

ABS Enterprise®

SQL Restore Guide - StorageCraft

May 2013



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Mounting the Recovery Image as Local Drive

1. Selecting Recovery Image

i The following steps must be completed on the SQL server you wish to restore data to.

- Click the **Start Button**
- Type in the **dropbox** share path in the search box

i Share path example:
\\a198-absbackup\dropbox
Substitute "a198" with your unique appliance ID

- Enter in the **itadmin** account credentials (refer to your **Activation Letter** for the password)

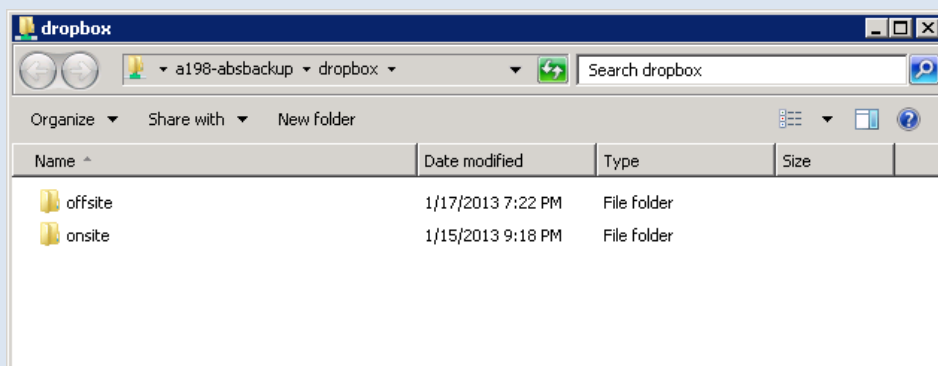
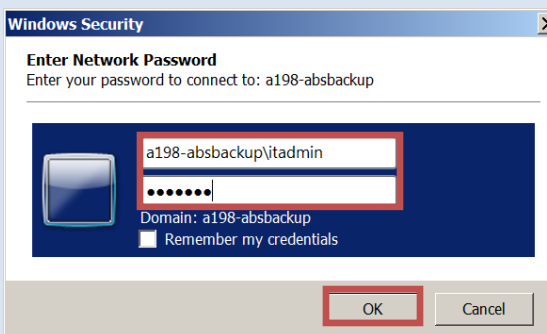
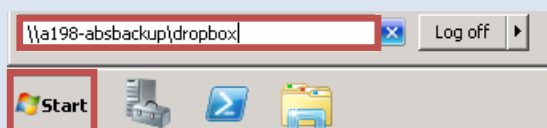
i When authenticating against the appliance, make sure to add the appliance name before the username. Example:
a198-absbackup\itadmin

- Double click the appropriate storage folder.

i You will find an **offsite** and an **onsite** folder under **dropbox**

Use **offsite** folder for storing snapshots that are being replicated to the **ABS Cloud**

Use **onsite** folder for storing snapshots locally on the appliance (not replicated to the **ABS Cloud**)



- e. Double click the **name of the machine** you want to restore data from (SQL Server)

- f. Select the **Image File** you wish to mount as a local drive

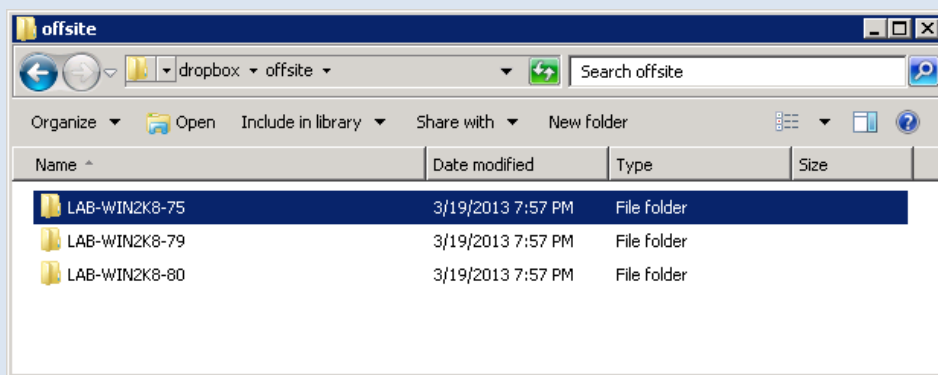
i Feel free to organize the recovery images by the "date modified" for easier navigation.

The naming scheme for the images follows this format:
Volume name-Base number-Incremental number

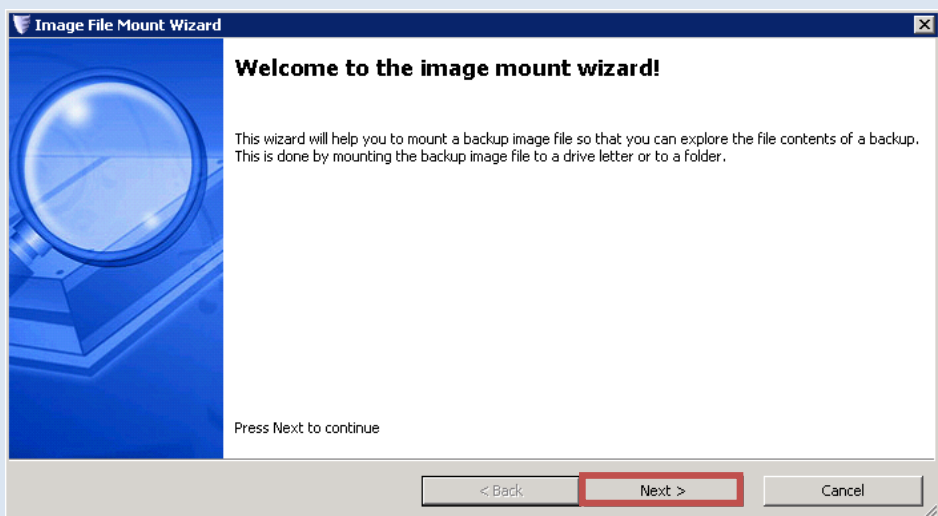
CD = Consolidated Daily
CW = Consolidated Weekly
CM = Consolidated Monthly

2. Mounting Recovery Image

- Right click the **Image File**, select **Mount**
- The **Image File Mount Wizard** will open
- Click **Next**



Name	Date modified	Type	Size
C_VOL-b001-i002-cd.md5	9/21/2012 12:00 AM	MD5 File	1 KB
C_VOL-b001-i002-cd	9/21/2012 12:00 AM	ShadowProtect Incremental Image	1,558 KB
System Reserved_VOL-b001-i002-cd.md5	9/21/2012 12:00 AM	MD5 File	1 KB
System Reserved_VOL-b001-i002-cd	9/21/2012 12:00 AM	ShadowProtect Incremental Image	50 KB
C_VOL-b001-i002.md5	9/20/2012 8:59 PM	MD5 File	1 KB
C_VOL-b001-i002	9/20/2012 8:59 PM	ShadowProtect Incremental Image	284 KB
System Reserved...	9/20/2012 8:59 PM	MD5 File	1 KB
System Reserved...	9/20/2012 8:59 PM	ShadowProtect Incremental Image	48 KB
System Reserved...	9/20/2012 7:59 PM	MD5 File	1 KB
System Reserved...	9/20/2012 7:59 PM	ShadowProtect Incremental Image	48 KB
C_VOL-b001-i001	9/20/2012 7:59 PM	MD5 File	1 KB
C_VOL-b001-i001	9/20/2012 7:59 PM	ShadowProtect Incremental Image	1,431 KB
System Reserved...	9/20/2012 7:27 PM	MD5 File	1 KB
System Reserved...	9/20/2012 7:27 PM	ShadowProtect Full Image	10,641 KB
System Reserved...	9/20/2012 7:27 PM	SPK File	1 KB
C_VOL-b001.spk	9/20/2012 7:27 PM	SPK File	1 KB



