StorageTek™
Virtual Tape Control System
Software

Quick Reference

VTCS™

Quick Reference

CRC Update Only

Version 6.1

Sun Microsystems, Inc.
www.sun.com

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Revision AB • CRC Update Only

Revision History

EC	Date	Description
na	October 2009	Revision AB

Notices

Please read the following compliance and warning statements for this product.

Caution – *Potential equipment damage:* Cables that connect peripherals must be shielded and grounded; refer to descriptions in the cable instruction manuals. Operation of this equipment with cables that are not shielded and not correctly grounded might result in interference to radio and TV reception.

Changes or modifications to this equipment that are not expressly approved in advance by StorageTek will void the warranty. In addition, changes or modifications to this equipment might cause it to create harmful interference.

United States FCC Compliance Statement

The following compliance statement pertains to Federal Communications Commission Rules 47 CFR 15.105:

Note – This equipment has been tested and found to comply with the limits for a Class A digital device pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his or her own expense.

CISPR 22 and EN55022 Warning

This is a Class A product. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.

Japanese Compliance Statement

The following compliance statement in Japanese pertains to VCCI EMI regulations:

この装置は、情報処理装置等電波障害自主規制協議会（ＶＣＣＩ）の基準に基づくクラスＡ情報技術装置です。この装置を家庭環境で使用すると電波妨害を引き起こすことがあります。この場合には使用者が適切な対策を講ずるよう要求されることがあります。

English translation: This is a Class A product based on the Technical Requirement of the Voluntary Control Council for Interference by Information Technology (VCCI). In a domestic environment, this product may cause radio interference, in which case the user may be required to take corrective actions.

Taiwan Warning Label Statement

The following warning label statement pertains to BSMI regulations in Taiwan, R.O.C.:

警告使用者：這是甲類的資訊產品，在居住的環境中使用時，可能會造成射頻干擾，在這種情況下，使用者會被要求採取某些適當的對策

English translation: This is a Class A product. In a domestic environment, this product may cause radio interference, in which case, the user may be required to take adequate measures.

Internal Code License Statement

The following is the Internal Code License Agreement from StorageTek:

The following is the Internal Code License Agreement from StorageTek:

NOTICE

INTERNAL CODE LICENSE

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   c. "Maintenance Code" is defined as Microcode and other software, including data files, which may reside or execute in or be used by or in connection with Equipment, and which detects, records, displays, and/or analyzes malfunctions in the Equipment.
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6. You, the end user, agree to take all appropriate steps to ensure that all of your obligations set forth in this Notice are extended to any third party having access to the Equipment.

7. You may transfer possession of the Internal Code to another party only with the transfer of the Equipment on which its use is authorized, and your license to use the Internal Code is discontinued when you are no longer an owner or a rightful possessor of the Equipment. You must give such transferee all copies of the Internal Code for the transferred Equipment that are in your possession, along with a copy of all provisions of this Notice.

Any such transfer by you is automatically (without further action on the part of either party) expressly subject to all the terms and conditions of this Notice passing in full to the party to whom such Equipment is transferred, and such transferee accepts the provisions of this license by initial use of the Internal Code. You cannot pass to the transferee of the Equipment any greater rights than granted under this Notice, and shall hold StorageTek harmless from any claim to the contrary by your transferee or its successors or assigns. In addition, the terms and conditions of this Notice apply to any copies of Internal Code now in your possession or use or which you hereafter acquire from either StorageTek or another party.

8. You acknowledge that copies of both Internal Code and Maintenance Code may be installed on the Equipment before shipment or included with the Equipment and other material shipped to you, all for the convenience of StorageTek's service personnel or service providers licensed by StorageTek, and that during the warranty period, if any, associated with the Equipment, and during periods in which the Equipment is covered under a maintenance contract with StorageTek or service providers licensed by StorageTek, both Internal Code and Maintenance Code may reside and be executed in or used in connection with such Equipment, and you agree that no rights to Maintenance Code are conferred upon you by such facts.

StorageTek or the licensed service provider may keep Maintenance Code and service tools and manuals on your premises but they are to be used only by StorageTek's customer service personnel or those of service providers licensed by StorageTek. You further agree that upon
(i) any termination of such warranty period or maintenance contract period; or
(ii) transfer of possession of the Equipment to another party, StorageTek and its authorized service providers shall have the right with respect to the affected Equipment to remove all service tools and manuals and to remove or disable all Maintenance Code and/or replace Microcode which includes both Internal Code and Maintenance Code with Microcode that consists only of Internal Code.

Preface

Virtual Tape Control System 6.2.0 (VTCS 6.2.0, hereafter referred to as "VTCS") is MVS host software, which together with the portions of NCS 6.2.0 that support VTCS and the Virtual Tape Storage Subsystem (VTSS), comprises Virtual Storage Manager (VSM).

About This Quick Reference

This Quick Reference has syntax for all the VTCS and NCS commands and utilities used for VSM.

Contents

VTCS Utilities and Commands

This section contains the syntax for the VTCS commands and utilities. Each syntax page contains an "Interface" section that describes the valid interfaces (command only, utility only, or both). For complete descriptions of these enhancements and additions, see *VTCS Command and Utility Reference*.

VTCS Utilities

You use the SWSRTV program to run the RTV utility. To invoke all other VTCS utilities, you use the SWSADMIN program, which follows the same syntax rules and accepts the same input parameters as the HSC SLUADMIN utility program.

VTCS Commands

Like HSC commands, VTCS commands consist of the HSC command prefix character followed immediately by a command name and required or optional positional parameters and keyword parameters.

The VTCS command prefix is the same command prefix used by the HSC with which the VTCS is communicating. This allows HSC to intercept and interpret the command. For example, to cancel all active and queued VSM processes that use
an RTD, enter the following:

.VT CAN T(ALL)

For more information about the rules governing commands, refer to Chapter 2, "Commands, Control Statements, and Utilities," in *HSC Operator's Guide for MVS*.

AUDIT

```
►─AUDIT────────────────────────────────────────────────────────────────────►
           ┌──ALL──────────────────────┐
           │                           │
           └─VTSS─(───ALL───)──────────┤
                   ├─vtss-name─┤
                   │    ,      │
                   └─vtss-list─┘

  ┌──────────────────┐                                              ►◄
  └──INVLDMIR────────┘    MVCid─(───volser──────────)─
                                 ├─vol-range────────┤
                                 │    ,             │
                                 └──vol-list────────┘
```

Interfaces: SWSADMIN utility only

CANCEL

```
►►─CANcel──────────ID(process-id)──────────────────────────────────────►◄
             └─Type(───ALL────)─┘
                    ├─MIGrate─┤
                    ├─RECAll──┤
                    └─RECLaim─┘
```
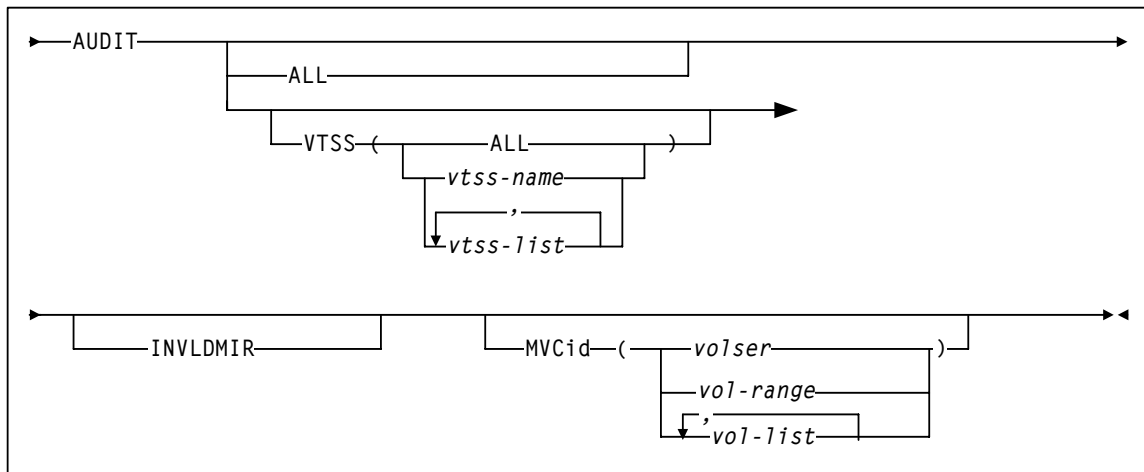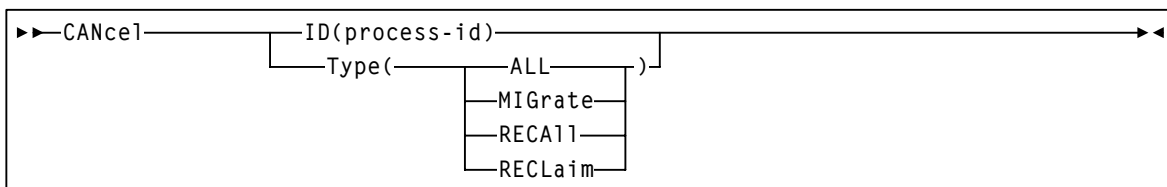
Interfaces: SWSADMIN utility and VT command

CONFIG

```
►►──CONFIG──────────────────────────────────────────────────────────►◄
            └──RESET──┘        └──CDSLEVEL(──┬──V6ABOVE──────┬──)──┘
                                             └──V61ABOVE──────┘
```

```
►►───GLOBAL──────────────────────────────────────────────────────►
              └──MAXVTV=nnnnnn──┘              └──MVCFREE=nnnn──┘

►─────────────────────────────────────────────────────────────────►
        ┌──SCRATCH──┐                   ┌──YES──┐
      └──VTVattr=──┼──────────┤      └──RECALWER=──┼───────┤
                   └──ALLmount──┘                   └──NO──┘

►─────────────────────────────────────────────────────────────────►
      └──LOCKSTR=structure-name──┘         ┌──NO──┐
                                  └──SYNCHREP=──┼──────┤
                                                └──YES──┘

►─────────────────────────────────────────────────────────────────►◄
                    ┌──16──┐                    ┌──NO──┐
      └──MAXRTDS=──┼──────┤        └──FASTMIGR=──┼──────┤
                    └──32──┘                     └──YES──┘
```

```
►───RECLAIM───────────────────────────────────────────────────────►
            └──THRESHLD=nn──┘  └──MAXMVC=nn──┘  └──START=nn──┘

►─────────────────────────────────────────────────────────────────►◄
         └──CONMVC=nn──┘
```

```
►──VTVVOL──────LOW=xxxxxx──────HIGH=xxxxxx──────────────────►
                                              └─SCRATCH─┘
```

```
►──MVCVOL──────LOW=xxxxxx──────HIGH=xxxxxx──────────────────►◄
```

```
►──VTSS──NAME=xxxxxxxx──┬───────────────────┬──┬─────────┬──┬─────────┬──►
                        └─DEFLTACS=acs-id──┘  └─LOW=nn─┘  └─HIGH=nn─┘
►──┬───────────┬──┬───────────┬──┬───────────┬──►
   └─MAXMIG=n──┘  └─MINMIG=n──┘  └─RETAIN=nn─┘
```

```
►──RTD──────NAME=xxxxxxxx──────DEVNO=nnnn──────CHANIF=nn──────►
```

```
►►──VTD──────LOW=xxxx────────HIGH=xxxx───────────────────────────────────►
 ►──────────────────────────────────────────────────────────────────────►◄
        └──────CUADDR=xx──────┘              └────────NOVERIFY───────┘
```

```
►►────CLUSTER──────────NAME=nnnnnnnn──────────────────────────────────────►
 ►──────────VTSSs=(vtssname1,vtssname2)───────────────────────────────────►◄
```

```
►►──CLINK────────────VTSS=vvvvvvvv─────────────CHANIF=nn────────►◄
                                              └─IPIF=ci:p─┘
```

```
►──HOST──────NAME=xxxx─────────────────────────────────────────────►
                         └───NOMIGRAT───┘        └───NORECLAM───┘
```

