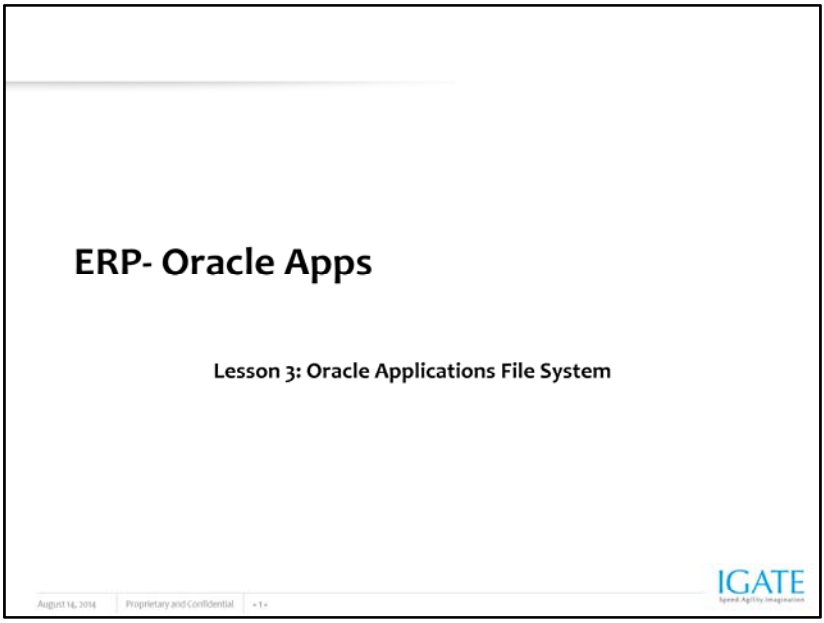
ERP- Oracle Apps
Lesson 3: Oracle Applications File System
August 14, 2014
Proprietary and Confidential
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Lesson Objectives

- **To understand the following topics:**
  - Describe the Oracle Applications file system.
  - Identify the APPL_TOP, COMN_TOP, ORA_TOP, and DATA_TOP directories.
  - Describe the file types available on the file system.
  - Describe the product subdirectory structure.

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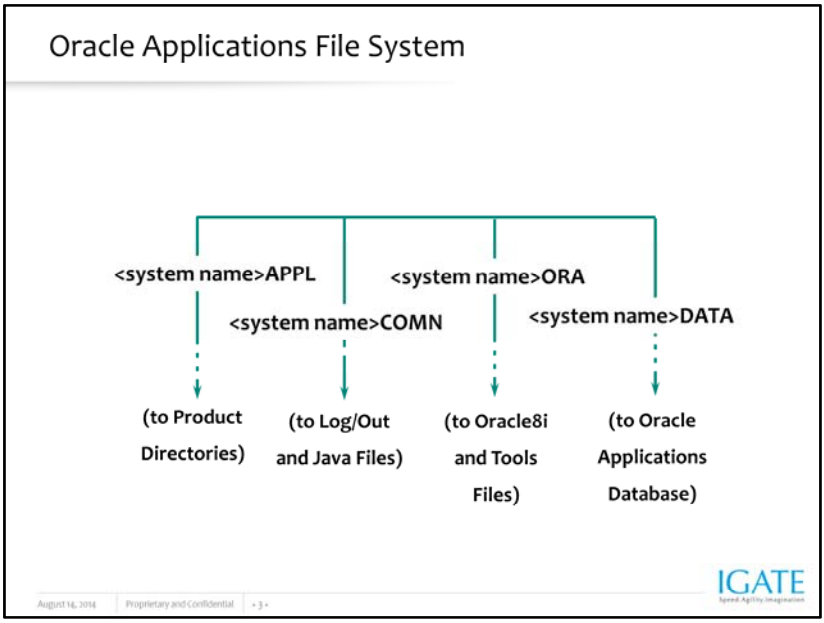


