

Oracle® Common Application Calendar
Implementation Guide
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Oracle Common Application Calendar Implementation Guide, Release 12.1

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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?
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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).

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Preface

Intended Audience

Welcome to Release 12.1 of the *Oracle Common Application Calendar Implementation Guide*.

This document is intended for the users of Oracle Applications.

This guide assumes that you have a working knowledge of the following:

- The principles and customary practices of your business area
- The Oracle Common Application Calendar application
- Oracle Application Framework Applications
- Oracle Forms Applications

To learn more about Oracle Forms Applications, read the *Oracle Applications User Interface Standards for Forms-Based Products* guide.

- Oracle Self-Service Web Applications
- The Oracle Applications graphical user interface

To learn more about the Oracle Applications graphical user interface, read the *Oracle Applications User's Guide*.

See Related Information Sources on page xv for more Oracle Applications product information.

TTY Relay Access to Oracle Support Services

To reach AT&T Customer Assistants, dial 711 or 1.800.855.2880. An AT&T Customer Assistant will relay information between the customer and Oracle Support Services at 1.800.223.1711. Complete instructions for using the AT&T relay services are available at

<http://www.consumer.att.com/relay/tty/standard2.html>. After the AT&T Customer Assistant contacts Oracle Support Services, an Oracle Support Services engineer will handle technical issues and provide customer support according to the Oracle service request process.

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Related Information Sources

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.

Online Documentation

All Oracle Applications documentation is available online (HTML or PDF).

- **PDF** - PDF documentation is available for download from the Oracle Technology Network at <http://otn.oracle.com/documentation>.
- **Online Help** - Online help patches (HTML) are available on My Oracle Support.
- **About Documents and Release Notes** - Refer to the About Document or Release Notes for the mini-pack or family pack that you have installed to learn about new documentation or documentation patches that you can download. About Documents and Release Notes are available on My Oracle Support.
- **My Oracle Support Knowledge tab** - The My Oracle Support Knowledge tab lets you browse the knowledge base by technology, industry, integration, application,

documentation, training, and services, to find all documents for a product area. Use the Knowledge Home to search for release-specific information, such as FAQs, recent patches, alerts, white papers, troubleshooting tips, and other archived documents.

- **Oracle E-Business Suite Electronic Technical Reference Manuals** - Each Electronic Technical 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 and integrate Oracle Applications data with non-Oracle applications, and write custom reports for Oracle Applications products. Oracle eTRM is available on My Oracle Support as part of Online Documentation.

Guides Related to All Products

Oracle Applications User's Guide

This guide explains how to enter data, query, run reports, and navigate using the graphical user interface (GUI) of an Oracle Applications product. This guide also includes information on setting user profiles, as well as running and reviewing reports and concurrent programs.

You can access this guide online by choosing "Getting Started with Oracle Applications" from any Oracle Applications help file.

Guides Related to This Product

Oracle Common Application Calendar User Guide

Oracle Common Application Calendar enables you to manage daily tasks and appointments, create and maintain notes, and schedule resources. It provides a central place to store and view resource schedules, utilization, and availability. It also enables you to synchronize your calendar with external calendars such as Microsoft Outlook or handheld devices.

Oracle Inventory User's Guide

This guide enables you to configure the Oracle Inventory structure to best represent your company's inventory sites and business units after you have defined your required ledger and key flexfields. You can also learn about centralized and decentralized inventory structures, and controls and reference options for using and maintaining inventory items such as categories, commodity codes, attributes, statuses, relationships, and picking rules.

Oracle Marketing Implementation Guide

Oracle Marketing provides the tools necessary to automate the planning, budgeting, execution, and tracking of your marketing initiatives. It provides a single repository of customer information that enables you to analyze, personalize, refine, and target your campaigns to better align with sales. You can set up fatigue rules to define contact limits by time period and by channel.

Oracle Sales for Handhelds Implementation Guide

This guide describes how to set up Data Quality Management to manage customers, set appointment preferences of timezone and categories, and map appointment, task, and contact on your handheld device with Oracle eBusiness Suite. You can implement clients to synchronize your handheld with Oracle Sales and Microsoft Desktop Outlook and subscribe to Short Message Service alerts.

Oracle Sales for Handhelds User Guide

Oracle Sales for Handhelds enables traveling sales professionals to access enterprise information from their pocket PC, Blackberry, palm-based devices, and Nokia using an HTML browser. You can use Outlook for your appointments, view emails received in outlook from contacts as Oracle Sales interaction history, and receive Short Message Service alerts for service contract expiry, escalated service requests, and invoice overdue. You can manage customers, contacts, and customer visits using your handheld.

Oracle Trading Community Architecture Technical Implementation Guide

This guide provides technical information on the various integration features such as APIs and business events that you can avail to connect into external systems and transact data between these systems through a data hub using the Trading Community Architecture data model. This means that you can create or update in one system and ensure that the change is reflected in the other systems. You can manipulate data at the granular Oracle Trading Community Architecture entity level such as party site or party relationship or at the higher business object level such as person. Use this guide to learn about available APIs, their functions, parameters, and validations and how to use them. You can also find details on the business events and how to subscribe to them.

Installation and System Administration

Oracle Applications 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 Applications 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 Applications Installation Guide: Using Rapid Install

This book is intended for use by anyone who is responsible for installing or upgrading Oracle Applications. It provides instructions for running Rapid Install either to carry out a fresh installation of Oracle Applications Release 12, or as part of an upgrade from Release 11*i* 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 Maintenance Utilities

Use this guide to help you run the various Applications DBA (AD) utilities, such as AutoUpgrade, AutoPatch, AD Administration, AD Controller, AD Relink, License Manager, and others. It contains how-to steps, screenshots, and other information that you need to run the AD utilities. This guide also provides information on maintaining the Oracle Applications file system and database.

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 Applications Developer's Guide

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

Oracle Applications User Interface Standards for Forms-Based Products

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

Other Implementation Documentation

Oracle Applications Multiple Organizations Implementation Guide

This guide describes how to set up and use Oracle Projects with the Multiple Organization feature for Oracle applications, so you can define and support different organization structures when running a single installation of Oracle Projects.

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 Applications Flexfields Guide

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

Oracle Applications User Interface Standards for Forms-Based Products

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

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 XML Publisher Administration and Developer's Guide

Oracle XML Publisher is a template-based reporting solution that merges XML data with templates in RTF or PDF format to produce outputs to meet a variety of business needs. Outputs include: PDF, HTML, Excel, RTF, and eText (for EDI and EFT transactions). Oracle XML Publisher can be used to generate reports based on existing Oracle Applications report data, or you can use Oracle XML Publisher's data extraction engine to build your own queries. Oracle XML 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 XML Publisher as

well as how to use the Application Programming Interface to build custom solutions.

Oracle XML Publisher Report Designer's Guide

Oracle XML 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 E-Business Suite Diagnostics User's Guide

This guide contains information on implementing, administering, and developing diagnostics tests in the Oracle E-Business Diagnostics framework.

Oracle E-Business Suite Integrated SOA Gateway User's Guide

This guide describes how users can browse and view the integration interface definitions and services that reside in Oracle Integration Repository.

Oracle E-Business Suite Integrated SOA Gateway Implementation Guide

This guide explains the details of how integration repository administrators can manage and administer the entire service enablement process based on the service-oriented architecture (SOA) for both native packaged public integration interfaces and composite services - BPEL type. It also describes how to invoke Web services from Oracle E-Business Suite by working with Oracle Workflow Business Event System, manage Web service security, and monitor SOAP messages.

Training and Support

Training

Oracle offers a complete set of training courses to help you master your product and reach full productivity quickly. These courses are organized into functional learning paths, so you take only those courses appropriate to your job or area of responsibility.

You have a choice of educational environments. You can attend courses offered by Oracle University at any of our many Education Centers, you can arrange for our trainers to teach at your facility, or you can use Oracle Learning Network (OLN), Oracle University's online education utility. In addition, Oracle training professionals can tailor standard courses or develop custom courses to meet your needs. For example, you may want to use your organization structure, terminology, and data as examples in a customized training session delivered at your own facility.

Support

From on-site support to central support, our team of experienced professionals provides

the help and information you need to keep your product working for you. This team includes your Technical Representative, Account Manager, and Oracle's large staff of consultants and support specialists with expertise in your business area, managing an Oracle server, and your hardware and software environment.

Do Not Use Database Tools to Modify Oracle Applications Data

Oracle STRONGLY RECOMMENDS that you never use SQL*Plus, Oracle Data Browser, database triggers, or any other tool to modify Oracle Applications 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 Applications data, you risk destroying the integrity of your data and you lose the ability to audit changes to your data.

Because Oracle Applications tables are interrelated, any change you make using an Oracle Applications form can update many tables at once. But when you modify Oracle Applications data using anything other than Oracle Applications, 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 Applications.

When you use Oracle Applications to modify your data, Oracle Applications automatically checks that your changes are valid. Oracle Applications 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 Common Application Calendar

This chapter covers the following topics:

- Oracle Common Application Calendar Overview

Oracle Common Application Calendar Overview

Oracle Common Application Calendar's purpose is to provide the CRM suite with a robust architecture, a stable and performing technology stack, and reusable application components.

The following Oracle Common Application Calendar components include:

- Notes, page 1-1
- Assignment Manager, page 1-2
- Task Manager, page 1-2
- Calendar, page 1-2
- Calendar Synchronization, page 1-2
- Resource Schedules, page 1-2
- Escalation Manager, page 1-2
- Business Rule Monitor, page 1-3

Notes

The entire Oracle e-Business Suite uses the Notes infrastructure to create, maintain, and share notes related to customers, opportunities, service requests, and other business

objects through the Notes in Forms, OA Framework, and HTML user interfaces.

Assignment Manager

The Assignment engine determines the best resource to be assigned to tasks based on availability and skill set. This engine is used by the various CRM modules to automatically assign tasks to a resource or a group of people.

Task Manager

This is the universal model, which is used by the entire Oracle e-Business Suite. Tasks are created and assigned to groups or individuals and are created and shared across Oracle e-Business Suite through the Forms-based, OA Frame, and HTML Tasks.

Calendar

There are three Calendars.

- Use the Oracle Applications Self-Service Framework based calendar to view scheduled appointments in personal calendar, create a single or repeating appointment, create tasks for a source object, and attach notes to an appointment or a contextual task.
- The Forms-based Calendar is a scheduling tool used to define and view available times for a resource or a group of resources. Other CRM modules use the Calendar functionality to schedule resources.
- Employees use the HTML-based Calendar as a personal productivity tool to effectively manage daily activities, appointments, and tasks.

Calendar Synchronization

Calendar Synchronization provides the ability to synchronize contacts, tasks, and appointments between the Oracle enterprise database and either Pocket PC or desktop Microsoft Outlook. Calendar Synchronization is used by Oracle Sales for Handhelds.

Resource Schedules

One of the core attributes of a resource is its availability. If any of the eBusiness Suite modules does anything that affects a resource's availability, then the rest of the eBusiness Suite should be aware of it. The resource schedules make that possible.

Escalation Manager

You can manage situations either by creating an escalation document, assigning an escalation owner, or defining the necessary actions needed to resolve the escalation

through the Escalation Manager interface. This module is used extensively by the service applications to ensure that Service Level Agreements are met.

Business Rule Monitor

You can proactively manage escalations using the Business Rule Monitor which are based on your business logic and needs. It consists of:

- The Business Rule Workbench: this is used to define a business rule
- The Business Rule Monitor: this is the engine that monitors documents over time against the user-defined business rules.

Dependencies and Integration Points

This chapter covers the following topics:

- Oracle Common Application Calendar Dependencies

Oracle Common Application Calendar Dependencies

Oracle Common Application Calendar integrates with other Oracle Applications in the E-Business Suite to provide and extend its functionality. Some are mandatory and some are optional. You must set up the mandatory modules before the Common Application Calendar can run. Setting up the optional modules is not required; however, if they are not set up, then the additional functionality provided by these modules is not available.

Many of these modules are included in your general installation. The following list of modules or applications is included with your installation but if you have not licensed the entire suite, you will only have access to the functionalities and tables. In other words, you will not be able to access the user interface (UI) or APIs for the application.

Note: The exception to the previous paragraph is that some UIs are shared. An example of this is in Oracle HRMS which will "share" some of its Forms if you do not have HRMS set up.

For information on Oracle E-Business Suite Release 12 system requirements and dependencies, consult the Oracle Applications *Installing Oracle Applications Release 12* manual.

Notes

- **Oracle Application Object Library (AOL):** Notes uses AOL to set necessary profile options and uses the AOL lookups window to create new note types. (Required)

Assignment Manager

- **Oracle Application Object Library (AOL):** Assignment Manager uses AOL to set application profile options that are used in various modules.

- **TCF Server:** It must be running and correctly configured to connect to Scheduler and for Gantt charts to display information and render properly.
- **Oracle Territory Manager:** Assignment Manager uses Territory Manager to retrieve qualified resources identified in a territory. (Optional)
- **Forms-based Calendar:** It is used to provide the availability of qualified resources. The Forms-based Calendar provides the work shift information for a resource. (Optional)
- **Oracle Contracts:** Assignment Manager uses Oracle Contracts to retrieve preferred engineers defined in Contract. (Optional)
- **Installed Base:** Assignment Manager uses Installed Based to retrieve preferred engineers defined in Installed Base. (Optional)

Task Manager

- **Oracle Application Object Library (AOL):** Task Manager uses AOL to manage responsibilities and profile options that are used in various modules. (Required)
- **Oracle Trading Community Architecture:** Task Manager uses TCA to locate the customer contact information when creating a task. (Required)
- **Oracle Workflow:** Task Manager uses Oracle Workflow to send workflow notifications in order to notify personnel about task creation and changes. (Required)
- **Notes:** Task Manager uses Notes to create notes attached to a task. (Optional)
- **Resource Manager:** Task Manager queries Resource Manager to determine the owner and assignee of a resource. (Required)
- **Assignment Manager:** Task Manager uses Assignment Manager to assign qualified resources to a task. (Optional)
- **Escalation Manager:** Task Manager uses Escalation Manager to escalate a task. (Optional)

Calendar (HTML-based)

- **Oracle Application Object Library (AOL):** HTML Calendar uses AOL to create FND users (for example, to create a calendar workflow administrator) with appropriate responsibilities, as well as set necessary profile options. (Required)
- **HTML Tech Stack:** Set up properties in Oracle HTML Stack for debug logging trails and cookie encryption. You also specify default roles and responsibilities for users in this module. (Required)

- **Resource Manager:** HTML-based Calendar queries the Resource Manager tables so that individual resources can make and be invited to appointments. (Required)
- **Oracle Workflow:** HTML Calendar uses Oracle Workflow to send workflow notifications in order to notify personnel about calendar changes. (Required)
- **Tasks:** HTML-based Calendar uses the HTML-based Tasks to create repeating appointments. (Required)
- **Notes:** HTML-based Calendar uses the HTML-based Notes to create a note and attach it to an appointment. (Required)

Calendar (Forms-based)

- **Oracle Application Object Library (AOL):** The Forms-based Calendar module uses AOL to manage responsibilities that are used in various modules. (Required)
- **Task Manager:** The Forms-based Calendar module uses Task Manager to create Todo Lists (tasks). (Required)
- **Resource Manager:** The Forms-based Calendar module uses Resource Manager to assign resources to a calendar. (Required)

Escalation Manager

- **Oracle Application Object Library (AOL):** Escalation Manager uses AOL to set necessary profile options that are used in various modules. (Required)
- **Oracle Workflow:** Escalation Manager uses Oracle Workflow to send workflow notifications to relevant resources when an escalation document is created or updated. (Required)
- **Service Request:** Service requests can be manually escalated through Escalation Manager if necessary. (Optional)
- **Assignment Manager:** Escalation Manager queries the escalation territory defined in Oracle Territory Manager through the Assignment Manager UI to determine the owner of an escalation. (Optional)
- **Task Manager:** Forms-based Task Manager is used to attach additional tasks to an escalation document. Tasks created in the Forms version can be manually escalated through Escalation Manager if necessary. (Optional)
- **Notes:** The Forms-based Notes module is used to attach additional notes information to an escalation document. (Optional)

Business Rule Monitor

- **Oracle Application Object Library (AOL):** The Business Rule Monitor uses AOL to set necessary profile options that are used in various modules and to create the

Business Rule Monitor Workflow Administrator. (Required)

- **Oracle Workflow:** It is used by the seeded workflow processes to send out workflow notifications to relevant document owners. (Required)
- **Service Request:** Service Requests can be monitored and escalated based on your defined business rules. (Optional)
- **Escalation Manager:** It is used by the seeded workflow processes to create an escalated document when a business rule is violated. (Required)
- **Oracle Territory Manager:** It is used to retrieve qualified resources identified in the escalation territories if the identity of a person who receives notifications defined in the Workflow Attributes window cannot be determined. (Optional)
- **Task Manager:** It is used by the seeded workflow processes to create an automated escalation task. This is generated through the seeded Automated Escalation Template Group for Task Manager (Service Request or Oracle Quality Online) defined in the Forms-based Task Manager. Tasks created in the Forms version can also be automatically escalated when a business rule is violated. (Optional)

Implementation Overview

This chapter covers the following topics:

- Overview of Implementing Oracle Common Application Calendar
- Implementing Notes in Oracle Applications Framework
- Implementing Tasks in Oracle Applications Framework
- Implementing Calendar in Oracle Applications Framework

Overview of Implementing Oracle Common Application Calendar

Oracle Common Application Calendar, including Tasks, Notes and Calendar, is developed based on the Oracle Applications Framework, the standard HTML development and deployment platform for Oracle HTML Applications. It provides essential notes, tasks, and calendar functionalities for integrated applications, such as Oracle Service Online or Oracle Customers Online.

Users can use Oracle Common Application Calendar as a personal productivity tool to help manage their daily activities and resource reservations based on the availability of the resources. They can create contextual tasks for a source object and assign resources to the tasks in Task Manager, add notes to a contextual task or an appointment using Notes, and view scheduled appointments and other activities from their personal calendar views. Since these features are developed based on the HTML versions of Tasks, Notes, and Calendar with some enhancements, implementing Oracle Common Application Calendar requires implementors or system administrators to:

- First, complete basic setup steps for these modules, such as defining task and note types and statuses, running concurrent programs, and setting profile options
- Secondly, set additional steps specifically for the Oracle Applications Framework based Tasks, Notes or Calendar module, if needed, for them to work properly.

What is Oracle Applications Framework?

The Oracle Applications Framework is the development environment for the current generation of Oracle Self-Service Applications. The purpose of the Oracle Applications Framework is to provide developers of Oracle's Self-Service Applications with a set of common technologies, modules and standards. This Framework moves the next generation of Self-Service Applications to a standard HTML development and deployment platform which aims to make Oracle Self-Service Applications easy to use, build, deploy, maintain and customize, and to enforce the Oracle wide common look and feel.

In addition, the Framework facilitates rapid application development and tries to eliminate hand coded implementations that were a major part of previous development platforms. It also ensures high performance and scalability at run time.

Note: For those who familiar with Oracle's Forms-based application development, the Oracle Applications Framework is to the Self-Service Applications what Application Object Library (AOL) is to Forms-based development.

Implementing Notes in Oracle Applications Framework

The implementation for Notes developed for Oracle Common Application Calendar uses the same set up steps for HTML Notes including creating new note types, mapping note types and references to a source, setting up source object codes, and setting necessary profile options.

Additionally, with the continuous support of existing notes data security, all data access and updates in Notes developed for Common Application Calendar are based on the concept of HTML Notes Application Object Library (AOL) data security rules. Implementors can customize Notes security and then grant object level security to users with qualifying access privileges if needed.

This section provides an overview of the required steps for implementing the Oracle Applications Framework based Notes. Detailed instructions for these steps are contained in the subsequent chapters.

- Setting Up Note Types

In addition to the seeded note types, the implementor or system administrator can create new note types to categorize a note, such as a General note type for a general note, or an Interaction note type for a note created specifically for an interaction or activity.

- Mapping Note Types to a Source

After creating note types, the implementor or system administrator can map these

note types to a source object, such as Task Manager, or Sales Lead, or a specific resource category, such as Employee Resource. This limits the visibility of the note type appearing in the Note Type list of values only to the mapped specific source object or resource category.

- Defining Notes Reference Mapping

In addition to mapping note types to a source, implementors can also map references to a source object. This narrows down the References drop-down list to objects that are actually relevant to a document's source object.

The Mapping Objects window used to define reference mapping is for both Task Manager and Notes modules. Therefore, implementors need to locate the setup screen under the Task and Escalation Manager navigation node.

- Setting Up the Source Object Code and Context

The implementor or system administrator can add additional data in the JTF objects table if necessary. For example, if a document is newly defined or integrated with Notes, such as Task Manager, then the new document must be associated with Notes usage. As a result, the document name (Task Manager) appears in the Source list when a note is created for task 1150. Each item in the source list has an associated related object (task 1150), which appears in the Related To list.

- Setting Profile Options

The implementor or system administrator can use the "Notes: Default Note Status" profile option to set the default value to note status and the "Notes: Default Note Type" profile option to set the default value to note type at site, application, responsibility, or user level based on business needs.

Since note types can be mapped to a source object, if the default note type is not mapped to a source or the profile option is not set, then there will not have a default value in the Note Type field during note creation. Otherwise, the default note type will appear in the Note Type field.

- Customizing Notes Security

With the continuous support of existing notes data security, all data access and updates in Notes developed for Common Application Calendar are based on the concept of HTML Notes Application Object Library (AOL) data security rules.

This security model is used to restrict data access to appropriate users through a specific authorization process. It allows Notes implementor or system administrator to customize notes data, and then grant specific notes to appropriate users or user groups with right access privileges. This includes granting users the ability to view a note, create a note, update a note, update a regular note, update a large note, update a note's secondary information (such as note type, status, relation and attachment), delete a note, and restrict "note type" list of values. This functionality is only enforced in the HTML Notes, not the Forms-based Notes.

Implementing Tasks in Oracle Applications Framework

Similar to Notes in Oracle Applications Framework, implementing Tasks developed for Oracle Common Application Calendar also takes place in two phases.

In phase I, implementors need to complete the basic setups for Tasks mostly in Forms. These attributes are also used in Forms and HTML based Tasks. It includes the setup for task types, statuses, priorities, task type and reference mappings, metadata, concurrent programs, profile options, business events, and task security rules.

In phase II, in order for the Oracle Applications Framework based Task Manager to work properly, implementors need to perform one additional implementation step required specifically for Tasks in Oracle Applications Framework.

Note: To implement the Forms-based and HTML versions of Task Manager, see Task Manager Common Steps chapter for details.

This section provides an overview of the required steps for implementing the Oracle Applications Framework based Notes. Detailed instructions for these steps are contained in the subsequent chapters.

1. Defining Task Types

In addition to the seeded task types, the implementor or system administrator can create new task types to specify the purpose of a task creation, such as a "Follow-up" task or an "Appointment" task. They can also map task types to a source object. This way, users will see the task types that are mapped to the source object from the Task Type list of values when creating a task.

2. Defining Task Statuses and Status Transition Rules

The implementor or system administrator can create new task statuses to specify the progress of a task, such as "Completed", or "Working".

To regulate status change at the task level, the implementor can set the task status rules in the status transition window, and define appropriate rule access through responsibilities.

3. Defining Task Priorities

The implementor or system administrator can create additional task priorities to determine an importance rating for a task, such as Low, High, and Critical. In addition, like task types, task priorities can be mapped to a source object. This allows users to see only the task priorities that are mapped to the source object from the Task Priority list of values when creating a task.

4. Mapping Task and Notes Reference Mapping

The implementor or system administrator can map reference types to a source

object, such as Task Manager. This limits the selection of Reference Type list of values shown in the Task Manager.

5. Setting Profile Options

The implementor must set necessary profile options used in Task Manager to set default values for task status, priority, types, as well as owner and assignee statuses. Other profile options determine the client time zone, unit of measure, workflow functionality, notification, and task security access.

6. Running the Concurrent Program

In order to retrieve new and updated tasks from quick find search, the system administrator must run the Rebuilding Intermedia Index for Task Names concurrent program periodically.

7. Setting Up Metadata Objects

The implementor or system administrator can add additional data in the JTF objects table if necessary. For example, if a document (such as Service Request) is newly defined or integrated with Task Manager, then the new document must be associated with Tasks usage.

8. Subscribing to Task Business Events

Task Manager, leveraging the Oracle Workflow Business Event System, subscribes to business events such as creating, updating, and deleting a task or an assignment when a task or an assignment is created, updated, and deleted from APIs, or application user interfaces (UIs) regardless of the Forms, HTML, or Oracle Applications Framework based applications. Applications that contain data directly affected by these events can subscribe to them and synchronize or modify their data accordingly.

Task business events will not be raised when an escalation or appointment is created even if the data is saved in the same tables.

For detailed information about escalations business events, see Subscribing to Escalations Business Events in the Escalation Manager section of the *Oracle Common Application Calendar Implementation Guide*.

9. Customizing Task Data Security

With the continuous support of the existing task security rules used in HTML Tasks, all data access and updates in Tasks developed for Common Application Calendar are based on the concept of Application Object Library (AOL) data security including the security rules around updating contextual tasks using a profile option and allowing group managers to access their direct's tasks.

Additionally, to provide product specific security rules for customizing the resource list of values security for assignees, Task Manager leverages the AOL data security based on Virtual Private Database (VPD) policy to allow applications to set product

specific security rules specifically for the resource list of values security.

Be aware that this security model with VPD feature is only implemented in the Forms-based and Oracle Applications Framework based Tasks specifically for the resource list of values security. It is not used in HTML Tasks.

10. Phase II: Mapping Task Assignee Types to a Source

In phase II, implementors must perform the following step specifically for Tasks in Oracle Applications Framework. Even though this step is performed in Forms, it is not used by the Form-based or HTML Tasks.

Similar to the functionality of mapping task references to a source used in the HTML Tasks, implementors can map both task assignee types and owner types to a source object for the Oracle Applications Framework based Task Manager. This limits the selection of task assignee types and owner types from the list of values for a mapped source object.

Implementing Calendar in Oracle Applications Framework

The Oracle Applications Framework based Calendar module is developed based on existing HTML Calendar concept with some enhancements; therefore, its implementation steps are similar to the steps of implementing HTML Calendar and it requires no further set up specifically for the Calendar in Oracle Applications Framework.

Since group and public calendar features are not used in the Oracle Applications Framework based Calendar module; therefore, there is no need to create a Calendar Administrator in the Oracle Applications Framework based Calendar module. There is also no need to implement calendar events. This is because applications that want to uptake this feature require both implementors to perform necessary steps during the implementation and Calendar users to meet certain conditions to be able to view calendar events in their personal calendars. If applications complete all required steps for this feature, then Calendar views will display these event items. In addition, since tasks will not be displayed from your personal calendar views, there is no need for Calendar in Oracle Applications Framework to run the "Rebuilding Intermedia Index for Task Names" concurrent program periodically.

Note: To implement the Forms-based and HTML versions of Calendar, see Implementing the HTML Calendar chapter and Implementing the Forms-based Calendar chapter for details.

This section provides an overview of the required steps for implementing the Oracle Applications Framework based Calendar. Detailed instructions for these steps are contained in the subsequent chapters.

1. Creating a Calendar User

Every employee resource with Sales User responsibility can use the Oracle Applications Framework based Calendar functionality to create appointments, view personal calendars, check resource availability, and customize personal preferences.

To create a Calendar user, the implementors or system administrators need to grant appropriate responsibilities to the employee resource.

2. Integrating with Web Mail

To invoke web mail compose window through an integrated Web Mail, such as Oracle Collaboration Suite, from the calendar Availability view, implementors or system administrators must set necessary profile options to enable the webmail function, specify correct server URL address for the integrated webmail server, and perform additional implementation steps on the server side to launch webmails successfully.

3. Setting Profile Options

Implementors or system administrators need to set the necessary profile options that are used in the Oracle Applications Framework based Calendar module including client timezone, self service accessibility features to access the Accessibility Daily View page, and the options for enabling web mail feature.

4. Starting Workflow Processes

Similar to the HTML Calendar module, implementors or system administrators need to start the necessary workflow processes used in the Oracle Applications Framework based Calendar module including "CAC Calendar Workflows" and "CAC Reminders".

5. Subscribing to Business Events for Appointments

The Calendar module subscribes to business events for appointments such as creating, updating, and deleting an appointment, adding and removing an invitee, as well as responding to an invitation when the following conditions occur from APIs, application user interfaces (UIs) in HTML or the Oracle Applications Framework based modules:

- An appointment is created, updated, and deleted
- An invitee is added to or removed from an appointment
- An invitee accepted or rejected an appointment

Applications that contain data directly affected by these events can subscribe to them and synchronize or modify their data accordingly.

Implementing Task Manager

This chapter covers the following topics:

- Overview of Task Manager

Overview of Task Manager

Task Manager provides an effective mechanism for organizations to create tasks, assign resources to tasks, schedule tasks, and manage tasks, as well as to track task assignments.

Depending on your business needs, Task Manager can be used as a standalone module to create personal tasks and private to dos, or it can be integrated with other applications in the Oracle E-Business Suite to create context sensitive tasks, such as tasks created for a sales opportunity. No matter how Task Manager is used, the implementation steps for Tasks would be the same.

Task Manager for Oracle Common Application Calendar adopts the Oracle Applications Framework, the standard HTML development and deployment platform for Oracle HTML Applications. It provides essential task screens including creating tasks, updating tasks, and viewing contextual tasks for integrated applications such as Oracle Service or Oracle Sales.

A number of features are available in both versions; however, some features are available in only Forms, or only HTML based Tasks.

Task Manager in Oracle Applications Framework provides basic task functionality in accordance with Task data security rules. These task features can only be accessed through integrated applications and they are not available in the standalone Task Manager. These features include creating tasks, updating tasks, and viewing tasks which are also available in the Forms-based, or HTML Tasks. Task Manager in Oracle Applications Framework is not fully compatible with HTML Tasks user interface.

To implement Task Manager, the implementor or system administrator need to set up basic task components, such as task types, priorities, statuses, reference mapping, date types, profile options, concurrent programs, and metadata objects if necessary. If task

templates or task template groups will be used later in the application, then the implementor can create them first so that users can have an option to create multiple tasks simultaneously. In addition, Task Manager allows implementors or system administrators to further customize the task security rules so that appropriate users can be authorized with right access privileges to particular tasks.

Setup Dependencies

To be able to use the full functionality of Task Manager, the following components must be set up properly:

- **Trading Community Architecture (TCA).** Use TCA to locate the customer contact information when creating a task against a customer.
- **Oracle Workflow.** Use Oracle Workflow to send workflow notifications in order to notify personnel about task creation and changes.
- **Notes.** Use Notes to add additional information attached to a task.
- **Resource Manager.** Use Resource Manager to locate resources (task owner and assignee) for a task.
- **Calendar.** Use Calendar to define personal preferences for tasks including task category and other calendar preferences.
- **Escalation Manager.** Use Escalation Manager to escalate a task created in the Forms-based Task Manager.
- **Assignment Manager.** Use Assignment Manager to assist in locating the qualified resources (task owner and assignee) for a task created in the Forms-based Task Manager.

Task Manager Common Steps

This chapter covers the following topics:

- Defining Task Types
- Defining Task Statuses and Status Transition Rules
- Defining Task Priorities
- Mapping Task References to a Source
- Setting Profile Options
- Running the Task Manager Concurrent Program
- Subscribing to Task Business Events
- Customizing Task Security
- Personalization Notes

Defining Task Types

In addition to seeded task types, the system administrator can define new task types in the Forms-based Task module.

The section covers the following topics:

Defining Task Types

Task types are used to further classify tasks. For example, a task can be created relating to a meeting regarding a service request. It can be a follow-up task for a sale or a marketing campaign or a callback to an existing customer. The Meeting, Follow up Action, and Callback can be the task type used to categorize similar tasks with the same creation purposes.

After specifying the task type name, description, effective dates, unit of measure, and duration effort, the administrator can also specify appropriate type flags for the new types.

Task Type Flag Definitions

Flag	Description/Action
Notification	This flag launches the notification workflow automatically.
Schedulable	This flag reserves the resource through the Scheduler.
Private	Only the task creator can read or update the task.
Seeded	This flag is a seeded task type and is not editable.

Caution: Do not try to define new task rules. Task type rules that are available in the system (Field Service and Oracle Marketing) are the only rules that can be used in Task Manager.

Responsibility: CRM Administrator

Navigation: Task and Escalation Manager > Setup > Define Task Types

To define a new task type:

1. Select **File > New**.
2. In the Task Types window, enter a name for the new task type.
3. Select **Workflow for Task Manager** from the list of values (LOV) in the Workflow Item Type field. Then select the workflow process.

If you do not want to use an available process, then you can define a new workflow process for Workflow for Task Manager using Oracle Workflow.

4. You can associate a task type with a seeded task rule but you cannot define a new rule. You can only use seeded task rules in Task Manager.
5. Enter the effective dates in the From and To fields.

The Effective To field is read-only for seeded task types. This field is only active if you are defining a new task type.

6. Select a unit of measurement for effort from the UOM LOV. Options include day, hour, minute, month, week, and year.

Use a measure of time to determine the UOM value.

7. Enter a number for the quantity of effort in the Qty field.
8. Select task type flags.
9. Select the Notification check box if you want notifications to be sent automatically when a task is created with the new task type.

Mapping Task Types to a Source Object

Use the task type mapping functionality to map task types to a source object. This limits the visibility of task types shown in the task type list of values for a mapped source object. After mapping types to a source, you will see only the mapped task types displayed in the list of values. All other unmapped types will not be in the list. The Application field is used internally, it is not used for mapping purposes.

For example, after mapping task types to an object, you can only see the task types that are mapped to your source object displayed in the list of values. Any task types not mapped to your source object are now dynamically excluded from the list. In addition, if none of the types is mapped to your source object, then you will see all task types from the list of values. Therefore, any user-defined task types need to be mapped to your source object. Otherwise, you will not see them from the list after defining them.

Since the task type mapping feature will retrieve mapped task types for your source object, if you do not want certain task types displayed from the list of values for your source object, do not map these types to a source object. Instead, you should remove all your mapped task types for a source from the mapping window.

Note: The Application field in the mapping window is used internally, it is not used for task type mapping purposes. The Source Object field defines what task types appear in the Task Type list of values.

Example

For example, if you map a type Appointment to the source Task Manager under any application, then that type Appointment will appear in the type list of values wherever the source is Task Manager no matter which application you are running. If you do not want this type "Appointment" used for standalone tasks (tasks with source Task Manager), then remove ALL mappings where source is Task Manager and type is Appointment.

If you want the new task type to appear in the task type LOV for a specific source object, then you must map the task type to that source.

To map the task type to a source:

1. Click **Map Types** in the Task Types window to open the Mapping Objects window.
2. Select the source object from the list of values (LOV), for example, Appointment.

3. Select the task type from the LOV, for example, Critical.
4. Select the end date from the LOV.
5. The **Seeded** check box is not editable.
6. Click **Save**.

Associating Task Types to Resources

If you want resource requirements to be automatically populated when you create a task with the new task type, then you must associate the task type to the resource requirements. After defining your new task type, use the Resource Requirements window to associate a specific resource requirement that is necessary to complete a task with the specified task type.

To associate task types to a resource type:

1. In the Task Types window, select the newly created task type and click **Resource Requirement**.

The Resource Requirements window opens.

2. Select a resource type from the list of values (LOV).

3. Enter the number of resources needed in the Required Units field.

Selecting the Enabled Flag activates the resource type for the corresponding task type.

4. Click **OK**.

The required resource information is saved.

5. Save your task type.

Enabling Task Workflows

Task Manager contains one pre-defined workflow process, **TASK_WORKFLOW**, which is used to send workflow notifications automatically to notify personnel about task creation and changes. The workflow is launched by the user clicking the Launch Workflow button. This workflow can also send notifications to employee resources, groups, and teams. If you do not want to use the default workflow process, then you can define a new workflow for Task Manager by using Oracle Workflow.

TASK_WORKFLOW is automatically launched under the following circumstances:

- In HTML, the preferences are set to Yes in the Issue Notification drop-down list.
- The Task Type Notification flag is set to Y (Yes).

- The Auto Notification flag in the Task window is set to Y (Yes).
- Task creations or updates use a task type that has the Notification flag selected.

By turning on or off the Notification flag for each task type in the Task Types window, you can control whether or not tasks of that task type should launch a workflow process automatically.

If workflow fails to launch automatically, verify that both the task **Auto Notification** check box in the Tasks window and the **Notification** check box in the Task Types window are selected. If you do not set the workflow process, then notifications are not sent. The workflow is set using the standard applications concurrent manager.

Note: For more information on setting up Oracle Workflow, see the *Oracle Workflow Administrator's Guide*.

Defining Task Statuses and Status Transition Rules

Use the Forms-based Task Manager to define task statuses and task status transition rules.

Task statuses define the progress of tasks, such as Open, Working, and Completed. To regulate status changes, Task Manager uses the status transition window to set the task status rules and to assign each rule to responsibilities to restrict the rule access to certain users or applications.

After defining task status transition rules, the implementor or system administrator must associate the rules with appropriate profile options to ensure the default profile value complies with the rules. As a result, the default task status will match the status rule for a specific application.

In addition, in order to quickly retrieve open tasks from a query, and to find the start and due dates of each task, Task Manager updates the Task Status table by denormalizing the Open Status column into the Task table.

Defining Task Statuses

In addition to the seeded statuses, the system administrator can use the Forms-based Task Manager to define new task statuses for specific business needs.

When defining a status, implementors or system administrators need to specify the status information including its name, description, effective dates, status usage, date type fields, task or assignment status flag, and other additional status flags. In addition, descriptive flexfield information can also be added for task statuses.

Usage

Task Manager and Escalation Manager use the same window to define task or escalation statuses. The Usage column is read only and is defaulted to Task if the Define

Task Status link is opened from Navigator. If Define Escalation Status link is opened, then Usage is defaulted as Escalation.

See the Setting Escalation Statuses, page 10-6 section for information regarding Escalation Manager.

Start By and Due Date Date Type Fields

Implementors or system administrators need to select appropriate values that correspond to the newly defined status for the Start By and Due Date fields from the list of values:

- Creation Date
- Planned Start (or End) Date
- Scheduled Start (or End) Date
- Actual Start (or End) Date

Task Manager uses a task status to define the progress of a task, such as Open, In Planning, and Completed. These statuses constitute the life cycle of a task. With these two date fields defined for status, task start date and end date can be easily identified.

For example, if a task status is In Planning, then the Start By field can be the planned start date and the Due Date field can be the planned end date. If a task status is Assigned or Planned, then the task must have scheduled start and end dates. If the task is closed, then the actual start and end dates must be populated. Therefore, depending on the status of each task, the due date for the task can be the planned end date or scheduled end date. The task's Start By date can also be derived based on the same method.

Task or Assignment Status Flags

Task Manager uses the Task or Assignment Status flag to differentiate the usage of a status. Therefore, after defining a new status, the implementor needs to further identify where it is used by selecting one appropriate status flag, or both if it can be used in both places.

This flag is particularly useful when defining status transition rules. For example, when defining a task status rule, the implementor will see only task statuses, not assignment statuses, from the list of values for status selection.

Additional Status Flags

The implementor or system administrator also needs to identify appropriate status flags for the new status.

Task Status Flag Definitions

Flag	Description
Assignment Status	The status is displayed in the Assignment Status field.
Task Status	The status is displayed in the Task Status field.
Assigned	The task is assigned to a resource.
Working	The task is in progress.
Schedulable	The task can be used through Scheduler.
Accepted	The task is accepted.
Rejected	The task is rejected.
On Hold	The task is currently not active.
Approved	The task is approved.
Completed	The task is completed.
Cancelled	The task is cancelled.
Delete Allowed	The task can be deleted without cancellation.
Closed	The task is completed and closed.
Seeded	The task status is pre-defined and cannot be updated.

Descriptive Flexfields

Task Manager provides descriptive flexfields to allow additional information for each status including a seeded one to be entered.

For example, if your application needs to interact with a paging system, then your implementors can assign a three-digit code to each status so that paging can go through using the three-digit code.

To enter additional information for your statuses, click the descriptive flexfield to

launch the Task Statuses additional information window.

Defining Task Status Transition Rules

Use a task status transition rule to define possible task status changes by identifying a set of current and next statuses which are assigned to a rule, as well as to define appropriate access to the rule by assigning the rule to responsibilities.

As each status change sequence is identified in a rule, it limits a user's selection of possible task statuses that appear in the list of status options. When a user logs in to an application with the responsibility that has an assigned rule, the first initial status associated to the rule is displayed in the task Status field. After the task creation, the user can see the next status for that rule.

For example, a task rule is defined with initial status Open to Assigned, and from Assigned to Closed. You can change a task status from Open to Assigned, or from Assigned to Closed based on the rule. However, you cannot change the task status from Open directly to Closed without first changing it to Assigned.

After defining the status change sequences for a rule, you can also associate the rule with certain responsibilities. As a result, a manager may have more privileges than an agent to access or change certain statuses, such as Approved or Cancelled, if defined in the rule.

Defining Status Transition Rules

System administrator or implementor can define task status transition rules by selecting the Define Transition button in the status setup form to launch the Status Transition window to define task transition rules.

Use the following two tabs in each window to specify your rules:

- **Rule tab:** It defines the rule's name, its associated application, and status transition values.

For example, Oracle Field Service uses the rule to regulate the status transition for a service request. Therefore, Service Request Rule can be the task rule name, and Field Service Application can be the associated application. In addition, identify the appropriate status for the Current Status and Next Status for the rule. The Next Status is the status that immediately follows the status in the Current Status field, such as from current status Open to next status Assigned, and from current status Assigned to next status Closed.

Note: Do not confuse the status transition rule that you define here with the task type rule. The task type rule can only be associated with the task type while defining a new task type.

- **Responsibility tab:** It associates your rules with specific responsibilities.

For example, you can associate the task rule Service Request Rule with the Field Service Dispatcher, Field Service Manager, or Customer Support responsibility. The Field Service Manager responsibility can also be associated with another transition rule if necessary. As a result, a field service manager may have more privileges than a support agent to access or change certain statuses if defined in the rules.

Associating the Profile Option with the Rules

In order for the status transitions to work, after defining a transition rule and assigning it to responsibilities, implementors must associate the Task Manager: Default Task Status profile option to the initial status and the first current status of the rule at site, responsibility, and user levels.

Setting the "Task Manager: Default Task Status" profile option

Implementors can define the following task status transition rule and assign it to the CRM Administrator responsibility:

Task Status Transition Rule Example

Current Status	Next Status
Open	Approved
Approved	Working
Working	Closed

Implementors must also set the Task Manager: Default Task Status profile option value to "Open", the initial status of the rule.

Impact of the Rules

- Create Tasks in Forms, HTML, or the Oracle Application Framework based Tasks

When a user logs in to an application with CRM Administrator responsibility, the user will see the status Open, the initial status of the rule, displayed in the status field. If logging in with other responsibilities, the user will still see Open in the status field because of the default value in profile option.

However, if no rules have been defined, then the value specified in the profile option will not necessarily be the initial status of a rule.

- Update Tasks in Forms, HTML, or the Oracle Applications Framework based Tasks

With the CRM Administrator responsibility, the user can only see the statuses Open and Approved displayed in the list of values. If changing the status from Approved, the user will only see Open and Working, the previous and next

statuses, listed in the selection.

If logging in with other responsibilities, all task statuses are displayed in the list because the rule is only associated with the CRM Administrator responsibility.

Denormalizing Open Status Column into Task Table

In order to quickly retrieve open tasks from a query, Task Manager modifies the task table JTF_TASK_B by adding a new column OPEN_FLAG which is denormalized from the status lookup table to determine if a task is an open task. This filters out any task with a status of Cancelled, Rejected, Closed, or Completed while performing a search for open tasks.

Whether a task is an open task is dependent on the task status. If a task has any of the following task statuses, then the task is not an open task which means the OPEN_FLAG is set to N:

- Cancelled (CANCELLED_FLAG is checked)
- Rejected (REJECTED_FLAG is checked)
- Closed (CLOSED_FLAG is checked)
- Completed (COMPLETED_FLAG is checked)

Otherwise, the value of the OPEN_FLAG is set to Y which means the task is an open task.

The following table depicts the denormalized value for the OPEN_FLAG in the task table JTF_TASK_B:

Denormalized Value for the Open Flag in the Task Table

Status	Denorm. Open Flag	Completed Flag	Cancelled Flag	Rejected Flag	Closed Flag
Accepted	Y	N	N	N	N
Approved	Y	N	N	N	N
Assigned	Y	N	N	N	N
Auto In Planning	Y	N	N	N	N

Status	Denorm. Open Flag	Completed Flag	Cancelled Flag	Rejected Flag	Closed Flag
Auto In Planning	Y	N	N	N	N
AutoReject	Y	N	N	N	N
Cancelled	N	N	Y	N	N
Close	N	Y	N	N	Y
Closed	N	N	N	N	Y
Completed	N	Y	N	N	N
Failed	Y	N	N	N	N
In Planning	Y	N	N	N	N
In Progress	Y	N	N	N	N
Interrupted	Y	N	N	N	N
Invited	Y	N	N	N	N
Not Started	Y	N	N	N	N
On hold	Y	N	N	N	N
Open	Y	N	N	N	N
Planned	Y	N	N	N	N
Rejected	N	N	N	Y	N
Unassigned	Y	N	N	N	N
Waiting for Approval	Y	N	N	N	N
Working	Y	N	N	N	N

Defining Task Priorities

In addition to seeded task priorities, the system administrator can define new task priorities in the Forms-based Task module. Task priorities are used to determine an importance rating for a task. Priorities define varying levels of urgency for tasks, such as low, high, and critical.

Please note that you can modify or delete priorities that you created, but not those that are seeded.

Use the task priority mapping functionality to map task priorities to a source object. This limits the visibility of task priorities shown in the task priority list of values for a mapped source object. After mapping priorities to a source, you will see only the mapped task priorities displayed in the list of values. All other unmapped priorities will not be in the list.

Steps:

1. As the CRM Administrator, navigate to **Task and Escalation Manager > Setup > Define Task Priority**.
2. Select **File > New** to enter a new task priority in the Task Priority window.
3. Enter a name in the Priority field.
4. Enter a numerical value in the Importance field.
5. Enter a brief description for the priority.
6. Enter the effective dates in the From and To fields.
The Effective To field is read-only for seeded priorities. This field is only active if you are creating or updating a non seeded task priority.
7. Save your task priority.

The new task priority appears in the Priority list of values LOV in the UI.

To map task priorities to a source:

1. In the Map Priority window, click **Map Priority** to open the Mapping Objects window.
2. Select the source object from the LOV, for example, appointment.
3. Select the task priority from the LOV, for example, critical.
4. Select the end date from the LOV.

5. Select the application from the LOV, for example, FND, Application Object Library.
6. The **Seeded** check box is not editable.
7. Click **Save**.

Restrictions

The Application field in the mapping window is used internally. It is not used for task priority mapping purposes. The Source Object field defines what task priorities appear in the Task Priority list of values.

Mapping Task References to a Source

The implementer can map reference types to a source object, such as Task Manager. This limits the selection in the Relate To or Reference Type list of values shown in the Task Manager.

Use the Mapping Objects window to map a reference type to a source object. This allows you to narrow down the Relate To or References drop-down list to objects that are actually relevant to a document's source object.

For example, you can map a sales lead to Task Manager. This limits the selection of list of values shown in the Relate To field in the Task Manager when you relate a task to a business object.

Please note that new task references for the Forms-based Task Manager can be created by logging in with the CRM Administrator responsibility and selecting Task and Escalation Manager > Setup > Define Reference Type. These new task references are visible from the LOV in the Type field of the References tab located in the Task Details window (Forms version).

Steps:

1. As the CRM Administrator, navigate to **CRM Administrator > Task and Escalation Manager > Setup > Task & Note References**.

Note: The Task and Note References window defines reference mapping for both the Task Manager and the Notes module.

2. In the Mapping Objects window, select your source object from the LOV, for example, Sales Opportunity.
3. Select the References you want to appear in the drop-down list from the LOV.
4. Select an end date from the LOV.

5. Select the application where you want to extract your additional data from and click **Save**.
6. Repeat these steps for every object that you want to appear in the References LOV for your source object.