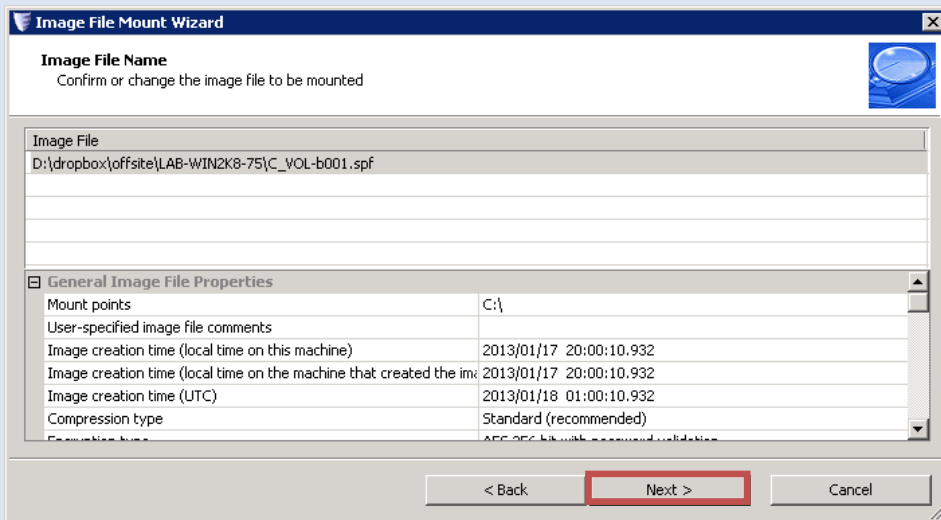
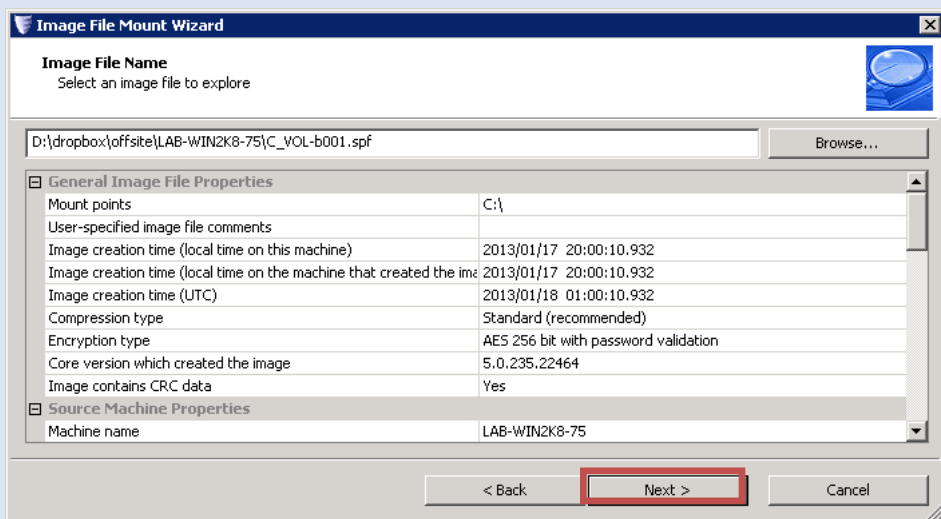
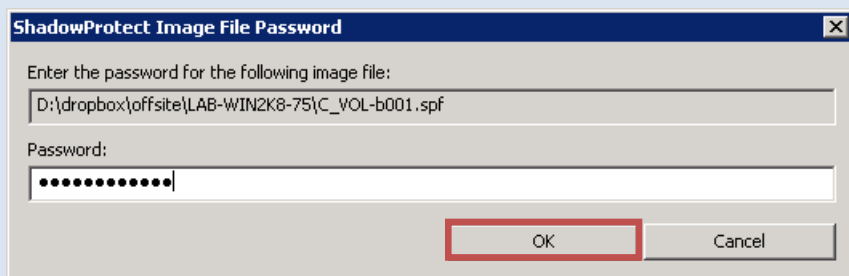
d. When prompted, type in the **ABS Encryption Password**

i Please use the same encryption password as the initial setup of the machine. If you used the ABS provided password, you can find it in the **Activation Letter**.

e. Click **OK**

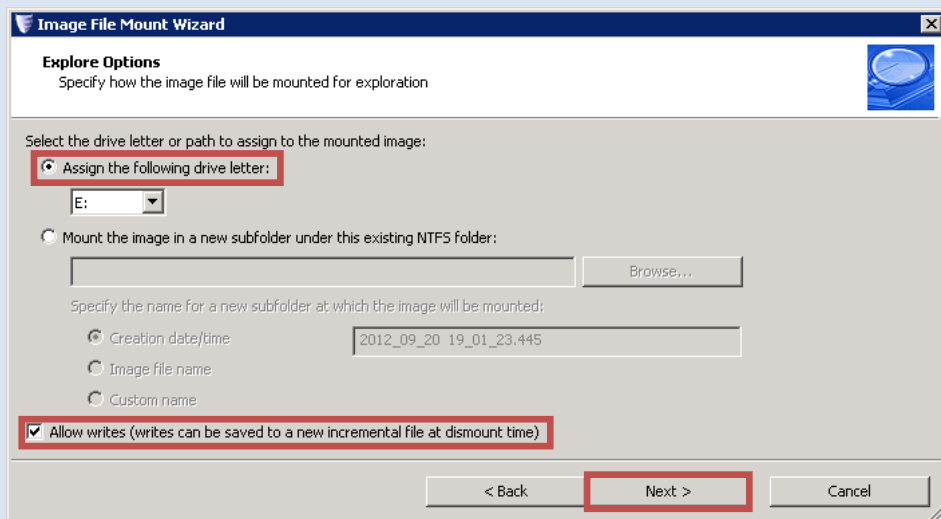
f. Click **Next**

g. Click **Next**



- h. Select **Assign the following drive letter:**
- i. Select an available drive letter from the drop down menu
- j. Select the **Allow writes** checkbox
- k. Click **Next**
- l. Click **Finish**

The recovery image will now be mounted as a local drive on the machine.

