Getting Started

with

Netscape ECXpert™

Version 3.0 for Sun Solaris Version 2.5.1 or 2.6

02 July 99

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Contents

About this Book

This Guide gives instructions for installing Netscape's ECXpert System Version 3.0. It includes prerequisites, preinstallation, and postinstallation tasks that you must perform in order to ensure a successful installation.

Netscape ECXpert provides companies with a comprehensive software solution for setting up and operating a cost-effective and easy-to-use electronic commerce system that is built upon Internet technologies.

The following topics are covered in this section:

- Before You Begin
- Audience
- Organization
- Related Documentation
- Conventions

Netscape ECXpert is subject to the terms detailed in the license agreement accompanying it.

Before You Begin

It is essential that you retrieve and read the ECXpert Release Note from the Netscape Technical Support web site before you install ECXpert 3.0. Release Notes contain documentation errata, software patches, and a known bug list.

Downloading the Latest Version of any ECXpert Release Note

We continuously update Netscape ECXpert Release Notes. Follow these steps to:

- Determine whether you have the latest version of any Netscape ECXpert Release Note
- Download a copy of any Netscape ECXpert Release Note
- Provide a link to any ECXpert Release Note on the Netscape ECXpert **Support** | **Help** | **Manuals** screen

Note In these instructions, the environment variable or $NSBASE is the full path to the Netscape ECXpert installation directory. See “Setting Up Required Environment Variables” on page 80.

1. **Go to the ECXpert Product Information and Support web page.**

   http://help.netscape.com/products/apps/ecxpert/

2. **Find the most recent version of the ECXpert Release Note.**

   To find the most recent version of the ECXpert Release Note, look at the date next to the link to the ECXpert Release Note PDF file.

3. **Download the ECXpert Release Note PDF file.**

4. **Copy the release note into the manuals directory.**

   $NSBASE/NS-apps/ECXpert/UI/html/help/manuals

5. **Include a link to the release note on the “manuals” screen.**

   Edit the *$NSBASE/NS-apps/ECXpert/UI/html/help/frm2man.htm* file to include a reference to the ECXpert Release Note PDF file.

A link to the ECXpert Release Note PDF file should appear in the left frame of the **Support** | **Help** | **Manuals** screen.

Installing ECXpert Documentation

ECXpert Documentation is available in Adobe Acrobat (PDF) format.

These files are provided on the ECXpert CD as follows:

- Getting Started Guide

  /cdrom/Documentation/ECX30-GetStarted-Sol.pdf

- User's Guide

  /cdrom/Documentation/ECX30-User.pdf

- Site Administrator's Handbook

  /cdrom/Documentation/ECX30-SiteAdmin.pdf

- Developer's Handbook

  /cdrom/Documentation/ECX30-Developer.pdf

After installing ECXpert 3.0, copy these files to your ECXpert directory structure, following these steps:

1. **Put the CD in the CD drive and go to the directory where these *.PDF files are located:**

```
# cd /cdrom/Documentation
```

2. **Copy these books into the manuals directory in the ECXpert 3.0 directory structure:**

```
# cp /cdrom/Documentation/*.pdf $NSBase/NS-apps/ECXpert/UI/html/manuals
```

   where $NSBase is the directory into which ECXpert was installed.

A link to each book's PDF file should already exist in the left frame of the **Support** | **Help** | **Manuals** screen.

Audience

This Guide is written for the system administrator who installs and administers ECXpert.

What You Need to Know

The documentation is written with the assumption you have some basic background including:

- a general understanding of the Internet and the World Wide Web
- experience in setup and management of web services
- experience with Netscape Enterprise Server as a site administrator
- UNIX administration experience as a superuser
- experience in setup and administration of relational databases as an Oracle Database Administrator
- experience in setting up data communications systems
- an understanding of your company's electronic commerce system architecture, including in-depth knowledge of Electronic Data Interchange (EDI).

Organization

This Guide is divided into parts:

- Chapter 1 - "Preinstallation Tasks," describes system hardware and software requirements and preinstallation planning
- Chapter 2 - "Installing ECXpert," describes the installation process step by step
- Chapter 3 - "Postinstallation Tasks," describes additional configuration and client-side installation tasks.

Appendices describe:

- Appendix A - How to upgrade to Oracle7, release 7.3.4.0.1
- Appendix B - Notes on installing or upgrading to Oracle8, release 8.0.4
- Appendix C - How to migrate from ECXpert 2.0 to 3.0
- Appendix D - How to migrate from ECXpert 1.1.1 to 3.0
- Appendix E - The special steps required to upgrade an earlier ECXpert installation to ECXpert Version 3.0, or to reinstall Version 3.0.

Related Documentation

Refer to the following documents for additional detailed information about your software:

Netscape documentation:

- *Netscape ECXpert Site Administrator's Handbook*
- *Netscape ECXpert User's Guide*
- *Netscape ECXpert Developer's Handbook*
- *Netscape Getting Started with TradingXpert*
- *Netscape ECXpert Operations Reference Manual*
- The Netscape Messaging Server documentation included on separate media in your ECXpert package
- The Netscape Directory Server documentation included on separate media in your ECXpert package

For Oracle users:

- *Oracle7 for Solaris Installation & Configuration Guide*
- *Oracle7 for UNIX Administrator's Reference Guide 7.3*
- *Oracle8 for Solaris Installation & Configuration Guide*

- *Oracle8 Administrator's Reference for Sun SPARC Solaris 2.x*
- Oracle Documentation Library on CD ROM

For Other Third-party Products:

- *Mercator Getting Started*
- *Mercator Design Guide*
- *Mercator Execution Commands Reference Guide*
- *Mercator EDI Mapping Guide*
- *Mercator Building and Using an Application Adapter*
- *Mercator Reference Guide*
- *Mercator Type Tree Maker Reference Guide*
- *Mercator Type Editor Reference Guide*
- *Mercator Functions and Expressions Reference Guide*
- *Mercator Map Editor Reference Guide*
- *Mercator Using a Command Execution Engine*
- *Actuate Reporting System User's Guide*

Conventions

Typographic conventions are used throughout this manual to help you recognize special terms and instructions. These conventions are summarized in the following table.

Convention	Meaning	Example
boldface	items on the screen	Click the **Configure** button to configure the card processor.
	names of keys	Press **Enter** to clear the message.
boldface numbered steps	higher level descriptions of tasks you perform (more detailed instructions follow)	**1. Enter the group information.** Enter the name in the **Group Name** field, and a short description in the **Description** field.
italics	key words, such as terms that are defined in the text	If the transaction is authorized, a *capture* takes place.
	names of books	For more information, see the *Netscape ECXpert Site Administrator's Handbook*.
	emphasis	Under *no* circumstances reveal your password.
	file names	*ecx.ini*
courier font	command line input or output	Change to the ECXpert configuration directory. `$ cd $NSBASE/NS-apps/ECXpert/config`
	text file content, such as HTML templates and configuration files	`<HTML>` `<TITLE>Netscape ECXpert</TITLE>`
	code samples	`ecx = new ECXpert();` `term = new Terminal();`
italic courier font	variable text; make your own appropriate substitutions	Change to the ECXpert configuration directory. `$ cd $NSBASE/NS-apps/ECXpert/config`

Chapter

1

Preinstallation Tasks

This chapter describes planning and tasks you must perform before you can install ECXpert Version 3.0. It includes installation and configuration tasks for the RDBMS which stores the ECXpert information.

The following topics are discussed in this section:

Installation Overview

This section provides an overview of the tasks required before you install ECXpert Version 3.0.

Hardware and Software Requirements

Licensing Note: All other Netscape Products and third party components (Netscape Enterprise Server, Netscape Directory Server, Netscape Messaging Server, Oracle Server, Actuate Reporting System, and TSI Mercator Authoring System) are licensed for use only in conjunction with the ECXpert system. Any use separate from ECXpert is not permitted.

If you already have Oracle7 Workgroup Server or Oracle7 Enterprise Server installed on your system, you may only use them if your Oracle license agreement permits the addition of new applications to that database. The required version of Oracle Server is either Oracle7 Enterprise Server, release 7.3.4 or Oracle8 Enterprise Server, release 8.0.4.

The following table shows the minimum hardware and software requirements for installing and using ECXpert in the Sun Solaris environment:

Table 1.1 Hardware and Software Requirements

Hardware Platform:	• Sun workstation for the ECXpert software • Intel-based workstation running Windows95 or WindowsNT for the TSI Soft Mercator Map Authoring System
Operating System:	• Sun Solaris 2.5.1 plus the patch listed below -or- • Sun Solaris Version 2.6 plus the patch cluster listed below
Memory:	256 MB RAM (recommended) for the Sun workstation for each ECXpert per machine

Table 1.1 Hardware and Software Requirements (Continued)

Software Requirements:	• Netscape® Enterprise Server Version 3.6 with Service Pack 1 † • Netscape® Messaging Server Version 4.03 † º • Netscape® Directory Server Version 4.0 † º • Netscape Navigator 4.5 † • Actuate Reporting System Version 3.20 † or higher • TSI Mercator Version 1.4.1(9) † • Oracle7 Enterprise Server 7.3.4.0.1 or Oracle8 Enterprise Server 8.0.4 • SQLNET Release 2.3.4 (should be installed automatically with Oracle7 Server, release 7.3.4.0.1) • Net8 Release 8.0.4 (should be installed automatically with Oracle8 Server, release 8.0.4)
Disk Space:	Approximately 1.4 GB for installed software (400MB each for ECXpert and Oracle), plus disk space for data and incoming documents, calculated according to the formula: 2.5KB * (# of documents received daily) * (# of days retained) (See “Planning Your Configuration” on page 24 for more information on this formula.)
Additional:	CD-ROM drive for installation.
† bundled with ECXpert º optional.	

Note Netscape Enterprise Server, Netscape Communicator, and Netscape Messaging Server are on separate media. Netscape Directory Server is included in the Netscape Messaging Server package.

Recommended Configuration for Year 2000 Compliance

ECXpert 3.0 is Year 2000 compliant, but you must use the correct third party software versions and patches in order for your configuration to be fully Year 2000 compliant.

Netscape recommends you use the following software versions to ensure full Year 2000 compliance:

- ECXpert 3.0
- Solaris 2.6
- Oracle 7.3.4.0.1

Important If you are using Oracle 8.0.4 with Solaris 2.5.1, and you must apply the Solaris 2.5.1 year 2000 patch to be fully Year 2000 compliant. Refer to “Solaris 2.5.1 Year 2000 Patch” on page 20 for more information.

Solaris Year 2000 Compliance

For additional information about Solaris Year 2000 compliance, refer to Table 1.2.

Table 1.2 Solaris Year 2000 Compliance Information

For more information about...	Refer to...
Year 2000 Compliant Product List	http://www.sun.com/y2000/cpl.html
Software and Networking Year 2000 Program - Solaris 2.5.1	http://www.sun.com/y2000/cpl/source/solaris251s-jump.html
Software and Networking Year 2000 Program - Solaris 2.6	http://www.sun.com/y2000/solaris26.html

Oracle Year 2000 Compliance

For additional information about Oracle Year 2000 compliance, refer to Table 1.3.

Table 1.3 Oracle Year 2000 Compliance Information

For more information about...	Refer to...
Oracle Year 2000 compliance general information	http://www.oracle.com/year2000/
Links to Oracle Year 2000 white papers	http://www.oracle.com/year2000/white_paper.html
White paper on Oracle products and Year 2000 compliance	http://www.oracle.com/year2000/wp10.pdf

Solaris Patches Required

Depending on the version of Solaris you are using, you must apply different Solaris patches. Solaris patches are available from Sun Microsystems' SunSolve home page:

http://sunsolve.sun.com/

The following sections contain specific URLs where you can download the particular patches you must apply to the different versions of Solaris.

To find out what operating system patches have been applied to your system, enter:

```
# showrev -p
```

If you see the following output, patches have been applied which enable the ECXpert Java user interface to function properly. These patches do not, however, make Solaris 2.5.1 Year 2000 compliant. In order to achieve Year 2000 compliance, you must apply the Solaris 2.5.1 Year 2000 patch. See "Solaris 2.5.1 Year 2000 Patch" on page 20 for details.

```
# showrev -p
Patch: 103663-08  Obsoletes: 103683-01, Requires:, Incompatibles:,
iss_sparc-01  Packages: SUNWcsu, SUNWcsr, SUNWhea
Patch: 103594-10  Obsoletes: , Requires:, 103663-01, Incompatibles:
Packages: SUNWcsu
```

```
Patch: 103680-01  Obsoletes: , Requires:, 103663-01  Packages: SUNWcsu
Patch: 103686-02  Obsoletes: , Requires:, 103663-01, Incompatibles:
Packages: SUNWnisu
```

If you see the following output, it means that no patches at all have been applied:

```
# showrev -p
showrev: opendir
```

Solaris 2.5.1 Year 2000 Patch

In order for Solaris 2.5.1 to be Year 2000 compliant and for ECXpert's Java-based user interface to function properly, the following Solaris patch must be applied before you continue:

2.5.1_y2000.tar.Z

You can download this patch from:

ftp://sunsolve.Sun.COM/pub/patches/2.5.1_y2000.tar.Z

Refer to the following *README* file for instructions on applying this patch:

ftp://sunsolve.Sun.COM/pub/patches/2.5.1_y2000.README

Note For more information about Solaris Year 2000 compliance, refer to "Solaris Year 2000 Compliance" on page 18.

Solaris 2.6 Patch Clusters

If you are using Solaris 2.6, Netscape recommends you apply the following patch cluster:

105181-05 March 1998

You may be able to download this patch cluster from:

ftp://sunsolve.Sun.COM/pub/patches/105181-05.tar.Z

Refer to the following *README* file for instructions on applying this patch cluster:

ftp://sunsolve.Sun.COM/pub/patches/105181.readme

Netscape recommends you apply the `105181-05 March 1998` patch cluster because it is the only Solaris 2.6 patch cluster that has been thoroughly tested with ECXpert 3.0.

You may instead choose to apply the latest Solaris recommended patch cluster for Solaris 2.6. The Solaris recommended patch cluster is updated every 15 days, so it will be a later version than the Netscape recommended patch cluster and will **not** have been tested with ECXpert 3.0.

You can download the latest Solaris recommended 2.6 patch cluster from:

ftp://sunsolve.Sun.COM/pub/patches/2.6_Recommended.tar.Z

Refer to the following *README* file for instructions on applying this patch cluster:

ftp://sunsolve.Sun.COM/pub/patches/2.6_Recommended.README

To find out which, if any, patch cluster has been applied to your machine, enter either of the following commands:

- `showrev`
- `uname -a`

If the Netscape recommended patch cluster has been applied, the `showrev` command will produce output similar to the following:

```
# showrev
Hostname: myhost
Hostid: 80859468
Release: 5.6
Kernel architecture: sun4u
Application architecture: sparc
Hardware provider: Sun_Microsystems
Domain: myserver.com
Kernel version: SunOS 5.6 Generic 105181-05 March 1998
```

If the the Netscape recommended patch cluster has been applied, the `uname - a` command will produce output similar to the following:

```
# uname -a
SunOS myhost 5.6 Generic_105181-05 sun4u sparc SUNW,Ultra-1
```

TCP/IP Connectivity Required

To be sure you have TCP/IP networking properly installed, the following must be in effect:

- a permanent IP address is assigned to your machine (**not** a DHCP IP address)
- TCP/IP is bound to the actual network card
- DNS is configured (your machine's hostname and domain names are valid DNS entries)

Note The Netscape ECXpert Installer uses the domain name in */etc/resolv.conf*, not an NIS domain name.

To verify that your system is properly configured, follow the steps below:

1. **Open an xterm window.**
2. **Determine what your IP address is:**

   Enter the command,

   `# ifconfig -a`
3. **Determine what your hostname is:**

   Enter the command,

   `# /bin/`*`hostname`*
4. **Determine what your domain name is:**

   Enter the command,

   `# /bin/`*`domainname`*
5. **Ping your hostname.**

   Enter the command,

   `# /usr/sbin/ping <`*`hostname`*`>`

   where <*hostname*> is the host of your host computer. If your TCP/IP connectivity is working properly, the feedback from the `ping` command is:

   <hostname> `is alive`

Installation Checklist

Be sure to perform each task in the order presented on this checklist. You can refer back to this checklist as you complete each stage of your installation.

- ❑ Plan your ECXpert site and if necessary coordinate with other sites in the same domain.
- ❑ Arrange a trading partnership agreement with one or more trading partners.
- ❑ Make sure your system meets hardware and software requirements. See “Installation Overview” on page 16 for more information. See “Planning Your Configuration” on page 24 for important sizing and configuration scenarios.
- ❑ Familiarize yourself with the ECXpert directory structure. See “Directory tree for the ECXpert system” on page 25 for more information.
- ❑ Make sure you have sufficient disk space, and have filled out the information required in the Configuration Worksheet on page 82. See “Disk Space Requirements” on page 28 for more information.
- ❑ If you intend to use SMTP as one of your communications protocols, you must install Netscape Messaging Server. see “What’s Next?” on page 117 for more information. Also, Netscape recommends you use the ECXpert Administrator userid, generally “actraadm,” as the sendmail userid.
- ❑ Prepare your system for installation. See “Preparing the System for Installation” on page 30 for more information.
- ❑ Create the ECXpert Administrator account. See “Creating the ECXpert Administrator Account” on page 79 for more information.
- ❑ Install Oracle. See “Oracle Installation/Upgrade Decisions” on page 31. Refer also to your Oracle installation and configuration documentation for detailed information.
- ❑ Install ECXpert. See “Installing ECXpert” on page 77 for more information.
- ❑ Test your installation to make sure it worked. See “Testing Your ECXpert Installation” on page 106 for more information.
- ❑ Install additional software. See “What’s Next?” on page 117 for more information.

Planning Your Configuration

When planning your ECXpert site, consider your resource requirements carefully, based on the type of business you expect to do.

The central functionality of ECXpert is supported by Oracle. For ECXpert Version 3.0 for Solaris, you may use either:

- Oracle7 Enterprise Server, release 7.3.4.0.1

- or -

- Oracle8 Enterprise Server, release 8.0.4

Netscape assumes customers have their own site Database Administrator to handle routine database operations such as:

- database full backup
- database incremental (or transaction log) backup
- database tablespace management

  Netscape recommends you use the following formula to estimate the **tablespace size** needed:

  2.5KB * (number of documents received daily) * (number of days retained)

  For example, if you have five documents and you retain them for five days, the calculation is:

  2.5KB * 5 (documents) * 5 (days retained) = 625 KB

  For the **rollback segment size**, estimate 1.5 - 2 times the largest tablespace.

ECXpert Directory Structure

Figure 1.1 depicts the ECXpert installation directory tree. Refer to this diagram to identify where files and executables are located.

Figure 1.1 Directory tree for the ECXpert system

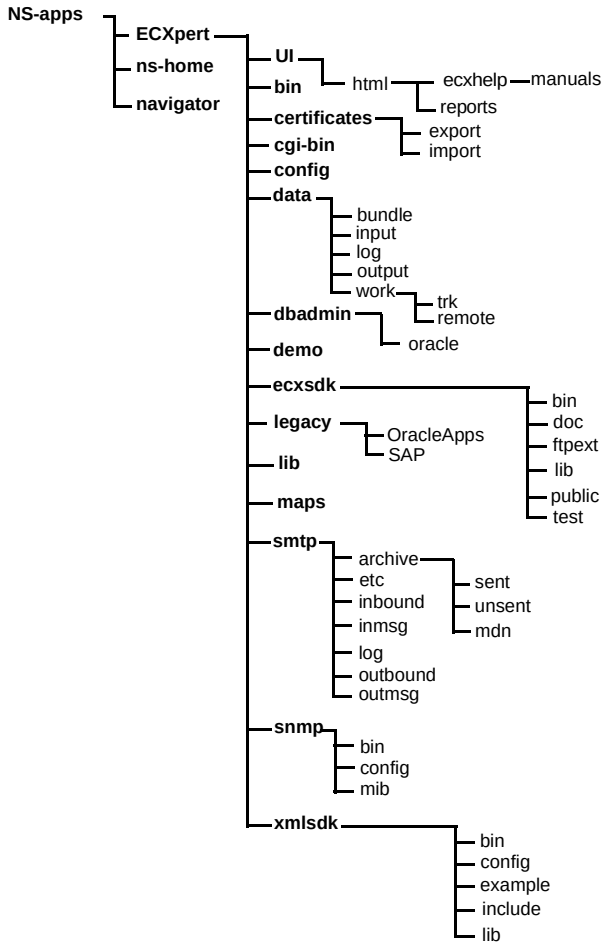


Table 1.4 describes the contents of the *$NSBASE/NS-apps/ECXpert* directory.

Table 1.4 Description of the $NSBASE/NS-apps/ECXpert directory

Subdirectory	Description of Contents
UI/html	user interface HTML components
UI/html/reports	ECXpert reports
UI/html/help/manuals	ECXpert documentation
bin	ECXpert binaries
certificates/export	location of secure transaction authority certificate files. If you do not specify a path when generating or exporting a certificate, the *cert* files are written by default to the directory */certificates/export/*
certificates/import	location of secure transaction authority certificate files. If you do not specify a path when importing a certificate, by default the *cert* file is looked up from */certificates/import/*
cgi-bin	ECXpert CGI binaries
config	configuration files, such as the *ecx.ini* file
data/bundle	temporary location of files to be transmitted to recipients
data/input	auxiliary input files needed for mapping
data/log	Administration Server function log files
data/output	post translation files, both translation and functional acknowledgment files
data/work	temporary location where work files are created and then deleted
data/work/trk	location of files upon being submitted to ECXpert
dbadmin/oracle	Oracle SQL scripts
ecxsdk/bin	software development kit binary files
ecxsdk/doc	documentation files

Table 1.4 Description of the $NSBASE/NS-apps/ECXpert directory (Continued)

Subdirectory	Description of Contents
ecxsdk/ftpext	FTP extension files
ecxsdk/lib	API library files
ecxsdk/public	user-accessible files
ecxsdk/test	user-accessible test files
legacy/OracleApps	mapping files for use integrating with Oracle Financials
legacy/SAP	mapping files for use integrating with SAP
lib	ECXpert libraries
maps	TSI Mercator mapping files. Note that many of the files in this directory have a *.map* extension, as opposed to a *.sun* extension.
smtp/archive/sent	storage for information of sent outbound messages including received message disposition notifications
smtp/archive/ unsent	storage for information of outbound messages that can't be sent or are sent with message disposition notification requested but not received
smtp/archive/mdn	storate for mdn information
smtp/etc	used as a temporary directory for all the temp files created when processing incoming messages
smtp/inbound	temporary storage for inbound messages
smtp/inmsg	temporary storage of inbound messages' SMTP information, such as sender, recipient, and date-time before messages are submitted to the recipient
smtp/log	log files for unrecognized inbound messages
smtp/outbound	temporary storage for formatted outbound messages
smtp/outmsg	temporary storage for outbound messages' SMTP information: docs, files, MDNs
ecxsdk/bin	ECXpert software development kit (SDK) binary files
ecxsdk/doc	ECXpert SDK documentation files

Table 1.4 Description of the $NSBASE/NS-apps/ECXpert directory (Continued)

Subdirectory	Description of Contents
ecxsdk/lib	ECXpert SDK API library files
ecxsdk/public	ECXpert SDK user-accessible files
ecxsdk/test	ECXpert SDK user-accessible test files
snmp/bin	user-accessible binaries and location of servers
snmp/config	configuration files
snmp/mib	management information base files
xmlsdk/bin	XML software development kit (SDK) binary files
xmlsdk/config	XML SDK documentation files
xmlsdk/example	XML SDK sample programs
xmlsdk/include	XML SDK header files
xmlsdk/lib	XML SDK API library files

Disk Space Requirements

Verify that you have sufficient disk space available. You can use the following command to see the available volumes and their disk usage:

```
# df -k
```

The resulting output is similar to the following:

```
Filesystem          kbytes    used      avail    capacity Mounted on
/dev/dsk/c0t3d0s0   401389    12499     348760   4%       /
/dev/dsk/c0t3d0s6   105486    87205     7741     92%      /usr
/proc               0         0         0        0%       /proc
fd                  0         0         0        0%       /dev/fd
/dev/dsk/c0t3d0s4   106012    21457     73955    23%      /var
/dev/dsk/c0t3d0s7   419319    9         377380   1%       /export/home
/dev/dsk/c0t3d0s5   1253167   72516     1155341  92%      /opt
/dev/dsk/c0t3d0s3   236816    106458    106678   50%      /usr/openwin
```

```
Filesystem          kbytes    used      avail    capacity Mounted on
/dev/dsk/c0t0d0s2   1952573   1137822   619501   65%      /disk00
/dev/dsk/c0t1d0s2   14631     10595     2576     81%      /disk01
/dev/dsk/c0t2d0s2   1952573   1625123   132200   93%      /disk02
swap                414240    248       413992   1%       /tmp
```

Make a note of the volumes you plan to use in the installation process.

The ECXpert directory structure requires that the directories be created on a local device (hard drive) or an NFS-mounted device (hard drive).

The initial installation of ECXpert will create all of the subdirectories below the installation location you specify (referred to as $NSBASE). After installing ECXpert, you may change the configuration to move certain directories to other device locations, for performance reasons and to provide better fault tolerance.

Note Remember that you need a minimum of:

— 400 MB for the ECXpert software.

— Sufficient space on the same system as the ECXpert software to store transaction data. Calculate the space required for your anticipated transaction volume according to the formula in “Planning Your Configuration” on page 24.

— 400 MB for the Oracle database installation. This does not have to be on the same system as the ECXpert software.

Firewall Considerations

ECXpert uses the following protocols during file processing:

- SMTP (port 25)
- FTP (port 21)
- HTTP (port 80, or user-defined port #)

Additionally, ECXpert uses SQL*Net/Net8 connections (or local IPC connections based on configuration) and OCI client connections to the Oracle7/Oracle8 database where its tables are located.

If you want to install ECXpert through a firewall, you will need to check first with the Firewall Administrator to determine if these protocols are allowed to pass through your firewall.

Preparing the System for Installation

You must prepare your system for installing ECXpert by performing several administrative tasks. These include:

- Installing the Netscape Enterprise Server
- Oracle Installation/Upgrade Decisions
- Installing Oracle7 Enterprise Server, release 7.3.4.0.1
- Creating the Oracle User ECX30
- Setting Up and Testing Database Connectivity

The following sections describe these tasks.

Installing the Netscape Enterprise Server

Install the Netscape Enterprise Server and Netscape Communicator following the instructions enclosed with the software.

Note After ECXpert installation, you must edit changes into the Enterprise Server's *obj.conf* file so that the document root and `cgi-bin` point to the *html* and *cgi-bin* directories of ECXpert.

Note When you install the Netscape Enterprise Server, be sure to create an Enterprise Server instance with Server User set to the same user ID as you are using to install ECXpert, for example, `actraadm`.

Oracle Installation/Upgrade Decisions

Netscape ECXpert requires that you have one of the following versions of Oracle installed:

- Oracle7 Enterprise Server, release 7.3.4.0.1
- Oracle8 Enterprise Server, release 8.0.4

Use the information in the following table to determine where to refer for installation or upgrade instructions:

Table 1.5 Installation Decisions

If...	Then...
You have never installed a copy of Oracle on your system and you wish to install Oracle7 Enterprise Server, release 7.3.4.0.1	Continue to "Installing Oracle7 Enterprise Server, release 7.3.4.0.1" on page 32.
You currently have either Oracle7 Workgroup Server, release 7.3.2.2 plus the 7.3.3.5 patches or Oracle7 Enterprise Server, release 7.3.3.5 installed and wish to upgrade to Oracle7 Enterprise Server, release 7.3.4.0.1.	Refer to Appendix A, "Upgrading Oracle7, from release 7.3.3.5 to 7.3.4." When you have upgraded Oracle7, continue to "Creating the Oracle User ECX30" on page 72.
You have never installed a copy of Oracle on your system and you wish to install Oracle8 Enterprise Server, release 8.0.4 -or- If you currently have either Oracle7 Workgroup Server, release 7.3.2.2 plus the 7.3.3.5 patches or Oracle7 Enterprise Server, release 7.3.3.5 installed and wish to upgrade to Oracle Enterprise Server, release 8.0.4	Continue to Appendix B, "Oracle8 Install/Upgrade Notes."

Installing Oracle7 Enterprise Server, release 7.3.4.0.1

This section describes:

- Pre-installation tasks you must perform before you can install Oracle7, release 7.3.4.0.1
- Oracle7, release 7.3.4.0.1, installation steps
- Post-installation tasks you must perform after you install Oracle 7, release 7.3.4.0.1

Important Note on Installation Documentation

The Oracle installation instructions provided in this document are intended to supplement—not replace—the detailed instructions provided in the documentation distributed along with your copy of Oracle. These instructions **do not** cover all relevant details, and they **do not** discuss all possible installation scenarios. **In order to install Oracle successfully, you must carefully read and follow all relevant instructions provided in Oracle's documentation.**

Table 1.6 lists the correct Oracle document to refer to throughout the installation of Oracle7, release 7.3.4.0.1:

Table 1.6 Oracle7 Release 7.3.4.0.1 Installation Documentation

Book Name	Release Date	Part Number
Oracle7 (tm) Installation Guide for Sun SPARC Solaris 2.x, Release 7.3.4	September 1997	A55980-01

If for some reason you did not receive the correct document along with your copy of Oracle, use the part number listed in Table 1.6 to order the correct document from Oracle. For more information about ordering Oracle documentation, refer to Oracle's web site:

http://www.oracle.com

Note on Remote Client Configuration

You can install Oracle7, release 7.3.4 to run in a remote client configuration. These instructions do not fully document what you must do to install Oracle7, release 7.3.4 to run in a remote client configuration. For more information, refer to your Oracle7 Installation Guide, Chapter 4, "Installing on Different System Configurations."

Pre-installation Tasks

Before you install Oracle7, release 7.3.4.0.1, you must first:

- Configure shared memory. See “Configuring Shared Memory and Semaphores” on page 33.
- Create the **`oracle`** user. See “Creating the oracle User” on page 34.
- Obtain the correct **.nlb* files. See “Obtain the Correct *.nlb Files” on page 35.
- Prepare the environment for installation. See “Preparing the Environment” on page 36.

Configuring Shared Memory and Semaphores

Note on Tuning Your System

For a new installation of Oracle7, release 7.3.4, you must edit the */etc/system* file and reboot your machine. Later on, after you have completely installed Oracle7, release 7.3.4 and ECXpert 3.0, you may wish to further tune your Oracle7 database. See the *ECXpert Operations Reference Manual*, version 3.0, Chapter 2, “Performance Tuning” for more information.

1. **Log in as or become the `root` user:**

   # **`su - root`**

2. **Change to the */etc* directory**

   # **`cd /etc`**

3. **Create a backup copy of your system file:**

   # **`cp system system.backup`**

4. **Carefully edit the *system* file to make sure it contains the following lines.**

Note

This is a text file. You must edit this file in a text editor, such as `vi`.

These lines should appear at the end of the file, immediately the comments regarding “set.”

Warning The values below are the recommended minimum values from Oracle. They are intentionally low. If you set your shared memory parameters too high for your operating system, you may not be able to reboot your machine. Refer to your operating system documentation for parameter limits.

```
set shmsys: shminfo_shmmax = 209715200
set shmsys: shminfo_shmmin = 1
set shmsys: shminfo_shmmni = 100
set shmsys: shminfo_shmseg = 50
set semsys: seminfo_semmns = 1750
set semsys: seminfo_semmni = 70
set semsys: seminfo_semmsl = 200
```

5. **Reboot your machine.**

   For the changes to take effect, you must reboot your machine:

   # **`init 6`**

Creating the `oracle` User

Note If you want to set up Oracle in a remote client configuration you must create an **`oracle`** user ID on each machine.

1. **Log on as or become the `root` user:**

   `# su - root`

2. **Create the dba group.**

   If the machine you are using does not already have a dba group, you must create one:

   # **`groupadd dba`**

3. **Create a home directory for the Oracle user. For example:**

   # **`mkdir /disk1/oracle`**

   where */disk1/oracle* is the **`oracle`** user's UNIX home directory.

4. **Add the `oracle` user. For example:**

   # **`useradd -g dba -d /disk1/oracle -s /bin/csh oracle`**

5. **Transfer ownership of the `oracle` user's home directory. For example:**

   # **`chown oracle /disk1/oracle`**

6. **Change the group association of the `oracle` user's home directory:**

   # **`chgrp dba /disk1/oracle`**

7. **Set the `oracle` user's password:**

Note The **`oracle`** user's password is typically set to "oracle."

`passwd oracle`
`New password:` <*password*>
`Re-enter new password:` <*password*>

where <*password*> is the new password for the **`oracle`** user.

Obtain the Correct *.nlb Files

For instructions, see "Preparing the Environment" on page 36

Follow these steps to obtain the correct **.nlb* files:

1. **Create a directory to contain the **.nlb* files**

   # **`mkdir $ORACLE_HOME/ocommon/nls/admin/data/Oracle7nlb`**

   where the "O" in *Oracle7nlb* is the capital letter O, not the number 0.

2. **Change to the directory on the ECXpert CD that contains the **.nlb* tar file.**

   # **`cd /cdrom/Oracle`**

3. **Copy the tar file.**

   To copy the tar file, enter the following command:

   # **`cp Oracle7nlb.tar.Z $ORACLE_HOME/ocommon/nls/admin/data/Oracle7nlb`**

4. **Uncompress the tar file.**

   # **`uncompress ./Oracle7nlb.tar.Z`**

5. **Untar the tar file.**

   # **`tar xvf ./Oracle7nlb.tar`**

Preparing the Environment

1. **Log on as or become user Oracle:**

   # `su - oracle`

2. **Set up the environment for the installation.**

   Set the appropriate environment variables in the Oracle user's *.profile* or *.login* file before starting the Installer.

- Use the following syntax to set the environment variables:

  For the C shell:

  `setenv` <*variable_name*> <*value*>

  For the Bourne shell:

  `set` <*variable_name*> <*value*>
  `export` <*variable_name*>

- Use the information in Table 1.7 to determine how to set up each environment variable.

Note Refer to your Oracle documentation for additional information about these and other potentially important environment variables.

Note on Optimal Flexible Architecture (OFA) Compliance

All new installations and all database creations performed with the Oracle 7.3.4 Installer comply with the Optimal Flexible Architecture (OFA) standard. This has resulted in new recommended pathnames for standard environment variables.

For example, the OFA recommended value for the `$ORACLE_BASE` environment variable is:

<*software_mount_point*>*/app/oracle*

where the <*software_mount_point*> is the directory in which you intend to install Oracle.

Note While an $ORACLE_BASE environment variable is not required, the OFA standard recommends that you enter a value for $ORACLE_BASE.

The OFA recommended value for the `$ORACLE_HOME` environment variable is:

<*software_mount_point*>*/app/oracle/product/7.3.4*

where the <*software_mount_point*> is the directory in which you intend to install Oracle.

For More Information

The OFA is described in detail in the *Oracle7 Administrator's Reference* for UNIX, Appendix B, "Summary of the OFA Standard."

Table 1.7 Environment Variables

Environment Variable	Configuration Details
DISPLAY	Set to the name and monitor of the machine from which you are installing the Oracle software. **Example**: myhost:0.0
LD_LIBRARY_PATH	Set to include *$ORACLE_HOME/lib* and the directory containing your Motif libraries. **Important**: When you set up your environment prior to installing or upgrading, make sure that the *$ORACLE_HOME/lib* directory appears as the first value in the `$LD_LIBRARY_PATH` environment variable. If you do not do this, you will get errors when you later use SQL*Plus. **Note**: The default location for Motif libraries on Solaris 2.x is */usr/openwin/lib* or */usr/dt/lib*.
ORACLE_BASE	Set to the directory at the top of the Oracle software. **Example**: */export2/oracle734/app/oracle*
ORACLE_HOME	Set to the directory containing the Oracle software for a given Oracle Server release. The OFA-recommended value is: *$ORACLE_BASE/product/<release>* **Example**: */export2/oracle734/app/oracle/product/7.3.4* **Important**: Enter this value in item 9 of the Configuration Worksheet on page 82.
ORACLE_SID	Set to the Oracle *SID*, which is the name of the Oracle Server instance. **Note**: If you are installing Oracle as a remote client, set this value to the database on the server machine. **Example**: ECX **Important**: Enter this value in item 10 of the Configuration Worksheet on page 82.

