Oracle® Scripting Technical Reference Manual

RELEASE 11*i*

April 2000

Oracle® Scripting Technical Reference Manual
Release 11i

To order this book, ask for Part No. A83690–01

Copyright © 2000. Oracle Corporation. All rights reserved.

Major Contributors:

Contributors:

This Technical Reference Manual (TRM) in any form, software or printed matter, contains proprietary information of Oracle Corporation; it is provided under an Oracle Corporation agreement containing restrictions on use and disclosure and is also protected by copyright, patent, and other intellectual property law. Restrictions applicable to this TRM include, but are not limited to: (a) exercising either the same degree of care to safeguard the confidentiality of this TRM as you exercise to safeguard the confidentiality of your own most important Confidential Information or a reasonable degree of care, whichever is greater; (b) maintaining agreements with your employees and agents that protect the Confidential Information of third parties such as Oracle Corporation and instructing such employees and agents of these requirements for this TRM; (c) restricting disclosure of this TRM to those of your employees who have a "need to know" consistent with the purposes for which this TRM was disclosed to you; (d) maintaining this TRM at all times on your premises; (e) not removing or destroying any proprietary or confidential legends or markings placed upon this TRM in whatever form, software or printed matter; and (f) not reproducing or transmitting this TRM in any form or by any means, electronic or mechanical, for any purpose, without the express written permission of Oracle Corporation. You should not use this TRM in any form, software or printed matter, to create software that performs the same or similar functions as any Oracle Corporation products.

The information in this TRM is subject to change without notice. If you find any problems in the TRM in any form, software or printed matter, please report them to us in writing. Oracle Corporation does not warrant that this TRM is error–free. This TRM is provided to customer "as–is" with no warranty of any kind. This TRM does not constitute Documentation as that term is defined in Oracle's agreements.

Reverse engineering of the Programs (software and documentation) associated with this TRM are prohibited. The Programs associated with this TRM are not intended for use in any nuclear, aviation, mass transit, medical, or other inherently dangerous applications. It shall be licensee's responsibility to take all appropriate fail–safe, back–up, redundancy and other measures to ensure the safe use of such applications if the Programs are used for such purposes, and Oracle disclaims liability for any damages caused by such use of the Programs.

Program Documentation is licensed for use solely to support the deployment of the Programs and not for any other purpose.

Restricted Rights Legend
This TRM and the Programs associated with this TRM delivered subject to the DOD FAR Supplement are 'commercial computer software' and use, duplication and disclosure of the TRM and the Programs associated with this TRM shall be subject to the licensing restrictions set forth in the applicable Oracle license agreement. Otherwise, this TRM and the Programs associated with this TRM delivered subject to the Federal Acquisition Regulations are 'restricted computer software' and use, duplication and disclosure of the TRM and the Programs associated with this TRM shall be subject to the restrictions in FAR 52.227–14, Rights in Data — General, including Alternate III (June 1987). Oracle Corporation, 500 Oracle Parkway, Redwood City, CA 94065.

Oracle is a registered trademark, and Oracle Scripting, CASE*Exchange, Enabling the Information Age, Hyper*SQL, NLS*Workbench, Oracle7, Oracle8, Oracle 8*i*, Oracle Access, Oracle Application Object Library, Oracle Discoverer, Oracle Financials, Oracle Quality, Oracle Web Customers, Oracle Web Employees, Oracle Work in Process, Oracle Workflow, PL/SQL, Pro*Ada, Pro*C, Pro*COBOL, Pro*FORTRAN, Pro*Pascal, Pro*PL/I, SmartClient, SQL*Connect, SQL*Forms, SQL*Loader, SQL*Menu, SQL*Net, SQL*Plus, and SQL*Report are trademarks or registered trademarks of Oracle Corporation. Other names may be trademarks of their respective owners.

CAUTION

This Technical Reference Manual in any form — software or printed matter — contains proprietary, confidential information that is the exclusive property of Oracle Corporation. If you do not have a valid contract with Oracle for the use of this Technical Reference Manual or have not signed a non–disclosure agreement with Oracle covering this Technical Reference Manual, then you received this document in an unauthorized manner and are not legally entitled to possess or read it.

Use, duplication, and disclosure are subject to restrictions stated in your contract with Oracle Corporation.

Contents

Chapter 1 **Introduction** . . . . . **1 – 1**

Chapter 2 **High–Level Design** . . . . . **2 – 1**
Overview of High–Level Design . . . . . 2 – 2
Database Diagrams . . . . . 2 – 9
Public Table List . . . . . 2 – 11
Module List . . . . . 2 – 13

Chapter 3 **Detailed Design** . . . . . **3 – 1**
Overview of Detailed Design . . . . . 3 – 2
Table and View Definitions . . . . . 3 – 3

Oracle Proprietary, Confidential Information—Use Restricted by Contract

Oracle Proprietary, Confidential Information—Use Restricted by Contract

CHAPTER

1 Introduction

The *Oracle Scripting Technical Reference Manual* provides the information you need to understand the underlying structure of Oracle Scripting. After reading this manual, you should be able to convert your existing applications data, integrate your existing applications with Oracle Scripting, and write custom reports for Oracle Scripting, as well as read data that you need to perform other tasks.

This chapter introduces you to the *Oracle Scripting Technical Reference Manual*, and explains how to use it.

Oracle Proprietary, Confidential Information—Use Restricted by Contract

Introduction

At Oracle, we design and build applications using Oracle Designer, our systems design technology that provides a complete environment to support developers through all stages of a systems life cycle. Because we use a repository–based design toolset, all the information regarding the underlying structure and processing of our applications is available to us online. Using Oracle Designer, we can present this information to you in the form of a technical reference manual.

This *Oracle Scripting Technical Reference Manual* contains detailed, up–to–date information about the underlying structure of Oracle Scripting. As we design and build new releases of Oracle Scripting, we update our Oracle Designer repository to reflect our enhancements. As a result, we can always provide you with an *Oracle Scripting Technical Reference Manual* that contains the latest technical information as of the publication date. Note that after the publication date we may have added new indexes to Oracle Scripting to improve performance.

About this Manual

This manual describes the Oracle Customer Relationship Management (CRM) Applications Release 11i data model, as used by Oracle Scripting; it discusses the database we include with a fresh install of Oracle CRM Release 11i. If you have not yet upgraded to Release 11i, your database may differ from the database we document in this book.

You can contact your Oracle representative to confirm that you have the latest technical information for Oracle Scripting. You can also use Oracle*MetaLink* which is accessible through Oracle's Support Web Center (*http://www.oracle.com/support/elec_sup*).

Finding the Latest Information

The *Oracle Scripting Technical Reference Manual* contains the latest information as of the publication date. For the latest information we encourage you to use Oracle*MetaLink* which is accessible through Oracle's Support Web Center (*http://www.oracle.com/support/elec_sup*).

Oracle Proprietary, Confidential Information—Use Restricted by Contract

Audience

The *Oracle Scripting Technical Reference Manual* provides useful guidance and assistance to:

- Technical End Users
- Consultants
- Systems Analysts
- System Administrators
- Other MIS professionals

This manual assumes that you have a basic understanding of structured analysis and design, and of relational databases. It also assumes that you are familiar with Oracle Application Object Library and Oracle Scripting. If you are not familiar with the above products, we suggest that you attend one or more of the training classes available through Oracle Education (see: Other Information Sources: page 1 – 7).

How This Manual is Organized

This manual contains two major sections, High–Level Design and Detailed Design.

High–Level Design

This section, Chapter 2, contains database diagrams and lists each database table and view that Oracle Scripting uses. This chapter also has a list of modules.

Detailed Design

This section, Chapter 3, contains a detailed description of the Oracle Scripting database design, including information about each database table and view you might need for your custom reporting or other data requirements.

Oracle Proprietary, Confidential Information—Use Restricted by Contract

How to Use This Manual

The *Oracle Scripting Technical Reference Manual* is a single, centralized source for all the information you need to know about the underlying structure and processing of Oracle Scripting. For example, you can use this manual when you need to:

- Convert existing application data
- Integrate your Oracle Scripting application with your other applications systems
- Write custom reports
- Define alerts against Oracle Applications tables
- Configure your Oracle Self–Service Web Applications
- Create views for decision support queries using query tools
- Create business views for Oracle Discoverer

You need not read this manual cover to cover. Use the table of contents and index to quickly locate the information you need.

How Not To Use This Manual

Do not use this manual to plan modifications

You should not use this manual to plan modifications to Oracle Scripting. Modifying Oracle Scripting limits your ability to upgrade to future releases of your Oracle Scripting application. In addition, it interferes with our ability to give you the high–quality support you deserve.

We have constructed Oracle Scripting so that you can customize it to fit your needs without programming, and you can integrate it with your existing applications through interface tables. However, should you require program modifications, you should contact our support team (see: Other Information Sources: page 1 – 7). They can put you in touch with Oracle Services, the professional consulting organization of Oracle. Their team of experienced applications professionals can make the modifications you need while ensuring upward compatibility with future product releases.

Oracle Proprietary, Confidential Information—Use Restricted by Contract

Do not write data into non–interface tables

Oracle reserves the right to change the structure of Oracle Applications tables, and to change the meaning of, add, or delete lookup codes and data in future releases. Do not write data directly into or change data in non–interface tables using SQL*Plus or other programming tools because you risk corrupting your database and interfering with our ability to support you.

Moreover, this version of the *Oracle Scripting Technical Reference Manual* does not contain complete information about the dependencies between Oracle Scripting applications tables. Therefore, you should write data into only those tables we identify as interface tables. If you write data into other non–interface tables, you risk violating your data integrity since you might not fulfill all the data dependencies in your Oracle Scripting application.

You are responsible for the support and upgrade of the logic within the procedures that you write, which may be affected by changes between releases of Oracle Applications.

Do not rely on upward compatibility of the data model

Oracle reserves the right to change the structure of Oracle Scripting tables, and to change the meaning of, add, or delete lookup codes and other data in future releases. We do not guarantee the upward compatibility of the Oracle Scripting data model. For example, if you write a report that identifies concurrent requests that end in Error status by selecting directly from Oracle Application Object Library tables, we do not guarantee that your report will work properly after an upgrade.

