



StorageTek™ NCS/VTCS Software

XML Guide

CRC Update Only
Revision D
Version 6.2



NCS/VTCS™

XML Guide

CRC Update Only

Version 6.2

Sun Microsystems, Inc.
www.sun.com

CRC Update Only
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Please
Recycle



Revision History

EC	Date	Description
132864	March 2007	Revision A
CRC Update Only	May 2007	Revision B
CRC Update Only	February 2008	Revision D

Notices

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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.

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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.

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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.

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The following is the Internal Code License Agreement from StorageTek:

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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).

Audience

This guide is for qualified StorageTek internal customers and third-party vendors who are responsible writing applications to the VTCS Programmatic Interface (PGMI). It is also for customers who elect to produce XML format output directly from the VTCS commands and utilities.

This guide describes the XML format output of the following:

- The VTCS/NCS PGMI responses.
- The VTCS/NCS command/utility responses.

To perform the tasks described in this guide, you should already understand the following:

- MVS or OS/390 operating system
- JES2 or JES3
- System Management Facility (SMF)
- System Modification Program Extended (SMP/E)
- Nearline Control Solution (NCS)
- VTCS and VSM

How this Guide is Organized

This guide contains:

- “Generating XML Output” on page 1
- “VTCS Commands and Utilities XML Tags” on page 11
- “NCS Commands and Utilities XML Tags” on page 109

What's New in this Guide?

VTCS 6.2.0, Revision D

The VTCS 6.2.0, Revision D of this guide contains information about the VTCS 6.2 enhancements described in TABLE P-1.

TABLE P-1 VTCS 6.2.0 Updates to NCS/VTCS XML Guide, Revision D

This Enhancement...	...is described in...
VTSS Synchronous Replication	■ TABLE 2-1 on page 12 ■ “CONFIG” on page 25 ■ “DECOM” on page 33 ■ “QUERY/DISPLAY CLINK” on page 59 ■ “QUERY/DISPLAY CLUSTER” on page 60 ■ “QUERY/DISPLAY CONFIG” on page 63 ■ “QUERY/DISPLAY REPLICATE” on page 75 ■ “QUERY/DISPLAY VTD” on page 80

Synchronous replication, which applies to only VSM4s and VSM5s, has the requirements described in TABLE P-2.

TABLE P-2 Synchronous Replication Requirements for VTCS/NCS 6.2

Synchronous replication requires...	..the following VSM4/VSM5 microcode...	...and the following VTCS/NCS 6.2 PTFs...	...and CDS level...
FICON ports for the CLINKs	D02.03.00.00 or higher	L1H13QL (SWS6200), L1A00L3 (SMC6200), and L1H13K8 (SOS6200)	“F” or higher

VTCS 6.2.0, Revisions B and C

The VTCS 6.2.0, Revisions B and C of this guide contains technical updates and corrections.

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Generating XML Output

You can generate XML output for the 6.2 VTCS and NCS commands and utilities described in:

- “VTCS Commands and Utilities XML Tags” on page 11
- “NCS Commands and Utilities XML Tags” on page 109

You can generate XML output as either structured XML or as Comma Separated Variables (CSV) output. What’s the difference between Structured XML and CSV output? Consider this:

- Structured XML contains **all** of the tags and structures shown for each command or utility (which you can then process, as desired, using a programming language of your choice).

For information on generating structured XML via the PTCS SLUADMIN utility or VTCS SWSADMIN utility, see:

- “SWSADMIN/SLUADMIN XMLDATE and XMLCase Parameters” on page 2
- “Generating Structured XML Output - SWSADMIN/SLUADMIN” on page 3

For information on generating structured XML via the SMC SMCUI utility, see *SMC Configuration and Administration Guide*.

- CSV output lets you select **only** the tags (and their order) that you want. Each output line contains a fixed number of fields separated by commas, which can then be input into spreadsheets or report writers for customizable analysis or reports. For information on generating CSV output via the SWSADMIN/SLUADMIN utilities, see “Generating Comma Separated Value (CSV) Output” on page 5.

For information on generating CSV output via the SMC SMCUI utility, see *SMC Configuration and Administration Guide*.

SWSADMIN / SLUADMIN XMLDATE and XMLCase Parameters

SWSADMIN/SLUADMIN now provide the XMLDATE and XMLCase parameters to define the date format and character case in XML and CSV output.

`XMLDATE(YYYYMONDD | YYYY-MM-DD | YYYY-MON-DD)`

Defines the format of date fields in XML and CSV output. The default is `YYYYMONDD` (for example, 2005Oct14).

`XMLCase(M | U)`

Defines the case of data fields in XML and CSV output. The default is M (mixed). If you specify U, all alphabetic fields in XML and CSV will be in upper case.

Note that XML tags are always mixed case; the XMLCase parameter applies only to the data portion of the XML.

Generating Structured XML Output - SWSADMIN / SLUADMIN

To generate structured XML output, you modify your JCL as follows:

- If desired, specify the XMLDATE/XMLCase parameters as described in “SWSADMIN / SLUADMIN XMLDATE and XMLCase Parameters” on page 2.
- Ensure that you include an SLSXML statement as described in “JCL Requirements for Structured XML Output” on page 3.

FIGURE 1-1 on page 4 shows example JCL to generate structured XML output.

Caution – Structured XML output can consume **considerable** space. You may want to consider routing your XML output to a VTF so that the output is compressed.

JCL Requirements for Structured XML Output

The following are the required and optional statements for the SWSADMIN / SLUADMIN JCL to produce structured XML output:

STEPLIB

specifies the link library (SLSLINK) that contains the VTCS and HSC modules.

SLSPRINT

specifies the destination for the output.

SLSIN

specifies the input to the SWSADMIN program (utility name and parameters).

SYSOUT

specifies the output destination for SORT messages. This is only required for some detailed reports.

SLSXML

specifies the output destination for XML output. Allocate this file as RECFM=VB, LRECL=255,BLKSIZE=32000.

JCL Example: Structured XML Output

FIGURE 1-1 shows example JCL to run MVCRRPT to produce a report for all MVCs in structured XML format as described in “MVCRRPT” on page 59.

```
//MVCRRPT JOB x,CHRIS,CLASS=A,MSGCLASS=E
//*
//*
//*
//MVCRRPT EXEC PGM=SWSADMIN,PARM='MIXED,XMLDATE=YYYY-MM-DD'
//STEPLIB DD DSN=ncs620.LINKLIB,DISP=SHR
//SLSCNTL DD DSN=hlq.V62.CLUSTER.CDS,DISP=SHR
//SLSPRINT DD SYSOUT=*
//SYSOUT DD SYSOUT=*
//SLSEXML DD DISP=(,CATLG),DSN=hlq.MVCRRPT.XML,
// DCB=(RECFM=VB,LRECL=255,BLKSIZE=32000),
// UNIT=SYSDA,SPACE=(CYL,(x,y))
//SLFIN DD *
MVCRRPT
/*
//
```

FIGURE 1-1 Example JCL for the MVCRRPT utility (structured XML format)

Generating Comma Separated Value (CSV) Output

To generate CSV output via SWSADMIN/SLUADMIN, you modify your JCL as follows:

- Ensure that you include a CSV command as described in “CSV Command” on page 5.
- Ensure that you include an SLXML statement as described in “SLUADMIN/SWSADMIN JCL Requirements for CSV Output” on page 8.

FIGURE 1-2 on page 5 shows example JCL to generate CSV XML output.

For information on generating structured XML via the SMC SMCUI utility, see *SMC Configuration and Administration Guide*.

CSV Command

SWSADMIN/SLUADMIN/SMCUI now provide the CSV command to generate CSV output. Each CSV command contains a list of CSV element definitions separated by commas. Each CSV element definition specifies an XML data tag name with optional XML structure tag and subscript values.

Syntax

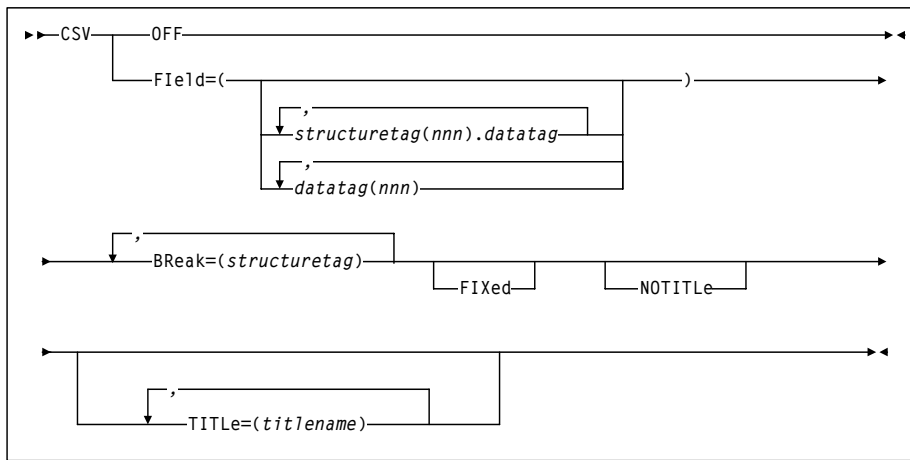


FIGURE 1-2 CSV Command Syntax

CSV Command Parameters

OFF

Turns off CSV processing for subsequent requests. This parameter is mutually exclusive with all other CSV parameters.

Field

Required if OFF is not specified.

structuretag(nnn).datatag

Specifies an optional XML structure tag and data tag pair. An XML structure tag is an element that contains other elements but does not have content value. For more information, see “VTCS Commands and Utilities XML Tags” on page 11 and “NCS Commands and Utilities XML Tags” on page 109.

Specify an XML structure tag / data tag pair **only** when the data tag occurs within multiple structure tags. For example, the DISPLAY LSM request data tag free_count is used under the structure lsm_data to contain the total LSM free cell count and under the structure panel_data to contain the panel free cell count. Specifying lsm_data.free_count requests the free cell count from the lsm_data structure; specifying panel_data.free_count requests the free cell count from the panel_data structure.

nnn

specifies an optional subscript that determines how many of the multiple XML data values are displayed in the CSV output.

Specify a subscript **only** when the structured XML data for a single request contains multiple XML structure elements with the same name. This is indicated in the request XML description whenever the column labelled “Maximum Occurrences” is greater than 1. If a subscript value is specified in the XML structure tag name, no subscript value can be specified in the XML data tag name for the same CSV element definition.

datatag(nnn)

Specifies an optional XML data tag. For more information, see “VTCS Commands and Utilities XML Tags” on page 11 and “NCS Commands and Utilities XML Tags” on page 109.

Specify an XML structure tag / data tag pair **only** when the data tag occurs within multiple structure tags. For example, the DISPLAY LSM request data tag free_count is used under the structure lsm_data to contain the total LSM free cell count and under the structure panel_data to contain the panel free cell count. Specifying lsm_data.free_count requests the free cell count from the lsm_data structure; specifying panel_data.free_count requests the free cell count from the panel_data structure.

Note – The XML tag names are case-sensitive and must exactly match the tag names as specified in the request description. For example, the tag name volser is valid, but the tag names Volser and VOLSER are invalid.

nnn

Specifies an optional subscript that determines how many of the multiple XML data values will be displayed in the CSV output.

Specify a subscript only when the structured XML data for a request contains multiple XML data elements with the same name. This is indicated in the request XML description whenever the column labelled “Maximum Occurrences” is greater than 1. If a subscript value is specified in the XML data tag name, no subscript value can be specified in the XML structure tag name for the same CSV element definition.

BReak

Required if OFF is not specified. The break tag must be a valid structure tag defined for the input request. Whenever a trailer tag matching the break tag is found in the output process, a new CSV record is created. Examples of valid break tags are:

- For DISPLAY CDS, cds_data or host_data
- For VOLRPT or Display Volume, volume_data

FIXed

Generates fixed format CSV output. Each field in the CSV output is blank-padded so that it occupies a fixed number of characters. This option can be used to create a customer-specified format flat file for reporting.

NOTITLe

Specifies that no CSV title line is produced. If this keyword is omitted, the first line of each CSV request is a title line containing comma separated tag names.

TITLe

If TITLe is specified, the title names specified are used in the title output line in place of the XML tag names. For any omitted title name, the specified XML tag name from the FIELD parameter is used in the title.

SLUADMIN / SWSADMIN JCL Requirements for CSV Output

The following are the required and optional statements for the SLUADMIN / SWSADMIN JCL for structured XML output. For information on SMCUII JCL requirements, see *SMC Configuration and Administration Guide*.

STEPLIB

specifies the link library (SLSLINK) that contains the VTCS and HSC modules.

SLSPRINT

specifies the destination for the MVC report.

SLSIN

specifies the input to the SWSADMIN program (MVCRPT utility name and parameters).

SYSOUT

specifies the output destination for SORT messages. This is only required for DETAIL MVC reports.

SLSCSV

specifies the output destination for CSV output. Allocate this file as RECFM=VB,LRECL=4096,BLKSIZE=32000.

JCL Example: CSV XML Output

FIGURE 1-3 shows example JCL to run MVCRRPT to produce a report of the percentage of space available for all MVCs in CSV XML format. FTP the CSV output file to your spreadsheet application. The structure and data tags used are described in “MVCRRPT” on page 59.

```
//MVCRRPT    JOB    x,CHRIS,CLASS=A,MSGCLASS=E
//*
//*
//*
//MVCRRPT    EXEC   PGM=SWSADMIN,
//              PARM='MIXED,XMLDATE=YYYY-MM-DD'
//STEPLIB    DD   DSN=ncs620.LINKLIB,DISP=SHR
//SLSCNTL    DD   DSN=hlq.V62.CLUSTER.CDS,DISP=SHR
//SLSPRINT   DD   SYSOUT=*
//SYSOUT     DD   SYSOUT=*
//SLSCSV     DD   DISP=(,CATLG),DSN=hlq.MVCRRPT.CSV,
//              DCB=(RECFM=VB,LRECL=4096,BLKSIZE=32000),
//              UNIT=SYSDA,SPACE=(CYL,(x,y))
//SLSIN      DD   *
CSV FIELD=(mvc_data.volser,mvc_data.percent_available)+
BREAK=(mvc_data)+
NOTITLE
MVCRRPT
/*
//
```

FIGURE 1-3 Example JCL for the MVCRRPT utility (CSV XML format)

Tip –

When specifying a qualifier tag for a CSV data tag, any tag within the XML hierarchy that makes the data tag unique can be used as a qualifier.

For example:

```
<reclaim_request>

  <header>

    ...

  <reclaim_summary>

    <mvc_data>

      <volser>

        ...

    <recall_process>

      <vtss_data>

        ...

      <mvc_data>

        <volser>

          ...
```

To request the volser under the header tags reclaim_summary and mvc_data, specify:

```
reclaim_summary.volser
```

To request the volser under the header tags recall_proc and mvc_data, specify:

```
recall_process.volser
```

It is NOT necessary to use the immediately preceding header tag to qualify the data tag; you should use the header tag that makes the data tag unique.

If no qualifier is specified for a data tag that occurs under more than one header tag, the first occurrence will be used.

VTCS Commands and Utilities XML Tags

This section describes the XML format output of the VTCS PGMI responses. “VTCS XML Data Tag Descriptions” on page 12 describes:

- The content of each XML data tag.
- The XML structure tags where each data tag occurs.
- Across-reference to the structure or head tags where each structure tag occurs.

The following sections describe the XML head, structure, and data tags for each VTCS PGMI response.

