EAC/AA Installation Guide

Issue Number 17.2~~3~~0~~0~~

EAC/AA Installation Guide

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Approved by (Cognizant)	:	Project Manager

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1 Introduction

Software Version

This version of the EAC/AA Installation Guide is applicable to release 11.10.0 and later of the EAC/AA application software.

1.1 Purpose

This document is the Installation Guide for the EAC/AA application software.

The aim of the guide is to provide instructions for installing EAC/AA software. This installation is divided into the Database Server Installation and the Application Server Installation. A section is also included describing the procedure for building the EAC/AA source code.

It should be noted that a number of prerequisites are required before installation, such as the POSIX-compliant Operating System and Oracle database software.

This guide assumes that the reader has a good working knowledge of the Operating System and Oracle.

The installation sequence should be followed as described in this document. The build of the source code cannot be carried out until the installation procedure is complete since the build procedure requires the tables and users which are created during installation.

1.2 Scope

The scope of this document is the installation of the EAC/AA system.

For system management aspects of the EAC/AA application software, refer to the EAC/AA System Management Guide.

For details of operation of the EAC/AA application software, refer to the EAC/AA Operations Guide.

Any comments on the accuracy and completeness of this guide are welcome. A Reader Response Form is contained at the back of this guide.

1.3 Structure of Document

The remainder of this document consists of the following sections:

- Section 2 describes how to set up a new installation of the EAC/AA software;
- Section 3 describes how to build the EAC/AA software from the source code;
- Section 4 outlines what is provided for upgrades of the EAC/AA application software;
- Appendix A lists the environment variables;
- Appendix B gives an example .profile;

- Appendix C gives details on the original development environment for EAC/AA and the performance attained;
- Appendix D gives advice on building EAC/AA on other platforms;
- Appendix E lists commands to collect database statistics;
- Appendix F gives instructions for associating a file extension to the printpro application on a Windows PC

1.4 Amendment History

Issue	Details
0.901	First issue to client
0.902	Addresses APP comments
0.903	Further modifications
0.904	Minor corrections and additions, notably: Section 2.2.4 and 3.2.2 amended so that rewind tape drives may be used for software distribution kit New Appendix D 'Building on Other Platforms' added
0.905	Further modifications for R0.403. Includes Pool Defect 704.
0.990	Add reference to Korn shell and clarification of user group requirements
1.000	Authorised version
1.001	Draft version consistent with software release R1.2. Contains changes for: OR 5.1.2217, OR 5.1.22813.
1.500	Draft version consistent with software release R1.2, incorporating internal review comments.
2.000	Authorised version consistent with software release R1.3. Incorporating Pool review comments. Includes OR's 5.1.2450 and 5.1.2453 (Logica Internal OR).
2.401	Draft for internal review containing release 2 changes
2.490	Draft for review by client containing release 2 changes
2.500	Authorised issue consistent with Release Two.
2.901	Draft for internal review. Merge of v2.000 and v2.500. Change bars show changes from v2.000.
2.990	Draft for Pool review. Merge of v2.000 and v2.500. Change bars show changes from v2.000.
3.000	Authorised version. Merge of v2.000 and v2.500. Change bars show changes from v2.000.
3.001	Includes OR2665
3.002	Includes OR2392, OR2625
3.900	Draft for internal review containing TA2000 changes. Change bars show changes from v3.000.
3.990	Incorporated internal review comments.
3.991	Incorporating Pool comments

Issue	Details
3.992	Incorporating Pool Review Comments
4.000	Authorised Version
4.001	OR2955 – Alteration of the UNIX version number.
4.990	Issued to Pool for review.
5.000	Authorised Version.
5.001	Incorporating LCR160/3 (SIR2296) – Reasonableness Checks for Annualised Advances. Incorporates OR3005.
5.990	Incorporating LCR170/2 – Upgrade to Oracle 8i.
6.000	Authorised version.
6.900	Update for Oracle 8.1.7 upgrade plus cosmetic changes.
6.990	Incorporating internal review comments Incorporating Logica Internal OR 5.1.3101.
6.991	Incorporates OR3108
7.000	Authorised version.
7.001	Incorporating Logica Internal OR 5.1.3116
7.002	Incorporating Pool review comments, OR3118 – Updating the copyright notice
7.003	Change to Office 2000
7.004	Changes relating to ELEXON superseding The Electricity Pool
7.005	Incorporating ELEXON review comments
8.000	Authorised version
8.001	Incorporated LCR 185/4 – Upgrade to support UNIX 5.1A.
8.002	Updated from internal review
8.990	Updated following ELEXON review
8.991	Incorporating ELEXON review comments
9.000	Authorised version
9.001	Update for Oracle 9i upgrade. Also updated document template.
9.990	Version for ELEXON review
9.991	Updated with ELEXON review comments.
10.000	Authorised version
11.000	Updated document references
11.002	CP1052 UNIX 5.1B Upgrade
11.003	Additional amendments
11.004	Incorporated comments from test and programme teams from review date 28/07/04. Issued to ELEXON for review.
11.005	Incorporated further comments from ELEXON. Issued to ELEXON for review.

Issue	Details
11.006	Revisions to client software install procedures. Issued to ELEXON for review.
12.000	Made Definitive
12.900	Draft for internal review for Nov. 05 release Incorporating CP1081 : Ad hoc Deemed Meter Reading Calculation & CP933 : Management of System Security
12.901	Incorporating internal review comments.
12.902	Incorporated changes required as per OR3482.
12.903	Incorporating internal review comments and changes required as per OR3487.
12.990	Version for ELEXON review.
12.991	Incorporating ELEXON review comments, plus changes as required by OR3488 (errors spotted in Installation Guide during internal testing)
12.992	Incorporating ELEXON review comments, plus changes as required by OR3489 (change sessions_per_user to 5)
12.993	Incorporating internal review comments.
13.000	Made Definitive
13.001	Updated following SVA 05 Help Desk call: 1824 : value for $EACAA_HOME unclear
13.002	Draft for internal review for Nov.06 release, including Oracle upgrade to 10g & 3-tier architecture
13.003	Incorporated the internal Review comments from UK team.
13.004	Incorporated review comments from UK team
13.005	Incorporated review comments from UK team
13.990	Version for ELEXON review. Includes OR3633 and OR3634 (HD050270).
13.991	Incorporated review comments plus help desk calls. Includes HD061540, HD061732.
13.992	Updated section 3. Updated section 2.3 in line with configuration files delivered, and to reflect that unix web forms are delivered with the database server software. Updated section 2.2.2.2 to show unix_web_forms in delivered directory structure. Added Appendix F. Includes further update for HD061540.
14.000	Incorporating review comments and made definitive
14.900	Updated for Feb 08 release : CP1187 (Solaris Port and Internal OR3689 (corrections to v14.000)
14.990	Incorporating internal review comments; version for ELEXON review.
14.991	Incorporating ELEXON review comments plus further

Issue	Details
	internal review comments.
14.992	Updates with comments arising from witnessed upgrade at start of PPT testing
14.993	Incorporating a further ELEXON review comment
15.000	Made Definitive
15.010	Updated document classificaton
15.990	Updated for Feb 2010 Release
15.991	After internal review
15.992	After ELEXON review
16.000	Definitive Version
17.0	CP1383 - Updated for Tech Upgrade (Oracle DB upgrade from 10.2.0.3 to 11.2.0.3 and OAS upgrade from 10.1.2.2 to 11.1.1.6)
17.1	CP1436 - Updated for Tech Upgrade (Windows OS from 2003 to 2012 and OFM upgrade from 11.1.1.6.0 to 11.1.2.2.0)
17.2	P305 – Updated for November 15 Release
17.3	Incorporated the ELEXON review comments

1.5 Summary of Changes

Changes as indicated in the amendment history.

1.6 Changes Forecast

Agreed Change Requests will be incorporated.

1.7 References

Mnemonic	Information	Details
[ESMGDE]	Title: Version No: Author: Date:	EAC/AA System Management Guide 17.0 Cognizant 27 June 2013
[EOPSGDE]	Title: Issue No: Author: Date:	EAC/AA Operations Guide 18.0 Cognizant 27 June 2013
[ETSPEC]	Title: Issue No: Author: Date:	EAC/AA Physical Design Technical Specification 18.000 Cognizant 27 June 2013
[OFMING]	Title: Author: Date:	Oracle Fusion Middleware Installation Guide for Oracle Portal, Forms, Reports and Discoverer 11g Release 1 (11.1.1) Oracle Corporation 27 Jun 2013

1.8 Abbreviations

EAC/AA	Estimation of Annual Consumption / Annualised Advance
GSP	Grid Supply Point

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2 A New Installation of the Application Software

2.1 Installation Prerequisites

This section details the hardware and layered software platform required to install the software.

The media supplied comprises the following elements:

- Source and object CD or tape - contains source for both Database Server and Application Server; includes application executables and installation scripts for the Database Server and Solaris version of the Application Server.
- Windows Application Server Setup CD - suitable for installing on Windows 201203 Server, containing runtime forms application, and Application server configuration files.

The format of the tape and the directory listings of the tapes or CDs are detailed in the release notes accompanying the media.

Alternatively the contents of the CDs may be downloaded from an FTP site.

The Server is assumed to be a Sun computer, with the SPARC chip-set, running the Solaris 5.10 POSIX-compliant Operating System.

The installation as described in this guide must be performed using the Korn shell.

In order to install this software, it is assumed that the Oracle installation has been completed on the target server by the recipient organisation.

2.1.1 Hardware Prerequisites

The EAC/AA system comprises a POSIX server and a number of PC clients connected over a local area network, plus possibly an application server. Both 3-Tier and 2-Tier physical configurations are supported. An overview of the physical architecture for 3-Tier and 2-Tier is given in Figure 1 and Figure 1A respectively.

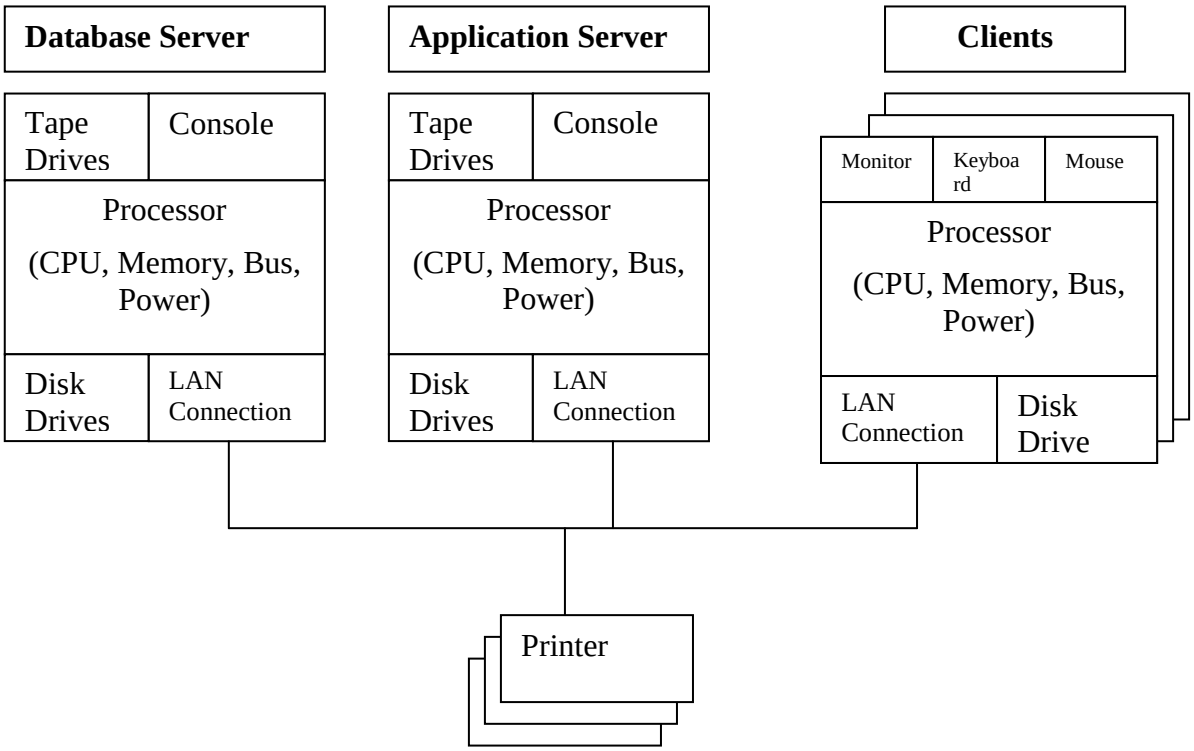


Figure 1: EAC/AA 3-Tier Physical Architecture

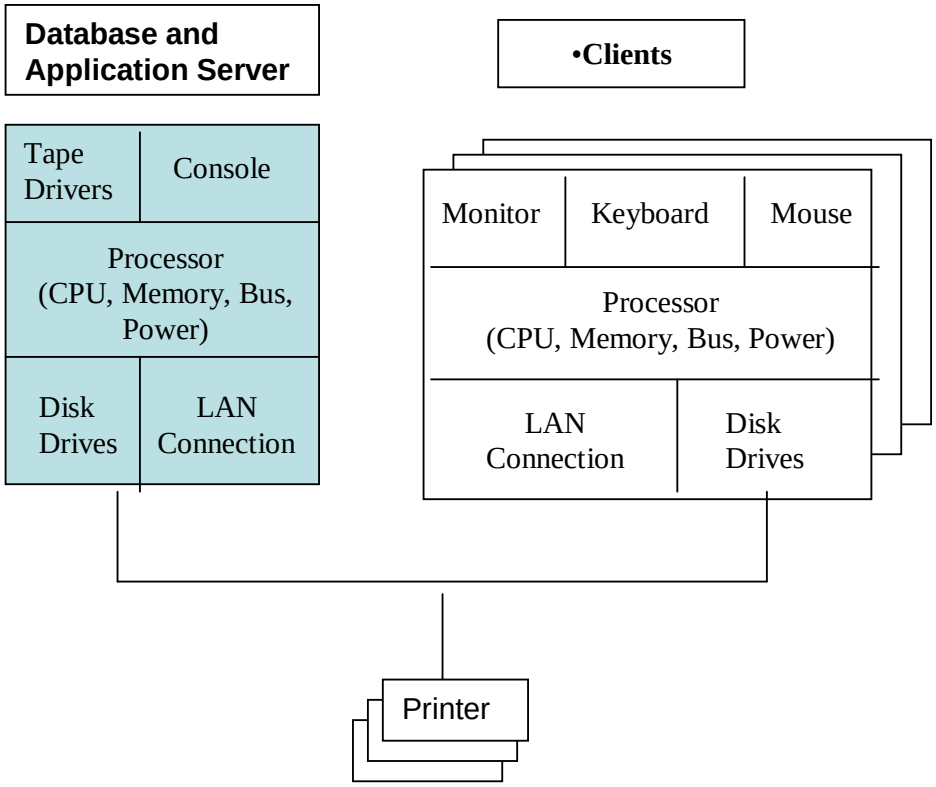


Figure 1A: EAC/AA 2-Tier Physical Architecture

The following comprises a list of the Minimum hardware required for EAC/AA 3-Tier and 2-Tier Application:

Server:

- POSIX-compliant server.

