

Oracle® E-Records

Implementation Guide

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Oracle E-Records Implementation Guide, Release 12.2

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Contents

Send Us Your Comments

Preface

1 Introduction to Oracle E-Records

E-signatures.....	1-1
Electronic Records.....	1-1
Sign What You See.....	1-2
One-step E-signatures.....	1-2
Framework.....	1-3
Framework Components.....	1-3
Online Versus Deferred Mode Capture.....	1-5
Touch Screen User Interface.....	1-6

2 E-record Signature Flows

Online Flow.....	2-1
Deferred Flow.....	2-2
Oracle Applications Framework Signature Confirmation.....	2-4

3 Implementing E-records

Enabling Profile Options.....	3-2
Setting Up Responsibilities.....	3-4
Enabling the Event.....	3-4
Enabling the Subscription.....	3-6
Setting Up Oracle Approval Management.....	3-8
Setting Up the Configuration Variables.....	3-9

Running the E-record Event Setup Verification Report.....	3-13
Setting Up Indexed XML Elements.....	3-14
Security Rules.....	3-15
Related Events.....	3-15
Setting Up Related Events.....	3-15
Setting Up Ad Hoc Signers.....	3-16
Manually Enabling E-Records Only.....	3-17
Enabling One-Step E-signatures.....	3-17
Setting Up Redlining.....	3-18
Enabling E-Records in Mobile Supply Chain Applications.....	3-18
Force E-Record Generation	3-19

4 Setting Up Security Rules

Technical Requirements.....	4-1
Setting Up Secure Elements.....	4-2
Adding E-record Security Rules.....	4-2
Security Rule Examples.....	4-2
Maintaining E-record Security Rules.....	4-4
Viewing Security Rule Details.....	4-5
Updating Security Rules.....	4-5
Deleting Security Rules.....	4-5
Running the E-record Security Policy Administration Program.....	4-6

5 iSignatures

Types of Documents.....	5-2
ERP Documents.....	5-2
Uploading Documents.....	5-2
Document Status.....	5-3
Security.....	5-3
Checklist Functionality.....	5-4
Uploading Documents	5-5
Querying Documents.....	5-6
Viewing Document Details.....	5-8
Updating a Document.....	5-8
Deleting Documents.....	5-9
Sending Documents for Approval.....	5-9
Signing a Document.....	5-10
Signing With E-Initials.....	5-12
Updating Signers.....	5-13
Adding Signers.....	5-13

Reordering Signers.....	5-14
Managing Templates Using iSignatures.....	5-14
Linking a Document to a Website.....	5-15

6 Maintaining Oracle E-Records

Generating XML.....	6-2
Generating E-Record Documents.....	6-2
Validating E-record Events.....	6-2
Validation Information Details.....	6-4
Adding a New Indexed XML Element.....	6-5
Maintaining Indexed XML Elements.....	6-5
Viewing Indexed XML Element Details.....	6-6
Updating Indexed XML Elements.....	6-7
Deleting Indexed XML Elements.....	6-7
Running the Oracle E-records XML Element Synchronization Program.....	6-7
Running the Oracle E-records XML Element Optimization Program.....	6-8
Purging Temporary E-record Tables.....	6-9
Framework Verification.....	6-9
Using the Single Event Framework Verification Window.....	6-10
Inter Event Framework Verification.....	6-13
Working With Test Scenarios.....	6-14
Adding a New Event to a Test Scenario.....	6-16
Raising a New Event After Event Approval.....	6-18

7 Reporting and Printing

Evidence Store.....	7-1
The E-record Detail.....	7-4
E-record Details.....	7-6
Printing E-records.....	7-6
The Printing Process.....	7-7
Selecting Many Documents or Related Documents for Printing.....	7-7
Printing the Collated E-record.....	7-8

A Oracle E-Records Events

Oracle E-Record Events.....	A-1
-----------------------------	-----

B Navigation Paths

Navigation Paths.....	B-1
-----------------------	-----

Glossary

Index

Send Us Your Comments

Oracle E-Records Implementation Guide, Release 12.2

Part No. E49052-02

Oracle welcomes customers' comments and suggestions on the quality and usefulness of this document. Your feedback is important, and helps us to best meet your needs as a user of our products. For example:

- Are the implementation steps correct and complete?
- Did you understand the context of the procedures?
- Did you find any errors in the information?
- Does the structure of the information help you with your tasks?
- Do you need different information or graphics? If so, where, and in what format?
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If you find any errors or have any other suggestions for improvement, then please tell us your name, the name of the company who has licensed our products, the title and part number of the documentation and the chapter, section, and page number (if available).

Note: Before sending us your comments, you might like to check that you have the latest version of the document and if any concerns are already addressed. To do this, access the new Oracle E-Business Suite Release Online Documentation CD available on My Oracle Support and www.oracle.com. It contains the most current Documentation Library plus all documents revised or released recently.

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Preface

Intended Audience

Welcome to Release 12.2 of the *Oracle E-Records Implementation Guide*.

This guide assumes that you have working knowledge of your business area's processes, tools, principles, and customary practices. It also assumes that you are familiar with Oracle Process Manufacturing. If you have never used Oracle Process Manufacturing, we suggest you attend one or more of the Oracle Process Manufacturing training classes available through Oracle University.

See Related Information Sources on page x for more Oracle E-Business Suite product information.

Documentation Accessibility

For information about Oracle's commitment to accessibility, visit the Oracle Accessibility Program website at <http://www.oracle.com/pls/topic/lookup?ctx=acc&id=docacc>.

Access to Oracle Support

Oracle customers have access to electronic support through My Oracle Support. For information, visit <http://www.oracle.com/pls/topic/lookup?ctx=acc&id=info> or visit <http://www.oracle.com/pls/topic/lookup?ctx=acc&id=trs> if you are hearing impaired.

Structure

1 Introduction to Oracle E-Records

2 E-record Signature Flows

There are two different types of signature flows - online and deferred. The online process forces all signatures to take place at the same time before the event can continue. The deferred process lets you move on without all signatures in place. The

following is a flow of the two different types of processes, using the OPM Item Creation process as an example.

3 Implementing E-records

You must complete the following steps to enable the E-records functionality. These steps comprise the initial setup of Oracle E-Records and are required to ensure a complete and accurate system.

4 Setting Up Security Rules

This topic describes how the e-records stored as XML documents in the database are a repository of critical information that can be queried for reasons ranging from internal users viewing information to regulatory authorities inspecting process records.

The information contained in these e-records can be confidential and critical to the nature of the business. Therefore, access to these e-records must be restricted so that any unauthorized entry is prevented.

Access to e-records must be based on the contents of the e-records. For example, you can restrict access to all e-records having any reference to a particular formula ingredient.

5 iSignatures

This topic describes using attachments with Oracle E-Records, the types of attachments available, and how attachments are stored.

6 Maintaining Oracle E-Records

Oracle E-Records has utilities that let you maintain your system. You can view XML and e-record information from within the application. This information can be used to verify XML and XSL information, as well as e-record layouts prior to the event being used. You can also update or delete existing indexed XML elements, or add new elements.

7 Reporting and Printing

After an e-record is created, it is stored in the Evidence Store, a secure environment in the database. You can view the e-records, and their associated documents, and print the e-records in a PDF format.

A Oracle E-Records Events

B Navigation Paths

Glossary

Related Information Sources

Related Guides

Oracle Process Manufacturing shares business and setup information with other Oracle Applications products. Therefore, you may want to refer to other guides when you set up and use Oracle Process Manufacturing. You can read the guides online from the Oracle Applications Document Library CD included in your media pack, or by using a Web browser with a URL that your system administrator provides. If you require printed guides, then you can purchase them from the Oracle Store at <http://oraclestore.oracle.com>

Guides Related to All Products

Oracle Alert User's Guide

This guide explains how to define periodic and event alerts to monitor the status of your Oracle Applications data.

Oracle E-Business Suite Concepts

This book is intended for all those planning to deploy Oracle E-Business Suite Release 12, or contemplating significant changes to a configuration. After describing the Oracle E-Business Suite architecture and technology stack, it focuses on strategic topics, giving a broad outline of the actions needed to achieve a particular goal, plus the installation and configuration choices that may be available.

Oracle E-Business Suite Flexfields Guide

This guide provides flexfields planning, setup, and reference information for the Oracle E-Business Suite implementation team, as well as for users responsible for the ongoing maintenance of Oracle E-Business Suite product data. This guide also provides information on creating custom reports on flexfields data.

Oracle Application Framework Personalization Guide

This guide covers the design-time and run-time aspects of personalizing applications built with Oracle Application Framework.

Oracle E-Business Suite Installation Guide: Using Rapid Install

This book is intended for use by anyone who is responsible for installing or upgrading Oracle E-Business Suite. It provides instructions for running Rapid Install either to carry out a fresh installation of Oracle E-Business Suite Release 12, or as part of an upgrade from Release 11i to Release 12. The book also describes the steps needed to install the technology stack components only, for the special situations where this is applicable.

Oracle Application Server Adapter for Oracle Applications User's Guide

This guide covers the use of OracleAS Adapter in developing integrations between Oracle applications and trading partners.

Please note that this guide is in the Oracle Application Server 10g (10.1.3.1) Documentation Library.

Oracle E-Business Suite system administration guides

This documentation set provides planning and reference information for the Oracle E-Business Suite System Administrator. *Oracle E-Business Suite Set Up Guide* contains information on system configuration steps, including defining concurrent programs and managers, enabling Oracle Applications Manager features, and setting up printers and online help. *Oracle E-Business Suite Maintenance Guide* provides information for frequent tasks such as monitoring your system with Oracle Applications Manager, administering Oracle E-Business Suite Secure Enterprise Search, managing concurrent managers and reports, using diagnostic utilities including logging, managing profile options, and using alerts. *Oracle E-Business Suite Security Guide* describes User Management, data security, function security, auditing, and security configurations.

Oracle E-Business Suite User's Guide

This guide explains how to navigate, enter data, query, and run reports using the user interface (UI) of Oracle E-Business Suite. This guide also includes information on setting user profiles, as well as running and reviewing concurrent requests.

Oracle e-Commerce Gateway User's Guide

This guide describes the functionality of Oracle e-Commerce Gateway and the necessary setup steps in order for Oracle Applications to conduct business with trading partners through Electronic Data Interchange (EDI). It also contains how to run extract programs for outbound transactions, import programs for inbound transactions, and the relevant reports.

Oracle e-Commerce Gateway Implementation Guide

This guide describes implementation details, highlights additional setups for trading partner, code conversion, and Oracle Applications as well as provides the architecture guidelines for transaction interface files. This guide also contains troubleshooting information and how to customize EDI transactions.

Oracle Report Manager User's Guide

Oracle Report Manager is an online report distribution system that provides a secure and centralized location to produce and manage point-in-time reports. Oracle Report Manager users can be either report producers or report consumers. Use this guide for information on setting up and using Oracle Report Manager.

Oracle iSetup User Guide

This guide describes how to use Oracle iSetup to migrate data between different instances of the Oracle E-Business Suite and generate reports. It also includes configuration information, instance mapping, and seeded templates used for data migration.

Oracle Workflow Administrator's Guide

This guide explains how to complete the setup steps necessary for any product that includes workflow-enabled processes. It also describes how to manage workflow processes and business events using Oracle Applications Manager, how to monitor the progress of runtime workflow processes, and how to administer notifications sent to workflow users.

Oracle Workflow Developer's Guide

This guide explains how to define new workflow business processes and customize existing Oracle Applications-embedded workflow processes. It also describes how to define and customize business events and event subscriptions.

Oracle Workflow User's Guide

This guide describes how users can view and respond to workflow notifications and monitor the progress of their workflow processes.

Oracle Workflow API Reference

This guide describes the APIs provided for developers and administrators to access Oracle Workflow.

Oracle XML Gateway User's Guide

This guide describes Oracle XML Gateway functionality and each component of the Oracle XML Gateway architecture, including Message Designer, Oracle XML Gateway Setup, Execution Engine, Message Queues, and Oracle Transport Agent. The integrations with Oracle Workflow Business Event System and the Business-to-Business transactions are also addressed in this guide.

Oracle Business Intelligence Publisher Report Designer's Guide

Oracle Business Intelligence Publisher is a template-based reporting solution that merges XML data with templates in RTF or PDF format to produce a variety of outputs to meet a variety of business needs. Using Microsoft Word or Adobe Acrobat as the design tool, you can create pixel-perfect reports from the Oracle E-Business Suite. Use this guide to design your report layouts.

Oracle Business Intelligence Publisher Administration and Developer's Guide

Oracle Business Intelligence Publisher is a template-based reporting solution that merges XML data with templates in RTF or PDF format to produce a variety of outputs to meet a variety of business needs. Outputs include: PDF, HTML, Excel, RTF, and eText (for EDI and EFT transactions). Oracle BI Publisher can be used to generate reports based on existing E-Business Suite report data, or you can use Oracle BI Publisher's data extraction engine to build your own queries. Oracle BI Publisher also provides a robust set of APIs to manage delivery of your reports via e-mail, fax, secure FTP, printer, WebDav, and more. This guide describes how to set up and administer Oracle BI Publisher as well as how to use the Application Programming Interface to build custom solutions.

Guides Related to This Product

Oracle Process Manufacturing Cost Management User's Guide

The Oracle Process Manufacturing Cost Management application is used by cost accountants to capture and review the manufacturing costs incurred in their process manufacturing businesses. The guide describes how to set up and use this application.

Oracle Process Manufacturing Process Execution User's Guide

The Oracle Process Manufacturing Process Execution application lets you track firm planned orders and production batches from incoming materials through finished goods. Seamlessly integrated to the Product Development application, Process Execution lets you convert firm planned orders to single or multiple production batches, allocate ingredients, record actual ingredient usage, and then complete and close production batches. Production inquiries and preformatted reports help you optimize inventory costs while maintaining a high level of customer satisfaction with on-time delivery of high quality products. The *Oracle Process Manufacturing Process Execution User's Guide* presents overviews of the tasks and responsibilities for the Production Supervisor and the Production Operator. It provides prerequisite setup in

other applications, and details the windows, features, and functionality of the application.

Oracle Process Manufacturing Product Development User's Guide

The Oracle Process Manufacturing Product Development application provides features to manage formula, routing, recipe, and validity rule development within process manufacturing operations. Use it to manage multiple laboratory organizations and support varying product lines throughout the enterprise. Characterize and simulate the technical properties of ingredients and their effects on formula performance and cost. Simulate and optimize formulations before beginning expensive laboratory test batches. Product Development coordinates each development function to provide a rapid, enterprise-wide implementation of new products in your plants. The guide describes how to set up and use this application.

Oracle Process Manufacturing Quality Management User's Guide

The Oracle Process Manufacturing Quality Management application provides features to test material sampled from inventory, production, or receipts from external suppliers. The application lets you enter specifications and control their use throughout the enterprise. Customized workflows and electronic recordkeeping automate plans for sampling, testing, and result processing. Compare specifications to assist in regrading items, and match customer specifications. Aggregate test results and print statistical assessments on quality certificates. Run stability testing with unrivaled ease. Several preformatted reports and inquiries help manage quality testing and reporting. The guide describes how to set up and use this application.

System Administration User's Guide

Much of the System Administration duties are performed at the Oracle Applications level, and are therefore described in the Oracle Applications System Administrator's Guide. The *Oracle Process Manufacturing System Administration User's Guide* provides information on the few tasks that are specific to Oracle Process Manufacturing. It offers information on performing Oracle Process Manufacturing file purge and archive, and maintaining such things as responsibilities, units of measure, and organizations.

Regulatory Management User's Guide

Oracle Process Manufacturing Regulatory Management provides solutions for document management that help meet the FDA 21 CFR Part 11 and other international regulatory compliance requirements. Regulatory information management is facilitated by use of electronic signatures. Manage hazard communications by collaborating with Oracle partners to dispatch safety documents, attached printed documentation sets such as the MSDS to shipments, and set up workflows to manage documentation revisions, approvals, and transmittals. The *Oracle Process Manufacturing Regulatory Management User's Guide* provides the information to set up and use the application.

Oracle Manufacturing Execution System for Process Manufacturing

Oracle Manufacturing Execution System (MES) for Process Manufacturing provides a seamless integration to product development and process execution applications for rapid deployment and tracking of procedures, work instruction tasks, and batch

records. Set up and manage material dispensing operations and produce electronic batch records interactively with full electronic signature control, nonconformance management, and label printing routines. The *Oracle Manufacturing Execution System for Process Manufacturing User's Guide* delivers the information to set up and use the application.

API User's Guides

Public Application Programming Interfaces (APIs) are available for use with different Oracle Process Manufacturing applications. APIs pass information into and out of the application tables, thereby bypassing the user interface. Use of these APIs is documented in separately available documentation.

Oracle Engineering User's Guide

This guide enables your engineers to utilize the features of Oracle Engineering to quickly introduce and manage new designs into production. Specifically, this guide details how to quickly and accurately define the resources, materials and processes necessary to implement changes in product design.

Oracle Inventory User's Guide

This guide describes how to define items and item information, perform receiving and inventory transactions, maintain cost control, plan items, perform cycle counting and physical inventories, and set up Oracle Inventory.

Oracle Bills of Material User's Guide

This guide describes how to create various bills of material to maximize efficiency, improve quality and lower cost for the most sophisticated manufacturing environments. By detailing integrated product structures and processes, flexible product and process definition, and configuration management, this guide enables you to manage product details within and across multiple manufacturing sites.

