ELIST.8100.Final.SOL7.IP

Defense Information Infrastructure (DII) Common Operating Environment (COE)

Installation Procedures (IP)
for the
Enhanced Logistics Intratheater Support Tool (ELIST)
Global Data Segment Version 8.1.0.0,
Database Instance Segment Version 8.1.0.0,
Database Fill Segment Version 8.1.0.0,
Database Segment Version 8.1.0.0,
Database Utility Segment Version 8.1.0.0,
Software Segment Version 8.1.0.0, and
Reference Data Segment Version 8.1.0.0

for Solaris 7

26 February 2002

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1. Scope

This document is the *Installation Procedures (IP)* for the DII COE *Enhanced Logistics Intratheater Support Tool (ELIST)* mission application. It tells how to install and deinstall the seven segments of the mission application.

1.1 Identification

Table 1 identifies all the segments of the ELIST mission application. In the table, each segment is given a number by which it may be referenced in this document. The table also gives the name, the segment type (and, if a data segment, the segment scope), the current version number, and the directory name assigned to each segment.

Table 1. Segments of the ELIST Mission Application

Segment Number	Segment Name	Segment Type / Scope	Version Number	Directory Name
1	ELIST Global Data Segment	Data / Global	8.1.0.0	`ELISTglob`
2	ELIST Database Instance Segment	Data / Segment	8.1.0.0	`ELISTdbinst`
3	ELIST Database Fill Segment	Data / Local	8.1.0.0	`ELISTdbfill`
4	ELIST Database Segment	Database	8.1.0.0	`ELISTdb`
5	ELIST Database Utility Segment	Software	8.1.0.0	`ELISTdbutil`
6	ELIST Software Segment	Software	8.1.0.0	`ELISTexec`
7	ELIST Reference Data Segment	Data / Local	8.1.0.0	`ELISTrefdata`

All seven segments have the following identification properties in common:

Segment Prefix[1]:   ELIST

Platform(s)[2]:   Sun/Solaris 7

DII COE Versions: 4.2.0.0P4 or later

All seven of the ELIST segments must be installed before you can use the ELIST mission application.[3]

Refer to the *Introduction to the Enhanced Logistics Intratheater Support Tool (ELIST) Mission Application and its Segments: Global Data Segment, Database Instance Segment, Database Fill Segment, Database Segment, Database Utility Segment, Software Segment, and Reference Data Segment* for the following:

- an overview of the mission application and all of its segments in the context of the application;

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[1] Note carefully that all segments have the same prefix. This is not typical of multisegment DII COE mission applications.

[2] Implementation of the ELIST segments for PC/Windows NT 4.0 will follow shortly. This documentation covers only the Sun/Solaris 7 platform but will be supplemented or replaced when an implementation becomes available for NT.

[3] To save space, however, the ELIST Database Fill Segment can be removed after successfully installing the ELIST Database Segment.

- the definitions of key concepts and terms used throughout the ELIST documentation;

- a complete list of the available ELIST documentation.

- a brief history of ELIST; and

- basic information pertinent to the client/server configuration and installation of the ELIST segments.

2.   Referenced Documents

The following other documents are referenced in this document.

2.1   Government Documents

2.1.1   DII COE ELIST Documents

Introduction to the Enhanced Logistics Intratheater Support Tool (ELIST) Mission Application and its Segments: Global Data Segment Version 8.1.0.0, Database Instance Segment Version 8.1.0.0, Database Fill Segment Version 8.1.0.0, Database Segment Version 8.1.0.0, Database Utility Segment Version 8.1.0.0, Software Segment Version 8.1.0.0, and Reference Data Segment Version 8.1.0.0 for Solaris 7, ELIST.8100.Final.SOL7.Intro, Argonne National Laboratory, 26 February 2002

User's Manual (UM) for the Enhanced Logistics Intratheater Support Tool (ELIST) Software Segment Version 8.1.0.0 for Solaris 7, ELISTexec.8100.Final.SOL7.UM, Argonne National Laboratory, 26 February 2002

System Administrator's Manual (SAM) for the Enhanced Logistics Intratheater Support Tool (ELIST) Database Instance Segment (Version 8.1.0.0), ELISTdbinst.8100.Final.SOL7.SAM, 26 February 2002

System Administrator's Manual (SAM) for the Enhanced Logistics Intratheater Support Tool (ELIST) Database Segment Version 8.1.0.0 for Solaris 7, ELISTdb.8100.Final.SOL7.SAM, Argonne National Laboratory, 26 February 2002

2.1.2   Other DII COE Documents

Integration and Runtime Support (I&RTS) Version 4.1, CM Number 38541, Defense Information Systems Agency, 3 October 2000

System Administrator's Manual (SAM) for Kernel Version 4.2.0.0 (HP-UX 10.20/Solaris 7), CM Number 30590, Jet Propulsion Laboratory, 4 February 2000

Security Administrator's Manual (SECAM) for Kernel Version 4.2.0.0 (HP-UX 10.20/Solaris 7/Windows NT 4.0), CM Number 30592, Jet Propulsion Laboratory, 4 February 2000

Installation Procedures (IP) for ORACLE RDBMS (ORAS) Version 2.1.0.0/8.1.6.1 for Solaris 7, CM Number 34845, FGM Inc., 15 June 2000

Installation Procedures (IP) for ORACLE Client Applications (ORAC) Version 2.1.0.0/8.1.6 for Solaris 7, CM Number 34865, FGM Inc., 15 June 2000

Installation Procedures (IP) for ORACLE DataBase Instance (ORADBI) Version 2.1.0.0/8.1.6 for Solaris 7, CM Number 34830, FGM Inc., 15 June 2000

Installation Procedures (IP) for ORACLE DataBase Administration (ORADBA) Version 2.1.0.0/2.1.0 for Solaris 7, CM Number 35740, FGM Inc., 17 July 2000

System Administrator's Manual (SAM) for ORACLE Client Applications (ORAC) Version 2.1.0.0/8.1.6, ORACLE DataBase Administration (ORADBA) Version 2.1.0.0/2.1.0, ORACLE DataBase Instance (ORADBI) Version 2.1.0.0/8.1.6, and ORACLE RDBMS (ORAS) Version 2.1.0.0/8.1.6.1 for Solaris 7, CM Number 34815, FGM Inc., 15 June 2000

Installation Procedures (IP) for Database AdministratorServer (DBAdmS) Version 3.0.2.0 for Solaris 7, CM Number 43783, FGM Inc., 4 April 2001

Installation Procedures (IP) for Database Administrator Runtime (DBAdmR) Version 3.0.2.0 for Solaris 7, CM Number 43772, FGM Inc., 4 April 2001

System Administrator's Manual (SAM) for the Database Administrator Server (DBAdmS) Version 3.0.2.0 for Solaris 7, CM Number 43784, FGM Inc., 4 April 2001

System Administrator's Manual (SAM) for the Database Administrator Runtime (DBAdmS) Version 3.0.2.0 for Solaris 7, CM Number 43773, FGM Inc., 4 April 2001

2.1.3   Other ELIST Documents

N/A.

2.1.4   Other Government Documents

N/A.

2.2   Non-Government Documents

Oracle8i Installation Guide, Release 2 (8.1.6) for Sun SPARC Solaris. Oracle Corporation, Part No. A77181-01. Delivered as part of the ORACLE DataBase Instance (ORADBI) segment for Solaris 7 in `/ora01/app/oracle/doc/unixdoc/solaris.816/a77181/toc.htm`.

3. System Environment

3.1 System Requirements

3.1.1 Hardware Requirements

Table 2 presents the hardware requirements for the ELIST mission application segments. For each segment, the table shows the type of platform on which the segment must be installed, the required memory (RAM), and the (minimum) required disk space. The numbers in parentheses refer to the notes following the table.

Table 2. Hardware Requirements of the Segments
of the ELIST Mission Application

Segment Name	Platform Type	RAM (MB)		Disk Space	
				Segment (KB)	RDBMS (GB)
ELIST Global Data Segment	Database Server	N/A		270 (1)	N/A
ELIST Database Instance Segment	Database Server	20 (2)		79	1.327 (4)
ELIST Database Fill Segment	Database Server	N/A		25184 (3)	N/A (5)
ELIST Database Segment	Database Server	20 (2)		332	5.125
ELIST Database Utility Segment	Database Server	20 (2)		67	N/A
ELIST Software Segment	Application Client	512 (6)		8811	N/A
ELIST Reference Data Segment	Application Client	N/A		665518 (7)	N/A

Notes:
 (1) Installation of this segment requires 20 KB of disk space; the remaining 250 KB represents space for expansion, most of which occurs as log files are written by the ELIST Database Segment and the ELIST Database Utility Segment.
 (2) Nominal requirement for the kernel and RDBMS tools invoked by the scripts of these segments.
 (3) This disk space will be recovered if the segment is deinstalled after the next segment is installed.
 (4) This disk space requirement applies if a new database instance is created during the installation of the segment; no new disk space is allocated if the installer chooses to use an existing database instance.
 (5) The data fill provided by this segment loads into RDBMS disk space provided by the next segment.
 (6) This is the recommended minimum RAM for efficient execution of small to moderate simulations; to avoid virtual memory thrashing with large simulations, as much as 1.5 GB of RAM may be required.
 (7) Installation of this segment requires 15518 KB of disk space; the remaining 650 MB represents space for expansion. Additional NIMA raster product map data will have to be added to the segment, using the **AddMapData** feature of the ELIST Software Segment, before simulations can be run. The required data depend on the locale of the simulation. Each NIMA map CD that must be "installed" typically requires between 300 and 600 MB of disk space.

The first five segments in Table 2 must be installed on a platform configured as a database server. In the current implementation, that platform must be a Sun workstation. The remaining two segments must be installed on a platform configured as an application client, which must also be a Sun workstation (currently). The database server and the application client can be the same machine (see Section 3.2.1).

The ELIST Database Instance Segment requires the RDBMS-owned disk space shown in the table if, during the segment's installation, a new database instance is created (see Section 3.2.3). If an existing database instance is designated, ELIST will share the space occupied by that instance with any other databases that use it. Note that a database instance provides rollback, temporary, user, and other system spaces, but not the space for the application-defined tables of any specific database. For ELIST, the tables comprising the database schema are created by the

ELIST Database Segment, also in RDBMS-owned disk space (regardless of whether a new instance is created during the installation of the ELIST Database Instance Segment).

As shown in Table 2, the ELIST mission application demands huge amounts of disk space. Installing and using ELIST are only feasible if the machine is equipped with supplementary (outboard) disks.

3.1.2 Operating System Requirements

The ELIST mission application was developed for, and installed and tested on, a Sun SPARC workstation running the Solaris 7 operating system. A version for a PC running Windows NT 4.0 is in preparation.

3.1.3 Kernel Requirements

The ELIST mission application was developed for, and installed and tested with, Version 4.2.0.0P4 of the DII COE Kernel. It requires that, or a later, version.

3.2 System and Site Preparations

3.2.1 System Configuration

The principal system configuration decision to be made when installing ELIST is whether to install all of the segments on one platform or divide them between a database server platform and a separate application client platform. The decision is determined by where the DII COE ORACLE RDBMS (ORAS) segment is installed (*i.e.*, whether it is installed on a *shared* database server that is accessible to one or more application clients over a network, or on a *standalone* database server that also serves as an application client, in which case it is accessible only to the applications on that client). This decision may well have been made before you first contemplated installing ELIST. The following discussion is provided in case you are only now beginning to set up a DII COE environment.

The five ELIST database server segments (the first five in Table 2) need to be installed on the same machine as the DII COE ORACLE RDBMS (ORAS) segment. If multiple application clients share (*i.e.*, have access to) the database server on a network, then the two ELIST application client segments (the last two in Table 2) can be installed separately on as many application clients as desired. In this case, the DII COE ORACLE DataBase Administration (ORADBA) segment must also be installed on those application clients, along with the DII COE ORACLE Client Applications (ORAC) segment, and the DII COE ORACLE RDBMS (ORAS) segment must *not* be installed on them. Furthermore, the `/h/data/global` directory must be a globally shared partition on the network; that is, it must be globally shared by all these application clients and the database server, as stated in the *Installation Procedures (IP) for the ORACLE Client Applications (ORAC)*. The requirement for the sharing of `/h/data/global` has implications for how the DII COE Kernel must be installed on the nodes of the network; further information is available in the *DII COE Integration and Runtime Support (I&RTS)*.