VTCS XML Data Tag Descriptions

TABLE 2-1 VTCS XML Data Tag Descriptions

Data Tag	Occurs In	Definition
<accessible>	<vtss_data>	Yes/no. Indicates whether a VTSS is accessible from this host.
<acs>	<acs_mvc_counts>	ACS ID where the MVCs reside.
	<rtd_data> <connected_device_types>	ACS ID where the RTD is attached.
	<storclas_data>	ACS ID specified in the Storage Class.
	<mvc_data>	ACS ID where the MVC resides.
	<vtss_data>	Default ACS ID.
<active_migrate_tasks>	<vtss_data>	Number of active migration tasks.
<archive_status>	<mvc_instance>	Archived - the VTV was archived to this MVC. Consolid - the VTV was consolidated / exported to this MVC. Deletion - the VTV was migrated to this MVC, but this MVC copy is in addition to that dictated by the VTV's MGMTCLAS. Migrated - the VTV was migrated to this MVC. Reconcil - the VTV should not have been migrated to this MVC. RECONCIL should be run.
<audit>	<mvc_data>	Yes/no. Audit in progress or previous audit failed.
<auto_migrate_threshold>	<vtss_data>	Current threshold for automatic migration.
<auto_migration_list>	<vtss_data>	List of VTVs scheduled for automatic migration.
<available_3105>	<vtcs_data>	CDS compatibility: <cds_compatible_v4>, <cds_compatible_v5>, <cds_compatible_v6>
<block_id>	<mvc_instance>	Block ID of the VTV on the MVC.
<broken>	<mvc_data>	Yes/no. Indicates MVC error status.
<capacity_mb>	<vtss_data>	Capacity of VTSS in Mb.
<CDS_compatible_V4>	<vtcs_data>	Yes/no.
<CDS_compatible_V5>	<vtcs_data>	Yes/no.
<CDS_compatible_V6>	<vtcs_data>	Yes/no.
<cds_block>	<mvc_data_diag>	The block number (bbb) of the MVC within the relevant CDS subfile.
<cds_record>	<mvc_data_diag>	The block record number (rrr) of the MVC within the relevant CDS subfile.
<CF_lock_number>	<CF_lock_data>	Coupling Facility lock number.
<CF_lock_type>	<CF_lock_data>	Coupling Facility lock type.
<CF_lock_owning_host>	<CF_lock_data>	Coupling Facility lock owner.
<channel_id>	<rtd_data>	The channel id of a single RTD/CLINK.
	<clink_data>	

TABLE 2-1 VTCS XML Data Tag Descriptions

Data Tag	Occurs In	Definition
<clink_id>	<clink_data>	Internal ID of a CLINK.
<compress_percent>	<vtv_data>	Percentage compression for the VTV.
<connected_device_types>	<vtss_data>	RTD device types connected to the VTSS.
<consolidate_date>	<mvc_data>	Date YYYYMMDD that the MVC was used for consolidation.
<consolidate_time>	<mvc_data>	Time HH:MM:SS that the MVC was used for consolidation.
<consolidated>	<vtv_data>	Yes/no. Indicates whether a VTV is currently consolidated.
	<mvc_data>	Indicates that this MVC is a consolidated MVC.
<contains_free_MVCs>	<mvcpool_data>	Yes/no. Indicates whether the MVC Pool contains free MVCs.
<cuaddr>	<vtd_range>	A DECOM or CONFIG control unit identifier for a VTD that matches its value in the IOCP.
<data_check>	<mvc_data>	Yes/no. Indicates whether an MVC has had a data check.
<date_created>	<vtv_data>	Date YYYYMMDD that the VTV was created.
<date_last_mounted>	<mvc_data>	Date YYYYMMDD that the MVC was last mounted.
<date_last_used>	<vtv_data>	Date YYYYMMDD that the VTV was last used.
<date>	<header>	Date YYYYMMDD that the XML was generated.
<dbu>	<vtss_data>	DBU % for a single VTSS.
<default_acs>	<vtss_data>	The configured default ACS ID for this VTSS.
<device_address>	<rtd_data> <rtd_data_diag>	The configured device address for an RTD.
	<vtd_data>	
<device_type>	<rtd_data> </required_device_types> <connected_device_types>	The device type of the RTD.
<dismount_time>	<vtss_data>	The time an MVC is retained on a RTD.
<drain>	<mvc_data>	Yes/no. Indicates whether the MVC is being drained.
<copies_to_migrate>	<vtv_data>	1, 2, 3, or 4. Indicates number of migration copies of a VTV.
<eject>	<mvc_data>	Yes/no. Indicates whether the MVC is ejected.
<export>	<mvc_data>	Yes/no. Indicates whether the MVC is exported.
<fenced>	<vtv_data>	Yes/no. Indicates whether a VTV is currently fenced.
<free_size>	<media_mvc_counts>	Free space in GB.
<free_volumes>	<media_mvc_counts>	Number of free MVCs.
<full>	<mvc_data>	Yes/no. Indicates whether the MVC is considered full.
<function>	<vtcs_request>	VTCS function being performed.
<global_maxvtv>	<vtcs_data>	Maximum VTVs per MVC (4-32000).
<global_mvcfree>	<vtcs_data>	Free MVC threshold for reclaim (0-255).

TABLE 2-1 VTCS XML Data Tag Descriptions

Data Tag	Occurs In	Definition
<global_replicat>	<vtcs_data>	REPLICAT setting (ALWAYS CHANGED).
<global_sync_replicate>	<vtcs_data>	SYNCHREP setting (YES NO).
<global_vtvattr>	<vtcs_data>	When a Management Class is assigned to a VTV -
		SCRATCH - after a scratch mount.
		ALLMOUNT - after any mount.
<global_recall_with_error>	<vtcs_data>	Whether VTCS recalls VTVs with read data checks.
		YES - recall VTVs with read data checks.
		NO - do not recall VTVs with read data checks.
<global_lock_structure>	<vtcs_data>	The name of an MVS Coupling Facility Structure where VTCS CDS Record Locks are stored.
<global_vtvpagesize>	<vtcs_data>	STANDARD or LARGE
<high>	<vtd_range>	The end of a volser range.
	<vtvvol>	
	<mvcvol>	
<host_id>	<vtcs_data>	The host where the command was issued (QUERY CONFIG command only).
<host_name>	<header>	Host where XML was generated.
	<host_replicate_queues>	Host attached to the Primary VTSS.
	<lock_data>	Host owning the lock.
	<clink_data>	Host using a CLINK.
<immediate_migration_list>	<vtss_data>	List of VTVs scheduled for immediate migration.
<initialised>	<vtv_data>	Yes/no. Indicates whether a VTV has been used.
	<mvc_data>	Yes/no. Indicates whether an MVC has been used.
<internal_device_type>	<mvc_instance> <rtd_data_diag>	The internal coding of the device type (dd).
<invalid_mir>	<mvc_data>	Yes/no. Indicates whether the MVC has an invalid MIR.
<lost>	<mvc_data>	Yes/no. Indicates whether the MVC is lost (mount could not complete).
<low>	<vtd_range>	The start of a range.
	<vtvvol>	
	<mvcvol>	
<lsm>	<rtd_data>	LSM ID that contains the RTD.
<lsm_plus_one>	<rtd_data_diag>	LSM ID plus one that contains the RTD.
<management_class>	<vtv_data>	The Management Class assigned to this VTV.
<maximum_migrate_tasks>	<vtss_data>	Maximum number of auto-migrate tasks for this VTSS.
<maxvtv>	<mvc_data>	Yes/no. Indicates whether the MVC has reached the limit of VTVs.
<media_size>	<mvc_data>	The size in Mb of the MVC.

TABLE 2-1 VTCS XML Data Tag Descriptions

Data Tag	Occurs In	Definition
<media>	<media_mvc_counts>	MVC media type.
	<mvc_data>	
	<mvcpool_data>	
<migrate_hamt>	<vtss_data>	High auto-migrate threshold.
<migrate_lamt>	<vtss_data>	Low auto-migrate threshold.
<migrate_status>	<mvc_instance>	Consolid - the VTV was consolidated /exported to this MVC. Deletion - the VTV was migrated to this MVC, but this MVC copy is in addition to that dictated by the VTV's MGMTCLAS. Migrated - the VTV was migrated to this MVC. Reconcil - the VTV should not have been migrated to this MVC. RECONCIL should be run.
<migrated>	<vtv_data>	Yes/no. Indicates whether a VTV is currently resident on one or more MVCs.
<migrates>	<vtss_data>	Yes/no. Indicates whether this host supports migrate.
	<host_data>	
<migration_vtv_count>	<automatic_migration_list>	Number of VTVs schedule for automatic or immediate migration.
	<immediate_migration_list>	
<migration_failure_time>	<automatic_migration_list>	Time of automatic migration failure.
<mode>	<cluster_data>	Operational state of a cluster.
<mounted>	<vtv_data>	Yes/no. Indicates whether a volser (VTV or MVC) is currently mounted.
<mount_suitability>	<mvc_instance>	The mount suitability of the MVC (ss).
<mvc_cache_entry>	<mvc_data_diag>	The MVC cache entry (ccccc).
<mvc_cache_indexing_entry>	<mvc_data_diag>	The cache/indexing entry (iiii).
<mvc_indexing_flags>	<mvc_data_diag>	The indexing flags (ff).
<mvcpool>	<storclas_data>	The MVC Pool name specified in a STORCLAS statement.
<mvcpool_is_defined>	<mvcpool_data>	Yes/no. Indicates whether the MVC pool is defined.
<name>	<rtd_data>	Identifier of RTD.
	<vtss_data>	Identifier of VTSS.
	<mvcpool_counts>	Identifier of MVCPOOL.
	<cluster_data>	Identifier of CLUSTER.
	<host_data>	Identifier of HOST.
	<mvcpool_data>	Identifier of MVCPOOL.
<new_create>	<vtv_data>	Yes/no. Indicates whether the VTV was newly created when it was last resident.
<noverify>	<vtd_range>	Yes/no. Indicates whether VTCS verifies the VTD addresses versus the MVS device addresses in the IOCP.

TABLE 2-1 VTCS XML Data Tag Descriptions

Data Tag	Occurs In	Definition
<number_rtds>	<vtss_data>	Number of RTDs configured for a VTSS.
<number_vtds>	<vtss_data>	Number of VTDs configured for a VTSS.
<number_vtvs>	<vtss_data>	Number of VTVs currently resident on a VTSS.
<owner_vtss>	<rtd_data>	The VTSS currently using an RTD.
<parent_id>	<vtcs_request>	Task ID of the parent task to the task listed.
<percent_available>	<mvc_data>	The amount of space available for migrations on this MVC.
<percent_fragmented>	<mvc_data>	The amount of unusable space on this MVC due to fragmentation.
<percent_used>	<mvc_data>	The amount of space on this MVC occupied by VTVs.
<primary_name>	<cluster_data>	VTSS name of Primary VTSS.
<primary_state>	<cluster_data>	Status of Primary VTSS.
<process_id>	<header>	The internal VTCS ID for a request.
	<vtcs_request>	
<read_only>	<mvc_data>	Yes/no. Indicates whether the MVC is readonly.
<reason>	<vtv_data>	Text message showing the reason for an exception condition.
	<mvc_data>	
	<vtcs_request>	
	<exceptions>	
<reclaim_maxmvc>	<vtcs_data>	MVC limit for a single reclaim.
<reclaim_space_to_move>	<mvc_data_diag>	The amount of space that reclaim will move (mmmmmmm).
<reclaim_suitability>	<mvc_data_diag>	The reclaim suitability (sssssss).
<reclaim_size>	<media_mvc_counts>	Reclaim space in GB.
<reclaim_start>	<vtcs_data>	Reclaim start threshold.
<reclaim_threshold>	<vtcs_data>	Fragmented space threshold.
<reclaim_volumes>	<media_mvc_counts>	Number of volumes available for reclaim.
<reclaims>	<vtss_data>	Yes/no. Indicates whether this host supports reclaim.
	<host_data>	
<replicate_difference>	<host_replicate_queues>	
<replicate_frequency>	<host_replicate_queues>	
<replicate_oldest>	<host_replicate_queues>	
<replicate_qdepth>	<host_replicate_queues>	Number of VTVs waiting to be replicated.
<replicate_skip>	<host_replicate_queues>	
<replication>	<vtv_data>	“not replicated” indicates that a VTV has no replication requirements.
		“replicated” indicates that a VTV is fully replicated.

TABLE 2-1 VTCS XML Data Tag Descriptions

Data Tag	Occurs In	Definition
		“replication started” indicates that replication has started for this VTV.
		“replication required” indicates that replication is needed for this VTV.
<replication_capability>	<clink_data>, <cluster_data>	SYNCHRONOUS ASYNCHRONOUS
<requests_queued>	<rtd_data_diag>	Requests queued for this RTD.
<resident>	<vtv_data>	Yes/no. Indicates whether a VTV is currently resident on a VTSS buffer.
<retired>	<mvc_data>	Yes/no. Indicates whether the MVC is retired.
<scratch_count>	<scratch_data>	
<scratch>	<vtv_data>	Yes/no. Indicates whether a VTV is currently a scratch volume in the CDS.
<secondary_name>	<cluster_data>	Name of secondary VTSS
<secondary_state>	<cluster_data>	State of secondary VTSS.
<size_compressed>	<vtv_data>	The compressed size of a VTV in Mb.
<size_uncompressed>	<vtv_data>	The uncompressed size of a VTV in Mb.
<maximum_size>	<vtv_data>	The maximum size of a VTV in Mb (400 or 800).
<status>	<rtd_data>	Operational state of an RTD.
	<vtss_data>	Operational state of a VTSS.
	<vtd_data>	Operational state of a VTD.
	<clink_data>	Operational state of a CLINK.
<storclas_name>	<storclas_data>	The Storage Class name specified in a STORCLAS statement.
<storage_class>	<mvc_data>	The Storage Class assigned to an MVC.
<subpool_name>	<scratch_data>	Scratch subpool name.
<suitable_RTD_online>	<vtss_data>	Yes/no. Indicates whether an RTD compatible with the requested MVC media type is online.
<task_number>	<lock_data>	The task number associated with the lock.
	<task_data>	The task number for each task on the current host.
<task_type>	<lock_data>	The task type associated with the lock.
	<task_data>	The task type of each task on the current host.
<time_created>	<vtv_data>	Time HH:MM:SS that a VTV was created.
<time_last_mounted>	<mvc_data>	Time HH:MM:SS that an MVC was last mounted.
<time_last_used>	<vtv_data>	Time HH:MM:SS that a VTV was last used.
<time>	<header>	Time HH:MM:SS that the XML was generated.
<times_mounted>	<mvc_data>	The mount count of an MVC.
<trace>	<trace_request>	On/off. Indicates whether VTCS tracing is active.
<usable>	<mvc_data>	Yes/no. Indicates whether the MVC can be used for migration.

TABLE 2-1 VTCS XML Data Tag Descriptions

Data Tag	Occurs In	Definition
<usage>	<clink_data>	Current activity on a CLINK.
<usage>	<vtd_data>	Current activity on a VTD (ECAM only for replication, otherwise blank)
<used_size>	<media_mvc_counts>	Total used space.
<used_volumes>	<media_mvc_counts>	Initialized MVCs that are not eligible for space reclamation.
<volser>	<mvc_instance>	Volser of MVC.
	<vtv_data>	Volser of VTV.
	<vtv_data_diag>	Volser of VTV.
	<mvc_data>	Volser of MVC.
	<mvc_data_diag>	Volser of MVC.
	<vtd_data>	Volser of VTV on VTD.
<vtcs_version>	<header>	Defines the VTCS version that generated the XML in v.r.m format currently 6.0.0.
<vtss_last_mounted>	<mvc_data>	The VTSS name that the MVC was last mounted on.
<vtss_name>	<vtv_data>	VTSS name that the VTV was last resident on.
	<clink_data>	VTSS name of the primary attached to CLINK.
	<vtd_data>	VTSS name used during QUERY VTD.
	<replication_data>	Primary VTSS name.
<vtss_subsystems>	<vtcs_data>	Number of VTSS subsystems.
<vtv_count>	<mvc_data>	Count of VTVs on an MVC.
<waiting_host>	<lock_data>	The host waiting for the lock.
<waiting_task>	<lock_data>	The task waiting for the lock.
<warranty_expired>	<mvc_data>	Yes/no. Indicates whether the MVC's warranty has expired.