Oracle Applications File System

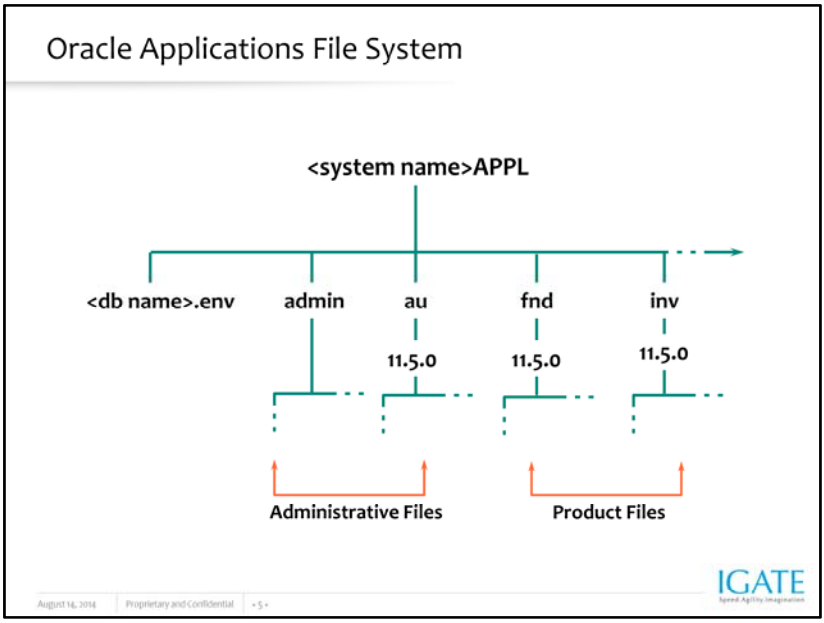
The Oracle Applications 11i system uses components from many Oracle products. It stores these product files within several different top level directories:

<system name>APPL or APPL_TOP: contains the product directories and files for Oracle Applications.
<system name>COMN or COMN_TOP: Contains directories and files used across products. <system name>COMN is also known as COMMON_TOP.
<system name>ORA or ORA_TOP: Contains ORACLE_HOMEs for the technology stack components.
<system name>DATA or DATA_TOP: Contains the Oracle Applications database files.

Note: <system name> is the name of your system determined through Rapid Install at the time of installation. For example, PROD.

Application Directory Structure

- The top directory in Oracle Applications is $APPL_TOP
- $APPL_TOP is an environment variable
- An environment variable is an operating system variable that describes an aspect of the environment in which the application runs. You can define an environment variable to specify a directory path. For example $APPL_TOP maps to /ccnv01/oracle/ccnvappl



Oracle Applications File System

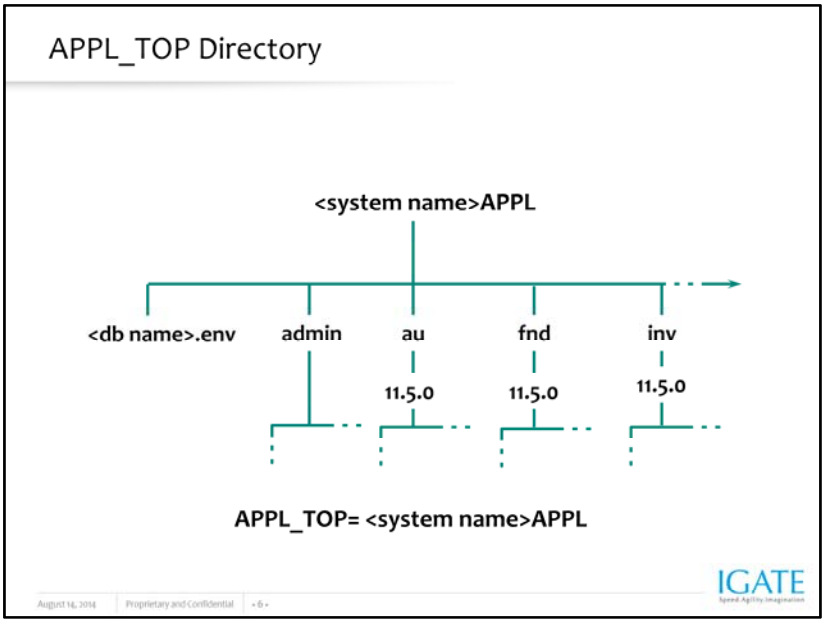
The Oracle Applications file system contains the product directories for Oracle Applications. The Oracle Applications file system contains:

The Oracle Applications environment files. The default name of the main Applications environment file is <db name>.env, where <db name> is the name of the database.

A directory for each of the products, licensed or not, that has been installed under the <system name>APPL, or APPL_TOP directory. Product directories use the standard product abbreviations.

Additional directories for administration and maintenance, such as the admin and au directories. AU is a product and is used for the maintenance of Oracle Applications.

Note: For Release 11i, all Oracle Applications products, regardless of license status, are installed in the database and the file system. Do not attempt to manually remove files for unlicensed products.

