

# LOKKBOX

## DOCUMENTATION MICROSOFT SQL BACKUP & RESTORE OPERATIONS

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# 1 Backup/Restore of Microsoft SQL Server 7.0 / 2000 / 2005 / 2008

This chapter will describe in detail how to use Lokkbox OBM to backup your Microsoft SQL Server 7.0 / 2000 / 2005 / 2008 server and how you can restore your Microsoft SQL Server 7.0 / 2000 / 2005 / 2008 server from the backup files.

## 1.1 Requirements

- i. Lokkbox OBM must be installed onto the computer running Microsoft SQL Server.
- ii. Data from Microsoft SQL Server will be backed up to a temporary directory before they are sent to Lokkbox OBS. Please make sure you have sufficient space on your computer to store these data when you run the backup job.



## 1.2 Overview

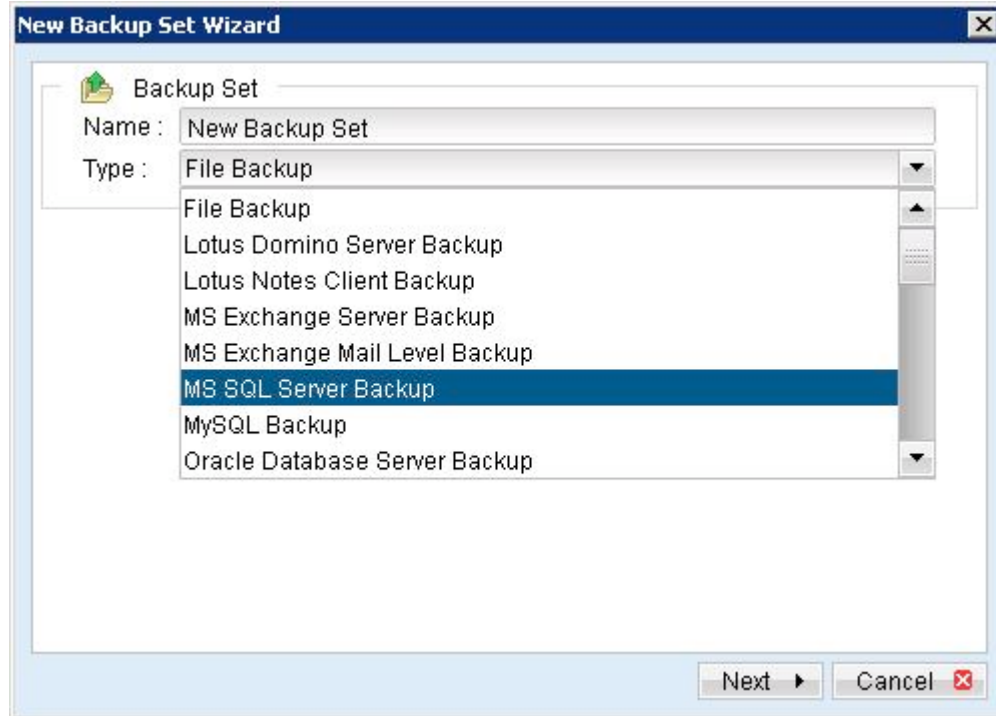
Lokkbox OBM will backup your Microsoft SQL Server database(s) by taking the following steps:

- i. Before running any backup activities, Lokkbox OBM will run all Pre-Commands of the backup set.
- ii. For each database that is to be backed up, Lokkbox OBM will issue a database / transaction log backup command to Microsoft SQL Server to backup each database to a Microsoft SQL Server database backup file (\*.bak file) and save it in the temporary directory you specified.
- iii. After all \*.bak files have been spooled to the temporary directories, Lokkbox OBM will run all Post-Commands of the backup set.
- iv. Upload all files copied to the temporary directory to Lokkbox OBS.
- v. Remove temporary files from the temporary directory.