On the other hand, all seven of the ELIST segments can be installed on the same machine, which is then considered to be both a database server and an application client. The DII COE ORACLE RDBMS (ORAS) segment must also be installed on that machine, but the DII COE ORACLE DataBase Administration (ORADBA) segment and the DII COE ORACLE Client Applications (ORAC) segment must *not* be installed on it. (They are not used at all, in this

case.) ELIST and Oracle will be self-contained on one machine and will not depend on any external network connections, and `/h/data/global` need not be globally shared.

Table 3 depicts the dependencies of the ELIST database server segments on certain DII COE kernel and infrastructure service segments (and on each other), as specified by each segment's `Requires` descriptor. To determine the segments required by a given segment (*i.e.*, the segments that must be installed on the same platform to install the given segment), move along the row for the given segment until you reach the up-arrow, and then find the required segments (the ones that are marked with an X) in the shaded part of the column *above* the up-arrow. Any version of a required segment equal to or later than the version identified in the first column will suffice.

Table 3. ELIST Segment Dependencies on the Database Server

Segment Name, Prefix, and Version	Required Segments (see text)									
Java Platform 1 (JAVA1) Version 4.0.1.0/1.1.8_12					X					
Java Platform 2 (JAVA2) Version 4.3.0.0 (corresponds to JRE 1.3)	↑	X	X							
Database Administrator Server (DBAdmS) Version 3.0.2.0		↑							X	X
Database Administrator Runtime (DBAdmR) Version 3.0.2.0			↑						X	
ORACLE RDBMS (ORAS) Version 2.1.0.0/8.1.6.1				↑	X				X	X
ORACLE DataBase Instance (ORADBI) Version 2.1.0.0/8.1.6					↑	X				
ELIST Global Data Segment (ELIST) Version 8.1.0.0						↑	X	X	X	X
ELIST Database Instance Segment (ELIST) Version 8.1.0.0							↑	X	X	X
ELIST Database Fill Segment (ELIST) Version 8.1.0.0								↑	X	
ELIST Database Segment (ELIST) Version 8.1.0.0									↑	X
ELIST Database Utility Segment (ELIST) Version 8.1.0.0										↑

Table 3 implies that the Java Platform 1 (JAVA1) segment, the Java Platform 2 (JAVA2) segment, the Database Administrator Server (DBAdmS) segment, the Database Administrator Runtime (DBAdmR) segment, the ORACLE RDBMS (ORAS) segment, and the ORACLE DataBase Instance (ORADBI) segment must reside on the database server platform before installing the five ELIST database server segments on that machine. You should therefore acquire those segments, if necessary, once you have made the decision to install ELIST. However, the table does not imply that the prerequisite segments must all be resident before the installation of the ELIST database server segments can begin. In particular, the Database Administrator Server (DBAdmS) segment cannot be installed until at least one functioning database instance exists on the machine. Thus, if the ELIST database instance will be the first database instance created on the machine, install the Database Administrator Server (DBAdmS) segment only *after* installing the ELIST Database Instance Segment.

In a similar manner, Table 4 and Table 5 depict the dependencies of the ELIST application client segments on kernel and infrastructure service segments (and on each other).

**Table 4. ELIST Segment Dependencies on the Application Client,
When the Same as the Database Server**

Segment Name, Prefix, and Version	Required Segments (see text)		
Java Platform 2 (JAVA2) Version 4.3.0.0 (corresponds to JRE 1.3)		X	
ORACLE RDBMS (ORAS) Version 2.1.0.0/8.1.6.1	↑	X	
ELIST Software Segment (ELIST) Version 8.1.0.0		↑	
ELIST Reference Data Segment (ELIST) Version 8.1.0.0			↑

Table 4 applies when the application client and the database server are the same machine whereas Table 5 applies when they are different machines.

**Table 5. ELIST Segment Dependencies on the Application Client,
When Different from the Database Server**

Segment Name, Prefix, and Version	Required Segments (see text)			
Java Platform 2 (JAVA2) Version 4.3.0.0 (corresponds to JRE 1.3)			X	
ORACLE Client Applications (ORAC) Version 2.1.0.0/8.1.6	↑	X		
ORACLE DataBase Administration (ORADBA) Version 2.1.0.0/2.1.0		↑	X	
ELIST Software Segment (ELIST) Version 8.1.0.0			↑	
ELIST Reference Data Segment (ELIST) Version 8.1.0.0				↑

The two tables together imply that the Java Platform 2 (JAVA2) segment and *either* the ORACLE RDBMS (ORAS) segment or *both* the ORACLE DataBase Administration (ORADBA) segment and the ORACLE Client Applications (ORAC) segment must reside on the application client platform before installing the two ELIST client application segments on that machine. (Which of these Oracle COTS segments are to be installed depends on whether the application client and the database server are the same machine or different machines.) Although not required to be on the machine to *install* the ELIST Software Segment, the ELIST Global Data Segment and the ELIST Reference Data Segment must be present (on the database server and the application client, respectively) before the features of the ELIST Software Segment can be *used*. (Those features perform the appropriate checks.)

3.2.2   Operating System Preparation

On Solaris 7 systems, it is necessary to configure the shared memory and semaphore parameters of the operating system kernel, in `/etc/system`, in accordance with the guidance given in the *Oracle8i Installation Guide* (*q.v.*). This is normally done before installing the DII COE Oracle COTS segments, so it may have already been done at your site. Table 6 lists the values recommended by the *Oracle8i Installation Guide* for Release 2 (8.1.6) of the Oracle RDBMS and the values used on the Solaris 7 system on which ELIST was tested. Where the tested values

greatly exceed the recommended values in the table, it is possible that smaller values woud suffice. It is believed, however, that at least some of the recommended values could be insufficient for ELIST, depending on system load.

Table 6. Recommended and Tested Values of Solaris Kernel Parameters

Parameter	Recommended Value	Tested Value
shmmax	4294967295	4294967295
shmmin	1	1
shmmni	100	1024
shmseg	10	1024
semmsl	$\geq$processes	400
semmni	70	120
semmns	200	200
semmnu	N/A	400

 (The value of the processes parameter for the ELIST database instance is 50. This value is supplied by a configuration file contained in the ELIST Database Instance Segment.)

Instructions for modifying the foregoing Solaris kernel parameters can be found in *Installation Procedures (IP) for the ORACLE RDBMS (ORAS)* and in the *System Administrator's Manual (SAM) for the ORACLE Client Applications (ORAC)*, *ORACLE DataBase Administration (ORADBA)*, *ORACLE DataBase Instance (ORADBI)*, *and ORACLE RDBMS (ORAS)*.

3.2.3   Tape/Disk Preparation

On Solaris 7 systems, a prerequisite for installing the DII COE Oracle COTS segments is the creation of four partitions (mount points) named /ora01, /ora02, /ora03, and /ora04. If the DII COE Oracle COTS segments have been installed on your database server, then this has already been accomplished. If necessary, the System Administrator (*i.e.*, the sysadmin user) can create these partitions by using the **Disk Manager** feature of the DII COE **SysAdm** application. Instructions for the use of that feature can be found in the *System Administrator's Manual (SAM) for the Kernel*.

During the installation of the ELIST Database Instance Segment, the installer will be given a choice of designating an existing database instance for ELIST to use (one that may be shared with other applications requiring a database) or of having the segment create a new database instance specifically for ELIST. In the former case, the installer is responsibile for ensuring that the existing database instance has the properties required by ELIST. (Those properties are outlined in the ReleaseNotes descriptor file of the ELIST Database Instance Segment, a copy of which is replicated in Appendix A.) In the latter case, the segment will create a database instance having the required properties. The installer should ensure, in this case, that sufficient disk space is available in the /ora01, /ora02, /ora03, and /ora04 partitions. Because the available space is allocated to tablespaces dynamically during the installation of the ELIST Database Segment (by a database administration tool that it invokes), minimum space requirements by partition cannot realistically be stated. Instead, Table 7 presents a feasible assignment of sizes to each partition, as determined during testing by the developer.[4] Note, however, that the space occupied may grow during use, depending on the number of ELIST

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[4] The total of these partition sizes is 7.418 GB, whereas the total RDBMS disk space requirement implied by Table 7 is 6.452 GB. The difference, 966 MB, is the space used by the current versions of the DII COE Oracle COTS segments.

users, the concurrent load they place on the RDBMS, and the nature and sizes of the tables they manipulate during their use of ELIST. Partitions of larger size should be created, if possible.

Table 7. Feasible Minimum RDBMS Disk Space Assignments,
by Partition, in Solaris 7

Partition	Size of Partition (GB)
`/ora01`	1.689
`/ora02`	2.179
`/ora03`	1.516
`/ora04`	2.034

3.2.4   Account Preparation

If you have installed the prerequisite segments described in Section 3.2.1, you have created various administrative profiles and accounts on the database server as directed by their Installation Procedures (IP) manuals.[5] In particular, the *Installation Procedures (IP) for the ORACLE DataBase Instance (ORADBI)* will have directed you to create a profile that provides access to the features of ORADBI and a user account in the `dba` group to which that profile is assigned. Similarly, the *Installation Procedures (IP) for the Database Administrator Runtime (DBAdmR)* and the *Installation Procedures (IP) for the Database Administrator Server (DBAdmS)* will have directed you to create profiles that provide access to the features of DBAdmR and DBAdmS, respectively, and user accounts in the `COE` group to which those profiles are assigned. It is not necessary for the three profiles to be separate profiles, or for the three accounts to be separate accounts. For convenience, it is recommended that you create a single profile and a single user account for the Database Administrator. The profile should provide access to the features of ORADBI *as well as* DBAdmR and DBAdmS, and the account should belong to the `dba` group *as well as* the `COE` group. (The default group can be either of those groups.)

Note that the *Installation Procedures (IP) for the ORACLE RDBMS (ORAS)*, the *Installation Procedures (IP) for the ORACLE Client Applications (ORAC)*, and the *Installation Procedures (IP) for the ORACLE DataBase Administration (ORADBA)* do *not* direct you to create profiles that provide access to the features of these respective segments. Nevertheless, all of these segments have, as features, the relevant tools from the Oracle Enterprise Manager Management Pack, and it is useful to make these available to your DBA *via* the appropriate desktop icons. On the database server platform, you should add the features of ORAS to the profile described in the preceding paragraph. On application client platforms that are different from the database server platform, you should create that profile and add the features of ORAC and ORADBA to it, and also create a user account in the `dba` group to which the profile is assigned.

Two application-specific groups—`elistusr` and `elistadm`—are established by the installation of the segments of the ELIST mission application; a non-login account—`elistown`, which is used only for file and directory ownership in those segments—is likewise established by their installation. These resources, along with the file and directory permissions established during installation, ensure that users can access the files and directories of the ELIST mission application in the required ways while protecting those files and directories against unauthorized alteration or deletion.

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[5] These accounts and profiles are created by the Security Administrator (*i.e.*, the `secman` use), using the **APM Client** feature of the **SecAdm** application.

At appropriate points in the installation process (see Sections 4.5.5 and 4.6.5), the Security Administrator creates profiles—**General ELIST User** and **Administrative ELIST User**—that provide access to the features of the ELIST Software Segment and the ELIST Database Utility Segment. In particular:

- The **Run ELIST** and **Run ETEdit** features of the ELIST Software Segment, which can only be executed by members of the `elistusr` group, are assigned to the **General ELIST User** profile.

- The features of the ELIST Database Utility Segment, which can only be executed by members of the `elistadm` group, are assigned to the **Administrative ELIST User** profile. Because these features require administrative passwords to be enetered, access to them is restricted to cognizant individuals with an administrative responsibility.

- The **Add Map Data** and **Delete Map Data** features of the ELIST Software Segment, which can only be executed by members of the `elistadm` group, are assigned to the **Administrative ELIST User** profile. The rationale for this is that adding or deleting NIMA map data changes the directories and files present in the installed ELIST Reference Data Segment. Furthermore, the addition of map data can consume hundreds of megabytes of disk space and may require the deletion of other map data to make space available. Consequently, these actions should only be performed by cognizant individuals with an administrative responsibility.