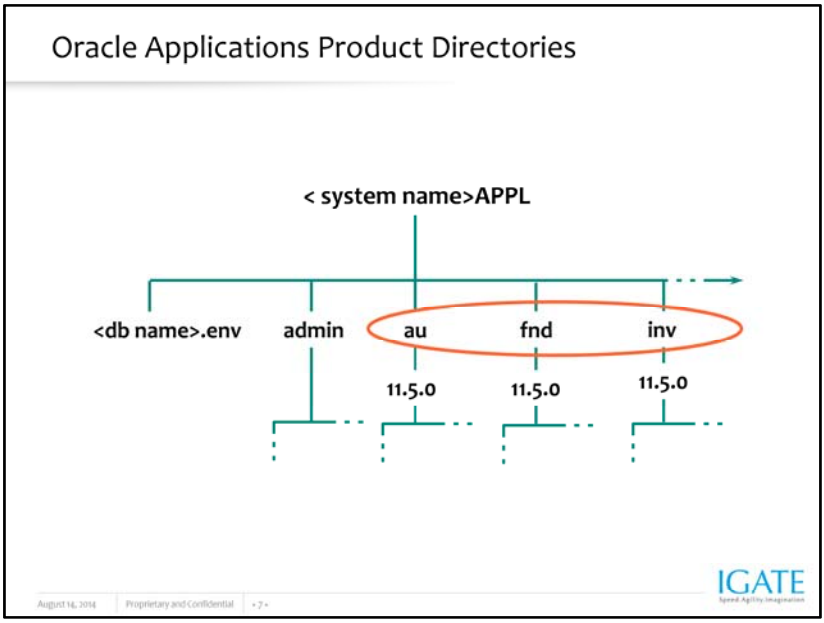


APPL_TOP Directory
The Oracle Applications top level directory path is defined in the environment variable APPL_TOP.

For both an installation and upgrade of Oracle Applications, Rapid Install creates the new APPL_TOP, or top Applications directory and defaults the APPL_TOP directory value to <system name>APPL.

This variable is used in subsequent directory definitions, and is also used as a term to refer to a particular Oracle Applications file system.

Technical note: The <db name>.env file is a very important file containing parameters defining the Oracle Applications environment. Typically, Rapid Install creates the <db name>.env file during the installation. Many of the parameters located in the <db name>.env file define important directories within the Oracle Applications file structure. For example, the APPL_TOP directory is identified in the environment parameter APPL_TOP. Additional parameters point to product top directories.

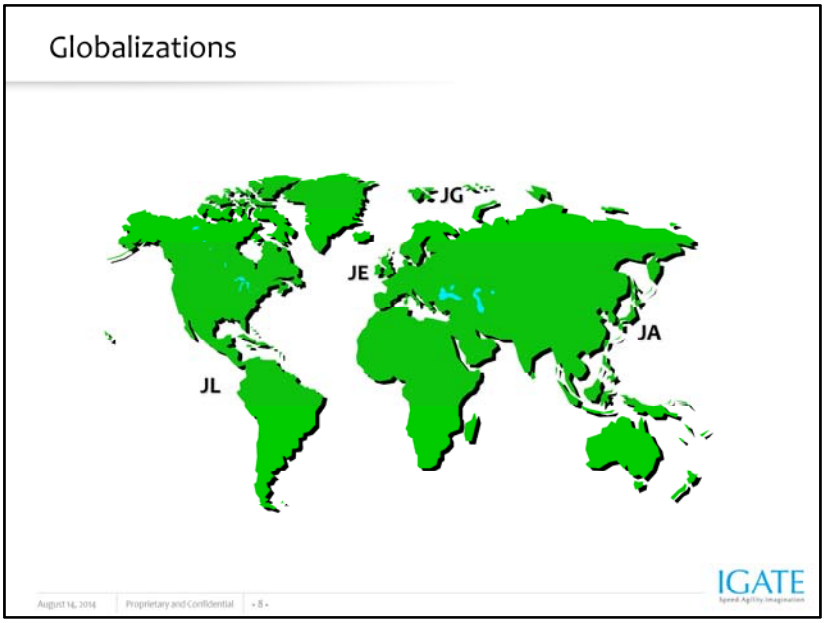


Oracle Applications Product Directories
Each product has its own subdirectory under APPL_TOP and the Oracle Applications base release is typically reflected in the subdirectory name. For Release 11i, the base release is 11.5.0. Multiple releases and product versions must not exist in a single APPL_TOP directory.

The product subdirectory name is defined in an environment variable <PROD>_TOP, where < PROD> is the product short name.

For example, the slide shows three product directories. The paths to these directories would be defined in the following declarations in the <db name>.env file:

APPL_TOP=/d01/prodappl
AU_TOP= /d01/prodappl /au/11.5.0
FND_TOP = /d01/prodappl /fnd/11.5.0
INV_TOP= /d01/prodappl /inv/11.5.0