Application Server:

See [OFMING] for the Application Server running on Windows or Sun Solaris.

Client

- Any that runs an Operating System and Browser supported by Oracle Application Server.

Note: Use any Browser and Operating System in Client system, which is supported by the Oracle Application Server. Refer to the below link. http://www.oracle.com/technology/software/products/ias/files/fusion_requirements.htm.

2.1.2 Software Prerequisites

The EAC/AA system server runs an Oracle 11.2.0.3 or later database with bespoke software written in C and SQL.

For the physical 3-Tier application, the Application Server runs Oracle Forms 11G version 11.1.12.62.0 on either:

- Microsoft Windows 2012203 Server as well as Oracle Net Services to enable client - server communication

Sun Solaris UNIX Server, with the SPARC chip-set.

For the physical 2-Tier application, the Application Server runs Oracle Forms 11G version 11.1.1.6.0 on a Sun Solaris UNIX Server, with the SPARC chip-set.

The following patches should be applied to the OFM, for both Windows and Solaris: 14373988, 14003476, and 14736139. Details of these patches are given in Appendix G. An overview of the software architecture for 3-Tier and 2-Tier is given in Figure 2, Figure 2A and Figure 2B (on next 3 pages):

For information on the Solaris and DB patches refer to Appendix H and Appendix I.

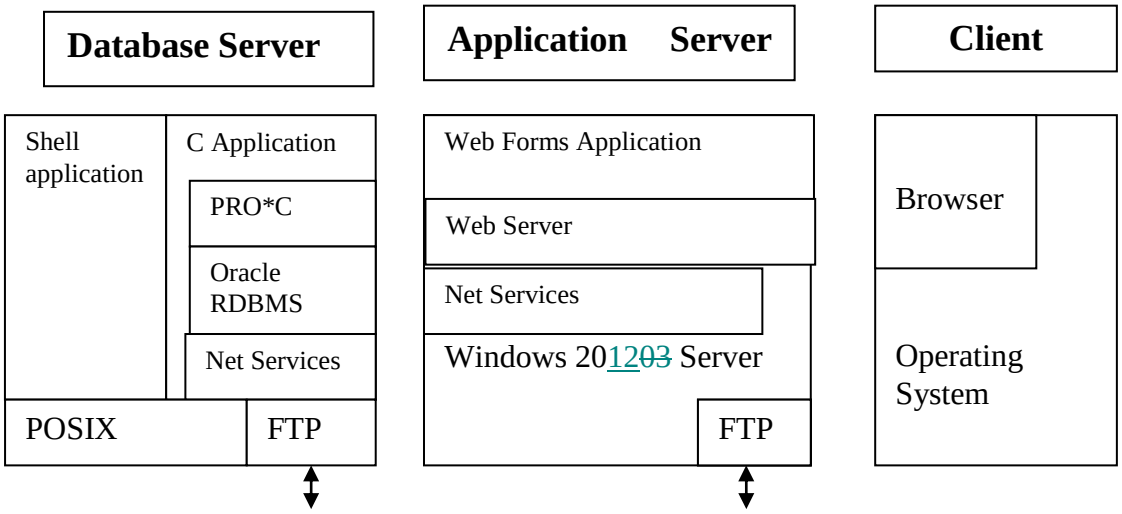


Figure 2: EAC/AA 3-Tier(Windows) Software Architecture

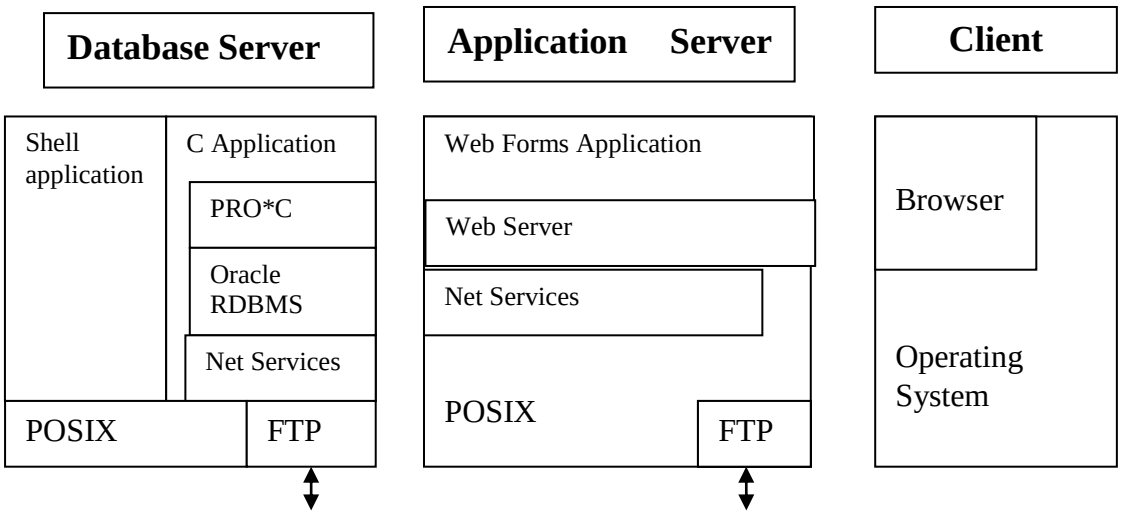


Figure 2A: EAC/AA 3-Tier(Unix) Software Architecture

The following table shows the software products used to support the EAC/AA 3-Tier application software.

Software Component	Host	Version
Operating System	Database Server	Compliant with POSIX standard 1003.1-1990 and POSIX 1003.1b-1993 (C language real time extension). Compliance with POSIX standard 1003.2-1992 for shell scripts. (C compiler compliant with ANSI X3.159-1989)
Application Server (Windows)		
Windows 2012003 Server	Application Server	Service Pack 2
Oracle Net Services	Application Server	11.1.0.7.0
Oracle Application Server Forms and Report Services	Application Server	11.1.21.26.0 plus patches listed in Appendix G. *Runtime deployment is included in original Oracle/Developer license for development*
Application Server (Unix)		
Oracle Net Services	Application Server	11.1.0.7.0
Oracle Application Server Forms and Report Services	Application Server	11.1.21.26.0 *Runtime deployment is included in original Oracle/Developer license for development*
Oracle Server (includes PL/SQL and Oracle Net Services)	Database Server	11.2.0.3
Pro*C runtime	Database Server	11.2.0.3*Runtime deployment is included in original Oracle/Developer license for development*
File Transfer Software	Server	FTP receive and send

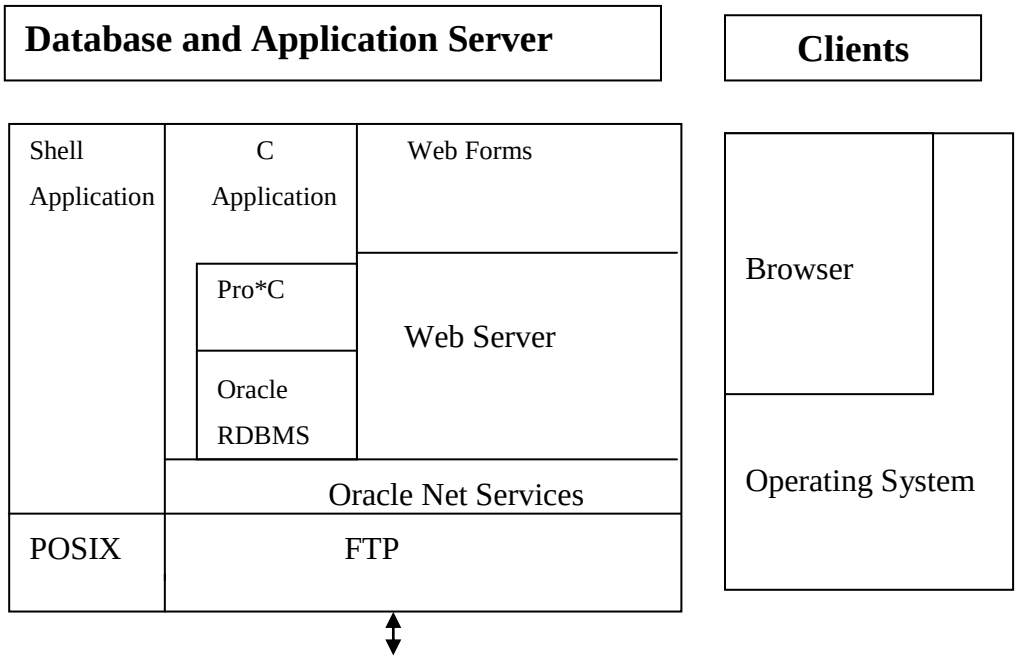


Figure 2B: EAC/AA 2-Tier Software Architecture

The following table shows the software products used to support the EAC/AA 2-Tier application software.

Software Component	Host	Version
Operating System	Database and Application Server	Compliant with POSIX standard 1003.1-1990 and POSIX 1003.1b-1993 (C language real time extension). Compliance with POSIX standard 1003.2-1992 for shell scripts. (C compiler compliant with ANSI X3.159-1989)
Oracle Server (includes PL/SQL)	Database Server Application Server	11.2.0.3 11.1.1.6.0 plus patches listed in Appendix G
Oracle Net Services	Database Server and Application Server	11.1.0.7.0
Pro*C runtime	Database and Application Server	11.2.0.3*Runtime deployment is included in original Oracle/Developer license for development*
Oracle Application Server Forms and Report Services	Database and Application Server	11.1.1.6.0 plus patches listed in Appendix G *Runtime deployment is included in original Oracle/Developer license for development*

2.2 Installation Steps for the Server machine

2.2.1 Overview

The Server should have the hardware configuration described in section 2.1.1. It should have all the prerequisite software installed, described in section 2.1.2.

Additionally, it is necessary to configure the existing products. This configuration is detailed in subsequent sections.

A system manager with 'root' privileges is required to set up the following users:

- Set up an Operating System user account with Oracle 'dba' group access privileges if there is not one already. This is referred to as the "Oracle User" in this document. For example:

  username: oracle

  password: Oracle

- Set up an Operating System user account "EAC/AA Owner" who starts the File Receipt Manager and Scheduler. Because all the background EAC/AA processes are started via the scheduler, it is this user who starts these processes too. For example:

  username: eacaa

  password: Eacaadb

  This user also owns all the EAC/AA database tables via an Oracle user account which is identified externally.

The "Oracle User" and "EAC/AA Owner" should be familiar with the target host and its Operating System and the use of Oracle.

2.2.2 Operating System Configuration

This section describes the steps that need to be carried out with respect to the Operating System.

2.2.2.1 Environmental Variables

The .profile files of the users should contain the environment variables listed in appendix A, together with the standard variables needed for Oracle users. An example .profile is shown in Appendix B.

2.2.2.2 Directory Structure

A directory structure is created on installation. The names of these subdirectories match the values held in the EAC/AA database in the edb_ref_domains table for domain code 'LOCS'. The directories also match the specification of the $EACAA and $EACAA_CNTL_DIR environment variables.

A directory is created to hold the EAC/AA executables. This is $EACAA/bin to be consistent with the data to be set up in the EAC/AA system tables for the pathname of the executables.