Oracle Work in Process User's Guide

This guide describes how Oracle Work in Process provides a complete production management system. Specifically this guide describes how discrete, repetitive, assemble-to-order, project, flow, and mixed manufacturing environments are supported.

Oracle Quality User's Guide

This guide describes how Oracle Quality can be used to meet your quality data collection and analysis needs. This guide also explains how Oracle Quality interfaces with other Oracle Manufacturing applications to provide a closed loop quality control system.

Oracle Shipping Execution User's Guide

This guide describes how to set up Oracle Shipping to process and plan your trips, stops and deliveries, ship confirmation, query shipments, determine freight cost and charges to meet your business needs.

Oracle Purchasing User's Guide

This guide describes how to create and approve purchasing documents, including requisitions, different types of purchase orders, quotations, RFQs, and receipts. This guide also describes how to manage your supply base through agreements, sourcing rules and approved supplier lists. In addition, this guide explains how you can automatically create purchasing documents based on business rules through integration with Oracle Workflow technology, which automates many of the key procurement processes.

Oracle interMedia User's Guide and Reference

This user guide and reference provides information about Oracle interMedia. This product enables Oracle9i to store, manage, and retrieve geographic location information, images, audio, video, or other heterogeneous media data in an integrated fashion with other enterprise information. Oracle Trading Community Architecture Data Quality Management uses interMedia indexes to facilitate search and matching.

Oracle Self-Service Web Applications Implementation Guide

This manual contains detailed information about the overview and architecture and setup of Oracle Self-Service Web Applications. It also contains an overview of and procedures for using the Web Applications Dictionary.

Installation and System Administration

Oracle E-Business Suite Concepts

This guide provides an introduction to the concepts, features, technology stack, architecture, and terminology for Oracle Applications Release 11i. It provides a useful first book to read before an installation of Oracle Applications. This guide also introduces the concepts behind Applications-wide features such as Business Intelligence (BIS), languages and character sets, and Self-Service Web Applications.

Oracle E-Business Suite Installation Guide: Using Rapid Install

This book is intended for use by anyone who is responsible for installing or upgrading Oracle E-Business Suite. It provides instructions for running Rapid Install either to carry out a fresh installation of Oracle E-Business Suite Release 12, or as part of an upgrade from Release 11i to Release 12. The book also describes the steps needed to install the technology stack components only, for the special situations where this is applicable.

Oracle Applications Upgrade Guide: Release 11i to Release 12.1.1

Refer to this guide if you are upgrading your Oracle Applications. This guide describes the upgrade process and lists database and product-specific upgrade tasks.

"About" Document

For information about implementation and user documentation, instructions for applying patches, new and changed setup steps, and descriptions of software updates, refer to the "About" document for your product. "About" documents are available on My Oracle Support for most products beginning with Release 11.5.8.

Maintaining Oracle E-Business Suite Documentation Set

This documentation set provides maintenance and patching information for the Oracle

E-Business Suite DBA. *Oracle E-Business Suite Maintenance Procedures* provides a description of the strategies, related tasks, and troubleshooting activities that will help ensure the continued smooth running of an Oracle E-Business Suite system. *Oracle E-Business Suite Maintenance Utilities* describes the Oracle E-Business Suite utilities that are supplied with Oracle E-Business Suite and used to maintain the application file system and database. It also provides a detailed description of the numerous options available to meet specific operational requirements. *Oracle E-Business Suite Patching Procedures* explains how to patch an Oracle E-Business Suite system, covering the key concepts and strategies. Also included are recommendations for optimizing typical patching operations and reducing downtime.

Oracle E-Business Suite Set Up Guide This guide provides planning and reference information for the Oracle Applications System Administrator. It contains information on how to define security, customize menus and online help, and manage concurrent processing.

Oracle Alert User's Guide

This guide explains how to define periodic and event alerts to monitor the status of your Oracle Applications data.

Oracle E-Business Suite Developer's Guide

This guide contains the coding standards followed by the Oracle E-Business Suite development staff. It describes the Oracle Application Object Library components needed to implement the Oracle E-Business Suite user interface described in the *Oracle E-Business Suite User Interface Standards for Forms-Based Products*. It provides information to help you build your custom Oracle Forms Developer forms so that they integrate with Oracle E-Business Suite. In addition, this guide has information for customizations in features such as concurrent programs, flexfields, messages, and logging.

Oracle E-Business Suite User Interface Standards for Forms-Based Products

This guide contains the user interface (UI) standards followed by the Oracle E-Business Suite development staff. It describes the UI for the Oracle E-Business Suite products and how to apply this UI to the design of an application built by using Oracle Forms.

Other Implementation Documentation

Oracle Applications Product Update Notes

Use this guide as a reference for upgrading an installation of Oracle Applications. It provides a history of the changes to individual Oracle Applications products between Release 11.0 and Release 11*i*. It includes new features, enhancements, and changes made to database objects, profile options, and seed data for this interval.

Oracle Workflow Administrator's Guide

This guide explains how to complete the setup steps necessary for any Oracle Applications product that includes workflow-enabled processes, as well as how to monitor the progress of runtime workflow processes.

Oracle Workflow Developer's Guide

This guide explains how to define new workflow business processes and customize existing Oracle Applications-embedded workflow processes. It also describes how to define and customize business events and event subscriptions.

Oracle Workflow User's Guide

This guide describes how Oracle Applications users can view and respond to workflow notifications and monitor the progress of their workflow processes. Oracle Workflow API Reference This guide describes the APIs provided for developers and administrators to access Oracle Workflow.

Oracle E-Business Suite Flexfields Guide

This guide provides flexfields planning, setup, and reference information for the Oracle E-Business Suite implementation team, as well as for users responsible for the ongoing maintenance of Oracle E-Business Suite product data. This guide also provides information on creating custom reports on flexfields data.

Oracle eTechnical Reference Manuals

Each eTechnical Reference Manual (eTRM) contains database diagrams and a detailed description of database tables, forms, reports, and programs for a specific Oracle Applications product. This information helps you convert data from your existing applications, integrate Oracle Applications data with non-Oracle applications, and write custom reports for Oracle Applications products. Oracle eTRM is available on My Oracle Support.

Oracle Applications Message Manual

This manual describes all Oracle Applications messages. This manual is available in HTML format on the documentation CD-ROM for Release 11i.

Integration Repository

The Oracle Integration Repository is a compilation of information about the service endpoints exposed by the Oracle E-Business Suite of applications. It provides a complete catalog of Oracle E-Business Suite's business service interfaces. The tool lets users easily discover and deploy the appropriate business service interface for integration with any system, application, or business partner.

The Oracle Integration Repository is shipped as part of the E-Business Suite. As your instance is patched, the repository is automatically updated with content appropriate for the precise revisions of interfaces in your environment.

Users who are granted the Integration Analyst role can navigate to the Oracle Integration Repository through the Integration Repository responsibility. Users who have the Integration Developer role or the Integration Administrator role can access the Oracle Integration Repository through the Integrated SOA Gateway responsibility.

Do Not Use Database Tools to Modify Oracle E-Business Suite Data

Oracle STRONGLY RECOMMENDS that you never use SQL*Plus, Oracle Data Browser, database triggers, or any other tool to modify Oracle E-Business Suite data unless otherwise instructed.

Oracle provides powerful tools you can use to create, store, change, retrieve, and maintain information in an Oracle database. But if you use Oracle tools such as SQL*Plus to modify Oracle E-Business Suite data, you risk destroying the integrity of your data and you lose the ability to audit changes to your data.

Because Oracle E-Business Suite tables are interrelated, any change you make using an Oracle E-Business Suite form can update many tables at once. But when you modify Oracle E-Business Suite data using anything other than Oracle E-Business Suite, you may change a row in one table without making corresponding changes in related tables. If your tables get out of synchronization with each other, you risk retrieving erroneous information and you risk unpredictable results throughout Oracle E-Business Suite.

When you use Oracle E-Business Suite to modify your data, Oracle E-Business Suite automatically checks that your changes are valid. Oracle E-Business Suite also keeps track of who changes information. If you enter information into database tables using database tools, you may store invalid information. You also lose the ability to track who has changed your information because SQL*Plus and other database tools do not keep a record of changes.

Introduction to Oracle E-Records

This chapter covers the following topics:

- E-signatures
- Electronic Records
- Sign What You See
- One-step E-signatures
- Framework
- Touch Screen User Interface

E-signatures

Organizations that want to maintain electronic documents must have systems that support the ability to electronically sign those documents, ensuring that the appropriate personnel have reviewed and approved them.

Good Manufacturing Practices (GMP) generally requires signatures on transactions which affect product quality. Companies can also require signatures when moving the custody of goods from one department to another, or when moving responsibility for manufacture from one department to another. So, wherever a signature is needed on a paper document, a signature is needed on the electronic document that replaces it. These electronic signatures or e-signatures can be done either through forms or through the online mode. A new feature, one-step e-signature, further simplifies the e-signature process in the online mode. This document addresses the enabling of electronic signatures in OPM for static (setup), as well as transaction data.

Electronic Records

21CFR Part 11 describes the requirements for companies wanting to move from paper based record keeping to electronic record keeping. GMP describes where it is appropriate to keep electronic records and capture electronic signatures.

This document details all areas in OPM that GMP explicitly or implicitly states are important for capturing e-signatures and e-records. There are also events where data is captured that are industry standard, or dictated by other authorities (like the DEA) that are not mentioned by GMP.

Sign What You See

Since electronic signatures are a legal and binding equivalent to handwritten signatures, it is important to review the data you are responsible for signing. The pertinent data displays at the time of e-signature capture, rather than having to review it using the transaction windows.

Workflow Notification Display

When a notification is sent for approval, the following information displays in the header:

- Subject is the full subject of that e-record.
- Sent displays the date and time the notification was sent.
- To displays the name of the recipient of the notification.
- Style Name displays the style sheet name.
- Version displays the style sheet version.
- The name of the e-record attachments.

One-step E-signatures

The one-step e-signature functionality lets you combine the several pages that a normal signing process takes, into a single page where all signers can complete their approvals. This is an online process, not deferred, and is set based on a profile option.

Approver count and approver list in one-step signature process

Approvers for a transaction are often set at the Approval Management (AME) level, where the set of approvers required for a business event are defined.

Approver count feature provides product teams the capability to enable the ERES framework to allow any number of valid application users as ERES Approvers during the signature process, as opposed to mandating pre-defined AME approvers. In this feature, product teams can set the number of application users for signatures. An approver count is set while raising an ERES event raise and the Signature page is displayed with those many rows. Any valid application user can sign-off the E-record.the transaction.

The Approver Lists feature allows product teams to send approver lists to E-signature framework. This list can have application users or responsibility. If it is a responsibility, any user who has the responsibility can do the sign-off. This also supports multiple counts for responsibility level approvals.

Approver list and approval count are available only in the Simplified Signature process (Einitials), and not available in the regular signature process.

Support of the above two features is primarily driven by the fact that the originating transaction systems may have their own way of defining the approvers and need not duplicate the same in AME.

Framework

Based on Good Manufacturing Practices and customer requirements, the following application windows are configured to capture e-records or e-signatures, or both.

Application windows, along with their associated programs, must be enhanced to call the data capture framework. Events are defined within the framework. An event consists of an event name, the tables, the columns, and the data values.

If an event exists, but is disabled for e-records or e-signatures, then the window behaves as expected. If an event exists and is enabled for e-records or e-signatures, then the framework reacts accordingly:

- If e-signatures are enabled, then the e-signature window displays, requiring entry from the appropriate user.
- If e-records are enabled, then a snapshot of the event takes place at the appropriate time:

If you have existing workflows, you can enable Oracle E-Records on these workflows using the components of the ERES framework. Refer to the *Oracle E-Records Developer's Cookbook* available on My Oracle Support as Oracle Process Manufacturing Manuals and eTRMs-E-Records, note number 227397.1, for details.

Framework Components

The framework consists of the following components:

Workflow Business Event System

Workflow Business Event system is used to define an e-signature event and associate synchronous e-signature subscription to the event.

XML Gateway

XML Gateway is used for mapping definition and generation of XML for an e-record. Individual product teams define XML maps and DTDs for e-record and e-signature

events supported by them. These maps and DTDs are loaded into the database and source controlled under the respective product tops. The e-record stylesheet is also defined as part of XML Gateway.

Transaction Variables

This component is used to define conditions, rules, and approval hierarchy. It stores rule specific attributes such as electronic recording required or electronic signature is required, and what type of style sheet needs to be applied for this rule. These rules are evaluated at runtime based on the transaction ID, which is the primary key for the transaction.

Oracle Applications

A generic call is available, which is called to raise an event from the window.

Workflow Notification Subsystem

Notification subsystem is used to generate the signature user interface and control the flow of the user interface and return a status back to the application.

Workflow Automatic Notification Processing

The Oracle Workflow Automatic Notification Processing automatically forwards your notifications to another role or responds to incoming notifications with a predefined response when you are not available to manage your notifications directly. This can be done on either an online or a deferred event.

The Notification Routing Rules let you define the rules for automatic notification processing. Each rule is specific to a role and can apply to any or all messages of a specific item type or message name. A rule can result in one of the following actions: reassigning the notification to another user, responding to or closing the notification, or delivering the notification to the original recipient with no further action.

When an event is signed with an overriding approver, the following happens:

- The Evidence Store contains the original approver as well as the overriding approver details with proper comments.
- The Signers list page shows the original approver as well as the overriding approver.
- The E-records Query shows the original approver as well as the overriding approver.

XML Publisher

XML Publisher provides a new approach to the customization of report publishing by integrating familiar desktop word processing tools with existing Oracle E-Business

Suite data reporting.

Use the full range of your word processing application's formatting features to create rich report layout designs, or simply modify the ordering of report data to better suit your needs. XML Publisher transforms your document to XSL and PDF, letting you leverage your existing desktop application as an XSL editor.

E-records Evidence Store

The Evidence Store is used for storing electronic signatures. The e-records stored in the evidence store can be queried for, printed and audited.

Online Versus Deferred Mode Capture

When windows require an e-signature, there are two methods of capturing this data. The signature can be captured in process (online) or asynchronously (deferred) through workflow notifications.

- Transaction windows (e.g., Batches, Inventory Quantities, Quality Results) require you to enter all signatures online only. If the signatures cannot be fulfilled in that session, then the new or updated transaction data is not committed to the database.
- For those objects where a status or active/inactive column exists (e.g., Items, Lots, Formulas, Recipes, etc.), a generic workflow notification exists to enable deferred mode signatures. In these cases, windows prompt you for an e-signature when appropriate. If an e-signature is not entered online, then a notification is automatically sent to the user responsible for signing that record. Once all signatures have been fulfilled, the pending rows are updated to the appropriate status (active, approved, etc.). While signatures are in progress, the OPM window prevents any updates from being made to the pending data.

Online signatures are beneficial for those real-time processes that cannot proceed without immediate authorization.

- Deferred mode signatures are useful when the signature does not need to occur immediately, the signers are not typically in the same physical location or are otherwise not immediately available at the time of the signature request, or if there are several items that the signers must verify prior to signing, thus creating a time lag between receipt of the e-signature request and the response.
- Workflow notifications can be accessed through Oracle Applications. The use of Oracle Workflow provides an additional level of auditing - Workflow keeps an electronic history of when parties were notified and when they completed their signoff.

In order to ensure the proper signatures are captured for each document or event within each internal organization, part of the Electronic Record Framework enables secured users to associate the appropriate Users with each event.

An e-record contains a defined set of data from a moment in time captured by the software. This set of data is unique for each application, and each event within that application. For organizations capturing e-signatures with e-records, the intent is to present the e-record to the application user and let them approve or reject the data along with their signature. For those not using e-signatures, e-records are captured as a background process. Layouts for all OPM e-records are contained within this document and is further explored within the detail designs to follow.

E-records are captured in an XML format. XML provides portability, ultimately enabling the delivery of e-records to the FDA electronically. XML also provides longevity of the data. This helps eliminate the need to keep old versions of programs available just to read the documents. The e-records are generated using the XML data with related XSL or RTF templates.

The e-records are stored in an evidence store. The evidence store is a secure storage location and has links from the transaction windows.

Touch Screen User Interface

Oracle Process Manufacturing provides support for touch screen devices. The touch screen display monitors offer shop floor operators a user interface that requires minimal training and that minimizes the use of keyboard and pointing devices.

The Operator Workbench is equipped with touch screen user interface to perform batch transactions and execute process instructions, or to perform dispensing and reverse dispensing operations.

For more information, refer to: *Using the Touch Screen User Interface, Oracle Manufacturing Execution System for Process Manufacturing User's Guide*.

E-record Signature Flows

There are two different types of signature flows - online and deferred. The online process forces all signatures to take place at the same time before the event can continue. The deferred process lets you move on without all signatures in place. The following is a flow of the two different types of processes, using the OPM Item Creation process as an example.

This chapter covers the following topics:

- Online Flow
- Deferred Flow
- Oracle Applications Framework Signature Confirmation

Online Flow

Following is the procedure for the online flow using Item Creation:

1. Enter a new item.
2. Save the new item.
3. Select **Approve New Item** from the **Action** menu. A dialog box displays notifying you that the item must be approved.
 1. Click **OK**. The process is incomplete and a message displays that the Electronic Signature Process abnormally terminated.
 2. Leave the dialog box, and continue to the approval windows. The **List of Signers** window appears.
4. If the Ad Hoc signer functionality is enabled, then you can add, remove, or reorder signers at this time.
5. Begin the approval process in the order the approvers are set for by clicking the

Sign button.