Table 1.7 Environment Variables (Continued)

Environment Variable	Configuration Details
ORACLE_TERM	Set to the terminal definition resource file to be used with the Installer. Refer to your Oracle documentation for a complete list of terminal definition resource files. **Example**: xsun5
NLS_LANG	Set to the correct NLS_LANG character set. The character set is named according to the following convention: <language>_<territory>.<number> **Example**: american_america.US7ASCII **Important**: Enter this value in item 11 of the Configuration Worksheet on page 82.
ORA_NLS	Before you set this environment variable, follow the instructions in "Obtain the Correct *.nlb Files" on page 35. Then set the ORA_NLS environment variable to the directory where the *.*nlb* files from the *Oracle7nlb.tar* file reside. **Example**: *$ORACLE_HOME/ocommon/nls/admin/data* where `$ORACLE_HOME` is the `$ORACLE_HOME` of the new Oracle7, release 7.3.4 installation. **Note:** This environment variable *must* be properly set if you plan to use a non-US7ASCII character set.

Table 1.7 Environment Variables (Continued)

Environment Variable	Configuration Details
ORA_NLS33	Before you set this environment variable, follow the instructions in "Obtain the Correct *.nlb Files" on page 35. Then set the ORA_NLS33 environment variable to the directory where the *.*nlb* files from the *Oracle7nlb.tar* file reside. Set to the directory where the *.nlb* files for your character set reside. **Example**: *$ORACLE_HOME/ocommon/nls/admin/data* where $ORACLE_HOME is the $ORACLE_HOME of the new Oracle7, release 7.3.4 installation. **Note:** This environment variable *must* be properly set if you plan to use a non-US7ASCII character set.
ORA_NLS32	Before you set this environment variable, follow the instructions in "Obtain the Correct *.nlb Files" on page 35. Then set the ORA_NLS32 environment variable to the directory where the *.*nlb* files from the *Oracle7nlb.tar* file reside. **Example**: *$ORACLE_HOME/ocommon/nls/admin/data \ Oracle7nlb* where $ORACLE_HOME is the $ORACLE_HOME of the new Oracle7, release 7.3.4 installation. **Note:** This environment variable *must* be properly set if you plan to use a non-US7ASCII character set.
PATH	Set to include: • *$ORACLE_HOME/bin* • */bin* • */usr/bin* • */usr/ccs/bin* **Example**: */export2/oracle734/app/oracle/product/ \ 7.3.4/ bin:/bin:/usr/bin:/usr/ccs/bin:$PATH*

Table 1.7 Environment Variables (Continued)

Environment Variable	Configuration Details
TERM	Set this to the same value as the ORACLE_TERM environment variable. **Example**: xterm
USER	Set this to the **oracle** user. **Example**: oracle

Installing Oracle 7.3.4

1. **Log on as or become the oracle user.**

   # **su - oracle**

2. **Run the Oracle Installer.**

Warning **Do not** run the Installer as the **root** user. You must be logged in as user **oracle**.

Insert your Oracle7, release 7.3.4 CD-Rom in the CD drive

Change to the CD installation directory:

cd /cdrom/oracle734/orainst

To start the installer, enter one of the following two commands:

./orainst /m

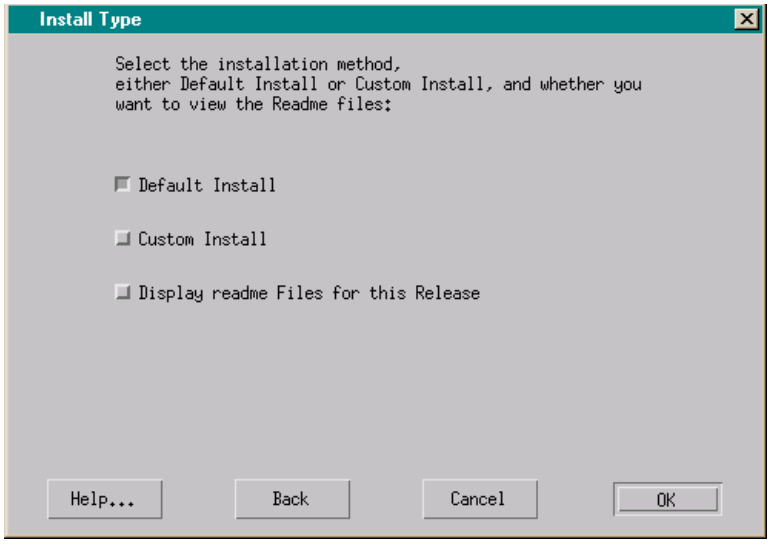
Note The /m parameter runs the installer in Motif mode. The screens captures on the following pages were created using the Oracle Installer in Motif mode.

3. Select the install type.

Note These instructions assume you wish to perform a default install. If you wish to perform a custom install, refer to your Oracle documentation for instructions.

From the Install Type screen that appears (Figure 1.2) select the **Default Install** radio button. Then click **OK** to continue.

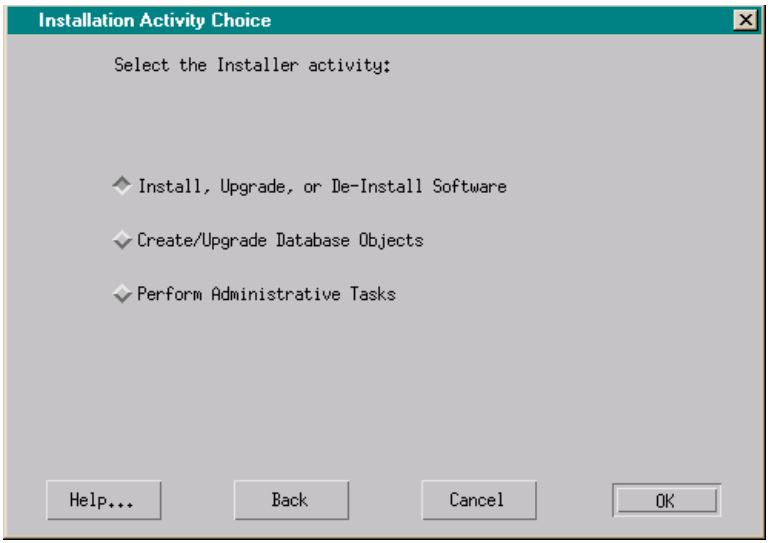
Figure 1.2 Install Type Screen



4. Select the installation activity.

From the Installation Activity Choice screen that appears (Figure 1.3) select the **Install, Upgrade, or De-Install** radio button. Then click **OK** to continue.

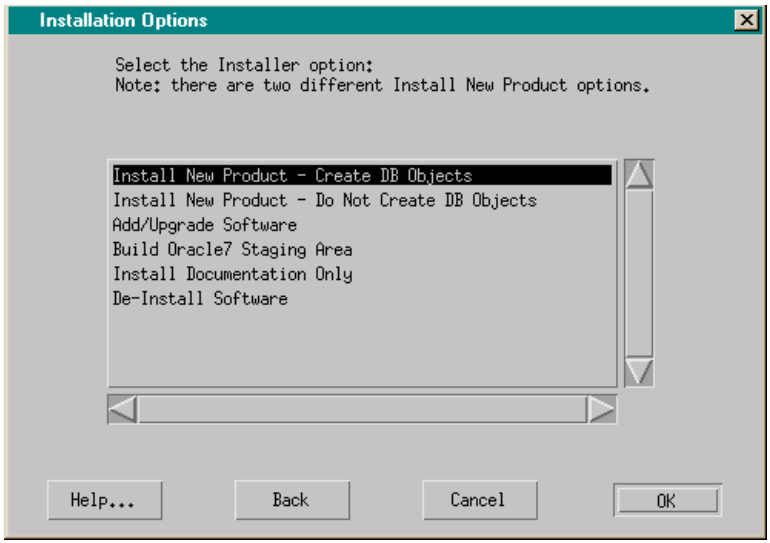
Figure 1.3 Installation Activity Choice Screen



5. Select installation options.

From the Installation Options screen that appears (Figure 1.4), select the **Install New Product - Create DB Objects** option. Then click **OK** to continue.

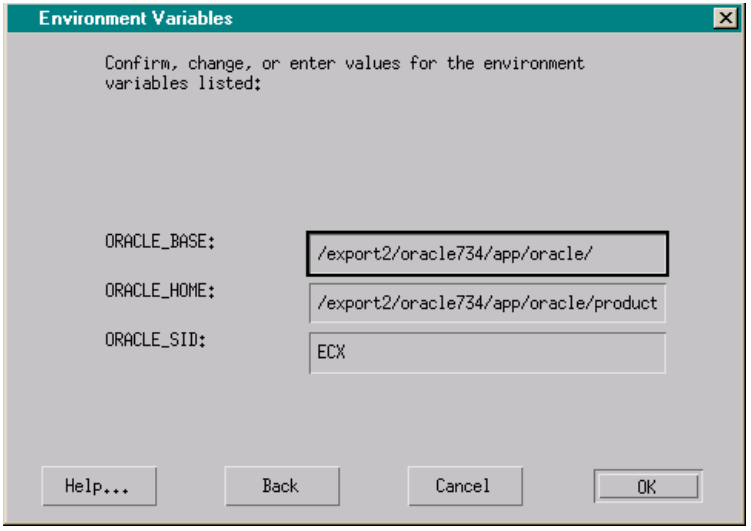
Figure 1.4 Installation Options Screen



6. Enter environment variables.

If you have set up your environment correctly, the correct values will automatically appear in the Environment Variables screen (Figure 1.5). If they do not, see “Preparing the Environment” on page 36 for the correct values to enter. When all fields are filled in with the appropriate information, click **OK** to continue.

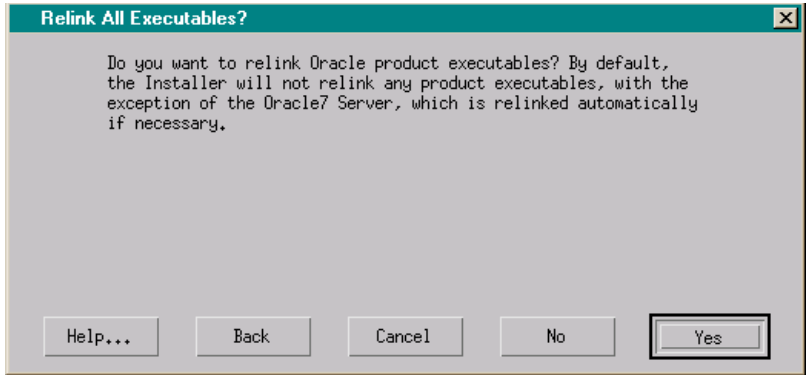
Figure 1.5 Environment Variables Screen



7. Relink all executables.

On the Relink All Executables? screen that appears (Figure 1.6), click **Yes**.

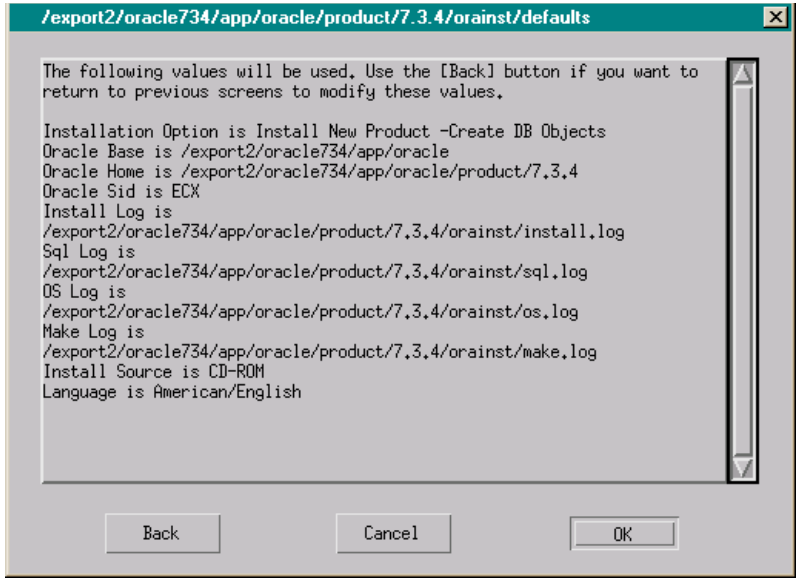
Figure 1.6 Relink All Executables? Screen



8. Verify defaults.

A screen appears displaying the current installation defaults (Figure 1.7). Verify that the defaults that appear are correct. Then click **OK** to continue.

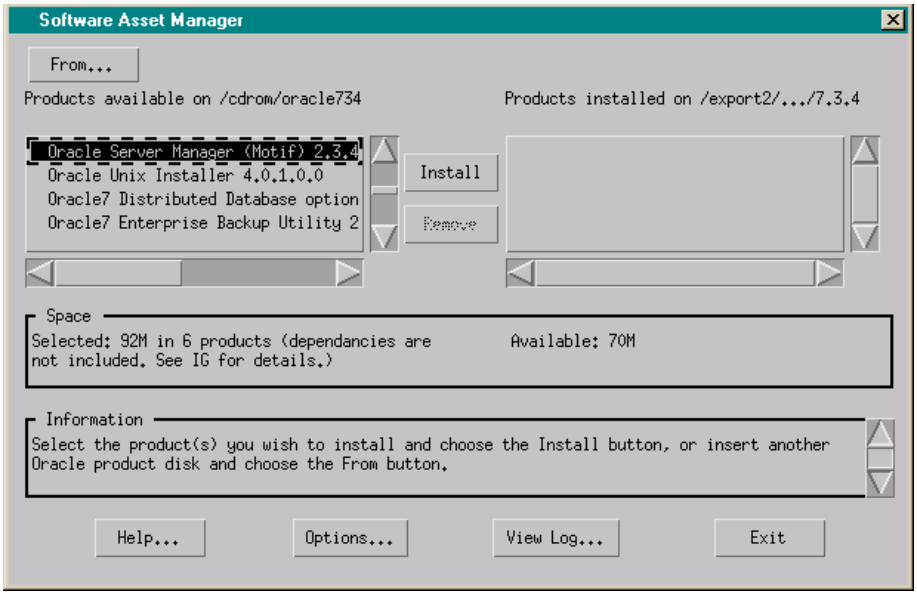
Figure 1.7 Installation Defaults Screen



9. Select products to install.

From the Software Asset Manager screen that appears (Figure 1.8), select the software components you wish to install.

Figure 1.8 Software Asset Manager Screen



ECXpert *requires* at least the following:

- Oracle Server Manager (Motif) 2.3.4.0.0
- Oracle7 Server (RDBMS) 7.3.4.0.1
- PL/SQL V2 2.3.4.0.0
- SQL*Net (V2) 2.3.4.0.0
- SQL*Plus 3.3.4.0.1
- TCP/IP Protocol Adapter (V2) 2.3.4.0.0

Refer to your Oracle documentation for more information about these software components and any additional software components you may wish to install.

Note on Remote Client Configuration

You may install ECXpert to use an Oracle7 database that is located on a remote machine. If you wish to do this, you still need to install the Oracle7 client on the local machine, edit the *tnsnames.ora* file, and test the database connectivity.

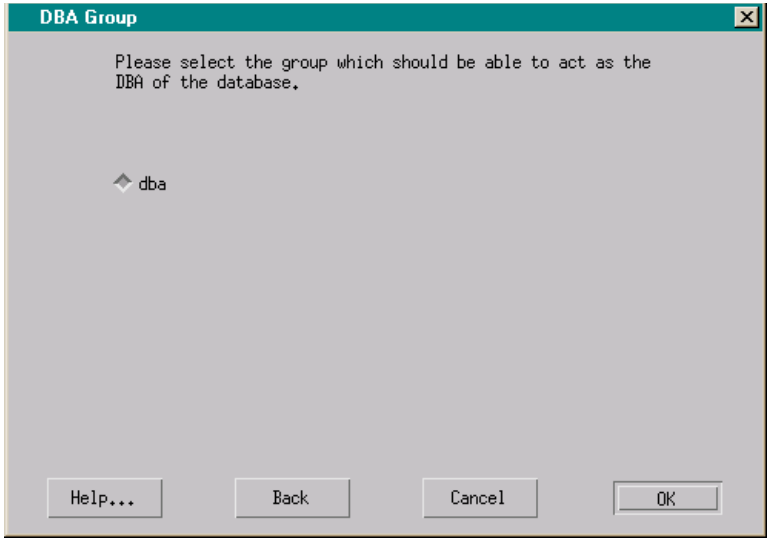
If you are installing Oracle as a remote client, at the Software Asset Manager screen, you must select the following software in addition to any other software you wish to install:

- SQL*Plus
- SQL*Net (V2) 2.3.4.0.0
- TCP/IP Protocol Adapter (V2) 2.3.4.0.0
- TCP/IP Protocol Adapter

10. Select the DBA group.

The DBA Group screen appears (Figure 1.9), and `dba` is selected. Click **OK** to continue.

Figure 1.9 DBA Group Screen

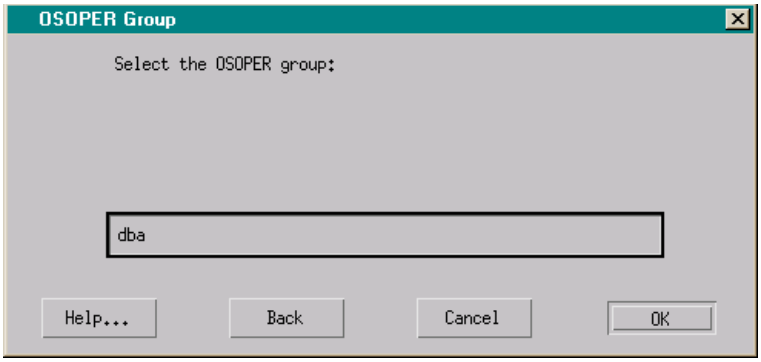


11. Select the OSOPER group.

From the OSOPER Group screen that appears (Figure 1.10), enter the group which should have Oracle OPERATOR privileges. The default is dba.

When you have selected the OSOPER group, click **OK** to continue.

Figure 1.10 OSOPER Group Screen

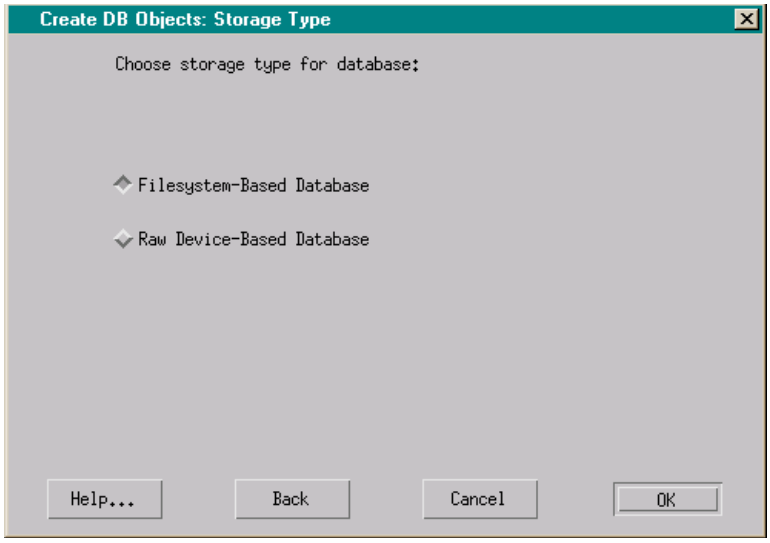


12. Select the database storage type.

Note These instructions assume you wish to use a file system-based database. If you wish to use a raw device-based database, refer to your Oracle documentation for instructions.

From the Storage Type screen that appears (Figure 1.11), select the **Filesystem-Based Database** radio button. Then click **OK** to continue.

Figure 1.11 Storage Type

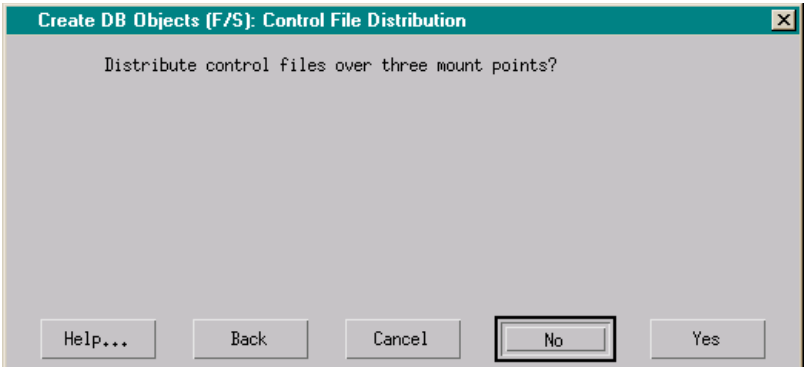


13. **Select mount point distribution.**

Note These instructions assume you **do not** wish to distribute control files over three mount points. If you wish to distribute control files over three mount points, refer to your Oracle documentation for instructions.

On the Control File Distribution screen that appears (Figure 1.12) click **No**.

Figure 1.12 Control File Distribution Screen

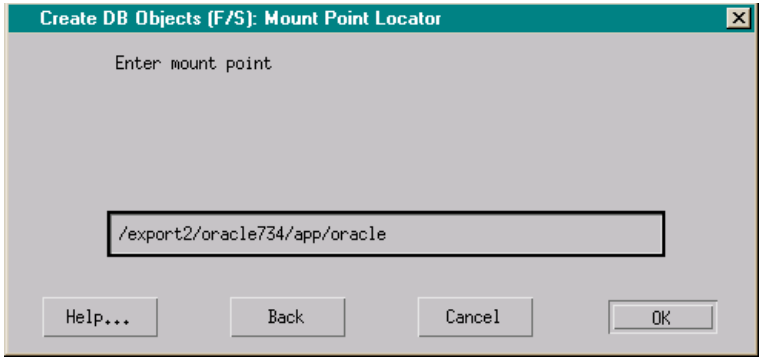


14. Enter the mount point.

In the Mount Point Locator screen that appears (Figure 1.13), enter the $ORACLE_BASE value. Refer to “Preparing the Environment” on page 36 for details.

When you have entered the mount point, click **OK** to continue.

Figure 1.13 Mount Point Locator Screen



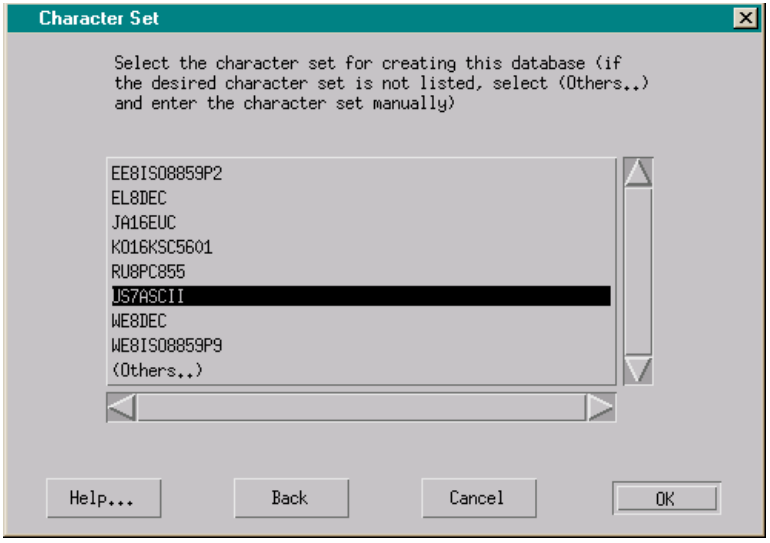
15. Select the character set.

From the Character Set screen that appears (Figure 1.14), select the character set to be used for creating this database. Refer to your Oracle documentation for more information on character sets.

Note If you plan to use a non-US7ASCII character set, you must set the appropriate environment variables. See “Preparing the Environment” on page 36 for details.

When you have selected the character set, click **OK** to continue.

Figure 1.14 Character Set Screen

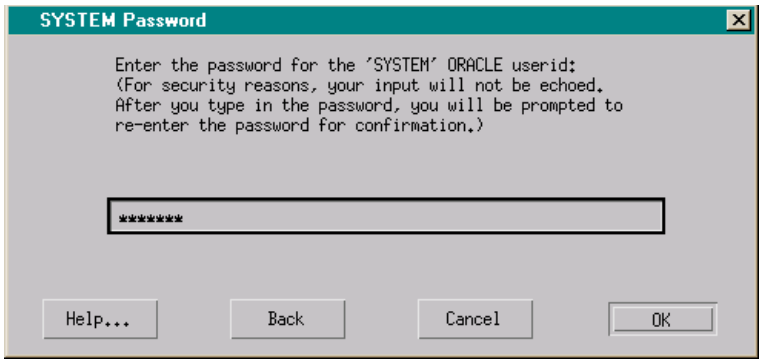


16. Enter the SYSTEM password.

In the SYSTEM Password screen that appears (Figure 1.15), enter the password for the **SYSTEM** user. The default SYSTEM password is "manager."

When you have entered the SYSTEM password, click **OK** to continue. In the confirmation screen that appears, type the password again. Then click **OK** to continue.

Figure 1.15 SYSTEM Password Screen

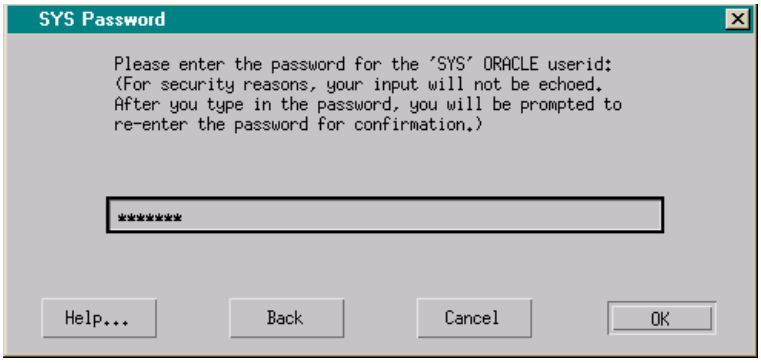


17. Enter the SYS password.

In the SYS Password screen that appears (Figure 1.16), enter the password for the **SYS** user. The default SYS password is "change_on_install."

When you have entered the SYS password, click **OK** to continue. In the confirmation screen that appears, type the password again. Then click **OK** to continue.

Figure 1.16 SYS Password Screen

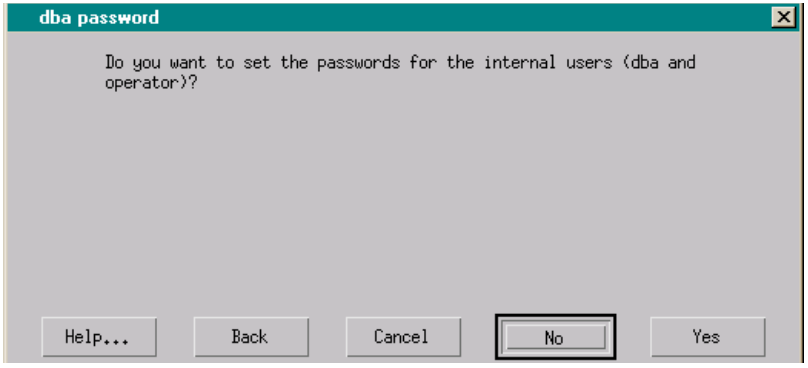


18. Choose whether to set passwords for the `internal` users.

Note These instructions assume you **do not** wish to set passwords for internal users at this point. If you wish to set passwords for internal users, refer to your Oracle documentation for instructions.

On the dba password screen that appears (Figure 1.17) click **No.**

Figure 1.17 dba password Screen

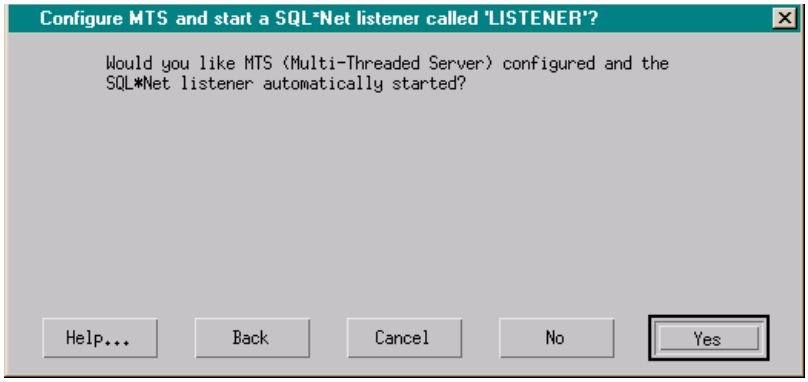


19. Choose whether to automatically configure MTS and start the SQL*Net Listener.

Note These instructions assume you wish to have the MTS configured and the SQL*Net Listener automatically started. If you **do not** wish to automatically configure MTS and start the SQL*Net Listener, refer to your Oracle documentation for instructions.

On the Configure MTS and Start a SQL*Net Listener called 'Listener'? screen that appears (Figure 1.18) click **Yes.**

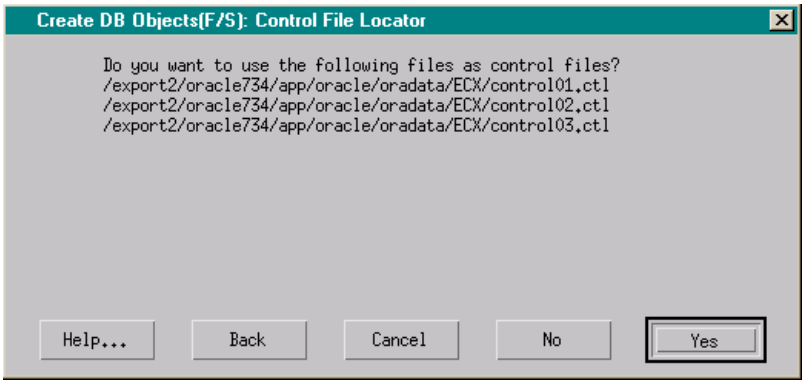
Figure 1.18 Configure MTS and Start a SQL*Net Listener called 'Listener' Screen



20. Confirm the control files location.

Verify that the location of the control files that appear on the Control Files Locator screen are correct (Figure 1.19). Click **Yes** to continue.

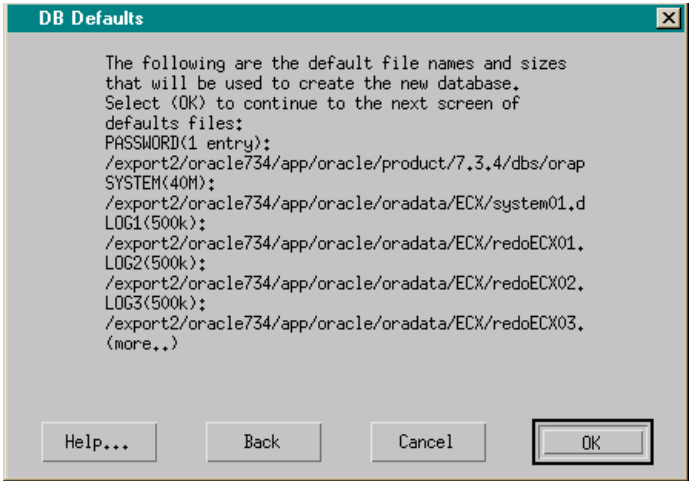
Figure 1.19 Control Files Locator Screen



21. Reject initial database defaults.

Click **OK** to continue past the *two* DB Defaults screens that appear (Figure 1.20).

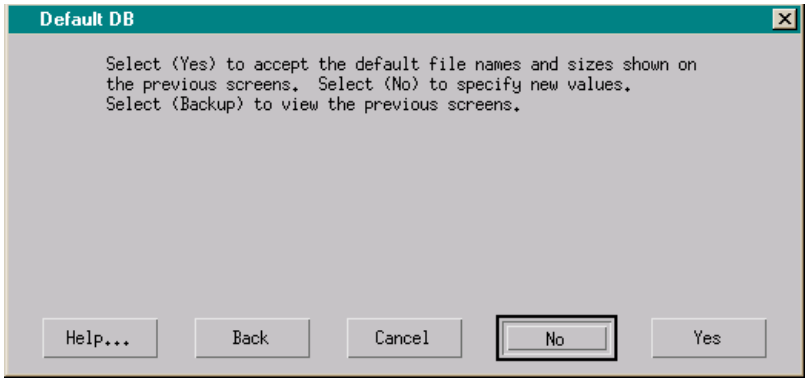
Figure 1.20 DB Defaults Screen



When all of the database defaults have been displayed, the Default DB

Screen appears asking whether you wish to accept the defaults (Figure 1.21). **These are not the correct values**. Click **No**.

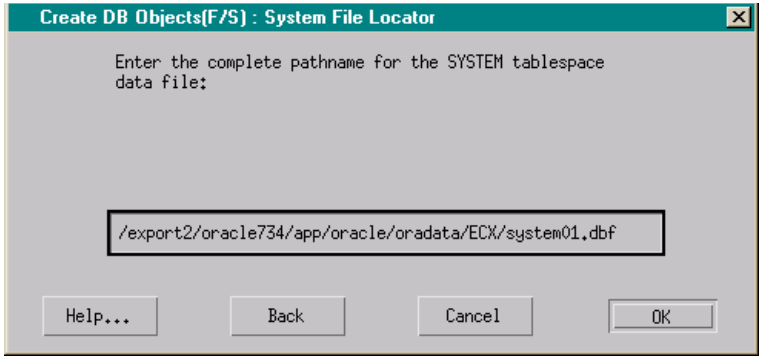
Figure 1.21 DB Accept/Reject Default DB Screen



22. Set up the SYSTEM tablespace data file.

In the System File Locator screen that appears, enter the pathname for the SYSTEM tablespace data file (Figure 1.22). Click **OK** to continue.

Figure 1.22 System File Locator Screen

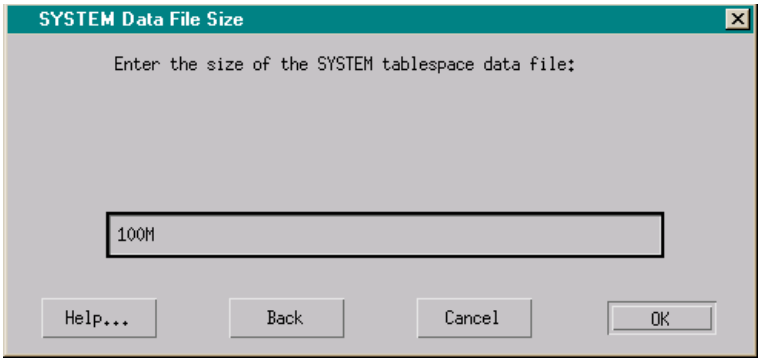


In the SYSTEM Data File Size screen that appears (Figure 1.23), enter the SYSTEM tablespace data file size. Use the following formula to determine what this value should be:

- 2.5 KB * (number of documents received daily) * (number of days retained)

Netscape recommends you set this value to **at least 100M**. When you have entered this value, click **OK** to continue.

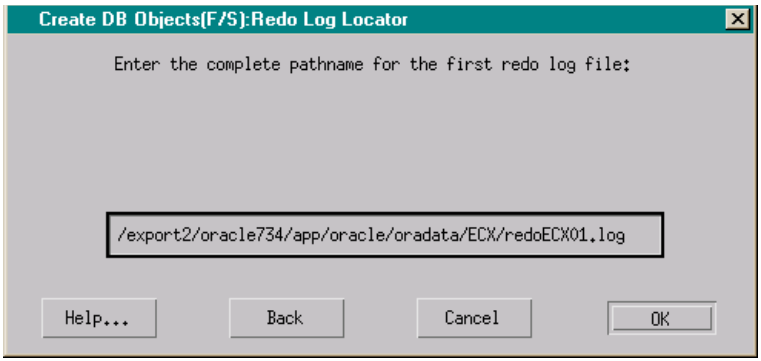
Figure 1.23 SYSTEM Data File Size Screen



23. Set up the Redo Logs.

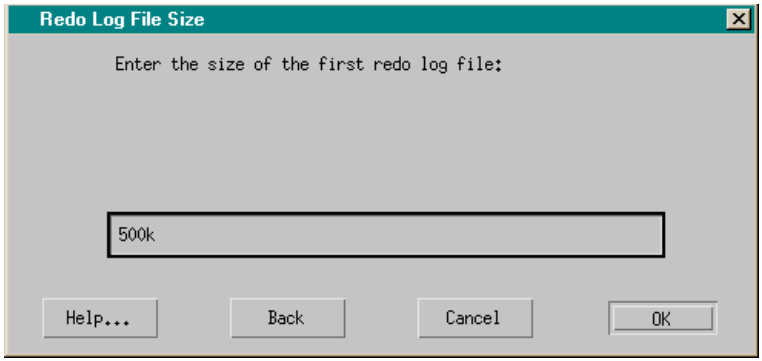
In the Redo Log Locator screen that appears, enter the pathname for the first Redo Log (Figure 1.24). Click **OK** to continue.