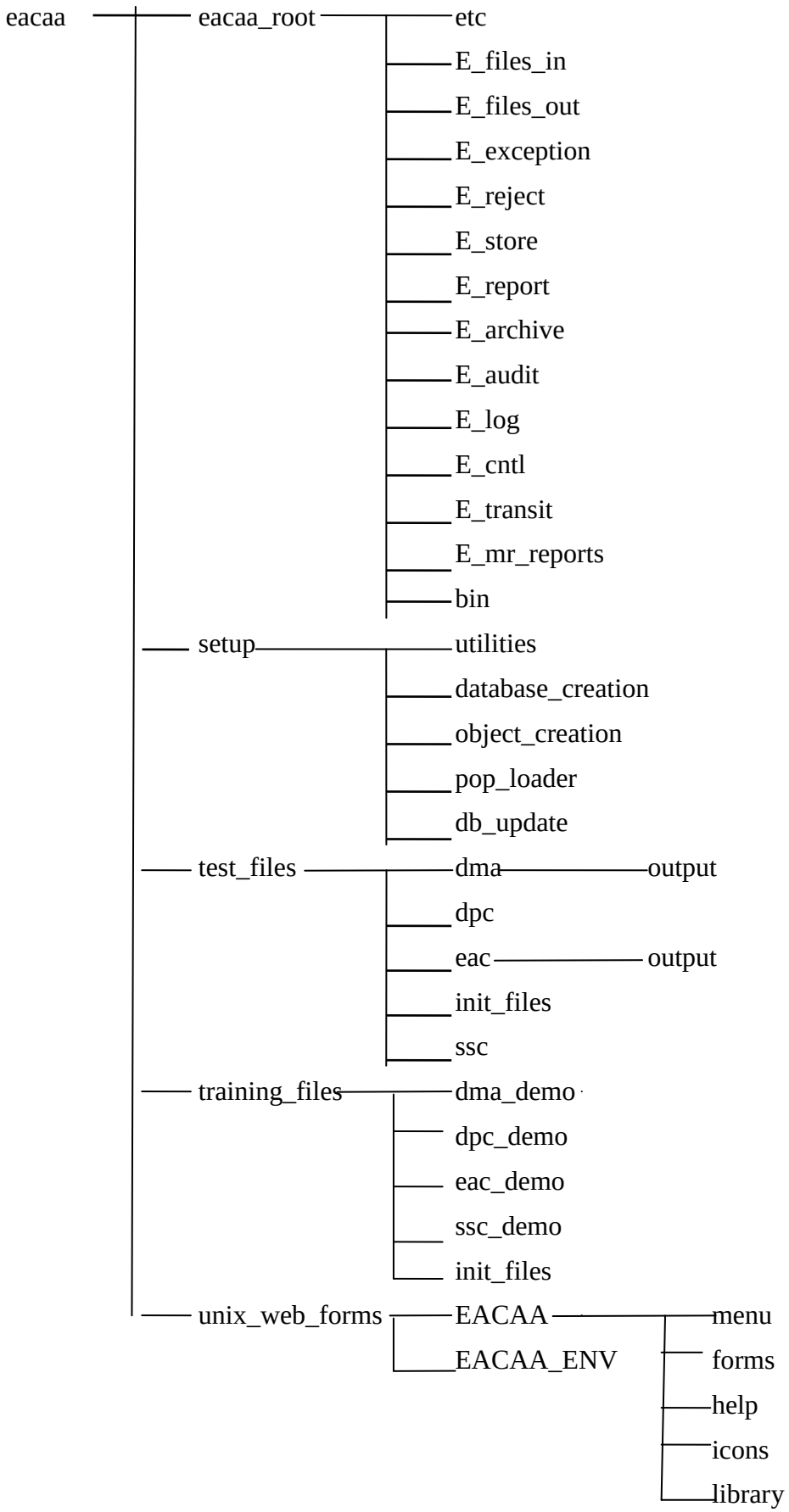
A ‘setup’ directory structure is created to hold the installation setup scripts. A test_files directory is created to hold the files required for the Installation Verification tests, and a training_files directory is created to hold the files required for the training course exercises.

For further information about the environment variables and directories, refer to the EAC/AA System Management Guide.

The directory structure is created as shown below (where ‘eacaa’ is the $EACAA_HOME directory – this may be the home directory of the EAC/AA Owner user or a subdirectory of the home directory - and ‘eacaa/eacaa_root’ is the $EACAA directory):

Figure 2: EAC/AA Directory Structure - including setup tree

(on next page)


eacaa
eacaa_root
etc
E_files_in
E_files_out
E_exception
E_reject
E_store
E_report
E_archive
E_audit
E_log
E_cntl
E_transit
E_mr_reports
bin
setup
utilities
database_creation
object_creation
pop_loader
db_update
test_files
dma
output
dpc
eac
output
init_files
ssc
training_files
dma_demo
dpc_demo
eac_demo
ssc_demo
init_files
unix_web_forms
EACAA
menu
forms
help
icons
library
EACAA_ENV

2.2.3 Installation media

The server software will be downloaded from an FTP Site or else installed from a CD or magnetic tape. The server software consists of the Pro*C executable, installation scripts, and the Solaris version of the web forms.

2.2.4 Software Installation

The installation should be performed by the "EAC/AA Owner" user, using the Korn shell. It is not necessary to set the umask. Extract the contents of the tape or CD to the home directory of the batch O/S user.

There should be only one file extracted,

eacaa_setup_solaris_<Release_Number>.

Where <Release Number> is of the form n_n_n

NOTE: For the remainder of this document, when referenced generally, this script will be referred to generically as eacaa_setup_solaris.

This file is a self extracting executable which should be run to create all the eacaa directory structure and executable files. This routine will carry out the installation in the 'runtime' directory. The 'runtime' directory must be created before the eacaa_setup_solaris routine is run. It is suggested that the name of the directory is related to the version number of the EAC/AA software to allow different versions of the software to co-exist on the same machine for testing etc. You should ensure that the self-extracting file has execution privileges before trying to expand it.

To self-inflate the file, type:

eacaa_setup_solaris_<Release_Number>

Reset the 'runtime' directory, Oracle home directory and Oracle instance as necessary when prompted.

If the 'runtime' directory is named eacaa_V1, then the executables will be in eacaaa_V1/eacaa_root/bin.

The PATH environment variable of the EAC/AA Owner user must be altered to include the full file specification of this bin directory.

Ensure that the $EACAA_HOME environment variable is set in the .profile file to the value used for the 'runtime' directory, and that the $EACAA environment variable is set to $EACAA_HOME/eacaa_root.

2.2.4.1 File Permissions

The "EAC/AA Owner" user is the only user who needs to access all the files stored under $EACAA. The "Oracle User" requires access to certain directories:

- The "Oracle User" must be allowed to write to the E_audit directory. The simplest way to do this is to set the E_audit directory permissions as world-writeable using:

  cd $EACAA

  chmod a+wx E_audit

- The "Oracle User" must also be allowed to write to the database_creation, object_creation and db_update directories which are used at installation time and upgrade time respectively. The simplest way to do this is to set the directory permissions using:

  cd $EACAA_HOME/setup

  chmod a+wx database_creation

  chmod a+wx object_creation

  chmod a+wx db_update

- The "Oracle User" must be allowed to read the E_exception and E_report directories. The simplest way to do this is to set the E_audit directory permissions as world-readable using:

  cd $EACAA

  chmod a+rx E_exception

  chmod a+rx E_report

Only the "EAC/AA Owner" user needs to execute the executables.

In general, no special user group requirements exist. However, the user will need to be assigned to a specific user group if one or both of the following are required:

- implementation of UNIX security, for which having the EAC/AA Owner User in a different user group would be beneficial;
- the user is required to manage start-up and shutdown of the database, in which case that user has to belong to a special user group (DBA user group).

2.2.5 Oracle Database Configuration

2.2.5.1 Introduction

The contents of the Oracle parameter file and the database creation script depend on the target environment, so it is only possible to provide *examples* of these.

The system manager must set up his own Oracle parameter file and database creation script and use them to create the database before running the scripts provided which set up the database objects.

2.2.5.2 The Oracle Parameter File

The instance name is assumed to be 'eacaa', hence the example parameter file provided in directory database_creation is:

`initeacaa.ora`.

The following non-standard parameters are set up in the initeacaa.ora file:

utl_file_dir – should be set to * to give access to any directory to which the Oracle user has the appropriate Operating System permissions. For an alternative approach to setting utl_file_dir, see section 2.2.5.3

resource_limit – should be set to TRUE to enable the resource attributes such as SESSIONS_PER_USER of PROF_EACAA profile to take effect.

event = '10943 trace name context level 2097152' – To initialize the collections and subcollections which are not initialized by default

diagnostic_dest = /opt/app/oracle

The following non-standard parameters are commented out in the initeacaa.ora file as these parameters are deprecated from 11g Release of Oracle Database.

Core_dump_dest (replaced by diagnostic_dest)

Background_dump_dest (replaced by diagnostic_dest)

User_dump_dest (replaced by diagnostic_dest)

remote_os_authent (deprecated)

The parameter file also requires directories to hold the control files and log files. The additional directories match the directories specified in the initeacaa.ora file. Login as the "Oracle User" and create this directory on disk '/usr01' if not already created:

/usr01/EACAA_DB/oradata/eacaa

The directories bdump,cdump,udump are not required as the parameters relating to these directories are deprecated and replaced by the parameter diagnostic_dest from 11g onwards.

/usr01/EACAA_DB/trace/bdump

/usr01/EACAA_DB/trace/cdump

/usr01/EACAA_DB/trace/udump

Copy the initeacaa.ora file from the database_creation directory to $ORACLE_HOME/dbs. Change directory to the 'runtime' directory created in section 2.2.4 then move to the sub-directory:

cd $EACAA_HOME/*setup/database_creation*

then type:

cp initeacaa.ora $ORACLE_HOME/dbs

2.2.5.3 Alternative setting of utl_file_dir parameter

Setting utl_file_dir to * in initeacaa.ora is the simplest approach for specifying which directories Oracle may access, and this is adopted in the example file delivered. An alternative is to list only the 3 individual directories that Oracle needs to access for the EAC/AA application. This list of directories can be obtained from the EAC/AA database. First obtain the identity of the EAC/AA root directory using this SQL:

select eacaa_root_dir from edb_system_configuration;

The three sub-directories within this directory to which access is required are then obtained by this SQL:

select value_to from edb_ref_values

where domain_code='LOCS' and value_from in ('3','4','5');

(Ignore the filename at the end of the 3rd directory obtained – if the default installation has not been changed, the 3 directories will be E_exception, E_report, E_audit).

The three values to which utl_file_dir must be set are the full directory paths obtained by appending these three directories to the EAC/AA root directory.

2.2.5.4 The Database Creation Script

The example database creation script provided is:

`cre_db.sql`.

The following directories are required for the tablespace files in this script. Login as the "Oracle User" and create the directories on the different disks as specified if not already created:

/usr01/EACAA_DB/oradata/eacaa

/usr02/oradata/eacaa

/usr03/oradata/eacaa

/usr04/oradata/eacaa

/usr05/oradata/eacaa

/pcstore/oradata/eacaa

The following tablespaces are referenced by name in the database object creation scripts and must be created in this script:

USERS - Holds all the EAC/AA database tables.

USERS_PK_INDEXES - Holds all the EAC/AA primary key indexes.

USERS_FK_INDEXES - Holds all the EAC/AA foreign key indexes.

The script creates tablespaces for a database designed to hold 140,000,000 Daily Profile Coefficients. These are distributed across the disks as necessary depending on the target hardware configuration. These should be reduced proportionately if a smaller database is required. Details of the

database environment used in the original development of EAC/AA and the resulting performance are given in Appendix C.

The following scripts provided by the Oracle distribution kit are also run from within cre_db.sql:

```
@$ORACLE_HOME/rdbms/admin/catalog.sql
@$ORACLE_HOME/rdbms/admin/catproc.sql
@$ORACLE_HOME/sqlplus/admin/pupbld.sql
@$ORACLE_HOME/rdbms/admin/dbmspool.sql
```

For the last of these scripts a public synonym is created:

```
create or replace public synonym
dbms_shared_pool for sys.dbms_shared_pool;
```

These lines are provided in the example database creation script.

The database creation script should also invoke the Forms Security SQL script. This SQL script is delivered as part of the EAC/AA software in the setup/object_creation directory, named frmsec.sql.

The frmsec.sql script must be run by the Oracle 'system' database user. A line to do this is provided in the example database creation script. Note that the file frmsec.sql needs to be copied to the same directory as the database creation script.

This script should be run by the "Oracle User". See section 2.2.1 for information about this user.

Change directory to the 'runtime' directory created in section 2.2.4 and then move to the sub-directory:

cd *setup/database_creation*

Ensure that the ORACLE_SID environment variable is set appropriately (see section 2.2.2.1 for information about environment variables) and connect to the database using the sysdba oracle account. Type:

sqlplus "/ as sysdba"

At the prompt type:

@cre_db

Check the dbcreate.log file for details of the script's execution.

2.2.5.5 Creating the EAC/AA Database Users, Roles and Objects

Two scripts are provided. The first script is run by the "Oracle user":

```
edb_create_users_and_grant_roles
```

The second script is run by the "EAC/AA Owner" user

```
edb_db_install
```

These scripts are described in the following sections, 2.2.5.5.1 - 2.2.5.5.4. The instructions for running the scripts are in section 2.2.5.5.5

2.2.5.5.1 Users and Roles

The edb_create_users_and_grant_roles script sets up the EAC/AA roles and users. Roles with the following names are set up:

- eac_ops_supervisor;
- eac_sys_operator;
- eac_sys_auditor;
- eac_sys_manager;
- developer.

The first four roles are assigned appropriate privileges in the script. The script sets up one example user for each of these four roles. In addition, the script creates a role 'developer' to which is assigned the "EAC/AA Owner" user, who owns all the database objects. The "EAC/AA Owner" user is assigned appropriate privileges. The standard Oracle 'public' role is also assigned privileges that apply to all users.

The roles and users are created in the edb_create_users_and_grant_roles script by calling the eacusers.sql script. This script can be customised as is appropriate for the installation, e.g. by creating additional users or users who have more than one role.

2.2.5.5.2 Profile

The edb_create_users_and_grant_roles script also calls the eacaa_profile.sql script. This creates an Oracle profile named 'prof_eacaa' with the following attributes:

```
PASSWORD_LIFE_TIME      90
PASSWORD_GRACE_TIME     5
PASSWORD_REUSE_TIME     UNLIMITED
PASSWORD_REUSE_MAX      10
FAILED_LOGIN_ATTEMPTS   4
PASSWORD_LOCK_TIME      UNLIMITED
SESSIONS_PER_USER       5
```

This script can be customised to define different attributes. Refer to Oracle documentation for an explanation of these attributes.

The 'prof_eacaa' profile is assigned to each of the example users by the eacusers.sql script. It is also assigned to any users created by the User Management screen in the EAC/AA front end.

