **right mouse click** on *SharePoint 2010 Management Shell* and select **Run as administrator** from the menu that appears.

Type each the following commands into the console and press <ENTER> at the end of each line:

```
$site = Get-“http://site-URL”  
$rbss = $cdb.ContentDatabase.RemoteBlobStorageSettings  
$rbss.SetActiveProviderName(“”)  
Where http://site-URL is the name of the SharePoint site with Remote BLOB  
storage enabled.
```

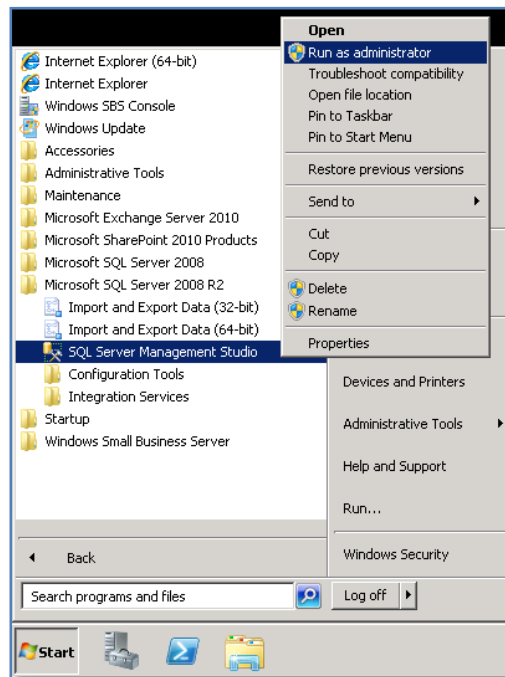
8.6 Compressing an SQL Database

Information stored in SQL Server is usually done so in a sequential fashion. This means that when information is deleted new information does not necessarily get stored in this newly available space. This can lead to fragmentation of SQL databases via the inclusion

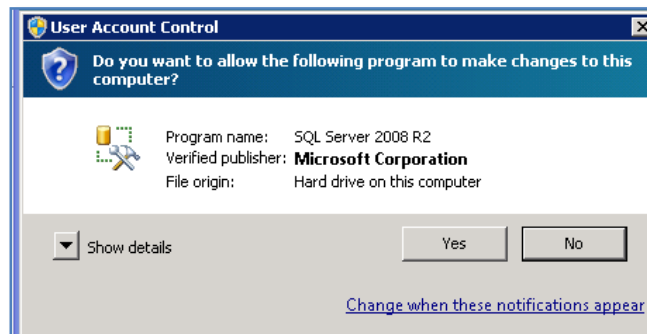
Chapter 8 – Database Operations

of 'whitespace'. Thus, the SQL database file size being bigger than it needs to be. This can cause issues not only for hard disk storage but also for migration.

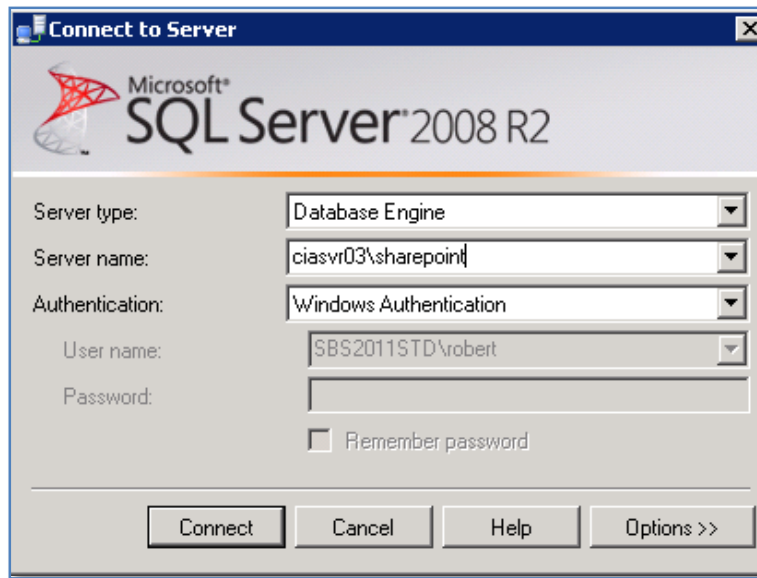
Generally, SQL Server will maintain its own systems and attempt to optimize the space as much as possible. However, this maintenance is not always instantaneous and in some cases you may need to manually run a compression of the SharePoint databases. The following procedure shows you how to do this.