Setting Profile Options

The implementer or system administrator must set necessary profile options used in Task Manager to set default values for task status, priority, types, as well as owner and assignee statuses. Other profile options determine the client time zone, unit of measure, and task security access.

The following table describes the profile options that common for Task Manager Forms, HTML, and OA.

Task Manager Profile Options

Name	Default Value	Level	Description	Outcome
Task Manager: Default Task Type	Meeting	Site	Use the Default Task Type profile option to set the default task type. Possible values include appointment and lead.	Set the value to the task type that you want to appear in the task type drop-down list when you are creating a task.
Task Manager: Default Task Status	Open	Site	Use the Default Task Status profile option to set the default task status. Possible values include open and completed.	Set the value to the task status that you want to appear in the task status drop-down list when you are creating a task.
Task Manager: Default Task Priority	Medium	Site	Use the Default Task Priority profile option to set the default task priority. Possible values include critical and medium.	Set the value to the task priority that you want to appear in the task priority drop-down list when you are creating a task.
Task Manager: Default Task Owner	No default value	Site	Use the Default Task Owner profile option to set the default task owner.	Set the value to the name of the default task owner.

Name	Default Value	Level	Description	Outcome
Task Manager: Owner Type for Task	No default value	Site	Use the Owner Type for Task profile option to set the default owner type. Possible values include employee resource and party.	Set the value to the owner type for the task.
Task Manager: Default Assignee Status	Accepted	Site	Use the Default Assignee Status profile option to set the default assignee status.	Set the value to the assignee status that you want to appear in the Assign To Status drop-down list when you are creating a task.
Task Manager: JTF Tasks Default Date Selected	Schedule d	Site	Use the JTF Tasks Default Date Selected profile option to set the default date selected. Possible values include Planned, Scheduled, or Actual.	Set the value to the default date that you want to default in the Create Task window.
Time Unit of Measure Class	Time	Site	<p>Use the Time Unit of Measure Class profile option to define the time unit of measure class in the inventory module.</p> <p>Depending on the time unit of measure class, you will see the list of UOM codes in the Tasks module.</p>	<p>Depending upon the value of this profile, the Time UOM codes are shown in the list of values. If the value of this profile changes, then there will be a discrepancy between the existing data and the new LOV shown for the new Time UOM class.</p> <p>Oracle strongly recommends the value of this profile should NOT be changed after the system is in production</p>

Name	Default Value	Level	Description	Outcome
Task Manager: Use the Indicator of Data Truncation	"..."	Site	<p>Use the Indicator of Data Truncation profile option to store a three-character code which is appended to the source object name of a Task when it has been truncated. The default value of this profile option is '...'. For example, if the source of a Task is a Party, the name may be too large to store in the source_object_name column. If the name: "This is a very long name to test the truncation indicator functionality" (71 chars) is passed to the Task API as the source object name, it is written to the Task record as: "This is a very long name to test the truncation indicator..." (60 chars). The default value of this profile option is '...'.</p>	Set the value that is appended to the source object name of a Task when it has been truncated.
Client Timezone	America/Los_Angeles	Site	<p>The Client Time zone profile option is used by Calendar to set the default time zone for the client in the Create Appointment window.</p>	<p>Set the value to the location where your appointments take place.</p> <p>Setting the time zone from the profile link in the Calendar UI is another way to set and update this profile value.</p>

Name	Default Value	Level	Description	Outcome
Task Manager: Send Notifications to Group or Team Members	No	Site	<p>The Task Manager: Send Notifications to Group and Team Members profile option provides the ability to notify either the Owner or the Assignee of a Group or Team resource, when a task is modified.</p> <p>This profile option is for workflow only.</p>	<p>If the value is set to No or Null, then notification is sent to group's or team's e-mail ID.</p> <p>If the profile option is set to Yes, then the system looks at any resources of type Group or Team and expand them to include any of their members whose resource type is RS_EMPLOYEE, RS_PARTY or PARTY_PERSON.</p> <p>When adding a resource to the notify list, the system checks to see if the resource is already on the list before adding it.</p>
Task Manager: Automatically Launch Workflow	No	Site	<p>The Task Manager: Automatically Launch Workflow profile option is used to determine whether to send the automatic notifications or not.</p>	<p>Set the value to No, for the task workflows not to be initiated by the API.</p> <p>If the value is set to Yes, then task workflows are initiated by the API. The default value is No.</p>
Task Manager: Abort Previous Task Workflow if it is still active	No	Site	<p>The Task Manager: Abort Previous Task Workflow if it is still active profile option is used to determine whether to abort the previous workflow processes before starting the next one.</p>	<p>If the value is set to No, then the previous Task Workflows that are still active are not aborted.</p> <p>If the value is set to Yes, then the previous Task Workflows that are still active are aborted.</p>

Name	Default Value	Level	Description	Outcome
Task Manager: Set Context Data Security	Full Access	Site	Use the Task Manager: Set Context Data Security profile option to set task data security for the context sensitive task instances.	If Full Access is selected, then all the tasks related to the context can be viewed, updated, and deleted. If Security Access is selected, then whether the task for that context can be updatable is based on the privileges granted to the user.

The following table describes the profile options that are specific to Task Manager.

Task Manager Optional Profile Options

Name	Default Value	Level	Description	Outcome
Task Manager: Task APIs to Determine if Security is Implemented	No default value	Site	The Task APIs to Determine if Security is Implemented profile option is reserved for future use.	The value of this profile option should always be set to No.
Task Manager: View All Task Privileges	Yes	Site	The View All Task Privileges profile option is reserved for future use.	Do not change the value of this profile option.
Task Manager: Delete Any Task Privileges	No	Site	The Delete Any Task Privileges profile option is reserved for future use.	Do not change the value of this profile option.

Name	Default Value	Level	Description	Outcome
Task Manager: Create Quick Task (HTML only)	No default value	Site	Use the Create Quick Task profile option to display the "Create Quick Task" button on the Tasks Summary window.	Set the value to Yes if you want the "Create Quick Task" button to appear in the Task Summary.
Task Manager: Default Task Summary Source or All (HTML Only)	Source	User	The profile option Task Manager: Default Task Summary Source or All (HTML Only) sets the view drop-down list value in the Task Summary context sensitive window. Possible values are Source and All.	Set the value to Source to have all tasks created with a particular source appear by default in the contextual window. Set the value to All to have all tasks created with a source as well as those which refer to that source appear by default in the context sensitive Task Summary.

Name	Default Value	Level	Description	Outcome
Task Manager: Mass Task Reassign Access (HTML Only)	No	Site	Use the Task Manager: Mass Task Reassign Access (HTML Only) profile option to display the Task Reassignment window.	If the profile option is set to Yes , the Task Reassignment window is accessible and the administrator is able to reassign tasks. If the value is set to No , then the Task Reassignment window is not accessible and a relevant message is shown.
JTF Sync: Category Value	Oracle Business	System	This profile option is used in the Palm and Outlook synchronization process. It is to set the default value for the category while trying to download business contacts to the offline device.	All business contacts downloaded to the offline device will be created with this category. If the category does not exist in the offline device, then it will be created upon synchronization.

Name	Default Value	Level	Description	Outcome
Task Manager: Copy Task Start Date to End Date	Yes	Site	This profile option is used to control the task start and end date for the Palm and Outlook synchronization.	If it is set to Yes, the task start date is defaulted from the system date and the task end date is defaulted to the task start date. For example, if it is set to Yes, then any changes the user made to the task start date while the user is in the task creation screen will automatically be populated to the task end date field.
Task Manager: Default Duration (HTML Only)	No Duration	Site	Use the Task Manager: Default Duration (HTML Only) profile to set the default value of the duration field.	If this profile is set, then the task end date can be automatically calculated based on start date and time plus the duration. This profile option overrides the profile "Task Manager: Copy Start Date to End Date" if both profiles are set.

Name	Default Value	Level	Description	Outcome
Task Manager: Restricted Task Update (Forms only)	Yes	Site	Use the Task Manager: Restricted Task Update profile option to allow task updates in the standalone Forms-based Tasks.	If it is set to the default value "Yes", then tasks created from other sources cannot be updated in the standalone Forms-based Tasks to avoid breaking product specific business rules enforced on the task. If it is set to "No", then users can update contextual tasks.

Running the Task Manager Concurrent Program

Task Manager uses one concurrent program, Rebuilding Intermedia Index for Task Names. This concurrent program rebuilds the intermedia index. In order for a user to see new and updated tasks and appointments when they use the quick find search, or have the ability to search on a task name, the system administrator must run this concurrent program periodically.

Subscribing to Task Business Events

Task Manager, leveraging the Oracle Workflow Business Event System, publishes business events such as creating, updating, or deleting a task or an assignment.

For example if the actual start date for a task assignment is updated for a service request, this action is published or "raised" as a business event. Oracle Field Service that subscribes to this business event using its workflows can capture the updated event.

Be aware that when an escalation or appointment is created, relevant escalation or appointment business events will be raised. See [Subscribing to Business Events, page 10-9](#) in [Escalation Manager](#) for escalation events and [Subscribing to Business Events for Appointments, page 19-4](#).

The Oracle Workflow Business Event System

The Oracle Workflow Business Event System is an application service that leverages the Oracle Advanced Queuing infrastructure to communicate business events between systems. The Business Event System consists of the Event Manager, which allows you to register subscriptions to significant events, and workflow process event activities, which allow you to model business events within workflow processes.

The Event Manager contains a registry of business events, systems, named communication agents within those systems, and subscriptions indicating that an event is significant to a particular system. Events can be raised locally or received from an external system or the local system through Oracle Advanced Queuing. When a local event occurs, the subscribing code is executed in the same transaction as the code that raised the event, unless the subscriptions are deferred.

See the *Oracle Workflow Developer's Guide* for detailed information about the Oracle Workflow business event system, and subscriptions.

Task Business Events

Task Manager publishes the following business events when a task or a task assignment is created, updated, or deleted from APIs, or application user interfaces (UIs) whether Forms, HTML, or Oracle Applications Framework based interfaces:

Task Business Events

Event Name	Description
oracle.apps.jtf.cac.task.createTask	Task is created.
oracle.apps.jtf.cac.task.updateTask	Task is updated.
oracle.apps.jtf.cac.task.deleteTask	Task is deleted.
oracle.apps.jtf.cac.task.createTaskAssignment	Task assignment is created.
oracle.apps.jtf.cac.task.updateTaskAssignment	Task assignment is updated.
oracle.apps.jtf.cac.task.deleteTaskAssignment	Task assignment is deleted.

The following terms are used in the Task Business Events table:

Event Name. Event name represents the name of a business event that is an occurrence in an application or program that might be significant to other objects in a system or to external agents. Event name must be unique and is case sensitive.

Subscribers must use Event Name for subscription purposes.

Display Name. Display name is the name appearing in the event list.

Description. Description is the descriptive information of a business event.

Additionally, for each task event, the owner name is Task Manager, the owner tag is JTF and the default status is Enabled.

How Event Key is Generated

When the actual start date for a task assignment is updated for a service request, the updated record is created in the table JTF_TASK_ASSIGNMENTS. The relevant subscription event that contains workflow related codes calls wrapper APIs that raise the Update Task Assignment event in the Oracle workflow Event Manager with the following information.

- **Event Name:** oracle.apps.jtf.cac.task.updateTaskAssignment
Each subscription will have event name and subscription ID passed with the function.
- **Event Key.** Event key is a string that uniquely identifies an instance of an event. Event key will be generated by the concatenation of the following:
 - EVENT_NAME
 - Value of the sequence
By default, Oracle Workflow uses the event key as the item key for the workflow process that is launched.

Task business events will be raised only when changes are made in certain task fields. For example, the Update Task event is raised if an update is made in task priority, instead of task description.

When a change results in an event raised, in order to pass the related task records and other information to event subscribers, Task Manager also publishes event attributes in the parameter list.

Event Publishing Rules and Event Attributes

Only the majority of the attributes are published in the parameter list. For the rest of the attributes changed during Update, TASK_AUDIT_ID enables the subscribers to obtain the value of remaining attributes from audit tables.

In addition, the following rules are used to publish event attributes:

- During Create process for event names "oracle.apps.jtf.cac.task.createTask" and "oracle.apps.jtf.cac.task.createTaskAssignment", the parameter is not set on the list if the null value is inserted into the column. Therefore, the API

WF_EVENT.GetValueForParameter returns a NULL value.

- During Update process for event names "oracle.apps.jtf.cac.task.updateTask" and "oracle.apps.jtf.cac.task.updateTaskAssignment", the parameter will not be set on the list if the value of the parameter is not changed. Therefore, the API WF_EVENT.GetValueForParameter returns a NULL value.

If the value of the parameter is changed, then the parameter name of the old value will be prefixed with "OLD_" +<Parameter Name>. The parameter name of the new value will be "NEW_" +<Parameter Name>.

- For oracle.apps.jtf.cac.task.updateTask: The parameters TASK_ID, TASK_AUDIT_ID, ENABLE_WORKFLOW and ABORT_WORKFLOW are always set in the list without any prefix. The parameters SOURCE_OBJECT_TYPE_CODE and SOURCE_OBJECT_ID are also always set in the list. But if either the value has been changed or old/new value is NULL, then 'OLD_' is prefixed for old value and 'NEW_' is prefixed for new one.
- For oracle.apps.jtf.cac.task.deleteTaskAssignment: The parameters ASK_ASSIGNMENT_ID, TASK_ID, ENABLE_WORKFLOW and ABORT_WORKFLOW are always set in the list without any prefix. RESOURCE_TYPE_CODE is always prefixed with 'OLD_' and 'NEW_' even if the value has not been changed. The parameters RESOURCE_ID, ASSIGNMENT_STATUS_ID, ACTUAL_START_DATE, ACTUAL_END_DATE, ASSIGNEE_ROLE, SHOW_ON_CALENDAR and CATEGORY_ID are also always set in the list. But if either the value has been changed or old/new value is NULL, then 'OLD_' is prefixed for old value and 'NEW_' is prefixed for new one.

Event Attributes for the Create, Update, and Delete Task Events

The following table depicts the published attributes for the create, update, and delete task events. "Yes" indicates that an attribute is published and "No" indicates that it is not.

Published Attributes for the Create, Update, and Delete Task Events

Parameter Name	Create Task	Update Task	Delete Task	Comments
TASK_ID	Yes	Yes	Yes	
SOURCE_OBJECT_TYPE_CODE	Yes	Yes	Yes	

Parameter Name	Create Task	Update Task	Delete Task	Comments
SOURCE_OBJECT_ID	Yes	Yes	Yes	
ENABLE_WORKFLOW	Yes	Yes	Yes	
ABORT_WORKFLOW	Yes	Yes	Yes	
DATE_SELECTED	No	No	No	
TEMPLATE_ID	No	No	No	The value of this field cannot be changed.
TEMPLATE_GROUP_ID	No	No	No	
RECURRANCE_RULE_ID	No	No	No	
TASK_AUDIT_ID	No	Yes	No	This value is put on the parameter list, so that the subscriber can find out the remaining fields which are not published from the audits table.
OBJECT_VERSION_NUMBER	No	No	No	This is the new object version of the task. For create, the object version number is always 1, hence it is not published on the parameter list.

Event Attributes for the Create, Update, and Delete Task Assignment Events

The following table depicts the published attributes for the create, update, and delete task assignment events. "Yes" indicates that an attribute is published and "No" indicates that it is not.

Published Attributes for Create, Update, and Delete Task Assignment Events

Parameter Name	Create Task Assignment	Update Task Assignment	Delete Task Assignment
TASK_ID	Yes	Yes	Yes
ENABLE_WORKFLOW	Yes	Yes	Yes
ABORT_WORKFLOW	Yes	Yes	Yes
TASK_ASSIGNMENT_ID	Yes	Yes	Yes
RESOURCE_TYPE_CODE	Yes	Yes	Yes
RESOURCE_ID	Yes	Yes	Yes
ASSIGNMENT_STATUS_ID	Yes	Yes	Yes
ACTUAL_START_DATE	Yes	Yes	No
ACTUAL_END_DATE	Yes	Yes	No
ASSIGNEE_ROLE	Yes	Yes	Yes
SHOW_ON_CALENDAR	Yes	Yes	No
CATEGORY_ID	Yes	Yes	No

Parameter Name	Create Task Assignment	Update Task Assignment	Delete Task Assignment
OBJECT_VERSION_ NUMBER	No	No	No

Event Use Examples

When users perform an action in Task Manager, it might trigger more than one business event depending on which task records are affected. In addition, each event can be raised many times before the action completes.

For example, when a task is deleted, at the same time the task assignment is also deleted as well. This action raises two task events, "oracle.apps.jtf.cac.task.deleteTask" and "oracle.apps.jtf.cac.task.deleteTaskAssignment". The delete task assignment event "oracle.apps.jtf.cac.task.deleteTaskAssignment" can be raised whenever each row in the assignment table is deleted.

The following table describes the events that are published for possible scenarios. Since subscriptions to task events must be asynchronous, the order of these events being published is not important.

Published Task Events Details for Possible Scenarios

Functional Scenario	Published Event Names	Number of Times the Event Is Published
Task is created.	oracle.apps.jtf.cac.task.createTask oracle.apps.jtf.cac.task.createTaskAssignment	Once Once
Owner is changed.	oracle.apps.jtf.cac.task.updateTask oracle.apps.jtf.cac.task.updateTaskAssignment	Once Once
Task is deleted	oracle.apps.jtf.cac.task.deleteTask oracle.apps.jtf.cac.task.deleteTaskAssignment	Once Once

Functional Scenario	Published Event Names	Number of Times the Event Is Published
	oracle.apps.jtf.cac.task.deleteT askAssignment	Once for each row in the assignment table
Assignment is updated.	oracle.apps.jtf.cac.task.update TaskAssignment	Once
Assignment is added.	oracle.apps.jtf.cac.task.createT askAssignment	Once
Assignment Status/Dates are changed.	oracle.apps.jtf.cac.task.update TaskAssignment	Once

Since the task owner change will raise two events, if the subscriber is interested in tracking the task owner, then the subscriber must subscribe to both the update task event and update task assignment event.

Event Subscription Guidelines

All event subscriptions must follow the guidelines mentioned in the workflow development standards. For example, any subscription cannot commit inside the rule function. This can cause unexpected behavior in the workflow or task APIs.

In addition, the following subscription guidelines are also used:

- Asynchronous Subscriptions

All subscriptions to the events should be asynchronous. The UIs call the APIs, which in turn publish events. Therefore, if the subscriptions are synchronous, the transaction time for the UI will increase.

- Returning with success or warning

The rule function of the subscriptions should return success or a warning. It should not return an error. Returning an error disrupts the processing of other subscriptions; therefore, an error should not be returned.

Subscription Workflow Events

Event subscribers can optionally disable subscription workflow events by using a profile option so that no workflow notifications will be sent when subscribed events are raised.

The following table describes the Subscription workflow events in Task Manager:

Subscription Workflow Events in Task Manager

Event Name	Display Name	Owner Name	Owner Tag
oracle.apps.jtf.cac.task.CreateTask	Send notification when task is created.	Task Manager	JTF
oracle.apps.jtf.cac.task.UpdateTask	Send notification when task is updated.	Task Manager	JTF
oracle.apps.jtf.cac.task.DeleteTask	Send notification when task is deleted.	Task Manager	JTF
oracle.apps.jtf.cac.task.CreateTaskAssignment	Send notification when task assignment is created.	Task Manager	JTF
oracle.apps.jtf.cac.task.UpdateTaskAssignment	Send notification when task assignment is updated.	Task Manager	JTF
oracle.apps.jtf.cac.task.DeleteTaskAssignment	Send notification when task assignment is deleted.	Task Manager	JTF

Disabling Subscription Workflow Events

Task event subscribers can optionally disable the subscription workflow events by changing the default value in the profile option "Task Manager: automatically launch workflow":

- YES (default value): This enables the workflow event so that workflow notifications will be sent when subscribed events are raised.
- NO: This disables the workflow event so that no workflow notifications will be sent when subscribed events are raised.

Customizing Task Security

With the continuous support of the existing task security rules used in HTML Tasks, all data access and updates in Tasks developed for Common Application Calendar are based on the concept of Application Object Library (AOL) data security including the security rules around updating contextual tasks using a profile option and allowing group managers to access their direct's tasks. This AOL security concept allows

implementors or system administrators to customize the security rules and then grant object level security to users with qualifying access privileges.

To provide product specific security rules for customizing the resource list of values security, Task Manager leverages the AOL data security based on Virtual Private Database (VPD) policy, a feature implemented in database to allow security dynamically created at runtime to all queries issued against a database table or view. This security model with VPD feature provides more flexibility in task security for resource assignments to allow any applications to set product specific security rules around the existing task security.

Note: This security model with VPD policy is only applied to the resource list of values security for assignees and is only implemented in the Forms-based and Oracle Applications Framework based Tasks. It is not used in HTML Tasks.

For example, only the resources that have privileges to access certain types of service request can be assigned to these types of service related tasks as assignees. Therefore, with this security model, Oracle Service Online can pass its own security functions to Tasks in Forms or in Oracle Applications Framework to allow qualified resources to be retrieved from the resource list of values when assigning them to a service request of certain types.

For detailed information about the security model with Virtual Private Database (VPD) feature, seeding strategy, and its impact on the Oracle Applications Framework based Tasks, see the following links in the Customizing Tasks Security chapter:

- Understanding AOL Data Security in HTML Tasks, page 8-2
- New Security Model for Tasks in Forms and Oracle Applications Framework for Resource Assignments, page 8-7
- Customizing the Resource List of Values Security Access in Oracle Applications Framework and Forms, page 8-19
 - Task Resource LOV Security Seeding Strategy, page 8-19
 - Impact on Existing HTML Tasks, page 8-21
 - Uptake Instructions, page 8-22
 - Uptake Considerations, page 8-24

Personalization Notes

The selection for the profile option Task Manager: JTF Tasks Default Date Selected should determine how you personalize the Task Summary table and the Task Details

Page. The choices are Planned, Scheduled, or Actual. Display the start and end dates for planned, scheduled, or actual (the same as the profile setting) and hide the others in the Task Summary table. The label for the start and end dates in the Task Details page should match the label used in the Task Summary table.

The contextual Task Summary region can only be implemented in the same application page once if the hidden columns CacSmrTaskOwner and CacSmrTaskOwnerTypeCode are turned on to be shown in Task Summary.

Setting Up Task Manager Additional Steps

This chapter covers the following topics:

- Mapping Task Assignee Types to a Source (OA Only)
- Defining Task Date Types (Forms Only)
- Registering Task Mass Reassignment Screen (HTML Only)

Mapping Task Assignee Types to a Source (OA Only)

Similar to the functionality of mapping task references to a source, implementors can use the Mapping Objects window to map both task assignee types and owner types to a source object for the Oracle Applications Framework based Task Manager.

In the Mapping Objects window, implementors or system administrators can select appropriate source objects from the list of values, and resource types used for both assignee and owner types from the "Used for Mapping Task owner" field. This limits the visibility of task assignee and owner types shown in the assignee and owner type list of values for a mapped source object. These resource types can be resources of any category including employee, group, team, party, partner, other, and to be hired.

After mapping task assignee and owner types to a source, end users will see only the mapped assignee and owner types displayed in the list of values. All other unmapped types will not be in the list. In addition, if none of the types is mapped to your source object, then end users will see all resource types from the owner and assignee list of values.

For example, if a task created for a service request can only be assigned to and owned by an individual resource or a resource group, then implementors should select a resource category of Group and Employee and map them to a source object, Service Request. Therefore, end users can select either Employee or Group from the drop-down list when assigning an owner or assignee to a task created for a service request.

To limit the functionality, implementors can put an end date to terminate the mapping or can select Applications to restrict the mapping usage to certain applications.

Be aware that implementors can also use the Mapping Objects window to Map Task and Notes Reference to a Source. When mapping assignee types to a source in the Mapping Objects window, Task Assignee is automatically displayed in the Map field located on the top of the window while References is displayed if it is for mapping references to a source.

Perform the following steps in Forms to define the mapping objects.

Steps:

1. As the CRM Administrator, navigate to **Task and Escalation Manager > Setup > Map Task Assignees to Source**
2. In the Mapping Objects window, you can see the Resource Type populated in the Map field.
3. Select your source object from the LOV, for example, Sales Opportunity.
4. Select appropriate owner types in the Resource Type field that you want to appear in the drop-down list from the LOV. These selected owner types will also be used for assignee types.
5. Select an end date from the LOV.
6. Select the application where you want to extract your additional data from.
7. Save your information by clicking **Save**.
8. Repeat these steps for every object that you want to appear in the LOV for your source object.

Defining Task Date Types (Forms Only)

In addition to the seeded date types (planned dates, scheduled dates and actual dates), you can use task date types to define other dates to track task progress, such as milestone and follow up dates. This functionality is used in the Forms-based Tasks only. The date types appear in the LOV on the Dates tab in the Task Details window in Tasks Forms.

You can limit the selection of the LOV shown in the Date Type field by mapping them to a source. For example, you can set the selection of date types from the LOV for a service request (source object) to be only Due Date and Follow Up Date.

Steps:

1. As the CRM Administrator, navigate to **Task and Escalation Manager > Setup > Define Task Date Types**.

2. In the Task Date Types window, enter the task date type.
3. Enter a description for the task date type.
4. Enter a numeric value for the Sequence.
5. Define the Application field as the application that is seeding the data, for example, FND (Application Object Library). This field is not relevant to external customers.
6. If you want to limit the selection of the LOV shown in the Date Type field by mapping the task date types to a source, then perform the following steps:
 1. In the Task Date Types window, click **Map Date Types** to open the Mapping Objects window.
 2. Select the source object from the list of values (LOV).
 3. Select the task date type from the LOV.
 4. Optionally, set the end date for the task date type.
 5. Define the application field as the application that is seeding the data, for example, FND (Application Object Library). This field is not relevant to external customers.

The **Seeded** check box is not editable.

6. Click **Save**.

Registering Task Mass Reassignment Screen (HTML Only)

The Task Mass Reassignment window used to mass reassign tasks to different resources is Declarative Page Flows (DPF)-enabled. It can link several pages together to represent a business flow. The Task Mass Reassignment window needs to be registered in business flows.

For how to register the screen in business flows, see *Oracle Applications CRMSystem Administrator's Guide*.

Working with Task Templates (Forms Only)

This chapter covers the following topics:

- Designing Task Templates
- How to Create Task Template Groups
- Defining Template Details

Designing Task Templates

A task template is a skeleton task and a task template group is a grouping of various task templates. Creating a template eliminates the user's interaction with the specific properties of a task which simplifies the task creation process.

For example, a service department is constantly requested to have computer problems fixed. John Smith, a service director, requests the creation of a task template group called PC Repair that is specifically used for a service request. This template group consists of a set of required tasks, including customer appointment, computer repair, and progress update. These tasks are defined in a template format with task type, priority, and status information specified.

How to Create Task Template Groups

The implementers or system administrators can define task template groups only in the Forms-based Task Manager.

Use the following regions in the Setup Task Template Groups window to enter task template group information:

- **Template Group region.** Enter task template group name, description, effective date, document type, start and end dates, and descriptive flexfields. Task Manager uses document type to specify the purpose of a template group. For example, if a template group is created for service request related documents, then Service Request is the document type.

Enter descriptive flexfields in the Task template groups additional information window if you have predefined additional information specifically for your template group. If the Start and End Dates are left blank, the template will be effective forever.

- **Related Task Templates region.** Enter information for each task within this template group including each task name, task type, task status, task priority, description, and descriptive flexfield information specifically for each task template. For example, you can enter the three required tasks, such as customer appointment, computer repair, and progress update, for the PC Repair template group.

The descriptive flexfield information in the Task Templates Additional Information window is located at the end of the horizontal scroll bar. This flexfield is used specifically for each task template; therefore, its values can be passed to the tasks that are created based on the task template.

Optionally, you can enter just one task in this region if you want to create a single task template, instead of multiple tasks in a task template group.

Enter task duration, planned effort, and task flags information for each task you entered in the Related Task Template region. Task Manager uses the following task flags to specify additional task information:

- The Publishable flag indicates that the task is publishable over the web.
- The Billable flag signifies a task as a service that requires billing.

For example, you can enter about five hours work for task duration and effort, as well as select the Billable task flag for the Computer Repair task, as this task requires a service charge to a customer.
- The Holiday flag will be used in a future release.
- The Multibook flag indicates whether the task can book resources that are already assigned to other tasks.
- The Milestone flag indicates that the task is a milestone.
- The Restrict Close flag indicates whether it is necessary to close the task in order for the source object to be closed. For example, if this task references a service request, the task must be closed to close the service request.
- Confirmation Required defaults to No to mean that a confirmation is not required. Select Confirmation Required to require confirmation by the customer before task can be carried out (such as a customer visit).

After saving this template group, the Number field for each task you defined in the Related Task Templates region populates automatically.

In addition, you can define additional assignee resource types and unit information,

dependencies and the offset information among task templates, and task recurrence information for a task template. See [Defining Template Details, page 7-3](#).

Once a template or template group is created, users are able to create multiple tasks simultaneously based on the selected template or template group.

Note: The Private task flag in the Forms-based version of Task Manager is not supported. HTML Task Manager does support both Private and Public tasks.

Defining Template Details

Additionally, you can define assignee resource types and unit information, dependencies, and task recurrences by clicking the appropriate buttons to bring up the following tabs shown in the Task Details window:

- Resources: Enter assignee resource type, such as employee resource, and required unit information for each task you specified in the Related Task Templates region.
- Dependencies: Enter task dependency information if necessary.

Use this tab to set the order among task templates and to separate the sequence between task templates using time-sensitive restrictions. Use the Offset field to enter a numeric value plus an appropriate unit of measure, such as one hour or 30 minutes, to separate the initial task template from a subsequent task template. For example, you can have "one day" (offset) time frame between the first template, customer appointment, and the next template, computer repair. This allows a service agent to have one-day preparation after the appointment and before the computer repair.

- Recurrences: Enter task recurrence information for tasks you want to repeat on a regular basis.

Perform the following steps to define task template details.

Prerequisites

A task template must be created and saved.

Steps:

1. Navigate to **Task and Escalation Manager > Task > Task Templates**.
2. In the Task Template Details window, with your template information defined, click **Resources**.

The Task Template Details window opens.

3. Select a resource type from the list of values (LOV).
4. Enter the number of resources needed in the Required Units field.

Selecting the Enabled Flag activates the resource type for the corresponding task template.

5. You can set a dependency type for the template. The default is Finish to Start. There are four dependency types:
 - **Finish to Start:** The successor task cannot start until the predecessor task finishes.
 - **Start to Finish:** The successor task cannot finish until the predecessor task starts.
 - **Start to Start:** The successor task cannot start until the predecessor task starts.
 - **Finish to Finish:** The successor task cannot finish until the predecessor task finishes.
6. In the Recurrence tab, select how you want the task to repeat, daily, weekly, monthly, or yearly, and provide information in the corresponding required fields.
7. Click **OK** to save your information.

Customizing Tasks Security

This chapter covers the following topics:

- Task Security Overview
- How Does the AOL Security Model Work?
- Security Model for Tasks in Forms and Oracle Applications Framework for Resource Assignments
- Business Process Change to Support VPD Security Model
- Customizing Tasks Data Security
- Setting the Security Profile Option
- Customizing the List of Values Security Access
- Customizing the List of Values Security for HTML Tasks
- Defining Object Instance Sets
- Disabling Existing Grants
- Adding New Grants
- Customizing the Resource List of Values Security for Tasks in Oracle Applications Framework and Forms
- Granting Manager-Directs Security Access
- Customizing Manager-Directs Security Access
- Defining Resource Group Hierarchy
- Granting Security Access to Relevant Resources

Task Security Overview

To continuously support the existing Application Object Library (AOL) task security rules used in HTML Task Manager, and to extend the task data security offerings specifically for task related resource assignments to the Forms-based Tasks and to the

Oracle Application Self-Service Framework based Tasks, Task Manager leverages the AOL data security based on Virtual Private Database (VPD) policy. This VPD policy is a feature implemented in database to allow security dynamically created at runtime to all queries issued against a database table or view. This security model with VPD feature provides more flexibility in task security for resource assignments by allowing any applications to set product specific security rules around the existing task security.

For example, only the resources that have privileges to access certain types of service request can be assigned to these types of service related tasks as assignees. Therefore, Oracle Service Online can pass its own security functions to Tasks in Forms or in Oracle Applications Framework to allow qualified resources to be retrieved from the resource list of values when assigning them to a service request of certain types.

Be aware that this security model with VPD feature only applies to task security for resource assignments in the Forms-based and Oracle Applications Framework based Task Manager. It is not implemented in task security rules currently used in HTML Tasks, such as customizing contextual task rules using a profile option, building security around the resource list of values, and allowing group managers to access their direct's tasks.

To better understand the Task security rules used in all formats of Task Manager including AOL security model in HTML Tasks, and new security model with VPD feature for Tasks in Forms and Oracle Applications Framework specifically for resource assignments, the following topics are introduced in this section:

- Understanding AOL data security in HTML Tasks, page 8-2
- New Security Model with VPD for Tasks in Forms and Oracle Applications Framework, page 8-7

Understanding AOL Data Security in HTML Tasks

Before implementing AOL data security model, Task Manager can implicitly grant users with the following task security access:

- For the standalone tasks:
 - The owner or assignee of a task has full access to the task.
 - If a group or team is the owner or the assignee of the task, then all the group or team members have full access to that task.

Two security access privileges are used in Tasks:

- Read Only Access: Resources can only view tasks.
- Full Access: Resources can view, update, and delete tasks.

In addition, a resource can explicitly grant another resource full access or read only access to his or her tasks except the private tasks. This can be done through

the calendar grant functionality.

- For the context sensitive tasks, Task Manager allows any users who can access the business object to have full access to all contextual tasks related to the object.

By leveraging AOL data security model, HTML Task Manager not only can continue supporting the task security rules granted implicitly or explicitly, but also can provide a flexible mechanism for task security access. This security model provides the ability to restrict data access to appropriate users through a specific authorization process.

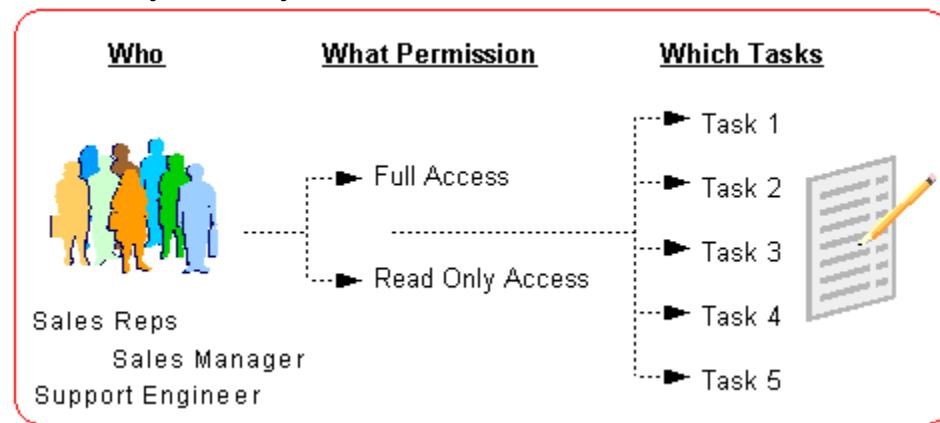
For example, if a company only wants certain tasks to be viewed or updated by a particular user or user groups, then, with the AOL security model, this can be achieved by granting a security access privilege (full access or read only) to the particular user or user groups to access specific tasks.

In other words, the task security authorization process can be considered as an analysis around

- *"Who (users or user groups) has what permission (full or read only access) to access which tasks (specific tasks)"*

The following figure illustrates the high level picture of the task security rule analysis.

Task Security Rule Analysis



For example, appropriate users who can be either sales representatives, sales managers, or support managers are granted with full access or read only access permission to access certain tasks, such as from Task1 to Task5.

HTML Tasks Data Security Allows Further Customization

In order to authorize specific tasks access for particular users or user groups, the task security model in HTML Tasks leveraging the concept of AOL data security can further allow users to customize task data for security authorizations. This includes customizing contextual task rules by using a profile option, building security around the resource list of values, and allowing group managers to access their direct's tasks for

HTML Tasks.

The Data Security is used to model and enforce security authorizations for access and modification of specific data records. In other words, data security is the finest security level that allows users to customize records in the data level.

To be able to customize task security in the data level, AOL data security model uses the concepts of object, object instance, and object instance sets to represent task features and possible modification, the concepts of privileges and roles to translate data access permissions, and the concepts of grants or global grants to represent the authorization process.

Take one of the existing task rules, for example, to further explain the AOL data concepts used for task rule customization:

- The owner or assignee of a task has full access to the task.

In the AOL data security framework, the owner or assignee can be translated as a user or user group. Full access is an access privilege that a user can act upon or perform on a task. As to "the task", Task Manager uses the concepts of objects, object instances, and object instance sets to explain the features of a task. For example, a task is considered as an object, task with number 1234 can be considered as an object instance. A grouping of multiple object instances is an object instance set. Therefore, tasks with number starting at 1000 to 1999 can be an object instance set.

With this security model, the HTML Tasks module enable users to define and further customize the security rules for various business needs.

For detailed information on AOL data security framework, refer to the Oracle Application Object Library Security chapter in the *Oracle Applications System Administrator's Guide - Security*.

HTML Task Manager uses the following concepts, based on AOL data security model, to provide the flexibility to cover a wide range of data security scenarios:

- Users (User Groups)
- Objects

For example, a task is considered as an object.

- Object Instances

If Tasks is considered as an object, then Task with number 1234 is an object instance.

- Object Instance Sets

An object instance set can be expressed in the following predicate for all tasks with a number smaller than 5. To avoid processing issues, all the columns used in the predicate should be prefixed with &TABLE_ALIAS in the object instance set definition. Then, this predicate can be added to the where clause.

```

SELECT *
FROM jtf_tasks_b
WHERE Owner_id = FND_GLOBAL.USER_ID
AND &TABLE_ALIAS.task_id < 5

```

Note: Referencing PARAMETERx values from the grants can also parameterize the predicate.

- Privileges (Functions)

There are two seeded security privileges currently used in the Task Manager:

- JTF_TASK_READ_ONLY (view only)
- JTF_TASK_FULL_ACCESS (update and delete)

Since these privileges are registered in the FND_FORM_FUNCTIONS and FND_FORM_FUNCTIONS_TL tables and they are referenced in the actual code so that they cannot be changed or extended.

In addition, privileges (functions) can be grouped into roles (menus) to reduce the granting overhead.

- Roles (Menus)

Currently, there are two roles registered in the FND_MENUS and FND_MENUS_TL tables specifically for task security:

- JTF_TASK_READ_ONLY: This role contains one privilege, JTF_TASK_READ_ONLY.
- JTF_TASK_FULL_ACCESS: This role contains two privileges, JTF_TASK_READ_ONLY and JTF_TASK_FULL_ACCESS.

The role privileges can be registered in the FND_MENU_ENTRIES and FND_MENU_ENTRIES_TL tables.

Note: Roles are user definable, the seeded roles only exist to ensure backward compatibility.

- Grants (Authorizations)

A grant consists of the following three components:

- Object: Any object instance or object instance set, for instance, all non-private tasks (object: JTF_TASKS and object instance set: JTF_TASK_RESOURCE_TASKS)
- Grantee: Any user or user group, for instance, "JDOE" for John Doe

- Role (Menu): Any role, for instance, "JTF_TASK_FULL_ACCESS"

This grants the user, John Doe, the privilege to have full access to all non-private tasks.

In addition, all grants should be registered in table FND_GRANTS.

Calendar Grants

Task Manager still supports the calendar grant functionality, which means that when a user gives calendar access to another user, the access for tasks is also given. Since Task Manager uptakes AOL data security model, task security can be further customized. Granting calendar access to another user will still result in granting task access to the user. However, the access to the tasks can be restricted by additional data security implemented for tasks.

- Global Grants

To reduce the administration of grants, authorizations can be granted globally to the following:

- The "Global" user or user group
- The "Global" object instance

For example, any user will have full access to tasks where she or he is the owner or assignee. The seeded global grant uses the following values and customer cannot revoke this grant:

```
FND_GRANTS
GRANTEE_TYPE = "GLOBAL"
GRANTEE_KEY = "GLOBAL"
MENU_NAME = "JTF_TASK_FULL_ACCESS"
OBJECT_NAME = "JTF_TASKS"
INSTANCE_TYPE = "SET"
INSTANCE_SET_NAME = "JTF_TASK_USER_TASKS"
```

Another global grant example can be that any user can see any resource team:

```
FND_GRANTS
GRANTEE_TYPE = "GLOBAL"
GRANTEE_KEY = "GLOBAL"
MENU_NAME = "JTF_TASK_RESOURCE_ACCESS"
OBJECT_NAME = "JTF_RS_TEAMS"
INSTANCE_TYPE = "GLOBAL"
```

How Does the AOL Security Model Work?

With the leverage of AOL data security model, Task Manager adds the following two security functions to the security model:

- **Predicate:** Adding a security predicate, the "where" clause, to an application query limits the task instance access for users. The predicate can be considered as the

add-on new security rule to Tasks. To avoid processing issues, all the columns used in the predicate should be prefixed with &TABLE_ALIAS in the object instance set definition. As a result, a user will be only able to see certain task instances (such as all tasks with task id less than 5) that she or he has any kind of privileges.

For example, add a predicate (where clause) to an existing query:

```
SELECT *
FROM jtf_tasks_b
WHERE Owner_id = FND_GLOBAL.USER_ID
AND &TABLE_ALIAS.task_id < 5
```

Note: In the new security model, a user can have access to an object instance in many ways, such as access to an instance may be granted to the user, to the user's group(s) or to all users. Consequently the predicate might return duplicate instances

- **Check Function:** This allows the system to check whether or not a particular user has an appropriate access privileges (full or read only access) on a specific task instance.

With the two new functions added to Tasks, appropriate task instances are presented in the following logic:

For example, for the standalone task screens:

1. Add predicate to the main query.
2. Check full access privilege for retrieved task instances.
3. Display task instance(s) as updatable or read-only.
4. Check corresponding privilege before accessing the detail page.

Security Model for Tasks in Forms and Oracle Applications Framework for Resource Assignments

To support existing task AOL data security around the assignment of resources for Tasks in Forms and Oracle Applications Framework, Task Manager enhances the existing AOL security model by implementing Virtual Private Database (VPD) policy which allows various applications to set product specific security rules on top of the task rules for the resource list of values security access to meet their business needs.

See the *Oracle Database Security Guide* for information about Virtual Private Database.

Note: The resource list of values security access discussed here is restricted to the assignee list of values with resource types of employee,

group, and team only.

Business Reason

For example, a service agent in Oracle Service Online needs to assign a service related task with request type of network service only to the service representatives who can handle the network issues. These limited resources can only access certain types of request based on security access privileges. With this enhanced security model, Service Online can pass its own security functions to Tasks in Forms or in Oracle Applications Framework to allow qualified resources to be retrieved from the resource (assignee) list of values when assigning them to a service related task of certain types.

Based on the concept of VPD policy, Task Manager develops a java interface for Tasks in Oracle Applications Framework and parameters for Tasks in Forms to allow integrated applications to pass their product specific security context such as security related attribute sets or value pairs, privilege (view or synonym) names, or implementation classes to the existing Tasks rules based on AOL security model.

To react to the parameters passed by product specific security context, Task Manager needs to perform the following tasks to support the product specific resource list of values security:

- For Tasks in Oracle Applications Framework
First translate the class name into a class object, then instantiate the class using **TaskAssigneeSecurity** interface, and then use the object methods to set the context and get function name to build an LOV query before executing the query.
- For Tasks in Forms
Translate the privilege name (view or synonym) if it is not null to the LOV query. Otherwise, the JTF Objects metadata will be used.

Business Process Change to Support VPD Security Model

As a result, Task Manager changes the process flow of accessing resources of different categories through the LOV queries as follows:

Process Change From the Process used in HTML Tasks

1. Select the object type, such as Employee (RS_EMPLOYEE) for assignee or owner type
2. Find related JTF Object
3. Create query from metadata
4. Find related FND Object if any

5. Generate a predicate for the FND Object and Task's standard privilege (data security function)
6. Add predicate to the query
7. Execute the query

Process Change To the New Model with VPD Policy for the Oracle Applications Framework and the Forms based Tasks

There are two ways to retrieve resources from the list of values:

- Standard Resource Security in HTML Tasks, Forms, and Oracle Applications Framework based Tasks

This is the usual business flow of selecting a resource.

1. Select a resource object type or category, such as RS_EMPLOYEE
2. Create a query by using the appropriate security view
3. Execute the query (database kernel runs policy function) for Tasks in Forms and in Oracle Applications Framework

For HTML Tasks, first get the predicate, add the predicate to a query, and then execute the query.

- Non-Standard (Product Specific) Resource Security in Task Forms and the Oracle Applications Framework based Tasks

Compared to the standard resource security, this method requires one additional step to support product specific resource security by using parameters to carry the privilege name for Tasks in Forms or class name for Tasks in Oracle Applications Framework. If the name is passed, Tasks will use it instead of default resource privilege(s). The process of selecting a task resource is as follows:

1. Select a resource object type or category, such as RS_EMPLOYEE
2. If a privilege (view/synonym) or class name has been passed:
 - Set provided view/synonym to the query for Tasks in Forms
 - Instantiate the class and use the object methods to set the context and get function name for Tasks in Oracle Applications Framework
3. Create a query by using the appropriate security view
4. Execute the query (database kernel runs policy function)

Note: The VPD security model currently is only implemented in the resource list of values security access for Tasks in Forms and Oracle Applications Framework, and it is not available in HTML Tasks. See Customizing the Resource List of Values Security for Tasks in Oracle Applications Framework and Forms, page 8-19 for more details.

Customizing Tasks Data Security

Based on the task security model, Task Manager allows task security rules to be further customized in the following ways:

- Set the security profile option for the context sensitive tasks, page 8-10
- Customize list of values (LOV) security, page 8-11
- Grant manager-directs security access, page 8-25

Note: Be aware that the only security rule currently used in the Forms-based Tasks is the resource list of values security. Security rules for contextual tasks and manager-directs security are applied to both HTML Tasks and the Oracle Applications Framework based Tasks.

Setting the Security Profile Option

HTML Tasks and Tasks in Oracle Applications Framework use the *Task Manager: Set Context Data Security* profile option to control task data security for the context sensitive task instances, such as tasks attached to an opportunity or a lead. By using the profile option, you can choose to turn the task security function on or off based on the following profile values:

- If **Full Access** is selected (default value), then all the tasks related to the context can be viewed, updated, and deleted.

This value turns the security OFF so as to support existing task security, which allows any users with access to related object instance to update (full access) any task instance for that object.

- If **Security Access** is selected, then whether the task for that context can be updated is based on the privileges granted to the user.

This value turns the security ON for all task instances within context and only allows tasks to be accessible to the user with appropriate privileges.

Task Security Access Example

Three tasks (T1, T2, and T3) are created for an opportunity. User 1 is the owner of the task T1 and T2. Task T2 is also assigned to User 2. User 2 owns the Task T3.

Task Data Security Condition:

- Grant read only access on task T3 (task id = 120087) to User 1.

```
FND_GRANTS
GRANTEE_TYPE = "USER"
GRANTEE_KEY= "USER1"
MENU_NAME = "JTF_TASK_READ_ONLY"
OBJECT_NAME = "JTF_TASKS"
INSTANCE_TYPE = "INSTANCE"
INSTANCE_PK1_VALUE = "120087"
```

If Security Access is selected which turns the security function on, then the access privileges are changed to:

- User 1 can have full access to task T1 and T2, but has read only access to T3.
- User 2 can have full access to task T2 and T3.

In the past, all users who have access to a business object can have full access to all contextual tasks attached to that object. Therefore, both User 1 and User 2 can have full access to all three tasks attached to that opportunity.

If Full Access is selected which turns the security function off, then the task access privileges for User 1 and User 2 are changed to:

- Both User 1 and User 2 can have full access to Task T1, T2, and T3.

This is because if both users can access the opportunity business object, then they should all be able to access all contextual tasks for that object.

Since the profile option controls the security access for contextual tasks, before displaying the task detail page, Task Manager will:

- Check the profile value first to determine whether to display task instance(s) as updatable or read-only; then
- Check corresponding privilege to determine whether the logged-in user has any particular privilege on the particular task instance before the user can access any task detail page.