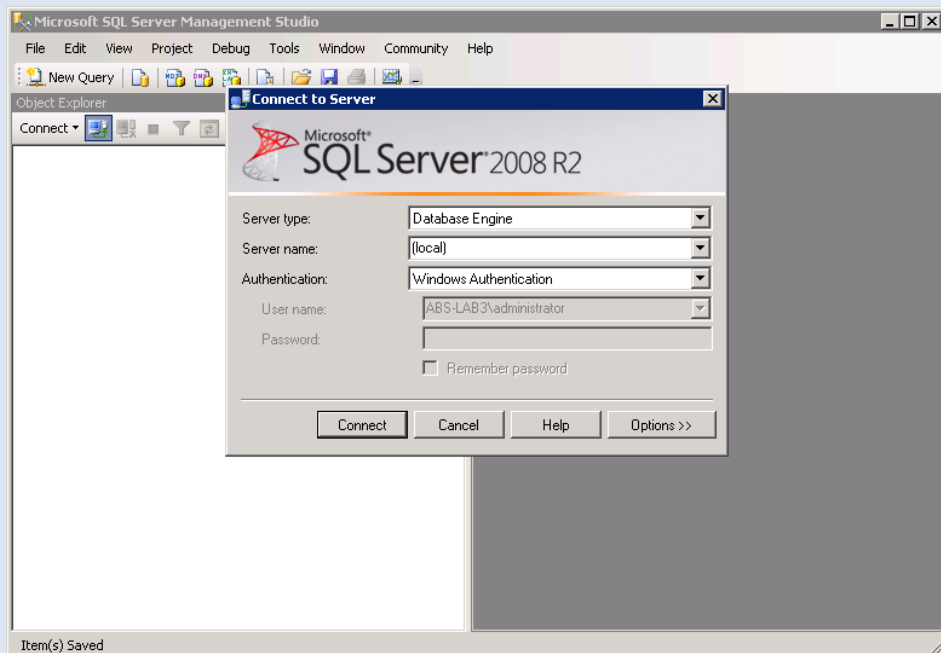


SQL Database Restore: Restore Full Database

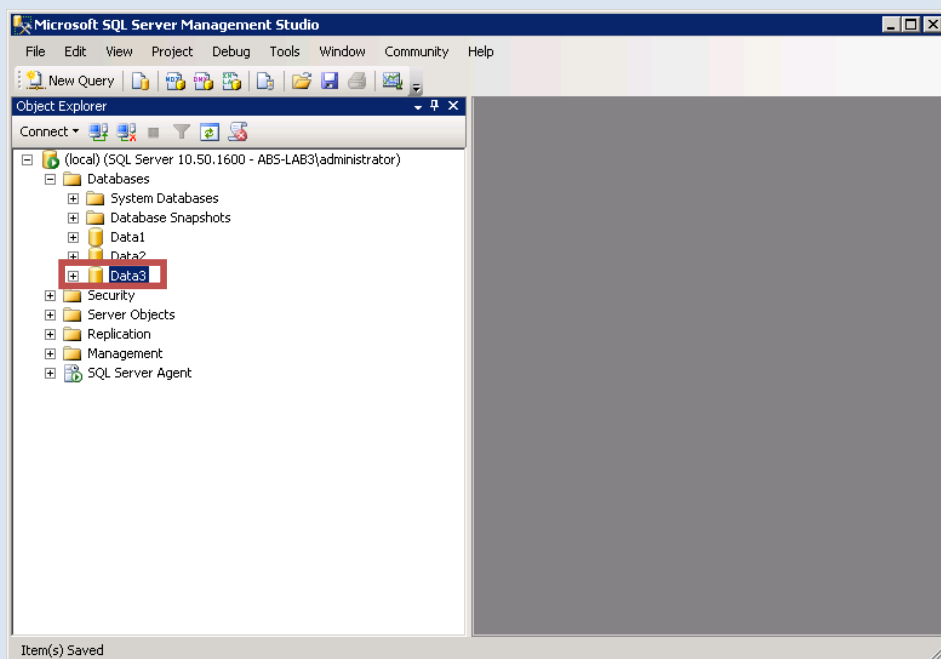
i This method of SQL database restoration copies the database back to the original location. This method will restore the entire database from a specific point in time. Skip to **Granular Database Restore** if restoring a specific section of a SQL database.

1. Detach Original Database

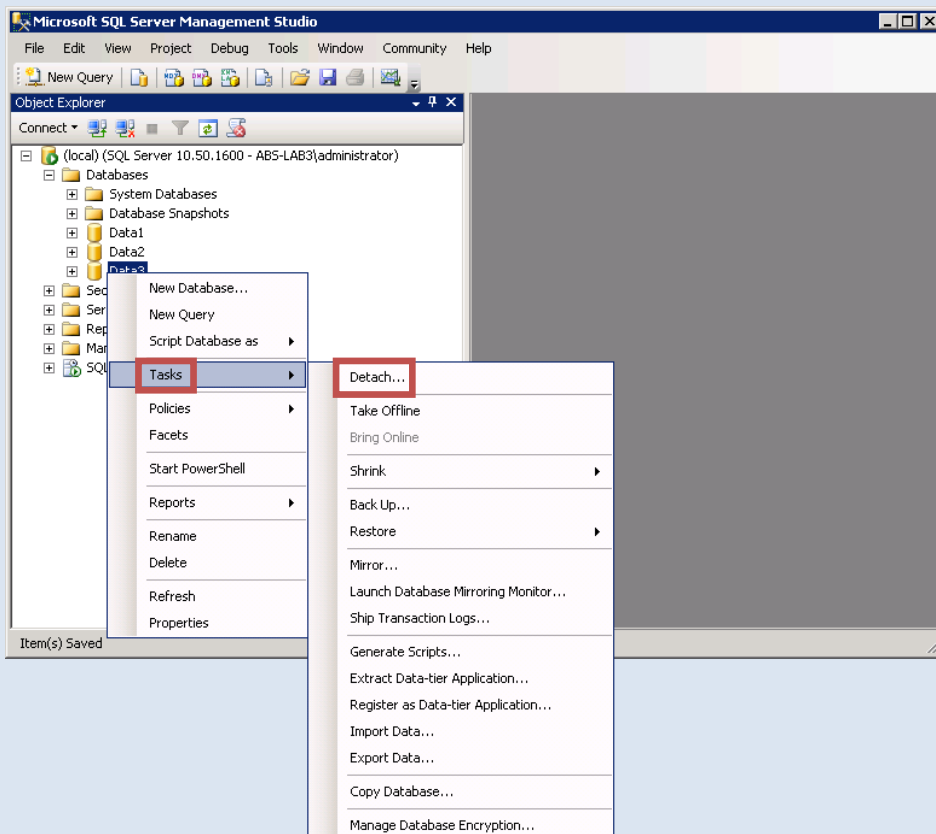
- Open **SQL Server Management Studio**
- Connect to **SQL Instance**



- Select database you want to restore

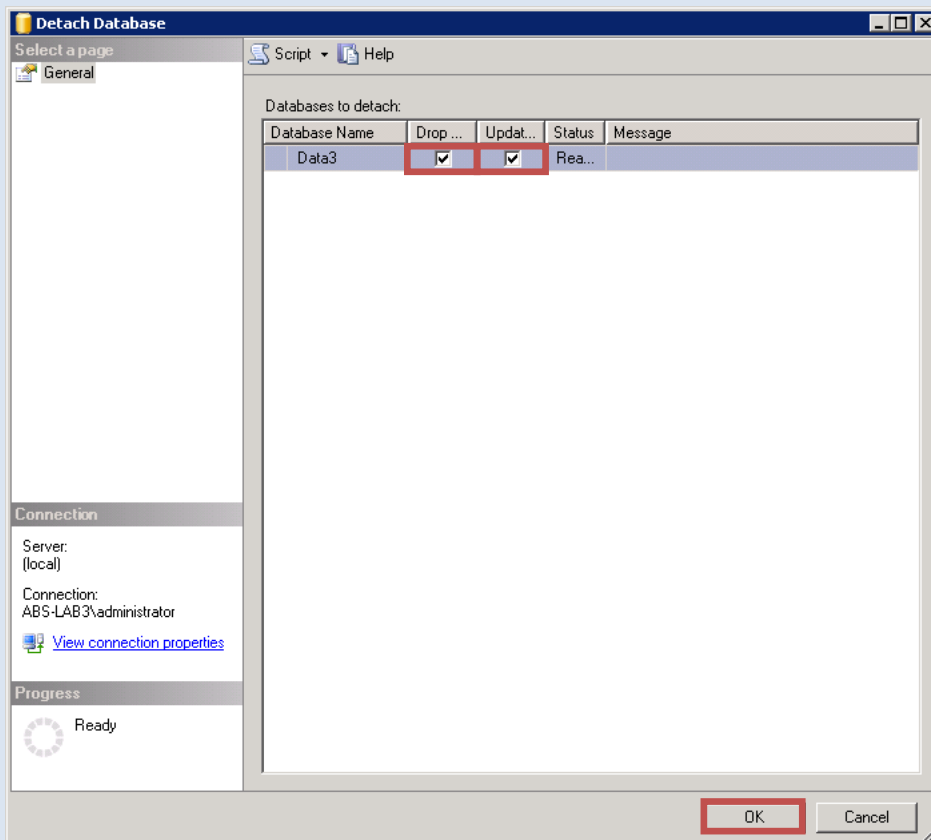


- d. Right click the database, select **Tasks**, click **Detach...**



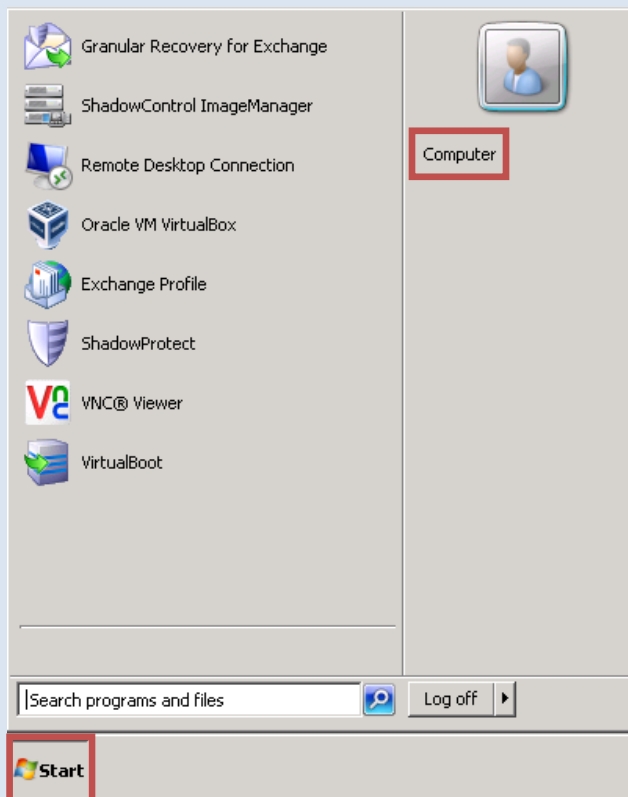
- e. Select the **Drop...** and **Updat...** checkboxes

