

Tivoli Storage Manager Sync Cookbook

Tivoli Storage Manager (or TSM) is IBM's enterprise backup solution, and provides both a command line interface program that can be used to query the information required for synchronization, and ODBC driver that allows you to directly query data from the TSM database.

TSM is designed around several database tables that must be queried to get a complete list of tapes. These tables are: The Volume Table. This table lists all tapes that contain active data for a given TSM system. Any Volume that become scratch and is no longer managed by the DRM subsystem will be dropped from this table. The DRM Table. This table lists all tapes are considered critical for recovery purposes. The Library Table. This table is only available on servers that are considered library masters and lists all Volumes that are in an ATL environment. This table will also include scratch tapes that are currently in an ATL.

TSM is highly configurable, but by default has the following locations that a tape may be in:

- **Mountable** The Volume is available for use.
- **Courier** The Volume is waiting to be picked-up to be take off-site.
- **Courier Retrieve** The Volume has been picked-up to be taken off-site.
- **Vault** The Volume is currently believed to be off-site.
- **Vault Retrieve** The Volume needs to be returned from off-site.

Data Extraction

Extracting the Volume Table

Call the TSM command line dsmadm,
 Suppress headings and pass userid and password.
 Pass TSM server name.
 Output in table mode to file TSM-Volumes.csv.
 Output in CSV mode and pass query data

```
dsmadm -dataonly=yes -id=userid -pa=password -tcpserveraddress=tsm01.gazillabyte.local -  
displaymode=table -outfile=TSM-Volumes.csv -commadelimited "select  
volume_name,location,stgpool_name from volumes"
```

Extracting the DRM Table

Call the TSM command line dsmadm,
 suppress headings and pass userid and password.
 Pass TSM server name.
 Output the data in table mode to file TSM-Volumes.csv.
 Output in CSV mode and pass query data.

```
<sxh> dsmadm -dataonly=yes -id=userid -pa=password -tcpserveraddress=tsm01.gazillabyte.local  
-displaymode=table -outfile=TSM-DRM.csv -commadelimited "select
```

```
volume_name,state,stgpool_name from drmedia" </sxh>
```

Synchronization



You will need to install the [TapeTrack Sync software](#) to complete these instructions.

Synchronization with TapeTrack is performed by calling the [TMSS10Sync](#) command line program, along with:

1. The CSV file produced from the DRM table
2. The CSV file produced from the Volume table
3. A synchronization definition file that instructs the program how to interpret the TSM table outputs.

Example Command Line Arguments

```
<sxh> #!/bin/bash set -e set OUTDIR=/var/tapetrack/reports set ETC=/etc/tapetrack set  
UID=TSMusername set PW=TSMpassword set TSMIP=tsm01.gazillabyte.local
```

```
echo "Step 1: Extracting DRM information from TSM Server: " $TSMIP
```

```
dsmadm -dataonly=yes -id=$UID -pa=$PW -tcpserveraddress=$TSMID -displaymode=table -  
outfile=$OUTDIR/TSM-DRM.csv -commadelimited "select volume_name,state,stgpool_name,voltype  
from drmedia"
```

```
echo "Step 2: Synchronizing with TapeTrack"
```

```
TMSS10Sync -a -d $ETC/TSM-DRM.ttidef -S user:-$PW@tapetrack.gazillabyte.local < $OUTDIR/TSM-  
DRM.csv > $OUTDIR/TSM-DRM-Sync.stdout 2> $OUTDIR/TSM-DRM-Sync.stderr \
```

```
echo "Step 3: Extracting Volume information from TSM Server: " $TSMIP
```

```
dsmadm -dataonly=yes -id=$UID -pa=$PW -tcpserveraddress=$TSMID -displaymode=table -  
outfile=$OUTDIR/TSM-VOL.csv -commadelimited "select volume_name,location,stgpool_name from  
volumes"
```

```
echo "Step 4: Synchronizing with TapeTrack"
```

```
TMSS10Sync -a -d $ETC/TSM-DRM.ttidef -S user:-$PW@tapetrack.gazillabyte.local < $OUTDIR/TSM-  
VOL.csv > $OUTDIR/TSM-VOL-Sync.stdout 2> $OUTDIR/TSM-VOL-Sync.stderr
```

```
if $(date +%u) -eq 1 ; then echo TMSS10MoveScratch -S user:-$PW@tapetrack.gazillabyte.local -R  
"LIBR"
```

```
</sxh>
```

From:

<https://docs.tapetrack.com/> - **TapeTrack Documentation**

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<https://docs.tapetrack.com/cookbook/tivolistoragemanagement?rev=1538612304>

Last update: **2025/01/21 22:07**