Customizing the List of Values Security Access

In addition to restricting task data access using the profile option for HTML Tasks and Oracle Applications Framework based Tasks, Task Manager also allows you to build security around the resource list of values (LOV) by using the concepts of the AOL data security for HTML Tasks, and using the VPD security model for Tasks in Forms and Oracle Applications Framework.

To further describe the resource LOV security rule for Tasks in different formats, see the following topics:

- Customizing the List of Values Security for HTML Tasks, page 8-12
- Customizing the List of Values Security for Tasks in Oracle Applications Framework and Forms, page 8-19

Customizing the List of Values Security for HTML Tasks

Based on the existing AOL data security model, HTML Task Manager allows you to customize security for the resource list of values by using the concepts of object instances or object instance sets.

Note: The resource list of values can be resources of any category (employee, party, partner, supplier contact, group, team, other, and to be hired).

Note: In addition, resource LOV security functionality is based on resources. Therefore, it applies to owner, assignee, and reference (relate to) if it is defined based on resources. It does not apply to any customer/contact LOV (such as organization, person, or relationships) and reference other than resources (such as customer/contact and lead.)

Business Reason

For example, a sales manager is responsible for a special deal that only involves limited resources. To make sure that relevant tasks created for that deal are only restricted to certain people, the system administrator can create a specific set of resources and then grant them to the sales manager. Thus, the manager will only see those resources shown in the resource (owner or assignee) list of values when creating a task.

For the similar reason, another set of resources can be granted to sales representatives. As a result, the sales representatives will not be able to see the resources granted to the sales manager, and the manager will not see the resources granted to the representatives.

Before introducing necessary steps to customize resource LOV, it is important to understand JTF object changes and other seeding strategy made in Task Manager to support the LOV security.

JTF Object

In order to support the LOV data security, Task Manager modifies the JTF object metadata form by adding two extra columns grouped in the Data Security Setup region of the LOV and Data Security tab. This establishes the link between JTF_OBJECTS for

existing LOV and FND_OBJECTS for all task data security objects.

Because in Tasks, on one hand, all LOVs are rendered using the common LOV Renderer. The LOV Renderer uses JTF_OBJECTS as metadata repository providing input to all needed data when generating the LOV in a query. This query may be defined at design time or generated dynamically from JTF_OBJECTS. The LOVs addressed here are all generated dynamically.

On the other hand, all data security objects are newly defined in the FND_OBJECTS.

In order to build connection between these two so that the existing LOV could have an extra security build on top of it, Task Manager uses the Data Security Setup region in the JTF object metadata form to establish the link.

To access the security set up region, log on with the CRM Administrator responsibility, select the Task and Escalation Manager > Setup > Objects Meta-data.

There are two new fields in the LOV and Data Security tab:

- **Object Name:** It is the object name for a corresponding JTF_OBJECTS code and serves as the foreign key to FND_OBJECTS. This field is not required and can be empty (null).
- **Predicate Alias:** It adds security information to application query. It should only be used to avoid ambiguity when LOV query contains more than one table joined by data object primary key(s) values. For example, if two tables ("jtf_tasks_b" and "jtf_tasks_tl") are used, then it must be entered with either "jtf_tasks_b" or "jtf_tasks_tl". Otherwise Oracle DBMS will report ambiguous task_id reference at the run time.

If this field is entered and the object name is not null, the value will be passed to an internal API to add security to a generated query for the LOV. However, if the object name is empty, then security predicate will not be added to the generated query.

Other Seeding Strategy

In addition to the JTF object change, HTML Task Manager also makes the following changes in order to support the LOV security:

Creating Privilege (Function) and Role (Menu)

JTF_TASK_RESOURCE_ACCESS privilege (registered in the FND_FORM_FUNCTIONS table)

JTF_TASK_RESOURCE_ACCESS role (registered in the FND_MENUS table) or JTF_TASK_RESOURCE_ACCESS role (registered in the FND_MENU_ENTRIES table)

Note: This security role (menu) JTF_TASK_RESOURCE_ACCESS is replaced by CAC_TASK_RESOURCE_ACCESS for the resource list of

values security access used for Tasks in Forms and Oracle Applications Framework.

Registering LOV Object Data

Task resource LOV security references the following business objects seeded into JTF Objects:

Seeded Object Data

JTF Object Code	FND Object Name
RS_EMPLOYEE	JTF_RS_RESOURCE_EXTNS
RS_GROUP	JTF_RS_GROUPS
RS_TEAM	JTF_RS_TEAMS
RS_INDIVIDUAL	JTF_RS_RESOURCE_EXTNS
RS_OTHER	JTF_RS_RESOURCE_EXTNS
RS_PARTNER	JTF_RS_RESOURCE_EXTNS
RS_PARTY	JTF_RS_RESOURCE_EXTNS
RS_SUPPLIER_CONTACT	JTF_RS_RESOURCE_EXTNS
RS_TBH	JTF_RS_RESOURCE_EXTNS

Creating Global Grants

In order to provide backward compatibility, the following global grants are shipped:

- Any user can see any resource:

```
FND_GRANTS
GRANTEE_TYPE = "GLOBAL"
GRANTEE_KEY= "GLOBAL"
MENU_NAME = "JTF_TASK_RESOURCE_ACCESS"
OBJECT_NAME = "JTF_RS_RESOURCE_EXTNS"
INSTANCE_TYPE = "GLOBAL"
```

- Any user can see any resource group:

```

FND_GRANTS
GRANTEE_TYPE = "GLOBAL"
GRANTEE_KEY= "GLOBAL"
MENU_NAME = "JTF_TASK_RESOURCE_ACCESS"
OBJECT_NAME = "JTF_RS_GROUPS"
INSTANCE_TYPE = "GLOBAL"

```

- Any user can see any resource team:

```

FND_GRANTS
GRANTEE_TYPE = "GLOBAL"
GRANTEE_KEY= "GLOBAL"
MENU_NAME = "JTF_TASK_RESOURCE_ACCESS"
OBJECT_NAME = "JTF_RS_TEAMS"
INSTANCE_TYPE = "GLOBAL"

```

If a system administrator decides to set the LOV security, then she or he should first disable corresponding global grant for the LOV data object by setting an end date to the specific global grant.

Customizing Resource LOV

The resource LOV can be further customized if necessary before it is granted to resources or resource groups.

The system administrator can grant an individual resource, all resources, or a specific set of resources to another resource, group of resources, or all resources.

- Grant An Individual Resource

For example, in the lowest security level and the most gradual one, a system administrator can grant a single employee resource (resource number 1234) access to the following grantee(s):

- A user "John Doe"
- All members of a resource group (group number 9876)
- All users
- Grant All Resources

As opposite to the previous one, in the most global security level, the administrator may grant all resources (global access) to another resource, all members of a resource group, or all users.

- Grant A Specific Set of Resources

When there is a need to grant a specific set of resources to a user, all members of a resource group, or all users, the administrator can customize the resource LOV by using object instance sets.

Perform the following procedures:

1. Defining Object Instance Sets, page 8-16
2. Disabling Existing Grants, page 8-17
3. Adding New Grants, page 8-18

Defining Object Instance Sets

For example, a company wants to grant access of a specific set of resource to a user, all members of a resource group, or all users.

This specific set of resources can be created by first registering a new parameterized object instance set using the following data:

```

FND_OBJECT_INSTANCE_SETS
INSTANCE_SET_NAME = "X_JTF_RS_GROUP_MEMBERS"
DISPLAY_NAME = "Members of Resource Group"
DESCRIPTION = "Members of Resource Group"
OBJECT_NAME = "JTF_RS_RESOURCE_EXTNS"
PREDICATE =
"&TABLE_ALIAS.resource_id IN (SELECT resource_id FROM
jtf_rs_group_members WHERE TO_CHAR(group_id) = &GRANT_ALIAS.PARAMETER1)"

```

- Please note that &TABLE_ALIAS is added as column alias in order to avoid problems with conflicting column names during runtime execution.

Note: Any new instance set must be designed very carefully. It must be error free and should perform well. Because any error introduced by the new set(s) can cause data corruption or erroneous behavior in Task Manager.

Use the following steps to define object instance sets.

Responsibility: FND Security Administration (Self Service Application)

Tips: First locate the object that you want a new instance set created for, then enter necessary information for the set.

Prerequisites

- An object must be in place.

Steps:

1. Navigate to Objects.
2. Enter necessary search information in the Find Objects window to locate the JTF_TASKS object. Search results should be listed after executing the search.

3. Click the object name hyperlink for which you want the new instance set to be created from the search result to open the Find Object Instance Set window.
4. Existing instance sets for the selected object are also listed here. Click **Create New Instance**.
5. Enter instance set detail information including instance set name, display name, description and predicate.
6. Save your work.

Restrictions

Once the instance set is registered, it can be granted to another resource, group of resources, or all resources. The system administrator needs to set resource group_id in the grant PARAMETER1.

Related Topics

Detailed information on how to define object instance sets, see *Oracle Applications System Administrator's Guide*.

Disabling Existing Grants

Before adding new grants, it is necessary to first disable the existing grants or necessary seeded global grants so that they will not interfere with the new grants.

To temporarily disable the existing grants, the system administrator can set the end date for the existing grants, instead of deleting them completely.

Responsibility: FND Security Administration (Self Service Application)

Steps:

1. Navigate to Grants.
2. Search the existing grants that you want to disable by entering search criteria in the Search Grants window.
3. Click **Go** to retrieve the grants that match your search criteria.
4. Select the grant that you want to disable from the search result.
5. Set an end date in the Context window and click **Finish** to disable the grant.

Related Topics

For more information on how to disable existing grants, see *Oracle Applications System Administrator's Guide*.

Adding New Grants

Once the customized resource LOV (object instance set) is created and registered, it can be granted to another resource, group of resources, or all resources.

Please note that the administrator can grant users or user groups (grantee) with different levels of data access privileges. The access can be granted to function (menu) level (such as "Administrator" role) or further down to the data level (such as the LOV data level) depends on users or business needs.

Since the LOV access privilege controls the row level of data access, whenever there is a need to create a new grant for LOV security access, use the data grant functionality to add this grant.

For example, if group number 10000123 contains all resources defined for the LOV in the object instance set, then the administrator can use data grant functionality to grant the LOV access to user21. As a result, the user can see all members of resource group 10000123 while creating a task. The data grant information should be like:

```
FND_GRANTS
GRANTEE_TYPE = "USER"
GRANTEE_KEY= "USER21"
MENU_NAME = "JTF_TASK_RESOURCE_ACCESS"
OBJECT_NAME = "JTF_RS_RESOURCE_EXTNS"
INSTANCE_TYPE = "SET"
INSTANCE_SET_NAME = X_JTF_RS_GROUP_MEMBERS"
PARAMETER1 = "10000123"
```

Use the following steps to add a new grant:

Responsibility: Functional Administrator (Self Service Application)

Steps:

1. Navigate to Grants.
2. Select **Create Data Grant** to add new grants to sales managers or sales representatives.
3. In the Object window, select JTF_TASKS as the object name.
4. In the Grantee window, select an appropriate radio button.
5. In the Function Set window, specify a menu name, such as JTF_TASK_RESOURCE_ACCESS.

6. In the Data Set window, select the A parameterized set of rows (Data Set) radio button. Furthermore, specify the appropriate object instance set that you want to grant to the grantee.
7. In the Data Set Details window, enter appropriate primary key values.
8. In the Context window, enter appropriate organization, responsibility and start date information. Leave the End Data field blank.
9. Enter JTF_TASKS in the Program Name field.
10. Enter appropriate information in the Program Tag field.
11. Click **Finish**. Once it is done successfully, the confirmation page opens with the message saying that the grant has been created.

Related Topics

More information on how to create data grants, see *Oracle Applications System Administrator's Guide*.

Customizing the Resource List of Values Security for Tasks in Oracle Applications Framework and Forms

The Task resource list of values (LOV) security based on VPD policy allows managing a row level security for a database object which makes it possible for Tasks to further support product specific security rules. This VPD security model for the resource LOV security access in Tasks Forms and the Oracle Applications Framework based Tasks continues to:

- Use AOL Data Security model as the repository for data security definition and the main tool for customization.
- Use existing JTF Objects for different applications to integrate with various common application components. There are no changes to JTF Objects for VPD model.

Note: The resource list of value security access discussed here is restricted to the assignee list of values with resource types of employee, group, and team only.

Task Resource LOV Security Seeding Strategy

Instead of having multiple views per an object, Task Manager registers necessary data into JTF Objects along with other seeded components.

JTF Objects

Task resource LOV security references the following business objects seeded into JTF Objects:

Seeded Object Data

JTF Object Code	FND Object Name	Referenced Object (Table/View)
RS_EMPLOYEE	JTF_RS_RESOURCE_EXTNS	JTF_RS_EMP_DTLS_VL
RS_GROUP	JTF_RS_GROUPS	JTF_RS_GROUPS_VL
RS_INDIVIDUAL	JTF_RS_RESOURCE_EXTNS	JTF_RS_DTLS_VL
RS_OTHER	JTF_RS_RESOURCE_EXTNS	JTF_RS_RESOURCE_EXTNS A, JTF_RS_SALESREPS B
RS_PARTNER	JTF_RS_RESOURCE_EXTNS	JTF_RS_PARTNER_DTLS_VL
RS_PARTY	JTF_RS_RESOURCE_EXTNS	JTF_RS_PARTY_DTLS_VL
RS_SUPPLIER_CONTACT	JTF_RS_RESOURCE_EXTNS	JTF_RS_SUPPLIER_DTLS_VL
RS_TBH	JTF_RS_RESOURCE_EXTNS	JTF_RS_RESOURCE_EXTNS A, JTF_RS_SALESREPS B
RS_TEAM	JTF_RS_TEAMS	JTF_RS_TEAMS_VL

Other Seeding Data

Task Manager resource LOV security uses the following seeded data to allow one function or view per an object:

- **Security Privileges (Functions).** These form functions are defined on existing resource objects.
 - CAC_TASK_RS_EXTNS_SEC for the object JTF_RS_RESOURCE_EXTNS
 - CAC_TASK_RS_GROUPS_SEC for the object JTF_RS_GROUPS
 - CAC_TASK_RS_TEAMS_SEC for the object JTF_RS_TEAMS

These new privileges are seeded in the FND_FORM_FUNCTIONS table.

- **Security Role (Menu).** These three new functions are added as menu entries to the followings:
 - Existing menu, JTF_TASK_RESOURCE_ACCESS, for backward compatibility. This menu is deprecated for Tasks in Oracle Applications Framework and Forms and is replaced by the new menu.
The existing privilege JTF_TASK_RESOURCE_ACCESS is used only in HTML Tasks to support backward compatibility.
 - New menu, CAC_TASK_RESOURCE_ACCESS
This new menu is seeded in the FND_MENUS table or FND_MENU_ENTRIES table.
- **Security Views.** Database views defined on top of existing resource tables:
 - CAC_TASK_RS_EXTNS_SEC on top of table JTF_RS_RESOURCE_EXTNS
 - CAC_TASK_RS_GROUPS_SEC on top of table JTF_RS_GROUPS
 - CAC_TASK_RS_TEAMS_SEC on top of table JTF_RS_TEAMS
- **VPD Policies.** Common policy is attached to all secured views:
 - CAC_TASK_RS_EXTNS_POL attached to the CAC_TASK_RS_EXTNS_SEC view
 - CAC_TASK_RS_GROUPS_POL attached to the CAC_TASK_RS_GROUPS_SEC view
 - CAC_TASK_RS_TEAMS_POL attached to the CAC_TASK_RS_TEAMS_SEC view

Impact on Existing HTML Tasks

Since Task Manager creates three new privileges (functions) and one new role (menu), CAC_TASK_RESOURCE_ACCESS, to replace existing role, JTF_TASK_RESOURCE_ACCESS, for backward compatibility, future customization in HTML Task security specifically for the resource list of values security, implementors or system administrators need to use the following new resource privileges. The existing task privilege JTF_TASK_RESOURCE_ACCESS will be deprecated.

- CAC_TASK_RS_EXTNS_SEC (for all individual resources)
- CAC_TASK_RS_GROUPS_SEC (for resource groups)
- CAC_TASK_RS_TEAMS_SEC (for resource teams)

All these new privileges are also added to the existing JTF_TASK_RESOURCE_ACCESS role (menu), so that all existing grants will be automatically uptaken.

For integrated applications that have added task privileges to customized roles, the administrator only need to add new privileges to these roles so that the security rules can be automatically applied.

Uptake Instructions

Applications that want to uptake this resource LOV security should use the following instructions based on the uptake methods:

Uptake with Standard Task Resource Security

The standard resource LOV security is applied automatically in Task Manager, so that there is no any specific instruction for applications that will uptake tasks along with the standard resource security.

Example of Building a Secured Resource Query

The task applications code will simply query data by using the secured view instead of the base table. Predicate will be applied automatically by VPD policy.

```
String query = "SELECT b.group_id, l.group_name, l.group_desc " +
    "FROM cac_task_rs_groups_sec b, jtf_rs_groups_tl l " +
    "WHERE b.group_id = l.group_id AND l.language = userenv('LANG');";
```

Uptake with Product Specific (Non-Standard) Resource Security

To incorporate enhanced the resource LOV security into your product, follow these instructions:

1. Define a privilege, AOL Data Security function, name on each resource object you want to secure for your product.
2. Define a view or synonym with the exactly same name, just a plain definition: "SELECT * FROM <resource fnd object>". This is done through XML Definition File (XDF) technology.

Note: The XML Definition File (XDF), the next generation version of the current Object Definition File (ODF) utility, is used to provide support for capturing and altering the definitions for all schema Object types used by Oracle Applications and to eventually replace the ODF Utility.

3. Attach common AOL policy to the view. This is done through XDF technology.
4. Seed initial grants if any, such as global grants to support backward compatibility.

5. Pass product specific parameters to Task Manager for each privilege you want to replace in Forms or pass a class implementation in Oracle Applications Framework.

For Product Specific Resource LOV Security in the Oracle Applications Framework based Tasks

To support dynamic predicate binding into data security objects if passed by product specific security context, Task Manager adds one additional parameter to the **TaskAssigneeSecurity** interface to allow dynamic bindings of system context before the secured object is queried:

```
cacTaskAssigneeSecurityImpl = "
oracle.apps.myproduct.MyTaskAssigneeSecurityImpl";
```

However, if provided class does not exist or cannot be instantiated or executed by the Tasks module, then a run-time exception will be generated.

Example of Query Secured Resources for Tasks in Oracle Applications Framework

1. Translate the class name into a class object

```
Class c = Class.forName(<value of parameter
cacTaskAssigneeSecurityImpl>);
```

2. Reflective instantiation with interface access

```
TaskAssigneeSecurity mySecurity = (TaskAssigneeSecurity)
c.newInstance();
```

3. Set context if it is not null

```
mySecurity.setGroupContext();
```

4. Build an LOV query before executing it

```
String query = "SELECT b.group_id, l.group_name, l.group_desc " +
"FROM " + mySecurity.getGroupFuncName() + " b, jtf_rs_groups_t1 l " +
"WHERE b.group_id = l.group_id AND l.language = userenv('LANG');"
;
```

For Resource LOV Security Access in Forms-Based Tasks

Applications that want to uptake this security should set the necessary context in the parent form, such as Service Request Form, to implement the resource LOV security. If the context is set, then the parent form will pass parameters (function names) to the Task Manager form.

If a parameter value is not null, then the secured views are used to query resources. Otherwise, the JTF Objects metadata will be used.

Note: When defining JTF Objects metadata in the metadata setup

window, implementors can select the "From Task" check box for a specific source if tasks can be created, updated, and deleted using the standalone Task Manager. If it is unchecked, then tasks can be queried in read-only format from the Task Manager Forms. Any updates to the tasks should be made from the parent applications.

Additionally, the following three parameters should be passed to Task Manager form:

- Employee Resource: TASK_ASG_LOV_EMP_SEC
- Group Resource: TASK_ASG_LOV_GROUP_SEC
- Team Resource: TASK_ASG_LOV_TEAM_SEC

Example of Query Resources Using Metadata in Forms

```
If (l_source_object_type_code = 'RS_GROUP') then
    l_task_asg_lov_group_sec :=
name_in('parameter.task_asg_lov_group_sec');
    If (l_task_asg_lov_group_sec != null) then
        l_sql_query := 'SELECT b.group_id, l.group_name, l.group_desc' ||
                      ' FROM ' || l_task_lov_group_sec || ' b, jtf_rs_groups_t1 l ' ||
        ' WHERE b.group_id = l.group_id AND l.language =
userenv("LANG")';
    else
        (Use JTF Objects metadata to query group resources;)
    end if;
end if;
else if (l_source_object_type_code = 'RS_TEAM') then
    (Use JTF Objects metadata to query team resources;)
else if (l_source_object_type_code = 'RS_EMPLOYEE') then
    (Use JTF Objects metadata to query employee resources;)
end if;
```

Uptake Considerations

Task Manager recommends using of the standard resource privileges, not product specific privileges, if you can when uptaking this security feature. Because standard resource privileges, providing standard "one-place" data security setting in your applications to secure tasks access, are seeded with Task Manager which requires no further implementation step.

Applications can use product specific privileges to uptake this resource LOV security only if there are product specific security requirements in place.

Note: Be aware that the product specific privileges belong to the product owner and should be developed, and maintained by the product team, not by Task Manager.

Granting Manager-Directs Security Access

In order to support reporting hierarchy used in Sales or Support organizations, HTML Tasks and Tasks in Oracle Applications Framework allow group managers who have effective manager's role to have appropriate privileges to access their direct's tasks if necessary permissions are granted to them. Sales managers, for example, can view their direct's tasks and be able to track possible sales related activities performed for a particular week.

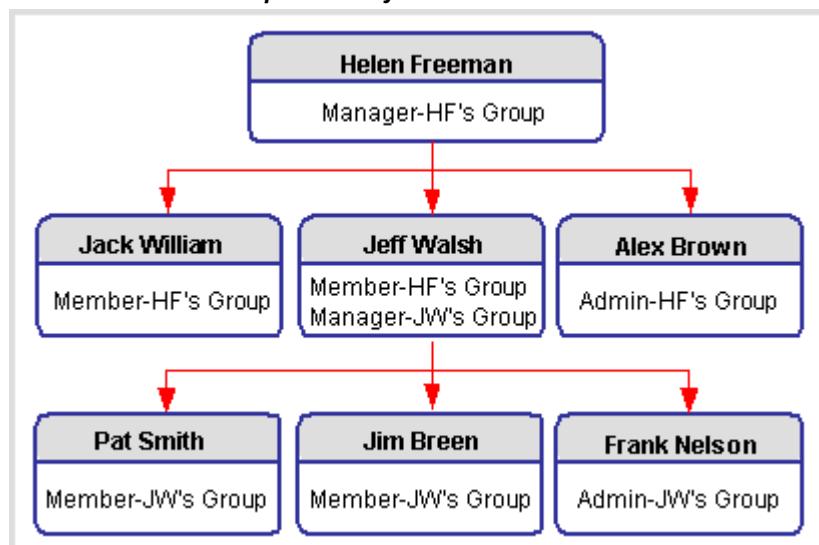
The Functionality of Manager-Directs Security Access

Task Manager uses the manager-direct security access functionality to grant group managers an appropriate access privilege (read only or full access) to view or update their resource group member's non-private tasks.

Use the following example to understand how this functionality works in a resource group hierarchy.

- For example, a resource group is lead by Helen Freeman who has three directs reporting to her. These three directs are Jack William, Jeff Walsh, and Alex Brown who plays the administrator in Helen's group. Jeff Walsh who reports to Helen has three group members directly reporting to him. They are Pat Smith, Jim Breen, and Frank Nelson who plays the administrator role.

Helen Freeman's Group Hierarchy



After this resource group is organized, the hierarchical data will be denormalized and populated in the table JTF_RS_REP_MANAGERS as follows:

Group Denorm Data in the JTF_RS REP_MANAGERS TABLE

Member Name	Associated Group	Hierarchy Type	Parent Resource Name	Denormalization Levels
Alex Brown	HF's group	ADMIN_TO_ADMIN	Alex Brown	0
Jeff Walsh	HF's group	MGR_TO_MGR	Helen Freeman	1
Jeff Walsh	JW's group	MGR_TO_MGR	Helen Freeman	1
Jim Breen	JW's group	MGR_TO REP	Helen Freeman	1
Frank Nelson	JW's group	MGR_TO ADM	Helen Freeman	1
Pat Smith	JW's group	MGR_TO REP	Helen Freeman	1
Alex Brown	HF's group	MGR_TO ADMIN	Helen Freeman	0
Helen Freeman	HF's group	MGR_TO_MGR	Helen Freeman	0
Jack William	HF's group	MGR_TO REP	Helen Freeman	0
Jeff Walsh	HF's group	MGR_TO REP	Helen Freeman	0
Pat Smith	JW's group	REP_TO REP	Pat Smith	0
Jim Breen	JW's group	REP_TO REP	Jim Breen	0
Jack William	HF's group	REP_TO REP	Jack William	0
Frank Nelson	JW's group	ADM_TO ADM	Frank Nelson	0
Pat Smith	JW's group	MGR_TO REP	Jeff Walsh	0
Frank Nelson	JW's group	MGR_TO ADM	Jeff Walsh	0
Jim Breen	JW's group	MGR_TO REP	Jeff Walsh	0
Jeff Walsh	JW's group	MGR_TO MGR	Jeff Walsh	0

Member Name	Associated Group	Hierarchy Type	Parent Resource Name	Denormalization Levels
Jeff Walsh	HF's group	REP_TO_REP	Jeff Walsh	0

Note: In addition to the columns in the JTF_RS REP MANAGERS table, the following columns must be considered:

- START_DATE_ACTIVE
- END_DATE_ACTIVE

After understanding the functionality of the manager-directs access and how it works, the definition of a reporting hierarchy should be further identified.

Definition of Reporting Hierarchy

The definition of manager-subordinate hierarchy used for granting security access is based on the resource Group Hierarchy defined in Resource Manager. It is not based on the Human Resource (HR) reporting structure defined in the HR system.

Group Hierarchy in Resource Manager

While defining resource group hierarchy in Resource Manager, each resource will perform certain roles in a resource group. For example, a sales group can be organized by a few sales representatives and a sales manager. The sales representative and sales manager are the roles that are associated with each resource in that group.

In order to determine the reporting hierarchy in a group, each role is also associated to a specific role attribute. When a role is assigned to a resource, a role attribute is also given to that resource simultaneously. A sales representative role is associated with a member role attribute, and a sales manager role is linked to a manager role attribute. Therefore, group members with sales representative roles could report to the group member with sales manager role in the sales resource group mentioned earlier.

Each resource group can be formed for a specific period of time, so as to the group member's roles. Therefore, when an end date (END_DATE_ACTIVE) is specified for a resource group or for any resource role of the group members, that group or a specific role can be terminated.

For more information, see Resource Manager chapter in the *Oracle Trading Community Architecture Technical Implementation Guide*.

Highlights of Group Hierarchy For the Manager-Directs Security Access

Since the manager-directs security grant functionality is based on the group hierarchy defined in Resource Manager, not HR hierarchy, it is possible to have multiple

managers in one resource group, and these managers will all be granted with security access to view or update their direct's tasks for HTML Tasks and the Oracle Applications Framework based Tasks.

In addition, as resource groups and roles can be terminated, only the managers who have effective manager's roles can be granted with security access to their direct subordinate's tasks. This grant only works if the managers belong to an effective resource group. If one of the manager's subordinates left the group, or the role has been terminated, then the manager will not be able to see the subordinate's tasks even if the manager has full access privilege.

Note: Although full access is granted to a group manager, that manager still cannot see his or her direct's private tasks.

Seeding Strategy

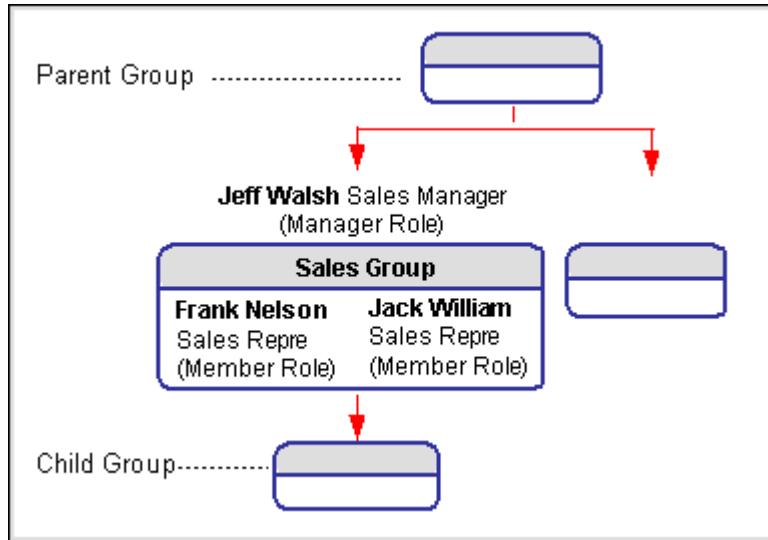
A new object instance set JTF_TASK_MANAGER_SECURITY is seeded in Tasks to support the manager-directs security grant functionality.

Other Limitations

Task Manager supports the manager-directs security grants, however, there are some restrictions for performance reasons and avoiding complexity.

- Only Support "Manager" and "Member" Role Attributes
Resource Manager uses four role attributes (manager, admin, lead, and member) to associate a resource role while defining a resource role. However, this functionality only supports the Manager and Member role attributes.
- Only Support One Level of Group Hierarchy

Resource Group Hierarchy



A group might have parent groups and child groups. However, Task Manager only supports one level of group hierarchy for the manager-directs security access. This means that a manager can only be granted with access of his subordinate's tasks of one level below him. It does not include any multiple levels beneath. In other words, this grant only limits to one group. It does not extend to its parent or child groups.

- Only Implemented in HTML Tasks and Oracle Applications Framework based Tasks

This functionality only applies to HTML Tasks and the Oracle Applications Framework based Tasks. It is not implemented in the Forms-based Tasks.

Customizing Manager-Directs Security Access

Use the following steps to grant security access to group managers:

- Defining Resource Group Hierarchy, page 8-29
- Granting Security Access to Relevant Resources, page 8-30

Defining Resource Group Hierarchy

Use Oracle Resource Manager to define resource group hierarchy.

Note: After defining appropriate groups, the group hierarchical data is

denormalized and populated in the table JTF_RS_REP_MANAGERS.

Detailed information on how to define employee resources, group resources, and assigning appropriate group member roles to each group member, see Resource Manager chapter, *Oracle Trading Community Architecture Technical Implementation Guide*.

Granting Security Access to Relevant Resources

Once the appropriate group hierarchy is identified, system administrator can grant the seeded object instance set JTF_TASK_MANAGER_SECURITY with read only or full access to appropriate group managers.

Use the following steps to add a new grant to resource group managers.

Responsibility: FND Security Administration (Self Service Application)

Steps:

1. Navigate to Grants.
2. Select **Create Data Grant** to add new grants to sales managers or sales representatives.
3. In the Object window, select JTF_TASKS as the object name.
4. In the Grantee window, select an appropriate radio button.
5. In the Function Set window, specify a menu name (JTF_TASK_READ_ONLY or JTF_TASK_FULL_ACCESS) for either read only or full access.
6. In the Data Set window, select the A parameterized set of rows (Data Set) radio button. Furthermore, specify the seeded object instance set JTF_TASK_MANAGER_SECURITY.
7. In the Context window, enter appropriate organization, responsibility and start date information. Leave the End Data field blank.
8. Enter JTF_TASKS in the Program Name field.
9. Enter appropriate information in the Program Tag field.
10. Click **Finish**. Once it is done successfully, the confirmation page opens with the message saying that the grant has been created.

Related Topics

For more information on how to create data grants, see *Oracle Applications System*

Administrator's Guide.

Troubleshooting Task Manager

This chapter covers the following topics:

- Quick Find
- Concurrent Program Error
- Task Creation Error
- Notifications Not Sent
- Workflow Notification Launch
- Invalid UOM
- View Message
- LOVs in JTT Task
- No Client Time Zone Times
- Task Owner Access
- Mapping
- Close Service Request
- Contact E-mail
- Search Error
- Can't Update Task
- Note Save Automatically

Quick Find

When you search a task in Quick Find, it's not found. But actually the task exists.

Cause

This is caused because the concurrent program to rebuild the Intermedia index has not

been run in timely manner.

Solution

Please run the concurrent program *Rebuilding Intermedia Index for Task Names*. It's recommended to run the concurrent program periodically. CRM Foundation provides the default request group *CRM Intermedia Index* for this concurrent program. The system administrator can define his or her own additional responsibility with the request group *CRM Intermedia Index*. You can also rebuild Intermedia Index in the following ways:

- Manually rebuilding the Intermedia index using the alter index command.
- Starting the ctxsrv server daemon for background DML processing. For more information, consult the *Oracle8i interMedia Text Reference*.

Note that the Quick Find screen fetches all tasks that are created on the Standalone Task Manager Screen (Calendar > Tasks > Create). Currently, the functionality does not list tasks created from other sources such as lead or opportunity. These context sensitive tasks are visible in context with every source (Lead/Opportunity), since they are not standalone tasks.

Concurrent Program Error

When you run the concurrent program "*Rebuilding Intermedia Index for Task Names*, You're getting an error status: Concurrent Manager encountered an error while running SQL*Plus for your concurrent request 841483. Review your concurrent request log and/or report output file for more detailed information.

Cause

This is mainly caused by incorrect password provided when submitting the concurrent program.

Solution

Please check each password for apps, jtf and ctxsys.

Task Creation Error

On task creation, an error "Failed to validate indextype" is shown.

Solution

Please check the Intermedia index JTF_TASKS_TL_IM by running the following

SQL*statement:

```
select owner
, index_name
, index_type
, domidx_status
, domidx_opstatus
, status
from all_indexes
where index_name = 'JTF_TASKS_TL_IM';
```

domidx_status, domidx_opstatus and status must be valid. If the statuses are not valid, then recreate the Intermedia index.

Notifications Not Sent

Notifications are not sent immediately. The oracle.apps.jtf.cac.task. event name is being posted to the WF_DEFERRED event queue.

Solution

WF_DEFERRED queue contains notifications that are deferred and are not sent immediately. Whether a notification is deferred or not is determined by its phase value. A phase value < 100 means that immediate notifications will be sent whereas a phase value >=100 means a deferred notification will be sent. The phase value is in most cases seeded to be 100 (Deferred).

Workflow Notification Launch

Automatic Workflow Notification does not launch.

Solution

Please ensure the following checklist items. In addition you can also refer the Oracle Workflow User and Implementation guides for setup related issues.

1. Task is created with Task Type having workflow associated with it and the notify option checked.
2. Values for profiles *Task Manager: Automatically Launch Workflow* and *Task Manager: Abort Previous Task Workflow if it is still active* set to yes.
3. Ensure that Workflow Background Engine is running.
4. Check if your userid is configured and is part of the wf_roles table.

Invalid UOM

UOM is Invalid or Disabled.

Solution

If you experience this problem, perform the following:

1. The Time Unit of Measure class must be defined in the Oracle Inventory module. For this Time Unit of Measure class, define the Unit of Measure codes (such as Hours, Minutes, etc.) For details on defining the Unit of Measure class, refer to the *Oracle Inventory User's Guide*.
2. The profile *Time Unit Of Measure Class* must be set to the Time Unit of Measure class defined in the Inventory module.

View Message

Task is created in JTT but after creation a message is displayed like "User does not have access to view the task."

Cause

You are creating a task not for the logged in user. The task is created for a user who has not granted view privileges to the logged in user. Please note that in this case the task is created successfully, but cannot be viewed by the logged in user.

Solution

Create a task for the logged in user or for a user that has granted view privileges to the logged in user.

LOVs in JTT Task

In JTT Task Create/Update screen, the user is not able to search by LOV for phone number, account or address.

Solution

According to the functionality of Task Create/Update page Phone Number, Account, Address1 are dependent fields on Name of the Organization, Person, or relationship. The user has to first enter a name, and then search for a phone, account, or address associated with the name.

No Client Time Zone Times

Task Manager does not show times in Client Time Zone.

Solution

As per functionality of Task Manager, task times are not shown in client time zones. If the time zone is not selected for a task and profile options enable time zones, then all times are displayed in the server time zone along with a hint explaining the time zone. If the time zone is selected for a task, and profile options enable time zones, then times appear in the selected time zone along with a hint explaining the time zone. If profile options do not enable time zones, then times display in the server time zone with no hints.

Task Owner Access

Task owners don't have full access for the tasks that they have created.

Solution

System administrators must perform the following steps in order for task owners to have full access to the tasks that they just created. Otherwise, they will have read only access to these tasks.

1. Use Adadmin to compile menus.
2. Bounce the middle tier after compiling menus.

Mapping

Unable to map Task Types, Priorities, and References.

Solution

You can map task types, task priorities, and references to any source using the Object Mapping window. Priorities and date types that are mapped to a source and those that are not mapped to any source appear in the corresponding LOV or in the drop-down list. For references, only mapped types, priorities, and date types appear in the HTML user interface (UI). For information on how to map task types, priorities, and references, see the following sections:

- Defining Task Priorities, page 5-12
- Defining Task Types, page 5-1

- Defining Task Date Types, page 6-2
- Mapping Task References to a Source, page 5-13

Close Service Request

I am unable to close a Parent Service Request when the Task is still open.

Solution

The Restrict Closure flag on the Task tab determines whether or not to allow the closure of a parent service request, when the task is open. If this check box is selected and the task status is open, meaning the status does not have the Closed flag checked, then the parent service request (SR) cannot be closed. Any task status without the Closed flag turned on is considered Open.

Contact E-mail

On adding a contact to a task in Task Manager, the contact e-mail ID is incorrect and is not that of the contact.

Solution

The e-mail ID shown in the Contacts tab is not of the contact but of the relationship of that contact with the organization.

Search Error

The task Personalized Search page throws errors when searching based on conditions like Subject = RT or Subject = NOT Subject = SYN.

Solution

The issue here is with Intermedia index. Words like RT, NOT, SYN are keywords and cannot be searched directly. If we need to search any word that is a keyword then it has to be enclosed within curly braces.

Can't Update Task

Unable to update a task with source document not equal to Task Manager from Task Manager.

Solution

A task created from outside Task Manager is updatable in Task Manager only under the following condition. Under Task Setup->Objects metadata the Source of the task should have From Task checkbox checked.

Note Save Automatically

Note created from Task Manager is getting saved when exiting the notes screen without clicking save.

Solution

The behavior is such that when you create a note and exit the notes form, the note is buffered but not saved in the database. Therefore if you open the notes form again you will see the note you created but did not save. But once you try and close the Task Manager form it will prompt you to save the changes or not. If you select not to save the changes then the note that you created will not get saved.

Implementing Escalation Manager

This chapter covers the following topics:

- Escalation Manager Overview
- Setting Escalation Manager Profile Options
- Starting the Background Workflow Process
- Setting Escalation Lookup Codes
- Setting Up Escalation Status
- Defining Escalation Reference Codes
- Defining Escalation Reason Codes
- Subscribing to Escalation Business Events
- Subscribing to Create Escalation
- Subscribing to Update Escalation
- Subscribing to Delete Escalation
- Subscribing to Create Escalation Reference
- Subscribing to Update Escalation Reference
- Subscribing to Delete Escalation Reference

Escalation Manager Overview

An escalation is a process used to highlight or flag certain issues within an organization, so that the appropriate personnel can react to these situations and monitor the resolutions. A reactive escalation is in response to a customer complaint. Necessary action must be taken in response to the situation. This includes manually assigning escalation resources through Escalation Manager.

Setting Escalation Manager Profile Options

The first step in implementing Escalation Manager is to set the following profile options:

Escalation Manager Profile Options

Name	Default Value	Level	Description	Outcome
Escalation: Close Only When De-escalated	Yes	Site	The escalation document cannot be closed (you cannot set up the escalation status to 'Close') without first changing the Escalation Level to 'De-escalated'.	If set to Yes , then it can regulate the escalation status change sequence from De-escalated to Close. If set to No , then it will not.
Escalation: Default Contact Type	Employee	Site	Sets the default contact type to Employee in the Contacts tab.	You can also set it to Customer , and then it will default the contact type to Customer.
Escalation: Default Escalation Owner	Name	Site	Sets the default escalation owner to a specific resource name, such as John Smith.	See description.
Escalation: Default Customer Contact Point	Phone	Site	Sets the default customer contact point to Phone in the Contacts tab.	You can also set it to other values such as Cell, Email, Pager, or Web.

Name	Default Value	Level	Description	Outcome
Escalation: Default Document Type	Task Manager	Site	Sets the default document type to Task in the Document field on the Reference Document tab.	You can also set it to other values such as Service Request or Defects.
Escalation: Default Employee Contact Point	Work	Site	Sets the default employee contact point to Work in the Contacts tab.	You can also set it to other values such as Home, Mobile, or Pager.
Escalation: Default Escalation Level	Level 1	Site	Sets the default escalation level to Level 1.	You can also set it to other values such as Never Escalated, Level 2, or De-Escalated.
Escalation: Default Status	Open	Site	Sets the default escalation Status field to Open.	You can also set it to other values such as Closed or Working.
Escalation: Default New Note Type	General Note	Site	Sets the default note type to General Note if additional notes are attached to an escalation document.	You can also set it to other values such as Event or Approved.
Escalation: Default Notify (Y/N)	Yes	Site	Sets the default Notify check box to "checked" in the Contacts tab.	You can also set it to No, which will leave the check box "unchecked" in the Contacts tab.

Name	Default Value	Level	Description	Outcome
Escalation: Default Reason Code	Slow Progress	Site	Sets the default escalation Reason field to Slow Progress.	You can also set it to other values such as Unacceptable Solution, or Unresponsive Owner.
Escalation: Default Reference Type	Escalation	Site	Sets the default escalation reference type to Escalation in the Reference Document tab.	You can also set it to other values such as For Your Information.

Starting the Background Workflow Process

The next implementation step is to start the following background workflow process to ensure proper operation of Escalation Manager.

- Workflow Name: JTFEC
- Description: Reactive Escalation Notification
- User: Escalation Manager

Leave the Minimum Threshold and Maximum Threshold fields empty.

Select Yes for both the Process Deferred and the Process Timeout fields.

Warning: Be sure to define an end time. If the end time field is blank, then the process runs indefinitely and cannot be shut off.

In the Rerun Every fields, enter the number of minutes that defines the interval between job runs.

Select From the Completion of the prior run box.

You must set up Notifications in Oracle Workflow to ensure that notifications are sent.

Setting Escalation Lookup Codes

Another required task in implementing Escalation Manager is to set lookup codes. The codes define the level, reason, contact type, and reference of an escalation. Escalation

reasons are used to specify why a source document is escalated.

First set up the escalation reason code and enable it in the Application Object Library: Escalation Reasons Lookups window. Then, as a task or document is escalated, users can select this reason code from the list of values for the Reason field in the Escalations window.

- JTF_TASK_ESC_LEVEL

The following table describes lookup code JTF_TASK_ESC_LEVEL, which describes escalation levels.

Lookup Code JTF_TASK_ESC_LEVEL

Code	Description
DE	De-escalated
L1	Level 1
L2	Level 2
NE	Never escalated

- JTF_TASK_REASON_CODES

The following table describes lookup code JTF_TASK_REASON_CODES, which describes escalation reasons.

Lookup Code JTF_TASK_REASON

Code	Description
Slow-ProG	Slow Progress
Unacceptable_Solution	Unacceptable Solution
UNRES_OWN	Unresponsive Owner
IMP_FAILING	Implementation Failing

- JTF_TASK_CONTACT_TYPE

The following table describes lookup code JTF_TASK_CONTACT_TYPE, which

describes contact types.

Lookup Code JTF_TASK_CONTACT_TYPE

Code	Description
CUST	Customer
EMP	Employee

• **JTF_TASK_REFERENCE_CODES**

The following table describes lookup code JTF_TASK_REFERENCE_CODES, which describes reference codes for the task.

Lookup Code JTF_TASK_REFERENCE_CODES

Code	Description
ESC	Escalation
FYI	For Your Information

Setting Up Escalation Status

There are three pre-defined Escalation Statuses:

- Open
- Working
- Closed

You may add your own user-defined statuses to these available statuses. Perform the following steps to add user-defined statuses.

The following table describes flags and definitions.

Escalation Status Flag Definitions

Flag	Description
Assigned	Assigned to an individual
Working	In progress
Schedulable	Scheduled or re-schedulable
Accepted	Accepted by owner
Rejected	Rejected by owner
On Hold	Temporarily not active
Approved	Approved by management
Completed	Completed by owner
Cancelled	Cancelled by owner, creator, or management
Delete Allowed	Delete acceptable without cancellation
Closed	Completed and closed
Seeded	Pre-defined task status

Steps:

1. As the CRM Administrator, select **Task and Escalation Manager > Setup > Define Escalation Status**.
2. Enter a user-defined status in a blank field in the Status column.
3. Enter a brief description of the status type in the Description field.
4. Enter the effective dates in the From and To fields.
5. Select escalation status flags.
6. Click the Save icon to finish defining the Escalation status.

Defining Escalation Reference Codes

A document or task can be combined with several other documents or tasks, such as when fulfilling a service request requires a series of tasks to be performed and related documents to be completed. In such a scenario, if one particular document or task needs to be escalated, the escalation might not apply to the other related items.

When you associate an Escalation Reference to the escalated item, you point to the other related items and indicate their relation. There are two pre-defined Escalation Reference types: FYI and Escalation.

- Use **FYI** (for your information) to indicate the task or document is related to the escalated item, but is not escalated.
- Use **Escalation** to indicate the task or document is related to the escalated item and also is escalated.

You can add other Escalation Reference types to your escalation references. Use the following procedure to define customized reference types.

Steps:

1. As the CRM Administrator, select **Task and Escalation Manager > Setup > Define Reference Type**.
The Application Object Library: Reference Codes for the Task Lookups window opens.
2. Enter the name of the new reference type in the first available row in the Code column.
3. Continue entering information in the remaining cells of the row to describe the escalation reference type and the effectivity dates.
4. Select the **Enabled** Check Box to make the escalation reference type available.
5. Save the new Escalation Reference and close the form.

Defining Escalation Reason Codes

You can add other escalation Reason Codes to customize your escalation reasons. Use the following procedure to define customized reason types.

Steps:

1. Select **Task and Escalation Manager > Setup > Define Escalation Reason**.

The Application Object Library: Escalation Reasons Lookup window opens.

2. Select the first blank line.
3. Enter a code, meaning, and description.
4. Enter the effective dates in the From and To fields.
5. Select the Enabled flag.
6. Click the Save icon to finish defining the Escalation reason.

Subscribing to Escalation Business Events

Escalation Manager publishes events such as creating, updating, and de-escalating an escalation using the Oracle Workflow Business Event System. Applications that contain data directly affected by these events can subscribe to them and synchronize or modify their data accordingly. For example, if a support team uses Escalation Manager to escalate urgent or high profile support calls and one of these has been de-escalated, then this action is published or "raised" as a business event. The support team can consequently subscribe to this event and reassign support staff to escalated problems.

The Oracle Workflow Business Event System

The Oracle Workflow Business Event System is an application service that leverages the Oracle Advanced Queuing (AQ) infrastructure to communicate business events between systems. The Business Event System consists of the Event Manager and workflow process event activities.

The Event Manager contains a registry of business events, systems, named communication agents within those systems, and subscriptions indicating that an event is significant to a particular system. Events can be raised locally or received from an external system or the local system through AQ. When a local event occurs, the subscribing code is executed in the same transaction as the code that raised the event, unless the subscriptions are deferred.

