TSM Håndbog

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# TSM Installation

Hent software fra FTP server:

<ftp://ibmacs:arrow2016@ftp.arrowecs.dk/>

FilClient\Windows hent nyeste: 8.1.9.0-TIV-TSMBAC-WinX64.exe

Gem i p:\SQLDBA\TSM\Windows

SQL Hent nyeste: SP\_DBS\_8.1.9\_DP\_MS\_SQL\_ML.exe

Gem i p:\SQLDBA\TSM\MSSQL

Kopier til Server – c:\install\

New-NetFirewallRule -Name "TSM" -DisplayName "TSM" -Profile Any -Direction Outbound -Action Allow -Protocol TCP -LocalPort 1500

Kør de 2 hentede filer: opretter 2 nye foldere.

C:\Install\Windows\TSMClient\spinstall.exe

Select Language English: Ok

Do you want to allow this app to make changes: YES

IBM Spectrum Protect Client requires following to be installed: Install

Welcome to the InstallShield Wizard: Next

Destination Folder c:\Program Files\Tivoli\TSM\: Next

Setup Type Typical: Next

Ready to Install: Install

InstallShield Wizard Completed: Finish

C:\Install\mssql\TSMSQL\_WIN\fcm\x64\sql\8190\enu\spinstall.exe

Select Language English: Ok

IBM Spectrum Protect Client requires following to be installed: Install

Do you want to allow this app to make changes: YES

Installation failed, Continue: Yes

Welcome to the InstallShield Wizard: Next

Software License Agreement: I accept: Next

Destination Folder c:\Program Files\Tivoli\TSM\: Next

Ready to Install: Install

Do you want to allow this app to make changes: YES

InstallShield Wizard Completed: Finish

C:\Install\mssql\TSMSQL\_WIN\SetupFCM.exe

Select Language English: Ok

IBM Spectrum Protect Client requires following to be installed: Install

Welcome to the InstallShield Wizard: Next

Software License Agreement: I accept: Next

Destination Folder c:\Program Files\Tivoli\: Next

InstallShield Wizard Completed: Finish

I Windows start menu:

DP For SQL Management Console (pin to start)

Do you want to allow this app to make changes: YES

Data Protection Selection: SQL Server: Next

Requirements Check: VSS Providers Check – Warning: Next

IBM Spectrum Protect Node Names: Do not configure VSS:

IBM Spectrum Protect Server Settings: Address: s-tsm04-p.ssi.ad: Port: 1500: Configure Server: No: Next

Custom Configuration: Default: Next

IBM Spectrum Protect Configuration: Show Details: Next

Completion: Run VSS Diag: NO: Finish

IBM Spectrum Protect\>IBM Spectrum Protect\>Dashboard

Højreklik IBM Spectrum Protect: Manage Computers

Set tree

USE [master]

GO

CREATE LOGIN [SSI\TSMoperator] FROM WINDOWS WITH DEFAULT\_DATABASE=[master], DEFAULT\_LANGUAGE=[us\_english]

GO

ALTER SERVER ROLE [sysadmin] ADD MEMBER [SSI\TSMoperator]

GO

CREATE LOGIN [DKSUND\svk-tsm-Operator] FROM WINDOWS WITH DEFAULT\_DATABASE=[master], DEFAULT\_LANGUAGE=[us\_english]

GO

ALTER SERVER ROLE [sysadmin] ADD MEMBER [DKSUND\svk-tsm-Operator]

GO

CREATE LOGIN [SST.DK\TSMoperator] FROM WINDOWS WITH DEFAULT\_DATABASE=[master], DEFAULT\_LANGUAGE=[us\_english]

GO

ALTER SERVER ROLE [sysadmin] ADD MEMBER [SST.DK\TSMoperator]

GO

# TSM Client backup.

For SQL servere skal der installeres en TSM klient, dette sker gør ASC, men såfremt at SQLserveren står på VLAN/ skal der TSM klienten have nogle firewall opsætninger til gængelige. Port åbninger gennem OS og den fysiske FW.