Interfaces: SWSADMIN utility only

CONSOLID

```
►►──CONSolid─────────────────────────────────────────────────►
                      ┌──volser───────────┐
              ─VTV(───┼──vol-range────────┼──)──
                      │      ┌──,──┐       │
                      └──────┴─vol-list────┘

                          ┌──mgmt-class-name────┐
              ─MGMTclas(──┼─────────────────────┼──)──
                          │     ┌──,──┐          │
                          └─────┴─mgmt-class-list┘

►──────────────────────────────────────────────────────────►◄
                        ┌──YES──┐
      └─RECALWER─ (──────┼───────┼──)──┘
                        └──NO───┘
```
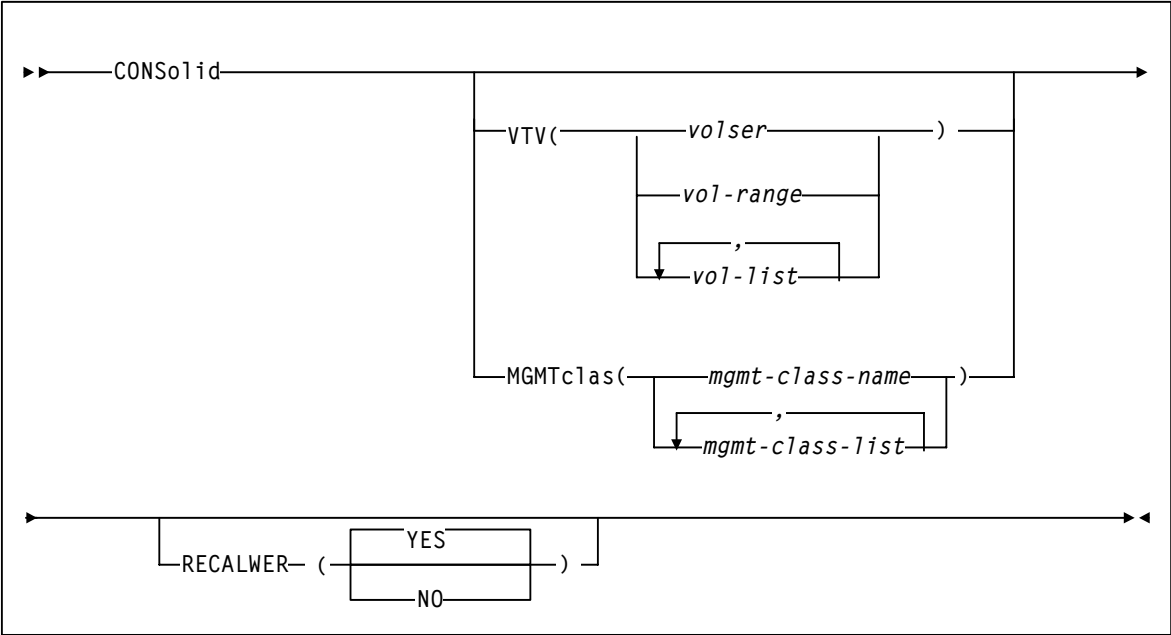
Interfaces: SWSADMIN utility only

DECOM

```
►►────DECOM──────────────────────────────────────►◄
            └─FLATdd(ddname)──┘
```

Interfaces: SWSADMIN utility only

DELETSCR

```
►►──DELETSCR──────────────────────────────────────────────────────►

    ►                                                               ►
              ─VTVid(──────vol-list────)──
                    ├──vol-range──────┤
                    │     ,          │
                    └──┬─volser──┬───┘
                       └─────────┘
                              ,
                           ┌──────────┐
              ─MGMTclas(──┴─mgmt-clas-name─┴──)──
                           ,
                       ┌──────────┐
              └─SCRPool(──┴─scrpool─┴──)──┘

    ►──NOTREF(days)──────────────────────────────────────────◄
              └─MAXVTV(nnn)──┘          └─DETail─┘
```
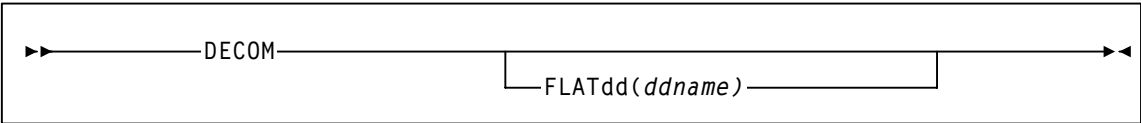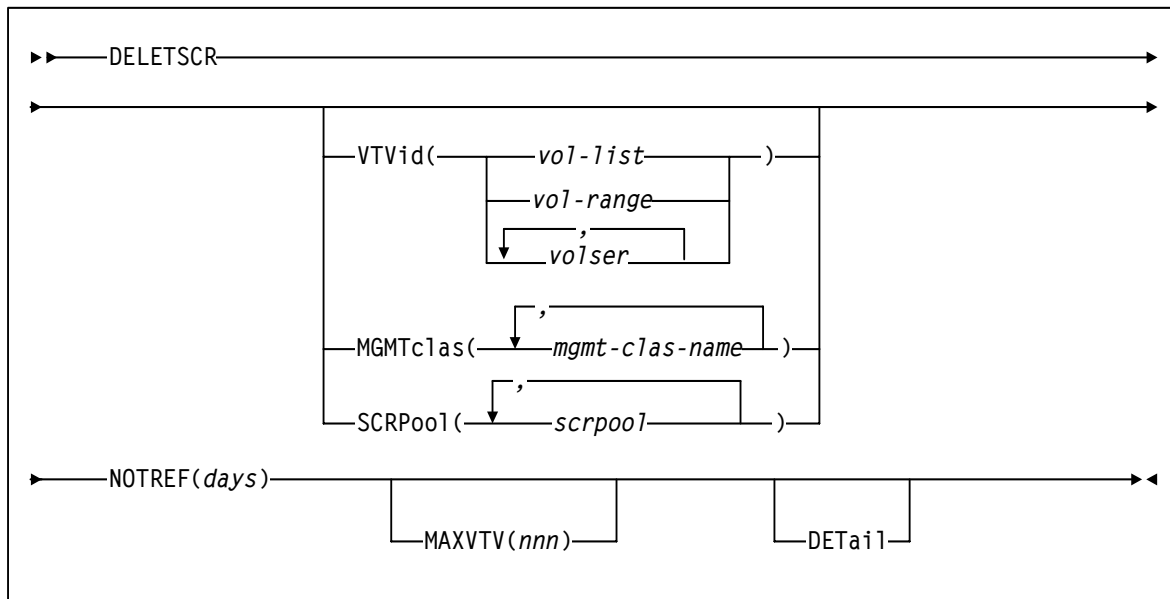
Interfaces: SWSADMIN utility only

DISPLAY

```
►──┬─Query───┬──────┬─VTSS───────────────────────────────┬──►◄
   │         │      │        └─DETail─┘          ┌─ACtive─┐  │
   └─Display─┘      ├─VTD──────────────────────┬─┼────────┤──┤
   │                │        └─VTSS(vtssname)─┘ └──ALl───┘  │
   │                ├─SCRatch────────────────────────────────┤
   │                ├─MVCPool────────────────────────────────┤
   │                │        └─NAME(poolname)─┘              │
   │                ├─VTV(vtv-id)────────────────────────────┤
   │                ├─MVC(volser)────────────────────────────┤
   │                ├─STORCLas(name)─────────────────────────┤
   │                │        └─DETail─┘  └─MAXvtv(nnnn)─┘    │
   │                ├─CONFIG─────────────────────────────────┤
   │                ├─MIGrate────────────────────────────────┤
   │                │        └─VTSS(vtssname)─┘ └─DETail─┘   │
   │                ├─LOCKs──────────────────────────────────┤
   │                ├─TASKs──────────────────────────────────┤
   │                ├─CLINK──────────────────────────────────┤
   │                ├─CLUSTER────────────────────────────────┤
   │                ├─REPLicat───────────────────────────────┤
   │                ├─Active─────────────────────────────────┤
   │                │        └─DETail─┐                      │
   │                │               └─VTSS(vtss-name)─┘      │
   │                ├─Queue──────────────────────────────────┤
   │                │        └─DETail─┐                      │
   │                │               └─VTSS(vtss-name)─┘      │
   │                ├─RTD────────────────────────────────────┤
   │                │   ┌─(─rtd──────)─┐  ┌─Queued─┐         │
   │                │   ├─(─rtd-range-)─┤                    │
   │                │   │         ,                          │
   │                │   └─(─rtd-list─)─┘                     │
   │                ├─┬─CMd──────┬──command-name─────────────┤
   │                │ └─COmmand─┘                            │
   │                └─┬─Message─┬──msg-id────────────────────┘
   │                  └─Msg─────┘
```
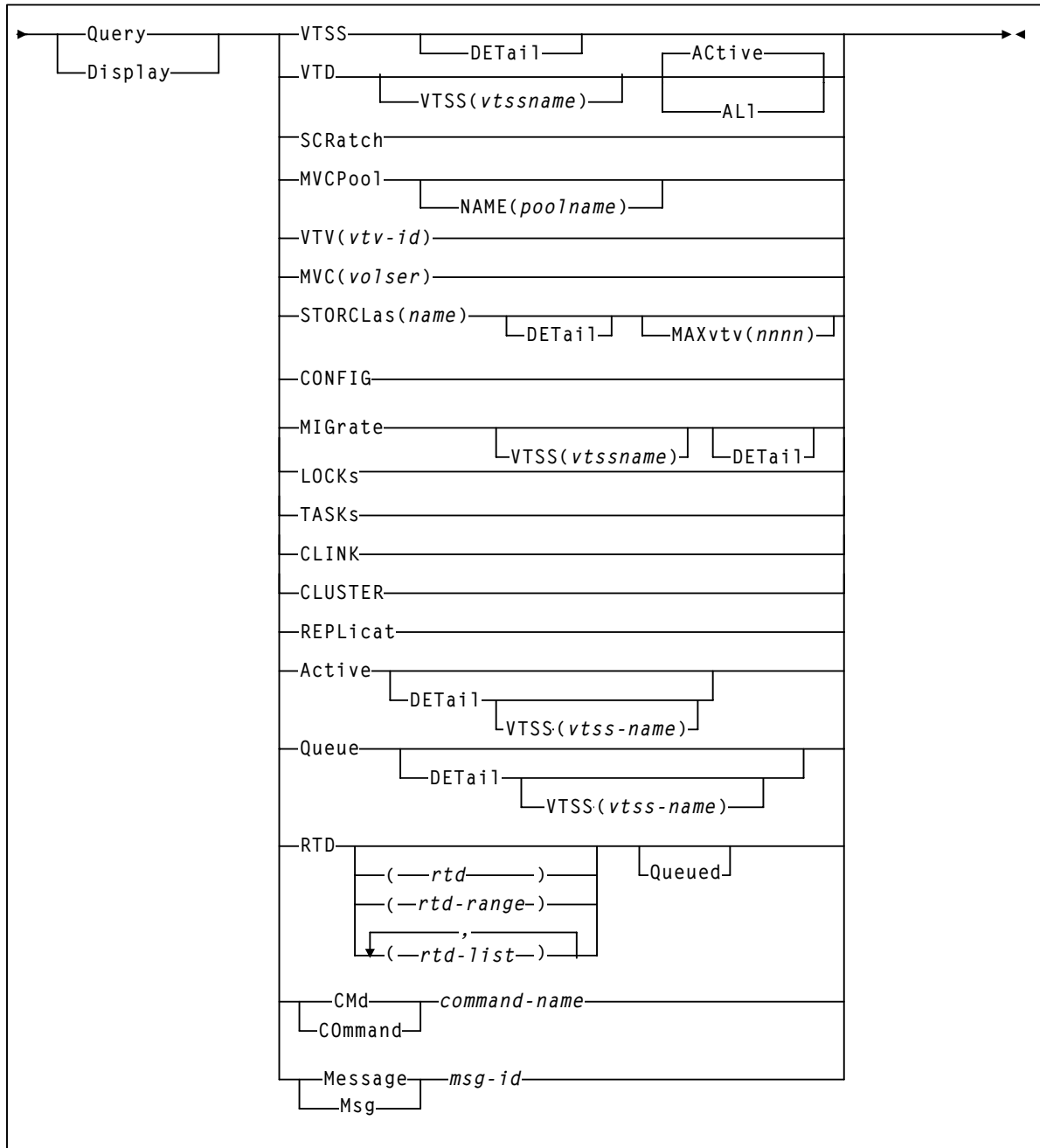
Interfaces:

SWSADMIN utility and VT command **except** for the following, which are only valid as commands:

- VT Display CMD or VT Query CMD
- VT Display MSG or VT Query MSG

EXPORT

```
►►──EXPORT────VTV(────volser────)──────────────►
                      vol-range
                    ┌──,──┐
                    └─vol-list─┘

              MGMTclas(────mgmt-class-name──)──
                       ┌──,──┐
                       └─mgmt-class-list─┘

              MVC(──────────────)──
                     volser
                     vol-range
                    ┌──,──┐
                    └─vol-list─┘

              STORclas(────stor-class-name──)──
                       ┌──,──┐
                       └─stor-class-list─┘

──────MANIFEST(─ddname─)──────RECALWER (──YES──)──►◄
                                       └──NO──┘
```
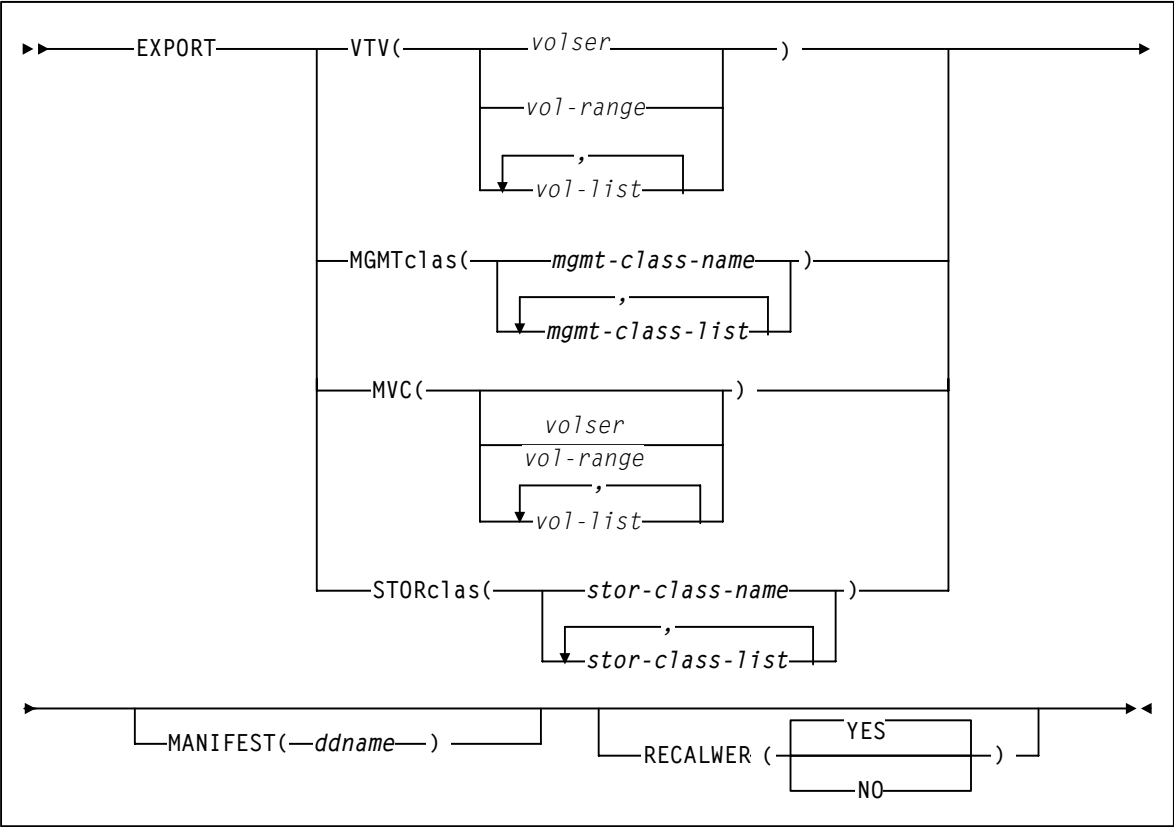
Interfaces: SWSADMIN utility only

IMPORT
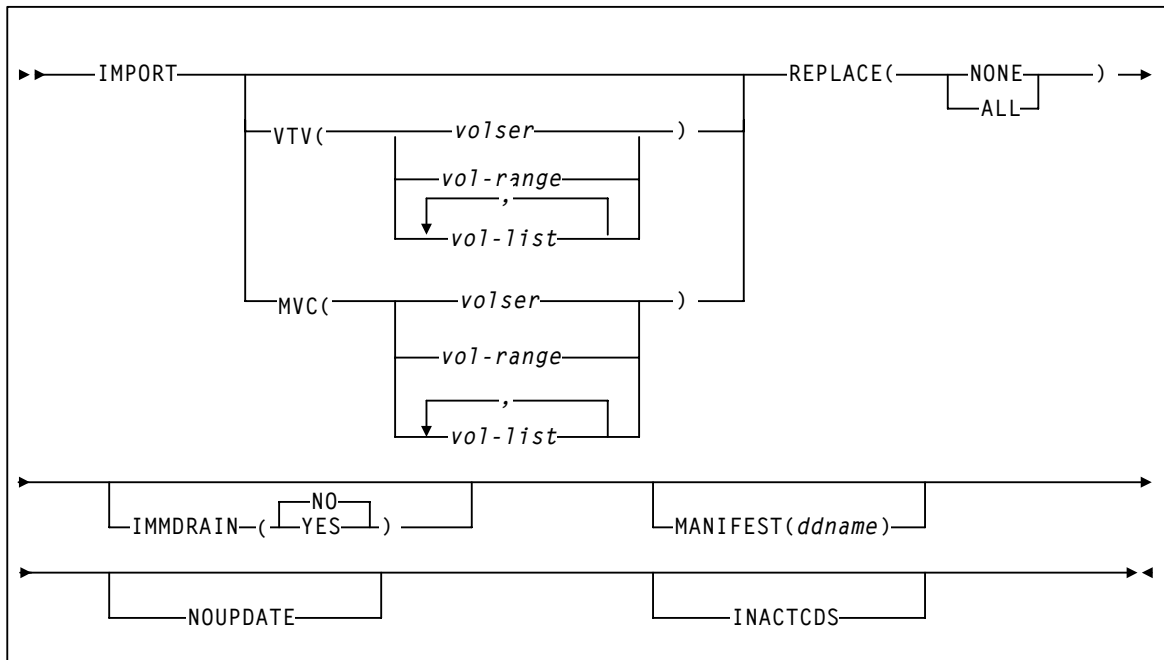
```
►►──IMPORT──────────────────────────────────────────  REPLACE(──┬─NONE──┬──)  ─►
                 ┌─VTV(──┬──volser──┬──)─┐                       └─ALL──┘
                 │       ├─vol-range─┤                           
                 │       │    ┌──,─┐ │                           
                 │       └────┴─vol-list─┘                       
                 │                                               
                 └─MVC(──┬──volser──┬──)─┘                       
                         ├─vol-range─┤                           
                         │    ┌──,─┐ │                           
                         └────┴─vol-list─┘                       

►──────────────────────────────────────────────────────────────────────────►
     │                ┌─NO─┐      │        │                     │
     └─IMMDRAIN─(──┴─YES─┴──)──┘        └─MANIFEST(ddname)──┘

►─────────────────────────────────────────────────────────────────────────►◄
     │                          │       │                │
     └──────NOUPDATE────────┘       └──────INACTCDS──────┘
```

Interfaces: SWSADMIN utility only

INVENTRY

```
►──INVENTRY──┬─────────────────────────────────┬──┬──────────────────────┬──►
             │            ┌─volser──────┐       │  │        ┌─None─┐      │
             └─MVCid──(──┼──vol-range───┼──)────┘  └─CDScheck(─┼─Mvc──┼──)─┘
                         │  ┌─,────────┐ │                     └─Full─┘
                         └──┴─vol-list─┴─┘
►──┬──────────────────────────┬──────────┬─────────────────────────┬──►◄
   │            ┌─NO──┐        │          │          ┌─NO──┐        │
   └─STOPLeot──(─┴─YES─┴─)─────┘          └─TERMerr──(─┴─YES─┴─)─────┘
```

MERGEMFST

```
►──MERGMFST──────────MERGEIN(manifin)──────────MERGEOUT(manifout)───►◄
```
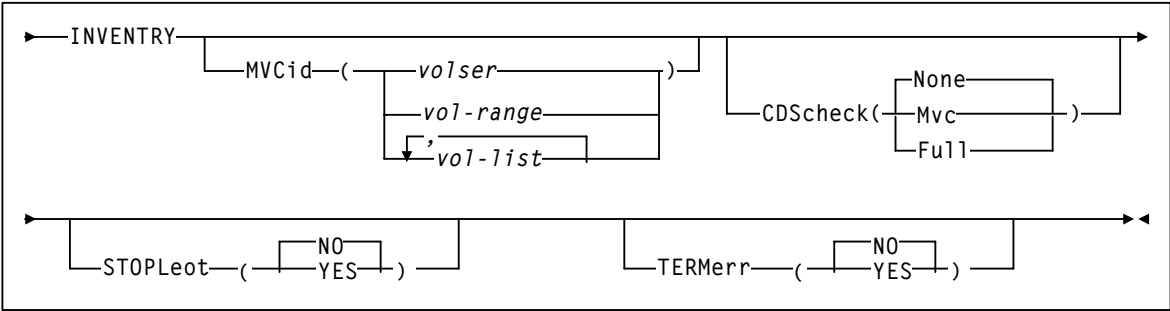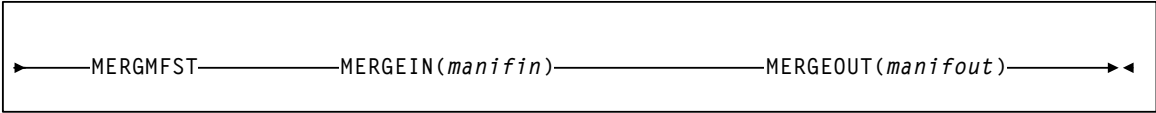
Interfaces: SWSADMIN utility only

MIGRATE
Format 1
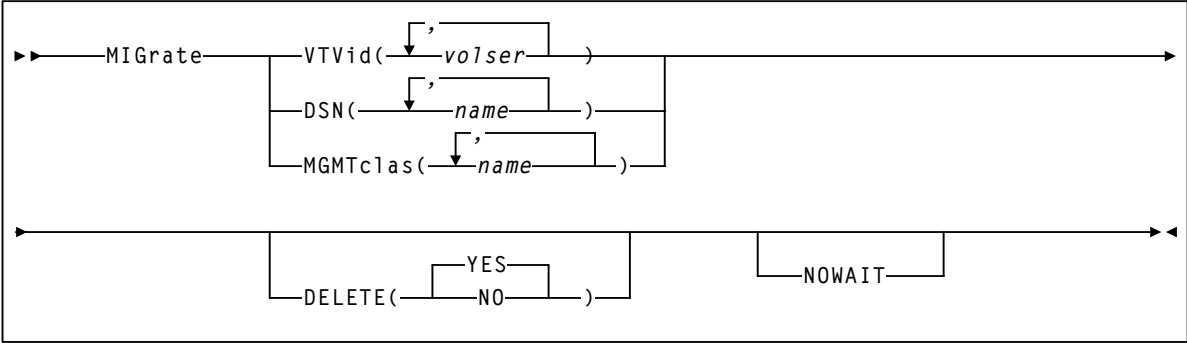
Format 2

Interfaces: SWSADMIN utility and VT command

MVCDEF

```
►►──MVCDEF──────DSN(dataset.name)──────────────────────────────►
                └─DATASET(dataset.name)─┘      └─VOLume(volser)─┘


►──────────────────────────────────────────────────────────────►◄
        └─UNIT(unitname)─┘
```
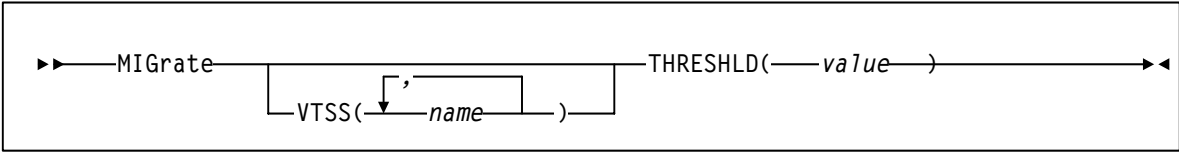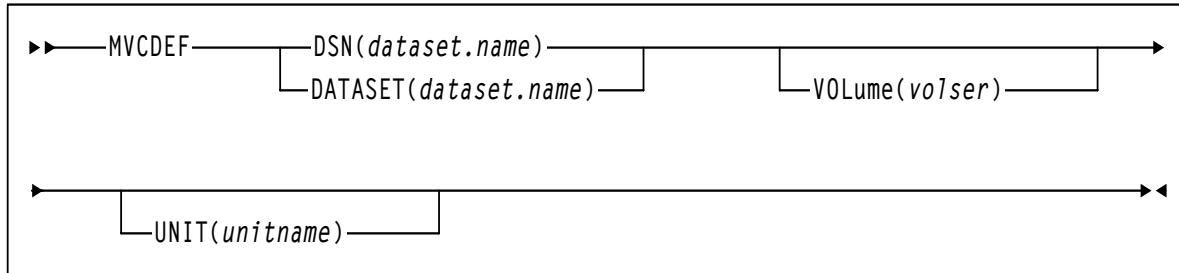
Interfaces: VT command only