Escalation Manager Events

When an escalation or its corresponding reference is created, updated or deleted, the Escalation Manager APIs call wrapper APIs that raise the following events:

Escalation Manager Events

Functional Name	Event name	Description
Create_Escalation	oracle.apps.jtf.cac.esc.createEscalation	Raises an event once for a newly created escalation.
Update_Escalation	oracle.apps.jtf.cac.esc.updateEscalation	Raises an event once when any attribute for an escalation is changed.
Delete_Escalation	oracle.apps.jtf.cac.esc.deleteEscalation	Raises an event once when an escalation is deleted, and raises a Delete Escalation Reference Event once for each row in the references table.
Create_Reference	oracle.apps.jtf.cac.esc.createEscReference	Raises an event once for a newly created escalation reference.
Update_Reference	oracle.apps.jtf.cac.esc.updateEscReference	Raises an event once when any attribute for an escalation reference is changed.
Delete_Reference	oracle.apps.jtf.cac.esc.deleteEscReference	Raises an event once when an escalation reference is deleted

For each Escalation Manager event, the owner name is Escalation Manager, the owner tag is JTF and the default status is Enabled. Subscribers must use the event name for subscription purposes. The event key is generated by the concatenation of the following:

- <>EVENT_NAME>>
- Value of the sequence JTF_ESC_WF_EVENTS_S

Seeded Subscriptions

The following subscriptions are seeded:

- Function jtf_ec_workflow_pkg.create_esc_notif_subs is subscribed to event oracle.apps.jtf.cac.esc.createEscalation.
- Function jtf_ec_workflow_pkg.update_esc_notif_subs is subscribed to event

oracle.apps.jtf.cac.esc.updateEscalation.

Event Attributes

The following table contains published attributes for the parameters used to create, update, and delete escalations. Yes indicates that an attribute is published and No indicates that it is not.

Escalation Event Attributes.

Parameter Name	Create_Esc	Update_Esc	Delete_Esc
TASK_ID	Yes	Yes	Yes
TASK_AUDIT_ID	No	Yes	No

Note: The value for the TASK_AUDIT_ID parameter is included in the preceding table , for subscribers to determine the remaining fields that are not published from the audits table.

The following table contains published attributes for the parameters used to create, update, and delete escalation references. Yes indicates that an attribute is published and No indicates that it is not.

Escalation Reference Event Attributes

Attribute	Create_EscReference	Update_EscReference	Delete_EscReference
TASK_REFERENCE_ID	Yes	Yes	Yes
REFERENCE_CODE	Yes	Yes	Yes
OBJCT_TYPE_CODE	Yes	Yes	Yes
OBJECT_ID	Yes	Yes	Yes
OLD_REFERENCE_CODE	No	Yes	No

Attribute	Create_EscReference	Update_EscReference	Delete_EscReference
OLD_OBJECT_TYPE_CODE	No	Yes	No
OLD_OBJECT_ID	No	Yes	No

When an escalation is created, the parameter is not set on the list, if the null value is inserted into the column. As a result, the API WF_EVENT.GetValueForParameter returns a NULL value.

When an escalation is updated, the parameter is not set on the list, if the value of the parameter is not changed. As a result, the API WF_EVENT.GetValueForParameter returns a NULL value.

Subscribing to Create Escalation

Perform the following to raise a buisness event using the jtf_esc_wf_events_pvt.publish_create_esc wrapper API:

Steps:

1. Add the following parameter into the parameter list using wf_event.AddParameterToList only if they are NOT NULL:
ESCALATION_ID
2. Event_key will be 'oracle.apps.jtf.cac.esc.createEscalation-' || jtf_esc_wf_events_s.nextval.
3. Raise the Event oracle.apps.jtf.cac.esc.createEscalation using the workflow API, Wf_event.Raise.

Subscribing to Update Escalation

Perform the following to raise a business event using the jtf_esc_wf_events_pvt.publish_update_esc wrapper API:

Steps:

1. Add the following parameters' old and new values into the parameter list using, wf_event.AddParameterToList only if they are changed.
 - ESCALATION_ID

- ESCALATION_LEVEL
- TASK_AUDIT_ID

2. Event_key will be 'oracle.apps.jtf.cac.esc.updateEscalation-' || jtf_esc_wf_events_s.nextval.
3. Raise the Event oracle.apps.jtf.cac.esc.updateEscalation using the workflow API, Wf_event.Raise.

Subscribing to Delete Escalation

Perform the following to raise a business event using the jtf_esc_wf_events_pvt.publish_delete_esc wrapper API:

Steps:

1. Add the following parameters into the parameter list using, wf_event.AddParameterToList
 - ESCALATION_ID
2. Event_key will be 'oracle.apps.jtf.esc.cac.deleteEscalation-' || jtf_esc_wf_events_s.nextval.
3. Raise the Event oracle.apps.jtf.cac.esc.deleteEscalation using the workflow API, Wf_event.Raise.

Subscribing to Create Escalation Reference

Perform the following to raise a business event using the jtf_esc_wf_events_pvt.publish_create_escref wrapper API:

Steps:

1. Add the following parameters into the parameter list using, wf_event.AddParameterToList only if they are NOT NULL
 - ESC_REFERENCE_ID
 - OBJECT_TYPE_CODE
 - REFERENCE_CODE
 - OBJECT_NAME

- OBJECT_DETAILS

2. Event_key will be 'oracle.apps.jtf.cac.esc.createEscReference-||jtf_esc_wf_events_s.nextval.'
3. Raise the Event oracle.apps.jtf.cac.esc.createEscReference using the workflow API, Wf_event.Raise.

Subscribing to Update Escalation Reference

Perform the following to raise a business event using the jtf_esc_wf_events_pvt.publish_update_escRef wrapper API:

Steps:

1. Add the following parameters' old and new values into the parameter list using, wf_event.AddParameterToList only if they are changed.
 - TASK_REFERENCE_ID
 - OBJECT_TYPE_CODE
 - REFERENCE_CODE
 - OBJECT_NAME
 - OBJECT_DETAILS
 - OLD_OBJECT_TYPE_CODE
 - OLD_REFERENCE_CODE
 - OLD_OBJECT_NAME
 - OLD_OBJECT_DETAILS
2. Event_key will be 'oracle.apps.jtf.cac.esc.updateEscReference-||jtf_esc_wf_events_s.nextval.'
3. Raise the Event oracle.apps.jtf.cac.esc.updateEscReference using the workflow API, Wf_event.Raise.

Subscribing to Delete Escalation Reference

Perform the following to raise a business event using the jtf_esc_wf_events_pvt.publish_delete_escRef wrapper API:

Steps:

1. Add the following parameters into the parameter list using, `wf_event.AddParameterToList`:
 - `TASK_REFERENCE_ID`
2. Event_key will be '`oracle.apps.jtf.cac.esc.deleteEscReference-' || jtf_esc_wf_events.s.nextval`.
3. Raise the Event `oracle.apps.jtf.cac.esc.deleteEscReference` using the workflow API, `Wf_event.Raise`.

Troubleshooting Escalation Manager

This chapter covers the following topics:

- Troubleshooting Tips
- Escalation Implementation Error Messages

Troubleshooting Tips

If you are having difficulties using Escalation Manager after implementing it, verify the following:

- Workflow is installed and working correctly.
- Territories have been defined and contain valid resources.
- System Profile Options starting with "Escalation..." are set to valid values.

If Assisted Assignment through the Assignment Manager does not return any resources, then check whether or not the Escalated object itself has a resource.

Escalation Implementation Error Messages

This section contains information on some of the error messages associated with implementing Escalation Manager.

APP-JTF-210807

APP-JTF-210807 No Resources Found.

Cause: This message is often reported as a problem with Escalation Manager. This error can occur when assigning an escalation territory. You can define the territory, with the appropriate resources, then associate an escalation territory with that territory, and still the No Resources Found message appears. This happens most often because the object that is being escalated does not contain a territory itself.

Action: If no territory is available in the escalated object, then there is no way to locate the appropriate escalation territory, so that the resources cannot be found.

Refer to bug #1617608 for further details on debugging steps.

Implementing Notes

This chapter covers the following topics:

- Notes Overview
- Setting Up Note Types
- Mapping Note Types to a Source
- Defining Notes Reference Mapping
- Setting Notes Profile Options
- Subscribing to Note Business Events

Notes Overview

A note is free-form text attached to an object that records descriptive information about business transactions and that can be referenced across modules. It can be created by an agent, sales, or service representative, to capture a chronological log of information for business needs. The Notes module provides a common look and feel across applications and can be used as a communication tool to record business information throughout Oracle E-Business Suite.

Notes can be further defined by setting up note types, and note statuses. A note type is used to classify notes or indicate the type of notes, such as a general note type or an interaction note type. In addition to the seeded note types, the implementor or system administrator can create note types to further categorize notes if necessary. Note types can be mapped to a source object to limit the selection in a drop-down list. A note status is used to determine note accessibility, such as a private note with note status Personal. The value of a note status can be set by a profile option during Notes implementation.

In addition, the Notes module provides a flexible security system that the implementor or system administrator can further customize the notes data and then grant appropriate users or user groups with read only or full privilege to access particular notes.

Before implementing Notes, however, it is necessary to understand the functionality of

both the Forms-based and HTML versions of Notes.

Setting Up Note Types

In addition to using seeded note types, the implementor or system administrator can create new note types to categorize notes for specific business needs. For example, if a note is created for a general purpose, then a note type for this note can be General. If a note is created specifically for an interaction or activity, then a note type for the interaction note or the activity note can be Interaction or Activity.

To create a new type, enter the Code name of your application (such as KB_Action for Knowledge Base note with note type called Action), and this code name must be unique and cannot have a duplicate record in the system. In addition, enter note type name (such as Action) in the Meaning field. Select the Enabled check box before using the new note type.

In order to hide an existing note type, the implementor or system administrator can assign an end date to that note type.

In Forms, navigate to CRM Administrator > Notes Setup > Note Type Setup

In the Application Object Library: Note Types Lookups window, place your cursor in the code field and select File > New to enter new note type.

Mapping Note Types to a Source

After creating a note type, the implementor or system administrator can map a note type to a source object in order to limit the selection of the note type list of values for the mapped source.

Source Objects

A source object is a business object that initiates the creation of a note. If a note is created for a service request or party, then the service request or party is the source object of that note. A note must have a source object.

Related Objects

Be aware of the difference between a source object and related object. A related object is an object related to a note, but is not the source of the note. A note may be created for a task, a source object, but it can be related to a party, an opportunity, or an employee as well. The party, opportunity, and employee are the related objects for that note. Related objects are not mandatory, instead they are nice to have information for a note.

Mapping Note Types to a Source

Use the Mapping Objects window to map note types to a source. For example, if closure, activity, and interaction note types are mapped to Task Manager, a source object, then when users create a note from a task, they can see these three note types displayed in the list of values. If the same note types are not mapped to another source, Campaign Schedule for Marketing, then users will not see them while attaching a note

to a campaign schedule.

Please note that it is necessary to map note types to the source Employee Resource so that employee resources can see the mapped note types from the list of values when creating a note.

In addition, implementors or system administrators can set an end date for a mapped note type if necessary.

Note: This Mapping Note Types to a Source functionality is not enforced in the Forms version.

In Forms, navigate to CRM Administrator > Notes Setup > Source and Note Type Mapping.

Defining Notes Reference Mapping

Use the Mapping Objects window to map a reference type to a source object. This narrows down the References list of values (LOV) to the mapped object. For example, when creating a note for a Sales Opportunity, users typically don't want to see such objects as Service Request or Defect in the Relate To or References list of values. Instead, they only want to see Lead, Forecast, Quote, and Sale Organization. Therefore, implementors or system administrators must map note references such as Lead, Forecast, Quote, and Sales Organization, to the source object, Sales Opportunity.

Be aware that the Mapping Objects window is used to define reference mapping for both Task Manager and Notes. To locate the reference mapping screen, select the Task and Escalation Manager, not Notes navigation node.

In Forms, navigate to CRM Administrator > Task and Escalation Manager > Setup > Task & Note References.

Setting Notes Profile Options

The following table describes the profile option used by Notes.

Notes Profile Options

Name	Default Value	Level	Description	Outcome
Notes: Default Note Status	Public	Site	This profile option sets the default note status. Profile option values include private, public, or publish.	If you select Publish , then that is the default value shown in the Status drop-down list when creating a new note. If no profile option is set, default is Public .
Notes: Default Note Type (OA Only)	N/A	Site	This profile option sets the default note type only to the Notes in Oracle Applications Framework. It does not apply to the HTML and Forms-based Notes.	Set the desired value to the note type. If this profile option is not set or the note type default value is not mapped to a source, then there will not have a default value in the Note Type field during note creation. Otherwise, the default note type will appear in the field.

Subscribing to Note Business Events

The Notes module, leveraging the Oracle Workflow Business Event System, publishes business events such as creating, updating, and deleting a note when a note is created, updated, and deleted from APIs, or application user interfaces (UIs) regardless of the Forms, HTML, or Oracle Applications Framework based interfaces.

The Oracle Workflow Business Event System

The Oracle Workflow Business Event System is an application service that leverages the Oracle Advanced Queuing (AQ) infrastructure to communicate business events between systems. The Business Event System consists of the Event Manager, which allows you to register subscriptions to significant events, and workflow process event activities, which allow you to model business events within workflow processes.

The Event Manager contains a registry of business events, systems, named communication agents within those systems, and subscriptions indicating that an event is significant to a particular system. Events can be raised locally or received from an external system or the local system through AQ. When a local event occurs, the subscribing code is executed in the same transaction as the code that raised the event, unless the subscriptions are deferred.

See *Oracle Workflow Developer's Guide* for detailed information about Oracle workflow business event system, and subscriptions.

Note Business Events

The following business events are published when a note is created, updated, or deleted from APIs, or application user interfaces (UIs) regardless of the Forms, HTML, or Oracle Applications Framework based interfaces:

Note Business Events

Event Name	Display Name
oracle.apps.jtf.cac.notes.create	A note is created.
oracle.apps.jtf.cac.notes.update	A note is updated.
oracle.apps.jtf.cac.notes.delete	A note is deleted.

The following terms are used in the Task Business Events table:

Event Name. Event name represents the name of a business event that is an occurrence in an application or program that might be significant to other objects in a system or to external agents. Event name must be unique and is case-sensitive.

Subscribers must use Event Name for subscription purposes.

Display Name. Display name is the name appearing in the event list.

Additionally, for each note event, the owner name is CAC Notes, the owner tag is JTF and the default status is "Enabled".

Event Key

The event key is generated by the concatenation of the event name followed by the value of the sequence CAC_NOTES_WF_EVENTS_S.

Event Attributes

The following attributes are published for the oracle.apps.jtf.cac.notes.create Create Notes event, the oracle.apps.jtf.cac.notes.update UpdateNotes event, and the oracle.apps.jtf.cac.notes.delete Delete Notes event:

- NOTE_ID: The ID of the note for which the event was raised
- SOURCE_OBJECT_CODE: JTF object code of the note source object
- SOURCE_OBJECT_ID: JTF object ID of the note source object.

An event is not raised if a change is made to the context of a note.

Event Subscription Guidelines

All event subscriptions must follow the guidelines mentioned in the workflow development standards. For example, any subscription cannot commit inside the rule function. This can cause unexpected behavior in the workflow or notes APIs.

In addition, the following subscription guidelines are also used in publishing Task business events:

- Asynchronous Subscriptions

All subscriptions to the events should be asynchronous. The UIs call the APIs, which in turn publish events. Therefore, if the subscriptions are synchronous, the transaction time for the UI will increase.

- Returning with success or warning

The rule function of the subscriptions should return success or a warning. It should not return an error. Returning an error disrupts the processing of other subscriptions; therefore, an error should not be returned.

Customizing HTML Notes Security

This chapter covers the following topics:

- Customizing Notes Security
- HTML Notes Security Overview
- Steps for Customizing HTML Notes Security
- Defining Object Instance Sets
- Defining Menus
- Disabling Existing Grants
- Adding New Grants

Customizing Notes Security

With the continuous support of existing notes data security, all data access and updates in Notes developed for Common Application Calendar are based on the concept of HTML Notes Application Object Library (AOL) data security rules. This security concept allows implementors or system administrators to customize the security rules and then grant object level security to users with qualifying access privileges. In other words, the security rules restrict the data access only to appropriate users.

To customize Notes data security, it is necessary to first identify the following three grant components:

- Identifying users or user groups
- Defining object instance sets
- Defining menus

Once the grant components are identified, the administrator can start the granting process:

- Disabling existing grants
- Adding new grants

HTML Notes Security Overview

By leveraging the Application Object Library (AOL) data security model, the HTML Notes module provides a flexible mechanism for notes security access. This security model provides the ability to restrict data access to appropriate users through a specific authorization process.

For example, in the past, almost all users can create new notes, but now only the users who are granted access to the create note function would be able to create notes. The same theory can be applied to the creation or deletion of attachments, or note modifications.

With the new security model, based on the AOL security model, the HTML Notes module uses the concepts of objects, instances, and instance sets to further group all data in HTML Notes into different units or sets. The biggest unit is Notes that is considered as an object in AOL term. Within the object Notes, multiple notes can be grouped into different subsets (or object instance sets), such as all notes with status "private", all notes of type "offer", or all notes not of type "offer". Based on the definition of these subsets, a private note, or a note of type "offer" then becomes the smallest unit of the Notes object and is called the object instance.

With these data object concepts, information entered in HTML Notes can be further restricted to the data level, customized for your business needs, and then securely granted to resources and resource groups.

As HTML Notes security is based on the AOL security model, relevant AOL data security concept and terminology will be introduced first. How to customize the notes security is addressed later.

Note: Even if you define the data security rules in the HTML Notes module, these rules will not be enforced in the Forms-based Notes.

For detailed information on AOL data security framework, refer to the Oracle Application Object Library Security chapter in the *Oracle Applications System Administrator's Guide - Security*.

HTML Notes security uses the following AOL data security model concepts:

- Users (User Groups)
- Objects
- Object Instances

Notes is an example of an object.

If the Notes module is considered an object, then a note with number 1541 is an object instance.

- Object Instance Sets

For example, all notes with a number smaller than 5 could be considered as an object instance set.

Use the following examples to understand the concept of object instance sets. Please note that all words after the "where" clause in *Italic* style are defined in the FND_OBJECT_INSTANCE_SET table. In addition, to avoid processing issues all the columns used in the "where" clause should be prefixed with "&TABLE_ALIAS" in the object instance set definition.

- All notes with a number smaller than 5:

```
SELECT jtf_note_id
  FROM jtf_notes_b
 WHERE &TABLE_ALIAS.jtf_note_id < 5
```

- All non private notes:

```
SELECT jtf_note_id
  FROM jtf_notes_b
 WHERE &TABLE_ALIAS.note_status <> 'P'
```

- All notes that are not confidential

```
SELECT jtf_note_id
  FROM jtf_notes_b
 WHERE &TABLE_ALIAS.note_type <> 'CONFIDENTIAL'
```

- All notes that are confidential

```
SELECT jtf_note_id
  FROM jtf_notes_b
 WHERE &TABLE_ALIAS.note_type = 'CONFIDENTIAL'
```

All columns exposed through the FND_OBJECTS.DATABASE_OBJECT_NAME table/view can be used to create instance sets, although basic performance rule should be taken into account.

- Functions (Privileges)

For example, a note can be created so that CREATE_NOTE could be considered as a function. A note can be updated so that UPDATE_NOTE again could be considered as a function. Functions can be secured through the AOL security model. The Notes module has the following functions defined for the Notes object:

- JTF_NOTE_SELECT, the ability to view a note
- JTF_NOTE_TYPE_SELECT, the ability to view a note type
- JTF_NOTE_CREATE, the ability to create a note including a regular note, large

note (detailed note) and an attachment for a note

- `JTF_NOTE_UPDATE_NOTES`, the ability to update a note's text (regular note)
- `JTF_NOTE_UPDATE_NOTE_DETAILS`, the ability to update a note's details (a large or detailed note)
- `JTF_NOTE_DELETE`, the ability to delete a note
- `JTF_NOTE_UPDATE_SECONDARY`, the ability to update a note's type, status, relation (relate to), and attachment information

These functions are defined in the `FND_FORM_FUNCTIONS` table since they are referenced in the actual code. Therefore, they cannot be changed or extended.

In addition, functions (privileges) can be grouped into menus (roles) to reduce the granting overhead.

- Menus (Roles)

The following menus (roles) are defined for Notes security:

- `JTF_NOTES_USER`
 - `JTF_NOTE_SELECT`
 - `JTF_NOTE_UPDATE_SECONDARY`
- `JTF_NOTES_CREATOR`
 - `JTF_NOTE_CREATE`

Please note that menus are user definable, the seeded menus only exist to ensure backward compatibility.

- Grants (Authorizations)

A grant consists of the following three components:

- Object. Any object instance or object instance set, for instance, all non-private notes.
- Grantee. Any user or user group, for instance, "JDOE" for John Doe
- Menu. Any menu, for instance, "JTF_NOTES_USER"

These three components would grant the user, John Doe, the ability to select and update all non-private notes.

In addition, all grants should be registered in table `FND_GRANTS`.

Please note that when using AOL security a user will by default not be able to do anything unless explicitly granted.

- Global Grants

To reduce the administration of grants, authorizations can be granted globally to the following:

- The "Global" user or user group (grantee)
- The "Global" object instance (object)

Steps for Customizing HTML Notes Security

After understanding of how data can be organized in HTML Notes based on the AOL security model, system administrators can further customize the HTML Notes security rules by granting users appropriate data access permissions using the concept of object instance sets.

To better explain how the customization can be done, use the following business scenario to lead you through the possible customization steps.

A company's Sales department wants sales managers to be able to create and delete confidential notes for their sales leads. These confidential notes will be of note type "Confidential" and should be invisible to normal sales representatives. In addition, only sales managers should be able to create and delete confidential notes.

To customize HTML Notes security which is, in other words, to create grants based on the business scenario. Before starting a new grant, the following three components should be identified first:

- Identifying Users or User Groups (Grantee)

Users need to be identified so that appropriate access privileges can be granted to them. In general, a user can be a single resource, resource group, or all members of a resource group.

Based on the scenario, sales managers and sales representatives are the grantees who will be given appropriate access permissions should be first identified. It can be done in Resource Manager by creating a resource group "SalesReps" containing all the sales representatives, and another group "SalesMan" containing all sales managers. How to create a resource group, refer to Resource Manager chapter, *Oracle Trading Community Architecture Technical Implementation Guide*.

- Defining Object Instance Sets (Object), page 13-6
- Defining Menus (Menu), page 13-7

Once the grant components (who has what privileges to access which objects) are identified, the administrator can start the granting process:

- Disabling Existing Grants, page 13-9
- Adding New Grants, page 13-9

Defining Object Instance Sets

Use an object instance set to specify a parameterized set of rows for the Notes object so that it can be granted to appropriate users.

An object instance set is a subset of data resided within an object, therefore an object must exist first before you are able to create an object instance set for that object.

Note: The creation of object instance set is metadata driven, all data required to ensure backward compatibility with current Note security model are seeded.

The Notes module uses two seeded objects, JTF_NOTES and JTF_NOTE_TYPES. Each object can be customized by creating object instance sets to provide users with specific sets of Notes data if necessary. For example, notes (JTF_NOTES object) can be customized to have different object instance sets, such as all confidential notes. Note types (JTF_NOTE_TYPES object) list of values (LOV) can also be customized for different users.

Based on our scenario, in order to grant sales managers the permission to create confidential notes, and ensure sales representatives cannot create confidential notes, the following object instance sets should be created for JTF_NOTES:

- All confidential notes
- All non-confidential notes

Additional object instance sets should be created for JTF_NOTE_TYPES so that sales manager, not sales representatives, can see the confidential note type. To do so, you can filter the list of available note types:

- All confidential note types
- Sales representative note types (all note types except the confidential note type)

Note: The note type LOV uses the internal API and appends the returned where clause to the base query to provide security data access.

Use the following steps to define object instance sets.

Responsibility: Functional Developer

Tips: First locate the object that you want a new instance set created for, then enter

necessary information for the set.

Prerequisites

- An object must be in place.

Steps:

1. Navigate to Objects.
2. Enter necessary search information in the Find Objects window to locate the JTF_NOTES and JTF_NOTE_TYPES objects. Search results should be listed after executing the search.
3. Click the object name hyperlink for which you want the new instance set to be created from the search result to open the Find Object Instance Set window.
4. Existing instance sets for the selected object are also listed here. Click **Create Instance Set**.
5. Enter instance set detail information including instance set name, display name, description and predicate.
6. Save your work.

Related Topics

For detailed information on how to define object instance sets, see *Oracle Applications System Administrator's Guide - Security*.

Defining Menus

A menu is a hierarchical arrangement of functions and menus of functions. If a grant just involves a single function, such as grant the create notes function (JTF_NOTE_CREATE) to a user, then there is no need to define menus. As mentioned earlier, the purpose of using menus is to reduce the administrative tasks. If multiple functions need to be given to a user, it is necessary to group them into a menu or menu structure.

In our scenario, sales managers require the following functions in a menu format:

- JTF_NOTE_SELECT
- JTF_NOTE_CREATE
- JTF_NOTE_DELETE

- JTF_NOTE_UPDATE_NOTES
- JTF_NOTE_UPDATE_SECONDARY
- JTF_NOTE_TYPE_SELECT

In addition, create another menu for sales representatives including the following functions:

- JTF_NOTE_SELECT
- JTF_NOTE_CREATE
- JTF_NOTE_UPDATE_SECONDARY
- JTF_NOTE_TYPE_SELECT

Responsibility: System Administrator.

Steps:

1. Navigate to Application, Menu.
2. Enter the menu name that describes the purpose of your menu, such as "SalesMan" or "Salesrep" in the Menu and User Menu Name fields.
The User Menu Name is used when a responsibility calls a menu or when one menu calls another.
3. Select an appropriate menu type and enter description information:
 - Standard. For menus that would be used in the Navigator form
 - Tab. For menus used in self service applications tabs
 - Security. For menus that are used to aggregate functions for data security or specific function security purposes, but would not be used in the Navigator form
4. Enter required functions for this menu including:
 - Sequence. Enter an integer here.
 - Navigation prompt. Enter a user-friendly, intuitive prompt your menu displays for this menu entry. This menu prompt appears in the hierarchy list of the Navigator window.
 - Submenu name. Enter a submenu name if applies. This calls another menu and allows users to select menu entries from that menu.

- Function name and description. Enter a function name that you wish to include in the menu. Descriptions appear in a field at the top of the Navigate window when a menu entry is highlighted.
- The Grant check box. This should always be checked which indicates that this function is automatically enabled for the user. If this is not checked, then the function must be enabled using additional data security rules.

5. Click **View Tree...** to see menu's hierarchical structure.

Related Topics

Refer to *Oracle Applications System Administrator's Guide - Security* for more information regarding how to define a menu.

Disabling Existing Grants

The purpose of disabling existing grants is to make sure that all seeded global grants are revoked so that they don't interfere with the new grants. To disable a grant, you can set an end date for the grant, instead of deleting it completely.

Responsibility: Functional Administrator

Steps:

1. Navigate to Grants.
2. Search the existing grants that you want to disable by entering search criteria in the Search Grants window.
3. Click **Go** to retrieve the grants that match your search criteria.
4. Select the grant that you want to disable from the search result.
5. Set an end date in the Context window and click **Finish** to disable the grant.

Related Topics

For more information on how to disable existing grants, see *Oracle Applications System Administrator's Guide - Security*.

Adding New Grants

A new grant must take place when there is a need to authorize access privileges for a user so that the user can perform certain functions, or to have more specific actions on a

designated instance set. Therefore, based on the data access levels, there are two types of grants: Function Grants (such as "Administrator" menu) and Data Grants (such as the note type LOV data)

For function grant, it applies to all objects and consists of the following windows:

1. Grantee: There are three grantee types appeared in radio buttons. Only one of them should be selected as a grantee.
 - All users (global)
 - Group of users (group)
 - Single user (user)

In the case of a group or a single user is selected, the corresponding group or user name should be further identified. The selected grantee will be validated against WF_ROLES table.

2. Function Set: A function set (or a menu) can be selected from the LOV so that an appropriate function set can be granted to a specified grantee.
3. Context: The screen provides grant attributes information including organization, responsibility, start and end dates, program name, and program tag fields. This is the place where a grant can be disabled by entering an end date.

For data grant, a specific object and instance set information need to be further identified. It consists of the following windows in a sequential order:

1. Object: A specific object name needs to be specified for this grant.
2. Grantee: Like the function grant, grantee can be a user, a group, or all users.
3. Function Set: Like the function grant, a function set needs to be specified in order to authorize it to a specified grantee.
4. Data Set: There are three types of instance. Only one of them should be selected:
 - All rows of the object (global): When it is selected, the Data Set Details window will be skipped and you are directed to the Context window.
 - A specific row of the object (instance)
 - A parameterized set of rows (instance set): When it is selected, the instance set name needs to be further identified.
5. Data Set Details: In the case of instance or instance set is selected in the Data Set window, more data or data set details will be displayed in this window. If instance is selected, then this page will have associated primary key values displayed. If

instance set is selected, then this page will have parameter columns displayed with the associated predicate information for the selected instance set.

6. Context: Like the function grant, additional grant attributes can be addressed here. Use the end date field to revoke a grant.

Based on the scenario we have, the following grants need to be authorized:

- Grant all sales representatives the access to all non-confidential notes
- Grant all sales managers the access to all non-confidential notes
- Grant all sales managers the access to all confidential notes
- Grant all sales representatives the access to sales representative note types
- Grant all sales managers the access to all confidential note types
- Grant all sales managers the access to sales representative note types

Use the following steps to add a new grant. Detailed information on how to add new grants, see *Oracle Applications System Administrator's Guide*.

Responsibility: Functional Administrator

Steps:

1. Navigate to Grants, Create Grant.
2. Enter grant name, description, and effective end date information.
3. In the Security Context region, select the Group of Users from the LOVs for the Grantee Type field. Additionally, specify appropriate operating unit and responsibility information.
In the Data Security region, select JTF_NOTES as the object name.
4. In the Create Grant: Select Object Data Context page, select "Instance Set" in the Data Context Type field for JTF Notes Object. Select "JTF_SALES_NOTES" or "JTF_SALES_NOTETYPES" for the Instance Set field.
5. In the Create Grant: Define Object Parameters and Select Set page, Select "JTF Notes Creator" as the set name.
6. In the Create Grant: Review and Finish page, review the information and click the Finish button.

Troubleshooting Notes

This chapter covers the following topics:

- Notes Error Messages
- Answers to Frequently Asked Questions (FAQs)

Notes Error Messages

ORA-20000

InterMedia Text error: ORA-01722: invalid number ORA-06512: at "CTXSYS.DRUE", line 126 ORA-06512: at "CTXSYS.TEXTINDEXMETHODS", line 226 ORA-06512: at line 1.

Cause: Script Failure Error

Action: To resolve this issue, configure your environment to include Intermedia text. For more information, refer to the *Oracle 8i Intermedia Text Installation Manuals FAQ* or contact Oracle Support.

Script Failed Error

The following error message can occur:

- **ORA-29856: error occurred in the execution of ODCIINDEXDROP routine.**
- **ORA-20000: interMedia Text error: ORA-01722: invalid number ORA-06512: at "CTXSYS.DRUE", line 126 ORA-06512: at "CTXSYS.TEXTINDEXMETHODS", line 226 ORA-06512: at line 1.**

Configure your environment to include Intermedia text. For more information, refer to the *Oracle 8i Intermedia Text Installation Manuals FAQ* or contact Oracle Support.

See Also

- Setting Up Note Types, page 12-2
- Mapping Note Types to a Source, page 12-2
- Setting Up the Source Object Code and Context, page 28-4
- Setting Profile Options, page 12-3

Answers to Frequently Asked Questions (FAQs)

The following are frequently asked questions. Answers to these questions may help you in troubleshooting problems with the Notes module.

Can You Delete or End Date Seeded Note Types?

Seeded data cannot be end dated or deleted. However, users can define new note types.

What do the note statuses Private, Public, and Publish mean?

Note status has three values:

- Private: Note is visible to only the creator of the note.
- Public: Note is visible to all application users (except customers).
- Publish: Note is visible internally and to customers via customer facing applications like Oracle iSupport.

I changed the value of a profile option, but it is not reflected in HTML Notes. Why is that?

After changing a profile option value in Forms, you must bounce the Apache server for it to take effect in HTML.

The profile option "Notes: Default Note Type" is set, but it is not reflected in either HTML or Forms notes. Why?

This profile option applies only to Oracle Applications Framework Notes.

Note type setups were done in the Source and Note Type Mapping form. Why are the note types displayed on the Notes Detail page not restricted based on these setups?

The Note Type drop down list shows the following:

- All the note types that are mapped to the source
- All note types that are common across all sources. They are not mapped to any other source.

Calendar Implementation

This chapter covers the following topics:

- Overview of Calendar in Oracle Applications Framework
- HTML Calendar Overview
- Forms-based Calendar Overview
- Creating a Calendar User
- Setting Calendar Profile Options
- Starting Workflow Processes
- Integrating with Web Mail

Overview of Calendar in Oracle Applications Framework

The Calendar module adopts the Oracle Applications Framework provides essential Calendar functionality including creating and updating appointments, checking resource availability, and viewing scheduled activities through personal calendar views for integrated applications, such as Oracle Sales.

HTML Calendar Overview

Think of using the HTML Calendar as a personal productivity tool. Individual resources can use it to define and view personal daily activities and appointments. Users can create appointments, tasks or other calendar events, invite attendees for the appointment, and view scheduled activities through different calendar views.

In addition, the HTML Calendar provides an effective mechanism for users to manage group activities by using group or public calendars. Calendar users can request new group or public calendars and get request approvals from the Calendar Administrator. Once the request has been approved, the requestor of the new group calendar becomes the group calendar owner or Group Calendar Administrator of that group calendar and is responsible for any future approvals of that group calendar subscription requests.

To implement HTML Calendar, implementors can embed the Calendar tab into an existing Oracle E-Business Suite module if necessary. The implementor or system administrator must then create a Calendar Administrator. The Calendar Administrator, typically a workflow administrator or system administrator, creates individual calendar users later and is responsible for approving or rejecting new group and public calendar requests as well as starting and stopping required workflow processes.

Setup Dependencies

To be able to use the full functionality of HTML Calendar, the following components must be set up properly:

- **HTML Task Manager.** Use HTML Task Manager to schedule appointments and tasks, and to create repeating appointments for meetings.
- **HTML Resource Manager.** Use HTML Resource Manager to retrieve individual resources for an appointment.
- **Oracle Workflow.** Use Oracle Workflow to send workflow notifications for processing new group calendar requests and subscription requests to existing group calendars.
- **HTML Tech Stack.** Use HTML Tech Stack to display the HTML functionality.

HTML Calendar also uses Accounts Receivable profile options to set the default client and server time zones for a user.

Forms-based Calendar Overview

Use the Forms-based Calendar to enter shifts and exceptions in order to define resource availability and unavailability, as well as to create personal To-Do List and view scheduled activities using Calendar Datebook functionality.

The resource work shift information will be displayed as yellow background in the Gantt chart while using Assignment Manager for resource selection. Telesales applications use the Calendar Datebook functionality to view a resource's availability and assigned tasks.

To implement the Forms-based Calendar, implementors need to define a corporate calendar specifically used for resource scheduling, define resource availability as work shifts, define resource unavailability as exceptions, assign shifts and exceptions to a calendar, and then assign resources to that calendar.

Setup Dependencies

To be able to use the full functionality of the Forms-based Calendar, the following components must be set up properly:

- **Task Manager (Forms).** Use Forms-based Task Manager to create personal Todo List (tasks) and to have tasks displayed in different calendar views. The functionalities of Todo List and calendar views reside in the Calendar Datebook and can be accessed through the Telesales application.
- **Resource Manager.** Use Resource Manager to retrieve a specific resource for different calendar views.

Creating a Calendar User

Every employee resource with appropriate responsibilities can use the Calendar functionality to create appointments, view personal calendars, and check resource availability. Make sure that all employees exist in the Resource Manager and the resources are linked to the application login user names (FND_User).

Setting Calendar Profile Options

The Oracle Applications Framework based Calendar module uses the following profile options; therefore, implementors or system administrators must set them so that the module can work properly:

- Client Timezone
- ATGCA: Enable Web Mail
- ATGCA: Web Mail Server URL
- Self Service Accessibility Features

The profile option "Self Service Accessibility Features" is used to turn on the access to the Accessibility Daily View if it is set to either "Screen Reader" or "Yes". If it is set to "No", then users can only access the regular Personal Calendar Daily View page.

The following table describes the profile options that are specific to the HTML Calendar.

Calendar Profile Options

Name	Default Value	Level	Description	Outcome
JTF HTML Calendar: Administrator	No default value	Site	The JTF HTML Calendar: Administrator profile option sets the Calendar Administrator who grants approval and subscription requests for group and public calendars.	Set the value to the username of the calendar user who grants group and public calendar requests.
Client Timezone	America/Los_Angeles	Site	The Client Time zone profile option is used by Calendar to set the default time zone for the client in the Create Appointment window.	Set the value to the location where your appointments take place. Setting the time zone from the profile link in the Calendar UI is another way to set and update this profile value.
JTF HTML Calendar Task Span Days	No	Site	The JTF HTML Calendar Task Span Days profile option sets tasks that spans over more than one day to appear continuously across days on your personal calendar.	Set the profile option to Yes to have your tasks that span over more than one day to appear continuously across days on your personal calendar. If the value is set to No , the task shows as a memo for each day affected.

Name	Default Value	Level	Description	Outcome
JTF_PROFILE_DEFAULT_RESPONSIBILITY	22946	User	The JTF_PROFILE_DEF AULT_RESPONSIBILITY profile option sets the default responsibility when using calendar as a standalone application.	Set the value to correspond to the calendar user. The user value is 22946
JTF_PROFILE_DEFAULT_APPLICATION	690	User	The JTF_PROFILE_DEF AULT_APPLICATION profile option sets the default application when using calendar as a standalone application.	Set the value to correspond to the calendar user. The user value is 690.
ATGCA: Enable Web Mail	No	User	The "ATGCA: Enable Web Mail" profile option is used to enable or disable web mails sent from an integrated webmail, such as Oracle Collaboration Suite, through the Calendar Availability window.	If it is set to Yes , then you can launch webmails through the Availability window. If it is set to No , then you cannot send webmails, but HTML "mailto:" attribute will be used instead.
ATGCA: Web Mail Server URL	N/A	User	The "ATGCA: Web Mail Server URL" profile option is used to specify the URL address for the integrated webmail server.	Set valid server URL for the web mail server in order to send web mails through an integrated web mail, such as Oracle Collaboration Suite, from Availability view.

Name	Default Value	Level	Description	Outcome
Applications SSO Login Types	Both (Site level) Local (user level)	Site and User levels	<p>The "Application SSO Login Types" profile option is used to allow the Palm and Outlook synchronization to work properly if it is set to "Both" when using the Single Sign-On (SSO) feature.</p> <p>It is important to note that if integrated applications decide to implement this Single Sign-on feature and once this profile option is set, it may have an impact on the login at the application level. As a result, the sync feature can also be affected.</p>	<p>Since any changes to the password stored at the local application level (such as Oracle E-Business Suite) can be passed to Oracle Internet Directory (Single Sign-On server), but not vice versa which means that a user's single sign-on password will not necessarily be synchronized with his local application's password. Therefore, if it is set to Both, then the sync required username and password are stored both at the local application level and the external Oracle Internet Directory. If it is set to SSO, then the sync required login information is stored externally at the SSO Server only and not maintained at the application level. Therefore, the sync feature will not work. If it is set to Local, then the sync required login information is stored at the local application level which means that the login is only allowed through the Oracle E-Business Suite local login.</p>

Starting Workflow Processes

Implementors or system administrators need to start the following workflow processes, so that the Oracle Applications Framework and HTML based Calendars can work properly:

- CAC Calendar Workflows. Use CAC Calendar Workflow to track and route relevant workflow notifications to an appointment owner when an invitee accepts or rejects an invitation.
- CAC Reminders. Use CAC Reminders to pick up appointment reminders for scheduled appointments.

Integrating with Web Mail

To invoke web mail compose window through an integrated Web Mail, such as Oracle Collaboration Suite, from the calendar Availability view and the task Assignment window while creating or updating tasks, implementors or system administrators need to set up profile options to enable this feature and specify correct server URL. However, if Oracle Collaboration suite is not installed, then this feature will not work and link will open default e-mail client.

Setting Profile Options

Calendar uses the following profile options for Web Mail setup:

- ATGCA: Enable Web Mail. This profile uses the following values to indicate whether or not to use web mail:
 - Yes. It indicates that Web Mail is enabled and you can launch webmails through the Availability window and the task Assignment window.
 - No (default). It indicates that Web Mail is not enabled and HTML "mailto:" attribute will be used instead. Using "mailto:" attribute will invoke default browser e-mail client, such as Netscape Messenger.
- ATGCA: Web Mail Server URL. This profile specifies the URL address for the integrated webmail server. It starts with either "http://" or "https://".

Valid Server URL Address

Use the following URL for the invocation of the Oracle Collaboration Suite Web Mail message compose window from a web page:

`"http://<machinename>:<port>/um/traffic_cop"`

Note that machine name is required. Port number is usually not part of the URL, but it can be added if necessary depending on how the Oracle Collaboration Suite is installed.

For example, you can set the URL address as follows:

- `"https://collabsuite.oracle.com/um/traffic_cop"` OR
- `"https://collabsuite.oracle.com:8080/um/traffic_cop"`

If profile "ATGCA: Enable Web Mail" is set to Yes, system administrators must identify valid server URL for "ATGCA: Web Mail Server URL" profile. Otherwise, the following conditions will be used:

- If "ATGCA: Web Mail Server URL" profile value is missing, it has the same effect as "ATGCA: Enable Web Mail" being No. The default "mailto:" attribute would be used.
- If "ATGCA: Web Mail Server URL" profile value is invalid but does start with "http", the default browser error "The page cannot be displayed." will be shown.
- If "ATGCA: Web Mail Server URL" profile value is invalid and does not start with "http", an unrecoverable HTML error will occur after clicking the e-mail hyperlink from the availability view.

Perform additional implementation steps on the server side to launch webmails successfully, such as including "jtfCalWebMail.js" in your jsp file, and using appropriate syntax to invoke web mail feature or HTML "mailto:".

Implementing the Oracle Applications Framework Based Calendar

This chapter covers the following topics:

- Subscribing to Business Events for Appointments

Subscribing to Business Events for Appointments

The Calendar module, leveraging the Oracle Workflow Business Event System, publishes business events for appointments such as creating, updating, and deleting an appointment, adding and removing an invitee, and responding to an invitation when the following conditions occur from APIs, application user interfaces (UIs) in HTML or the Oracle Applications Framework based modules:

- An appointment is created, updated, and deleted
- An invitee is added to or removed from an appointment
- An invitee accepted or rejected an appointment

Applications that contain data directly affected by these events can subscribe to them and synchronize or modify their data accordingly.

For detailed information about appointment business events and event attributes, see Publishing Business Events for Appointments, page 19-4.

Implementing Resource Schedules in Forms

This chapter covers the following topics:

- Defining Resource Schedules
- Defining Availability
- Defining Unavailability (Exceptions)
- Using the Assign Shift and Exceptions Window
- Assigning a Resource to a Calendar

Defining Resource Schedules

To be able to show resource work shift information, the implementor or system administrator must define a calendar with start and end date information. For example, you can create a corporate calendar which runs from January 01, 2003 to December 31, 2003. Once the shifts and exceptions are specified, they can be associated with the calendar used specifically for resource scheduling.

Calendar types include, Corporate, Division, Group, Personal, and Team.

Use the CRM Administrator responsibility to navigate to [Calendar > Calendar Setup > Define Calendar](#).

Defining Availability

Use the define shift window to define available work hours. A shift is defined at the time a resource is available, and a shift pattern is the shift that extends for a longer period of time. Shift patterns cannot overlap with each other.

Examples of a shift can be that a service engineer works from 7:00 a.m. to 4:00 p.m. on Monday, or from 8:00 a.m. to 3:00 p.m. from Tuesday through Friday. A shift pattern for the service engineer is that she works from 7:00 a.m. to 4:00 p.m. on Monday and from 8:00 a.m. to 3:00 p.m. for Tuesday through Friday. This shift pattern can be defined from January 01, 2003 to May 31, 2003.

In addition, implementors can further specify if the shift is a regular or standby shift in the Availability Type field. After identifying shift information, implementors can then associate it with a specific calendar.

The shift information can be seen as yellow background displayed in the Gantt chart while using Assignment Manager for resource selection.

Use the CRM Administrator responsibility to navigate to Calendar > Calendar Setup > Define Shifts.

Enter the time the shift begins in the following format: 00:00.

Enter the duration of the shift in the Hours and Minute fields, such as 10 hours and 30 minutes. The shift end time is calculated automatically once the duration is entered.

Defining Unavailability (Exceptions)

You must define not only your working hours, but also the times when you are not available for work, such as federal holidays, vacation, or sick days. These days are exceptions to your regular working shift.

Use the CRM Administrator responsibility to navigate to Calendar > Calendar Setup > Define Exceptions.

Select a category from the LOV. A category is a predefined type of exception.

Define a start and end date for your exception.

Using the Assign Shift and Exceptions Window

You can use the Assign Shift and Exceptions window to perform the following actions:

- Assign a Calendar to a Shift

After defining work shifts, the implementor or system administrator must assign them to a calendar. To assign them to a calendar, query up the calendar specifically used for scheduling resources, and then enter shift information in the Shifts tab.

Navigate to Calendar > Calendar Setup > Assign Shift/Exceptions.

- Assign a Calendar to an Exception

Use the same calendar that has work shift information to assign previously defined exceptions. As a result, this calendar will have both available and unavailable work information for a period of time.

Navigate to Calendar > Calendar Setup > Assign Shift/Exceptions and use the Exceptions tab.

Assigning a Resource to a Calendar

After associating work shift and exception information to a calendar, the implementor can assign resources to it.

In order to show the resource work shift information as yellow background in the Gantt chart while using the Assignment Manager for resource selection, the implementor or system administrator must select YES in the Primary Calendar field. This is because only the primary calendar will be considered for availability purposes.

Note: A resource can be assigned to many calendars, but can have only one primary calendar for a period of time.

Resources of any categories defined in Resource Manager can be assigned to a calendar.

Use the CRM Administrator responsibility to navigate to Calendar > Calendar Setup > Assign Resources.

Implementing Resource Schedules in OA

This chapter covers the following topics:

- Creating Categories for Shifts and Exceptions
- Setting Up Global Exceptions
- Setting Up Shift Detail Types
- Schedule Category Lookup

Creating Categories for Shifts and Exceptions

In the schedule repository, a category assigns significance to a shift or exception. The significance is basically used to identify whether a resource is available, not available, or maybe. Colors are assigned to different categories so that a scheduler viewing the calendar can see at a glance what resource is available at what time.

Example

In the sample case there are a few different periods of significance that we want to distinguish:

- Call center employee is available for work
- Call center employee is not available for work
- Service employee is available for work
- Service employee is not available for work
- Service employee is available for emergencies
- Service employee is not available for emergencies

Category	Meaning	Display Color	Available?
Work Call Center	Available for call center department	green	Yes
Work Service	Available for service department	green	Yes
Not Available	Not Available	red	No

Since the call center and service department follow different schedules there is no need to define different categories for work. So all we need are the following shift categories:

Category	Meaning	Display Color	Available?
Available	Available for work	green	Yes
Not Available	Not Available	red	No

Notes

- **Remove:** When you click Remove, the application checks if the category is being used in a shift, and if so, displays an error message. If the category is not used anywhere, then it's removed from the table here, but the action is not performed in the database until Apply is clicked.
- **Show Shift Details:** This applies only to shifts created for day based schedule patterns. If set to yes, then when you create a shift you can add more detailed information about the shift. This is most applicable to flexible time shifts where you can define specific time ranges for flexible starts, flexible lunch times, and so on.

Setting Up Global Exceptions

For the schedule repository, you can set up common exceptions such as company holidays which can then be included in schedules. Global exceptions are not automatically included in schedules.

Notes

- **Category:** The shift category determines whether the exception will designate the resource as available or unavailable.
- **Whole Day:** If selected, the full 24 hours of the date start and date end are included

in the exception. If deselected, you can specify a time start and time end for the exception.

Setting Up Shift Detail Types

In the schedule repository, shift detail types are used only in day based schedule patterns. A shift can be very detailed. For example, for flexible time schedules, the details define what hours are flexible and what hours are not flexible, for example for lunch breaks or maintenance downtime.

When you create the shift detail types, you provide a name that can be selected when creating the shift detail. You also provide the color to use for each shift detail type when previewing schedules.

Schedule Category Lookup

On the Schedules page and the Define Schedule page there is a Category field with a list of selections. The seeded selections are:

- Pager Schedule
- Work Schedule

You can add categories to this lookup code CAC_SR_SCHDL_CATEGORY.

