ELS 7.0.0 Read Me First

Contents

ELS 7.0.0 Read Me First

Tables & Figures

Index of Tables

ELS 7.0.0 Read Me First

1 Introduction

This document provides information necessary for the installation of Oracle's StorageTek Enterprise Library Software (ELS) 7.0.0 product set.

Please read this important notice before installing the ELS 7.0.0 products.

2 Installation Materials

The following installation materials are included in this package:

- A product tape containing the ELS 7.0.0 software.

- A service tape containing PTFs for the ELS 7.0.0 product set.

    OR

- A product CD containing the ELS 7.0.0 software.

- A service CD containing PTFs for the ELS 7.0.0 product set.

In addition, all customers must obtain the latest maintenance (PTFs and HOLDDATA) for the ELS 7.0.0 product set and for any releases of StorageTek software that will co-exist with 7.0.0. Maintenance can be downloaded from the SunSolve website at:

http://sunsolve.sun.com/handbook_pub/validateUser.do?target=STK/STK_index

or by calling StorageTek Central Software Support[1] and ordering an all-PTF tape or CD.

Notes on SunSolve corrective service:

- **HSC 7.0.0, SMC 7.0.0, VTCS 7.0.0, and CDRT 7.0.0 PTFs are all in ELS 7.0.0 service and can be found at the Enterprise Library Software link in the Library Control and Client Software sections of the page.**

- **You will not find separate HSC 7.0.0, SMC 7.0.0, VTCS 7.0.0, or CDRT 7.0.0 entries on SunSolve.**

- **You will find LibraryStation 7.0.0 service at the LibraryStation Software link in the Library Control section of the page.**

- **You will find MVS/CSC 7.0.0 service at the Client System Component – MVS/CSC link in the Client Software section of the page.**

- **The Expert Library Manager – ExLM and Library Content Manager – LCM links in the Library Control section of the page both take you to the same page where service for both pre-7.0.0 ExLM and LCM 7.0.0 can be found.**

- **You will not find an ExLM 7.0.0 on SunSolve.**

---

[1] (800) 872-4786 (USA-4SUN) for USA customers

+1-303-673-4430 for international customers

ELS 7.0.0 Read Me First

3   Release Notes

For customers using SMP/E 3.1 and above, the 7.0.0 product set is available on CDs. The following information provides specific details for each 7.0.0 product.

3.1   Product Documentation Notes

For ELS 7.0.0, product documentation for Oracle's StorageTek SMC, HSC, VTCS, and CDRT software has been reorganized into a single documentation set:

- *Introducing ELS*

- *Installing ELS*

- *ELS Command, Control Statement, and Utility Reference*

- *ELS Syntax Quick Reference*

- *ELS Messages and Codes*

- *ELS Programming Reference*

- *ELS Legacy Interfaces Reference*

- *Configuring HSC and VTCS*

- *Managing HSC and VTCS*

- *Configuring and Managing SMC*

- *ELS Disaster Recovery and Offsite Data Management Guide*

3.2   SMC 7.0.0 Notes

SMC 7.0.0 communicates with the HSC and/or MVS/CSC running on the same host, or with the HSC executing on a remote host. When communicating with HSC on a remote host, the SMC 7.0.0 must also be installed and must execute in a separate address space on the HSC host with the SMC HTTP Server task started.

3.2.1   HTTP Server Integration

- The separate HTTP Server product (FMID SKY500) is eliminated from ELS 7.0 and is no longer supplied.

- The need for a separate HTTP Server address space is eliminated from ELS 7.0.

- The HTTP Server is now run as a separate optional task under the SMC address space as part of ELS 7.0.

- A new HTTP command has been added to SMC 7.0.

Note: If you wish to run the VSM GUI or ExPR GUI, you must continue to run the StorageTek HTTP Server (FMIDs SSKY500 and ASAR0700) which is packaged with those products and executes in its own address space.

3.2.2   Client Communication Monitor

The client communication monitor subtask feature provides periodic validation of active communication paths for all non-disabled TapePlexes. This feature is enabled using the MONitor parameter on the TCPip command.