Login into the server that has SQL Server installed. From there run the SQL Server Management Studio via **Start | All Programs**. You should run this as an administrator by **right mouse clicking** on the *SQL Server Management Studio* icon and selecting **Run as Administrator** from the menu that appears.



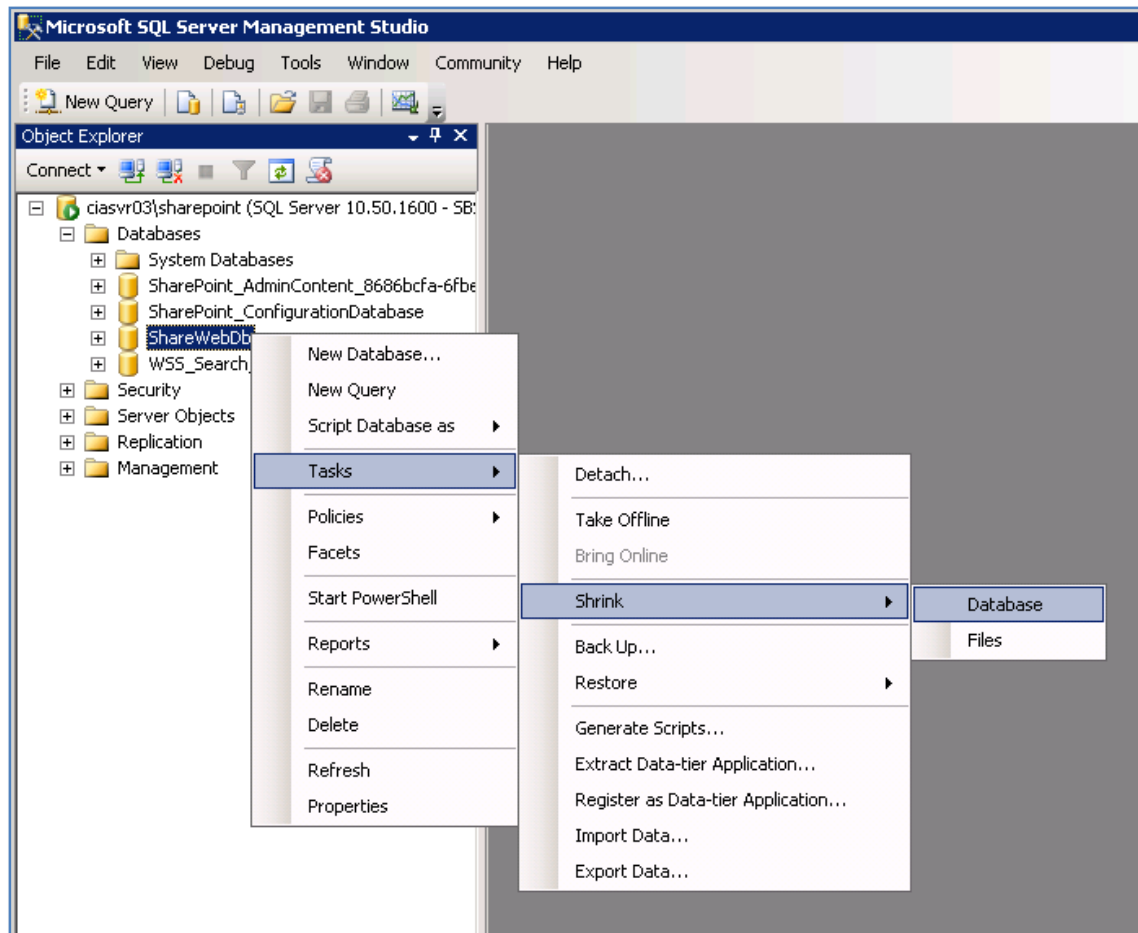
You will then need to accept the *User Account Control* by clicking the **Yes** button.