MVCDRAIN
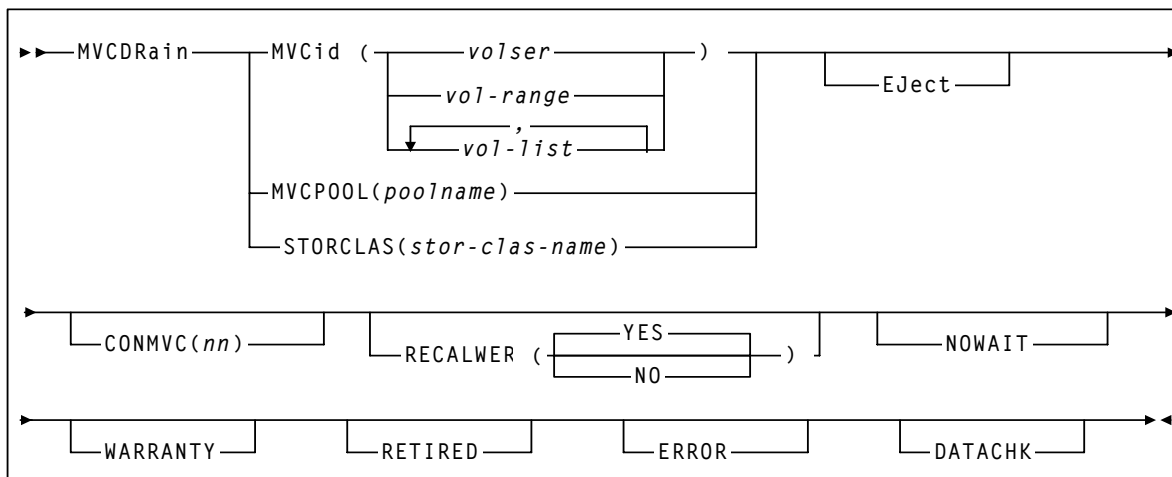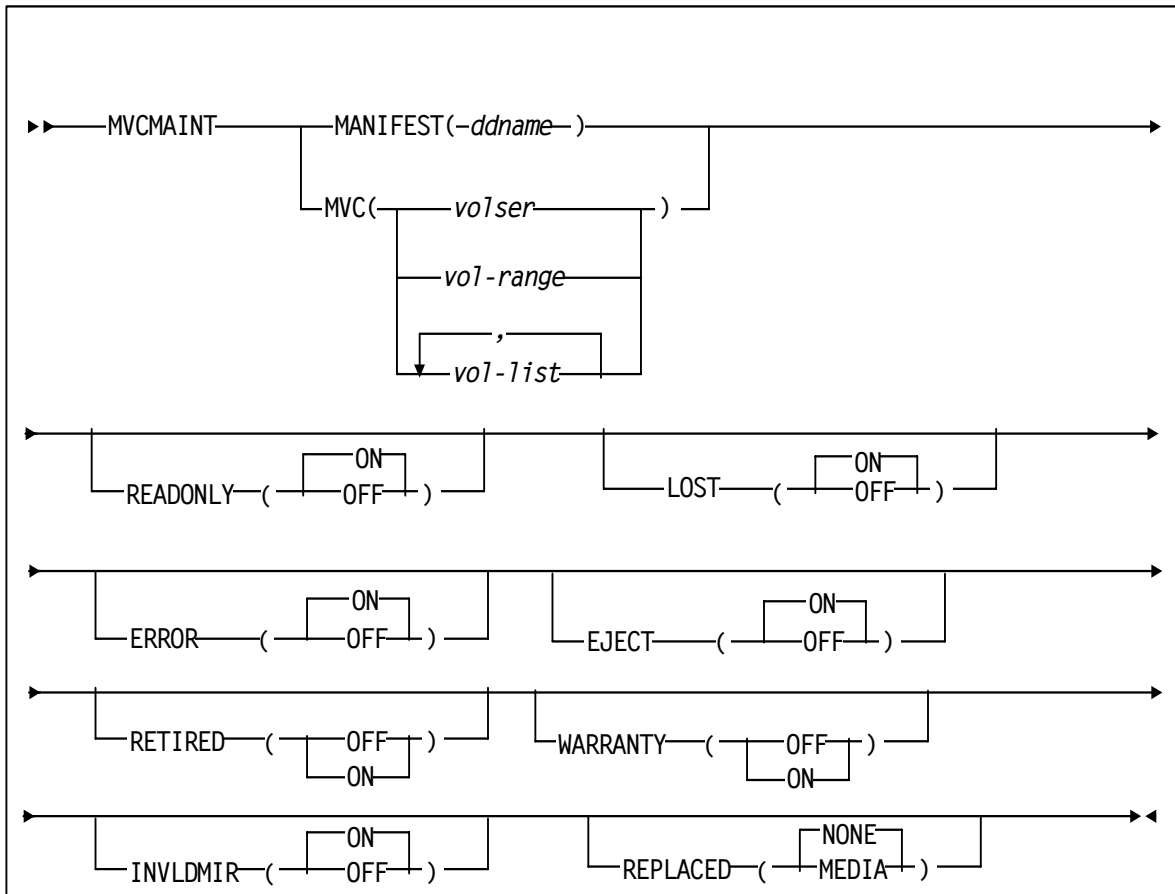
```
►►──MVCDRain───┬─MVCid (──┬───volser───┬──)──┬─────────────────►
               │          ├──vol-range──┤    │  └─EJect─┘
               │          │     ┌──,──┐ │    │
               │          └─────┴vol-list┴──┘
               ├─MVCPOOL(poolname)──────────────┤
               └─STORCLAS(stor-clas-name)───────┘

►────┬──────────┬──┬─RECALWER (─┬─YES─┬─)─┬──┬─NOWAIT─┬──────────►
     └─CONMVC(nn)─┘             └─NO──┘        └────────┘

►──┬─WARRANTY─┬──┬─RETIRED─┬──┬─ERROR─┬──┬─DATACHK─┬─────────────►◄
   └──────────┘  └─────────┘  └───────┘  └─────────┘
```

Interfaces: SWSADMIN utility and VT command

MVCMAINT

```
►►─MVCMAINT──┬─MANIFEST(─ddname─)──────────────────────┬────────────────►
             │                                          │
             └─MVC(──┬──volser──────┬──)──┘
                     │              │
                     ├──vol-range───┤
                     │      ,       │
                     │    ┌───┐     │
                     └────vol-list──┘

►─┬──────────────────────────┬───┬────────────────────┬──►
  │           ┌─ON─┐         │   │         ┌─ON─┐      │
  └─READONLY─(─┴─OFF─┴─)──────┘   └─LOST───(─┴─OFF─┴─)──┘

►─┬──────────────────────┬───┬────────────────────┬──►
  │        ┌─ON─┐        │   │        ┌─ON─┐       │
  └─ERROR──(─┴─OFF─┴─)───┘   └─EJECT──(─┴─OFF─┴─)──┘

►─┬──────────────────────┬───┬─────────────────────────┬──►
  │         ┌─OFF─┐      │   │            ┌─OFF─┐       │
  └─RETIRED─(─┴─ON──┴─)──┘   └─WARRANTY──(─┴─ON──┴─)────┘

►─┬──────────────────────┬───┬───────────────────────────┬──◄
  │          ┌─ON─┐      │   │            ┌─NONE──┐       │
  └─INVLDMIR─(─┴─OFF─┴─)─┘   └─REPLACED──(─┴─MEDIA─┴─)─────┘
```

Interfaces: SWSADMIN utility only

MVCPLRPT

```
►►──MVCPLRPT─────────────────────────────────────────────────►◄
              ├──MVCPOOL(poolname)──────────┤
              └──STORCLAS(stor-clas-name)───┘
```

Interfaces: SWSADMIN utility only

MVCRPT

```
►──MVCRPT──────────────────────────────────────────────────────►
              ├──MVCid(─────volser──────)──┤
              │        ├───vol-range───┤    │
              │        │        ,───    │    │
              │        └──▼──vol-list──┘    │
              ├──ALL──────────────────────┤
              └──MANIFEST(·ddname)─────────┘

►──────────────────────────────────────────────────────────────►
     └─DETail─┘        └─FLATdd(ddname)─┘

►──────────────────────────────────────────────────────────────►◄
     └─CHECK─┘          └─WRITABLE─┘
```
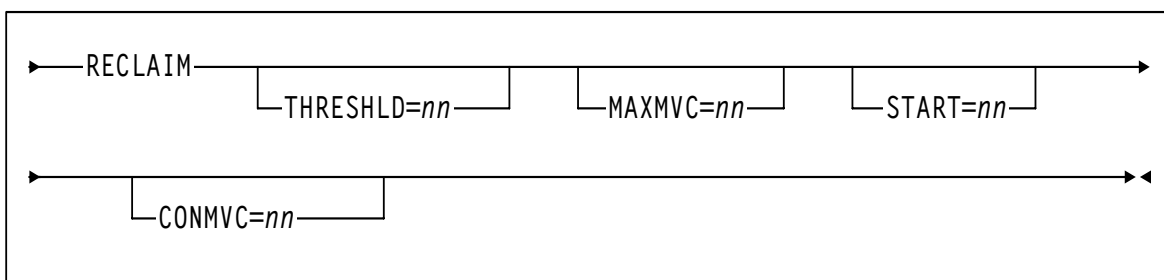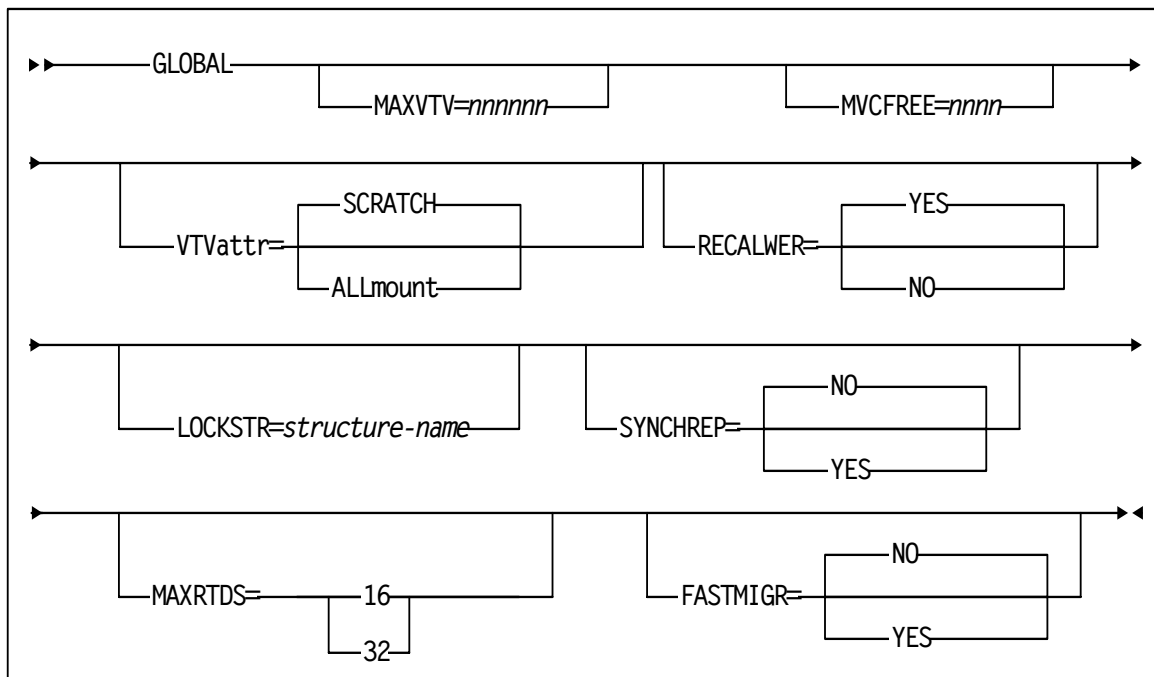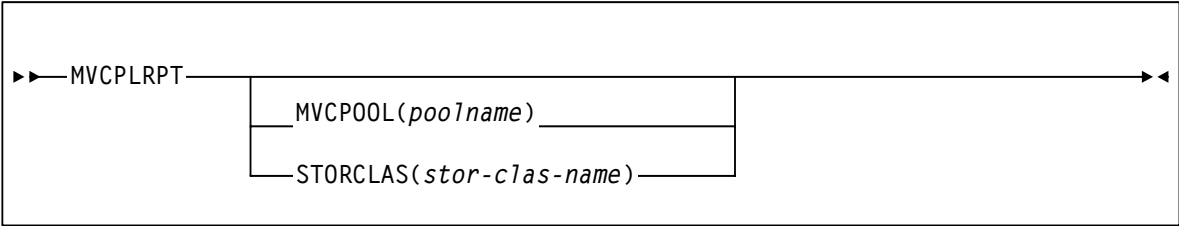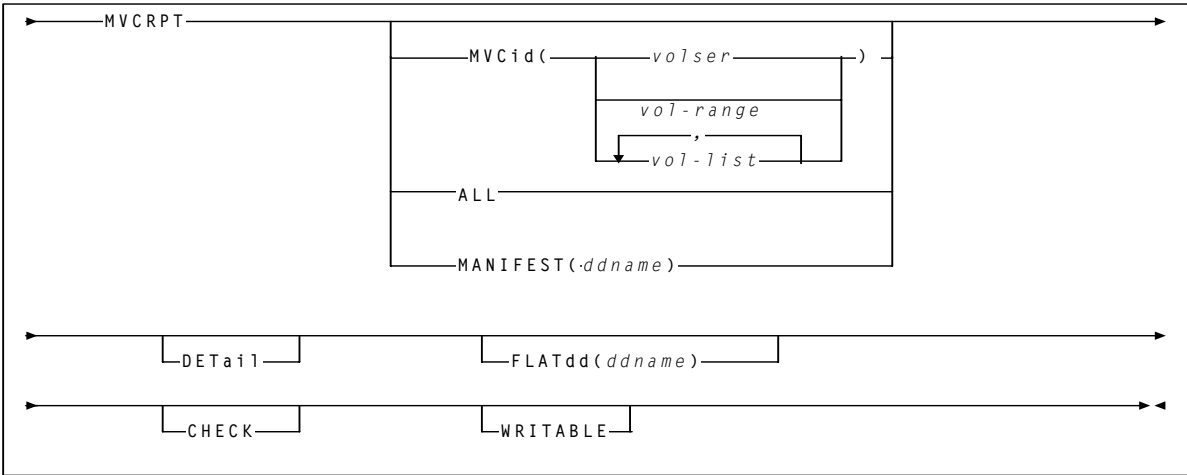
Interfaces: SWSADMIN utility only

QUERY

See DISPLAY.