After the installation of the ELIST mission application, and before they can begin using ELIST, the Security Administrator will need to create accounts for the prospective ELIST users. The accounts for general ELIST users must be added to the `elistusr` group and must have the **General ELIST User** profile assigned to them, and those of administrative ELIST users must be added to *both* the `elistusr` and the `elistadm` groups and must have the **Administrative ELIST User** assigned to them.[6] A user may be both a general ELIST user and an administrative ELIST user; the accounts of such users will have both profiles assigned, and those users may change roles by switching profiles without logging out.

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[6] This is covered in more detail in the *User's Manual (UM) for the Enhanced Logistics Intratheater Support Tool (ELIST) Software Segment*.

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4. Installation Instructions

This section contains the instructions for installing each of the segments of the ELIST mission application.

To install ELIST initially, follow the instructions for installing each segment in the order given. Instructions for installing updates of individual segments will be furnished in the future as updates become available. Because the deinstallation script of each of the five database server segments checks to make sure that segments later in the installation order have been deinstalled, to replace a database server segment with a new version you must (1) deinstall all later database server segments first, in the reverse of their installation order; (2) replace the given segment; then (3) reinstall the later segments (with new versions, if applicable). No such requirement applies to the two application client segments.

> **WARNING:** It is strongly recommended that you not take shortcuts when you use the DII COE **Segment Installer** to install segments. Do not rely on the **Segment Installer** to use dependency information to deduce that it must implicitly install prerequisite segments if you have not already explicitly done so. Although that information is correctly specified in the ELIST segments, the **Segment Installer** does not compute the *closure* of the segments required to install a given segment, which can cause it to install a segment before all of its prerequisite segments have been installed. (In the case of ELIST, that behavior has caused the **Segment Installer** to hang while executing one segment's `PostInstall` script.) Until the **Segment Installer** is changed to compute the closure, or to disable the implicit installation of prerequisite segments, it is recommended that you explicitly install the segments, one at a time, in the stated order. In addition, when installing a later version of a segment, explicitly deinstall the currently installed version first, following the deinstallation instructions for that segment in Section 5, rather than relying on the **Segment Installer** to deinstall the current version implicitly.
>
> **WARNING:** As of COE Version 4.2.0.0P4, there appears to be a bug in the Accounts and Profiles Manager (APM) COE component that causes the APM server to lose communication with APM clients after an indeterminate (but fairly lengthy) period of use. This bug can cause the **Segment Installer** to hang while attempting to install a segment; it has been observed to occur with a variety of segments, both ELIST and others. It this occurs, it will be necessary to kill the **Segment Installer** process, log out as `sysadmin` and log back in as `secman`, then reload the APM server (using the **APM Server Reload** feature of the **SecAdm** application); alternatively, you can reboot the machine.

The steps of the installation instructions that follow have been simplified here to include only the expected responses from the system. In unusual circumstances, other responses are possible. To cover all the possible responses in these instructions would have made them unwieldy. As a compromise, we have tried to make the messages displayed in unusual circumstances as informative and self-explanatory as possible. They often include advice or instructions for recovery, and may refer to particular System Administrator's Manuals (SAMs) where further detailed information can be found.

4.1 ELIST Global Data Segment

No decisions are required during the installation of the ELIST Global Data Segment.

> **REMINDER:** If the database server platform and the application client platform are *not* the same machine, be sure that the two machines share `/h/data/global` (see Section 3.2.1).

4.1.1 Media Booting Procedures

N/A.

4.1.2 Installation Procedure

To install the ELIST Global Data Segment, perform the following steps:

Step 1. On a database server platform containing the DII COE Oracle COTS segments, log in as `sysadmin` and insert the ELIST Global Data Segment CD into the CD-ROM drive.

Step 2. Launch the **Segment Installer** feature of the DII COE **SysAdm** application, select the source, and read the table of contents from the installation medium.

Step 3. From the table of contents, select **ELIST Global Data Segment**.

Step 4. Click **Install**.

Step 5. After verifying that the installation was successful (see Section 4.1.4), exit the **Segment Installer** by clicking **Exit** and then log out.

4.1.3 Installation of Upgrades

N/A.

4.1.4 Installation Verification

Installation is successful if **ELIST Global Data Segment** appears in the **Segment Installer**'s list of installed segments after Step 4.

Verify that the following directories exist:

- `/h/ELISTglob`

- `/h/data/global/ELISTglob/data`

4.1.5 Initializing the Software

N/A.

4.1.6 List of Changes and Enhancements

N/A.

4.1.7 Important Considerations

Restrictions on the release of the ELIST Global Data Segment to prospective users are documented in the segment's SVD.

4.2 ELIST Database Instance Segment

During the installation of the ELIST Database Instance Segment, you will be prompted to indicate whether you wish to

- use an existing database instance for ELIST, or

- create a new database instance for ELIST.

Before starting the installation, determine which of these options you will choose. If it is the policy of the site to maintain a single database instance for all DII COE database applications to share, you should choose the first option. (However, it is unlikely that an existing database instance will satisfy all the properties outlined in Appendix A.) Such an instance must have been created previously by using ORADBI, as discussed in the SAM for the Oracle COTS segments; otherwise, it may not be recognized as an existing instance by this segment. If the first option is chosen during installation, the installation scripts will *not* verify that the designated instance has the required properties. If that will be your choice, consult the guidance and instructions for creating database instances in the *System Administrator's Manual (SAM) for the Enhanced Logistics Intratheater Support Tool (ELIST) Database Instance Segment* before proceeding. If you are unsure about the existence of a suitable instance, plan to create a new one by choosing the second option, if the site policy allows. In that case, it is only necessary to ensure that the required disk space is available, as tabulated in Section 3.2.3.

If you will be creating a new database instance for ELIST, you will also be prompted for the password to be assigned to the SYSTEM user in that database instance. Before installing the ELIST Database Instance Segment, decide what password you will assign. That password must be entered later during the installation or deinstallation of the ELIST Database Segment (regardless of whether or not the ELIST Database Instance Segment created the instance). It must also be entered when managing ELIST database user accounts with the facilities of the ELIST Database Utility Segment, but it is not required when deinstalling the ELIST Database Instance Segment. The password is also required for the DBA to perform extraordinary maintenance (not covered by this IP) on the database instance.

4.2.1 Media Booting Procedures

N/A.

4.2.2 Installation Procedure

To install the ELIST Database Instance Segment, perform the following steps after installing the ELIST Global Data Segment:

Step 1.   On the database server platform on which the ELIST Global Data Segment is installed, log in as sysadmin and insert the ELIST Database Instance Segment CD into the CD-ROM drive.

Step 2.   Launch the **Segment Installer** feature of the DII COE **SysAdm** application, select the source, and read the table of contents from the installation medium.

Step 3.   From the table of contents, select **ELIST Database Instance Segment**.

Step 4.   Click **Install**.

Step 5.   If at least one database instance previously created by using the DII COE
Oracle COTS segments is found, the installation procedure continues with
Step 6. If no database instances previously created by using the DII COE
Oracle COTS segments are found, it proceeds to Step 9. These two steps can
be distinguished by the fact that the dialogue windows they display ask
different questions.

Step 6.   (Ask for installer's intentions.) A Question Window similar to the one shown
in Figure 1 opens, listing the existing database instances. (In this example, it
is assumed that two database instances, named **STAFF** and **MATERIEL**,
already exist.)
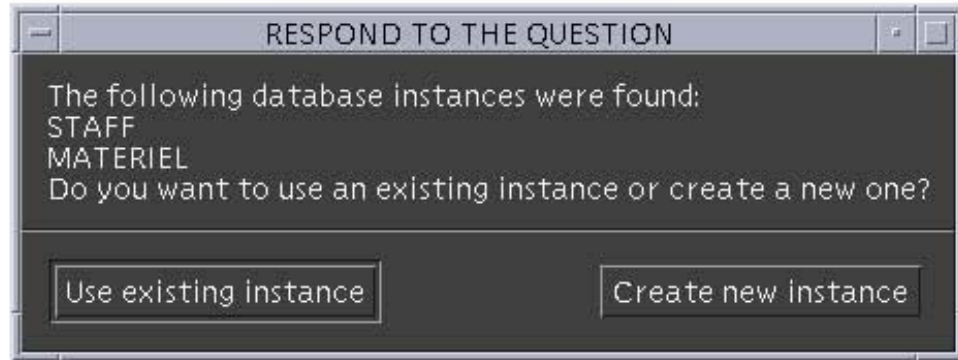
**Figure 1. Question Window for Choosing Whether to Create
a New Database Instance**

Respond to the question by clicking the desired choice. If you click **Use
existing instance**, the installation procedure continues with Step 7; if you
click **Create new instance**, it proceeds to Step 9.

Step 7.   (Select existing instance name.) A Text Entry Window similar to the one
shown in Figure 2 opens, again listing the existing database instances. (The
existing database instance names, **STAFF** and **MATERIEL** in this example,
are repeated for convenience.)

.
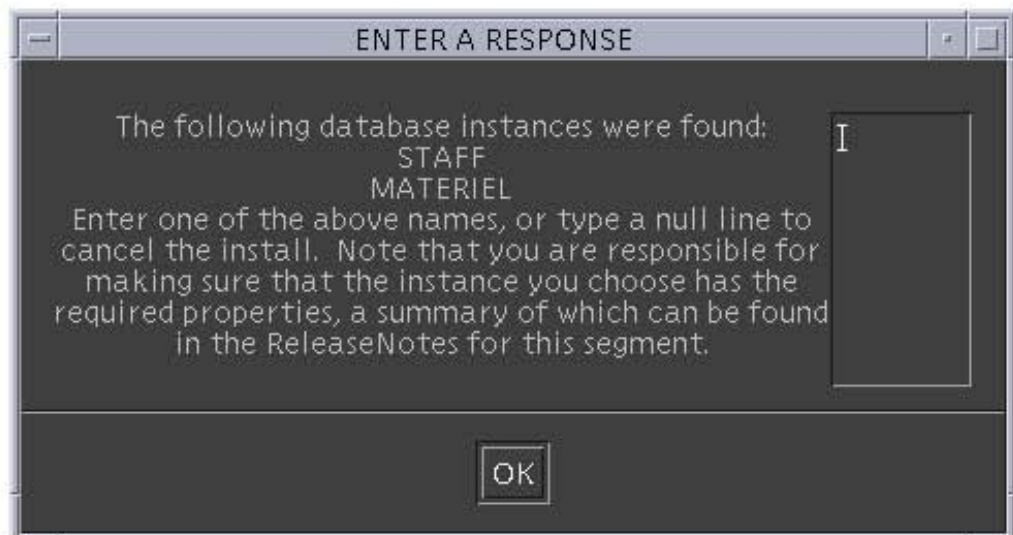
**Figure 2. Text Entry Window for Selecting
an Existing Database Instance**

Enter the name of one of the existing instances (case is immaterial), then click **OK**. (Alternatively, to abort the install, click **OK** without entering an instance name, close any Message Windows that open, and proceed to Step 12.)

Step 8.   A Message Window similar to the one shown in Figure 3 opens (assuming that the installer entered **MATERIEL** in Step 7).
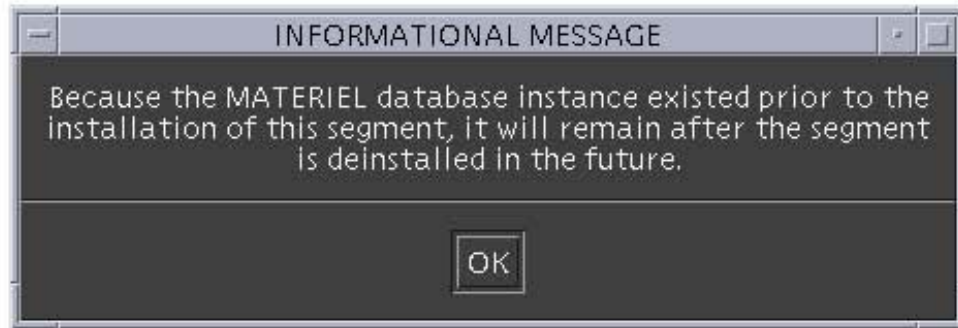
Figure 3. Message Window after Selecting Existing Database Instance

Click **OK**, and proceed to Step 12 to complete the installation of the segment.