About Oracle Application Object Library

The *Oracle Scripting Technical Reference Manual* may contain references to tables that belong to Oracle Application Object Library. Oracle Application Object Library is a collection of pre–built application components and facilities for building Oracle Applications and extensions to Oracle Applications. Oracle Application Coding Standards use the Oracle Application Object Library and contains shared components including but not limited to — forms, subroutines, concurrent programs and reports, database tables and objects, messages, menus, responsibilities, flexfield definitions and online help.

Attention: Oracle does not support *any* customization of Oracle Application Object Library tables or modules, not even by Oracle consultants. (Oracle Application Object Library tables generally have names beginning with FND_%.)

Accordingly, this manual does not contain detailed information about most Oracle Application Object Library tables used by Oracle Scripting.

A Few Words About Terminology

The following list provides you with definitions for terms that we use throughout this manual:

Relationship

A relationship describes any significant way in which two tables may be associated. For example, rows in the Journal Headers table may have a one–to–many relationship with rows in the Journal Lines table.

Database Diagram

A database diagram is a graphic representation of application tables and the relationships between them.

Module

A module is a program or procedure that implements one or more business functions, or parts of a business function, within an application. Modules include forms, concurrent programs and reports, and subroutines.

Application Building Block

An application building block is a set of tables and modules (forms, reports, and concurrent programs) that implement closely–related database objects and their associated processing. Said another way, an application building block is a logical unit of an application.

QuickCodes

QuickCodes let you define general purpose, static lists of values for window fields. QuickCodes allow you to base your program logic on lookup codes while displaying user–friendly names in a list of values

Oracle Proprietary, Confidential Information—Use Restricted by Contract

window. QuickCodes simplify name and language changes by letting you change the names your end users see, while the codes in your underlying programs remain the same.

Form

A form is a module comprised of closely related windows that are used together to perform a task. For example, the Enter Journals form in Oracle General Ledger includes the Enter Journals window, the Batch window, and the More Actions window among others. The Enter Journals window is the main window, and from it, you can use buttons to navigate to other windows in the form. The form name usually corresponds to the main window in the form, and is frequently a window you open directly from the Navigator.

Other Information Sources

Installation and System Administration

Training

Oracle Education offers a complete set of training courses to help you and your staff master Oracle CRM Applications. We can help you develop a training plan that provides thorough training for both your project team and your end users. We will work with you to organize courses appropriate to your job or area of responsibility.

Training professionals can show you how to plan your training throughout the implementation process so that the right amount of information is delivered to key people when they need it the most. You can attend courses at any one of our many Educational Centers, or you can arrange for our trainers to teach at your facility. In addition, we can tailor standard courses or develop custom courses to meet your needs.

Support

From on–site support to central support, our team of experienced professionals provides the help and information you need to keep Oracle Scripting working for you. This team includes your Technical Representative, Account Manager, and Oracle's large staff of consultants and support specialists with expertise in your business

Oracle Proprietary, Confidential Information—Use Restricted by Contract

area, managing an Oracle server, and your hardware and software environment.

Oracle Proprietary, Confidential Information—Use Restricted by Contract

About Oracle

Oracle Corporation develops and markets an integrated line of software products for database management, applications development, decision support, and office automation, as well as Oracle Applications, an integrated suite of more than 75 software modules for financial management, supply chain management, manufacturing, project systems, human resources, and sales and service management.

Oracle products are available for mainframes, minicomputers, personal computers, network computers, and personal digital assistants, allowing organizations to integrate different computers, different operating systems, different networks, and even different database management systems, into a single, unified computing and information resource.

Oracle is the world's leading supplier of software for information management, and the world's second largest software company. Oracle offers its database, tools, and applications products, along with related consulting, education, and support services, in over 145 countries around the world.

Thank You

Thanks for using Oracle Scripting and this technical reference manual!

We appreciate your comments and feedback. After the Table of Contents of this manual is a Reader's Comment Form that you can use to explain what you like or dislike about Oracle Scripting or this technical reference manual. Mail your comments to the following address or call us directly at (650) 506–7000.

Oracle CRM Applications Content Development Manager
Oracle Corporation
500 Oracle Parkway
Redwood Shores, California 94065
U.S.A.

Oracle Proprietary, Confidential Information—Use Restricted by Contract

Oracle Proprietary, Confidential Information—Use Restricted by Contract

CHAPTER

2 High–Level Design

This chapter presents a high–level design for Oracle Scripting that satisfies the business needs we specify during Strategy and Analysis. It contains database diagrams for Oracle Scripting application building blocks, lists of database tables and views, and a list of modules.

Oracle Proprietary, Confidential Information—Use Restricted by Contract

Overview of High–Level Design

During High–Level Design, we define the application components (tables, views, and modules) we need to build our application. We specify what application components should do without specifying the details of *how* they should do it.

You can refer to this High–Level Design chapter to quickly acquaint yourself with the tables, views, and modules that comprise Oracle Scripting applications. And, you can prepare yourself to understand the detailed design and implementation of Oracle Scripting.

Summary Database Diagram

The Summary Database Diagram section graphically represents the most important application tables and the relationships between them. It omits tables and relationships that contribute little to the understanding of the application data model. Typically, a summary database diagram shows tables that contain key reference and transaction data.

We prepare a summary database diagram to describe, at a conceptual level, the key information on which our business depends. Later, we refine this summary database diagram, breaking it into multiple database diagrams (generally, one per application building block) to represent all the tables and relationships we need to implement our application in the database.

Review the Summary Database Diagram section to see at a glance the major tables and relationships on which your Oracle Scripting application depends.

Database Diagrams

The Database Diagrams section graphically represents all Oracle Scripting applications tables and the relationships between them, organized by building block.

Use this section to quickly learn what tables each Oracle Scripting application building block uses, and how those tables interrelate. Then, you can refer to the Table and View Definitions sections of Chapter 3 for more detailed information about each of those tables.

Oracle Proprietary, Confidential Information—Use Restricted by Contract

Table Lists

The Table List sections list the Oracle Scripting applications tables. Because a product might not include at least one table for each type, this Technical Reference Manual might not include each of the following sections.

Public Tables

Use the Public Table List section to quickly identify the tables you are most interested in. Then, you can refer to the Table and View Definitions sections of Chapter 3 for more detailed information about those tables.

In addition, this manual may contain full documentation for one or more of the following Application Object Library tables: FND_DUAL, FND_CURRENCIES, and FND_COMMON_LOOKUPS.

Internal Tables

This section includes a list of private, internal tables used by Oracle Scripting; we do not provide additional documentation for these tables.

View Lists

The View List sections list the Oracle Scripting views, with one section for each type of view. Because a product might not include at least one view for each type, this Technical Reference Manual might not include each of the following sections.

Use this section to quickly identify the views you are most interested in. Then, you can refer to the Table and View Definitions sections of Chapter 3 for more detailed information about those views.

Public Views

This section lists views that may be useful for your custom reporting or other data requirements. The list includes a description of the view, and the page in Chapter 3 that gives detailed information about the public view.

Oracle Proprietary, Confidential Information—Use Restricted by Contract

Web Views

This section lists views that you may need to configure your Self–Service Web applications. The list includes a description of the view, and the page in Chapter 3 that gives detailed information about the web view.

Forms and Table Views

This section lists supplementary views that are not essential to the Release 11i data model, but simplify coding or improve performance for Oracle Developer.

Internal Views

This section includes each private, internal view that Oracle Scripting uses.

Single–Organization Views

This section lists the Oracle Scripting views that we added to take the place of various tables that are now partitioned by operating unit, to support multiple sets of books within a single installation of Oracle Scripting.

Multiple Reporting Currency Views

This list includes views that were created to support the Multiple Reporting Currencies feature.

MultiLingual Views

This section lists views that were created to allow certain seed data to be available in multiple national languages simultaneously.

Module List

The Module List section briefly describes each of the Oracle Scripting applications modules. This section lists forms, reports, and concurrent programs.

A form is a module comprised of closely related windows that are used together to perform a task. For example, the Enter Journals form in Oracle General Ledger includes the Enter Journals window, the Batch

Oracle Proprietary, Confidential Information—Use Restricted by Contract

window, and the More Actions window. The Enter Journals window is the main window, and from it, you can use buttons to navigate to other windows in the form. The form name usually corresponds to the main window in the form, and is frequently a window you can open directly from the Navigator.

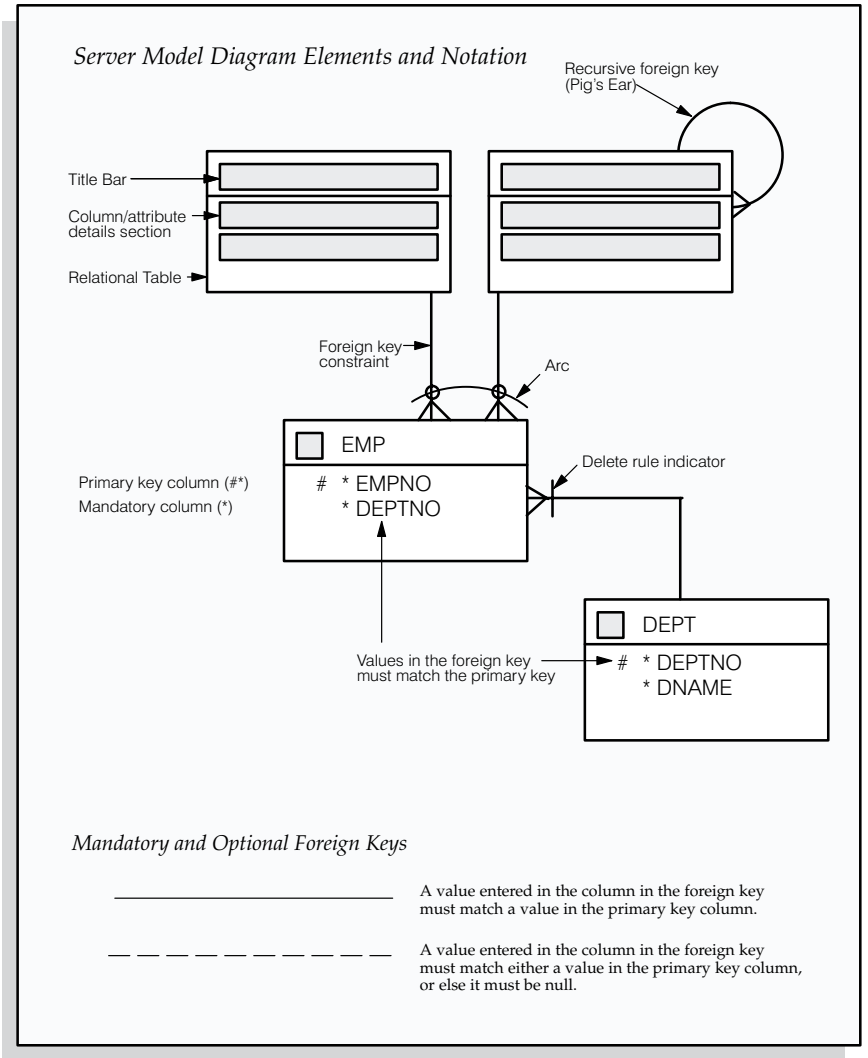
The Reports and Concurrent Programs lists include processes you can submit from the Submit Requests window or other windows, as well as processes that are submitted automatically by Oracle Scripting. Use your user's guide to learn more about reports and concurrent processes.