6. For each approver, the electronic record displays. Enter the reason, signers comments, and signature type. In addition, you can see the response history for all previous approvers.
7. Select a notification response.
 1. If **Cancel** is selected, then the previous window displays.
 2. If **Reject** or **approve** are selected, then the **Signers Confirmation** window displays.
8. Enter your username and password.
 1. If **Cancel** is selected, the previous window displays.
 2. If **Submit** is selected, the approval is complete, and the **Signers List** page displays for the approval process to continue. If the submission is a rejection, then the process stops. The confirmation page displays, whereby you click **OK** to close the browser and go back to the Items window.
9. Once all approvals are complete, click **Submit**.
 1. A message displays that the online process is complete.
10. If the signature process is not complete, then a message displays that the signature process is not complete because this is an online event. You can either click **Yes** to stop the process, close the browser, and complete at a later time, or click **No**, and complete the process.
11. Once the process is complete, close the browser.
12. Click **OK** to the dialog box on the **Items** window.

Deferred Flow

Following is the procedure for the deferred flow using Item Creation:

1. Enter a new item.
2. Save the new item.
3. Select **Approve New Item** from the **Action** menu. A dialog box displays notifying you that the item must be approved.
 1. Click **OK**. The process is incomplete and a message displays that the Electronic

Signature Process has been abnormally terminated.

2. Leave the dialog box, and continue to the approval windows. The **List of Signers** window appears.
4. If the Ad Hoc signer functionality is enabled, then you can add, remove, or reorder signers at this time.
5. Begin the approval process in the order the approvers are set for by clicking the **Sign** button.
6. For each approver, the electronic record displays. Enter the reason, signers comments, and signature type. In addition, you can see the response history for all previous approvers.
7. Select a notification response.
 1. If **Cancel** is selected, then the previous window displays.
 2. If **Reject** or **Confirm** are selected, then the **Signers Confirmation** window displays. If **Reject** is selected, then an email is sent to the requestor and all subsequent signers that a rejection has occurred.
8. Enter your username and password.
 1. If **Cancel** is selected, then the previous window displays.
 2. If **Submit** is selected, then the approval is complete, and the **Signers List** page displays for the approval process to continue. If the submission is a rejection, then the process stops, you must close the browser, and go back to the **Items** window.
9. Click **Submit**.
 1. If the signature process is complete, then a message displays that the online process is complete.
 2. If the signature process is not complete, then a message displays that for this event deferred is allowed, and notifications are sent to all approvers. Based on the profile options EDR: Workflow Notification Timeout (in Hours) and EDR: Workflow Notification Timeout Interval, reminders are sent out over a period of time until they are terminated.
10. Close the browser.
11. Click **OK** to the dialog box on the **Items** window. The item remains pending.

12. If you receive an email notification, then click to the approval window from the e-mail. You will not see the list of approvers, only the approval information you must complete.

Oracle Applications Framework Signature Confirmation

Events that run from the Oracle Applications framework technology complete the same online and deferred signing paths as the forms-based events. But, there is an additional confirmation window to comply with the framework standards.

At the end of either an online or deferred signature, a Confirmation window displays. This window has information that includes the name of the event, the e-record ID, the identifier, the identifier value, and the current status of the e-record. Verify that the information is correct and click **OK** to complete the signing process.

Implementing E-records

You must complete the following steps to enable the E-records functionality. These steps comprise the initial setup of Oracle E-Records and are required to ensure a complete and accurate system.

This chapter covers the following topics:

- Enabling Profile OptionProfile Options
- Setting Up Responsibilities
- Enabling the EventEvent
- Enabling the SubscriptionSubscription
- Setting Up Oracle Approval Management
- Setting Up the Configuration Variables
- Running the E-record Event Setup Verification Report
- Setting Up Indexed XML Elements
- Security Rules
- Related Events
- Setting Up Related Events
- Setting Up Ad Hoc Signers
- Manually Enabling E-Records Only
- Enabling One-Step E-signatures
- Setting Up Redlining
- Enabling E-Records in Mobile Supply Chain Applications
- Force E-Record Generation

Enabling Profile Options

Oracle E-Records has several profile options that can be set to enable records and signatures, or modify the software in different ways.

EDR: E-records and E-signatures

You must set up the profile option EDR: E-records and E-signatures. This profile option lets you enable the functionality for your entire system. This profile option is sent out with the hierarchy type set to Site, which enables the system administrator to set the profile option based on the implementation. Valid values for this profile option are:

- Yes - Enable e-record and e-signature
- No - Do not enable e-record and e-signature (default value)

EDR: Server Time zone

Set the profile option EDR: Server Time zone to the time zone where the database is running. If you do not set this value, then you cannot raise any events and an error displays that all e-records have a null value for the time zone. Each window in Oracle E-records displays the time zone that the system is set up to use.

- Ensure that the database time zone is the same as the server time zone profile option value since the system does not verify the database value.
- Once Oracle E-Records is enabled, do not reset this value.
- This value does not reflect the current user time zone value. It is always the server time zone.

Note: If you had previously set the Server Time zone profile option, then you must set EDR: Server Time zone to the same value.

EDR: Workflow Notification Timeout Interval

This profile option determines the number of times you receive an e-mail notification reminder. It works in conjunction with the EDR: Workflow Notification Timeout (in Hours) profile option.

This is set at the Site level only.

EDR: Workflow Notification Timeout (in Hours)

This profile option determines the length of time between reminder notifications. It

works in conjunction with the EDR: Workflow Notification Timeout Interval profile option.

This is set at the Site level only.

Example 1

EDR: Workflow Notification Timeout (in Hours) = 5

EDR: Workflow Notification Timeout Interval = 3

The result is that five hours after the initial notification is sent, three more are sent at five hour intervals. If no acknowledgement is made, then the process is terminated and e-mails are sent to all approvers and the requestor that the process was terminated.

Example 2

EDR: Workflow Notification Timeout (in Hours) = NULL

EDR: Workflow Notification Timeout Interval = 3

The notification timeout in hours overrides the number of reminders sent. Therefore, in this example no reminders are sent and the process is terminated. This is not a valid combination. You must set a timeout interval in hours.

Example 3

EDR: Workflow Notification Timeout (in Hours) = 5

EDR: Workflow Notification Timeout Interval = NULL

The result is that no notifications are sent, and at the end of the five hours the process is terminated.

EDR: Security Level High

This profile option, when set to Y, restricts access to e-records before security rules are created for them. The default value is Y, and users must be granted access when the system is set up.

EDR: E-record Print Granted

This profile option lets you restrict access to printing e-records. The default value, No, set at the Application level restricts everyone in that application from printing e-records. The system administrator can set the profile option to Yes for specific users to grant printing capabilities.

EDR: Send Individual Approval Notification

This profile option is for receiving emails during a signing process. If this profile is set to Yes, then the requester gets a notification after every signer completes the signing

process. If this is set to No, then there is no notification for each signature. All signers receive a notification for a rejection, regardless of the profile option setting.

EDR: Send Individual Approval Notification

This profile option is for receiving emails during a signing process. If this profile is set to Yes, then the requester gets a notification after every signer completes the signing process. If this is set to No, then there is no notification for each signature. All signers receive a notification for a rejection, regardless of the profile option setting.

EDR: Developer Mode

This profile options lets you debug a transaction by taking a snapshot of the raw XML and storing it in the EDR_RAW_XML_T table. This can now be used as the XML payload in the Validate Event window. Default value is No.

Setting Up Responsibilities

The following responsibilities are available with the Oracle E-Records applications. Give your users the appropriate responsibilities. The administration responsibilities must only go to the person responsible for setting up the system.

ERES Administrator

This person has the responsibility for overall administration of the Oracle E-Records application. Only a small number of people should be assigned this responsibility.

ERES User

This person can access the Oracle E-Records application for user tasks like querying the Evidence Store only. No administration related functions are exposed to this responsibility.

iSignatures Administrator

This person is the administrator for the iSignature process. This person can do all the functions of a user, in addition to updating and deleting other users files.

iSignatures User

This person can upload files and send them for approval. In addition, they can update or delete their own files only.

Enabling the Event

The Oracle Workflow Event Manager lets you register:

- business events that occur in your applications,
- the systems among which events are communicated,

- named communication agents within those systems, and
- subscriptions indicating that an event is significant to a particular system.

You can use the Event Manager web pages to define and maintain these events, systems, agents, and subscriptions.

A business event is an occurrence in an internet or intranet application or program that might be significant to other objects in a system or to external agents. For instance, the creation of a purchase order is an example of a business event in a purchasing application. You can define your significant events in the Event Manager.

Business Event Creation

Restrictions

Name

When you define an event in the Event Manager, you must assign it a unique internal name, which is case-sensitive. The format for these internal names is a compound structure of identifiers separated by periods (.) as follows:

oracle.apps.<product>.<component>.<object>.<event>

This format lets you organize the events you define into a classification hierarchy.

Example: oracle.apps.gme.Process.Batch.close, Process Batch Close Event

Display Name

The Display Name displays in the Edit Event list.

Description

A brief description of the e-signature event.

Status

All seed data is sent set to enabled.

Generate Function

Generate functions is NULL for all e-signature events.

Owner Name (mandatory)

The Owner Name must be your product name.

Owner Tag (mandatory)

The Owner Tag must be your three letter product code.

Customization Level

The Customization Level determines how much of the event information can be changed. All seed events are set to Limit, where only the Status can be changed. Custom events are set to User, and all fields can be changed.

Identify Event Key

Each instance of an event must be unique and is identified by an event key. The key helps to tag the transaction data with e-signature and e-record data. The key must be a

unique identifier for an event and not hold multiple values. In most cases, it is the primary key of a table on which the event is taking place. In some cases, the primary key can be a multi part key, which is concatenated and treated as a single event key. This key is used as a business event key and is passed as a parameter to the event raise API.

Example of a single key:

Event: GME_BATCH_RELEASE

Event Key: GME_BATCH_HEADER.BATCH_ID

Example of a multi part key: (If the Batch Header table does not have BATCH_ID)

Event: GME_BATCH_RELEASE

Event Key: GME_BATCH_HEADER.PLANT_CODE

GME_BATCH_HEADER.BATCH_NO

Event key representation during API calls:

GME_BATCH_HEADER.PLANT_CODE || GME_BATCH_HEADER.BATCH_NO

Refer to the *Oracle Workflow Guide* for details on enabling events.

Enabling the Subscription

Subscription processing can include the following types of processing:

- Run a function on the event message.
- Send the event message to a workflow process.
- Send the event message to an agent.

Add Synchronous E-signature Subscription

A synchronous subscription is added to the defined business event, which is a local subscription. The phase of the subscription determines if the subscription is synchronous or not. The phase of the subscription must be set to 0 to make sure that e-signature subscription is the first subscription run when an event occurs. A rule function is associated to the subscription that determines if an e-signature is required and generates a snapshot of the data to be signed. The snapshot is generated as an XML document in the rule function. This is the generic rule function, which is used by all product teams while defining a subscription.

Restrictions

Subscriber: System

This is the local system, on which the subscription code is to run.

Triggering Condition: Source Type

Set the triggering condition to local.

Triggering Condition: Event Filter

Select the event that this subscription is for.

Triggering Condition: Source Agent

Leave blank.

Execution Control: Phase (mandatory)

Set the phase to 0.

Execution Control: Status

All seed data is sent set to disabled.

Execution Control: Rule Data

Key: the subscription requires only the event key.

Action: Action Type

Set the action type to Custom

Action:On Error

Stop and roll back. Do not set to any other value.

Action:Java Rule Function

Leave this blank.

Action: PI / SQLRule Function (required)

Enter EDR_PSIG_RULE.PSIG_RULE. This is the rule function, which determines if e-signature is required for the event instance and generate XML document if required.

Action: Workflow Item Type and Workflow Process Name

Workflow item Type = EDRPSIGF

Workflow Process Name = PSIG_ESIGN_PAGE_FLOW

Action: Out Agent and To Agent

Leave blank.

Action: Priority

Leave blank.

Action: Parameters

The parameter column can be used to add space delimited name=value pairs, which can be accessed by rule function. The rule function looks for the following parameter and if the parameters are not, then set it.

EDR_XML_MAP_CODE=<Your XML Map Code>

EDR_AME_TRANSACTION_TYPE=<AME transaction Type>

Documentation: Owner Name (mandatory)

The Owner Name must be your product name.

Documentation: Owner Tag (mandatory)

The Owner Tag must be your three letter product code.

Documentation: Description

Any information you want to document about the subscription.

Customization Level

The customization level will be set to "Limit"

Refer to the *Oracle Workflow Guide* for details on enabling subscriptions.

Setting Up Oracle Approval Management

Oracle Approvals Management (AME) is a self-service web application that enables users to define business rules governing the process for approving transactions in other Oracle Applications. Rules are constructed from conditions and approvals.

Oracle E-Records enables you to enhance your system using the functionality available in AME, including Serial and Parallel Approvers, First Responder Wins, Consensus Voting, and Line Item Class Approvers. The information in this section offers an overview of how to maintain information in AME. For details on setting up AME, refer to the *Oracle Approvals Management* documentation.

Two notable features in the AME setup are the First Responder Wins and Parallel Approver Support. First Responder Wins supports voting regime. You need to set voting regime to 'First Responder Wins' and order to parallel in AME. The First Responder Wins feature sends out signature notifications to either single or multiple signing groups (as the case maybe) involved in a particular transaction. The transaction is approved even if one of the designated signers, from the group or groups, signs the transaction.

The parallel approver support allows signers to sign the transaction according to the signing order created for the transaction and multiple approvers can be on the same order. This feature accommodates more than one signer for a transaction and allows the user to set the order or sequence of the signature process.

Creating Transaction Attributes

In OAM, an attribute is a named business variable such as TRANSACTION_AMOUNT, whose value OAM fetches at run time, when it constructs transactions' approver lists. OAM includes the attributes commonly required for the transaction types of each application that can use OAM.

Creating Conditions

In OAM, a condition specifies a list or range of attribute values required to make a rule apply to a transaction. For example:

```
INVENTORY_TYPE IN {'A'}
```

Creating Approval Groups

An OAM approval group is an ordered list of persons or user IDs. You can create OAM rules to include one or more approval groups in a transaction approver list. You must create an approval group before using it in an approval-group rule.

Defining Approval Rules

In AME, an approval rule associates one or more conditions with an approval action. The rule applies to a transaction if and only if all of the rule's conditions are true for the transaction. Each application that can use OAM defines one or more transaction types.

Each transaction type has its own set of approval rules. Several transaction types can share attribute names, while defining separate usages for those attribute names. This makes it possible for several transaction types to share conditions and rules.

Defining Action Types

An action is used to instruct the AME to modify a transaction's approval process. There are two types of action, approval and production actions. Actions associated with a transaction's approver list are approval actions or approvals. Production actions are actions that generate a production such as a variable name or value pair.

The AME contains action types and actions that an implementation requires. These actions and action types can be used to either create or modify an existing action.

Setting Up the Configuration Variables

The Configuration Variables lets you add, delete, and update new variables to transactions and rules. You can also add a variable to a rule that overrides the default global value for the variable in the transaction.

Associate the e-record output XSL or RTF to the rule. This ensures multiple style sheets can be associated to a single event based on the control parameters.

AME Transactions as ERES-enabled Events

When you create, update, or delete an input configuration variable for transaction type at the transaction or rule level, it raises the appropriate event that goes through the approval process. If the approval process fails, then the transaction rolls back. If it is approved, then it is committed to the database. Refer to the *Events* appendix for details.

To view variables associated with a transaction:

1. Navigate to the **Configuration Variables** window.

2. Select a **Transaction Name** from the list of values. Required.
3. Click **Go**. The available variables are listed under the Result for Transaction section. All seeded variables can be updated but not deleted. The following transaction fields are display only:
 - Variable Name displays the name of either a seeded or custom variable.
 - Description displays the description of the variable.
 - Data Type displays the type of data for the variable.
 - Default Value displays the default value for the variable.

To view variables associated with a transaction and rule:

1. Navigate to the **Configuration Variables** window.
2. Select a **Transaction Name** from the list of values.
3. Select a **Rule Name** from the list of values. Only rules associated with the selected transaction type are displayed.
4. Click **Go**. The available variables are listed under the Result for Transaction and Result for Rule regions. All seeded variables can be updated but not deleted. The following rule fields are display only:
 - Variable Name displays the name of either a seeded or custom variable.
 - Description displays the description of the variable.
 - Data Type displays the type of data for the variable.
 - Default Value displays the value for the variable that overrides the value found in the transaction.

To add a transaction variable:

1. Click **Create** from the **Configuration Variables** window. The **Create Transaction Variable** window displays. The Transaction Name is a display only field.
2. Select a transaction variable from the menu. If the variable has already been set, it does not appear in this list. Required.
3. Enter a description for the variable.

4. Select a data type for the variable. Valid values are:
 - Boolean
 - Character
 - Date
 - Number
 - Time
 - String
5. Enter the default global value for the variable.
6. Click **Apply** to save the variable.

To add a rule variable:

1. Click **Create** from the **Configuration Variables** window. The **Rule Variable Definition** window displays. The Transaction Name and Rule Name are display only fields.
2. Select the input variable you want to add from the menu. If you do not see the variable, then ensure that it is already created as a global variable under transactions. The Data Type field is display only. Required.
3. Enter the value for the variable that overrides the global default value.
4. Click **Apply** the save the variable.

To update a variable for a transaction:

1. Once the transaction variables display, click **Update**. The **Update Rule Variable** window displays. The following fields are display only:
 - Transaction Name
 - Variable Name
 - Data Type
2. Modify the Description and Default Value as necessary. The default value must be Y or N. No other values are accepted.