2.2.5.5.3 Database Objects

The edb_db_install script also creates all the database objects needed to run EAC/AA. This includes the EAC/AA tables, constraints, indexes, views, sequences and packages, as well as the synonyms that enable the EAC/AA

users to “see” the database objects which are in the schema created by the “EAC/AA Owner” user.

2.2.5.5.4 Pre-defined Data

The edb_db_install script also populates the database tables with the pre-defined data necessary for the system to run. This excludes the tables needing manual population or update, as described in section 2.2.5.7 of this document. The following tables contain standing data which must be populated as part of installation:

- edb_ref_domains
- edb_ref_values
- edb_messages
- edb_procedure_codes
- edb_system_configuration
- edb_report_type
- edb_record_info
- edb_field_info
- edb_field_headers
- edb_tolerance_values

Example Oracle SQL Loader files are provided to populate these tables and are called by edb_db_install as part of the installation procedure. Edit the loader files as required:

`redo.txt` - edb_ref_domains

`reva.txt` - edb_ref_values

`prco.txt` - edb_procedure_codes

`mess.txt` - edb_messages

`syco_a.txt` - edb_system_configuration (for automatic mode)

`syco_m.txt` - edb_system_configuration (for manual mode)

`rety.txt` - edb_report_type

`rein.txt` - edb_record_info

`fiin.txt` - edb_field_info

`fihe.txt` - edb_field_headers

`tolv.txt` - edb_tolerance_values

edb_ref_domains and **edb_ref_values** - these contain lists of values for a number of domains:

MARO - market roles - the descriptions of the market roles, which need to be maintained to match edb_market_participant_roles

FCCO - file content codes - should not be changed.

SECO - settlement codes.

RTCO - run type codes.

POLL – this domain contains four values: 1) the frequency with which the EAC/AA scheduler process polls; 2) the frequency with which the EAC/AA file receipt manager process polls; 3) the frequency with which the Ad Hoc Deemed Meter Reading Calculation form checks for calculation completion; 4) the number of such checks after which the Ad Hoc Deemed Meter Reading Calculation form displays a message asking whether the user wishes to continue waiting. It is recommended not to change these values at installation time.

LOCS - the names of the directories under $EACAA used by the system. These must match the names of the actual directories created. One entry in this list gives both the directory name and the filename of the Smoothing Parameter audit log file.

DFST - the possible data file statuses and their descriptions. These should not be changed.

SYS - system data. These should not be changed.

ARCH - audit parameters. Two parameters which control the number of days for which the database records referring to Control Reports and Exception Reports are retained in the database. The installation value of each parameter is 90 days, and these may be changed.

edb_messages - the codes and text for all the messages that can be generated by the EAC/AA forms. The text of these messages may be changed if desired.

edb_procedure_codes - information on the EAC/AA background processes. This information should not be changed at installation time.

edb_system_configuration - this should be changed to contain the market participant id of the organisation running the EAC/AA system.

edb_report_type - report formatting information used in converting machine-readable reports to human-readable reports. This information should not be changed.

edb_record_info - report formatting information used in converting machine-readable reports to human-readable reports. This information should not be changed.

edb_field_info - report formatting information used in converting machine-readable reports to human-readable reports. This information should not be changed.

edb_field_headers - report formatting information used in converting machine-readable reports to human-readable reports. This information should not be changed.

edb_tolerance_values - details of the Annualised Advance Tolerance Values. These can be changed if required to reflect the high and low tolerance values for each GSP Group and Profile Class.

2.2.5.5.5 Executing the Scripts

Log on as the "Oracle user", and ensure that the $ORACLE_SID environment variable is set to the correct database. Change directory to the 'runtime' directory created in section 2.2.4 and then move to the sub-directory:

cd $EACAA_HOME/setup/object_creation

Then type:

edb_create_users_and_grant_roles

The script prompts for the following information:

- the Oracle username of the "EAC/AA Owner" user. This must be the same as the UNIX username of the EAC/AA O/S user

On completion of the script, check the script output on screen for errors. If this is a reinstallation, ignore any errors caused by users and roles being already present.

Log on as the "EAC/AA Owner" user. Change directory to the $EACAA_HOME/setup/object_creation directory. Then type:

edb_db_install

The script prompts for the following information:

- the Oracle SID as set up in the initeacaa.ora file
- the username of the "EAC/AA Owner" user.
- the system mode ('M' for Manual or 'A' for Automatic) in which the EAC/AA system will run

On completion of the script, check the log file install.log for errors.

After running the script, it is recommended that the database is shutdown and restarted. If this is not done before the application is started, it is possible that gaps in sequence numbers will occur, until the database is shutdown and restarted for the first time.

2.2.5.6 Forms Menu Security

In order to enable Menu Security features for EAC/AA forms the following script must be run:

Connect to the database using the system oracle account. Type:

sqlplus system/<password>

Run the script:

@frmsec

2.2.5.7 Tables Needing Manual Population or Update

The following data is not included in the automatic installation and must be provided before the system is run:

- **edb_market_participants** - contains the Market Participant Ids and corresponding names.
- **edb_market_participant_roles** - matches the Market Participant Ids to the Market Roles they take up.

Example Oracle SQL Loader files are provided which could be used to populate these tables:

`mapa.txt` - edb_market_participants

`mapr.txt` - edb_market_roles

2.2.5.8 Network Files

Login as the "Oracle User".

Add the Oracle instance name to the file:

`/etc/oratab`

so that the standard Oracle startup and shutdown scripts can be used for it.

Add the line:

*eacaa:/usr02/app/oracle/product/*11.2.0.3*:Y*

Then edit the files:

`$ORACLE_HOME/network/admin/listener.ora`

`$ORACLE_HOME/network/admin/tnsnames.ora`

to include the instance so that the client PCs can access the instance via Oracle Net Services.

Edit the file:

`$ORACLE_HOME/network/admin/sqlnet.ora`

Add the line:

bequeath_detach=yes

2.2.5.9 Starting the Listener

Logged on as the "Oracle User", type in the command:

lsnrctl<CR>

If the listener is not running, type: *start<CR>*

Else, if the listener is running, type:

reload<CR>

2.3 Installation Steps for the Application Server

A number of prerequisite products must be set up on the Application Server. These are discussed in section 2.1.2. Additionally, the Database Server installation should be carried out before the Application Server Installation.

The installation of Oracle Fusion Middleware (OFM) Forms and Report Services is discussed in [OFMING] (Windows or Solaris).

2.3.1 Installation media

The Application Server software will be downloaded from an FTP Site or installed from CD. All the EAC/AA files needed for the server installation are included.

2.3.2 Steps to install the 3-Tier Application from the CD

EACAA Directory:

Instructions for creating the EACAA directory, and copying all the files from the CD to the EACAA directory:

Files/Directories	Description
EACAA	Create the EACAA directory in the root directory of the drive where Oracle Application Server is installed (or you may choose another directory name but the instructions assume the directory is named EACAA). For example, if the OFM is installed in D drive, the EACAA directory should be created under the D drive like D:\EACAA. If multiple environments are required for different test system, create multiple directories like EACAA1, EACAA2 etc.,
Forms	Copy the EACAA\Forms directory with its contents from the CD to the EACAA directory.
Library	Copy the EACAA\Library directory with its contents from the CD to the EACAA directory.
Icons	Copy the EACAA\Icons directory with its contents from the CD to the EACAA directory.
Menu	Copy the EACAA\Menu directory with its contents from the CD to the EACAA directory.
Help	Copy the EACAA\Help directory with its contents from the CD to the EACAA directory.

EACAA Env Directory:

Instructions for copying the EACAA ENV directory files from the CD to beneath the <ORACLE_HOME> directory, where <ORACLE_HOME>

represents the Oracle Home directory where Oracle Application Server is installed:

In the below example, the directory structure has the below notations.

- <MW_HOME> denotes the Middleware Home directory. For example: D:\oracle\Middleware11gR1
- <DOMAIN_NAME> denotes the domain name created during the OFM configuration. For example: ELXON
- <ORACLE_INSTANCE> denotes the Oracle instance directory of the OAS. For example: D:\oracle\Middleware11gR1\asinst_1

Files/Directories	**Description**
eacaa.env	Copy the EACAA ENV\eacaa.env file from the CD to the <MW_HOME>\user_projects\domains\<DOMAIN_NAME>\config\fmwconfig\servers\WLS_FORMS\applications\formsapp_11.1.1\config directory on the application server. If multiple environments are required for different test systems, create multiple copies of this file e.g. named eacaa1.env, eacaa2.env
eacaaRegistry.dat	Copy the EACAA ENV\eacaaRegistry.dat file from the CD to the <MW_HOME>\user_projects\domains\<DOMAIN_NAME>\config\fmwconfig\servers\WLS_FORMS\applications\formsapp_11.1.1\config\forms\registry\oracle\forms\registry directory
formsweb.cfg	• If the formsweb.cfg file does not exist in the <MW_HOME>\user_projects\domains\<DOMAIN_NAME>\config\fmwconfig\servers\WLS_FORMS\applications\formsapp_11.1.1\config directory: Copy the EACAA ENV\formsweb.cfg file from the CD to the <MW_HOME>\user_projects\domains\<DOMAIN_NAME>\config\fmwconfig\servers\WLS_FORMS\applications\formsapp_11.1.1\config directory on the application server. • If the formsweb.cfg file exists in the <MW_HOME>\user_projects\domains\<DOMAIN_NAME>\config\fmwconfig\servers\WLS_FORMS\applications\formsapp_11.1.1\config directory, add the lines below to the end of that file. [eacaa]

	lookandfeel=Generic colorScheme=Gray background=eacaa envFile=eacaa.env form=eacaa.fmx width=840 height=652 separateFrame=TRUE ImageBase=codeBase serverApp=eacaaRegistry (omit the separateFrame=TRUE line if you do want the forms application to run on a separate browser window) If multiple environments are required, create multiple sections containing these lines, named e.g. [eacaa1] [eacaa2] etc – one for each .env file and change the respective .env file name assigned in the parameter **envFile** given above.
forms.conf	• If the forms.conf file does not exist in the <ORACLE_INSTANCE>\config\OHS\ohs1\moduleconf directory: Copy the EACAA ENV\forms.conf file from the CD to the <ORACLE_INSTANCE>\config\OHS\ohs1\moduleconf directory on the application server. • If the forms.conf file exists in the <ORACLE_INSTANCE>\config\OHS\ohs1\moduleconf directory, add the lines below to the end of that file. # BEGIN EACAA CONFIG RewriteRule ^/forms/eacaa_help/(..*) /eacaa_help/$1 [PT] AliasMatch ^/eacaa_help/(..*) "D:\eacaa\Help\$1" WLExcludePathOrMimeType /forms/eacaa_help RewriteRule ^/forms/eacaa_reports/(..*) /eacaa_reports/$1 [PT] AliasMatch ^/eacaa_reports/(..*) "D:\eacaa\Reports\$1" WLExcludePathOrMimeType /forms/eacaa_reports # END EACAA CONFIG • If multiple environments are configured, these lines should be updated by suffixing the environment number as given below. # BEGIN EACAA1 CONFIG RewriteRule ^/forms/eacaa1_help/(..*) /eacaa1_help/$1 [PT] AliasMatch ^/eacaa1_help/(..*) "D:\eacaa1\Help\$1" WLExcludePathOrMimeType /forms/eacaa1_help

	RewriteRule ^/forms/eacaa1_reports/(..*) /eacaa1_reports/$1 [PT] AliasMatch ^/eacaa1_reports/(..*) "D:\eacaa1\Reports\$1" WLExcludePathOrMimeType /forms/eacaa1_reports # END EACAA1 CONFIG
plan.xml	• This file can be found under the directory <DOMAIN_HOME>\deploymentplans\formsapp\11.1.1 • This file maps the relative path given in the files forms.conf and eacaa.env • Under <variable-definition> add below entry: In the below entry, ensure that the <value> tag is mapped to the directory where EACAA directory is created. <variable> <name>vd-d:\</name> <value>d:\</value> </variable> • Under <module-descriptor external="false"> add below entry: In the below entry, ensure that the url-pattern is set to the directory where the help and reports directories were created. <variable-assignment> <name>vd-d:\</name> <xpath>/weblogic-web-app/virtual-directory-mapping/[url-pattern="eacaa/reports/*"]/local-path</xpath> </variable-assignment> <variable-assignment> <name>vd-d:\</name> <xpath>/weblogic-web-app/virtual-directory-mapping/[url-pattern="eacaa/help/*"]/local-path</xpath> </variable-assignment> Note: The above changes are mapping the reports and help directories correctly. The value given in the <value> tag and url-pattern should form the help and reports directories.

svaicons Directory:

Instructions for creating the svaicons directory and copy .gif files:

Files/Directories	Description
Svaicons	Create the directory svaicons in the <ORACLE_ HOME>\forms\java directory.
eacaa.gif	Copy the EACAA\Icons\eacaa.gif file to the <ORACLE_HOME>\forms\java directory
Icons	Copy all the files (including eacaa.gif) from the EACAA/Icons directory to the <ORACLE_HOME>\forms\java\svaicons directory.

fmrweb.res File:

Instructions for maintaining the key mappings same as forms 6i:

fmrweb.res	Rename the <ORACLE_INSTANCE>\config\FormsComponent\forms\fmrweb.res file to <ORACLE_INSTANCE>\config\FormsComponent\forms\fmrweb_orig.res, and then copy <ORACLE_INSTANCE>\config\FormsComponent\forms\fmrpcweb.res to <ORACLE_INSTANCE>\config\FormsComponent\forms\fmrweb.res.

forms.conf File:

Instructions for customising the contents of file <forms.conf >.