TSM

PS> New-NetFirewallRule -Name "TSM" -DisplayName "TSM" -Profile Any -Direction Outbound -Action Allow -Protocol TCP -LocalPort 1500

1. Firewall åbnes TCP 1500.
2. Install filer kopieres
3. (BA Client) C:\Temp\TSMClient\spinstall.exe (run as admin)
4. C:\Temp\TSMSQL\_WIN\SetupFCM.exe (run as administrator)
5. C:\Temp\TSMSQL\_WIN\fcm\x64\sql\8180\enu\spinstall.exe (run as administrator)
   1. BEMÆRK\*\* Installations programmet ‘forsvinder’ vent et minut så dukker det op igen. Installation er ikke færdig førend at der er trykket på ’finish’.
   2. DP Startes, ALT VVS Fravælges.
   3. TSM server hedder s-tsm04-p.ssi.ad
6. Til sidst køres Install\_TSMService\_sql-CMD
   1. med node password indtaste.
   2. Første full backup køres.

TSM - Logs er placeret i:

C:\TSM\log\

SQLLOg – log backup

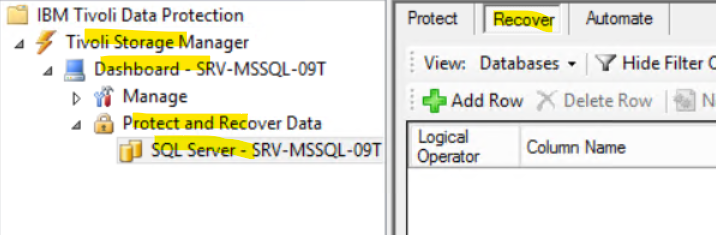
SQLFULL – full backup

Kendte problemer.

* Genstart agent servicen, da denne kan gå ned.
* Systemet danner et certifikat som TM-Vært<->Server som er unikt, hvis serveren er gendannet SKAL TSM serveren sættes til at accepteret/danne en nyt certifikat.

# Restore SQL Database med Nyt navnog filer I ny windows folder fra Point in time:

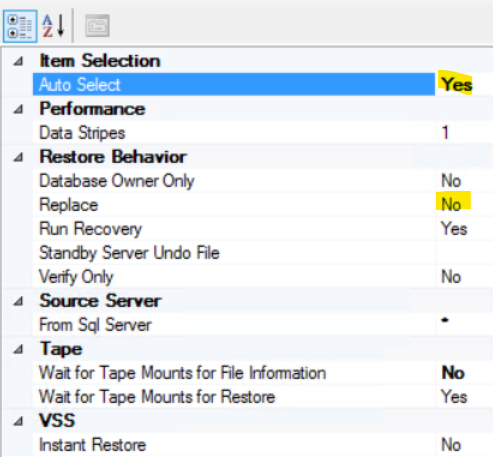
På server (eller adm0x) start DP for SQL Management server.

Vælg / udvid

Tivoli Storage Manager\Dashboard\Protect and Recover Data\<SQL Server>

Når den har vist alle databaser vælges Recover, Dette kan give lang ventetid ( > 15 min ) afhængig af server.

Tryk 

For at kontrollere at

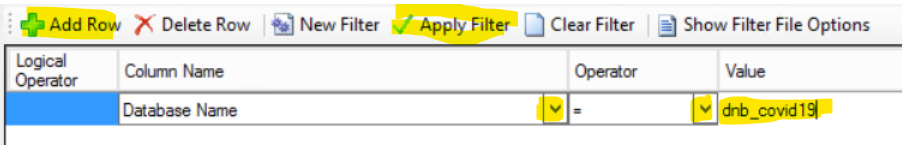
Replace er sat til No

De betyder at job fejler hvis man forsøger at restore med same navn.