ARCHIVE

TABLE 2-2 ARCHIVE XML Tags

Command/ Utility	Head Tag	Structure/Data Tags			
ARCHIVE	<archive_report>	<archive_vtv>	<header>	<vtcs_version>	
				<date>	
				<time>	
				<host_name>	
			<vtv_data>	<volser>	
				<size_uncompressed>	
				<compress_percent>	
				<date_created>	
				<time_created>	
				<management_class>	
				<mvc_instance>	<volser>
		<archive_mvc>	<mvc_data>	<volser>	
				<media>	
				<media_sizet>	
				<storage_class>	
				<consolidate_date>	
				<consolidate_time>	
				<acs>	
				<candidate_vtv_count>	
				<total_vtv_size>	
				<vtv_instance>	<volser>

AUDIT

TABLE 2-3 AUDIT XML Tags

Command /Utility	Head Tag	Structure/Data Tags					
AUDIT	<audit_request>	<header>	<vtcs_version>				
			<date>				
			<time>				
			<host_name>				
		<mvc_report>	<header>	<vtcs_version>			
				<date>			
				<time>			
				<host_name>			
			<mvc_data>	<volser>			
				<vtv_count>			
				<media>			
				<percent_used>			
				<percent_fragmented>			
				<percent_available>			
				<media_size>			
				<times_mounted>			
				<audit>			
				<eject>			
				<drain>			
				<maxvtv>			
				<export>			
				<consolidated>			
				<full>			
				<usable>			
				<initialised>			
				<broken>			
				<lost>			
				<data_check>			
				<read_only>			
				<retired>			

TABLE 2-3 AUDIT XML Tags

Command /Utility	Head Tag	Structure/Data Tags					
				<warranty_expired>			
				<invalid_mir>			
				<date_last_mounted>			
				<time_last_mounted>			
				<vtss_last_mounted>			
				<acs>			
				<eot_block_id>			
				<block_id_first_space>			
				<mvc_inventory>	<vtv_data>	<volser>	
						<initialised>	
						<mounted>	
						<resident>	
						<scratch>	
						<fenced>	
						<new_create>	
						<copies_to_migrate>	
						<consolidated>	
						<migrated>	
						<replication>	
						<size_compressed>	
						<size_uncompressed>	
						<compress_percent>	
						<maximum_size>	
						<vtv_pagesize>	

TABLE 2-3 AUDIT XML Tags

Command /Utility	Head Tag	Structure/Data Tags					
						<date_last_used>	
						<time_last_used>	
						<date_created>	
						<time_created>	
						<management_class>	
						<vtss_name>	
						<multiple_start>	
						<multiple_next>	
						<mvc_instance>	<volser>
							<block_id>
							<date_migrated>
		<vtss_report>	<header>	<vtcs_version>			
				<date>			
				<time>			
				<host_name>			
			<vtss_data>	<name>			
				<vtss_inventory>	<vtv_data>	<initialised>	<volser>
						<mounted>	
						<resident>	
						<scratch>	
						<fenced>	
						<new_create>	
						<copies_to_migrate>	
						<consolidated>	
						<migrated>	
						<replication>	

TABLE 2-3 AUDIT XML Tags

Command /Utility	Head Tag	Structure/Data Tags					
						<size_compressed>	
						<size_uncompressed>	
						<compress_percent>	
						<maximum_size>	
						<vtv_page_size>	
						<date_last_used>	
						<time_last_used>	
						<date_created>	
						<time_created>	
						<management_class>	
						<vtss_name>	

CANCEL

TABLE 2-4 CANCEL XML Tags

Command/ Utility	Head Tag	Structure/Data Tags		
CANCEL	<cancel_request>			
		<vtcs_request>	<rtd_data>	<name>
				<device_address>
				<channel_id>
				<device_type>
				<status>
				<owner_vtss>
				<acs>
				<MVC_allocated>
				<MVC_mounted>
				<host_id>
				<volser>
			<vtss_data>	<name>
			<mvc_data>	<volser>
			<vtv_data>	<volser>
			<function>	
			<process_id>	
			<parent_id>	
			<task_type>	

CONFIG

TABLE 2-5 CONFIG XML Tags

Command/ Utility	Head Tag	Structure/Data Tags			
CONFIG	<configuration>	<header>	<vtcs_version>		
			<process_id>		
			<date>		
			<time>		
			<host_name>		
		<vtcs_data>	<global_mvcfree>		
			<global_maxvtv>		
			<global_vtvattr>		
			<global_recall_with_error>		
			<available_3105>		
			<global_replicat>		
			<global_sync_replicate>		
			<global_vtv_pagesize>		
			<global_lock_structure>		
			<cds_compatible_V4>		
			<cds_compatible_V5>		
			<cds_compatible_V6>		
			<reclaim_maxmvc>		
			<reclaim_start>		
			<reclaim_conmvc>		
			<reclaim_threshold>		
		<vtss_data>	<name>		
			<migrate_lamt>		
			<migrate_hamt>		
			<dismount_time>		
			<minimum_migrate_tasks>		
			<maximum_migrate_tasks>		
			<acs>		
			<cluster_data>	<name>	
				<primary_name>	

TABLE 2-5 CONFIG XML Tags

Command/ Utility	Head Tag	Structure/Data Tags			
				<secondary_name>	
			<rtd_data>	<name>	
				<device_address>	
				<channel_id>	
			<host_data>	<name>	
				<migrates>	
				<reclaims>	
				<vtd_range>	<low>
					<high>

CONSOLID

TABLE 2-6 CONSOLID XML Tags

Command/ Utility	Head Tag	Structure/Data Tags			
CONSOLID	<consolidate_ request>	<header>	<vtcs_version>		
			<process_id>		
			<date>		
			<time>		
			<host_name>		
		<consolidate_ summary>			
		<migrate_process>	<vtss_data>	<name>	
				<migrate_lamt>	
				<migrate_hamt>	
				<number_vtds>	
				<number_rtds>	
				<minimum_migrate_tas ks>	
				<maximum_migrate_ta sks>	
				<active_migrate_tasks>	
				<default_acs>	
				<capacity_mb>	
				<dbu>	
				<number_vtvs>	
				<status>	
				<accessible>	
				<migrates>	
				<reclaims>	
				<auto_migrate_threshol d>	

TABLE 2-6 CONSOLID XML Tags

Command/ Utility	Head Tag	Structure/Data Tags			
			<mvc_data>	<volser>	
				<vtv_count>	
				<media>	
				<percent_used>	
				<percent_fragmented>	
				<percent_available>	
				<media_size>	
				<times_mounted>	
				<audit>	
				<eject>	
				<drain>	
				<maxvtv>	
				<export>	
				<consolidated>	
				<full>	
				<usable>	
				<initialised>	
				<broken>	
				<lost>	
				<data_check>	
				<read_only>	
				<retired>	
				<warranty_expired>	
				<invalid_mir>	
				<date_last_mounted>	
				<time_last_mounted>	
				<vtss_last_mounted>	
				<acs>	
				<eot_block_id>	
				<block_id_first_space>	

TABLE 2-6 CONSOLID XML Tags

Command/ Utility	Head Tag	Structure/Data Tags			
			<vtv_data>	<volser>	
				<initialised>	
				<mounted>	
				<resident>	
				<scratch>	
				<fenced>	
				<new_create>	
				<copies_to_migrate>	
				<consolidated>	
				<migrated>	
				<replication>	
				<size_compressed>	
				<size_uncompressed>	
				<compress_percent>	
				<maximum_size>	
				<vtv_pagesize>	
				<date_last_used>	
				<time_last_used>	
				<new_create>	
				<date_created>	
				<time_created>	
				<management_class>	
				<vtss_name>	
				<multiple_start>	
				<multiple_next>	
				<mvc_instance>	<volser>
					<block_id>
					<data_migrated>
			<vtss_data>	<name>	
				<migrate_lamt>	
				<migrate_hamt>	
				<number_vtds>	
				<number_rtds>	
				<minimum_migrate_tasks>	

TABLE 2-6 CONSOLID XML Tags

Command/ Utility	Head Tag	Structure/Data Tags			
				<maximum_migrate_tasks>	
				<active_migrate_tasks>	
				<default_acs>	
				<vtss_model>	
				<maximum_size>	
				<vtv_pagesize>	
				<capacity_mb>	
				<dbu>	
				<number_vtvs>	
				<status>	
				<accessible>	
				<migrates>	
				<reclaims>	
				<auto_migrate_threshold>	
			<mvc_data>	<volser>	
				<vtv_count>	
				<media>	
				<percent_used>	
				<percent_fragmented>	
				<percent_available>	
				<media_size>	
				<times_mounted>	
				<audit>	
				<eject>	
				<drain>	
				<maxvtv>	
				<export>	
				<consolidated>	
				<full>	
				<usable>	
				<initialised>	
				<broken>	
				<lost>	
				<data_check>	
				<read_only>	

TABLE 2-6 CONSOLID XML Tags

Command/ Utility	Head Tag	Structure/Data Tags			
				<retired>	
				<warranty_expired>	
				<invalid_mir>	
				<date_last_mounted>	
				<time_last_mounted>	
				<vtss_last_mounted>	
				<acs>	
				<storage_class>	
				<consolidate_date>	
				<consolidate_time>	
			<vtv_data>	<volser>	
				<initialised>	
				<mounted>	
				<resident>	
				<scratch>	
				<fenced>	
				<new_create>	
				<copies_to_migrate>	
				<consolidated>	
				<migrated>	
				<replication>	
				<size_compressed>	
				<size_uncompressed>	
				<compress_percent>	
				<maximum_size>	
				<vtv_pagesize>	
				<date_last_used>	
				<time_last_used>	
				<new_create>	
				<date_created>	
				<time_created>	
				<management_class>	
				<vtss_name>	
				<multiple_start>	
				<multiple_next>	
				<mvc_instance>	<volser>

TABLE 2-6 CONSOLID XML Tags

Command/ Utility	Head Tag	Structure/Data Tags			
					<block_id>
					<date_migrated>
		<exceptions>			

DECOM

TABLE 2-7 DECOM XML Tags

Command/ Utility	Head Tag	Structure/Data Tags			
DECOM	<decompile>	<header>	<vtcs_version>		
			<process_id>		
			<date>		
			<time>		
			<host_name>		
		<vtcs_data>	<global_mvcfree>		
			<global_maxvtv>		
			<global_vtvattr>		
			<global_recall_with_error>		
			<available_3105>		
			<global_replicat>		
			<global_sync_replicate>		
			<global_vtv_pagesize>		
			<global_lock_structure>		
			<cds_compatible_V4>		
			<cds_compatible_V5>		
			<cds_compatible_V6>		
			<reclaim_maxmvc>		
			<reclaim_start>		
			<reclaim_conmvc>		
			<reclaim_threshold>		
		<vtvvol>	<low>		
			<high>		
		<mvcvol>	<low>		
			<high>		
		<vtss_data>	<name>		
			<migrate_lamt>		
			<migrate_hamt>		
			<dismount_time>		

TABLE 2-7 DECOM XML Tags

Command/ Utility	Head Tag	Structure/Data Tags			
			<minimum_migrate_tasks>		
			<maximum_migrate_tasks>		
			<acs>		
			<cluster_data>	<name>	
				<primary_name>	
				<secondary_name>	
			<rtd_data>	<name>	
				<device_address>	
				<channel_id>	
			<host_data>	<name>	
				<migrates>	
				<reclaims>	
				<vtd_range>	
					<low>
					<high>

DELETSCR

TABLE 2-8 DELETSCR XML Tags

Command/ Utility	Head Tag	Structure/Data Tags			
DELETSCR	<delete_scratch_vtv>	<header>	<vtcs_version>		
			<process_id>		
			<date>		
			<time>		
			<host_name>		
				<vtv_data>	<volser>
					<initialised>
					<mounted>
					<resident>
					<scratch>
					<fenced>
					<new_create>
					<copies_to_migrate>
					<consolidated>
					< >
					<replication>

EXPORT

TABLE 2-9 EXPORT XML Tags

Command/ Utility	Head Tag	Structure/Data Tags					
EXPORT	<export_ request>	<header>	<vtcs_ version>				
			<date>				
			<time>				
			<host_nam e>				
		<mvc_repo rt>	<header>	<vtcs_versio n>			
				<date>			
				<time>			
				<host_name >			
			<mvc_data >	<volser>			
				<vtv_count>			
				<media>			
				<percent_us ed>			
				<percent_ fragmented >			
				<percent_ available>			
				<media_size >			
				<times_ mounted>			
				<audit>			
				<eject>			
				<drain>			
				<maxvtv>			
				<export>			
				<consolidate d>			
				<full>			
				<usable>			
				<initialised>			

TABLE 2-9 EXPORT XML Tags

Command/ Utility	Head Tag	Structure/Data Tags					
				<broken>			
				<lost>			
				<data_check >			
				<read_only>			
				<retired>			
				<warranty_e xpired>			
				<invalid_mi r>			
				<date_last_ mounted>			
				<time_last_ mounted>			
				<date_last_ migrated>			
				<time_last_ migrated>			
				<vtss_last_ _mounted>			
				<acs>			
				<consolidate _date>			
				<consolidate _time>			
				<eot_block_i d>			
				<block_id_fi rst_space>			
				<mvc_ inventory>	<vtv_dat a>	<volser>	
						<initialised>	
						<mounted>	
						<resident>	
						<scratch>	
						<fenced>	
						<new_create>	
						<copies_to_mig rate>	
						<consolidated>	

TABLE 2-9 EXPORT XML Tags

Command/ Utility	Head Tag	Structure/Data Tags					
						<migrated>	
						<replication>	
						<size_ compressed>	
						<size_ uncompressed>	
						<compress_ percent>	
						<maximum_siz e>	
						<vtv_pagesize>	
						<date_last_use d>	
						<time_last_use d>	
						<new_create>	
						<date_created>	
						<time_created>	
						<management_ class>	
						<vtss_name>	
						<multiple_start >	
						<multiple_next >	
						<mvc_instance >	<volser>
							<block_id >
							<date_mi grated>

IMPORT

TABLE 2-10 IMPORT XML Tags

Command /Utility	Head Tag	Structure/Data Tags					
IMPORT	<import_request>	<header>	<vtcs_version>				
			<date>				
			<time>				
			<host_name>				
		<mvc_report>	<header>	<vtcs_version>			
				<date>			
				<time>			
				<host_name>			
			<mvc_data>	<volser>			
				<vtv_count>			
				<media>			
				<percent_used>			
				<percent_fragmented>			
				<percent_available>			
				<media_size>			
				<times_mounted>			
				<audit>			
				<eject>			
				<drain>			
				<maxvtv>			
				<export>			
				<consolidated>			
				<full>			
				<usable>			
				<initialised>			
				<broken>			
				<lost>			

