

Open System Services Installation Guide

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About This Document

This guide explains how to use OSS EasySetup to install and configure a minimal OSS subsystem on a system that does not already have an OSS subsystem.

The OSS environment enables you to integrate an operating system similar to the UNIX operating system into your work environment.

Supported Release Version Updates (RVUs)

This manual supports J06.05 and all subsequent J-series RVUs and H06.16 and all subsequent H-series RVUs until otherwise indicated in a replacement publication.

Intended Audience

This guide is for NonStop system administrators.

New and Changed Information in the 429954-007 Edition

The following information was added and changed for the J06.16 and H06.27 RVUs:

- Added the `EASYSETUP^TCPIP^SUBVOL` parameter to “[TACL PARAM Declarations for EasySetup Utilities](#)” (page 15)
- Revised actions for the `/etc/profile` file and the `whatis` database in “[Procedure to Install and Configure a Minimal OSS Subsystem](#)” (page 18)
- Added information about TCP/IP symbolic links creation throughout “[OSSSETUP Utility](#)” (page 20):
- Revised actions for the `/etc/profile` file and the `whatis` database in “[After OSSSETUP Completes](#)” (page 33)
- Added the status message for automatic creation of TCP/IP symbolic links to “[Status Message Texts for OSSSETUP and STARTOSS Utilities](#)” (page 47)
- Added the [hard link](#) and [symbolic link](#) glossary terms to “[Glossary](#)” (page 53)

New and Changed Information in the 429954-006 Edition

Updated the list of terminal emulators in “[Required Terminal Emulator](#)” (page 15) to SSH sessions using products like HP NonStop SSH, comForte SecureSH, and Gemini STN.

New and Changed Information in the 429954-005 Edition

Removed information that does not apply to J06.05 and subsequent J-series RVUs or H06.16 and subsequent H-series RVUs.

Added usage considerations for each OSS EasySetup utility, consistent with information discussed in the Open System Services Management and Operations Guide.

Removed mentions of the OSS local server (`$ZPLS`) and replaced them with mentions of the OSS local server 2 servers (`$ZLSnn`), which replace the OSS local server for J06.05 and subsequent J-series RVUs and H06.16 and subsequent H-series RVUs.

Document Organization

This document is organized as follows:

Chapter 1: OSS EasySetup Quickstart

Describes OSS EasySetup and explains how to use its OSSSETUP utility to install and configure a minimal OSS subsystem.

Chapter 2: OSSSETUP Utility

Describes the OSSSETUP utility, which configures and installs a minimal OSS subsystem.

Chapter 3: OSSREMOV Utility

Describes the OSSREMOV utility, which removes the components of an OSS subsystem.

Chapter 4: STARTOSS Utility

Describes the STARTOSS utility, which starts the OSS processes, servers, and filesets.

Chapter 5: STOPOSS Utility

Describes the STOPOSS utility, which stops the OSS filesets (but not the OSS processes).

Appendix A: Default OSS Configurations

Describes the default configurations of the OSS subsystem.

Appendix B: OSS EasySetup Status Messages

Describes the status messages that the OSS EasySetup utilities display.

Appendix C: OSS EasySetup Error Messages

Describes the error messages that the OSS EasySetup utilities display.

Glossary

Defines Guardian and OSS terms that this guide uses.

Notation Conventions

General Syntax Notation

This list summarizes the notation conventions for syntax presentation in this manual.

UPPERCASE LETTERS

Uppercase letters indicate keywords and reserved words. Type these items exactly as shown. Items not enclosed in brackets are required. For example:

MAXATTACH

Italic Letters

Italic letters, regardless of font, indicate variable items that you supply. Items not enclosed in brackets are required. For example:

file-name

Computer Type

Computer type letters indicate:

- C and Open System Services (OSS) keywords, commands, and reserved words. Type these items exactly as shown. Items not enclosed in brackets are required. For example:

Use the `cextdecs.h` header file.

- Text displayed by the computer. For example:

Last Logon: 14 May 2006, 08:02:23

- A listing of computer code. For example

```
if (listen(sock, 1) < 0)
{
perror("Listen Error");
exit(-1);
}
```

Bold Text

Bold text in an example indicates user input typed at the terminal. For example:

ENTER RUN CODE

?123

CODE RECEIVED: 123.00

The user must press the Return key after typing the input.

[] Brackets

Brackets enclose optional syntax items. For example:

```
TERM [\system-name.terminal-name
```

```
INT[ERRUPTS]
```

A group of items enclosed in brackets is a list from which you can choose one item or none. The items in the list can be arranged either vertically, with aligned brackets on each side of the list, or horizontally, enclosed in a pair of brackets and separated by vertical lines. For example:

```
FC [ num ]  
   [ -num ]  
   [ text ]
```

```
K [ X | D ] address
```

{ } Braces

A group of items enclosed in braces is a list from which you are required to choose one item. The items in the list can be arranged either vertically, with aligned braces on each side of the list, or horizontally, enclosed in a pair of braces and separated by vertical lines. For example:

```
LISTOPENS PROCESS { $appl-mgr-name }  
                  { $process-name }
```

```
ALLOWSU { ON | OFF }
```

| Vertical Line

A vertical line separates alternatives in a horizontal list that is enclosed in brackets or braces. For example:

```
INSPECT { OFF | ON | SAVEABEND }
```

... Ellipsis

An ellipsis immediately following a pair of brackets or braces indicates that you can repeat the enclosed sequence of syntax items any number of times. For example:

```
M address [ , new-value ]...
```

```
- ] {0|1|2|3|4|5|6|7|8|9}...
```

An ellipsis immediately following a single syntax item indicates that you can repeat that syntax item any number of times. For example:

```
"s-char..."
```

Punctuation

Parentheses, commas, semicolons, and other symbols not previously described must be typed as shown. For example:

```
error := NEXTFILENAME ( file-name ) ;
```

```
LISTOPENS SU $process-name.#su-name
```

Quotation marks around a symbol such as a bracket or brace indicate the symbol is a required character that you must type as shown. For example:

```
"[ repetition-constant-list ]"
```

Item Spacing

Spaces shown between items are required unless one of the items is a punctuation symbol such as a parenthesis or a comma. For example:

```
CALL STEPMOM ( process-id ) ;
```


If there is no space between two items, spaces are not permitted. In this example, no spaces are permitted between the period and any other items:

```
$process-name.#su-name
```

Line Spacing

If the syntax of a command is too long to fit on a single line, each continuation line is indented three spaces and is separated from the preceding line by a blank line. This spacing distinguishes items in a continuation line from items in a vertical list of selections. For example:

```
ALTER [ / OUT file-spec / ] LINE  
  
    [ , attribute-spec ]...
```

Notation for Messages

This list summarizes the notation conventions for the presentation of displayed messages in this manual.

Bold Text

Bold text in an example indicates user input typed at the terminal. For example:

```
ENTER RUN CODE
```

```
?123
```

```
CODE RECEIVED:      123.00
```

The user must press the Return key after typing the input.

Nonitalic Text

Nonitalic letters, numbers, and punctuation indicate text that is displayed or returned exactly as shown. For example:

```
Backup Up.
```

Italic Text

Italic text indicates variable items whose values are displayed or returned. For example:

```
p-register
```

```
process-name
```

[] Brackets

Brackets enclose items that are sometimes, but not always, displayed. For example:

```
Event number = number [ Subject = first-subject-value ]
```

A group of items enclosed in brackets is a list of all possible items that can be displayed, of which one or none might actually be displayed. The items in the list can be arranged either vertically, with aligned brackets on each side of the list, or horizontally, enclosed in a pair of brackets and separated by vertical lines. For example:

```
proc-name trapped [ in SQL | in SQL file system ]
```

{ } Braces

A group of items enclosed in braces is a list of all possible items that can be displayed, of which one is actually displayed. The items in the list can be arranged either vertically, with aligned braces on each side of the list, or horizontally, enclosed in a pair of braces and separated by vertical lines. For example:

```
obj-type obj-name state changed to state, caused by  
{ Object | Operator | Service }
```

```
process-name State changed from old-objstate to objstate  
{ Operator Request. }  
{ Unknown. }
```

| Vertical Line

A vertical line separates alternatives in a horizontal list that is enclosed in brackets or braces. For example:

```
Transfer status: { OK | Failed }
```

% Percent Sign

A percent sign precedes a number that is not in decimal notation. The % notation precedes an octal number. The %B notation precedes a binary number. The %H notation precedes a hexadecimal number. For example:

```
%005400
```

```
%B101111
```

```
%H2F
```

```
P=%p-register E=%e-register
```

Abbreviations

DSM/SCM

Distributed Systems Management/Software Configuration Manager

EMS

Event Management Service

OSS

Open System Services

PVU

product version update

RVU

release version update

SCF

Subsystem Control Facility

SPI

Subsystem Programmatic Interface

SPR

Software Product Revision

TACL

HP Tandem Advanced Command Language

TCP/IP

Transmission Control Protocol/Internet Protocol

Related Information

These publications provide information related to the steps described in this guide:

Publication	Tasks Described
<i>Open System Services Management and Operations Guide</i>	Describes many of the tasks not described in this manual. See “What This Guide Does Not Cover” (page 11) .
<i>DSM/SCM User’s Guide</i>	Describes how to use the DSM/SCM product to install and manage software products and RVUs on a NonStop system.
<i>Guardian User’s Guide</i>	Describes how to back up your system.

Publication	Tasks Described
<i>SCF Reference Manual for the Kernel Subsystem</i>	Describes how to configure and start generic processes. You might use this manual if you do not use the EASYSETUP^STARTUP param to configure and start \$NULL and/or \$ZSMP and you want to configure these as generic processes.
<i>Safeguard Reference Manual</i>	In addition to other tasks related to system security, describes how to install, modify, or remove the INITIAL-DIRECTORY settings for all users.
<i>Telserv Manual</i>	Explains how to configure the HP Telserv subsystem, which is the HP implementation of the server portion of the TELNET protocol. You might need to configure this subsystem because you cannot run the OSSSETUP command from the system startup TACL session (\$YMIOP.#CLCI).

What This Guide Does Not Cover

Topic	For information, see ...
General systems operation procedures	The operations guide for your system
General installation procedures	The software installation guide for the Release Version Update (RVU). For example, the <i>J06.05 Software Installation and Upgrade Guide</i> .
Updating an existing OSS subsystem	<i>Open System Services Management and Operations Guide</i>
Falling back to a previous RVU	<i>Open System Services Management and Operations Guide</i>
OSS Monitor messages	<i>Open System Services Management and Operations Guide</i>
Tasks other than minimal configuration of the OSS subsystem, including: <ul style="list-style-type: none"> • Creating the general profile (/etc/profile) file • Configuring and starting network services such as TCP/IP and inetd • Configuring and starting the cron process • Securing the fileset mount points (/bin, /etc, /var, /tmp, and /home) to ensure that they have security permissions consistent with your site's security policies. • Configuring the whatis database (merge_what is) for the OSS shell apropos, man, and whatis commands • Setting up printers • Configuring OSS users • Enabling Safeguard auditing of OSS files 	<i>Open System Services Management and Operations Guide</i>

Unsupported Utilities

HP is not responsible for the proper functioning of unsupported utilities and will not respond to product reports about them. Such utilities include those in the OSS /bin/unsupported directory. Use these utilities at your own risk.

Publishing History

Part Number	Product Version	Publication Date
429954-003	OSSMON G09, OSS EasySetup G07	April 2004
429954-004	OSSMON G09, OSS EasySetup G07	December 2004

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429954-005	OSSMON H03, OSS EasySetup H01	November 2008
429954-006	OSSMON H03, OSS EasySetup H01	February 2010
429954-007	OSSMON H07, OSS EasySetup H01^AAF	August 2013

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Include the document title, part number, and any comment, error found, or suggestion for improvement you have concerning this document.

1 OSS EasySetup Quickstart

OSS EasySetup includes the OSSSETUP utility, which installs a minimal OSS subsystem on a system that does not have an OSS subsystem. (A minimal OSS subsystem does not include OSS subcomponents such as HP NonStop SQL/MX or the HP NonStop TUXEDO product.)

You must not use the OSSSETUP utility when an OSS configuration already exists on your node. For example, you cannot use OSSSETUP when:

- Your system was preconfigured by HP, but OSSREMOV has not been run.
- OSSSETUP has previously been run, but OSSREMOV has not been run.
- You have manually configured your OSS environment.

HP recommends that you use the [“Procedure to Install and Configure a Minimal OSS Subsystem” \(page 18\)](#) to install the OSS subsystem. If you want more than a minimal OSS subsystem, you can update the minimal OSS subsystem after you have installed it.

To manually install a new OSS subsystem or to update an existing OSS subsystem, see the *Open System Services Management and Operations Guide*.

The OSS EasySetup product allows you, with limited knowledge of either the UNIX or NonStop operating system, to quickly install a minimal OSS subsystem in either of two modes:

- Noninteractive (DEFAULTS) mode, which gives your OSS subsystem the default settings
- Interactive mode, which gives you more control over installation parameters

Sections:

- [“OSS EasySetup Components”](#)
- [“Required Terminal Emulator” \(page 15\)](#)
- [“Required Software” \(page 16\)](#)
- [“SPI Definition Files” \(page 17\)](#)
- [“Procedure to Install and Configure a Minimal OSS Subsystem” \(page 18\)](#)

OSS EasySetup Components

The OSS EasySetup product consists of the utilities described in [Table 1 \(page 13\)](#) and the files described in [Table 2 \(page 14\)](#).

The OSS EasySetup utilities are on the installation subvolume ZOSSINS. You must run the utilities from ZOSSINS. You cannot run the utilities from a remote system.

Table 1 OSS EasySetup Utilities

Name	Description	For information, see ...
OSSSETUP ¹	Configures and installs a minimal OSS subsystem. Runs either interactively or noninteractively.	Chapter 2 (page 20)
OSSREMOV ¹	Removes the components of the OSS subsystem—that is, the processes and filesets that the OSS Monitor (\$ZPMON) manages. Does not remove the users’ initial directories, which the security manager (\$ZSMP) manages.	Chapter 3 (page 34)
STARTOSS ²	Starts the OSS processes, servers, and filesets.	Chapter 4 (page 39)
STOPOSS ²	Stops the OSS filesets (but not the OSS processes).	Chapter 5 (page 41)

¹ HP recommends that you log on with the super ID to run this utility; otherwise, you must first ensure that the NULL, OSMP, and OSSMON objects have the correct security settings (see the *Open System Services Management and Operations Guide*). For G06.17 and later RVUs, NULL and OSMP are not required.

² HP recommends that you log on with a user ID in the SUPER group ID to run this utility.

To stop an OSS EasySetup utility before it finishes, press the Break key (see [“Break Key Message” \(page 52\)](#)).