Derfor kan man sikre sig at man kun kan restore med andet navn.

Sæt Auto Select til YES!!!!

Når man har fået en lang liste over databaser, kan man sætte et filter Show Filter Options, f.eks.



Tryk Add Row,

vælg kolonnen Database Name

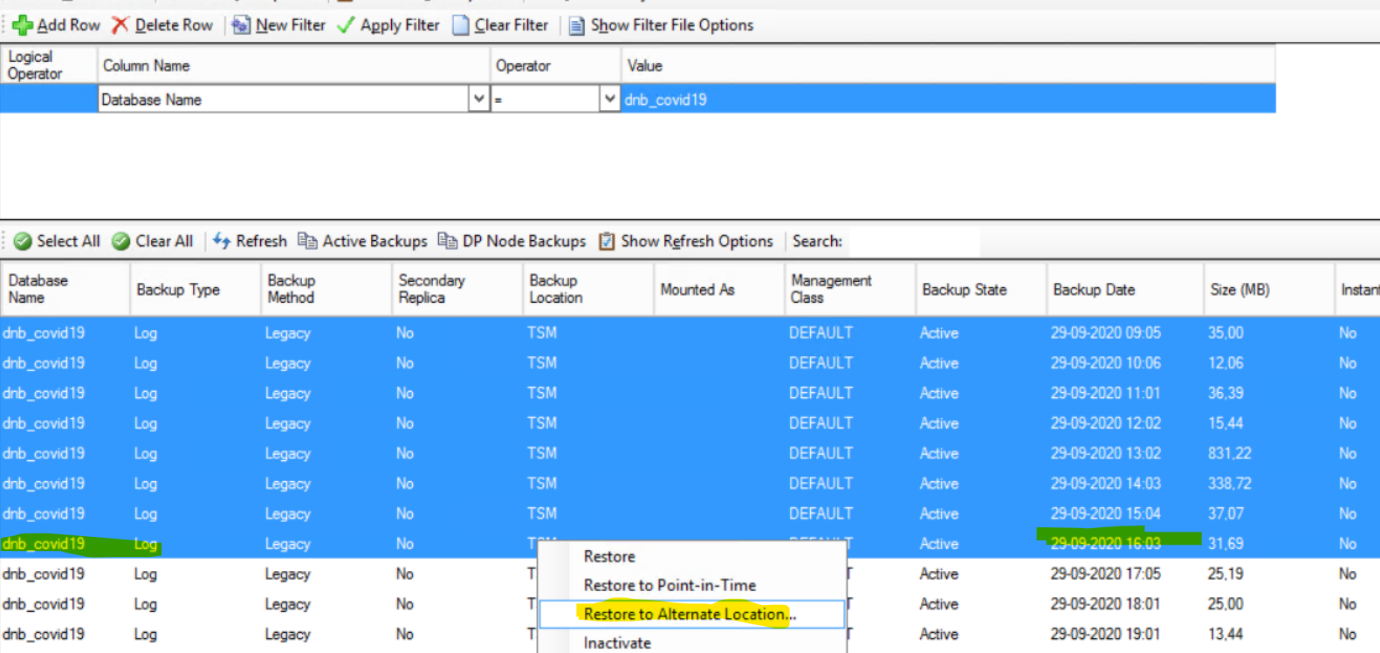
Vælg Operator =

Klik på værdien og angiv <Servernavn>

Tryk Apply Filter

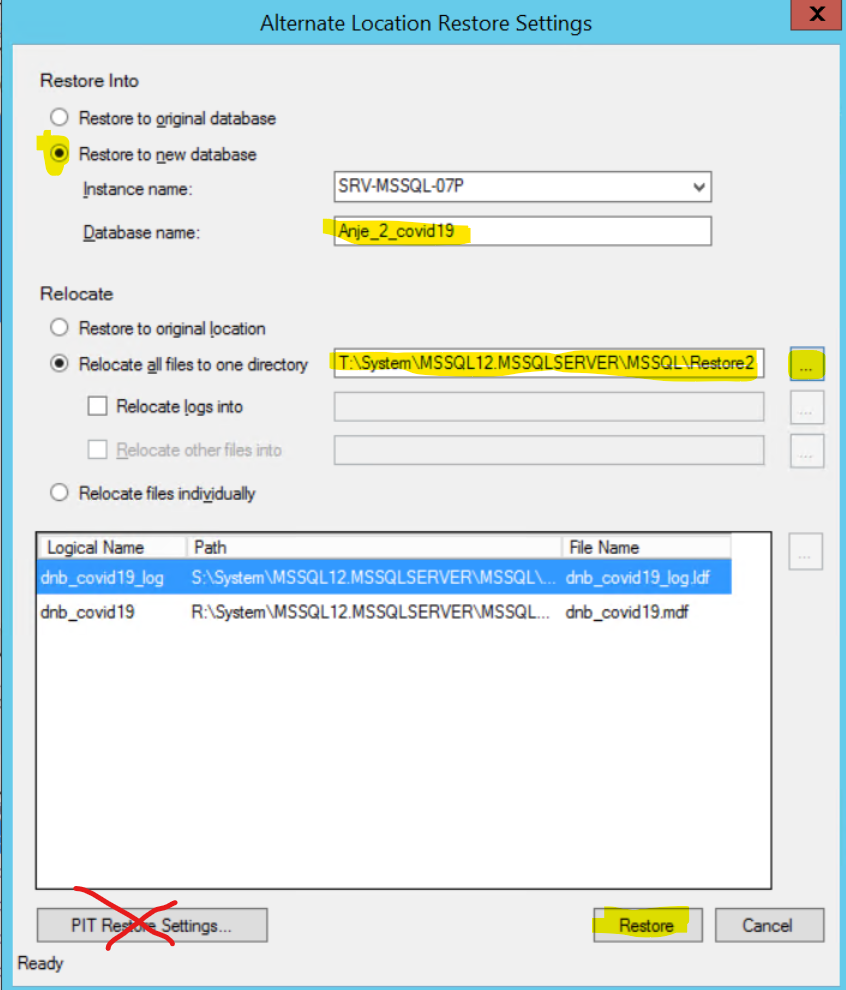
Og man ser kun bk- fra valgte db.

Klik på tidspunkt for backup, og Autoselsct vil vælge alle relevante bk .

Højreklik vælg Restore to Alternate Location.

Opret Tom mappe til restore i Stifinder

f.eks. T:\System\MSSQL12.MSSQLSERVER\MSSQL\Restore

Angiv: Restore to New database

Giv Nyt database navn

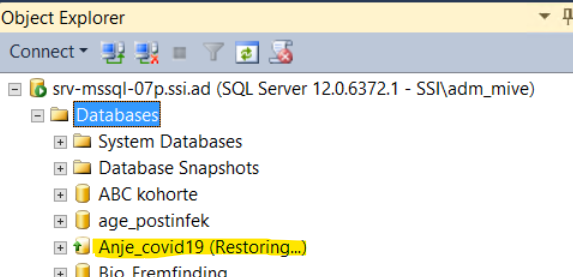
Vælg relocate all files to one directory, og paste ny folder path ind.

Klik på … og vælg den nye folder, for at sikre syntaksen af sti-navnet.

(brug IKKE Pi trestore settings, Jørgen har kun haft problemer med denne knap)

Tryk Restore for at starte restore processen

I SSMS - Refresh Databases, så vil den nye db står som (Restoring…)



Når job er færdig i Flashcopymanager (DP) vil en refresh af DB i SSMS vise ok, og privilegier er som på orig db.