3. Click **Apply** to save your changes.

To update a variable for a rule:

1. Once the rule variables display, click **Update**. The **Update Rule Variable** window displays. The following fields are display only:
 - Transaction Name
 - Rule Name
 - Input Variable
 - Data Type
2. Modify the Variable Value as necessary.
3. Click **Apply** to save your changes.

To delete a transaction variable:

1. Once the transaction variables display, click **Delete**. The **Delete Transaction Variable** window displays. You must not delete the four seed data variables, including:
 - E-record required
 - E-record style sheet
 - E-record Style Sheet version
 - E-signature required - you must set this to Y to enable e-signature.

The following fields are display only:

- Transaction Name
 - Input Var Name
 - Description
 - Default Value
2. Click **Apply** to delete the variable. An error displays if the variable is associated with a rule. You must delete the variable from the rule first, then delete it from the transaction.

To delete a rule variable:

1. Once the rule variables display, click **Delete**. The **Delete Rule Variable** window displays. You cannot delete the four seed data variables, including:

- E-record required
- E-record style sheet
- E-record style sheet version
- E-signature required

The following fields are display only:

- Transaction Name
- Rule Name
- Input Variable
- Data Type
- Variable Value

2. Click **Apply** to delete the variable.

Running the E-record Event Setup Verification Report

This program logs all set up seed data for an Oracle E-Records selected event into the concurrent log file. It displays the current setup for the following information:

- Event Name
- Subscription
- Profile Options
- Transaction Type
- AME Conditions and Rules
- Approval Groups
- Approvers
- Transaction Type Configuration Variables

- Generated XML

To submit the **E-record Setup Verification** report:

1. Navigate to the **Submit Request** window.
2. Enter **E-record Event Setup Verification** in the Name field. The Parameters dialog box displays.
3. Enter any of the following fields to narrow the scope of the report:
 - **Business Event** is the workflow business event name.
 - **Event Key** is the business event key number.
4. Click **OK**. The **Submit Request** window displays.
5. Complete the fields on the **Submit Request** window and click **Submit**. View or print the report.

Refer to "Validate E-record Events" for more information.

Setting Up Indexed XML Elements

The initial implementation of Oracle E-Records contains seed data for indexed XML elements. You must run a concurrent program to index these elements.

The job of the concurrent program is to index all the non-indexed elements. The indexing consists of changing the status field in the table EDR_IDX_XML_ELEMENT_B and creating a section in the interMedia text index for the indexed XML element.

After creating or updating an indexed XML element, you must run this program again in order to index the element.

Refer to Maintaining Indexed XML Elements, page 6-5 details on querying, updating, and deleting indexed XML elements.

Refer to "Adding a New Indexed XML Element" for details on adding new XML elements.

To submit the **E-record Indexed XML Element Maintenance** program:

1. Navigate to the **Submit Request** window.
2. Enter **E-record Indexed XML Element Maintenance** in the Name field.
3. Click **Submit**.

4. View or print the report.

Security Rules

It is possible that your system is set up to run Oracle Internet Directory (OID). If so, then you must do the following:

- Make sure you have Oracle Applications usernames and passwords for all users.
- Set the Applications SSO Login Types profile option to Both.

You must set up security rules on your system. Refer to "Setting Up Security Rules" for details.

Related Events

Related event mode lets you relate major events to multiple other events, in a parent-child relationship. Some of the scenarios where related events can be implemented are:

Mass Lot Creation

Many lots are created on one window and only one signature is required, but individual e-records must be captured.

Mass Specifications

When a master specification is assigned to various organizations, the master specification is signed, but creation of referenced organization specifications require e-records and must be linked to the Master Specification.

Batch Release

Batch Release requires an e-signature, but lots created during this process only need an e-record and must be linked to the Batch Release Event.

Setting Up Related Events

To ensure that the related event completes correctly, it must be set up as part of the configuration variable for the parent event. Therefore, when the parent event and related events are triggered, the processing can complete successfully.

The following scenarios depict invalid setup:

- If you have more than one e-record event subscription enabled for the parent event, then an error displays when you try to perform the transaction.
- If you have more than one e-record event subscription for the parent event, and they are all disabled, then an error displays when you try to perform the

transaction.

- If you do not have any e-record subscriptions for the parent event, then an error displays when you try to perform the transaction.

The following are valid setups:

- Only one e-record subscription either in enabled or disabled status.
- Only one e-record subscription enabled where you have more than one e-record subscription defined for the event.

To set up a related event:

1. Navigate to the **Business Events** window in the **Workflow Web Administrator** responsibility.
2. Locate the event that is designated as the parent event.
3. Click **Subscription**, then **Update**.
4. Enter a line with the name of the child event and the type of action to be taken in the **Action** region, in the **Parameter** field.

The line looks like oracle.apps.event.name=VALUE

An example of this is oracle.apps.edr.InterEvt.Event2=ERECORD_ONLY

The valid values are:

- EVALUATE_NORMAL - you want to consider the child as a regular e-record event and proceed without any special processing.
- IGNORE_SIGNATURE - you want to consider the child as a regular ERES event, but does not want to capture e-signatures.
- ERECORD_ONLY - you want to only capture the e-record for the child transaction without evaluating or AME rules.

Setting Up Ad Hoc Signers

You can set up your system so that signers can be dynamically changed during the signing process for a single document. Based on the setup, you can either not change signers, add new signers, or add new signers and remove existing signers. This can be set up at both the transaction and rule level, with the more stringent one taking precedent. Therefore, if you have the transaction level set to add and remove signers, but the rule level is set to add only, then you can only add users.

If this variable is not set up, then the functionality defaults to NONE.

To setup ad hoc signers:

1. Navigate to the **Configuration Variables** window by selecting ERES Administrator Setup.
2. Search for the event you want to put ad hoc signers on, and click **Go**.
3. Click **Create** to add a new variable.
4. Enter the variable name Adhoc Signer Capability.
5. Enter a description.
6. Change the data type to String.
7. Set the default value to NONE for no dynamic changes, ADHOC for adding new signers, and ALL for adding new signers and deleting existing signers.
8. Click **Apply**.

Manually Enabling E-Records Only

The e-record framework lets you set an event capture with e-signature or e-record only. But, when initiating an API where there is only an e-record needed, it is necessary to also set the configuration variables correctly. You can set a flag programmatically when running the API to set the program to capture an e-record only. This flag would override anything in the configuration variables. For more details on enabling this flag, refer to the *Oracle E-Records Developer's Guide*.

Enabling One-Step E-signatures

One-step e-signatures is a method of signature capture where all signatures are done on a single window. In regular e-signatures, there are three windows that the signer sees. The initial List of Signers page, the e-record itself, and the Signers page. In the simplified version of the e-signatures, all signatures are done on one page, condensing the signing process.

Like the regular signing process, the signer selects an approval or rejection, a reason, and enters a username and password as unique identifiers.

Setting Up the One Step E-signatures Page

In order to set up the simplified e-signatures process, you must set the configuration variable to E-Signature Mode. The values for this variable are SHORT or FULL. The value FULL is the regular way of signing documents. You must set this variable to

SHORT to use the one-step e-signatures feature.

The rest of the set up for one-step e-signatures is the same as regular signing. You must ensure that the AME setup is complete and the business events you want to use are enabled.

There are a few limitations associated with one step signatures; you cannot use Ad Hoc signers, digital signatures, and dynamic responses.

Setting Up Redlining

There are a number of transaction e-records that can change based on the transaction. For example, you can change the status of a formula several times, each time creating a new transactional e-record. The redlining functionality lets you set up change tracking for both text and RTF e-records.

For an RTF e-record, the change tracking highlights removed items. You have the option of setting the redlining feature to reflect changed information however you want.

For a text e-record, the body of the record has the text PREV before the old information and CURR before the new information.

To set up the redlining functionality, you must add the configuration variable REDLINE REQUIRED. If you want to use this functionality, you must set it to Yes.

To set up Redlining:

1. Navigate to the Configuration Variables.
2. Select a Transaction Name and click Go.
3. Click Create Transaction Variables.
4. In the Variable Name field select Redlining Required.
5. In the Value field enter Yes.
6. Click Apply.

Refer to the *Oracle E-Records Developer's Cookbook Guide* available on My Oracle Support as Oracle Process Manufacturing Manuals and eTRMs-E-Records, note number 227397.1, for details on creating redlining templates.

Enabling E-Records in Mobile Supply Chain Applications

The demand for accurate, real-time information and the need to increase inventory velocity throughout the supply chain drives rapid adoption of mobile computing for inventory, logistics, and manufacturing. Mobile computers connected using Radio Frequency (RF) to the network, combined with the use of automatic identification

techniques such as bar coding, permits activity execution, such as picking or receiving an item, to be unified with the recording of that activity in the information system. This approach virtually eliminates sources of error. It also reduces latency, increases work efficiency, and reduces the complexity of the overall business process.

The addition of e-records and e-signatures to mobile devices gives you the same level of compliance and security that the associated window offers.

The basic functionality remains the same when signing on the mobile device. Upon completion of a transaction, the signature window displays, and can be signed online, or deferred if the transaction allows. The deferred signing process continues in the windows-based Workflow.

At the end of the signature process on the mobile device, the e-record is not automatically displayed, due to space limitations. You can review the complete e-record in the normal ERES Evidence Store. In addition, any attachments associated to the transaction are viewable in the ERES Evidence Store in the text versions. The PDF version is not supported for mobile supply chain applications.

Another limitation of the mobile signing is the inability to add Ad Hoc signers. All signers must be set up in AME prior to initiating the transaction.

As with the windows-based e-records, the mobile counterpart offers the same inter-event verification process, giving you the opportunity to test flows prior to using them.

Refer to the *Oracle E-Records Developer's Guide* for details on setting up of e-records and e-signatures for Mobile Supply Chain Applications.

Force E-Record Generation

The ERES Framework can also capture E-records at the minimum, irrespective of the setup. When the new event subscription parameter, `FORCE_ERECORD` is set to Y (yes), then an e-record is captured irrespective of the configuration variables, status of the profile options, with or without signatures, etc. If the option is set to N (No), then ERES process continues normally.

Setting Up Security Rules

This topic describes how the e-records stored as XML documents in the database are a repository of critical information that can be queried for reasons ranging from internal users viewing information to regulatory authorities inspecting process records.

The information contained in these e-records can be confidential and critical to the nature of the business. Therefore, access to these e-records must be restricted so that any unauthorized entry is prevented.

Access to e-records must be based on the contents of the e-records. For example, you can restrict access to all e-records having any reference to a particular formula ingredient.

This chapter covers the following topics:

- Technical Requirements
- Setting Up Secure Elements
- Adding E-record Security Rules
- Security Rule Examples
- Maintaining E-record Security Rules
- Viewing Security Rule Details
- Updating Security Rules
- Deleting Security Rules
- Running the E-record Security Policy Administration Program

Technical Requirements

The technical requirements fulfilled by the security model are:

- You cannot delete an e-record once it is created.
- The view access is contingent on the content of the e-record and the event for which

the e-record was created.

Setting Up Secure Elements

Before a security rule can be created using a particular XML element it has to be identified as a secure element, the XML element must be indexed, and its usage must be defined as a secure element.

Refer to Setting Up Indexed XML Elements, page 6-5 in the "Implementing Oracle E-records" chapter.

Adding E-record Security Rules

Once the secure elements are created, you can create security rules.

There are two modes of operation that a user can configure at the site level. These modes are determined by the profile option EDR: Security High, set at the Site level. This value can be set to Yes or No and has a default value of No.

Warning: Do not change this setting once security configuration is complete.

Restrict Mode (Low level security)

In this mode, access to e-records is granted by default and users or responsibilities can be restricted as required. This is the default mode.

Grant Mode (High level security)

In this mode, access to e-records is restricted by default and users or responsibilities are granted access to specific values.

Refer to Enabling Profile Options, page 3-2 in the "Implementing Oracle E-records" chapter.

Security Rule Examples

A security rule creates a restriction or grant statement such as:

Allow user James (user id: JASDE) to access e-records for event Formula Approval having value Yeast for Formula Ingredient

In this example, Formula Ingredient is the secure element for the event Formula Approval. Access to the value Yeast is granted to user id JASDE. Similarly, access to a particular user can also be restricted for a specific value.

Using these security rules, access to the e-records for specific events is restricted based

on the contents of the e-records; specifically the value of the secure elements identified at the time of secure element creation.

The comprehensive set of security rules supported by the security model lets you provide content based security as follows:

- Grant a user access to an e-record based on its content.
- Grant a responsibility access to an e-record based on its content.
- Restrict a user's access to an e-record based on its content.
- Restrict a responsibility's access to an e-record based on its content.
- Grant a responsibility, but restrict a particular user within the responsibility, access to an e-record based on its content.
- Restrict a responsibility, but grant a user within the responsibility, access to an e-record based on its content.

To add a security rule:

1. Navigate to the **Security Rules** window.
2. Click **Create Security Rule**. The **Create Security Rule** window displays.
3. Enter the information for the security rule:
 - **Secure Element** displays the name of the secure XML elements. Required.
 - **Event Name** displays the name of the event.
 - **Secure Value** displays the value of the secure element. In addition, you can use special characters when creating the secure value. Required.
 - **User** displays the user associated to that secure element.
 - **Responsibility** displays the responsibility associated to that secure element.
 - **Access** displays whether the element can be accessed or is restricted by default. Required.
 - **Start Date** displays the date the security becomes active. Required.
 - **End Date** displays the date security is no longer active. This can be NULL, leaving security active indefinitely.
4. Click **Apply**. A confirmation displays that the Security Rule is successfully created.

5. Run the **E-records Security Policy Administration** program.

Refer to Running the E-records Security Policy Administration Program, page 4-6 for details.

Maintaining E-record Security Rules

The e-record security rules are used to restrict or grant access to e-records based on their content. You can search, view, create, delete, and update security rules.

The search criteria is not case sensitive and handles trailing wild cards. For example, searching for *abc* returns all matches for *abc%* and *ABC%*.

To view the security rules:

1. Navigate to the **Security Rules** window.
2. Enter search criteria, which can include one or many of the following:
 - **Secure Element** displays any indexed XML event that has been set up with a secure usage.
 - **Event Name** displays all active events.
 - **User** displays all system users.
 - **Responsibility** displays any responsibilities set up in the system.
3. Click **Go**. The search results display. You can sort the information by clicking on any heading that is active. The following information displays for each record:
 - **Secure Element** displays the name of the secure XML elements.
 - **Event Name** displays the name of the event.
 - **Secure Value** displays the value of the secure element.
 - **User** displays the user associated to that secure element.
 - **Responsibility** displays the responsibility associated to that secure element.
 - **Access** displays whether the element can be accessed or is restricted by default.
 - **Details** lets you drill down into the details of that record.
 - **Update** lets you update the record.
 - **Delete** lets you delete the record.

Viewing Security Rule Details

You can view the security rule details. You cannot change any information about the security rule from this window.

To view the details of a security rule:

1. Navigate to the **Security Rules** window.
2. View the detail information.
3. Click **Back** to return to the previous window.

Updating Security Rules

Security rules can be updated from this window. After security rules are changed, you must run the Security Policy Administration program for these changes to take effect.

To update a security rule:

1. Click **Update** from the **Security Rules** window. The **Update Security Rules** window displays.
2. Update the desired information. You cannot update Secure Element, Event Name, Secure Value, User, and Responsibility. You can update the following:
 - **Access** displays whether the element can be accessed or is restricted by default. Required.
 - **Start Date** displays the date the security becomes active. Required.
 - **End Date** displays the date security is no longer active. This can be null, leaving security active indefinitely.
3. Click **Apply**.
4. Run the **E-records Security Policy Administration** program. Refer to Running , page 4-6the E-records Security Policy Administration Program for details.

Deleting Security Rules

You can delete all security rules from this window.

To delete a security rule:

1. Click **Delete** from the **Security Rule** window. The message Are you sure you want to delete this Security Rule? displays.
2. Click **Yes** to delete the rule, and **No** to cancel the delete.
3. Run the **E-records Security Policy Administration** program.
Refer to Running the E-records Security Policy Administration Program, page 4-6 for details.

Running the E-record Security Policy Administration Program

You must run this program to enable security on the Evidence Store.

To run the E-record Security Policy Administration program:

1. Navigate to the **Submit Request** window.
2. Enter **E-records Security Policy Administration** in the Name field. The Parameters dialog box displays. The **Action** field is set to either Add or Drop.
3. Click **OK**. The **Submit Request** window displays.
4. Complete the fields on the **Submit Request** window and click **Submit**.
5. View or print the report.

iSignatures

This topic describes using attachments with Oracle E-Records, the types of attachments available, and how attachments are stored.

This chapter covers the following topics:

- Types of Documents
- ERP Documents
- Uploading Documents
- Document Status
- Security
- Checklist Functionality
- Uploading Documents
- Querying Documents
- Viewing Document Details
- Updating a Document
- Deleting Documents
- Sending Documents for Approval
- Signing a Document
- Signing With E-Initials
- Updating Signers
- Adding Signers
- Reordering Signers
- Managing Templates Using iSignatures
- Linking a Document to a WebsiteLinking a Document to a Website

Types of Documents

Electronic records store the snapshot of an ERES event in Oracle Applications. Along with capturing the main transactional details of the event in an XML format, you can store an attachment related to the key business entities involved in the ERES event. These attachments become part of the e-record and e-record storage.