△ CAUTION: The files in [Table 1 \(page 13\)](#) and [Table 2 \(page 14\)](#) are EDIT files (file code 101), not object files. Nothing prevents you from changing these files; however, HP recommends that you change only the OSSINFIL file (for instructions, see the *Open System Services Management and Operations Guide*). Avoid changing the OSSINF file, because the changes might be overwritten by future software updates.

Table 2 OSS EasySetup Files

Filename	Description	OSS EasySetup Utilities That Use It
OSSLIB	Contains routines that the OSS EasySetup utilities share.	All
OSSINF	Is used to start a predetermined set of OSS servers and filesets that the OSS Monitor (\$ZPMON) manages. For file contents, see Example 1 (page 15) .	OSSETUP and STARTOSS
OSSINFIL	Is used to start OSS servers and filesets that the OSS Monitor (\$ZPMON) manages. If this file does not exist when you run STARTOSS, STARTOSS creates it by copying the OSSINF file.	STARTOSS
SOFTDOC	Is a standard softdoc.	None
OSSINSTL	Contains only the text “This file is no longer supported.”	None
STRTOSS	Contains only the text “This file is no longer supported.”	None
STOPSOSS	Contains only the text “This file is no longer supported.”	None

Example 1 OSSINF File Contents

```
* File: OSS Monitor in-file ( Version 1.0 ) {<--MUST BE FIRST LINE OF FILE }
* This is an in-file for the OSS T0585 utilities STARTOSS and OSSSETUP. The
* OSS Monitor process manages all entries in this file.

* There is no need to refer to any name server or transport agent server.
* Name servers are automatically started when their corresponding filesets
* are started. Transport agent servers are started when a processor is
* reloaded.

* NOTE: Add an asterisk followed with a space in front of a line to prevent
*       that server or fileset from being started.

* Format for server entry:  SERVER #<name>
* Format for fileset entry: FILESET <name>

* Start the OSS Message Queue Server:
SERVER #ZMSGQ

* Add additional filesets to the end of this file. Starting order
* of filesets must be maintained. An incorrect order can cause
* filesets not to start. Do not use a hash mark (#) in fileset names.

* Start the OSS ROOT, HOME and TEMP Filesets:
FILESET ROOT
FILESET HOME
FILESET TEMP
```

Required Terminal Emulator

The OSSSETUP utility requires a terminal emulator such as one of these:

- Telnet session
- 6530 terminal emulator
- X6530 terminal emulator
- OutsideView from Crystal Point Inc.
- MR-Win6530 from comForte
- HP NonStop SSH(J06.09 and later J-series RVUs and H06.20 and later H-series RVUs only)
- SecureSH from comForte (J06.09 and later J-series RVUs and H06.20 and later H-series RVUs only)

On J06.09 and later J-series RVUs and H06.20 and later H-series RVUs, in addition supporting the terminal emulators listed previously, OSSSETUP will execute under SSH sessions using products like HP NonStop SSH, comForte SecureSH, and Gemini STN.

OSSSETUP will not execute under sessions such as the start-up TACL window (the CLCI window, \$YMIOP.#CLCI).

Utility PARAMs

The EasySetup utilities support the TACL PARAM declarations listed in [Table 3 \(page 15\)](#).

Table 3 TACL PARAM Declarations for EasySetup Utilities

PARAM Name	PARAM value	Used by
EASYSETUP^EMSVOL	A valid disk volume name that identifies the disk on which the Event Management Service (EMS) subvolume (ZSPIDEF) resides. This subvolume must contain the event definition files ZOSSTACL and ZEMSTACL.	OSSSETUP STARTOSS STOPOSS

Table 3 **TACL PARAM Declarations for EasySetup Utilities** *(continued)*

PARAM Name	PARAM value	Used by
	<p>Specifying this volume name enables EMS message logging by the utilities and specifies the location of the required SPI definition files.</p> <p>If you do not specify a volume name using this param, the EMS subvolume is assumed to be on \$SYSTEM. If the SPI definition files are installed on \$SYSTEM, the OSS utilities generate EMS messages. If the SPI definition files are not installed on \$SYSTEM and the EASYSETUP^EMSVOL param does not specify another location, the OSS utilities do not generate EMs messages.</p> <p>For more information, see “SPI Definition Files” (page 17).</p>	OSSREMOV
EASYSETUP^STARTUP	<p>The keyword \$NULL, if the utility is to include the \$NULL process among its actions.</p> <p>The keyword \$ZSMP, if the utility is to include the \$ZSMP process among its actions.</p> <p>Both of the above keywords, separated by a blank and enclosed in quotation marks.</p> <p>The default action excludes either process for which a keyword is omitted.</p> <p>\$ZSMP, the security manager process, is not required to be running before the OSS Monitor is started. However, Safeguard uses \$ZSMP, and if \$ZSMP is not running, security auditing, user aliases, and supplementary groups are not available for the OSS environment.</p> <p>It is not required to start \$NULL before starting the OSS Monitor; however, many applications use \$NULL.</p> <p>HP recommends that you:</p> <ul style="list-style-type: none"> • Add and start \$NULL as a generic process either by using this param or by adding the process manually. • Install the Safeguard product and add and start the \$ZSMP process as a generic process either by using this param or adding the process manually. Do not use this param to add the \$ZSMP process if you system does not have Safeguard installed. 	OSSSETUP STARTOSS STOPOSS OSSREMOV
EASYSETUP^UTILVOL	<p>A valid disk volume name that identifies the disk on which the OSS installation subvolume (ZOSSUTL) resides.</p> <p>The specified volume must be on the local NonStop server node (the COPYOSS utility called by OSSSETUP does not allow installation on remote nodes).</p> <p>The default value is \$SYSTEM.</p>	OSSSETUP
EASYSETUP^TCPIP^SUBVOL	<p>A valid disk subvolume name that identifies the disk on which the TCP/IP (network services) configuration files are installed.</p> <p>The TCP/IP files are placed in the Guardian environment, usually in the \$SYSTEM.ZTCPIP subvolume; however, the TCP/IP files can reside in a different subvolume.</p> <p>If you do not specify a subvolume name using this param, the default value is \$SYSTEM.ZTCPIP.</p>	OSSSETUP This TACL param is available beginning with the TO585H01^AAF SPR, present in the JO6.16 and H06.27 RVUs.

Required Software

OSS EasySetup utilities recommend but do not require the following:

- The EASYSETUP^STARTUP param. This param can be used to run \$NULL and \$ZSMP)

NOTE: The security process \$ZSMP should be started only if the Safeguard product is installed. If the Safeguard product is not installed and \$ZSMP is not running, security auditing, user aliases, and supplementary groups are not available for the OSS environment.

- The Safeguard product. If you want to start \$ZSMP the full Safeguard product must be installed on your system for you to:
 - Run OSSSETUP
 - Add user ID aliases
 - Configure the INITIAL-DIRECTORY attribute for a user ID

To determine whether your system has Safeguard installed, follow these steps:

1. At the TACL prompt, enter this command:

```
STATUS *, TERM
```

The command returns the name of the active system process running on your system (SYS_{nn}).

2. At the TACL prompt, enter this command:

```
FILEINFO $SYSTEM.SYS*.SAFECOM
```

The command returns the names of the system processes that are running Safeguard. If the SYS_{nn} that Step 1 returns matches a SYS_{nn} that Step 2 returns, then your system has Safeguard installed.

Example 2 Determining Whether Safeguard is Installed on Your System

```
$IPM2 T0585AAA 50> status *,term
```

Process	Pri	PFR	%WT	Userid	Program file	Hometerm
\$Z8TN	4,95	130	R	000	103,225	\$SYSTEM.SYS01.TACL \$ZTN1.#PTGLFNR

```
$IPM2 T0585AAA 51> fi $system.sys*.safecom
```

```
$SYSTEM.SYS00
```

	CODE	EOF	LAST	MODIFIED	OWNER	RWEP	PExt	SExt
SAFECOM	100	559588	17APR2001	7:53	255,255	NUNU	188	16

```
$SYSTEM.SYS01
```

	CODE	EOF	LAST	MODIFIED	OWNER	RWEP	PExt	SExt	
SAFECOM	0	100	559588	17APR2001	7:53	255,255	NUNU	188	16

SPI Definition Files

The Subsystem Programmatic Interface (SPI) definition files, ZOSSTACL and ZEMSTACL, allow each of the OSS EasySetup utilities to generate EMS events. By default, these files are not installed. If you want to enable the utilities to generate EMS events, you must:

- Install the SPI definition files when you build and apply a new configuration using DSM/SCM. For instructions, see the *DSM/SCM User's Guide*.
- If you install the SPI definition files on a volume other than \$SYSTEM, you must use the EASYSETUP^EMSVOL param to specify the volume on which the files are installed.

Warning messages will be generated if SPI definition files ZOSSTACL and ZEMSTACL are missing. These SPI files are not required to be installed unless EASYSETUP^EMSVOL param is set. If the

EASYSETUP^EMSVOL param is set with a volume name that does not contain SPI files, warnings are generated, else only the notice message is generated.

Example 3 Running STOPOSS With the EASYSETUP^EMSVOL Param

```
TACL> param easysetup^emsvol $system
TACL> stoposs
STOPOSS - T0585H01 (01DEC2008) - December 9, 2008 15:49:05 System \NODE1
(C)2002 Compaq (C)2003, 2004 Hewlett-Packard Development Company, L.P.

Shutdown of the OSS subsystem on \NODE1: STARTING

Shutdown of all OSS filesets: STARTING
  SCF-> STOP FILESET $ZPMON.*
Shutdown of all OSS filesets: COMPLETED

Shutdown of the OSS subsystem on \NODE1: COMPLETED
STOPOSS finished.
```

Example 4 Running STOPOSS Without Setting the EASYSETUP^EMSVOL Param

```
TACL> stoposs
NOTICE - No EasySetup EMS events will be generated.

STOPOSS - T0585H01 (01DEC2008) - December 9, 2008 15:49:05 System \NODE1
(C)2002 Compaq (C)2003, 2004 Hewlett-Packard Development Company, L.P.

Shutdown of the OSS subsystem on \NODE1: STARTING

Shutdown of all OSS filesets: STARTING
  SCF-> STOP FILESET $ZPMON.*
Shutdown of all OSS filesets: COMPLETED

Shutdown of the OSS subsystem on \NODE1: COMPLETED
STOPOSS finished.
```

Procedure to Install and Configure a Minimal OSS Subsystem

1. Ensure that your home terminal is the right type of terminal emulator (see [“Required Terminal Emulator”](#) (page 15)).
2. Ensure that your system is ready for software updates; that is, perform all site preparation procedures, such as backups. (For instructions on backing up your system, see the *Guardian User’s Guide*.)
3. Run DSM/SCM to update your system's software with the files in the RVU. (For instructions, see the *DSM/SCM User’s Guide*.)

This step:

- Upgrades OSS EasySetup
 - Installs all OSS files in the RVU on the ZOSSUTL subvolume
 - Runs a system load if necessary
4. Use OSSSETUP to configure and start an OSS subsystem. (For instructions, see [Chapter 2](#) (page 20).)

5. Run DSM/SCM to install converted product files in the OSS file system. (For instructions, see the *DSM/SCM User's Guide*.)

This step:

- Repopulates part of the OSS filesets from the ZOSSUTL archives described in the A7CINFO file, preserving file modes
- Updates the DSM/SCM database with OSS file information for future maintenance

NOTE: Do not use COPYOSS to install OSS files that DSM/SCM manages. Doing so replaces the DSM/SCM-managed files, which can make it difficult to determine whether OSS files are managed by DSM/SCM. This confusion can cause problems in managing OSS files with DSM/SCM.

Be careful when using DSM/SCM in a network of systems running both G-series RVUs and J-series or H-series RVUs; the default for Manage OSS Files is unchecked for G-series RVUs and checked for J-series and H-series RVUs.

6. Finish configuring the OSS environment as described in "Completing a Preconfigured Basic OSS Environment" in "Manually Setting Up an OSS Environment" in the *Open System Services Management and Operations Guide*. These tasks include:
 - Starting an OSS shell
 - Customize the general profile (`/etc/profile`) file
 - Configuring and starting network services such as TCP/IP and `inetd`
 - Configuring and starting the `cron` process
 - Securing the fileset mount points (`/bin`, `/etc`, `/var`, `/tmp`, and `/home`) to ensure that they have security permissions consistent with your site's security policies.
 - Updating the `whatis` database (`merge_whatis`) from additional directories, if any, for the OSS shell `apropos`, `man`, and `whatis` commands. The `OSSSETUP` utility automatically creates the `whatis` database from the `/usr/share/man` directory; however, you can update the `whatis` database from other directories.
 - Setting up printers
 - Configuring OSS users
7. Install OSS files for products that use OSS but do not use the ZOSSUTL subvolume to install their OSS product files. For example, both HP NonStop Distributed Computing Environment (DCE) and NonStop SQL/MX use the `pax` utility to copy a file from a Guardian subvolume into the OSS file system and then use the copied file to install more files for the product. (For instructions, see the manuals for those products.)
8. (Optional) Customize your configuration; for example, enable Safeguard auditing of OSS files. (For instructions, see the *Open System Services Management and Operations Guide*.)

2 OSSETUP Utility

Overview

The OSSETUP utility performs various tasks involved in setting up the OSS environment. It:

- Performs validation checks (see [“Validation Check Errors”](#) (page 49))
- Configures and starts necessary OSS processes as NonStop Kernel generic processes
Unless the EASYSETUP^STARTUP param is set with either \$NULL, \$ZSMP or both of these processes prior to executing the OSSETUP utility, \$NULL and \$ZSMP will not be configured as generic processes. If these processes are configured as NonStop Kernel generic processes, the persistence manager (\$ZPM) starts them when the operating system is loaded.

- Configures the OSS servers
- Configures and starts the ROOT fileset (independently of other filesets)
- Installs the OSS product files from pax archives by using the COPYOSS utility to install files from the relevant pax archives on the ZOSSUTL subvolume

The ZOSSUTL subvolume is not required to be on the \$SYSTEM volume if the EASYSETUP^UTILVOL param is used. To run the OSSETUP utility in interactive or non-interactive mode, use the EASYSETUP^UTILVOL param. (For a comparison of these modes, see [“Modes of Running OSSETUP”](#) (page 22).)

- Configures the HOME and TEMP filesets
- Starts the OSS servers and filesets that the OSS Monitor (\$ZPMON) manages; that is, servers and filesets that the OSSINF file refers to (for a description of the OSSINF file, see [Table 2](#) (page 14))

These processes start on each processor when that processor becomes active (whether or not the OSS subsystem is installed):

Process	Name
\$ZFM _{xx}	File manager
\$ZLS _{xx}	OSS sockets local server 2 server
\$ZPP _{xx}	Pipe server
\$ZSP _{xx}	OSS server process (OSP) server
\$ZTA _{xx}	Transport agent server
\$ZTT _{xx}	Terminal helper server

- Creates the `/etc/profile` file
- Runs the `merge_what` utility
- Creates symbolic links to TCP/IP configuration files. This feature is available beginning with the T0585H01^AAF SPR, present in the J06.16 and H06.27 RVUs. By default, symbolic links are created to the configuration files in the \$SYSTEM.ZTCPIP subvolume. Setting the EASYSETUP^TCPIP^SUBVOL param to point to a different subvolume allows you to create

symbolic links to TCP/IP configuration files installed in that alternate subvolume. The following symbolic links are created.