- f. Click **OK**



2. Copy Restored Database

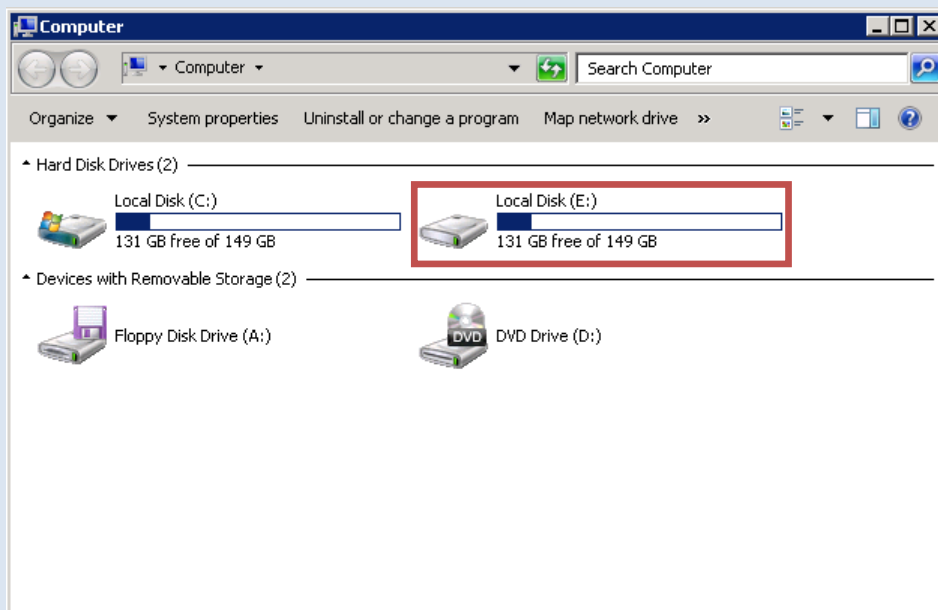
- a. Click the **Start Menu**
- b. Click **Computer**



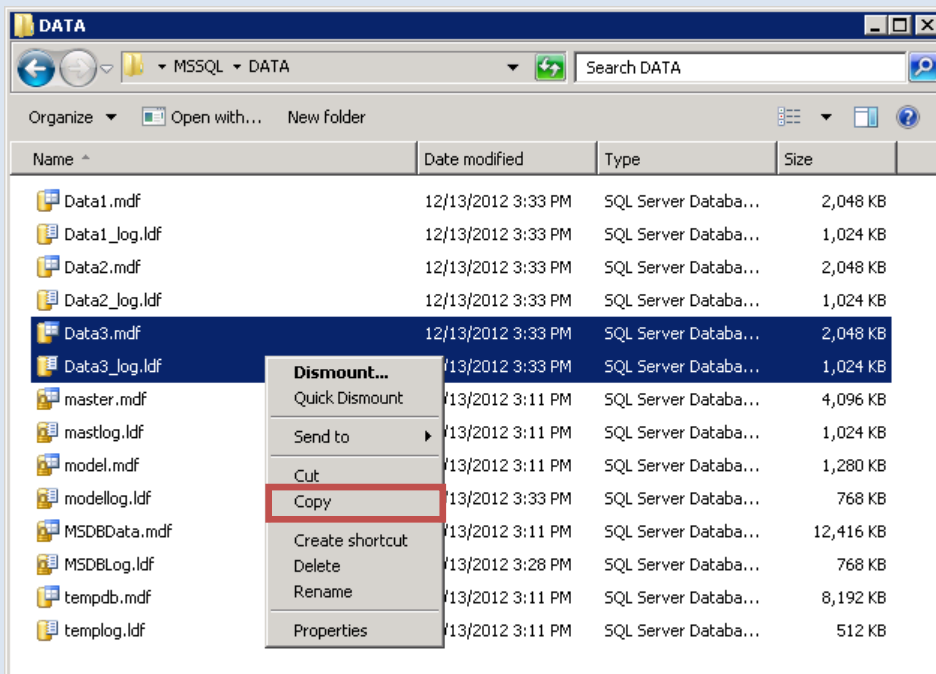
- c. Locate the **Recovery Image mounted as a Local Drive**



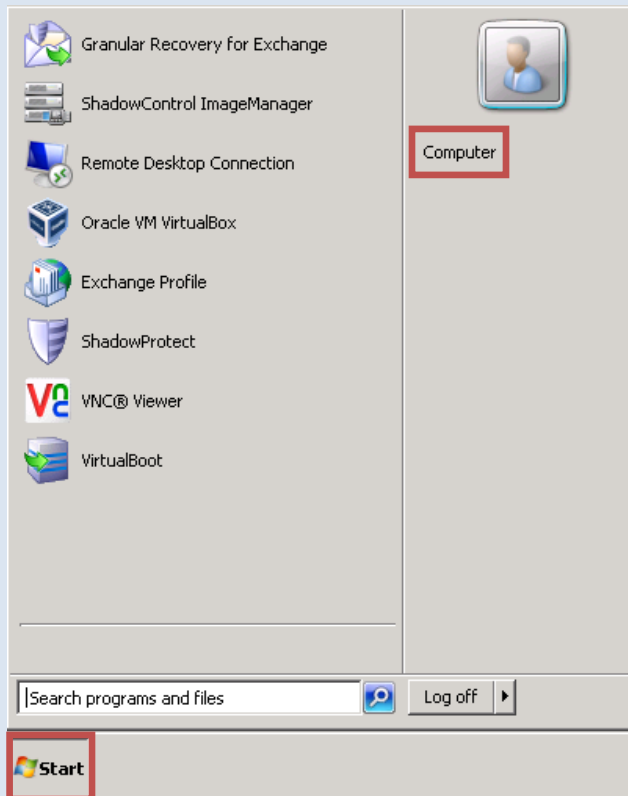
It will be using the drive letter you assigned when mounting the **Recovery Image**



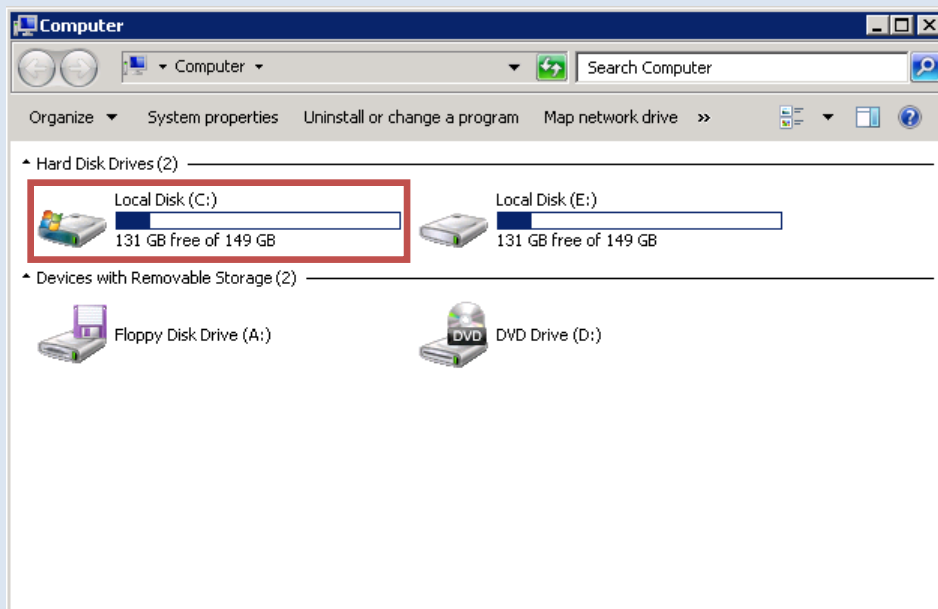
- d. Navigate to the location of the **SQL Instance** that you wish to restore from
- e. Select the **.mdf and .ldf** files of the database(s) you wish to restore from
- f. Right click the files, select **Copy**