Implementing the HTML Calendar

This chapter covers the following topics:

- Creating or Changing a Calendar Administrator
- Implementing Calendar Events
- Subscribing to Business Events for Appointments
- Running Concurrent Program

Creating or Changing a Calendar Administrator

The Calendar Administrator, typically the system administrator or workflow administrator, has the privilege to grant approval or rejection to new group and public calendar requests. When new group or public calendar requests are generated, the Calendar Administrator receives workflow notifications for approval. Therefore, the user who becomes the Calendar Administrator must exist in Oracle Human Resource Management System (HRMS) as an employee resource.

Use the following procedures to create a Calendar Administrator:

1. Assigning Appropriate Responsibilities:

After identifying an employee resource to become a Calendar Administrator, implementors or system administrators must assign appropriate responsibilities to the employee. In order to receive notifications and create calendar general users, the Calendar Administrator must have the following responsibilities:

- System Administrator. Use this responsibility to grant the HTML Calendar access responsibilities to calendar general users.
- CRM Application Foundation User. Use this responsibility to access the HTML Calendar and HTML Resource Manager modules.

Optionally, use the JTF HTML Calendar User responsibility if you are only to access the HTML Calendar module.

- Workflow User Web Applications. Use this responsibility to verify workflow processes, and to view workflow notifications. If it is configured correctly, you can view these notifications from your personal homepage.
- Preferences (Oracle Self-Service Web Applications). Use this responsibility to define user preferences, for example, send or do not send e-mail notifications. To receive workflow notifications, select General Preferences and change the value in the "Send me electronic mail notifications" field to "Do not send me mail". This tells the system not to send you e-mail notifications, but instead to send them to your notifications page.
- **Associating the Calendar Administrator with Appropriate Profile Options**

After creating the Calendar Administrator, implementors must set the "JTF HTML Calendar: Administrator" profile option to the person who will be the Calendar Administrator. This grants the profile option to the Calendar Administrator, so that she or he can grant approval for new group and public calendar requests.

Additionally, if the standalone HTML Calendar module is used as default application and responsibility after signing on, then the following profile options also need to be assigned to the Calendar Administrator:

- JTF_PROFILE_DEFAULT_RESPONSIBILITY (22946)
- JTF_PROFILE_DEFAULT_APPLICATION (690)

Changing a Calendar Administrator

HTML Calendar allows only one Calendar Administrator in the system to be responsible for any new group or public calendar requests; therefore, in the case of the absence of the Calendar Administrator, the Calendar Administrator or whoever has the JTF_CALENDAR_ADMIN role can perform the update by changing the name in the Calendar Administration window.

The JTF_CALENDAR_ADMIN role can be assigned through the System Administrator Console by the system administrator. A user without this role attempting to access the Calendar Administration window will see an error message saying that "You don't have sufficient privileges to view this page."

Once you update the Calendar Administrator, the JTF_CALENDAR_ADMIN role is automatically assigned to the new Calendar Administrator, and is revoked from the old Calendar Administrator. Therefore, the new Calendar Administrator can get access to the Calendar Administration window while the old Calendar Administrator cannot. All the new group calendar requests should be sent to the new Calendar Administrator through workflow notifications.

Assign JTF_CALENDAR_ADMIN Role to a User

To grant the JTF_CALENDAR_ADMIN role to a user, log in to the System

Administrator Console as a system administrator. Select Users tab > Registration subtab > User Maintenance. Query up the user name and then click the Roles button to access the User-Role Mapping window. Select the JTF_CALENDAR_ADMIN role from the Available Roles block to move the role to the Assigned Roles block. Click the Update button to complete the change. The user will have access to the Calendar Administration window.

Implementing Calendar Events

In addition to scheduled appointments and tasks, HTML Calendar provides the ability to allow users to view calendar events, such as campaigns, on their calendar views.

In order to use this functionality, the integrated applications have to perform the following tasks:

1. Identify resource groups to which they would like to publish events and add CALENDAR_ITEMS usage to the groups.
2. Make sure that business objects (known as events in calendar) that are published are valid JTF_OBJECTS with all the following metadata defined:
 - SELECT_NAME
 - SELECT_ID
 - FROM_TABLE
 - OBJECT_CODE
 - WHERE_CLAUSE
 - WEB_FUNCTION_NAME
 - WEB_FUNCTION_PARAMETERS
 - WEB_HTML_CALL
3. Populate the JTF_CAL_ITEMS_B table using the JTF_CAL_ITEMS_PUB API.

In order to view the calendar events in the personal calendars, calendar users must also meet the following conditions:

- Users must belong to resource groups to which the event is published.
- Users must have the "Display Events" set to yes in the calendar personal preference page from the Profile navigation link.
- Users must further personalize how these calendar items will be displayed in their

personal calendars by selecting the desired color and prefix text.

This feature will work only when integrated applications implement the functionality and follow the required steps.

Oracle Marketing is one of the applications that is currently implementing this functionality. Please refer to *Oracle Marketing Implementation Guide* for more details.

Subscribing to Business Events for Appointments

The Calendar module, leveraging the Oracle Workflow Business Event System, publishes business events for appointments such as creating, updating, and deleting an appointment, adding and removing an invitee, as well as responding to an invitation when the following conditions occur from APIs, application user interfaces (UIs) in HTML or the Oracle Applications Framework based modules:

- An appointment is created, updated, and deleted
- An invitee is added to or removed from an appointment
- An invitee accepted or rejected an appointment

Applications that contain data directly affected by these events can subscribe to them and synchronize or modify their data accordingly.

For example, if an appointment is created with invitees, this action is published or "raised" as a business event. This event can be, for example, captured to send relevant workflow notifications. If an appointment is created, updated, or deleted, this action is raised as a business event.

The Oracle Workflow Business Event System

The Oracle Workflow Business Event System is an application service that leverages the Oracle Advanced Queuing (AQ) infrastructure to communicate business events between systems. The Business Event System consists of the Event Manager, which allows you to register subscriptions to significant events, and workflow process event activities, which allow you to model business events within workflow processes.

The Event Manager contains a registry of business events, systems, named communication agents within those systems, and subscriptions indicating that an event is significant to a particular system. Events can be raised locally or received from an external system or the local system through AQ. When a local event occurs, the subscribing code is executed in the same transaction as the code that raised the event, unless the subscriptions are deferred.

See *Oracle Workflow Developer's Guide* for detailed information about Oracle workflow business event system, and subscriptions.

Appointment Business Events

When an appointment is created, updated or deleted, an invitee is added or removed, as well as an invitation is responded from APIs, or application user interfaces (UIs), the Calendar module will publish the following events:

Appointment Business Events

Event Name	Display Name	Description
oracle.apps.jtf.cac.calendar.createAppointment	Appointment created.	This event is published when an appointment is created.
oracle.apps.jtf.cac.calendar.updateAppointment	Appointment updated.	This event is published when an appointment is updated.
oracle.apps.jtf.cac.calendar.deleteAppointment	Appointment deleted.	This event is published when an appointment is deleted.
oracle.apps.jtf.cac.calendar.addInvitee	Invitee added.	This event is published when an invitee is added.
oracle.apps.jtf.cac.calendar.respondInvitation	Invitee responded.	This event is published when an invitee is responded.
oracle.apps.jtf.cac.calendar.removeInvitee	Invitee removed.	This event is published when an invitee is removed.

For each appointment business event, the owner name is Calendar, the owner tag is JTF and the default status is Enabled.

Event name represents the name of a business event that is an occurrence in an application or program that might be significant to other objects in a system or to external agents. Event name must be unique and is case-sensitive; therefore, subscribers must use Event Name for subscription purposes.

Event Attributes for Appointment and Invitee Events

The following table contains published attributes for the parameters used to create, update, and delete appointments.

Event Attributes to Create, Update, and Delete Appointments

Parameter Name	Source Table Name	Create Appointment	Update Appointment	Delete Appointment
TASK_ID	JTF_TASKS_B	Yes	Yes	Yes

The following table contains published attributes for the parameters used to add, and remove invitees, as well as respond invitation events. Yes indicates that an attribute is published and No indicates that it is not.

Event Attributes for Invitee Events

Parameter Name	Source Table Name	Add Invitees	Respond Invitation	Remove Invitees
TASK_ID	JTF_TASKS_B	Yes	Yes	Yes
ASSIGNMENT_STATUS_ID	JTF_TASK_ASSIGNMENTS	No	Yes	No
RESOURCE_ID	JTF_TASK_ASSIGNMENTS	Yes	Yes	Yes
RESOURCE_TYPE	JTF_TASK_ASSIGNMENTS	Yes	Yes	Yes

Appointment Events Subscription Guidelines

All event subscriptions must follow the guidelines mentioned in the workflow development standards. For example, any subscription cannot commit inside the rule function. This can cause unexpected behavior in the workflow or appointment APIs.

In addition, the following subscription guidelines are also used in publishing appointment business events:

- Asynchronous Subscriptions

All subscriptions to the events should be asynchronous. The UIs call the APIs, which in turn publish events. Therefore, if the subscriptions are synchronous, the transaction time for the UI will increase.

- Returning with success or warning

The rule function of the subscriptions should return success or a warning. It should not return an error. Returning an error disrupts the processing of other subscriptions; therefore, an error should not be returned.

Running Concurrent Program

The Rebuilding Intermedia Index for Task Names concurrent program rebuilds the intermedia index so that a user can use the Quick Find to search for new and updated appointments and tasks. Therefore, the concurrent program has to be compiled periodically in order for appointment search to work properly. For more information on running this concurrent program, see the Running the Task Manager Concurrent Program, page 5-22 documentation in the Task Manager section.

Implementing OA Calendar Synchronization

This chapter covers the following topics:

- Overview of Calendar Synchronization
- Enabling Outlook Preferences Menu
- Set Up and Synchronize Employees
- Data Quality Management Setup
- Setting Mandatory Profile Options
- Setting Optional Profile Options
- Appointment Preferences
- User Security
- Purge Synchronization Data Concurrent Program
- Attributes Mapping for Outlook Synchronization
- Checking Synchronization Server Status
- Diagnostic Logs

Overview of Calendar Synchronization

Calendar Synchronization provides the ability to synchronize contacts, tasks, and appointments between the Oracle enterprise database and either Pocket PC or desktop Microsoft Outlook. Calendar Synchronization is used by Oracle Sales for Handhelds. For complete implementation instructions and user information for Oracle Sales for Handhelds, see the *Oracle Sales for Handhelds Implementation Guide* and the *Oracle Sales For Handhelds User Guide*.

Oracle Sales Synchronization

Users can use Oracle Sales synchronization to synchronize information between laptop, desktop, or Pocket PC devices and the eBusiness Suite. Oracle Sales Synchronization

can be used to synchronize:

- Appointments
- Tasks
- Contacts
- E-mail interactions (Desktop only)

Synchronization functionality is provided specifically for:

- Pocket PC devices running Windows Mobile 2003 or Windows Mobile 5.0
- Palm devices running Windows Mobile 5.0
- Laptops or desktops with Windows 2000 or Windows XP operating systems running Outlook 2000, Outlook 2002 (XP), Outlook 2003

Enabling Outlook Preferences Menu

This menu contains the functions for setting up the contact list and downloading clients.

Add the submenu for Outlook Synchronization to the ASN menu ASN_HOME_MENU. The submenu to add is ASP: Outlook Synchronization Preferences Container Menu (ASP_OUTLOOK_SYNC_PRF_CONTAINER).

Set Up and Synchronize Employees

Set up users in Oracle Human Resources. If an employee requires the ability to track e-mail interactions through synchronizing with Outlook, be sure to enter the employee's e-mail address under Office Details in Oracle HR before running the Synchronize Employees concurrent program.

The Oracle Common Application Calendar concurrent program *Synchronize Employees* synchronizes HR employee information with Resource information. It must be run whenever new users are added. Use the CRM Administrator responsibility to run this concurrent program.

Data Quality Management Setup

Oracle Sales for Handhelds utilizes Data Quality Management for customer and contact searches.

Steps:

1. Set the profile option *HZ: Enable DQM Party Search* to Yes.

2. Use the Trading Community Architecture responsibility to run the concurrent program *DQM Staging Program* to create the staged schema and intermedia index.
3. Use the Trading Community Architecture responsibility to schedule the concurrent program *DQM Synchronization* on a short interval. This program synchronizes the new data coming into the system.
4. Use the Trading Community Architecture responsibility to schedule the concurrent program *DQM index optimization program* on a regular interval, such as daily.
5. Use the Trading Community Architecture responsibility to run the concurrent program *DQM Compile Match Rules* to compile all the defined match rules.
6. Set the following profile options with appropriate matching rules for customer and contact search:

Function	Profile Option	Default Value (Matching Rule)
Customer Search	HZ: Match Rule for Organization Simple Search	HZ: Organization Simple Search Match Rule
Contact Search	HZ: Match Rule for Contact Simple Search	HZ: Person Simple Search Match Rule
Contact Create	HZ: Match Rule for Organization Duplicate Prevention	SAMPLE: SEARCH
	HZ: Match Rule for Contact Duplicate Prevention	

Setting Mandatory Profile Options

Set the following profile options for the synchronization with Pocket Outlook and Desktop Outlook:

- **CAC Sync: Contact Sync Mode**

Determines if contacts can be synchronized both ways or download only. Choices are Disabled, Download Only, and Two Way.

Level: Site and application

Default: Download Only at the site level, Two Way at the application level for Oracle Sales for Handhelds (ASP)

Category: Calendar - Synchronization or Security

- **CAC Sync: Include Details**

If set to yes, then appointments that are synchronized include appointment details in the body notes.

Level: Application, Site, Responsibility, and User

Default: Yes for application level for Oracle Sales for Handhelds

Category: Calendar - Synchronization or Security

- **CAC Sync: Include Links**

If set to yes, then contacts and appointments synchronized to the offline device include links to related pages. If set to yes, then *CAC Sync: Include Details* must also be set to yes.

Level: Application, Site, User

Default: Yes for application level for Oracle Sales for Handhelds

Category: Calendar - Synchronization or Security

- **CAC Sync: Include Tasks Without Date**

If set to yes, then tasks without due dates are included in the synchronization for the user.

Level: Site, Application, Responsibility, and User

Default: Yes at site level, No at application level for Oracle Sales for Handhelds

Category: Calendar - Synchronization or Synchronization

- **CAC Sync: Contact Data Security Definition**

For the Oracle Sales for Handhelds and the Oracle Sales applications, set the value to: `oracle.apps.asp.common.util.server.CustomerSecurityAM`

This enables adding contacts as attendees for appointments. It enables the Add Contact button in the Create Appointments page in Oracle Sales.

Level: Application

Default: None

Category: Calendar - Synchronization or Security

The profile option Task Manager: Default Task Type is already set to work correctly with synchronization. Please do not change the setting.

Setting Optional Profile Options

You can change the following profile options.

- **CAC: Maximum number of Contact Preferences for each user**

Users create lists of contacts to include during synchronization. This profile sets the maximum number of contacts for all users.

Level: Site

Default: 200

Category: Calendar - Synchronization or Synchronization

- **CAC Sync: Appointments Category**

When appointments are synchronized between Common Application Calendar (CAC) and Pocket PC or Desktop Outlook, the appointments from Oracle Sales are placed in the category specified in this profile option. If this profile option is changed after the initial implementation, then users must perform a Full Synchronization.

Level: Site

Default: Oracle Appointments

Category: Calendar - Synchronization or Synchronization

- **CAC Sync: Contacts Category**

When contacts are synchronized between Common Application Calendar and Pocket PC or Desktop Outlook, the contacts from Oracle Sales are placed in the category specified in this profile option. If this profile option is changed after the initial implementation, then users must perform a Full Synchronization.

Level: Site

Default: Oracle Contacts

Category: Calendar - Synchronization or Synchronization

- **CAC Sync: Tasks Category**

When tasks are synchronized between Common Application Calendar and Pocket PC or Desktop Outlook, the tasks from Oracle Sales are placed in the category specified in this profile option. If this profile option is changed after the initial implementation, then users must perform a Full Synchronization.

Level: Site

Default: Oracle Tasks

Category: Calendar - Synchronization or Synchronization

- **CAC Sync: Conflict Category**

This is the category that stores duplicate information when there are conflicts during synchronization.

Level: Site

Default: Oracle Conflicts

Category: Calendar - Synchronization or Synchronization

- **CAC Sync: Days Before**

The number of days set here determines the number of past days for which tasks and appointments are synchronized from the server to the client during initial (full) synchronization. Tasks and appointments due or occurring within the previous x days as well as tasks and appointments due or occurring anytime in the future are included. Recommend using between 7 and 21 days. There are no limits for synchronizing from the client to the server.

Level: Site. This profile can also be set by users.

Default: 14

Category: Calendar - Synchronization or Synchronization

- **ASP: Email Interaction: Flagged Category**

This is the category name for e-mails that are marked in Desktop Outlook to be added to interaction history in Oracle Sales when synchronized. If you change this category, then users must perform a full synchronization to update their clients.

Level: Site

Default: Marked for Logging

Category: Email Interaction

- **ASP: Email Interaction: Recorded Category**

This is the category name for e-mails that were successfully synchronized from Desktop Outlook to be added to interaction history in Oracle Sales. If you change this category, then users must perform a full synchronization to update their clients.

Level: Site

Default: Logged in Oracle

Category: Email Interaction

Appointment Preferences

Responsibility: Sales User

Preferences > General > Regional > Timezone. Set Timezone to the time zone to be displayed in the appointment pages.

Preferences > Calendar Preferences > Default Settings > Categories. Set Categories to the category you want to be the default for appointments.

User Security

Oracle Sales for Handhelds ships responsibilities with access to these functions already correctly set. Users should be granted access for either both of the following functions or neither:

- CAC_SYNC_CONTACT: Synchronizing contacts
- CAC_SYNC_TASK: Synchronizing tasks

Purge Synchronization Data Concurrent Program

Schedule the concurrent program CACSYNCP to permanently delete data for obsolete devices or users. The Expiry parameter sets the number of days, with a default of 180. Data that has not been updated for longer than the expiry value is purged.

After you run the CAC SYNC Purge/Cleanup concurrent request, then the 'SYNCML' error will not appear in Microsoft Outlook while synchronizing data from Outlook 2007 to server.

Attributes Mapping for Outlook Synchronization

The following sections describe the mapping between attributes in Pocket Outlook/Outlook and Oracle eBusiness Suite. The mappings apply to Oracle Sales for Handhelds and Oracle Sales.

Appointment Attribute Mapping

The following table describes the appointment attribute mapping between Outlook/Pocket Outlook and Oracle eBusiness Suite.

Pocket Outlook Field	Pocket Outlook Value	Outlook Field	Outlook Value	eBusiness Field	eBusiness Value
Subject	Freeform Text (carriage return is supported)/ 4096 characters	Subject	Freeform Text	Subject	Freeform Text / 80

Pocket Outlook Field	Pocket Outlook Value	Outlook Field	Outlook Value	eBusiness Field	eBusiness Value
Location	Freeform Text/ 1023 characters	Location	Freeform Text	Location	Free form Text/100
Starts	Time/Date Field	Start Time	Time/Date Field	Time/Date	Time/Date Field
Ends	Time/Date Field	End Time	Time/Date Field	Duration	Number of minutes/hour s or All Day
All Day	Yes/No	All Day Event	Check Box	All Day	
Occurs	User defined	Recurrence	User defined	Repeating (with exclusions)	User defined
Reminder	None/Reminder Me	Reminder	Check Box	Reminder	Do not remind me/number minutes/hour s/days
Attendees	Multi-select LOV of contacts	Attendees	Multi-select LOV of contacts	Attendees	Multi-select LOV of employees
Status	Free/Tentative/Busy/Out of Office	Show Time As	Free/Tentative/Busy/Out of Office	Show Time As	Busy/Free
Sensitivity	Normal/Private	Private	Check Box	Access	Publish/Private/Internal
Body	Freeform Text/ 20 KB	Body	Freeform Text	Description	Freeform Text / 4000

Note: If Property Manager is installed, then the location can be either freeform text or a Pick list. If the user creates the appointment using a property manager location and later updates the location via outlook, then the location will not be updated in Oracle eBusiness Suite during subsequent synchronizations. The property manager location will remain in Oracle eBusiness Suite.

Task Attribute Mapping

The following table describes the task attribute mapping between Outlook/Pocket Outlook and Oracle eBusiness Suite.

Pocket Outlook Field	Pocket Outlook Value	Outlook Field	Outlook Value	eBusiness Field	eBusiness Value
Subject	Freeform Text/ 4095 characters	Subject	Freeform Text	Subject	Freeform Text/ 80
Priority	High/Normal /Low	Priority	High, Normal, Low	Priority	Drop down (with number values)
Status	Not Complete/ Completed	Status	Not started, In progress, Waiting on someone else, Deferred	Status	Drop Down
Starts	Date picker	Start Date	Date picker		
Due	Date picker	Due Date	Date picker	Due Date	Date picker
Sensitivity	Normal/Private	Private	Check box	Visibility	Internal Only/ Private/ Public
Body	Freeform text/ 60 KB	Body	Freeform text	Description	Freeform Text/ 4000

Note: Status: Updating completed flag in Outlook should update the

assignee status on the server to completed. Complete = Completed; On Hold = Deferred; Not Started = Not Started; In progress = In Progress; Interrupted = Waiting on someone else; User defined/Other = Matched based on the flag on the server.

Task Status Attribute Mapping

The following table provides task status mapping when tasks are downloaded from Oracle eBusiness Suite to Outlook.

Task Status in eBusiness Suite	Task Status in Outlook	Notes
Not Started	Not Started	
In Progress	In Progress	
Assigned	Not Started	
Working	In Progress	
Schedulable	Not Started	
Accepted	In Progress	
Interrupted	Waiting on Someone Else	
On Hold	Deferred	
Completed	Completed	Supported for Pocket PC
Closed	Completed	Supported for Pocket PC

The following table provides task status mapping when tasks are uploaded to Oracle eBusiness Suite from Outlook/Pocket Outlook.

Task Status in Outlook	Task Status in eBusiness Suite
Not Started	Not Started
In Progress	In Progress

Task Status in Outlook	Task Status in eBusiness Suite
Deferred	On Hold
Waiting on Someone Else	Interrupted
Completed	Completed

Task Priority Attribute Mapping

The following table provides task priority mapping when tasks are downloaded from Oracle eBusiness Suite to Outlook/Pocket Outlook.

eBusiness Suite Value	Pocket Outlook / Outlook
1	High
2	High
3	High
0	Normal
4	Normal
5	Normal
6	Normal
7	Low
9	Low
8	Normal

Note: Priority 8: Special internal use by Oracle (Non-Prioritized)

The following table provides task priority mapping when tasks are uploaded to Oracle eBusiness Suite from Outlook/Pocket Outlook.

Pocket Outlook / Outlook	eBusiness Suite Value
High	1
Normal	5
Low	9

Contact Attribute Mapping

The following table describes the contact attribute mapping between Outlook/Pocket Outlook and Oracle eBusiness Suite.

Pocket Outlook Field	Pocket Outlook Value	Outlook Field	Outlook Value	eBusiness Field	eBusiness Value
Name	Freeform text (combines title, first, middle, last, suffix)	Name	Freeform text (title, first, middle, last, suffix)	Name	Party Name / 360
Title	Freeform text/ 1023 characters	Title	Freeform text	Prefix	Drop down / 30
First	Freeform text/ 1023 characters	First	Freeform text	First Name	Freeform Text / 150
Middle	Freeform text/ 1023 characters	Middle	Freeform text	Middle Name	Freeform Text / 60
Last	Freeform text/ 1023 characters	Last	Freeform text	Last Name	Freeform Text / 150
Suffix	Freeform text/ 1023 characters	Suffix	Freeform text	Suffix	Freeform Text / 30

Pocket Outlook Field	Pocket Outlook Value	Outlook Field	Outlook Value	eBusiness Field	eBusiness Value
Job Title	Freeform text/ 1023 characters	Job Title	Freeform text	Job Title	Freeform text / 100
Department	Freeform text/ 1023 characters	Department	Freeform text	Department	Freeform text / 60
Company	Freeform text/ 1023 characters	Company	Freeform text	Customer	Freeform Text / 360
Work Tel	Phone format/ 1023 characters	Business	Freeform text	Phone Number	Type = Telephone, Purpose = Business / 60
Work Fax	Phone format/ 1023 characters	Business Fax	Freeform text	Phone Number	Type = Fax, Purpose = Business / 60
Mobile Tel	Phone format/ 1023 characters	Mobile	Freeform text	Phone Number	Type = Mobile, Purpose = Business / 60
Home Tel	Phone format/ 1023 characters	Home	Freeform Text	Phone Number	Type = Telephone, Purpose = Personal / 60
Pager	Pagerformat/ 1023 characters	Phone	Freeform Text	Phone Number	Type = Pager, Purpose = Business / 60

Pocket Outlook Field	Pocket Outlook Value	Outlook Field	Outlook Value	eBusiness Field	eBusiness Value
Work address	Freeform text/ 1023 characters (street, city, state, postal code, country)	Business Address	Freeform text	Address	Address 1 - 4/ 240 each city, state, county, country, postal code / 60 each (purpose "Business")
Email (no HTML)	Freeform text/ 1023 characters	Email1	Freeform text	Email	Freeform text / 2000

Checking Synchronization Server Status

You can verify that the synchronization server is running by entering a URL into your browser. If the server is operating, the synchronization version number appears in your browser.

The web page URL is the same as the URL the synchronization client uses to connect to the synchronization server. You can construct the URL by postfixing the following path after `http(s)://[server]:[port]/`

`/OA_HTML/SyncServlet`

Example

`https://ap1001rt.us.oracle.com:7777/OA_HTML/SyncServlet`

Diagnostic Logs

The synchronization uses Oracle Applications Framework standard logging, which means the synchronization logs can be viewed via standard Oracle logging UIs such as Oracle Enterprise Manager. Use the following parameters to enable CACSync diagnostic logging:

Application Name = CRM Foundation

Module: %cac.sync%

Level: Exception

Assignment Manager Implementation Overview

This chapter covers the following topics:

- Assignment Manager Overview
- Assignment Manager Implementing Steps

Assignment Manager Overview

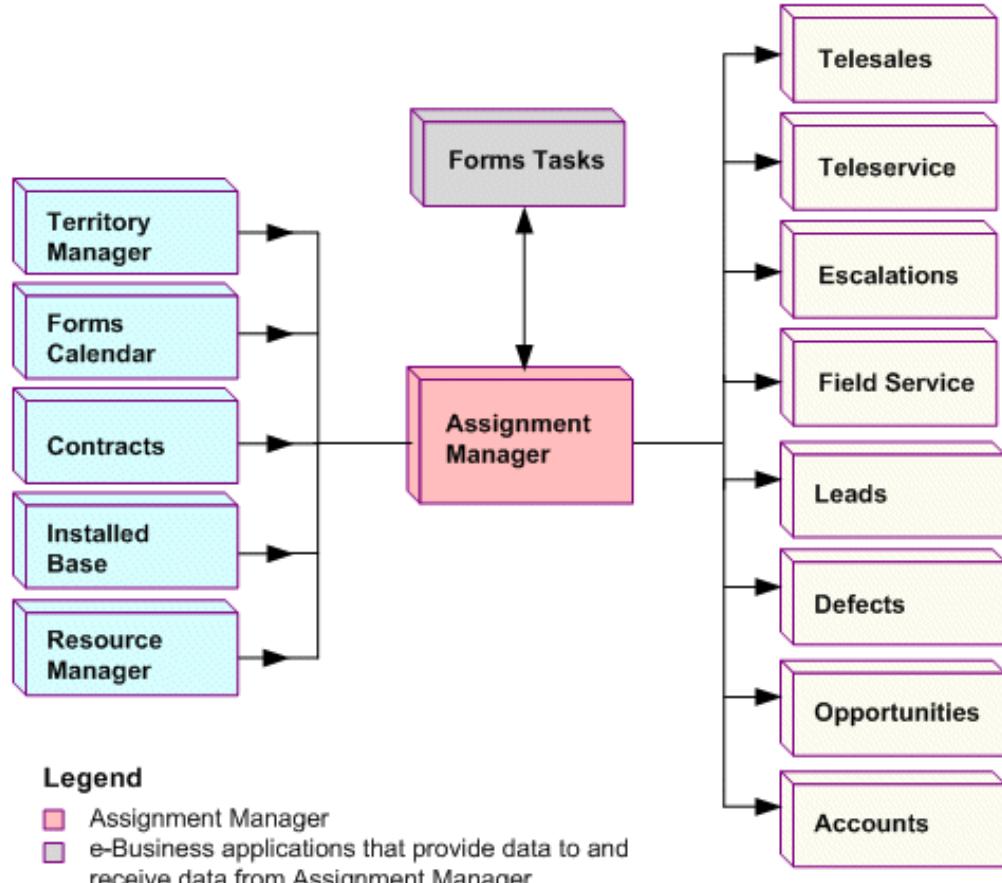
Assignment Manager is a tool used to select qualified resources and to designate them to a document or a task. It is also used to assign ownership to a document or a task. Assignment Manager is accessed from other modules and applications, and does not function as a standalone module. It supports all resource categories defined in Resource Manager.

Note: Documents can be leads, opportunities, service requests, defects, Depot Repair tasks, or escalations. Once a document is created, it can require multiple tasks to fulfill the requirements.

Interaction with Other Applications in the e-Business Suite

The following diagram illustrates how Assignment Manager interacts with other applications in the e-Business Suite

Assignment Manager Interaction with Other e-Business Applications



Interaction with Other E-Business Applications

Application	Type	Assignment Manager Interaction
Territory Manager	e-Business	Assignment Manager uses Territory Manager to identify qualified resources within a territory.

Application	Type	Assignment Manager Interaction
Forms Calendar	Common Application Components	Assignment Manager uses the Forms-based Calendar to obtain resource work shift information.
Contracts	e-Business	Assignment Manager uses Contracts to identify preferred engineers for a customer.
Installed Base	e-Business	Assignment Manager uses Installed Base to identify preferred engineers for an installed product.
Leads	e-Business	Leads uses Assignment Manager to obtain a list of qualified resources.
Defects	e-Business	Defects uses Assignment Manager to obtain a list of qualified resources.
Opportunities	e-Business	Opportunities uses Assignment Manager to obtain a list of qualified resources.
Accounts	e-Business	Accounts uses Assignment Manager to obtain a list of qualified resources.
Resource Manager	Common Application Components	Assignment Manager uses Resource Manager to provide a list of qualified resources.
Forms Tasks	Common Application Components	The forms-based Task Manager determines task duration. It also uses Assignment Manager to assign resources (an owner and an assignee) to a task.

Application	Type	Assignment Manager Interaction
Telesales	e-Business	Telesales uses Assignment Manager to assign appropriate resources to a task or to a service request.
Teleservice	e-Business	Teleservice uses Assignment Manager to assign an owner (individual or group resource) to a service request.
Escalations	Common Application Components	Escalation Manager uses Assignment Manager to assign an owner to an escalation document.
Field Service	e-Business	Field Service uses Assignment Manager in the Dispatch Center to assign an owner to a field service request.
Depot Repair	e-Business	Uses Assignment Manager for Repair Tasks.

Assignment Manager Implementing Steps

This section provides an overview of the required steps for implementing Assignment Manager. Detailed instructions for these steps are contained in the chapter that follows.

Verifying the TCF Server is Correctly Installed and Running

The implementor or system administrator verifies that the TCF (Thin Client Framework) server is installed and functions properly. The Thin Client Framework Server connects to Scheduler and aids the Gantt chart to display and render information. The TCF Server is part of the Apache JServ server. See the *Oracle Application Server 10g Administrator's Guide*.

Setting Profile Options

After verifying that the TCF server installed and running properly, the implementor or system administrator must set the required profile options for Assignment Manager and for the Gantt chart. Profile options enable Assignment Manager to retrieve

preferred resource information including scheduling options.

Verifying Additional Setup Dependencies

Assignment Manager does not operate as a standalone application but is integrated with other components from the e-Business suite and from ERP (Enterprise Resource Planning). As a result, the implementor or system administrator must verify that all of the following components are installed and configured properly to operate with Assignment Manager:

- Territory Manager
- Resource Schedules in Forms
- Service Request
- Oracle Contracts
- Installed Base

Configuring Color Coded Tasks

Assignment Manager uses different colors to identify scheduled functions such as shifts, assigned tasks, escalations, and available time slots when a planned time period is indicated by the calling application. In addition to providing a default set of colors that denote available times slots for specific functions, Assignment Manager also enables implementor and administrators to configure their own color coded functions. This feature simplifies the operation of applications that require intensive manual tasks to assign resources. For example, a support representative using a support or service application can easily determine the availability of qualified technicians to answer a support call if their shifts, tasks, and availability are denoted by color.

Customizing the Assignment Manager UI

Assignment Manager is used by different applications each of which generally requires a limited subset of its total available fields and options. For this reason, when implementing Assignment Manager, the implementor or system administrator can customize its UI based on their application requirements. The Assignment Manager UI can be customized to meet the individual requirements of the following applications:

- Tasks
- Service Requests
- Service Request Tasks
- Escalations

- Depot Repair Tasks

Setting Up Enhanced Planning Options

Assignment Manager enables you to configure time planning options that use the SYSDATE and TIME functions to indicate the start of a shift instead of defaulting to the task start date. This is useful in situations where the task start date precedes the date and time in which the shift is assigned and consequently predates the resource's shift assignment. Enhanced planning options are configured using the JTFAM:Use systime for Assignments profile option which is set to Yes or No at the site level. When set to Yes, the profile option enables the SYSDATE and TIME functions to determine the start of a shift. When set to No, the profile enables the task start date and time to represent the start of a shift.

Skills-based Filtering

When assigning a resource to a service request for a specific problem, product, or product category, Assignment Manager enables the most skilled resource to be selected for each. Assignment Manager filters the values of the problem, product, or product category that it receives from a service request. When Assignment Manager subsequently searches the Resource Manager Skills Bank for a resource skill to assign to the service request, it uses search rules based on the filtered problem, product, or product category values. Assignment Manager ships with tables that contain seeded search rule data. When implementing Assignment Manager, you can create or modify these search rules by inserting or updating data in the tables that contain the seeded search rule information.

Skills-based filtering applies also to Depot Repair tasks.

Self-testing Framework

The Assignment Manager self-testing framework provides relevant parties such as support analysts and quality assurance engineers with a method for testing Assignment Manager that does not require input from calling documents. Normally, Assignment Manager fetches and displays a list of resources based on parameter values passed by a calling document such as a service request, task, or escalation. With the self-testing framework, data from calling documents can be simulated for testing purposes.

Support for Excluded Resources

Assignment Manager provides support for excluded resources in the assignment process for service requests, service request tasks, Depot Repair tasks, and tasks. Installed Base uses this feature to maintain a list of excluded contacts in addition to preferred ones that are associated with a party. Contracts uses this feature to track excluded resources in the task assignment process. Assignment Manager extracts information from these applications and filters it to exclude the appropriate resources.

from being dispatched for an assignment.

Publishing Assignment Manager Business Events

Assignment Manager publishes a business event for assignments generated by the Oracle Workflow Business Event System. When Assignment Manager is called by a document (service request, task, escalation, defect, lead, opportunity, account and Depot Repair task), it fetches a resource list. Assignment Manager then publishes resources that it fetches from the list and relevant context information. Applications that subsequently subscribe to this event can modify its content based on the context information and fetched resources, or by plugging in their own custom logic.

Using Business Events to Generate Custom Logic

Assignment Manager provides a plug-in facility that enables organizations to supplement the predefined logic that Assignment Manager uses to return preferred or qualified resources to calling modules. This enables organizations to extend, and customize Assignment Manager for specific routing and assignment requirements. Assignment Manager accomplishes this by publishing business events for the assignment process. These events are defined in the Oracle Workflow Event Manager and are raised from the Assignment Manager API for the Service Request (SR) document type. Subscriptions to these events may perform the custom processing logic. The Assignment Manager API subsequently returns a PL/SQL table of resources to the UI or to the calling module.

Implementing Assignment Manager

This chapter covers the following topics:

- Setting Assignment Manager Profile Options
- Setting Up Other Dependencies
- Configuring Color Coded Tasks
- Customizing the Assignment Manager UI
- Setting Up Enhanced Planning Options
- Skills-based Filtering
- Self-testing Framework
- Support for Excluded Resources
- Subscribing to Assignment Manager Business Events
- Using Business Events to Generate Custom Logic

Setting Assignment Manager Profile Options

The following table lists the profile options used for implementing Assignment Manager. You can set these options in any sequence.

Assignment Manager Profile Options

Name	Default Value	Level	Description	Outcome
JTFAM: Activate Auto Selection of Resources	Yes	Application	This profile option is set to activate the auto-selection of resources by the Assignment Manager engine. The engine uses this profile option setting to determine where the user needs to make a selection from the provided list of resources, or if this task is performed automatically by the Assignment Manager engine itself.	If you set this profile option to No , the Assignment Manager engine will automatically make a selection from the provided list of resources.
JTFAM: Activate Contracts Preferred Resources	No	Application	This profile option is set to retrieve the preferred resource information from the Contracts module. The engine uses this profile option setting to determine whether the Contracts Preferred Engineers are picked up automatically by the Assignment Manager engine or not.	If you set this profile option to No , it will uncheck the Contracts check box in the Assignment Manager.
Activate Installed Base Preferred Resources	No	Application	This profile option is set to retrieve the preferred resource information from the Installed Base module. The engine uses the profile option setting to determine whether the Installed Base Preferred Engineers are picked automatically by the engine.	If you set this profile option to No , it will uncheck the Installed Base check box in the Assignment Manager.

Name	Default Value	Level	Description	Outcome
JTFAM: Activate Workflow Name	No default value	Application	This profile option is set to a user-defined workflow procedure name. This workflow procedure is user-programmed code for further filtering the resources. The engine retrieves the procedure name from this profile option, and uses it to process the user's request.	This profile option is an additional filter based on the user's criteria.
JTFAM: Resource Type for Unassisted Mode	Employee Resource	Site	This profile option sets the default value for resource type in the unassisted mode.	This profile option is a convenience to the user who wants the resource type to be the defaulted value in the unassisted mode.

Name	Default Value	Level	Description	Outcome
JTFAM: Resource Search Order	Contracts Preferred Resource	Site	<p>This profile option sets the default order for resource selection between Contracts and Installed Base if both check boxes are selected in the Assignment Manager for a service request assignment.</p>	<p>If Contracts Preferred Resource is selected, then Assignment Manager engine checks Contracts preferred resources first. If a Contracts preferred resource is found, then stop the process. If not, then check the Installed Base preferred resources. If a Installed Base preferred resource is found, and stop the process. If not, then continue check the territories.</p> <p>If Installed Base Preferred Resource is selected, then Installed Base preferred resources are checked first, if a resource is found, then stop the process. If not, then continue check the Contracts.</p> <p>If "Both Contracts and Installed Base" is selected, then Assignment Manager checks both preferred resources simultaneously before retrieving qualified resources from winning territories.</p>
JTFAM: UOM code used by Assignment Manager for Tasks	HR	Site	Tasks contains a profile that defines the Time Class used to define a task duration. The UOM (Unit of Measure) that defines Hour in that time class must be set for this profile.	By default if the value is not set for this profile "HR" is considered to be the UOM that denotes Hour.
JTFAM:Use Current Date, Time for Assignments	Yes	Site	This functionality enables the sysdate/time to be used for determining a task start date.	<p>When set to Yes, the sysdate/time is used to determine a task start date.</p> <p>When set to No, a date and time that precede the sysdate and time can be used to determine the task start date.</p>

Name	Default Value	Level	Description	Outcome
JTFAM:Filter resources based on group membership	Yes	Site	This functionality filters resources based on group membership.	When set to Yes , the profile option filters resource by group membership. When set to No , filtering does not occur.
JTFAM: Usage for Groups and Teams	All	Site	This profile option sets the default value for the group and team resource selection used in a service request assignment.	If it is set to All , then all group or team resources, regardless of its usage, are all displayed in the Gantt chart. If it is set to Support , then only the group or team with Support usage can then be retrieved for a service request assignment.

Note: See Appendix A, Profiles Options, for details on how these profile options can be set.

Gantt Profile Options

The following table describes the profile options that are specific to Gantt

Gantt Profile Options

Name	Default Value	Level	Description	Outcome
JTF_GANTT_SN AP_VALUE_DA YS_MODE	60 minutes	User	Enables the start or end of a taskbar to automatically readjust (snap) during drag and drop operations in the "Day" view.	Snaps to the default value if the user does not specify a snap value.

Name	Default Value	Level	Description	Outcome
JTF_GANTT_SN AP_VALUE_SIX _HOURS_MOD E	60 minutes	User	Enables the start or end of a taskbar to automatically readjust (snap) during drag and drop operations in the "6 Hour" view.	Snaps to the default value if the user does not specify a snap value.
JTF_GANTT_SN AP_VALUE_TH REE_HOURS_M ODE	30 minutes	User	Enables the start or end of a taskbar to automatically readjust (snap) during drag and drop operations in the "3 Hour" view.	Snaps to the default value if the user does not specify a snap value.
JTF_GANTT_SN AP_VALUE_HO URS_MODE	15 minutes	User	Enables the start or end of a taskbar to automatically readjust (snap) during drag and drop operations in the "Hour" view.	Snaps to the default value if the user does not specify a snap value.
JTF_GANTT_SN AP_VALUE_30 MIN_MODE	10 minutes	User	Enables the start or end of a taskbar to automatically readjust (snap) during drag and drop operations in the "30 Minute" view.	Snaps to the default value if the user does not specify a snap value.

Name	Default Value	Level	Description	Outcome
JTF_GANTT_SN AP_VALUE_15 MIN_MODE	5 minutes	User	Enables the start or end of a taskbar to automatically readjust (snap) during drag and drop operations in the "15 Minute" view.	Snaps to the default value if the user does not specify a snap value.
JTF_GANTT_DE F_TIMELINE_MODE	Day Mode	Site Application ResponsibilityUser	Enables specification of one of the following modes upon startup: <ul style="list-style-type: none"> • 15 Minutes Mode • 30MIN • Hours Mode • 3 Hours Mode • 6 Hours Mode • Days Mode 	Specifies one of six available modes on startup.

Multiple Time Zones Profile Options

If time zone conversion is enabled, then users can select the time zone in which to view times in the table view of the assignment manager form.

- Enable Timezone Conversions

Set this profile option to Yes to enable time zone conversion.

Level: Site

Default: No

- Server Timezone

Sets the time zone of the database server.

Level: Site

Default: Null

- Client Timezone

Sets the time zone for the agent who is using Assignment Manager

Level: Site

Default: Null

Setting Up Other Dependencies

This section describes modules that require proper configuration to ensure that the Assignment Manager selection criteria functions completely when called by these modules. Assignment Manager performs an autoquery whenever it is opened from a calling module. Assignment Manager also generates specific error messages when it encounters any problems performing a search. If no error occurs and no resources are found based on the search criteria, Assignment Manager displays error messages stacked from the API.

Territory Manager

Territory Manager retrieves qualified resources specified in territories. Make sure that matching attributes are set up correctly and qualified resources are specified when defining territories. Territories should be set up properly in order to use the assisted assignment option.

Forms-based Resource Schedule

Forms-based Resource Schedule displays the work shift information of qualified resources. Resources' shift schedules should be defined in the Forms-based Resource Schedule module in order to use the resource availability for the assisted assignment option.

Note: Log in with the CRM Administrator responsibility and select Calendar > Calendar Setup to access the calendar setup windows.

Service Request

A service request designates a resource as Web available or unavailable. It assigns the resource Web availability by using the Territory Assisted assignment option.

Contracts

Oracle Contracts specify preferred engineers defined in Contracts. This component enables the use of Contracts preferred resources in the Assisted assignment option.

Installed Base

Installed Base specifies preferred resources defined in Installed Base. This component enables the use of Installed Base preferred resources in the Assisted assignment option.

Configuring Color Coded Tasks

Assignment Manager displays a resource's tasks for a specified time period in the Gantt chart. The time period for each task is color coded according to a set of rules stored in the color configuration table. Each row in this table contains rules for unique color values. Assignment Manager accesses a Task Manager table with seeded color values that can be retained in their original state or modified. You can also configure additional color values. When Assignment Manager obtains the list of tasks to display for a resource, the Assignment Manager engine calls the Tasks public API: `JTF_TASK_CUSTOM_COLORS_PUB.GET_TASK_BGCOLORS`. The API receives information about the task, task type, assignment status, and priority, and returns the background color value for each record in decimal format. The Assignment Manager UI interprets the color's decimal value and displays it in standard color format.

Color Configuration Table

The attributes that determine a task color can be registered with those of the currently displayed color in the color configuration table. The following table contains the color configuration table columns and their corresponding attributes:

Assignment Manager Color Configuration Table

Column	Function	Primary Key	Mandatory	Data Type
RULE_ID	Provides a unique identifier for each rule.	Yes	Yes	Number
OBJECT_VERSION_NUMBER	Maintains the revisions of each table row.	No	Yes	Number

Column	Function	Primary Key	Mandatory	Data Type
COLOR_DETERMINATION_PRIORITY	Provides a numeric value for determining the order in which the color will be evaluated by the GET_TASK_BG_COLORS procedure.	No	Yes	Number
TYPE_ID	Identifies the task type.	No	No	Number
PRIORITY_ID	Determines the priority level.	No	No	Number
ASSIGNMENT_STATUS_ID	Determines the task assignment status.	No	No	Number
ESCALATED_TASK	Specifies whether or not the task is escalated.	No	No	Varchar2(1)
BACKGROUND_COL_DEC	Provides a decimal version of the color.	No	Yes	Number
BACKGROUND_COL_RGB	Provides an RGB virions of the color.	No	Yes	Varchar2(12)
CREATED_BY	Provides the identity of the individual who created the task color.	No	Yes	Number
CREATION_DATE	Provides the date on which the task color was created	No	Yes	Date

Column	Function	Primary Key	Mandatory	Data Type
LAST_UPDATE_D_BY	Provides the identity of the individual who last updated data for the task color.	No	Yes	Number
LST_UPDATE_DATE	Provides the date on which the task color data was last updated.	No	Yes	Date
LAST_UPDATE_LOGIN	Displays the login information of the last person to update the record.	No	No	Number
ACTIVE_FLAG	Specifies whether the task color is active or not. If the task color is not active, then its information can be overwritten by subsequent patch installations.	No	Yes	Varchar2(1)

Seeded Color Configuration Data

Assignment Manger provides seeded data for red, golden yellow, and blue background colors. These colors represent specific functions based on the following business logic:

Assignment Manager Seeded Colors

Color	Function
Red	Displays escalations.
Golden Yellow	Displays shifts
Blue	Displays assigned tasks.
Green	Shows first available slot

These colors can be used, modified, or flagged for nonuse as required but should not be removed from the color configuration table. If you do not want to use a seeded color, you must flag it for nonuse by setting the ACTIVE_FLAG column in the color configuration table to N. If you modify seeded data, then it will not be overwritten by any subsequent patch installations. If, however, you do not modify seeded data, then it will be overwritten by the seed data of any subsequently installed patches. The following table contains Assignment Manager seeded color data information:

Assignment Manager Seeded Colors Data

Color Configuration Table Column	Red Data	Golden Yellow Data	Blue Data
RULE_ID	1	2	3
COLOR_DETERMINATION_PRIORITY	10	20	100
TYPE_ID	Null	Null	Null
PRIORITY_ID	Null	Null	Null
ASSIGNMENT_STATUS_ID	Null	5	Null
ESCALATED_TASK	Y	N	Null
BACKGROUND_CODE	16711680	16776960	3342591

Color Configuration Table Column	Red Data	Golden Yellow Data	Blue Data
BACKGROUND_CO_L_RGB	Red	GoldenYellow	Blue
ACTIVE_FLAG	Y	Y	Y

Hard Coded Colors

In addition to providing seeded colors, Assignment Manager contains two hard coded colors that cannot be modified. These colors are reserved for specific Assignment Manager business logic and should not be duplicated in the color configuration table:

Assignment Manager Hard Coded Colors

Color	Decimal Value	Function
Green	44370	Displays available time slots.
Yellow	16776960	Task assignments that are in status Working.

Guidelines

To properly configure color coded tasks in Assignment Manager you must adhere to the following guidelines:

- Determining Task Color Per Resource

Assignment manager determines the task color for each resource. The color of multiple tasks can be determined in one API call, however, some applications such as Field Service determine the color by using an inline function call in a SQL statement.