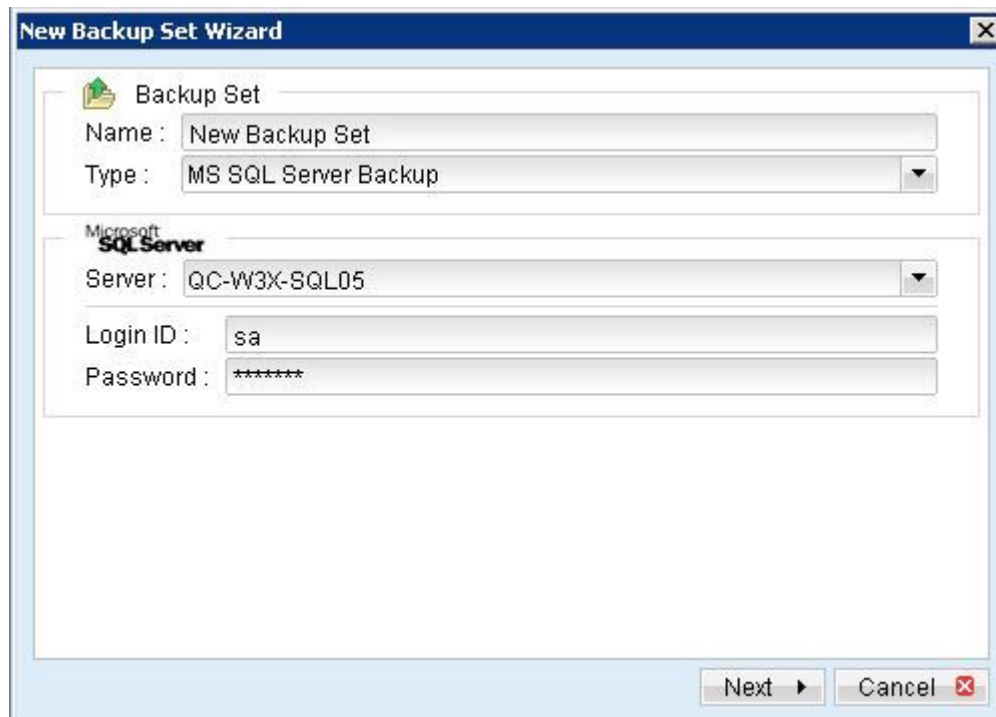
## 1.3 How to backup Microsoft SQL Server database(s)

Please follow the instructions below to backup your Microsoft SQL Server databases using Lokkbox OBM.

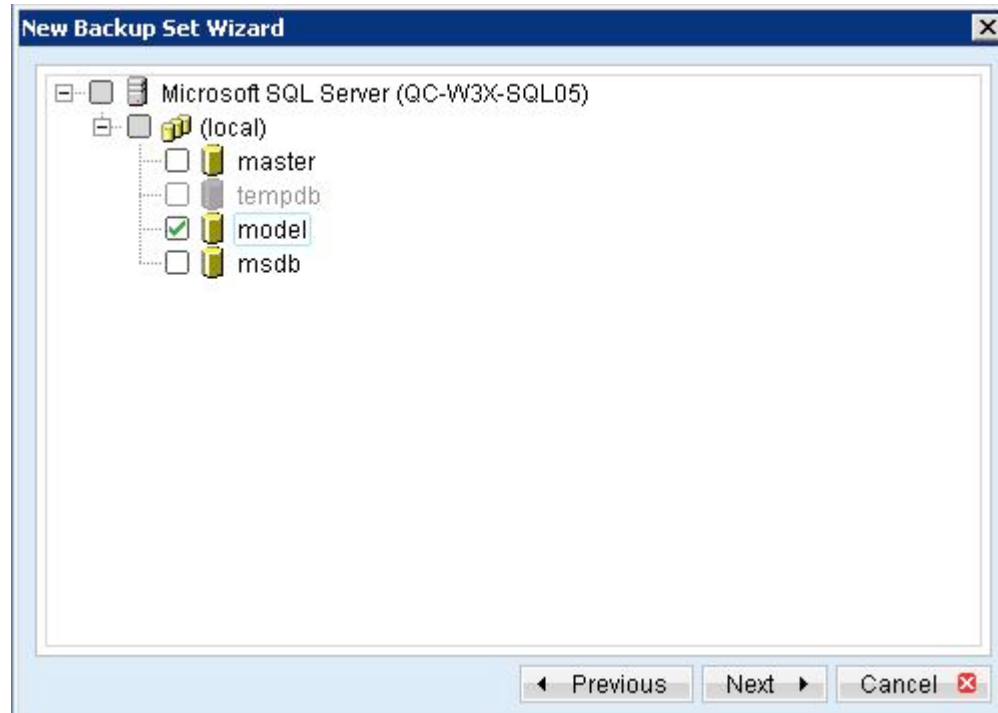
- i. Open Lokkbox OBM
- ii. Create a backup set
  - a. To start setting up backup sets, click the  button to open the [Backup Setting] dialog.
  - b. On the left panel, press the  button to create a new backup set.
  - c. On the dialog, choose [MS SQL Server Backup] as the [Type].