Oracle Proprietary, Confidential Information—Use Restricted by Contract

Database Diagramming Conventions

We use the following notational conventions in our database diagrams:

Figure 2 – 1
Database Diagram Conventions



Oracle Proprietary, Confidential Information—Use Restricted by Contract

Tables – are the basic unit of storage in the database. A hand symbol preceding the title in the table's title bar indicates that the table is not owned by this application but shared with another.

Foreign key constraint – is a type of referential integrity constraint for checking the integrity of data entered in a specific column or set of columns. This specified column or set of columns is known as the foreign key.

Delete rule indicator – determines the action to be taken when an attempt is made to delete a related row in a join table. A line through the foreign key constraint, as shown on the above diagram, indicates that this action is restricted.

Arcs – specify that, for any given row in a table, a value must be entered in one of the arc columns. The remaining columns within the arc must be null.

Oracle Proprietary, Confidential Information—Use Restricted by Contract

Oracle Scripting Summary Database Diagram

Oracle Proprietary, Confidential Information—Use Restricted by Contract

Database Diagrams

This section graphically represents most of the significant Oracle Scripting tables and the relationships between them, organized by building block. Use this section to quickly learn what tables each Oracle Scripting application building block uses, and how these tables interrelate. Then, you can refer to the Table and View Definitions sections of Chapter 3 for more detailed information about each of those tables.

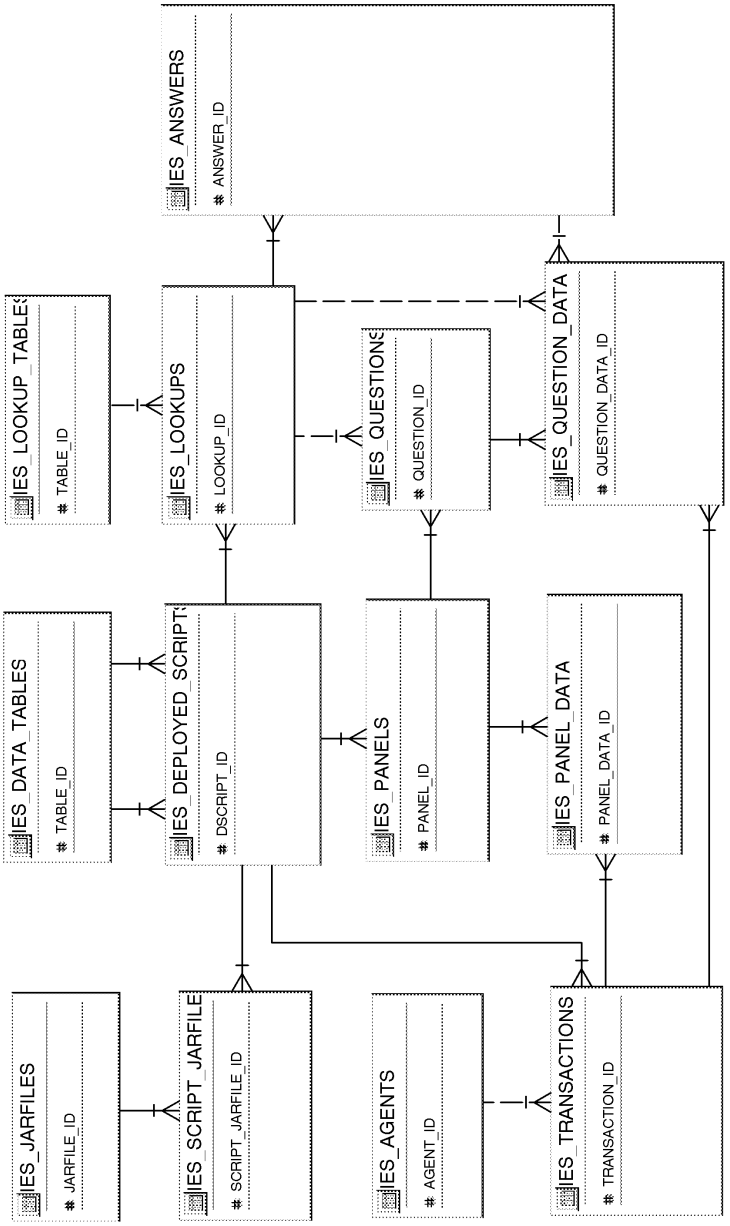
This section contains a database diagram for each of the following Oracle Scripting application building blocks:

- Diagram 1: Scripting Server Model

Some tables, especially important reference tables, appear in more than one database diagram. When several building blocks use a table, we show that table in each appropriate database diagram.

Scripting Server Model

Oracle Proprietary, Confidential Information—Use Restricted by Contract



Oracle Proprietary, Confidential Information—Use Restricted by Contract

Public Table List

This section lists each public database table that Scripting uses and provides a brief description of each of those tables. The page reference is to the table description in Chapter 3.

Note that ”public” tables are not necessarily intended for write access by custom code; Oracle Corporation supports write access using only standard Oracle Applications forms, reports, and programs, or any SQL write access to tables explicitly documented as API tables. For more information, see the How Not To Use This Manual section of this book’s Introduction.

Scripting uses the following Public tables:

Table Name	Description
IES_AGENTS	This table is used to store Scripting’s Agent information. (See page 3 – 8)
IES_ANSWERS	This table contains lookup choices. (See page 3 – 10)
IES_AUX_SCRIPT_RELATIONSHIPS	Auxillary table for storing script relationships. (See page 3 – 12)
IES_DATA_TABLES	This table holds the names of all tables that are to be used for footprinting and answer_data collected for a script. (See page 3 – 14)
IES_DEPLOYED_SCRIPTS	This table holds all deployed scripts and related information. (See page 3 – 15)
IES_JARFILES	This table holds all the jar files that are used by different scripts. (See page 3 – 17)
IES_LOOKUPS	This table contains all lookups used by questions in a given script. (See page 3 – 18)
IES_LOOKUP_TABLES	This table contains names of external tables referenced by IES_LOOKUPS table. (See page 3 – 20)
IES_PANELS	This table contains all panels in a deployed script. (See page 3 – 21)
IES_PANEL_DATA	This table stores footprinting information during an interaction. (See page 3 – 23)
IES_QUESTIONS	This table contains all questions whose answers will be stored and/or need a dynamic lookup. (See page 3 – 25)

Oracle Proprietary, Confidential Information—Use Restricted by Contract

IES_QUESTION_DATA	This table stores all answers collected by Scripting Engine. (See page 3 – 27)
IES_SCRIPT_JARFILES	This table stores the jar file associations with deployed scripts. (See page 3 – 29)
IES_TRANSACTIONS	This table holds all interactions for a session. (See page 3 – 31)

Oracle Proprietary, Confidential Information—Use Restricted by Contract

Module List

This section lists each form, report and concurrent program comprising Scripting.

Oracle Proprietary, Confidential Information—Use Restricted by Contract

Oracle Proprietary, Confidential Information—Use Restricted by Contract

CHAPTER

3 Detailed Design

This chapter presents a detailed design for implementing Oracle Scripting. It contains detailed definitions of tables and views that you may need to reference to write custom reports or use for other data extraction.

Oracle Proprietary, Confidential Information—Use Restricted by Contract

Overview of Detailed Design

During Detailed Design, we specify in detail how each applications component should work. We prepare detailed definitions of tables and views.

You can refer to this Detailed Design chapter to gain a detailed understanding of the underlying structure and processing of Oracle Scripting that enables you to:

- Convert existing application data
- Integrate your Oracle Scripting application with your other applications systems
- Write custom reports
- Define alerts against Oracle Applications tables
- Create views for decision support queries using query tools
- Configure your Oracle Self–Service Web Applications

Table and View Definitions

The Table and View Definitions section contains a detailed definition of Oracle Scripting applications tables. For each table, it provides information about primary keys, foreign keys, QuickCodes, indexes, triggers, and sequences. It also gives you a detailed description of each column and its characteristics. In addition, it provides the SQL statement that defines each view. Review this section to get a detailed understanding of what tables your Oracle Scripting application contains, and how it uses them to hold and access the information it needs.

Oracle Proprietary, Confidential Information—Use Restricted by Contract

Table and View Definitions

This section contains a detailed description of each Oracle Scripting table and view that you may need to reference. For each table, it presents detailed information about:

- Primary keys
- Foreign keys
- Column descriptions
- Indexes
- Oracle sequences
- Triggers
- View derivations

Because Oracle does not support customization of Oracle Application Object Library tables, we do not provide you with detailed information about them. Consequently, this section does not document all the FND_% tables Oracle Scripting uses.

The following sections appear in each table or view description:

Foreign Keys

To help you understand the relationships between tables, we list each foreign key contained in a table. For each foreign key in a table, we list the primary key table name (the table to which a foreign key refers), its corresponding primary key columns, and the foreign key columns that refer to those primary key columns.

When the primary key table has a composite primary key, we list each column of the composite key sequentially.

If a table contains two or more distinct foreign keys that refer to the same primary key table, we repeat the primary key table name and list each of the distinct foreign keys separately.

QuickCodes Columns

When a database column contains a QuickCodes value, which we implement using a foreign key to FND_LOOKUPS, MFG_LOOKUPS, or to some other lookup table, we list the QuickCodes type (lookup

Oracle Proprietary, Confidential Information—Use Restricted by Contract

type) to which the QuickCodes value must belong and a complete list of QuickCodes values and meanings. Some QuickCodes can be defined by you in the application. These values are designated as User–defined.

Column Descriptions

We list the important characteristics of each column in a table or view. These characteristics include whether the column is part of the table's primary key, whether Oracle8i requires a value for this column, and the data type of the column. We also give you a brief description of how Oracle Scripting uses the column.