There are two types of attachments:

ERP Documents

Attachments related to the business entities involved in the transaction being snapshot by an e-record. For example, attachments related to a recipe, which is being changed by an ERES event. These attachments are currently attached to different business entities. These attachments are already stored in Oracle Applications.

Non-ERP Documents

Attachments directly related to an e-record entity. For example, a standard operating procedure (SOP) followed during the transaction being snapshot by an e-record. These attachments are attached only to e-records directly. These records must be uploaded into Oracle Applications using Files Approval.

ERP Documents

When e-signatures is enabled for a transaction that allows attachments, the attachments are sent through the signature process with the transaction. The attachment is captured as part of the e-record, and once the signature process is complete, the attachment is stored with the e-record.

When the e-record is queried, either by transaction or generic, the attachment is available for viewing.

For setup information, refer to the *Oracle E-Records Developers Cookbook* available on My Oracle Support as Oracle Process Manufacturing Manuals and eTRMs-E-Records, note number 227397.1 for details.

Uploading Documents

You can upload a document using Files Approval. Each document is assigned a category, which contains rules for the approval process. Each category has fifteen descriptive flexfield segments that can be used to store information about the documents in that category.

When a document is in either the No Approval Required or Approved status, you can attach the document to an E-Business entity using the Oracle Applications Attachments functionality.

Document Approval Modes

Files Approval has two modes, user and administrator. Depending on how you are logged in, you can either upload, update, and delete all files, or only the files where you are the author.

- From the iSignature Administrator responsibility, you can upload, update, delete, and send for approval all documents in the system.
- From the iSignature User responsibility, you can upload documents, and update, delete, and send for approval only those documents that you own. You can only view documents you did not author.

Document Status

There are five statuses for a document:

New

This is the default value for all documents when they are first uploaded.

Approved

A document is approved after all signers approve it.

Waiting for Approval

A document is waiting for approval when it is in the approval process, but not all signoffs have been completed.

Rejected

A document is rejected when one signer rejects the document. Rejected documents are not published and are not available for attaching to ERP entities.

Approval Not Required

When approvals for a document are not required, set the status to No Approval Required. No rules are required to be set for this document status. If you send the document for approvals after upload, then it is automatically set to Approval Not Required.

Security

The following rules are set to determine what privileges you have based on the status of a document.

Operations	New	Approved	Waiting for Approval	Rejected	Approval Not Required
Update	Yes	No	No	No	No
Delete	Yes	No	No	No	No
Overwrite	Yes	No	No	No	No
Send for Approval	Yes	No	No	No	No

Checklist Functionality

The checklist functionality lets you set up a verification checklist that is uploaded with the document into the iSignatures system. The checklist is a PDF form that contains fields to be entered answering questions about the file being uploaded. This form can be empty fields that you enter information into, or they can have validation against them based on setup in Adobe Acrobat.

The checklist can be created by any product that lets you turn the file into a PDF. Then, the document is edited in Adobe Acrobat to have logic and buttons added to make it a usable form.

The file must be uploaded into the iSignatures system under the EDR iSign Checklist Templates category, and must be in either the Approved or Approval Not Required status. You must set up three configuration variables to activate the checklist. These include:

- Checklist Required - valid values are Y, yes the checklist is required and N, no checklist is required.
- Checklist Template - enter the full name of the PDF file, including the version.
- Checklist Template Version - enter the version number of the checklist.

When a document is uploaded into iSignatures, the checklist appears after the Apply button is clicked. Then, you enter information into the checklist and click the checklist Submit button. As the document moves through the signature process the checklist can be updated. In the e-record, the checklist link is under the Related Applications section.

Coding for Checklist

In Adobe Acrobat, some code has to be added to the top of the PDF file to enable some

validation, including the Submit button.

- Add the following text fields as hidden in the PDF document:
 - RETURN_FUNC
 - RETURN_TYPE
 - LOBS_ID
 - TRANSACTION_ID
 - SUBMIT_ENABLED
- Create a button named SUBMIT as Hidden. You can set the display name under the Options tab.
- You must attach a javascript to the Submit button. Navigate to the button properties and under the Actions tab --> Mouse Up --> Add --> Type Submit Form --> Select Url. The URL must be
OA.jsp?OAFunc=EDR_ISIGN_CHKLIST_UPDATE&retainAM=Y&addBreadCrumb=N
 - Make sure you have the fields as shown here
 - Export format - HTML Form
 - Include empty fields
 - All fields
- Set page action to the template, Navigate to Document-Set Page Action. On page open add the following javascript for Page Open action

```
var submit_on = this.getField("SUBMIT_ENABLED").value;  
if (submit_on == "Y")  
this.getField("SUBMIT").hidden=false;  
else  
this.getField("SUBMIT").hidden=true;
```

Uploading Documents

When a document is captured, it has an associated category. Each category can have up to 15 descriptive flexfields. This information is stored in the database with the document, and can be used to search for the document.

The list of categories can be restricted by modifying the value set EDR_FILE_CATEGORIES to include a WHERE clause. The clause defines the categories to appear in the category list of values.

To upload a document into the file approval system:

1. Navigate to the **Files Approval** window.
2. Click **Upload File**. The **File Upload** window displays.
3. Select the **Category** for the document. The list is a value set that can be modified through the System Administration responsibility. Each category has rules set up in AME that determine the approval process. Required.
4. Based on the category selected, the window displays all descriptive flexfield segments set up for the category. Some of these fields are required. Complete all necessary fields based on the category.
5. Click **Browse** to select the document to upload. Required.
6. Enter a **Description** of the document. This field has a maximum of 255 characters and supports MLS.
7. Select the **If File Exists** option. Required. Valid values are:
 - **Don't Overwrite** displays an error if the document already exists in the system. You must either select a different document or select one of the other two options.
 - **Overwrite** replaces the last version of the document.
 - **Version Existing File** versions the new document based on the version label entered. Default.
8. Enter a **Version Label**.
9. Click **Apply**. A message displays that the file is uploaded.
10. Query the documents to see the document in the list. You can update, delete, see details, or send the file for approval.

Querying Documents

When you query a document, you can view all documents in the system, or narrow your search using the available criteria. The search criteria is not case sensitive and handles trailing wildcards. For example, searching for *abc* returns all matches for *abc%*

and ABC%.

The **Advanced Search** option lets you search for the documents based on the descriptive flexfield information associated to the document.

To query uploaded documents:

1. Navigate to the **Files Approval** window.
2. Search for documents in the system. You can enter criteria to narrow your search. Enter at least one search criteria.
 - Select a file name using the list of values.
 - Select a category to see all documents in that category.
 - Select an author to see all documents uploaded by one person.
 - Select a status to see all documents in a specific status. Valid values are: Approved, Not Approved, Waiting for Approval, Rejected, Approval Not Required, All.
3. Click **Go**. The search results display. The following information displays for each record:
 - **File Name** displays the concatenated name of the file and the file version. For example, the file test.doc at version 1.0 is shown as file_v_1.0.doc.
 - **Version** denotes if the file has previous version. Click **Details** to see the other versions.
 - **Category** displays the category for the file.
 - **Status** displays the status the document is currently in.
 - **Description** displays the long description of the document.
 - **Uploaded By** displays the name of the person who uploaded the file.
 - **Last Modified** is the last time the document or information about the document was changed.
4. Click **Details** to see more information about the document and its history.
5. Click **Update** to change information about the document.
6. Click **Delete** to delete the document from the system. Refer to Security, page 5-3 for information on which documents can be deleted.

7. Click **Send for Approval** to begin the approval process for the document.

Viewing Document Details

Viewing the details of a document includes all information stored in the flexfields, as well as the information about all previous versions of the file. In addition, you can open and view all versions of the file from this window. You can view all documents and their properties logged in as either user or administrator.

To view details of a document:

1. Click **Details** for the record. The **File Details: <filename>** window displays. This window displays all information about every version of the file. The header information is the current document and all flexfields that were defined for that category. The rest of the window displays information about all other versions of the file. This information includes:
 - A link to the document and the flexfield information about the e-record
 - Information about the signers of the document, including the name of the signers, their response and the date signed, the reason given, the signer type, comments entered during signing, and any overriding details about the signer
 - Name of the potential signers, if they have not yet signed the record
 - The version history of the document, including the file name, category, approval status, description, who uploaded the file and when, and any details
2. Click the **File Name** attachment to see the document. The document opens using standard browser plug-ins based on the document type. You can save a copy of the document to your hard drive, but you cannot make edits to the attached copy.

Updating a Document

The information about the document, stored in the descriptive flexfield segments, can be updated. If you change the category of a versioned document, then that becomes the first version of a new category for that document. This is not available if the document is approved.

If you are logged into user mode, then you can only update documents you own. If you do not own the document, then the icon is disabled.

To update a document:

1. Click **Update** for the selected record on the **Files Approval** window. The **Update**

File: <filename> window displays.

2. Update desired fields. If you change the category, then the flexfields change based on the new category.
3. Click **Apply**.

Deleting Documents

Documents can be deleted from the system based on their status. Refer to Security, page 5-3 to see which documents can be deleted.

If you are logged into user mode, then you can only delete documents you own. If you do not own the document, then the icon is disabled.

To delete a document:

1. Click **Delete** for the selected record on the **Files Approval** window. A warning window displays.
2. Click **Yes** to delete the document.

Sending Documents for Approval

All documents must be sent through an approval process. Based on the rules set up for a category, the document runs through an approval process, either online or by sending notifications to everyone who must sign a document. If a document is rejected by anyone in the signing group, then all other notifications are closed, and a new notification is sent to say that the document was rejected or a message displays saying the signing process was rejected.

When a document is uploaded into the system, it is in a New status. This is the only time a document can be sent for approval. All other statuses occur after the approval process begins.

After a document is sent for approval, all approvers receive a notification in their Workflow notifications list. The document is approved or rejected and signed.

If the rules for a category are set for no approvals, then you must click Send for Approvals for that document, but it is immediately set to Approval Not Required.

If you are logged into user mode, then you can only send for approval documents you own.

The Approval Process

The approval process follows several paths based on how the system is configured. You can sign online or deferred, or deferred allowed, which does both. In addition, you can

add dynamic users to the signing process for that document, and remove existing users, depending on the setup of the system.

To send a document for approval:

1. Select the file to send for approval.
2. Click **Send for Approval**. The **List of Signers** window displays.

Signing a Document

The List of Signers window displays all the people required to sign the document. In addition, you can see any overriding details about the signers. So, if someone sets their signing rules to someone else while on vacation, you see the original signer's name as well as the overriding signer's name.

After signing has begun, you can also see the time the person signed the document, the signature type, and any other additional comments the signer includes. The status of a signer changes from pending to completed after the signing process is complete.

Note: The following steps are for a FULL signing implementation. If your system is set up for e-initials, then only the signing window displays. Also, you cannot set up Ad Hoc signers with e-initials. For details on e-initials, refer to the section on Implementing E-Records.

To sign a document online:

1. Navigate to the **List of Signers** window by sending a document for approval.
2. The following information displays:
 - The window displays the detailed information about the e-record being signed. This information includes the Event Name, Filename if a document was uploaded in iSignatures, whether the event has Defer Signatures Allowed, the E-Record ID, and the Timestamp for the record.
 - The **Sequence** is the order each user signs.
 - The **Signer** is the username or user ID of the signer.
 - The **Signature Type** is populated after signing, and is the type of signer. For example, reviewer or author.
 - The **Additional** field is only populated after ad hoc users are added. This then denotes that the signer was added dynamically only for this

document.

- The **Status** field displays where your signature is at that time. Before you sign it is Pending, and after you sign it is Complete.
 - The **Signature Time** is the time that you signed the document.
 - Click the **Sign** icon to begin the online signing process.
 - **Overriding Details** displays any changes made to that signer.
3. View any related events associated to the current event. In the E-signatures History section, there is a References section that contains links to any parent or child events related to the current event. During the signing process, these events are available through the link. These events are viewed based on the following scenarios:
 - If there is a single parent or child event, then when you click the Related E-Records link, you are taken to the evidence store details page that displays an appropriate message along with the e-record details. You can then return to the notification details page by clicking the Return to E-signature Process link at the end of the page.
 - If there are multiple child or parent events, then the Related E-records page displays listing the parent and child e-records. You can view any of the records from this page, and use the breadcrumbs to navigate back.
 4. Click the Sign icon on the **List of Signers** window next to your name. The E-signature Event window displays. This window includes all the e-record header information, as well as the flexfield information about the record, and a link to the attached document.
 5. Answer the prompt **I have read the e-record** at the bottom of the window.
 6. Select a **Signing Reason**, if applicable.
 7. Enter a **Signer Comment**, if applicable.
 8. Select the appropriate **Signature Type**. You can also configure this list in the Workflow.
 9. Click **Approve** to complete the signing process, **Reject** to fail the document, or **Cancel** to stop the signing process. Cancel brings you back to the List of Signers window. If the document is approved or rejected, then the **Sign** window displays. This window displays the information entered into the previous window.
 10. Enter your username and password to sign the document.

11. Click **Submit** to view the Confirmation window. **Cancel** brings you back to the previous window.
12. Ensure that all the information on the Confirmation window is correct. This information includes the name of the event, the e-record ID, the identifier, the identifier value, and the current status of the e-record.
13. Click **OK** to complete the process.

To defer the signing process:

1. Click **Submit** on the **List of Signers** window. This can be done before anyone has signed, or after people have begun to sign.
2. The message **Are you sure you want to defer the e-signature process. On deferring the e-signature, offline workflow notifications would be sent out for obtaining the e-signature** appears. Click **Yes** to defer the signing process and view the **Confirmation** window or **No** to return to the List of Signers window.
3. Ensure that all the information on the Confirmation window is correct. This information includes the name of the event, the e-record ID, the identifier, the identifier value, and the current status of the e-record.
4. Click **OK** to complete the process.
5. The **Files Approval** window displays, and notifications are sent to all the signers.

Signing With E-Initials

If you have set up your system to sign with e-initials, then the E-signatures window displays, rather than the List of Signers window.

To sign with e-initials:

1. Select the file to send for approval.
2. Click **Send for Approval**. The **E-signatures** window displays. The following information displays:
 - The window displays the detailed information about the e-record being signed. This information includes the Event Name, Filename if a document was uploaded in iSignatures, whether the event has Defer Signatures Allowed, the E-Record ID, and the Timestamp for the record.
 - The **Sequence** is the order each user signs.

3. Enter the **Signature Type**, which is the type of signer. For example, reviewer or author. This list is configurable in Workflow.
4. Select a **Response**, which is either Approve or Reject. Depending on how the system is set up, if the response entered is Reject, no other signer can continue, the process is terminated.
5. Enter any **Comments**, if applicable.
6. Enter your username and password to sign the document.
7. Click the **Sign** icon to complete the signature process.
8. Click Submit after all signatures are obtained.

Updating Signers

Based on system setup, you can update the list of existing signers for a document. This change is only for the single document being sent for approvals.

To update the signers:

1. Click **Update Signers** on the List of Signers window. The **Update Signers** window displays.
2. From this window, you can delete a signer, add new signers, or continue through to reordering signers.

To delete a signer:

1. Click the **Delete** icon next to the name of the person to be deleted on the **Update Signers** page. A message displays **Are you sure you want to remove this default signer?**
2. Click **Yes** to delete the signer, and **Cancel** to return to the previous window.

Adding Signers

Adding signers can include adding a single person, or a group of people. No one can be added twice. So, if someone is a single signer to a document and a group is added that the signer is part of, then the rest of the group is added, but that signer is not added again.

To add signers:

1. Click **Add Signer** on the Update Signers window. The Add Signer window displays.
2. Select the search criteria or enter a name or partial name with wildcard. You can search by Group, User, or User ID.
 - If you search by User or User ID, then the list of names displays.
 - If you search by Group, the individual users display, with the name of the AME groups they are associated to.
 - Any overriding details display for the users.
3. Select the users or group you want to add as signers. If the user or group is already part of the signing list, then the select box is disabled.
4. Click **Apply**. The **Reorder Signers** window displays.

Reordering Signers

You can change the order of the signers. This change is only valid for the document you are signing. This window does not appear if your event is set up for parallel signing.

To reorder signers:

1. Select the name of the signer to move.
2. Click the up or down arrows to move one space at a time, or click the top or bottom arrows to move to the beginning or end of the list.
3. When you have finished reordering the users, or you do not want to change the order, click **Finish**. The **List of Signers** window displays.

Managing Templates Using iSignatures

Oracle E-Records supports both XSL and RTF stylesheets. A stylesheet is uploaded into the system using the EDR E-record Templates category.

For XSL stylesheets, there can be a subscription enabled, XSL Upload. If the subscription is enabled for the event, then after approvals are complete, the stylesheet moves to the XSL repository and can be used to create new e-records. Update the input configuration variables for the event to recognize the new stylesheet name and version.

For RTF stylesheets, after being uploaded into the system, the file is processed using the

Oracle XML Publisher API. The RTF template is uploaded into the XDO repository and centrally controlled by XDO. An XDO API then generates the PDF. The subscription RTF Upload must be enabled. The file is stored in the XDO Repository. Refer to the *Oracle XML Publisher User's Guide* for more details.

Oracle E-Records includes the print count as part of the header information when printing e-records. Therefore, you must not include print count as part of your RTF document.

Linking a Document to a Website

You can link to an iSignatures document from a web site. The document that appears is based on the version, so if a new version is uploaded, then either the link needs to change or you can continue to point to the older version of the document.