ELS 7.0.0 Read Me First

3.2.3   Automatic Primary Server Switching

The automatic primary server switching feature directs SMC to automatically switch from an active secondary server to the primary server when the primary server becomes available. This feature is enabled using the **PREFprimary** parameter on the TCPip MONitor command.

3.2.4   Policy Validation

The SMC POLicy command includes a new **VALidate** parameter, used to validate all or a subset of defined policy objects.

3.2.5   SMCUSIM Utility

The new **SMCUSIM** utility allows you to issue SMC UUI commands in order to test changes to command settings, policies, and allocation user exits without affecting existing SMC clients or HSC servers.

3.2.6   SIMulate Command

The new **SIMulate** command allows you to enter jobstep characteristics and view how the SMC would process a single DD jobstep with the same characteristics.

3.2.7   Logging and Tracing Enhancements

The SMC LOG command includes a new **Type** parameter, used to specify which record types are logged to the SMCLOG file.

The SMC TRace SUBsys command includes a new **HTtp** process type, used to enable tracing for all SMC HTTP server tasks.

The following process types can be specified on the TRace JOBname command:

■   **REmote** enables tracing in the remote SMC server for requests originating from the specified jobname, stepname, and procstep name.

■   **UTility** enables tracing for all SMC utility component tasks executing in initiators from the specified jobname, stepname, and procstep name.

3.2.8   Enhanced UNITATTR

The SMC UNITAttr command includes the ESOTeric parameter, used to specify an esoteric for which UNITAttr device attributes are assigned.

3.3   HSC 7.0.0 Notes

3.3.1   Combined ELS Utility Interface

All HSC, VTCS and CDRT utilities can be executed using the SLUADMIN utility program. SWSADMIN and SWUADMIN are aliases for SLUADMIN, and are still honored.

ELS 7.0.0 Read Me First

3.3.2   Combined ELS Command Interface

The VT command prefix is no longer required for VTCS commands. If entered, it is ignored. Command abbreviations have changed for the following commands due to HSC/VTCS conflicts:

- Display Acs
- Display ACTive
- MODify CAP
- MODify CONFIG
- RECOVer

3.3.3   Improved Volume and Pool Definition

New HSC volume/pool definition commands and control statements.

3.3.4   Enhanced UUI

Additional HSC commands are now available with the UUI.

3.3.5   Library Content Manager (LCM) Vault Function Support

The Set command includes VAULT and VAULTVOL options in support of the LCM VAULT function. Changes to the SLSMERGE control statement to support specification of Vaults and Vault Volumes for MERGECDS.

3.3.6   VTCS Logging Service Support

HSC provides functionality to define manage and offload logfiles used by the VTCS logging service.

- The SET LOGFILE command defines primary and secondary log files used by the HSC transaction logging service to record VTCS logical transactions necessary to recover the CDS.
- The new FMTLOG command pre-formats a log file to be used by the logging service.
- The OFFload command can be used to offload one or both journals on a given host, or transaction records from active log files used in the HSC Transaction Logging Service.

3.3.7   Improved CDS Allocation

The subsystem will not start if the CDS recovery technique does not match the number of CDS copies specified in the CDSDEF. All utilities will now dynamically allocate the CDS if there is an active HSC.

ELS 7.0.0 Read Me First

3.4   VTCS 7.0.0 Notes

3.4.1   _Enhanced Migration Control_

The MGMTDef command includes new MIGRSEL and MIGRVTV control statements to allow for greater control of VTV migrations. New MGMTclas control statement parameters, DISCARD and IMMDELAY are used to specify a VTV discard time and immediate migration delay time.

3.4.2   _Extended Clustering_

Extended clustering, allowing a "many to many" VTSS cluster connection, where each cluster includes multiple VTSSs.

3.4.3   _Electronic Export_

Electronic export (along with extended clustering) allows you to electronically export VTVs (instead of MVCs) from a source to a target site, across TapePlexes. Once the VTVs arrive at the target site, they are then migrated to MVCs.

3.4.4   _MVC Initialization_

Initialization of MVCs is now permitted in VTCS.