When a column is part of a table's primary key, we append the notation (PK) to the name of that column.

To help you understand which columns Oracle Scripting uses and which columns it does not use, we alert you to any unused column. When no module uses a database column, we show one of the following legends in the Description column:

Not currently used	Oracle Scripting does not use this column, although the column might be used in a future release.
No longer used	Oracle Scripting no longer uses this column. AutoInstall installs this column. Subsequent versions of Oracle Scripting might not include this column.
No longer installed	Oracle Scripting no longer uses this column. If you *upgraded* your software from an earlier version, you may still have this column, depending upon whether you chose to delete it during an upgrade process. If you *install* Oracle Scripting, you do not have this column.

Standard Who Columns

Most Oracle Scripting tables contain standard columns to support \ **R**ow **W**ho. When your program or SQL*Plus command selects a row from a table, use these columns to determine who last updated the row. If your program or SQL*Plus command updates or inserts a row in an

Oracle Proprietary, Confidential Information—Use Restricted by Contract

interface table, you must populate each of the five standard Who columns:

LAST_UPDATE_DATE	Date when a user last updated this row
LAST_UPDATED_BY	User who last updated this row (foreign key to FND_USER.USER_ID)
CREATION_DATE	Date when this row was created
CREATED_BY	User who created this row (foreign key to FND_USER.USER_ID)
LAST_UPDATE_LOGIN	Operating system login of user who last updated this row (foreign key to FND_LOGINS.LOGIN_ID). You should set this to NULL, or to 0 if NULL is not allowed

Since every table containing Who columns has several foreign keys to the tables FND_USER and FND_LOGINS, we do not include the foreign key columns LAST_UPDATED_BY, CREATED_BY, or LAST_UPDATE_LOGIN in a table's list of foreign keys.

Additional Who Columns for Concurrent Programs

Some Oracle Scripting tables also contain several additional Who columns to distinguish between changes a user makes with a form and changes a concurrent program makes. When a concurrent program updates or inserts a row in a table, the concurrent program populates the following additional Who columns:

REQUEST_ID	Concurrent request ID of program that last updated this row (foreign key to FND_CONCURRENT_REQUESTS.REQUEST_ID)
PROGRAM_APPLICATION_ID	Application ID of program that last updated this row (foreign key to FND_APPLICATION.APPLICATION_ID)
PROGRAM_ID	Program ID of program that last updated this row (foreign key to FND_CONCURRENT_PROGRAM.CONCURRENT_PROGRAM_ID)
PROGRAM_UPDATE_DATE	Date when a program last updated this row

Oracle Proprietary, Confidential Information—Use Restricted by Contract

Since every table containing these additional Who columns has several foreign keys to the tables FND_CONCURRENT_REQUESTS, FND_APPLICATION, and FND_CONCURRENT_PROGRAM, we do not include the foreign key columns REQUEST_ID, PROGRAM_APPLICATION_ID, or PROGRAM_ID in a table's list of foreign keys.

Columns Reserved for Country–Specific Localizations

Some tables have GLOBAL_ATTRIBUTE columns which support additional features added to Oracle Scripting to meet statutory requirements and common business practices in your country or region. For details on these columns, refer to the Appendix in *Oracle Financials Regional Technical Reference Manual*. To read more about the features that these columns support, look for a User Guide appropriate to your country; for example, see the *Oracle Financials for the Czech Republic User Guide*.

Indexes

If an Oracle Scripting table uses an Oracle8i index, we list the database columns that comprise that index, in sequential order.

> **Note:** The indexes we document in this manual correspond to unique keys we specified during product development and testing. In some cases, we may add additional indexes during the porting process to fine–tune performance on specific platforms; therefore, there may be minor differences between the indexes documented in this book and the indexes for production versions of Oracle Scripting.

Sequences

Oracle Scripting uses Oracle8i sequence generators to generate unique integers. If any table column gets its value from an Oracle8i sequence generator, we list the name of the corresponding sequence generator and the name of the column that stores the unique integer.

Oracle Proprietary, Confidential Information—Use Restricted by Contract

Database Triggers

If a table has one or more active database triggers, we provide a brief explanation of each database trigger and when it fires.

View Derivation

For each Oracle Scripting view you may need to reference, we include important elements from the SQL statement that defines or creates a view. By studying this view definition, you can understand exactly how a view derives its contents.

Oracle Proprietary, Confidential Information—Use Restricted by Contract

IES_AGENTS

The IES_AGENTS table contains records for all agents who have used and who will use Scripting. Each agent record stores the database login name (string) for the agent. This database login is also used as the agent?s login to Scripting. This information is stored as a string instead of as a reference to a record in the system table to prevent problems with a referenced login being removed from the database. The agent record also references an agent as stored in the Resource Manager schema. Agent permissions are defined in the Resource Manager schema and will be used for permission–based views. The exact relationships are yet to be determined.

Column Descriptions

Name	Null?	Type	Description
AGENT_ID (PK)	NOT NULL	NUMBER	Unique Identifier for Agents
CREATED_BY	NOT NULL	NUMBER	Standard Who column
LAST_UPDATED_BY	NULL	NUMBER	Standard Who column
CREATION_DATE	NOT NULL	DATE	Standard Who column
LAST_UPDATE_DATE	NULL	DATE	Standard Who column
LAST_UPDATE_LOGIN	NULL	NUMBER	Standard Who column
AGENT_LOGIN	NOT NULL	VARCHAR2(240)	Login Name for the agent(Database User Name)
RESOURCE_ID	NULL	NUMBER	ID in the CRM Foundation component Resource Manager schema
ATTRIBUTE_CATEGORY	NULL	VARCHAR2(30)	Descriptive flexfield structure defining column
ATTRIBUTE1	NULL	VARCHAR2(150)	Descriptive flexfield segment column
ATTRIBUTE2	NULL	VARCHAR2(150)	Descriptive flexfield segment column
ATTRIBUTE3	NULL	VARCHAR2(150)	Descriptive flexfield segment column
ATTRIBUTE4	NULL	VARCHAR2(150)	Descriptive flexfield segment column
ATTRIBUTE5	NULL	VARCHAR2(150)	Descriptive flexfield segment column
ATTRIBUTE6	NULL	VARCHAR2(150)	Descriptive flexfield segment column
ATTRIBUTE7	NULL	VARCHAR2(150)	Descriptive flexfield segment column
ATTRIBUTE8	NULL	VARCHAR2(150)	Descriptive flexfield segment column
ATTRIBUTE9	NULL	VARCHAR2(150)	Descriptive flexfield segment column
ATTRIBUTE10	NULL	VARCHAR2(150)	Descriptive flexfield segment column
ATTRIBUTE11	NULL	VARCHAR2(150)	Descriptive flexfield segment column
ATTRIBUTE12	NULL	VARCHAR2(150)	Descriptive flexfield segment column
ATTRIBUTE13	NULL	VARCHAR2(150)	Descriptive flexfield segment column
ATTRIBUTE14	NULL	VARCHAR2(150)	Descriptive flexfield segment column

Oracle Proprietary, Confidential Information—Use Restricted by Contract

ATTRIBUTE15		NULL	VARCHAR2(150)	Descriptive flexfield segment column

Sequences

Sequence	Derived Column
IES_AGENTS_S	AGENT_ID

Oracle Proprietary, Confidential Information—Use Restricted by Contract

IES_ANSWERS

The IES_ANSWERS table contains lookup choices as referenced by the IES_LOOKUPS table. An answer references a lookup in the IES_LOOKUPS table and represents a choice for a question and its associated value (ANSWER_VALUE). The actual string to be used is specified in the ANSWER_DISPLAY_VALUE column.

Foreign Keys

Primary Key Table	Primary Key Column	Foreign Key Column
IES_LOOKUPS	LOOKUP_ID	LOOKUP_ID

Column Descriptions

Name	Null?	Type	Description
ANSWER_ID (PK)	NOT NULL	NUMBER	Unique Identifier for Answers
CREATED_BY	NOT NULL	NUMBER	Standard Who Column.
LAST_UPDATED_BY	NULL	NUMBER	Standard Who Column.
CREATION_DATE	NOT NULL	DATE	Standard Who Column.
LAST_UPDATE_DATE	NULL	DATE	Standard Who Column.
LAST_UPDATE_LOGIN	NULL	NUMBER	Standard Who Column.
LOOKUP_ID	NOT NULL	NUMBER	Foreign key column from IES_LOOKUPS table.
ANSWER_VALUE	NOT NULL	VARCHAR2(512)	Answer's actual value
ANSWER_DISPLAY_VALUE	NOT NULL	VARCHAR2(512)	Answer's display value
ANSWER_ORDER	NULL	NUMBER	Used to order the choices visually when they are displayed in the Agent Desktop GUI
ANSWER_ACTIVE	NULL	NUMBER	The ANSWER_ACTIVE column is a user column that is set to 1 by default, meaning that the lookup choice should be displayed. The lookup choice will not be displayed if this column is set to 0.
DESTINATION	NULL	VARCHAR2(512)	Not currently used
ACTIVE_STATUS	NULL	NUMBER	Active/Inactive status
ATTRIBUTE_CATEGORY	NULL	VARCHAR2(30)	Descriptive flexfield structure defining column
ATTRIBUTE1	NULL	VARCHAR2(150)	Descriptive flexfield segment column
ATTRIBUTE2	NULL	VARCHAR2(150)	Descriptive flexfield segment column
ATTRIBUTE3	NULL	VARCHAR2(150)	Descriptive flexfield segment column
ATTRIBUTE4	NULL	VARCHAR2(150)	Descriptive flexfield segment column
ATTRIBUTE5	NULL	VARCHAR2(150)	Descriptive flexfield segment column
ATTRIBUTE6	NULL	VARCHAR2(150)	Descriptive flexfield segment column
ATTRIBUTE7	NULL	VARCHAR2(150)	Descriptive flexfield segment column
ATTRIBUTE8	NULL	VARCHAR2(150)	Descriptive flexfield segment column
ATTRIBUTE9	NULL	VARCHAR2(150)	Descriptive flexfield segment column

Oracle Proprietary, Confidential Information—Use Restricted by Contract

ATTRIBUTE10		NULL	VARCHAR2(150)	Descriptive flexfield segment column
ATTRIBUTE11		NULL	VARCHAR2(150)	Descriptive flexfield segment column
ATTRIBUTE12		NULL	VARCHAR2(150)	Descriptive flexfield segment column
ATTRIBUTE13		NULL	VARCHAR2(150)	Descriptive flexfield segment column
ATTRIBUTE14		NULL	VARCHAR2(150)	Descriptive flexfield segment column
ATTRIBUTE15		NULL	VARCHAR2(150)	Descriptive flexfield segment column

Indexes

Index Name	Index Type	Sequence	Column Name
IES_ANSWERS_N1	NOT UNIQUE	1	LOOKUP_ID

Sequences

Sequence	Derived Column
IES_ANSWERS_S	ANSWER_ID

Oracle Proprietary, Confidential Information—Use Restricted by Contract

IES_AUX_SCRIPT_RELATIONSHIPS

The Auxiliary Schema tables of Oracle Scripting are composed of those schema tables which are included as part of the base schema, but whose records are not inserted, updated, deleted, or modified in any way by either the Script Author or by the runtime Engine. These tables are provided as a convenience for applications which wish to extend Scripting data with their own data and in order to have a single schema definition for tables which may be shared by more than one application that needs to extend the data provided by Scripting.