Keyword	Description
/forms/html/	Change the default directory D:\oracle\Middleware11gR1\asinst_1 to reflect the correct oracle home of OFM.
/forms/eacaa_help	Change the default directory D:\eacaa\Help to specify the correct location of EAC/AA help files.
/forms/eacaa_reports	Change the default directory D:\eacaa\Reports to specify the location where EAC/AA report files are stored.
WebLogicHost	Change the default Web logic Host CTSINTBMVELX3.cts.com to specify the host where the web logic server is hosted.

WebLogicPort	Change the default web logic port number 9007 to the correct web logic port number which would have been chosen during the OFM installation.

EAC/AA Reports Directory:

Instructions for creating the reports directory which is used to store EAC/AA report files, generated from the EAC/AA application.

Files/Directories	Description
reports	Create the reports folder as specified in the /forms/eacaa_reports alias in the forms.conf file to store the reports generated from the application. If different folders are required for different environments, create sub-folders e.g. with the same names as the environments, eacaa1, eacaa2 etc

formsweb.cfg File:

Instructions for customising the contents of file <formsweb.cfg>.

Keyword	Description
Global Change	Replace all occurrences of D:\oracle\Middleware11gR1\Forms11g with the correct Oracle Home if exists.

eacaa.env File:

Instructions for customising the contents of file <eacaa.env>. If there are multiple environments, then each may be customised with different values.

Keyword	Description
ORACLE_HOME	Change the default directory D:\oracle\Middleware11gR1\Forms11g to reflect the correct oracle home of OFM.
ORACLE_INSTANCE	Change the default directory D:\oracle\Middleware11gR1\asinst_1 to reflect the correct oracle instance of OFM.
FORMS_PATH	Change the default directory D:\oracle\Middleware11gR1\Forms11g\ to reflect the correct oracle home of OFM. Change the default directory D:\oracle\Middleware11gR1\asinst_1 to reflect the correct oracle instance of OFM. Also if the EACAA folder was not created on D:\ or it was given a different name, then replace all the occurrences of D:\EACAA with the folder where

	the EACAA folder was created.
CLASSPATH	Change the default directory D:\oracle\Middleware11gR1\Forms11g to reflect the correct oracle home of OFM.
PATH	Change the default directory D:\oracle\Middleware11gR1\Forms11g to reflect the correct oracle home of OFM. Also if the EACAA folder was not created on D: or it was given a different name, then replace all the occurrences of D:\EACAA with the folder where the EACAA folder was created.
FORMS	Change the default directory D:\oracle\Middleware11gR1\Forms11g\ to reflect the correct oracle home of OFM.
FORMS_RESTRICT_ENTER_QUERY	By default this parameter is set to TRUE. When it is set to TRUE, Oracle Forms limits the types of query criteria that can be entered when in Enter-Query mode. In general, it disallows the use of: • conjunctions (AND, OR) • keywords which modify parts of the SELECT statement outside of the WHERE clause (ORDER BY), • All functions, including SQL functions (LENGTH, TO_CHAR, LPAD, SUBSTR). Also, the Query/Where window is unavailable when set to TRUE. If the users need the freedom to enter these types of criteria, add a line to the eacaa.env file, setting the parameter to FALSE.
EP98EREPPATH	This should not be changed from /forms/eacaa_reports/ which is an alias defined in the forms.conf file. if multiple environments are configured, it should be updated by suffixing the environment number (as defined in the forms.conf file) e.g., /forms/eacaa1_reports/
EP98ETEMP	Change to specify the reports path. It must match the /forms/eacaa_reports alias match entry in the forms.conf file, e.g. D:\eacaa\Reports. If EP98EREPPATH is defined for multiple environment, then the same sub-folder name must be added to this variable as given in the forms.conf

	file , e.g.. D:\eacaa1\Reports
EP98EHELP	Change to specify the help files path. It must match the /forms/eacaa_help alias match entry in the forms.conf file.
host_address	Change the host_address entry to reflect the Host address of OFM.
EP98EFILEEXT	Change the default value .eac to specify the extension to be used for displaying EAC/AA Reports. (The advantage of using an extension such as .eac which is unique to EAC/AA is that there is complete freedom to configure how this extension is opened on the clients.)
EP98EPORTPRTEXT	Change the default value .por to specify the extension to be used for EAC/AA Reports which are printed portrait. (The advantage of using an extension such as .por which is unique to EAC/AA is that there is complete freedom to configure how this extension is opened on the clients.)
EP98ELANDPRTEXT	Change the default value .lnd to specify the extension to be used for EAC/AA Reports which are printed landscape. (The advantage of using an extension such as .lnd which is unique to EAC/AA is that there is complete freedom to configure how this extension is opened on the clients.)
EP98PRINTW	Do not change the default value of 132 – this is used to control whether reports are printed portrait or landscape.
EP98EVERS	Do not change this line.

N.B. Restart Oracle Application Server after modifying all configuration files.

2.3.3 Steps to install the 2-Tier Application

The UNIX web forms software is delivered as part of the database server software bundle. Once section 2.2.4 Software Installation has been run, the web forms files will be found in the $EACAA_HOME/unix_web_forms directory.

EACAA Directory:

The instructions in the table below are for creating the EACAA directory, and copying all the files from the $EACAA_HOME/unix_web_forms directory to a new directory named EACAA. Note that it is possible to leave the files in the location where they are delivered – in which case, omit

the instructions in this table and then the directory referred to as /oradata/sva/EACAA in subsequent sections is the $EACAA_HOME/unix_web_forms/EACAA directory. Ensure that the oracle user has read and execute permissions on the files under this directory.

Files/Directories	Description
EACAA	Create /oradata/sva/EACAA directory on the unix server where Oracle Application Server is installed (or you may choose another directory name but the instructions assume the directory is named /oradata/sva/EACAA).
forms	Copy the EACAA/forms directory from $EACAA_HOME/unix_web_forms to /oradata/sva/EACAA directory.
library	Copy the EACAA/library directory from $EACAA_HOME/unix_web_forms to /oradata/sva/EACAA directory.
icons	Copy the EACAA/icons directory from $EACAA_HOME/unix_web_forms to /oradata/sva/EACAA directory.
menu	Copy the EACAA/menu directory from $EACAA_HOME/unix_web_forms to /oradata/sva/EACAA directory.
help	Copy the EACAA/hHelp directory from $EACAA_HOME/unix_web_forms to /oradata/sva/EACAA directory.

EACAA_ENV Directory:

Instructions for copying the EACAA_ENV directory files from $EACAA_HOME/unix_web_forms to beneath the $ORACLE_HOME directory, where $ORACLE_HOME is the Oracle Home directory where Oracle Application Server is installed. This section cannot be omitted.

In the below example, the directory structure has the below notations.

- <MW_HOME> denotes the Middleware Home directory. For example: /app/oracle/Middleware11gR1
- <DOMAIN_NAME> denotes the domain name created during the OFM configuration. For example: ELXON
- <ORACLE_INSTANCE> denotes the Oracle instance directory of the OFM. For example: /app/oracle/Middleware11gR1/asinst_1

Files/Directories	Description
Eacaa.env	Copy the EACAA_ENV\eacaa.env file from $EACAA_HOME/unix_web_forms to the <MW_HOME>/user_projects/domains/<DOMAIN_NAME>/config/fmwconfig/servers/WLS_FORMS/applications/formsapp_11.1.1/config directory on the application server. If multiple environments are required for different test systems, create multiple copies of this file e.g. named eacaa1.env, eacaa2.env.
eacaaRegistry.dat	Copy the EACAA_ENV\eacaaRegistry.dat file from $EACAA_HOME/unix_web_forms to the <MW_HOME>/user_projects/domains/<DOMAIN_NAME>/config/fmwconfig/servers/WLS_FORMS/applications/formsapp_11.1.1/config/forms/registry/oracle/forms/registry directory
formsweb.cfg	• Set the ORACLE_HOME variable to point to the OFM home directory. • If the formsweb.cfg file does not exist in the <MW_HOME>/user_projects/domains/<DOMAIN_NAME>/config/fmwconfig/servers/WLS_FORMS/applications/formsapp_11.1.1/config directory: Copy the EACAA_ENV\formsweb.cfg file from $EACAA_HOME/unix_web_forms to the $ORACLE_HOME/user_projects/domains/<DOMAIN_NAME>/config/fmwconfig/servers/WLS_FORMS/applications/formsapp_11.1.1/config directory on the application server. • If the formsweb.cfg file exists in the <MW_HOME>/user_projects/domains/<DOMAIN_NAME>/config/fmwconfig/servers/WLS_FORMS/applications/

	formsapp_11.1.1/config directory, add the lines below to the end of that file. [eacaa] lookandfeel=Generic colorScheme=Gray background=eacaa envFile=eacaa.env form=eacaa.fmx width=840 height=652 separateFrame=TRUE ImageBase=codeBase serverApp=eacaaRegistry (omit the separateFrame=TRUE line if you do want the forms application to run on a separate browser window) If multiple environments are required, create multiple sections containing these lines, named e.g. [eacaa1] [eacaa2] etc – one for each .env file and change the respective .env file name assigned in the parameter **envFile** given above.
forms.conf	• If the forms.conf file does not exist in the <ORACLE_INSTANCE>/config/OHS/ohs1/moduleconf directory: Copy the EACAA_ENV\forms.conf file from $EACAA_HOME/unix_web_forms to the <ORACLE_INSTANCE>/config/OHS/ohs1/moduleconf directory on the application server. • If the forms.conf file exists in the <ORACLE_INSTANCE>/config/OHS/ohs1/moduleconf add the lines below to the end of that file. # BEGIN EACAA CONFIG RewriteRule ^/forms/eacaa_help/(..*) /eacaa_help/$1 [PT] AliasMatch ^/eacaa_help/(..*) "/oradata/sva/EACAA/help/$1" WLExcludePathOrMimeType /forms/eacaa_help RewriteRule ^/forms/eacaa_reports/(..*) /eacaa_reports/$1 [PT] AliasMatch ^/eacaa_reports/(..*) "/oradata/sva/EACAA/reports/$1" WLExcludePathOrMimeType /forms/eacaa_reports # END EACAA CONFIG • If multiple environments are configured, these lines should be updated by suffixing the environment number as given below. # BEGIN EACAA1 CONFIG

	RewriteRule ^/forms/eacaa1_help/(..*) /eacaa1_help/$1 [PT] AliasMatch ^/eacaa1_help/(..*) "/oradata/sva/EACAA1/help/$1" WLExcludePathOrMimeType /forms/eacaa1_help RewriteRule ^/forms/eacaa1_reports/(..*) /eacaa1_reports/$1 [PT] AliasMatch ^/eacaa1_reports/(..*) "/oradata/sva/EACAA1/reports/$1" WLExcludePathOrMimeType /forms/eacaa1_reports # END EACAA1 CONFIG
plan.xml	• This file can be found under the directory <DOMAIN_HOME>/deploymentplans/formsapp/11.1.1 • This file maps the relative path given in the files forms.conf and eacaa.env. • Under <variable-definition> add below entry: In the below entry, ensure that the <value> tag is mapped to the directory where EACAA directory is created. <variable> <name>vd-/oradata/sva</name> <value>/oradata/sva</value> </variable> • Under <module-descriptor external="false"> add below entry: In the below entry, ensure that the url-pattern is set to the directory where the help and reports directories were created. <variable-assignment> <name>vd-/oradata/sva</name> <xpath>/weblogic-web-app/virtual-directory-mapping/[url-pattern="EACAA/reports/*"]/local-path</xpath> </variable-assignment> <variable-assignment> <name>vd-/oradata/sva</name> <xpath>/weblogic-web-app/virtual-directory-mapping/[url-pattern="EACAA/help/*"]/local-path</xpath> </variable-assignment> Note: The above changes are mapping the reports and help directories correctly. The value given in the <value> tag and url-pattern should form the help and reports directories.

svaicons Directory:

Instructions for creating the svaicons directory and copy .gif files:

Files/Directories	**Description**
svaicons	Create the directory svaicons in the $ORACLE_ HOME/forms/java directory
eacaa.gif	Copy the EACAA\Icons\eacaa.gif file from $EACAA_HOME/unix_web_forms\Icons to the $ORACLE_HOME/forms/java directory
Icons	Copy all the files (including eacaa.gif) from the EACAA/Icons directory to the $ORACLE_HOME/forms/java/svaicons directory.

fmrweb.res File:

Instructions for maintaining the key mappings the same as forms 6i.

Files/Directories	Description
fmrweb.res	Rename the <$ORACLE_INSTANCE>/config/FormsComponent/forms/admin/resource/US/fmrweb.res file to <$ORACLE_INSTANCE>/config/FormsComponent/forms/admin/resource/US/fmrweb_orig.res, and then copy <$ORACLE_INSTANCE>/config/FormsComponent/forms/admin/resource/US/fmrpcweb.res to <$ORACLE_INSTANCE>/config/FormsComponent/forms/admin/resource/US/fmrweb.res.

forms.conf File:

Instructions for customising the contents of file <forms.conf>.

Keyword	Description
/forms/html/	Change the default directory /app/oracle/Middleware/asinst_1/ to the correct Oracle instance Directory of OFM.
/forms/eacaa_reports	Change the default directory "/oradata/sva/EACAA/reports" to specify the location of EAC/AA report files.
/forms/eacaa_help	Change the default directory "/oradata/sva/ EACAA/help" to specify the location of EAC/AA help files.
WebLogicHost	Change the default Web logic Host CTSINTBMVELX3.cts.com to specify the host where the web logic server is hosted.
WebLogicPort	Change the default web logic post number 9007 to the correct web logic port number which would have been chosen during the OFM installation.

EAC/AA Reports Directory:

Instructions for creating the reports directory, which is used to store EAC/AA report files generated from the EAC/AA application.