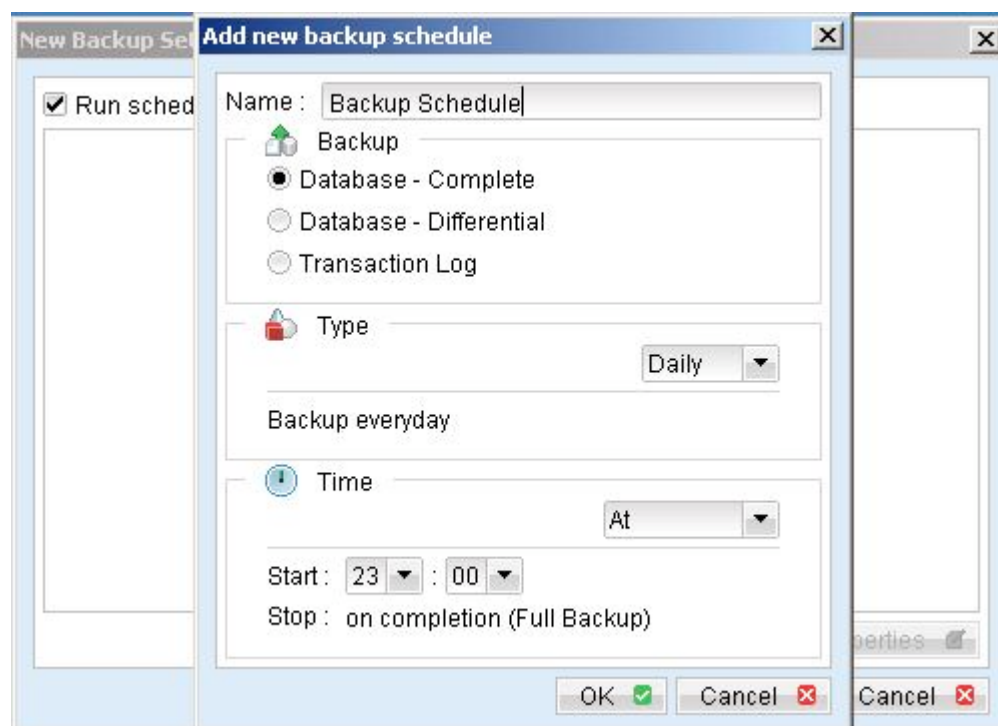
- d. Enter a name for your backup set



- e. Enter the Microsoft SQL Server administrator username and password  
f. Select the database(s) you want to backup