- Evaluating Color Prioritization

Each record in the color configuration table contains rules for displaying a unique task color. The GET_TASK_BGCOLORS procedure evaluates these rules for each row in ascending order beginning with the row that contains the lowest value in the COLOR_DETERMINATION_PRIORITY column. When creating or modifying colors, consider the order in which you want them evaluated and insert values in the COLOR_DETERMINATION_PRIORITY column accordingly.

- Creating Values for the RULE_ID Column
The RULE_ID column must contain unique sequential values. This is accomplished by using the sequence JTF_TASK_CUSTOM_COLOR_S.
- Creating Values for the COLOR_DETERMINATION_PRIORITY Column
The value of the column COLOR_DETERMINATION_PRIORITY must be a unique number between 0 and 100.
- Creating Values for the LAST_UPDATED_BY Column
If seed data is modified, then the value of column LAST_UPDATED_BY should be set to a value other than 0 and 1.
- Using Unique Colors for Each Function
If you use the same color to represent availability, shifts, task load, or escalations you will not be able to differentiate between each function. For this reason, each function must be represented with a unique color.
- Using Different Background and Foreground Colors
If you use identical background and foreground colors it will be difficult to infer if the colors actually correspond to a given task. Because Assignment Manager currently does not perform validation for separate background and foreground colors, it is the implementor's responsibility to ensure that they are not identical.
- Reserving Assignment Manager Hard Coded Colors
Do not create custom color values for the green and yellow hard coded colors that ship with Assignment Manager.

Examples

This section contains examples for creating two new task colors to denote high priority and low priority tasks that have been rejected. In this example, the implementor wants the high priority rejected tasks to be evaluated and displayed in Assignment Manager before the low priority rejected tasks.

Creating Violet Color for High Priority Rejected Tasks

Assume that the implementor creates a record for the color DarkViolet that represents high priority rejected tasks. The following table contains data for the color DarkViolet that is used to denote high priority rejected tasks. Since the value in the COLOR_DETERMINATION_PRIORITY column is 5, the rules for this task color will be evaluated by the GET_TASK_BGCOLORS procedure before any task color with a value in this column of 6 or higher.

DarkViolet Color Example Data

Color Configuration Table Column	Violet Color Data
RULE_ID	101
COLOR_DETERMINATION_PRIORITY	5
TYPE_ID	Null
PRIORITY_ID	1
ASSIGNMENT_STATUS_ID	4
BACKGROUND_COL_DEC	9400D3
ESCALATED_TASK	N
BACKGROUND_COL_RGB	DarkViolet
ACTIVE_FLAG	Y

SQL Script

The following script creates a record for the DarkViolet color in the color configuration table:

```

SET SERVEROUTPUT ON
DECLARE
    l_rowid      ROWID;
    l_color_id   NUMBER;
BEGIN
    fnd_global.apps_initialize (
        user_id => 100001746, -- login user id
        resp_id => 0, --- responsibility id
        resp_appl_id => 0,
        security_group_id => 0
    );
    SELECT jtf_task_custom_colors_s.nextval
    INTO l_color_id
    FROM dual;
    jtf_task_custom_colors_pkg.insert_row (
        x_rowid => l_rowid,
        x_rule_id => l_color_id, ---101
        x_color_determination_priority => 5,
        x_type_id => null,
        x_priority_id => 1,
        x_assignment_status_id => 4,
        x_escalated_task => 'Y',
        x_active_flag => 'Y',
        x_background_col_dec => 9400D3,
        x_background_col_rgb => 'r148g000b211', --DarkViolet
        x_creation_date => SYSDATE,
        x_created_by => fnd_global.user_id,
        x_last_update_date => SYSDATE,
        x_last_updated_by => fnd_global.user_id,
        x_last_update_login => 0
    );
END;
/
COMMIT;
EXIT;

```

Creating Lime Green Color for Low Priority Rejected Tasks

Assume that the implementor creates a record for the color LimeGreen that represents low priority rejected tasks. The following table contains data for the color LimeGreen that is used to denote low priority rejected tasks. Since the value in the COLOR_DETERMINATION_PRIORITY column is 7, the rules for this task color will be evaluated by the GET_TASK_BGCOLORS procedure after those of the high priority rejected task color in the preceding example.

Lime Green Color Example Data

Color Configuration Table Column	Violet Color Data
RULE_ID	102
COLOR_DETERMINATION_PRIORITY	7
TYPE_ID	Null

Color Configuration Table Column	Violet Color Data
PRIORITY_ID	Null
ASSIGNMENT_STATUS_ID	4
ESCALATED_TASK	N
BACKGROUND_COL_DEC	00FF00
BACKGROUND_COL_RGB	LimeGreen
ACTIVE_FLAG	Y

SQL Script

The following script creates a record for the LimeGreen color in the color configuration table:

```

SET SERVEROUTPUT ON
DECLARE
    l_rowid      ROWID;
    l_color_id   NUMBER;
BEGIN
    fnd_global.apps_initialize (
        user_id => 100001746, -- login user id
        resp_id => 0, --- responsibility id
        resp_appl_id => 0,
        security_group_id => 0
    );
    SELECT jtf_task_custom_colors_s.nextval
      INTO l_color_id
     FROM dual;
    jtf_task_custom_colors_pkg.insert_row (
        x_rowid => l_rowid,
        x_rule_id => l_color_id, ---102
        x_color_determination_priority => 7,
        x_type_id => null,
        x_priority_id => NULL,
        x_assignment_status_id => 4,
        x_escalated_task => 'Y',
        x_active_flag => 'Y',
        x_background_col_dec => 00FF00,
        x_background_col_rgb => 'r50g205b50', --LimeGreen
        x_creation_date => SYSDATE,
        x_created_by => fnd_global.user_id,
        x_last_update_date => SYSDATE,
        x_last_updated_by => fnd_global.user_id,
        x_last_update_login => 0
    );
END;
/
COMMIT;
EXIT;

```

Customizing the Assignment Manager UI

The Assignment Manager UI can be customized to better suit the requirements of the applications with which it is integrated. These applications, which include Tasks, Depot Repair Tasks, Service Requests as well as Service Request Tasks, and Escalations, generally require a limited subset of the total fields and options available in the Assignment Manager UI. Assignment Manager renders the UI based on seeded data in the table JTF_AM_SCREEN_SETUPS_B. When implementing Assignment Manager, you can customize its UI by modifying data in this table.

Table JTF_AM_SCREEN_SETUPS_B

The following table describes JTF_AM_SCREEN_SETUPS_B including Who columns and flex field columns. Columns directly related to modifying the Assignment Manager UI are indicated accordingly:

Table JTF_AM_SCREEN_SETUPS_B

Column Name	Data Type	Not Null	Default	Description
SCREEN_SETUP_ID	Number	N	N	UI Related. Specifies the unique ID for the table.
DOCUMENT_TYPE	Varchar2(30)	N	N	UI Related. Specifies the document from which Assignment Manager is called, such as SR (Service Request). This will be unique for the table.
MODE_ASSIST	Varchar2(1)	N	Y	UI Related. Determines whether or not the UI displays the Assisted mode radio button. Valid values are Y/N.
MODE_UNASSISTED	Varchar2(1)	N	Y	UI Related. Determines whether or not the UI displays the Unassisted mode radio button. Valid values are Y/N.
CONTRACTS	Varchar2(1)	N	Y	UI Related. Determines whether or not the UI displays the Contracts checkbox. Valid values are Y/N.

Column Name	Data Type	Not Null	Default	Description
INSTALLED_BA SE	Varchar2(1)	N	Y	UI Related. Determines whether or not the UI displays the Install Base checkbox. Valid values are Y/N.
TERRITORY	Varchar2(1)	N	Y	UI Related. Determines whether or not the UI displays the Territories checkbox. Valid values are Y/N.
AVAILABILITY	Varchar2(1)	N	Y	UI Related. Determines whether or not the UI displays the Resource Availability checkbox. Valid values are Y/N.
DOC_DETAILS	Varchar2(1)	N		UI Related. Determines whether or not the UI displays Document Details. Valid values are Y/N.
WINDOW_WID TH	Number	N	7	UI Related. Determines the width of the window for the Assignment Manager screen in inches.

Column Name	Data Type	Not Null	Default	Description
WINDOW_HEI_GHT	Number	N	5	UI Related. Determines the height of the window for the Assignment Manager screen in inches.
WINDOW_X_POSITION	Number	N	0	UI Related. Specifies the Assignment Manager screen position's X co-ordinates.
WINDOW_Y_POSITION	Number	N	0	UI Related. Specifies the Assignment Manager screen position's Y co-ordinates.
DOC_DTLS_USR_VALUES	Varchar2(1)	N	N	UI Related. Provides the Products team the flexibility to customize what the UI displays in the Document Details section. Valid values are Y/N. This setting only works if the DOC_DETAILS column is set to Y.

Column Name	Data Type	Not Null	Default	Description
SHOW_SELECT ED_TIME	Varchar2(1)	N	Y	UI Related. Determines whether or not the UI displays the selected resource's start and end time. Valid values for this column are Y/N.
OBJECT_VERSION_NUMBER	Number	Y	N	The object version number.
USER_ID	Number	N	N	The user ID.
ATTRIBUTE1	Varchar2(150)	N	N	Flex field.
ATTRIBUTE2	Varchar2(150)	N	N	Flex field.
ATTRIBUTE3	Varchar2(150)	N	N	Flex field.
ATTRIBUTE4	Varchar2(150)	N	N	Flex field.
ATTRIBUTE5	Varchar2(150)	N	N	Flex field.
ATTRIBUTE6	Varchar2(150)	N	N	Flex field.
ATTRIBUTE7	Varchar2(150)	N	N	Flex field.
ATTRIBUTE8	Varchar2(150)	N	N	Flex field.
ATTRIBUTE9	Varchar2(150)	N	N	Flex field.
ATTRIBUTE10	Varchar2(150)	N	N	Flex field.
ATTRIBUTE10	Varchar2(150)	N	N	Flex field.
ATTRIBUTE12	Varchar2(150)	N	N	Flex field.
ATTRIBUTE13	Varchar2(150)	N	N	Flex field.

Column Name	Data Type	Not Null	Default	Description
ATTRIBUTE14	Varchar2(150)	N	N	Flex field.
ATTRIBUTE15	Varchar2(150)	N	N	Flex field.
ATTRIBUTE_CATEGORY	Varchar2(150)	N	N	Determines the attribute category.
CREATED_BY	Number	Y	N	Determines the identity of the individual who creates the screen setup.
CREATION_DATE	Date	Y	N	Specifies the date on which the screen setup is created.
LAST_UPDATE_BY	Number	Y	N	Specifies the individual who last updates the screen setup.
LAST_UPDATE_DATE	Date	Y	N	Specifies the date on which the screen setup is last updated.
LAST_UPDATE_LOGIN	Number	Y	N	Specifies the login ID of the individual who last updates the screen setup.
SECURITY_GROUP_ID	Number	N	N	Specifies the security group ID of the individual who last updates the screen setup.

Supported Document Types

Assignment Manager supports document types in FND_LOOKUPS (LOOKUP_TYPE = JTF_AM_DOCUMENT_TYPE) as follows:

Assignment Manager Supported Document Types

Document Type	Definition
SR	Service Request
TASK	Tasks
SR_TASK	Service Request Task
ESC	Escalations
DEF	Defects
LEAD	Leads
OPPR	Opportunities
ACC	Accounts
DR	Depot Repair Task

UI Layout Rules

The Assignment Manager UI must be customized according to a specific set of rules. These rules specify how the UI is rendered and which columns in the table JTF_AM_SCREEN_SETUPS_B contain information that is based on the values of other columns in this table.

Document Type

The document type must be unique across the table. A unique constraint is enforced using a unique index on the DOCUMENT_TYPE column. Based on the DOCUMENT_TYPE data passed in the new AM_UI_TYPE parameter in forms, the UI is rendered accordingly. If no data is passed in the AM_UI_TYPE parameter, then the UI is rendered based on value of the existing AM_CALLING_DOC_TYPE parameter.

Assisted and Unassisted Mode

Assignment Manager displays the Mode window and its corresponding options depending on the value of the MODE_ASSIST and MODE_UNASSIST columns based on the following rules:

Assisted and Unassisted Mode Rules

MODE_UNASSIST	MODE_ASSIST	Remarks
N	N	Both the modes cannot be set to 'N' at the same time. If this combination is set for any document type then the UI will not be rendered when called for that document.
N	Y	<ol style="list-style-type: none">1. Mode window will not appear.2. Only Assisted Mode's corresponding fields will be shown.
Y	N	<ol style="list-style-type: none">1. Mode window will not appear.2. Only Unassisted Mode's corresponding fields will be shown.
Y	Y	The UI will default to the existing UI layout and will show both Assisted and Unassisted modes as well as their corresponding field.

Assisted Mode

In case of assisted mode, at least one of the following search options should be enabled in the table:

- Contracts
- Installed Base

- Territories
- Availability

If for example, the value of the MODE_ASSIST column is 'Y' then at least one of the preceding four values must also be 'Y'.

Intelligent and Window to Promise modes

The Intelligent and Window to Promise modes cannot be customized.

Document Details

Document Details can be customized based on the values entered in the DOC_DETAILS and DOC_DTLS_USER_VALUES columns according to the following rules:

Document Details Rules

DOC_DETAILS	DOC_DTLS_USER_VALUES	Remarks
N	N/Y	The UI will not show document details at all. It will disregard the values entered for DOC_DTLS_USER_VALUES column.
Y	N	<ol style="list-style-type: none"> 1. Document Details will be displayed. 2. The content of Document details will be the default layout content i.e. it will continue to display whatever it is displaying in existing version of AM UI.

DOC_DETAILS	DOC_DTLS_USER_VALUES	Remarks
Y	Y	<p>1. Document Details will be displayed.</p> <p>2. The content of Document details will be the name-value pairs passed to AM UI from the product team using record type JTF_ASSIGN_PUB.DOC_DET AILS_REC.</p> <p>3. If DOC_DTLS_USER_VALUES is set to Y but no data is passed in record, then the document details box will be displayed with null value.</p>

Record Type JTFAMSR.DOC_DETAILS_REC_TYPE

The calling document can only customize the Document details section and display a set of name/value pairs in that section, if the JTFAMSR.DOC_DETAILS_REC_TYPE is populated with the appropriate values. The record type is defined as follows:

```
TYPE DOC_DETAILS_REC_TYPE IS RECORD_TYPE
  (
    Field_prompt1varchar2 (20) := NULL,
    Field_value1varchar2 (150) := NULL,
    Field_prompt2varchar2 (20) := NULL,
    Field_value2varchar2 (150) := NULL,
    Field_prompt3varchar2 (20) := NULL,
    Field_value3varchar2 (150) := NULL,
    Field_prompt4varchar2 (20) := NULL,
    Field_value4varchar2 (150) := NULL,
    Field_prompt5varchar2 (20) := NULL,
    Field_value5varchar2 (150) := NULL
  )
```

Selected Resource Details

When a user double clicks a resource from the list of resources, it is selected for assignment and the Resource Details fields subsequently contain the following:

- Resource Name
- Resource Type
- Start Time

- End Time

The Start Time and End Time display is determined by the value in the value SHOW_SELECTED_TIME column according to the following rules:

Start Time and End Time Display Rules

SHOW_SELECTED_TIME	Remarks
N	The UI will show only Resource Name and Resource Type.
Y	The UI will show Resource Name, Resource Type, Start Time, and End Time.

Width and Height

The width and height of the Assignment Manager window is specified according to the following rules:

- The value of the WINDOW_WIDTH and WINDOW_HEIGHT columns cannot be a negative number or 0. When a negative number or 0 are entered as the value of these columns, Assignment Manager uses the default window size values.
- When valid values are populated in these columns, the Assignment Manager UI either resizes accordingly or reverts to the default values of 7 inches for width and 5 inches for height.

Window Position

The position of the Assignment Manager window is specified according to the following rules:

- The value of the WINDOW_X_POSITION and WINDOW_Y_POSITION columns cannot be negative.
- If no values are specified for the WINDOW_X_POSITION and WINDOW_Y_POSITION columns, they revert to the default value of 0

Customization Guidelines

The Assignment Manager UI must be customized according to specific guidelines.

Add Required Values to LAST_UPDATED_BY Column

When customizing the Assignment Manager UI, the implementor or System

Administrator should always update the LAST_UPDATED_BY column with the appropriate user ID. Customized rows must not have values of **0** or **1** in the LAST_UPDATED_BY column, otherwise the data will be lost when a new patch is applied.

Example

In the following example, text marked in **bold** will change depending on the value added by the implementor or system administrator. The LAST_UPDATED_BY column contains an appropriate values that is neither **0** or **1**:

```
UPDATE      JTF_AM_SCREEN_SETUPS_B
SET          mode_assist = 'N'
, last_update_date = sysdate
, last_updated_by = 100
, object_version_number = object_version_number + 1
      WHERE document_type = 'TASK'
/

```

Populate the LAST_UPDATED_BY Column with the Required Sequence

To insert the data in the table JTF_AM_SCREEN_SETUPS_B, the sequence JTF_AM_SCREEN_SETUPS_S.NEXTVAL should be used for SCREEN_SETUP_ID column. For inserts in the table, the data MUST be entered in both JTF_AM_SCREEN_SETUPS_B and JTF_AM_SCREEN_SETUPS_TL tableS.

Modify Assignment Manager UI Seeded Data as Required

Seeded data for the Assignment Manager UI is stored in the tables JTF_AM_SCREEN_SETUPS_B and JTF_AM_SCREEN_SETUPS_TL. To customize the Assignment Manager UI, you must modify the seeded data as required. The following tables list the seeded Assignment Manager UI values for each calling document:

Assignment Manager UI Seeded Data in JTF_AM_SCREEN_SETUPS_B

Columns	Tasks	Service Request	Escalations	Service Request Tasks	Depot Repair Tasks
SCREEN_SET_UP_ID	1	2	3	4	5
DOCUMENT_TYPE	TASK	SR	ESC	SR_TASK	DR
MODE_ASSIST	Y	Y	Y	Y	Y

Columns	Tasks	Service Request	Escalations	Service Request Tasks	Depot Repair Tasks
MODE_UNASSIST	Y	Y	Y	Y	Y
CONTRACTS	Y	Y	Y	Y	Y
INSTALLED_BASE	Y	Y	Y	Y	Y
TERRITORY	Y	Y	Y	Y	Y
AVAILABILITY	Y	Y	Y	Y	Y
DOC_DETAILS	Y	Y	Y	Y	Y
WINDOW_WIDTH	7.7	7.7	7.7	7.7	8.1
WINDOW_HEIGHT	6.4	6.4	6.4	6.4	6.4
WINDOW_X_POSITION	0	0	0	0	0
WINDOW_Y_POSITION	0	0	0	0	0
DOC_DETAILS_USER_VALUES	N	N	N	N	N
SHOW_SELECTED_TIME	Y	Y	Y	Y	Y
CREATED_BY	1	1	1	1	1

Columns	Tasks	Service Request	Escalations	Service Request Tasks	Depot Repair Tasks
CREATION_DATE	1-OCT-02	1-OCT-02	1-OCT-02	1-OCT-02	07-FEB-05
LAST_UPDA TED_BY	1	1	1	1	1
LAST_UPDA TE_DATE	1-OCT-02	1-OCT-02	1-OCT-02	1-OCT-02	07-FEB-05
OBJECT_VER SION_NUMB ER	1	1	1	1	1

JTF_AM_SCREEN_SETUPS_TL

Columns	Tasks	Service Request	Escalations	Service Request Tasks	Depot Repair Tasks
SCREEN_SET UP_ID	1	2	3	4	5
PREFERENCE_NAME	Default Task	Default Service Request	Default Escalations	Default Service Request Task	Default Depot Repair
CREATED_BY	1	1	1	1	1
CREATION_DATE	1-OCT-02	1-OCT-02	1-OCT-02	1-OCT-02	07-FEB-05
LAST_UPDA TED_BY	1	1	1	1	1
LAST_UPDA TE_DATE	1-OCT-02	1-OCT-02	1-OCT-02	1-OCT-02	07-FEB-05

Columns	Tasks	Service Request	Escalations	Service Request Tasks	Depot Repair Tasks
SOURCE_LA NG	US	US	US	US	US
LANGUAGE	US	US	US	US	US

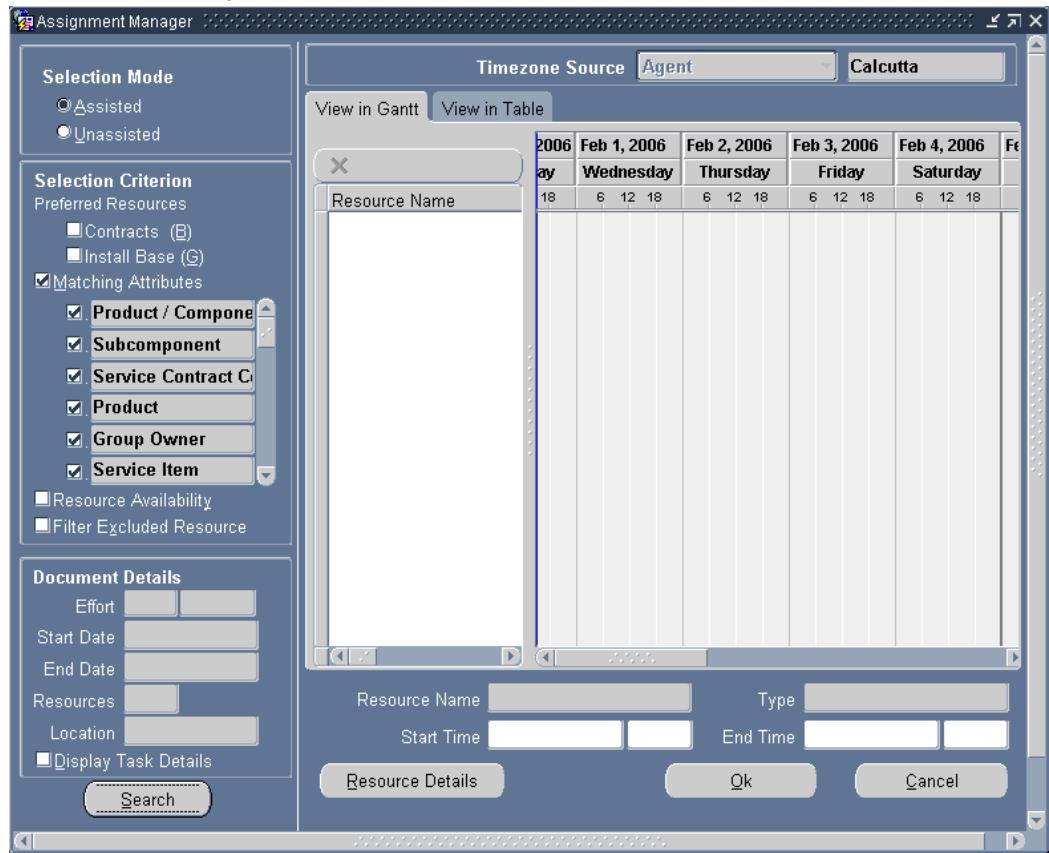
Customizing the UI Examples

This section provides examples of customizing the Assignment Manager UI for different calling documents.

Service Request

When the calling document is a Service Request, the default Assignment Manager UI includes the Assisted Mode and Unassisted Mode radio buttons, the Start Time and End Time fields, as well as the default Document Details fields.

Default Service Request Screen



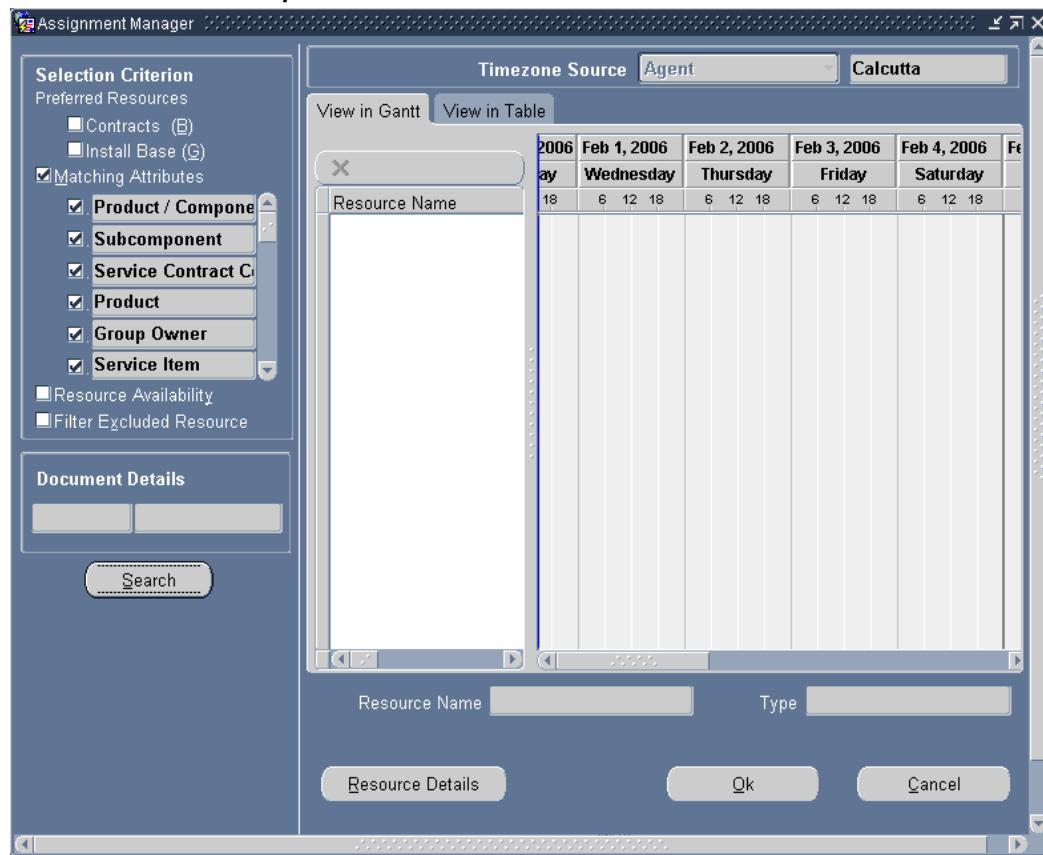
Since the Assisted Mode and Unassisted Mode radio buttons, the Start Time and End Time fields, are not required by the Service Request application, you can modify the table JTF_AM_SCREEN_SETUPS_B to render the Assignment Manager UI without these features. You can also modify the Document Details section with your own custom fields. The following SQL script customizes the Assignment Manager UI in this manner:

```

UPDATE jtf_am_screen_setups_b
SET mode_unassist      = 'N'
,doc_dtls_user_values = 'Y'
,show_selected_time   = 'N'
,last_updated_by      = 123 -- userid of user who is updating
,last_update_date     = SYSDATE
,object_version_number= object_version_number + 1
WHERE document_type = 'SR'

```

Customized Service Request Screen

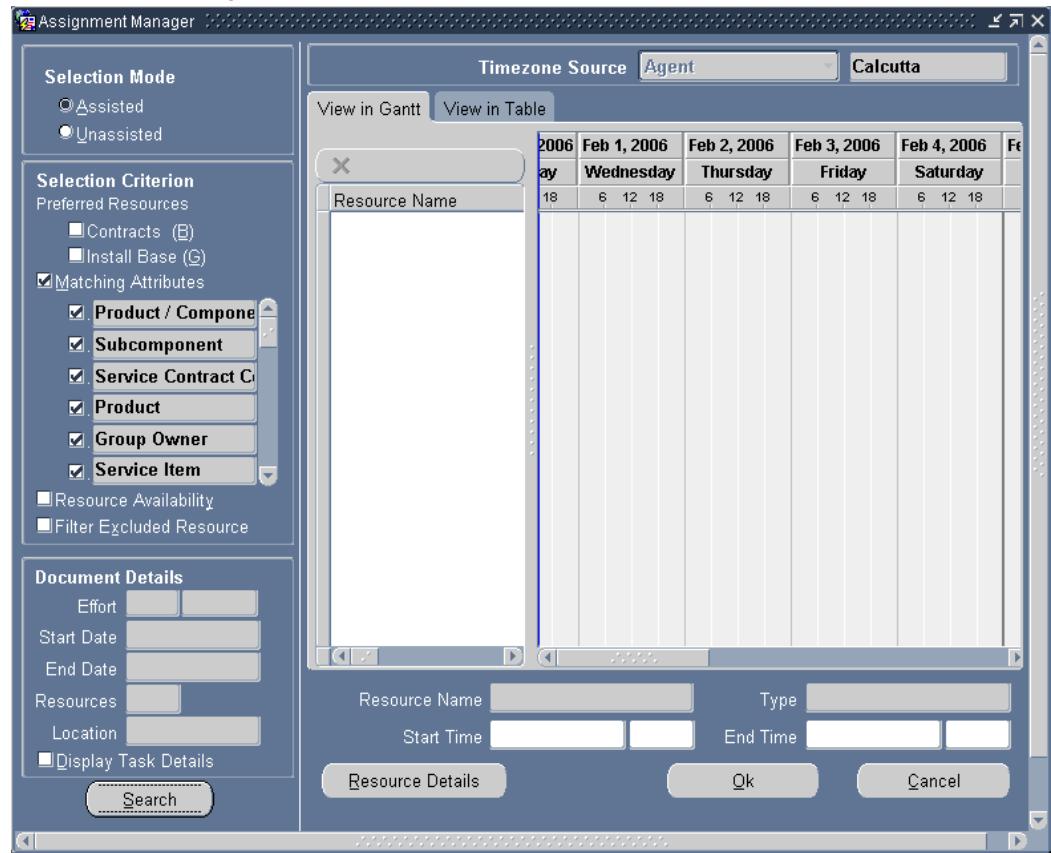


Note: Changing the `DOC_DTLS_USER_VALUES` column enables you to display custom fields in the Document Detail section. These fields will not appear, however, unless you populate the `JTFAMSR.DOC_DETAILS_REC_TYPE` with the appropriate name/value pairs.

Service Request Task

When the calling document is a Service Request Task, the default Assignment Manager UI includes the Assisted Mode and Unassisted Mode radio buttons.

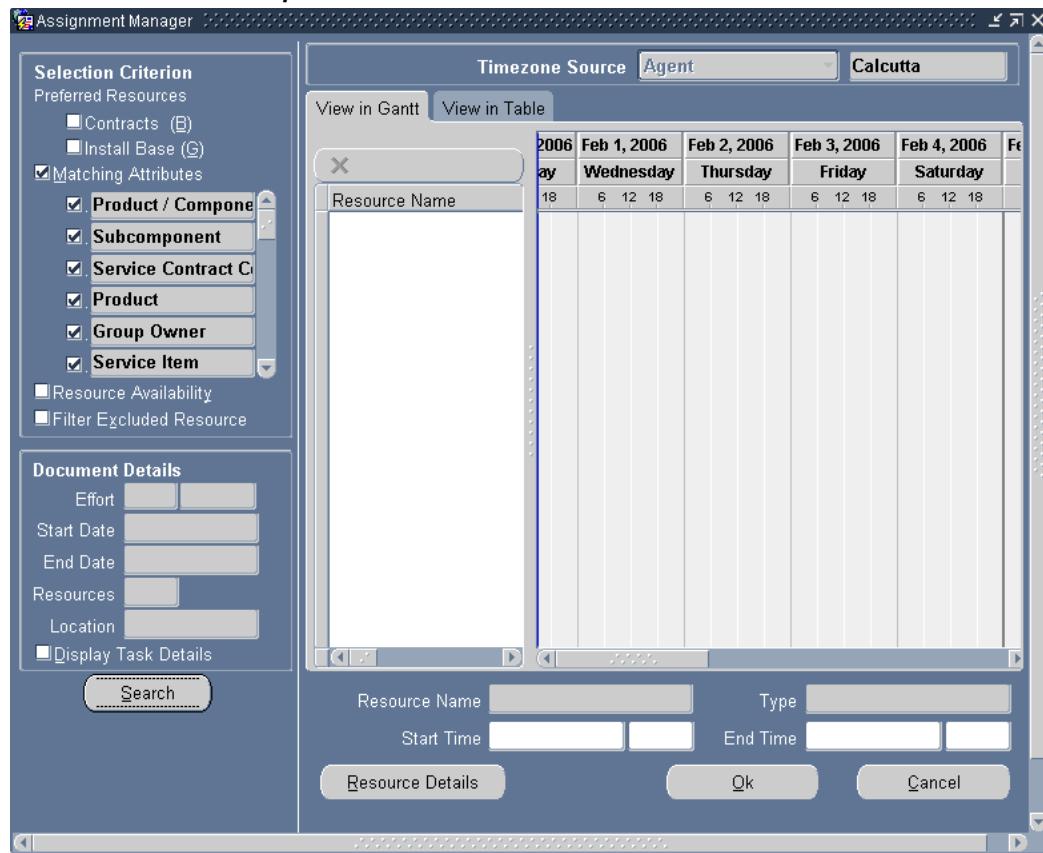
Default Service Request Task Screen



Since the Assisted Mode and Unassisted Mode radio buttons are not required by the Service Request application, you can modify the table JTF_AM_SCREEN_SETUPS_B to render the Assignment Manager UI without these features. The following SQL script customizes the Assignment Manager UI in this manner:

```
UPDATE jtf_am_screen_setups_b
SET mode_unassist = 'N'
, last_updated_by = 123 -- user id of user who is updating
, last_update_date = SYSDATE
, object_version_number= object_version_number + 1
WHERE document_type = 'SR_TASK'
```

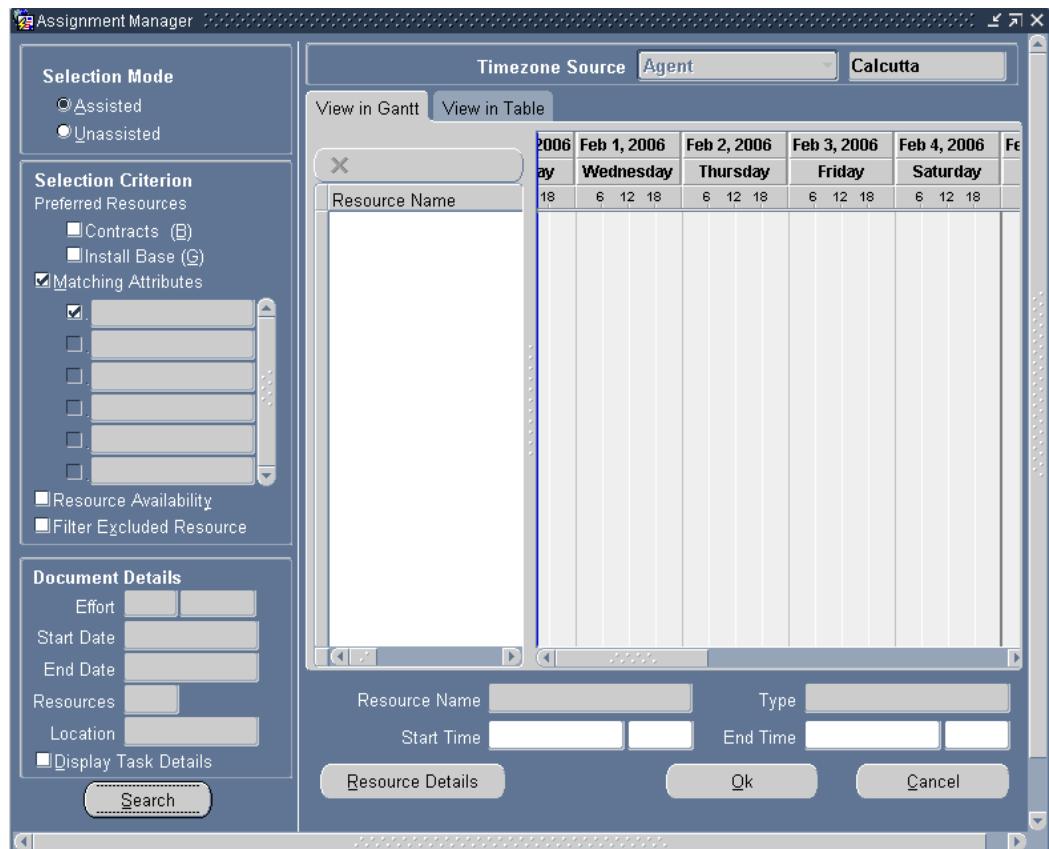
Customized Service Request Task Screen



Escalations UI

When the calling document is an Escalation, the default Assignment Manager UI includes the Assisted Mode and Unassisted Mode radio buttons, the Start Time and End Time fields, selection criteria for Contracts, Install Base, Territories, and Resource Availability as well as the Document Details fields.

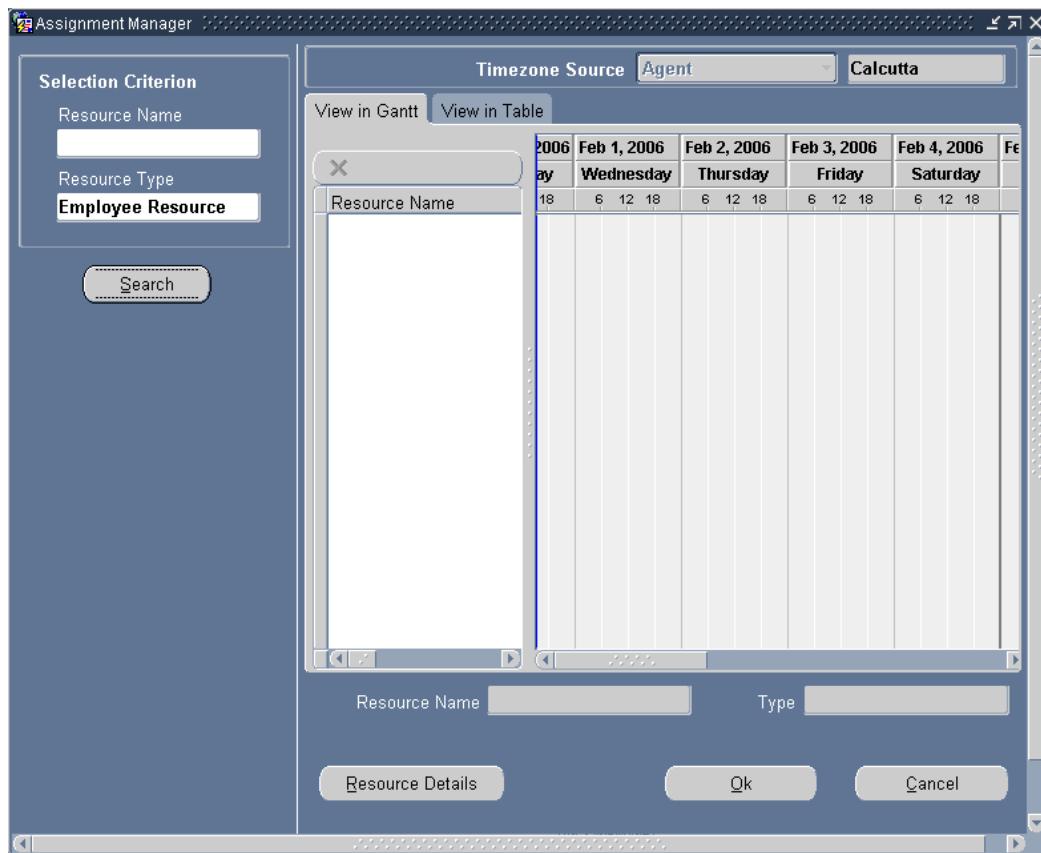
Default Escalations Screen



Since the Assisted Mode and Unassisted Mode radio buttons, the Start Time and End Time fields, selection criteria for Contracts, Install Base, Territories, and Resource Availability as well as the Document Details fields are not required by the Escalations application, you can modify the table JTF_AM_SCREEN_SETUPS_B to render the Assignment Manager UI without these features. The following SQL script customizes the Assignment Manager UI in this manner:

```
UPDATE jtf_am_screen_setups_b
SET mode_assist = 'N'
,contracts = 'N'
,installed_base = 'N'
,territory = 'N'
,availability = 'N'
,show_selected_time = 'N'
,doc_details = 'N'
,last_updated_by = 123 -- userid of user who is updating
,last_update_date = SYSDATE
,object_version_number= object_version_number + 1
WHERE document_type = 'ESC'
```

Customized Escalations Screen



Backward Compatibility

For any document type not defined in the table JTF_AM_SCREEN_SETUPS_B, Assignment Manager uses its default values. A calling document can insert data into JTF_AM_SCREEN_SETUPS_B without altering the Assignment Manager UI, if it inserts the default values into the appropriate columns. For example, if the calling document inserts a new document type called DEFAULT_EXAMPLE into JTF_AM_SCREEN_SETUPS_B that retains the default UI settings, then the columns will contain the following values:

Backward Compatibility Data Example: JTF_AM_SCREEN_SETUPS_B

Column Name	Column Value	Description
SCREEN_SETUP_ID	1001	Specifies a unique screen setup ID.

Column Name	Column Value	Description
DOCUMENT_TYPE	DEFAULT_EXAMPLE	The name of the new document type that contains the default Assignment Manager UI values.
MODE_ASSIST	Y	Retains the Assisted Mode radio button.
MODE_UNASSIST	Y	Retains the Unassisted Mode radio button.
CONTRACTS	Y	Retains the Contracts checkbox
INSTALLED_BASE	Y	Retains the Install Base checkbox
TERRITORY	Y	Retains the Territories checkbox
AVAILABILITY	Y	Retains the Resource Availability checkbox
DOC_DETAILS	Y	Retains the Document Details component.
WINDOW_WIDTH	7	Specifies the default window width of 7 inches.
WINDOW_HEIGHT	5	Specifies the default window height of 5 inches.
WINDOW_X_POSITION	0	Specifies no X coordinate for positioning the window.
WINDOW_Y_POSITION	0	Specifies no Y coordinate for positioning the window.
DOC_DTLS_USER_VALUES	N	Retains the default Document Details fields by disabling the ability to add custom fields.

Column Name	Column Value	Description
SHOW_SELECTED_TIME	Y	Displays the Start Time and End Time fields.

The default values for a new document type appear in the table JTF_AM_SCREEN_SETUPS_TL as follows:

JTF_AM_SCREEN_SETUPS_TL Sample Data

Column Name	Column Value	Description
SCREEN_SETUP_ID	1001	Specifies a unique screen setup ID.
PREFERENCE_NAME	User's Preference Name	Specifies the user's preference name.
SOURCE_LANG	US	Specifies the source language
LANGUAGE	US	Specifies the language.

Setting Up Enhanced Planning Options

Assignment Manager enables you to configure time planning options that use the SYSDATE and TIME functions to indicate the start of a shift instead of defaulting to the task start date. Enhanced planning options are configured using the JTFAM:Use systime for Assignments profile option which is set to Yes or No at the site level. When set to Yes, the profile option enables the SYSDATE and TIME functions to determine the start of a shift. When set to No, the profile enables the task start date and time to represent the start of a shift.

Examples

The following cases provide examples of setting up backward planning in Assignment Manager.

Case 1

Case 1 assumes that the current SYSDATE value is 15 Aug 2003, 10:00:00. A resource, R1 is assigned a calendar for the month August 2003, with shifts starting from 8 am to 6 pm

everyday of the week.

Step 1: Assign a Resource and shift to a Calendar

Assign Resources and shifts to a calendar by performing the following:

- Create a calendar by performing the following:
 - Create a Calendar called Test Cal using the Define Calendar Form.
 - Create a Shift called Test Shift using the Define Shifts Form. Shift should have working hours from Monday to Friday. Start time should be 8 am, duration 10 hours.
- Assign the Resource R1 to the calendar Test Cal from 1st August 2003 to 30th December 2003, using the Assign Resource to Calendar form.
- Assign Test Shift to the calendar Test Cal using the Assign Shift/Exception form.

Step 2: Assign the Resource to a Territory

Assign resource R1 to a territory where Task Priority = High. To accomplish this, navigate to Territory Manager -> Territory Administration and enter the following values:

- Territory = Service Request and Task
- Transaction Matching Attribute = Task Priority
- Value = High
- Resource assigned = R1

Step 3: Create the Service Request

Create Service Request SR1 with Task T1 using the Create Service Request form available with the Customer Support responsibility:

- Planned Start time for T1 = 1st Jan 2003,08:00:00
- Planned End Date = 30th Aug, 2003, 08:00:00
- Duration = 2 Hours.

Step 4: View the Results in Assignment Manager

Invoke the Assignment Manager form by clicking the icon adjacent to the Assignee field for the Service Request Task. Ensure that the Territories check box is selected while the remaining check boxes are not selected. Assignment Manager will perform the

following:

- Search for Resource R1's availability from 15 Aug 2003, 10:00:00 to 29 Aug 2003, 10:00:00.
- Display resource R1 rendering the shifts in yellow and the first available slot in green.
- Double clicking the resource will select the resource, which can be returned to the SR Task by clicking OK.
- Assignment Manager will return resource R1, from 15 Aug 2003, 10:00:00 to 15 Aug 2003, 12:00:00.

Case 2

Create a calendar and assign shifts in the same manner as Case 1, Step 1 and consider the following:

- SYSDATE = 15 Aug 2003, 10:00:00
- Resource R1 has been assigned a calendar for the month August 2003, with shifts starting from 8 am to 6 pm everyday of the week.
- R1 is assigned to a territory for Task Priority = High.
- Service Request SR1 has a Task T2. Planned Start time for T2 is 1st Aug 2003, 10:00:00 and Planned End Date is 25 Aug 2003, 10:00:00 for duration = 2 Hours.

Assignment Manager will search for Resource R1's availability from 15 Aug 2003, 10:00:00 to 29 Aug 2003, 10:00:00, since the range from 29th Aug 2003, 10:00:00 - 15th Aug 2003 10:00:00 is greater than the range 25th Aug 2003, 10:00:00 - 15th Aug 2003 10:00:00.

Assignment Manager will subsequently return 15 Aug 2003, 10:00:00 to 15 Aug 2003, 12:00:00.

Case 3

Create a calendar and assign shifts in the same manner as Case 1, Step 1 and consider the following:

- SYSDATE = 15 Aug 2003, 10:00:00
- Resource R1 has been assigned a calendar for the month August 2003, with shifts starting from 8 am to 6 pm everyday of the week.
- R1 is assigned to a territory for Task Priority = High.

- Service Request SR1 has a Task T3. Planned Start time for T3 is null, Planned End Date is null and for duration = null.

Assignment Manager will search for Resource R1's availability from 15 Aug 2003, 10:00:00 to 29 Aug 2003, 10:00:00 for a duration of 1 Hour and will return 15 Aug 2003, 10:00:00 to 15 Aug 2003, 11:00:00.

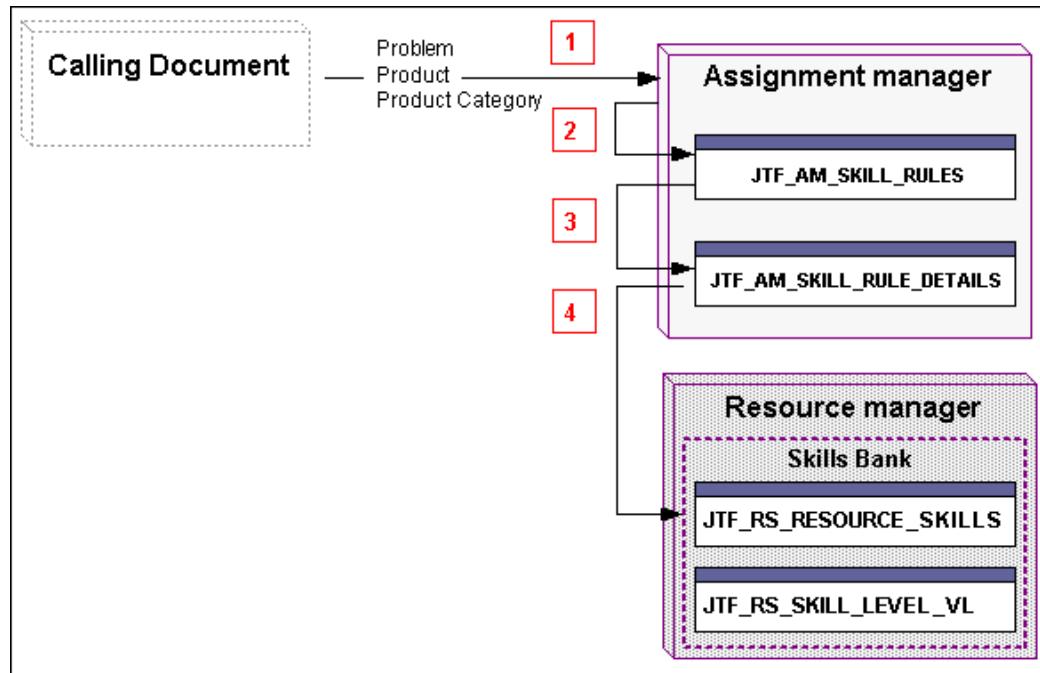
Skills-based Filtering

When assigning a resource to a service request for a specific problem, product, or product category, Assignment Manager enables the most skilled resource to be selected for each. Assignment Manager filters the values of the problem, product, or product category that it receives from a service request. When Assignment Manager subsequently searches the Resource Manager Skills Bank for a resource skill to assign to the service request, it uses search rules based on the filtered problem, product, or product category values. Assignment Manager ships with tables that contain seeded search rule data. When implementing Assignment Manager, you can create or modify these search rules by inserting or updating data in the tables that contain the seeded search rule information.