Step 9.   (Select new instance name.) A Text Entry Window similar to the one shown in Figure 4 opens. (The existing database instance names, **STAFF** and **MATERIEL** in this example, are repeated for convenience. However, if no database instances were found in Step 5, **(none)** replaces the list of existing instance names.)
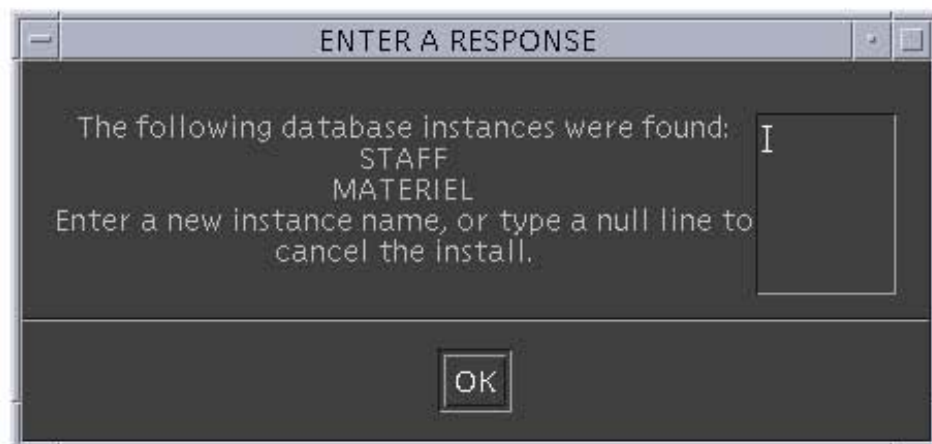
**Figure 4. Text Entry Window for Selecting
a New Database Instance Name**

Enter the desired name for the new database instance (a name *not* in the list; case is immaterial), then click **OK**. (Alternatively, to abort the install, click **OK** without entering an instance name, close any Message Windows that open, and proceed to Step 12.)

Step 10.   (Select SYSTEM password for new instance.) A Password Entry Window similar to the one shown in Figure 5 opens.
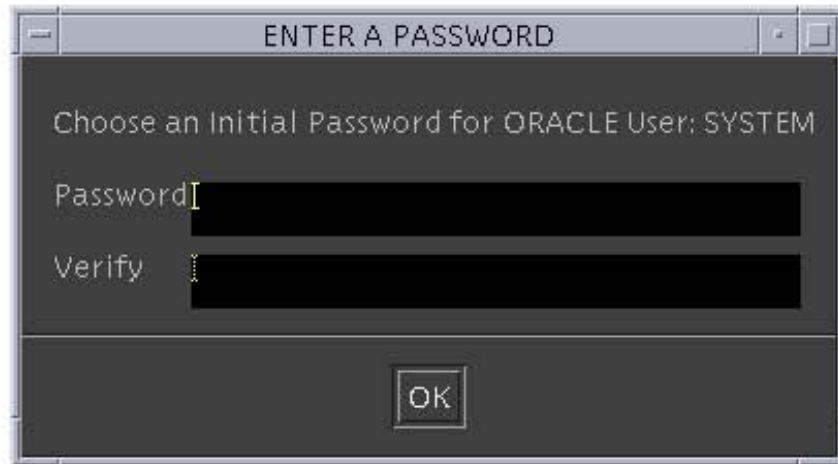
Figure 5. Password Entry Window for Assigning a SYSTEM Password to the New Database Instance

Enter the chosen password, which must be between 6 and 14 characters in length; confirm it by entering it a second time where indicated; then click **OK**. Record the password in a secure place for later reference.

Step 11.   (Create database instance.) A new database instance is created.

It may take approximately *one hour and twenty minutes* to complete this processing. At the conclusion of this process, a Message Window similar to the one shown in Figure 6 opens (assuming the installer entered **ELIST1** as the new database instance name in Step 9).
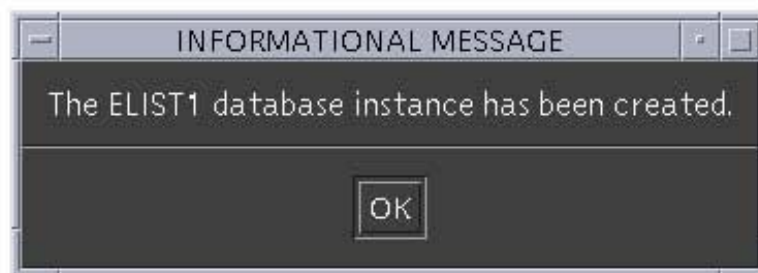
Figure 6. Message Window after Creation of New Database Instance

Click **OK**.

(In error situations, different messages appear. The segment remains installed, even in certain error situations, *unless the text of some message includes the sentence* **Aborting the install**. The error messages are designed to be reasonably self-explanatory, and they usually include a pointer to a log file in which further details can be found. They also refer to the SAM for this segment, which gives instructions for recovering from a variety of error situations.)

Step 12.   After verifying that the installation was successful (see Section 4.2.4), exit the **Segment Installer** by clicking **Exit** and then log out.

Step 13. If the creation of a new database instance was chosen in Step 6 and its creation was successful, perform the initialization function described in Section 4.2.5.

> **NOTE:** The installation of the ELIST Database Segment in Section 4.4.2 may fail if this initialization is not performed.

4.2.3 Installation of Upgrades

N/A.

4.2.4 Installation Verification

Installation is successful if a Message Window similar to the one shown in Figure 3 opens in Step 8 (or one similar to that shown in Figure 6 opens in Step 11) and **ELIST Database Instance Segment** appears in the **Segment Installer**'s list of installed segments after Step 11.

Verify that the `/h/ELISTdbinst` directory exists.

Look at the contents of the `/h/data/global/ELISTglob/data/Instance_Info` data file. Verify that the contents have the format of the example shown in Appendix B.

If the creation of a new database instance was chosen in Step 6, verify the following:

- A subdirectory having the name `ELISTdbinst` exists in the `$ORADBI_HOME/data` directory. (The normal value of `$ORADBI_HOME` is `/h/COTS/ORADBI`.)

- Furthermore, a link to that subdirectory, also having the name `ELISTdbinst`, exists in the `$ORADBI_HOME/data/dbdesc` directory.

If `<instance>` is the name of the existing database instance entered in Step 7 or of the new database instance entered in Step 9, verify that the following directories exist:

- `/ora01/oradata/<instance>`

- `/ora02/oradata/<instance>`

- `/ora03/oradata/<instance>`

- `/ora04/oradata/<instance>`

- `/ora01/app/oracle/admin/<instance>`

In the last-named directory, verify that, among other things, a file named `<instance>.cfg` exists.

If unexpected problems were encountered during installation, or if the installation cannot be verified, consult the *System Administrator's Manual (SAM) for the Enhanced Logistics Intratheater Support Tool (ELIST) Database Instance Segment*.

4.2.5 Initializing the Software

The Database Administrator Server segment (DBAdmS) does not automatically update its view of existing database instances when instances are created or removed. You must use a particular database administration tool that causes DBAdmS to take a fresh "snapshot" of the existing instances. To do this, you must log in as a user with access to the features of DBAdmS (see Section 3.2.4) and launch its **DB Server Snapshot** feature. Instructions for the use of that tool can be found in the *System Administrator's Manual (SAM) for the Database Administrator Server (DBAdmS)*. Log out when finished.

4.2.6 List of Changes and Enhancements

N/A.

4.2.7 Important Considerations

Restrictions on the release of the ELIST Database Instance Segment to prospective users are documented in the segment's SVD

Upgrading the Oracle COTS segments to a new version will result in the loss of existing databases and database instances. To upgrade those segments cleanly, you should proceed in the following way, which is summarized in the *System Administrator's Manual (SAM) for the ORACLE Client Applications (ORAC), ORACLE DataBase Administration (ORADBA), ORACLE DataBase Instance (ORADBI)*, and *ORACLE RDBMS (ORAS)*:

- Export existing databases.

- Deinstall the five ELIST database server segments (Section 5).

- Deinstall the Oracle COTS segments.

- Install new versions of the Oracle COTS segments.

- Reinstall the five ELIST database server segments.

- Import the previously exported databases.

> **REMINDER:** If a new database instance was created during the installation of this segment, and if it is the first database instance to have been created on the machine, it is time to install the Database Administrator Server (DBAdmS) segment. See Section 3.2.1.

4.3 ELIST Database Fill Segment

No decisions are required during the installation of the ELIST Database Fill Segment.

4.3.1 Media Booting Procedures

N/A.

4.3.2 Installation Procedure

To install the ELIST Database Fill Segment, perform the following steps after installing the ELIST Database Instance Segment:

Step 1. On the database server platform on which the ELIST Database Instance Segment is installed, log in as `sysadmin` and insert the ELIST Database Fill Segment CD into the CD-ROM drive.

Step 2. Launch the **Segment Installer** feature of the DII COE **SysAdm** application, select the source, and read the table of contents from the installation medium.

Step 3. From the table of contents, select **ELIST Database Fill Segment**.

Step 4. Click **Install**.

Step 5. After verifying that the installation was successful (see Section 4.3.4), exit the **Segment Installer** by clicking **Exit** and then log out.

4.3.3 Installation of Upgrades

N/A.

4.3.4 Installation Verification

Installation is successful if **ELIST Database Fill Segment** appears in the **Segment Installer**'s list of installed segments after Step 4.

Verify that the `/h/ELISTdbfill` directory exists.

4.3.5 Initializing the Software

N/A.

4.3.6 List of Changes and Enhancements

N/A.

4.3.7 Important Considerations

Restrictions on the release of the ELIST Database Fill Segment to prospective users are documented in the segment's SVD

4.4 ELIST Database Segment

The installation of this segment creates the tablespaces and tables used by the ELIST mission application. They are created in (that is, associated with) the database instance selected or created during the installation of the ELIST Database Instance Segment.

Before using the **Segment Installer** to install this segment, you must perform an administrative function as a DBA to identify (*i.e.*, reserve) storage for DBA tools to allocate to the ELIST tablespaces. The first several steps of the installation procedure below lead you through this

administrative function. In those steps, you will log in using the DBA account referred to in Section 3.2.4. Make sure you have that account's userid and password handy.

Later in the installation procedure, you will be prompted to enter the SYSTEM password for the ELIST database instance. If a new database instance was created during the installation of the ELIST Database Instance Segment, it is the password you assigned to the SYSTEM user in Step 10 of Section 4.2.2; otherwise, it is the SYSTEM password of the preexisting database instance. Make sure that you know the password.

During the installation of this segment, table data provided by the installation of the ELIST Database Fill Segment are imported into the database. After the successful installation of this segment, the ELIST Database Fill Segment may be deinstalled (see Section 5.5.1). This will reclaim about 25 MB of segment storage.

4.4.1   Media Booting Procedures

N/A.

4.4.2   Installation Procedure

To install the ELIST Database Segment, perform the following steps after installing the ELIST Database Fill Segment:

Step 1.   On the database server platform on which the ELIST Database Fill Segment is installed, log in as a user with access to the features of DBAdmR (see Section 3.2.4).

Step 2.   (Identify storage to reserve for database.) Launch the **Identify Storage** feature of the DII COE **DBAdmR** application.

Follow the instructions for the use of this feature given in the *System Administrator's Manual (SAM) for the Database Administrator Runtime (DBAdmR)*.

As you do, make sure the database instance identified is the ELIST database instance. If it is not, click on **DBA Chooser…** and select the proper instance.

If the value in the RDBMS column of the Identify Storage Window is already **yes** in the rows for the devices mounted on /ora01, /ora02, /ora03, and /ora04, continue with Step 3.

> **NOTE:** It will be **yes** if you are installing a new version of this segment following its previous deinstallation, but you did *not* perform Step 8 through Step 10 of Section 5.4.1 during its deinstallation.

Otherwise, continuing with the instructions in the above-mentioned SAM, identify *at least* 800 MB of storage on /ora01 and /ora03 and *at least* 1900 MB of storage on /ora02 and /ora04, or *at least* 5400 MB distributed over such other partitions as you may prefer. In this process, the value in the RDBMS column changes to **yes** in the rows for the devices mounted on the selected partitions.

Step 3. Exit the **Identify Storage** tool and then log out.

Step 4. Log in as sysadmin and insert the ELIST Database Segment CD into the CD-ROM drive.