The GetDocument.htm File

You must create a document named GetDocument.htm and place it in a public directory. This is an example of the GetDocument.htm file.

```

<!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 4.0 Transitional//EN">
<html>
<head>
<title>iSign Repository</title>
<META HTTP-EQUIV="CACHE-CONTROL" CONTENT="NO-CACHE">
<META HTTP-EQUIV="EXPIRES" CONTENT="0">
<META HTTP-EQUIV="PRAGMA" CONTENT="NO-CACHE">
<script language="javascript">
    <!-- Define the isign host name and port -->
        var isign_host = "qapache.us.oracle.com:5230";

    <!-- Define the dbc filename without extension -->
    var dbcfile = "qapache.us.oracle.com_ISIGNPRD.dbc";
        <!-- Define the protocol -->
        var protocol = "http";

        <!-- Define the path for OA.jsp -->
        var oajsp =
"/OA_HTML/jsp/edr/FilePreview.jsp?a=a";

                                <!-- do not modify these variables -->

                                var url = protocol + "://" + isign_host +

oajsp;

                                var filecategory = "";
                                var filename = "";
                                var uname= document.location.search ;
                                var idx = location.search.indexOf('$');

                                <!-- get the handle to the url search and
pick the filename and category -->
                                valLength = uname.length ;
                                if (idx != -1) {
                                    var pairs = uname.substring(1,
valLength).split('$');
                                    filecategory = pairs[0];
                                    filename = pairs[1];
                                }
                                else;

                                {

                                    filename

=location.search.substring(1);

                                }

                                <!-- attach a random number to the url, to
avoid caching issues -->
                                var rand = Math.random();

                                url = url + "&rand=" + rand;
                                if (filecategory != null && filecategory !=

"")
                                {
                                    url = url + "&fileCategory=" +

filecategory;
                                }
                                if (filename != null && filename != "")
                                {

```



```

url = url + "&fileName=" + filename;

                                <!-- create frameset to not expose
the isign url -->
                                document.write("<frameset border=0
frameborder=no framespacing=0 rows=\"*\>");
                                document.write("<frame name='isign'
src='" + url + "' frameborder='no' scrolling='auto' noresize
marginheight=10 marginwidth=10 framespacing=0>");

                                document.write("</frameset>");
                                document.write("<noframes>");
                                document.write("<body>");
                                document.write("Viewing this page
requires a browser capable of displaying frames");
                                document.write("</body>");
                                document.write("</noframes>");
                                }
                                else
                                {

                                <!-- throw error if filename is not a
part of the url -->

                                document.write("<body>");

                                document.write("Invalid url
format.");

                                document.write("</body>");
                                }

                                </script>
                                </html>

```

Setting Up the URL

The beginning of every URL must be:

`http://.../GetDocument.htm?`

The ... must be replaced with the location of the GetDocument.htm file.

The end of every link is a combination of the category and filename. For example, if the URL is pointing to a Technical Design with the name isign_v1.1.txt, then the end of the link is:

`Technical%20Designs$isign_sql_v_1.1.txt`

Therefore, the entire link is:

`http://.../GetDocument.htm?Technical%20Designs$isign_v_1.1.txt`

Maintaining Oracle E-Records

Oracle E-Records has utilities that let you maintain your system. You can view XML and e-record information from within the application. This information can be used to verify XML and XSL information, as well as e-record layouts prior to the event being used. You can also update or delete existing indexed XML elements, or add new elements.

This chapter covers the following topics:

- Generating XML
- Generating E-Record Documents
- Validating E-record Events
- Validation Information Details
- Adding a New Indexed XML Element
- Maintaining Indexed XML Elements
- Viewing Indexed XML Element Details
- Updating Indexed XML Elements
- Deleting Indexed XML Elements
- Running the Oracle E-records XML Element Synchronization Program
- Running the Oracle E-records XML Element Optimization Program
- Purging Temporary E-record Tables
- Framework Verification
- Using the Single Event Framework Verification Window
- Inter Event Framework Verification
- Working With Test Scenarios
- Adding a New Event to a Test Scenario
- Raising a New Event After Event Approval

Generating XML

The XML Generator window is used to generate an XML document using a specific map code and document ID. The resulting XML document is then displayed for technical review, or subsequently copied into the e-record generator with an XSL style document to view the readable electronic record.

Developers can use this utility to verify if their XML mapping is correct.

To generate XML:

1. Navigate to the **XML Generator** window by selecting **Generate XML**.
2. Select the **Event Map Code** from the list of values. The map code is created in XML Gateway.
3. Enter the **Event Key**, which is the value for the root element.
4. Click **Generate**. The XML is generated and then displayed on the window. Click **Clear All** to start over.

Generating E-Record Documents

The E-record Generator window lets you see the e-record format based on given XML and XSL documents. If you need to make changes to your XML or XSL, once the changes are made, then rerun this utility to see the new e-record format. Once the XSL is correct, upload it into the database for it to take effect for any generated e-records.

To generate an e-record document:

1. Navigate to the **E-record Generator** window by selecting **Generate E-record Document**.
2. Paste your XML document into the **XML** field. Required.
3. Paste your XSL style document into the **XSL** field. Required.
4. Click **Generate**. The format for the e-record document displays. Click **Clear All** to start over.

Validating E-record Events

This feature enables customers and users to validate whether the required setup for any business event is complete. A user selects the business event and transaction key, and the application checks all the setup required such as profile options, configuration

variables, approval setup, workflow subscriptions and e-record templates to enable a business event for e-signatures. Users can review approvers, approval rules, and associated input configuration variable values. The user can validate generated XML and e-record formats and content before deploying it to the production environment.

Some of the use cases for this utility, include:

- A developer implementing e-signature for a transaction can review the final XML in order to create the AME transaction attribute definitions (which require XPATH expressions to be written using the final XML).
- A developer implementing e-signature for a transaction completes development and wants to test the setup for a particular instance of a business transaction. This transaction can have data that is different from the data in the raw XML file used to create the map at development time.
- A developer modifies the XML map for the transaction and wants to validate the setup based on the new map.
- An Administrator makes changes in the AME rules with new approvers for a new set of rules and wants to validate the setup.

You can select data either from a database to verify already transacted information, or from an object, when you have raw XML, and want to test how it can be transformed. In addition, if you complete a transaction with failures, you can turn on the EDR: Developer Mode profile option putting the system into debug mode, rerun the event, and the raw XML is stored in the EDR_RAW_XML_TL table.

Refer to "Running E-record Event Setup Verification report" for additional information.

To validate a database data source:

1. Navigate to the **Validate Event** window.
2. Enter the Event name you want to validate.
3. Select the Database Data Source.
4. Enter the Event Key you want to validate against.
5. Click **Validate**. The Event Details window displays with all the current information about the selected event.

To validate a view object data source:

1. Navigate to the **Validate Event** window.
2. Enter the Event name you want to validate.

3. Select the View Object Data Source.
4. Enter the Raw XML Payload you want to use for the validation. If you have run the event in Developer Mode then you do not need to enter the XML Payload, as the system pulls the information from the EDR_RAW_XML_TL table.
5. Enter the Event Key you want to validate against.
6. Click **Validate**. The **Event Details** window displays with all the current information about the selected event.

Validation Information Details

The Event Details window displays information about the event and event key combination you are validating.

Profile Options

This section displays two profile options that are critical to the setup of e-records. These are EDR: E-records and E-signatures and Server Time Zone.

Meta Data

The meta data section displays information about the business event, the business event subscriptions and their associated parameters. If this information is not correct, navigate to the Workflow Business Events window to make any necessary changes.

Run Time Data

The run time data section displays information about the AME rules, approvers, and any routing rule overrides that are currently set up. To change this information, you must navigate to the Oracle Approval Management window and complete the setup.

In addition, this section displays all the configuration variable information. If this information is not correct, navigate to the Configuration Variables window to make any necessary changes.

XML Payload

The XML payload section displays the raw XML as it is currently set for this event. Click **Export** to download this XML to your machine so you can make changes to it.

E-record

The e-record section displays the actual e-record for this event. This can be either a text version or RTF version, depending on how the e-record is set up.

Adding a New Indexed XML Element

When creating an indexed XML element, it can be defined as a query element, a secure element, or both. A query element is used in the E-record Query window and lets you view e-records based on one or many elements. A secure element is used to set up security rules. Restrict or grant access based on an element.

To add an indexed XML element:

1. Navigate to the **XML Elements** window.
2. Click **Create Element**. The **Create XML Element** window displays.
3. Enter the **Owner Application** short name. Required.
4. Enter the **Display Name**. This name appears in the generic query when querying e-records and the page used to create security rules. Required.
5. Enter the **XML Element**. Only the XML elements belonging to the ERES events of the particular application are shown in the list of values. Required.
6. Enter the name of the **Document Type Definition**. The DTDs in the list of values contain the element already selected. You then select a DTD knowing which event it applies to. Normally, this is left blank.
7. Enter the **Description**, which is an internal descriptive name for the element.
8. Select the **Query Element** and **Secure Element** options where applicable. The Query Element option lets you see this element on the E-record Query window, and the Secure Element option lets you use the element for setting up security rules.
9. Click **Apply**. The element is created in a non-indexed state.
10. Run the **E-record Indexed XML Element Maintenance** program. Refer to "Setting Up Indexed XML Elements, page 3-14" for details.

Maintaining Indexed XML Elements

All e-records are XML documents consisting of many XML elements. An XML element which is indexed and used for special purposes such as querying or creating security rules is called an Indexed XML Element.

The search criteria is not case sensitive and handles trailing wild cards. For example, searching for *abc* returns all matches for *abc%* and *ABC%*.

To query an indexed XML element:

1. Navigate to the **XML Element** window.
2. Search for elements in the system. You can enter criteria to narrow your search.
 - Enter the **XML Element** name.
 - Enter the **Display Name**.
 - Enter the **Status** of the Element. Required. Valid options are:
 - **Indexed** displays only indexed XML elements
 - **Not Indexed** displays all non-indexed XML elements
 - **All** displays all XML elements
3. Click **Go**. The elements display in the **Results** section of the window. The following information displays for each record:
 - **Owner** displays the product family that owns the element.
 - **Display Name** displays the long description name of the element.
 - **XML Element** displays the name of the element.
 - **Document Type Definition** displays the DTD that the element is from.
 - **Status** displays whether the element is Indexed or Not Indexed. An indexed element can be used for searching e-records and creating security rules if they have been identified as query or secure elements. A non-indexed element is indexed by running the **E-record Indexed XML Element Maintenance** program.

Viewing Indexed XML Element Details

You can view the details for the Indexed XML elements. You cannot make any changes from this window.

To view details of an indexed XML element:

1. Click **Details** for the element. The **XML Element:<element_name>** window displays.
2. View details about the element including the General Details, Element Usage, and

Event Details.

Updating Indexed XML Elements

Basic information about an element can be updated. You can add or change the Document Type Definition (DTD), add a description for the element, and modify whether the element is Query or Secure.

To update an indexed XML element:

1. Click **Update** from the **XML Element** window. The **Update XML Indexed** window displays.
2. Make any modifications to the element information:
 - Add or change the **Document Type Definition Name**.
 - Add or change the **Definition** of the element.
 - Change the **Query Element** and **Secure Element** options.
3. Click **Apply**.
4. Run the **E-record Indexed XML Element Maintenance** program. Refer to "Setting Up Indexed XML Elements, page 3-14" for details.

Deleting Indexed XML Elements

To delete an indexed XML element:

1. Click **Delete** from the **XML Indexed Element** window. A warning window displays.
2. Click **Yes** to delete the element.
3. Run the **E-record Indexed XML Element Maintenance** program. Refer to "Setting Up Indexed XML Elements, page 3-14" for details.

Running the Oracle E-records XML Element Synchronization Program

When new, deleted, or changed XML elements are synchronized into the system, they are available for query on all existing records in the system. To make them available for query on new elements, the Oracle E-records XML Element Synchronization Program must be run.

This program is run in the background as a cron job. It is run as often as necessary, based on the amount of querying done in your system. For example, if your system has several hundred records entered every day, and there is a need to have the ability to query these records immediately, then have this program run every hour.

To schedule the Oracle E-records XML Element Synchronization Program:

1. Navigate to the **Submit Request** window from the ERES Administrator responsibility.
2. Enter **Oracle E-records XML Element Synchronization Program** in the Name field.
3. Click **Schedule**.
4. Select the necessary information to schedule the program and save the new schedule.
5. Click **Submit**.
6. View or print the report.

Running the Oracle E-records XML Element Optimization Program

When indexes are added, changed, or deleted the system does not remove the old information and replace it with the new information. Instead, new rows are added which over time causes fragmentation of the table. This can cause performance problems during query. The Oracle E-records XML Element Optimization Program cleans up the fragmented information to help improve performance. This program can be run as often as needed, based on the use of your system.

To submit the Oracle E-records XML Element Optimization Program:

1. Navigate to the **Submit Request** window from the ERES Administrator responsibility.
2. Enter **Oracle E-records XML Element Optimization Program** in the Name field.
3. Enter the Optimization Level. Valid options are Fast which only defragments the table and Full which defragments the table and removes old data.
4. Enter the Minutes for each optimization which determines the number of minutes the program runs.
5. Click **Submit**.
6. View or print the report.

Purging Temporary E-record Tables

In Oracle E-records, temporary tables are populated to complete the signature process and for reporting purposes. The tables used for these purposes are EDR_ERECORDS, EDR_ESIGNATURES, and EDR_TRANS_QUERY_TEMP. Once the process is complete and all reporting is done, the data is no longer used. This program lets you clean these tables.

To purge data in temporary E-record tables:

1. Navigate to the **Submit Request** window from the ERES Administrator responsibility.
2. Enter **E-records Temporary Data Cleanup** in the Name field.
3. Click **Submit**.

Framework Verification

The Framework Verification window lets you test the components of the framework without dependencies to any other products. This lets you validate the framework setup in an environment separate from setups in Oracle Applications.

The Framework Verification window can be used in four modes; deferred allowed, online only, offline only, and offline using forms library. The difference between offline and offline using forms library is that it invokes the AddTransaction and POST Forms Commit procedures. These procedures now support DB mode being passed as a parameter. Now, the corresponding files are modified to handle the DB mode as a parameter to the Add Transaction call.

The Oracle Application Framework (OAF) can also be enabled for e-records and e-signatures, without any additional setup required.

You can use attachments with this verification utility. The attached files are shown along with the e-record.

This window also supports descriptive flexfields. When an e-record is generated, you can see all the flexfield information associated to that e-record.

The following components are added to use with this window, which have no connection to any other product:

- A model to support inserts and updates from a window.
- An Oracle window that acts on the above data model with attachments and descriptive flexfields enabled.
- A business event that is raised from the above window when an insert happens.

- An Approval Management Transaction that represents the approval matrix.
- DTD and XML maps that represent the business event data.
- An XSL stylesheet that represents the e-record.
- The ability to have Multilingual Support (MLS).
- Debug mode
- Multiple Query modes

Using the Single Event Framework Verification Window

The Single Event Framework Verification window can be used for testing different aspects of the framework setup. Different fields are populated based on the part of the framework you are testing.

To enable Single Event Framework Verification:

1. Verify that the EDR: E-records and E-Signatures profile option is set to Yes.
2. Verify that the Framework Verification Event (oracle.apps.edr.framework.test) subscription is enabled.
3. Navigate to **Transaction Type Configuration Variables** and set ESIGNATURE_REQUIRED to Y.
4. Create an approval group in AME with at least two approvers.
5. Define a Rule and associate approval group. This step is mandatory to test e-signatures from the Framework Verification window.

To request an e-signature on the Single Event Framework Verification window:

1. Navigate to the **ERES Framework Verification** window.
2. Enter the information for the test record:
 - **Test No.** is a new, unique, alphanumeric ID for this test record. After it is saved, it can be used again in query mode. Required.
 - **Description** is a short description of the test record.
 - **Numeric Value** is any number for testing numeric format in the framework setup.

- **Date Value** is a date entered based on the system date configuration that lets you test the date format in the framework setup.
- **Debug Mode** can be set to On or Off. If it is set on, then messages of what is happening during process display.
- **Signature Mode** can be online only, offline only, deferred, or offline using forms library. This is required when raising an ERES event.
- **Query Key Type** tells the EDR_STANDARD package how to build the where clause when form call for transaction query from the E-record Details option on the Actions menu. It is required only when you want to see the e-record details. The valid values are:
 - **Append %**When the event Key is passed to EDR_STANDARD.PSIG_QUERY, it builds dynamic SQL for the event key as ' event_key like '||event_key||'% '.
 - **Prepend %**When the event key is passed to EDR_STANDARD.PSIG_QUERY, it builds dynamic SQL for the event key as ' event_key like '||'% '||event_key.
 - **Apply % Both Sides**When event Key is passed to EDR_STANDARD.PSIG_QUERY, it builds dynamic SQL for the event key as ' event_key like '||'% '||event_key||'% '.
 - **Use Equal Condition**When the event key is passed to EDR_STANDARD.PSIG_QUERY, it builds dynamic SQL for the event key as ' event_key = '|event_key.
- **Signature Status** is not an active field. It displays the current state of the test record. This field is initially blank, but changes to the status of the current record as it goes through the signature process.
- The **Descriptive Flexfield** lets you enter information into a number of flexfield attributes. You can then see this information on the e-record.

To verify partial online (deferred allowed) mode:

1. Navigate to the **ERES Framework Verification** window.
2. Enter required data.
3. Set **Signature Mode** to Deferred Allowed.
4. Save the record. The signature process starts.

5. Complete the signature process for one user and click **Finish**.
6. Close the window and respond to the message window. This sets the signature status to Pending.
7. Navigate to the worklist of the next approver and respond to the notification. If the second user also approves, then when you query the record it displays as Complete. If the second user rejects, then it displays as Rejected assuming there are only two users in the approval group.