Figure 1.24 Redo Log Locator Screen



In the Redo Log File Size screen that appears, enter the size of the first Redo Log (Figure 1.25). Click **OK** to continue.

Figure 1.25 Redo Log File Size Screen

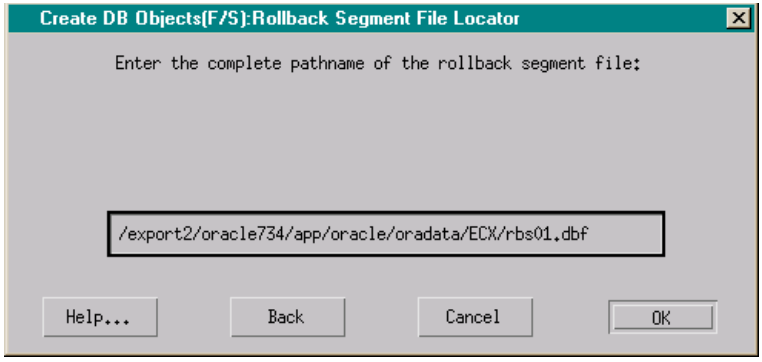


Important Repeat this step for each Redo Log file.

24. Set up the rollback segment file.

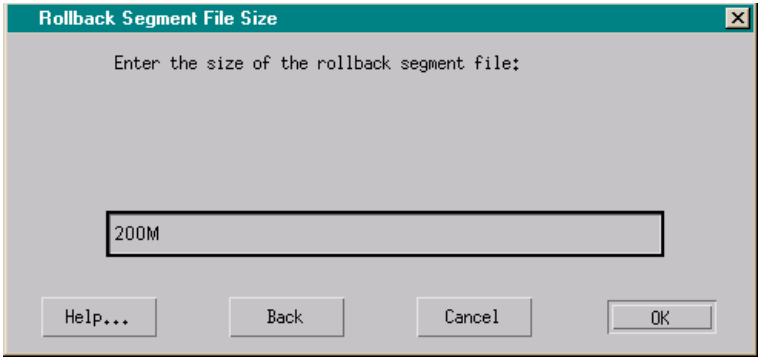
In the Rollback Segment File Locator screen that appears, enter the pathname for the rollback segment file (Figure 1.26). Click **OK** to continue.

Figure 1.26 Rollback Segment File Locator Screen



In the Rollback Segment File Size screen that appears (Figure 1.27), enter the rollback segment size. This value should be 1.5 to 2 times the largest tablespace plus the largest TEMP space. Netscape recommends that you set this value to **at least 200M**. When you have entered this value, click **OK** to continue.

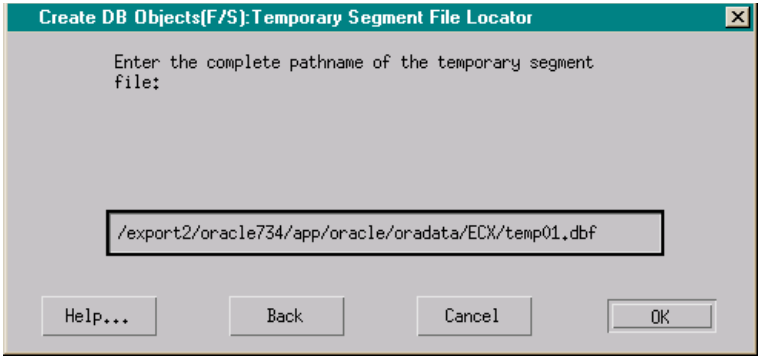
Figure 1.27 Rollback Segment File Size Screen



25. Set up the temporary segment file.

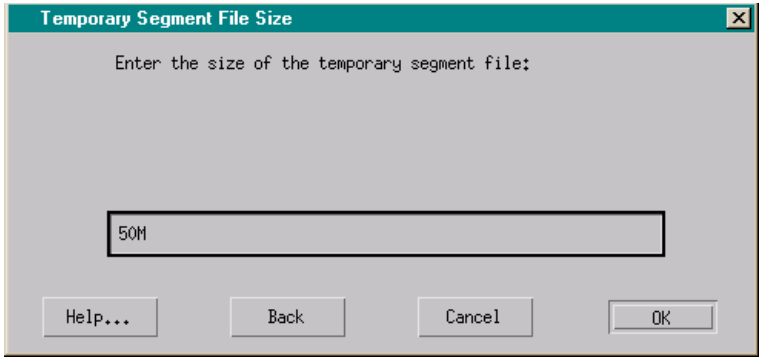
In the Temporary Segment File Locator screen that appears, enter the pathname for the temporary segment file (Figure 1.28). Click **OK** to continue.

Figure 1.28 Temporary Segment File Locator Screen



In the Temporary Segment File Size screen that appears (Figure 1.29), enter the temporary segment file size. Netscape recommends you set this value to **at least 50M**. When you have entered this value, click **OK** to continue.

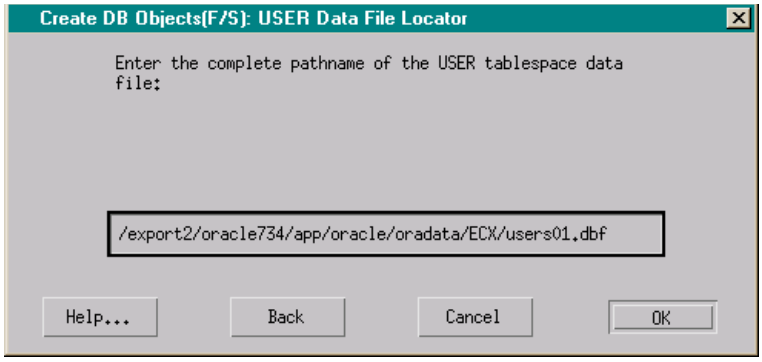
Figure 1.29 Temporary Segment File Size Screen



26. Set up the USER tablespace data file.

In the USER Data File Locator screen that appears, enter the pathname for the USER tablespace data file (Figure 1.30). Click **OK** to continue.

Figure 1.30 USER Data File Locator Screen

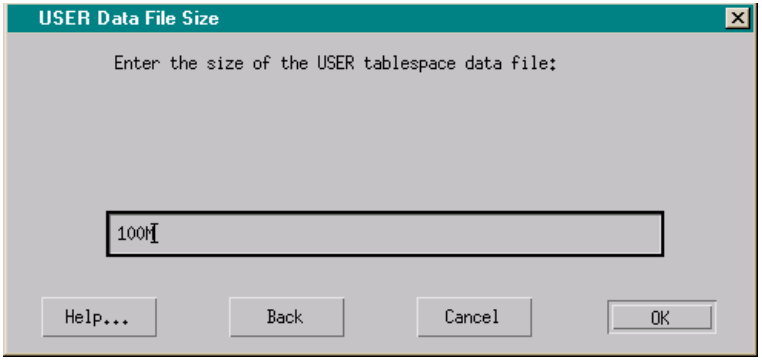


In the USER Data File Size screen that appears (Figure 1.31), enter the USER tablespace data file size. Use the following formula to determine what this value should be:

- 2.5KB * (number of documents received daily) * (number of days retained)

  Netscape recommends you set this value to **at least 100M**. When you have entered this value, click **OK** to continue.

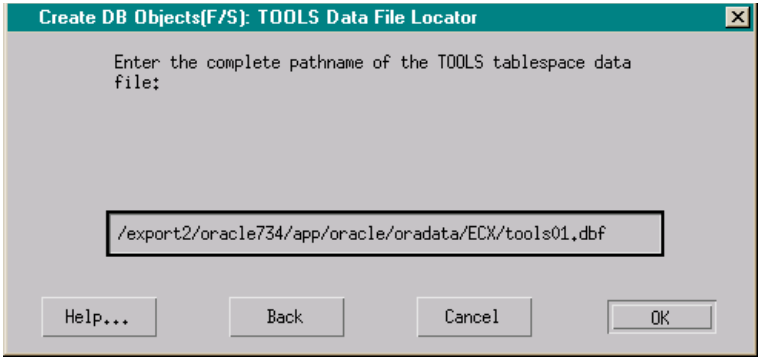
Figure 1.31 USER Data File Size Screen



27. Set up the TOOLS tablespace data file.

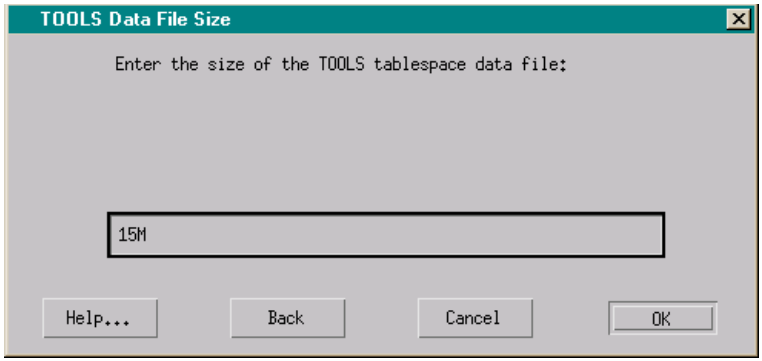
In the TOOLS Data File Locator screen that appears, enter the pathname for the TOOLS tablespace data file (Figure 1.32). Click **OK** to continue.

Figure 1.32 TOOLS Data File Locator Screen



In the TOOLS Data File Size screen (Figure 1.33) that appears, enter the TOOLS data file size. Click **OK** to continue.

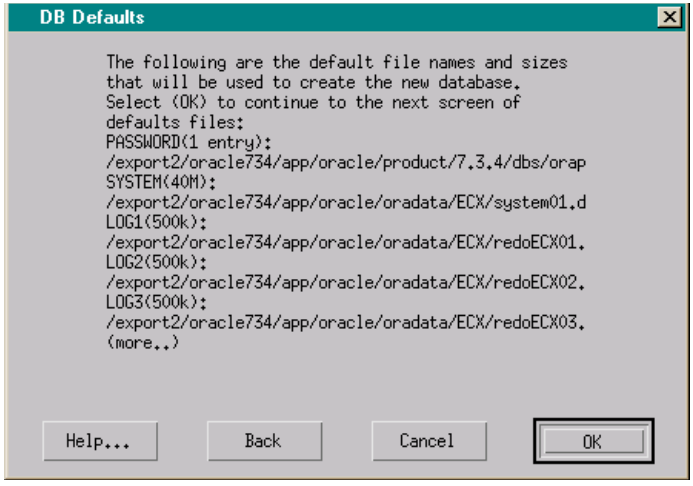
Figure 1.33 TOOLS Data File Size Screen



28. Confirm DB defaults.

Verify that the new DB values in the following two DB Default screens are correct (Figure 1.34). Click **OK** to continue past each DB Defaults screen.

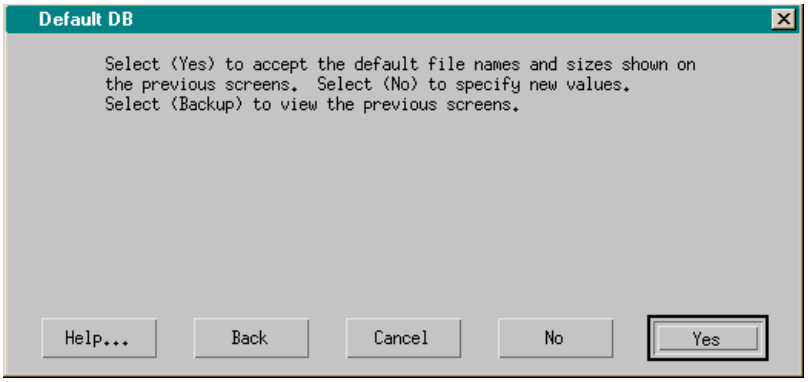
Figure 1.34 DB Defaults Screen



When all of the database defaults have been displayed, the Default DB Screen appears (Figure 1.21).

- If the values displayed are correct, click **Yes**.
- If the values displayed are not correct, click **No** and return to step 22.

Figure 1.35 DB Accept/Reject Default DB Screen

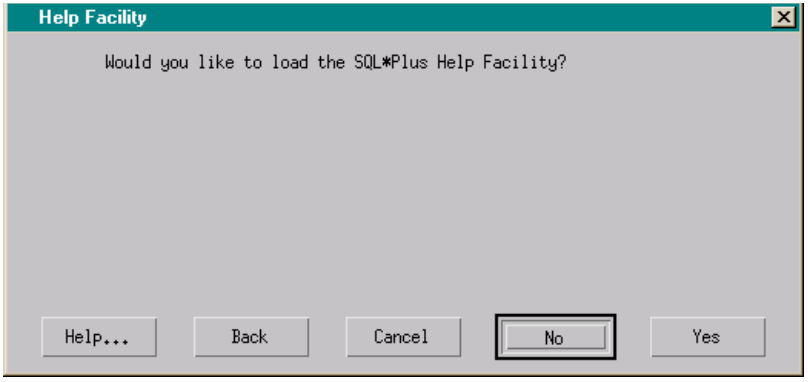


29. Choose whether to load the SQL*Plus Help.

Note These instructions assume you **do not** wish to load SQL*Plus Help at this point. If you wish to load SQL*Plus Help, refer to your Oracle documentation for instructions.

On the Help Facility screen that appears (Figure 1.36), click **No**.

Figure 1.36 Help Facility Screen

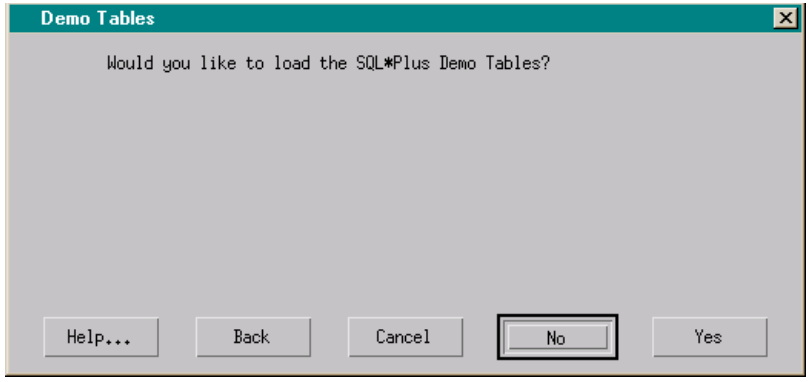


30. Choose whether to load the SQL*Plus Demo Tables.

Note These instructions assume you **do not** wish to load SQL*Plus Demo tables at this point. If you wish to load SQL*Plus Demo tables, refer to your Oracle documentation for instructions.

On the Demo Tables screen that appears (Figure 1.36), click **No**.

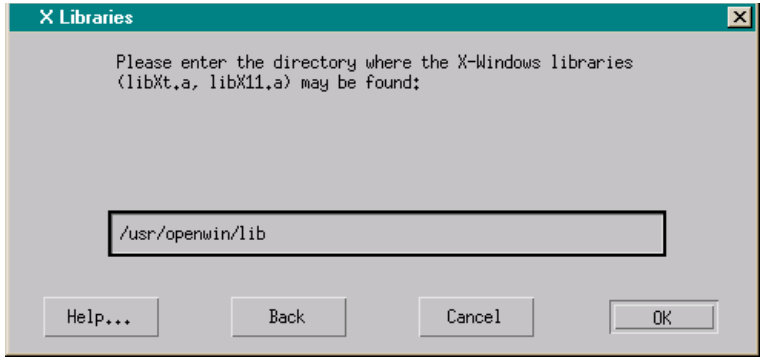
Figure 1.37 Demo Tables Screen



31. Enter the location of the X-Windows libraries.

In the X Libraries screen that appears (Figure 1.38), enter the location of the X-Windows libraries. Click **OK** to continue.

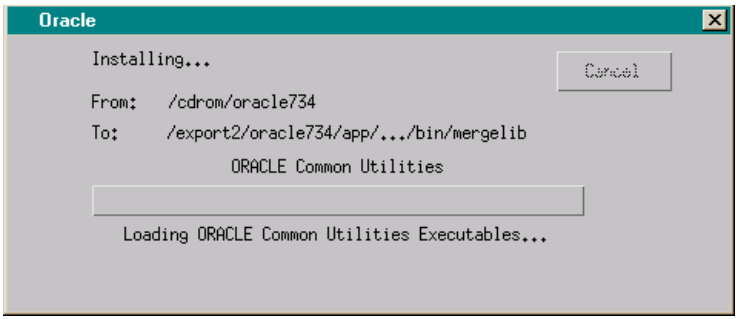
Figure 1.38 X Libraries Screen



The Oracle “installing” screen appears (Figure 1.39), displaying the current status of the installation.

Note It may take several minutes before the installation is complete.

Figure 1.39 Oracle “Installing” Screen

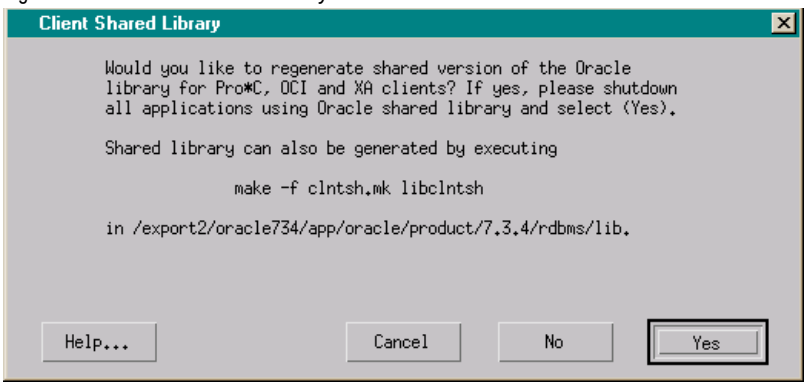


32. Indicate whether you would like to regenerate a shared version of the Oracle library.

Note These instructions assume you wish to regenerate a shared version of the Oracle library. If you **do not** wish to regenerate a shared version of the Oracle library, refer to your Oracle documentation for instructions.

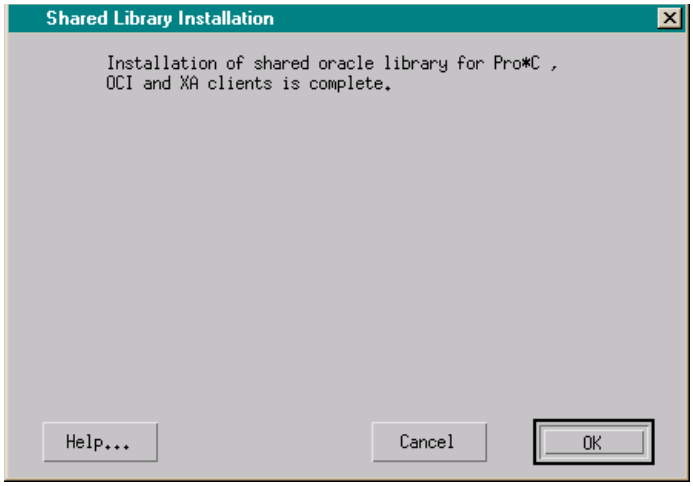
On the Client Shared Library screen (Figure 1.40), click **Yes** to regenerate a shared version of the Oracle library for Pro*C, OCI, and XA clients.

Figure 1.40 Client Shared Library Screen



The Shared Library Installation message window appears (Figure 1.41) indicating that the installation of the shared Oracle library is complete. Click **OK** to continue.

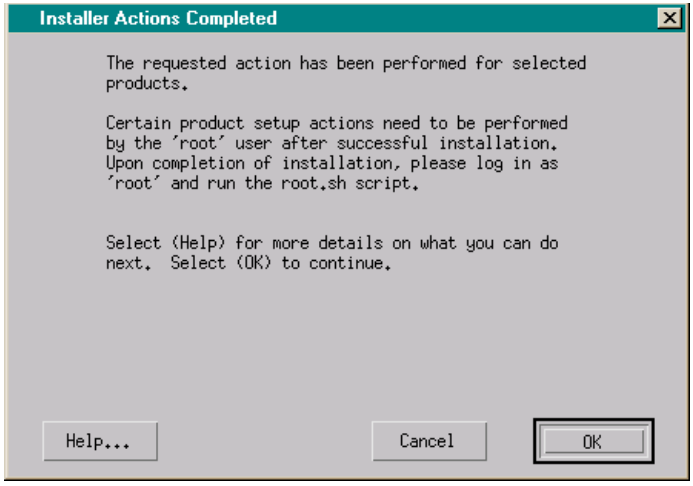
Figure 1.41 Shared Library Installation Screen



33. Acknowledge final "installation complete" message.

The Installation Actions Completed message window appears (Figure 1.42) indicating that the Oracle installation is complete. Click **OK** to continue.

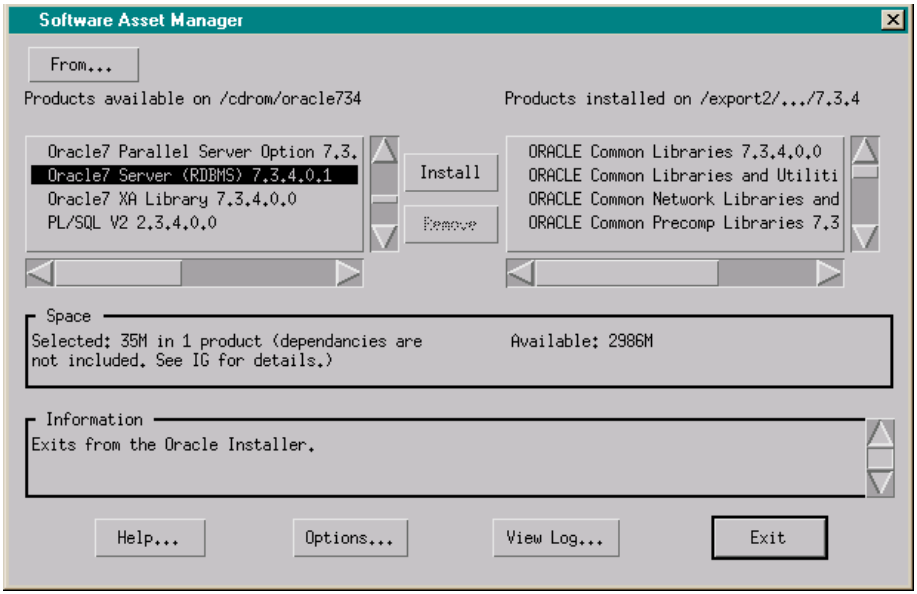
Figure 1.42 Installation Actions Completed Screen



34. Exit the installer.

The Software Asset Manager screen appears (Figure 1.43). Click **Exit** to exit the installer.

Figure 1.43 Software Asset Manager Screen



The following UNIX message appears, indicating that the installation completed successfully:

```
Result: Success.
```

Oracle7 Post-installation Tasks

The following sections describe the steps you must perform after you install Oracle:

- Run the *root.sh* script to set the necessary file permissions and perform any other required setup activities. See “Running the root.sh Script” on page 69.
- You must manually rebuild the *libclntsh.so* file. See “Rebuilding the libclntsh.so File” on page 69.

- You should edit your *init<SID>.ora* file to include recommended settings. See "Recommended Settings for initECX.ora File" on page 71.
- You should enable Oracle's Multi-Threaded Server (MTS) option. See "Enabling Oracle's Multi-Threaded Server (MTS) Option" on page 72.

Running the *root.sh* Script

1. **Log on as or become the `root` user.**

   # `su root`

2. **Change to the *$ORACLE_HOME/orainst* directory:**

   # `cd $ORACLE_HOME/orainst`

3. **Run the *root.sh* script:**

   # `./root.sh`

   If you run *root.sh* from a directory other than ORACLE_HOME, you will get the following message:

   ```
   ORACLE_HOME does not match the home directory for
   oracle.
   Okay to continue? [N]:
   ```

   If you select **Yes**, the *root.sh* script continues, using the `ORACLE_HOME` environment variable you specified.

   Depending on the products you installed, you may be prompted for user names and be given additional instructions. Refer to your Oracle documentation for more information on these messages.

Note The following message:

```
Please raise the ORACLE owner's ulimit per the IUG.
```

is purely informational.

Rebuilding the *libclntsh.so* File

Before you install ECXpert, you may need to rebuild the *$ORACLE_HOME/lib/libclntsh.so* file. If you do not do this, you will get errors during ECXpert installation steps five and six, and the ECXpert installation will not work.

The database connectivity test that you do before installing ECXpert (for instructions (see “Setting Up and Testing Database Connectivity” on page 73) should tell whether there's a problem and a need to rebuild the client library. For Oracle7, you may need to rebuild the client library if have run into trouble using either SQL*Plus or in making an OCI connection to the DB.

For example, if you have Oracle7 and your *libclntsh.so* file was not manually rebuilt to include the `slpmprodstab` symbol, you would probably see an OCI error during Step Six of the ECXpert installation.

And, after creating the new tables in Step Six, the encryption of the passwords will fail with the following error:

```
ld.so.1 /export/ecx1/Actra-apps/ECXpert/bin/bdgset-
passwd: fatal: relocation error: symbol not found:
slpmprodstab referenced in /export/app/oracle/prod/
v804/lib/libclntsh.so.1.0
```

If you’re not getting this error or other similar errors, you’re okay.

Two more examples of why we were rebuilding the l`ibclntsh.so` file are:

- If you’re missing `kglpno`, you will get a SQL*Plus error during ECXpert installation. So, if you aren’t getting this error when you are testing your database connectivity, you're probably okay.

  ```
  ora_dropdb:  ld.so.1 sqlplus: fatal relocation error:
  symbol not found: kglpno: referenced in sqlplus
  ```

- If you're missing `opinit`, you will get an error when using ECXpert with BuyerXpert and/or SellerXpert.

  ```
  ld.so.1 sqlplus: fatal relocation error: symbol not
  found: opinit: referenced in sqlplus
  ```

Before you rebuild *libclntsch.so*, you log on as your Oracle user and first hand-edit the *$ORACLE_HOME/bin/genclntsh* file to comment out the line:

```
# ar d $LIBCOMMON sorapt.o
```

You must also add a line that reads “opinit” immediately after the line that reads “oparse” and immediately before the line that reads “orlon.” For example:

```
oparse
opinit
orlon
```

Then run *genclntsh*, which will generate a new *$ORACLE_HOME/lib/libclntsh.so* file.

To tell if this worked, enter the following commands:

```
# nm -A libclntsh.so | grep kglpno
# nm -A libclntsh.so | grep slpmprodstab
# nm -A libclntsh.so | grep opinit
# nm -A libclntsh.so | grep opinit.s
```

If it worked, the following symbols appear:

```
libclntsh.so: [13174] | 4829324| 12|OBJT |GLOB |0 |15 |kglpno
libclntsh.so: [12972] | 4843548| 64|OBJT |GLOB |0 |15 |slpmprodstab
libclntsh.so: [7005] | 429228| 12|FUNC |GLOB |0 |8 |opinit
libclntsh.so: [297] | 0| 0|FILE |LOCL |0 |ABS |opinit.s
```

Recommended Settings for *initECX.ora* File

Netscape recommends that you edit the *initECX.ora* file to use the LARGE default values generated during the Oracle Enterprise Server installation process.

Note on Tuning Your System

Later on, after you have completely installed Oracle7, release 7.3.4 and ECXpert 3.0, you may wish to further tune your Oracle7 database. See the *ECXpert Site Administrator's Handbook*, version 3.0, Chapter 10, "Performance Tuning" for more information.

Table 1.8 Recommended *initECX.ora* Settings

Parameter	Recommended LARGE Value
db_file_multiblock_read_count	32
db_block_buffers	3200
shared_pool_size	9000000
processes	200
dml_locks	500
log_buffer	163840
sequence_cache_entries	100
sequence_cache_hash_buckets	89

Enabling Oracle's Multi-Threaded Server (MTS) Option

Netscape recommends that you enable Oracle's Multi-Threaded Server (MTS) option.

Note **If you allowed the Oracle installer to configure the MTS option, you may *skip* this section.**

To manually enable the MTS option, add the following to the Oracle initialization file *$ORACLE_HOME/dbs/initECX.ora*, making sure each uncommented line starts with **mts_** :

```
#
# for multi-threaded servers
mts_dispatchers = "ipc,1"
mts_listener_address = "(ADDRESS=(PROTOCOL=ipc)(KEY=ECX))"
mts_max_dispatchers = 20
mts_max_servers = 10
mts_servers = 1
mts_service = ECX
```

Creating the Oracle User ECX30

Follow these steps create the Oracle user ECX30, who will own the ECXpert tables.

Important If you are upgrading, do *not* follow the steps in this section. Instead use the existing Oracle ECXpert table-owner user. If you are upgrading from ECXpert version 1.1.1, this is most likely to be "WG73". If you are upgrading from ECXpert 2.0, this is most likely to be "ECX20".

1. **Log onto Solaris with your Oracle account. For example:**

   ```
   login: oracle
   password: oracle
   ```

2. **Launch the Oracle Server Manager utility.**

   ```
   # svrmgrl
   SVRMGR> connect system/manager
   ```

Note The default password is **manager**; yours may differ.

3. **Create user ECX30.**

```
SVRMGR> create user ECX30 identified by ECX30
default tablespace USERS temporary tablespace TEMP;
SVRMGR> grant connect, resource to ECX30;
SVRMGR> grant unlimited tablespace to ECX30;
SVRMGR> exit
Server Manager Complete
#
```

Setting Up and Testing Database Connectivity

Before you install ECXpert, set up and test your database to be sure that user **root** has access to the database, so that you can successfully install ECXpert. If user **root** doesn't have access to the database, you will get error messages during the ECXpert installation.

1. **Log in as user root.**

   # **su - root**

2. **Determine the shell that root uses.**

   # **echo $SHELL**

   The output of this command identifies the shell that root uses, which determines its associated environment file:

Output	Shell Being Used	Environment File
/sbin/sh	Bourne	*.profile*
/sbin/csh	C	*.cshrc*
/sbin/ksh	Korn	*.profile* or *.kshrc*

3. **Determine the shell that oracle uses.**

   # **cat /etc/passwd | grep oracle**

   The output of this command lists the shell at the end, as in the sample below:

   oracle:x:50004:10003::/export/home/oracle:/bin/csh

   where the shell is csh.

4. **Get into the `oracle` shell.**

   Locate the shell in the "Output" column of the table in Step 2 above, then look up the entry in the "Environment File" column for the same row.

   - If you are using the C shell, enter the following command:

     # **`source ~oracle/.cshrc`**

   - If you are using the Korn shell or the Bourne shell, enter the following command:

     # **`. ~oracle/`*`<your_environment_file>`***

5. **Check the environment settings.**

   # **`env`**

   The following sample output of this command lists the environment variables that must be set:

Note Refer to the Configuration Worksheet on page 82 for your `$ORACLE_HOME` (worksheet item 10) and `$NLS_LANG` (worksheet item 12) environment variables.

```
$ORACLE_HOME=<$ORACLE_HOME from worksheet>
$ORACLE_SID=ECX
$NLS_LANG=<$NLS_LANG from worksheet>
$LD_LIBRARY_PATH=$ORACLE_HOME/lib:$LD_LIBRARY_PATH
$PATH=$ORACLE_HOME/bin:$ORACLE_HOME:$PATH
$DISPLAY=<hostname>:0.0
$TNS_ADMIN=$ORACLE_HOME/network/admin
```

6. **Correct environment variable definitions as necessary.**

   If any of the above environment variables are not properly defined:

   - Become user **`oracle`** (**`su - oracle`**).
   - Open the environment file that you referenced in Step 4 above in a text editor and add or modify the definitions as necessary.
   - Save the environment file and exit the text editor.

7. **Enable changes in environment variable definitions.**

   If you made changes in the environment file in Step 6 above, you can enable those changes now by switching to another user and then switching back:

```
# su - root
# su - oracle
```

Alternatively, you could restart your system and log in as `oracle`.

8. **Check your *tnsnames.ora* file.**

   Check your *tnsnames.ora* file to make sure it contains the correct information.

9. **Connect to the database from the UNIX commandline.**

   # **sqlplus ECX30/ECX30@*<your_connect_string>***

   If this test fails, skip to Step 11.

10. **Repeat the test from inside SQL*Plus:**

```
SQL> connect ECX30/ECX30@<your_connect_string>
SQL> exit
```

11. **Correct any connectivity problems.**

    If the test at either Step 9 or Step 10 failed, check the *tnsnames.ora* and *listener.ora* file to validate the settings, such as hostname and SID.

    After making any necessary changes, go back to Step 9 above.

If you have successfully connected to the database using SQL*Plus, you will be able to connect during the ECXpert installation. If you cannot connect to the database using this method, you definitely will not be able to connect during the ECXpert installation.

For additional Oracle trouble-shooting tips, refer to the *ECXpert Operations Reference Manual.*

Chapter

2

Installing ECXpert

This chapter describes how to use the Netscape ECXpert Installer to install ECXpert Version 3.0.

The following topics are discussed in this section:

Overview

After you have installed Oracle and dependent software, you can install ECXpert. This chapter provides detailed instructions on how to install ECXpert.

Refer to the Configuration Worksheet on page 82 as you perform the steps in this chapter.

All the instructions in this manual are written for a new install of ECXpert. It is assumed ECXpert has never been installed on the target system or you have deleted all files and directories from any previous installation.

If you are performing an upgrade or re-install of ECXpert, stop here and read the appropriate appendix indicated below.

- If you are **migrating from ECXpert Version 1.1.1**, read Appendix D, "Migrating from ECXpert 1.1.1 to 3.0."
- If you are **migrating from ECXpert Version 2.0**, read Appendix C, "Migrating from ECXpert 2.0 to 3.0."
- If you are **re-installing ECXpert Version 3.0, or upgrading from a version earlier than 1.1.1**, read Appendix E, "Reinstalling ECXpert 3.0."

Backing up the Previous Installation of ECXpert (upgrade only)

If you are installing a new copy of ECXpert (not upgrading an earlier installation), you may skip this section.

1. **Shut down all ECXpert services.**

2. **Move the old ECXpert install directory to a temporary location.**

   The *$NSBASE/NS-apps/ECXpert/* directory and all directories below it (see "ECXpert Directory Structure" on page 25) should be moved as a unit to the new location.

3. **Backup the Oracle database for the user being used by ECXpert.**

   Refer to your *Oracle7* or *Oracle 8 Server Administrator's Guide*, Chapter 23, "Backing up a Database," for complete instructions on performing a full backup of your existing Oracle7 database.

Creating the ECXpert Administrator Account

If you are upgrading an earlier installation of ECXpert, you may skip this section.

Create the ECXpert Administrator user and directory. This user's home directory must be on the installation volume only if you are running the database on the same machine as ECXpert.

If you are confused about which user you are (*database_user*, **actraadm**, **root**) at any time during the installation steps, use the *id* command before proceeding.

1. **Set up the ECXpert Administrator account. For example:**

```
# /usr/sbin/groupadd actra
# /usr/sbin/useradd -d /export/home/actraadm -g actra \
-s /bin/csh actraadm -u 1120
# passwd actraadm
```

   Then enter 'actraadm' twice as the password.

Note You may use any username you prefer for the ECXpert administrator user; however, for simplicity, Netscape recommends you use userid **actraadm** with a group of **actra**. Netscape recommends you use a user ID of 1120 for the **actraadm** user and a group ID of = 500 for the **actra** group. These are the default values the Installer expects.

If you choose to use an ECXpert Administrator user with a different user ID or group ID, you must enter the correct values during Installer STEP TWO (see page 91). If you do not, you will be unable to log into the ECXpert user interface.

Note Enter the ECXpert Administrator user's User ID and Group ID values in Configuration Worksheet items "3. User ID:" on page 83 and "4. Group ID:" on page 84.