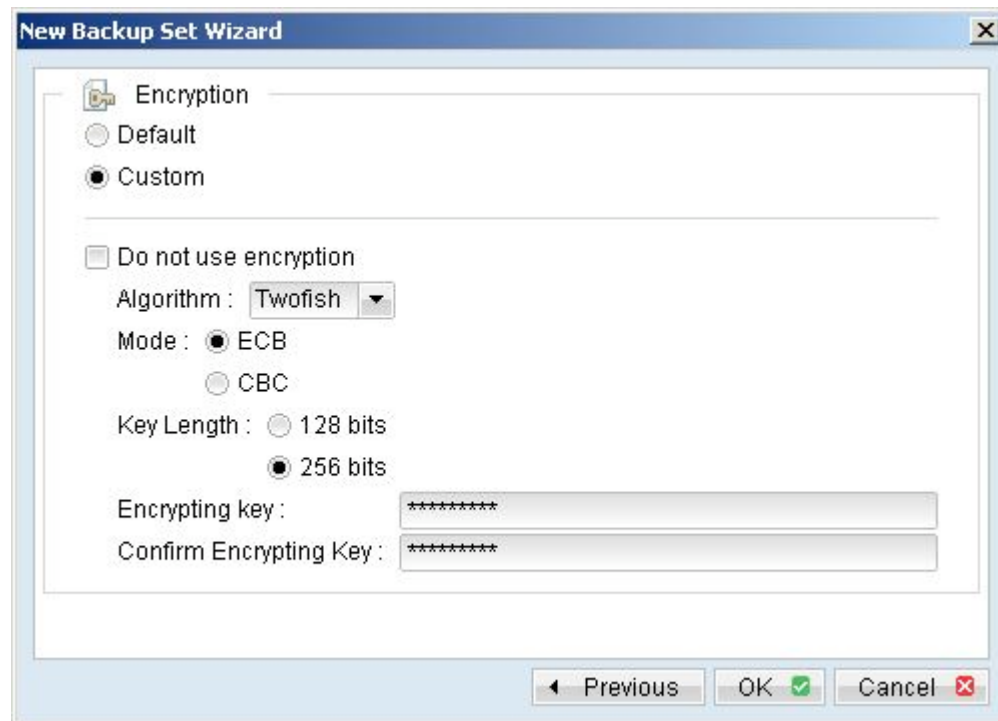


- g. Set the backup schedule for full database backup and transaction log backup



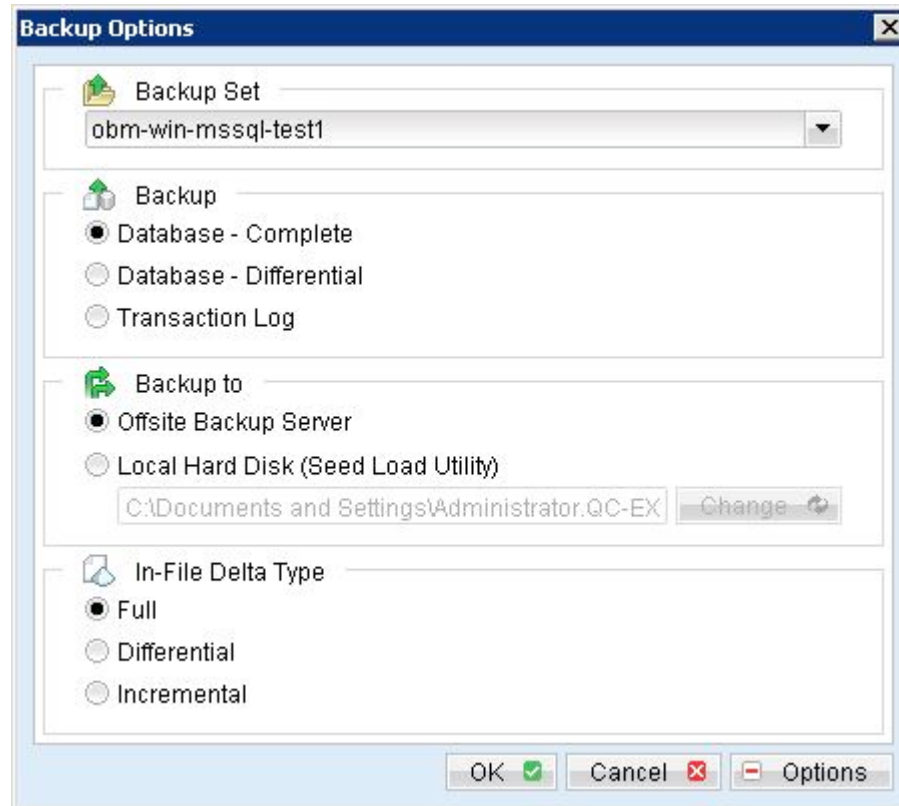
(Note: You can have more than one schedule in a backup set, i.e. you can perform intra-day transaction log backup by adding more than one daily transaction log backup schedule to your backup set)

- h. Set the encryption algorithm, encryption mode and encrypting key for this backup set



(Hint: For maximum security, please select AES (Advanced Encryption Standard) Algorithm, CBC (Cipher Block Chaining) mode and use an encrypting key with more than 8 characters.)