TABLE 2-10 IMPORT XML Tags

Command /Utility	Head Tag	Structure/Data Tags					
				<data_check>			
				<read_only>			
				<retired>			
				<warranty_expired>			
				<invalid_mirror>			
				<date_last_mounted>			
				<time_last_mounted>			
				<date_last_migrated>			
				<time_last_migrated>			
				<vtss_last_mounted>			
				<acs>			
				<consolidate_date>			
				<consolidate_time>			
				<eot_block_id>			
				<block_id_first_space>			

TABLE 2-10 IMPORT XML Tags

Command /Utility	Head Tag	Structure/Data Tags					
				<mvc_inventory>	<vtv_data>	<volser>	
						<initialised>	
						<mounted>	
						<resident>	
						<scratch>	
						<fenced>	
						<new_create>	
						<copies_to_migrate>	
						<consolidated>	
						<migrated>	
						<replication>	
						<size_compressed>	
						<size_uncompressed>	
						<compress_percent>	
						<maximum_size>	
						<vtv_pagesize>	
						<date_last_used>	
						<time_last_used>	
						<date_created>	
						<time_created>	
						<management_class>	
						<mvc_instance>	<volser>
							<block_id>
							<date_migrated>

MIGRATE

TABLE 2-11 MIGRATE XML Tags

Command/ Utility	Head Tag	Structure/Data Tags			
MIGRATE	<migrate_request >	<header>	<vtcs_version>		
			<process_id>		
			<date>		
			<time>		
			<host_name>		
		<migrate_summa ry>			
		<migrate_process >	<vtss_data>	<name>	
				<migrate_lamt>	
				<migrate_hamt>	
				<number_vtds>	
				<number_rtds>	
				<minimum_migrate_tasks >	
				<maximum_migrate_task s>	
				<active_migrate_tasks>	
				<default_acs>	
				<vtss_model>	
				<maximum_size>	
				<vtv_pagesize>	
				<capacity_mb>	
				<dbu>	
				<number_vtvs>	
				<status>	
				<accessible>	
				<migrates>	
				<reclaims>	
				<auto_migrate_threshold >	

TABLE 2-11 MIGRATE XML Tags

Command/ Utility	Head Tag	Structure/Data Tags			
			<mvc_data>	<volser>	
				<vtv_count>	
				<media>	
				<percent_used>	
				<percent_fragmented>	
				<percent_available>	
				<media_size>	
				<times_mounted>	
				<audit>	
				<eject>	
				<drain>	
				<maxvtv>	
				<export>	
				<consolidated>	
				<full>	
				<usable>	
				<initialised>	
				<broken>	
				<lost>	
				<data_check>	
				<read_only>	
				<retired>	
				<warranty_expired>	
				<invalid_mir>	
				<date_last_mounted>	
				<time_last_mounted>	
				<date_last_migrated>	
				<time_last_migrated>	
				<vtss_last_mounted>	
				<acs>	
				<eot_block_id>	
				<block_id_first_space>	

TABLE 2-11 MIGRATE XML Tags

Command/ Utility	Head Tag	Structure/Data Tags			
			<vtv_data>	<volser>	
				<initialised>	
				<mounted>	
				<resident>	
				<scratch>	
				<fenced>	
				<new_create>	
				<copies_to_migrate>	
				<consolidated>	
				<migrated>	
				<replication>	
				<size_compressed>	
				<size_uncompressed>	
				<maximum_size>	
				<vtv_pagesize>	
				<compress_percent>	
				<date_last_used>	
				<time_last_used>	
				<date_created>	
				<time_created>	
				<management_class>	
				<vtss_name>	
				<multiple_start>	
				<multiple_next>	
				<mvc_instance>	<volser>
					<block_id>
					<date_migrated>

MVCDRAIN

TABLE 2-12 MVCDRAIN XML Tags

Command/ Utility	Head Tag	Structure/Data Tags			
MVCDRAIN	<drain_request>	<header>	<vtcs_version>		
			<process_id>		
			<date>		
			<time>		
			<host_name>		
		<drain_summary>			
		<recall_process>	<vtss_data>	<name>	
				<migrate_lamt>	
				<migrate_hamt>	
				<number_vtds>	
				<number_rtds>	
				<minimum_migrate_tasks>	
				<maximum_migrate_tasks>	
				<active_migrate_tasks>	
				<default_acs>	
				<vtss_model>	
				<maximum_size>	
				<vtv_pagesize>	
				<capacity_mb>	
				<dbu>	
				<number_vtvs>	
				<status>	
				<accessible>	
				<migrates>	
				<reclaims>	
				<auto_migrate_threshold>	

TABLE 2-12 MVCDRAIN XML Tags

Command/ Utility	Head Tag	Structure/Data Tags			
			<mvc_data>	<volser>	
				<vtv_count>	
				<media>	
				<percent_used>	
				<percent_fragmented>	
				<percent_available>	
				<media_size>	
				<times_mounted>	
				<audit>	
				<eject>	
				<drain>	
				<maxvtv>	
				<export>	
				<consolidated>	
				<full>	
				<usable>	
				<initialised>	
				<broken>	
				<lost>	
				<data_check>	
				<read_only>	
				<retired>	
				<warranty_expired>	
				<invalid_mir>	
				<date_last_mounted>	
				<time_last_mounted>	
				<date_last_migrated>	
				<time_last_migrated>	
				<vtss_last_mounted>	
				<acs>	
				<eot_block_id>	
				<block_id_first_space>	

TABLE 2-12 MVCDRAIN XML Tags

Command/ Utility	Head Tag	Structure/Data Tags			
			<vtv_data>	<volser>	
				<initialised>	
				<mounted>	
				<resident>	
				<scratch>	
				<fenced>	
				<new_create>	
				<copies_to_migrate>	
				<consolidated>	
				<migrated>	
				<replication>	
				<size_compressed>	
				<size_uncompressed>	
				<compress_percent>	
				<maximum_size>	
				<vtv_pagesize>	
				<date_last_used>	
				<time_last_used>	
				<date_created>	
				<time_created>	
				<management_class>	
				<vtss_name>	
				<mvc_instance>	<volser>
					<block_id>
					<date_migrated>

TABLE 2-12 MVCDRAIN XML Tags

Command/ Utility	Head Tag	Structure/Data Tags			
		<migrate_process >	<vtss_data>	<name>	
				<migrate_lamt>	
				<migrate_hamt>	
				<number_vtds>	
				<number_rtds>	
				<dismount_time>	
				<minimum_migrate_tasks>	
				<maximum_migrate_tasks>	
				<active_migrate_tasks>	
				<default_acs>	
				<vtss_model>	
				<maximum_size>	
				<vtv_pagesize>	
				<capacity_mb>	
				<dbu>	
				<number_vtvs>	
				<status>	
				<accessible>	
				<migrates>	
				<reclaims>	
				<auto_migrate_threshold>	
			<mvc_data>	<volser>	
				<vtv_count>	
				<media>	
				<percent_used>	
				<percent_fragmented>	
				<percent_available>	
				<media_size>	
				<times_mounted>	
				<audit>	
				<eject>	
				<drain>	
				<maxvtv>	
				<export>	

TABLE 2-12 MVCDRAIN XML Tags

Command/ Utility	Head Tag	Structure/Data Tags			
				<consolidated>	
				<full>	
				<usable>	
				<initialised>	
				<broken>	
				<lost>	
				<data_check>	
				<read_only>	
				<retired>	
				<warranty_expired>	
				<invalid_mir>	
				<date_last_mounted>	
				<time_last_mounted>	
				<date_last_migrated>	
				<time_last_migrated>	
				<vtss_last_mounted>	
				<acs>	
				<eot_block_id>	
				<block_id_first_space>	
			<vtv_data>	<volser>	
				<initialised>	
				<mounted>	
				<resident>	
				<scratch>	
				<fenced>	
				<new_create>	
				<copies_to_migrate>	
				<consolidated>	
				<migrated>	
				<replication>	
				<size_compressed>	
				<size_uncompressed>	
				<compress_percent>	
				<maximum_size>	
				<vtv_pagesize>	

TABLE 2-12 MVCDRAIN XML Tags

Command/ Utility	Head Tag	Structure/Data Tags			
				<date_last_used>	
				<time_last_used>	
				<new_create>	
				<date_created>	
				<time_created>	
				<management_class>	
				<vtss_name>	
				<multiple_start>	
				<multiple_next>	
				<mvc_instance>	<volser>
					<block_id>
					<date_migrated>

MVCMAINT

TABLE 2-13 MVCMAINT XML Tags

Command/ Utility	Head Tag	Structure/Data Tags		
MVCMAINT	<mvcmaint_request>	<header>	<vtcs_version>	
			<date>	
			<time>	
			<host_name>	
		<mvc_report>	<header>	<vtcs_version>
				<date>
				<time>
				<host_name>
			<mvc_data>	<volser>
				<vtv_count>
				<media>
				<percent_used>
				<percent_fragmented>
				<percent_available>
				<media_size>
				<times_mounted>
				<audit>
				<eject>
				<drain>
				<maxvtv>
				<export>
				<consolidated>
				<full>
				<usable>
				<initialised>
				<broken>
				<lost>
				<data_check>
				<read_only>
				<retired>
				<warranty_expired>
				<invalid_mir>

TABLE 2-13 MVCMAINT XML Tags

Command/ Utility	Head Tag	Structure/Data Tags		
				<date_last_mounted>
				<time_last_mounted>
				<date_last_migrated>
				<time_last_migrated>
				<vtss_last_mounted>
				<acs>
				<eot_block_id>
				<block_id_first_space>

MVCPLRPT

TABLE 2-14 MVCPLRPT XML Tags

Command/ Utility	Head Tag	Structure/Data Tags				
MVCPLRPT	<mvcpool_report>	<header>	<vtcs_version>			
			<date>			
			<time>			
			<host_name>			
		<mvcpool_data>	<name>			
			<mvc_data>	<volser>		
				<vtv_count>		
				<media>		
				<percent_used>		
				<percent_fragmented>		
				<percent_available>		
				<media_size>		
				<times_mounted>		
				<audit>		
				<eject>		
				<drain>		
				<maxvtv>		
				<export>		
				<consolidated>		
				<full>		
				<usable>		
				<initialised>		
				<broken>		
				<lost>		
				<data_check>		
				<read_only>		
				<retired>		
				<warranty_expired>		

TABLE 2-14 MVCPLRPT XML Tags

Command/ Utility	Head Tag	Structure/Data Tags				
				<invalid_mir >		
				<date_last_ mounted>		
				<time_last_ mounted>		
				<vtss_last_ mounted>		
				<acs>		
				<storage_clas s>		
				<eot_block_i d>		
				<block_id_fir st_space>		

MVC RPT

TABLE 2-15 MVC RPT XML Tags

Command/ Utility	Head Tag	Structure/Data Tags				
MVC RPT	<mvc_report>	<header>	<vtcs_version>			
			<date>			
			<time>			
			<host_name>			
		<mvc_data>	<volser>			
			<vtv_count>			
			<media>			
			<percent_used>			
			<percent_fragmented>			
			<percent_available>			
			<media_size>			
			<times_mounted>			
			<audit>			
			<eject>			
			<drain>			
			<maxvtv>			
			<export>			
			<consolidated>			
			<full>			
			<usable>			
			<initialised>			
			<broken>			
			<lost>			
			<data_check>			
			<read_only>			
			<retired>			
			<warranty_expired>			
			<invalid_mir>			
			<date_last_mounted>			

TABLE 2-15 MVC RPT XML Tags

Command/ Utility	Head Tag	Structure/Data Tags				
			<time_last_mounted>			
			<date_last_migrate>			
			<time_last_migrate>			
			<vtss_last_mounted>			
			<acs>			
			<storage_class>			
			<eot_block_id>			
			<block_id_first_space>			
			<mvc_inventory>	<vtv_data>	<volser>	
					<initialised>	
					<mounted>	
					<resident>	
					<scratch>	
					<fenced>	
					<new_create>	
					<copies_to_migrate>	
					<consolidated>	
					<migrated>	
					<replication>	
					<size_compressed>	
					<size_uncompressed>	
					<compress_percent>	
					<maximum_size>	
					<vtv_pagesize>	
					<date_last_used>	
					<time_last_used>	
					<new_create>	
					<date_created>	
					<time_created>	
					<management_classes>	

TABLE 2-15 MVC RPT XML Tags

Command/ Utility	Head Tag	Structure/Data Tags				
					<vtss_name>	
					<multiple_start>	
					<multiple_next>	
					<mvc_instance>	<volser>
						<block_id>
						<date_migrated>

QUERY / DISPLAY ACTIVE

TABLE 2-16 QUERY / DISPLAY ACTIVE XML Tags

Command/ Utility	Head Tag	Structure/Data Tags			
QUERY/ DISPLAY ACTIVE	<query_active>	<header>	<vtcs_version>		
			<process_id>		
			<date>		
			<time>		
			<host_name>		
		<vtcs_request>	<rtcd_data>	<name>	
				<device_address >	
				<device_type>	
				<name>	
				<channel_id>	
				<MVC_allocated >	
				<MVC_mounted >	
				<host_id>	
				<status>	
				<owner_vtss>	
				<acs>	
			<vtss_data>	<name>	
			<mvc_data>	<volser>	
			<vtv_data>	<volser>	
			<function>		
			<process_id>		
			<parent_id>		
			<task_type>		

QUERY / DISPLAY CLINK

TABLE 2-17 QUERY / DISPLAY CLINK XML Tags

Command/ Utility	Head Tag	Structure/Data Tags			
QUERY/ DISPLAY CLINK	<query_clink>	<header>	<vtcs_version>		
			<process_id>		
			<date>		
			<time>		
			<host_name>		
		<clink_data>	<vtss_name>		
			<clink_id>		
			<channel_id>		
			<status>		
			<usage>		
			<host_name>		
			<replication_cap ability>		

QUERY / DISPLAY CLUSTER

TABLE 2-18 QUERY / DISPLAY CLUSTER XML Tags

Command/ Utility	Head Tag	Structure/Data Tags			
QUERY/ DISPLAY CLUSTER	<query_cluster>	<header>	<vtcs_version>		
			<process_id>		
			<date>		
			<time>		
			<host_name>		
		<cluster_data>	<name>		
			<mode>		
			<vtss_name>		
			<vtss_state>		
			<direction>		
			<vtss_name>		
			<vtss_state>		
			<direction>		
			<replication_cap ability>		
			<vtss_name>	<vtss_data>	<name>
					<migrate_lamt>
					<migrate_hamt>
					<number_vtds>
					<number_rtds>
					<minimum_migr ate_ tasks>
					<maximum_mig rate_ tasks>
					<active_migrate _ tasks>
					<default_acs>
					<vtss_model>
					<maximum_size >
					<vtv_pagesize>

TABLE 2-18 QUERY / DISPLAY CLUSTER XML Tags

Command/ Utility	Head Tag	Structure/Data Tags			
					<capacity_mb>
					<dbu>
					<number_vtvs>
					<status>
					<accessible>
					<migrates>
					<reclaims>
					<auto_migrate_ threshold>
			<vtss>	<vtss_data>	<name>
					<migrate_lamt>
					<migrate_hamt>
					<number_vtds>
					<number_rtds>
					<minimum_migr ate_ tasks>
					<maximum_mig rate_ tasks>
					<active_migrate _ tasks>
					<default_acs>
					<vtss_model>
					<maximum_size >
					<vtv_pagesize>
					<capacity_mb>
					<dbu>
					<number_vtvs>
					<status>
					<accessible>
					<migrates>
					<reclaims>