Symbolic Link	Source File from TCP/IP Installation Location
/etc/hosts	hosts
/etc/inetd.conf	inetconf
/etc/protocols	protocol
/etc/services	services
/etc/resolv.conf	resconf
/etc/networks	networks
/etc/ipnodes	ipnodes

- Creates these files:

Filename	File System	File Type	Contents
OSSJOURN	Guardian	EDIT (file code 101)	Status messages (see Appendix B (page 46))
OSSTREE	Guardian	EDIT (file code 101)	Directory tree showing entire OSS subsystem
/tmp/oss.tree.ddmmmyyyy.system-name	OSS	ASCII	Directory tree showing entire OSS subsystem

The files OSSTREE and /tmp/oss.tree.ddmmmyyyy.system-name have identical contents.

NOTE: Using the OSSSETUP utility is the first step to configuring the OSS environment. After the OSSSETUP utility completes, you must finish configuring the OSS environment as described in “Completing a Preconfigured Basic OSS Environment” in “Manually Setting Up an OSS Environment” in the *Open System Services Management and Operations Guide*.

Usage Considerations:

- HP recommends that you log on with the super ID to run OSSSETUP.
- The OSSSETUP utility and the files it creates must be appropriately secured for access by users other than the super ID, according to your site’s security guidelines. See “Licensing the OSS Monitor to the Super Group” in the *Open System Services Management and Operations Guide* for a possible approach.
- OSSSETUP is on the installation subvolume ZOSSIPNS. You must run OSSSETUP from ZOSSIPNS. You cannot use this command from a remote Expand node.
- You cannot use this command from the system startup TAEL session (\$YMIOP.#CLCI). You should use a Telserv session instead.
- The OSSSETUP utility installs all code and text files from current pax archive files in the ZOSSIPNL subvolume into the filesets it creates. The ZOSSIPNL subvolume is in the \$SYSTEM volume, you override this location using the EASYSETUP^UTILVOL param.
- The OSS Monitor does not use the \$NULL process or require the \$ZSMP process for its own startup. However, not configuring or starting \$NULL or \$ZSMP could affect the functioning of other products or subsystems.
- If \$NULL or \$ZSMP is already running and not configured as a generic object, and you have used the EASYSETUP^STARTUP param to specify \$NULL or \$ZSMP, you must stop it before you can use OSSSETUP to configure it as a generic object. To stop \$NULL, use the TAEL STOP

command. To stop \$ZSMP, use the SAFECOM STOP command. If you are not using the EASYSETUP^STARTUP param to specify either of these processes, these processes are ignored.

- If you have installed the SPI definition files in a volume other than \$SYSTEM, you must use the EASYSETUP^EMSVOL param to specify the volume on which these files are installed. The default value for this param is \$SYSTEM. You are not required to have installed SPI definition files, but if the SPI definition files are not installed in the specified location, this utility will not generate EMS events. For more information about this param and about enabling EMS event logging, see [Table 3 \(page 15\)](#).
- Beginning with the J06.16 and H06.27 RVUs, if you have installed the TCP/IP configuration files in a subvolume other than the default \$SYSTEM.ZTCPIP, you must use the EASYSETUP^TCPIP^SUBVOL param to specify the installation subvolume. The OSSSETUP utility does not validate the presence or correctness of the source files while creating symbolic links. You must ensure that the EASYSETUP^TCPIP^SUBVOL param is pointing to the correct subvolume.
- The OSSSETUP utility does not define users or user attributes such as INITIAL-DIRECTORY in the security database.
- Fileset mount points should be checked after installation to ensure that they have security permissions consistent with your site's security policies. See ["After OSSSETUP Completes" \(page 33\)](#).

The following information is provided in this chapter:

- ["Modes of Running OSSSETUP" \(page 22\)](#)
- ["Status and Error Messages" \(page 23\)](#)
- ["Command to Run OSSSETUP" \(page 23\)](#)
- ["After OSSSETUP Completes" \(page 33\)](#)

Modes of Running OSSSETUP

You can run OSSSETUP in either of these modes:

- DEFAULTS (Noninteractive) Mode, which:
 - Asks you no questions
 - Gives your OSS subsystem the default configuration
 - Requires only one storage resource (a disk volume named \$OSS)
 - Allows the ZOSSL subvolume to be on any volume, which you can specify using the EASYSETUP^UTILVOL param. The default value for this param is \$SYSTEM.
 - Allows you to use the EASYSETUP^EMSVOL param to specify a location other than \$SYSTEM for the SPI definition files. The default value for this param is \$SYSTEM, but you are not required to have installed SPI definition files. For more information about this param and about enabling EMS event logging, see [Table 3 \(page 15\)](#).
 - Allows you to use the EASYSETUP^STARTUP param to specify if OSSSETUP configures the \$NULL, \$ZSMP, or both the \$NULL and \$ZSMP processes as generic processes.
 - Beginning with the J06.16 and H06.27 RVUs, allows you to use the EASYSETUP^TCPIP^SUBVOL param to specify a subvolume other than the default \$SYSTEM.ZTCPIP to create symbolic links to TCP/IP configuration files. For more details about this param and setting up symbolic links, see ["Overview" \(page 20\)](#).

For more information, see ["Running in DEFAULTS \(Noninteractive\) Mode" \(page 23\)](#).

For information about default configuration, see [Appendix A \(page 44\)](#).

- Interactive Mode, which:
 - Asks you questions
 - Gives you more control over installation parameters
 - Might require more than one storage resource
 - Allows the ZOSSUTL subvolume to be on any volume, which you can specify using the EASYSETUP^UTILVOL param (you confirm your choice in the interactive session). The default value for this param is \$SYSTEM.
 - Allows you to use the EASYSETUP^EMSVOL param to specify a location other than \$SYSTEM for the SPI definition files. The default value for this param is \$SYSTEM, but you are not required to have installed SPI definition files. For more information about this param and about enabling EMS event logging, see [Table 3 \(page 15\)](#).
 - Allows you to use the EASYSETUP^STARTUP param to specify if OSSSETUP configures the \$NULL, \$ZSMP, or both the \$NULL and \$ZSMP processes as generic processes.
 - Beginning with the J06.16 and H06.27 RVUs, allows you to use the EASYSETUP^TCPIP^SUBVOL param to specify a subvolume other than the default \$SYSTEM.ZTCPIP to create symbolic links to TCP/IP configuration files. For more details about this param and setting up symbolic links, see [“Overview” \(page 20\)](#).

For more information, see [“Running in Interactive Mode” \(page 25\)](#).

Status and Error Messages

The status messages that OSSSETUP displays are described in [Appendix B \(page 46\)](#).

The error messages that OSSSETUP displays are described in [If OSSSETUP displays error messages, see Appendix C \(page 49\)](#).

Command to Run OSSSETUP

The syntax of the OSSSETUP command is:

```
[RUN] OSSSETUP [ DEFAULTS | ? | HELP ]
```

DEFAULTS

causes OSSSETUP to run in DEFAULTS (noninteractive) mode. If this parameter is not present, OSSSETUP runs in interactive mode.

? , HELP

displays the syntax of the OSSSETUP command.

If OSSSETUP displays error messages, see [Appendix C \(page 49\)](#).

Running in DEFAULTS (Noninteractive) Mode

To run OSSSETUP in DEFAULTS (noninteractive) mode:

1. Ensure that the \$OSS disk volume exists and is usable.
2. If you want to specify a volume other than \$SYSTEM for the ZOSSUTL subvolume, enter this command at a TACL prompt:

```
PARAM EASYSETUP^UTILVOL $vol-name
```

where *vol-name* is the name of the volume on which the OSS installation subvolume resides.

For more information about this param, see [Table 3 \(page 15\)](#).

3. If you have installed the SPI definition files on a volume other than \$SYSTEM, enter this command at the TACL prompt:

```
PARAM EASYSETUP^EMSVOL $vol-name
```

where *vol-name* is the name of the volume on which Event Management Service (EMS) subvolume (ZSPIDEF) resides. This subvolume must contain the event definition files ZOSSTACL and ZEMSTACL. The default value for this param is \$SYSTEM. You are not required to have installed SPI definition files, but if the SPI definition files are not installed in the specified location, this utility will not generate EMS events. For more information about this param and about enabling EMS event logging, see [Table 3 \(page 15\)](#).

4. If you want OSSSETUP to start \$NULL, \$ZSMP, or both \$NULL and \$ZSMP as generic processes, enter one of these commands at the TACL prompt:

- PARAM EASYSETUP^STARTUP \$NULL
- PARAM EASYSETUP^STARTUP \$ZSMP
- PARAM EASYSETUP^STARTUP "\$ZSMP \$NULL"

For more information about this param, see [Table 3 \(page 15\)](#).

5. Beginning with the J06.16 and H06.27 RVUs, if you have installed the TCP/IP configuration files in a subvolume other than the default \$SYSTEM.ZTCPIP, enter this command at the TACL prompt:

```
PARAM EASYSETUP^TCPIP^SUBVOL $vol-name.subvol-name
```

Where *\$vol-name.subvol-name* is the name of the subvolume in which the TCP/IP configuration files reside. For more details about this param and setting up symbolic links, see ["Overview" \(page 20\)](#).

6. Enter this command at the TACL prompt:

```
[RUN] OSSSETUP DEFAULTS
```

OSSSETUP installs and configures the OSS subsystem, displaying appropriate status messages.

7. See ["After OSSSETUP Completes" \(page 33\)](#).

Examples

- To configure and start both \$ZSMP and \$NULL when initially configuring and starting OSS, enter:

```
TACL> param EASYSETUP^STARTUP "$ZSMP $NULL"
```

- To start only \$NULL when starting OSS, enter:

```
TACL> param EASYSETUP^STARTUP $NULL
```

If you use EASYSETUP^STARTUP param and \$ZSMP and \$NULL is set, the display is as shown in [Example 5 \(page 25\)](#). If only \$ZSMP is set, \$ZSMP, but not \$NULL, is shown on the display. If only \$NULL is set, \$NULL, but not \$ZSMP, is shown on the display.

Example 5 Subsystem Settings Table: Servers, Subsystem Processes, and Other Information Using EASYSETUP^STARTUP param Set With \$NULL and \$ZSMP

```
                OSS CONFIGURATION SUMMARY
                Subsystem Settings for \NODE1
                Servers, Subsystem Processes and other Information

Process      Subsystem/Server      Processors (-1 = N/A)
$ZPMON      *OSS Monitor          System load processor
$ZSMP      *Security Manager     0      1
$NULL      *NULL Monitor        0      1
$ZLSxx     *Local Servers       One configured for each processor
$ZMSGQ     Message Queue Server  2      3
$ZPNS     ROOT's Name Server   0      1
$ZPNH     HOME's Name Server  -1     -1
$ZTAXx    *Transport Agents   One configured for each processor
```

Processes with asterisks (*) cannot be modified using this utility.

```
Active      0<--CPU Status-->15      TSV Archive location: $SYSTEM.ZOSSUTL
Processors: 1111,0000,0000,0000
```

Example 6 Subsystem Settings Table: Servers, Subsystem Processes, and Other Information Without Using EASYSETUP^STARTUP param

```
                OSS CONFIGURATION SUMMARY
                Subsystem Settings for \NODE1
                Servers, Subsystem Processes and other Information

Process      Subsystem/Server      Processors (-1 = N/A)
$ZPMON      *OSS Monitor          System load processor
$ZSMP      *Security Manager     Not required
$NULL      *NULL Monitor        Not required
$ZLSxx     *Local Servers       One configured for each processor
$ZMSGQ     Message Queue Server  2      3
$ZPNS     ROOT's Name Server   0      1
$ZPNH     HOME's Name Server  -1     -1
$ZTAXx    *Transport Agents   One configured for each processor
```

Processes with asterisks (*) cannot be modified using this utility.

```
Active      0<--CPU Status-->15      TSV Archive location: $SYSTEM.ZOSSUTL
Processors: 1111,0000,0000,0000
```

Running in Interactive Mode

To run OSSSETUP in interactive mode:

NOTE: The example in this procedure shows the prompts and tables that OSSSETUP displays but not the status messages. [Example 8 \(page 29\)](#) shows an interactive-mode OSSSETUP session with status messages.

1. If you want to specify a volume other than \$SYSTEM for the ZOSSUTL subvolume, enter this command at a TAFL prompt:

```
PARAM EASYSETUP^UTILVOL $vol-name
```

where *vol-name* is the name of the volume on which the OSS installation subvolume resides. For more information about this param, see [Table 3 \(page 15\)](#).
2. If you have installed the SPI definition files on a volume other than \$SYSTEM, enter this command at the TAFL prompt:

```
PARAM EASYSETUP^EMSVOL $vol-name
```

where *vol-name* is the name of the volume on which Event Management Service (EMS) subvolume (ZSPIDEF) resides. This subvolume must contain the event definition files ZOSSTACL and ZEMSTACL. The default value for this param is \$SYSTEM. You are not required to have installed SPI definition files, but if the SPI definition files are not installed in the specified location, this utility will not generate EMS events. For more information about this param and about enabling EMS event logging, see [Table 3 \(page 15\)](#).

3. If you want OSSSETUP to start \$NULL, \$ZSMP, or both \$NULL and \$ZSMP as generic processes, enter one of these commands at the TACL prompt:

- PARAM EASYSETUP^STARTUP \$NULL
- PARAM EASYSETUP^STARTUP \$ZSMP
- PARAM EASYSETUP^STARTUP "\$ZSMP NULL"

For more information about this param, see [Table 3 \(page 15\)](#).

4. Beginning with the J06.16 and H06.27 RVUs, if you have installed the TCP/IP configuration files in a subvolume other than the default \$SYSTEM.ZTCPIP, enter this command at the TACL prompt:

```
PARAM EASYSETUP^TCPIP^SUBVOL $vol-name.subvol-name
```

Where *\$vol-name.subvol-name* is the name of the subvolume in which the TCP/IP configuration files reside. For more details about this param and setting up symbolic links, see ["Overview" \(page 20\)](#).

5. Enter this command:

```
[RUN] OSSSETUP
```

6. OSSSETUP responds with its start-up message and the following prompt:

```
Do you want to configure an independent name
server ($ZPNH) for the HOME fileset? Choosing "No" will
configure all filesets using only the primary name
server ($ZPNS). <[YES]/no>:
```

Respond either Yes or No (case is ignored) or by pressing Return (which is equivalent to responding Yes). If unsure, respond Yes.