Til nød, kan man skrive (ikke testet) RESTORE DATABASE [Anje\_covid19] WITH RECOVERY

Oprydning:

USE master

GO

ALTER DATABASE Anje\_covid19

SET OFFLINE WITH ROLLBACK IMMEDIATE

Go

EXEC sp\_detach\_db @dbname = Anje\_covid19

GO

Og Detache

# Struktur af TSM & SQL

C:\Program Files\Tivoli\TSM\TDPSql\dsm.opt

BACKUPMETHod legacy

BACKUPDESTination tsm

LASTPRUNEDate 01/20/2022 10:49:10

SQLSERVer .

usealwaysonnode no

AlwaysOnNode S-EPIDB01-P\_AAG\_SQL

PS C:\Program Files\Tivoli\TSM\TDPSql> tail \*.opt

NODename S-EPIDB04-P\_SQL

PASSWORDAccess generate

TCPServeraddress s-tsm05-p

TCPPort 1500

HTTPport 1581

EXCLUDE "\...\ADX\_JODE\_TEMP\...\\*"

EXCLUDE "\...\IB\_Admin\...\\*"

EXCLUDE "\...\IB\_CPRkey\...\\*"

EXCLUDE "\...\IB\_DAWA\...\\*"

EXCLUDE "\...\IB\_DK\_Adresser\...\\*"

EXCLUDE "\...\IB\_doedsaarsag\...\\*"

EXCLUDE "\...\IB\_EPI\_SUBSITE\...\\*"

EXCLUDE "\...\IB\_EpiDDV\...\\*"

EXCLUDE "\...\IB\_EpiLpr\...\\*"

EXCLUDE "\...\IB\_EpiMiba\...\\*"

EXCLUDE "\...\IB\_FIMI\...\\*"

EXCLUDE "\...\IB\_GEOdata\...\\*"

EXCLUDE "\...\IB\_HAIBA\...\\*"

EXCLUDE "\...\IB\_KID\...\\*"

EXCLUDE "\...\IB\_LABA\...\\*"

EXCLUDE "\...\IB\_MIS\...\\*"

EXCLUDE "\...\IB\_Outbreak\...\\*"

EXCLUDE "\...\IB\_Outbreak\_out\...\\*"

EXCLUDE "\...\IB\_Plejehjem\...\\*"

EXCLUDE "\...\IB\_SOR\...\\*"

EXCLUDE "\...\IB\_C19\_AG\_Small\...\\*"

C:\Program Files\Tivoli\TSM\TDPSql\tdpsql.cfg

BACKUPMETHod legacy

BACKUPDESTination tsm

LASTPRUNEDate 01/20/2022 10:49:10

SQLSERVer .

usealwaysonnode no

AlwaysOnNode S-EPIDB01-P\_AAG\_SQL

## Specielt ved spejling / Logshipping.

AlwaysOnNode S-EPIDB01-P\_AAG\_SQL (I dsm.opt og tdpsql.cfg)

Sættes hvis spejling af databaser skal reflekteres I TSM

Log: 20220120 Tilføjet parameter /ALWAYSONPriority til nedenstående 2 jobs

Skal overveje at EXCLUDE databaser der er spejlet hertil.

C:\tsm\SQL\sqlfull.cmd

set sql\_dir=C:\Progra~1\Tivoli\TSM\TDPSql

set log\_dir=c:\tsm\log

C:

cd %sql\_dir%

date /t < NUL >> %log\_dir%\sqlsched.log

time /t < NUL >> %log\_dir%\sqlsched.log

%sql\_dir%\tdpsqlc backup \* full /tsmoptfile=%sql\_dir%\dsm.opt /logfile=%log\_dir%\sqlfull.log /ALWAYSONPriority >> %log\_dir%\sqlsched.log