- g. Click the **Start Button**
- h. Click **Computer**



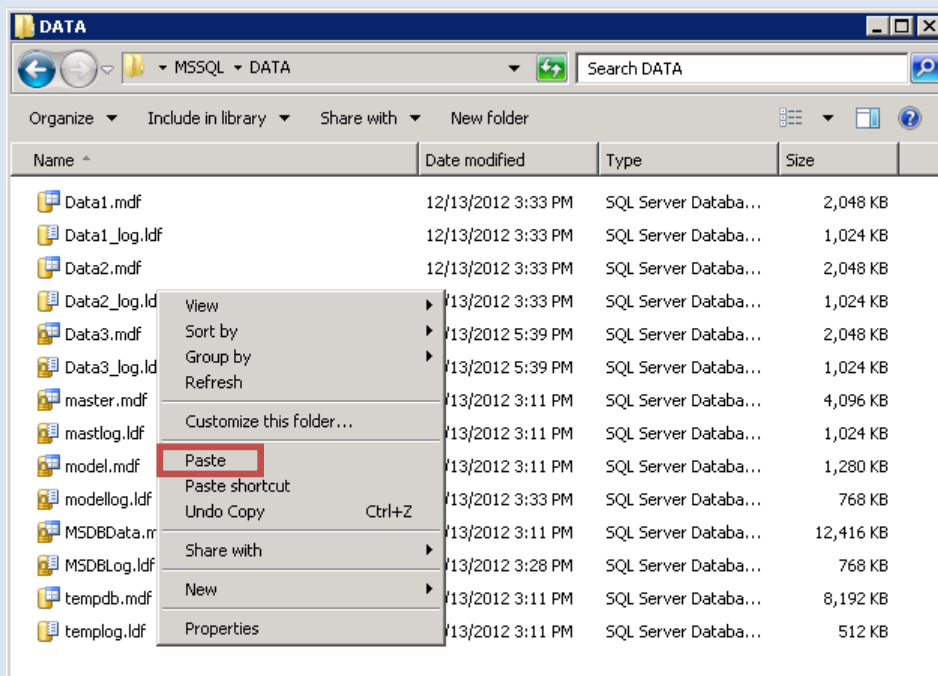
- i. Navigate to **Local Disk** which contains the **original SQL Database** (not the recovery image mounted as a local drive)



- j. Navigate to the location of the original SQL database

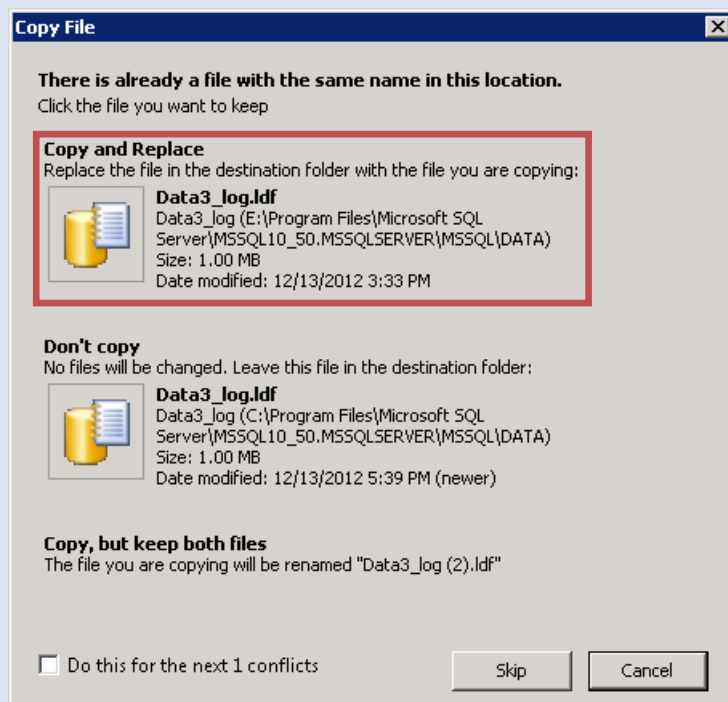
 ABS recommends backing up the original SQL database before taking the following steps:

- k. Right click the blank space, click **Paste**



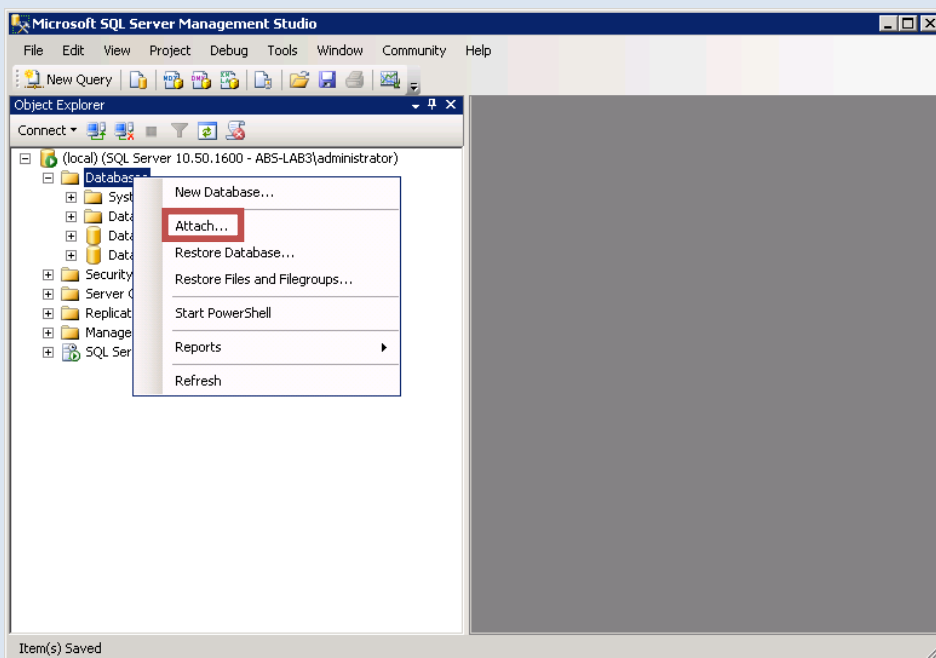
I. Click **Copy and Replace**

The SQL database will now begin transferring over the network. The transfer time will vary depending on size of database and network speed.