7. If you use EASYSETUP^STARTUP param and \$ZSMP, \$NULL, or both \$ZSMP and \$NULL is set, the display is as shown in [Example 5 \(page 25\)](#) and the following prompt is displayed:

```
Do you want to configure the OSS subsystem processes
with the above recommendations? <yes/[NO]>:
```

If you respond Yes, all OSS subsystem processes in the display are configured as shown. If you respond No, subsequent prompts allow you to change the configuration of the processes that are not marked with an asterisk (*).

Respond either Yes or No (case is ignored) or by pressing Return (which is equivalent to responding No). If unsure, respond No.

8. If you responded Yes in [Step 6](#), go to [Step 13](#).

9. If you responded No in [Step 6](#), OSSSETUP displays this prompt:

```
In which pair of processors would you like the message queue
server ($ZMSGQ) to execute? [2 3]:
```

Either enter two different processor numbers separated by a space or press Return to accept the default processor numbers, shown in the brackets []. The first processor number (for the primary processor) must be an integer in the range 0 through 15. The second processor number (for the backup processor) must be an integer in the range -1 through 15. At least one of these processors must be active. Assigning the value -1 to the second processor tells the system not to configure a backup processor.

10. OSSSETUP displays this prompt:

In which pair of processors would you like the primary name server (\$ZPNS) to execute? [0 1]:

Either enter two different processor numbers separated by a space or press Return to accept the default processor numbers, shown in the brackets []. The first processor number (for the primary processor) must be an integer in the range 0 through 15. The second processor number (for the backup processor) must be an integer in the range -1 through 15. At least one of these processors must be active. Assigning the value -1 to the second processor tells the system not to configure a backup processor.

11. If you responded No in [Step 5](#), go to [Step 12](#).
12. If you responded Yes in [Step 5](#), OSSSETUP displays this prompt:

In which pair of processors would you like the HOME fileset name server (\$ZPNH) to execute? [2 3]:

Either enter two different processor numbers separated by a space or press Return to accept the default processor numbers, shown in the brackets []. The first processor number (for the primary processor) must be an integer in the range 0 through 15. The second processor number (for the backup processor) must be an integer in the range -1 through 15. At least one of these processors must be active. Assigning the value -1 to the second processor tells the system not to configure a backup processor.

13. OSSSETUP displays this prompt:

On which disk volume is the ZOSSUTL installation subvolume located? [\$SYSTEM]

If you used the EASYSETUP^UTILVOL param and have specified a valid disk volume name, the specified volume name is displayed instead of \$SYSTEM.

Enter the name of the volume where the ZOSSUTL subvolume is located.

14. OSSSETUP displays status messages (similar to those shown in [Example 8 \(page 29\)](#)) and a table like the one shown in [Example 7](#).

Example 7 Subsystem Settings Table: Filesets, Mount Points, and Associated Name Servers

```

                                OSS CONFIGURATION SUMMARY
                                Subsystem Settings for \NODE1
                                Filesets, Mount Points and Associated Name Servers
Fileset  Name    Catalog  Mount    Pool Space Volume(s)
ROOT    $ZPNS  $WORK    /        $WORK    $OSS      $KAOSR20  $KAOSR17
                                $G0608    $G0607    $G0606    $G0501
                                $BOAT     $AUDIT2   $AUDIT1
HOME    $ZPNH  $OSS     /home    $WORK    $OSS      $KAOSR20  $KAOSR17
                                $G0608    $G0607    $G0606    $G0501
                                $BOAT     $AUDIT2   $AUDIT1
TEMP    $ZPNS  $KAOSR20 /tmp     $KAOSR20
$ZZSTO.INTERNAL-DISK profile setting for OSSCaching: ON

```

Do you want to configure the OSS filesets as shown above? <yes/[NO]>:

Respond either Yes or No (case is ignored) or by pressing Return (which is equivalent to responding No). If unsure, respond No.

This step creates storage-pool files that define the creation pools for filesets. The storage-pool files are created in the OSS Monitor database subvolume \$SYSTEM.ZXOSSMON.

15. If you responded Yes in [Step 13](#), go to [Step 16](#).
16. If you responded No in [Step 13](#), OSSSETUP displays this prompt:

The catalog files to maintain and manage the ROOT fileset reside on a single disk volume. Better performance generally

results if a fileset's catalog volume is not a member of the fileset's pool space. Enter a disk volume. [\$WORK]:

Enter the name of a disk volume.

17. OSSSETUP displays a table like the one shown in [Example 7](#) followed by this prompt:

```
The $SYSTEM.ZXOSSMON.HOMEPOOL file is used for the HOME
fileset creation pool volume list. This file can store up to
nineteen disk volumes used to store OSS regular files (disk
files). Better performance generally results if a fileset's
catalog volume is not a member of the fileset's pool space.
Enter a space-separated list of disk volume(s). [$WORK
$OSS $KAOSR20 $KAOSR17 $G0608 $G0607 $G0606 $G0501 $BOAT $AUDIT2
$AUDIT1]:
```

Enter from 1 through 19 disk volume names, separated by spaces.

18. OSSSETUP displays a table like the one shown in [Example 7 \(page 27\)](#) followed by this prompt:

```
The catalog files to maintain and manage the HOME fileset
reside on a single disk volume. Better performance generally
results if a fileset's catalog volume is not a member of the
fileset's storage pool space. Enter a disk volume. [$OSS]:
```

Enter the name of a disk volume.

19. OSSSETUP displays a table like the one shown in [Example 7 \(page 27\)](#) followed by this prompt:

```
The $SYSTEM.ZXOSSMON.HOMEPOOL file is used for the HOME
fileset creation pool volume list. This file can store up to
nineteen disk volumes used to store OSS regular files (disk
files). Better performance generally results if a fileset's
catalog volume is not a member of the fileset's pool space.
Enter a space-separated list of disk volume(s).
[$WORK $OSS $KAOSR20 $KAOSR17 $G0608 $G0607 $G0606 $G0501
$BOAT $AUDIT2 $AUDIT1]:
```

Enter from 1 through 19 disk volume names, separated by spaces.

20. OSSSETUP displays a table like the one shown in [Example 7 \(page 27\)](#) followed by this prompt:

```
The catalog files to maintain and manage the TEMP fileset
reside on a single disk volume. In addition to the catalog
files, the $SYSTEM.ZXOSSMON.TEMPPPOOL file will also use the
same volume for the creation pool volume. Enter a single disk
volume. [$KAOSR20]:
```

Enter the name of a disk volume.

21. OSSSETUP installs and configures the OSS subsystem.

If EASYSETUP^STARTUP param is set with \$NULL and \$ZSMP, the display is as shown in [Example 8 \(page 29\)](#). This shows an interactive-mode OSSSETUP session, including the prompts, tables, and status messages. User input is shown in bold.

22. See ["After OSSSETUP Completes" \(page 33\)](#).

Example 8 Interactive-Mode OSSSETUP Session

```
TACL> param EASYSETUP^STARTUP "$ZSMP $NULL"  
TACL> param EASYSETUP^TCPIP^SUBVOL $ALTSYS.TCPLOC
```

```
TACL> osssetup
```

```
OSSSETUP - T0585H01 (01DEC2008) - December 9, 2008 15:49:05 System \NODE1  
(C)2002 Compaq (C)2003, 2004 Hewlett-Packard Development Company, L.P.
```

```
Installation of the OSS subsystem on \NODE1: STARTING
```

```
Do you want to configure an independent name server  
($ZPNH) for the HOME fileset? Choosing "No" will  
configure all filesets using only the primary name  
server ($ZPNS). <[YES]/no>:no
```

```
                OSS CONFIGURATION SUMMARY  
                Subsystem Settings for \NODE1  
                Servers, Subsystem Processes and other Information
```

Process	Subsystem/Server	Processors (-1 = N/A)
\$ZPMON	*OSS Monitor	System load processor
\$ZSMP	*Security Manager	0 1
\$NULL	*NULL Monitor	0 1
\$ZLSxx	*Local Servers	One configured for each processor
\$ZMSGQ	Message Queue Server	2 3
\$ZPNS	ROOT's Name Server	0 1
\$ZPNH	HOME's Name Server	-1 -1
\$ZTAXx	*Transport Agents	One configured for each processor

```
Processes with asterisks (*) cannot be modified using this utility.
```

```
Active      0<--CPU Status-->15      TSV Archive location: $SYSTEM.ZOSSUTL  
Processors: 1111,0000,0000,0000
```

```
Do you want to configure the OSS subsystem processes with the  
above recommendations? <yes/[NO]>: yes
```

```
SCF-> ASSUME PROCESS $ZZKRN
```

```
Security manager process defined as an NSK generic process: STARTING
```

```
SCF-> ADD PROCESS #ZSMP, PRIMARYCPU 0, BACKUPCPU 1, HOMETERM $ZHOME,  
PROGRAM $SYSTEM.SYSTEM.OSMP, NAME $ZSMP, STARTMODE KERNEL,  
AUTORESTART 0, STARTUPMSG "<BCKP-CPU>"
```

```
Security manager process defined as an NSK generic process: COMPLETED
```

```
NULL process defined as an NSK generic process: STARTING
```

```
SCF-> ADD PROCESS #NULL, PRIMARYCPU 0, BACKUPCPU 1, HOMETERM $ZHOME,  
PROGRAM $SYSTEM.SYSTEM.NULL, NAME $NULL, STARTMODE KERNEL,  
AUTORESTART 0, STARTUPMSG "<BCKP-CPU>"
```

```
NULL process defined as an NSK generic process: COMPLETED
```

```
OSS monitor process defined as an NSK generic process: STARTING
```

```
SCF-> ADD PROCESS #ZPMON, PROGRAM $SYSTEM.SYSTEM.OSSMON, NAME $ZPMON,  
HOMETERM $ZHOME, STARTMODE SYSTEM, AUTORESTART 5, CPU FIRST
```

```
OSS monitor process defined as an NSK generic process: COMPLETED
```

```
security manager process ($ZSMP) startup: STARTING
```

```
SCF-> START PROCESS $ZZKRN.#ZSMP
```

```
security manager process ($ZSMP) startup: COMPLETED
```

```
NULL process ($NULL) startup: STARTING
```

```
SCF-> START PROCESS $ZZKRN.#NULL
```

```
NULL process ($NULL) startup: COMPLETED
```

OSS monitor process (\$ZPMON) startup: STARTING

SCF-> START PROCESS \$ZZKRN.#ZPMON

OSS monitor process (\$ZPMON) startup: COMPLETED

Configuration of OSS servers: STARTING

SCF-> ASSUME PROCESS \$ZPMON

SCF-> ALTER SERVER #ZMSGQ, CPU 2, BACKUPCPU 3

SCF-> ALTER SERVER #ZPNS, CPU 0, BACKUPCPU 1

Configuration of OSS servers: COMPLETED

OSS CONFIGURATION SUMMARY
Subsystem Settings for \NODE1
Filesets, Mount Points and Associated Name Servers

Fileset	Name	Catalog	Mount	Pool	Space	Volume(s)	
ROOT	\$ZPNS	\$WORK	/	\$WORK	\$OSS	\$KAOSR20	\$KAOSR17
				\$G0608	\$G0607	\$G0606	\$G0501
				\$BOAT	\$AUDIT2	\$AUDIT1	
HOME	\$ZPNS	\$OSS	/home	\$WORK	\$OSS	\$KAOSR20	\$KAOSR17
				\$G0608	\$G0607	\$G0606	\$G0501
				\$BOAT	\$AUDIT2	\$AUDIT1	
TEMP	\$ZPNS	\$KAOSR20	/tmp	\$KAOSR20			

\$ZZSTO.INTERNAL-DISK profile setting for OSSCaching: ON

Do you want to configure the OSS filesets as shown above? <yes/[NO]>: **yes**

Configuration of the ROOT fileset: STARTING

SCF-> ALTER DISK \$WORK, OSSCaching ON

SCF-> ALTER DISK \$OSS, OSSCaching ON

SCF-> ASSUME PROCESS \$ZPMON

SCF-> ALTER FILESET ROOT, CATALOG \$WORK, BUFFERED LOG, POOL ROOTPOOL

Configuration of the ROOT fileset: COMPLETED

Startup of the ROOT fileset: STARTING

SCF-> START FILESET \$ZPMON.ROOT

Startup of the ROOT fileset: COMPLETED

Installation of OSS archive files from \$SYSTEM.ZOSSUTL: STARTING

TACL> \$SYSTEM.ZOSSUTL.COPYOSS \$SYSTEM.ZOSSUTL

/bin/chmod 777 /bin/replace

/bin/replace

/bin/rm -f /bin/replace

Installation of OSS archive files from \$SYSTEM.ZOSSUTL: COMPLETED

Configuration of the HOME fileset: STARTING

/bin/mkdir /home

SCF-> ADD FILESET HOME, CATALOG \$OSS, NAMESERVER #ZPNS, BUFFERED LOG, POOL HOME POOL, MNTPOINT "/home"

Configuration of the HOME fileset: COMPLETED

Configuration of the TEMP fileset: STARTING

SCF-> ADD FILESET TEMP, CATALOG \$KAOSR20, BUFFERED CREATE, POOL TEMPPPOOL, MNTPO INT "/tmp"

Configuration of the TEMP fileset: COMPLETED

Startup of servers and filesets managed by the OSS monitor: STARTING

SCF-> ASSUME PROCESS \$ZPMON

SCF-> START SERVER #ZMSGQ

SCF-> START FILESET HOME

SCF-> START FILESET TEMP

Startup of servers and filesets managed by the OSS monitor: COMPLETED

Creation of the /etc/profile file: STARTING
/bin/cp /etc/profile.sample /etc/profile
Creation of the /etc/profile file: COMPLETED

OSS merge_what is execution: STARTING
/bin/merge_what is
OSS merge_what is execution: COMPLETED

NOTICE - TCP/IP installation location is \$ALTSYS.TCPLOC.
Creation of symbolic links to TCP/IP configuration files: STARTING
Creation of symbolic links to TCP/IP configuration files: COMPLETED

OSS subsystem validation: STARTING
/bin/find / -WNOE -WNOG -type d -print > /tmp/oss.tree.17JAN2001.\NODE1
/bin/find / -WNOE -WNOG -type d -print > /G/SYSTEM/ZOSSINS/OSSTREEC
TACL> CT>Edit \$SYSTEM.ZOSSINS.OSSTREEC , \$SYSTEM.ZOSSINS.OSSTREE

OSS subsystem validation: COMPLETED

OSS CONFIGURATION SUMMARY
Subsystem Settings for \NODE1
Servers, Subsystem Processes and other Information