At the *Connect to Server* screen enter the instance name of the SQL Server instance (in this case *server\sharepoint*).

Press the **Connect** button to continue.

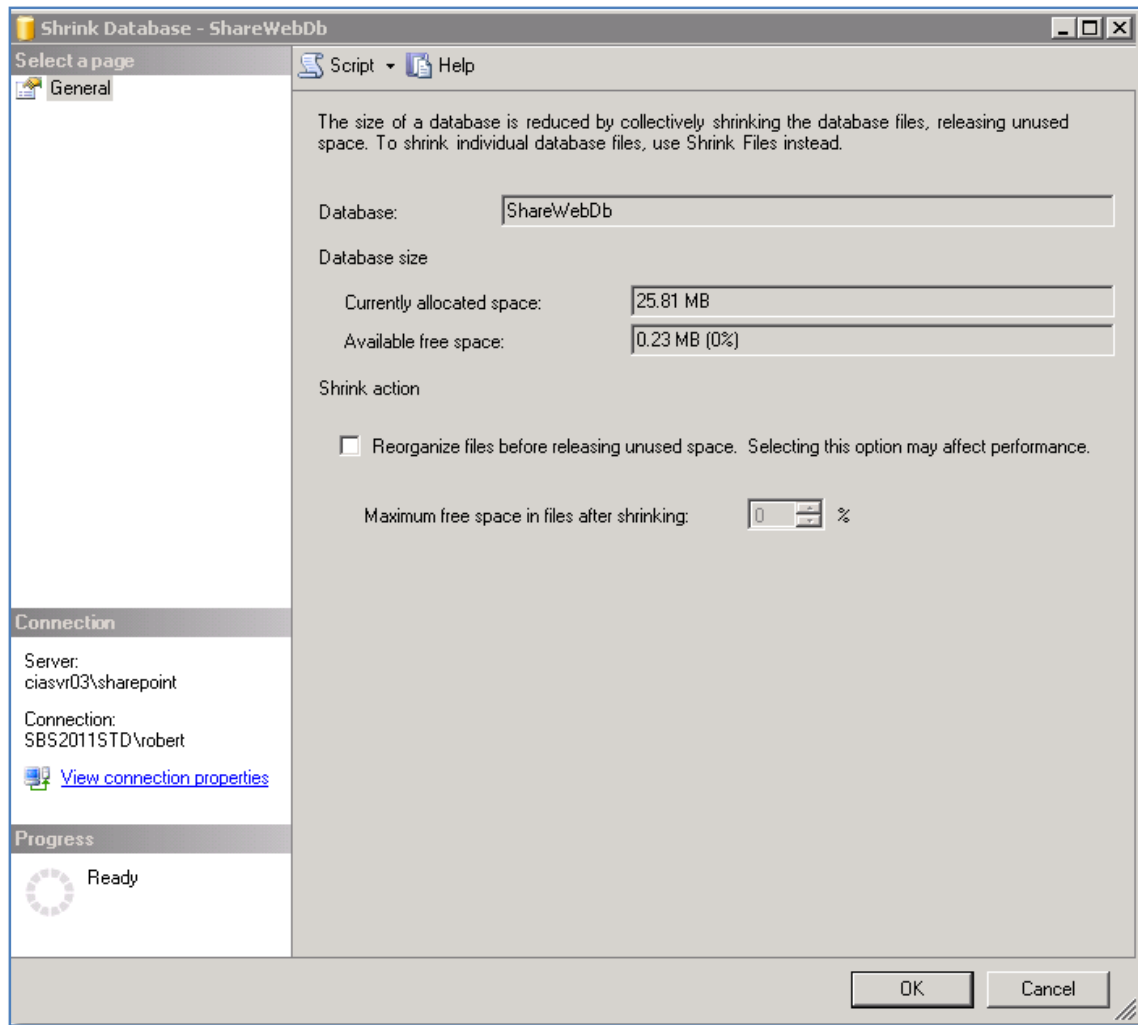
Chapter 8 – Database Operations



You should now see the folders that make up the SQL Server instance. Open the Databases folder and locate the database you wish to compress (in this case ShareWebDb).

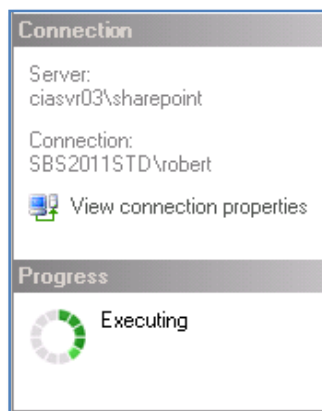