3.4.5   _MVC Mount/Dismount Improvements_

The CONFIg GLOBAL statement includes new NLIBDRNR, NLIBMIGR, and NLIBRECL parameters, used to specify whether non-library resident MVCs are selected for Drain/Reclaim processing, migration processing, or recall processing.

3.4.6   _Non-disruptive Deletion of MVC/VTV Ranges_

The CONFIg command includes a new NOUPDATE parameter, used to specify that the configuration is checked but no updates are made to the CDS. The DEComp command includes a new LISTDELR parameter, used to list volser ranges of "logically deleted" MVCs and VTVs.

3.4.7   _New Logging Service_

The new VTCS logging service allows VTCS to record logical transactions that minimize the time required to synchronize the CDS with the VSM subsystem. It can be used by VTCS to improve recovery time when restoring a CDS.

- ■   The CONFIg GLOBAL statement includes a new LOGPOL parameter, used to specify whether logging is optional or required.

- ■   The LOGUTIL command initiates VTCS CDS recovery process

- ■   The new LOGUTIL GENAUDIT statement initiates resynchronization of the CDS to VSM

ELS 7.0.0 Read Me First

3.5   CDRT 7.0.0 Notes

3.5.1   DRTEST Command Enhancements

The DRTEST command includes new options:

- The PRIMEprd option updates the production CDS without creating a DRTEST CDS.

- The CREATE PRIMEprd option creates a single input CDS copy (even if multiples are defined) that may be a mirrored or backup copy of the actual CDS.

3.5.2   ACTMVCGN Command

The ACTMVCGN command, used in a VSM environment with the CDRT facility, produces MVCMAINT control statements and places them in two output files.

3.6   LCM 7.0.0 Notes

3.6.1   LCM (formerly ExLM) is Packaged with ELS

Effective with the ELS 7.0.0 release, the functionality previously provided by Expert Library Manager (ExLM), has been integrated into the ELS product suite as the Library Content Manager (LCM) component. LCM will be installed in the same CSI as the other components but will have its own LCMLINK as it requires that to be a PDSE file.

3.6.2   External Vaulting Feature

The External Vaulting Function is an integrated solution that is replacing the current VSM DR Vault Utility. This solution includes changes to HSC and VTCS, as well as LCM, with LCM providing the day-to-day management interface for the function.

3.6.3   Action Drain

The Action Drain statement allows the direction of MVCDrains through an LCM run. By doing this, the powerful selection function of LCM can be used to initiate MVCDrains for very specific groups of MVCs through a rules basis. When issued by LCM as part of the External Vault Function, offsite vaulted MVCs are reset by VTCS to enable their immediate use upon return to the automated environment.

3.6.4   Compatibility

LCM requires an ELS 7.0.0 environment in order to execute. All versions of ExLM are not supported with ELS.

3.6.5   Eject Utility Deleted

The Eject Utility that was provided in ExLM is not carried over to LCM. That function has been replaced by the Action Eject statement and the ability added in ExLM 6.2 to use a list of volume serials as an input.

3.6.6   *Use of the Unified User Interface (UUI)*

LCM uses the Unified User Interface (UUI) to obtain all status and volume metadata, as well as to issue all requests to the other components of ELS.

3.6.7   *Report Multiple Pool*

The Report Multiple statement added in ExLM 6.2 has been expanded to add a 'POOL' option. This will produce a report that mirrors the MVCPLRPT produced by SLUADMIN.

3.6.8   *Incorrect Tape Management System Databases*

With LCM, the ability to detect incorrect tape management system databases has been incorporated. When encountered, LCM will end gracefully with an indication as to the incompatibility found.

3.6.9   *Conversion of Date Values to a Number of Days*

LCM now allows most date fields to be used to create a DaysSince or a DaysUntil value. The exception is for expiration date fields which can contain non-date information.

3.6.10 *CAP Selection at Individual CAP Level*

A significant roll-up of added functionality from the ExLM 6.2 release is the ability to select CAPs for eject processing at an individual CAP level. Prior to this, selection was limited to and LSM level, which is still allowed. DISPLAY, PAUSE, RESUME and REDIRECT commands may also be issued at the individual CAP level.