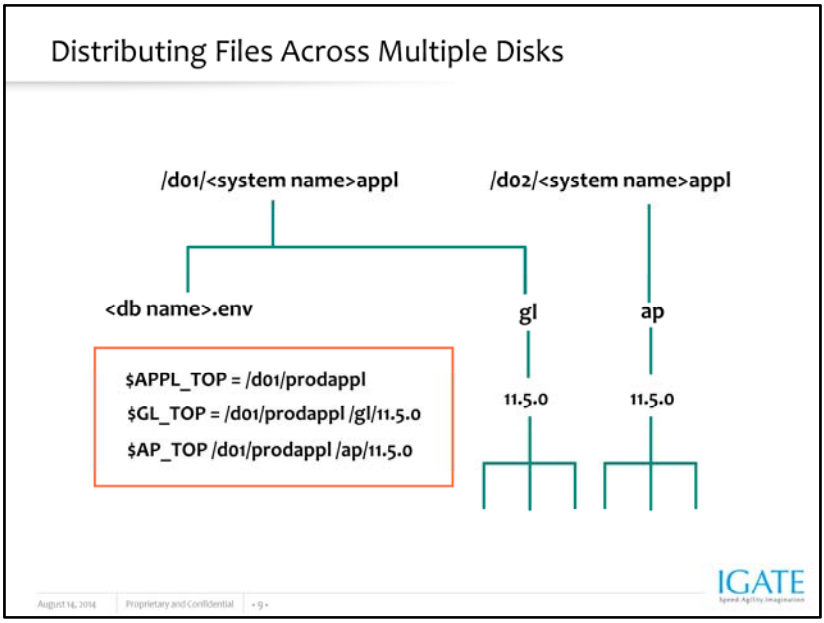
Globalizations
With Release 11i all Globalizations products (known as Localizations in releases prior to 11i) are installed in both the file system and the database. They have subdirectories under APPL_TOP similar to other Oracle Applications products.

Globalizations are Oracle Applications components that provide additional features for processing in a particular country or region. For example, Oracle Applications may extend the payment processing features of Oracle Payables to provide a feature needed for banks in France. Or Globalizations may be created to meet specific government requirements.

A Globalizations product may require additional:

- Forms
- Reports
- Seed data in the base product tables
- Database tables or other database objects

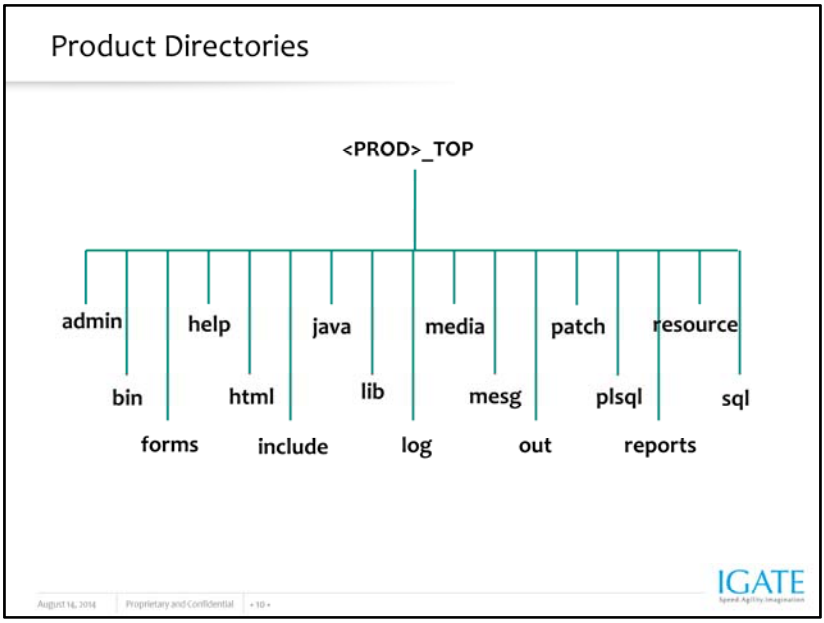
If you require the use of additional Globalizations products after the initial installation or upgrade, they can be licensed through the License Manager.



Distributing Files Across Multiple Disks
Oracle Applications files require a significant amount of space. All files may not fit on a single disk. You can distribute product directories across several disks if space is an issue.

When you install Oracle Applications, you can choose to put product files on disks other than the main disk. Rapid Install allows you to distribute the APPL_TOP across four mount points. If a product's directory is not located on the same disk, Rapid Install defines the full path to the directory in the <PROD>_TOP parameter in the <db name>.env file.