RECALL

```
►►─RECALL──┬─VTVid(──┬─┬──volser──┬──)─┬──────┬─RECALWER─(──┬──YES──┬──)─┬──►
           │         └─,─┘        │    │                    └──NO──┘     │
           ├─DSN(──┬─┬──name──┬──)─┤    │                                │
           │       └─,─┘       │   │    │                                │
           └─MGMTCLAS(──┬─┬──name──┬──)─┘                                │
                        └─,─┘       │
►──┬───────────────────┬──┬─────────┬──►◄
   └─VTSS(──┬─┬──name──┬──)─┘  └─NOWAIT─┘
            └─,─┘
```

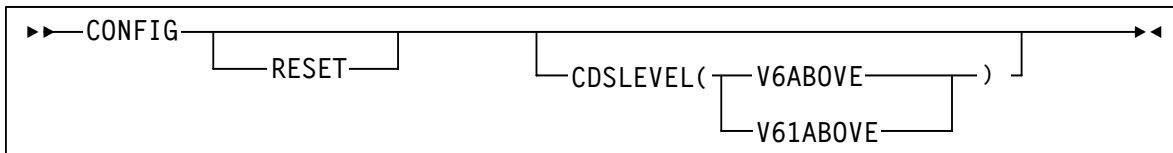Interfaces: SWSADMIN utility and VT command

RECLAIM

```
►►──────RECLaim────────────────────────────────────────────────►

         ──MVCPOOL(poolname)──────

         ──STORCLAS(stor-clas-name)──

         ──ACSid(acs-id)──────────

         ──MVC(───volser────)·
                 ──vol-range──
                    ──,──
                 ──vol-list──

►──────────────────────────────────────────────────────────────►
    ──MAXMVC(nn)──      ──THRESH(nn)──      ──CONMVC(nn)──

►──────────────────────────────────────────────────────────────◄
      ──ELAPSE(nnnn)──      ──NOWAIT──
```
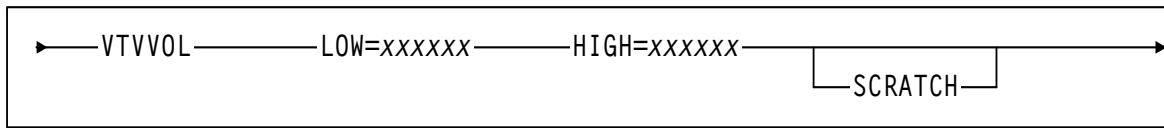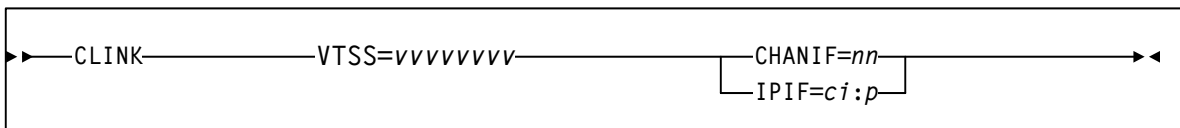
Interfaces: SWSADMIN utility and VT command

RECONcil

```
►►──────RECONcil──────────────────────────────────────────────►
             │                                              │
             ├──STORclas(stor-class-name1...stor-class-namen)──┤
             │                                              │
             └──MVC(mvc-list | mvc-range)─────────────────────┘

►──────────────────────────────────────────────────────────────►
             │                                              │
             ├──MGMTclas(mgmt-class-name1...mgmt-class-namen)──┤
             │                                              │
             └──VTV(vtv-list | vtv-range)─────────────────────┘

►──────────────────────────────────────────────────────────────►
     │                       │         │                  │
     └──MAXMVC(nn)──┘        └──CONMVC(nn)──┘      └──ELAPSE(nnnn)──┘

►──────────────────────────────────────────────────────────────►◄
     │                       │
     ├──POLICYdd(ddname)──┤
     │                       │
     └──MOVEVTV───────────┘
```

Interfaces: SWSADMIN utility only

RTV

```
▶▶──RTV───MVCid(volser)───INUNIT(name)──────────────────────────────▶
                                    └─VTVid─(─┬─┬─────┐──────┐─)─┘
                                              │ ▼vol-list─┘  │
                                              ├──vol-range───┤
                                              └──volser──────┘

▶──┬───────────┬──────┬──────────┬──────┬──────────┬──────────────────▶
   └─ALLVTVS───┘      └─CPYVOLID──┘      └─LISTONLY──┘

▶──┬──────────────┬──────┬──────────────┬──────┬───────┬──────────────▶
   └─BLOCKid(nnn)──┘      └─FILEnum(nnn)──┘      └─DUMP──┘

▶──OUTUNIT(name)───────────────────────────────────────▶◀
                 └───────VALIDATE───────┘
```

Interfaces: SWSRTV only

SET MIGOPT

```
►──SET MIGOPT──────────────┬──────────────────┬──────────────────┬─────────────►
                           └─VTSS(vtssname)─┘  └─MAXmig(nn)─┘

►──────────┬────────────────┬──────┬──────────────┬──────┬─────────────┬──────►◄
           └─MINMIG(nn)─┘           └─HIGHthld(nn)─┘       └─LOWthld(nn)─┘
```
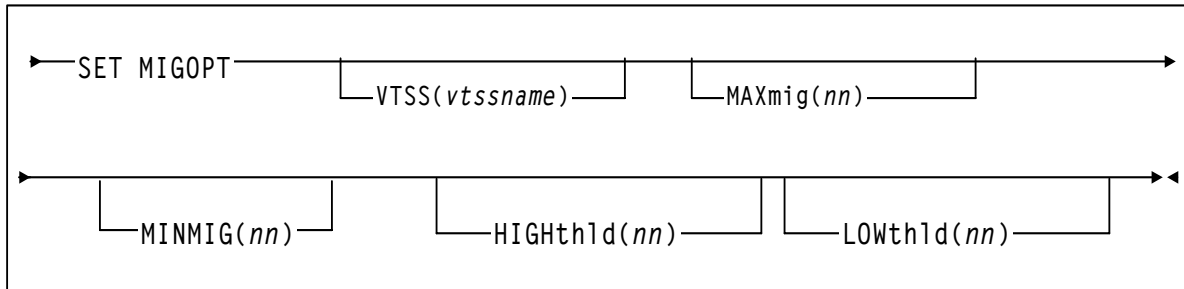
Interfaces: SWSADMIN utility and VT command

SET RMM
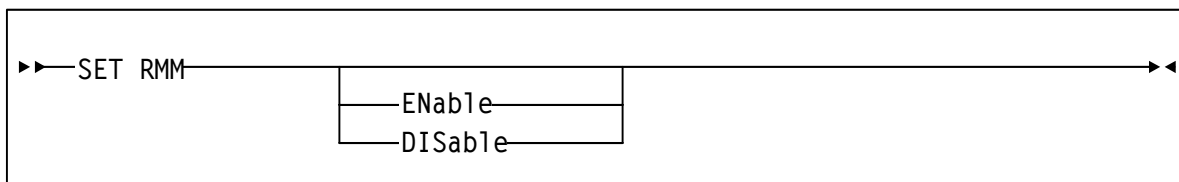
```
►►──SET RMM──┬───────────┬──────────────────────────►◄
             ├─ENable──┤
             └─DISable─┘
```

Interfaces: SWSADMIN utility and VT command

TRACE
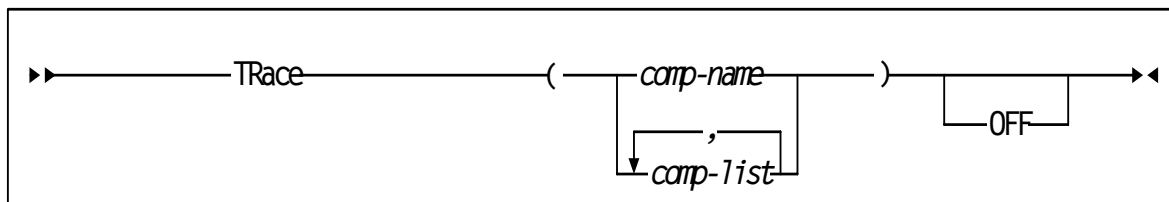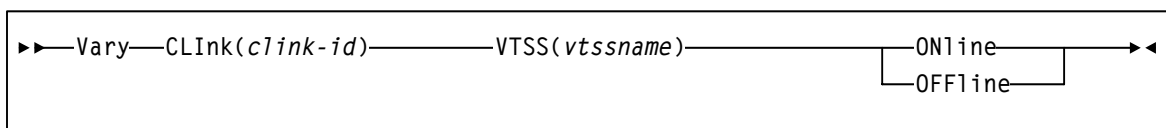
```
►►─────────TRace───────────(───────comp-name──────────)─────────►◄
                                    │                 │      └─OFF─┘
                                    │    ,            │
                                    └──comp-list──────┘
```

Interfaces: SWSADMIN utility and VT command

VARY CLINK

```
►►──Vary──CLInk(clink-id)───────VTSS(vtssname)─────────────ONline────►◄
                                                          └─OFFline──┘
```

Interfaces: SWSADMIN utility and VT command

VARY RTD

```
►►──Vary────────RTD─(──────rtd-id──────)──ONline────────────►◄
                    │    ├─rtd-range─┤    ├─OFFline──┤
                    │    │    ,      │    └─MAINt────┘
                    │    └──rtd-list─┘
```

Interfaces: SWSADMIN utility and VT command

VARY VTSS

```
►►──Vary────────VTSS(──────name──────)──────────OFFline────────►◄
                                              ├─ONline───┤
                                              └─QUIESCED──┘
```
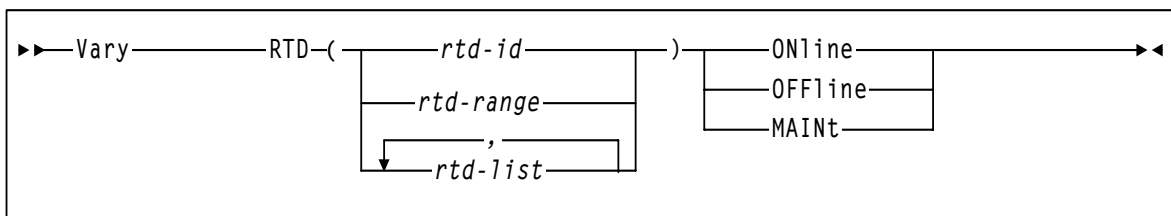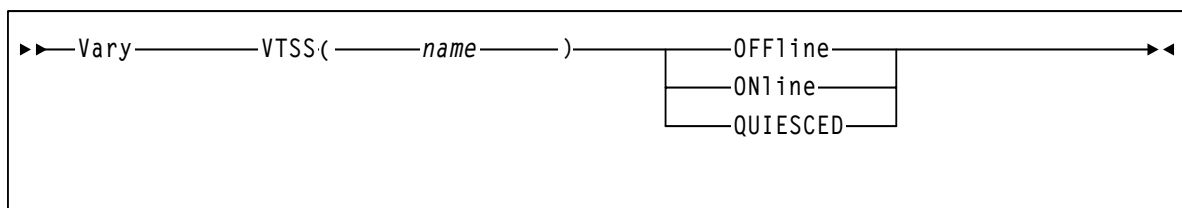
Interfaces: SWSADMIN utility and VT command

VTVMAINT

```
▶▶──VTVMAINT────────────VTVid─(───────vol-list───────)──────────────────▶
                                  ├──vol-range──┤
                                  │      ,       │
                                  └──▼─volser────┘


▶──┬──────────────────────────┬──┬─────────────────────────────┬──────────▶
   └─ULINKMVC─┬──────────────┬─┘  └─MGMTclas(mgmt-clas-name──┘
              └──(volser)──┘


▶──┬──────────────────────────────────┬──────────────────────────────────▶◀
   └─DISMOUNT─VTSSid(name)─┘
```
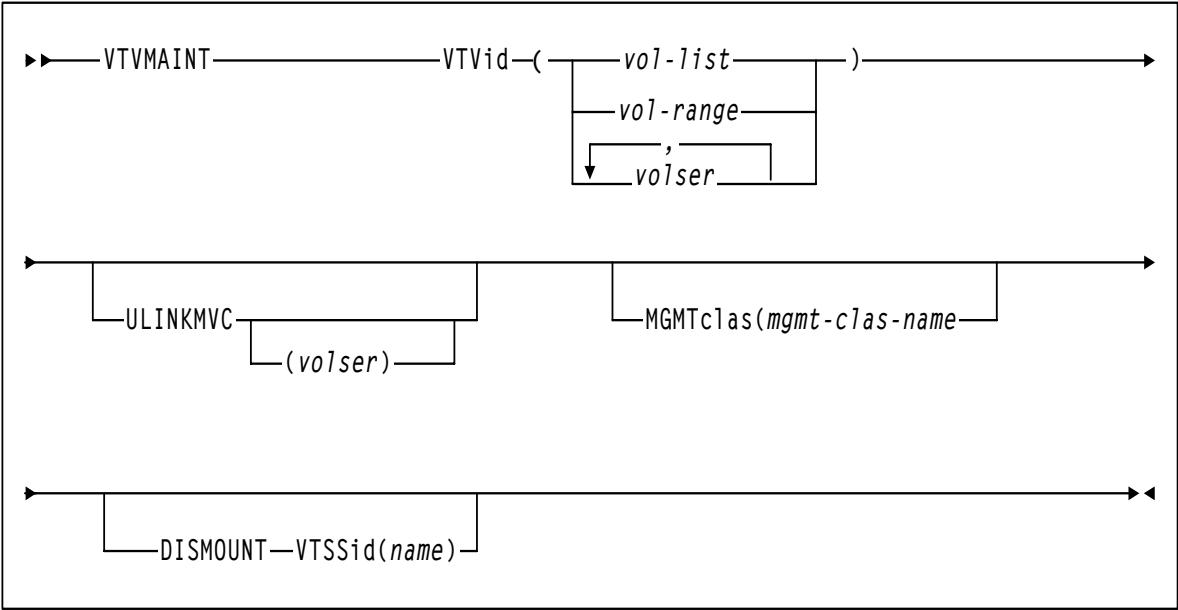
Interfaces: SWSADMIN utility only

