

Move the system and user database to another drive

1. User Databases:

Method1:

1. Take the backup of database which is moving to different drive.
2. Detach the database

```
USE [master]
GO
ALTER DATABASE [AdventureWorks2017_New] SET SINGLE_USER WITH ROLLBACK IMMEDIATE
GO
USE [master]
GO
EXEC master.dbo.sp_detach_db @dbname = N'AdventureWorks2017_New'
GO
```

3. Move the physical files to target location
4. Attach the files from target location

Note: if you get error number 5 then provide proper privileges to access the folder

Method2:

1. sp_helpdb 'DB_Name' -- will get logical and physical name of DB
2. update DB logical and physical name of MDF ,NDF and LDF and run the script
ALTER DATABASE database_name MODIFY FILE (NAME = logical_name , FILENAME =
'new_path\os_file_name');
3. stop the SQL server services
4. Move the database from source to target location
5. Start the SQL services

Note: in method2, services should down which is not better practice then move for method

2. Move System Databases from one drive to another Drive:

Syntax:

```
ALTER DATABASE database_name MODIFY FILE ( NAME = logical_name , FILENAME =
'new_path\os_file_name' );
```

Generate script to move Database:

```
SELECT 'ALTER DATABASE '+DB_name(database_id)+' MODIFY FILE (NAME = [' + f.name + '],
      + ' FILENAME = "M:\SQLDBA\Backup\MoveDB\SystemDB\' + f.name
      + CASE WHEN f.type = 1 THEN '.ldf' ELSE '.mdf' END
      + "');'
```

```
FROM sys.master_files f
```

```
WHERE f.database_id = DB_ID(N'DB_Name');-- Update Database name instead of DB_Name which
you want move
```

Note: My target location is "M:\SQLDBA\Backup\MoveDB\SystemDB". Update destination path as per your requirement.

Model DB:

1. Take the Model DB backup

```
Backup database model to disk='M:\SQLDBA\Backup\Practice\model.bak'
```

2. Generate script from below.

```
ALTER DATABASE model MODIFY FILE (NAME = [modeldev], FILENAME =
'M:\SQLDBA\Backup\MoveDB\SystemDB\model.mdf');
```

```
ALTER DATABASE model MODIFY FILE (NAME = [modellog], FILENAME =
'M:\SQLDBA\Backup\MoveDB\SystemDB\modellog.ldf');
```

3. Run generated script

4. Stop the SQL services

5. Move Model DB to Target location

6. Start SQL services

7. Validate whether moved model DB to target location

```
Sp_helpdb Model
```

Temp DB:

1. Temp DB backup will not possible-Ignore this step

2. Run below script.

```
ALTER DATABASE tempdb MODIFY FILE (NAME = [tempdev], FILENAME =
'M:\SQLDBA\Backup\MoveDB\SystemDB\tempdb.mdf');
```

```
ALTER DATABASE tempdb MODIFY FILE (NAME = [templog], FILENAME =
'M:\SQLDBA\Backup\MoveDB\SystemDB\templog.ldf');
```

```
ALTER DATABASE tempdb MODIFY FILE (NAME = [temp2], FILENAME =
'M:\SQLDBA\Backup\MoveDB\SystemDB\tempdb_mssql_2.ndf');
```

```
ALTER DATABASE tempdb MODIFY FILE (NAME = [temp3], FILENAME =
'M:\SQLDBA\Backup\MoveDB\SystemDB\tempdb_mssql_3.ndf');
```

```
ALTER DATABASE tempdb MODIFY FILE (NAME = [temp4], FILENAME =
'M:\SQLDBA\Backup\MoveDB\SystemDB\tempdb_mssql_4.mdf');
```

```
ALTER DATABASE tempdb MODIFY FILE (NAME = [temp5], FILENAME =
'M:\SQLDBA\Backup\MoveDB\SystemDB\tempdb_mssql_5.mdf');
```

```
ALTER DATABASE tempdb MODIFY FILE (NAME = [temp6], FILENAME =
'M:\SQLDBA\Backup\MoveDB\SystemDB\tempdb_mssql_6.mdf');
```

```
ALTER DATABASE tempdb MODIFY FILE (NAME = [temp7], FILENAME =
'M:\SQLDBA\Backup\MoveDB\SystemDB\tempdb_mssql_7.mdf');
```

```
ALTER DATABASE tempdb MODIFY FILE (NAME = [temp8], FILENAME =
'M:\SQLDBA\Backup\MoveDB\SystemDB\tempdb_mssql_8.mdf');
```

3. Restart SQL services

4. Validate whether moved temp DB to target location

```
Sp_helpdb tempdb
```

```
SELECT 'ALTER DATABASE tempdb MODIFY FILE (NAME = [' + f.name + ','
      + ' FILENAME = '''M:\SQLDBA\Backup\MoveDB\SystemDB' + f.name
      + CASE WHEN f.type = 1 THEN '.ldf' ELSE '.mdf' END
      + ''');'
FROM sys.master_files f
WHERE f.database_id = DB_ID(N'tempdb');
```

MSDB :

1. Take the MSDB DB backup

Backup database MSDB to disk='M:\SQLDBA\Backup\Practice\MSDB.bak'

2. Generate script from below.

```
sp_helpdb msdb
```

```
ALTER DATABASE MSDB MODIFY FILE (NAME = MSDBData, FILENAME =  
'M:\SQLDBA\Backup\MoveDB\SystemDB\MSDBData.mdf');
```

```
ALTER DATABASE MSDB MODIFY FILE (NAME = MSDBLog, FILENAME =  
'M:\SQLDBA\Backup\MoveDB\SystemDB\MSDBLog.ldf');
```

3. Run generated script
4. Stop the SQL services
5. Move MSDB DB to Target location
6. Start SQL services
7. Validate whether moved MSDB DB to target location

```
Sp_helpdb MSDB
```

Master DB:

1. Take the master DB backup

Backup database master to disk='M:\SQLDBA\Backup\Practice\Master.bak'

2. Open SQL server configuration manager->SQL Server Services-> Right pan-> Right click on SQL server-> Properties-> Startup parameters-> update target location and click apply

Update the path for -d and -l

-d means master data file

-l means log file

-e means error log

-dM:\SQLDBA\Backup\MoveDB\SystemDB\master.mdf

-lM:\SQLDBA\Backup\MoveDB\SystemDB\mastlog.ldf

3. Stop SQL services

4. Move Master DB to Target location
6. Start SQL services
7. Validate whether moved master DB to target location

Sp_helpdb master