Foreign Keys

Primary Key Table	Primary Key Column	Foreign Key Column
IES_DEPLOYED_SCRIPTS	DSCRIPT_ID	SCRIPT_A_ID
IES_DEPLOYED_SCRIPTS	DSCRIPT_ID	SCRIPT_B_ID

Column Descriptions

Name	Null?	Type	Description
SCRIPT_RELATIONSHIP_ID (PK)	NOT NULL	NUMBER	Unique Identifier for IES_AUX_SCRIPT_RELATIONSHIPS
SCRIPT_A_ID	NOT NULL	NUMBER	Script ID
SCRIPT_B_ID	NOT NULL	NUMBER	Script ID
RELATIONSHIP	NULL	VARCHAR2(512)	Relationship between scripts A and B
CREATED_BY	NOT NULL	NUMBER	Standard Who column
LAST_UPDATED_BY	NULL	NUMBER	Standard Who column
CREATION_DATE	NOT NULL	DATE	Standard Who column
LAST_UPDATE_DATE	NULL	DATE	Standard Who column
LAST_UPDATE_LOGIN	NULL	NUMBER	Standard Who column
ATTRIBUTE_CATEGORY	NULL	VARCHAR2(30)	Descriptive flexfield structure defining column
ATTRIBUTE1	NULL	VARCHAR2(150)	Descriptive flexfield segment column
ATTRIBUTE2	NULL	VARCHAR2(150)	Descriptive flexfield segment column
ATTRIBUTE3	NULL	VARCHAR2(150)	Descriptive flexfield segment column
ATTRIBUTE4	NULL	VARCHAR2(150)	Descriptive flexfield segment column
ATTRIBUTE5	NULL	VARCHAR2(150)	Descriptive flexfield segment column
ATTRIBUTE6	NULL	VARCHAR2(150)	Descriptive flexfield segment column
ATTRIBUTE7	NULL	VARCHAR2(150)	Descriptive flexfield segment column
ATTRIBUTE8	NULL	VARCHAR2(150)	Descriptive flexfield segment column
ATTRIBUTE9	NULL	VARCHAR2(150)	Descriptive flexfield segment column
ATTRIBUTE10	NULL	VARCHAR2(150)	Descriptive flexfield segment column
ATTRIBUTE11	NULL	VARCHAR2(150)	Descriptive flexfield segment column
ATTRIBUTE12	NULL	VARCHAR2(150)	Descriptive flexfield segment column

Oracle Proprietary, Confidential Information—Use Restricted by Contract

ATTRIBUTE13		NULL	VARCHAR2(150)	Descriptive flexfield segment column
ATTRIBUTE14		NULL	VARCHAR2(150)	Descriptive flexfield segment column
ATTRIBUTE15		NULL	VARCHAR2(150)	Descriptive flexfield segment column

Indexes

Index Name	Index Type	Sequence	Column Name
IES_AUX_SCRIPT_REL_N1	NOT UNIQUE	5	SCRIPT_A_ID
IES_AUX_SCRIPT_REL_N2	NOT UNIQUE	1	SCRIPT_B_ID

Sequences

Sequence	Derived Column
IES_AUX_SCRIPT_RELATIONSHIPS_S	SCRIPT_RELATIONSHIP_ID

Oracle Proprietary, Confidential Information—Use Restricted by Contract

IES_DATA_TABLES

The IES_DATA_TABLES table lists the names of all tables which are to be used for storing footprinting and question data collected for any script listed in the IES_DEPLOYED_SCRIPTS table. The IES_PANEL_DATA and IES_QUESTION_DATA tables are always listed in the IES_DATA_TABLES table, with TABLE_IDs of 1 and 2. At the end of an interaction, the Scripting Engine writes the list of panels that were accessed during the script, along with the start and end times for each panel, known as "footprinting" data, to the PANEL_DATA table. In addition at the end of an interaction, the Scripting Engine writes the list of answers to questions marked "collectable" to the QUESTION DATA table.

Column Descriptions

Name	Null?	Type	Description
TABLE_ID (PK)	NOT NULL	NUMBER	Unique Identifier for IES_DATA_TABLES
TABLE_NAME	NOT NULL	VARCHAR2(96)	Name of the Question/Panel Data table

Sequences

Sequence	Derived Column
IES_DATA_TABLES_S	TABLE_ID

Oracle Proprietary, Confidential Information—Use Restricted by Contract

IES_DEPLOYED_SCRIPTS

This table contains all deployed scripts in the form of a binary file stored in the database. Also specifies the table that is used for storing panel timing (footprinting) and answer data collected during the script. The language id is the the key from fnd_languages table.

Foreign Keys

Primary Key Table	Primary Key Column	Foreign Key Column
IES_DATA_TABLES	TABLE_ID	PANEL_TABLE_ID
IES_DATA_TABLES	TABLE_ID	QUESTION_TABLE_ID

Column Descriptions

Name	Null?	Type	Description
DSCRIPT_ID (PK)	NOT NULL	NUMBER	Unique Identifier for Scripts
CREATED_BY	NOT NULL	NUMBER	Standard Who column
LAST_UPDATED_BY	NULL	NUMBER	Standard Who column
CREATION_DATE	NOT NULL	DATE	Standard Who column
LAST_UPDATE_DATE	NULL	DATE	Standard Who column
LAST_UPDATE_LOGIN	NULL	NUMBER	Standard Who column
DSCRIPT_LANG_ID	NOT NULL	NUMBER	Foreign key from FND_LANGUAGES
PANEL_TABLE_ID	NOT NULL	NUMBER	Foreign key from IES_DATA_TABLES, Gives the name of panel_data table used for a script
QUESTION_TABLE_ID	NOT NULL	NUMBER	Foreign key from IES_DATA_TABLES, Gives the name of question_data table used for a script
DSCRIPT_NAME	NOT NULL	VARCHAR2(256)	Name of the script
DSCRIPT_FILE	NULL	BLOB	Column to hold the Script Object (Binary File)
SCHEMA_MAPPING	NULL	BLOB	Object that has UID relationships for a script
ACTIVE_STATUS	NULL	NUMBER	Active/Inactive status
APPLICATION_ID	NULL	NUMBER	Used by Applications
FUNCTION_ID	NULL	NUMBER	Used by Applications
SCRIPT_TYPE	NULL	VARCHAR2(30)	Type of script
DESCRIPTION	NULL	VARCHAR2(4000)	Description of script
ATTRIBUTE_CATEGORY	NULL	VARCHAR2(30)	Descriptive flexfield segment column
ATTRIBUTE1	NULL	VARCHAR2(150)	Descriptive flexfield structure defining column
ATTRIBUTE2	NULL	VARCHAR2(150)	Descriptive flexfield structure defining column
ATTRIBUTE3	NULL	VARCHAR2(150)	Descriptive flexfield structure defining column
ATTRIBUTE4	NULL	VARCHAR2(150)	Descriptive flexfield structure defining column
ATTRIBUTE5	NULL	VARCHAR2(150)	Descriptive flexfield structure defining column
ATTRIBUTE6	NULL	VARCHAR2(150)	Descriptive flexfield structure defining column
ATTRIBUTE7	NULL	VARCHAR2(150)	Descriptive flexfield structure defining column
ATTRIBUTE8	NULL	VARCHAR2(150)	Descriptive flexfield structure defining column

Oracle Proprietary, Confidential Information—Use Restricted by Contract

ATTRIBUTE9	NULL	VARCHAR2(150)	Descriptive flexfield structure defining column
ATTRIBUTE10	NULL	VARCHAR2(150)	Descriptive flexfield structure defining column
ATTRIBUTE11	NULL	VARCHAR2(150)	Descriptive flexfield structure defining column
ATTRIBUTE12	NULL	VARCHAR2(150)	Descriptive flexfield structure defining column
ATTRIBUTE13	NULL	VARCHAR2(150)	Descriptive flexfield structure defining column
ATTRIBUTE14	NULL	VARCHAR2(150)	Descriptive flexfield structure defining column
ATTRIBUTE15	NULL	VARCHAR2(150)	Descriptive flexfield structure defining column

Indexes

Index Name	Index Type	Sequence	Column Name
IES_DEPLOYED_SCRIPTS_N1	NOT UNIQUE	1	DSCRIPT_LANG_ID
IES_DEPLOYED_SCRIPTS_N2	NOT UNIQUE	1	PANEL_TABLE_ID
IES_DEPLOYED_SCRIPTS_N3	NOT UNIQUE	1	QUESTION_TABLE_ID

Sequences

Sequence	Derived Column
IES_DEPLOYED_SCRIPTS_S	DSCRIPT_ID

Oracle Proprietary, Confidential Information—Use Restricted by Contract

IES_JARFILES

The IES_JARFILES table stores all jar files that are used by the scripts deployed in the database. Each record is identified by a unique ID and a unique name. Each record in this table stores a single jar file and may be used by one or more scripts.