- iii. Run Backup
- Press the [Backup] button on the main page of Lokkbox OBM dialog.
  - Select the backup type (e.g. Complete, Differential, Transaction Log) you would like to perform. Select the backup set you want to run and select [Online Backup Service] to start backing up your files to Lokkbox OBS. If applicable, you can change the In-File Delta Type also.



- c. Click [OK] to start backing up your files to Lokkbox OBS.

## 1.4 How to restore Microsoft SQL Server database(s)

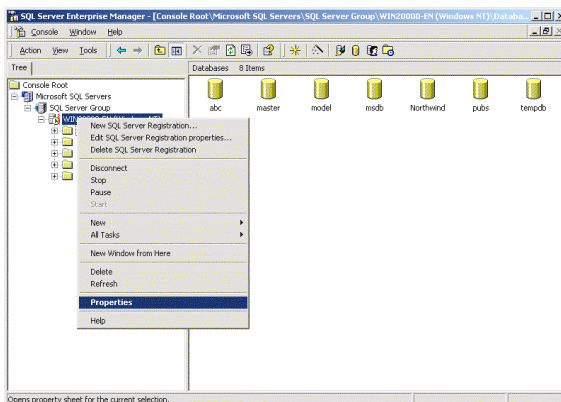
Please follow the instructions below to restore your Microsoft SQL Server databases from Lokkbox OBS.

- i. Download the backup files (.bak) from Lokkbox OBS  
Please refer to the document ‘Restoring files’ available on [www.lokkbox.com](http://www.lokkbox.com) for information on how to download backup files from Lokkbox OBS.
- ii. Open Microsoft SQL Enterprise Manager  
You can open Microsoft SQL Enterprise Manager from [Start Menu] -> [Program] -> [Microsoft SQL Server] -> [Enterprise Manager]
- iii. (Optional) Restore “master” database  
You need to restore “master” database if you:
  - d. are rebuilding all your databases from scratch
  - e. have changing any server-wide or database configuration options
  - f. have added logins or other login security-related operations.
  - g. have created or removed logical backup devices.
  - h. have configured the server for distributed queries and remote procedure calls, such as adding linked servers or remote logins.

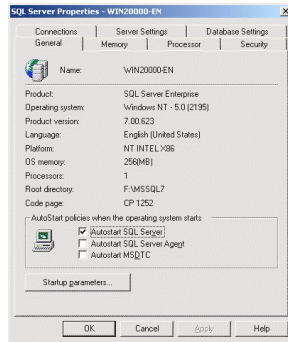
You do not need to restore your master database if you just want to restore a user database. For more information on Microsoft SQL Server “master” database, please visit <http://www.microsoft.com/sql/>.

To restore “master” database, please do the following:

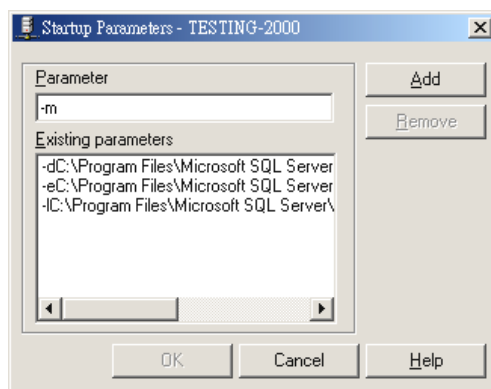
- i. Start Microsoft SQL Server in “Single User Mode”
  1. Right click your Microsoft SQL Server and select [Properties].