Process	Subsystem/Server	Processors (-1 = N/A)
\$ZPMON	*OSS Monitor	System load processor
\$ZSMP	*Security Manager	0 1
\$NULL	*NULL Monitor	0 1
\$ZLSxx	*Local Servers	One configured for each processor
\$ZMSGQ	Message Queue Server	2 3
\$ZPNS	ROOT's Name Server	0 1
\$ZPNH	HOME's Name Server	2 3
\$ZTAXx	*Transport Agents	One configured for each processor

Processes with asterisks (*) cannot be modified using this utility.
Active 0<--CPU Status-->15 TSV Archive location: \$SYSTEM.ZOSSUTL
Processors: 1111,0000,0000,0000

Filesets, Mount Points and Associated Name Servers

Fileset	Name	Catalog	Mount	Pool	Space	Volume(s)
ROOT	\$ZPNS	\$WORK	/	\$WORK	\$OSS	\$KAOSR20 \$KAOSR17
				\$G0608	\$G0607	\$G0606 \$G0501
				\$BOAT	\$AUDIT2	\$AUDIT1
				\$WORK	\$OSS	\$KAOSR20 \$KAOSR17
HOME	\$ZPNH	\$OSS	/home	\$G0608	\$G0607	\$G0606 \$G0501
				\$BOAT	\$AUDIT2	\$AUDIT1
				\$KAOSR20		
TEMP	\$ZPNS	\$KAOSR20	/tmp	\$KAOSR20		

\$ZZSTO.INTERNAL-DISK profile setting for OSSCaching: ON

Disk Volumes for Filesets

Potential subsystem volume(s): \$WORK \$OSS \$KAOSR20 \$KAOSR17
\$G0608 \$G0607 \$G0606 \$G0501 \$BOAT \$AUDIT2 \$AUDIT1

Potential subsystem volume(s) NOT in a started state: \$G0604

Recommended volumes not to use: \$SYSTEM \$DSMSCM

Volumes that CANNOT be used: \$TAPE1 \$TAPE0 \$SEETHU \$Z4Y4

NOTICE - Additional steps to consider now that this utility has completed:

- Consider altering the default FsckCPU and Report settings values. Use 'SCF INFO SUBSYS \$ZPMON' to find the current default values and refer to the OSS Management and Operations Guide to alter these settings.
- Consider creating the system's default /etc/printcap file for the lp, lpstat and cancel commands. Refer to the /etc/printcap.sample file and to the OSS Management and Operations Guide.
- Consider using the merge_what is utility for the what is and apropos commands. Use '/bin/find / -WNOE -WNOG -name cat[1-8]' to locate additional merge_what is database files and refer to the OSS Management and Operations Guide.
- Consider OSS sockets support. Refer to the OSS Management and Operations Guide.
- Consider using the inetd utility by configuring the inetd.conf file and refer to the OSS Management and Operations Guide.
- Consider installing other products by referring to the appropriate manual.
- Consider creating an initial working directory for each user accessing the OSS environment. Also consider creating a user's printcap and user's profile (.profile) file. Refer to the OSS Management and Operations Guide.
- Consider setting the security on directories, such as the /tmp, /usr/tmp and /var/tmp directories. Refer to the OSS Management and Operations Guide.

Installation of the OSS subsystem on \NODE1: COMPLETED

For execution results, review the \$SYSTEM.ZOSSINS.OSSJOURN file.
OSSSETUP finished.

NOTE: In “Interactive-Mode OSSSETUP Session” (above), the EASYSETUP^TCPIP^SUBVOL param is used to specify a location other than \$SYSTEM.ZTCPIP to create symbolic links to TCP/IP configuration files. This feature is available beginning with the T0585H01^AAF SPR, present in the J06.16 and H06.27 RVUs. See “Overview” (page 20) for details.

After OSSSETUP Completes

1. Finish configuring the OSS environment as described in “Completing a Preconfigured Basic OSS Environment” in “Manually Setting Up an OSS Environment” in the *Open System Services Management and Operations Guide*. These tasks include:
 - Starting an OSS shell
 - Customizing the general profile (`/etc/profile`) file
 - Configuring and starting network services such as TCP/IP and `inetd`
 - Configuring and starting the `cron` process
 - Securing the fileset mount points (`/bin`, `/etc`, `/var`, `/tmp`, and `/home`) to ensure that they have security permissions consistent with your site’s security policies.
 - Updating the `whatis` database (`merge_whatis`) from additional directories, if any, for the OSS shell `apropos`, `man`, and `whatis` commands. The `OSSSETUP` utility automatically creates the `whatis` database from the `/usr/share/man` directory; however, you can update the `whatis` database from other directories.
 - Setting up printers
 - Configuring OSS users
2. Install OSS files for products that use OSS but do not use the `ZOSSUTL` subvolume to install their OSS product files. For example, both HP NonStop Distributed Computing Environment (DCE) and NonStop SQL/MX use the `pax` utility to copy a file from a Guardian subvolume into the OSS file system and then use the copied file to install more files for the product. (For instructions, see the manuals for those products.)
3. (Optional) Customize your configuration; for example, enable Safeguard auditing of OSS files. (For instructions, see the *Open System Services Management and Operations Guide*.)

3 OSSREMOV Utility

The OSSREMOV utility removes the components of an OSS subsystem; that is, it removes the server processes and filesets that the OSS Monitor (\$ZPMON) manages. OSSREMOV does not remove the INITIAL-DIRECTORY settings for the users, which the security manager (\$ZSMP) manages.

Usage Considerations:

- HP recommends that you log on with the super ID to run OSSREMOV.
- The OSSREMOV utility, the files it accesses, and the processes it stops must be appropriately secured for access by users other than the super ID, according to your site's security guidelines. See "Licensing the OSS Monitor to the Super Group" in the *Open System Services Management and Operations Guide* for a possible approach.
- OSSREMOV is on the installation subvolume ZOSSIPNS. You must run OSSREMOV from ZOSSIPNS. You cannot use this command from a remote Expand node.
- The OSSREMOV utility should be used when the OSSSETUP utility does not complete a successful configuration.
- The OSSREMOV utility does not back up any files from the OSS file system before removing filesets.
- The OSSREMOV utility removes all OSS files and all fileset catalogs. As a result, it also removes any directories or files kept in the OSS file system by products such as NonStop SQL/MX or iTP WebServer.
- The OSSREMOV utility prompts you to determine whether it should remove the security manager server process \$ZSMP and the \$NULL process. These processes are often required by other products and usually should be allowed to continue running. OSSREMOV uses the Safeguard SAFECOM program to stop \$ZSMP to ensure that \$ZSMP does not restart itself. If your site has not licensed Safeguard, either do not use OSSREMOV or respond "no" to its prompt about stopping \$ZSMP.

If you used OSSSETUP to configure \$ZSMP or you manually configured \$ZSMP as a generic process using the recommended values defined in "Starting the OSS Monitor as a Persistent Process" in the *Open System Services Management and Operations Guide*, \$ZSMP will not restart itself because its AUTORESTART value is 0. If \$ZSMP does not have an AUTORESTART value of 0, use the SCF ABORT command and then the SAFECOM STOP command to permanently stop \$ZSMP.

- The OSSREMOV utility skips the tasks for any portions of the OSS configuration that are no longer present to be removed and continues processing until all detectable portions have been removed.
- The OSSREMOV utility does not remove users or user attributes such as INITIAL-DIRECTORY from the security database.
- The OSSREMOV utility does not restore storage subsystem OSSCACHING settings for disk volumes used in storage pools to their values before OSSSETUP was run. Modified values are retained unless you subsequently restore them manually. You can determine which settings were changed by OSSSETUP from the OSSJOURN file.

Status and Error Messages

The status messages that OSSREMOV displays are described in [Appendix B \(page 46\)](#).

The error messages that OSSREMOV displays are described in [Appendix C \(page 49\)](#).

Running OSSREMOV

To use OSSREMOV:

NOTE: The examples in this procedure show the prompts that OSSREMOV displays but not the status messages. [Example 9 \(page 37\)](#) shows an OSSREMOV session with status messages.

1. Find any executing OSS processes by entering this command at the OSS shell prompt:

```
ps -ea
```

If any OSS processes are executing, stop them. (For instructions, see the *Open System Services Management and Operations Guide*.)

2. Ensure that the INITIAL-DIRECTORY settings for all users have been removed. (For instructions, see the *Safeguard Reference Manual*.)

If not all users' INITIAL-DIRECTORY settings have been removed, and you tell OSSREMOV to remove the security manager (\$ZSMP), then you must do the following after you run OSSREMOV:

- a. Restart \$ZSMP manually.
 - b. Remove all users' INITIAL-DIRECTORY settings.
3. Remove any OSS files that contain SQL/MP code (and the corresponding SQL/MP catalog entry).
 4. If you have installed the SPI definition files on a volume other than \$SYSTEM, enter this command at the TACL prompt:

```
PARAM EASYSETUP^EMSVOL $vol-name
```

where *vol-name* is the name of the volume on which Event Management Service (EMS) subvolume (ZSPIDEF) resides. This subvolume must contain the event definition files ZOSSTACL and ZEMSTACL. The default value for this param is \$SYSTEM. You are not required to have installed SPI definition files, but if the SPI definition files are not installed in the specified location, this utility will not generate EMS events. For more information about this param and about enabling EMS event logging, see [Table 3 \(page 15\)](#).

5. If you want OSSREMOV to remove the \$NULL, \$ZSMP, or both \$NULL and \$ZSMP processes, enter one of these commands at the TACL prompt:

- PARAM EASYSETUP^STARTUP \$NULL
- PARAM EASYSETUP^STARTUP \$ZSMP
- PARAM EASYSETUP^STARTUP "\$ZSMP \$NULL"

For more information about this param, see [Table 3 \(page 15\)](#).

6. Enter this command at a TACL prompt:

```
[RUN] OSSREMOV
```

7. OSSREMOV displays its start-up message, a warning message, and a prompt similar to this:

```
OSSREMOV - T0585H01 (01DEC2008) - December 10, 2008 17:47:05 System \NODE1  
(C)2002 Compaq (C)2003, 2004 Hewlett-Packard Development Company, L.P.
```

```
Removal of the OSS subsystem on \NODE1: STARTING
```

```
*****  
WARNING -- You are about to remove OSS from this system. This  
entails removing ALL OSS data files on this system. This may  
have grave consequences. Make sure no users are using the OSS  
environment and all OSS applications have been terminated.  
Executing this utility is similar to issuing the follow NSK or  
OSS command, respectively:
```

```
TACL> FUP PURGE $*.*.*  
OSS> /bin/rm -fr /
```

```
ARE YOU SURE YOU WANT TO CONTINUE WITH THIS ACTION?
```

```
*****
```

Continue? <yes/[NO]>:

Respond either Yes or No (case is ignored) or by pressing Return (which is equivalent to responding No). If unsure, respond No.

8. If you responded No, OSSREMOV terminates. If you responded Yes, OSSREMOV displays this prompt:

Confirm? <yes/[NO]>:

Respond either Yes or No (case is ignored) or by pressing Return (which is equivalent to responding No). If unsure, respond No.

9. If you respond No, OSSREMOV terminates. If you respond Yes, OSSREMOV may display this prompt:

Do you want the NULL process (\$NULL) completely removed? <yes/[NO]>:

- △ CAUTION:** It is no longer required to start \$NULL before starting the OSS Monitor; however, many applications use \$NULL, and they might not work correctly if OSSREMOV removes it.

Respond either Yes or No (case is ignored) or by pressing Return (which is equivalent to responding No). If unsure, respond No.

10. OSSREMOV may display this prompt:

Do you want the security manager process (\$ZSMP) completely removed? <yes/[NO]>:

- △ CAUTION:** It is no longer required to start \$ZSMP before starting the OSS Monitor; however, Safeguard uses \$ZSMP. If your system uses Safeguard and OSSREMOV removes \$ZSMP, you will have difficulty accessing Guardian files.

Respond either Yes or No (case is ignored) or by pressing Return (which is equivalent to responding No). If unsure, respond No.

If either \$ZSMP or \$NULL is missing and the EASYSETUP^STARTUP param is set, then OSSREMOV will start that missing process.

```
Process missing. security manager process ($ZSMP) startup: STARTING
SCF-> START PROCESS $ZZKRN.#ZSMP
security manager process ($ZSMP) startup: COMPLETED
```

If OSSREMOV starts \$ZSMP, OSSREMOV will stop \$ZSMP before OSSREMOV itself stops.

OSSREMOV removes the OSS subsystem.

Example 9 (page 37) shows an OSSREMOV session, including the prompts and status messages. User input is shown in bold.

Example 9 OSSREMOV Session

```
$$SYSTEM ZOSSINS 24> ossremov
```

```
OSSREMOV - T0585H01 (01DEC2008) - December 10, 2008 15:45:05 System \NODE1  
(C)2002 Compaq (C)2003, 2004 Hewlett-Packard Development Company, L.P.
```

```
Removal of the OSS subsystem on \NODE1: STARTING
```

```
*****  
WARNING -- You are about to remove OSS from this system. This  
entails removing ALL OSS data files on this system. This may  
have grave consequences. Make sure no users are using the OSS  
environment and all OSS applications have been terminated.  
Executing this utility is similar to issuing the follow NSK or  
OSS command, respectively:
```

```
TACL> FUP PURGE $*.*.*  
OSS> /bin/rm -fr /
```

```
ARE YOU SURE YOU WANT TO CONTINUE WITH THIS ACTION?
```

```
*****
```

```
Continue? <yes/[NO]>: yes
```

```
Confirm? <yes/[NO]>: yes
```

```
Do you want the NULL process ($NULL) completely removed? <yes/[NO]>: yes
```

```
Do you want the security process ($ZSMP) completely removed? <yes/[NO]>: yes
```

```
Shutdown of all OSS servers and filesets: STARTING
```

```
SCF-> STOP FILESET $ZPMON.*  
SCF-> STOP SERVER $ZPMON.#ZMSGQ  
Shutdown of all OSS : COMPLETED
```

```
Removal of all filesets: STARTING
```

```
TACL> FSCK PURGE CATALOG $WORK.ZX000000  
TACL> FSCK PURGE CATALOG $OSS.ZX000001  
TACL> FSCK PURGE CATALOG $KAOSR20.ZX000002
```

```
Removal of all filesets: COMPLETED
```

```
Shutdown of the OSS monitor process ($ZPMON): STARTING
```

```
SCF-> ABORT PROCESS $ZZKRN.#ZPMON
```

```
Shutdown of the OSS monitor process ($ZPMON): COMPLETED
```

```
Removal of the OSS monitor process ($ZPMON) as a generic process: STARTING
```

```
SCF-> DELETE PROCESS $ZZKRN.#ZPMON
```

```
Removal of the OSS monitor process ($ZPMON) as a generic process: COMPLETED
```

```
Shutdown of the NULL process ($NULL): STARTING
```

```
SCF-> ABORT PROCESS $ZZKRN.#NULL
```

```
Shutdown of the NULL process ($NULL): COMPLETED
```

```
Removal of the NULL process ($NULL) as a generic process: STARTING
```

```
SCF-> DELETE PROCESS $ZZKRN.#NULL
```

```
Removal of the NULL process ($NULL) as a generic process: COMPLETED
```

```
Shutdown of the security manager process ($ZSMP): STARTING
```

```
SCF-> ABORT PROCESS $ZZKRN.#ZSMP
```

```
TACL> SAFECOM STOP
```

```
Shutdown of the security manager process ($ZSMP): COMPLETED
```

```
Removal of the security manager process ($ZSMP) as a generic process: STARTING
```

```
SCF-> DELETE PROCESS $ZZKRN.#ZSMP
```

```
Removal of the security manager process ($ZSMP) as a generic process: COMPLETED
```

```
Removal of all OSS configuration database files: STARTING
```

```
TACL> FUP PURGE $$SYSTEM.ZXOSSMON.ZOSS* !  
TACL> FUP PURGE $$SYSTEM.ZXOSSMON.ROOTPOOL !  
TACL> FUP PURGE $$SYSTEM.ZXOSSMON.HOMEPOOL !
```

```
TACL> FUP PURGE $SYSTEM.ZXOSSMON.TEMPPool !  
Removal of all OSS configuration database files: COMPLETED
```

```
Validation that the OSS subsystem is removed: STARTING  
Validation that the OSS subsystem is removed: COMPLETED
```

```
Removal of the OSS subsystem on \NODE1: COMPLETED  
OSSREMOV finished.
```

4 STARTOSS Utility

The STARTOSS utility starts the OSS processes, servers, and filesets named in the OSSINFIL file. If the OSSINFIL file does not exist, STARTOSS creates it by copying the OSSINF file (for a description of the OSSINF file, see [Table 2 \(page 14\)](#)).