TABLE 2-18 QUERY / DISPLAY CLUSTER XML Tags

Command/ Utility	Head Tag	Structure/Data Tags			
					<auto_migrate_ host>
					<auto_migrate_ threshold>
					<immediate_ migrate_wait>

QUERY / DISPLAY CONFIG

TABLE 2-19 QUERY / DISPLAY CONFIG XML Tags

Command/ Utility	Head Tag	Structure/Data Tags	
QUERY/ DISPLAY CONFIG	<query_config>	<header>	<vtcs_version>
			<process_id>
			<date>
			<time>
			<host_name>
		<vtcs_data>	<global_mvcfree>
			<global_maxvtv>
			<global_vtvattr>
			<global_recall_with_error>
			<available_3105>
			<global_replicat>
			<global_sync_replicate>
			<global_vtv_pagesize>
			<global_lock_structure>
			<cds_compatible_V4>
			<cds_compatible_V5>
			<cds_compatible_V6>
			<reclaim_maxmvc>
			<reclaim_start>
			<reclaim_conmvc>
			<reclaim_threshold>
			<global_mvcfree>
			<global_maxvtv>
			<global_vtvattr>
			<name>
		<vtss_data>	<migrate_lamt>
			<migrate_hamt>
			<number_vtds>
			<number_rtds>
			<dismount_time>
			<minimum_migrate_tasks>

TABLE 2-19 QUERY / DISPLAY CONFIG XML Tags

Command/ Utility	Head Tag	Structure/Data Tags	
			<maximum_migrate_tasks>
			<active_migrate_tasks>
			<default_acs>
			<vtss_model>
			<maximum_size>
			<vtv_pagesize>
			<capacity_mb>
			<dbu>
			<number_vtvs>
			<status>
			<accessible>
			<migrates>
			<reclaims>
			<auto_migrate_threshold>
		<rtd_data>	<name>
			<device_address>
			<channel_id>
			<device_type>
			<status>
			<owner_vtss>
			<acs>

QUERY / DISPLAY LOCKS

TABLE 2-20 QUERY / DISPLAY LOCKS XML Tags

Command/ Utility	Head Tag	Structure/Data Tags		
QUERY/ DISPLAY LOCKS	<query_locks>	<header>	<vtcs_version>	
			<process_id>	
			<date>	
			<time>	
			<host_name>	
		<lock_data>	<host_name>	
			<task_number>	
			<task_type>	
			<vtd_data>	<device_ address>
			<mvc_data>	<volser>
			<vtv_data>	<volser>
			<waiting_host>	
			<waiting_task>	
		<CF_lock_data>	<CF_lock_number>	
			<CF_lock_type>	
			<CF_lock_owning_h ost>	

QUERY / DISPLAY MIGRATE

TABLE 2-21 QUERY / DISPLAY MIGRATE XML Tags

Command/ Utility	Head Tag	Structure/Data Tags			
QUERY/ DISPLAY MIGRATE	<query_migrate >	<header>	<vtcs_version>		
			<process_id>		
			<date>		
			<time>		
			<host_name>		
		<vtss_data>	<name>		
			<migrate_lamt>		
			<migrate_hamt>		
			<number_vtds>		
			<number_rtds>		
			<minimum_ migrate_tasks>		
			<maximum_ migrate_tasks>		
			<active_ migrate_tasks>		
			<default_acs>		
			<vtss_model>		
			<maximum_size >		
			<vtv_pagesize>		
			<capacity_mb>		
			<dbu>		
			<number_vtvs>		
			<status>		
			<accessible>		
			<migrates>		
			<reclaims>		
			<auto_migrate_ threshold>		

QUERY / DISPLAY MVC

TABLE 2-22 QUERY / DISPLAY MVC XML Tags

Command/ Utility	Head Tag	Structure/Data Tags			
QUERY/ DISPLAY MVC	<query_mvc>	<header>	<vtcs_version>		
			<process_id>		
			<date>		
			<time>		
			<host_name>		
		<mvc_data>	<volser>		
			<vtv_count>		
			<media>		
			<percent_used>		
			<percent_fragmented>		
			<percent_available>		
			<media_size>		
			<times_mounted>		
			<audit>		
			<eject>		
			<drain>		
			<maxvtv>		
			<export>		
			<consolidated>		
			<full>		
			<usable>		
			<initialised>		
			<broken>		
			<lost>		
			<data_check>		
			<read_only>		
			<retired>		
			<warranty_expired>		
			<invalid_mir>		

TABLE 2-22 QUERY / DISPLAY MVC XML Tags

Command/ Utility	Head Tag	Structure/Data Tags			
			<date_last_ mounted>		
			<time_last_ mounted>		
			<date_last_ migrated>		
			<time_last_ migrated>		
			<vtss_last_ mounted>		
			<acs>		
			<eot_block_id>		
			<block_id_first_s pace>		

QUERY / DISPLAY MVC DIAG

TABLE 2-23 QUERY / DISPLAY DIAG MVC XML Tags

Command/ Utility	Head Tag	Structure/Data Tags			
QUERY/ DISPLAY MVC DIAG	<query_mvc_diag>	<header>	<vtcs_version>		
			<process_id>		
			<date>		
			<time>		
			<host_name>		
		<mvc_data>	<volser>		
			<vtv_count>		
			<media>		
			<percent_used>		
			<percent_fragmented>		
			<percent_available>		
			<media_size>		
			<times_mounted>		
			<audit>		
			<eject>		
			<drain>		
			<maxvtv>		
			<export>		
			<consolidated>		
			<full>		
			<usable>		
			<initialised>		
			<broken>		
			<lost>		
			<data_check>		
			<read_only>		
			<retired>		
			<warranty_expired>		
			<invalid_mir>		

TABLE 2-23 QUERY / DISPLAY DIAG MVC XML Tags

Command/ Utility	Head Tag	Structure/Data Tags			
			<date_last_ mounted>		
			<time_last_ mounted>		
			<date_last_ migrated>		
			<time_last_ migrated>		
			<vtss_last_ mounted>		
			<acs>		
			<eot_block_id>		
			<block_id_first_s pace>		
		<mvc_data_diag>			
			<volser>		
			<cds_block>		
			<cds_record>		
			<mvc_cache_indexing_entry>		
			<mvc_indexing_flags>		
			<reclaim_suitability>		
			<reclaim_space_to_move>		
			<mvc_cache_entry>		

QUERY / DISPLAY MVCPOOL

TABLE 2-24 QUERY / DISPLAY MVCPOOL XML Tags

Command/ Utility	Head Tag	Structure/Data Tags			
QUERY/ DISPLAY MVCPOOL	<query_mvcpool >	<header>	<vtcs_version>		
			<process_id>		
			<date>		
			<time>		
			<host_name>		
		<mvcpool_count s>	<name>		
			<acs_mvc_count s>	<acs>	
				<media_mvc_ counts>	<media>
					<free_volumes>
					<free_size>
					<reclaim_volum es>
					<reclaim_size>
					<used_volumes>
					<used_size>

QUERY / DISPLAY QUEUE

TABLE 2-25 QUERY / DISPLAY QUEUE XML Tags

Command/ Utility	Head Tag	Structure/Data Tags			
QUERY/ DISPLAY QUEUE	<query_queued>	<header>	<vtcs_version>		
			<process_id>		
			<date>		
			<time>		
			<host_name>		
		<vtcs_request>	<rtcd_data>	<device_address >	
				<device_type>	
				<name>	
				<channel_id>	
				<MVC_allocated >	
				<MVC_mounted >	
				<host_id>	
				<status>	
				<owner_vtss>	
				<acs>	
			<vtss_data>	<name>	
			<mvc_data>	<volser>	
			<vtv_data>	<volser>	
			<function>		
			<process_id>		
			<parent_id>		
			<reason>		
			<task_type>		

QUERY / DISPLAY RTD

TABLE 2-26 QUERY / DISPLAY RTD XML Tags

Command/ Utility	Head Tag	Structure/Data Tags			
QUERY/ DISPLAY RTD	<query_rtd>	<header>	<vtcs_version>		
			<process_id>		
			<date>		
			<time>		
			<host_name>		
		<rtd_data>	<device_address >		
			<device_type>		
			<name>		
			<channel_id>		
			<MVC_allocated >		
			<MVC_mounted >		
			<host_id>		
			<status>		
			<owner_vtss>		
			<acs>		
			<lsm>		

QUERY / DISPLAY RTD DIAG

TABLE 2-27 QUERY / DISPLAY RTD DIAG XML Tags

Command/ Utility	Head Tag	Structure/Data Tags			
QUERY/ DISPLAY RTD DIAG	<query_rtd_diag >	<header>	<vtcs_version>		
			<process_id>		
			<date>		
			<time>		
			<host_name>		
		<rtd_data>	<device_address >		
			<device_type>		
			<name>		
			<channel_id>		
			<MVC_allocated >		
			<MVC_mounted >		
			<host_id>		
			<status>		
			<owner_vtss>		
			<acs>		
			<lsm>		
		<rtd_data_diag>			
			<device_address>		
			<requests_queued>		
			<internal_device_type>		
			<lsm_plus_one>		

QUERY / DISPLAY REPLICATE

TABLE 2-28 QUERY / DISPLAY REPLICATE XML Tags

Command/ Utility	Head Tag	Structure/Data Tags			
QUERY/ DISPLAY REPLICATE	<query_ replicate>	<header>	<vtcs_version>		
			<process_id>		
			<date>		
			<time>		
			<host_name>		
		<replication_ data>	<vtss_name>		
			<host_replicate_ _queues>	<host_name>	
				<replicate_ qdepth>	
				<replicate_ oldest>	
				<replicate_ frequency>	
				<replicate_ skip>	
				<replicate_ difference>	

QUERY / DISPLAY SCRATCH

TABLE 2-29 QUERY / DISPLAY SCRATCH XML Tags

Command/ Utility	Head Tag	Structure/Data Tags		
QUERY/ DISPLAY SCRATCH	<query_scratch>	<header>	<vtcs_version>	
			<process_id>	
			<date>	
			<time>	
			<host_name>	
		<scratch_data>	<subpool_name>	
			<scratch_count>	
			<label_type>	
			<scratch_range_blocks >	
			<scratch_total_blocks>	
			<sizes_available>	
				<maximum_size>
				<scratch>
				<matching_cds _blocks>

QUERY / DISPLAY STORCLAS

TABLE 2-30 QUERY / DISPLAY STORCLAS XML Tags

Command/ Utility	Head Tag	Structure/Data Tags			
QUERY/ DISPLAY STORCLAS	<display_storclas>				
		<storclas_data>			
			<storclas_name>		
			<acs>		
			<mvcpool>		
			<media>		
		<required_device_types>			
			<device_type>		
		<connected_device_types>			
			<acs>		
			<device_type>		
		<vtss_data>			
			<vtss_name>		
			<connected_device_types>		
				<acs>	
				<device_type>	
			<suitable_RTD_online>		
			<auto_migration_list>		
				<migration_vt_v_count>	
				<migration_failure_time>	
				<vtv_data>	
					<volser>
					<management_class>

TABLE 2-30 QUERY / DISPLAY STORCLAS XML Tags

Command/ Utility	Head Tag	Structure/Data Tags			
			<immediate_migration_list >		
				<migration_vt v_ count>	
				<vtv_data>	
					<volser>
					<manageme nt_ class>
		<mvcpool_data>			
			<name>		
			<media>		

Note –

- <media> and <acs> within <storclas_data> are output only if the Storage Class definition has specific requirements for media / ACS.
- <required_device_types> data is output only if the RTDs must be specific device type(s) rather than any device type.
- <connected_device_types> data is output only if the configuration / ACS does not contain any of the required device types.
- <connected_device_types> within <vtss_data> data is output only if the configuration / ACS contains some of the required device types but the VTSS or VTSS / ACS does not.
- <acs> within <connected_device_types> is output only if the Storage Class definition specifies an ACS.
- <suitable_RTD_online> data is output only if the VTSS or VTSS / ACS has device types that overlap with those required by the Storage Class.
- <auto_migration_list> and <immediate_migration_list> data is output for a VTSS only if there is a migration volume list queued for that VTSS.
- <migration_failure_time> is output only if the automatic migration list is from a previous automatic migration failure.
- <media> within <mvcpool_data> is output only if the MVC Pool contains none of the media specified on the Storage Class.
- <mvcpool_is_defined>NO</mvcpool_is_defined> is output only if the MVC Pool is undefined.

QUERY / DISPLAY TASKS

TABLE 2-31 QUERY / DISPLAY TASKS XML Tags

Command/ Utility	Head Tag	Structure/Data Tags			
QUERY/ DISPLAY TASKS	<query_tasks>	<header>	<vtcs_version>		
			<process_id>		
			<date>		
			<time>		
			<host_name>		
		<task_data>	<task_number>		
			<task_type>		
			<slot_id>		
			<process_id>		
			<waiting_count>		
			<pending_count>		
			<vtcs_request>	<rtd_data>	<locks_held_data>
					<lock_task>
					<lock_mvc>
					<lock_vtv>
					<lock_vtd>
					<lock_rtd>
				<vtss_data>	<name>
				<mvc_data>	<volser>
				<vtv_data>	<volser>
				<function>	
				<process_id>	
				<parent_id>	
				<task_type>	



QUERY / DISPLAY VTD

TABLE 2-32 QUERY / DISPLAY VTD XML Tags

Command/ Utility	Head Tag	Structure/Data Tags			
QUERY/ DISPLAY VTD	<query_vtd>	<header>	<vtcs_version>		
			<process_id>		
			<date>		
			<time>		
			<host_name>		
		<vtd_data>	<device_address >		
			<vtss_name>		
			<volser>		
			<status>		
			<usage>		

QUERY / DISPLAY VTSS

TABLE 2-33 QUERY / DISPLAY VTSS XML Tags

Command/ Utility	Head Tag	Structure/Data Tags			
QUERY/ DISPLAY VTSS	<query_vtss>	<header>	<vtcs_version>		
			<process_id>		
			<date>		
			<time>		
			<host_name>		
		<vtss_data>	<name>		
			<migrate_lamt>		
			<migrate_hamt>		
			<number_vtlds>		
			<number_rtds>		
			<minimum_migrate_tasks>		
			<maximum_migrate_tasks>		
			<active_migrate_tasks>		
			<default_acs>		
			<vtss_model>		
			<maximum_size>		
			<vtv_pagesize>		
			<capacity_mb>		
			<dbu>		
			<number_vtvs>		
			<status>		
			<accessible>		

TABLE 2-33 QUERY / DISPLAY VTSS XML Tags

Command/ Utility	Head Tag	Structure/Data Tags			
			<migrates>		
			<reclaims>		
			<auto_migrate_ threshold>		

QUERY / DISPLAY VTV

TABLE 2-34 QUERY / DISPLAY VTV XML Tags

Command/ Utility	Head Tag	Structure/Data Tags			
QUERY/ DISPLAY VTV	<query_vtv>	<header>	<vtcs_version>		
			<process_id>		
			<date>		
			<time>		
			<host_name>		
		<vtv_data>	<volser>		
			<initialised>		
			<mounted>		
			<resident>		
			<scratch>		
			<fenced>		
			<new_create>		
			<copies_to_migrate>		
			<consolidated>		
			<migrated>		
			<replication>		
			<size_compressed>		
			<size_uncompressed>		
			<compress_percent>		
			<maximum_size>		
			<vtv_pagesize>		
			<date_last_used>		

TABLE 2-34 QUERY / DISPLAY VTV XML Tags

Command/ Utility	Head Tag	Structure/Data Tags			
			<time_last_used >		
			<date_created>		
			<time_created>		
			<management_ class>		
			<vtss_name>		
			<mvc_instance>	<volser>	
				<block_id>	
				<date_migrated >	