To verify partial offline only mode:

1. Navigate to the **ERES Framework Verification** window.
2. Enter required data.
3. Set **Signature Mode** to Offline only.
4. Save the record. This sets the signature status to Pending.
5. Navigate to the approvers worklist and respond to the notification.
6. Repeat Step 5 for all approvers.

To verify partial offline using forms library mode:

1. Navigate to the **ERES Framework Verification** window.
2. Enter required data.
3. Set **Signature Mode** to Offline using forms library.
4. Save the record. This sets the signature status to Pending.
5. Navigate to the approvers worklist and respond to the notification.
6. Repeat Step 5 for all approvers.

To verify online only mode:

1. Navigate to the **ERES Framework Verification** window.
2. Enter required data.
3. Set **Signature Mode** to Online only.

4. Save the record. This sets the signature status to Pending. The signature windows display.
5. Complete the signature process for one user and click **Finish**. If you click Finish or close the browser without completing the signature process, then the window does not save any changes.

To view e-record and e-signature details from the window:

1. Navigate to the **ERES Framework Verification** window.
2. Query for a record that has completed the signature process.
3. Select **E-record Details** from the **Actions** menu.

To start the signature process manually:

1. Navigate to the **ERES Framework Verification** window.
2. Query for an existing record and select **Request Signature** from the **Actions** menu.

To verify an e-record with attachments:

1. Query for an existing record.
2. Click the attachment icon and attach a file or long text.
3. Set **Category** to either Other or Miscellaneous.
4. Select **Request Signature** from the **Actions** menu. The e-record displays the attachment along with the e-record.

Inter Event Framework Verification

The Inter Event Framework Verification window lets you test the related events set up in your system to ensure the set up was completed successfully.

The system is seeded with four events for testing related events:

Event Name	Display Name
oracle.apps.edr.InterEvt.Event1	EDR ERES Inter Event Verification Event 1

Event Name	Display Name
oracle.apps.edr.InterEvt.Event2	EDR ERES Inter Event Verification Event 2
oracle.apps.edr.InterEvt.Event3	EDR ERES Inter Event Verification Event 3
oracle.apps.edr.InterEvt.Event4	EDR ERES Inter Event Verification Event 4
oracle.apps.edr.OAFInterEvent1	EDR ERES OAF Inter Event Verification Event 1
oracle.apps.edr.OAFInterEvent2	EDR ERES OAF Inter Event Verification Event 2
oracle.apps.edr.OAFInterEvent3	EDR ERES OAF Inter Event Verification Event 3
oracle.apps.edr.OAFInterEvent4	EDR ERES OAF Inter Event Verification Event 4

Working With Test Scenarios

You can set up test scenarios with a hierarchy of events to replicate the inter event signature process. This lets you test the setup of your system without modifying the existing environment, or adding any unnecessary data into the Evidence Store.

To add a test scenario:

1. Navigate to the Inter Event **Test Scenarios Navigator** from the EDR Administrator responsibility.
2. Right-click on the root node Test Scenarios. The shortcut menu displays.
3. Select **Add Test Scenario**. The **Test Scenario** window displays.
4. Enter the **Test Scenario** name.
5. Enter the **Test Scenario Instance**.
6. Select the **Test Scenario Type** for the new test. This can be either Forms for a Forms-based test or OAF for an Oracle Applications Framework test.
7. Select the **Debug Mode** for the test. Debug can be either On or Off.

- The **Descriptive Flexfield** lets you enter information into a number of flexfield attributes. You can then see this information on the e-record.
8. Click **Save** to save the new test scenario.
 9. Either collapse and expand the root node or click **Refresh** from the right-click shortcut window to view the new test scenario.

To copy a test scenario:

1. Navigate to the Inter Event **Test Scenarios Navigator** from the EDR Administrator responsibility.
2. Right-click on the test scenario to copy. The shortcut menu displays.
3. Select **Copy Test Scenario**. The **Test Scenario** window displays.
4. Enter the new **Test Scenario** name.
5. Enter the new **Test Scenario Instance**.
6. Select the **Debug Mode** for the test. Debug can be either **On** or **Off**.
7. Click **Save** to save the copied test scenario.
8. Either collapse and expand the root node or click **Refresh** from the right-click shortcut window to view the new test scenario.

To show test scenario details:

1. Navigate to the Inter Event **Test Scenarios Navigator** from the EDR Administrator responsibility.
2. Right-click on the test scenario and select **Show Test Scenario Details** from the shortcut menu. The **Test Scenario** window displays.
3. View the information for the test scenario.
4. Set the **Debug Mode** if necessary.
5. Click **Save** if the debug mode was changed or **Cancel** to exit the window.

To request an e-signature:

1. Navigate to the Inter Event **Test Scenarios Navigator** from the EDR Administrator

responsibility.

2. Right-click on the test scenario to send for signatures.
3. Click **Request E-signature** from the shortcut menu. The **List of Signers** window displays.
4. Proceed through the signature process normally.

Action menu - E-record details

After the signature process is complete, you can select **E-record Details** from the **Actions** menu. The **E-record Details** window displays with all the details about the signatures. If the test was sent for multiple signatures, then this displays all the records.

Action menu - Latest E-record details

After the signature process is complete, you can select **E-record Details** from the **Actions** menu. The **E-record Details** window displays with all the details about the signatures. If the test was sent for multiple signatures, then this displays only the last record.

To verify an e-record with attachments:

1. Query for an existing record.
2. Click the attachment icon and attach a file or long text.
3. Set **Category** to either Other or Miscellaneous.
4. Select **Request Signature** from the **Actions** menu. The e-record displays the attachment along with the e-record.

Adding a New Event to a Test Scenario

You can add several events to a test scenario. These events have an established hierarchy, which are grouped together. Below the test scenario, you can have three levels of events.

To add an event:

1. Navigate to the Inter Event **Test Scenarios Navigator** from the EDR Administrator Responsibility.
2. Right-click on the test scenario where you want to add an event and click **Add**

Event. The Event window displays.

3. Select the **Event Name** to be raised from the list of values.
4. Enter the **Execution Order**. This dictates the order in which the events are raised.
5. Select the **Signature Mode** for the event. This can be online only, offline only, or deferred and is required when raising an ERES event.
6. Select the **Execution Mode** for the event as either Raise with Other Events or Raise Separate.
 - The execution mode determines how to group events for the signature process. For example, set up a hierarchy which has Event4 associated to Event3, Event3 associated to Event2, and Event2 associated to Event1. If you select Raise Separate for Event2, then Event1 and Event2 are run first, then Event3 and Event4 are run. If you select Raise with Other Events, then they are all raised at the same time.
7. The **Related Event Name** field is blank if the event being added is the highest level event. This field displays when adding Related Events to an existing event.
8. Either collapse and expand the root node or click **Refresh** from the right-click shortcut window to view the new event.

To add a related event:

1. Navigate to the Inter Event **Test Scenarios Navigator** from the EDR Administrator Responsibility.
2. Right-click on the event name to add a related event to and click **Add Related Event**. The Event window displays.
3. Select the **Event Name** to be raised from the list of values.
4. Enter the **Execution Order**. This dictates the order in which the events are raised.
5. Select the **Signature Mode** for the event. This can be online only, offline only, or deferred and is required when raising an ERES event.
6. Select the **Execution Mode** for the event as either Raise with Other Events or Raise Separate.
 - The execution mode determines how to group events for the signature process. For example, set up a hierarchy which has Event4 associated to Event3, Event3 associated to Event2, and Event2 associated to Event1. If you select Raise Separate for Event2, then Event1 and Event2 are run first, then Event3 and

Event4 are run. If you select Raise with Other Events, then they are all raised at the same time.

7. The **Related Event Name** field displays the name of the event directly above in the hierarchy when adding Related Events to an existing event.
8. Either collapse and expand the root node or click Refresh from the right-click shortcut window to view the new event.

To show related event details:

1. Navigate to the Inter Event **Test Scenarios Navigator** from the EDR Administrator Responsibility.
2. Right-click on the event and select **Show Event Details** from the shortcut menu. The **Event** window displays.
3. Edit the **Execution Order**, **Signature Mode**, and **Execution Mode** if necessary.
4. Click **Save** if any information changed or **Cancel** to exit the window.

Raising a New Event After Event Approval

Once a event has completed approvals, it can be necessary to launch another event. For example, after all approvals are complete, it can be necessary to send Workflow notifications to other people to let them know the event is complete. You can use the Approval Completion event and subscription as a hook to initiate another event. This can be used both through the forms and as an API. For details on setting up this event, refer to the *Oracle E-Records Developer's Guide*.

Reporting and Printing

After an e-record is created, it is stored in the Evidence Store, a secure environment in the database. You can view the e-records, and their associated documents, and print the e-records in a PDF format.

This chapter covers the following topics:

- Generic QueryEvidence Store
- The E-record Detail
- E-record Details
- Printing E-records
- The Printing Process
- Selecting Many Documents or Related Documents for Printing
- Printing the Collated E-record

Evidence Store

The Evidence Store provides the functionality of querying the e-records repository in the following manner:

- The individual product teams determine the XML elements that can be queried upon during creation of the DTDs.
- The Evidence Store window displays these elements to the user in a menu. You can select multiple XML elements from multiple menus and provide search criteria for each of them.
- Individual search criteria are OR'ed or AND'ed with each other to create an aggregate search criterion, which is used to query the e-records repository.
- The search results are presented on the window as multiple rows of e-records based on the number of hits returned by the query.

- In the backend the query mechanism uses an intermedia text index to go through each XML document stored in the database to search for individual XML elements. This XML search ability distinguishes the Generic Query from other typical querying applications.

The window is divided into two regions, the top region lets you specify the query criteria and the bottom region shows the results of the query.

There are two options for using the generic query, a Simple option and an Advanced option. The query criteria in the simple option are Event Name, From Date, To Date, and the user id of the e-record signer. All these are individual columns in the EDR_PSIG_DOCUMENTS table. All search criteria fields let you use the standard percent sign for wildcard searching.

The bottom region of the window shows the header level information for the e-records retrieved from the database. This includes the business event name, the unique identifier of the event, the time of its creation, and the time zone in which it was created.

The Advanced option lets you query e-records by directly querying the XML element of the e-record. The Element box on the window takes its values from a LOV and the condition defaults to equals. After selecting a particular element (which corresponds to an XML element), enter a value to be searched.

To view a query using the simple search:

1. Navigate to the **Evidence Store** window.
2. Select an **Event Name** using the list of values to search by events.
3. Enter the **E-record ID** to search by a specific ID.
4. Select the **Signer Name** of the signer to search by a specific signer.
5. Select a **To** and **From** date to view queries within a date range.
6. Click **Search**. The search results and their time zone display. The following information displays for each record:
 - **Event Name** displays the name of each event.
 - **E-record ID** displays the unique e-record ID for each event.
 - **Identifier** displays the identifiers used to create the event. If there is more than one identifier, then they are all listed and separated by dashes.
 - **Identifier Value** displays the values for the identifiers used in the record. If there is more than one value, then they are all listed and separated by dashes.

- **Event Date** displays the date the event began.
 - **Status** displays the status of the event. Valid values are error, pending, complete, and rejected.
 - **Related E-records** displays if there are any child records associated to that record.
7. Click on the Event Name to view the details of a single record.
 8. Select all the e-records you want to print and click **Collate and Print**.

To view a query using the advanced search:

1. Navigate to the **E-record Generic Query** window.
2. Click **Advanced Search**.
3. Select an event name using the list of value to search by events.
4. Select the name of the signer to search by a specific signer.
5. Enter the e-record ID to search by a specific ID.
6. Select a to and from date to view queries within a date range.
7. Select a query element to search by specific elements. The query elements are defined in the DTD.
8. Enter a query value to search on a specific value for a query element. If you do not enter a value in this field, then the search results in no records.
9. If you want to add more criteria, then click **Add**
10. Set the logic operator either **Show e-records when all search criteria are met** or **Show e-records when any search criteria is met**.
11. Click **Search**. The search results and the time zone display. The following information displays for each record:
 - **Event Name** displays the name of each event.
 - **E-record ID** displays the unique e-record ID for each event.
 - **Identifier Name** displays the identifiers used to create the event. **Identifier Value** displays the values for the identifiers used in the record. If there is more than one value, then they are all listed and separated by dashes.

- **Event Date** displays the date the event began.
 - **Status** displays the status of the event. Valid values are error, pending, complete, and rejected.
 - You can sort by any column that has an arrow next to it. Click the column name to sort in ascending or descending order.
12. Either click on an event name or select a series of events from the Select box and click **View Selected**. The record displays with all signer information.
 13. Click **Collate and Print**. You can select to print one document, several documents, or documents and their related events. Refer to "Printing E-records" for details.
 14. Click **Continue**.

The E-record Detail

The detail that displays with each e-record is as follows:

E-record

This section displays information about the e-record.

- **Event Name** displays the name of the event.
- **E-record ID** displays the ID for the e-record.
- **Event Date** displays the date of the event.
- **Identifier** displays the name of the specific identifier.
- **Identifier Value** display the value for that identifier.
- **Stylesheet** displays the stylesheet name.
- **Style Version** displays the stylesheet version.
- **Print Count** displays how many times the document has been printed.
- **Requester** is the person who initiated the transaction.
- **Attachments** shows if there are any attachments for the e-record, and lets you navigate to them.
- The e-record section displays all the detail information about the e-record. This includes any flexfield information entered about the e-record.

Signature Details

This section displays the users who have approved and signed the transaction.

- **Signer** is the name of the person who signed the e-record.
- **Date Signed** is the date and time the person signed the e-record.
- **Response** is either Approve or Reject.
- **Reason** is the reason code for why this was signed the way it was. This can be modified.
- **Signer Type** is the type of person signing the document. For example, the signer could be the Author or a Reviewer. This can be modified.
- **Comments** contains any comments noted by the signer.
- **Overriding Details** displays any changes to who is signing. If rules were set up that someone else signs when you are on vacation, the information of the original signer displays here.

Additional E-record Information

This section displays information about the transaction the e-record is associated with.

Transaction Acknowledgement

- **Status** displays the current status of the record.
- **Acknowledgement Date** displays the date the transaction acknowledgement was sent.
- **Acknowledged By** displays where the transaction acknowledgement was sent from.
- **Comments** displays any extra comments added.

Print History

- **Print E-record ID** displays the unique number of the e-record.
- **Print Count** displays the number of times the e-record has printed.
- **Print Requester** displays the name of the person who requested the print.
- **Print Event Date** displays the date the record was printed on.

- **E-record Status** displays the status of the e-record at that time.

Related E-records

This section displays any parent or child e-records associated with this e-record.

- **Event Name** displays the name of the event.
- **E-record ID** displays the ID for the e-record.
- **Identifier** displays the name of the specific identifier.
- **Identifier Value** display the value for that identifier.
- **Event Date** displays the date of the event.
- **Status** displays the status of the event. Valid values are error, pending, complete, and rejected.
- **Parent or Child E-record** displays any parent or children to that e-record.

E-record Details

On each window that is e-record and e-signature enabled, there is an option on the Action menu for E-record Details. This displays the same window as the generic query, but it works in the context of the current transaction.

Printing E-records

The e-records print functionality lets you do the following:

- Collate and print multiple e-records
- Print e-records with the e-record ID watermark at the top left corner of the page
- Print all e-record formats supported by the Oracle E-Records framework
- Print related records using Related Event functionality
- Specify print characteristics
- Maintain audit capability on print activity
- Display history along with the e-record details

The Printing Process

The printing process collates and prints documents, and prints them out in a single document format. In addition, the collated document can have page numbers of each specific document, or a single series of page numbers for the entire newly collated document.

If you are printing a single record, then select the desired printer. If the printing functionality has signature approval required, then all signatures are required at this time. After the event is signed, the document prints, and the print count changes.

You can also print multiple documents at one time, as well as related documents. If you select to print a document that has related documents, then select the appropriate related documents to print. All related documents are not automatically printed.

You can print both text records and xdoc records. Both types are printed as PDF files. The difference is the look and feel of the document. The text document is a basic line document, while the xdoc document, having been created using an RTF template, has a much more advanced look and feel, including tables and bitmaps. If you are printing both text and xdoc, then the documents are merged together into one PDF file.

The Printout

The hardcopy printout of an e-record contains standard information, including:

- a watermark in the footer that displays the e-record ID, print count, and print date, as well as a message that the record has been printed from a secure account from the Evidence Store.
- header information that displays the e-record ID, and all the detail from each e-record.

The document shown in the preview does not contain the watermark information shown on the hardcopy.

Selecting Many Documents or Related Documents for Printing

You can select many documents to print, or a document with related events. Either selection results in a single PDF file sent to the printer.

Select the documents, or related documents if appropriate, you want to print from the **Collate E-records** window.

1. Enable the **Create new page numbers for collated documents** option to print the entire document with sequential numbering.
2. Click **Continue**.

Printing the Collated E-record

Printing the collated e-record can be set up as a secure, signed event. In addition, the print count for the printing action changes for each print job, thereby letting the administrator see how any times something has been printed. This also helps to maintain a secure environment. Also, if you have any attachments associated with the transactional data, you can see the names of the attachments when you print. These names appear on the e-record, but do not print the body of the attachments.