STARTOSS is intended for use after a system load or after the STOPOSS utility has been used.

Usage Considerations:

- HP recommends that you log on with a user ID in the SUPER group ID to run STARTOSS.
- The STARTOSS utility, the files it accesses, and the processes it stops must be appropriately secured for access by users other than the super ID, according to your site's security guidelines. See "Licensing the OSS Monitor to the Super Group" in the *Open System Services Management and Operations Guide* for a possible approach.
- STARTOSS is on the installation subvolume ZOSSIPNS. You must run STARTOSS from ZOSSIPNS. You cannot use this command from a remote Expand node.
- The OSS Monitor does not use the \$NULL process or require the \$ZSMP process for its own startup. However, not starting \$NULL or \$ZSMP could affect the functioning of other products or subsystems.
- Fileset mount points should be checked after all filesets are started to ensure that they have security permissions consistent with your site's security policies. The OSS shell `chmod` command can be used to modify permissions as necessary.
- You can embed the STARTOSS command in a system startup file as follows:

```
== Start the OSS subsystem, filesets, and servers:
#Push #Defaults
Volume $SYSTEM.ZOSSIPNS
Run STARTOSS
#Pop #Defaults
```

The keyword Run is optional, but it is required if #PMSEARCHLIST does not include #DEFAULTS.

Running STARTOSS

1. If you have installed the SPI definition files on a volume other than \$SYSTEM, enter this command at the TACL prompt:

```
PARAM EASYSETUP^EMSVOL $vol-name
```

where *vol-name* is the name of the volume on which Event Management Service (EMS) subvolume (ZSPIDEF) resides. This subvolume must contain the event definition files ZOSSTACL and ZEMSTACL. The default value for this param is \$SYSTEM. You are not required to have installed SPI definition files, but if the SPI definition files are not installed in the specified location, this utility will not generate EMS events. For more information about this param and about enabling EMS event logging, see [Table 3 \(page 15\)](#).
2. If you want STARTOSS to start the \$NULL, \$ZSMP, or both \$NULL and \$ZSMP processes, enter one of these commands at the TACL prompt:
 - ```
PARAM EASYSETUP^STARTUP $NULL
```
  - ```
PARAM EASYSETUP^STARTUP $ZSMP
```
 - ```
PARAM EASYSETUP^STARTUP "$ZSMP $NULL"
```For more information about this param, see [Table 3 \(page 15\)](#).
3. Run STARTOSS by entering this command at a TACL prompt:  

```
[RUN] STARTOSS
```

If these processes are not running, STARTOSS starts them from TACL:

| Process             | Name             |
|---------------------|------------------|
| \$ZSMP <sup>1</sup> | Security manager |
| \$NULL <sup>1</sup> | NULL             |
| \$ZPMON             | OSS Monitor      |

<sup>1</sup> \$ZSMP and \$NULL are only started if the EASYSETUP^STARTUP param specifies that process.

If these processes and filesets specified by the OSSINFIL file are not running, STARTOSS starts them.

- \$ZMSGQ
- ROOT
- HOME
- TEMP

You can add files to the OSSINFIL file. For instructions, see the *Open System Services Management and Operations Guide*).

## Status and Error Messages

The status messages that STARTOSS displays are described in [Appendix B \(page 46\)](#).

The error messages that STARTOSS displays are described in [Appendix C \(page 49\)](#).

[Example 10](#) shows a STARTOSS session, including the status messages. User input is shown in bold.

### Example 10 STARTOSS Session

```
$SYSTEM ZOSSINS 36> startoss

STARTOSS - T0585H01 (01DEC2008) - December 9, 2008 16:46:05 System \NODE1
(C)2002 Compaq (C)2003, 2004 Hewlett-Packard Development Company, L.P.

Startup of the OSS subsystem on \NODE1: STARTING

Startup of servers and filesets managed by the OSS monitor: STARTING
SCF-> ASSUME PROCESS $ZPMON
TACL> FUP DUP $SYSTEM.ZOSSINS.OSSINF, $SYSTEM.ZOSSINS.OSSINFIL
SCF-> START SERVER #ZMSGQ
SCF-> START FILESET ROOT
SCF-> START FILESET HOME
SCF-> START FILESET TEMP
Startup of servers and filesets managed by the OSS monitor: COMPLETED

Startup of the OSS subsystem on \NODE1: COMPLETED
STARTOSS finished.
```



## 5 STOPOSS Utility

The STOPOSS utility stops the OSS filesets (but not the OSS processes).

Usage Considerations:

- HP recommends that you log on with a user ID in the SUPER group ID to run STOPOSS.
- The STOPOSS utility, the files it accesses, and the processes it stops must be appropriately secured for access by users other than the super ID, according to your site's security guidelines. See "Licensing the OSS Monitor to the Super Group" in the *Open System Services Management and Operations Guide* for a possible approach.
- STOPOSS is on the installation subvolume ZOSSIPNS. You must run STOPOSS from ZOSSIPNS.
- If \$ZSMP and/or \$NULL are specified in the EASYSETUP^STARTUP PARAM and are not running, or if \$ZPMON is not running when STOPOSS is run, STOPOSS starts the missing process so that it can complete its function, then stops the process again before completing. If you used OSSSETUP to configure \$ZSMP or you manually configured \$ZSMP as a generic process using the recommended values defined in "Starting the OSS Monitor as a Persistent Process" in the *Open System Services Management and Operations Guide*, \$ZSMP will not restart itself because its AUTORESTART value is 0. If \$ZSMP does not have an AUTORESTART value of 0, you must use the SCF ABORT command and then the SAFECOM STOP command to permanently stop \$ZSMP.
- The OSS Monitor does not use the \$NULL process or require the \$ZSMP process for its own startup. However, stopping \$NULL or \$ZSMP could affect the functioning of other products or subsystems.
- You can embed the STOPOSS command in a system shutdown file as follows:

```
== Stop the OSS subsystem, filesets, and servers:
#Push #Defaults
Volume $SYSTEM.ZOSSIPNS
Run STOPOSS
#Pop #Defaults
```

The keyword Run is optional, but it is required if #PMSEARCHLIST does not include #DEFAULTS.

### Running STOPOSS

To use STOPOSS:

1. If you have installed the SPI definition files on a volume other than \$SYSTEM, enter this command at the TAFL prompt:

```
PARAM EASYSETUP^EMSVOL vol-name
```

where *vol-name* is the name of the volume on which Event Management Service (EMS) subvolume (ZSPIDEF) resides. This subvolume must contain the event definition files ZOSSTACL and ZEMSTACL. The default value for this param is \$SYSTEM. You are not required to have installed SPI definition files, but if the SPI definition files are not installed in the specified location, this utility will not generate EMS events. For more information about this param and about enabling EMS event logging, see [Table 3 \(page 15\)](#).
2. If you want STOPOSS to stop the \$NULL, \$ZSMP, or both \$NULL and \$ZSMP processes, enter one of these commands at the TAFL prompt:
  - PARAM EASYSETUP^STARTUP \$NULL
  - PARAM EASYSETUP^STARTUP \$ZSMP
  - PARAM EASYSETUP^STARTUP "\$ZSMP \$NULL"For more information about this param, see [Table 3 \(page 15\)](#).

3. Run STOPOSS either by entering this command at a TACL prompt or by putting this command in the operating system's shutdown file:

```
[RUN] STOPOSS
```

If these processes are not running, STOPOSS starts them from TACL so that STOPOSS can complete its function, and then stops them again before completing:

| Process             | Name             |
|---------------------|------------------|
| \$ZSMP <sup>1</sup> | Security manager |
| \$NULL <sup>1</sup> | NULL             |
| \$ZPMON             | OSS Monitor      |

<sup>1</sup> \$ZSMP and \$NULL are only stopped if the EASYSETUP^STARTUP param specifies that process.

## Status and Error Messages

The status messages that STOPOSS displays are described in [Appendix B \(page 46\)](#)

The error messages that STOPOSS displays are described in [Appendix C \(page 49\)](#).

## Example STOPOSS Sessions

[Example 11 \(page 43\)](#) and [Example 12 \(page 43\)](#) show STOPOSS sessions, including the status messages. User input is shown in bold.

## Example 11 STOPOSS Session With EASYSETUP^STARTUP param Set With \$NULL and \$ZSMP

---

```
TACL> param EASYSETUP^STARTUP "$ZSMP $NULL"

TACL> stoposs

NOTICE - No EasySetup EMS events will be generated.

STOPOSS - T0585H01 (01DEC2008) - December 10, 2008 17:47:05 System \NODE1
(C)2002 Compaq (C)2003, 2004 Hewlett-Packard Development Company, L.P.

Shutdown of the OSS subsystem on \NODE1: STARTING

Process missing. security manager process ($ZSMP) startup: STARTING
TACL> OSM / NAME $ZSMP, NOWAIT, CPU 0, TERM $ZHOME/ 1
security manager process ($ZSMP) startup: COMPLETED

Process missing. NULL process ($NULL) startup: STARTING
TACL> NULL / NAME $NULL, NOWAIT, CPU 0, TERM $ZHOME, PRI 180 / 1
NULL process ($NULL) startup: COMPLETED

Shutdown of all OSS filesets: STARTING
SCF-> STOP FILESET $ZPMON.*
Shutdown of all OSS filesets: COMPLETED

Shutdown of the NULL process ($NULL): STARTING
TACL> STOP $NULL
Shutdown of the NULL process ($NULL): COMPLETED

Shutdown of the security manager process ($ZSMP): STARTING
TACL> SAFECOM STOP
Shutdown of the security manager process ($ZSMP): COMPLETED

Shutdown of the OSS subsystem on \NODE1: COMPLETED
STOPOSS finished
```

---

## Example 12 STOPOSS Session Without EASYSETUP^STARTUP param

---

```
TACL> param
EASYSETUP^STARTUP . $null $zsm.
TACL> clear param easysetup^startup
TACL> param

TACL> stoposs

NOTICE - No EasySetup EMS events will be generated.

STOPOSS - T0585H01 (01DEC2008) - December 10, 2008 17:47:05 System \NODE1
(C)2002 Compaq (C)2003, 2004 Hewlett-Packard Development Company, L.P.

Shutdown of the OSS subsystem on \NODE1: STARTING

Shutdown of all OSS filesets: STARTING
SCF-> STOP FILESET $ZPMON.*
Shutdown of all OSS filesets: COMPLETED

Shutdown of the OSS subsystem on \NODE1: COMPLETED
STOPOSS finished.
```

---

# A Default OSS Configurations

For more detailed information about the default configurations and preconfigured OSS environments, see the *OpenSystem Services Management and Operations Guide*.

| Default Configuration for              | DEFAULTS (Noninteractive) Mode | Interactive Mode  |
|----------------------------------------|--------------------------------|-------------------|
| OSS server processes                   | Table 4                        |                   |
| OSS name servers                       | Table 5                        | Table 6           |
| OSS fileset catalogs and storage pools | Table 7 (page 44)              | Table 8 (page 45) |

**Table 4 Default Configuration for OSS Server Processes**

| Server Process       | 1 Enclosure (2 Processors) |                  | 2 or More Enclosures (4-16 Processors) |                  |
|----------------------|----------------------------|------------------|----------------------------------------|------------------|
|                      | Primary Processor          | Backup Processor | Primary Processor                      | Backup Processor |
| \$ZPMON <sup>1</sup> | System load processor      | Not applicable   | System load processor                  | Not applicable   |
| \$ZSMP <sup>2</sup>  | 0                          | 1                | 0                                      | 1                |
| \$NULL <sup>2</sup>  | 0                          | 1                | 0                                      | 1                |
| \$ZMSGQ              | 1                          | 0                | 2                                      | 3                |

<sup>1</sup> Configured as a NonStop Kernel generic process

<sup>2</sup> \$NULL and \$ZSMP only configured if the EASYSETUP^STARTUP param is set with \$NULL, \$ZSMP or both before the OSSSETUP utility is executed

**Table 5 Default Configuration for OSS Name Servers (DEFAULTS Mode)**

| Name Server | Fileset Name     | Primary Processor | Backup Processor |
|-------------|------------------|-------------------|------------------|
| \$ZPNS      | ROOT, HOME, TEMP | 0                 | 1                |

**Table 6 Default Configuration for OSS Name Servers (Interactive Mode)**

| Name Server | Fileset Name | 1 Enclosure, (2 Processors) |                  | 2 or More Enclosures (4-16 Processors) |                  |
|-------------|--------------|-----------------------------|------------------|----------------------------------------|------------------|
|             |              | Primary Processor           | Backup Processor | Primary Processor                      | Backup Processor |
| \$ZPNS      | ROOT, TEMP   | 0                           | 1                | 0                                      | 1                |
| \$ZPNH      | HOME         | 1                           | 0                | 2                                      | 3                |

**Table 7 Default Configuration for OSS Fileset Catalogs and Storage Pools (DEFAULTS Mode)**

| Fileset | Catalog Volume | Pool Volume |
|---------|----------------|-------------|
| ROOT    | \$OSS          | \$OSS       |
| HOME    | \$OSS          | \$OSS       |
| TEMP    | \$OSS          | \$OSS       |

DEFAULTS (noninteractive) mode allows only 1 volume named \$OSS.