QUERY / DISPLAY VTV DIAG

TABLE 2-35 QUERY / DISPLAY VTV DIAG XML Tags

Command/ Utility	Head Tag	Structure/Data Tags			
QUERY/ DISPLAY VTV DIAG	<query_vtv_diag >	<header>	<vtcs_version>		
			<process_id>		
			<date>		
			<time>		
			<host_name>		
		<vtv_data>	<volser>		
			<initialised>		
			<mounted>		
			<resident>		
			<scratch>		
			<fenced>		
			<new_create>		
			<copies_to_migrate>		
			<consolidated>		
			<migrated>		
			<replication>		
			<size_compressed>		
			<size_uncompressed>		
			<compress_percent>		
			<maximum_size>		
			<vtv_pagesize>		
			<date_last_used>		

TABLE 2-35 QUERY / DISPLAY VTV DIAG XML Tags

Command/ Utility	Head Tag	Structure/Data Tags			
			<time_last_used>		
			<date_created>		
			<time_created>		
			<management_class>		
			<vtss_name>		
			<mvc_instance>	<volser>	
				<block_id>	
				<date_migrated>	
		<vtv_data_diag>			
			<volser>		
			<mvc_instance>		
				<volser>	
				<internal_device_type>	
				<acs>	
				<lsm_plus_one>	
				<mount_suitability>	
				<migrate_status>	

RECALL

TABLE 2-36 RECALL XML Tags

Command/ Utility	Head Tag	Structure/Data Tags			
RECALL	<recall_request>	<header>	<vtcs_version>		
			<process_id>		
			<date>		
			<time>		
			<host_name>		
		<recall_summary>	<vtv_data>	<volser>	
				<reason>	
		<recall_process>	<vtss_data>	<name>	
				<migrate_lamt>	
				<migrate_hamt>	
				<number_vtds>	
				<number_rtds>	
				<minimum_migrate_tasks>	
				<maximum_migrate_tasks>	
				<active_migrate_tasks>	
				<default_acs>	
				<vtss_model>	
				<maximum_size>	
				<vtv_pagesize>	
				<capacity_mb>	
				<dbu>	
				<number_vtvs>	
				<status>	
				<accessible>	
				<migrates>	

TABLE 2-36 RECALL XML Tags

Command/ Utility	Head Tag	Structure/Data Tags			
				<reclaims>	
				<auto_migrate_threshold>	
			<mvc_data>	<volser>	
				<vtv_count>	
				<media>	
				<percent_used>	
				<percent_fragmented>	
				<percent_available>	
				<media_size>	
				<times_mounted>	
				<audit>	
				<eject>	
				<drain>	
				<maxvtv>	
				<export>	
				<consolidated>	
				<full>	
				<usable>	
				<initialised>	
				<broken>	
				<lost>	
				<data_check>	
				<read_only>	
				<retired>	
				<warranty_expired>	
				<invalid_mir>	
				<date_last_mounted>	
				<time_last_mounted>	
				<date_last_migrate>	
				<time_last_migrate>	

TABLE 2-36 RECALL XML Tags

Command/ Utility	Head Tag	Structure/Data Tags			
				<vtss_last_mounted>	
				<acs>	
				<storage_class>	
				<date_last_migrate>	
				<time_last_migrate>	
			<vtv_data>	<volser>	
				<initialised>	
				<mounted>	
				<resident>	
				<scratch>	
				<fenced>	
				<new_create>	
				<copies_to_migrate>	
				<consolidated>	
				<migrated>	
				<replication>	
				<size_compressed>	
				<size_uncompressed>	
				<maximum_size>	
				<compress_percent>	
				<maximum_size>	
				<vtv_pagesize>	
				<date_last_used>	
				<time_last_used>	
				<new_create>	
				<date_created>	
				<time_created>	
				<management_class>	
				<vtss_name>	

TABLE 2-36 RECALL XML Tags

Command/ Utility	Head Tag	Structure/Data Tags			
				<mvc_instance>	<volser>
					<block_id >
		<exceptions>	<reason>		

RECLAIM

TABLE 2-37 RECLAIM XML Tags

Command/ Utility	Head Tag	Structure/Data Tags			
RECLAIM	<reclaim_request>	<header>	<vtcs_version>		
			<process_id>		
			<date>		
			<time>		
			<host_name>		
		<reclaim_summary>	<mvc_data>	<volser>	
				<reason>	
		<recall_process>	<vtss_data>	<name>	
				<migrate_lamt>	
				<migrate_hamt>	
				<number_vtds>	
				<number_rtds>	
				<dismount_time>	
				<minimum_migrate_tasks>	
				<maximum_migrate_tasks>	
				<active_migrate_tasks>	
				<default_acs>	
				<vtss_model>	
				<maximum_size>	
				<vtv_pagesize>	
				<capacity_mb>	
				<dbu>	
				<number_vtvs>	
				<status>	
				<accessible>	

TABLE 2-37 RECLAIM XML Tags

Command/ Utility	Head Tag	Structure/Data Tags			
				<migrates>	
				<reclaims>	
				<auto_migrate_ threshold>	
			<mvc_data>	<volser>	
				<vtv_count>	
				<media>	
				<percent_used>	
				<percent_fragmented>	
				<percent_available>	
				<media_size>	
				<times_mounted>	
				<audit>	
				<eject>	
				<drain>	
				<maxvtv>	
				<export>	
				<consolidated>	
				<full>	
				<usable>	
				<initialised>	
				<broken>	
				<lost>	
				<data_check>	
				<read_only>	
				<retired>	
				<warranty_expired>	
				<invalid_mir>	
				<date_last_mounted>	
				<time_last_mounted>	
				<date_last_migrate>	

TABLE 2-37 RECLAIM XML Tags

Command/ Utility	Head Tag	Structure/Data Tags			
				<time_last_migrate>	
				<vtss_last_mounted>	
				<acs>	
				<storage_class>	
				<consolidate_date>	
				<consolidate_time>	
			<vtv_data>	<volser>	
				<initialised>	
				<mounted>	
				<resident>	
				<scratch>	
				<fenced>	
				<new_create>	
				<copies_to_migrate>	
				<consolidated>	
				<migrated>	
				<replication>	
				<size_compressed>	
				<size_uncompressed>	
				<maximum_size>	
				<compress_percent>	
				<maximum_size>	
				<vtv_pagesize>	
				<date_last_used>	
				<time_last_used>	
				<new_create>	
				<date_created>	
				<time_created>	
				<management_class>	
				<vtss_name>	

TABLE 2-37 RECLAIM XML Tags

Command/ Utility	Head Tag	Structure/Data Tags			
				<multiple_start>	
				<multiple_next>	
				<mvc_instance>	<volser>
					<block_id>
		<migrate_process>	<vtss_data>	<name>	
				<migrate_lamt>	
				<migrate_hamt>	
				<number_vtds>	
				<number_rtds>	
				<dismount_time>	
				<minimum_migrate_tasks>	
				<maximum_migrate_tasks>	
				<active_migrate_tasks>	
				<default_acs>	
				<vtss_model>	
				<maximum_size>	
				<vtv_pagesize>	
				<capacity_mb>	
				<dbu>	
				<number_vtvs>	
				<status>	
				<accessible>	
				<migrates>	
				<reclaims>	
				<auto_migrate_threshold>	
			<mvc_data>	<volser>	
				<vtv_count>	
				<media>	
				<percent_used>	
				<percent_fragmented>	

TABLE 2-37 RECLAIM XML Tags

Command/ Utility	Head Tag	Structure/Data Tags			
				<percent_available>	
				<media_size>	
				<times_mounted>	
				<audit>	
				<eject>	
				<drain>	
				<maxvtv>	
				<export>	
				<consolidated>	
				<full>	
				<usable>	
				<initialised>	
				<broken>	
				<lost>	
				<data_check>	
				<read_only>	
				<retired>	
				<warranty_expired>	
				<invalid_mir>	
				<date_last_mounted>	
				<time_last_mounted>	
				<date_last_migrate>	
				<time_last_migrate>	
				<vtss_last_mounted>	
				<acs>	
				<storage_class>	
				<consolidate_date>	
				<consolidate_time>	
			<vtv_data>	<volser>	
				<initialised>	

TABLE 2-37 RECLAIM XML Tags

Command/ Utility	Head Tag	Structure/Data Tags			
				<mounted>	
				<resident>	
				<scratch>	
				<fenced>	
				<new_create>	
				<copies_to_migrate>	
				<consolidated>	
				<migrated>	
				<replication>	
				<size_compressed>	
				<size_uncompressed>	
				<maximum_size>	
				<compress_percent>	
				<maximum_size>	
				<vtv_pagesize>	
				<date_last_used>	
				<time_last_used>	
				<new_create>	
				<date_created>	
				<time_created>	
				<management_class>	
				<vtss_name>	
				<multiple_start>	
				<multiple_next>	
				<mvc_instance>	<volser>
					<block_id >
		<exceptions>	<reason>		
			<mvc_data>	<volser>	
				<vtv_count>	
				<media>	
				<percent_used>	

TABLE 2-37 RECLAIM XML Tags

Command/ Utility	Head Tag	Structure/Data Tags			
				<percent_fragmented>	
				<percent_available>	
				<media_size>	
				<times_mounted>	
				<audit>	
				<eject>	
				<drain>	
				<maxvtv>	
				<export>	
				<consolidated>	
				<full>	
				<usable>	
				<initialised>	
				<broken>	
				<lost>	
				<data_check>	
				<read_only>	
				<retired>	
				<warranty_expired>	
				<invalid_mir>	
				<date_last_mounted>	
				<time_last_mounted>	
				<date_last_migrate>	
				<time_last_migrate>	
				<vtss_last_mounted>	
				<acs>	
				<storage_class>	
				<consolidate_date>	
				<consolidate_time>	
			<vtv_data>	<volser>	
				<initialised>	
				<mounted>	
				<resident>	
				<scratch>	
				<fenced>	
				<new_create>	

TABLE 2-37 RECLAIM XML Tags

Command/ Utility	Head Tag	Structure/Data Tags			
				<copies_to_migrate>	
				<consolidated>	
				<migrated>	
				<replication>	
				<size_compressed>	
				<size_uncompressed>	
				<compress_percent>	
				<maximum_size>	
				<vtv_pagesize>	
				<date_last_used>	
				<time_last_used>	
				<new_create>	
				<date_created>	
				<time_created>	
				<management_class>	
				<vtss_name>	
				<multiple_start>	
				<multiple_next>	
				<mvc_instance>	<volser>
					<block_id >
		<exceptions>	<reason>		

RECONCIL

TABLE 2-38 RECONCILE XML Tags

Command/ Utility	Head Tag	Structure/Data Tags			
RECONCIL	<reconcile_report>	<reconcile_vtv>	<header>	<vtcs_version>	
				<date>	
				<time>	
				<host_name>	
			<vtv_data>	<volser>	
				<size_uncompressed>	
				<compress_percent>	
				<maximum_size>	
				<vtv_pagesize>	
				<date_created>	
				<time_created>	
				<management_class>	
				<mvc_instance>	<volser >
				<reconcile_reason>	
	<reconcile_report>	<reconcile_mvc>	<header>	<vtcs_version>	
				<date>	
				<time>	
			<mvc_data>	<volser>	
				<media>	
				<media_size>	
				<storage_class>	
				<acs>	
				<candidate_vtv_count>	
				<total_vtv_size>	
				<vtv_instance>	<volser >

SET MIGOPT

TABLE 2-39 SET MIGOPT XML Tags

Command/ Utility	Head Tag	Structure/Data Tags	
SET MIGOPT	<set_migopt_request>	<header>	<vtcs_version>
			<process_id>
			<date>
			<time>
			<host_name>
		<vtss_data>	<name>
			<migrate_lamt>
			<migrate_hamt>
			<number_vtds>
			<number_rtds>
			<minimum_migrate_tasks>
			<maximum_migrate_tasks>
			<active_migrate_tasks>
			<default_acs>
			<vtss_model>
			<maximum_size>
			<vtv_pagesize>
			<capacity_mb>
			<dbu>
			<number_vtvs>
			<status>
			<accessible>
			<migrates>
			<reclaims>
			<auto_migrate_threshold>

TRACE

TABLE 2-40 TRACE XML Tags

Command/Utility	Head Tag	Structure/Data Tags	
TRACE	<trace_request>	<header>	<vtcs_version>
			<process_id>
			<date>
			<time>
			<host_name>
		<trace>	



VARY CLINK

TABLE 2-41 VARY CLINK XML Tags

Command/Utility	Head Tag	Structure/Data Tags	
VARY CLINK	<vary_clink>	<header>	<vtcs_version>
			<process_id>
			<date>
			<time>
			<host_name>
		<clink_data>	<vtss_name>
			<clink_id>
			<status>
			<usage>
			<host_name>

VARY RTD

TABLE 2-42 VARY RTD XML Tags

Command / Utility	Head Tag	Structure / Data Tags	
VARY RTD	<vary_rtd>	<header>	<vtcs_version>
			<process_id>
			<date>
			<time>
			<host_name>
		<rtd_data>	<device_address>
			<device_type>
			<name>
			<channel_id>
			<host_id>
			<status>
			<owner_vtss>
			<acs>

VARY VTSS

TABLE 2-43 VARY VTSS XML Tags

Command/ Utility	Head Tag	Structure/Data Tags	
VARY VTSS	<vary_vtss>	<header>	<vtcs_version>
			<process_id>
			<date>
			<time>
			<host_name>
		<vtss_data>	<name>
			<migrate_lamt>
			<migrate_hamt>
			<number_vtds>
			<number_rtds>
			<dismount_time>
			<minimum_migrate_tasks>
			<maximum_migrate_tasks>
			<active_migrate_tasks>
			<default_acs>
			<vtss_model>
			<maximum_size>
			<vtv_pagesize>
			<capacity_mb>
			<dbu>
			<number_vtvs>
			<status>
			<accessible>
			<migrates>
			<reclaims>
			<auto_migrate_threshold>

VTVMaint

TABLE 2-44 VTVMaint XML Tags

Command/ Utility	Head Tag	Structure/Data Tags			
VTVMaint	<vtvmaint_request>	<header>	<vtcs_version>		
			<date>		
			<time>		
			<host_name>		
		<vtv_report>	<header>	<vtcs_version>	
				<date>	
				<time>	
				<host_name>	
			<vtv_data>	<volser>	
				<initialised>	
				<mounted>	
				<resident>	
				<scratch>	
				<fenced>	
				<new_create>	
				<copies_to_migrate>	
				<consolidated>	
				<migrated>	
				<replication>	
				<size_compressed>	
				<size_uncompressed>	
				<compress_percent>	
				<maximum_size>	
				<vtv_pagesize>	
				<date_last_used>	
				<time_last_used>	

TABLE 2-44 VTVMAINT XML Tags

Command/ Utility	Head Tag	Structure/Data Tags			
				<date_created>	
				<time_created>	
				<management_class>	
				<vtss_name>	
				<multiple_start>	
				<multiple_next>	
				<mvc_instance>	<volser>
					<block_id>

VTVRPT

TABLE 2-45 VTVRPT XML Tags

Command/ Utility	Parameter	Head Tag	Structure/Data Tags		
VTVRPT		<vtv_report>	<header>	<vtcs_version>	
				<date>	
				<time>	
				<host_name>	
			<vtv_data>	<volser>	
				<initialised>	
				<mounted>	
				<resident>	
				<scratch>	
				<fenced>	
				<new_create>	
				<copies_to_migrate>	
				<consolidated>	
				<migrated>	
				<archived>	
				<replication>	
				<size_compressed>	
				<size_uncompressed>	
				<maximum_size>	
				<compress_percent>	
				<maximum_size>	
				<vtv_pagesize>	
				<date_last_used>	
				<time_last_used>	
				<new_create>	
				<date_created>	

TABLE 2-45 VTVRPT XML Tags

Command/ Utility	Parameter	Head Tag	Structure/Data Tags		
				<time_created>	
				<management_class>	
				<vtss_name>	
				<mvc_instance>	<volser>
					<block_id>

NCS Commands and Utilities XML Tags

This section describes the XML format output of the HSC PGMI and SMC UII responses. “NCS XML Data Tag Descriptions” on page 110 describes:

- The content of each XML data tag.
- The XML structure tags where each data tag occurs.