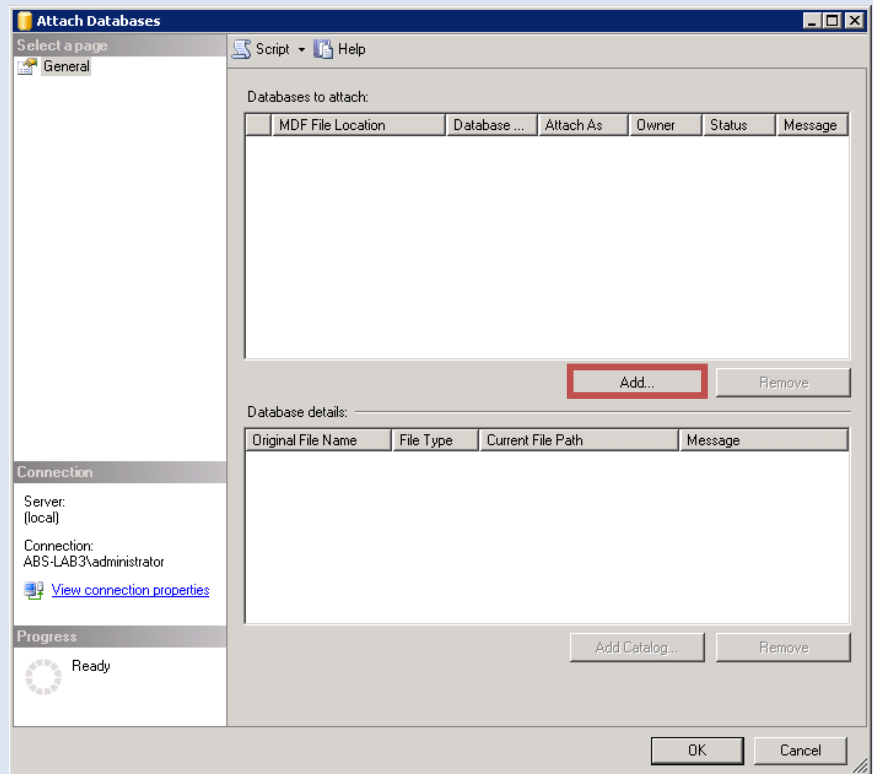


3. Attach Restored Database

- Open **SQL Server Management Studio**
- Right click **Databases**, click **Attach...**



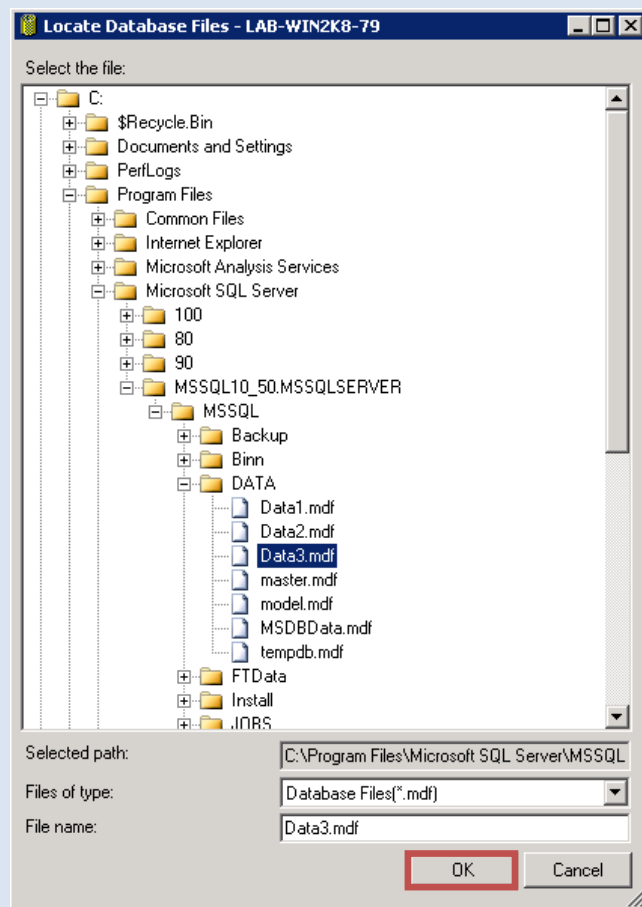
c. Click **Add...**



d. Locate the database that was copied

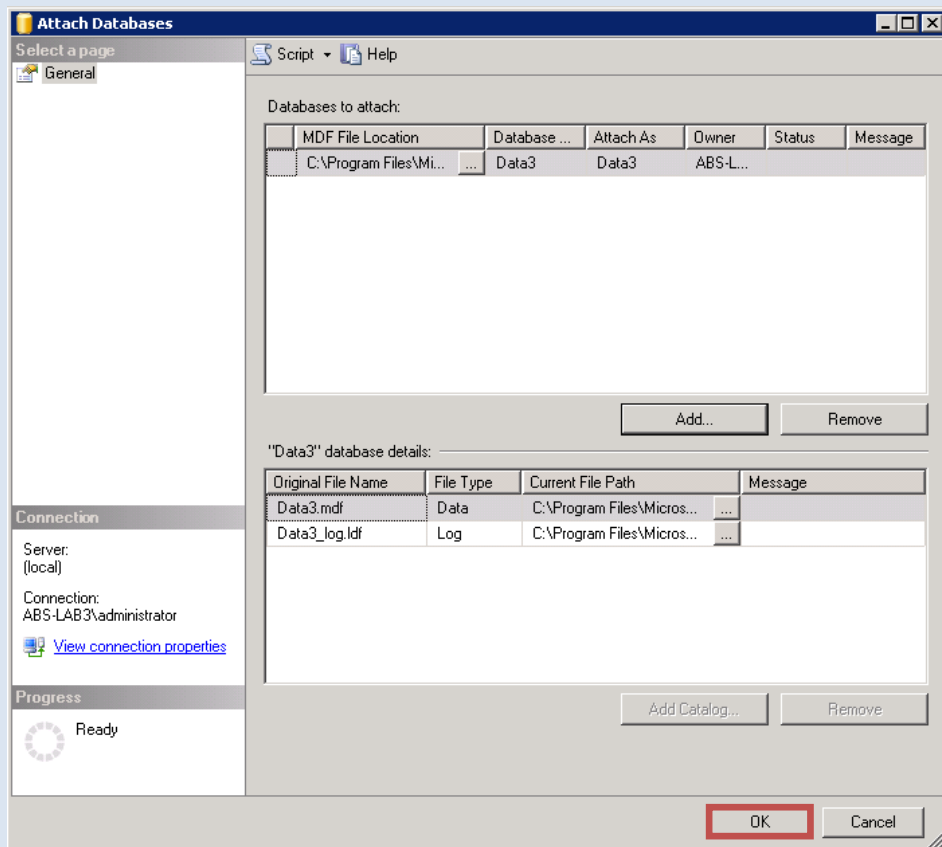
e. Click the **SQL Database**

f. Click **OK**



g. Click **OK**

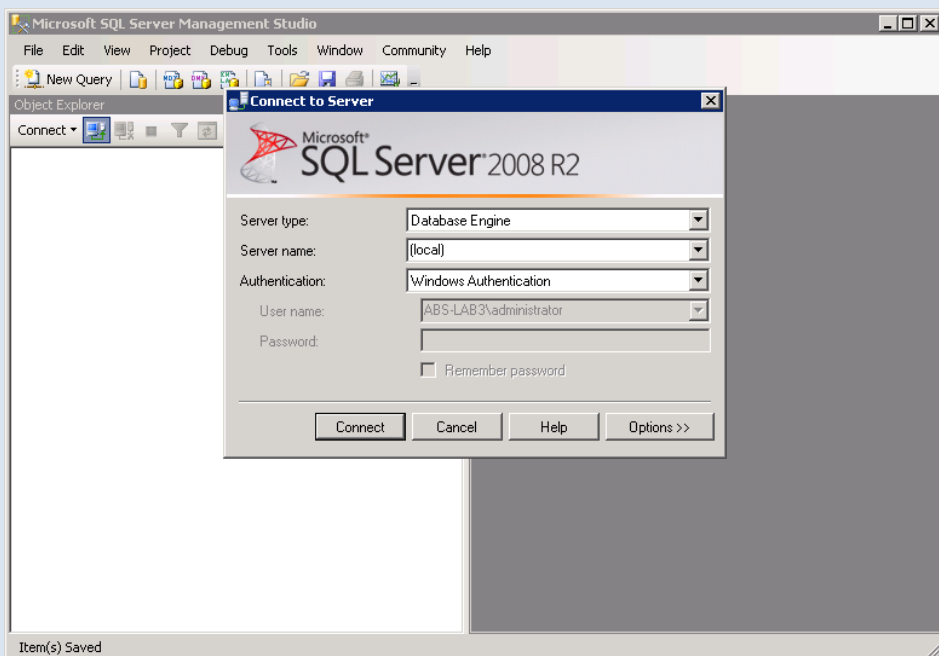
The database will now be mounted to the SQL instance. Proceed to **Dismounting recovery Image as Local Drive** when the restore is complete.



