T-SQL Backup and Restore

www.tsql.info

SQL Server allow to back up and restore your databases. Also, you can export and import security certificates and keys.

TSQL Backup

- Backup entire database to disk file
- Backup partial backup to disk file
- Backup database devices in a Striped Media Set

TSQL Restore

- Restore entire database
- Restore full and differential database backup

Backup entire database

The following example backs up the master database to a disk file.

BACKUP DATABASE Syntax:

BACKUP DATABASE { database_name }
TO backup_device [,...n]
[MIRROR TO clause]
[WITH { DIFFERENTIAL | [,...n] }];

BACKUP DATABASE Example:

BACKUP DATABASE master
TO DISK = 'E:\SQLServerBackup\master.bak'
WITH FORMAT;
GO

Messages:

Processed 464 pages for database 'master', file 'master' on file 1.

Processed 3 pages for database 'master', file 'mastlog' on file 1.

BACKUP DATABASE successfully processed 467 pages in 0.274 seconds (13.308

MB/sec).

Backup partial database

The following example backup partial the model database to a disk file.

BACKUP DATABASE Syntax:

BACKUP DATABASE { database_name }
READ_WRITE_FILEGROUPS [, [,...n]]
TO backup_device [,...n]
[MIRROR TO clause]
[WITH { DIFFERENTIAL | [,...n] }];

Backup partial backup example:

BACKUP DATABASE model READ_WRITE_FILEGROUPS
TO DISK = 'E:\SQLServerBackup\model_partial.bak'
GO

Messages:

Processed 328 pages for database 'model', file 'modeldev' on file 1.

Processed 2 pages for database 'model', file 'modellog' on file 1.

BACKUP DATABASE...FILE=name successfully processed 330 pages in 0.325 seconds
(7.910 MB/sec).

Backup partial backup with differential example:

BACKUP DATABASE model READ_WRITE_FILEGROUPS
TO DISK = 'E:\SQLServerBackup\model_partial.dif'
WITH DIFFERENTIAL
GO

Messages:

Processed 40 pages for database 'model', file 'modeldev' on file 1.

Processed 2 pages for database 'model', file 'modellog' on file 1.

BACKUP DATABASE...FILE=name WITH DIFFERENTIAL successfully processed 42
pages in 0.147 seconds (2.182 MB/sec).

Backup database devices

Backup database devices in a Striped Media Set

The following example backup the model database devices in a striped media set.

Example:

```
BACKUP DATABASE model
TO DISK='E:\SQLServerBackup\1\model_1.bak',
DISK='E:\SQLServerBackup\2\model_2.bak'
WITH FORMAT,
MEDIANAME = 'modelStripedSet0',
MEDIADESCRIPTION = 'Striped media set for model database';
GO
```

Messages:

Processed 328 pages for database 'model', file 'modeldev' on file 1.
Processed 2 pages for database 'model', file 'modellog' on file 1.
BACKUP DATABASE successfully processed 330 pages in 0.350 seconds (7.345 MB/sec).

Restore entire database

Restore a full database backup from the logical backup device.

RESTORE DATABASE Syntax:

```
RESTORE DATABASE { database_name }
[ FROM [ ,...n ] ]
[ WITH
{
[ RECOVERY | NORECOVERY | STANDBY = {standby_file_name} ]
| , [ ,...n ]
| ,
| ,
| ,
| ,
| ,
```

```
} [ ,...n ]
]
[;]
```

RESTORE DATABASE Example:

```
USE master;
GO
RESTORE DATABASE test_2
FROM test_2;
GO
```

Messages:

Processed 328 pages for database 'test_2', file 'test_2' on file 1.

Processed 2 pages for database 'test_2', file 'test_2_log' on file 1.

RESTORE DATABASE successfully processed 330 pages in 0.276 seconds (9.333 MB/sec).

Restore full and differential database backup

Restore a full database backup followed by a differential backup from backup device.

RESTORE DATABASE Syntax:

```
RESTORE DATABASE [ database_name ]
FROM DISK = [ backup_path ]
WITH FILE = [ file_number]
RECOVERY;
```

RESTORE DATABASE Example:

```
RESTORE DATABASE AdventureWorks2012 FROM DISK =
'Z:\SQLServerBackups\AdventureWorks2012.bak' WITH FILE = 9 RECOVERY;
```

Messages:

Processed 328 pages for database 'test_2', file 'test_2' on file 1.

Processed 2 pages for database 'test_2', file 'test_2_log' on file 1.

RESTORE DATABASE successfully processed 330 pages in 0.276 seconds (9.333

MB/sec).

Resources:

www.tsql.info/backup-restore/backup-restore.php