Note on Using Sendmail If you plan to use Sendmail, use the touch command to make sure the mail file can be read/written to. For example:

```
# touch /var/mail actraadm
```

Important: Make sure that the ECXpert Administrative user (actraadm) is part of the "mail" group, so that the ECXpert Administrative user can send and receive mail.

Setting Up Required Environment Variables

Parts of the installation process, as well as the routine operation of the ECXpert system, require the $NSBASE and $BDGHOME environment variables be properly set.

1. **Become the ECXpert Administrator user. For example:**

   ```
   # su - actraadm
   ```

2. **Determine the environment file to edit.**

   ```
   # echo $SHELL
   ```

   The output of this command determines which environment file you must edit:

Output	Shell Being Used	Environment File
`/sbin/sh`	Bourne	*.profile*
`/sbin/csh`	C	*.cshrc*
`/sbin/ksh`	Korn	*.profile* or *.kshrc*

3. **Edit the definition of $NSBASE into the shell startup file.**

Note For additional information, refer to the ECXpert Configuration Worksheet item "1. Install Directory:" on page 83.

Open the appropriate startup file in a text editor (e.g., `vi`) and edit it according to the following instructions:

- If you are using the C shell, add the following line:

  ```
  # setenv NSBASE <your_NSBASE_path>
  ```

  where <*your_NSBASE_path*> is the path to the directory where you will install the ECXpert software.

- If you are using the Bourne or Korn shell, add the following line:

  # **set NSBASE=**<*your_NSBASE_path*>

  where <*your_NSBASE_path*> is the path to the directory where you will install the ECXpert software.

4. **Edit the definition of $BDGHOME into the shell startup file.**

   according to the following instructions:

- If you are using the C shell, add the following line:

  # **setenv BDGHOME** *$NSBASE/NS-apps*

  where $NSBASE is the path you set in Step 3 as your $NSBASE environment variable.

- If you are using the Bourne or Korn shell, add the following line:

  # **set NSBASE=***$NSBASE/NS-apps*

  where $NSBASE is the path you set in Step 3 as your $NSBASE environment variable.

5. **Save the file and exit the text editor.**

6. **Enable the $NSBASE and $BDGHOME environment variables.**

   Adding $NSBASE and $BDGHOME to the environment file for the ECXpert Administrator user ensures that they are enabled every time the ECXpert Administrator user logs in. You can enable $NSBASE and $BDGHOME now by switching to another user and then switching back. For example:

   ```
   # su - root
   # su - actraadm
   ```

   Alternatively, you could restart your system and log in as the ECXpert Administrator user.

Complete the Configuration Worksheet

During the ECXpert installation, you will be prompted to supply certain information to the ECXpert installer. Fill out the Configuration Worksheet in order to have the values you will be prompted to provide easily accessible during the ECXpert installation process. While in most cases you can use default configuration values provided by the Netscape ECXpert Installer, there are some settings you must provide.

Important Hints for how to find the information you need to fill out this worksheet appear below each numbered item. However, if you have difficulty determining the values for the items listed on the Configuration Worksheet, consult your operating system documentation, your Oracle documentation, or your System Administrator.

Figure 2.1 Configuration Worksheet

ECXpert Configuration Information

Use the values in items 1 and 2 below to complete **ECXpert Installation Commandline Tasks**. For details, see "Accessing the ECXpert Distribution Media" on page 86.

1. Install Directory:

Enter the full pathname for *$NSBASE* where $NSBASE is the environment variable you set up as the complete path to where you will install ECXpert. See "Setting Up Required Environment Variables" on page 80 for instructions on setting up the $NSBASE environment variable.

Example: /disk1

2. Temporary installation port #:

Enter the temporary installation port number. **Do not use port 80**. This can be any available port except 80, which is the permanent port number.

To see what port numbers are already in use, enter the following command:

```
# netstat -an | grep -i 'listen'
```

Port numbers currently in use are listed in the first column of output from this command (preceded by "*."), as shown in the following 5-line sample:

```
*.111                *.*                0      0      0      0 LISTEN
*.32771              *.*                0      0      0      0 LISTEN
*.21                 *.*                0      0      0      0 LISTEN
*.23                 *.*                0      0      0      0 LISTEN
*.514                *.*                0      0      0      0 LISTEN
```

Choose a port number that does not appear on the list that appears when you enter the `netstat` command.

Use the values in items 3 and 4 below to complete **ECXpert Installation STEP TWO**. For a picture of what the screen looks like at this point, see Figure 2.3 on page 91.

3. User ID:

If you used **`actraadm`** as your ECXpert Administrator userid, the User ID might be **`1120`**. To determine the User ID for the ECXpert administrator user (typically **`actraadm)`**, log in as the ECXpert administrator user and use the **`id`** command. You may alternately type the command:

```
# cat /etc/passwd
```

to view the contents of the */etc/passwd* file. Look for a line beginning with the ECXpert Administrator userid. Counting the ECXpert Administrator userid as the first value, the User ID is the third colon-separated value from the left.
Example: `actraadm:x:1120:500::/export/home/actraadm:/bin/csh`
See "Creating the ECXpert Administrator Account" on page 79 for instructions on setting up the ECXpert Administrator user.

4. Group ID:

If you used **`actraadm`** as your ECXpert Administrator userid and **`actra`** as your ECXpert Administrator group, the Group ID might be **`500`**. To determine the Group ID for the ECXpert administrator group (typically **`actra)`**, log in as the ECXpert administrator user and use the **`id`** command.
You may alternately type the command:
`# cat /etc/group`
to view the contents of the */etc/group* file. Look for a line beginning with the ECXpert Administrator group name. Counting the ECXpert Administrator group name as the first value, the Group ID is the third colon-separated value from the left.
Example: `actra::500:actraadm`
See "Creating the ECXpert Administrator Account" on page 79 for instructions on setting up the ECXpert Administrator user.

Oracle Configuration Information

Use the values in items 5-14 below to complete **ECXpert Installation Step Four**. For a picture of what the screen looks like at this point, see Figure 2.5 on page 93.

5. ORACLE HOME:

Enter the directory that contains the Oracle software. This is the $ORACLE_HOME pathname. The OFA-recommended value is:

$ORACLE_BASE/product/<release>

Example: */export2/oracle734/app/oracle/product/7.3.4*

6. ORACLE SID:

Enter the Oracle *SID*, which is the name of the Oracle Server instance. If you do not know what this value is, see your *$ORACLE_HOME/dbs/init<SID>.ora* file.

Note: If you are installing Oracle as a remote client, set this value to the *SID* on the server machine.

Example: ECX

7. NLS Language (NLS_LANG):

The NLS_LANG character set is named according to the following convention:

<language>_<territory>.<number>

To query the Oracle7 database character set, you need the privileges to see the table V$NLS_PARAMETERS. Typically, only system/manager can see this table.

- Use the following SQL statement to check the character set language:

```
select * from V$NLS_PARAMETERS where parameter = 'NLS_LANGUAGE';
```

- Use the following SQL statement to check the character set territory:

```
select * from V$NLS_PARAMETERS where parameter = 'NLS_TERRITORY';
```

- Use the following SQL statement to check the character set number:

```
select * from V$NLS_PARAMETERS where parameter = 'NLS_CHARACTERSET';
```

Example: american_america.US7ASCII

Note: The character set name is case sensitive.

8. SQL*Net TNS Alias:

Enter the SQL*Net TNS Alias. You can find this value in your *tnsnames.ora* file. This is value is also known as the "SQL*Net Connect String."

9. Database User:

Enter the name of the user who owns the ECXpert tables in the database—ECX20. This is the user you set up as part of "Creating the Oracle User ECX30" on page 72.

10. Database Password:

Enter the password of the user who owns the ECXpert tables in the database. This is the user you set up as part of "Creating the Oracle User ECX30" on page 72.

Example: ECX30

11. Mail Host:

Enter your mail host name. If you are using sendmail, this is the name of the machine you are receiving mail on. If you are using POP3, this is the name of the SMTP server.

Example: myhost.myserver.com

12. Mail Spool File (sendmail only)**:**

Enter the path to your mail directory. Note that this value is not required if you are using POP3. This value is typically */var/mail/*<*username*>, but it does not have to be.

Example: */var/mail/actraadm*

13. POP3 User:

Enter the userid for the POP3 user. Note that this value is not required if you are using sendmail.

14. POP3 Password:

Enter password for the POP3 user. Note that this value is not required if you are using sendmail.

Notes:

Accessing the ECXpert Distribution Media

The ECXpert version 3.0 software is distributed on one CD-ROM. When you insert a CD-ROM into the CD-ROM drive, it is usually automatically recognized and mounted onto the file system. If, for some reason, the automatic mounting utility is not functioning, manual mounting instructions follow.

Mounting the CD-ROM Manually

In the following instructions, the mount point is referred to as */cdrom*. If your mount point has a different name, substitute that name for all references to */cdrom*.

To mount your CD-ROM manually, perform the following steps:

1. **Log in as the `root` user:**

```
# su root
Password: root_password
#
```

2. **Create the *mount_point* directory for mounting the CD-ROM:**

```
# mkdir /cdrom
```

3. **Mount the CD-ROM to the mount point:**

```
# mount -r -F hsfs device_name /cdrom
```

You must have **root** user privileges to mount or unmount the CD-ROM. Be sure to unmount the CD-ROM before removing it from the drive.

Starting the ECXpert Installer

1. **You should already be logged in as root.**

Warning Do *not* perform the command `$ su - root` or you will wipe out the database connectivity test settings described in "Setting Up and Testing Database Connectivity" on page 73.

2. **If you are installing ECXpert remotely, from a C shell window, set your remote host to display on your local host.**

   On the local host, enter:

   ```
   # setenv DISPLAY hostname:0
   ```

   where *hostname* is the name of the machine on which you are physically located.

   On the remote host, enter:

   ```
   # /usr/openwin/bin/xhost +
   ```

Warning If you have a Netscape Enterprise server or other HTTP server already running it may interfere with the ECXpert installer. To ensure that the ECXpert installer can successfully complete its tasks, **shut down all HTTPD server processes**.

3. **Make sure you have a valid hostname and domain name.**

   To verify this, enter:

   ```
   # /bin/hostname
   # /bin/domainname
   ```

   Consult your system administrator if either your hostname or domain name does not have a valid value.

4. **Change to the *cdrom* directory.**

   ```
   # cd /cdrom/ECXpert
   ```

   If this command doesn't work, enter the following command:

   ```
   # cd /cdrom/cdrom0
   ```

5. **Start the ECXpert Installer by running the `setup_exe` executable.**

```
# ./setup_exe
```

Note Do **not** run `setup_exe` as a background process. This program requires you to enter information to configure ECXpert.

The program starts up and immediately displays the following licensing agreement:

```
BY INSTALLING THIS SOFTWARE YOU ARE CONSENTING TO BE BOUND BY
AND ARE BECOMING A PARTY TO THE AGREEMENT FOUND IN THE
LICENSE.TXT FILE. IF YOU DO NOT AGREE TO ALL OF THE TERMS
OF THIS AGREEMENT, PLEASE DO NOT INSTALL OR USE THIS SOFTWARE.

Do you agree to the license terms? [no]:
```

Type **y** and press **[Enter]** to accept the licensing terms, or type **n** and press **[Enter]**, or just press **[Enter]**, to reject them.

If you press 'n' or [Enter], the program immediately returns you to the command prompt.

If you press 'y', the program immediately prompts you for a path to the installation directory.

```
*********************************************
*     Netscape ECXpert 3.0 Installation     *
*********************************************

Please enter the fully qualified path of the directory where
you would like to install ECXpert.

Enter quit to end.

Directory :
```

6. **Enter the install directory (*$NSBASE* value).**

Enter the full path of your installation directory from the Configuration Worksheet and, when prompted, enter **y** to confirm. If the directory you enter doesn't already exist, the program creates it for you.

After you supply the required information, the Installer:

- builds the */NS-apps/ECXpert* directory structure
- configures $NSBASE

Note Whatever you entered above at the "Directory" prompt is used to define the $NSBASE environment variable. Keep this definition handy so that you can supply it in later installation steps where the $NSBASE environment variable definition is not available.

7. **Enter the ECXpert temporary installation port number.**

   Enter a unique HTTP port number, and when prompted, enter **y** to confirm.

   You are then prompted for your HTTP port (from the Configuration Worksheet item one of on "1. Install Directory:" on page 83:

   ```
   Please enter the port that you want the installation http server to
   listen on.

   NOTE: It is recommended that you DO NOT USE port 80, it is generally
   the default port for most http servers.

   Enter quit to end.

   Port :
   ```

   The files are unpacked into the destination directory you specified, and the Installer runs internal processes that:

   - configure a temporary version of the HTTP server (removed automatically by installer upon completion of installation)
   - start the temporary HTTP server
   - start the Netscape Navigator

Note The above processes take several minutes.

Note If you have an HTTP server running that uses the same port specified above, the installation fails. Follow these steps to shut down any running HTTP servers:

1. Exit the browser.
2. Shut down all HTTPD server processes.
3. Make sure no other processes are using the port you selected:

   # **netstat -an | grep -i 'listen'**

4. Restart the installation per Step 5 on page 88.

Running the ECXpert Installer

The rest of the installation process is browser-driven. Enter the information that you recorded in the Configuration Worksheet on page 82 when you are prompted to do so in the screens that follow.

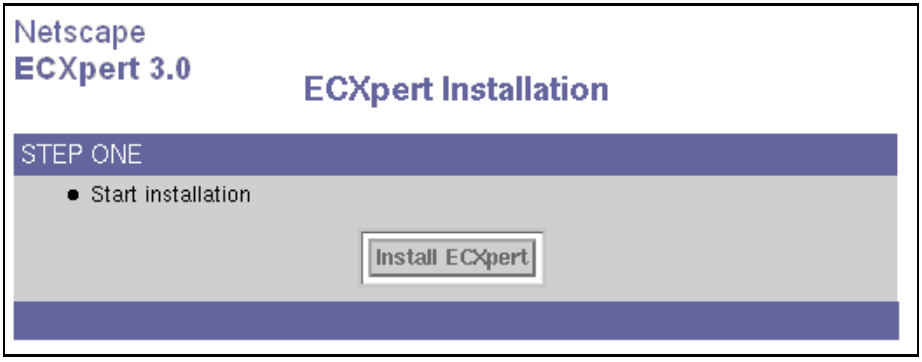
Note If you are migrating from ECXpert Version 2.0, stop here and read Appendix C, "Migrating from ECXpert 2.0 to 3.0." If you are migrating from ECXpert Version 1.1.1, stop here and read Appendix D, "Migrating from ECXpert 1.1.1 to 3.0." If you are re-installing ECXpert version 3.0, or upgrading from a version earlier than 1.1.1, see Appendix E.

Information in each Installer screen tells you the prerequisites, if any, for that step and what each step in the process is doing.

Warning Before proceeding, make sure that you have filled in your Configuration Worksheet *completely* and *accurately*. Refer to "Complete the Configuration Worksheet" on page 82. Then enter the information from that worksheet into the ECXpert Installer screens very carefully.

Note The ECXpert Installer does not provide Back or Next buttons. If you wish to return to navigate between screens, you must use your browser's Back and Next buttons. On any ECXpert Installer screen, click the appropriate button at the bottom of the page to continue on to the next step.

Figure 2.2 ECXpert Installer Step One

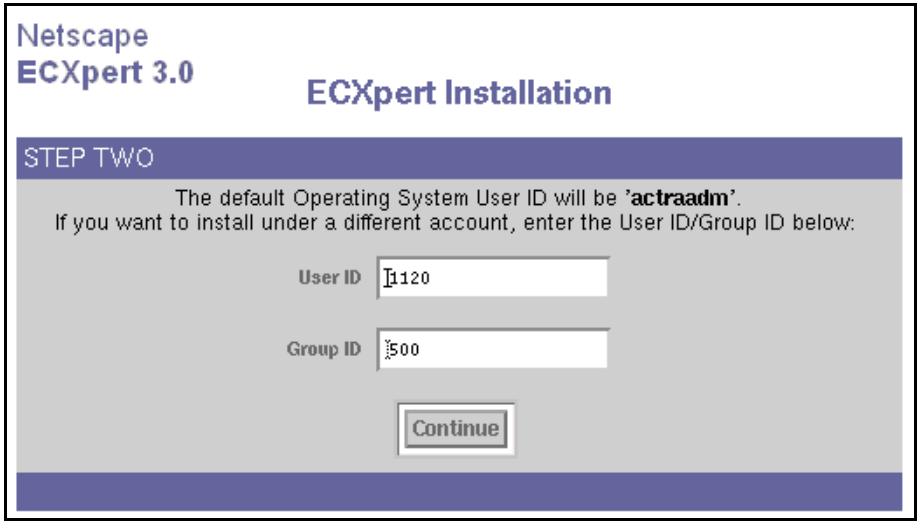


1. **Click Install ECXpert to begin the installation.**

2. **Enter the User ID and Group ID for the `ECXpert Administrator` user (typically `actraadm`).**

   This is the user you created in “Creating the ECXpert Administrator Account” on page 79. The ECXpert administrator User ID and Group ID are the values you recorded in the Configuration Worksheet, items “3. User ID:” on page 83 and “4. Group ID:” on page 84.

Figure 2.3 ECXpert Installer Step Two

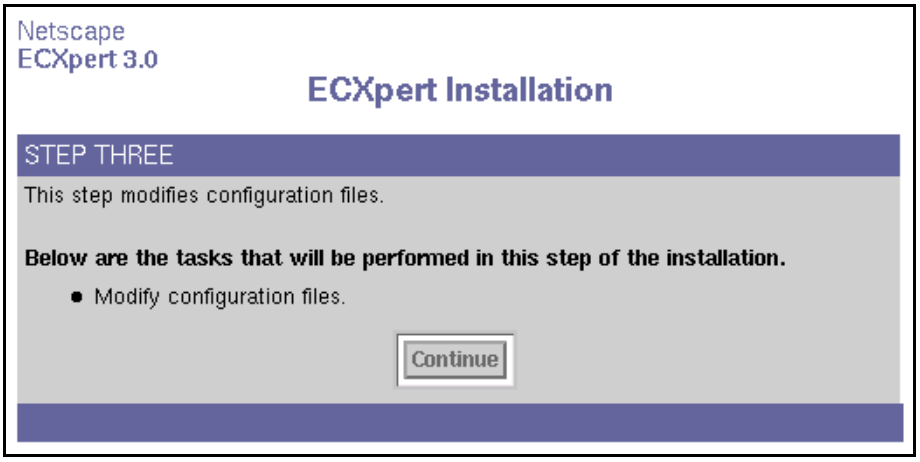


When you have entered the User ID and Group ID values, click **Continue**.

As the process proceeds, the Installer displays progress status messages. When the process has completed, click **Continue** at the bottom of the screen to go to the next step.

3. **Click Continue to allow ECXpert to modify configuration files.**

Figure 2.4 ECXpert Installer Step Three



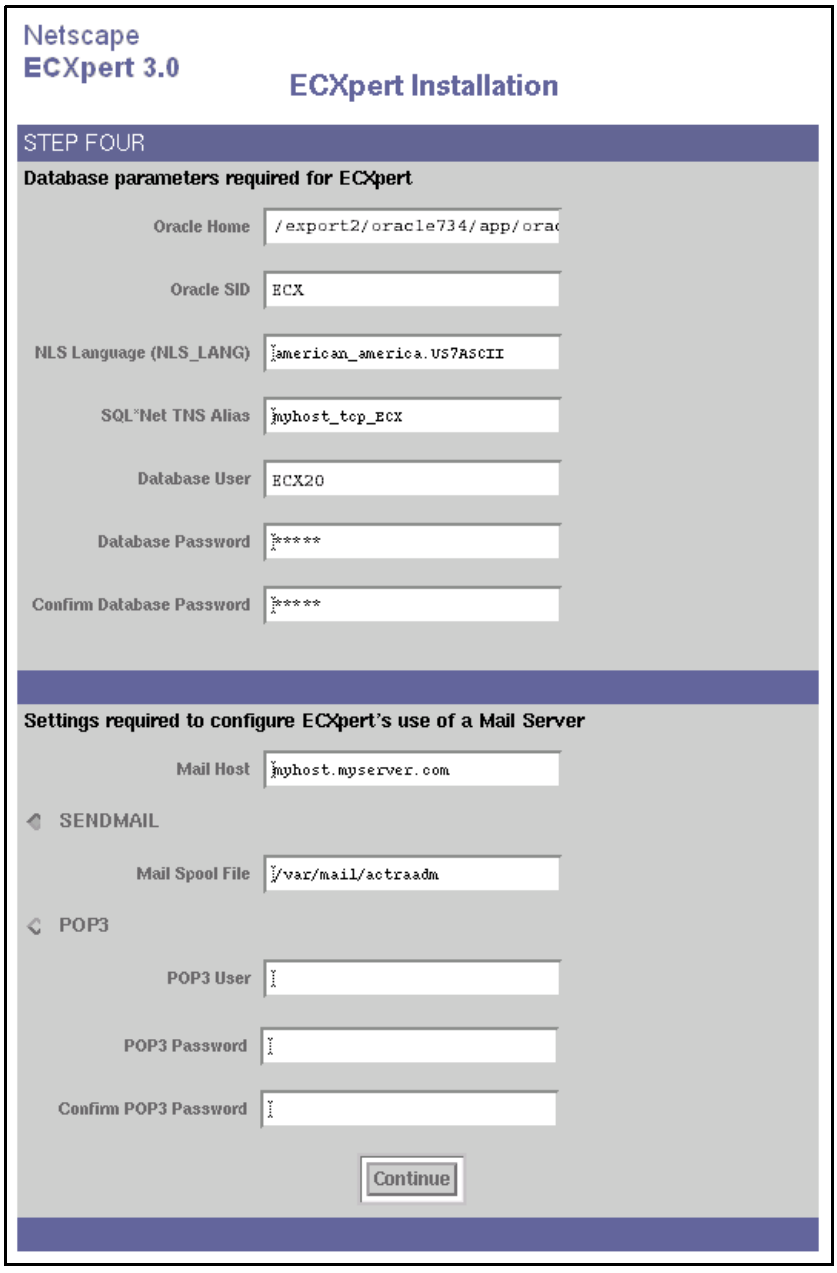
As the process proceeds, the Installer displays progress status messages. When the process has completed, click **Continue** at the bottom of the screen to go to the next step.

4. **Enter your Oracle and Mail Server information.**

These are the values you recorded in Configuration Worksheet items “5. ORACLE HOME:” on page 84 through “14. POP3 Password:” on page 86

Note The value you enter in the Database Server field should be the same value you specified in the “Testing the Database Connectivity” section on page 73.

Figure 2.5 ECXpert Installer Step Four



In fields top section of this screen, type in the values you entered in the ECXpert Configuration Worksheet on page 82.

In the bottom section of this screen—the section below the second horizontal blue line—you must fill in different fields depending on whether you select the **Sendmail** or **POP3** radio button. Refer to the ECXpert Configuration Worksheet on page 82 for information on what information goes in each field.

Use the following table to determine which fields to fill in:

Table 2.1 STEP FOUR Sendmail/POP3 Required Fields

If you select this radio button...	You must fill in the following fields...
Sendmail	• Mail Host • Mail Spool File
POP3	• Mail Host • POP3 User • POP3 Password • Confirm POP3 Password

Note on Using Sendmail

If you plan to use Sendmail, use the touch command to make sure the mail file can be read/written to.

For example:

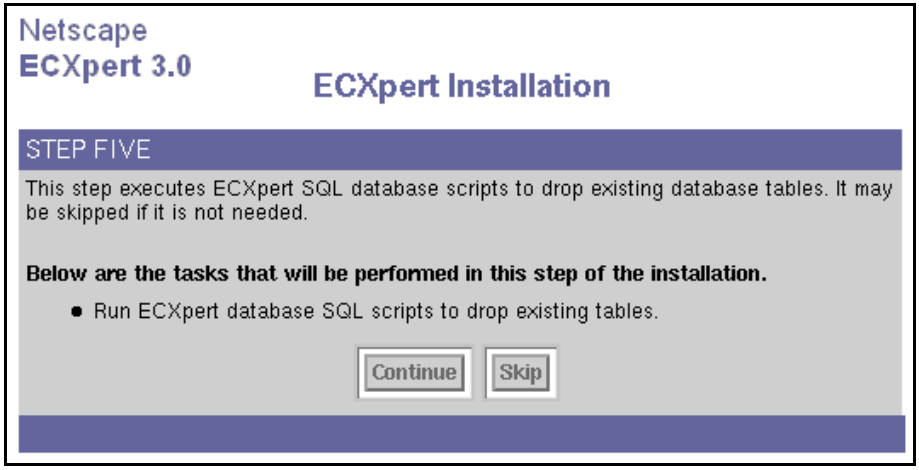
```
# touch /var/mail actraadm
```

Important: Make sure that the ECXpert Administrative user (actraadm) is part of the “mail” group, so that the ECXpert Administrative user can send and receive mail.

When you have entered all the required values, click **Continue** at the bottom of the screen. As the process proceeds, the Installer displays process status messages.

5. Configure an existing Oracle database for ECXpert.

Figure 2.6 ECXpert Installer Step Five



This step automatically runs the SQL scripts that drop the database schema for the ECXpert database in the Oracle database. As the process runs, the Installer displays progress status messages.

WARNING If you are performing an upgrade or re-install of ECXpert, stop here and proceed to the appropriate continuation point indicated below. **If you Click Continue your existing database will be overwritten.**

- If you are **migrating from ECXpert Version 1.1.1**, continue at Step 3 on page 191, in Appendix D, “Migrating from ECXpert 1.1.1 to 3.0.”
- If you are **migrating from ECXpert Version 2.0**, continue at Step 3 on page 171, in Appendix C, “Migrating from ECXpert 2.0 to 3.0.”
- If you are **re-installing ECXpert Version 3.0, or upgrading from a version earlier than 1.1.1**, continue at Step 5 on page 205, in Appendix E, “Reinstalling ECXpert 3.0.”

If this is the first time you are configuring the database, click **Skip** to skip this step and go on to Step Six on page 97. If you execute this step before you have configured the database, you get error messages because the SQL script attempts to drop tables that do not exist. These error messages do not impact your installation and may be ignored.

When the process has completed, click **Continue** to go to the next step.

WARNING If you are *overwriting* an earlier installation of ECXpert (*not* preserving your ECXpert database), you may get the following error when dropping the Certificates table:

ORA-02266: unique/primary keys in table reference by enabled foreign key

In order to proceed, complete the following steps:

- In an xterm window, log in to svrmgrl as system/manager.
- Enter the following command sequence to drop and re-add user ECX30:

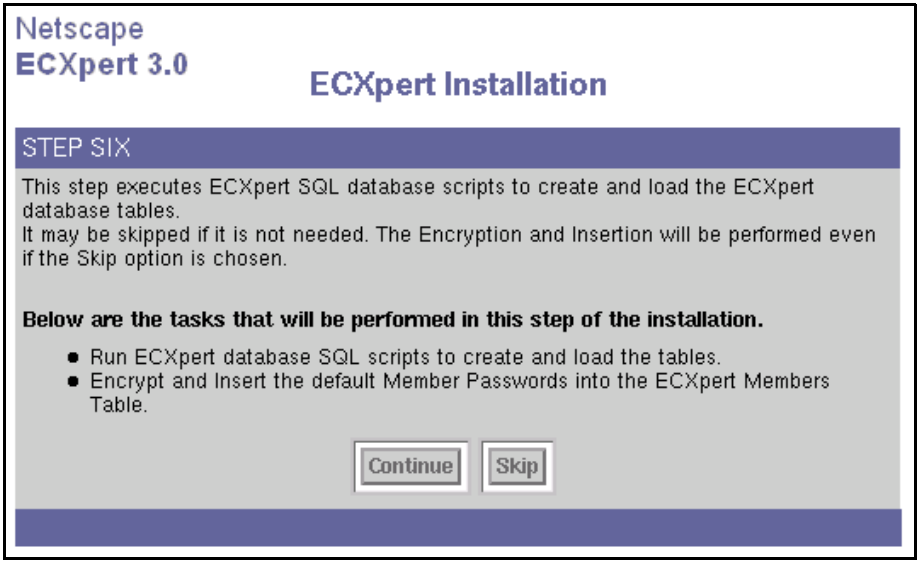
```
SVRMGRL> drop user ECX30 cascade

SVRMGRL> create user ECX30 identified by ECX30
default tablespace USERS temporary tablespace TEMP;

SVRMGRL> grant connect, resource to ECX30;
```

Note The above commands assume you created Oracle user ECX20 exactly as specified in Step 5 on page 88. If you made any modifications to the commands in Step 5 on page 88, you must make the corresponding modifications to the commands above.

- Resume with the ECXpert 3.0 installation at Step Five (or Step Six).

6. Configure a new Oracle database for ECXpert.

Figure 2.7 ECXpert Installer Step Six



This step automatically runs the SQL scripts that create the database schema for the ECXpert database in the Oracle RDBMS, and encrypts and inserts Member passwords.

WARNING If you are performing an upgrade or re-install of ECXpert, make sure you have read the instructions at the appropriate continuation point indicated below. You should be clicking **Skip** on this step. **If you Click Continue your existing database will be overwritten.**

- If you are **migrating from ECXpert Version 1.1.1**, continue at Step 3 on page 191, in Appendix D, “Migrating from ECXpert 1.1.1 to 3.0.”
- If you are **migrating from ECXpert Version 2.0**, continue at Step 3 on page 171, in Appendix C, “Migrating from ECXpert 2.0 to 3.0.”
- If you are **re-installing ECXpert Version 3.0, or upgrading from a version earlier than 1.1.1**, continue at Step 5 on page 205, in Appendix E, “Reinstalling ECXpert 3.0.”

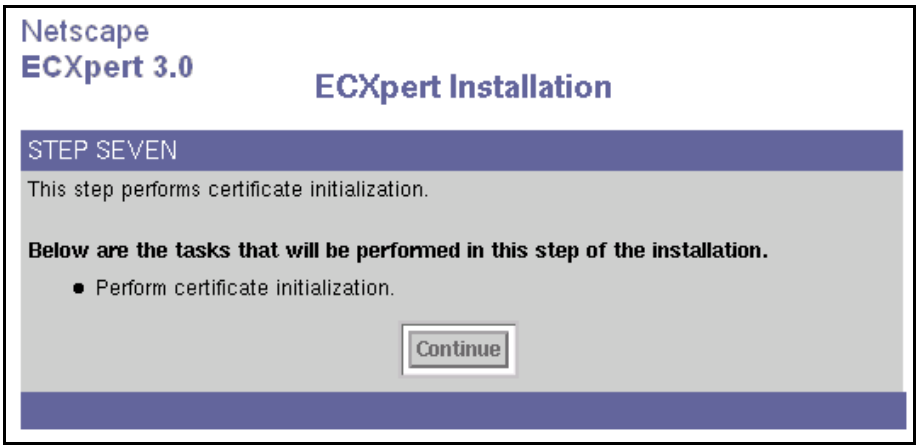
If this is a new install, click **Continue**. As the process runs, the Installer displays a process log screen.

When the process has completed, click **Continue** to go to the next step.

7. Initialize your certificates

The Installer initializes VeriSign certificate files. If you want to use certificates from other certificate authorities (CAs), add them in manually after installation.

Figure 2.8 ECXpert Installer Step Seven



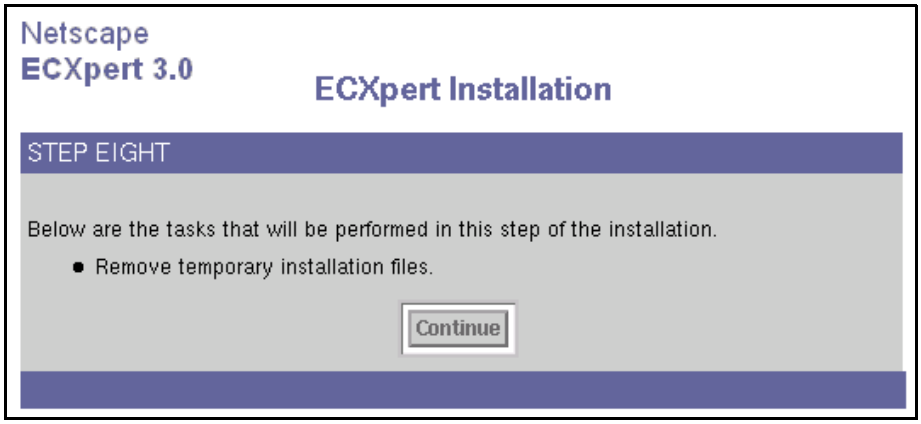
As the process runs, the Installer displays process status messages.

When the process has completed, click **Continue** to go to the next step.

8. Clean up the temporary installation directory.

After the Installer completes its processes, you are presented with a screen for cleaning up the temporary installation directory.

Figure 2.9 ECXpert Installer Step Eight



Click **Continue** to recover the disk space from the temporary install directory.

The system displays a status message. When this step has completed, click **Continue**.

Figure 2.10 ECXpert Installer Step Nine

9. **Shut down the temporary Netscape Enterprise Server.**

   Click **Continue** (Figure 2.10). The screen shown in Figure 2.11 is displayed. When this step has completed, click **Continue**. After the temporary install directory is cleaned up, you are presented with a screen to shut down the temporary Netscape Enterprise Server.

Figure 2.11 ECXpert Installer Step Ten

The information on this screen is written to a file for you to use in Step 12 to modify the Netscape Enterprise Server's *obj.conf* file.

10. **Exit the browser.**

11. **Eject the installation disk.**

    ```
    eject
    ```

    If you get a "Device is busy" message, you may need to find other xterm windows which may have the directory **`/cdrom`** or **`/cdrom0`** as the current working directory. Otherwise, you may have been in the **`/cdrom`** or **`/cdrom0`** directory when you issued the **`su`** command and the previous

terminal session is still using the CD-ROM's directory as its current working directory. If so, issue the **`exit`** command to leave the shell for the new userid and go back to the previous userid's shell.

If you are still unable to eject the ECXpert 3.0 CD from the CD-ROM drive, you may need to have your Unix System Administrator stop and restart the Volume Manager.

12. **Edit the Netscape Enterprise Server's *obj.conf* file.**

    Open the *$NSBASE/NS-apps/ECXpert/config/obj.mod* file containing the information from the screen (in Figure 2.11 on page 100) in a text editor window. Open the Netscape Enterprise Server's *obj.conf* file in a second text editor window. Follow the instructions in the *obj.mod* file to edit your *obj.conf* file.

13. **Start the HTTP server.**

    After you have ejected the ECXpert 3.0 CD from the CD-ROM drive, start the HTTP server with the following command sequence:

```
su root
cd $NSBASE/NS-apps/ns-home/https-machine_name
./start
```

Warning Do NOT enter the first command above as

```
su - root
```

Including the "-" would wipe out environment settings that are needed below.

Applying *obj.conf* File Changes

1. **Start your web browser and go to the following URL.**

   http://*machine_name:port#*/admin-serv/bin/index

2. **Enter the user ID and password.**

   Enter a user ID and password for a Netscape Enterprise Server user with administrative privileges.

3. **Apply any changes you made to the `obj.conf` file.**

   A message window appears telling you that you must apply your changes. Click **OK**.

   In the **Netscape Enterprise Server** bar at the top of the screen, click **Apply**. The **Apply Changes** screen appears.

   Click the **Load Configuration Files** button for the Netscape Enterprise Server.

   If the changes are successfully applied, a "success" message window appears. Click **OK** to continue.

4. **Exit your web browser.**

Starting the ECXpert Administration Server

Follow the steps below to start the ECXpert Administration Server.

1. **Start up the browser.**

   Make sure you are still user root, then enter the following commands:

   ```
   $ cd $NSBASE/NS-apps/navigator
   $ ./netscape &
   ```

Note The `$DISPLAY` environment variable must be set at this point in order for the browser to run. For more information on setting this environment variable, refer to "Accessing the ECXpert Distribution Media" on page 86, step 2.