2. Press the [Startup Parameters] button.

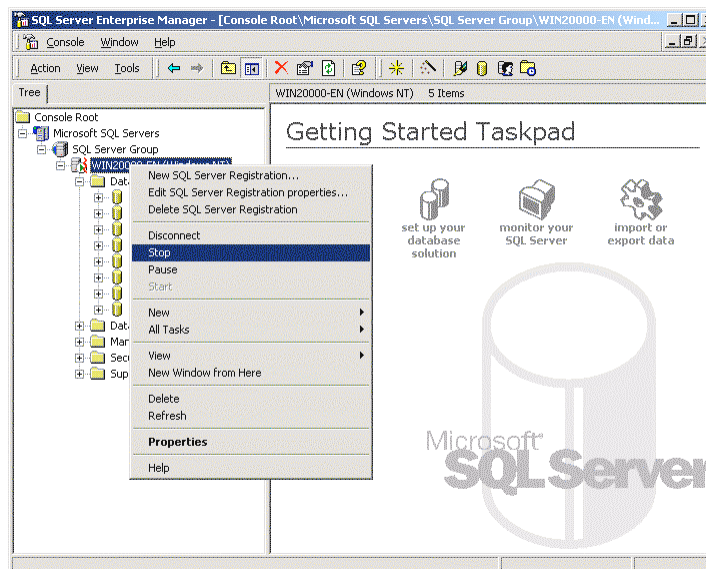


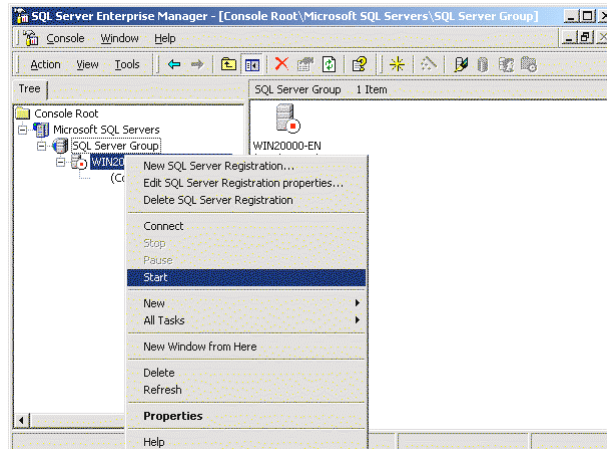
3. Add a “-m” parameter to the [Startup Parameters].



4. Restart Microsoft SQL Server.

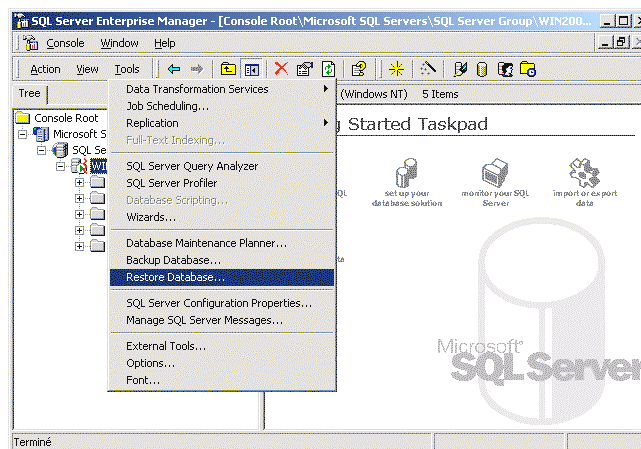
From [Enterprise Manager], right click your Microsoft SQL Server and select [Stop] and then [Start].