The following sections describe the XML head, structure, and data tags for each HSC PGMI response:

- “DISPLAY ACS” on page 115
- “DISPLAY CDS” on page 116
- “DISPLAY CAP” on page 117
- “DISPLAY DRIVES (HSC)” on page 118
- “DISPLAY LSM” on page 119
- “DISPLAY SCRATCH” on page 120
- “DISPLAY THRESHOLD” on page 121
- “DISPLAY VOLUME (HSC)” on page 122
- “SCRATCH” on page 123
- “TRACE” on page 124
- “UNSCRATCH” on page 125
- “VOLRPT” on page 126

The following sections describe the XML head, structure, and data tags for each SMC UII response:

- “DISPLAY DRIVES (SMC)” on page 130
- “DISPLAY VOLUME (SMC)” on page 131

NCS XML Data Tag Descriptions

TABLE 3-1 NCS XML Data Tag Cross-Reference

Data Tag	Occurs In	Definition
<acs>	<subpool_data> <acs_data> <lsm_data> <cap_data> <scratch_data>	ACS ID (real subpools only).
<acs_count>	<cds_data>	ACS count for this CDS.
<acs_mvc_counts>	<mvcpool_counts>	
<acs_status>	<acs_data>	ACS status (CONNECTED DISCONNECTED).
<active>	<host_data>	Yes/no. Indicates whether the host is active.
<adjacent_count>	<lsm_data>	Number of adjacent LSMs for this LSM.
<adjacent_lsm>	<lsm_data>	ID of LSM adjacent to this LSM.
<cap>	<cap_data>	CAP ID.
<cap_count>	<cds_data> <lsm_data>	CAP count for this CDS. CAP count for this LSM.
<cell_count>	<lsm_data> <cap_data>	Storage cell count for this LSM. Cell count for this CAP.
<cleaner_count>	<lsm_data>	Cleaner cartridge count for this LSM.
<cleaner_prefix>	<cds_data>	Cleaning cartridge prefix for this CDS.
<cleaner_over_maxclean>	<volume_data>	Yes/no. Indicates whether a cleaning cartridge is over the MAXCLEAN value.
<cleaner_usable>	<volume_data>	Yes/no. Indicates whether a cleaning cartridge is usable.
<date>	<header>	Date YYYYMMDD that the XML was generated.
<density>	<volume_data>	Real media density (1, 2, and so forth).
<device_address>	<drive_data>	Drive unit address (<i>uuuu</i>).
<drive_count>	<cds_data>	Drive count for this CDS.
<drive_location>	<drive_data>	Drive location (<i>aa:ll:pp:rr:cc</i>).
<dsname>	<dsn_data>	CDS DSname.
<dual_lmu_config>	<acs_data>	Yes/no. Indicates whether dual LMU is configured.
<encrypted>	<volume_data>	Yes/no. Indicates whether the volume is encrypted.
<errant>	<volume_data>	Yes/no. Indicates whether the volume is errant.
<error>	<volume_data>	Hex reason code produced by a scratch/unscratch request's outcome.
<external_label>	<volume_data>	Yes/no. Indicates whether the volume has an external label.
<free_count>	<lsm_data> <panel_data>	LSM free cell count. Panel free cell count.

TABLE 3-1 NCS XML Data Tag Cross-Reference

Data Tag	Occurs In	Definition
<free_cell_count>	<acs_data>	ACS free cell count.
<from_volser>	<subpool_data>	Starting volser of a range.
<frozen>	<panel_data>	Yes / no. Indicates whether panel is frozen.
<home_cell>	<volume_data>	Volser's home cell (<i>aa:ll:pp:rr:cc</i>).
<host_count>	<cds_data>	Host count for this CDS.
<host_id>	<host_data>	Host ID.
<host_name>	<header>	Host where XML was generated.
<hsc_version>	<header> <host_data>	Defines the HSC version that generated the XML in v.r.m format currently 6.2.0.
<insert_date>	<volume_data>	Date YYYYMMDD that the volume was inserted into the CDS.
<insert_time>	<volume_data>	Time HH:MM:SS that the volume was inserted into the CDS.
<label_readable>	<volume_data>	Yes / no. Indicates whether the volume's external label is readable.
<library_location>	<drive_data> <volume_data>	library (TapePlex) location
<lsm>	<subpool_data> <lsm_data> <cap_data> <scratch_data>	LSM ID (real subpools only).
<lsm_count>	<cds_data> <acs_data>	LSM count for this CDS. LSM count for this ACS.
<max_size>	<volume_data>	Maximum volume size in GB.
<media>	<drive_data> <subpool_data> <scratch_data>	Drive compatible media name. Subpool media name. Scratch volser media name.
<media>virtual</media>	<subpool_data>	Media virtual (virtual subpools only).
<media_label>	<volume_data>	Yes / no / NA. Indicates whether the volume has a media label.
<media_match>	<volume_data>	Yes / no / undefined. Indicates whether the volume's media matches its media label.
<media_type>	<volume_data>	Volser's media type (MEDIA).
<member>	<dsn_data>	DEF data set member name.
<mode>	<lsm_data> <cap_data>	LSM mode (AUTOMATIC MANUAL). CAP mode (IDLE BUSY).
<model>	<drive_data> <lsm_data>	Drive model. LSM model.
<mounted>	<volume_data>	Yes / no. Indicates the volume's mount status.

TABLE 3-1 NCS XML Data Tag Cross-Reference

Data Tag	Occurs In	Definition
<name>	<trace_status>	Trace type (ALLOCATION, ASCOMM, CAP, CONFIGURATION, DATABASE, INIT / TERM, LMUDRIVER, MOUNT / DISMOUNT, OPERATOR, RECOVERY, UTILITIES, VOLUME / CELL, WTO SERVER, HOST COMMUNICATIONS, XML ASCOMM, UUI, VTCS, LIBRARYSTATION)
<non_scratch_count>	<subpool_data>	Non-Scratch count (real subpools only).
<panel>	<panel_data>	Panel ID.
<panel_type>	<panel_data>	Panel type.
<panel_count>	<lsm_data>	Panel count for this LSM.
<priority>	<cap_data>	CAP priority.
<reason>	<volume_data>	SLS message number and test produced by a scratch / unscratch request's outcome.
<rectech>	<volume_data> <subpool_data> <scratch_data>	Volser's recording technique (RECTECH). Subpool's recording technique (RECTECH). Scratch volser's recording technique (RECTECH).
<result>	<volume_data>	Success / Failure. Indicates a scratch / unscratch request's outcome.
<scratch>	<volume_data>	Yes / no. Indicates the volume's scratch status.
<scratch_count>	<subpool_data> <acs_data> <lsm_data> <scratch_data>	Scratch count (real subpools only). ACS scratch count. LSM scratch count. Subpool's scratch count
<select_count>	<volume_data>	Number of times volume was selected.
<select_date>	<volume_data>	Date YYYYMMDD that the volume was last selected.
<select_time>	<volume_data>	Time HH:MM:SS that the volume was last selected.
<selected>	<volume_data>	Yes / no. Indicates the volume's selection status.
<smc_version>	<header> <host_data>	Defines the SMC version that generated the XML in v.r.m format currently 6.2.0.
<smf_number>	<cds_data>	SMF number for this CDS.
<subpool_index>	<volume_data> <subpool_summary_data>	Subpool index.
<subpool_label>	<volume_data> <subpool_summary_data>	Subpool label.
<subpool_name>	<volume_data> <subpool_summary_data>	Subpool name.
<state>	<lsm_data> <cap_data>	State (ONLINE OFFLINE).
<status>	<drive_data> <lsm_data> <cap_data>	Drive status (On Drive Mounting Dismounting). LSM status (READY NOTREADY) CAP status (AUTOMATIC MANUAL)
<tapeplex_name>	<drive_data> <volume_data>	TapePlex name

TABLE 3-1 NCS XML Data Tag Cross-Reference

Data Tag	Occurs In	Definition
<threshold_count>	<subpool_data>	Threshold count.
<time>	<header>	Time HH:MM:SS that the XML was generated.
<to_volser>	<subpool_data>	Ending volser of a range.
<trace>	<trace_status>	Trace ON or OFF.
<type>	<dsn_data>	CDS type (Primary, Secondary, Standby) DEF data set type (SCRPDEF LKEYDEF LMUPDEF MGMTDEF MVC DEF MPOOL00 VOLDEF)
<unit>	<dsn_data>	CDS unit address (<i>uuuu</i>).
<volser>	<dsn_data>	CDS volser.
<volser>	<volume_data> <drive_data>	Volser of Nearline volume.



HSC Commands

DISPLAY ACS

TABLE 3-2 DISPLAY ACS XML Tags

Command/ Utility	Head Tag	Structure/Data Tags	
DISPLAY ACS	<display_acs_request>	<header>	<hsc_version>
			<date>
			<time>
			<host_name>
		<ACS_data>	<acs>nn</acs>
			<acs_status>
			<lsm_count>
			<scratch_count>
			<free_cell_count>
			<dual_lmu_config>

DISPLAY CDS

TABLE 3-3 DISPLAY CDS XML Tags

Command/ Utility	Head Tag	Structure/Data Tags		
DISPLAY CDS	<display_cds_request>	<header>	<hsc_version>	
			<date>	
			<time>	
			<host_name>	
		<cds_data >	<smf_number>	
			<cleaner_prefix>	
			<acs_count>	
			<lsm_count>	
			<cap_count>	
			<host_count>	
Data for CDS Data Sets				
			<dsn_data>	<type>
				<dsname>
				<volser
				<unit>
Data for DEF Data Sets				
			<dsn_data>	<type>
				<dsname>
				<member>
			<host_data>	<host_id>
				<active>
				<hsc_version>

DISPLAY CAP

TABLE 3-4 DISPLAY CAP XML Tags

Command/ Utility	Head Tag	Structure/Data Tags	
DISPLAY CAP	<display_cap_request>	<header>	<hsc_version>
			<date>
			<time>
			<host_name>
		<cap_data>	<acs>
			<lsm>
			<cap>
			<cell_count>
			<priority>
			<mode>
			<status>
			<state>



DISPLAY DRIVES (HSC)

TABLE 3-5 DISPLAY DRIVES (HSC) XML Tags

Command/ Utility	Head Tag	Structure/Data Tags	
DISPLAY DRIVES	<display_drives_request>	<header>	<hsc_version>
			<date>
			<time>
			<host_name>
		<drive_data>	<device_address>
			<volser>
			<status>
		Additional Fields for DISPLAY DRIVES DETAIL	
			<model>
			<media>

DISPLAY LSM

TABLE 3-6 DISPLAY LSM XML Tags

Command/ Utility	Head Tag	Structure/Data Tags	
DISPLAY LSM	<display_lsm_request>	<header>	<hsc_version>
			<date>
			<time>
			<host_name>
		<lsm_data>	
			<lsm>
			<model>
			<state>
			<status>
			<mode>
			<panel_count>
			<cell_count>
			<free_count>
			<scratch_count>
			<cleaner_count>
			<cap_count>
			<adjacent_count>
			<adjacent_lsms>
		<panel_data>	<panel>
			<panel_type>
			<free_count>
			<frozen>



DISPLAY SCRATCH

TABLE 3-7 DISPLAY SCRATCH XML Tags

Command/ Utility	Head Tag	Structure/Data Tags	
DISPLAY SCRATCH	<display_scratch_request>	<header>	<hsc_version>
			<date>
			<time>
			<host_name>
		<subpool_data >	<subpool_name>
			<media>
			<acs>
			<lsm>
			<scratch_count>
		Additional Subpool Data for DISPLAY SCRATCH DETAIL	
			<rectech>

DISPLAY THRESHOLD

TABLE 3-8 DISPLAY THRESHOLD XML Tags

Command/ Utility	Head Tag	Structure/Data Tags	
DISPLAY THRESHOLD	<display_threshold_request>	<header>	<hsc_version>
			<date>
			<time>
			<host_name>
		<subpool_data >	<subpool_name>
			<media>
			<acs>
			<lsm>
			<scratch_count>
			<threshold_count>
		Additional Subpool Data for DISPLAY THRESHOLD DETAIL	
			<rectech>

DISPLAY VOLUME (HSC)

TABLE 3-9 DISPLAY VOLUME (HSC) XML Tags

Command/ Utility	Head Tag	Structure/Data Tags	
DISPLAY VOLUME	<display_volume_request>	<header>	<hsc_version>
			<date>
			<time>
			<host_name>
		<volume_data>	<volser>
			<home_cell>
			<mounted>
			<selected>
			<scratch>
		Addition Volume Data Fields for DISPLAY VOLUME DETAIL	
			<errant>
			<external_label>
			<label_readable>
			<insert_date>
			<insert_time>
			<select_date>
			<select_time>
			<select_count>
			<media_type>
			<rectech>
			<media_label>
			<media_match>

SCRATCH

TABLE 3-10 SCRATCH XML Tags

Command/ Utility	Head Tag	Structure/Data Tags	
SCRATCH	<scratch_request>	<header>	<hsc_version>
			<date>
			<time>
			<host_name>
		<volume_data>	<volser>
			<result>
			<error>
			<reason>



TRACE

TABLE 3-11 TRACE XML Tags

Command/Utility	Head Tag	Structure/Data Tags	
TRACE	<trace_request>	<header>	<hsc_version>
			<date>
			<time>
			<host_name>
		<trace_status>	
			<name>ALLOCATION
			<trace>OFF ON



UNSCRATCH

TABLE 3-12 UNSCRATCH XML Tags

Command/ Utility	Head Tag	Structure/Data Tags	
UNSCRatch	<unscratch_request>	<header>	<hsc_version>
			<date>
			<time>
			<host_name>
		<volume_data>	<volser>
			<result>
			<error>
			<reason>

VOLRPT

TABLE 3-13 VOLRPT XML Tags

Command/ Utility	Head Tag	Structure/Data Tags			
VOLRPT	<volrpt>	<header>			
			<hsc_version> v.r.m </hsc_version>		
			<date> yyyyMond d</date>		
			<time> hh:mm:ss </time>		
			<host_name> host </host_name>		
		<volume_data>			
			<volser> vvvvvv </volser>		
			<home_cell> aa:ll:pp:rr:cc </home_cell>		
			<scratch> Yes No </scratch>		
			<selected> Yes No </selected>		
			<mounted> Yes No </mounted>		
			<errant> Yes No </errant>		
			<external_label> Yes No </external_label>		
			<label_readable> Yes No </label_readable>		
			<cleaner_usable> Yes No </cleaner_usable>		
			<cleaner_over_maxclean> Yes No </cleaner_over_maxclean>		
			<insert_date> yyyyMond d</insert_date>		
			<insert_time> hh:mm:ss </insert_time>		
			<select_date> yyyyMond d</select_date>		
			<select_time> hh:mm:ss </select_time>		
			<select_count> nnnnnn </select_count>		
			<media_type> MEDIA_NAME </media_type>		
			<rectech> RECTECH_NAME </rectech>		