VTVRPT

```
▶▶──VTVRPT─────────────────────────────────────────────────────────────▶
        ┌─VTVid─(──┬──volser────┬──)──┐        ┌─FLATdd(ddname)─┐
        │          ├──vol-range──┤     │
        │          │    ┌──,──┐   │     │
        │          └──▼─vol-list─┘     │
        └──────MANIFEST(.ddname)──────┘
▶──┬──────┬──┬──────────────────┬──┬──────────┬──◀
   └─ALL──┘  └─OPTION(UNAVAIL)──┘  └─SUPEMPTY─┘
```
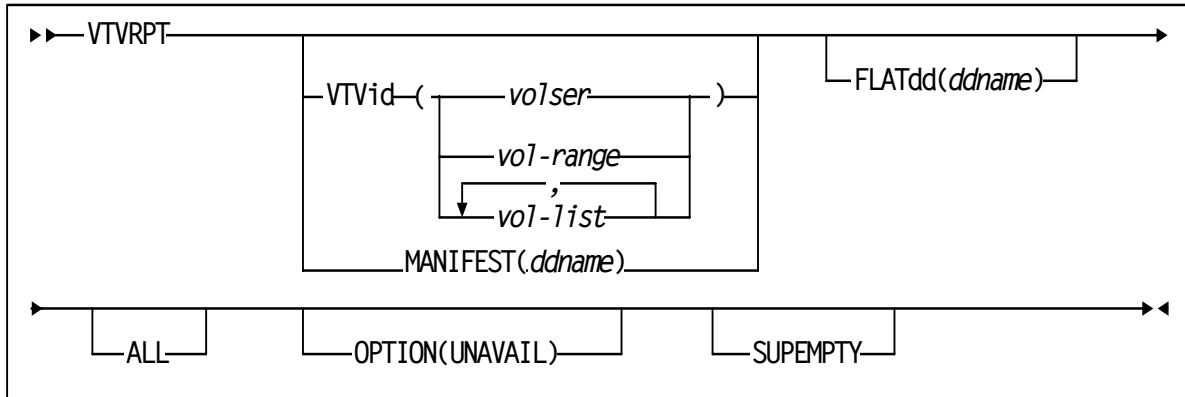
Interfaces: SWSADMIN utility only

SMC Command, Utility, and Control Statement Syntax

This section contains syntax for SMC enhancements and additions that support VSM. For complete descriptions of these SMC enhancements and additions, see *VTCS Command and Utility Reference*.

TAPEREQ Control Statement

```
►►──TAPEREQ──────────────────────────────────────────────────────────────►
               │                    *                │ │              *              │
               └─JOBname(──┬──────┬──)─┘ └─STEPname(──┬────────┬──)─┘
                           └─jobname─┘                 └─stepname─┘

►──────────────────────────────────────────────────────────────────────────►
    │                    *                    │ │                **                 │
    └─PROGram(──┬─────────────┬──)─┘ └─DATASET(──┬──────────────┬──)─┘
    │           └─program-name─┘       │         └─dataset-name─┘
    └─PGMname(program-name)────────┘   └─DSN(dataset-name)──────────┘

►──────────────────────────────────────────────────────────────────────────►
    │           ┌─GE─┐                        │ │                        │
    └─RETPD(────┼─EQ─┼──,retention-period)─┐   └─POLicy(policy-name)──┘
    │           ├─NE─┤                      │
    │           ├─GT─┤                      │
    │           ├─LT─┤                      │
    │           └─LE─┘                      │
    │           ┌─GE─┐                      │
    └─EXPDT(────┼─EQ─┼──,expiration-date)──┘
                ├─NE─┤
                ├─GT─┤
                ├─LT─┤
                └─LE─┘

►──────────────────────────────────────────────────────────────────────────►
    │            ┌──*────────┐   │ │           ┌──*───┐   │
    └─VOLType(───┼─Specific─┼──)─┘ └─VOLSer(──┴─volser─┴──)─┘
                 └─Nonspec──┘

►──────────────────────────────────────────────────────────────────────────►
    │          ┌──,────────┐        │ │              ┌──,──────────────┐        │
    └─MEDia(──▼─media-type─┴──)─┘ └─RECtech(──▼─recording-technique─┴──)──┐
    │                                │                                      │
    │                                └─MODel(──▼─model-type─┴──)───────────┘
    │                                          └──,────────┘
    │  └─DEVTpref(model1──────────────────────────)─┘
    │              └─,model2─┐                    │ ┌─LIBrary─┐
    │                        └─,model3─┘ └─SCOPE(──┴─LSM─────┴──)─┘

►──────────────────────────────────────────────────────────────────────────►
    └─SUBPool(subpool-name)─┘ └─ESOTeric(esoteric-group-name)─┘

►──────────────────────────────────────────────────────────◄
    └─MGMTclas(mgmt-class-name)─┘
```

UNITATTR Control Statement

```
►►────UNITATTR──────ADDRess──(─────────unit-address──────────)──────────────────►
                                  ├───unit-address-range───┤
                                  │         ,         │
                                  └──unit-address-list──┘

►──────────────────────────────────────────────────────────────────────◄
      └─MODel(Virtual)─┘    └─VTSS(vtss-name)─┘    └─NETHOST(host-id)─┘
```

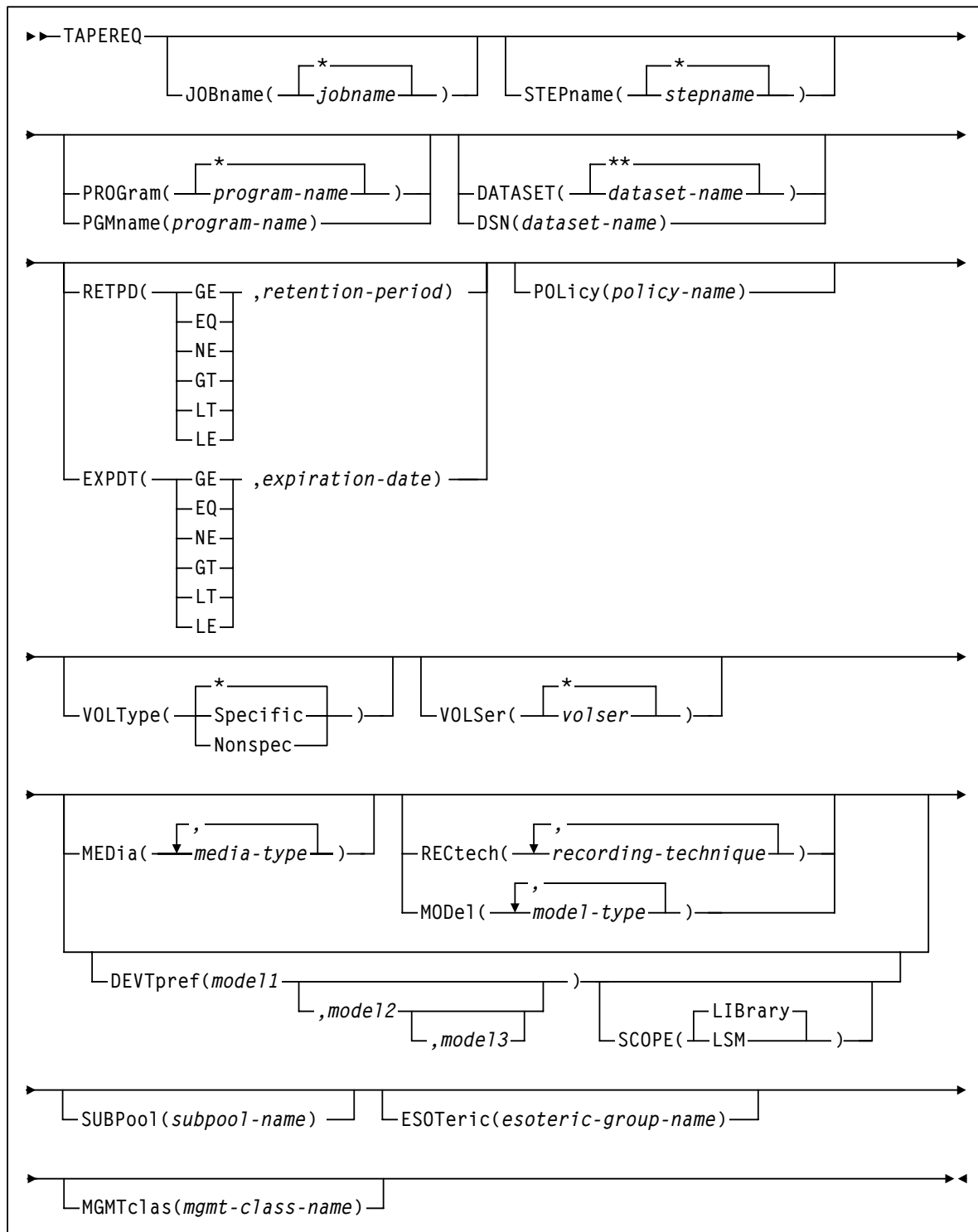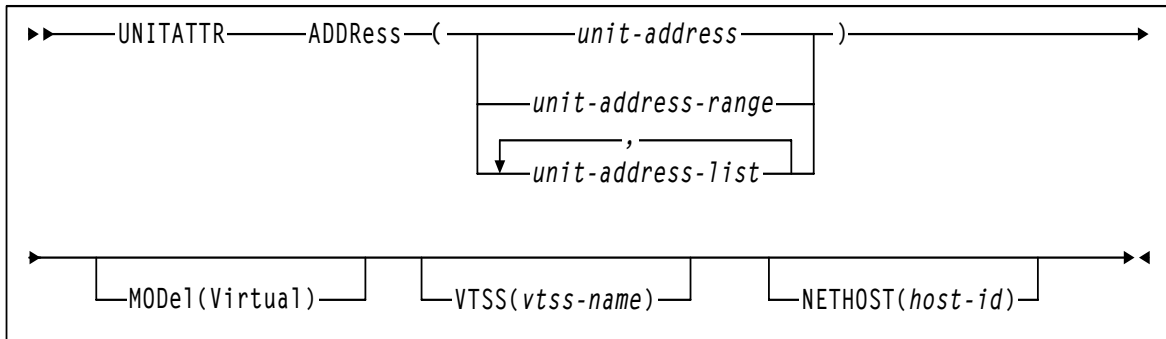# HSC Command, Utility, and Control Statement Syntax

This section contains syntax for HSC enhancements and additions that support VSM. For complete descriptions of these HSC enhancements and additions, see *VTCS Command and Utility Reference*.