Search Rules

Assignment Manager searches the Skills Bank for skilled resources based on search rules stored in tables JTF_AM_SKILL_RULES and JTF_AM_SKILL_RULE_DTLS. The following figure demonstrates how Assignment Manager applies the search rules when searching for skilled resources. The figure is explained in the text.

Search Rules



1. The calling document passes values into Assignment Manager which include a combination of the Problem Code, Product, or Product Category parameters.
2. If the calling document has passed a combination of these parameters into Assignment Manager, then Assignment Manager searches table JTF_AM_SKILL_RULES to determine if that combination has been seeded for the document type. This table stores the rule_id parameter for a specific set of values received by Assignment Manager.
3. If Assignment Manager locates seeded data for this combination, it accesses table JTF_AM_SKILL_RULE_DTLS to determine if rule exists that specifies at least one of the values for product, product category or problem code must be searched for in the Skills Bank.
4. If the Rule is found then Assignment Manager searches the Skills Bank based on that rule. The Skills Bank contains table JTF_RS_RESOURCE_SKILLS, which lists the Skill_level_id parameter for a resource's skills, and table JTF_RS_SKILL_LEVEL_VL, which lists the skill level for each Skill_level_id parameter.

Table JTF_AM_SKILL_RULES

Table JTF_AM_SKILL_RULES contains the following definitions.

Table JTF_AM_SKILL_RULES Definitions

Column Name	Values	Description
Rule_id	Unique seeded id	The unique ID for a specific combination of values passed to Assignment Manager.
Document_type	SR, TASK, SR_TASK, ESC, DEF, LEAD, OPPR, ACC DR	The document, such as SR (Service Request), from which Assignment Manager is called. This is a unique value for the table. These values are explained in the Supported Document Types section.
Product_id_passed	1/0	A value of 1 indicates that the calling document has passed the product_id and the product_org_id into Assignment Manager.
Category_id_passed	1/0	A value of 1 indicates that the calling document has passed the product_category_id into Assignment Manager.
Problem_code_passed	1/0	A value of 1 indicates that the calling document has passed the problem_code into Assignment Manager.
Component_id_passed	1/0	This column is currently not in use and the value is set to 0.
Active_flag	Y/N	Y indicates that the rule is active and should be considered in the search.

Table JTF_AM_SKILL_RULES Standard Columns

Table JTF_AM_SKILL_RULES contains the following Standard columns.

Table JTF_AM_SKILL_RULES Standard Columns

Name	Null/Not Null	Type
RULE_ID	NOT NULL	NUMBER
DOCUMENT_TYPE	NOT NULL	VARCHAR2(30)
PRODUCT_ID_PASSED	NOT NULL	NUMBER
CATEGORY_ID_PASSED	NOT NULL	NUMBER
PROBLEM_CODE_PASSED	NOT NULL	NUMBER
COMPONENT_ID_PASSED	NOT NULL	NUMBER
ACTIVE_FLAG	NOT NULL	VARCHAR2(10)

Table JTF_AM_SKILL_RULES Who Columns

Table JTF_AM_SKILL_RULES contains the following Who columns.

Table JTF_AM_SKILL_RULES Who Columns

Name	Null/Not Null	Type
CREATED_BY	NOT NULL	NUMBER
CREATION_DATE	NOT NULL	DATE
LAST_UPDATED_BY	NOT NULL	NUMBER
LAST_UPDATE_DATE	NOT NULL	DATE
LAST_UPDATE_LOGIN	NOT NULL	NUMBER
OBJECT_VERSION_NUMBER	NOT NULL	NUMBER
ATTRIBUTE_CATEGORY	NOT NULL	VARCHAR2(150)

Table JTF_AM_SKILL_RULES Flexfield Columns

Table JTF_AM_SKILL_RULES contains the following Flexfield columns.
JTF_AM_SKILL_RULES Flexfield

Table JTF_AM_SKILL_RULES Flexfield Columns

Name	Null/Not Null	Type
ATTRIBUTE1	NOT NULL	VARCHAR2(150)
ATTRIBUTE2	NOT NULL	VARCHAR2(150)
ATTRIBUTE3	NOT NULL	VARCHAR2(150)
ATTRIBUTE4	NOT NULL	VARCHAR2(150)
ATTRIBUTE5	NOT NULL	VARCHAR2(150)
ATTRIBUTE6	NOT NULL	VARCHAR2(150)
ATTRIBUTE7	NOT NULL	VARCHAR2(150)
ATTRIBUTE8	NOT NULL	VARCHAR2(150)
ATTRIBUTE9	NOT NULL	VARCHAR2(150)
ATTRIBUTE10	NOT NULL	VARCHAR2(150)
ATTRIBUTE11	NOT NULL	VARCHAR2(150)
ATTRIBUTE12	NOT NULL	VARCHAR2(150)
ATTRIBUTE13	NOT NULL	VARCHAR2(150)
ATTRIBUTE14	NOT NULL	VARCHAR2(150)
ATTRIBUTE15	NOT NULL	VARCHAR2(150)
SECURITY_GROUP_ID	NOT NULL	NUMBER

Table JTF_AM_SKILL_RULE_DTLS Table Definitions

Table JTF_AM_SKILL_RULE_DTLS contains the following definitions.

Table JTF_AM_SKILL_RULE_DTLS Definitions

Column Name	Values	Description
Detail_id	Unique ID	The unique ID for a rule.
Rank	Number (Unique within a rule ID)	The order in which the rules are applied.
Rule_id	Header table ID	A value of 1 indicates that the product_id and the product_org_id have been passed in to Assignment Manager.
Check_Product_Id	1/0	A value of 1 indicates that the product must match the skills bank product ID.
Check_Category_id	1/0	A value of 1 indicates that the category must match the skills bank category ID.
Check_Problem_code	1/0	A value of 1 indicates that the problem code must match the skills bank problem code ID.
Check_Component_id	1/0	A value of 1 indicates that the component must match the skills bank component ID.
Active_flag	Y/N	Y indicates that the skill is active and must be considered in the search.

Table JTF_AM_SKILL_RULE_DTLS Standard Columns

Table JTF_AM_SKILL_RULE_DTLS contains the following Standard columns.

Table JTF_AM_SKILL_RULE_DTLS Standard Columns

Name	Null/Not Null	Type
DETAIL_ID	NOT NULL	NUMBER
RULE_ID	NOT NULL	NUMBER
RANK	NOT NULL	NUMBER
CHECK_PRODUCT_ID	NOT NULL	NUMBER
CHECK_CATEGORY_ID	NOT NULL	NUMBER
CHECK_PROBLEM_CODE	NOT NULL	NUMBER
CHECK_COMPONENT_ID	NOT NULL	NUMBER
ACTIVE_FLAG	NOT NULL	VARCHAR2(10)

Table JTF_AM_SKILL_RULE_DTLS Who Columns

Table JTF_AM_SKILL_RULE_DTLS contains the following Who columns.

Table JTF_AM_SKILL_RULE_DTLS Who Columns

Name	Null/Not Null	Type
CREATED_BY	NOT NULL	NUMBER
CREATION_DATE	NOT NULL	DATE
LAST_UPDATED_BY	NOT NULL	NUMBER
LAST_UPDATE_DATE	NOT NULL	DATE
LAST_UPDATE_LOGIN	NOT NULL	NUMBER
OBJECT_VERSION_NUMBE R	NOT NULL	NUMBER

Name	Null/Not Null	Type
ATTRIBUTE_CATEGORY	NOT NULL	VARCHAR2(150)

Table JTF_AM_SKILL_RULE_DTLS Flexfield Columns

Table JTF_AM_SKILL_RULE_DTLS contains the following Flexfield columns.

Table JTF_AM_SKILL_RULE_DTLS Flexfield Columns

ATTRIBUTE1	NOT NULL	VARCHAR2(150)
ATTRIBUTE2	NOT NULL	VARCHAR2(150)
ATTRIBUTE3	NOT NULL	VARCHAR2(150)
ATTRIBUTE4	NOT NULL	VARCHAR2(150)
ATTRIBUTE5	NOT NULL	VARCHAR2(150)
ATTRIBUTE6	NOT NULL	VARCHAR2(150)
ATTRIBUTE7	NOT NULL	VARCHAR2(150)
ATTRIBUTE8	NOT NULL	VARCHAR2(150)
ATTRIBUTE9	NOT NULL	VARCHAR2(150)
ATTRIBUTE10	NOT NULL	VARCHAR2(150)
ATTRIBUTE11	NOT NULL	VARCHAR2(150)
ATTRIBUTE12	NOT NULL	VARCHAR2(150)
ATTRIBUTE13	NOT NULL	VARCHAR2(150)
ATTRIBUTE14	NOT NULL	VARCHAR2(150)
ATTRIBUTE15	NOT NULL	VARCHAR2(150)

SECURITY_GROUP_ID	NOT NULL	NUMBER
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Search Rules Examples

The following example demonstrates how Assignment Manager applies search rules for skills-based filtering based on sample data in tables JTF_AM_SKILL_RULES and JTF_AM_SKILL_RULE_DTLS.

Table JTF_AM_SKILL_RULES Sample Data

Column Name	Values	Description
Rule_id	1	The rule is identified as 1.
Document_type	SR	The document type for the calling document is a Service Request
Product_id_passed	1	The calling document has passed the Product_id and the Product_org_id values to Assignment Manager.
Category_id_passed	1	The calling document has passed the Category_id value to Assignment Manager.
Problem_code_passed	1	The calling document has passed the Problem_code value to Assignment Manager.
Component_id_passed	0	The calling document has not passed the Component_id value to Assignment Manager since Assignment Manager does not yet use the Component_id_passed column.
Active_flag	Y	This rule is currently active and can be used.

In the sample data for table JTF_AM_SKILL_RULES, Assignment Manager selects Rule 1 if it receives values for the product_id and product_org_id, category_id and problem_code from the calling document. When Assignment Manager selects Rule 1, it searches for details for that rule in table JTF_AM_SKILL_RULE_DTLS.

Table JTF_AM_SKILL_RULE_DTLS Sample Data

Column Name	Values	Values	Values	Values	Values
Detail_id	1	2	3	4	5
Rank	10	20	30	40	50
Rule_id	1	1	1	1	1
Check_Product_Id	1	0	0	0	0
Check_Category_id	0	1	0	0	1
Check_Problem_code	1	1	1	1	0
Check_Component_id	0	0	0	0	0
Active_flag	Y	Y	Y	Y	Y

In table JTF_AM_RULE_DTLS, Assignment Manager successively applies all of the search rules for a specific value in the Rule_id column, beginning with the lowest ranked one where the Active_flag is set to Y.

In the case of the sample data, Assignment Manager first selects the rule with the lowest value in the Rank column, which is 10. Where the value of Rank is 10, the value of check_product_id and check_problem_code are 1. Consequently, Assignment Manager searches the Skills Bank for qualified resources and marks the ones that are rated for product and problem code. When this process is completed, Assignment Manager selects the rule with the next lowest rank, which is 20. Where the value of Rank is 20, Check_Category_id, and Check_Problem_Code are 1. Consequently, Assignment Manager searches the Skills Bank for qualified resources and marks the ones that are rated for Product Category and Problem Code.

Assignment Manager continues this process until all of the rules are applied in succession and at least one of the given combination is returned. If no rules are defined

for a particular combination of values passed in then no filtering occurs and all of the qualified resources are returned.

Supported Document Types

Assignment Manager supports document types from the FND_LOOKUPS table where LOOKUP_TYPE = JTF_AM_DOCUMENT_TYPE. These document types do not pass a Component_id value to Assignment Manager, which consequently does not use it for skills-based filtering. Component_id is included as a column in the search rule tables for future requirements.

Supported Document Types

Document Type	Calling Document
SR	Service Request
TASK	Tasks
SR_TASK	Service Request Task
ESC	Escalations
DEF	Defects
LEAD	Leads
OPPR	Opportunities
ACC	Accounts
DR	Depot Repair Tasks

Business Rules

The following skills-based filtering business rules are seeded for any document type recognized by Assignment Manager.

- No Rules Found in Table JTF_AM_SKILL_RULES

When the calling document passes values for Product, Product Category and Problem Code and no rule found in the table JTF_AM_SKILL_RULES, then all the qualified resources are returned without skills-based filtering.

- No Corresponding Rule Exists in Table JTF_AM_SKILL_RULE_DTLS

When the calling document passes values for Product, Product Category and Problem Code and a rule is found in the table JTF_AM_SKILL_RULES, but no related records exist in JTF_AM_SKILL_RULE_DTLS for the rule_id, then all the qualified resources are returned without any filtering based on skills.

- Additional Values Entered into 1/0 Columns for Table JTF_AM_SKILL_RULE_DTLS

If values other than 1 or 0 are passed into columns in table JTF_AM_SKILL_RULE_DTLS that only have valid values of 1 or 0, then these are treated as values of 0. For example if, if jtf_am_skill_rule_dtls.check_product_id is set to 5, this is programmatically equivalent to 0.

- Additional Values Entered into 1/0 Columns for Table JTF_AM_SKILL_RULES

If values other than 1 or 0 are passed into columns in table JTF_AM_SKILL_RULES that only have valid values of 1 or 0, then the rule is treated as an invalid rule. For example, if jtf_am_skill_rules.product_id_passed is set to 5, Assignment Manager does not consider the rule at all.

- A Rule is Entered into

If a rule detail is found in JTF_AM_SKILL_RULE_DTLS for which the values of check_product_id, check_category_id and check_problem_code are all set to 0 then no filtering occurs for this rule. This rule is considered to be non-existent.

Service Request Examples

This section contains skills-based filtering use cases in which a service request passes a combination of Product, Problem Code and Product Category values to Assignment Manager and Assignment Manager executes search steps based on those values. In the following table, X indicates that a value is specified for the corresponding Product, Problem Code, or Product Category in the search step. Each search step is explained in the subsequent text.

Steps Executed by Assignment Manager for Skills-based filtering

Skills	Combination 1	Combination 2	Combination 3	Combination 4	Combination 5
Product Category	X	X	X	X	N/A
Product	X	X	N/A	N/A	N/A

Skills	Combination 1	Combination 2	Combination 3	Combination 4	Combination 5
Problem Code	X	N/A	X	N/A	X

Combination 1

The following table contains the rules for Combination 1:

Rules for Combination 1

Skill	Combination 1	Step 1	Step 2	Step 3	Step 4	Step 5
Product Category	X	N/A	X	N/A	N/A	X
Product	X	X	N/A	N/A	X	N/A
Problem Code	X	X	X	X	N/A	N/A

Combination 1 contains the following data in table JTF_AM_SKILL_RULES:

Combination 1 Data in Table JTF_AM_SKILL_RULES

Column Name	Values
Rule_id	1
Document_type	SR
Product_id_passed	1
Category_id_passed	1
Problem_code_passed	1
Component_id_passed	0

Column Name	Values
Active_flag	Y

Combination 1 contains the following data in table JTF_AM_SKILL_RULE_DTLS:

Combination 1 Data in Table JTF_AM_SKILL_RULE_DTLS

Column Name	Values	Values	Values	Values	Values
Detail_id	1	2	3	4	5
Rank	10	20	30	40	50
Rule_id	1	1	1	1	1
Check_Produ ct_Id	1	0	0	1	0
Check_Categ ory_id	0	1	0	0	1
Check_Proble m_code	1	1	1	0	0
Check_Component_id	0	0	0	0	0
Active_flag	Y	Y	Y	Y	Y

With Combination 1, Assignment Manager accesses the following resource skill data in table JTF_RS_RESOURCE_SKILLS:

Resource Skill Data in Table JTF_RS_RESOURCE_SKILLS

Resource_id	Skill_level_id	Product_id	Product_o rg_id	Category_i d	Problem_c ode	Componen nt_id
R1	4	N/A	N/A	N/A	EE01	N/A

Resource_id	Skill_level_id	Product_id	Product_org_id	Category_id	Problem_code	Component_id
R2	3	149	204	N/A	EE01	N/A
R3	4	N/A	N/A	1390	EE01	N/A

With Combination 1, Assignment Manager accesses the following resource skill level data in table JTF_RS_SKILL_LEVELS_VL:

Resource Skill Data in Table JTF_RS_SKILL_LEVELS_VL

Skill_level_id	Skill_level
4	60
3	80
2	100

The service request passes the following values to Assignment Manager.

- Product_id = 149, product_org_id = 204
- Category_id = 1390
- Problem_code = EE01

The following resources are returned as Qualified Resources in Assignment Manager:

- R1
- R2
- R4
- R5

Assignment Manager searches the Skills Bank and returns the following result. Unskilled resources are returned with their skill level set to 0:

Combination 1 Skills Bank Search Result

Resource_id	Skill_level
R1	60
R2	80
R4	0
R5	0

Combination 2

The following table contains the rules for Combination 2:

Rules for Combination 2

Skill	Combination 2	Step 1	Step 2
Product Category	X	N/A	X
Product	X	X	N/A
Problem Code	N/A	N/A	N/A

Combination 2 contains the following data in table JTF_AM_SKILL_RULES:

Combination 2 Data in Table JTF_AM_SKILL_RULES

Column Name	Values
Rule_id	2
Document_type	SR
Product_id_passed	1
Category_id_passed	1

Column Name	Values
Problem_code_passed	0
Component_id_passed	0
Active_flag	Y

Combination 2 contains the following data in table JTF_AM_SKILL_RULE_DTLS:

Combination 2 Data in Table JTF_AM_SKILL_RULE_DTLS

Column Name	Values	Values
Detail_id	6	7
Rank	10	20
Rule_id	2	2
Check_Product_Id	1	0
Check_Category_id	0	1
Check_Problem_code	0	0
Check_Component_id	0	0
Active_flag	Y	Y

With Combination 2, Assignment Manager accesses the following resource skill data in table JTF_RS_RESOURCE_SKILLS:

Resource Skill Data in Table JTF_RS_RESOURCE_SKILLS

Resource_id	Skill_level_id	Product_id	Product_org_id	Category_id	Problem_code	Component_id
R1	4	null	null	null	EE01	null

Resource_id	Skill_level_id	Product_id	Product_org_id	Category_id	Problem_code	Component_id
R2	3	149	204	null	EE01	null
R3	4	null	null	1390	EE01	null
R4	2	149	204	null	null	null
R5	3	null	null	1390	null	null

With Combination 2, Assignment Manager accesses the following resource skill level data in table JTF_RS_SKILL_LEVELS_VL:

Resource Skill Data in Table JTF_RS_SKILL_LEVELS_VL

Skill_level_id	Skill_level
4	60
3	80
2	100

The service request passes the following values to Assignment Manager.

- Product_id = 149, product_org_id = 204
- Category_id = 1390
- Problem_code = null

The following resources are returned as Qualified Resources in Assignment Manager:

- R1
- R2
- R3
- R4

- R5

Assignment Manager searches the Skills Bank and returns the following result. Unskilled resources are returned with their skill level set to 0:

Combination 2 Skills Bank Search Result

Resource_id	Skill_level
R1	0
R2	100
R3	0
R4	0
R5	80

Combination 3

The following table contains the rules for Combination 3:

Rules for Combination 3

Skill	Combination 3	Step 1	Step 2	Step 3
Product Category	X	X	N/A	X
Product	N/A	N/A	N/A	N/A
Problem Code	X	X	X	N/A

Combination 3 contains the following data in table JTF_AM_SKILL_RULES:

Combination 3 Data in Table JTF_AM_SKILL_RULES

Column Name	Values
Rule_id	3
Document_type	SR
Product_id_passed	0
Category_id_passed	1
Problem_code_passed	1
Component_id_passed	0
Active_flag	Y

Combination 3 contains the following data in table JTF_AM_SKILL_RULE_DTLS:

Combination 3 Data in Table JTF_AM_SKILL_RULE_DTLS

Column Name	Values	Values	Values
Detail_id	8	9	10
Rank	10	20	30
Rule_id	3	3	3
Check_Product_Id	1	0	1
Check_Category_id	0	0	0
Check_Problem_code	1	1	0
Check_Component_id	0	0	0
Active_flag	Y	Y	Y

With Combination 3, Assignment Manager accesses the following resource skill data in table JTF_RS_RESOURCE_SKILLS:

Resource Skill Data in Table JTF_RS_RESOURCE_SKILLS

Resource_id	Skill_level_id	Product_id	Product_org_id	Category_id	Problem_code	Component_id
R1	4	N/A	N/A	N/A	EE01	N/A
R2	3	149	204	N/A	EE01	N/A
R3	4	N/A	N/A	1390	EE01	N/A
R4	2	149	204	N/A	N/A	N/A
R5	3	N/A	N/A	1390	N/A	N/A

With Combination 3, Assignment Manager accesses the following resource skill level data in table JTF_RS_SKILL_LEVELS_VL:

Resource Skill Data in Table JTF_RS_SKILL_LEVELS_VL

Skill_level_id	Skill_level
4	60
3	80
2	100

The service request passes the following values to Assignment Manager.

- Product_id = 149, product_org_id = 204
- Category_id = null
- Problem_code = EE01

The following resources are returned as Qualified Resources in Assignment Manager:

- R1

- R2
- R3
- R4
- R5

Assignment Manager searches the Skills Bank and returns the following result. Unskilled resources are returned with their skill level set to 0:

Combination 3 Skills Bank Search Result

Resource_id	Skill_level
R1	60
R2	80
R3	0
R4	0
R5	0

Combination 4

The following table contains the rules for Combination 4:

Rules for Combination 4

Skill	Combination 4	Step 1	Step 2
Product Category	X	N/A	X
Product	N/A	N/A	N/A
Problem Code	N/A	N/A	N/A

Combination 4 contains the following data in table JTF_AM_SKILL_RULES:

Combination 4 Data in Table JTF_AM_SKILL_RULES

Column Name	Values
Rule_id	4
Document_type	SR
Product_id_passed	0
Category_id_passed	1
Problem_code_passed	0
Component_id_passed	0
Active_flag	Y

Combination 4 contains the following data in table JTF_AM_SKILL_RULE_DTLS:

Combination 4 Data in Table JTF_AM_SKILL_RULE_DTLS

Column Name	Values
Detail_id	11
Rank	10
Rule_id	4
Check_Product_Id	0
Check_Category_id	1
Check_Problem_code	0
Check_Component_id	0
Active_flag	Y

With Combination 4, Assignment Manager accesses the following resource skill data in

table JTF_RS_RESOURCE_SKILLS:

Resource Skill Data in Table JTF_RS_RESOURCE_SKILLS

Resource_id	Skill_level_id	Product_id	Product_org_id	Category_id	Problem_code	Component_id
R1	4	N/A	N/A	N/A	EE01	N/A
R2	3	149	204	N/A	EE01	N/A
R3	4	N/A	N/A	1390	EE01	N/A
R4	2	149	204	N/A	N/A	N/A
R5	3	N/A	N/A	1390	N/A	N/A

With Combination 4, Assignment Manager accesses the following resource skill level data in table JTF_RS_SKILL_LEVELS_VL:

Resource Skill Data in Table JTF_RS_SKILL_LEVELS_VL

Skill_level_id	Skill_level
4	60
3	80
2	100

The service request passes the following values to Assignment Manager.

- Product_id = null, product_org_id = null
- Category_id = 1390
- Problem_code = null

The following resources are returned as Qualified Resources in Assignment Manager:

- R1

- R2
- R3
- R4
- R5

Assignment Manager searches the Skills Bank and returns the following result. Unskilled resources are returned with their skill level set to 0:

Combination 4 Skills Bank Search Result

Resource_id	Skill_level
R1	0
R2	0
R3	0
R4	0
R5	80

Combination 5

The following table contains the rules for Combination 5:

Rules for Combination 5

Skill	Combination 5	Step 1
Product Category	N/A	N/A
Product	N/A	N/A
Problem Code	X	X

Combination 5 contains the following data in table JTF_AM_SKILL_RULES:

Combination 5 Data in Table JTF_AM_SKILL_RULES

Column Name	Values
Rule_id	5
Document_type	SR
Product_id_passed	0
Category_id_passed	0
Problem_code_passed	1
Component_id_passed	0
Active_flag	Y

Combination 5 contains the following data in table JTF_AM_SKILL_RULE_DTLS:

Combination 5 Data in Table JTF_AM_SKILL_RULE_DTLS

Column Name	Values
Detail_id	12
Rank	10
Rule_id	5
Check_Product_Id	0
Check_Category_id	0
Check_Problem_code	1
Check_Component_id	0
Active_flag	Y

With Combination 5, Assignment Manager accesses the following resource skill data in

table JTF_RS_RESOURCE_SKILLS:

Resource Skill Data in Table JTF_RS_RESOURCE_SKILLS

Resource_id	Skill_level_id	Product_id	Product_org_id	Category_id	Problem_code	Component_id
R1	4	N/A	N/A	N/A	EE01	N/A
R2	3	149	204	N/A	EE01	N/A
R3	4	N/A	N/A	1390	EE01	N/A
R4	2	149	204	N/A	N/A	N/A
R5	3	N/A	N/A	1390	N/A	N/A

With Combination 5, Assignment Manager accesses the following resource skill level data in table JTF_RS_SKILL_LEVELS_VL:

Resource Skill Data in Table JTF_RS_SKILL_LEVELS_VL

Skill_level_id	Skill_level
4	60
3	80
2	100

The service request passes the following values to Assignment Manager.

- Product_id = null, product_org_id = null
- Category_id = null
- Problem_code = EE01

The following resources are returned as Qualified Resources in Assignment Manager:

- R1

- R2
- R3
- R4
- R5

Assignment Manager searches the Skills Bank and returns the following result. Unskilled resources are returned with their skill level set to 0:

Combination 5 Skills Bank Search Result

Resource_id	Skill_level
R1	60
R2	0
R3	0
R4	0
R5	0

Task Examples

This section contains skills-based filtering use cases in which a Task passes a combination of Product, Problem Code and Product category values to Assignment Manager and Assignment Manager executes search steps based on those values. In the following table, X indicates that a value is specified for the corresponding Product, Problem Code, or Product Category in the search step. Each search step is explained in the subsequent text.

Combination of Values Passed by a Task to Assignment Manager

Skill	Combination 1	Combination 2
Product Category	X	X
Product	X	X

Skill	Combination 1	Combination 2
Problem Code	X	N/A

Combination 1

The following table contains the rules for Combination 1:

Rules for Combination 1

Skill	Combination 1	Step 1	Step 2	Step 3
Product Category	X	X	N/A	N/A
Product	X	N/A	X	N/A
Problem Code	X	N/A	N/A	X

Combination 1 contains the following data in table JTF_AM_SKILL_RULES:

Combination 1 Data in Table JTF_AM_SKILL_RULES

Column Name	Values
Rule_id	6
Document_type	TASK
Product_id_passed	1
Category_id_passed	1
Problem_code_passed	1
Component_id_passed	0
Active_flag	Y

Combination 1 contains the following data in table JTF_AM_SKILL_RULE_DTLS:

Combination 1 Data in Table JTF_AM_SKILL_RULE_DTLS

Column Name	Values	Values	Values
Detail_id	12	13	14
Rank	10	20	30
Rule_id	6	6	6
Check_Product_Id	1	0	0
Check_Category_id	0	1	0
Check_Problem_code	0	0	1
Check_Component_id	0	0	0
Active_flag	Y	Y	Y

With Combination 1, Assignment Manager accesses the following resource skill data in table JTF_RS_RESOURCE_SKILLS:

Resource Skill Data in Table JTF_RS_RESOURCE_SKILLS

Resource_id	Skill_level_id	Product_id	Product_organ_id	Category_id	Problem_code	Component_id
R1	4	N/A	N/A	N/A	EE01	N/A
R2	3	149	204	N/A	EE01	N/A
R3	4	N/A	N/A	1390	EE01	N/A
R4	2	149	204	N/A	N/A	N/A
R5	3	N/A	N/A	1390	N/A	N/A

With Combination 1, Assignment Manager accesses the following resource skill level data in table JTF_RS_SKILL_LEVELS_VL:

Resource Skill Data in Table JTF_RS_SKILL_LEVELS_VL

Skill_level_id	Skill_level
4	60
3	80
2	100

The service request passes the following values to Assignment Manager.

- Product_id = 149, product_org_id = 204
- Category_id = 1390
- Problem_code = EE01

The following resources are returned as Qualified Resources in Assignment Manager:

- R1
- R2
- R3
- R4
- R5

Assignment Manager searches the Skills Bank and returns the following result. Unskilled resources are returned with their skill level set to 0:

Combination 1 Skills Bank Search Result

Resource_id	Skill_level
R1	60
R2	80
R3	0

Resource_id	Skill_level
R4	0
R5	80

Combination 2

The following table contains the rules for Combination 2:

Rules for Combination 2

Skill	Combination 2	Step 1	Step 2	Step 3
Product Category	X	X	N/A	N/A
Product	X	N/A	X	X
Problem Code	N/A	N/A	N/A	N/A

Combination 2 contains the following data in table JTF_AM_SKILL_RULES:

Combination 2 Data in Table JTF_AM_SKILL_RULES

Column Name	Values
Rule_id	7
Document_type	TASK
Product_id_passed	1
Category_id_passed	1
Problem_code_passed	0
Component_id_passed	0

Column Name	Values
Active_flag	Y

Combination 2 contains the following data in table JTF_AM_SKILL_RULE_DTLS:

Combination 2 Data in Table JTF_AM_SKILL_RULE_DTLS

Column Name	Values	Values
Detail_id	15	16
Rank	10	20
Rule_id	7	7
Check_Product_Id	1	0
Check_Category_id	0	1
Check_Problem_code	0	0
Check_Component_id	0	0
Active_flag	Y	Y

With Combination 2, Assignment Manager accesses the following resource skill data in table JTF_RS_RESOURCE_SKILLS:

Resource Skill Data in Table JTF_RS_RESOURCE_SKILLS

Resource_id	Skill_level_id	Product_id	Product_organization_id	Category_id	Problem_code	Component_id
R1	4	N/A	N/A	N/A	EE01	N/A
R2	3	149	204	N/A	EE01	N/A
R3	4	N/A	N/A	1390	EE01	N/A

Resource_id	Skill_level_id	Product_id	Product_org_id	Category_id	Problem_code	Component_id
R4	2	149	204	N/A	N/A	N/A
R5	3	N/A	N/A	1390	N/A	N/A

With Combination 2, Assignment Manager accesses the following resource skill level data in table JTF_RS_SKILL_LEVELS_VL:

Resource Skill Data in Table JTF_RS_SKILL_LEVELS_VL

Skill_level_id	Skill_level
4	60
3	80
2	100

The service request passes the following values to Assignment Manager.

- Product_id = 149, product_org_id = 204
- Category_id = 1390
- Problem_code = null

The following resources are returned as Qualified Resources in Assignment Manager:

- R1
- R2
- R3
- R4
- R5

Assignment Manager searches the Skills Bank and returns the following result. Unskilled resources are returned with their skill level set to 0:

Combination 2 Skills Bank Search Result

Resource_id	Skill_level
R1	0
R2	80
R3	0
R4	0
R5	80

Backwards Compatibility Considerations

If no rules are defined for a given combination of product category, product and problem code values that the calling document passes to Assignment Manager then all qualified resources are returned without any filtering.

For the matching attributes problem code, product, and product category it is recommended that you use the Skills Bank to obtain the most qualified resources. Setting these matching attributes in territories is not advisable.

Customization Guidelines

You can customize the Skills Bank search logic as required by modifying the seeded data in tables JTF_AM_SKILL_RULES and JTF_AM_SKILL_RULE_DTLS. When the data in these tables is customized for a particular product, the last_updated_by column should always be updated with the User_id value of the individual that modifies the data. Customized rows should not have values of 0 or 1 in the last_updated_by column, otherwise, if new patch is applied, the customized data will be lost.

Sample Code for Preventing the Execution of a Step

The following SQL statement updates table JTF_AM_SKILL_RULE_DTLS to prevent the execution of Step 5 in Combination 1 of the Service Request examples:

```
UPDATE      JTF_AM_SKILL_RULE_DTLS
SET          active_flag = 'N'
, last_update_date = sysdate
, last_updated_by = 100
,          object_version_number = object_version_number + 1
WHERE        detail_id = 5
/
```

Note: Text marked in bold will change depending on whether or not the rule is active.

Sample Code for Preventing the Execution of a Combination

The following SQL statement updates table JTF_AM_SKILL_RULE_DTLS to prevent the execution of Combination 2 of the Service Request examples:

```
UPDATE      JTF_AM_SKILL_RULES
SET          active_flag = 'N'
, last_update_date = sysdate
, last_updated_by = 100
, object_version_number = object_version_number + 1
      WHERE      rule_id = 2
/
```

Note: Text marked in bold will change depending on whether or not the rule is active.

Sample Code for Adding a Search Rule

The following SQL statement inserts data in table JTF_AM_SKILL_RULE_DTLS to add a rule that searches for a resource rated for product and product category as the first step in Combination 2 of the Service Request examples:

```

INSERT      INTO JTF_AM_SKILL_RULE_DTLS
(DETAIL_ID,
RULE_ID,
RANK,
CHECK_PRODUCT_ID,
CHECK_CATEGORY_ID,
CHECK_PROBLEM_CODE,
CHECK_COMPONENT_ID,
ACTIVE_FLAG,
CREATED_BY,
CREATION_DATE,
OBJECT_VERSION_NUMBER)
VALUES      (DETAIL_ID,
RULE_ID,
RANK,
CHECK_PRODUCT_ID,
CHECK_CATEGORY_ID,
CHECK_PROBLEM_CODE,
CHECK_COMPONENT_ID,
ACTIVE_FLAG,
CREATED_BY,
LAST_UPDATED_BY,
CREATION_DATE,
LAST_UPDATE_LOGIN,
LAST_UPDATE_DATE,
OBJECT_VERSION_NUMBER)
VALUES  (jtf_am_screen_setup_dtls_s.nextval,
2,
5,
1,
1,
0,
0,
0,
'Y',
user id ,
sysdate,
user login id, user id ,
sysdate,
1)
/

```

Note: Text marked in bold must be substituted with the user id and user login id

Seeded Data

Assignment Manager ships with seeded data in tables JTF_AM_SKILL_RULES and JTF_AM_SKILL_RULE_DTLS. These tables are created in the JTF schema and store the rules for searching the Skills Bank. Data in these tables can be modified to activate new rules for the Skills Bank search.

Table JTF_AM_SKILL_RULES Seeded Data

The following table contains the seeded data stored in table JTF_AM_SKILL_RULES:

Table JTF_AM_SKILL_RULES Seeded Data

Columns	Row1	Row2	Row3	Row4	Row5	Row6
RULE_ID	1	2	3	4	5	6
DOCUMENT_TYPE	SR	SR	SR	SR	SR	SR
PRODUCT_ID_PASSED	1	1	0	0	1	1
CATEGORY_ID_PASSED	1	1	1	1	0	0
PROBLEM_CODE_PASSED	1	0	1	0	1	0
COMPONENT_ID_PASSED	0	0	0	0	0	0
ACTIVE_FLAG	Y	Y	Y	Y	Y	Y
CREATED_BY	1	1	1	1	1	1
CREATION_DATE	1-OCT-02	1-OCT-02	1-OCT-02	1-OCT-02	1-OCT-02	1-OCT-02
LAST_UPDATED_BY	1	1	1	1	1	1
LAST_UPDATE_DATE	1-OCT-02	1-OCT-02	1-OCT-02	1-OCT-02	1-OCT-02	1-OCT-02
LAST_UPDATED_LOGIN	1	1	1	1	1	1

Columns	Row1	Row2	Row3	Row4	Row5	Row6
OBJECT_V ERSION_N UMBER	1	1	1	1	1	1

Table JTF_AM_SKILL_RULE_DTLS

The following table contains the seeded data stored in table JTF_AM_SKILL_RULE_DTLS:

Table JTF_AM_SKILL_RULE_DTLS Seeded Data

Columns	DETAIL_ID	RULE_ID	RANK	CHECK_PRODUCT_ID	CHECK_CATEGORY_ID	CHECK_PROBLEM_CODE	ACTIVE_FLAG
1	1	1	10	1	0	1	Y
2	2	1	20	0	1	1	Y
3	3	1	30	0	0	1	Y
4	4	1	40	1	0	0	Y
5	5	1	50	0	1	0	Y
6	6	2	10	1	0	0	Y
7	7	2	20	0	1	0	Y
8	8	3	10	0	1	1	Y
9	9	3	20	0	0	1	Y
10	10	3	30	0	1	0	Y
11	11	4	10	0	1	0	Y
12	12	5	10	0	0	1	Y

Columns	DETAIL_ID	RULE_ID	RANK	CHECK_PRODUCT_ID	CHECK_CATEGORY_ID	CHECK_PROBLEM_CODE	ACTIVE_FLAG
13	13	6	10	1	0	0	Y

The standard Who columns and the check_component_id of the table JTF_AM_SKILL_RULE_DTLS contains the following data for all rows:

JTF_AM_SKILL_RULE_DTLS Standard Who Columns and check_component_id

Columns	Row1
CHECK_COMPONENT_ID	0
CREATED_BY	1
CREATION_DATE	1-OCT-02
LAST_UPDATED_BY	1
LAST_UPDATE_DATE	1-OCT-02
LAST_UPDATE_LOGIN	1
OBJECT_VERSION_NUMBER	1

Self-testing Framework

The Assignment Manager self-testing framework provides relevant parties such as support analysts and quality assurance engineers with a method for testing Assignment Manager that does not require input from calling documents. Normally, Assignment Manager fetches and displays a list of resources based on parameter values passed by a calling document such as a service request, task, or escalation. With the self-testing Framework, data from calling documents can be simulating for testing purposes.

Assignment Manager Test form

The Assignment Manager Test Form is a tool that simulates the process of invoking Assignment Manager from a service request, using either the service request header or the Task tab, and a task. To accomplish this, the parameters and record groups that

require assigned values before calling Assignment Manager are exposed.

Available Document Types

The Assignment Manager Test Form enables you to choose the following document types from the Document Type menu:

- Service Request
- Service Request and Task
- Task
- Escalations
- Depot Repair

The form opens with a default option of Service Request.

Color Coded Labels For Fields

Assignment Manager Test Form fields contain color coded labels that are explained in a legend on the screen. Red labels indicated hidden fields and blue labels indicate fields that are no longer used as a qualifier to select a resource.

Setting up the Test Form

Perform the following to set up the Assignment Manager Test Form:

1. Log in to Oracle Applications with Application Developer responsibility.
2. Navigate to the Application menu.
3. Perform a menu query for CRM Administrator Main Menu.
4. Scroll down to the Test Assignment Manager entry. No prompts are entered for this entry and the function for the entry will be Test Assignment Manager. Enter the value Test Assignment Manager for the prompt and save the changes.
5. Change to the CRM Administrator responsibility. The Test Assignment Manager option is now available for this responsibility.

Document Type Behavior

This section describes how the Service Request, Service Request and Task, and Task document types behave in the Assignment Manager Test Form.

Service Request

When Service Request is selected the Assignment Manager Test Form screen exposes the Service Request Qualifiers and the field labels display the labels from the Service Request screen. The qualifier values that are generated by base table values are associated with lists of values (LOVs). The qualifiers display the actual value that is passed to the record type. This value can either be selected from LOVs or entered directly by the user. The layout of this screen maps with the Service Request form regions. The block labels map to the tabs in the Service Request form.

Service Request Task

When Service Request and Task is selected the Assignment Manager Test Form screen exposes the Service Request Qualifiers that are to be populated when a user invokes Assignment Manager from the Task tab of the Service Request form. The qualifier values that are generated by base table values are associated with lists of values (LOVs). The qualifiers display the actual value that is passed to the record type. This value can either be selected from LOVs or entered directly by the user. The layout of this screen maps with the Service Request form regions. The block labels map to the tabs in the Service Request form.

Task

When a Task is selected, only the parameters are populated in the Assignment Manager Test Form screen. Parameters are described in the Parameters section.

Parameters

You can populate the parameters for a service request, service request task, or task by clicking the Parameters button and entering the required information in the Parameters window.

The labels of each field denote the actual name of the parameters in the Assignment Manager UI. When the AM_CALLING_DOC_TYPE is set to SR, the calling document types are Service Request and Service Request and Tasks. When it is set to TASK, the calling document is a task. For details about values to be set for the parameters please refer to the Assignment Manager Integration Document.

After you set the parameters and qualifiers, you can invoke the Assignment Manager UI by clicking the Get Assigned Resource button. The AM UI is referenced in the same manner as the calling documents that reference it. Once the resource is selected in the Assignment Manager UI, click OK and the selected resource will be fetched back to the test form. All the values of the returning record type are displayed in the Returned Resource block.

Example

In this example, a tester such as a support analyst or quality assurance engineer uses the

self-testing framework to determine whether or not Assignment Manager is working correctly.

Set up Contracts, Installed Base, and Territories

The tester creates the following setup in Contracts, Installed Base, and Territories and then runs the territories concurrent program for Service Request.

Example Setup: Contracts

Customer	Preferred Engineer
AMC Consultants	John Dunne

Example Setup: Installed Base

Product	Preferred Resource
White Computer	A Smith

Example Setup: Territories

Matching Attribute Type	Resources
Service Request Severity = Urgent	Will Carry
Service Request Severity = Urgent	ABC Group

Create a Service Request

Next, the tester creates a Service request (SR id 12345) with the following information:

- Contract for AMC Consultants
- Product identified as White Computer
- Service Request type = Urgent

Run the Test form

The tester then opens the test form from Applications and performs the following:

1. Select Service Request in the Document type field.
2. Select the Service Request Id and Service Request Type in the Qualifiers list.
3. Click the Parameters button and check the Installed Base, Contracts and Territories check boxes.
4. Close the Parameters window by clicking OK
5. Click on the Get Assigned Resource button to launch the Assignment Manger UI.
 1. If only the Contracts checkbox is selected then Assignment Manger searches and retrieves John Dunne.
 2. If only the Installed Base checkbox is selected then Assignment Manger searches and retrieves A Smith.
 3. If only the Territory checkbox is selected then Assignment Manger searches and retrieves Will Carry and ABC Group.
 4. If the resources are retrieved as expected then the tester concludes that Assignment Manager works correctly.

Support for Excluded Resources

Assignment Manager provides support for excluded resources in the assignment process for service requests, service request tasks, and tasks. Installed Base uses this feature to maintain a list of excluded contacts in addition to preferred ones that are associated with a party. Contracts uses this feature to track excluded resources in the task assignment process. Assignment Manager extracts information from these applications and filters it to exclude the appropriate resources from being dispatched for an assignment.

Filtering Excluded Resources from Installed Base and Contracts

Assignment Manager filters excluded resources from Installed Base and Contracts based on information provided by each application and optionally applies it to the list of territory qualified resources. The Assignment Manager UI contains an attribute that optionally displays the option to exclude resources. This functionality is displayed by default.

Installed Base Excluded Resources

When Installed Base marks an excluded resource as E, the Preferred_flag attribute of the Installed Base Contact contains the following possible values:

- **Y.** This value indicates that the contact is a preferred contact for the specified party.
- **N or NULL.** This is the default value and indicates that the contact is a 'Non-Preferred' contact.
- **E.** This value indicates that the contact is an Excluded contact for the specified party.

Contacts in Installed Base may be marked as:

- Preferred

If a contact has the Preferred_flag set to Y, then the resource is treated as an Installed Base Preferred Resource. Assignment Manager subsequently returns the resource as an Installed Base Preferred Engineer.

- Preferred and Primary

If a contact has the Preferred_flag set to Y and Primary_Flag set to Y, the resource is treated as an Installed Base Preferred Engineer who is also a Primary Contact. Assignment Manager subsequently returns the resource as an Installed Base Preferred Engineer and the Primary Flag displays Yes in the User Interface.

- Primary

Contacts marked as Primary are not fetched by Assignment Manager.

- Excluded

Excluded Resources are applied as a filter on the list of resources available for assignment by Assignment Manager which uses the filter if the Filter Excluded Resources checkbox is selected.

Contracts Excluded Resources

The Contracts Entitlements APIs communicate the resource type, resource names and classification, through the Contracts Entitlements process. Contracts can mark resources as preferred and excluded.

- Preferred

If in a contract, a resource is classified as Preferred, the resource is treated as a Contracts Preferred Resource and is returned by Assignment Manager. If the resource is marked as Primary, then Assignment Manager displays that information in the user interface. Contracts resources of Type = Preferred Engineer and Resource Groups are considered returned to Assignment Manager.

- Excluded

A contract resource classified as Excluded is applied as a filter on the list of resources available for assignment by Assignment Manager. The filter is applicable

if the Filter Excluded Resources checkbox is selected. Contracts resources of Type = Preferred Engineer and Resource Groups that are marked as excluded are returned to Assignment Manager as excluded resources.

Process Flow

The following is the process flow with which Assignment Manager filters excluded resources.

1. A service request, service request task, or task document calls Assignment Manager.
2. Assignment Manager obtains a list of resources from Installed Base, Contracts, or Territories.
3. Assignment Manager obtains a list of excluded resources from Installed Base and Contracts.
4. Assignment Manager filters the excluded resources if the user has selected the Filter Excluded Resources check box in the Assignment Manager user interface.

Note: Resources that have been excluded in one application such as Installed Base or Contracts will be filtered out from the list of Preferred Resources in the other. In such cases, a resource that has been excluded in Installed Base or Contracts will be filtered out in the Assignment Process. As a result, a resource that qualifies as a Preferred Contracts Engineer may be filtered out as an excluded Installed Base contact and a preferred Installed Base contact can be filtered out as excluded Contract preferred engineer.

Business Rules

This feature contains the following business rules:

1. Excluded Resource for Contracts is considered to be in the Assisted Mode, when the Contracts and the Filter Excluded Resources check boxes are both selected.
2. Excluded Resource for Installed Base is considered to be in the Assisted Mode, when the Installed Base and the Filter Excluded Resources check boxes are both selected.
3. Excluded Resources from Contracts will be filtered from:
 - Contracts Preferred Engineers
 - Installed Base Preferred Resource

- Territory Qualified Resource

4. Excluded Resources from IB will be filtered from:

- Contracts Preferred Engineers
- Installed Base Preferred Resource
- Territory Qualified Resource

5. In the Unassisted Mode of the Assignment Manager user interface, excluded resources are not filtered. If an excluded resource is selected for assignment from the list of Resources, the user receives a warning that a Contract or Installed Base Excluded resource has been selected.

User Interface Functionality

The Assignment Manager user interface enables users to filter excluded resources.

- Filter Excluded Resource Parameter

The Assignment Manager user interface contains a new parameter, `AM_FILTER_EXCLUDED_RESOURCE`. The calling module can set the value of the parameter to Y or N.

- Assisted Mode

In assisted mode the "Selection Criteria" region contains a check box labeled 'Filter Excluded Resource'. The value set for the parameter `AM_FILTER_EXCLUDED_RESOURCE` is used to select (=Y) or remove the selection (=N) for this checkbox. If the checkbox is selected, then the Excluded Resources is filtered from the list of Preferred or Qualified Resources based on the business rules for this feature.

- Unassisted Mode

In unassisted mode, the Excluded Resources is not filtered. If an excluded resource is selected for assignment from the list of resources, the user receives a warning to this effect.

Backward Compatibility

If the check box for Exclude Resources is NOT selected, then Assignment Manager behavior remains unchanged and it does not filter excluded resources. The specification of the API `JTF_ASSIGN_PUB.GET_ASSIGN_RESOURCES` includes a new parameter. Because the default value of the parameter is set to N, Assignment Manager does not filter the excluded resources if the calling module does not pass the parameter.