Right mouse click on the database and select **Tasks** from the menu that appears. From the sub menu select **Shrink** and then **Database**.

Chapter 8 – Database Operations



You should now see a window showing you the current size of the database and the available free space like that shown above.

To compress the database simply press the **OK** button.



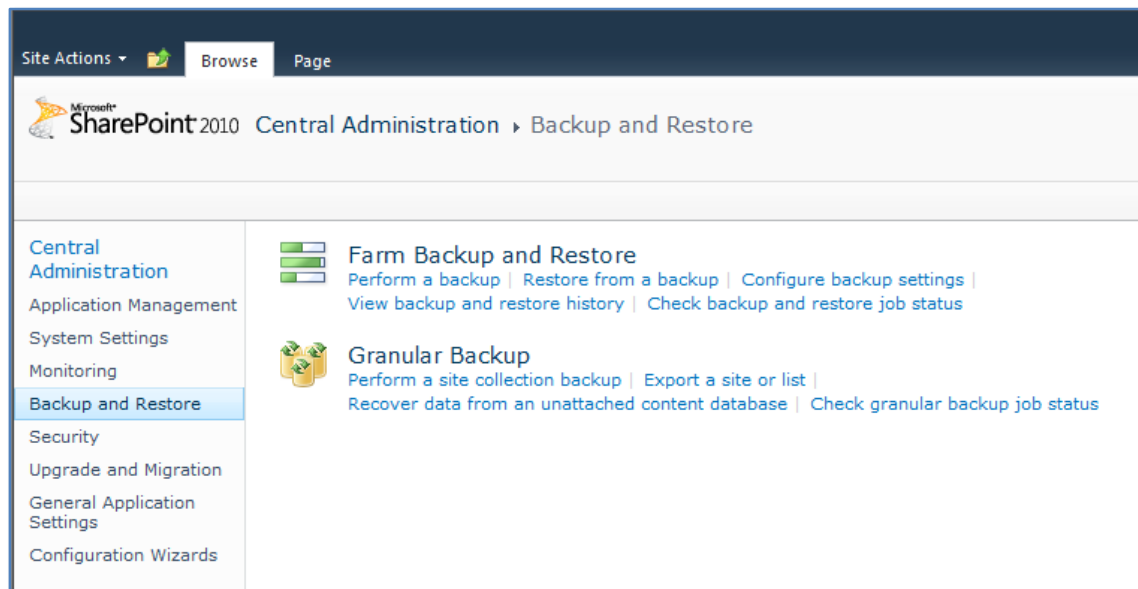
The process should now execute and you should see the spinning *Execute* graphic appear in the lower left as shown above.