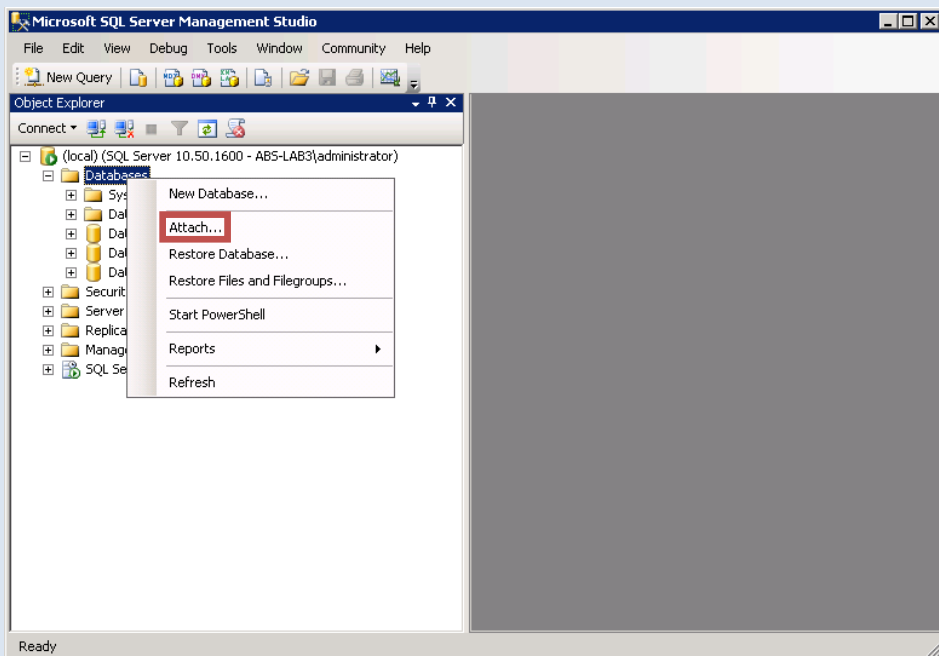
SQL Database Restore: Granular Database Restore

i This method is best used when you want to restore a specific section of a database. The entire database does not need to be copied using this method.

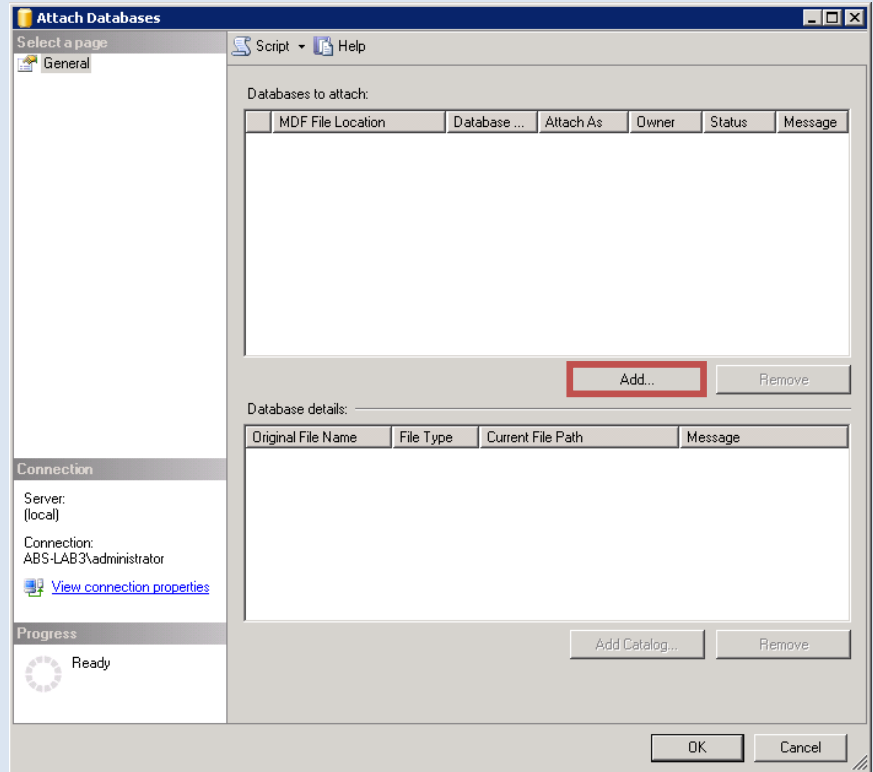
- a. Open **SQL Server Management Studio**
- b. Connect to **SQL Instance**



- c. Right click **Database**
- d. Click **Attach...**



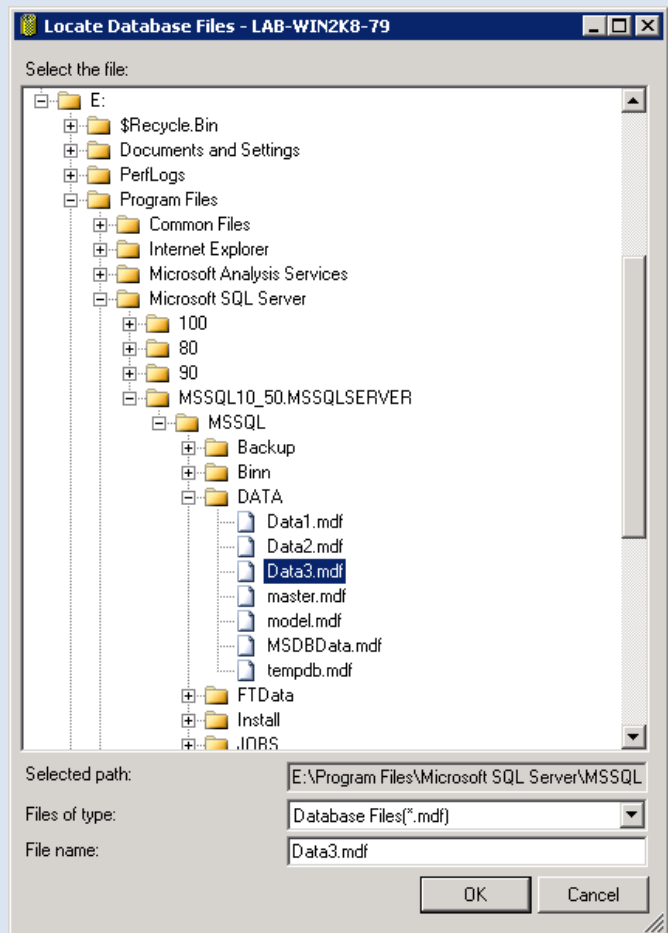
e. Click **Add...**



f. Navigate to the recovery image mounted as local drive

g. Click the database you want to restore from

h. Click **OK**



- i. Under **Attach As**, rename database to **Databasename-restore**
- j. Click **OK**