2. **Display the ECXpert Administration home page.**

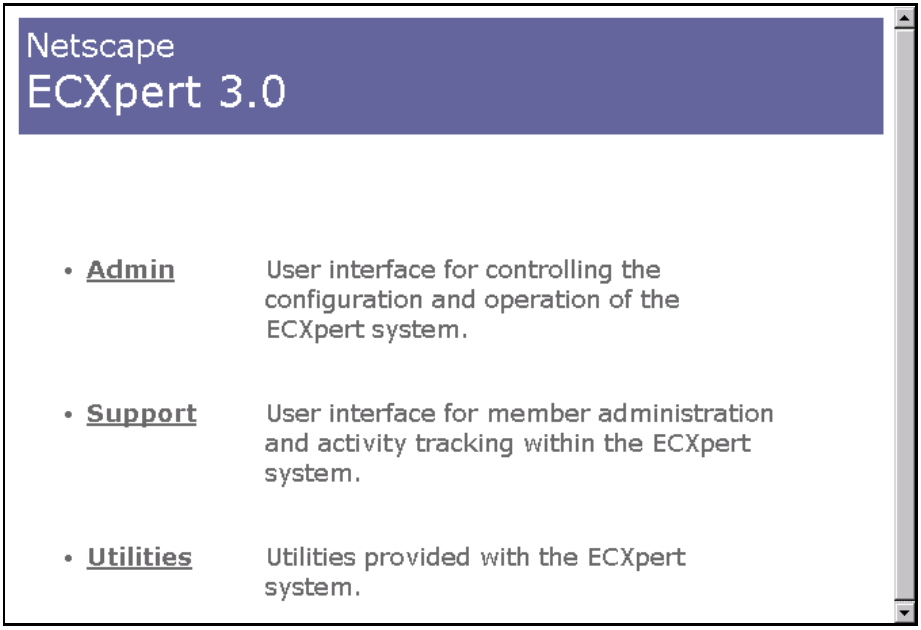
   Enter the URL:

   http://*hostname*:*port#*

Note If you used port 80 when you installed ECXpert, you do not need to enter a port number.

The following screen appears.

Figure 2.12 Netscape ECXpert main menu



3. **Save the URL to the ECXpert Main Menu as a bookmark.**

4. **Start the ECXpert Administration Server.**

   Click **Admin** in the ECXpert Main Menu.

   In the ECXpert web server login window that appears, log in with userid **`admin`** and the password **`admin`**.

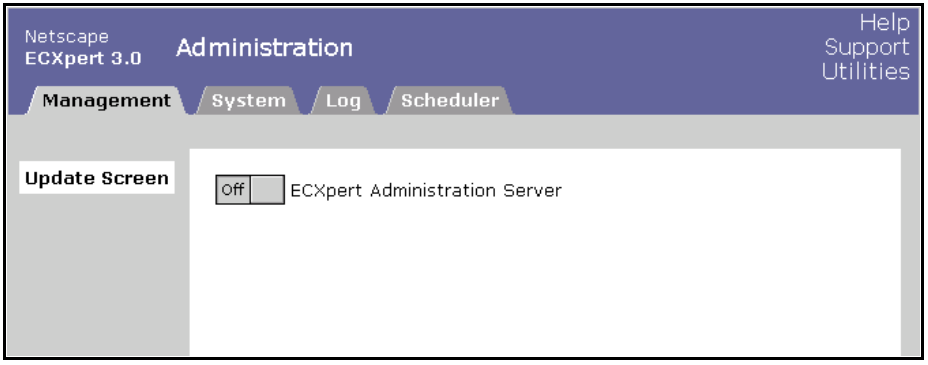
Note If you did not enter the correct User ID and Group ID values in Installer STEP TWO (see page 91), you will be unable to log into the ECXpert user interface.

To work around this problem, you must log on as user **`root`** and recursively `chown` the directory structure to your ECXpert Admninistrator user using the user name, not the user ID number. For example:

```
# chown -R actraadm NS-apps
# chgrp -R actra NS-apps
```

Once you successfully log in, the Management screen appears.

Figure 2.13 ECXpert Management screen main menu



Click the **ECXpert Administration Server** toggle switch to the "On" position to start the server.

5. **Continue to the next chapter to test your installation and for information on additional post-installation tasks.**

Chapter

3

Postinstallation Tasks

This chapter explains how to test your ECXpert installation to be sure it worked, and helps you decide what your next step should be.

The following topics are discussed in this section:

Testing Your ECXpert Installation

After you have installed ECXpert, it is a good idea to submit a test document to make sure you have installed and configured Oracle and ECXpert correctly.

Follow the steps below to submit a test document using the ECXpert demo data. For more information on the ECXpert demo, refer to Chapter 1, "Preinstallation Tasks."

1. **Create a backup copy of the test document.**

   Log on as or become user **root**:

   ```
   # su root
   ```

   Enter the following commands:

   ```
   # cd $NSBASE/NS-apps/ECXpert/maps
   # cp Input_810.txt Input810.txt.bak
   ```

2. **If you have not already done so, start up your web browser now.**

   Make sure you are logged on as user **root**, then enter the following commands:

   ```
   $ cd $NSBASE/NS-apps/navigator
   $ ./netscape
   ```

Note The $DISPLAY environment variable must be set correctly in order for the browser to run.

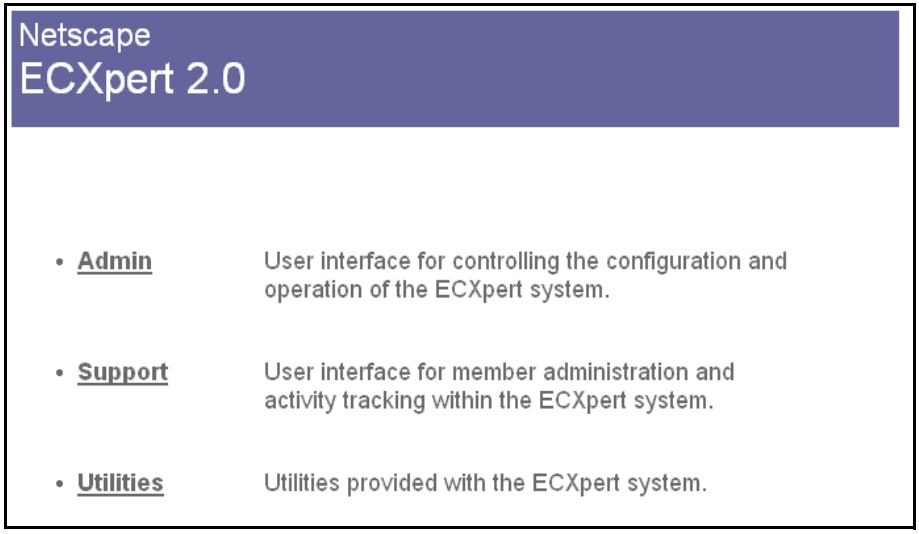
3. **If you have not already done so, display the ECXpert Administration home page now.**

   Open the bookmark to the ECXpert Administration home page, or enter the URL:

   http://*hostname*:*port#*

   The following screen appears.

Figure 3.1 Netscape ECXpert main menu

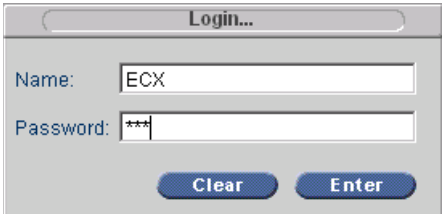


4. **Log into the Product Administrative Interface.**

   Click the **Support** link.

   Then enter your login information in the login window that appears. The default user name/password is ECX/ECX.

Figure 3.2 Product Administrative Interface Login Window



Note If you are using a browser on Windows NT or Windows 95 to interact with ECXpert, the user interface may not display with the correct colors if your video display settings are at 256 colors. To correct this problem, set your video display to use more colors (e.g., High Color - 16 bit, True Color - 24 bit).

When you have entered your login information, click **Enter**.

5. **Retrieve the demo trading partnership.**

   Click the **Partnership** tab. The following Partnership Administration screen appears:

Figure 3.3 Partnership Administration Screen

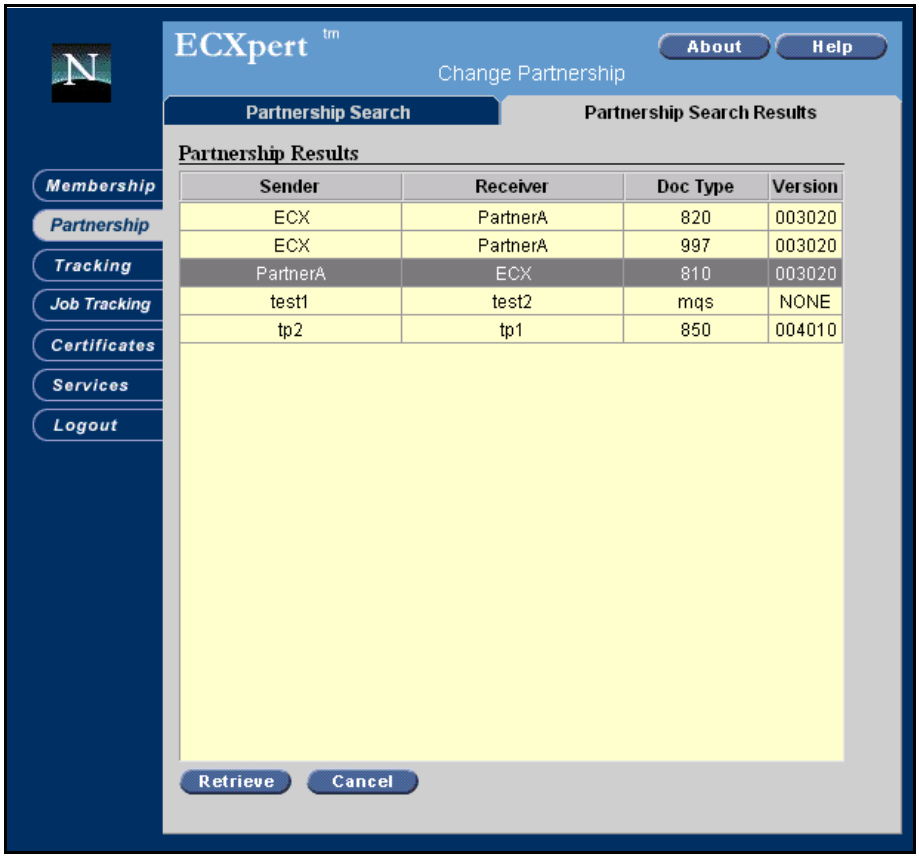
Click the **Change** button. The following screen appears:

Figure 3.4 Partnership Search Screen

Click the **Search** button.

The following screen appears:

Figure 3.5 Partnership Search Screen



All of the available partnerships appear in the Partnership Results screen. Select the following partnership:

- Sender - PartnerA
- Receiver - ECX
- Doc Type - 810
- Version - 003020

Then click **Retrieve** (or double-click the partnership).

6. Set up the demo trading partnership to use the FTP Protocol.

Click the **Protocols** tab. Then, from the Outgoing Protocol drop-down list, select **FTP**.

Enter the following values in this tab:

Table 3.1 Demo Partnership Protocol Values

Field Name	Field Description	Enter This Value
Outgoing Protocol	The protocol used to send the outgoing message	**FTP**
Pre-Communications Service	A custom service to invoke before using this protocol	**<NONE>**
Delivery Timing	Specifies when messages should be delivered. • **Immediate** - all messages are sent as soon as they are ready to be sent. • **Scheduled** - messages are sent at the time(s) specified via the ECXpert Scheduler	**Immediate**
Host Name	The name of the FTP server	**The name of your FTP server**
Port	The IR port number for the FTP server—typically 21	**The port number of your FTP server**
User Name	User Number or account ID for the member	**Your username**
Password	The password for the member's user number or account ID	**Your Password**
Confirm Password	The password for the member's user number or account ID, entered again for verification	**Your Password**
Outbound Transfer Mode	The transfer mode used when sending outgoing files	**Binary**

Table 3.1 Demo Partnership Protocol Values

Field Name	Field Description	Enter This Value
Outbound dir	The directory where ECXpert's ftp-local-application comm agent will ftp the final, bundled file.	**$NSBASE/NS-apps/ECXpert/maps**

Outbound Pattern	The filename that will be used for the final, bundled file, not including the filename extension. This filename will be given an *A##* extension which will increment each time the Partnership is used to process a file. For example, if you use *invoice.data* as the outbound pattern, ECXpert will create:
	`invoice.data.A1`
	`invoice.data.A2`
	`invoice.data.A3`
	and so on
		invoice.data

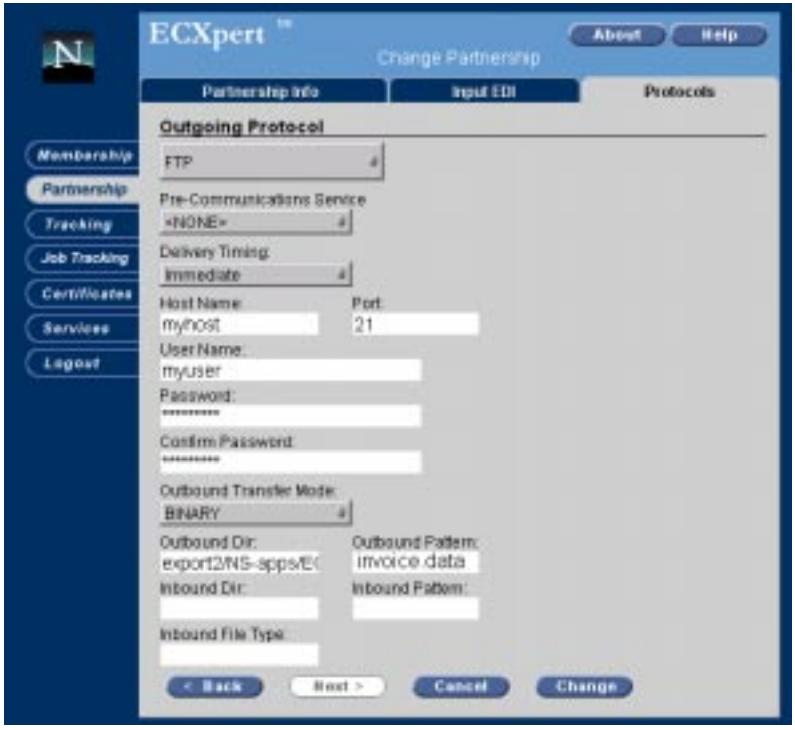
Inbound Dir	A fully qualified pathname for the directory from which ECX will retrieve inbound documents (ftp get)	*No value*
Inbound Pattern	A pattern (any set of characters) to search for in the Inbound directory. Files matching the pattern are retrieved into ECX; other files are left in the directory. If you leave the field blank, no files are retrieved. You can use any wild-card supported by FTP (like *, for example 'PO.*') to pick up multiple files	*No value*

Table 3.1 Demo Partnership Protocol Values

Field Name	Field Description	Enter This Value
Inbound File Type	The file type of inbound files. This must match the data type specified in the Service List.	*No value*

When you have finished filling in the Protocols tab, it should look something like Figure 3.6.

Figure 3.6 Completed Partnership Protocols tab



When you have finished filling in the Protocols tab, click **Change**. On the verification window that appears, click **Yes** to verify the change.

7. Submit the test document.

Go to the **ECXpert Main Menu**, and click the **Utilities** link.

The Utilities screen appears. Click the **Document Submission Form** link. The Submission Information form appears.

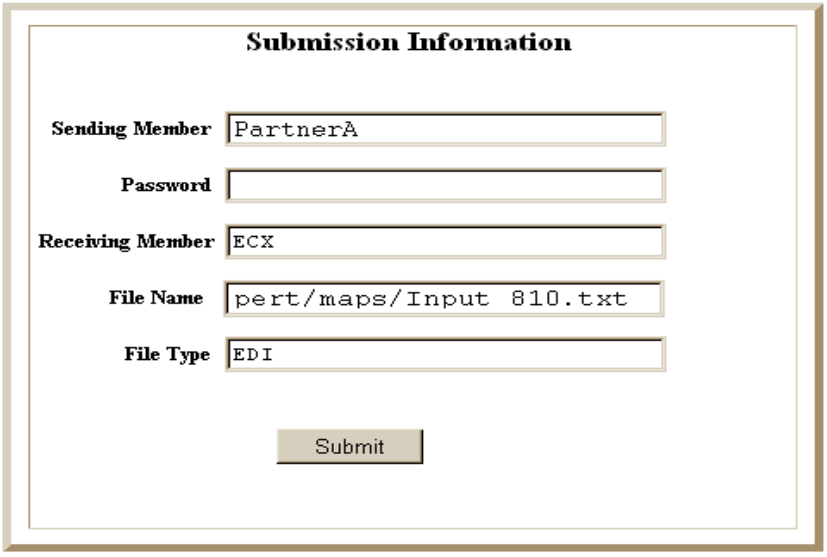
Enter the following information in the Submission Information form:

Table 3.2 Submission Information

Field Name	Field Description	Enter this Value
Sending Member	The name of the member sending the file.	**PartnerA**
Password	The sending member's password. No value is needed if the sending member is trusted.	*No value*
Receiving Member	The name of the member receiving the file.	**ECX**
File Name	The fully qualified pathname for the file you wish to send.	**$NSBASE/NS-apps/ECXpert/maps/Input_810.txt**
File Type	The file type of the file you wish to send.	**EDI**

When you have finished filling in the Submission Information form, it should look something like Figure 3.7.

Figure 3.7 Completed Submission Information screen



When you have finished filling in the Submission Information form, click **Submit**. When the file has been submitted, a screen appears indicating that the submission is done.

8. Resolve any error messages.

Pay close attention to any error messages that appear on this screen. Use the following table to resolve common error messages:

Table 3.3 Common Errors

Error	Resolution
Submission failed. [Error# 6012]	Go to **ECXpert Main Menu** | **Admin** | **Management** and make sure that the ECXpert Administration Server, FTP Server for Application Data, and TCP/IP Connector **On/Off** switches are in the **On** position.

Table 3.3 Common Errors

Error	Resolution
Size of input file happens to be zero.[Error# 6024]	You have either incorrectly entered the file name in the Submission Information form, or the file does not exist. Check the *$NSBASE/NS-apps/ECXpert/maps* directory to make sure the file *Input_810.txt* file is there. If it is not, copy it from the backup version you created in step 1 and try submitting again.
Invalid trading partnership. [Error #603]	The *Input_810.txt* file contains an invalid trading partner. Edit the first line of this file to replace characters 36-46—which read "cust/vendor"—with "PartnerA" followed by three spaces.

9. Log onto the Product Administrative Interface again.

Click the **Support** link. Then enter your login information in the Login window that appears. The default user name/password is ECX/ECX.

When you have entered your login information, click **Enter**.

10. Verify that the document was submitted without error.

Click the **Tracking** tab. The **Enter Search Constraints** tab appears.

In the **Date/Time** portion of the screen, click the **Calendar** icon immediately to the right of the **From Date:** field. Today's date appears in the **From Date:** field. Click **Search**.

The **File Level Results** tab appears, displaying all of today's submissions. You can identify your submission by looking for the appropriate sender, receiver, and doc type.

If there is a green dot in the far left column of your submission, the test document was submitted correctly. Oracle and ECXpert have been installed and configured correctly.

What's Next?

Now that you have successfully installed Netscape ECXpert 3.0, use the information in the following table to determine what your next step should be:

Table 3.4 Post-installation Steps

If you want to...	Refer to...
Change your initial user passwords.	*Netscape ECXpert Operations Reference Manual*
Learn how to configure and customize your Netscape ECXpert software	*Netscape ECXpert User's Guide*
Learn more about tuning and scaling your ECXpert System	*Netscape ECXpert Site Administrator's Handbook*, "System Settings" appendix
Set up certificates	• *ECXpert Site Administrator's Handbook*, Chapter 6, "Working with Certificates" • *Netscape ECXpert User's Guide*, Chapter 6, "Working with Certificates"
Enable SNMP support	*Netscape ECXpert Site Administrator's Handbook*
Enable Automatic Reboot of your ECXpert system	*Operations Reference Manual*, "System Monitoring and Recovery Procedures" chapter. Refer specifically to the following section: "Recovery Following System Failure—Configuring for Automatic Startup on Reboot under Solaris."
Install Actuate Reports and Actuate Premium Package	• *Actuate Reporting System User's Guide*

Table 3.4 Post-installation Steps

If you want to...	Refer to...
Install Directory Server and Enable Lightweight Directory Access Protocol (LDAP) Support	The Netscape Directory Server documentation included on separate media in your ECXpert package *Netscape ECXpert Site Administrator's Handbook*, Chapter 3, "Setting Up Members"
Install Netscape Messaging Server	The Netscape Messaging Server documentation included on separate media in your ECXpert package
Install Mercator Authoring System and mapping files	• *Netscape ECXpert Site Administrator's Handbook* • *Mercator Getting Started* guide
Configure ECXpert to work with MSOutlook	*Netscape ECXpert Site Administrator's Guide*
Configure Sendmail for use with ECXpert	See "Note on Using Sendmail" on page 79.

A

Upgrading Oracle7, from release 7.3.3.5 to 7.3.4

This appendix describes the tasks users must perform to upgrade an existing Oracle7 Workgroup Server, release 7.3.3.5 database to Oracle7 Enterprise Edition Server, release 7.3.4.

This appendix contains the following sections:

- Overview
- Upgrading to Oracle7, release 7.3.4.0.1

Overview

This appendix describes the steps you must perform to upgrade your current Oracle7 installation to either of the following versions of Oracle:

- Oracle7, release 7.3.4.0.1

Upgrading to Oracle7, release 7.3.4.0.1

This section describes:

- Pre-upgrade tasks you must perform before you can upgrade to Oracle7, release 7.3.4.0.1
- Oracle7, release 7.3.4.0.1, upgrade steps
- Post-upgrade tasks you must perform after you upgrade to Oracle 7, release 7.3.4.0.1

Important Note on Upgrade Documentation

The Oracle installation instructions provided in this document are intended to supplement—not replace—the detailed instructions provided in the documentation distributed along with your copy of Oracle. These instructions **do not** cover all relevant details, and they **do not** discuss all possible installation scenarios. **In order to install Oracle successfully, you must carefully read and follow all relevant instructions provided in Oracle's documentation.**

Table A.1 lists the correct Oracle document to refer to throughout the Oracle7, release 7.3.4.0.1 upgrade process:

Table A.1 Oracle7 Release 7.3.4.0.1 Upgrade Documentation

Book Name	Release Date	Part Number
Oracle7 (tm) Installation Guide for Sun SPARC Solaris 2.x, Release 7.3.4, Chapter 6, "Upgrading Oracle7"	September 1997	A55980-01

If for some reason you did not receive the correct document along with your copy of Oracle, use the part number listed in Table A.1 to order the correct document from Oracle. For more information about ordering Oracle documentation, refer to Oracle's web site:

http://www.oracle.com

You may also be able to download an HTML copy of this document from:

http://technet.oracle.com/doc/solaris/server.733/IG73/toc.htm

Pre-Upgrade Tasks

Before you upgrade to Oracle7, release 7.3.4.0.1, you must first:

- Back up the existing Oracle7 database. See "Backing Up the Existing Oracle7 database." on page 121.
- Stop the SQL*Net Listener process, shut down the Oracle database, and stop other running Oracle processes. See "Stopping Processes and Shutting Down the Oracle Database" on page 122.
- Create the **`oracle`** user. See "Creating the oracle User" on page 123.
- Prepare the environment for installation. See "Preparing the Environment" on page 124.
- Perform any additional relevant pre-upgrade tasks discussed in the Oracle documentation. See "Performing Additional Pre-upgrade Tasks" on page 127.

Backing Up the Existing Oracle7 database.

You must either perform a logical backup or a physical backup of your existing Oracle7 database before you continue.

- **Logical backup** - In Oracle, the Export utility is used to perform a logical database backup.
- **Physical backup** - You would use operating system file backup commands to perform a physical backup of your database.

Refer to your *Oracle7 Server Administrator's Guide*, Chapter 23, "Backing up a Database," for complete instructions on performing a full backup of your existing Oracle7 database.

Stopping Processes and Shutting Down the Oracle Database

1. **Log on as or become the Oracle7 user.**

   ```
   # su - oracle7
   ```

2. **Stop the `tcp_listener` process.**

   ```
   # lsnrctl stop tcp_listener
   ```

3. **Shut down web listeners:**

   ```
   # wlctl stop 8000
   # wlctl stop 8888
   ```

   This shuts down the Oracle Web Server.

4. **Shut down the existing Oracle7 database.**

   ```
   # svrmgrl
   SVRMGRL> CONNECT INTERNAL
   SVRMGRL> SHUTDOWN
   SVRMGR> EXIT
   #
   ```

5. **Stop all currently running Oracle processes.**

- List all currently running Oracle processes:

  ```
  # ps -ef | grep ora
  ```

  You should see at least the following processes:

  ```
  oracle    4431  4429  1 09:20:14 pts/6   0:00 -csh
  oracle7   232     1  0   Oct 30 ?        0:17 ora_pmon_WG73
  oracle7   234     1  0   Oct 30 ?        0:48 ora_dbwr_WG73
  oracle7   236     1  0   Oct 30 ?        0:50 ora_lgwr_WG73
  oracle7   238     1  0   Oct 30 ?        0:40 ora_smon_WG73
  oracle7   240     1  0   Oct 30 ?        0:01 ora_reco_WG73
  ```

- Shut down each currently running Oracle processes:

  # **kill -9** <*process_id*>

  where <*process_id*> is the id number of the running Oracle process.

Creating the oracle User

In order for Oracle 7.3.4 to function properly, you must create a new user called “oracle” who will perform the functions that the “oracle7” user performed in the past.

1. **Log on as or become the root user:**

   # su - root

2. **Create the dba group.**

   If the machine you are using does not already have a dba group, you must create one:

   # **groupadd dba**

3. **Create a home directory for the Oracle user. For example:**

   # **mkdir /disk1/oracle**

   where */disk1/oracle* is the **oracle** user’s UNIX home directory.

4. **Add the oracle user. For example:**

   # **useradd -g dba -d /disk1/oracle -s /bin/csh oracle**

5. **Transfer ownership of the oracle user’s home directory. For example:**

   # **chown oracle /disk1/oracle**

6. **Set the oracle user’s password:**

Note The **oracle** user’s password is typically set to “oracle.”

```
# passwd oracle
New password: <password>
Re-enter new password: <password>
```

where <*password*> is the new password for the **oracle** user.

Preparing the Environment

You must set the appropriate environment variables in the `Oracle` user's *.profile* or *.login* file before starting the Installer.

- Use the following syntax to set the environment variables:

  For the C shell:

  `setenv` <*variable_name*> <*value*>

  For the Bourne shell:

  `set` <*variable_name*> <*value*>
  `export` <*variable_name*>

- Use the information in theTable A.2 to determine how to set up each environment variable:

Note Refer to your Oracle documentation for additional information about these and other potentially important environment variables.

Note on Optimal Flexible Architecture (OFA) Compliance

All new installations and all database creations performed with the Oracle 7.3.4 Installer comply with the Optimal Flexible Architecture (OFA) standard. This has resulted in new recommended pathnames for standard environment variables.

For example, the OFA recommended value for the `$ORACLE_BASE` environment variable is:

<*software_mount_point*>*/app/oracle*

where the <*software_mount_point*> is the directory in which you intend to install Oracle.

Note While an $ORACLE_BASE environment variable is not required, the OFA standard recommends that you enter a value for $ORACLE_BASE.

The OFA recommended value for the `$ORACLE_HOME` environment variable is:

<*software_mount_point*>*/app/oracle/product/7.3.4*

where the <*software_mount_point*> is the directory in which you intend to install Oracle.

For More Information

The OFA is described in detail in Appendix B, "Summary of the OFA Standard," in the *Oracle7 Administrator's Reference* for UNIX

Table A.2 Environment Variables

Environment Variable	Configuration Details
DISPLAY	Set to the name and monitor of the machine from which you are installing the Oracle software. **Example**: myhost:0.0
LD_LIBRARY_PATH	Set to include *$ORACLE_HOME/lib* and the directory containing your Motif libraries. The default location for Motif libraries on Solaris 2.x is */usr/openwin/lib* or */usr/dt/lib*.
NLS_LANG	Set to the correct NLS_LANG character set. The character set is named according to the following convention: <language>_<territory>.<number> **Important**: When you upgrade, the NLS_LANG value must be the same as the NLS_LANG value for the existing installation. **Example**: american_america.US7ASCII
ORACLE_BASE	Set to the directory at the top of the Oracle software. **Example**: */export2/oracle734/app/oracle*
ORACLE_HOME	Set to the directory containing the Oracle software for a given Oracle Server release. The OFA-recommended value is: *$ORACLE_BASE/product/<release>* **Example**: */export2/oracle734/app/oracle/product/7.3.4*
ORACLE_SID	Set to the Oracle *SID*, which is the name of the Oracle Server instance. Should be no more than four characters long. **Example**: ECX
ORACLE_TERM	Set to the terminal definition resource file to be used with the Installer. Refer to your Oracle documentation for a complete list of terminal definition resource files. **Example**: xterm

Table A.2 Environment Variables (Continued)

Environment Variable	Configuration Details
ORA_NLS	Set to: *$ORACLE_HOME/ocommon/nls/admin/data* where $ORACLE_HOME is the $ORACLE_HOME of the new Oracle7, release 7.3.4 installation.
ORA_NLS33	Set to: $ORA_NLS33 - *$ORACLE_HOME/ocommon/nls/* \ *admin/data* where $ORACLE_HOME is the $ORACLE_HOME of the new Oracle7, release 7.3.4 installation.
PATH	Set to include: • *$ORACLE_HOME/bin* • */bin* • */usr/bin* • */usr/ccs/bin* **Example**: */export2/oracle734/app/oracle/product/* \ *7.3.4/ bin:/bin:/usr/bin:/usr/ccs/bin:$PATH* **Important**: Set the $PATH environment variable to search the new *$ORACLE_HOME/bin* directory before the old *$ORACLE_HOME/bin* directory. **Example** (the following should appear on one line in the oracle user's .profile or .login file): # setenv PATH <*new_oracle_home*>/bin:/ \ <*old_oracle_home*>:$PATH where <*new_oracle_home*> is the new $ORACLE_HOME directory and <*old_oracle_home*> is the old $ORACLE_HOME directory.
TERM	Set this to the same value as the ORACLE_TERM environment variable. **Example**: xterm
TNS_ADMIN	Set this to the directory that contains the *listener.ora* file. The default location for Oracle Workgroup Server 7.3.3.5 was */var/opt/oracle*. The default location for Oracle Enterprise Server 7.3.4 is *$ORACLE_HOME/network/admin* **Example***:/export2/oracle734/app/oracle/product/* \ *7.3.4/network/admin*

Table A.2 Environment Variables (Continued)

Environment Variable	Configuration Details
USER	Set this to the **oracle** user. **Example**: oracle

Performing Additional Pre-upgrade Tasks

Depending on your current configuration, you may need to perform additional pre-upgrade tasks. Refer to your Oracle documentation for details.

Upgrading to Oracle7, Release 7.3.4.0.1

This section provides instructions to upgrade to Oracle7, release 7.3.4.0.1. The upgrade is a two-iteration process. The first time through, you will be installing new binary executable files. The second time through, you will be using Oracle's Installer to run the necessary scripts to complete the upgrade.

Note Both Oracle Corporation and Netscape recommend that you use a new $ORACLE_HOME directory to upgrade Oracle. These instructions are written with the assumption that you will use a use a new $ORACLE_HOME directory when you upgrade Oracle.

If you wish to use the same $ORACLE_HOME directory as your existing installation, refer to your Oracle documentation for instructions.

1. **Log on as or become the oracle user.**

   # **su - oracle**

2. **Run the Oracle Installer.**

Warning Do not run the Installer as the **root** user.

Insert your Oracle 7.3.4 CD-Rom in the CD drive

Change to the CD installation directory:

cd /cdrom/oracle734/orainst

To start the installer, enter one of the following two commands:

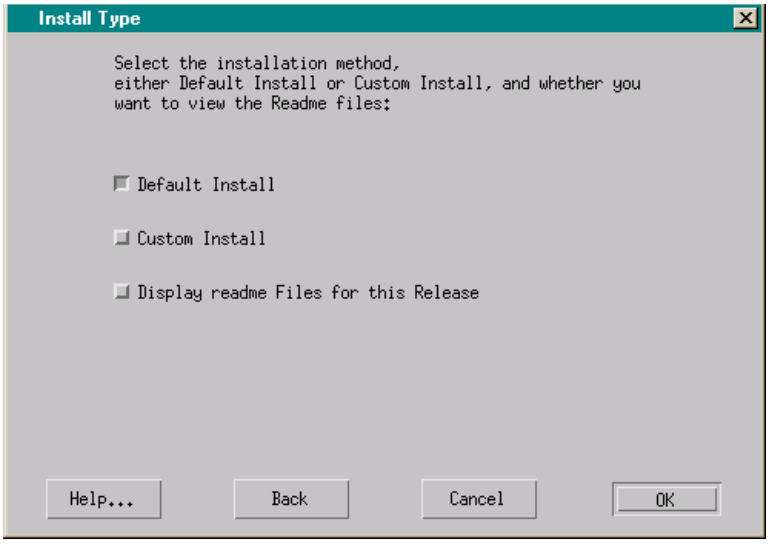
```
# ./orainst /m
```

Note The `/m` parameter runs the installer in Motif mode. The screen captures in the following sections show what the installer looks like when run in Motif mode.

3. **Select the install type.**

   From the Install Type screen that appears (Figure A.1) select the **Default Install** radio button. Then click **OK** to continue.

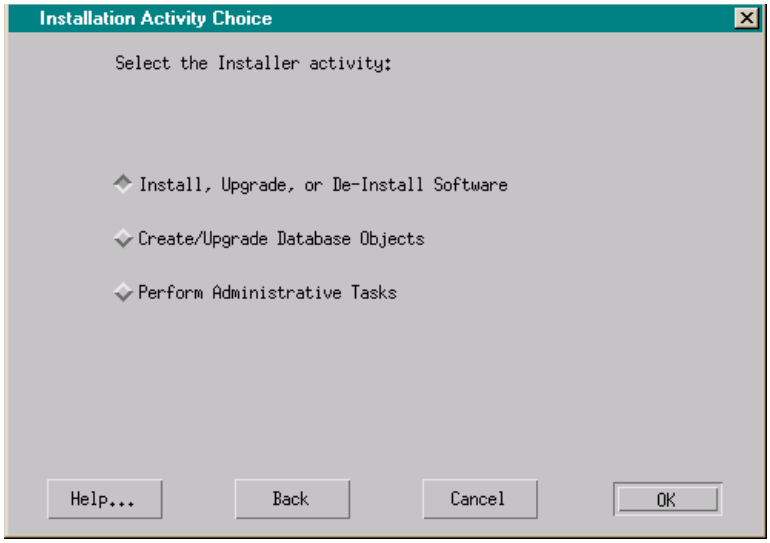
Figure A.1 Install Type Screen



4. Select the installation activity.

From the Installation Activity Choice screen that appears (Figure A.2) select the **Install, Upgrade, or De-Install** radio button. Then click **OK** to continue.

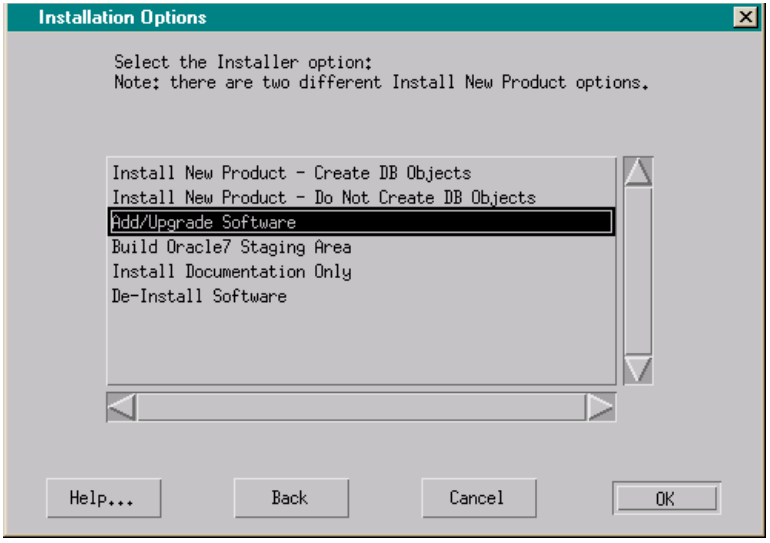
Figure A.2 Installation Activity Choice Screen



5. Select installation options.

From the Installation Options screen that appears (Figure A.3), select the **Add/Upgrade Software** option. Then click **OK** to continue.