Files/Directories	Description
reports	Create the reports folder as specified in the /forms/eacaa_reports alias in the forms.conf file to store the reports generated from the application. Ensure that the oracle user can write to this directory. If different folders are required for different environments, create the reports folder under respective EACAA folder created. sub-folders e.g. Create the folder reports under EACAA1, EACAA2 and EACAA3 etc.

formsweb.cfg File:

Instructions for customising the contents of file <formsweb.cfg>

Keyword	Description
Global Change	Replace all occurrences of D:\oracle\Middleware11gR1\Forms11g with the correct Oracle Home if exists

eacaa.env File:

Instructions for customising the contents of file <eacaa.env>. If there are multiple environments, then each may be customised with different values.

Keyword	Description
ORACLE_HOME	Change the default directory /app/oracle/Middleware/Forms11g to reflect the correct oracle home of OFM.
ORACLE_INSTANCE	Change the default directory /app/oracle/Middleware/asinst_1 to reflect the correct oracle home of OFM.
TNS_ADMIN	Change the default directory /app/oracle/Middleware/asinst_1/config to reflect the correct TNS admin directory of OFM.
FORMS_PATH	Change the default directory /app/oracle/Middleware/Forms11g to reflect the correct oracle home of OFM. Also if the EACAA folder was not created under /oradata/sva or not named EACAA then replace all occurrences of /oradata/sva/EACAA.
CLASSPATH	Change all the occurrence of the default directory /app/oracle/Middleware/Forms11g to reflect the correct oracle home of OFM.
PATH	Change the default directory /app/oracle/Middleware/Forms11g to reflect the correct oracle home of OFM. Also if the EACAA folder was not created under /oradata/sva or not name EACAA then replace all occurrences of /oradata/sva/EACAA with the directory where the EACAA directory was created.
LD_LIBRARY_PATH	Change the default directory /app/oracle/Middleware/Forms11g to reflect the correct oracle home of OFM. Change the default directory /tmp/OraInstall2006-12-05_09-28-55AM/jre/1.4.2/ to reflect the correct jre home. Also if the EACAA folder was not created under /oradata/sva or not name EACAA then replace all occurrences of /oradata/sva/EACAA with the directory where the EACAA directory was created.

FORMS_RESTRICT_ENTER_QUERY	By default this parameter is set to TRUE. When it is set to TRUE, Oracle Forms limits the types of query criteria that can be entered when in Enter-Query mode. In general, it disallows the use of: • conjunctions (AND, OR) • keywords which modify parts of the SELECT statement outside of the WHERE clause (ORDER BY), • All functions, including SQL functions (LENGTH, TO_CHAR, LPAD, SUBSTR). Also, the Query/Where window is unavailable when set to TRUE. If the users need the freedom to enter these types of criteria, add a line to the eacaa.env file, setting the parameter to FALSE.
EP98EREPPATH	This should not be changed from /forms/eacaa_reports/ which is an alias defined in the forms.conf file. If multiple environments are configured, then then it should be updated by suffixing the environment number (as defined in the forms.conf) e.g., /forms/eacaa1_reports/
EP98ETEMP	Change to specify the reports path. It must match the /forms/eacaa_reports alias match entry in the forms.conf file e.g.. /oradata/sva/EACAA/reports If EP98EREPPATH is defined for multiple environments, then it should be changed to to match with the alias entry in the forms.conf file. e.g. /oradata/sva/EACAA1/reports.
EP98EHELP	Change to specify the help files path. It must match the /forms/eacaa_help alias match entry in the forms.conf file.
host_address	Change the host_address entry to reflect the Host address of OFM.
EP98EFILEEXT	Change the default value .eac to specify the extension to be used for EAC/AA Reports. (The advantage of using an extension such as .eac which is unique to EACAA is that there is complete freedom to configure how this

	extension is opened on the clients.)
EP98EPORTPRTEXT	Change the default value .por to specify the extension to be used for EAC/AA Reports which are printed portrait. (The advantage of using an extension such as .por which is unique to EAC/AA is that there is complete freedom to configure how this extension is opened on the clients.)
EP98ELANDPRTEXT	Change the default value .lnd to specify the extension to be used for EAC/AA Reports which are printed landscape. (The advantage of using an extension such as .lnd which is unique to EAC/AA is that there is complete freedom to configure how this extension is opened on the clients.)
EP98PRINTW	Do not change the default value of 132 – this is used to control whether reports are printed portrait or landscape.
EP98EVERS	Do not change this line.

N.B. Restart Oracle Application Server after modifying all configuration files.

2.3.4 Oracle Net Services Configuration

Use Oracle Net Services Easy Configuration on the Oracle Application Server to add a tnsnames.ora entry for the EAC/AA database(s).

2.3.5 Installation Steps for Clients

2.3.5.1 Associating the File Extension used for viewing files.

As described in sections 2.3.2 and 2.3.3, the EAC/AA report file name extension can be set to any name in the environment file eacaa.env of the Oracle Application Server using EP98EFILEEXT. (For example EP98FILEEXT= .eac). If this extension is associated with an application e.g. Wordpad on the Clients, then the file will be displayed using that application; if there is no association for that extension, then the file will be displayed in a new browser window.

If the client is a Windows PC, associations must be made with the "Use DDE" checkbox ticked for the Open action for the file type.

An advantage of using the browser to display the file is that it is then not possible for the user to accidentally change the contents of the local copy of the file as it is displayed.

2.3.5.2 Associating the File Extensions used for printing files.

The eacaa.env file also contains two variables EP98ELANDPRTEXT and EP98EPORTPRTEXT which specify the extensions for files which are to be printed landscape and printed portrait. There must be association for these

file extensions set up in the same way, if the print button is to be used. If the Client is a Windows PC, then they may be associated to the programs printpro.exe and portrait.exe (which must be installed first, see next section).

Appendix F contains further details of how to associate an extension on a Windows PC. The example described is the association of the .lnd extension to the printpro program.

2.3.5.3 The printpro and portrait print programs.

For Windows PC clients, the example print executables printpro.exe and portrait.exe may be used for printing files landscape and portrait.

Note that the executables portrait.exe and printpro.exe do not form part of the warranted EAC/AA system. They are provided as examples of programs which print portrait and landscape reports.

These example executables are delivered with the Windows Application Server in the folder PC Print. They should be copied from there into a folder on the PC (or on a network file server) and this folder must be referenced when the file association is carried out.

2.3.5.4 Pop-up Blockers

Any pop-up blocker running on the client must be disabled, or else it will not be possible to use the view reports function.

2.3.5.5 Proxy Servers

The web browser on the Client must be configured so that it does not use a proxy server when accessing the Application Server. (e.g. for Internet Explorer this is done in the Communications tab of the Internet Options dialog box). This is to ensure that if a new report file is generated with the same name as an older report file, then the new one will always be downloaded; this scenario will not occur in normal live operation but could do in a Disaster Recovery situation or on test instances where database restores or imports are carried out.

2.4 Start the EAC System

2.4.1 Starting the Database Server processes

The EACAA system start scripts can now be run, logged on as the "EAC/AA Owner" user. These are called:

`efr_frm_start` – starts the file receipt manager

`esc_bqd_start` - starts the scheduler

Change directory:

cd $EACAA/bin

At the UNIX prompt type:

efr_frm_start

Then type:

esc_bqd_start

Once executed the system should now be installed and running. Check that efr_frm and esc_bqd processes are running by typing:

ps -ef | grep efr

to see details of the file receipt manager process and typing:

ps -ef | grep esc

to see the details of the scheduler process.

2.4.2 Accessing the Front End

From an Internet Explorer window, type in the URL

http://<hostaddr>:<port_no>/forms/frmservlet?config=eacaa

- where <hostaddr> should be substituted with the address of the server – same as the value of the <hostaddr> variable in eacaa.env
- where <port_no> is the web logic port number which would have been chosen during the OFM installation – same as the value of the <WebLogicPort> variable in forms.conf
- assuming the env file is named eacaa.env

2.5 Installation Notes

Since both ORACLE and the EAC/AA application software are installed relative to a home directory which is a system environment variable, no assumptions have been made regarding the directory structure prior to such an installation. Indeed, the system manager can decide where in the system to install both these items of software.

2.6 Database Statistics

Oracle database statistics must be collected in order for the performance of the applications to be optimal. This must be done for the first time before the EAC/AA application is started.

The commands run by LogicaCMG for the database used for performance testing are listed in Appendix E.

3 Building the Source Code

3.1 Introduction

The EAC/AA source code can only be built by users who are licensed to use and develop the code.

3.2 Build Prerequisites

The build of the source code can only be carried out once the installation procedure has been completed (see Section 2).

3.3 Build Source Code Procedure

This section details the steps required to build the EAC/AA source code.

3.3.1 Introduction

The build of the source code has been constructed to be run by a user with an oracle account:

username: eacaa

password: eacaa

The "EAC/AA Owner" user needs be able to run the build so that he becomes the owner of the executables that are built. If the "EAC/AA Owner" user details are different to those described above then the build can be changed. The procedure for changing the build so that it can be run by the "EAC/AA Owner" is described later in the build procedure in section 3.3.4.

3.3.2 Build Package Installation

The user extracts the packaged source file `src_setup_solaris_<`*Release_Number*`>` from the FTP Site, magnetic tape or CD using host Operating System commands When the packaged source file is run it will create a directory structure containing the source code and build files.

Set the umask. At the UNIX prompt type:

umask 022

so that the packaged source files are extracted with the file permissions set correctly.

Copy the packaged source files to the $HOME directory (if using a magnetic tape, the command to do this is supplied in the Release Note).

3.3.3 Extracting Source Code and Build Files

The build of the source code must be carried out in a directory which is not the $HOME directory. Therefore make a new directory:

cd $HOME

mkdir build

To unpack the source files type:

src_setup_solaris_<Release_Number>

Follow instructions as they are displayed on screen.

The target directory is displayed and should be the ‘build’ directory.

If this is not correct then to the prompt:

“Do you want to change these settings?”

type:

Y<CR>

and specify the path of the ‘build’ directory:

/usr01/Users/eacaa/build

otherwise hit the <RETURN> key to continue.

At the prompt:

“Confirm to continue installation with these parameters”

the default is ‘Y’.

Hit the <RETURN> key to continue.

The source code and build files are distributed in the ‘sw’ directory tree structure as described below:

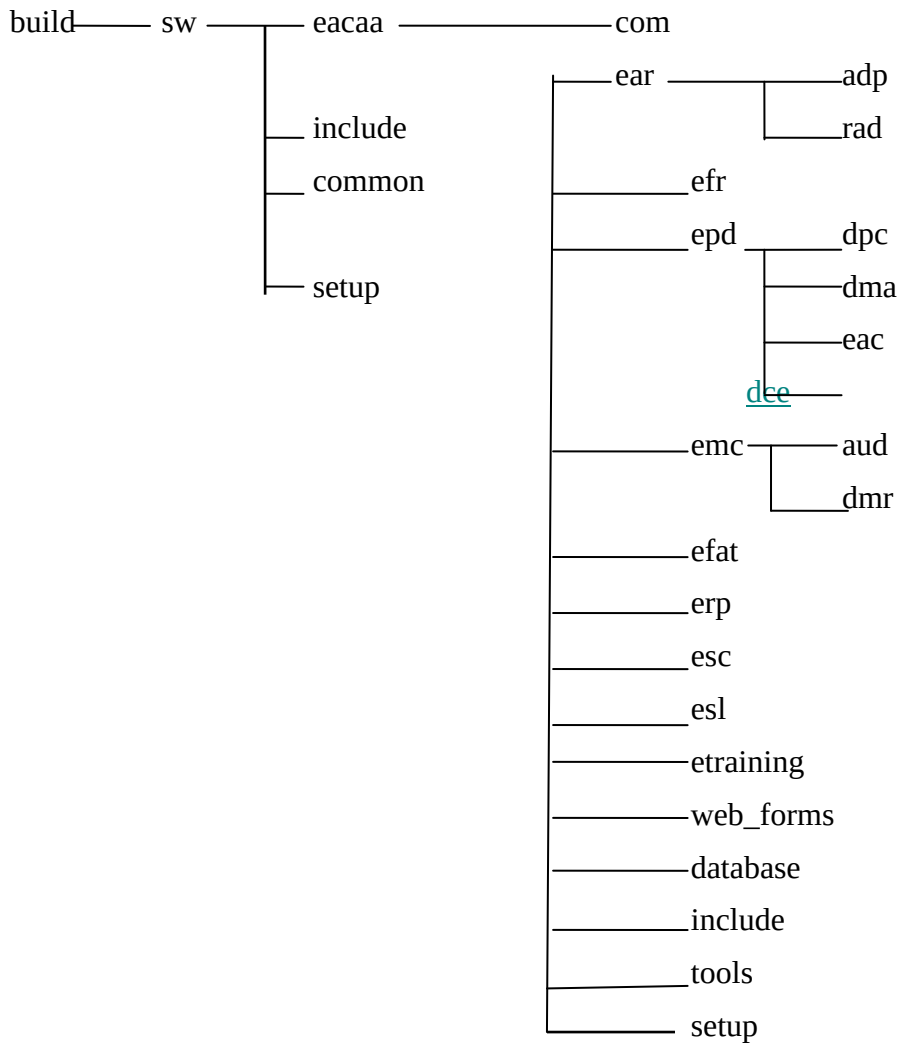


Figure 3: EAC/AA Directory Structure - including sw tree

If the target environment variable is not set then set the target directory for the build directory tree. At the UNIX prompt type:

export TARGET=$HOME/build/sw

Set the PATH environment variable to include the path details of the bin used for the build. Type:

export PATH=$HOME/build/bin:$PATH

3.3.4 Changing the Build Details

To change the build details so that another user can run the build the file:

`build2.c`

must be edited.