Column Descriptions

Name	Null?	Type	Description
JARFILE_ID (PK)	NOT NULL	NUMBER	Unique Identifier for jarfiles
CREATED_BY	NOT NULL	NUMBER	Standard Who column
LAST_UPDATED_BY	NULL	NUMBER	Standard Who column
CREATION_DATE	NOT NULL	DATE	Standard Who column
LAST_UPDATE_DATE	NULL	DATE	Standard Who column
LAST_UPDATE_LOGIN	NULL	NUMBER	Standard Who column
JARFILE_NAME	NOT NULL	VARCHAR2(256)	Jarfile name
JARFILE	NULL	BLOB	Column holding the jarfile
ATTRIBUTE_CATEGORY	NULL	VARCHAR2(30)	Descriptive flexfield segment column
ATTRIBUTE1	NULL	VARCHAR2(150)	Descriptive flexfield structure defining column
ATTRIBUTE2	NULL	VARCHAR2(150)	Descriptive flexfield structure defining column
ATTRIBUTE3	NULL	VARCHAR2(150)	Descriptive flexfield structure defining column
ATTRIBUTE4	NULL	VARCHAR2(150)	Descriptive flexfield structure defining column
ATTRIBUTE5	NULL	VARCHAR2(150)	Descriptive flexfield structure defining column
ATTRIBUTE6	NULL	VARCHAR2(150)	Descriptive flexfield structure defining column
ATTRIBUTE7	NULL	VARCHAR2(150)	Descriptive flexfield structure defining column
ATTRIBUTE8	NULL	VARCHAR2(150)	Descriptive flexfield structure defining column
ATTRIBUTE9	NULL	VARCHAR2(150)	Descriptive flexfield structure defining column
ATTRIBUTE10	NULL	VARCHAR2(150)	Descriptive flexfield structure defining column
ATTRIBUTE11	NULL	VARCHAR2(150)	Descriptive flexfield structure defining column
ATTRIBUTE12	NULL	VARCHAR2(150)	Descriptive flexfield structure defining column
ATTRIBUTE13	NULL	VARCHAR2(150)	Descriptive flexfield structure defining column
ATTRIBUTE14	NULL	VARCHAR2(150)	Descriptive flexfield structure defining column
ATTRIBUTE15	NULL	VARCHAR2(150)	Descriptive flexfield structure defining column

Sequences

Sequence	Derived Column
IES_JARFILES_S	JARFILE_ID

Oracle Proprietary, Confidential Information—Use Restricted by Contract

IES_LOOKUPS

The IES_LOOKUPS table lists all lookups used by questions in the IES_QUESTIONS table. The lookup choices used by the questions can either be stored in the IES_ANSWERS table or in any table which follows the format specified by <LOOKUP_TABLE>. The IES_LOOKUPS table specifies a LOOKUP_TABLE_ID, which references the IES_LOOKUP_TABLES table, where the names of all lookup tables are stored. The IES_ANSWERS table is always listed in the IES_LOOKUP_TABLES table with a TABLE_ID of 0 (zero).

Foreign Keys

Primary Key Table	Primary Key Column	Foreign Key Column
IES_DEPLOYED_SCRIPTS	DSCRIPT_ID	DSCRIPT_ID
IES_LOOKUP_TABLES	TABLE_ID	LOOKUP_TABLE_ID

Column Descriptions

Name	Null?	Type	Description
LOOKUP_ID (PK)	NOT NULL	NUMBER	Unique Identifier for lookups
CREATED_BY	NOT NULL	NUMBER	Standard Who column
LAST_UPDATED_BY	NULL	NUMBER	Standard Who column
CREATION_DATE	NOT NULL	DATE	Standard Who column
LAST_UPDATE_DATE	NULL	DATE	Standard Who column
LAST_UPDATE_LOGIN	NULL	NUMBER	Standard Who column
DSCRIPT_ID	NOT NULL	NUMBER(32)	Foreign key from IES_DEPLOYED_SCRIPTS
LOOKUP_TABLE_ID	NULL	NUMBER	Foreign key from IES_LOOKUP_TABLES
LOOKUP_NAME	NOT NULL	VARCHAR2(256)	Lookup Name
ACTIVE_STATUS	NULL	NUMBER	Active/Inactive status
ATTRIBUTE_CATEGORY	NULL	VARCHAR2(30)	Descriptive flexfield segment column
ATTRIBUTE1	NULL	VARCHAR2(150)	Descriptive flexfield structure defining column
ATTRIBUTE2	NULL	VARCHAR2(150)	Descriptive flexfield structure defining column
ATTRIBUTE3	NULL	VARCHAR2(150)	Descriptive flexfield structure defining column
ATTRIBUTE4	NULL	VARCHAR2(150)	Descriptive flexfield structure defining column
ATTRIBUTE5	NULL	VARCHAR2(150)	Descriptive flexfield structure defining column
ATTRIBUTE6	NULL	VARCHAR2(150)	Descriptive flexfield structure defining column
ATTRIBUTE7	NULL	VARCHAR2(150)	Descriptive flexfield structure defining column
ATTRIBUTE8	NULL	VARCHAR2(150)	Descriptive flexfield structure defining column
ATTRIBUTE9	NULL	VARCHAR2(150)	Descriptive flexfield structure defining column
ATTRIBUTE10	NULL	VARCHAR2(150)	Descriptive flexfield structure defining column
ATTRIBUTE11	NULL	VARCHAR2(150)	Descriptive flexfield structure defining column
ATTRIBUTE12	NULL	VARCHAR2(150)	Descriptive flexfield structure defining column

Oracle Proprietary, Confidential Information—Use Restricted by Contract

ATTRIBUTE13	NULL	VARCHAR2(150)	Descriptive flexfield structure defining column
ATTRIBUTE14	NULL	VARCHAR2(150)	Descriptive flexfield structure defining column
ATTRIBUTE15	NULL	VARCHAR2(150)	Descriptive flexfield structure defining column

Indexes

Index Name	Index Type	Sequence	Column Name
IES_LOOKUPS_N1	NOT UNIQUE	1	LOOKUP_TABLE_ID
IES_LOOKUPS_N2	NOT UNIQUE	1	DSCRIPT_ID

Sequences

Sequence	Derived Column
IES_LOOKUPS_S	LOOKUP_ID

Oracle Proprietary, Confidential Information—Use Restricted by Contract

IES_LOOKUP_TABLES

Stores the names of external tables referenced by the IES_LOOKUPS table.

Column Descriptions

Name	Null?	Type	Description
TABLE_ID (PK)	NOT NULL	NUMBER	Unique Identifier for Lookup Tables
TABLE_NAME	NOT NULL	VARCHAR2(256)	Lookup table name

Sequences

Sequence	Derived Column
IES_LOOKUP_TABLES_S	TABLE_ID

Oracle Proprietary, Confidential Information—Use Restricted by Contract

IES_PANELS

The IES_PANELS table contains all panels in the deployed scripts. Each record in the IES_PANELS table references a script in the IES_DEPLOYED_SCRIPTS table and a panel contained by the script (referenced by name).

Foreign Keys

Primary Key Table	Primary Key Column	Foreign Key Column
IES_DEPLOYED_SCRIPTS	DSCRIPT_ID	DSCRIPT_ID

Column Descriptions

Name	Null?	Type	Description
PANEL_ID (PK)	NOT NULL	NUMBER	Unique Identifier for panels
CREATED_BY	NOT NULL	NUMBER	Standard Who column
LAST_UPDATED_BY	NULL	NUMBER	Standard Who column
CREATION_DATE	NOT NULL	DATE	Standard Who column
LAST_UPDATE_DATE	NULL	DATE	Standard Who column
LAST_UPDATE_LOGIN	NULL	NUMBER	Standard Who column
DSCRIPT_ID	NOT NULL	NUMBER	Foreign key from IES_DEPLOYED_SCRIPTS
PANEL_NAME	NOT NULL	VARCHAR2(256)	Panel name
PANEL_UID	NULL	VARCHAR2(512)	Panel UID
ACTIVE_STATUS	NULL	NUMBER	Active/Inactive status
ATTRIBUTE_CATEGORY	NULL	VARCHAR2(30)	Descriptive flexfield segment column
ATTRIBUTE1	NULL	VARCHAR2(150)	Descriptive flexfield structure defining column
ATTRIBUTE2	NULL	VARCHAR2(150)	Descriptive flexfield structure defining column
ATTRIBUTE3	NULL	VARCHAR2(150)	Descriptive flexfield structure defining column
ATTRIBUTE4	NULL	VARCHAR2(150)	Descriptive flexfield structure defining column
ATTRIBUTE5	NULL	VARCHAR2(150)	Descriptive flexfield structure defining column
ATTRIBUTE6	NULL	VARCHAR2(150)	Descriptive flexfield structure defining column
ATTRIBUTE7	NULL	VARCHAR2(150)	Descriptive flexfield structure defining column
ATTRIBUTE8	NULL	VARCHAR2(150)	Descriptive flexfield structure defining column
ATTRIBUTE9	NULL	VARCHAR2(150)	Descriptive flexfield structure defining column
ATTRIBUTE10	NULL	VARCHAR2(150)	Descriptive flexfield structure defining column
ATTRIBUTE11	NULL	VARCHAR2(150)	Descriptive flexfield structure defining column
ATTRIBUTE12	NULL	VARCHAR2(150)	Descriptive flexfield structure defining column
ATTRIBUTE13	NULL	VARCHAR2(150)	Descriptive flexfield structure defining column
ATTRIBUTE14	NULL	VARCHAR2(150)	Descriptive flexfield structure defining column
ATTRIBUTE15	NULL	VARCHAR2(150)	Descriptive flexfield structure defining column

Oracle Proprietary, Confidential Information—Use Restricted by Contract

Indexes

Index Name	Index Type	Sequence	Column Name
IES_PANELS_N1	NOT UNIQUE	1	DSCRIPT_ID

Sequences

Sequence	Derived Column
IES_PANELS_S	PANEL_ID

Oracle Proprietary, Confidential Information—Use Restricted by Contract

IES_PANEL_DATA

At the end of an interaction, the Scripting Engine writes the list of panels that were accessed during the script, along with the start and end times for each panel, known as "footprinting" data, to the IES_PANEL_DATA table. Each time that a panel is either added or simply enabled will count as a separate record in the IES_PANEL_DATA table.