TABLE 3-13 VOLRPT XML Tags

Command/ Utility	Head Tag	Structure/Data Tags			
			<subpool_name> <i>subpool name</i> </subpool_name>		
			<subpool_label> <i>label type</i> </subpool_label>		
			<subpool_index> <i>subpool index</i> </subpool_index>		
			<date_last_mounted>DATE_LAST_M OUNTED</ date_last_mounted>		
			<time_last_mounted>TIME_LAST_M OUNTED</ time_last_mounted>		
			<max_size>MAX_SIZE</ max_size>		
			<volume_usable>VOLUME_USABLE </ volume_usable>		
			<encrypted>ENCRYPTED</ encrypte d>		
			<density>RECTECH_NAME</ densit y>		
		<subpool_ summary_data >			
			<subpool_data>		
				<subpool_name> <i>subpool name</i> </subpool_name>	
				<subpool_label> <i>label type</i> </subpool_label>	
				<subpool_index> <i>subpool index</i> </subpool_index>	
				<from_volser> <i>starting volser</i> </from_volser>	
				<to_volser> <i>ending volser</i> </to_volser>	
				<scratch_data>	
					<acs> <i>acsId</i> </ acs>
					<lsm> <i>lsmID</i> </lsm>

TABLE 3-13 VOLRPT XML Tags

Command/ Utility	Head Tag	Structure/Data Tags			
					<media> <i>media name</i> </media>
					<rectech> <i>rectech name</i> </rectech>
					<scratch_cou nt> <i>number of scratch volumes</i> </scratch_co unt>
					<non_scratch _count> <i>number of non-scratch volumes</i> </non_scratc h_count>

SMC Commands



DISPLAY DRIVES (SMC)

TABLE 3-14 DISPLAY DRIVES (SMC) XML Tags

Command/ Utility	Head Tag	Structure/Data Tags	
DISPLAY DRIVES	<display_drives_request>	<header>	<date>
			<time>
			<host_name>
			<smc_version>
		<drive_data>	<device_address>
			<tapeplex_name>
			<model>
			<library_location> - real voumes only
			<vtss_name> - VTVs only
			<smc_drive_status>
			<mvs_drive_status>

DISPLAY VOLUME (SMC)

TABLE 3-15 DISPLAY VOLUME (SMC) XML Tags

Command/ Utility	Head Tag	Structure/Data Tags	
DISPLAY VOLUME	<display_volume_request>	<header>	<date>
			<time>
			<host_name>
			<smc_version>
		<volume_data>	<volser>
			<tapeplex_name>
			<library_location> - real volumes only
			<vtss_name> - VTVs only
			<media>
			<rectech>
			<density> - real volumes only

Additional Information

Conventions for Reader Usability

Conventions are used to shorten and clarify explanations and examples within this book.

Typographic

The following typographical conventions are used in this book:

- **Bold** is used to introduce new or unfamiliar terminology.
- Letter Gothic is used to indicate command names, filenames, and literal output by the computer.
- Letter Gothic Bold is used to indicate literal input to the computer.
- *Letter Gothic Italic* is used to indicate that you must substitute the actual value for a command parameter. In the following example, you would substitute your name for the “username” parameter.
- Logon *username*
- A bar (|) is used to separate alternative parameter values. In the example shown below either username or systemname must be entered.
- Logon *username* | *systemname*
- Brackets [] are used to indicate that a command parameter is optional.
- Ellipses (...) are used to indicate that a command may be repeated multiple times.
- The use of mixed upper and lower case characters (for non-case sensitive commands) indicates that lower case letters may be omitted to form abbreviations. For example, you may simply enter **Q** when executing the **Quit** command.

Keys

Single keystrokes are represented by double brackets [[]] surrounding the key name. For example, press [[ESC]] indicates that you should press only the escape key.

Combined keystrokes use double brackets and the plus sign (+). The double brackets surround the key names and the plus sign is used to add the second keystroke. For example, press [[AL]] + [[C]] indicates that you should press the alternate key and the C key simultaneously.

Enter Command

The instruction to “press the [[ENTER]] key” is omitted from most examples, definitions, and explanations in this book.

For example, if the instructions asked you to “enter” **Logon pat**, you would type in **Logon pat** and press [[ENTER]].

However, if the instructions asked you to “type” **Logon pat**, you would type in **Logon pat** and you would *not* press [[ENTER]].

Warnings, Cautions, and Notes

The following are used in this book.

Warning. Information necessary to keep you from damaging your hardware or software.

Caution – Information necessary to keep you from corrupting your data.

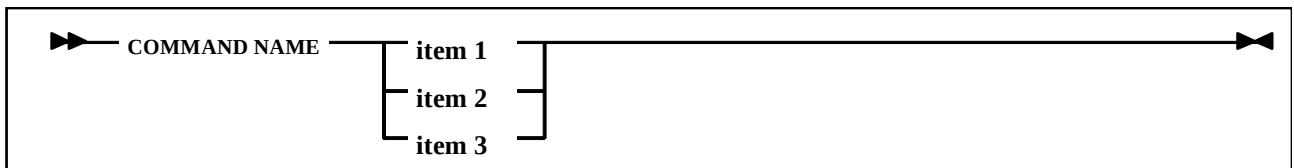
Tip – Information that can be used to shorten or simplify your task or they may simply be used as a reminder.

Note – Information that may be of special interest to you. Notes are also used to point out exceptions to rules or procedures.

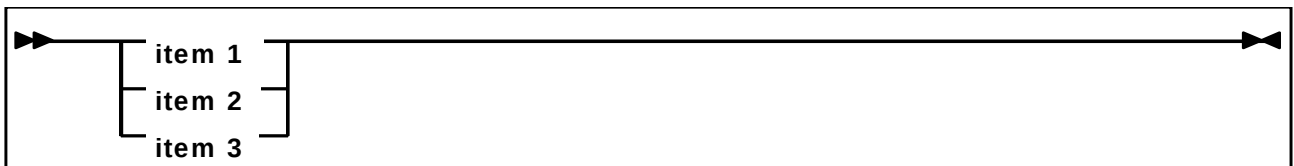
Syntax

Syntax flow diagram conventions include the following:

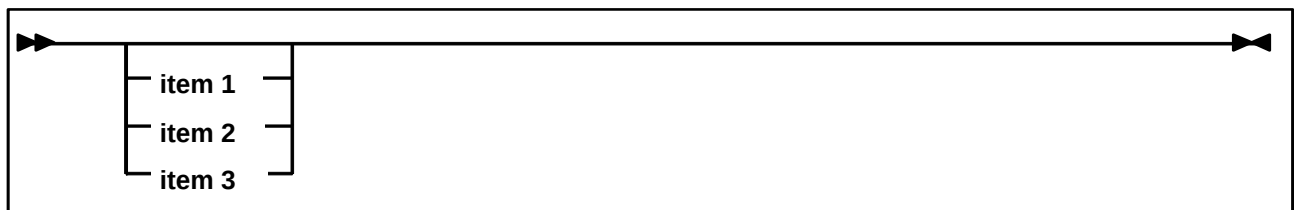
Flow Lines—Syntax diagrams consist of a horizontal baseline, horizontal and vertical branch lines and the command text. Diagrams are read left to right and top to bottom. Arrows show flow and direction.



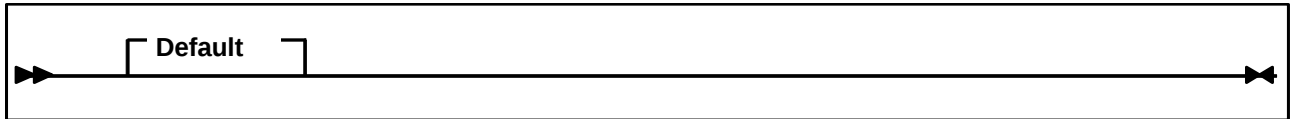
Single Required Choice—Branch lines (without repeat arrows) indicate that a single choice must be made. If one of the items to choose from is on the baseline of the diagram, one item must be selected.



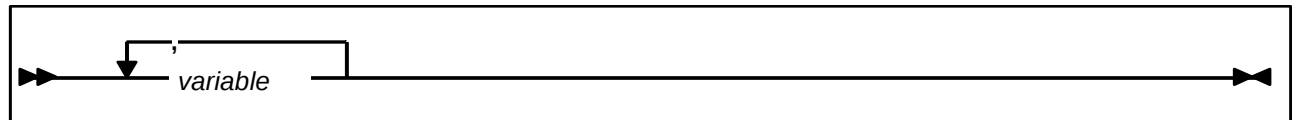
Single Optional Choice—If the first item is on the line below the baseline, one item may optionally be selected.



Defaults—Default values and parameters appear above the baseline.



Repeat Symbol—A repeat symbol indicates that more than one choice can be made or that a single choice can be made more than once. The repeat symbol shown in the following example indicates that a comma is required as the repeat separator.



Keywords—All command keywords are shown in all upper case or in mixed case. When commands are not case sensitive, mixed case implies that the lowercase letters may be omitted to form an abbreviation.

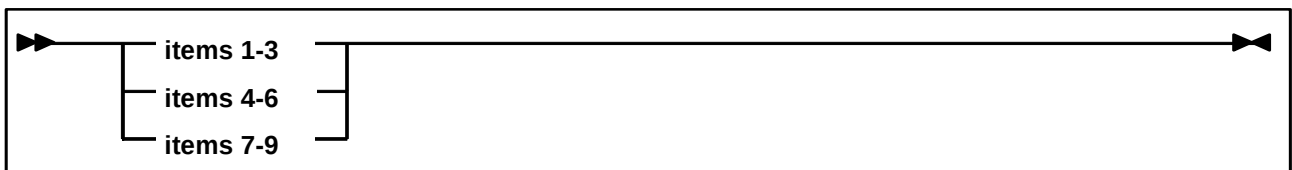
Variables—Italic type is used to indicate a variable.

Alternatives—A bar (|) is used to separate alternative parameter values.

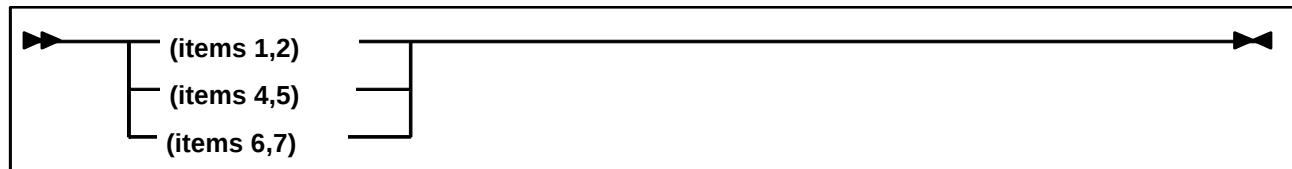
Optional—Brackets [] are used to indicate that a command parameter is optional.

Delimiters—If a comma (,), a semicolon (;), or other delimiter is shown with an element of the syntax diagram, it must be entered as part of the statement or command.

Ranges—An inclusive range is indicated by a pair of elements of the same length and data type, joined by a dash. The first element must be strictly less than the second element.



Lists—A list consists of one or more elements. If more than one element is specified, the elements must be separated by a comma or a blank and the entire line must be enclosed by parentheses.



Additional Information for Sun Products

Sun Microsystems, Inc. (Sun) offers several methods for you to obtain additional information.

Sun's External Web Site

Sun's external Web site provides marketing, product, event, corporate, and service information. The external Web site is accessible to anyone with a Web browser and an Internet connection.

The URL for the Sun external Web site is: <http://www.sun.com>

The URL for Sun StorageTek™ brand-specific information is:
<http://www.storagetek.com>

Customer Resource Center

The Sun StorageTek product Customer Resource Center (CRC) is a Web site that enables members to resolve technical issues by searching code fixes and technical documentation for StorageTek brand products. CRC membership entitles you to other proactive services, such as HIPER subscriptions, technical tips, answers to frequently asked questions, addenda to product documentation books, and online product support contact information. Customers who have a current warranty or a current maintenance service agreement may apply for membership by clicking on the Request Password button on the CRC home page. Sun employees may enter the CRC through the SunWeb PowerPort.

The URL for the CRC is <http://www.support.storagetek.com>

Partners Site

The StorageTek Partners site is a Web site for partners with a StorageTek Partner Agreement. This site provides information about products, services, customer support, upcoming events, training programs, and sales tools to support StorageTek Partners. Access to this site, beyond the Partners Login page, is restricted. On the Partners Login page, Sun employees and current partners who do not have access can request a login ID and password and prospective partners can apply to become StorageTek resellers.

The URL for the StorageTek Partners site is:
<http://members.storagetek.com>

The URL for partners with a Sun Partner Agreement is:
<http://www.sun.com/partners/>

Third-Party Web Sites

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Hardcopy Publications

Contact a Sun sales or marketing representative to order additional paper copies of this publication or to order other StorageTek brand product customer publications in paper format.

Customer Support

Customer support is available 24 hours a day, seven days a week, to customers with Sun or StorageTek maintenance contracts and to Sun employees. You can find additional information about customer support on the Customer Resource Center (CRC) Web site at:
<http://www.support.storagetek.com>

Customer-initiated Maintenance

Customer-initiated maintenance begins with a telephone call from you to Sun Microsystems StorageTek Support. You receive immediate attention from qualified personnel, who record problem information and respond with the appropriate level of support.

To contact Sun Microsystems StorageTek Support about a problem:

1. Use the telephone and call:

 **800.872.4786** (1.800.USA.4Sun)

 **800.722.4786** (Canada)

For international locations, go to

<http://www.sun.com/service/contacting/solution.html>

for the appropriate telephone number

2. Describe the problem to the call taker. The call taker will ask several questions and will either route your call to or dispatch a support representative.

If you have the following information when you place a service call, the process will be much easier:

Account name	
Site location number	
Contact name	

Telephone number	
Equipment model number	
Device address	
Device serial number (if known)	
Urgency of problem	
Fault Symptom Code (FSC)	
Problem description	

Sun's Worldwide Offices

You may contact any of Sun's worldwide offices to discuss complete storage, service, and support solutions for your organization. You can find address and telephone number information on 's external Web site at:
<http://www.sun.com/worldwide/>

Sun Microsystems, Inc. 4150 Network Circle, Santa Clara, CA 95054 USA Phone 1-650-960-1300 or 1-800-555-9SUN Web sun.com



ARGENTINA: 5411-4317-5636 • AUSTRALIA: 1-800-550-786 • AUSTRIA: 43-1-601-26-0 • BALKANS: 301-6188-111 • BELGIUM: 32-2-704 89 83 • BRAZIL: 55-11-51872100 • BRUNEI: 65-216-8333 • CANADA: 1-800-422-8020 (GENERAL); 416-964-2001 (LEARNING MANAGEMENT SYSTEM SALES, TORONTO) • CHILE: 562-372-4500 • COLOMBIA: 571-629-2323
CZECH REPUBLIC: 420-2-330093111 • DENMARK: 45 4556 5040 • EGYPT: 00 202 570 9442 • FINLAND: 358-9-525-561 • FRANCE: 33-1-41-33-17-17 • GERMANY: 49-89-460-08-2788 • GREECE: 30-01-6188101 • HONG KONG: 852-2877-7077 • HUNGARY: 361-202-4415 • INDIA: 91-80-229-8989 • INDONESIA: 65-216-8333 • IRELAND: 353-1-668-4377
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HEADQUARTERS: 1-650-960-1300

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