DISPLAY Command

```
▶▶─Display──────────FEATures──────────MGMTDEF───────────MVCDEF────────────▶◀
```

FEATURES Control Statement

```
▶▶────────FEATures──────────────────────────────────────────────────▶◀
                                         ┌──────────NONE────────┐
                        └─VSM(───────────┴─ADVMGMT───────┴───)─┘
```

MERGECDS Utility

```
▶▶─────MERGEcds────────────────────────────────────────────────────────▶
                   └─ALL─┘        └─VALIDate─┘          ┌─VIRTonly─┐
                                                        └─REALonly─┘
▶─────────────────────────────────────────────────────────────────────▶◀
         └─DELVirt─┘        └─NOMSG─┘
```
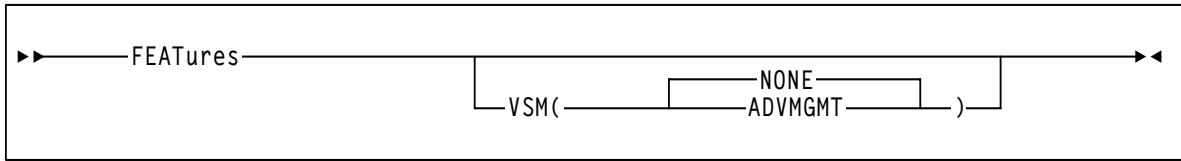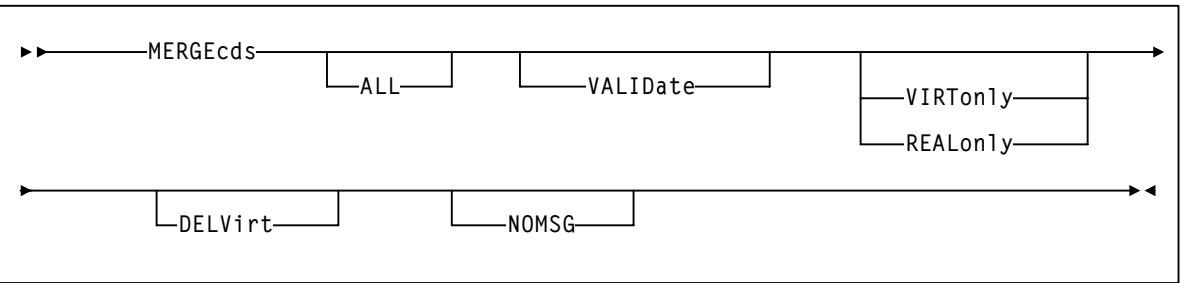
MGMTCLAS Basic Management Feature

```
►►──MGMTclas───NAME(mgmt-class-name)──────────────────────────────────────►
                                    └─ACSlist (acs-id | acs-id,acs-id)─┘


  ►─────────────────────────────────────────────────────────────────────►
            ┌──────────NO──────────┐              ┌───NO───┐
      └─IMMEDmig(──────────────────)─┘     └─DUPLEX(──┬──YES──┬──)─┘
              ├──────KEEP──────┤
              └─────DELETE─────┘


  ►───────────────────────────────────────────────────────────────────►◄
      └─MAXVtvsz (400 | 800)──────────┘          ┌───NO───┐
                                         └─DELSCR(──┬──YES──┬──)─┘
```
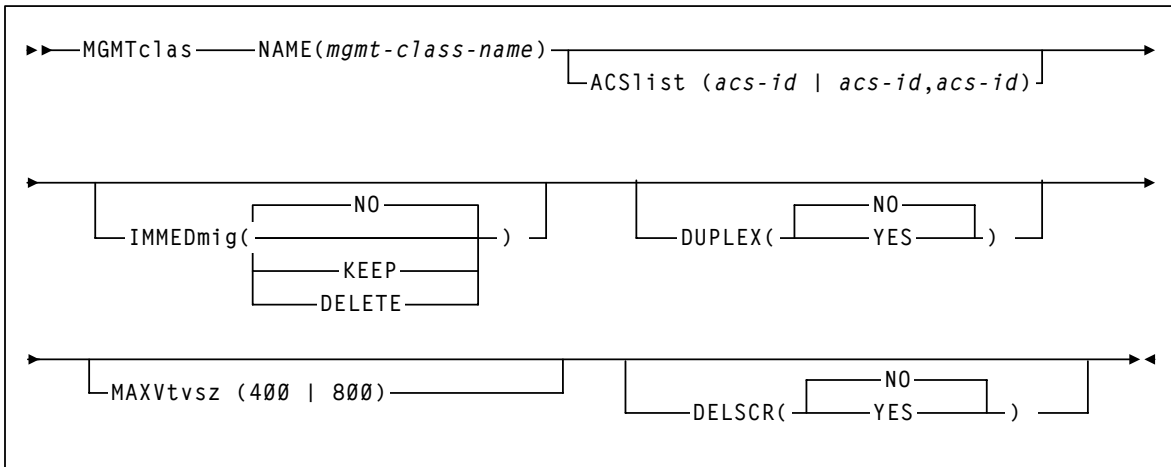
MGMTCLAS Advanced Management Feature

```
▶▶──MGMTclas────NAME(mgmt-class-name)──────────────────────────────────────▶
                          └─ACSlist (acs-id | acs-id,acs-id)─┘

▶──────────────────────────────────────────────────────────────────────────▶
     │              ┌──────NO──────┐          │            ┌──────NO──────┐   │
     └─IMMEDmig(────┼──────────────┼──)─┘      └─DUPLEX(────┼──────────────┼──)─┘
                    ├─────KEEP─────┤                        └─────YES──────┘
                    └────DELETE────┘

▶──────────────────────────────────────────────────────────────────────────▶
     └─MIGpol(s1 | s1,s2 | s1,s2,s3 | s1,s2,s3,s4)──────────────────────────┘

▶──────────────────────────────────────────────────────────────────────────▶
       └──RESTIME(nnn)──┘              └─CONSRC(stor-class-name)─┘

▶──────────────────────────────────────────────────────────────────────────▶
     └─CONTGT(stor-class-name)─┘        └─DELSCR(──┬──NO──┬──)─┘
                                                    └──YES─┘

▶──────────────────────────────────────────────────────────────────────◀
     │           ┌──NO──┐   │       └─MAXVtvsz (400 | 800)─┘
     └─REPlicat(──┼──YES──┼──)─┘
                  └─YES_SYNC─┘
```

MGMTDEF Command

```
►►──MGMTDEF──────────┬─DATASET(dataset.name)─┬──────┬──────────────────────┬──────
                     └─DSN(dataset.name)─────┘      └─VOLume(volser)───────┘

►──────────┬─────────────────┬─────────┬───────────────────────┬────────────────►◄
           └─UNIT(unitname)──┘         └─HOSTID(──host-id──)────┘
```

MOUNT Command

```
►►──Mount──┬─volser──┬──devaddr───┬──────────────────────────────┬──────►◄
           └─SCRTCH──┘            └─MGMTclas─(──mgmt-clas-name──)─┘
```
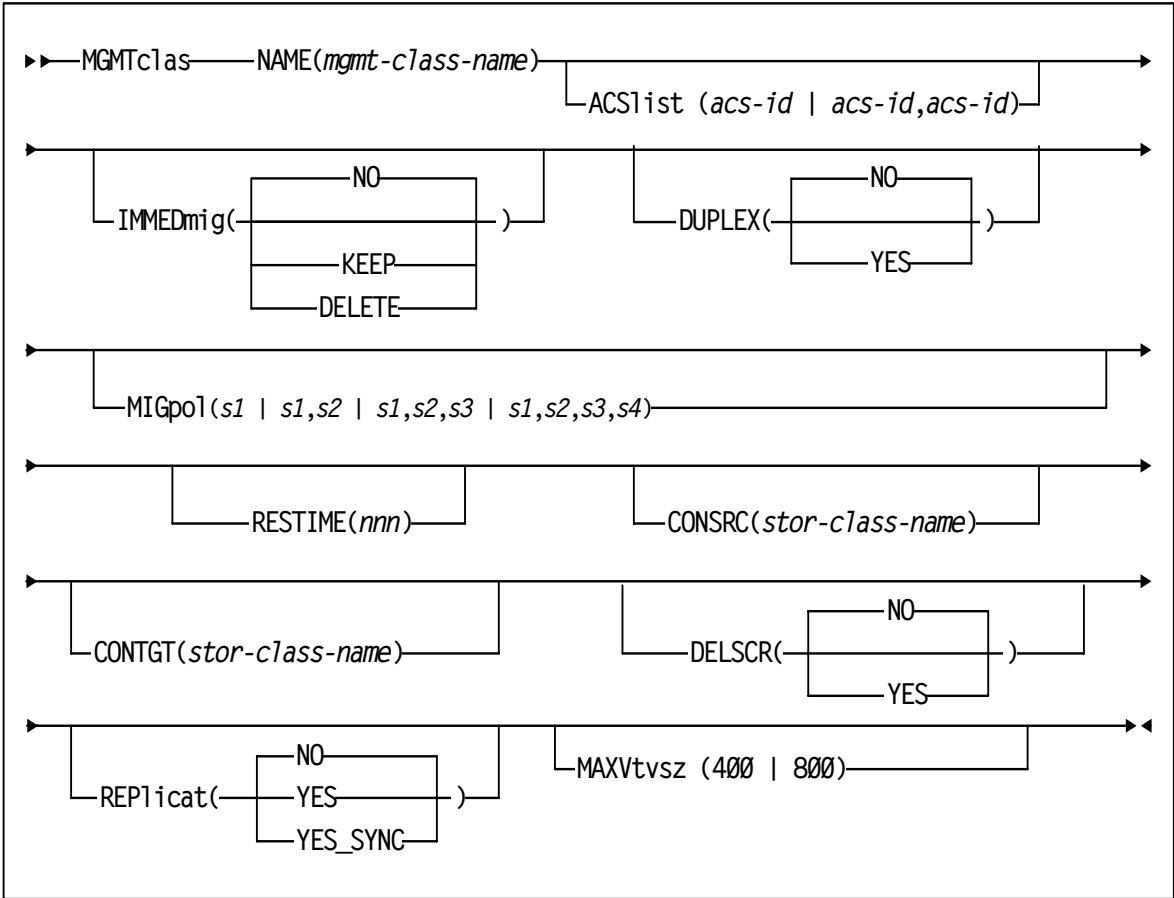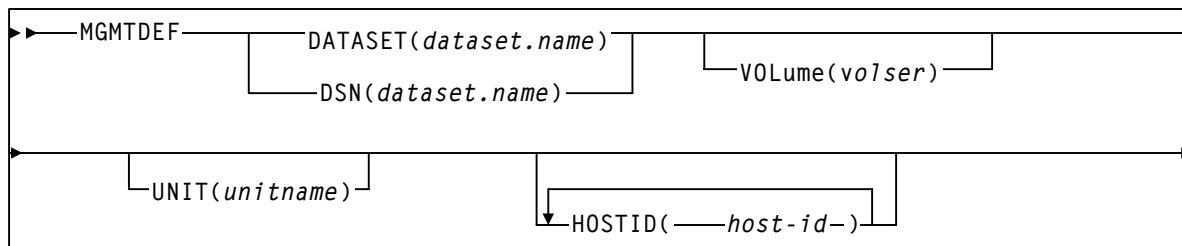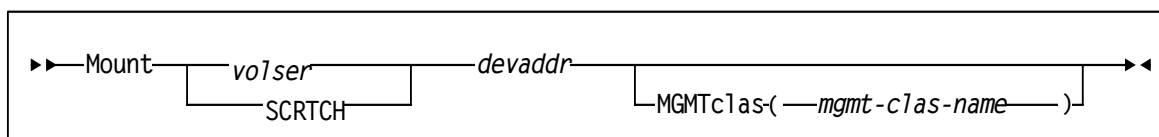
MVCPool Control Statement

```
►►──MVCPool────Volser────(──┬─volser────┬──)──────────────────────────►
                            ├─vol-range─┤
                            └─vol-list──┘
                                 ,

►──────┬───────────────────────────────────────────────────────────────────►
       └─NAME(poolname)──┬──────────────┬──┬─────────────┬──┬────────────┬──►
                         └─MVCFREE(nn)──┘  └─MAXMVC(nn)──┘  └─THRESH(nn)──┘

►──────────────────────────────────────────────────────────────────────►◄
   ●──┬─────────────┬────────────┬──────────────────────────────┬──────
      └─START(nn)───┘            └─INITMVC=──┬─NO──┬─────────────┘
                                             └─YES─┘
```
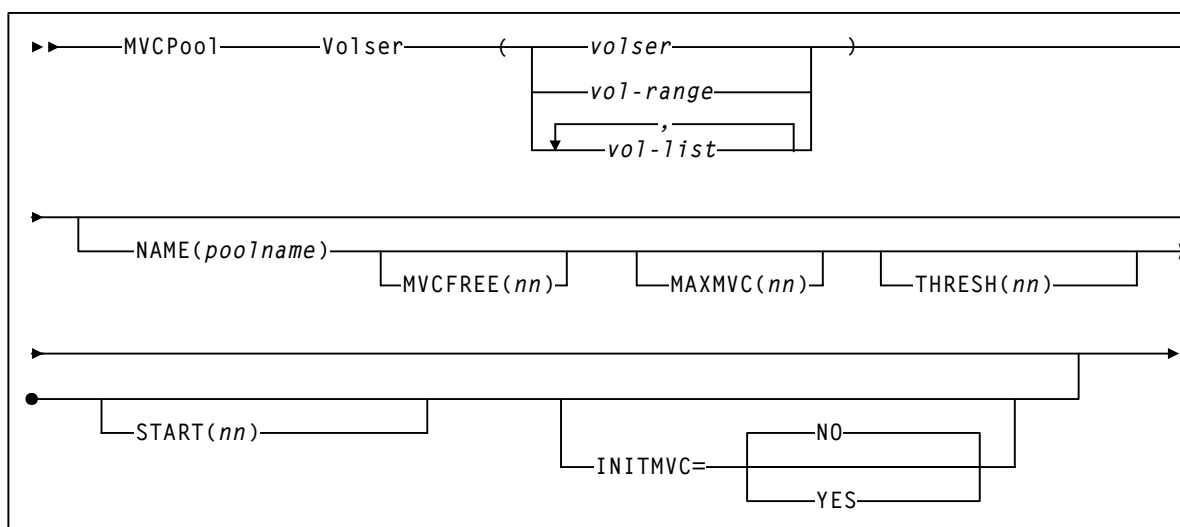
STORCLAS Control Statement

```
►►─STORclas─────NAME(stor-clas-name)──────────────────────────────────────►
                                              └─ACS(acs-id)─┘

►──────────────────────────────────────────────────────────────────────►
      └─MEDIA(media-type,media-type)─┘         └─MVCPOOL(poolname)─┘

►──────────────────────────────────────────────────────────────────►◄
              ┌─RECEIVER─┐
      └─MIGRATE(──SENDER──)─┘
              └─EITHER───┘
```