Provided that there was free space available you should find your database is smaller after the completion of the compression process. This can be completed while the SharePoint site is operating but it is generally recommended that it be performed when there are no users on the system.

8.7 Restoring data from unattached database

One of the new features that SharePoint 2010 supports is the ability to restore items from unattached databases. Basically, this means once a database is available to SharePoint you can use a combination of the SharePoint Central Administration and PowerShell to recover items.

Prior to commencing this process you will need to have the content database you wish to restore from available to SharePoint by having it attached to an SQL server. Once that is done open SharePoint Central Administration and select **Backup and Restore** form the menu on the left hand side.



Click on the option **Recover data** from an unattached content database under the *Granular Backup* section.

Chapter 8 – Database Operations

Warning: this page is not encrypted for secure communication. User names, passwords, and any other information will be sent in clear text. For more information, contact your administrator.

Database Name and Authentication Specify the content database server and content database name to connect to. Use of Windows authentication is strongly recommended. To use SQL authentication, specify the credentials which will be used to connect to the database.	Database Server <input type="text" value="SERVERA\Sharepoint"/> Database Name <input type="text" value="STS_VSBS2003STD_1"/> Database authentication <input checked="" type="radio"/> Windows authentication (recommended) <input type="radio"/> SQL authentication Account <input type="text"/> Password <input type="text"/>
Operation to Perform Select an operation to perform on the content database you selected. You can browse the content of the content database, perform a site collection backup, or export a site or list.	Choose operation: <input checked="" type="radio"/> Browse content <input type="radio"/> Backup site collection <input type="radio"/> Export site or list
<div>Next Cancel</div>	

You'll then need to enter the SQL database server (in this case *SERVERA\Sharepoint*) and the unattached database (in this case *STS_VSBS2003STD_1*). You'll also need to select the *Database authentication* method (with *Windows authentication* being the default) and then finally one of the three options.

- *Browse content*: view the content structure of the unattached database selected.
- *Backup site collection*: create a backup file of an entire site collection from the unattached database that can be restored elsewhere into SharePoint.
- *Export site or list*: create a backup site of wither a site or list from the unattached database that can be restored elsewhere into SharePoint.

In this case we will select the option to **Browse content**.

Press the **Next** button to continue.

Site Collection Select the site collection, site, or list that you wish to browse. First start by selecting a site collection, then you will be able to select a site that belongs to that site collection, and you have the option to choose a specific list under that site.	Site Collection: <input type="text" value="http://servera:17507"/> Site: <input type="text" value="/"/> List: <input type="text" value="No selection"/>
Operation to Perform Select an operation to perform on the content database you selected. You can browse the content of the content database, perform a site collection backup, or export a site or list.	Choose operation: <input type="radio"/> Backup site collection <input type="radio"/> Export site or list
<div>Previous Next Cancel</div>	


Chapter 8 – Database Operations

You will now see the *Site Collection* option set to the URL of your Central Administration site (in this case *http://servera:17507*). There is no need to change this.

If additional sites exist in the unattached database you can select which by changing the *Site* option. In this we will leave that unchanged.

You can select a list by changing the option in the *List* section. To do so simply pull down the arrow to the right of the existing entry and select *Change List*. You should then see a list of items displayed like so:

Select List

Title Search  1-10 ▾

Title	URL	/Lists/Announcements
Announcements	Title	Announcements
Archived Documents	Description	Use the Announcements list to post messages on the home page of your site.
Company Photos		
General Discussion		
General Documents		
Help Desk		
Incoming Faxes		
Links		
List Template Gallery		
Master Page Gallery		

OK Cancel

Click on the item you wish to restore (in this case *General Documents*).

Site Collection

Select the site collection, site, or list that you wish to browse. First start by selecting a site collection, then you will be able to select a site that belongs to that site collection, and you have the option to choose a specific list under that site.