set RC=%ERRORLEVEL%

echo --------------------- >> %log\_dir%\sqlsched.log

echo Return code was %RC% >> %log\_dir%\sqlsched.log

echo ===================== >> %log\_dir%\sqlsched.log

set /a RCTOTAL=%RC%

exit %RCTOTAL%

C:\tsm\SQL\sqllog.cmd

set sql\_dir=C:\Progra~1\Tivoli\TSM\TDPSql

set log\_dir=c:\tsm\log

C:

cd %sql\_dir%

date /t < NUL >> %log\_dir%\sqlsched.log

time /t < NUL >> %log\_dir%\sqlsched.log

%sql\_dir%\tdpsqlc backup \* log /tsmoptfile=%sql\_dir%\dsm.opt /logfile=%log\_dir%\sqllog.log /ALWAYSONPriority >> %log\_dir%\sqlsched.log

set RC=%ERRORLEVEL%

echo --------------------- >> %log\_dir%\sqlsched.log

echo Return code was %RC% >> %log\_dir%\sqlsched.log

echo ===================== >> %log\_dir%\sqlsched.log

set /a RCTOTAL=%RC%

exit %RCTOTAL%

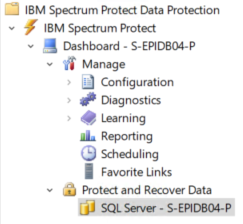
C:\tsm\log\sqlfull.log - kan checkes hvis problem med Tlog backup

C:\tsm\log\sqllog.log - kan checkes hvis problem med Full backup

C:\tsm\log\sqlsched.log

# Restore fra anden NODE (AlwaysOn)

Åbn DP for SQL Management Console

Vælg ned til protect and recover data:

Check TSM Server Opsætning:

Højreklik på Serveren ( I protect and recover data) Vælg Properties.

Check AlwaysOn Node for NodeNavn

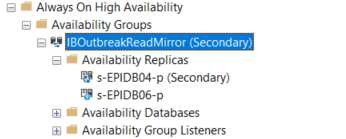
Check AlwaysOn Preferences for Servere, roller og parametre.

Vælg Restore

Skift fra til

Vælg restore options, databaser og tidspunkt, der promptes for ny destination.

Database HA Groups



# TSM Query

På serveren:

cd 'C:\Program Files\Tivoli\TSM\TDPSql\'

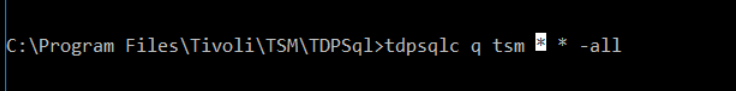
.\tdpsqlc.exe q tsm \* \* -all

Q(uery) Tsm <dbnavn> <Dbtype> [-all]

$rc= .\tdpsqlc.exe q tsm \* \* -all

#sæt alle bk ældre end 60 dage som inaktiv.

tdpsqlc inactivate \* \* /old=60



t

http://publib.boulder.ibm.com/tividd/td/ITSMFD/SC32-9059-01/en\_US/HTML/ab5m000172.htm

[Skip visual syntax diagram](http://publib.boulder.ibm.com/tividd/td/ITSMFD/SC32-9059-01/en_US/HTML/ab5m000172.htm#skipsyn-16)>>-TDPSQLC--Query--+-SQL--+---------------+-----+--------------><

| | .-,---------. | |

| | V | | |

| '---*dbname*--\*-+-' |

+-TDP------------------------+

'-TSM--+------------+--| A |-'

| .-,------. |

| V | |

+---*dbname*-+-+

'-\*----------'

The syntax diagram of the Tivoli Storage Manager options corresponding to the letter above (A) follows the Optional Parameters below.

For a description of the **query** positional parameters, see [Query](http://publib.boulder.ibm.com/tividd/td/ITSMFD/SC32-9059-01/en_US/HTML/ab5m000182.htm#query).