Change directory:

cd $HOME/build/sw

Edit the file build2.c in the 'sw' directory. Search for the string "userid". Change the userid value from, for example:

eacaa/eacaa

to:

/

This will enable the "EAC/AA Owner" user who has an ops$ account to run the build.

3.3.5 The Build of the Web Forms

The build directory tree contains the forms source code. The directory web_forms contains source code that was developed using Forms Developer 11gR1 UNIX and which may be built into forms executables to run on Windows or Solaris.

3.3.5.1 Web Forms for Windows Application Server

The files beneath the web_forms directory must be transferred to a Windows server and built there.

3.3.5.2 Web Forms for Solaris Application Server

The files beneath the web_forms directory are built as part of the build as described in the next section. In order for it to work, edit the following ksh script files:

sw/eacaa/web_forms/forms/build_forms

sw/eacaa/web_forms/menu/build_menus

sw/eacaa/web_forms/library/build_libraries

The following lines in these files need to be changed:

export DISPLAY=158.234.27.31:0.0

export ORACLE_HOME=11.1.1.6

The value of the DISPLAY environment variable must be changed to the IP address of a device running X-windows. The value of the ORACLE_HOME environment variable must be changed to the Oracle Home under which the forms builder is installed.

3.3.6 Executing the Build

Move to the sw directory and type:

build sw > output.txt

Any errors will be displayed to the screen. Examine the output.txt file to ensure the build has completed successfully.

3.3.7 Installing the Build

Move to the build/sw/eacaa/setup directory and type:

ship

This creates a new eacaa_setup_solaris file in this directory. This can then be moved to the home directory of the EAC/AA Owner user and installed as in section 2.2.4.

Before running eacaa_setup_solaris, if the file receipt manager and scheduler are running then these processes must be stopped.

3.3.7.1 Stopping the File Receipt Manager and Scheduler

Check if the efr_frm and esc_bqd processes are running by typing:

ps -ef | grep efr

to see details of the file receipt manager process and typing:

ps -ef | grep esc

to see the details of the scheduler process.

To stop the processes change directory:

cd $EACAA/bin

At the UNIX prompt type:

efr_frm_stop

Then type:

esc_bqd_stop

4 An Upgrade of the Application Software

Upgrades to delivered software will be handled by supplying:

- amended source;
- replacement object code for changed objects;
- a release note covering the procedure for installing the update.

The upgrade will also include programs or scripts to convert any existing data to the format required post-update (if this differs from the format before the changes). For example, a script to add a new column to a database table, or a program to convert from one format of flat file to a revised format for that file.

Appendix A System-wide environment variables definitions

ORACLE_SID = eacaa

EACAA_HOME – Defines the directory path for the ‘runtime’ directory, which is the top-level directory of the EAC/AA installation.

EACAA - Defines the directory path where directories E_files_in, E_store etc. reside. This must be $EACAA_HOME/eacaa_root.

EACAA_CNTL_DIR - Defines the directory were the control file for each of the process daemons EFR_FRM and ESC_BQD is created. If this environment variable is not defined then the control files are created in the default directory ‘/tmp’. However, if more than one copy of EAC/AA is being installed on the same server, then this environment variable must be set up.

EFR_FRM_LOCK - Defines the name of the lock that EFR_FRM takes out when running. If not defined, a default lock name of ‘EFR_FRM_LOCK’ is used.

ESC_BQD_LOCK - Defines the name of the lock that ESC_BQD takes out when running. If not defined, a default lock name of ‘ESC_BQD_LOCK’ is used.

TAPE_DRIVE - the name of the device used for archiving.

ORACLE_HOME - Defines the Oracle directories.

PATH - To include $EACAA/bin and the path to the Oracle bin directory. For the source code build it must include the path of the bin for the build.

LD_LIBRARY_PATH - Defines the Oracle library path

TARGET - The target directory for the build of the source code.

Appendix B Example .profile

```
PATH=$HOME/bin:${PATH:-/usr/bin:.}
export PATH
PS1="`hostname`> "
MAIL=/usr/spool/mail/$USER
export ORACLE_SID=eacaa
export EACAA_HOME=$HOME/eacaa
export EACAA=$EACAA_HOME/eacaa_root
export EACAA_CNTL_DIR=$EACAA/E_cntl
export EFR_FRM_LOCK=EFR_FRM_LOCK
export ESC_BQD_LOCK=ESC_BQD_LOCK
export ORACLE_HOME=/usr03/app/oracle/product/11.2.0.3
export PATH=$PATH:$EACAA/bin:$ORACLE_HOME/bin
export LD_LIBRARY_PATH=/usr03/app/oracle/product/11.2.0.3/lib
export EDITOR=emacs
export TAPE_DRIVE=/dev/<tape drive name>
```

Appendix C Original Development Environment Used

The number of drives used was 1, with a capacity of 10 Gigabytes.

The tablespace sizes used were:

USERS	3 Gigabytes
USERS_PK_INDEXES	2 Gigabytes
USERS_FK_INDEXES	1 Gigabytes

These should be reduced proportionately if a smaller database is required.

The sizes for the rollback and temp tablespaces depend on procedural issues such as the size of individual incoming data files. The tablespace sizes used were:

UNDO	0.5 Gigabytes
TEMPORARY	0.5 Gigabytes

No UNIX tuning parameters were used.

Oracle tuning parameters used in the current version are detailed in the file initeacaa.ora described in Section 2.2.5.2.

The original test server processor configuration was:

- SPARC Enterprise T5120 with:
  - 1 Physical CPU with 32 Virtual Processor each of 1165 MHz
  - 8 Gbyte RAM
  - 7 * 136 GB Internal disks
  - 100GB storage disk
  - 1 Disk Controller

Memory:

8 GB memory

Appendix D Building on Other Platforms

D.1 Extracting from the tape

The code required to build the system is packed in file "src_setup_solaris". This is a uuencoded, compressed file containing the "build" directory contents, which has a structure as defined in section 3.3, plus a shell script to automatically expand the software attached to the front.

Assuming you have created a directory "build" that contains "src_setup_solaris" and this is the current directory, the build tree structure can be extracted manually using the following commands:

```
uudecode src_setup_solaris
uncompress -d src.tar.Z
tar -xf src.tar
```

D.2 Building executables

The following executables need to be built:

Executable	Description	Directory
efr_frm	File Receipt Manager	efr
esc_bqd	Scheduler	esc
esl_lsc	Load Settlement Configuration Data	esl
ear_adp	Archive Data	ear/adp
ear_rad	Restore Data	ear/rad
emc_aud	Ad Hoc Deemed Meter Reading Calculation Audit Report	emc/aud
epd_dma	Process DMA Request file	epd/dma
epd_dpc	Process Daily Profile Coefficient file	epd/dpc
epd_eac	Process EAC Request file	epd/eac
erpfmt	Report Formatter	erp

Each of these has a pre-compiler source e*xx_xxx*.sc.

The source file may have include directives that reference:

- C include files (".h" files);
- Templates for the functions used internally (".tpi" files);
- Templates for the functions used from library code (".tpl" files).

Each executable also uses a common library of functions. The sources for these are found in a further directory "com" and are called eac_com.sc and eac_com.h. To ensure the required include files are correctly found, compilation should take place in the directory in which the source is located. Thus, the local include file is found in the current directory and eac_com.h is found via a relative reference. The include search path should also include the Oracle includes directory.

When running the Oracle pre-compiler the following options may be needed:

Flag	Value	Comment
mode	oracle	Code is designed for Oracle
include	See comment	See earlier comment on include files required
sqlcheck	Full	Full checks
code	ansi_c	Produce ansi_c code
ireclen	132	Input record length of .sc files
oreclen	132	Output record length of .c files
userid	See comment	User/password for EAC/AA database

To build the executables, the following steps are necessary:

1. Compile the template.c and bitfield.c files. These files are used in the compilation of other files.
2. Replace any calculated values in the array sizes in the source (".sc" files).
3. Pass the source (".sc" files) through the Oracle pre-compiler to create C source code (".c" files), using the options described above.
4. Generate the ".tpi" and ".tpl" files needed for the compilation.
5. Compile the source using the C compiler to produce object code (".o" files).
6. For each executable, link the object file produced with the common object (eac_com.o), the Oracle shared library (e.g. libclntsh.so) and any C libraries required (e.g. libc.a).
7. The built executables should be moved to the appropriate runtime binaries' directory, e.g. $EACAA/bin (see section 3.3.6).

Each of these stages, and options likely to required, are described in the following sections.

Compile template.c and bitfield.c files

Compile template.c and bitfield.c in the $TARGET/setup directory.

Copy the new executables 'template' and 'bitfield' to the $TARGET/bin directory, replacing the existing ones.

Removing array size calculations

The Oracle pre-compiler may not be able to cope with array sizes that include a calculated value, e.g.

```
char   my_name[MY_NAME_LEN + 1];
```

Since such declarations are frequently required for "C" character strings, a pre-processor program has been included to replace such occurrences by a single value.

The source of this program is called:

```
rep.c
```

and the executable that is created from it takes two arguments:

1. input file name
2. output file name

Generate the ".tpi" and ".tpl" files

Run the template utility (built in step 1), as shown below, to create, for example, the files nld.tpi and nld.tpl:

```
template -itpi -xtpl nld_ctl.c
```

Appendix E Database Statistics

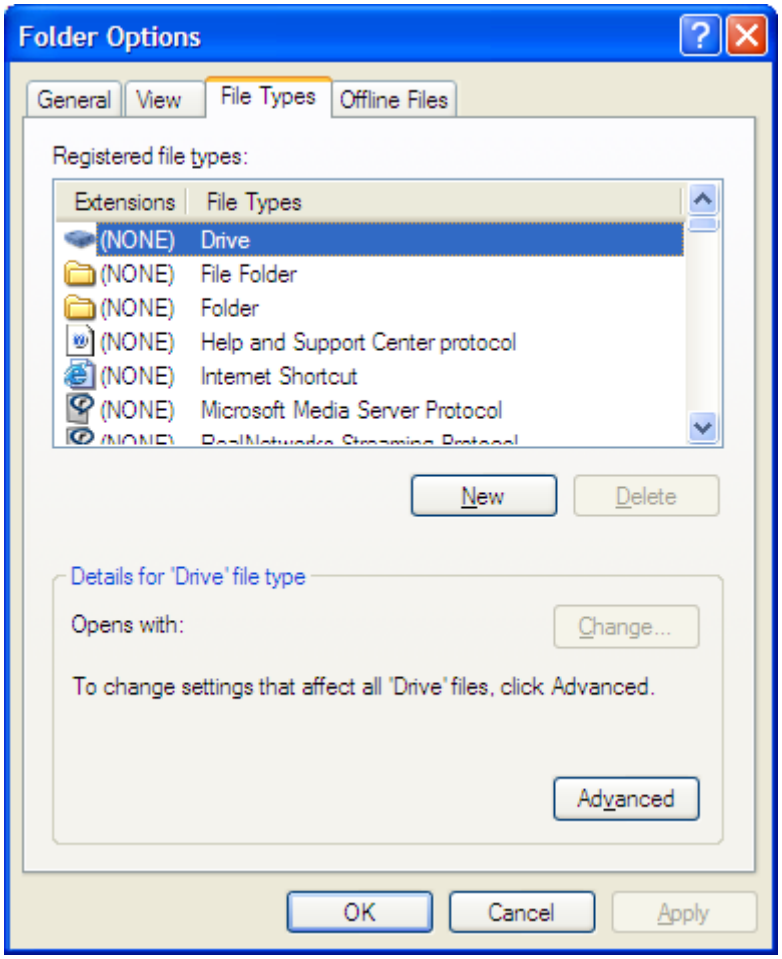
These commands should be issued connected as the system user:

```
EXEC DBMS_STATS.gather_schema_stats(ownname=>'EACAA',
estimate_percent=>100,
method_opt=> 'FOR ALL INDEXED COLUMNS SIZE AUTO', cascade=>true);
EXEC dbms_stats.gather_system_stats;
EXEC dbms_stats.gather_dictionary_stats;
```

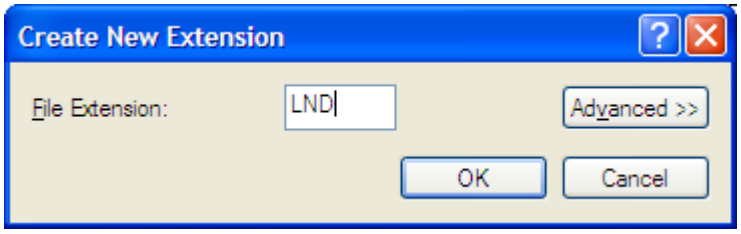
Appendix F Associating a File Extension on a Windows PC

This appendix gives instructions for associating the "LND" extension to the printpro program.