Step 5. Launch the **Segment Installer** feature of the DII COE **SysAdm** application, select the source, and read the table of contents from the installation medium.

Step 6. From the table of contents, select **ELIST Database Segment**.

Step 7. Click **Install**.

Step 8. (Enter SYSTEM password.) A Password Prompt Window similar to the one shown in Figure 7 opens. (In this example, it is assumed that the name of the ELIST database instance is **ELIST1**.)

**Figure 7. Password Prompt Window for Access
to the ELIST Database Instance**

Enter the password for the SYSTEM user of the ELIST database instance and then click **OK**.

Step 9. (Create database.) The ELIST database is created.

It may take approximately *fifty minutes* to complete this processing. At the conclusion of this process, a Message Window similar to the one shown in Figure 8 opens.
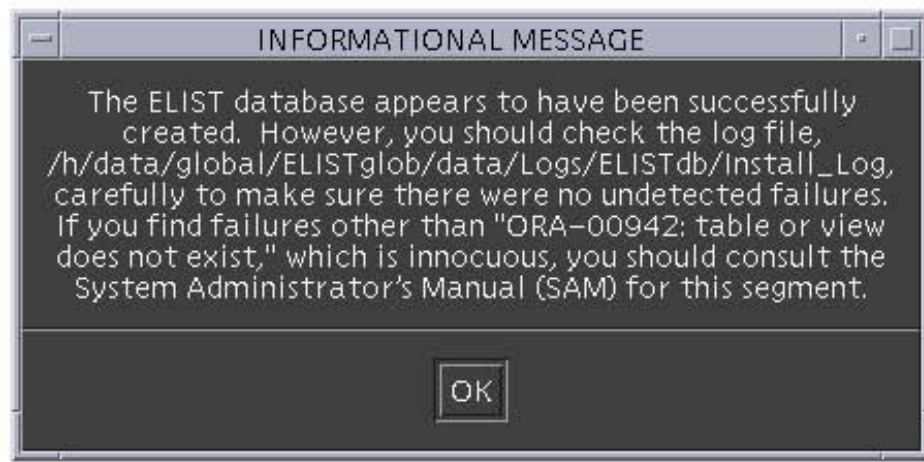
Figure 8. Message Window after Creation of Database

Click **OK**.

(In error situations, different messages appear. The segment remains installed, even in certain error situations, *unless the text of some message includes the sentence* **Aborting the install**. The error messages are designed to be reasonably self-explanatory, and they usually include a pointer to a log file in which further details can be found. They also refer to the SAM for this segment, which gives instructions for recovering from a variety of error situations.)

Step 10.   After verifying that the installation was successful (see Section 4.4.4), exit the **Segment Installer** by clicking **Exit** and then log out.

4.4.3   Installation of Upgrades

N/A.

4.4.4   Installation Verification

Installation is successful if a Message Window similar to the one shown in Figure 8 opens in Step 9 and **ELIST Database Segment** appears in the **Segment Installer**'s list of installed segments after Step 9.

Verify that the `/h/ELISTdb` directory exists.

Check the log file (see Figure 8) to make sure that no unexpected errors were detected.

If unexpected problems were encountered during installation, or if the installation cannot be verified, consult the *System Administrator's Manual (SAM) for the Enhanced Logistics Intratheater Support Tool (ELIST) Database Segment*.

REMINDER: Once you have verified that the ELIST Database Segment has been installed correctly, you can deinstall the ELIST Database Fill Segment (see Section 5.5.1).

4.4.5   Initializing the Software

N/A.

NOTE: To create ELIST database user accounts, use the **Create User Account** feature of the ELIST Database Utility Segment after that segment is installed.

4.4.6   List of Changes and Enhancements

N/A.

4.4.7   Important Considerations

Restrictions on the release of the ELIST Database Segment to prospective users are documented in the segment's SVD

4.5   ELIST Database Utility Segment

No decisions are required during the installation of the ELIST Database Utility Segment.

4.5.1 Media Booting Procedure

N/A.

4.5.2 Installation Procedure

To install the ELIST Database Utility Segment, perform the following steps after installing the ELIST Database Segment:

Step 1. On the database server platform on which the ELIST Database Segment is installed, log in as `sysadmin` and insert the ELIST Database Utility Segment CD into the CD-ROM drive.

Step 2. Launch the **Segment Installer** feature of the DII COE **SysAdm** application, select the source, and read the table of contents from the installation medium.

Step 3. From the table of contents, select **ELIST Database Utility Segment**.

Step 4. Click **Install**.

Step 5. After verifying that the installation was successful (see Section 4.5.4), exit the **Segment Installer** by clicking **Exit** and then log out.

4.5.3 Installation of Upgrades

N/A.

4.5.4 Installation Verification

Installation is successful if **ELIST Database Utility Segment** appears in the **Segment Installer**'s list of installed segments after Step 4.

Verify that the `/h/ELISTdbutil` directory exists.

4.5.5 Initializing the Software

Before the features of the ELIST Database Utility Segment can be used to manage ELIST database accounts, the **Administrative ELIST User** profile must be created, and the features of the segment must be assigned to it. To do this, log in as `secman` and launch the **APM Client** feature of the DII COE **SecAdm** application. Following the instructions for using the **APM Client** in the *Security Administrator's Manual (SECAM) for Kernel Version 4.2.0.0*, create a profile called **Administrative ELIST User** on the local host and assign all the features of the ELIST Database Utility Segment to it. Later, as each new administrative ELIST user is given an operating system account, place that account in *both* the `elistusr` and `elistadm` groups, and assign the **Administrative ELIST User** profile to it.

4.5.6 List of Changes and Enhancements

N/A.

4.5.7   Important Considerations

Restrictions on the release of the ELIST Database Utility Segment to prospective users are documented in the segment's SVD

4.6   ELIST Software Segment

No decisions are required during the installation of the ELIST Software Segment.

4.6.1   Media Booting Procedure

N/A.

4.6.2   Installation Procedure

To install the ELIST Software Segment, perform the following steps after installing the ELIST Database Utility Segment:

Step 1.   On an application client platform, log in as `sysadmin` and insert the ELIST Software Segment CD into the CD-ROM drive.

Step 2.   Launch the **Segment Installer** feature of the DII COE **SysAdm** application, select the source, and read the table of contents from the installation medium.

Step 3.   From the table of contents, select **ELIST Software Segment**.

Step 4.   Click **Install**.

Step 5.   After verifying that the installation was successful (see Section 4.6.4), exit the **Segment Installer** by clicking **Exit** and then log out.

4.6.3   Installation of Upgrades

N/A.

4.6.4   Installation Verification

Installation is successful if **ELIST Software Segment** appears in the **Segment Installer**'s list of installed segments after Step 4.

Verify that the `/h/ELISTexec` directory exists.

4.6.5   Initializing the Software

Before the features of the ELIST Software Segment can be used to edit ETPFDDs, run ELIST simulations, and manage NIMA map reference data, the **General ELIST User** profile must be created, and the segment's features must be assigned as appropriate to that profile and to the previously created **Administrative ELIST User** profile (see Section 4.5.5). To do this, log in as `secman` and launch the **APM Client** feature of the DII COE **SecAdm** application. Following the instructions for using the **APM Client** in the *Security Administrator's Manual (SECAM) for Kernel Version 4.2.0.0*, create a profile called **General ELIST User** on the local host and assign the **Run ELIST** and **Run ETEdit** features of the ELIST Software Segment to it. Assign the **Add Map Data** and **Delete Map Data** features of the ELIST Software Segment to the

previously created **Administrative ELIST User** profile. Later, as each new general ELIST user is given an operating system account, place that account in the `elistusr` group, and assign the **General ELIST User** profile to it. After doing that, log in as an administrative ELIST user and, following the instructions in the *User's Manual (UM) for the Enhanced Logistics Intratheater Support Tool (ELIST) Software Segment,* use the **Create User Account** feature of the ELIST Database Utility Segment to create an ELIST database user account for the general ELIST user.

4.6.6   List of Changes and Enhancements

N/A.

4.6.7   Important Considerations

Restrictions on the release of the ELIST Software Segment to prospective users are documented in the segment's SVD

4.7   ELIST Reference Data Segment

Installation of the ELIST Reference Data Segment makes a starter set of NIMA World Vector Shoreline (WVS) data available for all subsequent ELIST simulations. It also creates a directory structure that can be populated with NIMA raster product format map data, such as ADRG (ARC Digitized Raster Graphics) data, CADRG (Compressed ARC Digitized Raster Graphics) data, and DTED (Digital Terrain Elevation Data) data, as required to support simulations in a particular locale. Some such data are required for every simulation. The actual addition of such data to the segment is performed after the segment's installation, using the **Add Map Data** feature of the ELIST Software Segment.

No decisions are required during the installation of the ELIST Reference Data Segment.

4.7.1   Media Booting Procedure

N/A.

4.7.2   Installation Procedure

To install the ELIST Reference Data Segment, perform the following steps after installing the ELIST Software Segment:

Step 1.   On the application client platform on which the ELIST Software Segment is installed, log in as `sysadmin` and insert the ELIST Reference Data Segment CD into the CD-ROM drive.

Step 2.   Launch the **Segment Installer** feature of the DII COE **SysAdm** application, select the source, and read the table of contents from the installation medium.

Step 3.   From the table of contents, select **ELIST Reference Data Segment**.

Step 4.   The ELIST Reference Data Segment reserves 650 MB of disk space for expansion that occurs after the segment's installation. The expansion takes place when an administrative ELIST user adds NIMA raster product map data to the segment, using the **Add Map Data** feature of the ELIST Software Segment, to support simulations in particular locales. Only about 15.5 KB of

the disk space that may ultimately be required for the segment is populated by map data when the segment is installed. The **Segment Installer** will install the segment on a drive that can accommodate the space reserved for expansion. It may display an informational message indicating that it has chosen a drive other than the default drive. If you receive this message, dismiss it. If the **Segment Installer** has chosen a drive that does not contain enough space for your anticipated operations, considering that the addition of each NIMA raster product map CD requires 300 to 600 MB of segment disk space, override its choice by clicking the row for some other drive.

Step 5.   Click **Install**.

Step 6.   After verifying that the installation was successful (see Section 4.7.4), exit frm the **Segment Installer** by clicking **Exit** and then log out.

4.7.3   Installation of Upgrades

N/A.

4.7.4   Installation Verification

Installation is successful if **ELIST Reference Data Segment** appears in the **Segment Installer**'s list of installed segments after Step 5.

Verify that the following directories exist:

- `/h/ELISTrefdata`

- `/h/data/local/ELISTrefdata/data`

4.7.5   Initializing the Software

N/A.

4.7.6   List of Changes and Enhancements

N/A.

4.7.7   Important Considerations

Restrictions on the release of the ELIST Reference Data Segment to prospective users are documented in the segment's SVDDeinstallation Instructions

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5.   Deinstallation Instructions

This section contains the instructions for deinstalling each of the segments of the ELIST mission application.

Because some of the ELIST segments must be deinstalled in the reverse of the order in which they were installed, the segments are presented here in the reverse of the order in which they were presented in Section 4. To deinstall ELIST completely, follow the instructions for deinstalling each segment in the order given in Sections 5.1 through 5.7. If you simply wish to install a new version of a particular segment, the following rules apply:

- Each of the two application client segments—the ELIST Software Segment and the ELIST Reference Data Segment—can be deinstalled and replaced with a new version without deinstalling any other segment.

- To replace a given database server segment—the ELIST Global Data Segment, the ELIST Database Instance Segment, the ELIST Database Fill Segment, the ELIST Database Segment, or the ELIST Database Utility Segment—with a new version, you must (1) deinstall all the database server segments, in the order given in Sections 5.3 through 5.7, up to and including the given segment; (2) install the new version of the given segment; then (3) reinstall the database server segments *following* that one, in the order given in Section 4 (using new versions, if applicable).

The DEINSTALL scripts of the database server segments enforce the required deinstallation order, with one exception: the ELIST Database Fill Segment can be deinstalled at any time after the installation of the ELIST Database Segment. To conserve segment storage, we recommend that it be routinely removed at the earliest opportunity.