[Skip visual syntax diagram](http://publib.boulder.ibm.com/tividd/td/ITSMFD/SC32-9059-01/en_US/HTML/ab5m000172.htm#skipsyn-17)Query Optional Parameters:

>>-+---------------------------------+-------------------------->

| .-=3 [or cfg value]-. |

'-/BUFFers--+-------------------+-'

'-*=numbuffers*-------'

>--+---------------------------------------+-------------------->

| .-=1024 [or cfg value]-. |

'-/BUFFERSIze--+----------------------+-'

'-*=buffersizeinkb*------'

>--+--------------------+--------------------------------------->

'-/COMPATibilityinfo-'

>--+----------------------------------+------------------------->

| .-=tdpsql.cfg-----. |

'-/CONFIGfile--+-----------------+-'

'-*=configfilename*-'

>--+-------------------------------------------------------+---->

| .-=sqlserver value [or cfg. value]-. |

'-/FROMSQLSERVer=--+----------------------------------+-'

'-*=sqlservername*-------------------'

>--+------------------------------------------+----------------->

| .-=tdpsql.log [or cfg value]-. |

'-/LOGFile--+----------------------------+-'

'-*=logfilename*---------------'

>--+-----------------------------------+------------------------>

| .-=60 [or cfg value]-. |

'-/LOGPrune--+--------------------+-'

+-*=numdays*-----------+

'-=No----------------'

>--+------------------------------+----------------------------->

| .-,----------. |

| V | |

'-/OBJect=--+---*objectname*-+-+-'

'-\*--------------'

>--+----------------------------------------------------+------->

| .-=INTegrated [or cfg value]-. |

'-/SQLAUTHentication--+----------------------------+-'

'-=SQLuserid-----------------'

>--+------------------------------------+----------------------->

| .-=" "-------------. |

'-/SQLPassword--+------------------+-'

'-*=sqlpasswordname*-'

>--+-----------------------------------------------------+------>

| .-=[local computer name or cfg value]-. |

'-/SQLSERVer--+-------------------------------------+-'

'-*=sqlservername*----------------------'

>--+----------------------------+------------------------------->

| .-=sa----------. |

'-/SQLUSer--+--------------+-'

'-*=sqlusername*-'

>--+--------------------------------+--------------------------->

| .-=[dsm.opt value]-. |

'-/TSMNODe--+------------------+-'

'-*=tsmnodename*-----'

>--+----------------------------------+------------------------->

| .-=dsm.opt--------. |

'-/TSMOPTFile--+-----------------+-'

'-*=dsmoptfilename*-'

>--+------------------------------------+----------------------><

| .-=[dsm.opt value]-. |

'-/TSMPassword--+------------------+-'

'-*=tsmpasswordname*-'

[Skip visual syntax diagram](http://publib.boulder.ibm.com/tividd/td/ITSMFD/SC32-9059-01/en_US/HTML/ab5m000172.htm#skipsyn-18)A Query TSM Options:

.-\*------------------------------.

|--+--------------------------------+--------------------------->

+-Full---------------------------+

+-Difffull-----------------------+

| .-,-------------. |

| V | |

+-Log=--+---*logobjectname*-+-+----+

| '-\*-----------------' |

| .-,---------------. |

| V | |

+-FIle=--+---*logicalfilename*-+-+-+

| '-\*-------------------' |

| .-,---------. |

| V | |

+-Group=--+---*groupname*-+-+------+

| '-\*-------------' |

| .-,-------------. |

| V | |

+-Set=--+---*setobjectname*-+-+----+

| '-\*-----------------' |

'-Types--------------------------'

.----------------------------------.

V |

>----+------------------------------+-+------------------------->

| .-/ACtive-. |

+-+---------+------------------+

| '-/ALl----' |

| .-,----------. |

| V | |

'-/OBJect=--+---*objectname*-+-+-'

'-\*--------------'

>--+-------------------------------------+----------------------|

'-/FILEInfo--+----------------------+-'

| .-=No--. |

'-/MOUNTWait--+------+-'

'-=Yes-'