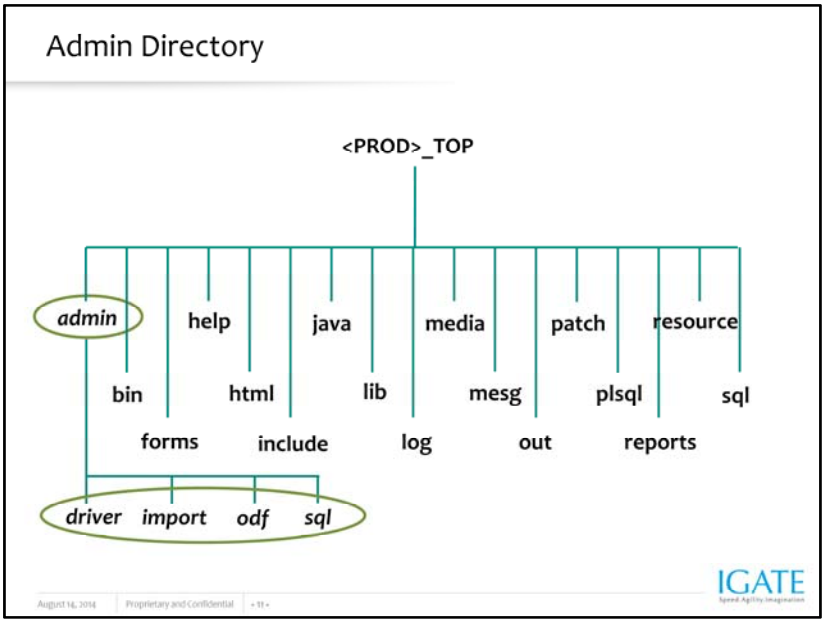
Technical note: Use Optimal Flexible Architecture (OFA) compliant mount point designations. OFA is a set of file naming and placement guidelines for Oracle software and databases. OFA helps users avoid problems by optimizing Oracle's relationship with its host operating system. One OFA rule is to name mount points using the format /x..xn..n, where x..x is a character string and n..n is a number (use zeros to pad fixed length numbers). The slide shows examples of this naming convention.



Product Directories

The Oracle Applications product directories contain many subdirectories that group the different files for a given product. A typical product directory has the subdirectories shown, however, there may be differences based upon configuration.

Note: Some products do not have all of the subdirectories you see on this slide.



Admin Directory
The admin subdirectory contains files used by AutoUpgrade to upgrade products to the current release.

The admin subdirectory has several subdirectories of its own:

driver: Contains the upgrade driver files (.drv).
import: Contains the import files used to upgrade seed data.
odf: Contains the object description files used to create and maintain tables, indexes, sequences, and views.
sql: Contains SQL scripts and PL/SQL scripts used to upgrade data and PL/SQL package creation scripts.

Bin Directory
The concurrent programs, other C language programs and operating system shell scripts for each product are stored in its respective bin directory. Of particular importance to Oracle Applications are the FND_TOP/bin and AD_TOP/bin directories. Some of the important programs in these directories include:

f60webmx: the Applications Forms processor (in FND_TOP/bin)
FNDLIBR: the concurrent manager (in FND_TOP/bin)

Forms Directory
Oracle Forms files include portable source files (.fmb files) and generated runtime files (.fmx files). Forms files are generated by converting the .fmb source file to .fmx runtime files. The forms directory contains Oracle Forms runtime files. The source files are stored in AU_TOP/forms so that runtime files can be generated more easily.

A subdirectory exists for the language(s) installed. This subdirectory is named according to the language.

for example:
US for American English forms
D for German forms
F for French forms.

Help Directory
The help directory contains online help source files. These files are imported into the database to optimize the performance of online help.

HTML Directory
The html subdirectory contains HTML, Javascript, and Java Server Page files used by various products.

Include Directory
The include directory contains header (.h) files for custom development.

Java Directory
This directory is used to store Java files. During the installation or the upgrade, the files are copied to the directories identified in the JAVA_TOP environment variable (these directories are defined in the environment file created during the installation process). This is done to optimize processing.

Lib Directory
At some time, you may need to relink Oracle Applications programs, for example if you upgrade the Oracle8i server. The lib subdirectory contains files pertinent to the process of relinking Oracle Applications programs:

object files (.o files): There is one for each C program to relink.
library file (.a file): Is the compiled C code common to that product's programs.

Log and Out Directories
When the concurrent managers run Oracle Applications reports or data update programs, they write output files as well as diagnostic log files and temporary files to directories defined during the installation process. There are two methods for storing log and output files:

The log directory holds concurrent log files from each concurrent request. The concurrent manager log files are stored in FND_TOP/log.

The out directory holds the concurrent report output files.
Note: The log and out directories should be monitored for disk space usage and purged periodically.

Media Directory
The Oracle Applications Forms client applets display text and graphics in the form of .gif files. The media directory contains all product specific .gif files.

Mesg Directory
Oracle Applications forms display messages at the bottom of the screen and in pop-up boxes. Oracle Applications concurrent programs also print messages in their log and output files. Messages may be translated into different languages. Translated messages are stored in message files separate from forms and programs.