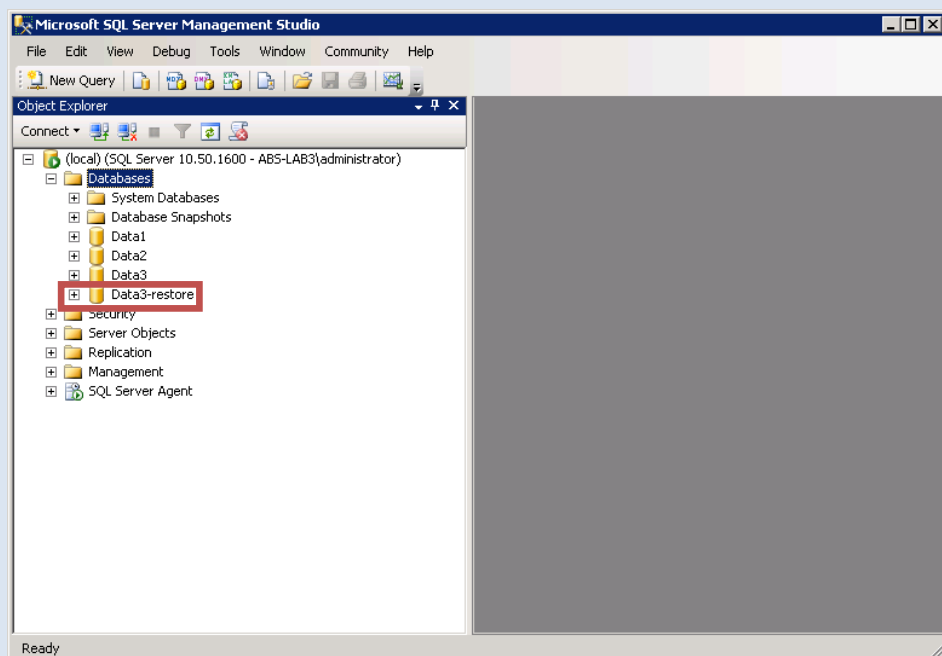
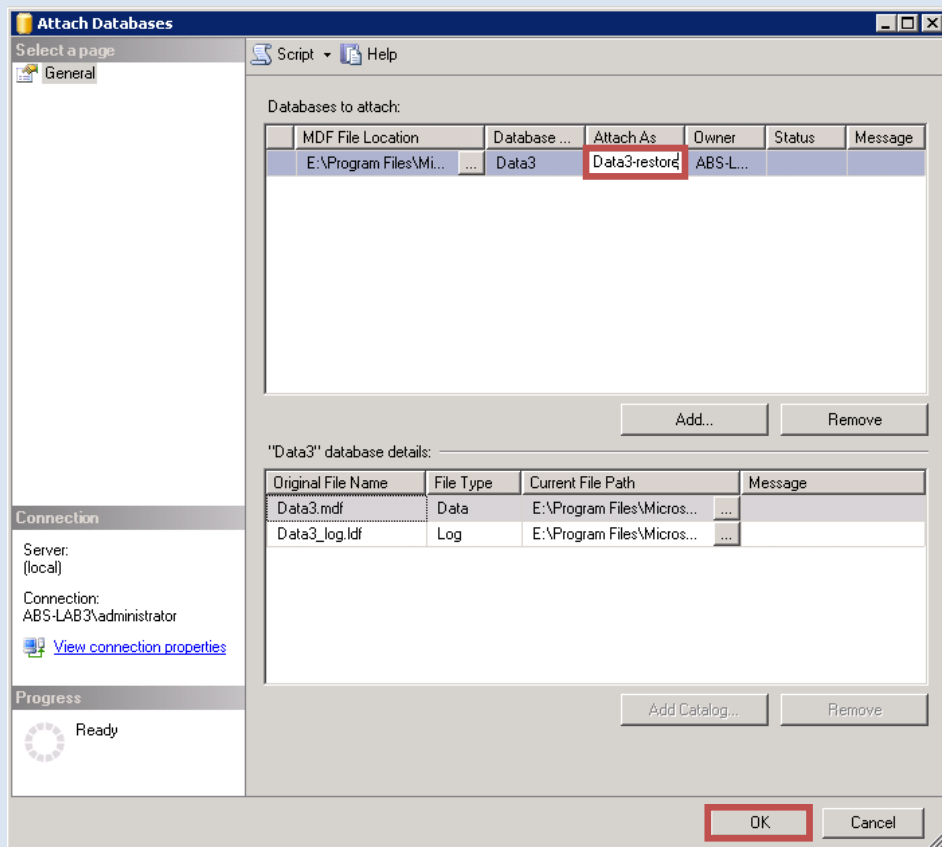
- k. Database will now be shown as attached

i From here you can copy the table or rows back to your original database by using either INSERT, BCP (Bulk Copy Utility) or SELECT INTO commands.

! Restoring a database might break the referential integrity of the database. A **DBCC CHECKTABLE** might need to be ran to verify the integrity of the database.

! It is not recommended to run the **restored** database in a production environment. Performance issues may occur due to slow network speeds.

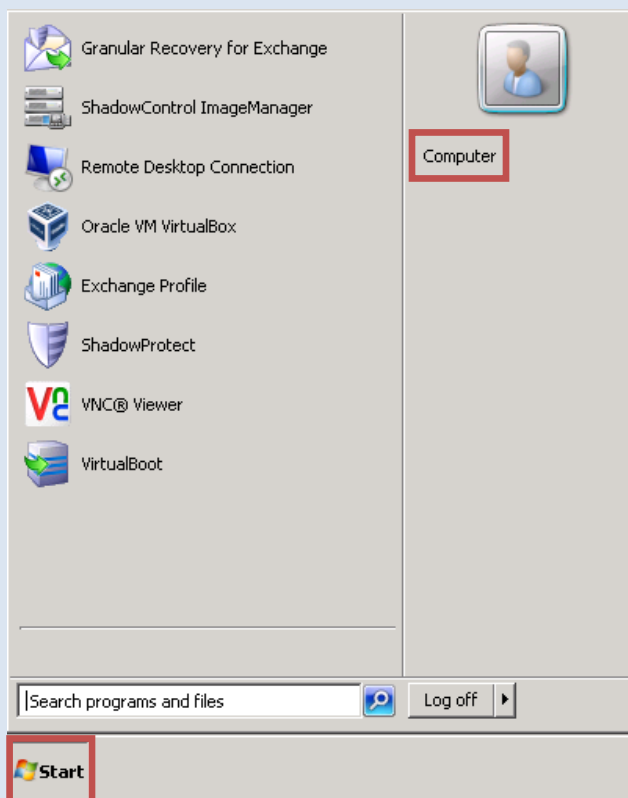
To dismount the restored database, refer to pages 7-8



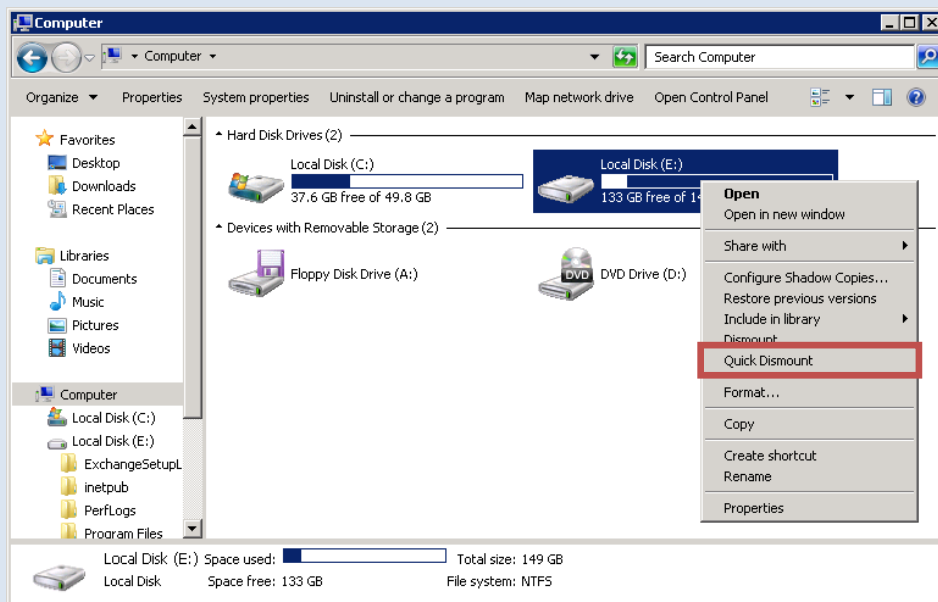
Dismounting the Recovery Image as Local Drive

i Perform these steps on the SQL Server after the restore data is no longer needed

- Click the **Start Button**
- Click **Computer**



- Right click the mounted drive
- Select **Quick Dismount**



The dismount of the Recovery Image as Local Drive is **Complete**