STORLST Control Statement

```
►►─STORLST─────────NAME(stor-list-name)─────────STORclas(──stor-class-name──)──►
                                                          └──────,──────┘

►──────────────────────────────────────────────────────────────►◄
                        ┌─5─┐
      └─PRIority(──order──)─┘
               └──,──┘
```

STORSEL Control Statement

```
►►──STORSEL─────────────────────────────────────────────────────────────────►
                        └─FUNCtion(function)─┘

►─────────────────────────────────────────────────────────────────────────►
      ┌──────,──────┐
   └─HOST(─▼─host-id─┴─)─┘           └─MGMTclas(mgmt-class-name)─┘

►─────────────────────────────STORLST(stor-list-name)──────►◄
   └─VTSS(vtss-name)─┘
```
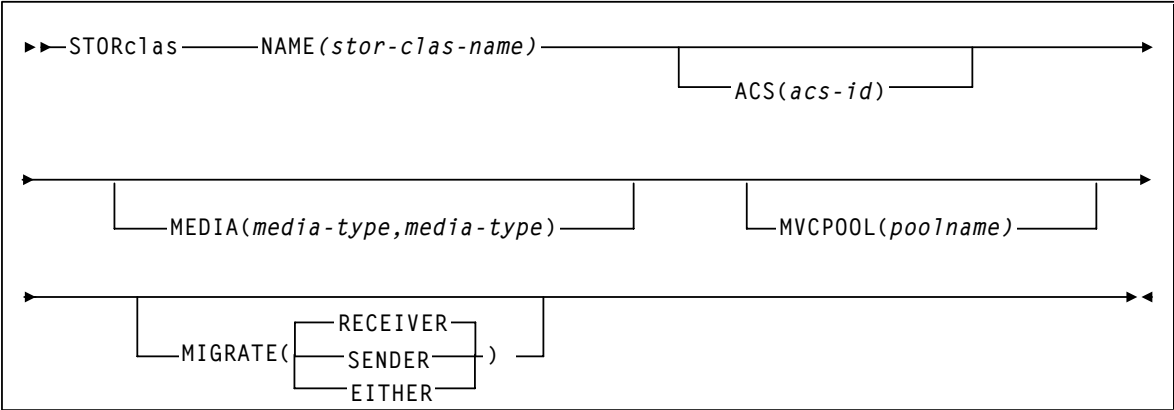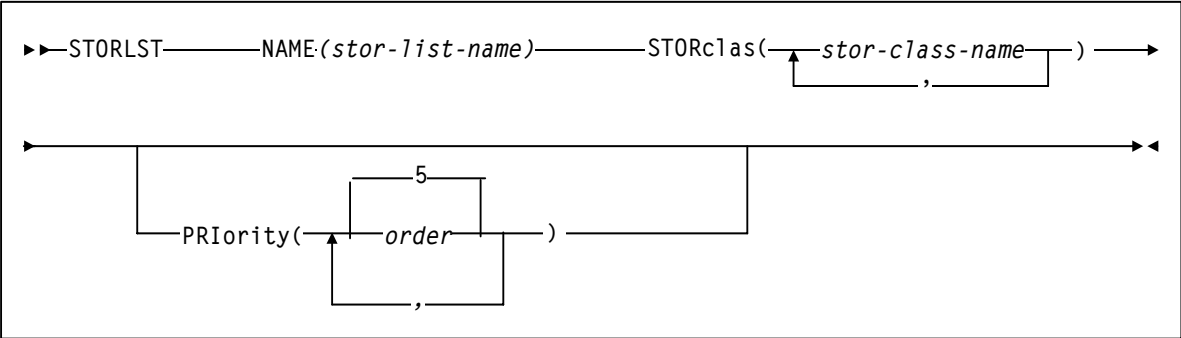
VOLATTR Control Statement

```
►►──VOLATTR──SERial───(─────volser────────)──────────────────────────────►◄
                      │   ┌─vol-range─┐    │    ┌─MEDia(Virtual)──┐
                      │   ▼            │    │    └─RECtech(Virtual)─┘
                      └────,─vol-list──┘
```

VTSSLST Control Statement

```
►►──VTSSLST─────NAME(vtss-list-name)─────VTSS(───────vtss-name──────)───►
                                              ┌───────,──────┘

►─────────────────────────────────────────────────────────────────────►◄
   └─PRIority(──┬──5──┬──)─┘
                ▼  order  │
                └────,────┘
```

VTSSSEL Control Statement

```
►►──VTSSSEL──────────────────────────────────────────────────────►
                          └─FUNCtion(function)─┘

──────────────────────────────────────────────────────────────────►
        │       ┌─,─────┐            └─MGMTclas(mgmt-class-name)─┘
        └─HOST(─▼─host-id─┘)─┘

──────────────────────────────────────────────────────────────────►
        └─PREVvtss(vtss-name)─┘       └─STORclas(stor-class-name)─┘

────────────────────────────────────VTSSLST(vtss-list-name)──────►◄
        └─MVCpool(pool-name)─┘
```
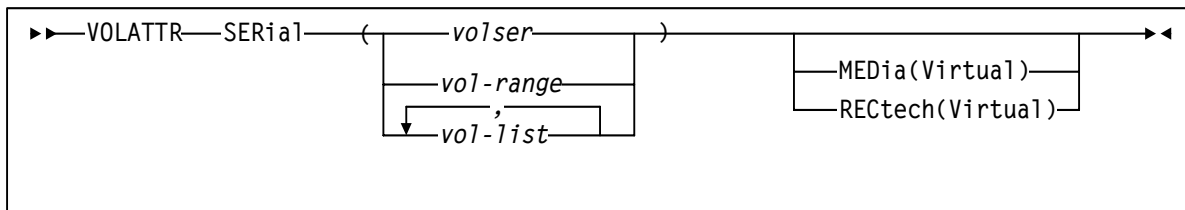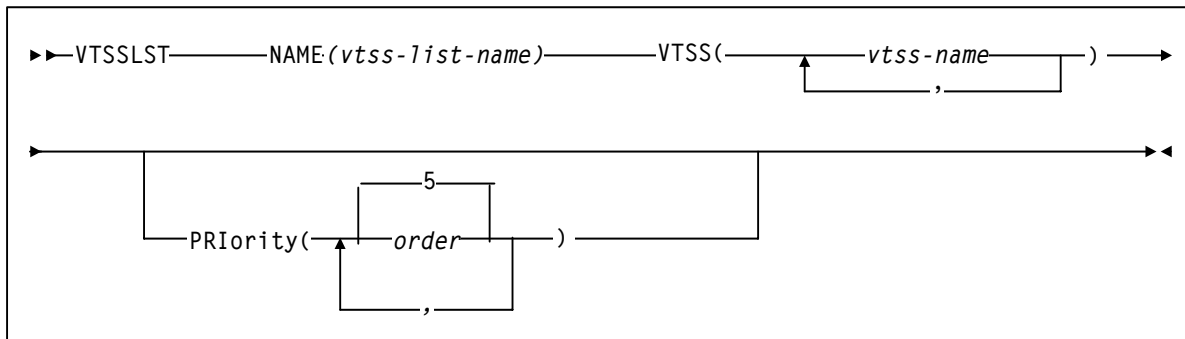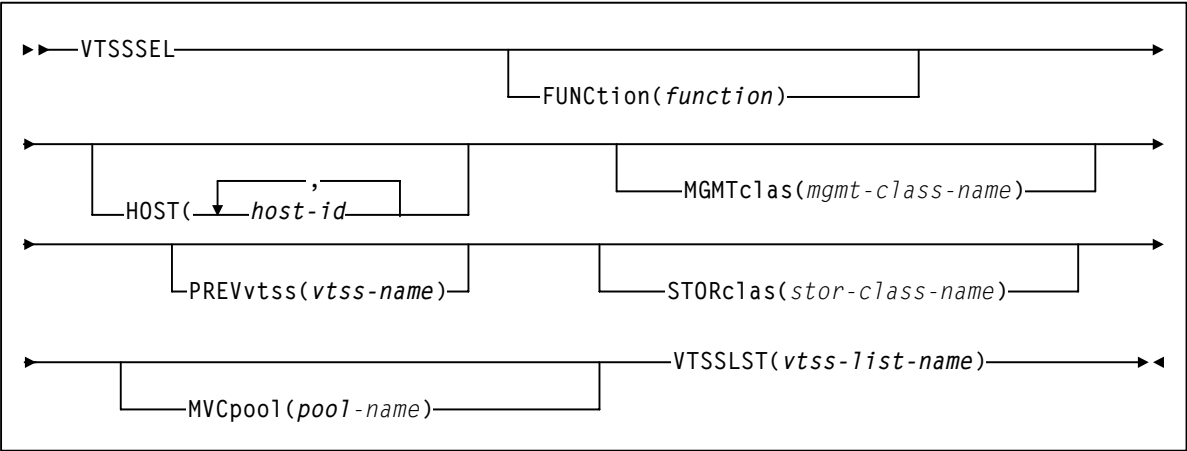
LibraryStation Control Statement Syntax

This section contains syntax for LibraryStation enhancements and additions that support VSM. For complete descriptions of these enhancements and additions, see *VTCS Command and Utility Reference*.

SPNUM Statement

```
►►─SPNUM─────────NUM(n)───────SPNAME(hsc_subpool_name)──────────────────────────────►

   ┌──────────────────────────────────┐
   ►────────────────────────────────────────────────────────────────────────────────►
       └─VIRTual──(──────)─┘            └─MGMTclas(management_class_name)─┘
                 ┌─NO─┐
                 └─YES─┘

   ►────────────────────────────────────────────────────────────────────────◄
       └─VTSSlst·(VTSS | vtss,vtss)─┘      ┌─IPADDR(IP_address)─┐
                                           ├─LUNAME·(partner_lu_name)─┤
                                           └─XCFNAME(xcf_client_name)─┘
```

VIRTACS Statement

```
►►──────VIRTACS─ID·(acsid)────────VTSSNAME(vtss-name)───────────────────────────◄
```
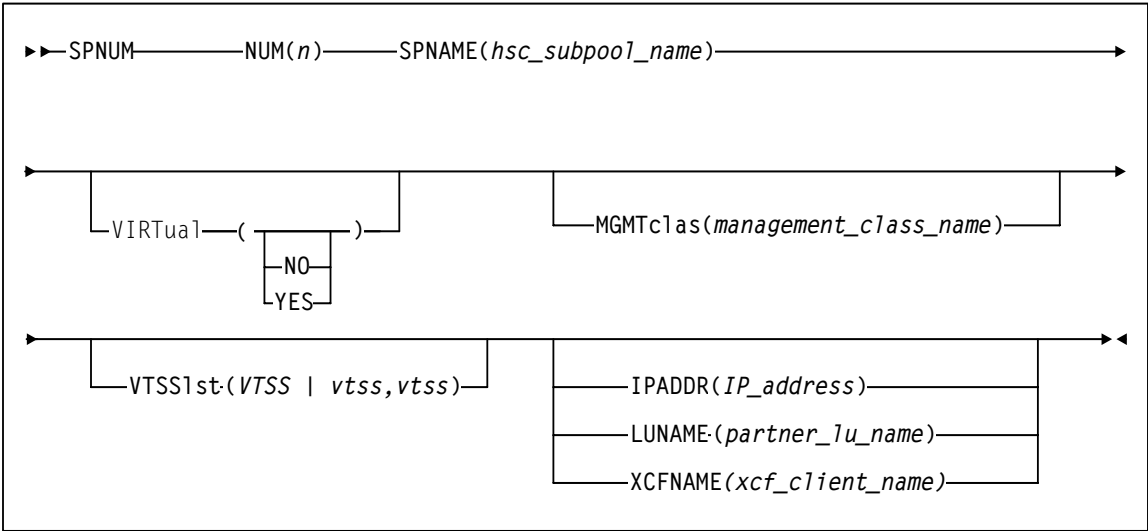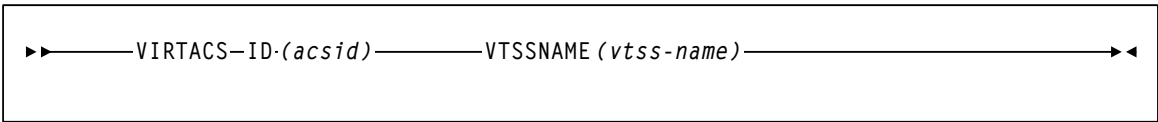
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