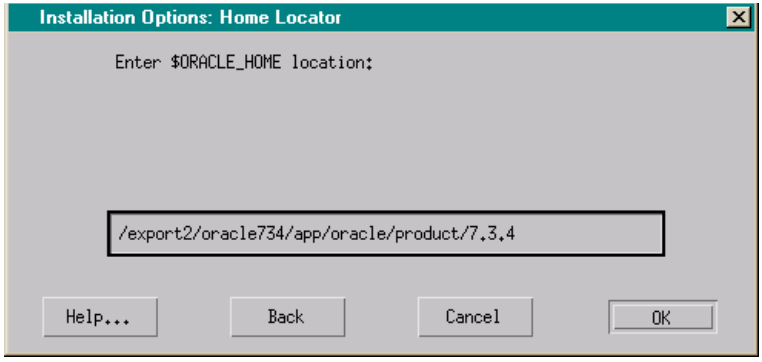
Figure A.3 Installlation Options Screen



6. Enter the $ORACLE_HOME location.

Enter the $ORACLE_HOME directory location in the Home Locator screen that appears. For details, refer to “Pre-Upgrade Tasks,” step 6, “Preparing the Environment” on page 124. When you have entered this value, click **OK** to continue.

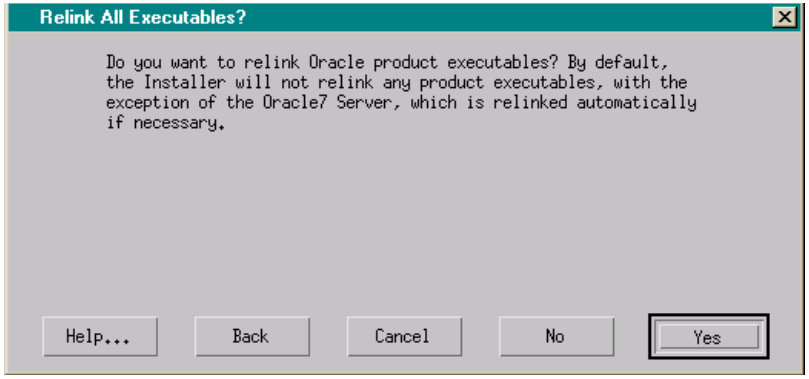
Figure A.4 Home Locator Screen



7. Relink all executables.

On the Relink All Executables? screen that appears (Figure A.5), click **Yes**.

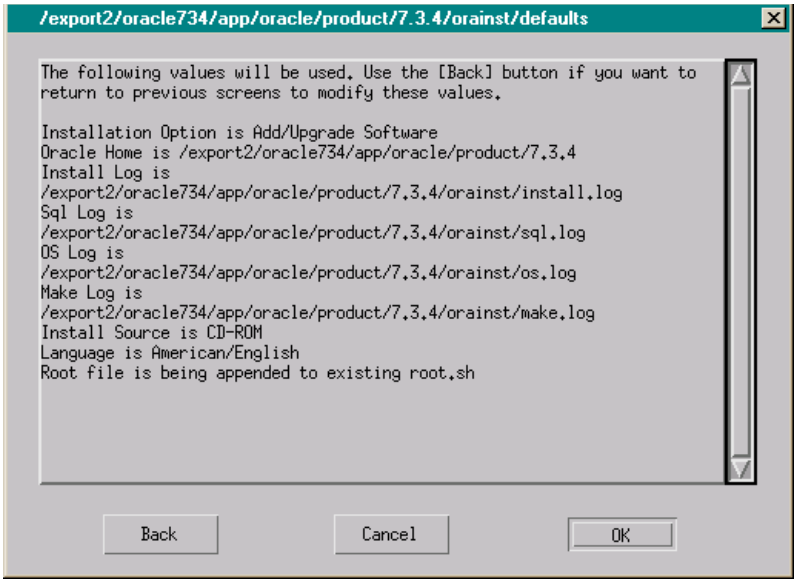
Figure A.5 Relink All Executables? Screen



8. Verify defaults.

A screen appears displaying the current installation defaults (Figure A.6). Verify that the defaults that appear are correct. Then click **OK** to continue.

Figure A.6 Installation Defaults Screen



9. Select products to install.

From the Software Asset Manager screen that appears (Figure A.7), select:

- Oracle7 Server (RDBMS) 7.3.4.0.1 - mandatory for an Oracle7 Server upgrade

Note on Remote Client Configuration

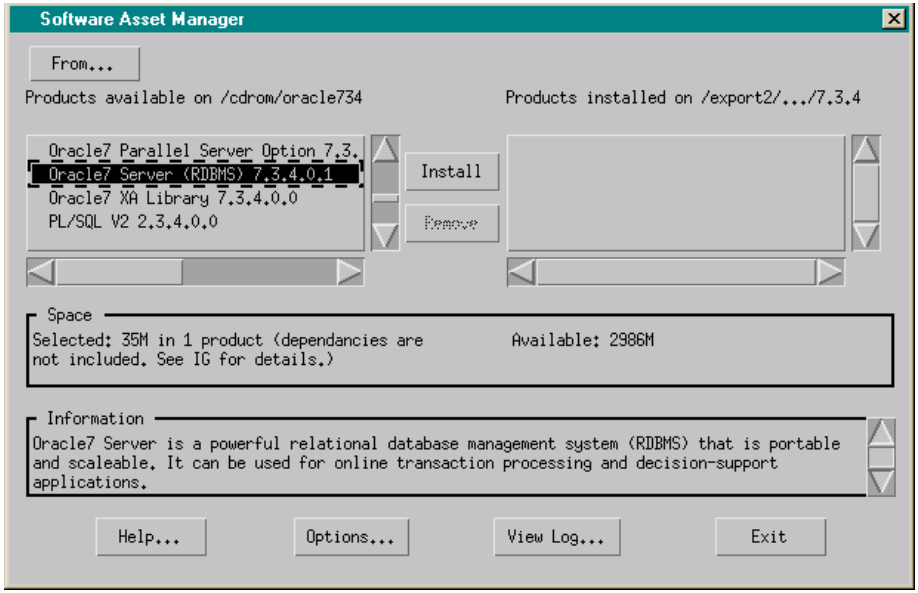
If you are installing Oracle as a remote client, at the Software Asset Manager screen, you must select the following software in addition to any other software you wish to install:

- SQL*Plus
- Oracle Net8
- TCP/IP Protocol Adapter

Refer to your Oracle documentation for more information about these software components and any additional software components you may wish to install.

Once you have selected all of the software components you wish to upgrade or install, click **Install** to continue.

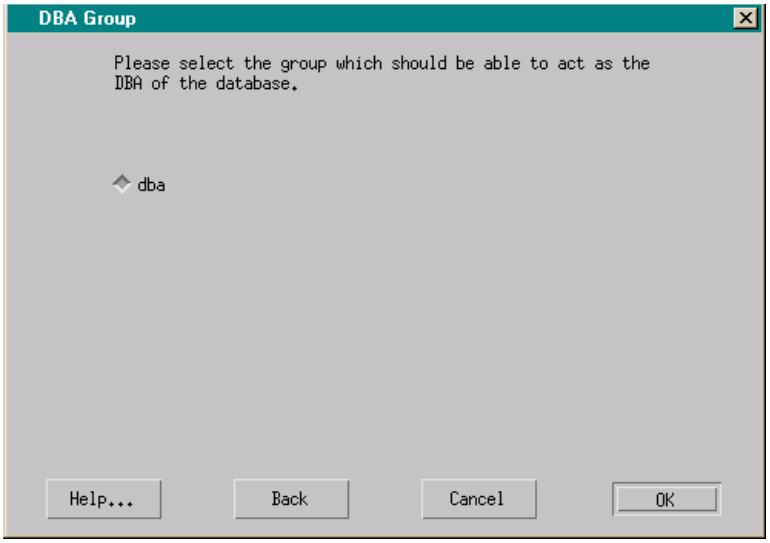
Figure A.7 Software Asset Manager Screen



10. Select the DBA group.

From the DBA Group screen that appears (Figure A.8), select the group which should be able to act as the administrator of the database—typically, dba. Then click **OK** to continue.

Figure A.8 DBA Group Screen

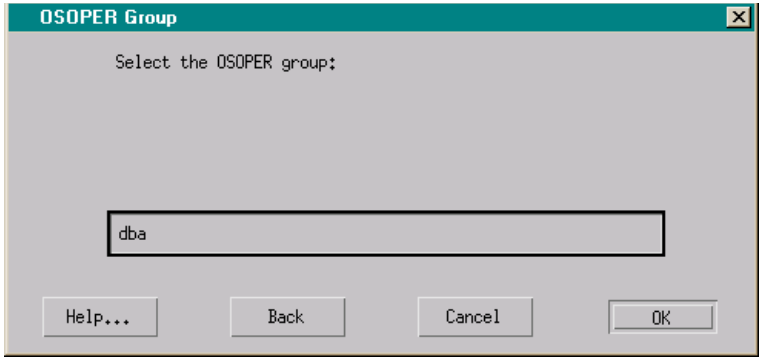


11. Select the OSOPER group.

From the OSOPER Group screen that appears (Figure A.9), select the group which should have Oracle OPERATOR privileges. The default is dba. If you wish to give Oracle OPERATOR privileges to a group other than dba, see your Oracle documentation for instructions.

When you have selected the OSOPER group, click **OK** to continue.

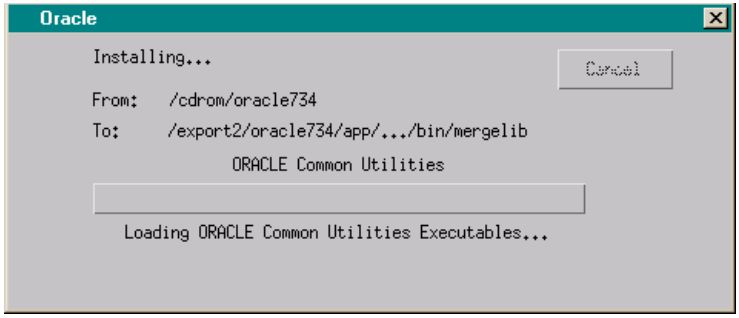
Figure A.9 OSOPER Group Screen



The Oracle “installing” screen appears (Figure A.10), displaying the current status of the installation.

Note It may take several minutes before the installation is complete.

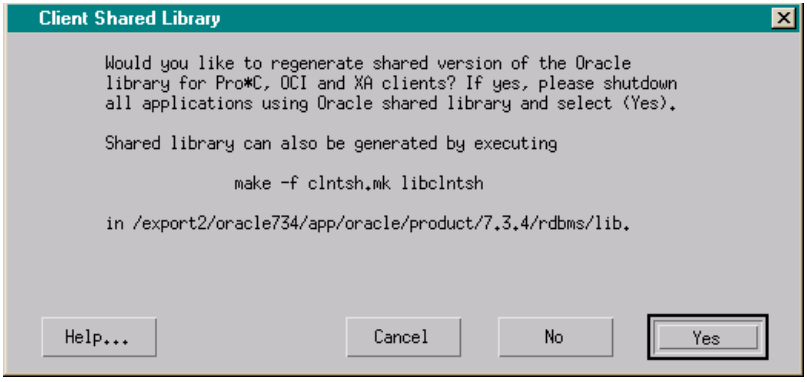
Figure A.10 Oracle “Installing” Screen



12. Indicate whether you would like to regenerate a shared version of the Oracle library. You must regenerate a shared version of the Oracle library.

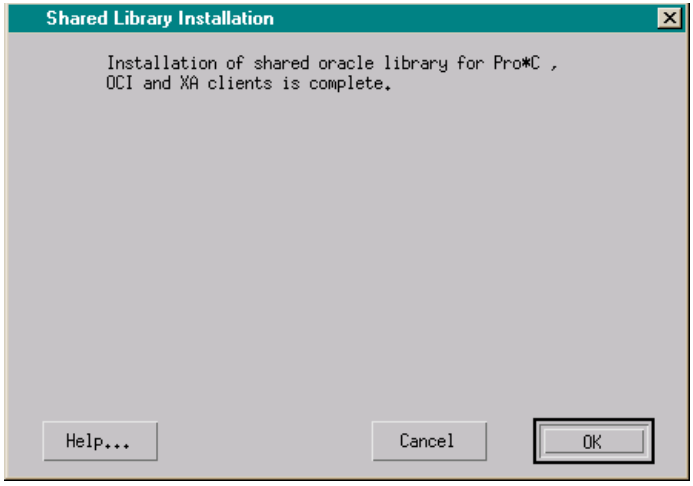
On the Client Shared Library screen that appears (Figure A.11), click **Yes** to regenerate a shared version of the Oracle library for Pro*C, OCI, and XA clients.

Figure A.11 Client Shared Library Screen



The Shared Library Installation message window appears (Figure A.12) indicating that the installation of the shared Oracle library is complete. Click **OK** to continue.

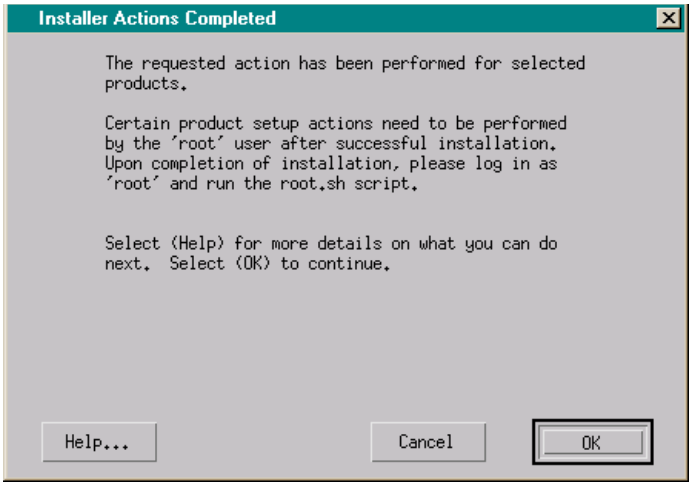
Figure A.12 Shared Library Installation Screen



13. Acknowledge final “installation complete” message.

The Installation Actions Completed message window appears (Figure A.13) indicating that the Oracle installation is complete. Click **OK** to continue.

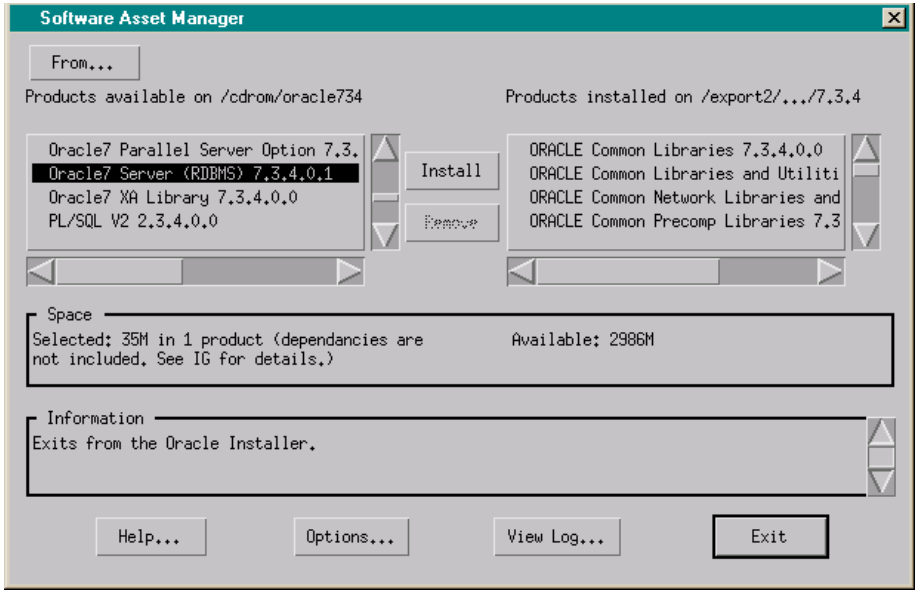
Figure A.13 Installation Actions Completed Screen



14. Exit the Installer.

The Software Asset Manager screen appears (Figure A.14). Click **Exit** to exit the installer.

Figure A.14 Software Asset Manager Screen



The following UNIX message appears, indicating that the installation completed successfully:

```
Result: Success.
```

Post-upgrade Tasks

This section provides instructions for the following tasks you must perform after you upgrade to Oracle7, release 7.3.4.0.1:

- Updating parameter files
- Setting the new $ORACLE_HOME environment variable
- Upgrading the database objects.
- Optional - Relocating the Database Files.
- Running the *root.sh* script.

Updating Parameter Files

1. **Copy the *init<SID>.ora* file from the old location to the new location.**

   In this filename, <*SID*> is the $ORACLE_SID of the database you wish to upgrade. By default, this file is in the *$ORACLE_HOME/dbs* directory. Copy it to the new $*ORACLE_HOME/dbs* directory. For example:

   ```
   # cd /export/oracle7/dbs
   # cp initWG73.ora /export2/oracle734/dbs
   ```

2. **Edit the *init<SID>.ora* file.**

- Change any question marks in pathnames to the old $ORACLE_HOME directory. If the full pathname for $ORACLE_HOME is stated, you do not need to change the *init<SID>.ora* file.
- Check the *init<SID>.ora* file to see if the control_files parameter exists. Either edit or create the entry:

  control_file = <*old_oracle_home*>/dbs/cntrl<*SID*>.dbf

  where <*old_oracle_home*> is the old $ORACLE_HOME directory and <*SID*> is the $ORACLE_SID of the database you are upgrading.

- If the *init<SID>.ora* file contains an `ifile` (include file) entry, you must check the file specified by the `ifile` entry. Copy the file specified in the `ifile` entry and copy it to a new location outside the old $ORACLE_HOME directory. Change the `ifile` entry in the *init<SID>.ora* file to reflect the new location.

  Edit the file specified by the `ifile` entry as follows:

  — Change any question marks in pathnames to the old `$ORACLE_HOME` directory.

  — If there is a control_file parameter entry, set it to the *$ORACLE_HOME/dbs/cntrl<SID>.dbf* file in the old `$ORACLE_HOME` directory.

3. **Change to the $TNS_ADMIN directory.**

   # **`cd $TNS_ADMIN`**

4. **Edit the *listener.ora* file.**

- Change directory paths for the `$ORACLE_HOME` directory, the `TRACE_DIRECTORY`, and the `LOG_DIRECTORY` to the new directory paths. The TRACE_DIRECTORY should be *$ORACLE_HOME/network/trace* and the `LOG_DIRECTORY` should be *$ORACLE_HOME/network/log*.

- Optionally change all instances of “TCP_LISTENER” within the file to “LISTENER.” This will enable you to start or stop the Oracle Listener without having to type the tcp_listener parameter.

  For example, instead of typing:

  # **`lsnrctl start tcp_listener`**

  you would be able to type:

  # **`lsnrctl start`**

  to start the Oracle Listener.

- If you are using a new SID, change the SID_NAME value to the new database.

Upgrading the Database Objects

1. **Log on as or become the `oracle` user.**

   # **`su - oracle`**

2. **Run the Oracle Installer.**

Warning Do not run the Installer as the **`root`** user.

Insert your Oracle 7.3.4 CD-Rom in the CD drive

Change to the CD installation directory:

`cd /cdrom/oracle734/orainst`

To start the installer, enter one of the following two commands:

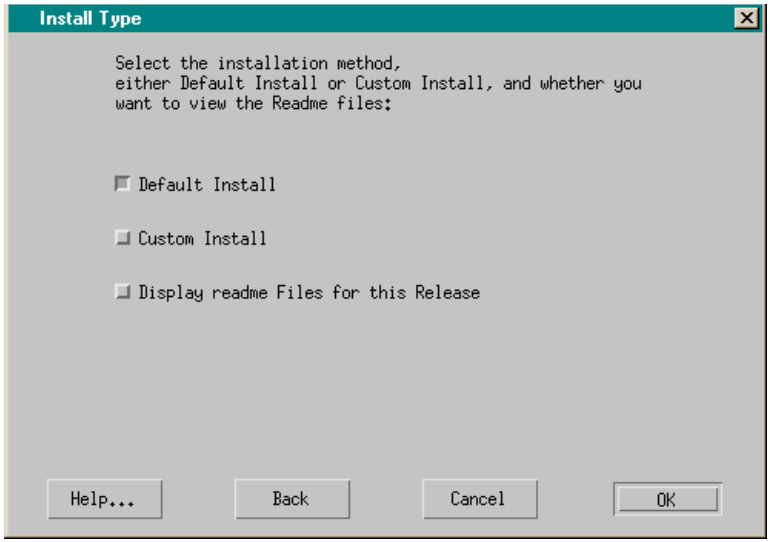
`./orainst /m`

Note The `/m` parameter runs the installer in Motif mode. The screen captures in the following sections show what the Installer looks like when run in Motif mode.

3. Select the install type.

From the Install Type screen that appears (Figure A.1) select the **Default Install** radio button. Then click **OK** to continue.

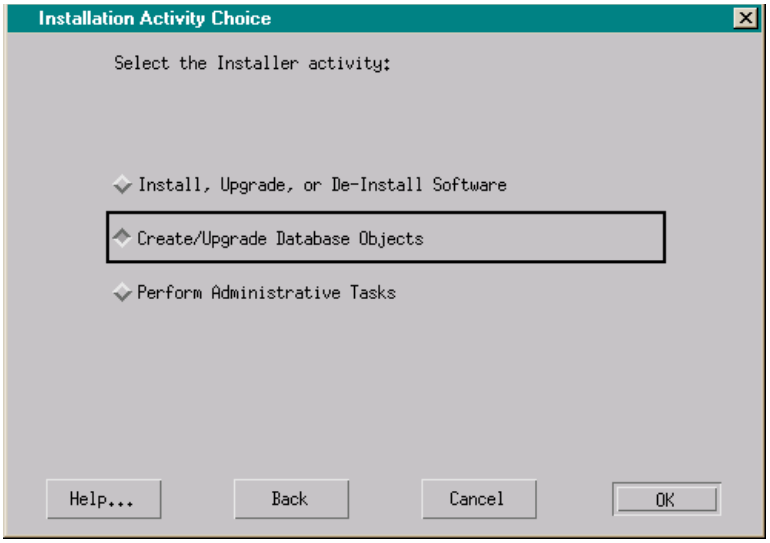
Figure A.15 Install Type Screen



4. Select the installation activity.

From the Installation Activity Choice screen that appears (Figure A.2) select the **Create/Upgrade Database Objects** radio button. Then click **OK** to continue.

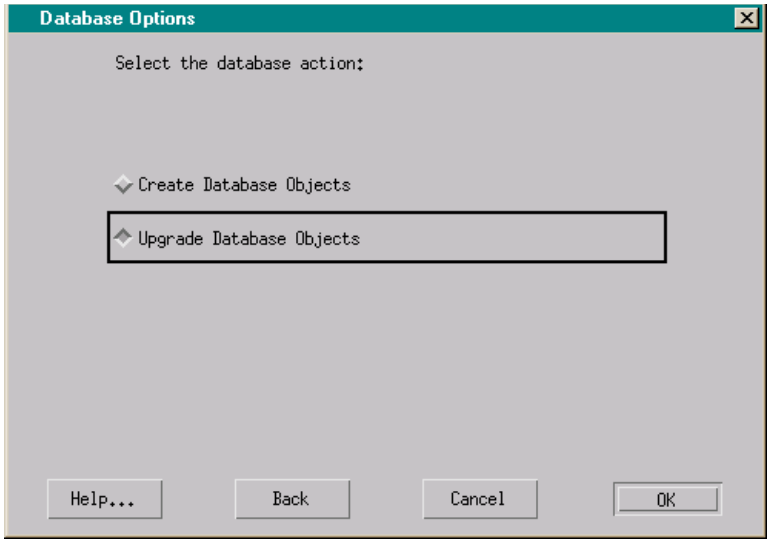
Figure A.16 Installation Activity Choice Screen



5. Select database options.

From the Database Options screen that appears (Figure A.3), select the **Upgrade Database Objects** option. Then click **OK** to continue.

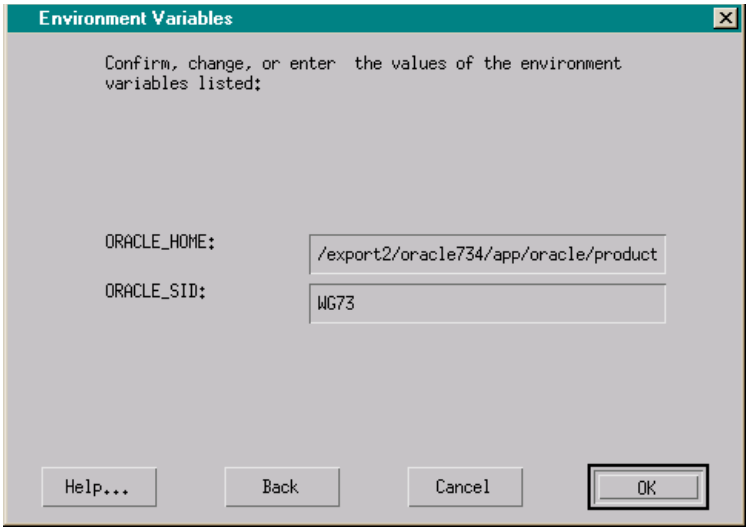
Figure A.17 Installation Options Screen



6. Enter environment variables.

In the Environment Variables screen that appears (Figure A.18), enter the new $ORACLE_HOME directory and $ORACLE_SID of the database you wish to upgrade in the appropriate fields. Then click **OK** to continue.

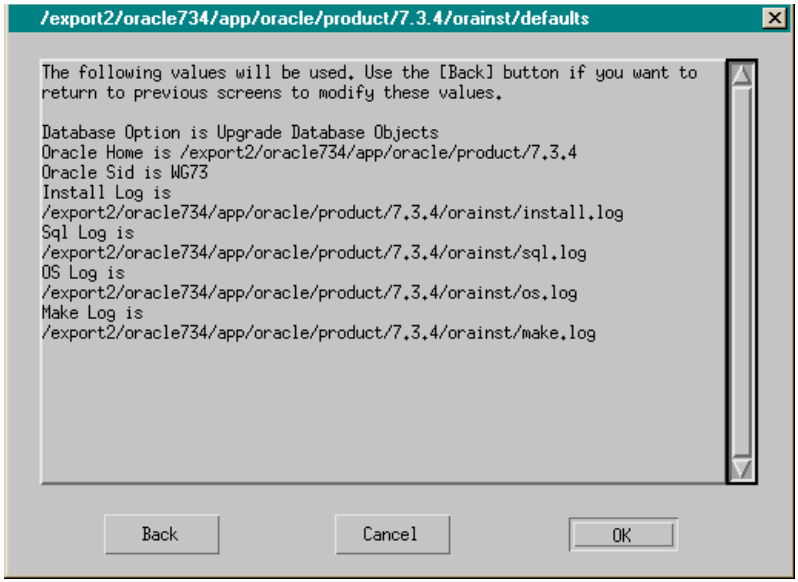
Figure A.18 Environment Variables Screen



7. Verify defaults.

A screen appears displaying the values that will be used (Figure A.19). Verify that the defaults that appear are correct. Then click **OK** to continue.

Figure A.19 Defaults Screen

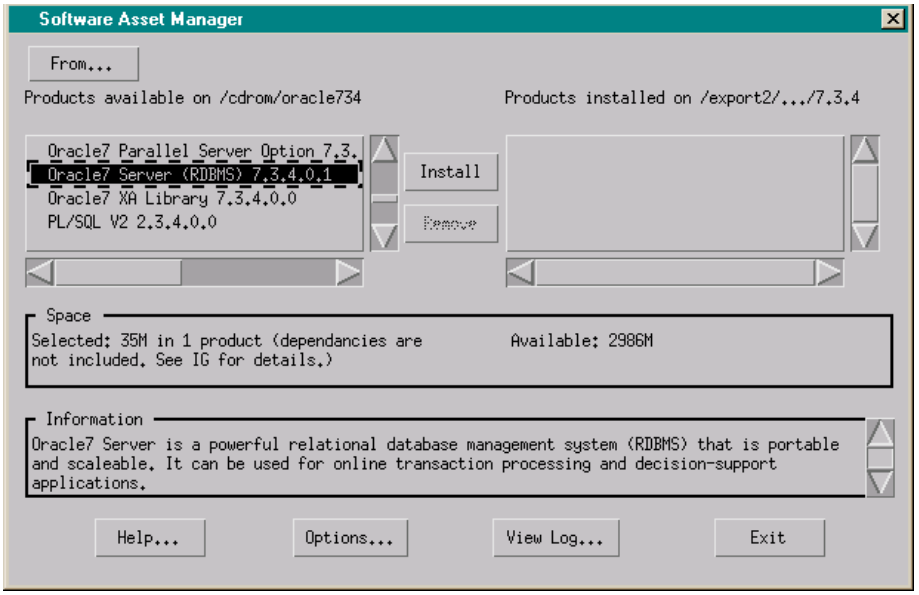


8. Select products to install.

From the Software Asset Manager screen that appears (Figure A.20), select Oracle7 Server (RDBMS) 7.3.4.0.1. Refer to your Oracle documentation for more information about this software component and any additional software components you may wish to install.

When you have selected all of the software components you wish to install, click **Install** to continue.

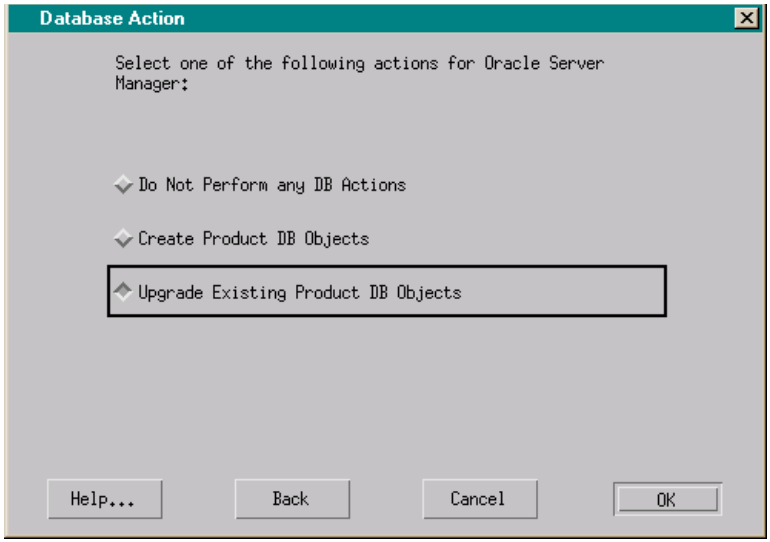
Figure A.20 Software Asset Manager Screen



9. Choose which database action to take.

On the Database Action screen that appears (Figure A.21) select the **Upgrade Existing Product DB Objects** option.

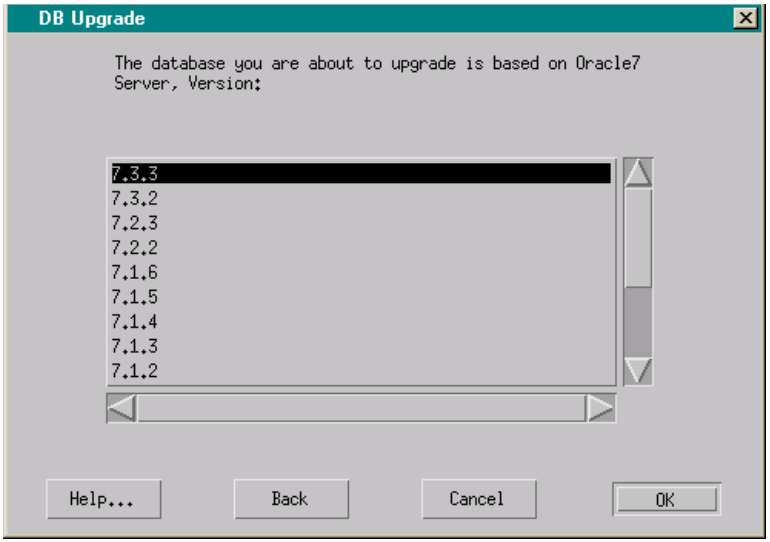
Figure A.21 Database Action Screen



10. Choose which version of the Oracle7 Server to upgrade.

From the DB Upgrade screen that appears (Figure A.22), select the version of the Oracle7 Server you are upgrading from. Then click **OK** to continue.

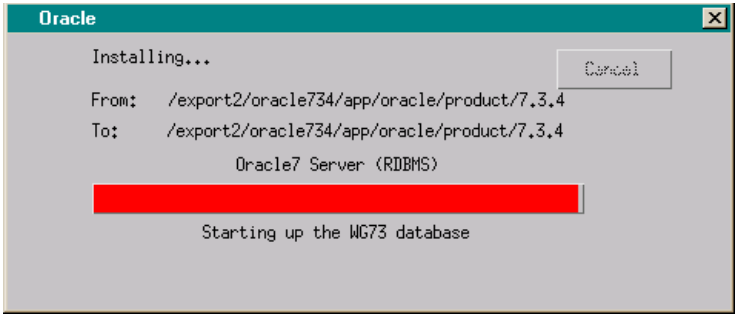
Figure A.22 DB Upgrade Screen



The Oracle “installing” screen appears (Figure A.23), displaying the current status of the upgrade.

Note It may take several minutes before the upgrade is complete.

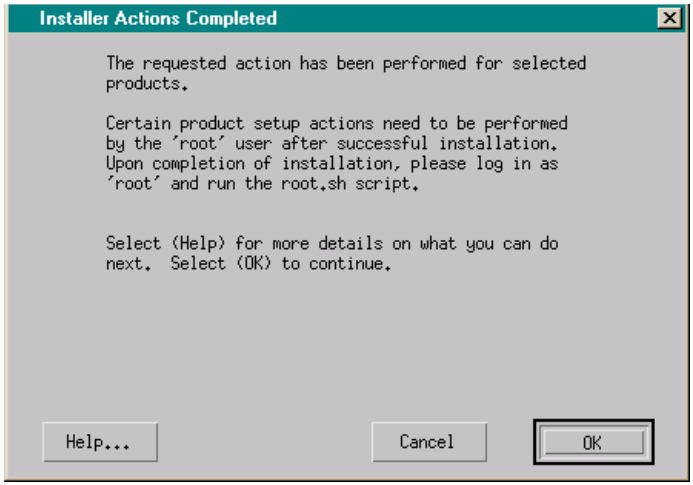
Figure A.23 Oracle “Installing” Screen



11. Acknowledge final “installation complete” message.

The Installation Actions Completed message window appears (Figure A.24) indicating that the Oracle installation is complete. Click **OK** to continue.

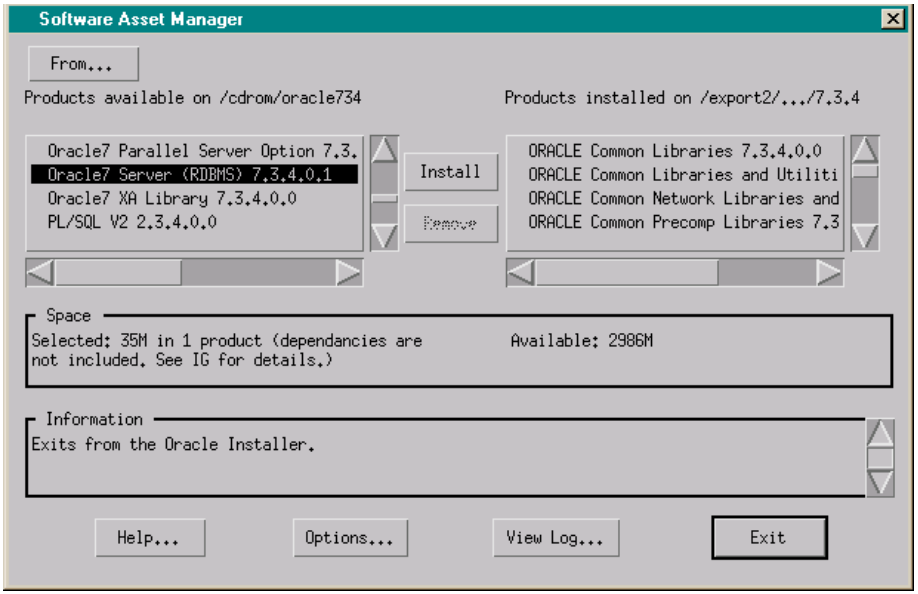
Figure A.24 Installation Actions Completed Screen



12. Exit the Installer.

The Software Asset Manager screen appears (Figure A.25). Click **Exit** to exit the installer.