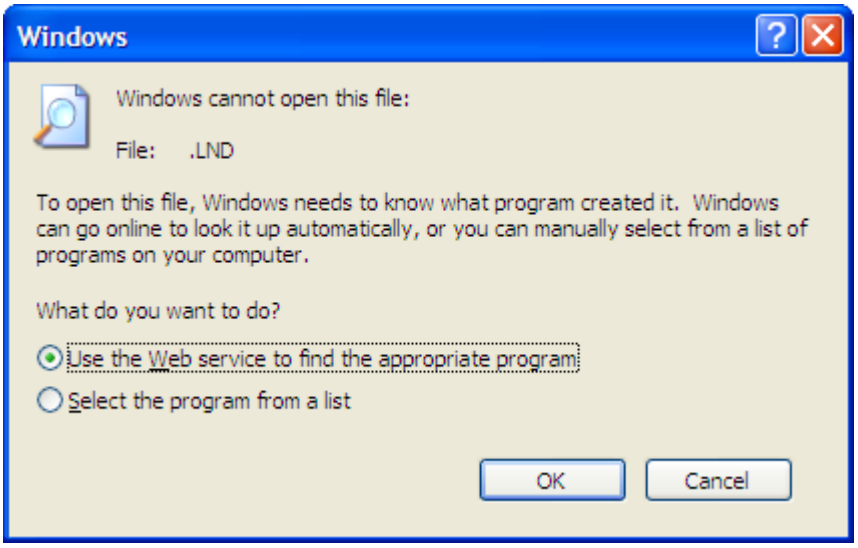
From Windows Explorer select the Folder Options menu option from the Tools menu, then select the File Types tab:



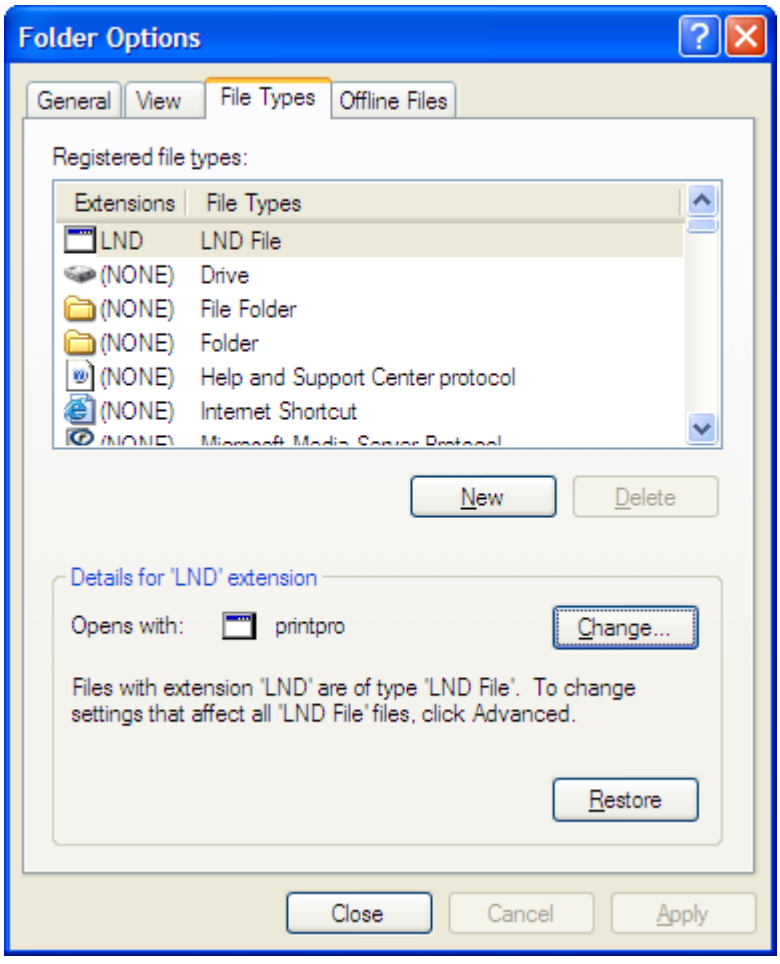
Click on the New button, and type in LND:



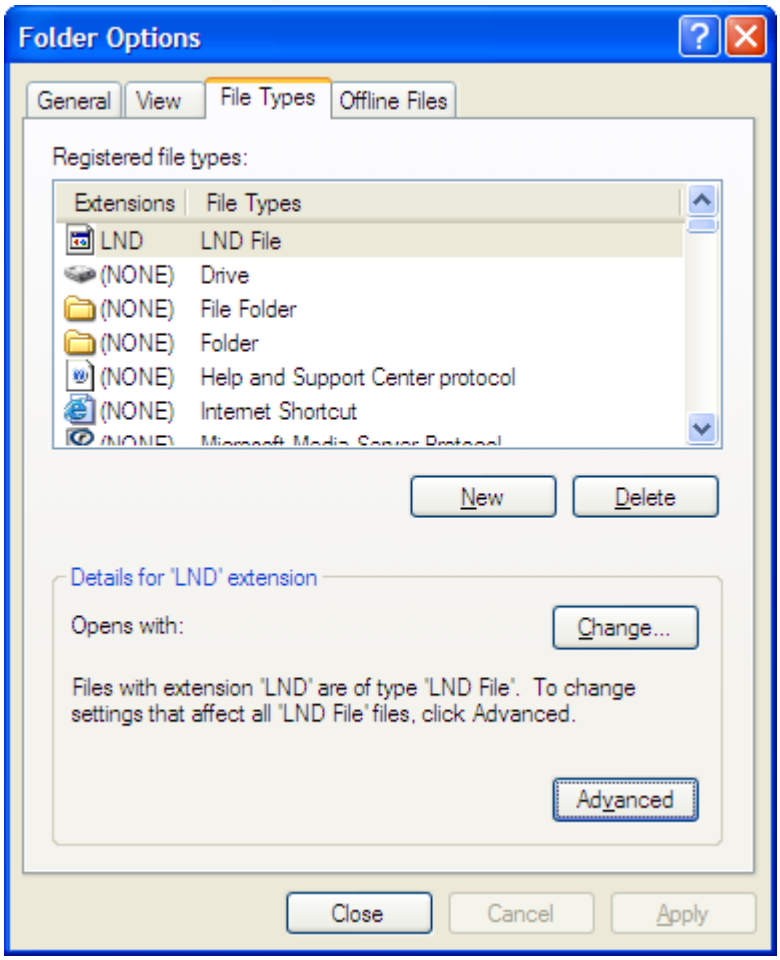
Select OK then select LND from the list of extensions, and click on the Change button, then this box appears:



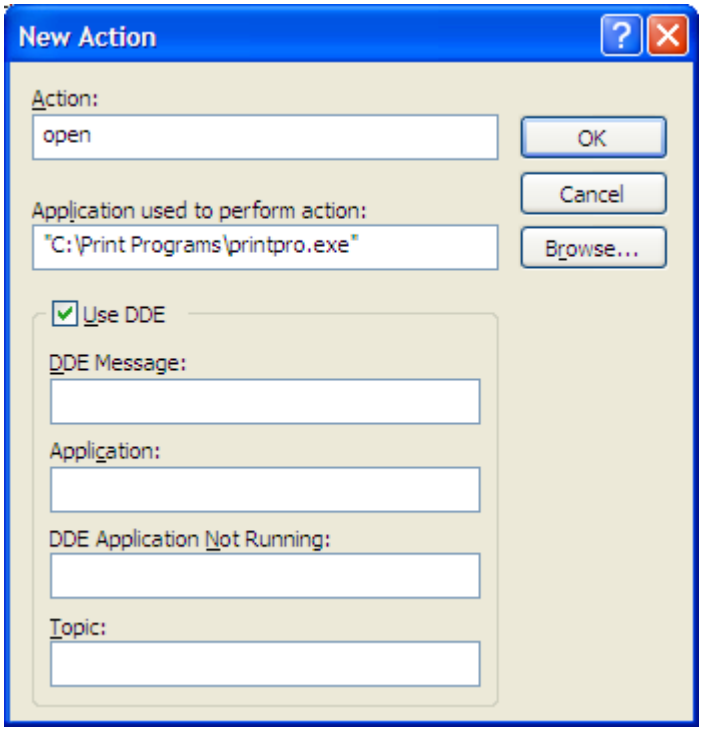
Select the second radio button "Select the program from a list" and click on OK. The "Open With" dialogue box now appears. Click on the Browse button, browse to where printpro.exe is installed, select it, and click on the Open button. The Folder Options dialogue box now shows that the LND extension opens with Printpro:



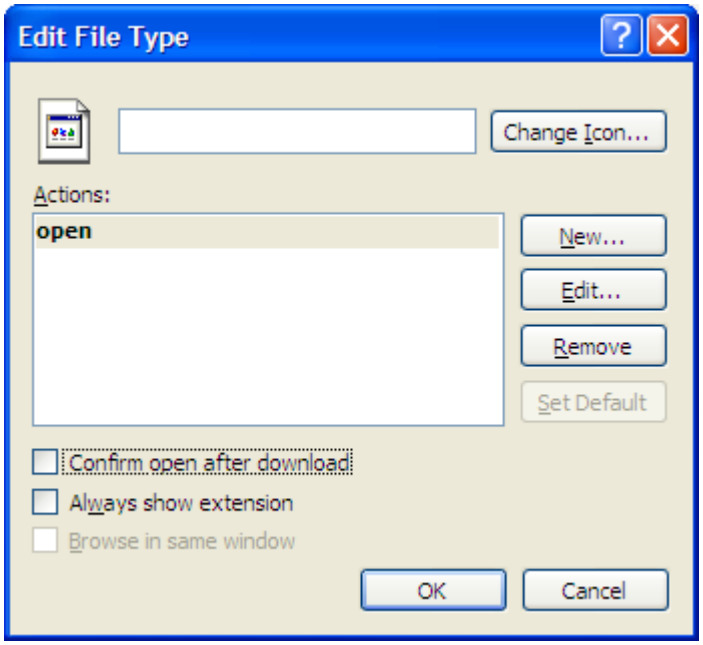
If the Restore button appears as shown here, click on it, and the Restore button is replaced by the Advanced button:



Click on the Advanced button, and the Edit File Type dialog box appears. Click on New .. and the New Action dialog box appears: enter open in the Action field, click on Browse to locate printpro.exe, and select the “Use DDE” checkbox:



Click on OK. Then ensure that the "Confirm open after download" checkbox is **not** selected on the Edit File Type dialog box:



The file association operation is now complete.

Appendix G Oracle Application Server Patches

The following patches should be applied to the Oracle Application Server installation, on top of 11.1.1.6.0:

Patch	Description	Product	Release	Last Updated
14373988	OFM SPU (Security Patch Update)	Oracle Fusion Middleware	11.1.1.6.0	Oct 2012
14003476	OFM CPU (Critical Patch Update)	Oracle Fusion Middleware	11.1.1.6.0	July 2012
14736139	WLS PSU (Patch Set Update)	Oracle Weblogic Server	10.3.6.0.3	Jan 2013

Note: There are no patches required for OFM version 11.1.2.2.0 which needs to be installed on Windows platform.

Appendix H Solaris Patches

<table>
<tr><th>OS Name</th><th>Current Version</th><th>Proposed Version</th><th>Notes and Source</th></tr>
<tr>
<td>Solaris</td>
<td>Solaris 10 5/09 s10s_u7wos_08 SPARC (64 bit)</td>
<td>Same as current version but with additional requirements mentioned below
Packages Requirement:

SUNWarc
SUNWbtool
SUNWhea
SUNWlibC
SUNWlibm
SUNWlibms
SUNWsprot
SUNWtoo
SUNWi1of
SUNWi1cs (ISO8859-1)
SUNWi15cs (ISO8859-15)
SUNWxwfnt
SUNWcsl
Motif: 2.1.01
GCC: package 3.4.2 or higher2

Solaris patch requirement:
All the patches mentioned below need to be installed with the below version or above:
120753-06: SunOS 5.10: Microtasking libraries (libmtsk) patch
139574-03: SunOS 5.10
141414-02
141444-09
119963-14: SunOS 5.10: Shared library patch for C++
124861-15: SunOS 5.10 Compiler Common patch for Sun C C++ (optional)
125555-03
139555-08
140796-01
140899-01
141016-01
141414-10
141736-05
127111-02 - The patch is for forms
137111-04 - The patch is for forms

Java Requirement:
1.6.0.29+ - Can install update 29 or higher version.
Shell limits requirement:
<table>
<tr><th>Shell Limit</th><th>Recommended Value</th><th>Existing value</th></tr>
<tr><td>TIME</td><td>-1 (Unlimited)</td><td>unlimited</td></tr>
<tr><td>FILE</td><td>-1 (Unlimited)</td><td>unlimited</td></tr>
<tr><td>DATA</td><td>Minimum value: 1048576</td><td>unlimited</td></tr>
</table>
</td>
<td>http://www.oracle.com/technetwork/middleware/ias/downloads/fusion-requirements-100147.html

http://docs.oracle.com/cd/E11882_01/install.112/e24346/pre_install.htm</td>
</tr>
</table>

<table>
<tr>
<td></td>
<td></td>
<td>
<table>
<tr><td>STACK</td><td>Minimum value: 32768</td><td>8192</td></tr>
<tr><td>NOFILES</td><td>Minimum value: 4096</td><td>256</td></tr>
<tr><td>VMEMORY</td><td>Minimum value: 4194304</td><td>unlimited</td></tr>
</table>
The shell limits for STACK -50000 and NOFILES-65536 needs to be set.

Kernel Parameter settings required:
<table>
<tr><th>Resource Control</th><th>Min. Value required</th><th>Existing Value</th></tr>
<tr><td>project.max-sem-ids</td><td>100</td><td>128</td></tr>
<tr><td>process.max-sem-nsems</td><td>256</td><td>512</td></tr>
<tr><td>project.max-shm-memory</td><td>4294967295</td><td>8GB</td></tr>
<tr><td>project.max-shm-ids</td><td>100</td><td>128</td></tr>
</table>
</td>
<td></td>
</tr>
<tr>
<td>Windows</td>
<td>Windows Server 2003 SP 2 (32 bit)</td>
<td>Java Requirement:

1.6.0.29+ - Can install update 29 or higher version.</td>
<td></td>
</tr>
</table>

Appendix I DB Patches

Software	Current Version	Proposed Version	Notes and Source
Oracle Database	10.2.0.3	11.2.0.3	Part Number is E24903-01 Downloaded through Oracle Support web site by searching for patch number 10404530. Release notes can also be found through the Oracle Support web site.
Oracle Database PSU (Patch set update)		14727310(January2013)	http://www.oracle.com/technetwork/topics/security/cpujan2013-1515902.html

Comment Form

Document Title	EAC/AA Installation Guide
Document Issue	17.0~~3~~2
Issue Date	05 November 2015~~27 June 2013~~

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