3.7   MVS/CSC and LibraryStation 7.0.0 Notes

ELS 7.0 no longer supports connections between MVS/CSC and LibraryStation. MVS/CSC will only support connections to ACSLS, and LibraryStation will only support connections to open system clients. Connectivity in an MVS-only client/server environment is provided by SMC on client host(s) communicating with the SMC HTTP Server task and HSC on the server host(s).

There is no upgrade path or co-existence support for MVS/CSC (any release) with LibraryStation 7.0.0. LibraryStation 7.0.0 does not support any release of MVS/CSC.

4   Installation Notes

- The SSEA700 FMID includes the base functions for SMC, HSC, VTCS, and CDRT.

- SMC, HSC, VTCS, and CDRT now share a common load library, SEALINK.

- StorageTek Library Content Manager (LCM) is now included on the ELS installation tape and CD-ROM.

- The HTTP Server now runs as an optional subtask in the SMC address space. The SSKY FMID is no longer supplied.

- The ELS installation tape and CD-ROM include a CHGIT REXX exec used to simplify customization of ELS installation sample members according to your requirements.

- There is no longer a separate job to allocate JES3 target and distribution library data sets and their required DDDEF entries. The JES3 options are included in the I40ZON sample member.

- License keys are no longer required for ELS 7.0 software initialization. The following PTFs remove the license key requirement:

    - L1H15JO (HSC7.0)

    - L1A107W (LibraryStation 7.0)

    - L1C10AS (MVS/CSC 7.0)

    - L1L00JI (LCM 7.0)

4.1   ELS 7.0.0 FMIDs

The following SMP/E FMIDs are distributed with 7.0.0:

FMID	Description
SSEA700	HSC, SMC, VTCS and CDRT load modules, distributed macros, and samples. This is a base FMID.
SMZ7000	SMC JES3 support load modules, distributed macros, and samples for MVS systems running JES3 Release 5.2.1, JES3 OS/390 Release 1.1 and higher, or JES3 z/OS Release 1.0 and higher. This is a dependent FMID of SSEA700.
SLM7000	LCM 7.0 load modules, distributed macros, and samples. This is a base FMID.
SOC7000	LibraryStation load modules and samples. This is a dependent FMID of SSEA700.
SCS7000	MVS/CSC load modules, distributed macros, and samples.
ASAR700	SAS/C 7.0 selected components.
SSCR70C	SAS/C 7.0 selected components required for LibraryStation and MVS/CSC.
SSCR70D	SAS/C 7.0 selected components required for LibraryStation and MVS/CSC.

Table 1 7.0.0 SMP/E FMIDs

Select the FMIDs that are required to support your configuration.

*If you are running at an SMP/E level lower than 2.5, ensure that the base FMID(s) and all PTF maintenance for the base FMID(s) is accepted before installing any dependent FMIDs. **For certain levels of SMP/E, the restriction applies that a dependent FMID cannot be installed if the base FMID and service have not been ACCEPTED**.*

ELS 7.0.0 Read Me First

Note: When installing ELS 7.0.0 in an SMP/E CSI containing earlier NCS versions, the SMP/E installation deletes the FMIDs of all earlier NCS versions; it is therefore recommended that you back up the ELS SMP/E CSI prior to installing the ELS 7.0 product components.

4.2 General Installation Guidelines

Full instructions for installing the various components can be found in *Installing ELS*. Please refer to the latest levels of the manual. Please ensure that on completion of the apply/accept of the fmids that the latest HOLDDATA is received and the latest PTFs are received and applied. Follow your own internal guidelines regarding the SMP/E ACCEPT of the PTFs.

It is strongly recommended to use GROUPEXTEND on all applies.

4.3 CD Installation Guidelines

- **Always refer to *Installing ELS* for the most current installation instructions and examples. The instructions and examples found in these manuals ALWAYS supersede instructions and examples packaged on the CDs.**

- 85M of mainframe storage space is required to FTP and unpack the SEA70.pax file.