Figure A.25 Software Asset Manager Screen



The following UNIX message appears, indicating that the installation completed successfully:

```
Result: Success.
```

13. Repeat this task for each database.

Perform this task for each database in the old `$ORACLE_HOME`, supplying the appropriate `$ORACLE_SID` value each time you restart the installer.

Optional - Relocating the Database Files

If do not plan to retain the old $ORACLE_HOME after you upgrade, you must relocate your database files.

If you choose retain the old `$ORACLE_HOME` directory, never start up the upgraded database from the old `$ORACLE_HOME` directory. This can corrupt database files. Always start the upgraded database from the new `$ORACLE_HOME`.

Warning Only an experienced database administrator should perform the task of relocating database files.

Important The following instructions are intended to give you the general steps you must follow to relocate your database files. **These instructions do not include all relevant details**. For additional details, refer to your Oracle documentation.

1. **Change to new $ORACLE_HOME directory.**

   ```
   # cd $ORACLE_HOME
   ```

2. **Determine the database and log files and write the filenames to the file.list file.**

   ```
   # svrmgrl
   SVRMGR> CONNECT INTERNAL
   SVRMGR> SPOOL file.list
   SVRMGR> SELECT * from v$dbfile;
   SVRMGR> SELECT * FROM v$logfile;
   SVRMGR> SHUTDOWN
   ```

3. **Copy the control files from the old *$ORACLE_HOME/dbs* directory to the new *$ORACLE_HOME/dbs* directory.**

   These files are usually named according to one the following conventions:

   - cntrl<*SID*>.dbf
   - ctrl1<*SID*>.ctl.

Note The ownership permissions on files must be transferred from the **`oracle7`** user to the **`oracle`** user.

4. **Edit the init<*SID*>.ora file.**

   In the new init<*SID*>.ora file, change the **`CONTROL_FILES`** parameter entry file to the full path to the control files.

   By default, the init<*SID*>.ora file is in the *$ORACLE_HOME/dbs* directory.

   Look in the init<*SID*>.ora file for an `ifile` entry. If one exists, view the contents of the file specified in the `ifile` entry. If the specified file contains a CONTROL_FILES parameter entry, edit the CONTROL_FILES parameter entry to be the full path to the control files.

5. **Copy the data files and log files to their new location.**

   Copy the data files and log files to a new location outside the old `$ORACLE_HOME`. The *file.list* file in the new `$ORACLE_HOME` contains the list of files you must copy.

   Make sure the new copies of the data files and log files have different pathnames from the data files currently in use.

   Make a note of old and new filenames, including their complete paths.

6. **Run STARTUP MOUNT on the database using Server Manager.**

   Use ALTER DATBASE in Server Manager to rename all the database and log files in the control file. The *file.list* file contains the files you must rename. Use the list of old and new filenames you created in the previous step to complete this step.

Important Always provide complete filenames and paths so the RENAME FILE option can distinguish between the old and new data files.

7. **Run ALTER DATABASE OPEN in the Server Manager to open the database.**

   To check that the database files and log files have the new names you specified, enter the following to generate a *newfile.list* file, and then exit Server Manager:

```
SVRMGR> SPOOL newfile.list
SVRMGR> SELECT * FROM v$dbfile;
SVRMGR> SELECT * FROM v$logfile;
SVRMGR> EXIT
```

8. **Compare the contents of the *newfile.list* to the *file.list* file you created earlier.**

   Verify that all database files and log files listed in *file.list* appear in the *newfile.list* file in their new locations.

   For additional Information, refer to *Oracle7 Server Administrator's Guide,* Chapter 9, "Managing Datafiles."

9. **Remove the database files in the old Oracle7 release.**

   Verify that the database files have been successfully relocated and that the init<*SID*>.ora, log, and control files are in their new locations. Then remove the old database files.

10. **Change the group association of the `oracle` user's home directory:**

    # **`chgrp dba /disk1/oracle`**

Running the *root.sh* Script

1. **Log on as or become the `root` user.**

   # **`su - root`**

2. **Change to the $ORACLE_HOME/orainst directory:**

   # **`cd $ORACLE_HOME/orainst`**

3. **Run the *root.sh* script:**

   # **`./root.sh`**

   If you run *root.sh* from a directory other than ORACLE_HOME, you will get the following message:

   ```
   ORACLE_HOME does not match the home directory for
   oracle.
   Okay to continue? [N]:
   ```

   If you select **Yes**, the *root.sh* script continues, using the `ORACLE_HOME` environment variable you specified.

   Depending on the products you installed, you may be prompted for user names and be given additional instructions. Refer to your Oracle documentation for more information on these messages.

Manually Rebuilding the *libclntsh.so* File

Before you install ECXpert, you must rebuild the *$ORACLE_HOME/lib/libclntsh.so* file. If you do not do this, you will get errors during ECXpert installation steps five and six, and the ECXpert installation will not work.

Before you rebuild *libclntsch.so*, you must first hand-edit the *$ORACLE_HOME/bin/genclntsh* file to comment out the line:

```
# ar d $LIBCOMMON sorapt.o
```

You must also add a line that reads “opinit” immediately after the line that reads “oparse” and immediately before the line that reads “orlon.” For example:

```
oparse
opinit
orlon
```

Then run *genclntsh*, which will generate a new *$ORACLE_HOME/lib/libclntsh.so* file.

To tell if this worked, enter the following commands:

```
# nm -A libclntsh.so | grep kglpno
# nm -A libclntsh.so | grep slpmprodstab
# nm -A libclntsh.so | grep opinit
# nm -A libclntsh.so | grep opinit.s
```

If it worked, the following symbols appear:

```
libclntsh.so: [13174] | 4829324| 12|OBJT |GLOB |0 |15 |kglpno
libclntsh.so: [12972] | 4843548| 64|OBJT |GLOB |0 |15 |slpmprodstab
libclntsh.so: [7005] | 429228| 12|FUNC |GLOB |0 |8 |opinit
libclntsh.so: [297] | 0| 0|FILE |LOCL |0 |ABS |opinit.s
```

Deactivate Auto-start on Machine Reboot

1. **Move scripts in the */ext/rc2.d* directory.**

   Move the following scripts in the */etc/rc2.d* directory to the */var/opt/oracle* directory:

   - *S83dbadmin*
   - *S84tcplsnr*
   - *S87weblisten*

2. **Using a text editor such as `vi`, edit the */var/opt/oracle/oratab* file.**

   The */var/opt/oracle/oratab* file should include lines similar to the following:

   ```
   WG73:/export2/oracle7:Y
   ECX734:/export2/oracle73401/app/oracle/product/7.3.4:N
   ECX804:/export2/oracle804/app/oracle/product/8.0.4:N
   ```

   The last character of each line is either a “Y” or an “N.” Edit this file to change all instances of “Y” to “N.”

What’s Next?

Continue the ECXpert Installation at “Creating the Oracle User ECX30” on page 72. As you proceed through the rest of the book, keep in mind that:

- Your Oracle SID may be different than the recommended SID (ECX). As you continue through the instructions in this book, substitute your Oracle SID for the “ECX” SID.
- Your Oracle user may be different than the recommended Oracle user. As you continue through the instructions in this book, substitute your Oracle user for the **`ECX20`** user.

B

Oracle8 Install/Upgrade Notes

Due to problems encountered with using Oracle8 with ECXpert 3.0 that could not be resolved before this guide went to press, the instructions on Oracle8 have been removed from the printed version of this document.

These instructions will be added to this appendix in the Adobe Acrobat version of this document as soon as it is available. You can download this updated document, as well as updated versions of the ECXpert 3.0 Release Notes and the rest of the ECXpert 3.0 documentation set from the URL below:

http://help.netscape.com/products/apps/ecxpert/

Appendix

C

Migrating from ECXpert 2.0 to 3.0

This appendix describes the planning and tasks you must perform to upgrade from ECXpert Version 2.0 to ECXpert Version 3.0. Appendix D describes the steps to upgrade from ECXpert Version 1.1.1 to ECXpert Version 3.0. Appendix C details the steps you must perform if you are reinstalling ECXpert Version 3.0. The following topics are covered:

Migrating from ECXpert 2.0 to ECXpert 3.0

This section describes all of the steps you must perform in order to migrate from ECXpert 2.0 to 3.0.

Optionally Upgrade to Oracle7, release 7.3.4 or Oracle8, release 8.0.4

If you have not already done so, optionally upgrade to Oracle7 Server, release 7.3.4 or Oracle8 Server, release 8.0.4 now. For details, refer to the *ECXpert Getting Started Guide*.

Important When you upgrade Oracle, do not create a new Oracle user to own the ECXpert tables. You must use the existing Oracle user who owns the ECXpert tables.

Oracle8 Only - Obtain Correct **.nlb* Files

If you are **not** using Oracle8, release 8.0.4, skip ahead to "Set up and Test Your Database Connectivity" on page 163.

If you *are* using Oracle8, release 8.0.4, complete the steps below to obtain the correct **.nlb* files.

1. Create a directory to contain the **.nlb* files

   ```
   # mkdir $ORACLE_HOME/ocommon/nls/admin/data/Oracle7nlb
   ```

   where the "O" in *Oracle7nlb* is the capital letter O, not the number 0.

2. Change to the directory on the ECXpert CD that contains the **.nlb* tar file.

   ```
   # cd /cdrom/Oracle
   ```

3. Copy the tar file.

   To copy the tar file, enter the following command:

   ```
   # cp Oracle7nlb.tar.Z $ORACLE_HOME/ocommon/nls/admin/data/Oracle7nlb
   ```

4. Uncompress the tar file.

```
# uncompress ./Oracle7nlb.tar.Z
```

5. Untar the tar file.

```
# tar xvf ./Oracle7nlb.tar
```

Set up and Test Your Database Connectivity

Set up and test your database to be sure that user **`root`** has access to the database, so that you can successfully migrate ECXpert. If user **`root`** doesn't have access to the database, you will get error messages during the ECXpert migration process.

1. Log in as user `root`.

```
# su - root
```

2. Determine the shell that `root` uses.

```
# echo $SHELL
```

The output of this command identifies the shell that `root` uses, which determines its associated environment file:

Output	Shell Being Used	Environment File
`/sbin/sh`	Bourne	*.profile*
`/sbin/csh`	C	*.cshrc*
`/sbin/ksh`	Korn	*.profile* or *.kshrc*

3. Determine the shell that `oracle` uses.

```
# cat /etc/passwd | grep oracle
```

The output of this command lists the shell at the end, as in the sample below:

```
oracle:x:50004:10003::/export/home/oracle:/bin/csh
```

where the shell is `csh`.

4. Get into the `oracle` shell.

   Locate the shell in the "Output" column of the table in Step 2 above, then look up the entry in the "Environment File" column for the same row.

   — If you are using the C shell, enter the following command:

   # **source ~*oracle*/.cshrc**

   where *`oracle`* is your Oracle user, typically `oracle` or `oracle7`.

   — If you are using the Korn shell or the Bourne shell, enter the following command:

   # **. ~oracle/***<your_environment_file>*

   where *`oracle`* is your Oracle user, and *<your_environment_file>* is the name of your environment file.

5. Check the environment settings.

   # **env**

   The following sample output of this command lists the environment variables that must be set:

   ```
   $ORACLE_HOME=<$ORACLE_HOME from worksheet>
   $ORACLE_SID=ECX
   $NLS_LANG=<$NLS_LANG from worksheet>
   $LD_LIBRARY_PATH=$ORACLE_HOME/lib:$LD_LIBRARY_PATH
   $PATH=$ORACLE_HOME/bin:$ORACLE_HOME:$PATH
   $DISPLAY=<hostname>:0.0
   $TNS_ADMIN=$ORACLE_HOME/network/admin
   ```

6. Correct environment variable definitions as necessary.

   If any of the above environment variables are not properly defined:

   — Become your Oracle user, typically `oracle` or `oracle7`. For example:

   `# su - oracle`.

   — Open the environment file that you referenced in Step 4 above in a text editor and add or modify the definitions as necessary.

   — Save the environment file and exit the text editor.

7. Enable changes in environment variable definitions.

   If you made changes in the environment file in Step 6 above, you can enable those changes now by switching to another user and then switching back to your Oracle user. For example:

   ```
   # su - root
   # su - oracle
   ```

   Alternatively, you could restart your system and log in as your Oracle user.

8. Check your *tnsnames.ora* file.

   Check your *tnsnames.ora* file to make sure it contains the correct information. The following are likely locations of your *tnsnames.ora* file:

   - *$ORACLE_HOME/network/admin*
   - */var/opt/oracle*
   - The directory specified by the $TNS_ADMIN environment variable

9. Connect to the database from the UNIX commandline.

   ```
   # sqlplus ECX/ECX@<your_connect_string>
   ```

   where *ECX/ECX* is the username/password of the ECXpert table-owner. If this test fails, skip to Step 11.

10. Repeat the test from inside SQL*Plus:

    ```
    SQL> connect ECX/ECX@<your_connect_string>
    SQL> exit
    ```

    where *ECX/ECX* is the username/password of the ECXpert table-owner.

11. Correct any connectivity problems.

    If the test at either Step 9 or Step 10 failed, check the *tnsnames.ora* and *listener.ora* file to validate the settings, such as hostname and SID.

    After making any necessary changes, go back to Step 9 above.

    If you have successfully connected to the database using SQL*Plus, you will be able to connect during the ECXpert migration. If you cannot connect to the database using this method, you definitely will not be able to connect during the ECXpert migration.

Back Up Your Database

Note The database backup is a major operation. You should plan carefully for both the disk space that will be required and the time slot in which the backup is executed. The backup will require as much disk space as the current database and the rollback tablespace in Oracle must be set to as much as 1.5 times the tablespace setting. The backup process can take 12 hours or more for a large database. Without proper planning the process may abort part-way through. Refer to your Oracle documentation for additional guidelines and recommendations.

Follow the steps in this section to back up your existing ECXpert database.

1. Change to the *$ACTRAHOME/Actra-apps/ECXpert/dbadmin/oracle* directory.
2. Open the *exp_ecx_tables.sh* file in a text editor.
3. Change the character string “name/password@dbAlias” in the first line to be the username/password@dbAlias of your ECXpert table-owner user.
4. Enter the following command to run *exp_ecx_tables.sh*.

   ```
   # ./exp_ecx_tables.sh
   ```

   If this command is successful, you should see output similar to the following:

```
Export: Release 8.0.4.0.0 - Production on Thu Mar 4 16:21:34 1999
(c) Copyright 1997 Oracle Corporation.  All rights reserved.


Connected to: Oracle8 Release 8.0.4.0.0 - Production
PL/SQL Release 8.0.4.0.0 - Production
Export done in US7ASCII character set and US7ASCII NCHAR character set

About to export specified tables via Conventional Path ...
. . exporting table                        MEMBERS         10 rows exported
. . exporting table                     MBADDRESSES         15 rows exported
. . exporting table                    PARTNERSHIPS          3 rows exported
. . exporting table                           PNSTD          3 rows exported
. . exporting table                         PNGROUP          3 rows exported
. . exporting table                        KEYPAIRS          8 rows exported
. . exporting table                    CERTIFICATES          8 rows exported
. . exporting table                        TRACKING          1 rows exported
. . exporting table                       TRKINTCHG          0 rows exported
. . exporting table                        SERVICES          7 rows exported
```

```
. . exporting table                      MSGFORMATS        678 rows exported
. . exporting table                        EVENTLOG          0 rows exported
. . exporting table                      UNIQUEKEYS         19 rows exported
. . exporting table                      DTSERVICES          7 rows exported
. . exporting table                    SCHEDULEINFO          0 rows exported
. . exporting table                       TRKGROUP          0 rows exported
. . exporting table                         TRKDOC          0 rows exported
. . exporting table                         PNDOCS          3 rows exported
. . exporting table                  TRKDOCDETAILS          0 rows exported
. . exporting table                            CRL          0 rows exported
. . exporting table                         PNCARD          0 rows exported
. . exporting table                        MDNINFO          0 rows exported
. . exporting table                       BLOBINFO          8 rows exported
. . exporting table                   CERTTYPEINFO          5 rows exported
Export terminated successfully without warnings.
#
```

If instead you get the following error message:

```
./exp_ecx_tables.sh: Permission denied
```

enter the following command to set the proper permissions on the file:

```
# chmod 775 exp_ecx_tables.sh
```

and repeat this step.

Shut Down All ECXpert Services

If you are using a previous installation of the ECXpert Product Administrative Interface, you must log out and shut it down. Follow these steps to log out and shut down ECXpert.

1. **Log out of the ECXpert Product Administrative Interface.**

   Click the **Logout** bar, then choose **Applet | Quit** if using the Applet Viewer.

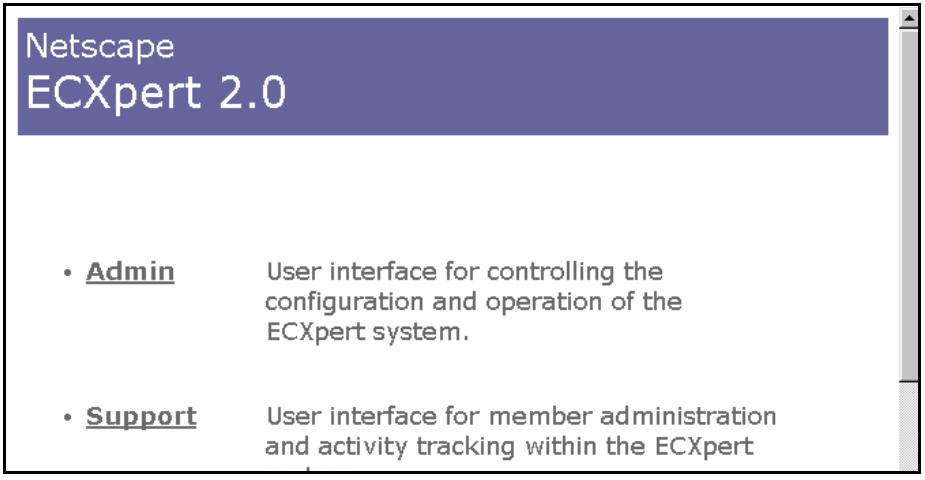
2. **Shut down all ECXpert services.**

   Display the ECXpert Main Menu in your browser as shown in Figure C.1 by entering the URL:

   http://*hostname*:*port#*

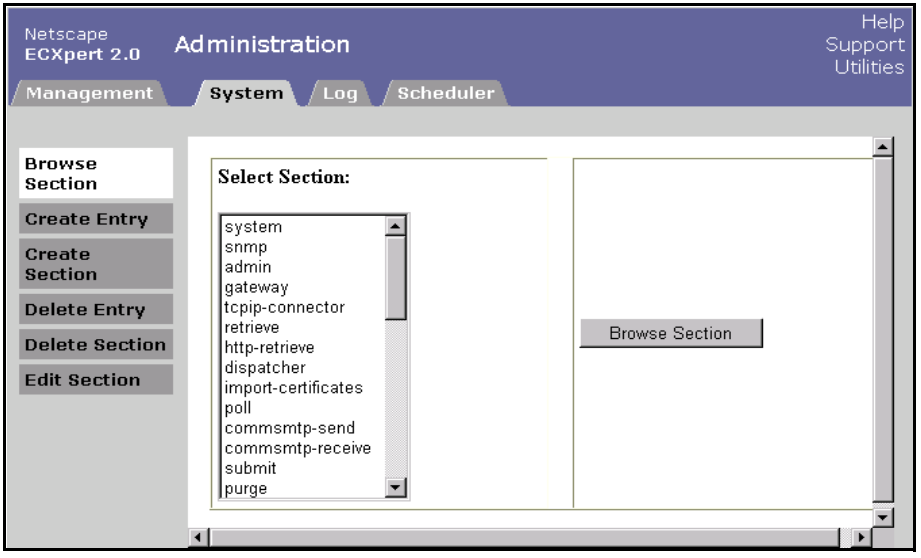
   where *hostname* is the name of your ECXpert host and *port#* is the port number it uses.

Figure C.1 ECXpert main menu



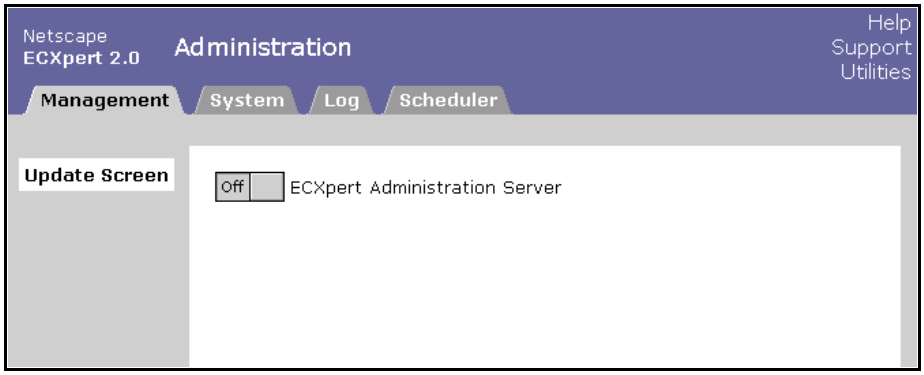
Click the **Admin** bar to display the ECXpert Server Administration menu shown in Figure C.2.

Figure C.2 ECXpert Server Administration menu



Click the **Management** button in the top button bar to display the Comm Agent management main menu shown in Figure C.3.

Figure C.3 Comm Agent management main menu



Click any service switch icon that is **ON** to toggle the service **OFF** and exit your browser window.

3. **Shut down the Netscape FastTrack Server or Netscape Enterprise Server.**

   In an xterm window, enter the following commands, replacing <*machine_name*> with the name of your ECXpert host machine:

```
# cd $NSBASE/NS-apps/ns-home/<http_prefix>-<machine_name>
# ./stop
```

Note In the above `cd` command, supply a value for <*http_prefix*> as follows:
- **`httpd`** for an unsecured Netscape FastTrack Server
- **`https`** for a secured Netscape FastTrack Server or Netscape Enterprise Server

4. **Shut down the Netscape Administration server.**

   In an xterm window, enter the following commands:

```
# cd $NSBASE/NS-apps/ns-home/
# ./stop-admin
```

5. **Verify that no ECXpert processes are still running.**

   In an xterm window, enter the following command:

```
# ps -ef | grep actra
```

   If additional processes are running, kill them manually.

6. **If running SNMP, make sure the SNMP agent is shut down.**

   Manually kill the process ID for `Program.o`.

Preserve Your Files

Follow the steps in this section to back up the important files from your current ECXpert installation:

1. **Set up a temporary holding directory that is:**

   - outside both the ECXpert Version 3.0 and the ECXpert Version 2.0 directory trees.
   - outside the */tmp* directory

2. **Copy the following files into your temporary holding directory:**

   - In all cases, from *$NSBASE/NS-apps/ECXpert/config*, copy the file *ecx.ini*.
   - If your Netscape Enterprise Server is running secured, from *$NSBASE/NS-apps/ns-home/httpd-machine_name/config*, copy the files *ServerCert.db, ServerCert.nm, and ServerKey.db, magnus.conf, obj.conf, mime.types* and any **.acl* (access control list) files
   - If using SNMP, copy the *$NSBASE/NS-apps/ECXpert/SNMP/config/CONFIG* file.
   - Copy your maps and extra input card files from:
     - *$NSBASE/NS-apps/ECXpert/maps/*
     - *$NSBASE/NS-apps/ECXpert/data/input/*
   - Copy your live data—the following complete directories:
     - *$NSBASE/NS-apps/ECXpert/data/work/trk*
     - *$$NSBASE/NS-apps/ECXpert/data/output*
     - *$NSBASE/NS-apps/ECXpert/data/bundle*
     - *$NSBASE/NS-apps/ECXpert/smtp/inbound*
     - *$NSBASE/NS-apps/ECXpert/smtp/outbound*

Upgrade to ECXpert 3.0

Perform the steps in this section to upgrade to ECXpert 3.0.

1. Begin to install ECXpert version 3.0, as described in your ECXpert 3.0 *Getting Started Guide*, Chapter 2, "Installing ECXpert."

   After the command line-based installation completes, a browser appears with the browser-based installation steps.

2. Proceed normally through the screens for Installer Step One to Step Four, including Step Four.

   Refer to *Getting Started with ECXpert* Version 3.0, "Running the ECXpert Installer" for detailed instructions. Be sure to stop when you reach "ECXpert Installer Step Five."

   At this point, pause and run the migration script as described next.

3. **In an xterm window, go to the directory containing the migration script.**

   Enter the following command:

```
# cd $NSBASE/NS-apps/ECXpert/dbadmin/oracle/migration/20_to_30
```

   where $NSBASE is the directory under which you are installing ECXpert 3.0.

4. Perform this step ONLY if you are using Oracle 8. If you are using Oracle7, skip ahead to the next step.

   In a text editor, such as vi, hand edit the *migrate.pl* script as follows:

   - Find the line that begins with LD_LIBRARY_PATH:

```
LD_LIBRARY_PATH=$NSBASE/NS-apps/lib:$ORACLE_HOME/lib:$LD_LIBRARY_PATH
```

   and move "$ORACLE_HOME/lib" to the beginning of the path, as follows:

```
LD_LIBRARY_PATH=$ORACLE_HOME/lib:$NSBASE/NS-apps/ECXpert/
lib:$LD_LIBRARY_PATH
```

   - Immediately below the line that reads "export ORA_NLS", add the following four lines:

```
ORA_NLS33=$ORACLE_HOME/ocommon/nls/admin/data
export ORA_NLS33
ORA_NLS32=$ORACLE_HOME/ocommon/nls/admin/data/Oracle7nlb
export ORA_NLS32
```

5. Run the migration script.

Note When entering the following command, do not add a trailing "/" after the environment variables, $ORACLE_HOME and ECX_3.0_HOME.

```
# ./migrate.pl -h $ORACLE_HOME -s ORACLE_SID -u User/
Password[@TNS_alias] -w ECX_3.0_HOME
```

where:

- *$ORACLE_HOME* is the path to your Oracle home directory
- *ORACLE_SID* is your Oracle SID
- *User* is your Database User ID
- *Password* is your Database User password
- *TNS_alias* is the Oracle TNS alias for the ECXpert database (if Oracle is remote)
- *ECX_30_HOME* is the directory under which ECXpert is installed

For example:

```
# ./migrate.pl -h /disk1/oracle/wg734 -s ECX -u ECX1/ECX1
-w /disk1/Netscape/ns-apps/ECXpert
```

6. **Return to the browser window and resume the browser-based installation at Step Five.**
7. **Click Skip on Step Five of the browser-based installation.**
8. **Click Skip on Step Six of the browser-based installation.**

Important Note! In case you missed it above, YOU MUST SKIP INSTALLER STEPS FIVE AND SIX.

9. **Proceed normally through the screens for Installer Step Seven to Step Ten and complete the rest of the tasks in the Chapter 2, "Installing ECXpert."**

10. **Restore configuration settings from the temporary holding directory for your previous installation.**

    - If using SNMP, copy the entire *CONFIG* file back to the new *$NSBASE/NS-apps/ECXpert/SNMP/config/* directory.

    - Open your old *ecx.ini* file and the newly installed *ecx.ini* in a text editor and manually update the newly installed file very carefully by copying in from the old one:
      - any [...] sections for user-defined comms in their entirety
      - any other parameters, from any [...] sections, where the old settings differ from those in the newly installed file

      Note that some parameter names have changed slightly in ECXpert 3.0; the new names are similar enough that you should be able to recognize the new name easily from the old name; be sure to check for a name change and replace any old names with the new ones in any parameters that you copy into your new *ecx.ini* file.

Warning Always work very carefully when manually editing your *ecx.ini* file. What appear to be relatively small mistakes here can seriously impact system function and eat up valuable time in troubleshooting and correcting. In particular, be aware of the following two restrictions:
- Never duplicate a section heading ([...]) within the *ecx.ini* file.
- Never duplicate a parameter assignment within a section.

Removing the Previous Installation and Database Backup

If you have followed the recommendation to move the earlier ECXpert install directory to a temporary location, leave the archival copy of the previous installation and the Oracle database backup in place until you are certain that the new installation of ECXpert Version 3.0 is working properly. When Version 3.0 has been in production mode for a week or so, you may safely delete the previous installation and the Oracle database backup.

Appendix

D

Migrating from ECXpert 1.1.1 to 3.0

This appendix describes the planning and tasks you must perform to upgrade from ECXpert Version 1.1.1 to ECXpert Version 3.0. Appendix C describes the steps to upgrade from ECXpert Version 2.0 to ECXpert Version 3.0. Appendix C details the steps you must perform if you are reinstalling ECXpert Version 3.0. The following topics are covered:

Migrating from ECXpert 1.1.1 to ECXpert 3.0

This section describes all of the steps you must perform in order to migrate from ECXpert 1.1.1 to 3.0.

Optionally Upgrade to Oracle7, release 7.3.4 or Oracle8, release 8.0.4

If you have not already done so, optionally upgrade to Oracle7 Server, release 7.3.4 or Oracle8 Server, release 8.0.4 now. For details, refer to the *ECXpert Getting Started Guide*.

Important When you upgrade Oracle, do not create a new Oracle user to own the ECXpert tables. You must use the existing Oracle user who owns the ECXpert tables.

Oracle7, release 7.3.3.5 Only - Enable Multi-Threaded Server (MTS) Option

If you are using Oracle7 Server, release 7.3.3.5, it must be multi-threaded.

To enable the MTS option, add the following to the Oracle initialization file *$ORACLE_HOME/dbs/init<SID>.ora*, making sure each uncommented line starts with **mts_** :

```
#
# for multi-threaded servers
mts_dispatchers = "ipc,1"
mts_dispatchers = "tcp,1"
mts_listener_address = "(ADDRESS=(PROTOCOL=ipc)(KEY=ECX))"
                       "(ADDRESS=(PROTOCOL=tcp)(HOST=myhost.myserver.com)(PORT=1521))”
mts_max_dispatchers = 20
mts_max_servers = 10
mts_servers = 1
mts_service = ECX
```

Oracle8 Only - Set Up $LD_LIBRARY_PATH

If you are upgrading from ECXpert 1.1.1 to ECXpert 3.0 and you are using an Oracle8 database, you must make sure that the:

`$ORACLE_HOME/lib`

directory is at the front of the `$LD_LIBRARY_PATH` environment variable.

Oracle8 Only - Obtain Correct *.nlb Files

If you are **not** using Oracle8, release 8.0.4, skip ahead to “Set up and Test Your Database Connectivity” on page 178.

If you *are* using Oracle8, release 8.0.4, complete the steps below to obtain the correct *.*nlb* files.

1. Create a directory to contain the *.*nlb* files

   ```
   # mkdir $ORACLE_HOME/ocommon/nls/admin/data/Oracle7nlb
   ```

   where the “O” in *Oracle7nlb* is the capital letter O, not the number 0.

2. Change to the directory on the ECXpert CD that contains the *.*nlb* tar file.

   ```
   # cd /cdrom/Oracle
   ```

3. Copy the tar file.

   To copy the tar file, enter the following command:

   ```
   # cp Oracle7nlb.tar.Z $ORACLE_HOME/ocommon/nls/admin/data/Oracle7nlb
   ```

4. Uncompress the tar file.

   ```
   # uncompress ./Oracle7nlb.tar.Z
   ```

5. Untar the tar file.

   ```
   # tar xvf ./Oracle7nlb.tar
   ```

Set up and Test Your Database Connectivity

Set up and test your database to be sure that user **root** has access to the database, so that you can successfully migrate ECXpert. If user **root** doesn't have access to the database, you will get error messages during the ECXpert migration process.

1. Log in as user `root`.

   ```
   # su - root
   ```

2. Determine the shell that `root` uses.

   ```
   # echo $SHELL
   ```

   The output of this command identifies the shell that `root` uses, which determines its associated environment file:

Output	Shell Being Used	Environment File
`/sbin/sh`	Bourne	*.profile*
`/sbin/csh`	C	*.cshrc*
`/sbin/ksh`	Korn	*.profile* or *.kshrc*

3. Determine the shell that `oracle` uses.

   ```
   # cat /etc/passwd | grep oracle
   ```

   The output of this command lists the shell at the end, as in the sample below:

   ```
   oracle:x:50004:10003::/export/home/oracle:/bin/csh
   ```

   where the shell is `csh`.

4. Get into the `oracle` shell.

   Locate the shell in the "Output" column of the table in Step 2 above, then look up the entry in the "Environment File" column for the same row.

   — If you are using the C shell, enter the following command:

   # **source ~*oracle*/.cshrc**

   where *`oracle`* is your Oracle user, typically `oracle` or `oracle7`.

   — If you are using the Korn shell or the Bourne shell, enter the following command:

   # **. ~oracle/***<your_environment_file>*

   where *`oracle`* is your Oracle user, and *<your_environment_file>* is the name of your environment file.

5. Check the environment settings.

   # **env**

   The following sample output of this command lists the environment variables that must be set:

   $ORACLE_HOME=*<$ORACLE_HOME from worksheet>*
   $ORACLE_SID=ECX
   $NLS_LANG=*<$NLS_LANG from worksheet>*
   $LD_LIBRARY_PATH=$ORACLE_HOME/lib:$LD_LIBRARY_PATH
   $PATH=$ORACLE_HOME/bin:$ORACLE_HOME:$PATH
   $DISPLAY=*<hostname>*:0.0
   $TNS_ADMIN=$ORACLE_HOME/network/admin

6. Correct environment variable definitions as necessary.

   If any of the above environment variables are not properly defined:

   — Become your Oracle user, typically `oracle` or `oracle7`. For example:

   # su - oracle.

   — Open the environment file that you referenced in Step 4 above in a text editor and add or modify the definitions as necessary.

   — Save the environment file and exit the text editor.

7. Enable changes in environment variable definitions.

   If you made changes in the environment file in Step 6 above, you can enable those changes now by switching to another user and then switching back to your Oracle user. For example:

   ```
   # su - root
   # su - oracle
   ```

   Alternatively, you could restart your system and log in as your Oracle user.

8. Check your *tnsnames.ora* file.

   Check your *tnsnames.ora* file to make sure it contains the correct information. The following are likely locations of your *tnsnames.ora* file:

   - *$ORACLE_HOME/network/admin*
   - */var/opt/oracle*
   - The directory specified by the $TNS_ADMIN environment variable

9. Connect to the database from the UNIX commandline.

   ```
   # sqlplus ECX/ECX@<your_connect_string>
   ```

   where *ECX/ECX* is the username/password of the ECXpert table-owner. If this test fails, skip to Step 11.

10. Repeat the test from inside SQL*Plus:

    ```
    SQL> connect ECX/ECX@<your_connect_string>
    SQL> exit
    ```

    where *ECX/ECX* is the username/password of the ECXpert table-owner.

11. Correct any connectivity problems.

    If the test at either Step 9 or Step 10 failed, check the *tnsnames.ora* and *listener.ora* file to validate the settings, such as hostname and SID.

    After making any necessary changes, go back to Step 9 above.

    If you have successfully connected to the database using SQL*Plus, you will be able to connect during the ECXpert migration. If you cannot connect to the database using this method, you definitely will not be able to connect during the ECXpert migration.

Back Up Your Database

Note The database backup is a major operation. You should plan carefully for both the disk space that will be required and the time slot in which the backup is executed. The backup will require as much disk space as the current database and the rollback tablespace in Oracle must be set to as much as 1.5 times the tablespace setting. The backup process can take 12 hours or more for a large database. Without proper planning the process may abort part-way through. Refer to your Oracle documentation for additional guidelines and recommendations.

Follow the steps in this section to back up your existing ECXpert database.

1. Change to the *$ACTRAHOME/Actra-apps/ECXpert/dbadmin/oracle* directory.

2. Open the *exp_ecx_tables.sh* file in a text editor.

3. Change the character string “name/password@dbAlias” in the first line to be the username/password@dbAlias of your ECXpert table-owner user.