In [Table 8](#), *DISK1*, *DISK2*, and *DISK3* refer to the first three disk volumes from the set of volumes available for use in storage-pool files.

**Table 8 Default Configuration for OSS Fileset Catalogs and Storage Pools (Interactive Mode)**

| Fileset | 1 Volume       |                | 2 Volumes      |                | 3 or More Volumes |                  |
|---------|----------------|----------------|----------------|----------------|-------------------|------------------|
|         | Catalog Volume | Pool Volume    | Catalog Volume | Pool Volumes   | Catalog Volume    | Pool Volumes     |
| ROOT    | <i>\$DISK1</i> | <i>\$DISK1</i> | <i>\$DISK1</i> | <i>\$DISK1</i> | <i>\$DISK1</i>    | Up to 20 volumes |
| HOME    | <i>\$DISK1</i> | <i>\$DISK1</i> | <i>\$DISK2</i> | <i>\$DISK2</i> | <i>\$DISK2</i>    | Up to 20 volumes |
| TEMP    | <i>\$DISK1</i> | <i>\$DISK1</i> | <i>\$DISK2</i> | <i>\$DISK2</i> | <i>\$DISK3</i>    | <i>\$DISK3</i>   |

---

## B OSS EasySetup Status Messages

The OSS EasySetup utilities display status messages on these devices:

- Your home terminal
- The \$0 and \$ZLOG processes, which collect Event Management Service (EMS) events, provided the EASYSETUP^EMSVOL param is set

OSSSETUP also writes status messages to OSSJOURN, a journal file that it creates on the volume and subvolume from which you invoke OSSSETUP.

Sections:

- “Event Management Service (EMS) Events”
- “Start-Up and Finished Messages” (page 46)
- “Other Status Messages” (page 47)

### Event Management Service (EMS) Events

The *event-id* of an EMS event generated by an OSS EasySetup utility is:

```
TANDEM.OSS.D30 000010 USER NOTICE (user-id) : utility-name : text
```

*user-id*

is the user ID of the user executing the utility.

*utility-name*

is the utility—either STARTOSS, STOPOSS, OSSSETUP, or OSSREMOV.

*text*

describes the EMS event.

#### Example 13 Event Management Service (EMS) Event

---

```
02-01-17 15:00:16 \NODE1.$Z8SZ TANDEM.OSS.D30 000010 USER NOTICE
(SUPER.SUPER) :
STOPOSS : \NODE1.$Z8SZ:18310253 : Shutdown
of the OSS subsystem on \NODE1: COMPLETED
```

---

### Start-Up and Finished Messages

When you start an OSS EasySetup utility, it displays a message of the form:

```
utility - T0585version (vproc-date) - date time System \node
```

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When an OSS EasySetup utility finishes, it displays a message of the form:

```
utility finished.
```

*utility*

is either OSSSETUP, OSSREMOV, STARTOSS, or STOPOSS.

*version*

is the product version of *utility*; for example, G07.

*vproc-date*

is the RVU date of *vproc* in the form *ddmmmyyyy*; for example, 08OCT2001.

*date*

is the current date in the form *month day, year*; for example, December 6, 2001.

*time*

is the current time in the form *hh:mm:ss*; for example, 16:12:38.

`\node`

is the node name of the system that *utility* is running on.

### Example 14 Start-Up Message

```
OSSREMOV - T0585G07 (07NOV2003) - February 23, 2004 19:34:34 System \NODE1
(C)2002 Compaq (C)2003 Hewlett-Packard Development Company, L.P.
```

### Example 15 Finished Message

```
OSSSETUP finished
```

## Other Status Messages

All other OSS EasySetup status messages have the form:

*text*: *status*

*text*

describes the operation that the utility is performing. The contents of *text* depend on the utility:

| Utility              | See ...                            |
|----------------------|------------------------------------|
| OSSSETUP<br>STARTOSS | <a href="#">Table 9 (page 47)</a>  |
| OSSREMOV<br>STOPOSS  | <a href="#">Table 10 (page 48)</a> |

*status*

indicates the status of the operation described by *text* and is one of these:

| Status    | Meaning                                                                                         |
|-----------|-------------------------------------------------------------------------------------------------|
| STARTING  | The operation has started.                                                                      |
| COMPLETED | The operation finished without error.                                                           |
| FAILED    | The operation did not finish because of an error. See the associated error message for details. |

For every invocation of the OSSSETUP, STARTOSS, OSSREMOV, or STOPOSS utility:

- The first status message is:  
{ Installation | Startup | Removal | Shutdown } of the OSS subsystem on `\node`: STARTING
- The last status message is:  
{ Installation | Startup | Removal | Shutdown } of the OSS subsystem on `\node`: { COMPLETED | FAILED }

[Table 9 \(page 47\)](#) lists the possible values for *text* for OSSSETUP and STARTOSS. Not every invocation of OSSSETUP or STARTOSS displays every *text* listed in [Table 9 \(page 47\)](#).

### Table 9 Status Message Texts for OSSSETUP and STARTOSS Utilities

| Text                                                                  |
|-----------------------------------------------------------------------|
| { Installation   Startup } of the OSS subsystem on <code>\node</code> |
| Security manager process defined as an NSK generic process            |
| Security manager process startup                                      |
| NULL process defined as an NSK generic process                        |
| NULL process ( <code>\$NULL</code> ) startup                          |

**Table 9 Status Message Texts for OSSSETUP and STARTOSS Utilities** (continued)

| Text                                                                  |
|-----------------------------------------------------------------------|
| OSS monitor process defined as an NSK generic process                 |
| OSS monitor process (\$ZPMON) startup                                 |
| Configuration of OSS servers                                          |
| Configuration of the ROOT fileset                                     |
| Startup of the ROOT fileset                                           |
| Installation of OSS archive files from \$volume.ZOSSUTL               |
| Configuration of the HOME fileset                                     |
| Configuration of the TEMP fileset                                     |
| Directory security configuration                                      |
| Startup of servers and filesets managed by the OSS monitor            |
| Creation of the /etc/profile file                                     |
| OSS merge_what is execution                                           |
| Creation of symbolic links to TCP/IP configuration files <sup>1</sup> |
| OSS subsystem validation                                              |

<sup>1</sup> Beginning with the J06.16 and H06.27 RVUs

**Table 10** lists the possible values for *text* for OSSREMOV and STOPOSS. Not every invocation of OSSREMOV or STOPOSS displays every *text* listed in **Table 10**.

**Table 10 Status Message Texts for OSSREMOV and STOPOSS Utilities**

| Text                                                                   |
|------------------------------------------------------------------------|
| { Removal   Shutdown } of the OSS subsystem on \system-name            |
| [ Process missing. ] security manager process (\$ZSMP) startup         |
| [ Process missing. ] NULL process (\$NULL) startup                     |
| [ Process missing. ] OSS monitor process (\$ZPMON) startup             |
| Shutdown of all OSS [servers and ] filesets                            |
| Removal of all filesets                                                |
| [ No longer needed. ] Shutdown of the OSS monitor process (\$ZPMON)    |
| Removal of the OSS monitor process (\$ZPMON) as a generic process      |
| [No longer needed. ] Shutdown of the NULL process (\$NULL)             |
| Removal of the NULL process (\$NULL) as a generic process              |
| [No longer needed. ] Shutdown of the security manager process (\$ZSMP) |
| Removal of the security manager process (\$ZSMP) as a generic process  |
| Removal of all OSS configuration database files                        |
| Validation that the OSS subsystem is removed                           |



# C OSS EasySetup Error Messages

The OSS EasySetup utilities can display these types of error messages:

- “Validation Check Errors”
- “Dialog Errors and Warnings” (page 50)
- “Break Key Message” (page 52)

## Validation Check Errors

The utilities perform validation checks before doing anything else. If one of these checks fails, the utility displays an error message and terminates:

| Check                                         | Utilities That Perform This Check |
|-----------------------------------------------|-----------------------------------|
| “Software RVU Check Error”                    | All                               |
| “Remote Execution Check Error”                | All                               |
| “Home Terminal Check Error” (page 49)         | OSSSETUP                          |
| “\$OSS Disk Volume Check Error” (page 50)     | OSSSETUP                          |
| “OSS Already Installed Check Error” (page 50) | OSSSETUP                          |

## Software RVU Check Error

```
ERROR - Unsupported software release...
```

```
Break or error terminated operation.
Startup of the OSS subsystem on \NODE1: FAILED
STARTOSS terminated unexpectedly or encountered errors.
```

### Cause

The software RVU running on *system-name* does not support this utility. The utilities require either the G06.15 software RVU (which includes the T0585AAA SPR) or the G06.12 (or later) software RVU with the T0585AAA SPR installed.

## Remote Execution Check Error

```
ERROR - Remote execution not supported...
```

```
Break or error terminated operation.
Startup of the OSS subsystem on \NODE1: FAILED
STARTOSS terminated unexpectedly or encountered errors.
```

### Cause

You tried to run the utility *utility-name* from a remote system.

## Home Terminal Check Error

```
ERROR - Unsupported home terminal session...
```

```
Break or error terminated operation.
Installation of the OSS subsystem on \NODE1: FAILED
OSSSETUP terminated unexpectedly or encountered errors.
```

### Cause

Your home terminal session, *\$process.#device*, is the wrong type (see “Required Terminal Emulator” (page 15)).

## \$OSS Disk Volume Check Error

ERROR - While in defaults (Non-Interactive) mode, there must be a usable \$OSS disk storage volume. Fix the problem and re-execute this utility.

Break or error terminated operation.  
Installation of the OSS subsystem on \NODE1: FAILED  
OSSSETUP terminated unexpectedly or encountered errors.

### Cause

You tried to run OSSSETUP in DEFAULTS (noninteractive) mode and the \$OSS disk volume was either missing or unusable.

## OSS Already Installed Check Error

ERROR - OSS is still installed on this system \NODE1.

Break or error terminated operation.  
Installation of the OSS subsystem on \NODE1: FAILED  
OSSSETUP terminated unexpectedly or encountered errors.

### Cause

The system *system-name* has parts of the OSS subsystem from an earlier installation. One or more OSS filesets or processes already exist on the system. (For instructions for removing the earlier OSS subsystem, see [Chapter 3 \(page 34\)](#).)

## Dialog Errors and Warnings

A dialog error or warning message is displayed if you respond to a utility's prompt with an invalid answer.

- “Nonfatal Dialog Errors and Warnings”
- “Start-Up and Finished Messages” (page 46)

## Nonfatal Dialog Errors and Warnings

A nonfatal dialog error or warning:

- Displays a message only on your home terminal.
- Does not terminate the utility.
- Might prompt you for a response described in its message (as in [Example 16](#) and [Example 17](#)). The default response, shown in brackets at the end of the message, is always valid. Pressing Return is equivalent to the default response.

## Example 16 Nonfatal Dialog Error Message

---

ERROR - Invalid disk volume specified: \$JOKER

- Enter a space-separated list of up to nineteen disk volumes to be written to the file \$SYSTEM.ZXOSSMON.ROOTPOOL.

The \$SYSTEM.ZXOSSMON.ROOTPOOL file is used for the ROOT fileset creation pool volume list. This file can store up to nineteen disk volumes used to store OSS regular files (disk files). Better performance generally results if a fileset's catalog volume is not a member of the fileset's pool space. Enter a space-separated list of disk volume(s).  
[\$WORK \$OSS \$KAOSR20 \$KAOSR17 \$G0608 \$G0607 \$G0606 \$G0501 \$BOAT \$AUDIT2 \$AUDIT1]:

---

## Example 17 Dialog Warning Message

---

Which pair of processors would you like the message queue server (\$ZMSGQ) to execute in? [2 3]: 3

WARNING - Only one processor is configured - WARNING  
Configured this way, when the message queue server is started, it will automatically select and start a backup processor. Are you sure you only want one processor? <yes/[NO]>:

---

## Example 18 Warning Message for EASYSETUP^STARTUP

---

WARNING - Invalid value of (*invalid-value*) used for 'EASYSETUP^STARTUP' parameter. Ignoring the value of (*invalid-value*).

---

## Example 19 Warning Message for EASYSETUP^UTILVOL

---

WARNING - Invalid value of (*invalid-value*) used for 'EASYSETUP^UTILVOL' parameter. Using the value of (*invalid-value*).

---

## Fatal Dialog Errors

A fatal dialog error (as in [Example 20](#)):

- Displays a message on these devices:
  - Your home terminal
  - The system service log (\$ZLOG) and EMS collector (\$) provided the EASYSETUP^EMSVOL param is set  
The *event-id* of an EMS event generated by an OSS EasySetup utility is:  
TANDEM.OSS.D30 000010 USER NOTICE (*user-id*): *text*
- Terminates the utility

## Example 20 Fatal Dialog Error Message

---

```
ERROR - Remote execution not supported...
```

```
Break or error terminated operation.
Startup of the OSS subsystem on \NODE1: FAILED
STARTOSS terminated unexpectedly or encountered errors.
```

---

## Break Key Message

You can terminate any of these utilities by pressing the Break key while it is running. The utility displays this message:

```
[ERROR - additional-error-text]
Break or error terminated operation. Stopping utility.
```

### **Cause**

Either you pressed Break while the utility was running or an internal error (described in *additional-error-text*) occurred.

### **Effect**

The utility terminates.

### **Recovery**

If an internal error occurred, contact your service provider; otherwise, run OSSSETUP again.