Patch Directory
Any updates to Oracle Applications data or data model use a directory named patch to store the patch files. Patch files are grouped by release within the following subdirectories:

driver: contains the driver files (.drv). Typically named d<patchnum>.drv, where <patchnum> is the patch number.
sql: contains sql (.sql) and PL/SQL (.pls) scripts used to patch the database.
odf: contains object description files (.odf) to patch the data model.
import: contains lct, ldt and slt files to update the seed data through loaders such as FNDLOAD and AKLOAD.

PL/SQL and Resource Directories
These directories are used for unloading PL/SQL libraries used by Oracle Applications reports and forms.

The files in the plsql subdirectory (.pll files) are used by Oracle Reports.
The files in the resource subdirectory (.pll and .plx files) are used by Oracle Forms.

Resource libraries that require language translation are stored in their own language-specific directory under the resource directory.

After these files are unloaded, they are copied to equivalent subdirectories under the AU_TOP directory.

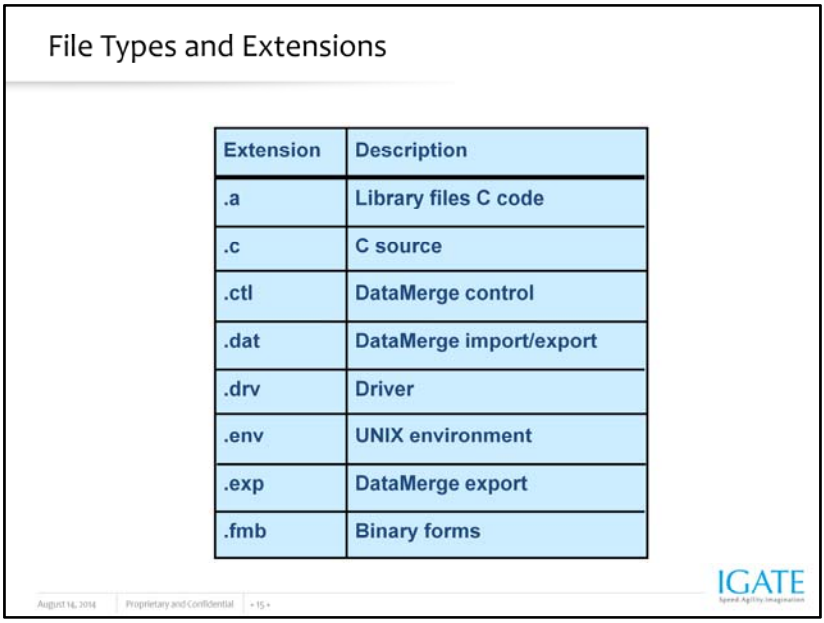
Note that not all products have PL/SQL libraries.

Reports Directory
This directory contains the reports files for this product. For each report there is a portable binary .rdf file.

The AD Administration utility is used to regenerate reports. Generation of reports is usually recommended so the PL/SQL is optimally compiled for the platform.

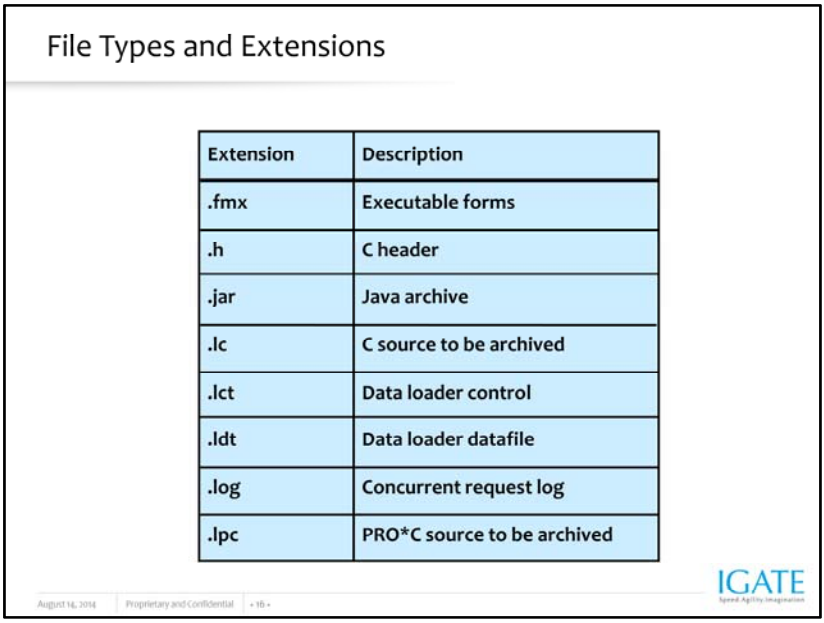
Reports are stored in their own language-specific directory under the reports directory.

Sql Directory
There are many SQL scripts used by Oracle Applications for concurrent processing. These scripts typically produce reports or perform concurrent processing and are stored as .sql files in this subdirectory.