> **WARNING:** It is strongly recommended that you not take shortcuts in your use of the DII COE **Segment Installer**. Do not assume that, if multiple segments are selected for deinstallation, the **Segment Installer** will deinstall them in an appropriate order. Instead, select only a single segment at a time for deinstallation. If you do as recommended here, you will be correctly protected from trying to deinstall segments out of order.

The steps of the deinstallation instructions that follow have been simplified here to include only the expected responses from the system. In unusual circumstances, other responses are possible. To cover all the possible responses in these instructions would have made them unwieldy. As a compromise, we have tried to make the messages displayed in unusual circumstances as informative and self-explanatory as possible. They often include advice or instructions for recovery, and may include references to particular System Administrator's Manuals (SAMs) where further detailed information can be found.

A goal in the design of the DEINSTALL scripts was to ensure that each segment is positively deinstalled, even if Oracle fails to remove part of the database or database instance (otherwise, it might not be possible to remove the segment). If such a failure occurs, a DBA will have to "clean up" the database or database instance files by methods outside the ELIST mission application, guided by the information in the error messages and the SAMs. The only exception to this is that a DEINSTALL script will fail and leave the segment installed if an error condition

is detected from which a reliable and easy recovery is possible; error messages indicate what must be done to recover. One example of such a condition is the failure to have deinstalled the necessary other segments first.

5.1 ELIST Reference Data Segment

No decisions are required during the deinstallation of this segment.

5.1.1 Deinstallation Procedure

To deinstall the ELIST Reference Data Segment, perform the following steps:

Step 1. On the application client platform on which the ELIST Reference Data Segment is installed, log in as `sysadmin`.

Step 2. Launch the **Segment Installer** feature of the DII COE **SysAdm** application.

Step 3. From the list of installed segments, select **ELIST Reference Data Segment**.

Step 4. Click **Deinstall Software** and confirm your intention to deinstall the segment.

Step 5. After verifying that the deinstallation was successful (see Section 5.1.2), exit the **Segment Installer** by clicking **Exit** and then log out.

5.1.2 Deinstallation Verification

Deinstallation is successful if **ELIST Reference Data Segment** disappears from the **Segment Installer**'s list of installed segments after Step 4.

Verify that the `/h/ELISTrefdata` directory no longer exists.

5.2 ELIST Software Segment

No decisions are required during the deinstallation of this segment.

5.2.1 Deinstallation Procedure

To deinstall the ELIST Software Segment, perform the following steps:

Step 1. On the application client platform on which the ELIST Software Segment is installed, log in as `sysadmin`.

Step 2. Launch the **Segment Installer** feature of the DII COE **SysAdm** application.

Step 3. From the list of installed segments, select **ELIST Software Segment**.

Step 4. Click **Deinstall Software** and confirm your intention to deinstall the segment.

Step 5. After verifying that the deinstallation was successful (see Section 5.2.2), exit the **Segment Installer** by clicking **Exit** and then log out.

5.2.2 Deinstallation Verification

ELIST Database Deinstallation is successful if **ELIST Software Segment** disappears from the **Segment Installer**'s list of installed segments after Step 4.

Verify that the /h/ELISTexec directory no longer exists.

5.3 ELIST Database Utility Segment

No decisions are required during the deinstallation of this segment.

5.3.1 Deinstallation Procedure

To deinstall the ELIST Database Utility Segment, perform the following steps:

Step 1. On the database server platform on which the ELIST Database Utility Segment is installed, log in as sysadmin.

Step 2. Launch the **Segment Installer** feature of the DII COE **SysAdm** application.

Step 3. From the list of installed segments, select **ELIST Database Utility Segment**.

Step 4. Click **Deinstall Software** and confirm your intention to deinstall the segment.

Step 5. After verifying that the deinstallation was successful (see Section 5.3.2), exit the **Segment Installer** by clicking **Exit** and then log out.

5.3.2 Deinstallation Verification

Deinstallation is successful if **ELIST Database Utility Segment** disappears from the **Segment Installer**'s list of installed segments after Step 4.

Verify that the /h/ELISTdbutil directory no longer exists.

5.4 ELIST Database Segment

Deinstallation of this segment has the effect of removing the ELIST database, but not the instance. (The instance is removed by deinstalling the ELIST Database Instance Segment.) Removing the database means removing the tables, roles, grants, and datastores comprising the database. Users that have been given ELIST database accounts using the facilities of the ELIST Database Utility Segment are *not* removed, since they are recorded in system tables in the instance.

If the ELIST Database Segment is being deinstalled to install a new version of the segment, it may be necessary to preserve, across its deinstallation and subsequent reinstallation, the contents of tables created by users during their preceding use of the ELIST mission application. (Tables created during the previous installation of the segment will, of course, be recreated during its reinstallation.) The process of preserving (backing up and restoring) user-created tables has not yet been fully automated. Information relevant to performing the backup and restoration manually is given in Section 4.2.7. One small aspect of this process *has* already been automated, however. Since user roles are removed during the deinstallation of the ELIST Database Segment, the grants of those roles to the users are unavoidably revoked. The identities of the

affected users are recorded in storage belonging to the ELIST Global Data Segment, and that information is used to restore their grants if and when the ELIST Database Segment is reinstalled (after the user roles are recreated). This process is transparent to the users and the administrator.

No decisions are required during the deinstallation of the ELIST Database Segment.

5.4.1   Deinstallation Procedure

To deinstall the ELIST Database Segment, perform the following steps after deinstalling the ELIST Database Utility Segment:

Step 1.   On the database server platform on which the ELIST Database Segment is installed, log in as `sysadmin`.

Step 2.   Launch the **Segment Installer** feature of the DII COE **SysAdm** application.

Step 3.   From the list of installed segments, select **ELIST Database Segment**.

Step 4.   Click **Deinstall Software** and confirm your intention to deinstall the segment.

Step 5.   (Enter SYSTEM password.) A Password Prompt Window similar to the one shown in Figure 9 opens. (In this example, it is assumed that the name of the ELIST database instance is **ELIST1**.)

**Figure 9. Password Prompt Window for Access
to the ELIST Database Instance**

Enter the password for the `SYSTEM` user of the ELIST database instance and click **OK**.

Step 6.   (Remove database.) The ELIST database is removed.

It takes *two or three minutes* to complete this processing. At the conclusion of this process, a Message Window similar to the one shown in Figure 10 opens.
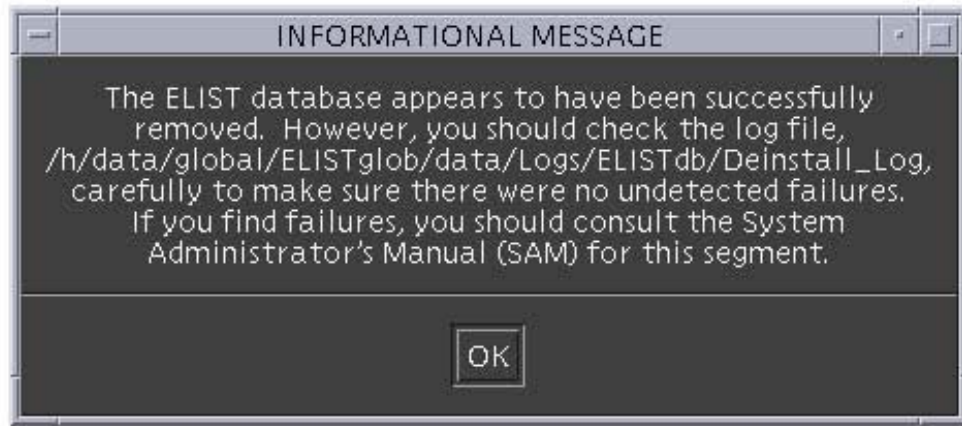
Figure 10. Message Window Confirming Removal of Database

Click **OK**.

(In error situations, different messages appear. Even in those situations, the **Segment Installer** removes the segment, regardless of the nature of the error. The error messages are designed to be reasonably self-explanatory, and they usually include a pointer to a log file in which further details can be found. They also refer to the SAM for this segment, which gives instructions for recovering from a variety of error situations.)

Step 7.   After verifying that the deinstallation was successful (see Section 5.4.2), exit the **Segment Installer** by clicking **Exit** and then log out.

    NOTE: If you are planning to install a new version of this segment, you can optionally omit Step 8 through Step 10, below. If you do, omit Step 1 through Step 3 of Section 4.4.2 when you reinstall the segment.

Step 8.   Log in as a user with access to the features of DBAdmR (see Section 3.2.4).

Step 9.   (Deidentify database storage.) Launch the **Identify Storage** feature of the DII COE **DBAdmR** application.

    Follow the instructions for the use of this feature given in the *System Administrator's Manual (SAM) for the Database Administrator Runtime (DBAdmR)*.

    As you do, make sure the database instance identified is the ELIST database instance. If it is not, click **DBA Chooser…** and select the proper instance.

    Deidentify the database storage you identified in Step 2 of Section 4.4.2 by highlighting /ora01 through /ora04 (or such other partitions as you previously identified in that step) in turn, clicking **Deidentify** for each.

Step 10.   Exit the **Identify Storage** tool and then log out.

5.4.2   Deinstallation Verification

Deinstallation is successful if a Message Window similar to the one shown in Figure 10 opens in Step 6 and **ELIST Database Segment** disappears from the **Segment Installer**'s list of installed segments after Step 6.

Verify that the `/h/ELISTdb` directory no longer exists.

Check the log file (see Figure 10) to make sure that no unexpected errors were detected.

If unexpected problems were encountered during deinstallation, or if the deinstallation cannot be verified, consult the *System Administrator's Manual (SAM) for the Enhanced Logistics Intratheater Support Tool (ELIST) Database Segment*.

5.5   ELIST Database Fill Segment

The table data provided by this segment need not remain on the system after it has been imported into the ELIST database by the installation of the ELIST Database Segment. Hence, this segment can be deinstalled any time after the installation of the latter segment.

No decisions are required during the deinstallation of the ELIST Database Fill Segment.

5.5.1   Deinstallation Procedure

To deinstall the ELIST Database Fill Segment, perform the following steps:

Step 1.   On the database server platform on which the ELIST Database Fill Segment is installed, log in as `sysadmin`.

Step 2.   Launch the **Segment Installer** feature of the DII COE **SysAdm** application.

Step 3.   From the list of installed segments, select **ELIST Database Fill Segment**.

Step 4.   Click **Deinstall Software** and confirm your intention to deinstall the segment.

Step 5.   After verifying that the deinstallation was successful (see Section 5.5.2), exit the **Segment Installer** by clicking **Exit** and then log out.

5.5.2   Deinstallation Verification

Deinstallation is successful if **ELIST Database Fill Segment** disappears from the **Segment Installer**'s list of installed segments after Step 4.

Verify that the `/h/ELISTdbfill` directory no longer exists.

5.6   ELIST Database Instance Segment

Deinstallation of this segment has the effect of deleting the ELIST database instance, if it was created during this segment's installation. If a preexisting instance was chosen during the installation of this segment, it will continue to exist after the segment's deinstallation.

NOTE: If a database instance is deleted during the deinstallation of this segment, all information pertaining to the existing ELIST database user accounts (*i.e.*, their names and

passwords) will be lost. If this segment and the other database server segments are subsequently reinstalled, user accounts (including the assignment of passwords) will have to be recreated in the ELIST database, using the **Create User Account** feature of the ELIST Database Utility Segment.

No decisions are required during the deinstallation of the ELIST Database Instance Segment.

5.6.1   Deinstallation Procedure

To deinstall the ELIST Database Instance Segment, perform the following steps after deinstalling the ELIST Database Fill Segment (or after deinstalling the ELIST Database Segment, if the ELIST Database Fill Segment has been deinstalled "early" to save space, as outlined in Section 5.5):

Step 1.   On the database server platform on which the ELIST Database Instance Segment is installed, log in as `sysadmin`.

Step 2.   Launch the **Segment Installer** feature of the DII COE **SysAdm** application.

Step 3.   From the list of installed segments, select **ELIST Database Instance Segment**.

Step 4.   Click **Deinstall Software** and confirm your intention to deinstall the segment.

Step 5.   If you chose to use an existing database instance in Step 6 of the *installation* of this segment (see Section 4.2.2), the deinstallation procedure continues with Step 6. If you chose to create a new database instance, it proceeds to Step 7. Different messages are displayed in the Message Windows that open in those steps.