Site Collection: **http://servera:17507 ▾**

Site: **/ ▾**

List: **General Documents ▾**

Operation to Perform

Select an operation to perform on the content database you selected. You can browse the content of the content database, perform a site collection backup, or export a site or list.

Choose operation:

☐ Backup site collection

☒ Export site or list

Previous Next Cancel

You will be returned to the previous screen where you should see your selection in the *List:* area.

Ensure that **Export site or list** is selected in the *Operation to Perform* and press **Next** to continue.

Chapter 8 – Database Operations

Readiness

- No export is in progress.
- Timer service is running.

Site Collection

Select a site or list to export. First select the site collection that contains the site, then select a site to export. To export a list, select the site collection and site that contain it, and then select the list.

Site Collection: **http://servera:17507**

Site: **/**

List: **General Documents**

File location:

Specify the destination for the export package.

Filename: **c:\download\restore.cmp**

☐ Overwrite existing files

Example: \\backup\SharePoint\export.cmp

Export Full Security

Export full security of the site, including author, editors, created by times, and modified by times. This also includes all users in the sites.

☐ Export full security

Export Versions

Select the version history information to include for files and list items. You can include all versions, the last major version, the current version, or the last major and last minor versions.

Export versions: **All Versions**

Start Export **Cancel**

You will be now taken to a screen where you'll be prompted to enter the file location for the restored file. You'll also be prompted as to whether you wish to *Export full security* and how to handle previous versions.

Make the desired choices and click the **Start Export** button to commence the operation.

Readiness

- No site collection backup is in progress.
- An export is currently in progress.
- Timer service is running.

Refresh **Delete Export Job**

Site Collection Backup

Current Job

Status: No operation in progress.

Previous Job

Status: No previous job.

Content Export

Current Job

Status: Operation initializing.

Requested By: SERVERA\Administrator

Site Collection URL: http://servera:17507

Server Relative URL: /General Documents

Content Database Attached: No

Filename: c:\download\restore.cmp

Log file generated: c:\download\restore.cmp.export.log

Overwrite: No

Recovery Step: To recover the data use the PowerShell import command Import-SPWeb. For more details, type Import-SPWeb -? at the PowerShell command prompt.

Previous Job

Status: No previous job.

You should now see the status of the job as shown above. In this case the information is found under the *Content Export* section of the page.

Chapter 8 – Database Operations

Readiness

- ✓ No site collection backup is in progress.
- ✓ No export is in progress.
- ✓ Timer service is running.

[Refresh](#)

Site Collection Backup

Current Job
Status: No operation in progress.

Previous Job
Status: No previous job.

Content Export

Current Job
Status: No operation in progress.

Previous Job
Status: Succeeded
Completed: 1/30/2012 3:37 PM
Duration (hh:mm:ss): 0:00:15
Recovery Step: To recover the data use the PowerShell import command Import-SPWeb. For more details, type Import-SPWeb -? at the PowerShell command prompt.

Once the process has completed you will see the details appear in the *Content Export* section. The status should read *Succeeded*. You will also notice that the *Recovery step* option now says: *To recover the data use the PowerShell import command Import-SPWeb*.

msvcr90.dll	17/03/2010 10:36 AM	Application extension	612 KB
PrerequisiteInstaller.exe	31/03/2010 5:11 AM	Application	4,196 KB
ReadMe.Htm	28/03/2010 7:45 AM	HTML Document	2 KB
restore.cmp	30/01/2012 3:37 PM	CMP File	32 KB
restore.cmp.export.log	30/01/2012 3:37 PM	Text Document	5 KB
setup.cmd	17/03/2010 3:27 PM	Windows Command ...	1 KB

If you now open the location of the restored file you should see the data as well as a log file as shown above.