4.4 ELS 7.0 Installation Step I50LIB Creates Two Output Files

Add the following line of JCL to the SYSLIB step (in addition to the existing SMPOUT DD):

```
//SMPRPT  DD  SYSOUT=(,)
```

This will prevent the I50LIB job from creating two output files.

4.5 ELS 7.0 SMP/E Installation JCL Sample Members Differ From Tape to CD

The tape version of the SMP/E installation JCL has 17 members, including member SSEA700, which is not documented in Table 2-2 of *Installing ELS* . Members I60RNET and R60RNTS, listed in Table 2-2 of *Installing ELS*, are not used in the tape installation and are supplied only on CD.

In member CHGIT, the tape version has instructions for enabling the CHGIT EXEC by issuing the following TSO command:

```
allocate dd(SYSUEXEC) shr dsname(your.<dsnq>.SAMPLES.JCL) reuse
```

for the CD version, the command reads as follows:

```
allocate dd(SYSUEXEC) shr dsname(your.SEA70.SAMPLES.JCL) reuse
```

Also, in member I20TST, the CD version has `SET CDROM=TRUE`

The tape version has `SET CDROM=FALSE`.

4.6 Installation of ELS Product Suite Results in Three SMP/E CSIs Being Created

Please be aware that the SMP/E JCL samples provided creates 3 CSIs, one for each zone. If a different CSI management strategy is required in your SMP/E environment you will need to supply your own installation JCL or modify the samples provided.

4.7   Directory Space for PDS

As a consequence of merging components in ELS 7.0, the directory SPACE allocation may be insufficient if you override to DSNTYPE=PDS. If you do this, we recommend changing all occurrences in I40ZON of SPACE=(q,(p,s,5),... to SPACE=(q,(p,s,50),...

This is unnecessary if you leave DSNTYPE=LIBRARY.

5   ELS 7.0.0 Co-existence with Previous Releases

It is not mandatory to upgrade all hosts to 7.0.0 at the same time. The 7.0.0 products may co-exist with hosts running NCS 6.1.0 and above.[2]

There are, however, a number of considerations when co-existing with down-level hosts.

5.1   7.0.0 Compatibility PTFs

Before attempting to start 7.0.0 ensure that the following compatibility PTFs are installed on the down-level releases that share the CDS.

SMC 7.0 is completely compatible with HSC 6.1 and 6.2 (with compatibility PTFs listed below) running on the same or a different host. In addition, SMC 6.1 and 6.2 are completely compatible with HSC 7.0 running on the same or a different host.

Note: HSC 6.0 is no longer a supported release.

Product (FMID)	PTF
HSC 6.1 (SOS6100)	L1H14HA
SMC 6.1 (SMC6100)	L1A00QB
VM/HSC 6.1 (SMS6100)	L1H14H9
VTCS 6.1 (SWS6100)	N/A
SMC 6.2 (SMC6200)	L1A00QA
HSC 6.2 (SOS6200)	L1H14HC
VM/HSC 6.2 (SMS6200)	L1H14HB
VTCS 6.2 (SWS6200)	N/A

Table 2 Compatibility PTFs

In addition it is strongly recommended to obtain the latest service (including HOLDATA) for the down-level hosts systems.

The suggested method of implementing 7.0.0 is to:

1. Install the latest service on production hosts.

2. Install 7.0.0 on a test host(s).

3. Test and verify 7.0.0 on test host(s).

4. Schedule the rollout of 7.0.0 to production hosts.

---

[2] Other hosts that share the same CDS.

5.2   ExPR 6.1 Compatibility PTFs

If your installation intends to continue running Oracle's StorageTek ExPR 6.1 library reporting product with ELS 7.0.0, it is necessary to apply some compatibility PTFs to ExPR. The up-to-date list should be checked via the SunSolve website. However, at the time of publication the following PTFs have been issued for ExPR 6.1:

- L1E0265
- L1E0266
- L1E0269
- L1E026B (superseded by L1E026C)
- L1E026F
- L1E026G

5.3   VTCS 7.0.0 Migration Considerations

VTCS 7.0.0 does not require migration to a new CDS level.