To print the collated e-record:

1. Select the **Printer Name** using the list of values from the **Print Options** window.
2. Select the **Orientation**.
3. Click **Go**.
4. Select the printer from the list.
5. Click **Finish**.
6. If the printing process event requires a signature, the **List of Signers** window displays. Complete the signature process to print the document. The **Confirmation** window displays.
7. Ensure that all the information on the Confirmation window is correct. This information includes the name of the event, the e-record ID, the identifier, the identifier value, and the current status of the e-record.
8. Click **OK** to complete the process.

To preview the new PDF file:

1. Click **The draft document is available for preview** to view the PDF file before printing.
2. Close the new window when you are done viewing the document.

Oracle E-Records Events

Oracle E-Record Events

The following events are used when you create, update, or delete an input configuration variable for transaction type at the transaction or rule level.

Event Details

Following are the event details for the e-record events.

Name	Display Name	Description	Status	Owner Name	Ownertag
oracle.apps.e dr.file.approv alcompletion	EDR File Approval Complete	This event is raised as a post operation to the oracle.apps.e dr.file.approv al ERES event. Product teams can subscribe to this event to take specific actions based on whether the file was approved or rejected	ENABLED	Oracle E Records	EDR

Name	Display Name	Description	Status	Owner Name	Ownertag
oracle.apps.edr.amevar.create	EDR ERES Transaction Variable Creation	e-records Transaction type variable creations	ENABLED	Oracle E Record	EDR
oracle.apps.edr.file.approve	ERES File Approval Event	This event is raised for each file to be approved using the ERES Framework	ENABLED	Oracle E Records	EDR
oracle.apps.edr.amevar.update	EDR ERES Transaction Variable Update	e-records Transaction type variable updates	ENABLED	Oracle E Records	EDR
oracle.apps.edr.amevar.delete	EDR ERES Transaction Variable Deletion	e-records Transaction type variable deletion	ENABLED	Oracle E Records	EDR
oracle.apps.edr.rulevar.delete	EDR ERES Rule Variable Deletion	e-records Configuration Input Variable Deletion for Rule	ENABLED	Oracle E Records	EDR
oracle.apps.edr.framework.test	EDR ERES Framework Verification Event	This event is used to test the eSignature framework	ENABLED	Oracle E Records	EDR
oracle.apps.edr.rulevar.create	EDR ERES Rule Variable Creation	e-records Configuration Input Variable Creation for Rule	ENABLED	Oracle E Records	EDR

Name	Display Name	Description	Status	Owner Name	Ownertag
oracle.apps.edr.rulevar.update	EDR ERES Rule Variable Update	e-records Configuration Input Variable Update for Rule	ENABLED	Oracle E Records	EDR
oracle.apps.edr.InterEvt.Event1	EDR ERES Inter Event Verification Event 1	EDR ERES Inter Event Verification Event 1	ENABLED	Oracle E Records	EDR
oracle.apps.edr.InterEvt.Event2	EDR ERES Inter Event Verification Event 2	EDR ERES Inter Event Verification Event 2	ENABLED	Oracle E Records	EDR
oracle.apps.edr.InterEvt.Event3	EDR ERES Inter Event Verification Event 3	EDR ERES Inter Event Verification Event 3	ENABLED	Oracle E Records	EDR
oracle.apps.edr.InterEvt.Event4	EDR ERES Inter Event Verification Event 4	EDR ERES Inter Event Verification Event 4	ENABLED	Oracle E Records	EDR
oracle.apps.edr.print.erecords	EDR ERES Print E-records	EDR ERES Print E-records	ENABLED	Oracle E Records	EDR

Event Keys

Following are the event keys for the e-record events.

Name	Event Key	User Key
oracle.apps.edr.file.approve	EDR_FILES_B.FILE_ID	EDR_FILES_B.FILE_NAME
oracle.apps.edr.file.approvalcompletion	EDR_FILES_B.FILE_ID	EDR_FILES_B.FILE_NAME

Name	Event Key	User Key
oracle.apps.edr.amevar.create	EDR_AMETRAN_INPUT_VA R.TRAN_CONFIG_ID	AME_TRAN_NAME,INPUT_ NAME
oracle.apps.edr.framework.tes t	EDR_FWK_TEST_B.TEST_ID	EDR_FWK_TEST_B.TEST_N O
oracle.apps.edr.amevar.delete	EDR_AMETRAN_INPUT_VA R.TRAN_CONFIG_ID	AME_TRAN_NAME,INPUT_ NAME
oracle.apps.edr.amevar.updat e	EDR_AMETRAN_INPUT_VA R.TRAN_CONFIG_ID	AME_TRAN_NAME,INPUT_ NAME
oracle.apps.edr.rulevar.create	EDR_AMERULE_INPUT_VA R.RULE_CONFIG_ID	AME_TRAN_NAME,RULE_ NAME,INPUT_NAME
oracle.apps.edr.rulevar.delete	EDR_AMERULE_INPUT_VA R.RULE_CONFIG_ID	AME_TRAN_NAME,RULE_ NAME,INPUT NAME
oracle.apps.edr.rulevar.delete	EDR_AMERULE_INPUT_VA R.RULE_CONFIG_ID	AME_TRAN_NAME,RULE_ NAME,INPUT NAME
oracle.apps.edr.InterEvt.Event t1	EDR_INTER_EVENT_TEST_ EVENTS.TEST_SCENARIO_I D,INTER_EVENT_TEST_ID	TEST_SCENARIO_EVENTN AME
oracle.apps.edr.InterEvt.Event t2	EDR_INTER_EVENT_TEST_ EVENTS.TEST_SCENARIO_I D,INTER_EVENT_TEST_ID	TEST_SCENARIO_EVENTN AME
oracle.apps.edr.InterEvt.Event t3	EDR_INTER_EVENT_TEST_ EVENTS.TEST_SCENARIO_I D,INTER_EVENT_TEST_ID	TEST_SCENARIO_EVENTN AME
oracle.apps.edr.InterEvt.Event t4	EDR_INTER_EVENT_TEST_ EVENTS.TEST_SCENARIO_I D,INTER_EVENT_TEST_ID	TEST_SCENARIO_EVENTN AME
oracle.apps.edr.print.erecords	EDR_TRANS_QUERY_TEMP .QUERY_ID	QUERY_ID

Subscription Details

Following are the subscription details for the e-record events.

Name	Phase	Status	Rule Data	Rule Function	Parameters	Priority
oracle.apps .edr.file.ap prove	0	DISABLED	KEY	EDR_PSIG _RULE.PSI G_RULE	EDR_XML _MAP_CO DE=oracle. apps.edr.fil e.approve EDR_AME _TRANSA CTION_TY PE=oracle.a pps.edr.file .approve	50
oracle.apps .edr.file.ap provalcom pletion	101	DISABLED	KEY	WF_RULE. DEFAULT _RULE	CORRELA TION_ID= UNIQUE	50
oracle.apps .edr.frame work.test	101	DISABLED	KEY	WF_RULE. DEFAULT _RULE	CORRELA TION_ID= UNIQUE	50
oracle.apps .edr.ameva r.create	0	DISABLED	KEY	EDR_PSIG _RULE.PSI G_RULE	EDR_XML _MAP_CO DE=edram etranvar	50
oracle.apps .edr.frame work.test	0	DISABLED	KEY	EDR_PSIG _RULE.PSI G_RULE	EDR_XML _MAP_CO DE=oracle. apps.edr.fr amework.t est EDR_AME _TRANSA CTION_TY PE=oracle.a pps.edr.fra mework.tes t	50
oracle.apps .edr.ruleva r.create	0	DISABLED	KEY	EDR_PSIG _RULE.PSI G_RULE	EDR_XML _MAP_CO DE=edram erulevar	50

Name	Phase	Status	Rule Data	Rule Function	Parameters	Priority
oracle.apps .edr.ruleva r.delete	0	DISABLED	KEY	EDR_PSIG _RULE.PSI G_RULE	EDR_XML _MAP_CO DE=edram erulevar	50
oracle.apps .edr.ruleva r.update	0	DISABLED	KEY	EDR_PSIG _RULE.PSI G_RULE	EDR_XML _MAP_CO DE=edram erulevar	50
oracle.apps .edr.ameva r.update	0	DISABLED	KEY	EDR_PSIG _RULE.PSI G_RULE	EDR_XML _MAP_CO DE=edram etranvar	50
oracle.apps .edr.ameva r.delete	0	DISABLED	KEY	EDR_PSIG _RULE.PSI G_RULE	EDR_XML _MAP_CO DE=edram etranvar	50

Name	Phase	Status	Rule Data	Rule Function	Parameters	Priority
oracle.apps.edr.InterEvent1	0	Disabled	Key	EDR_PSIG_RULE.PSIG_RULE	EDR_XML_MAP_CODE=oracle.apps.edr.InterEvent1EDR_AME_TRANSACTION_TYPE=oracle.apps.edr.InterEvent1oracle.apps.edr.InterEvent2 = ERECORD_ONLYoracle.apps.edr.InterEvent3 = ERECORD_ONLYoracle.apps.edr.InterEvent4 = ERECORD_ONLY	Normal

Name	Phase	Status	Rule Data	Rule Function	Parameters	Priority
oracle.apps .edr.InterE vt.Event2	0	Disabled	Key	EDR_PSIG _RULE.PSI G_RULE	EDR_XML _MAP_CO DE= oracle.apps .edr.InterE vt.Event2E DR_AME_ TRANSAC TION_TYP E= oracle.apps .edr.InterE vt.Event2or acle.apps.e dr.InterEvt. Event1 = ERECORD _ONLYora cle.apps.ed r.InterEvt.E vent3 = ERECORD _ONLYora cle.apps.ed r.InterEvt.E vent4 = ERECORD _ONLY	Normal

Name	Phase	Status	Rule Data	Rule Function	Parameters	Priority
oracle.apps.edr.InterEvent3	0	Disabled	Key	EDR_PSIG_RULE.PSIG_RULE	EDR_XML_MAP_CODE=oracle.apps.edr.InterEvent3EDR_AME_TRANSACTION_TYPE=oracle.apps.edr.InterEvent3oracle.apps.edr.InterEvent.Event1 = ERECORD_ONLYoracle.apps.edr.InterEvent.Event2 = ERECORD_ONLYoracle.apps.edr.InterEvent.Event4 = ERECORD_ONLY	Normal

Name	Phase	Status	Rule Data	Rule Function	Parameters	Priority
oracle.apps.edr.InterEvent4	0	Disabled	Key	EDR_PSIG_RULE.PSIG_RULE	EDR_XML_MAP_CODE=oracle.apps.edr.InterEvent4EDR_AME_TRANSACTION_TYPE=oracle.apps.edr.InterEvent4oracle.apps.edr.InterEvent4oracle.apps.edr.InterEvent1 = ERECORD_ONLYoracle.apps.edr.InterEvent2 = ERECORD_ONLYoracle.apps.edr.InterEvent3 = ERECORD_ONLY	Normal
oracle.apps.edr.print.records	0	Disabled	Key	EDR_PSIG_RULE.PSIG_RULE	EDR_XML_MAP_CODE=oracle.apps.edr.print.recordsEDR_AME_TRANSACTION_TYPE=oracle.apps.edr.print.records	Normal

AME Transactions

Following are the AME transactions for the e-record events.

Oracle Application	Transaction Type Id	Transaction Type Description	Line Item Query
Oracle E Records	oracle.apps.edr.ametr anvar.create	EDR ERES Transaction Variable Creation	N/A
Oracle E Records	oracle.apps.edr.file.ap prove	EDR ERES File Approval	N/A
Oracle E Records	oracle.apps.edr.amev ar.create	EDR ERES Transaction Variable Creation	N/A
Oracle E Records	oracle.apps.edr.frame work.test	EDR ERES Framework Test	N/A
Oracle E Records	oracle.apps.edr.frame work.test	EDR ERES Framework Verification	N/A
Oracle E Records	oracle.apps.edr.amev ar.delete	EDR ERES Transaction Variable Deletion	N/A
Oracle E Records	oracle.apps.edr.amev ar.update	EDR ERES Transaction Variable Update	N/A
Oracle E Records	oracle.apps.edr.rulev ar.delete	EDR ERES Rule Variable Deletion	N/A
Oracle E Records	oracle.apps.edr.rulev ar.create	EDR ERES Rule Variable Creation	N/A
Oracle E Records	oracle.apps.edr.rulev ar.update	EDR ERES Rule Variable Update	N/A
Oracle E Records	oracle.apps.edr.InterE vt.Event1	EDR ERES Inter Event Verification Event 1	N/A
Oracle E Records	oracle.apps.edr.InterE vt.Event2	EDR ERES Inter Event Verification Event 2	N/A

Oracle Application	Transaction Type Id	Transaction Type Description	Line Item Query
Oracle E Records	oracle.apps.edr.InterEvt.Event3	EDR ERES Inter Event Verification Event 3	N/A
Oracle E Records	oracle.apps.edr.InterEvt.Event4	EDR ERES Inter Event Verification Event 4	N/A
Oracle E Records	oracle.apps.edr.print.erecords	EDR ERES Print E-records	N/A

Navigation Paths

Navigation Paths

Although your System Administrator may have customized your Navigator, typical navigation paths are described in the following tables. In some cases, there is more than one way to navigate to a window. These tables provide the most typical default path.

Navigation Paths

Window	Path
Configuration Variables	ERES Administrator:Setup:Configuration Variables
XML Elements	ERES Administrator:Setup:XML Elements
Security Rules	ERES Administrator:Setup:Security Rules
Evidence Store - Administrator	ERES Administrator:Inquiry:Evidence Store
Evidence Store - User	ERES User:Inquiry:Evidence Store
E-Record Generator	ERES Administrator:Utilities:E-Record Generator
XML Generator	ERES Administrator:Utilities:XML Generator
Validate Event	ERES Administrator:Utilities:Validate Event
Single Event Framework Verification	ERES Administrator:Single Event

Window	Path
Inter Event Framework Verification	ERES Administrator:Inter Event
Files Approval	iSignatures Administrator:Files Approval
Upload a File	iSignatures Administrator:Files Approval:Upload File
Files Approval	iSignatures User:Files Approval
Upload a File	iSignatures User:Files Approval:Upload File

Glossary

21 CFR Part 11

This rule represents the combined effort of divisions within the US Food and Drug Administration (FDA), along with members of the pharmaceutical industry, to establish a uniform, enforceable, baseline standard by which the FDA will consider electronic records equivalent to paper records and electronic signatures equivalent to traditional handwritten signatures.

Attachment

Any document associated with one or more application entities. You can view attachments as you review and maintain an entity. Examples are operation instructions, purchase order notes, item drawings, or an employee photo.

Document

Any object that furnishes information to support another object or action. Examples are a purchase order, an invoice, a word processing file listing, receiving instructions, CAD files citing an item's specifications, or video instructions of an assembly operation.

Electronic Record

Any combination of text, graphics, data, audio, pictorial, or other information representation in digital form that is created, modified, maintained, archived, retrieved, or distributed by a computer system.

Electronic Signature

A computer data compilation of any symbol or series of symbols executed, adopted, or authorized by an individual to be the legally binding equivalent of the individual's handwritten signature.

ERES

Electronic Records and Electronic Signatures.

Event

An occurrence in an Internet or intranet application or program that is significant to other objects in a system or to external agents.

Event Subscription

A registration indicating that a particular event is significant to a system and specifying the processing to perform when the triggering event occurs. Subscription processing can include calling custom code, sending the event message to a workflow process, or sending the event message to an agent.

Oracle Approval Management Engine (AME)

This component is used to define conditions, rules and, approval hierarchy. We also want to store rule specific attributes such as Electronic recording required or Electronic Signature is required, what type of style sheet need to be applied for this rule, etc. These rules are evaluated runtime based on Transaction ID (this is the primary key for the transaction).

Workflow Business Event System

Workflow Business Event system is used to define an e-signature event and associate a synchronous e-signature subscription to the event.

XML Gateway

XML Gateway is used for mapping definition and generation of XML for an E-Record. Individual product teams define XML maps and DTD for E-Record and E-Signature (ERES) Events supported by them. These Maps and DTD are loaded into the database and source controlled under respective product tops. The E-Record style sheet is also defined as part of XML Gateway.

Index

Symbols

21CFR Part 11, 1-1

A

Action Type, 3-7

B

Business Event Creation, 3-5

C

Customization Level, 3-5, 3-8

D

Deferred, 1-5
Description, 3-5, 3-8
Display Name, 3-5

E

EDR_PSIG_RULE, 3-7
Electronic Records, 1-1
E-Records Evident Store, 1-5
E-Signatures, 1-1
Event, 3-4
Event Filter, 3-7

F

Framework, 1-3

G

Generate Function, 3-5

Generic Query, 7-1
Good Manufacturing Practices, 1-1

I

Identify Event Key, 3-5
Internal Name, 3-5

J

Java Rule Function, 3-7

L

Linking a Document to a Website, 5-15

M

Manually Enabling E-Records Only, 3-17

O

On error, 3-7
Online, 1-5
Out Agent, 3-7
Owner Name, 3-5, 3-7
Owner Tag, 3-5, 3-7

P

Parameters, 3-7
Phase, 3-7
Priority, 3-7
Profile Option, 3-2

R

Reporting, 7-1
Rule Data, 3-7
Rule Function, 3-7

S

Source Agent, 3-7
Source Type, 3-7
Status, 3-5, 3-7
Subscription, 3-6
Synchronous eSignature Subscription, 3-6
System, 3-6

T

To Agent, 3-7
Transaction Variables, 1-4

W

Workflow Business Event System, 1-3
Workflow Item Type, 3-7
Workflow Notification Subsystem, 1-4
Workflow Process Name, 3-7

X

XML Gateway, 1-3
XML Publisher, 1-4
XSL, 3-9