4. Enter the following command to run *exp_ecx_tables.sh*.

   ```
   # ./exp_ecx_tables.sh
   ```

   If this command is successful, you should see output similar to the following:

```
Export: Release 8.0.4.0.0 - Production on Thu Mar 4 16:21:34 1999
(c) Copyright 1997 Oracle Corporation.  All rights reserved.


Connected to: Oracle8 Release 8.0.4.0.0 - Production
PL/SQL Release 8.0.4.0.0 - Production
Export done in US7ASCII character set and US7ASCII NCHAR character set

About to export specified tables via Conventional Path ...
. . exporting table                        MEMBERS         10 rows exported
. . exporting table                    MBADDRESSES         15 rows exported
. . exporting table                   PARTNERSHIPS          3 rows exported
. . exporting table                           PNSTD          3 rows exported
. . exporting table                        PNGROUP          3 rows exported
. . exporting table                       KEYPAIRS          8 rows exported
. . exporting table                   CERTIFICATES          8 rows exported
. . exporting table                       TRACKING          1 rows exported
. . exporting table                      TRKINTCHG          0 rows exported
. . exporting table                       SERVICES          7 rows exported
```

```
. . exporting table                      MSGFORMATS        678 rows exported
. . exporting table                        EVENTLOG          0 rows exported
. . exporting table                      UNIQUEKEYS         19 rows exported
. . exporting table                      DTSERVICES          7 rows exported
. . exporting table                     SCHEDULEINFO         0 rows exported
. . exporting table                         TRKGROUP         0 rows exported
. . exporting table                           TRKDOC         0 rows exported
. . exporting table                           PNDOCS         3 rows exported
. . exporting table                    TRKDOCDETAILS         0 rows exported
. . exporting table                              CRL         0 rows exported
. . exporting table                           PNCARD         0 rows exported
. . exporting table                          MDNINFO         0 rows exported
. . exporting table                         BLOBINFO         8 rows exported
. . exporting table                      CERTTYPEINFO         5 rows exported
Export terminated successfully without warnings.
#
```

If instead you get the following error message:

```
./exp_ecx_tables.sh: Permission denied
```

enter the following command to set the proper permissions on the file:

```
# chmod 775 exp_ecx_tables.sh
```

and repeat this step.

Check Your Database for Duplicate Trading Addresses

Note Performing this task at this point is optional. The migration script automatically checks for duplicate trading addresses and does not allow you to proceed without eliminating them. Performing this check as a separate task merely allows you to eliminate any duplicate trading addresses now, so that the problem does not arise when you run the migration script.

Follow the steps in this section to check your database for duplicate trading addresses and correct any duplicates you may find.

1. Change to the directory in which the *check_111.sql* file is located.

   ```
   # cd /$NSBASE/NS-apps/ECXpert/dbadmin/oracle/migration/111_to_30
   ```

2. Run the ECXpert schema-checking script (*check_111.sql*).

To run *check_111.sql*, enter the following command:

```
# sqlplus <dbID>/<dbPW>@<your_connect_string> @check_111.sql
```

where <*dbID*> is the ECXpert database user ID, and <*dbPW*> is the ECXpert database user ID's password. (The location of the sqlplus executable must be in your system's PATH.).

- If the *check_111.sql* output is "no rows selected," your database does not contain any duplicate trading addresses. Do not perform any of the remaining steps in this section. Exit sqlplus and then skip ahead to "Shut Down All ECXpert Services" on page 187.
- If the *check_111.sql* output is a list of two or more pairs of Member Names and trading addresses, your database contains duplicate trading addresses. The output will look something like this:

```
MBAName       MBAQUAL       MBAQUALID
------------  ------------  --------------------

ecxtest4      EM            ecxtest3@xyz.mcom.com
ecxtest3      EM            ecxtest3@xyz.mcom.com
ecxtest2      ZZ            test1
ecxtest1      ZZ            test1
```

In this example, members `ecxtest4` and `ecxtest3` have duplicate e-mail addresses, and members `ecxtest1` and `ecxtest2` have duplicate EDI addresses.

If your database contains duplicate trading addresses, make a note of the pairs of members with duplicate trading addresses and what the duplicate trading addresses are, and then exit sqlplus. Then continue on to the next step.

3. Display the **ECXpert Product Administrative** Interface.

In your web browser, enter the following URL:

http://hostname:port#

where *hostname* is the name of your ECXpert host and *port#* is the port number it uses to display the **ECXpert Administration** home page.

Click the **Support** link.

Enter your login information in the **Login** window that appears. The default username/password is ECX/ECX. When you have entered your login information, click **Enter**.

4. Perform this step only if you have members with duplicate **EDI** addresses. If you have members with duplicate **e-mail** addresses but no members with duplicate EDI addresses, skip ahead to Step 5 on page 186.

- **For each member with a duplicate EDI address**, add a non-duplicate EDI address.

  Click the **Membership** tab. The **Membership Administration** screen appears.

  Click **Change**. The **Membership Search** screen appears.

  From the **Member ID** drop-down list, choose a member identified as having a duplicate trading address in Step 2 on page 182. Then click **Retrieve**.

  The **Change Membership** screen appears. Click the **Trading Addresses** tab.

  In the **Existing Trading Addresses** list box, select the member's duplicate trading address. This is the address that was listed when you completed Step 2 on page 182.

  Type a new, non-duplicated trading address in the **Qualifier** and **Address** fields above. Then click **+Add**. The new trading address is added to the bottom of the **Existing Trading Address** accumulator box below.

  Click **Change** at the bottom of the page.

  On the **ECXpert Verification** window that appears, click **Yes**.

  The **Membership Administration** screen appears again.

- **For each partnership that contains a member with a duplicated EDI address**, select the new EDI address you just entered.

  Click the **Trading** tab. The **Partnership Information** screen appears.

  Click **Change**. The **Partnership Search** tab appears.

Do not fill in any fields. Click **Search**. The **Partnership Search Results** tab appears, displaying a list of all existing partnerships.

Retrieve a partnership that contains a member with duplicate trading addresses.

The **Change Partnership** screen appears, with the **Partnership Info** tab displayed.

Click the **EDI** tab.

- If the member with duplicate trading addresses is a sending member, from the **Sender Qualifier ID** drop-down list, select the new trading address you entered.
- If the member with duplicate trading addresses is a receiving member, rom the **Receiver Qualifier ID** field, select the new trading address you entered.

Click **Next**, and then click **Change**.

In the **ECXpert Verification Window** that appears, click **Yes**.

The **Partnership Information** screen appears again.

- **For each member that has a duplicate EDI address**, remove the duplicate EDI address.

  Click the **Membership** tab. The **Membership Administration** screen appears.

  Click **Change**. The **Membership Search** screen appears.

  From the **Member ID** drop-down list, choose a member identified as having a duplicate trading address in Step 2 on page 182. Then click **Retrieve**.

  The **Change Membership** screen appears. Click the **Trading Addresses** tab.

  In the **Existing Trading Addresses** list box, select the member's duplicate trading address. This is the address that was listed when you completed Step 2 on page 182.

  Click **Remove**. The duplicate trading address disappears.

Click **Change** at the bottom of the page.

On the **ECXpert Verification** window that appears, click **Yes**.

The **Membership Administration** screen appears again.

5. Perform this step for each member with duplicate **e-mail** addresses.

   Click the **Membership** tab. The **Membership Administration** screen appears.

   Click **Change**. The **Membership Search** screen appears.

   From the **Member ID** drop-down list, choose a member identified as having a duplicate trading address in Step 2 on page 182. Then click **Retrieve**.

   The **Change Membership** screen appears. Click the **Trading Addresses** tab.

   In the **Existing Trading Addresses** list box, select the member's duplicate trading address. This is the address that was listed when you completed Step 2 on page 182.

   Click **Change**. The trading address appears in the **Qualifier** and **Address** fields above.

   Change the trading address to some other value and then click **+Add**. The new trading address appears in the list box below.

   Click **Change**.

   On the **ECXpert Verification** window that appears, click **Yes**.

   The **Membership Administration** screen appears again.

   Repeat this step for one member in each pair of members identified as having duplicate trading addresses in Step 2 on page 182.

6. Repeat Step 2 through Step 6 until the ECXpert schema-checking script (*check_111.sql*) reports that you have no duplicate trading addresses.

   When you do not have any more duplicate trading addresses, continue on to the next section.

Shut Down All ECXpert Services

If you are using a previous installation of the ECXpert Product Administrative Interface, you must log out and shut it down. Follow these steps to log out and shut down ECXpert.

1. **Log out of the ECXpert Product Administrative Interface.**

   Click the **Logout** bar, then choose **Applet | Quit** if using the Applet Viewer.

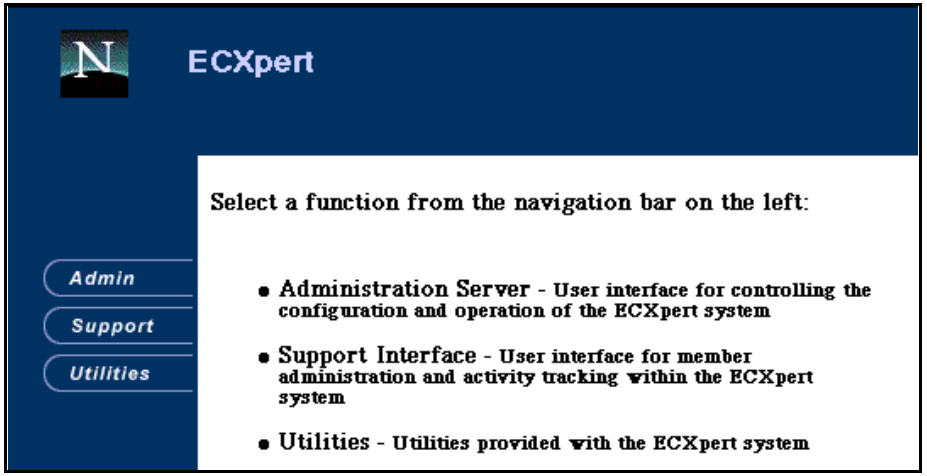
2. **Shut down all ECXpert services.**

   Display the ECXpert Main Menu in your browser as shown in Figure D.1 by entering the URL:

   http://*hostname*:*port#*

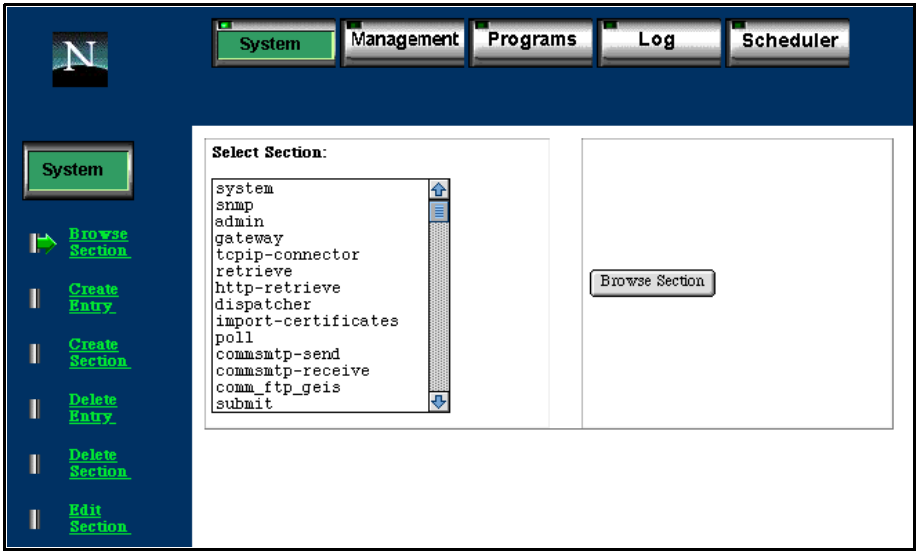
   where *hostname* is the name of your ECXpert host and *port#* is the port number it uses.

Figure D.1 ECXpert main menu



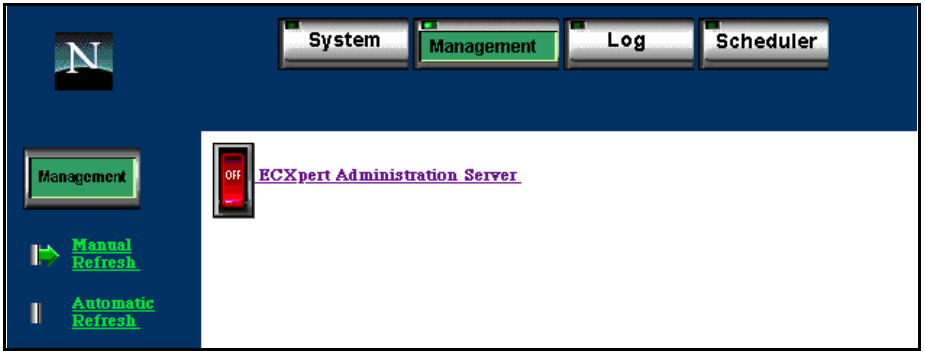
Click the **Admin** bar to display the ECXpert Server Administration menu shown in Figure D.2.

Figure D.2 ECXpert Server Administration menu



Click the **Management** button in the top button bar to display the Comm Agent management main menu shown in Figure D.3.

Figure D.3 Comm Agent management main menu



Click any service switch icon that is **ON** to toggle the service **OFF** and exit your browser window.

3. **Shut down the Netscape FastTrack Server or Netscape Enterprise Server.**

   In an xterm window, enter the following commands, replacing <*machine_name*> with the name of your ECXpert host machine:

```
# cd $ACTRAHOME/Actra-apps/ns-home/<http_prefix>-<machine_name>
# ./stop
```

Note In the above `cd` command, supply a value for <*http_prefix*> as follows:
- **`httpd`** for an unsecured Netscape FastTrack Server
- **`https`** for a secured Netscape FastTrack Server or Netscape Enterprise Server

4. **Shut down the Netscape Administration server.**

   In an xterm window, enter the following commands:

```
# cd $ACTRAHOME/Actra-apps/ns-home/
# ./stop-admin
```

5. **Verify that no ECXpert processes are still running.**

   In an xterm window, enter the following command:

```
# ps -ef | grep actra
```

   If additional processes are running, kill them manually.

6. **If running SNMP, make sure the SNMP agent is shut down.**

   Manually kill the process ID for `Program.o`.

Preserve Your Files

Follow the steps in this section to back up the important files from your current ECXpert installation:

1. **Set up a temporary holding directory that is:**

   - outside both the ECXpert Version 3.0 and the ECXpert Version 1.1.x directory trees.
   - outside the */tmp* directory

2. **Copy the following files into your temporary holding directory:**

   - In all cases, from *$ACTRAHOME/Actra-apps/ECXpert/config*, copy the file *bdg.ini*.
   - If your Netscape Enterprise Server is running secured, from *$ACTRAHOME/Actra-apps/ns-home/httpd-machine_name/config*, copy the files *ServerCert.db, ServerCert.nm, and ServerKey.db, magnus.conf, obj.conf, mime.types* and any **.acl* (access control list) files
   - If using SNMP, copy the *$ACTRAHOME/Actra-apps/ECXpert/SNMP/config/CONFIG* file.
   - Copy your maps and extra input card files from:
     - *$ACTRAHOME/Actra-apps/ECXpert/maps/*
     - *$ACTRAHOME/Actra-apps/ECXpert/data/input/*
   - Copy your live data—the following complete directories:
     - *$ACTRAHOME/Actra-apps/ECXpert/data/work/trk*
     - *$ACTRAHOME/Actra-apps/ECXpert/data/output*
     - *$ACTRAHOME/Actra-apps/ECXpert/data/bundle*
     - *$ACTRAHOME/Actra-apps/ECXpert/smtp/inbound*
     - *$ACTRAHOME/Actra-apps/ECXpert/smtp/outbound*

Upgrade to ECXpert 3.0

Perform the steps in this section to upgrade to ECXpert 3.0.

1. Begin to install ECXpert version 3.0, as described in your ECXpert 3.0 *Getting Started Guide*, Chapter 2, “Installing ECXpert.”

   After the command line-based installation completes, a browser appears with the browser-based installation steps.

2. Proceed normally through the screens for Installer Step One to Step Four, including Step Four.

   Refer to “Running the ECXpert Installer” on page 90 for detailed instructions. Be sure to stop when you reach “ECXpert Installer Step Five.”

At this point, pause and run the migration script as described next.

3. **In an xterm window, go to the directory containing the migration script.**

   Enter the following command:

```
# cd $NSBASE/NS-apps/ECXpert/dbadmin/oracle/migration/111_to_20
```

   where $NSBASE is the directory under which you are installing ECXpert 3.0.

4. Perform this step ONLY if you are using Oracle 8. If you are using Oracle7, skip ahead to the next step.

   In a text editor, such as vi, hand edit the *migrate.sh* script as follows:

   - Find the line that begins with LD_LIBRARY_PATH:

```
LD_LIBRARY_PATH=$BDGHOME/lib:$ORACLE_HOME/lib:$LD_LIBRARY_PATH
```

   and move "$ORACLE_HOME/lib" to the beginning of the path, as follows:

```
LD_LIBRARY_PATH=$ORACLE_HOME/lib:$BDGHOME/lib:$LD_LIBRARY_PATH
```

   - Immediately below the line that reads "export ORA_NLS", add the following four lines:

```
ORA_NLS33=$ORACLE_HOME/ocommon/nls/admin/data
export ORA_NLS33
ORA_NLS32=$ORACLE_HOME/ocommon/nls/admin/data/Oracle7nlb
export ORA_NLS32
```

5. Run the migration script from ECXpert 1.1.1 to 2.0.

Note When entering the following command, do not add a trailing "/" after the environment variables, $ORACLE_HOME and $BDGHOME.

```
# ./migrate.sh -h $ORACLE_HOME -u DBId -p DBPassword \
-t <your_connect_string> -w $NSBASE/NS-apps/ECXpert -s
ORACLE_SID
```

where:

- *$ORACLE_HOME* is your Oracle home directory
- *DBId* is your Database User ID
- *DBPassword* is your Database User password

- *<your_connect_string>* is the same connect string you used to test your database connectivity in "Set up and Test Your Database Connectivity" on page 178.
- *$NSBASE* is the directory under which ECXpert is installed
- *ORACLE_SID* is your Oracle SID.

For example:

```
# ./migrate.sh -h /disk1/oracle/wg733 -u ECX1 -p ECX1 \
-t WG73 -w /disk1/Netscape/NS-apps -s ECX
```

6. Run the migration script from ECXpert 2.0 to 3.0.

In the xterm window, enter the following command:

```
# cd $NSBASE/NS-apps/ECXpert/dbadmin/oracle/migration/20_to_30
```

where $NSBASE is the directory under which you are installing ECXpert 3.0.

Note When entering the following command, do not add a trailing "/" after the environment variables, $ORACLE_HOME and $BDGHOME.

```
# ./migrate.sh -h $ORACLE_HOME -u DBId -p DBPassword \
-t <your_connect_string> -w $NSBASE/NS-apps/ECXpert -s
ORACLE_SID
```

where:

- *$ORACLE_HOME* is your Oracle home directory
- *DBId* is your Database User ID
- *DBPassword* is your Database User password
- *<your_connect_string>* is the same connect string you used to test your database connectivity in "Set up and Test Your Database Connectivity" on page 178.
- *$NSBASE* is the directory under which ECXpert is installed
- *ORACLE_SID* is your Oracle SID.

For example:

```
# ./migrate.sh -h /disk1/oracle/wg733 -u ECX1 -p ECX1 \
-t WG73 -w /disk1/Netscape/NS-apps -s ECX
```

7. **Return to the browser window and resume the browser-based installation at Step Five.**

8. **Click Skip on Step Five of the browser-based installation.**

9. **Click Skip on Step Six of the browser-based installation.**

Important Note! In case you missed it above, YOU MUST SKIP INSTALLER STEPS FIVE AND SIX.

10. **Proceed normally through the screens for Installer Step Seven to Step Ten and complete the rest of the tasks in the ECXpert Getting Started Guide, Chapter 2, "Installing ECXpert."**

11. **Restore configuration settings from the temporary holding directory for your previous installation.**

    - If using SNMP, copy the entire *CONFIG* file back to the new *$NSBASE/NS-apps/ECXpert/SNMP/config/* directory.

    - Open your old *bdg.ini* file and the newly installed *ecx.ini* in a text editor and manually update the newly installed file very carefully by copying in from the old one:
      - any [...] sections for user-defined comms in their entirety
      - any other parameters, from any [...] sections, where the old settings differ from those in the newly installed file
      Note that some parameter names have changed slightly in ECXpert 3.0; the new names are similar enough that you should be able to recognize the new name easily from the old name; be sure to check for a name change and replace any old names with the new ones in any parameters that you copy into your new *ecx.ini* file.

Warning Always work very carefully when manually editing your *bdg.ini* or *ecx.ini* file. What appear to be relatively small mistakes here can seriously impact system function and eat up valuable time in trouble-shooting and correcting. In particular, be aware of the following two restrictions:
- Never duplicate a section heading ([...]) within the *bdg.ini* file.
- Never duplicate a parameter assignment within a section.

Removing the Previous Installation and Database Backup

If you have followed the recommendation to move the earlier ECXpert install directory to a temporary location, leave the archival copy of the previous installation and the Oracle database backup in place until you are certain that the new installation of ECXpert Version 3.0 is working properly. When Version 3.0 has been in production mode for a week or so, you may safely delete the previous installation and the Oracle database backup.

Appendix

E

Reinstalling ECXpert 3.0

This appendix provides instructions on reinstalling ECXpert 3.0 over an existing installation of ECXpert 3.0. The following topics are covered:

Reinstalling ECXpert 3.0

If you need to install ECXpert Version 3.0 over an existing installation of Version 3.0, follow the instructions in Appendix C, “Migrating from ECXpert 2.0 to 3.0,”then complete the steps below.

Important When you migrate, do not create a new Oracle user to own the ECXpert tables. You must use the existing Oracle user who owns the ECXpert tables.

Note The database backup is a major operation. You should plan carefully for both the disk space that will be required and the time slot in which the backup is executed. The backup will require as much disk space as the current database and the rollback tablespace in Oracle must be set to as much as 1.5 times the tablespace setting. The backup process can take 12 hours or more for a large database. Without proper planning the process may abort part-way through. Refer to your Oracle documentation for additional guidelines and recommendations.

Optionally Upgrade to Oracle7, release 7.3.4 or Oracle8, release 8.0.4

If you have not already done so, optionally upgrade to Oracle7 Server, release 7.3.4 or Oracle8 Server, release 8.0.4 now. For details, refer to the *ECXpert Getting Started Guide*, version 3.0.

Important When you upgrade Oracle, do not create a new Oracle user to own the ECXpert tables. You must use the existing Oracle user wsnrctl start tcp_listener

ho owns the ECXpert tables.

Oracle7, release 7.3.3.5 Only - Enable Multi-Threaded Server (MTS) Option

If you are using Oracle7 Server, release 7.3.3.5, it must be multi-threaded.

To enable the MTS option, add the following to the Oracle initialization file *$ORACLE_HOME/dbs/init<SID>.ora*, making sure each uncommented line starts with **mts_** :

```
#
# for multi-threaded servers
mts_dispatchers = "ipc,1"
mts_dispatchers = "tcp,1"
mts_listener_address = "(ADDRESS=(PROTOCOL=ipc)(KEY=ECX))"
                       "(ADDRESS=(PROTOCOL=tcp)(HOST=myhost.myserver.com)(PORT=1521))"
mts_max_dispatchers = 20
mts_max_servers = 10
mts_servers = 1
mts_service = ECX
```

Oracle8 Only - Set Up $LD_LIBRARY_PATH

If you are upgrading from ECXpert 1.1.1 to ECXpert 3.0 and you are using an Oracle8 database, you must make sure that the:

`$ORACLE_HOME/lib`

directory is at the front of the `$LD_LIBRARY_PATH` environment variable.

Oracle8 Only - Obtain Correct *.nlb Files

If you are **not** using Oracle8, release 8.0.4, skip ahead to "Set up and Test Your Database Connectivity" on page 198.

If you *are* using Oracle8, release 8.0.4, complete the steps below to obtain the correct *.nlb files.

1. Create a directory to contain the *.nlb files

   ```
   # mkdir $ORACLE_HOME/ocommon/nls/admin/data/Oracle7nlb
   ```

   where the "O" in *Oracle7nlb* is the capital letter O, not the number 0.

2. Change to the directory on the ECXpert CD that contains the *.nlb tar file.

   ```
   # cd /cdrom/Oracle
   ```

3. Copy the tar file.

   To copy the tar file, enter the following command:

   ```
   # cp Oracle7nlb.tar.Z $ORACLE_HOME/ocommon/nls/admin/data/Oracle7nlb
   ```

4. Uncompress the tar file.

   ```
   # uncompress ./Oracle7nlb.tar.Z
   ```

5. Untar the tar file.

   ```
   # tar xvf ./Oracle7nlb.tar
   ```

Set up and Test Your Database Connectivity

Set up and test your database to be sure that user **root** has access to the database, so that you can successfully migrate ECXpert. If user **root** doesn't have access to the database, you will get error messages during the ECXpert migration process.

1. Log in as user root.

   ```
   # su - root
   ```

2. Determine the shell that `root` uses.

   ```
   # echo $SHELL
   ```

   The output of this command identifies the shell that `root` uses, which determines its associated environment file:

Output	Shell Being Used	Environment File
`/sbin/sh`	Bourne	*.profile*
`/sbin/csh`	C	*.cshrc*
`/sbin/ksh`	Korn	*.profile* or *.kshrc*

3. Determine the shell that `oracle` uses.

   # **cat /etc/passwd | grep oracle**

   The output of this command lists the shell at the end, as in the sample below:

   ```
   oracle:x:50004:10003::/export/home/oracle:/bin/csh
   ```

   where the shell is `csh`.

4. Get into the `oracle` shell.

   Locate the shell in the "Output" column of the table in Step 2 above, then look up the entry in the "Environment File" column for the same row.

   — If you are using the C shell, enter the following command:

   # **source ~*oracle*/.cshrc**

   where *`oracle`* is your Oracle user, typically `oracle` or `oracle7`.

   — If you are using the Korn shell or the Bourne shell, enter the following command:

   # **. ~oracle/***<your_environment_file>*

   where *`oracle`* is your Oracle user, and *<your_environment_file>* is the name of your environment file.

5. Check the environment settings.

   # **env**

   The following sample output of this command lists the environment variables that must be set:

   $ORACLE_HOME=<*$ORACLE_HOME from worksheet*>
   $ORACLE_SID=ECX
   $NLS_LANG=<*$NLS_LANG from worksheet*>
   $LD_LIBRARY_PATH=$ORACLE_HOME/lib:$LD_LIBRARY_PATH
   $PATH=$ORACLE_HOME/bin:$ORACLE_HOME:$PATH
   $DISPLAY=<*hostname*>:0.0
   $TNS_ADMIN=$ORACLE_HOME/network/admin

6. Correct environment variable definitions as necessary.

   If any of the above environment variables are not properly defined:

   — Become your Oracle user, typically `oracle` or `oracle7`. For example:

   # su - oracle.

   — Open the environment file that you referenced in Step 4 above in a text editor and add or modify the definitions as necessary.

   — Save the environment file and exit the text editor.

7. Enable changes in environment variable definitions.

   If you made changes in the environment file in Step 6 above, you can enable those changes now by switching to another user and then switching back to your Oracle user. For example:

   # **su - root**
   # **su - oracle**

   Alternatively, you could restart your system and log in as your Oracle user.

8. Check your *tnsnames.ora* file.

   Check your *tnsnames.ora* file to make sure it contains the correct information. The following are likely locations of your *tnsnames.ora* file:

   - *$ORACLE_HOME/network/admin*
   - */var/opt/oracle*
   - The directory specified by the $TNS_ADMIN environment variable

9. Connect to the database from the UNIX commandline.

   ```
   # sqlplus ECX/ECX@<your_connect_string>
   ```

   where *ECX/ECX* is the username/password of the ECXpert table-owner. If this test fails, skip to Step 11.

10. Repeat the test from inside SQL*Plus:

    ```
    SQL> connect ECX/ECX@<your_connect_string>
    SQL> exit
    ```

    where *ECX/ECX* is the username/password of the ECXpert table-owner.

11. Correct any connectivity problems.

    If the test at either Step 9 or Step 10 failed, check the *tnsnames.ora* and *listener.ora* file to validate the settings, such as hostname and SID.

    After making any necessary changes, go back to Step 9 above.

    If you have successfully connected to the database using SQL*Plus, you will be able to connect during the ECXpert migration. If you cannot connect to the database using this method, you definitely will not be able to connect during the ECXpert migration.

Back Up Your Database

Note The database backup is a major operation. You should plan carefully for both the disk space that will be required and the time slot in which the backup is executed. The backup will require as much disk space as the current database and the rollback tablespace in Oracle must be set to as much as 1.5 times the

tablespace setting. The backup process can take 12 hours or more for a large database. Without proper planning the process may abort part-way through. Refer to your Oracle documentation for additional guidelines and recommendations.

Follow the steps in this section to back up your existing ECXpert database.

1. Change to the *$NSBASE/NS-apps/ECXpert/dbadmin/oracle* directory.
2. Open the *exp_ecx_tables.sh* file in a text editor.
3. Change the character string "name/password@dbAlias" in the first line to be the username/password@dbAlias of your ECXpert table-owner user.
4. Enter the following command to run *exp_ecx_tables.sh*.

   ```
   # ./exp_ecx_tables.sh
   ```

   If this command is successful, you should see output similar to the following:

```
Export: Release 8.0.4.0.0 - Production on Thu Mar 4 16:21:34 1999
(c) Copyright 1997 Oracle Corporation.  All rights reserved.


Connected to: Oracle8 Release 8.0.4.0.0 - Production
PL/SQL Release 8.0.4.0.0 - Production
Export done in US7ASCII character set and US7ASCII NCHAR character set

About to export specified tables via Conventional Path ...
. . exporting table                        MEMBERS         10 rows exported
. . exporting table                     MBADDRESSES         15 rows exported
. . exporting table                    PARTNERSHIPS          3 rows exported
. . exporting table                           PNSTD          3 rows exported
. . exporting table                         PNGROUP          3 rows exported
. . exporting table                        KEYPAIRS          8 rows exported
. . exporting table                    CERTIFICATES          8 rows exported
. . exporting table                        TRACKING          1 rows exported
        ...
. . exporting table                          TRKDOC          0 rows exported
. . exporting table                          PNDOCS          3 rows exported
. . exporting table                   TRKDOCDETAILS          0 rows exported
. . exporting table                             CRL          0 rows exported
. . exporting table                          PNCARD          0 rows exported
. . exporting table                         MDNINFO          0 rows exported
. . exporting table                        BLOBINFO          8 rows exported
. . exporting table                    CERTTYPEINFO          5 rows exported
Export terminated successfully without warnings.
#
```

If instead you get the following error message:

```
./exp_ecx_tables.sh: Permission denied
```

enter the following command to set the proper permissions on the file:

```
# chmod 775 exp_ecx_tables.sh
```

and repeat this step.

Shut Down All ECXpert Services

If you are using a previous installation of the ECXpert Product Administrative Interface, you must log out and shut it down. Follow these steps to log out and shut down ECXpert.

1. **Log out of the ECXpert Product Administrative Interface.**

   Click the **Logout** bar, then choose **Applet | Quit** if using the Applet Viewer.

2. **Shut down all ECXpert services.**

   Display the ECXpert Main Menu in your browser by entering the URL:

   http://*hostname*:*port#*

   where *hostname* is the name of your ECXpert host and *port#* is the port number it uses.

   Click the **Admin** bar to display the ECXpert Server Administration menu.

   Click the **Management** button in the top button bar to display the Comm Agent management main menu.

   Click any service switch icon that is **ON** to toggle the service **OFF** and exit your browser window.

3. **Shut down the Netscape Enterprise Server.**

   In an xterm window, enter the following commands, replacing <*machine_name*> with the name of your ECXpert host machine:

```
# cd $NSBASE/NS-apps/ns-home/https-<machine_name>
# ./stop
```

4. **Remove or rename your *$NSBASE/ns-home/https-<hostname>* directory.**

5. **Shut down the Netscape Administration server.**

   In an xterm window, enter the following commands:

```
# cd $NSBASE/NS-apps/ns-home/
# ./stop-admin
```

6. **If running SNMP, make sure the SNMP agent is shut down.**

   Manually kill the process ID for `Program.o`.

Preserve Your Files

Follow the steps in this section to back up the important files from your current ECXpert installation:

1. **Set up a temporary holding directory that is:**

   - outside both the ECXpert Version 3.0 and the ECXpert Version 1.1.x directory trees.
   - outside the */tmp* directory

2. **Copy the following files into your temporary holding directory:**

   - In all cases, from *$NSBASE/NS-apps/ECXpert/config*, copy the file *ecx.ini*.
   - If your Netscape Enterprise Server is running secured, from *$NSBASE/NS-apps/ns-home/https-machine_name/config*, copy the files *ServerCert.db, ServerCert.nm, and ServerKey.db, magnus.conf, obj.conf, mime.types* and any **.acl* (access control list) files
   - If using SNMP, copy the *$NSBASE/NS-apps/ECXpert/SNMP/config/CONFIG* file.

- Copy your maps and extra input card files from:
  - *$NSBASE/NS-apps/ECXpert/maps/*
  - *$NSBASE/NS-apps/ECXpert/data/input/*

- Copy your live data—the following complete directories:
  - *$NSBASE/NS-apps/ECXpert/data/work/trk*
  - *$NSBASE/NS-apps/ECXpert/data/output*
  - *$NSBASE/NS-apps/ECXpert/data/bundle*
  - *$NSBASE/NS-apps/ECXpert/smtp/inbound*
  - *$NSBASE/NS-apps/ECXpert/smtp/outbound*

Reinstall ECXpert

1. **Begin to install ECXpert version 3.0, as described in Chapter 2, "Installing ECXpert."**

   After the command line-based installation completes, a browser appears with the browser-based installation steps.

2. **Proceed normally through the screens for Installer Step One to Step Four.**

   Refer to "Running the ECXpert Installer" on page 90 for detailed instructions. Be sure to stop when you reach "ECXpert Installer Step Five" on page 95. There *is* a Note there reminding you to return to this Appendix.

3. **Click Skip on Step Five of the browser-based installation.**

4. **Click Skip on Step Six of the browser-based installation.**

Important Note! In case you missed it above, YOU MUST SKIP INSTALLER STEPS FIVE AND SIX.

5. **Proceed normally through the screens for Installer Step Seven to Step Ten and complete the rest of the tasks in Chapter 2, "Installing ECXpert.".**

   Refer to pages 98-104 for detailed instructions.

6. **Restore configuration settings from the temporary holding directory for your previous installation.**

   - If using SNMP, copy the entire *CONFIG* file back to the new *$NSBASE/NS-apps/ECXpert/SNMP/config/* directory.
   - Copy the entire *scheduler.ini* file back to the new*$NSBASE/NS-apps/ECXpert/config* directory, overwriting the newly installed file.
   - Open your old *ecx.ini* file and the newly installed *ecx.ini* in a text editor and manually update the newly installed file very carefully by copying in from the old one:
     - any [...] sections for user-defined comms in their entirety
     - any other parameters, from any [...] sections, where the old settings differ from those in the newly installed file

Warning — Always work very carefully when manually editing your *bdg.ini* or *ecx.ini* file. What appear to be relatively small mistakes here can seriously impact system function and eat up valuable time in trouble-shooting and correcting. In particular, be aware of the following two restrictions:
- Never duplicate a section heading ([...]) within the *bdg.ini* file.
- Never duplicate a parameter assignment within a section.

7. **Re-establish Netscape Enterprise Server security.**

   See “What’s Next?” on page 117 for instructions.

8. **Restore live data from your full database backup.**

Removing the Previous Installation and Database Backup

If you have followed the recommendation to move the earlier ECXpert install directory to a temporary location, leave the archival copy of the previous installation and the Oracle database backup in place until you are certain that the new installation of ECXpert Version 3.0 is working properly. When Version 3.0 has been in production mode for a week or so, you may safely delete the previous installation and the Oracle database backup.

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