Foreign Keys

Primary Key Table	Primary Key Column	Foreign Key Column
IES_PANELS	PANEL_ID	PANEL_ID
IES_TRANSACTIONS	TRANSACTION_ID	TRANSACTION_ID

Column Descriptions

Name	Null?	Type	Description
PANEL_DATA_ID (PK)	NOT NULL	NUMBER	Unique Identifier for Panel Data
CREATED_BY	NOT NULL	NUMBER	Standard Who column
LAST_UPDATED_BY	NULL	NUMBER	Standard Who column
CREATION_DATE	NOT NULL	DATE	Standard Who column
LAST_UPDATE_DATE	NULL	DATE	Standard Who column
LAST_UPDATE_LOGIN	NULL	NUMBER	Standard Who column
PANEL_ID	NOT NULL	NUMBER	Foreign key from IES_PANELS
TRANSACTION_ID	NOT NULL	NUMBER	Foreign key from IES_TRANSACTIONS
ELAPSED_TIME	NULL	NUMBER	Stores the number of milliseconds that the Panel was activated for that instance
SEQUENCE_NUMBER	NULL	NUMBER	Order/Sequence of panel navigation in the script
DELETED_STATUS	NULL	NUMBER	Status to indicate if a panel was deleted due to a change in the path during the execution of the script
ATTRIBUTE_CATEGORY	NULL	VARCHAR2(30)	Descriptive flexfield segment column
ATTRIBUTE1	NULL	VARCHAR2(150)	Descriptive flexfield structure defining column
ATTRIBUTE2	NULL	VARCHAR2(150)	Descriptive flexfield structure defining column
ATTRIBUTE3	NULL	VARCHAR2(150)	Descriptive flexfield structure defining column
ATTRIBUTE4	NULL	VARCHAR2(150)	Descriptive flexfield structure defining column
ATTRIBUTE5	NULL	VARCHAR2(150)	Descriptive flexfield structure defining column
ATTRIBUTE6	NULL	VARCHAR2(150)	Descriptive flexfield structure defining column
ATTRIBUTE7	NULL	VARCHAR2(150)	Descriptive flexfield structure defining column
ATTRIBUTE8	NULL	VARCHAR2(150)	Descriptive flexfield structure defining column
ATTRIBUTE9	NULL	VARCHAR2(150)	Descriptive flexfield structure defining column
ATTRIBUTE10	NULL	VARCHAR2(150)	Descriptive flexfield structure defining column
ATTRIBUTE11	NULL	VARCHAR2(150)	Descriptive flexfield structure defining column

Oracle Proprietary, Confidential Information—Use Restricted by Contract

ATTRIBUTE12	NULL	VARCHAR2(150)	Descriptive flexfield structure defining column
ATTRIBUTE13	NULL	VARCHAR2(150)	Descriptive flexfield structure defining column
ATTRIBUTE14	NULL	VARCHAR2(150)	Descriptive flexfield structure defining column
ATTRIBUTE15	NULL	VARCHAR2(150)	Descriptive flexfield structure defining column

Indexes

Index Name	Index Type	Sequence	Column Name
IES_PANEL_DATA_N1	NOT UNIQUE	1	TRANSACTION_ID
IES_PANEL_DATA_N2	NOT UNIQUE	1	PANEL_ID

Sequences

Sequence	Derived Column
IES_PANEL_DATA_S	PANEL_DATA_ID

Oracle Proprietary, Confidential Information—Use Restricted by Contract

IES_QUESTIONS

The IES_QUESTIONS table contains all questions whose answers will be stored and/or need a dynamic lookup. Each record in the IES_QUESTIONS table references a panel in the IES_PANELS table and a node contained by the script (referenced by name). If the node requires a lookup, the record will reference a lookup in the IES_LOOKUPS table.

Foreign Keys

Primary Key Table	Primary Key Column	Foreign Key Column
IES_LOOKUPS	LOOKUP_ID	LOOKUP_ID
IES_PANELS	PANEL_ID	PANEL_ID

Column Descriptions

Name	Null?	Type	Description
QUESTION_ID (PK)	NOT NULL	NUMBER	Unique Identifier for Questions
CREATED_BY	NOT NULL	NUMBER	Standard Who column
LAST_UPDATED_BY	NULL	NUMBER	Standard Who column
CREATION_DATE	NOT NULL	DATE	Standard Who column
LAST_UPDATE_DATE	NULL	DATE	Standard Who column
LAST_UPDATE_LOGIN	NULL	NUMBER	Standard Who column
PANEL_ID	NOT NULL	NUMBER	Foreign key from IES_PANELS
LOOKUP_ID	NULL	NUMBER	Foreign key from IES_LOOKUPS
NODE_NAME	NOT NULL	VARCHAR2(256)	Node name
NODE_UID	NULL	VARCHAR2(512)	Node UID
ACTIVE_STATUS	NULL	NUMBER	Active/Inactive status
ATTRIBUTE_CATEGORY	NULL	VARCHAR2(30)	Descriptive flexfield segment column
ATTRIBUTE1	NULL	VARCHAR2(150)	Descriptive flexfield structure defining column
ATTRIBUTE2	NULL	VARCHAR2(150)	Descriptive flexfield structure defining column
ATTRIBUTE3	NULL	VARCHAR2(150)	Descriptive flexfield structure defining column
ATTRIBUTE4	NULL	VARCHAR2(150)	Descriptive flexfield structure defining column
ATTRIBUTE5	NULL	VARCHAR2(150)	Descriptive flexfield structure defining column
ATTRIBUTE6	NULL	VARCHAR2(150)	Descriptive flexfield structure defining column
ATTRIBUTE7	NULL	VARCHAR2(150)	Descriptive flexfield structure defining column
ATTRIBUTE8	NULL	VARCHAR2(150)	Descriptive flexfield structure defining column
ATTRIBUTE9	NULL	VARCHAR2(150)	Descriptive flexfield structure defining column
ATTRIBUTE10	NULL	VARCHAR2(150)	Descriptive flexfield structure defining column
ATTRIBUTE11	NULL	VARCHAR2(150)	Descriptive flexfield structure defining column
ATTRIBUTE12	NULL	VARCHAR2(150)	Descriptive flexfield structure defining column
ATTRIBUTE13	NULL	VARCHAR2(150)	Descriptive flexfield structure defining column

Oracle Proprietary, Confidential Information—Use Restricted by Contract

ATTRIBUTE14	NULL	VARCHAR2(150)	Descriptive flexfield structure defining column
ATTRIBUTE15	NULL	VARCHAR2(150)	Descriptive flexfield structure defining column

Sequences

Sequence	Derived Column
IES_QUESTIONS_S	QUESTION_ID

Oracle Proprietary, Confidential Information—Use Restricted by Contract

IES_QUESTION_DATA

Each answer collected by the Scripting Engine is stored in the IES_QUESTION_DATA or equivalent table as a individual record. For each record, a unique DATA_ID is generated and the TRANSACTION_ID and QUESTION_ID columns must be filled. If the answer given was associated with a lookup choice, the LOOKUP_ID column will be filled in with a reference to the IES_LOOKUPS table and the ANSWER_ID column will be filled in with a reference to either the IES_ANSWERS table or a separate lookup table. If the answer did not have an associated lookup choice, then the answer given will be stored in the FREEFORM_STRING column as a string.

Foreign Keys

Primary Key Table	Primary Key Column	Foreign Key Column
IES_ANSWERS	ANSWER_ID	ANSWER_ID
IES_LOOKUPS	LOOKUP_ID	LOOKUP_ID
IES_QUESTIONS	QUESTION_ID	QUESTION_ID
IES_TRANSACTIONS	TRANSACTION_ID	TRANSACTION_ID

Column Descriptions

Name	Null?	Type	Description
QUESTION_DATA_ID (PK)	NOT NULL	NUMBER	Unique Identifier for Question Data
CREATED_BY	NOT NULL	NUMBER	Standard Who column
LAST_UPDATED_BY	NULL	NUMBER	Standard Who column
CREATION_DATE	NOT NULL	DATE	Standard Who column
LAST_UPDATE_DATE	NULL	DATE	Standard Who column
LAST_UPDATE_LOGIN	NULL	NUMBER	Standard Who column
TRANSACTION_ID	NOT NULL	NUMBER	Foreign key from IES_TRANSACTIONS
QUESTION_ID	NOT NULL	NUMBER	Foreign key from IES_QUESTIONS
LOOKUP_ID	NULL	NUMBER	Foreign key from IES_LOOKUPS
ANSWER_ID	NULL	NUMBER	Foreign key from IES_ANSWERS
FREEFORM_INT	NULL	NUMBER	Not currently used
FREEFORM_STRING	NULL	VARCHAR2(4000)	Answer value as String
FREEFORM_DATE	NULL	DATE	Not currently used
FREEFORM_LONG	NULL	LONG	Not currently used
ATTRIBUTE_CATEGORY	NULL	VARCHAR2(30)	Descriptive flexfield segment column
ATTRIBUTE1	NULL	VARCHAR2(150)	Descriptive flexfield structure defining column
ATTRIBUTE2	NULL	VARCHAR2(150)	Descriptive flexfield structure defining column
ATTRIBUTE3	NULL	VARCHAR2(150)	Descriptive flexfield structure defining column
ATTRIBUTE4	NULL	VARCHAR2(150)	Descriptive flexfield structure defining column
ATTRIBUTE5	NULL	VARCHAR2(150)	Descriptive flexfield structure defining column
ATTRIBUTE6	NULL	VARCHAR2(150)	Descriptive flexfield structure defining column
ATTRIBUTE7	NULL	VARCHAR2(150)	Descriptive flexfield structure defining column

Oracle Proprietary, Confidential Information—Use Restricted by Contract

ATTRIBUTE8	NULL	VARCHAR2(150)	Descriptive flexfield structure defining column
ATTRIBUTE9	NULL	VARCHAR2(150)	Descriptive flexfield structure defining column
ATTRIBUTE10	NULL	VARCHAR2(150)	Descriptive flexfield structure defining column
ATTRIBUTE11	NULL	VARCHAR2(150)	Descriptive flexfield structure defining column
ATTRIBUTE12	NULL	VARCHAR2(150)	Descriptive flexfield structure defining column
ATTRIBUTE13	NULL	VARCHAR2(150)	Descriptive flexfield structure defining column
ATTRIBUTE14	NULL	VARCHAR2(150)	Descriptive flexfield structure defining column
ATTRIBUTE15	NULL	VARCHAR2(150)	Descriptive flexfield structure defining column

Indexes

Index Name	Index Type	Sequence	Column Name
IES_QUESTION_DATA_N1	NOT UNIQUE	1	TRANSACTION_ID
IES_QUESTION_DATA_N2	NOT UNIQUE	1	ANSWER_ID
IES_QUESTION_DATA_N3	NOT UNIQUE	1	QUESTION_ID
IES_QUESTION_DATA_N4	NOT UNIQUE	1	LOOKUP_ID

Sequences

Sequence	Derived Column
IES_QUESTION_DATA_S	QUESTION_DATA_ID

Oracle Proprietary, Confidential Information—Use Restricted by Contract

IES_SCRIPT_JARFILES

Each record in the IES_SCRIPT_JARFILES table links a jar file in the IES_JARFILES table with a script. Scripts can share records in the IES_JARFILES table. This table serves as a classpath function for JavaCommands that need to be executed in the script. When a JavaCommand is executed in the Engine, the jar files associated with the script are searched for the class to be instantiated.