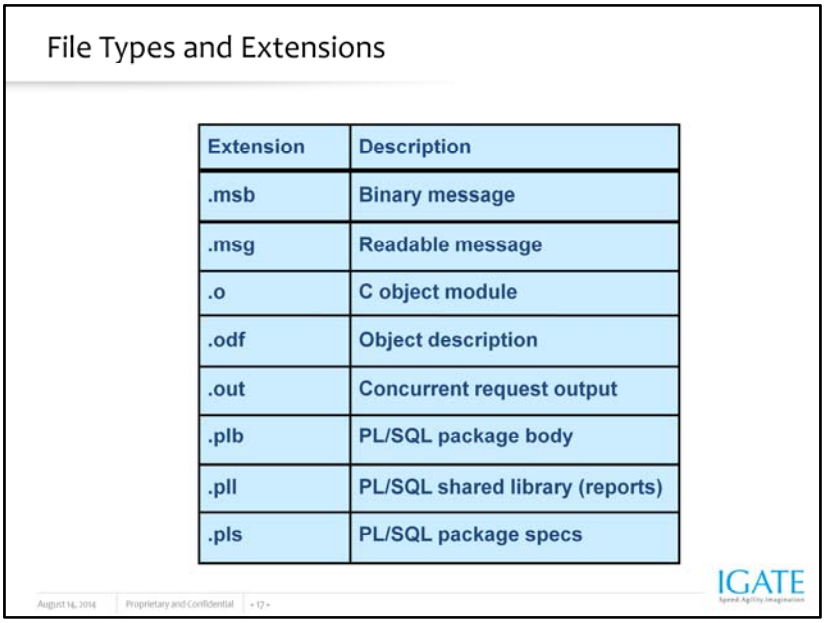
File Types and Extensions
These tables describe some of the file types and file extensions in the Oracle Applications file system:

.a: library files
.c: C source files
.ctl: DataMerge control files
.dat: DataMerge import/export files
.drv: driver files (for AutoUpgrade and AutoPatch)
.env: environment files
.exp: DataMerge export files
.fmb: binary Forms files



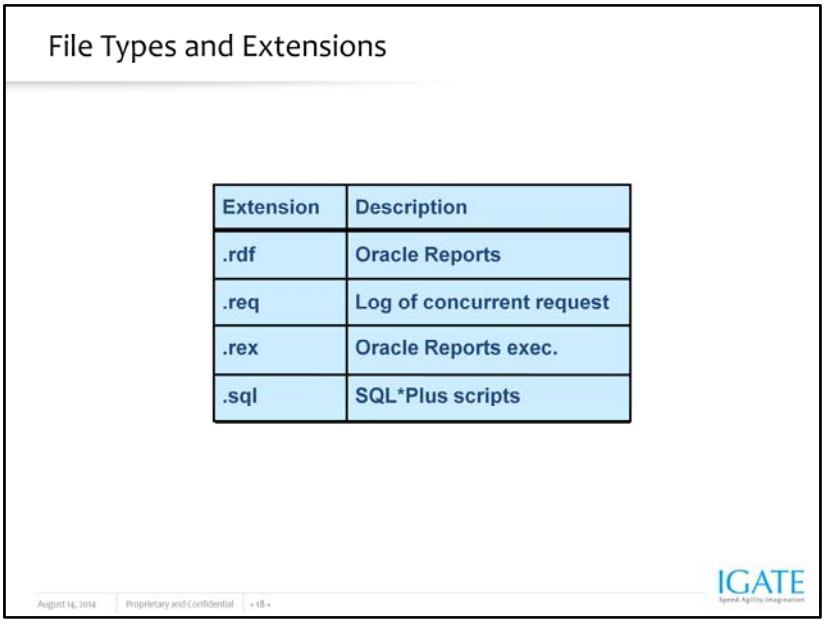
File Types and Extensions (cont.)

.fmx: Forms executable files
.h: C header files
.jar: Java Archive files
.lc: C source tobe archived
.lct: Data loader control files
.ldt: Data loader datafiles
.log: Concurrent request log files
.lpc: Pro*C source to be archived



File Types and Extensions (cont.)