To actually restore data into a SharePoint site we need to run the *SharePoint 2010 Management Shell* via **Start | All Programs | Microsoft SharePoint 2010 Products | SharePoint 2010 Management Console**.

```
PS C:\Users\Administrator> import-spweb http://servera -path c:\download\restore.cmp
Log file generated:
c:\download\restore.cmp.import.log
PS C:\Users\Administrator> _
```

Chapter 8 – Database Operations

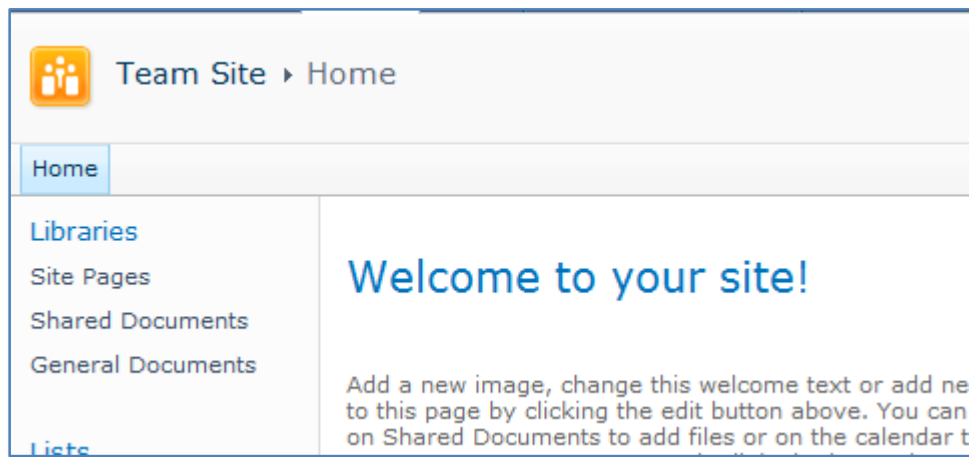
Use the PowerShell command *import-spweb* to restore the data into a SharePoint. In this case the syntax used is:

```
import-spweb http://<SharePoint_site> -path drive:\directory\filename
```

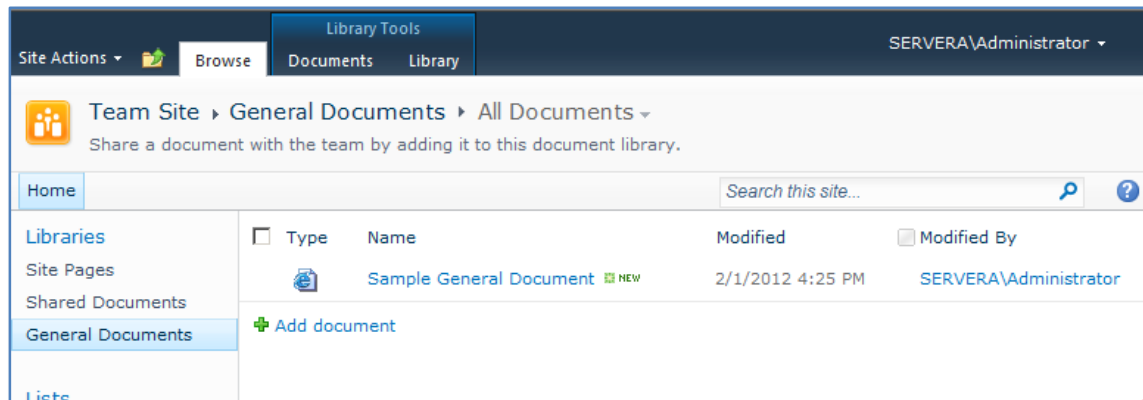
for this example:

```
import-spweb http://servera -path c:\download\restore.cmp
```

When the process is complete you should now see the item you recovered in your SharePoint site.



In this case we see the library *General Documents* as shown above.



If we now click into that library we see any documents contained and confirm that the restore process has been a success.

8.10 Conclusion

Chapter 8 – Database Operations

This guide continues to be a work in progress and I encourage comments and feedback of any type. The only way that the Guide will improve if these is continued feedback.

Please send your comments and feedback to director@ciaops.com.