Step 6.   A Message Window similar to the one shown in Figure 11 opens (assuming the preexisting instance was named **MATERIEL**).
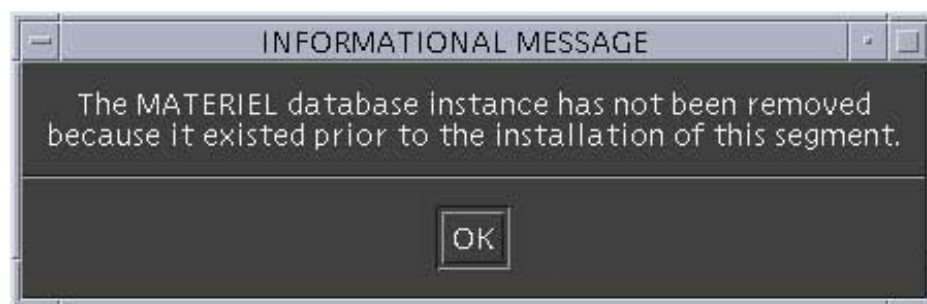
**Figure 11. Message Window Confirming Retention
of Preexisting Database Instance**

Click **OK** and proceed to Step 8 to complete the deinstallation of the segment.

Step 7.   (Remove database instance.) The database instance created during the *installation* of this segment is removed.

It takes only *a few seconds* to complete this processing. At the conclusion of this process, a Message Window similar to the one shown in Figure 12 opens

(assuming the database instance was named **ELIST1** in Step 9 of Section 4.2.2).
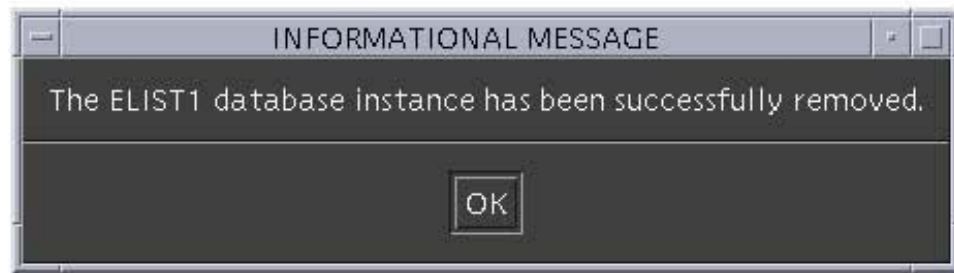

Figure 12. Message Window after Removal of Database Instance

Click **OK**.

(In error situations, different messages appear. Even in those situations, the **Segment Installer** removes the segment, regardless of the nature of the error. The error messages are designed to be reasonably self-explanatory, and they usually include a pointer to a log file in which further details can be found. They also refer to the SAM for this segment, which gives instructions for recovering from a variety of error situations.)

Step 8.   After verifying that the deinstallation was successful (see Section 5.6.2), exit the **Segment Installer** by clicking **Exit** and then log out.

Step 9.   Reperform the administrative function described in Section 4.2.5.

5.6.2   Deinstallation Verification

Deinstallation is successful if a Message Window similar to the one shown in Figure 11 opens in Step 6 (or one similar to that shown in Figure 12 opens in Step 7) and **ELIST Database Instance Segment** disappears from the **Segment Installer**'s list of installed segments after Step 7.

Verify that the `/h/ELISTdbinst` directory no longer exists.

If, during the *installation* of this segment, the system administrator chose to create a new database instance for ELIST, that instance should no longer exist. Verify the following:

- A subdirectory having the name `ELISTdbinst` no longer exists in the `$ORADBI_HOME/data` directory. (The normal value of `$ORADBI_HOME` is `/h/COTS/ORADBI`.)

- Furthermore, a link to that subdirectory, also having the name `ELISTdbinst`, no longer exists in the `$ORADBI_HOME/data/dbdesc` directory.

If `<instance>` was the name of the ELIST database instance, verify that the following directories no longer exist:

- `/ora01/oradata/<instance>`

- `/ora02/oradata/<instance>`

- `/ora03/oradata/<instance>`

- `/ora04/oradata/<instance>`

- `/ora01/app/oracle/admin/<instance>`

If unexpected problems were encountered during deinstallation, or if the deinstallation cannot be verified, consult the *System Administrator's Manual (SAM) for the Enhanced Logistics Intratheater Support Tool (ELIST) Database Instance Segment*.

5.7   ELIST Global Data Segment

No decisions are required during the deinstallation of the ELIST Global Data Segment.

5.7.1   Deinstallation Instructions

To deinstall the ELIST Global Data Segment, perform the following steps after deinstalling the ELIST Database Instance Segment:

Step 1.   On the database server platform on which the ELIST Global Data Segment is installed, log in as `sysadmin`.

Step 2.   Launch the **Segment Installer** feature of the DII COE **SysAdm** application.

Step 3.   From the list of installed segments, select **ELIST Global Data Segment**.

Step 4.   Click **Deinstall Software** and confirm your intention to deinstall the segment.

Step 5.   After verifying that the deinstallation was successful (see Section 5.7.2), exit the **Segment Installer** by clicking **Exit** and then log out.

5.7.2   Deinstallation Verification

Deinstallation is successful if **ELIST Global Data Segment** disappears from the **Segment Installer**'s list of installed segments after Step 4.

Verify that the following directories no longer exist:

- `/h/ELISTglob`

- `/h/data/global/ELISTglob/data`

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6. Notes

The following acronyms are (or may be) used in this document.

Acronym	Definition
ADRG	ARC Digitized Raster Graphics
ANL	Argonne National Laboratory
APM	Accounts and Profiles Manager
CADRG	Compressed ARC Digitized Raster Graphics
CD	Compact Disk
CD-ROM	Compact Disk Read-Only Memory
COE	Common Operating Environment
COTS	Common Off-the-Shelf
DB	Database
DBA	Database Administrator
DBAdmR	Database Administrator Runtime (DII COE segment prefix)
DBAdmS	Database Administrator Server (DII COE segment prefix)
DII	Defense Information Infrastructure
DTED	Digital Terrain Elevation Data
ELIST	Enhanced Logistics Intratheater Support Tool (DII COE segment prefix)
ETEdit	ETPFDD Editor
ETPFDD	Expanded Time-Phased Force Deployment Data
GB	Gigabyte(s)
IP	Installation Procedures
I&RTS	Integration and Runtime Support
JAVA1	Java Platform 1 (DII COE segment prefix)
JAVA2	Java Platform 2 (DII COE segment prefix)
KB	Kilobyte(s)
LAN	Local Area Network
MB	Megabyte(s)
N/A	Not Applicable
NFS	Network File System
NIMA	National Imagery and Mapping Agency
NT	New Technology (an operating system for Microsoft Windows)
ORAC	ORACLE Client Applications (DII COE segment prefix)
ORADBA	ORACLE DataBase Administration (DII COE segment prefix)
ORADBI	ORACLE DataBase Instance (DII COE segment prefix)
ORAS	ORACLE RDBMS (DII COE segment prefix)
PC	Personal Computer
RDBMS	Relational Database Management System
RAM	Random Access Memory
SAM	System Administrator's Manual
SECAM	Security Administrator's Manual
SID	System Identifier (Oracle term for database instance name)
SVD	Software Version Description
UM	User's Manual
WVS	World Vector Shoreline

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7. Acknowledgements

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8.   Documentation Improvement and Feedback

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26 February 2002

Appendix A. Contents of the **ReleaseNotes** Descriptor File of the ELIST Database Instance Segment