.msb: binary message files
.msg: readable message files
.o: C object module
.odf: object description files
.out: Concurrent request output files
.plb: PL/SQL package body files
.pll: PL/SQL shared library files (for reports)
.pls: PL/SQL package specification files



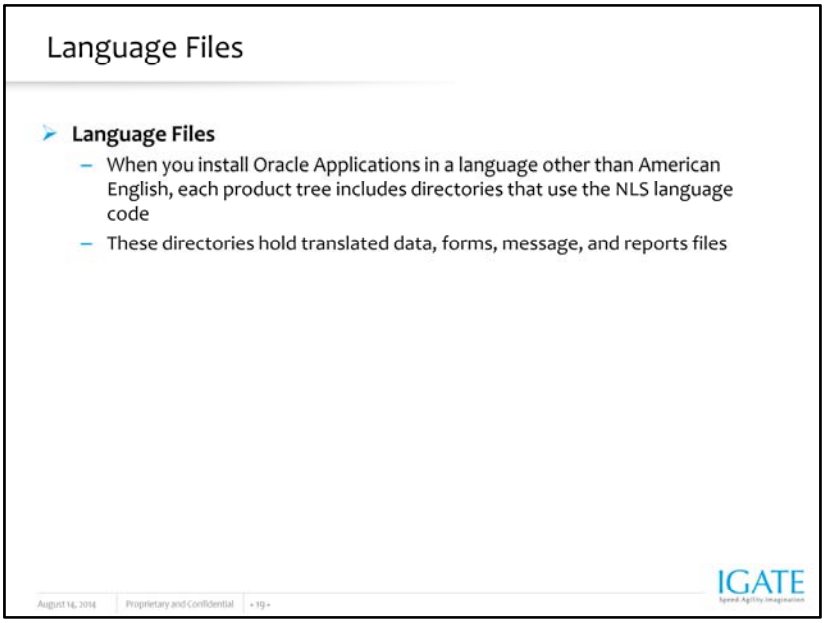
File Types and Extensions (cont.)

.rdf: Oracle Reports files

.req: concurrent request log files

.rex: Oracle Reports executable files

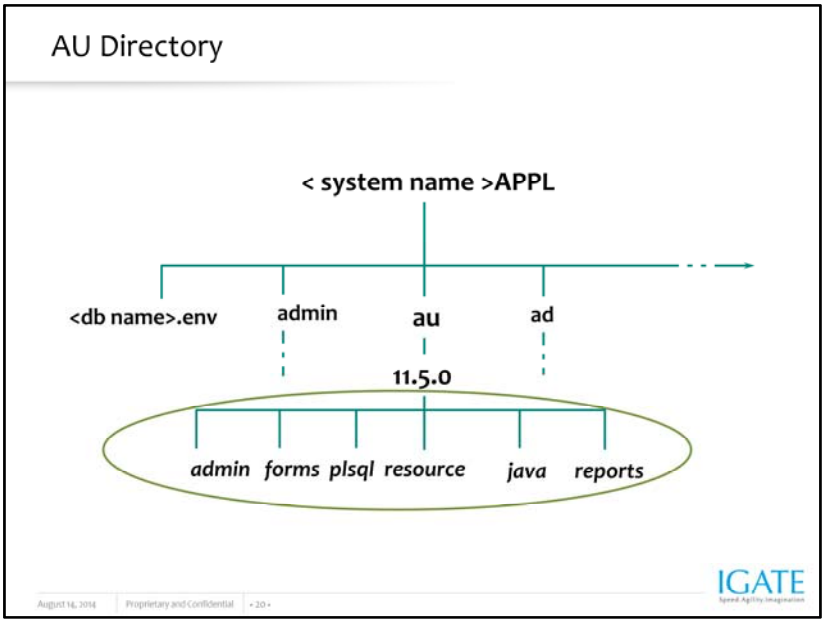
.sql: SQL*Plus scripts



Language Files

For example, the language directory named D designates German. The data loader files in the D subdirectory of admin contain the German translation of the product seed data. The D subdirectory of reports holds Oracle Reports files translated into German.

The US subdirectory in the forms directory holds Oracle Forms forms in American English. The D directory in the forms directory holds the same forms translated into German.



AU Directory

AU stands for Application Utilities. The AU_TOP directory contains product files that are consolidated in a single location for optimal processing. These files include:

PL/SQL libraries used by Oracle Reports, in the plsql subdirectory.

PL/SQL libraries used by Oracle Forms, in the resource subdirectory.

Oracle Forms source files, in the forms subdirectory.

A copy of all Java files used by JInitiator when regenerating the desktop client jar files, in the java subdirectory.

Certain reports needed by Discoverer or BIS, in the reports subdirectory.

Note: The public copy of all Java files are stored in JAVA_TOP.

Demo

- Navigate through the file system and review the contents of key Oracle Applications directories.

Summary

- **In this lesson, you should have learned how to do the following:**
  - Describe the Oracle Applications file system.
  - Describe the product subdirectory structure.
  - Describe the file types available on the file system.
  - Identify the APPL_TOP, COMN_TOP, ORA_TOP, and DATA_TOP directories.

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Review Questions

- **Question 1: What is the purpose of the APPL_TOP directory?**
- **Question 2: Identify and describe the directories present in CUSTOM_TOP.**