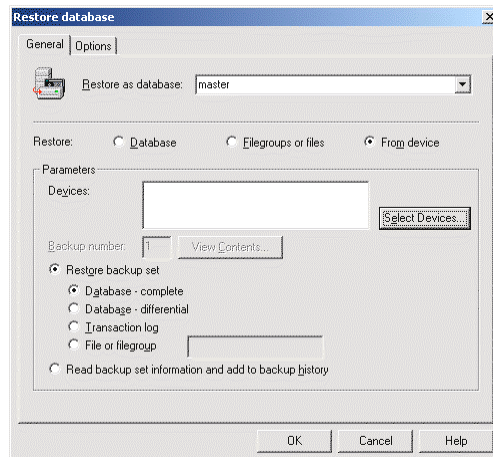


j. Restore “master” database

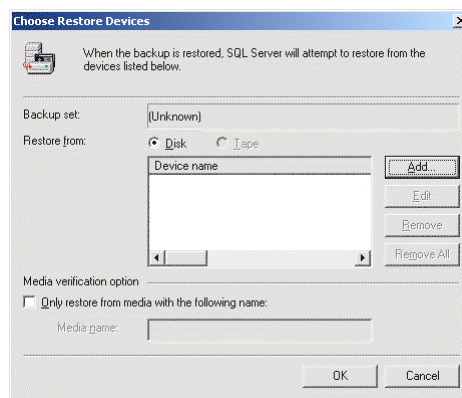
1. From [Enterprise Manager] -> [Tools] -> [Restore Database].



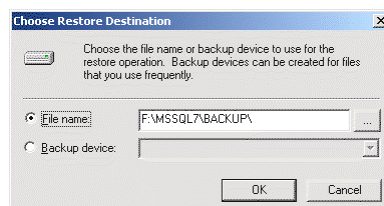
2. Select [master] in the [Restore as database] drop down list.
3. Select the [From device] radio button.
4. Press the [Select Devices] button.



5. From the [Choose Restore Devices], press the [Add] button.



6. From the [Choose Restore Destination] panel, press the [...] button to choose your master backup (\*.bak) from your backup files.



7. Press the [OK] button, to start restoring the “master” database.

k. Restart Microsoft SQL Server in “Normal Mode”

1. Remove “-m” parameter from the [Startup Parameters] as in previous step.
2. Restart your Microsoft SQL Server as in previous step.

iv. (Optional) Restore “model”, “msdb” and “distribution” database

You need to restore “model” database if you have changed the database template of your SQL Server.

You need to restore “msdb” database if you have changed the scheduling information or you want to restore the backup and restore history of your databases.

You need to restore “distribution” database if you are running the replication components of SQL Server.

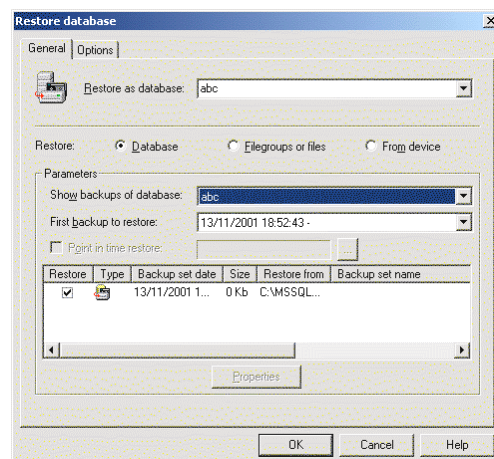
You do not need to restore these databases if you just want to restore a user database. For more information on Microsoft SQL Server “model”, “msdb” and “distribution” database, please visit <http://www.microsoft.com/sql/>.

You need to restore each of these databases one by one. To restore any of these databases, please do the following:

- a. From [Enterprise Manager] -> [Tools] -> [Restore Database].
  - b. Select the database to be restored in the [Restore as database] drop down list.
  - c. Select the [From device] radio button.
  - d. Press the [Select Devices] button.
  - e. Press the [...] button to choose your backup files (\*.bak) for the database to be restored.
  - f. Press the [OK] button.
- v. Restore user database(s)

For each of the database you would like to restore,

- a. From [Enterprise Manager] -> [Tools] -> [Restore Database].
- b. Select the database to be restored in the [Restore as database] drop down list.
- c. Select the [Database] radio button.



- d. From the [Show backups of database] drop down list, select the database to be

- restored
  - e. From the [First backup to restore] drop down list, select the snapshot of the database you would like to restore to. You can restore your database to the snapshot of your database at any point of the time between the time you did your full backup and the time you did your last subsequent backup.
  - f. Change the [Restore From] entry. If you backup files (\*.bak) are not in the default directory, you need to update the full path to your backup files by pressing the [Properties] button.
  - g. Press the [OK] button
- vi. All database(s) restored successfully