The contents of the ELIST Database Instance Segment's ReleaseNotes descriptor file, outlining the properties required for an ELIST database instance, are replicated below.

```
This is the ReleaseNotes file for the ELIST Database Instance Segment.

The primary purpose of this segment is to ensure that a database instance
suitable for the ELIST mission application exists.  (A different segment, the
ELIST Database Segment, will create the actual application-oriented tablespaces
and schema objects of the ELIST database in this database instance.)

This segment must be installed on the database server platform on which the
ELIST Global Data Segment has already been installed and on which the ELIST
Database Fill Segment, the ELIST Database Segment, and the ELIST Database
Utility Segment will subsequently be installed.  That machine is the one on
which the Oracle RDBMS (ORAS) has already been installed.

This segment is designed to give the installer, assumed to be a DBA, a choice
between using an already existing database instance for ELIST or creating a new
database instance for ELIST.  In the former case, it is the installer's
responsibility to ensure that the existing database instance has the properties
that ELIST requires (see below).  In the latter case, this segment creates the
new database instance with the required properties.

If the installer chooses to use an existing database instance, he or she should
be prepared to enter the name of the instance (i.e., the SID), when prompted.
If the installer chooses to create a new database instance, he or she should be
prepared to supply the name of the new instance and to supply a password to be
assigned to the SYSTEM user in the newly created instance, when prompted.  When
the ELIST Database Segment is subsequently installed, the installer will be
prompted for the SYSTEM password of the database instance, regardless of
whether the instance was created by this segment.  Similarly, a user who
executes any of the executable features of the ELIST Database Utility Segment
(for example, to create ELIST database user accounts) will be prompted for the
SYSTEM password of the database instance, regardless of whether the instance
was created by this segment.  (In the latter case, the user also has to be an
administrative ELIST user, i.e., a user in the "elistadm" group, to whom the
"Administrative ELIST User" profile has been assigned.)

The following script files from the data/dbdesc directory show the properties
explicitly given to a new ELIST database instance.  If an existing instance is
to be used, the installer must ensure that it has at least these properties; if
the instance is shared with other applications, properties like sizes should
accommodate those other applications and ELIST together.  Further information
may be found in this segment's System Administrator's Manual (SAM).

In these scripts, certain parameters are symbolic names for which substitutions
are made during the installation of the segment, as follows:

<ORACLE_SID>: (the instance name chosen by the installer)
<ORACLE_MNT1>: /ora01
<ORACLE_MNT2>: /ora02
<ORACLE_MNT3>: /ora03
<ORACLE_MNT4>: /ora04
<ORACLE_BASE>: /ora01/app/oracle
<ORACLE_HOME>: <ORACLE_BASE>/product/8.1.6

=========================================
== File data/dbdesc/pfile/initSID.ora ==
=========================================


#
# Copyright (c) 1991, 1998 by Oracle Corporation
#
##############################################################################
#
# File modified by K. Dritz, ANL
```

```
#
###############################################################################
# Example INIT.ORA file
#
# This file is provided by Oracle Corporation to help you customize
# your RDBMS installation for your site.  Important system parameters
# are discussed, and example settings given.
#
# Some parameter settings are generic to any size installation.
# For parameters that require different values in different size
# installations, three scenarios have been provided: SMALL, MEDIUM
# and LARGE.  Any parameter that needs to be tuned according to
# installation size will have three settings, each one commented
# according to installation size.
#
# Use the following table to approximate the SGA size needed for the
# three scenarious provided in this file:
#
#                     -------Installation/Database Size------
#                     SMALL           MEDIUM          LARGE
#  Block        2K    4500K           6800K           17000K
#  Size         4K    5500K           8800K           21000K
#
# To set up a database that multiple instances will be using, place
# all instance-specific parameters in one file, and then have all
# of these files point to a master file using the IFILE command.
# This way, when you change a public
# parameter, it will automatically change on all instances.  This is
# necessary, since all instances must run with the same value for many
# parameters. For example, if you choose to use private rollback' segments,
# these must be specified in different files, but since all gc_*
# parameters must be the same on all instances, they should be in one file.
#
# INSTRUCTIONS: Edit this file and the other INIT files it calls for
# your site, either by using the values provided here or by providing
# your own.  Then place an IFILE= line into each instance-specific
# INIT file that points at this file.
#
# NOTE: Parameter values suggested in this file are based on conservative
# estimates for computer memory availability. You should adjust values upward
# for modern machines.
#
###############################################################################

db_name = "<ORACLE_SID>"
instance_name = <ORACLE_SID>

service_names = <ORACLE_SID>


control_files = ( "<ORACLE_MNT2>/oradata/<ORACLE_SID>/control01.ctl",
                  "<ORACLE_MNT2>/oradata/<ORACLE_SID>/control02.ctl",
                  "<ORACLE_MNT2>/oradata/<ORACLE_SID>/control03.ctl" )

open_cursors = 100
max_enabled_roles = 40
db_block_buffers = 6144

shared_pool_size = 52428800

large_pool_size = 614400
java_pool_size = 20971520

log_checkpoint_interval = 10000
log_checkpoint_timeout = 1800

processes = 50

log_buffer = 163840

# audit_trail = false  # if you want auditing
# timed_statistics = false  # if you want timed statistics
# max_dump_file_size = 10000  # limit trace file size to 5M each
```

```
# Uncommenting the lines below will cause automatic archiving if archiving has
# been enabled using ALTER DATABASE ARCHIVELOG.
# log_archive_start = true
# log_archive_dest_1 = "location=<ORACLE_BASE>/admin/<ORACLE_SID>/arch"
# log_archive_format = arch_%t_%s.arc

# If using private rollback segments, place lines of the following
# form in each of your instance-specific init.ora files:
rollback_segments = ( RBS0, RBS1, RBS2, RBS3, BIG_RBS )

# Global Naming -- enforce that a dblink has same name as the db it connects to
# global_names = false

# Uncomment the following line if you wish to enable the Oracle Trace product
# to trace server activity.  This enables scheduling of server collections
# from the Oracle Enterprise Manager Console.
# Also, if the oracle_trace_collection_name parameter is non-null,
# every session will write to the named collection, as well as enabling you
# to schedule future collections from the console.
# oracle_trace_enable = true

# define directories to store trace and alert files
background_dump_dest = <ORACLE_BASE>/admin/<ORACLE_SID>/bdump
core_dump_dest = <ORACLE_BASE>/admin/<ORACLE_SID>/cdump
#Uncomment this parameter to enable resource management for your database.
#The SYSTEM_PLAN is provided by default with the database.
#Change the plan name if you have created your own resource plan.
# resource_manager_plan = system_plan
user_dump_dest = <ORACLE_BASE>/admin/<ORACLE_SID>/udump

db_block_size = 8192

remote_login_passwordfile = exclusive

os_authent_prefix = ""

# The following parameters are needed for the Advanced Replication Option
# Commented out because distributed processing is not being used
#job_queue_processes = 4
#job_queue_interval = 60
#distributed_transactions = 10
#open_links = 4

mts_dispatchers = "(PROTOCOL=TCP)(PRE=oracle.aurora.server.SGiopServer)"
# Uncomment the following line when your listener is configured for SSL
# (listener.ora and sqlnet.ora)
# mts_dispatchers = "(PROTOCOL=TCPS)(PRE=oracle.aurora.server.SGiopServer)"

compatible = "8.1.0"
sort_area_size = 65536
sort_area_retained_size = 65536

=======================================
== File data/dbdesc/create/SIDrun.sh ==
=======================================

#!/bin/sh

#################################################
#
# Modified by K. Dritz, ANL, 25 Nov. 2000
# to increase size of redo*.log files to 5M
#
#################################################

ORACLE_SID=<ORACLE_SID>
export ORACLE_SID

<ORACLE_HOME>/bin/svrmgrl << EOF
spool <ORACLE_BASE>/admin/<ORACLE_SID>/create/crdb1.log
connect internal
startup nomount pfile =
   "<ORACLE_BASE>/admin/<ORACLE_SID>/pfile/init<ORACLE_SID>.ora";
CREATE DATABASE "<ORACLE_SID>"
```

```
    MAXDATAFILES 254
    MAXINSTANCES 8
    MAXLOGFILES 32
    CHARACTER SET US7ASCII
    NATIONAL CHARACTER SET US7ASCII
    DATAFILE '<ORACLE_MNT2>/oradata/<ORACLE_SID>/system01.dbf' SIZE 75M
    AUTOEXTEND ON NEXT 640K
    LOGFILE
        '<ORACLE_MNT1>/oradata/<ORACLE_SID>/redo01.log' SIZE 5M,
        '<ORACLE_MNT2>/oradata/<ORACLE_SID>/redo02.log' SIZE 5M,
        '<ORACLE_MNT3>/oradata/<ORACLE_SID>/redo03.log' SIZE 5M,
        '<ORACLE_MNT4>/oradata/<ORACLE_SID>/redo04.log' SIZE 5M;
disconnect
spool off
exit


EOF

========================================
== File data/dbdesc/create/SIDrun1.sh ==
========================================

#!/bin/sh

##########################################################################
#
# Modified by K. Dritz, ANL
# to increase size of tools*.dbf files to 35M
# and to increase size of rbs*.dbf files to 35M
# and to increase size of temp01.dbf file to 250M
# and to create a BIGROLL tablespace (1 datafile of size 500M)
# and to reduce rollback segments to five (RBS0..RBS3 plus BIG_RBS)
#
##########################################################################

ORACLE_SID=<ORACLE_SID>
export ORACLE_SID

<ORACLE_HOME>/bin/svrmgrl << EOF
spool <ORACLE_BASE>/admin/<ORACLE_SID>/create/crdb2.log
connect internal
@<ORACLE_HOME>/rdbms/admin/catalog.sql;

REM ********** ALTER SYSTEM TABLESPACE **********
ALTER TABLESPACE SYSTEM
    MINIMUM EXTENT 64K
    DEFAULT STORAGE
        ( INITIAL 64K
          NEXT 64K
          MINEXTENTS 1
          MAXEXTENTS UNLIMITED
          PCTINCREASE 50 );

REM ********** TABLESPACE FOR Tools **********
CREATE TABLESPACE TOOLS
    DATAFILE
        '<ORACLE_MNT2>/oradata/<ORACLE_SID>/tools02.dbf' SIZE 35M,
        '<ORACLE_MNT3>/oradata/<ORACLE_SID>/tools03.dbf' SIZE 35M,
        '<ORACLE_MNT4>/oradata/<ORACLE_SID>/tools04.dbf' SIZE 35M
    REUSE
    AUTOEXTEND ON NEXT 320K
    MINIMUM EXTENT 32K
    DEFAULT STORAGE
        ( INITIAL 32K
          NEXT 32K
          MINEXTENTS 1
          MAXEXTENTS 4096
          PCTINCREASE 0 );

REM ********** TABLESPACE FOR ROLLBACK **********
CREATE TABLESPACE RBS
    DATAFILE
        '<ORACLE_MNT2>/oradata/<ORACLE_SID>/rbs02.dbf' SIZE 35M,
```

```
        '<ORACLE_MNT3>/oradata/<ORACLE_SID>/rbs03.dbf' SIZE 35M,
        '<ORACLE_MNT4>/oradata/<ORACLE_SID>/rbs04.dbf' SIZE 35M
    REUSE
    AUTOEXTEND ON NEXT 5120K
    MINIMUM EXTENT 512K
    DEFAULT STORAGE
        ( INITIAL 512K
          NEXT 512K
          MINEXTENTS 8
          MAXEXTENTS 4096 );
CREATE TABLESPACE BIGROLL
    DATAFILE
        '<ORACLE_MNT3>/oradata/<ORACLE_SID>/bigroll.dbf' SIZE 500M
    REUSE
    AUTOEXTEND ON NEXT 10M
    MINIMUM EXTENT 10M
    DEFAULT STORAGE
        ( INITIAL 10M
          NEXT 10M
          MINEXTENTS 2
          MAXEXTENTS 4096 );

REM ********** TABLESPACE FOR TEMPORARY **********
CREATE TABLESPACE TEMP
    DATAFILE '<ORACLE_MNT3>/oradata/<ORACLE_SID>/temp01.dbf' SIZE 250M
    REUSE
    AUTOEXTEND ON NEXT 640K
    MINIMUM EXTENT 64K
    DEFAULT STORAGE
        ( INITIAL 64K
          NEXT 64K
          MINEXTENTS 1
          MAXEXTENTS UNLIMITED
          PCTINCREASE 0)
    TEMPORARY;

REM ********** TABLESPACE FOR USER **********
CREATE TABLESPACE USERS
    DATAFILE '<ORACLE_MNT4>/oradata/<ORACLE_SID>/users01.dbf' SIZE 10M
    REUSE
    AUTOEXTEND ON NEXT 1280K
    MINIMUM EXTENT 128K
    DEFAULT STORAGE
        ( INITIAL 128K
          NEXT 128K
          MINEXTENTS 1
          MAXEXTENTS 4096
          PCTINCREASE 0 );

REM ********** TABLESPACE FOR INDEX **********
CREATE TABLESPACE INDX
    DATAFILE '<ORACLE_MNT3>/oradata/<ORACLE_SID>/indx01.dbf' SIZE 54M
    REUSE
    AUTOEXTEND ON NEXT 1280K
    MINIMUM EXTENT 128K
    DEFAULT STORAGE
        ( INITIAL 128K
          NEXT 128K
          MINEXTENTS 1
          MAXEXTENTS 4096
          PCTINCREASE 0 );

REM **** Creating four rollback segments ****************
REM **** Plus BIG_RBS ***********************************
CREATE PUBLIC ROLLBACK SEGMENT RBS0
    TABLESPACE RBS
    STORAGE ( OPTIMAL 4096K );
CREATE PUBLIC ROLLBACK SEGMENT RBS1
    TABLESPACE RBS
    STORAGE ( OPTIMAL 4096K );
CREATE PUBLIC ROLLBACK SEGMENT RBS2
    TABLESPACE RBS
    STORAGE ( OPTIMAL 4096K );
CREATE PUBLIC ROLLBACK SEGMENT RBS3
```

```
     TABLESPACE RBS
     STORAGE ( OPTIMAL 4096K );
REM CREATE PUBLIC ROLLBACK SEGMENT RBS4 TABLESPACE RBS
REM STORAGE ( OPTIMAL 4096K );
REM CREATE PUBLIC ROLLBACK SEGMENT RBS5 TABLESPACE RBS
REM STORAGE ( OPTIMAL 4096K );
REM CREATE PUBLIC ROLLBACK SEGMENT RBS6 TABLESPACE RBS
REM STORAGE ( OPTIMAL 4096K );
CREATE PUBLIC ROLLBACK SEGMENT BIG_RBS
     TABLESPACE BIGROLL
     STORAGE ( OPTIMAL 40M );
ALTER ROLLBACK SEGMENT "RBS0" ONLINE;
ALTER ROLLBACK SEGMENT "RBS1" ONLINE;
ALTER ROLLBACK SEGMENT "RBS2" ONLINE;
ALTER ROLLBACK SEGMENT "RBS3" ONLINE;
REM ALTER ROLLBACK SEGMENT "RBS4" ONLINE;
REM ALTER ROLLBACK SEGMENT "RBS5" ONLINE;
REM ALTER ROLLBACK SEGMENT "RBS6" ONLINE;
ALTER ROLLBACK SEGMENT "BIG_RBS" ONLINE;


REM **** SYS and SYSTEM users ****************
alter user sys temporary tablespace TEMP;
alter user system temporary tablespace TEMP;
disconnect
spool off
exit


EOF

=======================================
== File data/dbdesc/create/SIDrun2.sh ==
=======================================

#!/bin/sh
ORACLE_SID=<ORACLE_SID>
export ORACLE_SID

<ORACLE_HOME>/bin/svrmgrl << EOF
spool <ORACLE_BASE>/admin/<ORACLE_SID>/create/crdb3.log
connect internal
@<ORACLE_HOME>/rdbms/admin/catproc.sql
@<ORACLE_HOME>/rdbms/admin/caths.sql
@<ORACLE_HOME>/rdbms/admin/otrcsvr.sql
connect system/manager
@<ORACLE_HOME>/sqlplus/admin/pupbld.sql

disconnect
spool off
exit


EOF

END OF FILE
```

Appendix B. Typical Contents of the `Instance_Info` Data File of the ELIST Global Data Segment

The data file referenced in Section 4.2.4 has the format and typical contents illustrated below.

```
This file is filled in during the installation of the ELIST Database Instance
Segment.  The information is used by other ELIST mission application segments.
ELIST instance name=ELIST1
Created by ELIST Database Instance Segment=yes
On server bologna
On date Thu Mar 22 16:26:00 CST 2001
```

In this example, the database instance name is `ELIST1`. The instance was created by the ELIST Database Instance Segment (that is, the installer chose to create a new instance during the installation of that segment). If the installer had chosen to use an existing instance, **yes** would have been replaced by **no** on the fourth line. The database server platform on which the ELIST Database Instance Segment is installed—which is also the location of Oracle and the ELIST1 instance—has hostname `bologna`.

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