---

# Glossary

|                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|--------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>A7CINFO file</b>                                                            | A configuration file distributed with OSS products that contains information about the contents of all PAX (archive) files of an OSS DSV.                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>administrator</b>                                                           | <ol style="list-style-type: none"><li>1. For an HP NonStop™ system, the person responsible for the installation and configuration of a software subsystem on a NonStop node. Contrast with <a href="#">operator</a>.</li><li>2. For an IBM system, the person responsible for the day-to-day monitoring and maintenance tasks associated with a software subsystem on an IBM node.</li><li>3. For a UNIX system, the owner of <code>/dev/console</code>. The administrator is responsible for the installation and configuration of all hardware and software within a node.</li></ol> |
| <b>block special file</b>                                                      | In the OSS environment, a device that is treated as a file for which all input or output must occur in blocks of data. Traditionally, such files are disk or tape devices. Block special files provide access to a device in a manner that hides the hardware characteristics of the device. Contrast with <a href="#">character special file</a> .                                                                                                                                                                                                                                    |
| <b>character special file</b>                                                  | In the OSS environment, a device that is treated as a file for which all input or output must occur in character bytes. Traditionally, such files are interactive terminals, and the ISO/IEC IS 9945-1:1990 standard defines only the access to such terminal files. Contrast with <a href="#">block special file</a> .<br><i>See also</i> <a href="#">terminal</a> .                                                                                                                                                                                                                  |
| <b>cluster</b>                                                                 | <ol style="list-style-type: none"><li>1. A collection of servers, or nodes, that can function either independently or collectively as a processing unit.<br/><i>See also</i> <a href="#">storage pool</a>.</li><li>2. A term used to describe a system in a Fiber Optic Extension (FOX) ring. More specifically, a FOX cluster is a collection of processors and I/O devices functioning as a logical group. In FOX nomenclature, the term is synonymous with system or node.</li></ol>                                                                                                |
| <b>creation pool</b>                                                           | The set of disk volumes currently used for new file creation for a fileset. The creation pool is defined by the <a href="#">storage-pool file</a> for the fileset and is a subset of the <a href="#">storage pool</a> for the fileset.                                                                                                                                                                                                                                                                                                                                                 |
| <b>device</b>                                                                  | A computer peripheral or an object that appears to the application as such.<br><i>See also</i> <a href="#">terminal</a> .                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>directory</b>                                                               | A type of OSS special file that contains directory entries, which associate names with files. No two directory entries in the same directory have the same name.                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <b>directory entry</b>                                                         | In the OSS file system, an object that associates a filename with a file. Several directory entries can associate names with the same file.<br><i>See also</i> <a href="#">link</a> .                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>directory tree</b>                                                          | A hierarchy of directories. In the OSS environment, directories are connected to each other in a branching hierarchical fashion such that only one path exists between any two directories (if no backtracking occurs).                                                                                                                                                                                                                                                                                                                                                                |
| <b>Distributed Systems Management/Software Configuration Manager (DSM/SCM)</b> | A graphical user interface (GUI)-based program that installs new software and creates a new NonStop operating system. DSM/SCM creates a new software revision and activates the new software on the target system.                                                                                                                                                                                                                                                                                                                                                                     |
| <b>DSM/SCM</b>                                                                 | <i>See</i> <a href="#">Distributed Systems Management/Software Configuration Manager (DSM/SCM)</a> .                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>EDIT file</b>                                                               | In the Guardian file system, an unstructured file with file code 101. An EDIT file can be processed by either the EDIT or PS Text Edit (TEDIT) editor. An EDIT file typically contains source program or script code, documentation, or program output. OSS functions can open an EDIT file only for reading.                                                                                                                                                                                                                                                                          |
| <b>Expand network</b>                                                          | The operating system network that extends the concept of fault-tolerant operation to networks of geographically distributed NonStop S-series systems. If the network is properly designed, communication paths are constantly available even if a single line failure or component failure occurs.                                                                                                                                                                                                                                                                                     |
| <b>Expand node</b>                                                             | A system in an <a href="#">Expand network</a> .<br><i>See also</i> <a href="#">node</a> .                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>FIFO</b>                                                                    | A type of OSS special file that is always read and written in a first-in, first-out manner.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |

|                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|----------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>file</b>                      | An object to which data can be written or from which data can be read. A file has attributes such as access permissions and a file type. In the OSS environment, file types include <a href="#">regular file</a> , <a href="#">character special file</a> , <a href="#">block special file</a> , <a href="#">FIFO</a> , and <a href="#">directory</a> . In the Guardian environment, file types include disk files, processes, and subdevices.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>file name</b>                 | A string of characters that uniquely identifies a file.<br>In the PC environment, file names for disk files normally have at least two parts (the disk name and the file name); for example, B:MYFILE.<br>In the Guardian environment, disk file names include a node name, volume name, subvolume name, and file identifier; for example, \NODE1.\$DISK.SUBVOL.MYFILE.<br>In the OSS environment, a file is identified by a <a href="#">pathname</a> ; for example, /usr/john/workfile.<br>See also <a href="#">filename</a> .                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <b>file system</b>               | In the OSS environment, a collection of files and file attributes. A file system provides the namespace for the file serial numbers that uniquely identify its files. OSS provides a file system (see also ISO/IEC IS 9945-1:1990 [ANSI/IEEE Std. 1003.1-1990], Clause 2.2.2.38); the Guardian application program interface (API) provides a file system; and OSS Network File System (NFS) provides a file system. (OSS NFS filenames and pathnames are governed by slightly different rules than OSS filenames and pathnames.) Within the OSS and OSS NFS file systems, filesets exist as manageable objects.<br><br>On a NonStop system, the Guardian file system for a node is a subset of the OSS virtual file system. Traditionally, the API for file access in the Guardian environment is called the Guardian file system.<br><br>In some UNIX and NFS implementations, the term file system means the same thing as fileset. That is, a file system is a logical grouping of files that, except for the root of the file system, can be contained only by directories within the file system.<br>See also <a href="#">fileset</a> . |
| <b>filename</b>                  | In the OSS environment, a component of <a href="#">apathname</a> containing any valid characters other than slash (/) or null.<br>See also <a href="#">file name</a> .                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>fileset</b>                   | In the OSS environment, a set of files with a common mount point within the file hierarchy. A fileset can be part or all of a single virtual file system.<br><br>On a NonStop system, the Guardian file system for a node has a mount point and is a subset of the OSS virtual file system. The entire Guardian file system therefore could be viewed as a single fileset. However, each volume, and each process of subtype 30, within the Guardian file system is actually a separate fileset.<br><br>The term file system is often used interchangeably with fileset in UNIX publications.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>group ID</b>                  | The nonnegative integer that identifies a group of users of a NonStop network node. Each user of that node is a member of at least one group. When the identity of a group is associated with an OSS process, a group ID value is referred to as one of: <ul style="list-style-type: none"> <li>• Real group ID</li> <li>• Effective group ID</li> <li>• Supplementary group ID</li> <li>• Saved-set group ID</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>Guardian</b>                  | An environment available for interactive or programmatic use with the operating system. Processes that run in the Guardian environment usually use the Guardian system procedure calls as their application program interface. Interactive users of the Guardian environment use the HP Tandem Advanced Command Language (TACL) or another HP product's command interpreter. Contrast with <a href="#">Open System Services (OSS)</a> .                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <b>hard link</b>                 | The relationship between two directory entries for the same file. A hard link acts as an additional pointer to a file. A hard link cannot be used to point to a file in another fileset. Contrast with <a href="#">symbolic link</a> .                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>HP NonStop Kernel user ID</b> | A <a href="#">user ID</a> within a NonStop system. The Guardian environment normally uses the structured view of this user ID, which consists of either the <i>group-number</i> , <i>user-number</i> pair of values or                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |

the *group-name.user-name* pair of values. For example, the structured view of the super ID is (255, 255). The OSS environment normally uses the scalar view of this user ID, also known as the **UID**, which is the value (*group-number \* 256*) + *user-number*. For example, the scalar view of the super ID is (255 \* 256) + 255 = 65535.

|                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|-----------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>HP NonStop™ ServerNet Cluster (ServerNet Cluster).</b> | The product name for the collection of hardware and software components that constitute a <a href="#">storage pool</a> .                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>link</b>                                               | In the OSS file system, a directory entry for a file.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>local operator</b>                                     | The person who performs routine system operations, such as starting and stopping the system, loading and unloading tapes, and changing the air filter. The local operator is normally the operator of the asynchronous system console for the node.<br>See also <a href="#">operator</a> .                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>login</b>                                              | The activity by which a user establishes a locally authenticated identity on a server node. Each login has one login name.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>login name</b>                                         | A user name associated with a session.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <b>manager</b>                                            | <ol style="list-style-type: none"><li>1. For a NonStop system, the person responsible for day-to-day monitoring and maintenance tasks associated with a software subsystem on a NonStop node.</li><li>2. For a UNIX system, any person in Management and Information Services management for the site.</li></ol>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>mount</b>                                              | To make a fileset accessible to the users of a node.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>mount point</b>                                        | In the OSS file system, a directory that contains a mounted fileset. The mounted fileset can be in a different file system.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>node</b>                                               | <ol style="list-style-type: none"><li>1. A uniquely identified computer <a href="#">system</a> connected to one or more other computer systems in the network.<br/>See also <a href="#">Expand node</a>, <a href="#">storage pool</a>.</li><li>2. An endpoint in a ServerNet fabric, such as a processor or ServerNet addressable controller (SAC).</li></ol>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>open system</b>                                        | A system with interfaces that conform to international computing standards and therefore appear the same regardless of the system's manufacturer. For example, the OSS environment on NonStop systems conforms to international standards such as ISO/IEC IS 9945-1:1990 (ANSI/IEEE Std. 1003.1-1990, also known as POSIX.1), national standards such as FIPS 151-2, and portions of industry specifications such as the X/Open Portability Guide Version 4 (XPG4).                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>Open System Services (OSS)</b>                         | An open system environment available for interactive or programmatic use with the NonStop Kernel operating system. Processes that run in the OSS environment usually use the OSS application program interface. Interactive users of the OSS environment usually use the OSS shell for their command interpreter. Synonymous with OSS environment. Contrast with <a href="#">Guardian</a> .                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>Open System Services (OSS) environment</b>             | The OSS application program interface (API), tools, and utilities.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>Open System Services (OSS) Monitor</b>                 | A Guardian utility that accepts commands affecting OSS objects through an interactive Guardian interface named the Subsystem Control Facility (SCF).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>operator</b>                                           | <ol style="list-style-type: none"><li>1. A symbol, such as an arithmetic or conditional operator, that performs a specific operation on operands.</li><li>2. In Network Control Language (NCL), a lexical element used for working on terms in expressions. The five types of operators are parenthetical, arithmetic, Boolean, relational, and string.</li><li>3. For an HP NonStop™ system, the person or program responsible for day-to-day monitoring and maintenance tasks associated with the HP NonStop operating system and the hardware of a NonStop node. The operator issues commands to subsystems; retrieves, examines, and responds to event messages; or does any combination of those things. Contrast with <a href="#">administrator</a>.<br/>See also <a href="#">local operator</a>.</li><li>4. For a UNIX system, any interactive user of that system.</li></ol> |
| <b>OSS</b>                                                | See <a href="#">Open System Services (OSS)</a> .                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>OSS Monitor</b>                                        | See <a href="#">Open System Services (OSS) Monitor</a> .                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |

|                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|-----------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>OSSMON</b>               | See <a href="#">Open System Services (OSS) Monitor</a> .                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>pathname</b>             | In the OSS file system and Network File System (NFS), the string of characters that uniquely identifies a file within its file system. A pathname can be either relative or absolute. See also ISO/IEC IS 9945-1:1990 (ANSI/IEEE Std. 1003.1-1990 or POSIX.1), Clause 2.2.2.57.                                                                                                                                                                                           |
| <b>regular file</b>         | In the OSS file system, a file that is a randomly accessible sequence of bytes. A regular file contains binary or text data and has no structure imposed by the system. Contrast with .                                                                                                                                                                                                                                                                                   |
| <b>remote operator</b>      | The person who performs routine system operations from a geographical distance, usually when no local operator is present.                                                                                                                                                                                                                                                                                                                                                |
| <b>root</b>                 | See <a href="#">root fileset</a> and <a href="#">root directory</a> .<br>See also Super ID.                                                                                                                                                                                                                                                                                                                                                                               |
| <b>root directory</b>       | In the Open System Services (OSS) file system and Network File System (NFS), a directory associated with a process that the system uses for pathname resolution when a pathname begins with a slash (/) character.                                                                                                                                                                                                                                                        |
| <b>root fileset</b>         | For the OSS file system, the fileset with the device identifier of 0 (zero), normally containing the root directory. HP recommends that this fileset be named "root".                                                                                                                                                                                                                                                                                                     |
| <b>root user</b>            | See <a href="#">super ID</a> .                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>ServerNet cluster</b>    | A network of servers (nodes) connected together using the ServerNet protocol for interprocessor communication across a cluster and within its nodes. A ServerNet cluster offers linear system expansion beyond the 8-processor or 16-processor limits of a single server, achieving comparable speeds for internal and external ServerNet communication.<br>See also <a href="#">cluster</a> , <a href="#">HP NonStop™ ServerNet Cluster (ServerNet Cluster)</a> . .      |
| <b>ServerNet node</b>       | A system in a <a href="#">storage pool</a> .<br>See also <a href="#">node</a> .                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>shell</b>                | In the OSS environment, a program that interprets sequences of text input as commands. The OSS shell can operate on an input stream or it can interactively prompt and read commands from a terminal.                                                                                                                                                                                                                                                                     |
| <b>special file</b>         | A file in the OSS file system that is not a regular file. Special files include directories, FIFOs, and character special files such as terminal device files. Contrast with <a href="#">regular file</a> .                                                                                                                                                                                                                                                               |
| <b>storage pool</b>         | A set of physical disk volumes administered as a set of logical disk volumes. A logical disk volume can span multiple physical disk volumes. When a logical disk volume becomes full, more physical disk volumes can be added.                                                                                                                                                                                                                                            |
| <b>storage-pool file</b>    | A file containing a list of disk volumes to be used by an OSS fileset. As these volumes are filled, more volumes can be added to the storage-pool file.                                                                                                                                                                                                                                                                                                                   |
| <b>super ID</b>             | On NonStop systems, a privileged user who can read, write, execute, and purge all files on the system. The super ID is usually a member of a system-supervisor group.<br><br>The super ID has the set of special permissions called appropriate privileges. In the Guardian environment, the structured view of the super ID, which is (255, 255), is most commonly used; in the OSS environment, the scalar view of the super ID, which is 65535, is most commonly used. |
| <b>superuser</b>            | See <a href="#">super ID</a> .                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>symbolic link</b>        | A type of special file that acts as a name pointer to another file. A symbolic link contains a pathname and can be used to point to a file in another fileset. Symbolic links are not included in ISO/IEC IS 9945-1: 1990. Compare to <a href="#">hard link</a> .                                                                                                                                                                                                         |
| <b>system</b>               | All the processors, controllers, firmware, peripheral devices, software, and related components that are directly connected together to form an entity that is managed by one NonStop Kernel operating system image and operated as one computer.<br>See also <a href="#">node</a> .                                                                                                                                                                                      |
| <b>system administrator</b> | The person responsible for the installation and configuration of a software subsystem on a NonStop node.                                                                                                                                                                                                                                                                                                                                                                  |
| <b>system manager</b>       | See <a href="#">manager</a> .                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>system operator</b>      | See <a href="#">local operator</a> and <a href="#">remote operator</a>                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>terminal</b>             | A type of character special file that conforms to the interface description in Clause 7 of ISO/IEC IS 9945-1: 1990.                                                                                                                                                                                                                                                                                                                                                       |



|                |                                                                                                                                                                                                                                                                                                     |
|----------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>UID</b>     | A nonnegative integer that uniquely identifies a user within a node.<br>In the OSS environment, the UID is the scalar view of the <a href="#">HP NonStop™ ServerNet Cluster (ServerNet Cluster)</a> . The UID is used in the OSS environment for functions normally associated with a UNIX user ID. |
| <b>unmount</b> | To make a fileset inaccessible to the users of a node.                                                                                                                                                                                                                                              |
| <b>user ID</b> | The unique identification of a user within a node.                                                                                                                                                                                                                                                  |

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