Foreign Keys

Primary Key Table	Primary Key Column	Foreign Key Column
IES_DEPLOYED_SCRIPTS	DSCRIPT_ID	DSCRIPT_ID
IES_JARFILES	JARFILE_ID	JARFILE_ID

Column Descriptions

Name	Null?	Type	Description
SCRIPT_JARFILE_ID (PK)	NOT NULL	NUMBER	Unique Identifier for IES_SCRIPT_JARFILES
CREATED_BY	NOT NULL	NUMBER	Standard Who column
LAST_UPDATED_BY	NULL	NUMBER	Standard Who column
CREATION_DATE	NOT NULL	DATE	Standard Who column
LAST_UPDATE_DATE	NULL	DATE	Standard Who column
LAST_UPDATE_LOGIN	NULL	NUMBER	Standard Who column
DSCRIPT_ID	NOT NULL	NUMBER	Foreign key from IES_DEPLOYED_SCRIPTS
JARFILE_ID	NOT NULL	NUMBER	Foreign key from IES_JARFILES
LOAD_ORDER	NULL	NUMBER	Specifies the order in which the jar files should be searched
ATTRIBUTE_CATEGORY	NULL	VARCHAR2(30)	Descriptive flexfield segment column
ATTRIBUTE1	NULL	VARCHAR2(150)	Descriptive flexfield structure defining column
ATTRIBUTE2	NULL	VARCHAR2(150)	Descriptive flexfield structure defining column
ATTRIBUTE3	NULL	VARCHAR2(150)	Descriptive flexfield structure defining column
ATTRIBUTE4	NULL	VARCHAR2(150)	Descriptive flexfield structure defining column
ATTRIBUTE5	NULL	VARCHAR2(150)	Descriptive flexfield structure defining column
ATTRIBUTE6	NULL	VARCHAR2(150)	Descriptive flexfield structure defining column
ATTRIBUTE7	NULL	VARCHAR2(150)	Descriptive flexfield structure defining column
ATTRIBUTE8	NULL	VARCHAR2(150)	Descriptive flexfield structure defining column
ATTRIBUTE9	NULL	VARCHAR2(150)	Descriptive flexfield structure defining column
ATTRIBUTE10	NULL	VARCHAR2(150)	Descriptive flexfield structure defining column
ATTRIBUTE11	NULL	VARCHAR2(150)	Descriptive flexfield structure defining column
ATTRIBUTE12	NULL	VARCHAR2(150)	Descriptive flexfield structure defining column
ATTRIBUTE13	NULL	VARCHAR2(150)	Descriptive flexfield structure defining column

Oracle Proprietary, Confidential Information—Use Restricted by Contract

ATTRIBUTE14	NULL	VARCHAR2(150)	Descriptive flexfield structure defining column
ATTRIBUTE15	NULL	VARCHAR2(150)	Descriptive flexfield structure defining column

Indexes

Index Name	Index Type	Sequence	Column Name
IES_SCRIPT_JARFILES_N1	NOT UNIQUE	1	DSCRIPT_ID
IES_SCRIPT_JARFILES_N2	NOT UNIQUE	1	JARFILE_ID

Sequences

Sequence	Derived Column
IES_SCRIPT_JARFILES_S	SCRIPT_JARFILE_ID

Oracle Proprietary, Confidential Information—Use Restricted by Contract

IES_TRANSACTIONS

The IES_TRANSACTIONS table contains all interactions. Each session through which an agent follows the flow of a script with a customer is considered a single interaction. An interaction references the agent involved in the interaction as well as the script that was running in the interaction.

Foreign Keys

Primary Key Table	Primary Key Column	Foreign Key Column
IES_AGENTS	AGENT_ID	AGENT_ID
IES_DEPLOYED_SCRIPTS	DSCRIPT_ID	DSCRIPT_ID

Column Descriptions

Name	Null?	Type	Description
TRANSACTION_ID (PK)	NOT NULL	NUMBER	Unique Identifier for transactions
CREATED_BY	NOT NULL	NUMBER	Standard Who column
LAST_UPDATED_BY	NULL	NUMBER	Standard Who column
CREATION_DATE	NOT NULL	DATE	Standard Who column
LAST_UPDATE_DATE	NULL	DATE	Standard Who column
LAST_UPDATE_LOGIN	NULL	NUMBER	Standard Who column
DSCRIPT_ID	NOT NULL	NUMBER	Foreign key from IES_DEPLOYED_SCRIPTS
AGENT_ID	NULL	NUMBER	Foreign key from IES_AGENTS
START_TIME	NOT NULL	DATE	Transaction start time
END_TIME	NULL	DATE	Transaction end time
ATTRIBUTE_CATEGORY	NULL	VARCHAR2(30)	Descriptive flexfield segment column
ATTRIBUTE1	NULL	VARCHAR2(150)	Descriptive flexfield structure defining column
ATTRIBUTE2	NULL	VARCHAR2(150)	Descriptive flexfield structure defining column
ATTRIBUTE3	NULL	VARCHAR2(150)	Descriptive flexfield structure defining column
ATTRIBUTE4	NULL	VARCHAR2(150)	Descriptive flexfield structure defining column
ATTRIBUTE5	NULL	VARCHAR2(150)	Descriptive flexfield structure defining column
ATTRIBUTE6	NULL	VARCHAR2(150)	Descriptive flexfield structure defining column
ATTRIBUTE7	NULL	VARCHAR2(150)	Descriptive flexfield structure defining column
ATTRIBUTE8	NULL	VARCHAR2(150)	Descriptive flexfield structure defining column
ATTRIBUTE9	NULL	VARCHAR2(150)	Descriptive flexfield structure defining column
ATTRIBUTE10	NULL	VARCHAR2(150)	Descriptive flexfield structure defining column
ATTRIBUTE11	NULL	VARCHAR2(150)	Descriptive flexfield structure defining column
ATTRIBUTE12	NULL	VARCHAR2(150)	Descriptive flexfield structure defining column
ATTRIBUTE13	NULL	VARCHAR2(150)	Descriptive flexfield structure defining column
ATTRIBUTE14	NULL	VARCHAR2(150)	Descriptive flexfield structure defining column

Oracle Proprietary, Confidential Information—Use Restricted by Contract

ATTRIBUTE15	NULL	VARCHAR2(150)	Descriptive flexfield structure defining column

Indexes

Index Name	Index Type	Sequence	Column Name
IES_TRANSACTIONS_N1	NOT UNIQUE	1	AGENT_ID
IES_TRANSACTIONS_N2	NOT UNIQUE	1	DSCRIPT_ID

Sequences

Sequence	Derived Column
IES_TRANSACTIONS_S	TRANSACTION_ID

Oracle Proprietary, Confidential Information—Use Restricted by Contract

Oracle Proprietary, Confidential Information—Use Restricted by Contract

Oracle Proprietary, Confidential Information—Use Restricted by Contract

Index

A

Application Building Block, 1 – 6

C

Column descriptions, 3 – 4
Columns, Who, 3 – 4
Concurrent Program List. *See* Concurrent Program Definitions
country–specific localizations, 3 – 6

D

Database Diagram, 1 – 6
  Scripting Server Model, 2 – 9
database diagrams, conventions, 2 – 6
Database triggers, 3 – 7

F

Foreign keys, 3 – 3
Form, 1 – 7
Form List. *See* Form Definitions

G

GLOBAL_ATTRIBUTE columns, 3 – 6

I

Indexes, 3 – 6
  important note about, 3 – 6

L

Lookup types. *See* QuickCodes

M

Module List, 2 – 13
  See also Module Definitions
Modules, 1 – 6

O

Oracle8 sequences. *See* Sequences

P

Public Table List, 2 – 11

Q

QuickCodes, 1 – 6
  Columns that contain, 3 – 3

R

Relationship, 1 – 6
Report List. *See* Report Definitions

S

Sequences, 3 – 6

T

Table and View Definitions
IES_AGENTS, 3 – 8
IES_ANSWERS, 3 – 10
IES_AUX_SCRIPT_RELATIONSHIPS, 3 – 12
IES_DATA_TABLES, 3 – 14
IES_DEPLOYED_SCRIPTS, 3 – 15
IES_JARFILES, 3 – 17
IES_LOOKUP_TABLES, 3 – 20
IES_LOOKUPS, 3 – 18
IES_PANEL_DATA, 3 – 23
IES_PANELS, 3 – 21
IES_QUESTION_DATA, 3 – 27
IES_QUESTIONS, 3 – 25
IES_SCRIPT_JARFILES, 3 – 29
IES_TRANSACTIONS, 3 – 31
Tables
See also Table and View Definitions
Column descriptions, 3 – 4
Foreign keys, 3 – 3
Indexes. *See* Indexes
Primary Keys, 3 – 4
QuickCodes Columns, 3 – 3
Who columns, 3 – 4, 3 – 5

V

View Definitions. *See* Table and View Definitions
Views
See also Table and View Definitions; View List
Derivation, 3 – 7

Reader's Comment Form

Oracle Scripting Technical Reference Manual
A83690–01

Oracle Corporation welcomes your comments and suggestions on the quality and usefulness of this publication. Your input is an important part of the information we use for revision.

- Did you find any errors?
- Is the information clearly presented?
- Do you need more information? If so, where?
- Are the examples correct? Do you need more examples?
- What features did you like most about this manual? What did you like least about it?

If you find any errors or have any other suggestions for improvement, please indicate the topic, chapter, and page number below:

_____

_____

_____

_____

_____

_____

_____

_____

Please send your comments to:

CRM Content Development Manager
Oracle Corporation
500 Oracle Parkway
Redwood Shores, CA 94065 USA
Phone: (650) 506–7000 Fax: (650) 506–7200

If you would like a reply, please give your name, address, and telephone number below:

_____

_____

_____

Thank you for helping us improve our documentation.