Subscribing to Assignment Manager Business Events

Assignment Manager publishes a business event for assignments generated by applications using the Oracle Workflow Business Event System. When Assignment Manager is called by a service request document, it fetches a resource list. Assignment Manager then publishes resources that it fetches from the list and relevant context information. Applications that subsequently subscribe to this event can modify its content based on the context information and fetched resources, or by plugging in their own custom logic.

The Oracle Workflow Business Event System

The Oracle Workflow Business Event System is an application service that leverages the Oracle Advanced Queuing (AQ) infrastructure to communicate business events between systems. The Business Event System consists of the Event Manager and workflow process event activities.

The Event Manager contains a registry of business events, systems, named communication agents within those systems, and subscriptions indicating that an event is significant to a particular system. Events can be raised locally or received from an external system or the local system through AQ. When a local event occurs, the subscribing code is executed in the same transaction as the code that raised the event, unless the subscriptions are deferred.

Assignment Manager Events

Assignment Manager raises events when it is called from application documents.

Assignment Manager Events

Name	Status	Display Name	Description	Owner Name	Owner Tag
Oracle.apps.jt f.jasg.sr.assign n	Enabled	Assignment Manager is called for document_ty pe SR	Assignment for Service Request or Service Request task.	ATG Assignment Manager	JTF
Oracle.apps.jt f.jasg.task.ass ign	Enabled	Assignment Manager is called for document type TASK	Assignment for task	ATG Assignment Manager	JTF

Name	Status	Display Name	Description	Owner Name	Owner Tag
Oracle.apps.jt f.jasg.esc.assi gn	Enabled	Assignment Manager is called for document type ESC	Assignment for escalations	ATG Assignment Manager	JTF
Oracle.apps.jt f.jasg.def.assi gn	Enabled	Assignment Manager is called for document type DEF	Assignment for defects	ATG Assignment Manager	JTF
Oracle.apps.jt f.jasg.acc.assi gn	Enabled	Assignment Manager is called for document type ACC	Assignment for accounts	ATG Assignment Manager	JTF
Oracle.apps.jt f.jasg.oppr.as sign	Enabled	Assignment Manager is called for document type OPPR	Assignment for opportunities	ATG Assignment Manager	JTF
Oracle.apps.jt f.jasg.lead.ass ign	Enabled	Assignment Manager is called for document type LEAD	Assignment for leads	ATG Assignment Manager	JTF
Oracle.apps.jt f.jasg.dr.assig n	Enabled	Assignment Manager is called for document type DR	Assignment for Depot Repair tasks	ATG Assignment Manager	JTF

Process Flow

The following events occur in sequence to publish and subscribe to an Assignment Manager business event.

1. Assignment Manager is called from a document.

2. Assignment Manager executes the process for obtaining preferred and qualified resources.
3. Assignment Manager raises the business event that relates to the document.
4. Other applications subscribe to the business event and process their subscriptions.
5. The applications return a list of resource to the Assignment Manager user interface. If they are calling the Assignment Manager API, then the list of resources are returned to the calling document.
6. Assignment Manager returns the newly processed values to the calling module.

Parameter List for Service Requests

The following parameters are passed to the event Oracle.apps.jtf.jasg.sr.assign:

Oracle.apps.jtf.jasg.sr.assign Parameters

Parameter	Description
SERVICE_REQUEST_ID	The Service Request ID
CONTRACT_ID	The contract ID
CUSTOMER_PRODUCT_ID	The customer product ID
TASK_ID	The task ID
PARTY_ID	The party ID
COUNTRY	The country
PARTY_SITE_ID	The party site ID
CITY	The city
POSTAL_CODE	The postal code
STATE	The state
AREA_CODE	The area code

Parameter	Description
COUNTY	The country
COMP_NAME_RANGE	The comp name range
PROVINCE	The province
TASK_TYPE_ID	The task type ID
TASK_STATUS_ID	The task status ID
TASK_PRIORITY_ID	The task priority ID
INCIDENT_SEVERITY_ID	The incident severity ID
INCIDENT_URGENCY_ID	The incident urgency ID
PROBLEM_CODE	The problem code
INCIDENT_STATUS_ID	The incident status ID
PLATFORM_ID	The platform ID
SUPPORT_SITE_ID	The support site ID
CUSTOMER_SITE_ID	The customer site ID
SR_CREATION_CHANNEL	The Service Request creation channel
INVENTORY_ITEM_ID	The inventory item ID
SQUAL_NUM12	Inventory item ID/Service Request platform
SQUAL_NUM13	Organization ID/Service Request Platform
SQUAL_NUM14	Category ID/Service Request Product
SQUAL_NUM15	Inventory Item ID/Service Request Product
QUAL_NUM16	Organization ID/Service Request Product

Parameter	Description
SQUAL_NUM17	Service Request Group Owner
SQUAL_NUM18	Contract Support Service Item
SQUAL_NUM19	Organization ID
SQUAL_CHAR11	VIP Customers
SQUAL_CHAR13	Service Request customer contact preference
SQUAL_CHAR20	Service Request language ID for Territories Requirement
SQUAL_CHAR21	Service Request Service Contract Coverage

Example

In this example a Service Request Task calls Assignment Manager and Assignment Manager subsequently raises a business event after first meeting the following conditions:

- Priority = High(2),
- Resource_id = 100001733,
- Resource_Type = RS_EMPLOYEE
- Resource_Name = Bond, James

Steps:

1. Create a Service Request with Contract_Number: 5412.
2. Create a Service Request Task "Fix Customer desktop", with task Priority = High.
3. The Assignment Manager UI is invoked. Click **Search**.
4. When Assignment Manager completes its process, table JTF_ASSIGN_PUB. G_assign_resources_tbl contains the following resources:

Resources Fetched From Resource List

Rec #	Resource_id	Resource_type	Terr_id
1.	21	RS_EMPLOYEE	1001
2.	5	RS_GROUP	1001

5. Assignment Manager raises the event Event Oracle.apps.jtf.jasg.sr.assign. The event is populated with the following values:

Values Received by Event Oracle.apps.jtf.jasg.sr.assign

Parameter Name	Value
SERVICE_REQUEST_ID	12999
CONTRACT_ID	278644021571490173160763359807470948045
CUSTOMER_PRODUCT_ID	null
TASK_ID	4561
PARTY_ID	4429
COUNTRY	Null
PARTY_SITE_ID	Null
CITY	Null
POSTAL_CODE	Null
STATE	Null
AREA_CODE	Null
COUNTY	Null
COMP_NAME_RANGE	Null

Parameter Name	Value
PROVINCE	Null
TASK_TYPE_ID	3
TASK_STATUS_ID	2
TASK_PRIORITY_ID	2
INCIDENT_SEVERITY_ID	2
INCIDENT_URGENCY_ID	6
PROBLEM_CODE	HDWR
INCIDENT_STATUS_ID	9
PLATFORM_ID	Null
SUPPORT_SITE_ID	Null
CUSTOMER_SITE_ID	Null
SR_CREATION_CHANNEL	Null
INVENTORY_ITEM_ID	Null
SQUAL_NUM12	Null
SQUAL_NUM13	Null
SQUAL_NUM14	Null
SQUAL_NUM15	Null
SQUAL_NUM16	Null
SQUAL_NUM17	Null
SQUAL_NUM18	Null

Parameter Name	Value
SQUAL_NUM19	Null
SQUAL_CHAR11	Null
SQUAL_CHAR13	Null
SQUAL_CHAR20	Null
SQUAL_CHAR21	Null

6. The function Add_Resource is executed and adds resources to JTF_ASSIGN_PUB. G_assign_resources_tbl.
7. Assignment Manager provides the calling application with the following resources

Resource Information Returned to Calling Application

Rec #	Resource_id	Resource_type	Terr_id
1.	21	RS_EMPLOYEE	1001
2.	5	RS_GROUP	1001
3.	100001733	RS_EMPLOYEE	

Parameter List for Task

The following parameters are passed to the event Oracle.apps.jtf.jasg.task.assign:

Oracle.apps.jtf.jasg.task.assign Parameters

Parameter	Description
TASK_ID	The Task ID
BUSINESS_PROCESS_ID	The business process ID

Parameter	Description
BUSINESS_PROCESS_DATE	The date for the business process
CONTRACT_ID	The contract ID
CUSTOMER_PRODUCT_ID	The customer product ID
CATEGORY_ID	The category ID

Parameter List for Escalations

The following parameters are passed to the event Oracle.apps.jtf.jasg.esc.assign:

Oracle.apps.jtf.jasg.esc.assign Parameters

Parameter	Description
SOURCE_OBJECT_ID	
SOURCE_OBJECT_TYPE	
BUSINESS_PROCESS_ID	The business process ID
BUSINESS_PROCESS_DATE	The date for the business process

Parameter List for Defects

The following parameters are passed to the event Oracle.apps.jtf.jasg.def.assign:

Oracle.apps.jtf.jasg.def.assign Parameters

Parameter	Description
CONTRACT_ID	The contract ID
CUSTOMER_PRODUCT_ID	The customer product ID

Parameter	Description
CATEGORY_ID	The category ID
BUSINESS_PROCESS_ID	The business process ID
BUSINESS_PROCESS_DATE	The date for the business process
SQUAL_CHAR01	
SQUAL_CHAR02	
SQUAL_CHAR03	
SQUAL_CHAR04	
SQUAL_CHAR05	
SQUAL_CHAR06	
SQUAL_CHAR07	
SQUAL_CHAR08	
SQUAL_CHAR09	
SQUAL_CHAR10	
SQUAL_CHAR11	
SQUAL_CHAR12	
SQUAL_CHAR13	
SQUAL_CHAR14	
SQUAL_CHAR15	
SQUAL_CHAR16	
SQUAL_CHAR17	

Parameter	Description
SQUAL_CHAR18	
SQUAL_CHAR19	
SQUAL_CHAR20	
SQUAL_CHAR21	
SQUAL_CHAR22	
SQUAL_CHAR23	
SQUAL_CHAR24	
SQUAL_CHAR25	
SQUAL_NUM01	
SQUAL_NUM02	
SQUAL_NUM03	
SQUAL_NUM04	
SQUAL_NUM05	
SQUAL_NUM06	
SQUAL_NUM07	
SQUAL_NUM08	
SQUAL_NUM09	
SQUAL_NUM10	
SQUAL_NUM11	
SQUAL_NUM12	

Parameter	Description
SQUAL_NUM13	
SQUAL_NUM14	
SQUAL_NUM15	
SQUAL_NUM16	
SQUAL_NUM17	
SQUAL_NUM18	
SQUAL_NUM19	
SQUAL_NUM20	
SQUAL_NUM21	
SQUAL_NUM22	
SQUAL_NUM23	
SQUAL_NUM24	
SQUAL_NUM25	
ATTRIBUTE1	
ATTRIBUTE2	
ATTRIBUTE3	
ATTRIBUTE4	
ATTRIBUTE5	
ATTRIBUTE6	
ATTRIBUTE7	

Parameter	Description
ATTRIBUTE8	
ATTRIBUTE9	
ATTRIBUTE10	
ATTRIBUTE11	
ATTRIBUTE12	
ATTRIBUTE13	
ATTRIBUTE14	
ATTRIBUTE15	

Parameter List for Accounts

The following parameters are passed to the event Oracle.apps.jtf.jasg.acc.assign:

Oracle.apps.jtf.jasg.acc.assign Parameters

Parameter	Description
CITY	The city
POSTAL_CODE	The postal code
STATE	The state
PROVINCE	The province
COUNTY	The country
COUNTRY	The country
INTEREST_TYPE_ID	The interest type

Parameter	Description
PRIMARY_INTEREST_ID	The primary interest
CONTACT_PRIMARY_INTEREST_ID	
CONTACT_SECONDARY_INTEREST_ID	
PARTY_SITE_ID	The party site ID
AREA_CODE	The area code
PARTY_ID	The party ID
COMP_NAME_RANGE	The comp name range
PARTNER_ID	The partner ID
NUM_OF_EMPLOYEES	The number of employees
CATEGORY_CODE	The category code
PARTY_RELATIONSHIP_ID	The party relationship ID
SIC_CODE	
ATTRIBUTE1	
ATTRIBUTE2	
ATTRIBUTE3	
ATTRIBUTE4	
ATTRIBUTE5	
ATTRIBUTE6	
ATTRIBUTE7	
ATTRIBUTE8	

Parameter	Description
ATTRIBUTE9	
ATTRIBUTE10	
ATTRIBUTE11	
ATTRIBUTE12	
ATTRIBUTE13	
ATTRIBUTE14	
ATTRIBUTE15	
ORG_ID	
BUSINESS_PROCESS_ID	
BUSINESS_PROCESS_DATE	

Parameter List for Opportunities

The following parameters are passed to the event Oracle.apps.jtf.jasg.oppr.assign:

Oracle.apps.jtf.jasg.oppr.assign Parameters

Parameter	Description
LEAD_ID	
LEAD_LINE_ID	
CITY	The city
POSTAL_CODE	The postal code
STATE	The state

Parameter	Description
PROVINCE	The province
COUNTY	The country
COUNTRY	The country
INTEREST_TYPE_ID	The interest type
PRIMARY_INTEREST_ID	The primary interest
SECONDARY_INTEREST_ID	The secondary interest
CONTACT_INTEREST_TYPE_ID	
CONTACT_PRIMARY_INTEREST_ID	
CONTACT_SECONDARY_INTEREST_ID	
PARTY_SITE_ID	The party site ID
AREA_CODE	The area code
PARTY_ID	The party ID
COMP_NAME_RANGE	The comp name range
PARTNER_ID	The partner ID
NUM_OF_EMPLOYEES	The number of employees
CATEGORY_CODE	The category code
PARTY_RELATIONSHIP_ID	The party relationship ID
SIC_CODE	
TARGET_SEGMENT_CURRENT	
TOTAL_AMOUNT	

Parameter	Description
CURRENCY_CODE	
PRICING_DATE	
CHANNEL_CODE	
INVENTORY_ITEM_ID	
OPP_INTEREST_TYPE_ID	
OPP_PRIMARY_INTEREST_ID	
OPP_SECONDARY_INTEREST_ID	
OPCLSS_INTEREST_TYPE_ID	
OPCLSS_PRIMARY_INTEREST_ID	
OPCLSS_SECONDARY_INTEREST_ID	
ATTRIBUTE1	
ATTRIBUTE2	
ATTRIBUTE3	
ATTRIBUTE4	
ATTRIBUTE5	
ATTRIBUTE6	
ATTRIBUTE7	
ATTRIBUTE8	
ATTRIBUTE9	
ATTRIBUTE10	

Parameter	Description
ATTRIBUTE11	
ATTRIBUTE12	
ATTRIBUTE13	
ATTRIBUTE14	
ATTRIBUTE15	
ORG_ID	
BUSINESS_PROCESS_ID	
BUSINESS_PROCESS_DATE	

Parameter List for Leads

The following parameters are passed to the event Oracle.apps.jtf.jasg.lead.assign:

Oracle.apps.jtf.jasg.lead.assign Parameters

Parameter	Description
SALES_LEAD_ID	
SALES_LEAD_LINE_ID	
CITY	The city
POSTAL_CODE	The postal code
STATE	The state
PROVINCE	The province
COUNTY	The country

Parameter	Description
COUNTRY	The country
INTEREST_TYPE_ID	The interest type
PRIMARY_INTEREST_ID	The primary interest
SECONDARY_INTEREST_ID	The secondary interest
CONTACT_INTEREST_TYPE_ID	
CONTACT_PRIMARY_INTEREST_ID	
CONTACT_SECONDARY_INTEREST_ID	
PARTY_SITE_ID	The party site ID
AREA_CODE	The area code
PARTY_ID	The party ID
COMP_NAME_RANGE	The comp name range
PARTNER_ID	The partner ID
NUM_OF_EMPLOYEES	The number of employees
CATEGORY_CODE	The category code
PARTY_RELATIONSHIP_ID	The party relationship ID
SIC_CODE	
BUDGET_AMOUNT	
CURRENCY_CODE	
PRICING_DATE	
SOURCE_PROMOTION_ID	

Parameter	Description
INVENTORY_ITEM_ID	
LEAD_INTEREST_TYPE_ID	
LEAD_PRIMARY_INTEREST_ID	
LEAD_SECONDARY_INTEREST_ID	
PURCHASE_AMOUNT	
ATTRIBUTE1	
ATTRIBUTE2	
ATTRIBUTE3	
ATTRIBUTE4	
ATTRIBUTE5	
ATTRIBUTE6	
ATTRIBUTE7	
ATTRIBUTE8	
ATTRIBUTE9	
ATTRIBUTE10	
ATTRIBUTE11	
ATTRIBUTE12	
ATTRIBUTE13	
ATTRIBUTE14	
ATTRIBUTE15	

Parameter	Description
ORG_ID	
SQUAL_NUM01	
SQUAL_NUM06	
CAR_CURRENCY_CODE	
BUSINESS_PROCESS_ID	
BUSINESS_PROCESS_DATE	

Parameter List for Depot Repair Tasks

The following parameters are passed to the event Oracle.apps.jtf.jasg.dr.assign:

Oracle.apps.jtf.jasg.dr.assign Parameters

Parameter	Description
TASK_ID	The task ID
SERVICE_REQUEST_ID	The Service Request ID
CONTRACT_ID	The contract ID
CUSTOMER_PRODUCT_ID	The customer product ID
CATEGORY_ID	
INVENTORY_ITEM_ID	The inventory item ID
INVENTORY_ORG_ID	
BUSINESS_PROCESS_ID	
BUSINESS_PROCESS_DATE	

Parameter	Description
PARTY_ID	The party ID
COUNTRY	The country
PARTY_SITE_ID	The party site ID
CITY	The city
POSTAL_CODE	The postal code
STATE	The state
AREA_CODE	The area code
COUNTY	The country
COMP_NAME_RANGE	The company name range
PROVINCE	The province
TASK_TYPE_ID	The task type ID
TASK_STATUS_ID	The task status ID
TASK_PRIORITY_ID	The task priority ID
INCIDENT_SEVERITY_ID	The incident severity ID
INCIDENT_URGENCY_ID	The incident urgency ID
PROBLEM_CODE	The problem code
INCIDENT_STATUS_ID	The incident status ID
PLATFORM_ID	The platform ID
SUPPORT_SITE_ID	The support site ID
CUSTOMER_SITE_ID	The customer site ID

Parameter	Description
SR_CREATION_CHANNEL	The Service Request creation channel
ATTRIBUTE1	
ATTRIBUTE2	
ATTRIBUTE3	
ATTRIBUTE4	
ATTRIBUTE5	
ATTRIBUTE6	
ATTRIBUTE7	
ATTRIBUTE8	
ATTRIBUTE9	
ATTRIBUTE10	
ATTRIBUTE11	
ATTRIBUTE12	
ATTRIBUTE13	
ATTRIBUTE14	
ATTRIBUTE15	
INVENTORY_ITEM_ID	
SQUAL_NUM12	Inventory item ID/Service Request platform
SQUAL_NUM13	Organization ID/Service Request Platform
SQUAL_NUM14	Category ID/Service Request Product

Parameter	Description
SQUAL_NUM15	Inventory Item ID/Service Request Product
QUAL_NUM16	Organization ID/Service Request Product
SQUAL_NUM17	Service Request Group Owner
SQUAL_NUM18	Inventory Item ID/Contract Support Service Item
SQUAL_NUM19	Organization ID/Contract Support Service Item
SQUAL_CHAR11	VIP Customers
SQUAL_CHAR13	Service Request customer contact preference
SQUAL_CHAR20	Service Request language ID for Territories Requirement
SQUAL_CHAR21	Service Request Service Contract Coverage

Backward Compatibility

If there are no subscriptions to the workflow event Oracle.apps.jtf.jasg.sr.assign, or if the subscription is disabled, then Assignment Manager does not alter its processing. This functionality does not alter calls made to the Assignment Manager API or user interface.

Using Business Events to Generate Custom Logic

Assignment Manager provides a plug-in facility that enables organizations to supplement the predefined logic that Assignment Manager uses to return preferred or qualified resources to calling modules. This enables organizations to extend, and customize Assignment Manager for specific routing and assignment requirements. Assignment Manager accomplishes this by publishing business events for the assignment process. These events are defined in the Oracle Workflow Event Manager and are raised from the Assignment Manager API for the Service Request (SR) document type. Subscriptions to these events may perform the custom processing logic. The Assignment Manager API subsequently returns a PL/SQL table of resources to the UI or to the calling module.

Workflow Background Information

The Publishing Assignment Manager Business Events, page 22-90 section contains most of the required Workflow background information for this feature, however, it is useful to know the additional terminology in this section.

- **WF_PARAMETER_LIST_T**

Oracle Workflow uses the named varying array (varray) WF_PARAMETER_LIST_T to store a list of parameters in a form that can be included in an event message. WF_PARAMETER_LIST_T enables custom values to be added to the WF_EVENT_T event message object. The WF_PARAMETER_LIST_T datatype can include up to 100 parameter name and value pairs.

- **WF_EVENT_T**

WF_EVENT_T defines the event message structure that the Business Event System and the Workflow Engine use to represent a business event. Internally, the Business Event System and the Workflow Engine can only communicate events in this format. This datatype contains all the header properties of an event message as well as the event data payload, in a serialized form that is suitable for transmission outside the system.

Rules

The following rules apply to the successful operation of this feature:

- The PL/SQL table of resources is available as a global parameter to the function/procedure that is subscribed to the event.
- More resources may be added to this table based on the customized logic.
- Resources may be removed from the PL/SQL table.
- The overall list of resources are subsequently returned to the Assignment Manager UI or calling module.
- The subscription to the workflow event must have a phase < 100. This ensures immediate execution of the subscription.
- If an error is raised by a subscription, the error message is stacked but the Assignment Manager API does not error out.
- If any one of the subscriptions fail, Assignment Manager does not uptake any changes by other subscriptions. Instead, the Assignment Manager API returns the table of resources that were obtained before raising the business event.
- Commit and Rollback ARE NOT allowed in subscriptions.

Subscribed Function to event Oracle.apps.jtf.jasg.sr.assign

The function that is subscribed to the event requires the following parameters:

- p_subscription_grid in raw
- p_event in out wf_event_t, page 22-114

Please see the Assignment Manager Events, page 22-90 section for a description of this function.

Use Case: Get Preferred/Qualified Resources for a SR Task

For cases in which the Service Request Task has a Priority = High(2), the Service Online team wants to plug in a specific resource with the following parameters:

Use Case Parameters

Parameter	Value
Resource_id	100001733
Resource_Type	RS_EMPLOYEE
Resource_Name	Bond, James

Subscriptions

Function Add_Resource is subscribed to event "Oracle.apps.jtf.jasg.sr.assign".

Add-Resource Function Sample Code

The following is sample code for the Add_Resource function:

```

Create Or Replace FUNCTION JASG_AM_ASSIGN_RESOURCE
    (p_subscription_guid    in          raw,
     p_event                 in out nocopy wf_event_t)
return varchar2 IS
    l_event_key              varchar2(240)  := p_event.GetEventKey();
    l_event_name              varchar2(240)  := p_event.GetEventName();
    i                        NUMBER := 0;
    l_task_priority_id       NUMBER;
BEGIN
    -- Get the task priority id from the p_event in parameter
    l_task_priority_id      :=
    p_event.GetValueForParameter('TASK_PRIORITY_ID');
    if(jtf_assign_pub.g_assign_resources_tbl.count > 0)
    then
        i := jtf_assign_pub.g_assign_resources_tbl.last + 1;
    else
        i := 0;
    end if;

    If(l_task_priority_id = 2) -- if task priority is High then add the
    resource to the global pl/sql table
    THEN
        jtf_assign_pub.g_assign_resources_tbl(i).resource_id := 100001733;
        jtf_assign_pub.g_assign_resources_tbl(i).resource_type :=
        'RS_EMPLOYEE';
    END IF;
    return 'SUCCESS';

Exception
when others then
    WF_CORE.CONTEXT('JASG_AM_ASSIGN_RESOURCE',
p_event.getEventName( ), p_subscription_guid);
    WF_EVENT.setErrorInfo(p_event, 'ERROR');

    return('ERROR');
END JASG_AM_ASSIGN_RESOURCE;

```

Steps

Following is the list of steps for this example.

1. A Service Request is created with Contract_Number: "5412"
2. A Service Request Task "Fix Customer desktop" is created with task Priority = "High".
3. The Assignment Manager UI is invoked and 'Search' button pressed.
4. Assignment Manager completes its normal flow and populates table JTF_ASSIGN_PUB.G_assign_resources_tbl with the following values:

Values in Table JTF_ASSIGN_PUB. G_assign_resources_tbl Before Rasing Business Event

Rec #	Resource_id	Resource_type	Terr_id
1.	21	RS_EMPLOYEE	1001
2.	5	RS_GROUP	1001

5. Assignment Manager raises the event "Oracle.apps.jtf.jasg.sr.assign" which receives the following values:

Parameters passed to event Oracle.apps.jtf.jasg.sr.assign

Parameter Name	Value
SERVICE_REQUEST_ID	12999
CONTRACT_ID	278644021571490173160763359807470948045
CUSTOMER_PRODUCT_ID	null
TASK_ID	4561
PARTY_ID	4429
COUNTRY	Null
PARTY_SITE_ID	Null
CITY	Null
POSTAL_CODE	Null
STATE	Null
AREA_CODE	Null
COUNTY	Null

Parameter Name	Value
COMP_NAME_RANGE	Null
PROVINCE	Null
TASK_TYPE_ID	3
TASK_STATUS_ID	2
TASK_PRIORITY_ID	2
INCIDENT_SEVERITY_ID	2
INCIDENT_URGENCY_ID	6
PROBLEM_CODE	HDWR
INCIDENT_STATUS_ID	9
PLATFORM_ID	Null
SUPPORT_SITE_ID	Null
CUSTOMER_SITE_ID	Null
SR_CREATION_CHANNEL	Null
INVENTORY_ITEM_ID	Null
SQUAL_NUM12	Null
SQUAL_NUM13	Null
SQUAL_NUM14	Null
SQUAL_NUM15	Null
SQUAL_NUM16	Null
SQUAL_NUM17	Null

Parameter Name	Value
SQUAL_NUM18	Null
SQUAL_NUM19	Null
SQUAL_CHAR11	Null
SQUAL_CHAR13	Null
SQUAL_CHAR20	Null
SQUAL_CHAR21	Null

6. Assignment Manager executes the Add_Resource function which adds a resource to JTF_ASSIGN_PUB. G_assign_resources_tbl.
7. Assignment Manager generates the following out table to the calling module:

*Values in JTF_ASSIGN_PUB. G_assign_resources_tbl after
Oracle.apps.jtf.jasg.sr.assign has been executed*

Record Number	Resource_id	Resource_type	Terr_id
1.	21	RS_EMPLOYEE	1001
2.	5	RS_GROUP	1001
3.	100001733	RS_EMPLOYEE	N/A

Backward Compatibility

If there are no subscriptions to the workflow event Oracle.apps.jtf.jasg.sr.assign, or if the subscription is disabled, then the processing does not change. This functionality does not alter calls made from the calling module to the Assignment Manager UI or API.

Troubleshooting Assignment Manager

This chapter covers the following topics:

- Common Implementation Errors for Assignment Manager
- Error Messages for Assignment Manager
- Troubleshooting Tips for Assignment Manager
- Troubleshooting Tips for Gantt
- Gantt Frequently Asked Questions (FAQs)

Common Implementation Errors for Assignment Manager

In order to use the full functionality of the Assignment Manager selection criteria, Assignment Manager depends on other setup tasks outlined in the Setting up other dependencies section, page 22-8.

This section contains information on some of the common implementation errors associated with implementing Assignment Manager.

Unable to Find Resources

Action: Use the following solutions to return resources:

- Verify If Territories Are Set Up Correctly, page 23-1
- Recompile JTY_ALL_ENABLED_ATTRIBUTES_V View, page 23-3
- Delete Duplicate Qualifiers, page 23-3

Verify If Territories Are Set Up Correctly

Perform the following steps.

1. Create new territories for your testing and have a test plan.

For example, which territories and resources should be returned? This will help in debugging real problems.

2. Make sure that territories are ranked correctly. Territory Manager uses rank to determine the picking order for territories.
3. Make sure that you have the correct transaction types defined for the territories. If you want a territory to be used for service request and task, then make sure you have "Service Request" and "Task" as transaction types. If a territory is used for a task created within a service request, then you need to select "Service Request and Task" as the transaction type.
4. Make sure that you have resources attached to the territory.

Rules of Territories: If there are no resources attached to a territory and the effective dates are active, then the territory will be considered a place holder territory. That is, it will not qualify as a winning territory.

Note: If you make changes to territories, make sure that you run the territories concurrent program to reflect the changes made to the territories.

5. Make sure that you have given the right access to resources, if you have decided to make use of the Access Type feature.

For example: A CA Territory with transaction types "Service Request" and "Task". If you add a resource John Doe and select Service Request only in the Access Type field, then even if this territory qualifies for a task assignment, it will not return the resource John Doe, since he does not have Task access type selected, but Service Request access only.

However, if the Access Type field is left blank, then this resource is eligible for receiving both task and service request assignments. Notice that this resource will not be selected for a task assignment created within a service request because the transaction type "Service Request and Task" is not selected in the Overview tab when defining the territory.

6. Make sure that you run the territories concurrent program once you are satisfied with your territory setup and updates. Unless you do this, changes will not take effect.
7. Make sure to delete and re-attach the resources again to the territories that have resource roles added later in the Resource Manager after territory creation.

For a resource attached to a territory, we store the resource-id, resource type, and role associated with that resource. However, for a few of them, the role is blank (NULL), as there was no role defined in Resource Manager at the time you created the territory. But at some point later, someone added roles to these resources in

Resource Manager and then the Territory stopped returning these resources as there was no corresponding record in Resource View (Join Failed). In order to fix the problem, you need to delete and re-attach the resources to the territory.

The API will return the resource, but the role will be blank even though you may see a role in Resource Manager for that resource.

8. Make sure that TCF server is up and running by using the script - adtcfctl.sh stop/start.

Recompile JTY_ALL_ENABLED_ATTRIBUTES_V View

Ask your database administrator to recompile the form where Assignment Manager is invoked if an error message FRM-92000:ORA:1403, page 23-5 occurs. This refreshes the view so that data could be populated in JTY_ALL_ENABLED_ATTRIBUTES_V view.

Delete Duplicate Qualifiers

It is possible that all of the territory qualifiers were duplicated.

Action: Clear the duplicate Transaction Type field in the Overview tab and manually delete duplicate qualifiers. Test this action first by copying one of the existing territories and delete duplicate qualifiers.

Displaying Start and End Date Time Incorrectly for a Selected Resource

The Assignment Manager displays the start and end date/time incorrectly for a selected resource.

Cause: This will happen if Oracle Inventory setup steps aren't performed properly.

Action: Use the following steps for resolution:

1. In the Task tab of the Service Requests window, select Hour in the Planned Efforts field.
2. Click the Assignment Manager icon in the Task tab of the Service Requests window to launch the Assignment Manager.
3. In the Document Details region of the Assignment Manager window, make sure that you see HR populated in the Duration field after the number information, such as 9 HR for 9 hours.

Note: The unit of measure is set by the profile option **JTFAM:**

UOM code used by Assignment Manager for Tasks. If the profile option is not set, then "HR" is the only value used for task assignment.

If you do not see HR as the value in the Duration field, then follow the given steps

to set up correct units of measure information:

1. Log in with the Inventory Superuser responsibility. Select **Setup > Units of Measure > Units of Measure**.
2. Choose your organization.
3. Query for Time in the Class field.
4. Add the following record:
 - Enter Hour-Task in the Name field.
 - Enter HR in the UOM field.
 - Enter Hour-Task in the Description field.
 - Leave the Base Unit field bank.
 - Enter Time in the Class field.
5. Save the record.

After changing the setting of UOM, use the following steps for verification:

6. In the Task tab of the Service Requests window, select Hour-Task in the Planned Efforts field.
7. Try to assign this task to a resource using Assignment Manager. In the Document Details region of the Assignment Manager window, make sure that you see HR populated in the Duration field after the number information.
4. Double-click the resource that you want to assign to a task.
5. Verify if the start and end date/time information are properly displayed in the Assignment Manager window as you expected.

Returning Individual Resources for a Group Owner

Cause: This problem can be caused by the following reasons:

- The selected group resource does not have Support group usage defined in Resource Manager.
- After selecting a group type in the Service Requests window, your cursor is not placed in the Group Owner field so that the **Assign Group** button is not enabled. Therefore, click **Assign Owner** instead to launch the Assignment Manager.

Background Analysis: When Assignment Manager tries to retrieve group or team

resources, it checks the usage value (such as Support usage) set in the JTFAM: Usage for Groups and Teams profile option. Based on the value (Support usage), Assignment Manager then searches for the matched groups or teams with the same usage identified in Resource Manager. Those matched group or team resources can then be displayed in the Assignment Manager. However, if there is no Support usage specified in Resource Manager for any groups or teams, then Assignment Manager returns no group resource.

Additionally, make sure to position your cursor in the Group Owner field after selecting a group type so as to enable the **Assign Group** button. Otherwise, the **Assign Owner** is enabled if your cursor is in the Owner field. Click **Assign Group** to launch Assignment Manager to retrieve group resources.

Action: Perform the following steps to set up Support group usage in Resource Manager:

1. Log in with the CRM Administrator responsibility.
2. Select **Resource Manager > Maintain Resources > Groups** to open the Define Groups window.
3. Query up your group first.
4. Select the Usages tab.
5. Use the LOV in the Usage field and select Support for the group usage.
6. Save your information.

Error Messages for Assignment Manager

This section contains information on some of the error messages associated with implementing Assignment Manager.

APP-JTF-210807

APP-JTF-210807: No Resource Found. Please try again.

Cause: This error usually occurs because the territories are not set up correctly.

Action: Verify territory setup process by using the procedure outlined in the Verify If Territories Are Setup Correctly section, page 23-1 .

FRM-92000:ORA:1403

FRM-92000: ORA:1403: No data found

Cause: This error occurs while invoking Assignment Manager. This may happen when data is missing from the JTSEEDED_QUAL_USGS_V view.

Action: Ask your database administrator to recompile the form where Assignment Manager is invoked. This refreshes the view so that data could be populated in JTSEEDED_QUAL_USGS_V view.

Troubleshooting Tips for Assignment Manager

1. Assignment Manager supports the following resource categories used in Resource Manager:
 - Employees
 - Parties
 - Partners
 - Groups
 - Teams
 - Supplier Contacts
2. If the Unassisted assignment option is selected, predefined search criteria such as preferred resources, territories, and resource availability will not be available.
3. Shift schedules displayed in the Gantt chart with yellow background are defined in the Forms-based Calendar module.
4. No end dated resources are selected in the Assignment Manager with the Unassisted and Assisted assignment options. All the resources that are displayed in the Assignment Manager are valid and active resources.

Troubleshooting Tips for Gantt

In many cases, if the Gantt chart in the Assignment Manager window does not work properly, the problem stems from an incorrect configuration of the TCF server.

Common Issues

In general, problems with the configuration and setup of the Gantt chart fall into the following categories. They are:

- Gantt Chart Does Not Appear, page 23-7
- Cannot Connect To TCF Server, page 23-9
- No Resources Are Visible, page 23-12

If you are experiencing problems with the Gantt chart, then do the following:

1. First perform the steps listed under General Advice, page 23-7.
2. If this does not clear up the problem, then see the individual sections for the listed problems.

General Advice

The following items are general suggestions to follow in troubleshooting problems relating to the Gantt chart.

1. Clear out the JInitiator jcache directory, close and restart the browser, and try again. Old, cached JAR files could be causing the problem.
2. Shut down and restart the TCF server. If a patch is applied, then the new code is not picked up by the runtime engine until the TCF server is restarted.
3. Check the JInitiator Console Window for exceptions or informational messages.
4. Ensure that there are no invalid objects in the database. You can use the adadmin utility for this purpose.
5. If an invalid object is found, correct the problem, then make sure that the offending form is recompiled (along with its libraries). This can be done through the adadmin utility.
6. If problems continue, then perform the steps listed in the following sections as appropriate:
 - Gantt Chart Does Not Appear, page 23-7
 - Cannot Connect To TCF Server, page 23-9
 - No Resources Are Visible, page 23-12

Gantt Chart Does Not Appear

One of the most common problems is that a Form does not display the Gantt chart properly. One, or both, of the following symptoms can occur:

1. The Form displays an empty blue or gray area where the Gantt chart should reside.
2. The JInitiator console window throws a ClassNotFoundException, referring to classes in oracle.apps.jtf.gantt.

Causes

The following are some of the possible causes for this condition:

1. The jtfgantt.jar file has not been downloaded onto the client machine. The JInitiator console window **must** include a line similar to the following:

```
Opening http://<serverHost>/OA_JAVA/oracle/apps/jtf/jar/jtfgantt.jar  
no proxy
```

It should **not** read:

```
Unable to contact http://<serverHost>/OA_JAVA/<some  
path>/jtfgantt.jar
```

2. Class files are missing from jtfgantt.jar or fndlist.jar.
3. An old version of jtfgantt.jar resides in the JInitiator jcache directory.
4. The appsweb.cfg file is customized and does not include an entry for /OA_JAVA/oracle/apps/jtf/jar/jtfgantt.jar.
5. The appsbase.html file, or the HTML page used to launch applications, is customized and does not pick up the archive tag from appsweb.cfg.

Actions to Take

1. Clear out the JInitiator jcache directory on the client and restart browser.
2. Verify that jtfgantt.lst is included in fndlist.jar.
 1. First take a copy of fndlist.jar, then rename it to fndlist.zip, and use Win Zip to open the file.
 2. Verify that jtfgantt.lst in fndlist.jar lists approximately 26 class files.
3. Perform the actions described in step 2, but for jtfgantt.jar and verify that it contains the files listed in jtfgantt.lst.
4. Ensure that the JInitiator console window does not list any class files as being individually downloaded.

If this is the case something is wrong in the installation. Class files should be downloaded within JAR files and nowhere else.
5. If Actions 2 through 5 do not verify properly, then perform the following additional actions:
 1. Force the regeneration of the FND and JTF JAR files through the adadmin

utility.

2. Restart the Forms (web) listener and the Forms server. Clear out the JInitiator cache directory, and restart the browser.
3. Try Actions 2 through 5 again.
6. **Critical!** Verify that all high priority FND (AOL) patches as listed in Metalink are applied.
7. For the items listed as 4 and 5 in this section, launch the applications. In Netscape Navigator, select "View Source" and verify that /OA_JAVA/oracle/apps/jtf/jar/jtfgantt.jar is included in the archive tag.
If it is not included, then add the entry to files appsweb.cfg and appsbase.html.

Cannot Connect to TCF Server

Note: If you are unable to establish a TCF connection, then a generic TCF setup problem could exist. Contact your System Administrator or Oracle Support representative to resolve the issue. Until this issue is resolved, Gantt will not work properly.

There are several different errors that you could encounter when attempting to connect to the TCF server, and several different reasons each error could occur.

In general, there are three basic types of errors that can affect server connection:

- The client application is unable to connect to the TCF server, page 23-9
- The TCF server is unable to connect to the database, page 23-10
- The application hangs upon connecting to the TCF server, page 23-11

Each type of error is discussed in the following sections.

Unable to Connect to the TCF Server

The standard error message for this is:

"The application was unable to establish a network connection with the TCF SocketServer listening on port: <port> on host: <host>. Contact your system administrator."

The exact message may vary slightly between versions and products.

You may also see the following:

"Unable to connect to dispatcher."

Items to check:

- Was the TCF server ever started?
The system administrator should be able to check if the process is running.
- What host and port names were used to start the server?
Verify that the profiles TCF:HOST and TCF:PORT on the client point to the TCF server to which you are trying to connect. The best way to check them is to use the **Help > Diagnostics > Examine** utility to check profiles just before launching the TCF application. Verify the user-level profiles, also, as well as the site-level profile options.
- Is the TCF server host machine accessible from the client?
Open a TELNET to the host to see if it is reachable.

Unable to Connect to the Database

The standard error message for this is:

"The TCF SocketServer running at <host>:<port> was unable to make a JDBC connection to database <dbname>. This may reflect heavy load on the system, or a problem with the indicated database. If this problem persists, contact your system administrator."

You may also see the following:

"Unable to set context."

Items to check:

- Is there a ClassNotFoundException or OutOfMemoryError raised?
Check the server logs to see if either of these errors occurred. Sometimes a ClassNotFoundException or a OutOfMemoryError is raised while the server is attempting to connect will result in this error. The former are usually configuration issues, the latter suggests that it is advisable to start your TCF server with more memory.
- Is the database actually up and running?
Try connecting from SQL*Plus to verify.
- Are you connecting using DBC files?

It is required that DBC files be used to connect to the database. The TCF server must be started with a new argument "DBC=", pointing to a .dbc file that should be located under \$FND_TOP/secure. This command should read:

```
jre oracle.apps.fnd.tcf.SocketServer <port#>
DBC=$FND_TOP/secure/xxxdbc
```

It is important that the path to the .dbc file be specified. Because the TCF server can connect to multiple databases, it does not depend on the specific .dbc file you pass in, rather it relies on the path where those .dbc files are located to look up multiple .dbc files.

If the TCF server is not started with the DBC argument or it cannot find the .dbc file in the specified directory, this type of error might occur. Remember that the TCF server could be looking for a different .dbc file than that with which you started it. Check the server logs and see if it reports any errors while trying to load the .dbc file.

- Are the .dbc files properly formatted?

A similar type of error can also occur if the .dbc file was improperly formatted.

A very common error to see on the server when this happens is:

```
ld.so.1: ... libocijdbc8.so: open failed: No such file or directory  
(libocijdbc8.so)
```

This indicates that the server is attempting to use the THICK JDBC drivers to connect to the database, which is not supported. Verify that the .dbc file specifies that the THIN drivers be used. The .dbc file must contain the line:

```
APPS_JDBC_DRIVER_TYPE=THIN
```

The .dbc file also needs to contain the following variables that identify the database to use:

```
DB_HOST=  
DB_PORT=  
DB_NAME=
```

These variables correspond to the database information in the tnsnames files. The THIN drivers cannot use the TWO_TASK to resolve the database name, you must provide this information explicitly. (The DB_NAME is actually optional if the TWO_TASK variable and database SID are the same, but it's good practice to use it, in any case.)

Application Hangs Upon Connecting to the TCF Server

Try connecting using the ServerControl class if hanging problems are reported. If it still hangs, then typically this indicates one of the following:

1. There is a bug in the code, or that there is an environment setup problem.

Check the debug output on the server to see if there is anything obvious that needs to be corrected, and check the bug database to see if this type of problem has been previously reported.

2. The wrong protocol was used to establish the connection.

Ensure the TCF server is speaking the same protocol as the client. Supported protocols are SOCKETS, HTTP, and SSL. The client must use the same protocol as the Forms server.

3. The TCF server attempts to exit the loop in which it accepts connections from the client, but does not really do so.

This type of error is probably the most common. If the TCF server stops accepting connections from the client, then it closes the socket and exits immediately.

Unfortunately, this does not explain why the TCF server stopped accepting connections in the first place. Determining the reason is a more involved process. One very possible reason is the TCF server ran out of memory. The most useful thing to do in this case is to check the debug output and see if any errors are logged.

No Resources Are Visible

If you experience problems with the proper display of resources in the Gantt chart, then perform the steps listed in the following table.

Trouble Shooting the TCF Server

Tip	Description
View the JInitiator console window , page 23-12error messages.	View the JInitiator console window error messages and the exceptions thrown.
Consult the TCF server log file., page 23-14	View the TCF server log file for relevant information.
Verify the TCF server status., page 23-14	Use the ServerControl class to check whether or not the TCF server is accepting connections on the host and port on which it was started.

View the JInitiator Console Window Error Messages

The single most useful thing that you can do to do to troubleshoot server problems is check the JInitiator Console window on the client machine. Some debug information is output by default, and errors raised here are often very descriptive and give a good indication of what the problem is.

If that window is no longer available, then restart the browser, set the "Show Console" check box in the JInitiator control panel, and restart the application.

The following listed items are a few of the exceptions that can be thrown, and reported in the JInitiator Console window.

1. `java.net.ConnectException: Connection refused`

Usually this means that the TCF server is not running, or that the TCF:HOST / TCF:PORT profile options are pointing to a wrong server or port.

2. `Gantt TCF HOST:<http://hostname> PORT:<port#>`

This refers to the TCF:HOST/PORT settings passed into the Gantt chart.

Verify the TCF Host Name and Port Number:

- If the host name is prefixed with "http://", then the client attempts to connect to the TCF server using the HTTP protocol.
- If this prefix is missing, then the client attempts to contact the server using the SOCKETS protocol.

Note: If the TCF server and client do not use the same mode, then the client cannot establish a connection.

3. `gantt: tcfSetAppsContext <filename>.dbc`

The <filename> listed in the error must exactly match the filename that was specified in the DBC parameter when starting the TCF server. If this is not the case, then rename the file to match that specified in the DBC parameter.

4. `java.lang.ClassNotFoundException:javax.net.ssl.SSLSocket`

The client side SSL libraries are meant to be included with JInitiator. However, in some older versions of JInitiator, this did not happen due to US export restrictions that have since been lifted.

5. `java.io.EOFException < 3-5 lines of text> at oracle.apps.fnd.tcf.net.SocketServerConnection.readBigUTF(SocketServerConnection.java)`

This exception usually occurs after the client tries to connect to the TCF server using the wrong communication protocol. The message indicates that the TCF:HOST profile is not set correctly. Verify the TCF Host Name and Port Number.

6. `gantt: addbar failed, resource not found (<Resource Type> - <Resource Id>)`

One common cause for this exception is described in bug 1414546, which is dependant on the Forms-based Calendar bug 1415863 for resolution. If this is the case, then ensure that the resource does not have a Calendar Exception assigned that spans the entire duration of a shift.

7. `java.net.UnknownHostException: <host>`

This exception is thrown when the TCF:HOST profile is set to a server that is not

recognized by the client.

Verify that the TCF:HOST profile is set correctly, and that the client machine can access the server using the <host> displayed in the exception.

One way to check is to open a DOS window (on a Microsoft Windows machine) and type in "ping <host>." If the host is inaccessible from the client, then the response returns a "Bad IP address <host>" message.

Consult the TCF Server Log

You can view the TCF server log to obtain further information. To set up the log file for automatic logging, perform the following steps:

1. Add the following to the command line:

```
OUTPUTFILE=/tmp/<logfile>.log LOGLEVEL=STATEMENT
```

2. Bounce (stop and restart) the TCF server.

3. Run the application again.

4. Check the log file to see if there is anything in the log file that may indicate what the problem may be.

Errors of the following type can be due to bug 1510941.

```
java.lang.NullPointerException
at oracle.jdbc.oracore.OracleTypeNUMBER.unpicklerec(Compiled Code)
at oracle.jdbc.oracore.OracleType.unpicklerec(Compiled Code)
at oracle.jdbc.oracore.OracleTypeCOLLECTION.unpicklerec(Compiled Code)
at oracle.jdbc.oracore.OracleTypeCOLLECTION.unpickle(Compiled Code)
at oracle.jdbc.oracore.OracleTypeCOLLECTION.unpickle(Compiled Code)
at oracle.jdbc.oracore.OracleTypeADT.unlinearize(Compiled Code)
at oracle.sql.ArrayDescriptor.length(Compiled Code)
at oracle.sql.ARRAY.length(Compiled Code)
at oracle.sql.ARRAY.getArray(Compiled Code)
at oracle.apps.jtf.gantt.server.GanttDataServer.getShifts
```

Verify the TCF Server Status

You can also use the ServerControl class to check whether or not the TCF server is accepting connections on the host and port on which it was started.

To do this, log onto the machine where it was started and run:

```
jre oracle.apps.fnd.tcf.ServerControl STATUS <port#>
```

One of the following can occur:

- If the result is some variant of "Unable to connect," the server most likely was not started properly. For details of how to solve this problem, see: Cannot Connect To

TCF Server, page 23-9 and Unable to Connect to the Database, page 23-10.

- If the application hangs upon connecting, the server has stopped accepting connections for some reason and must be bounced. See Application Hangs Upon Connecting to the TCF Server, page 23-11.
- If you are able to connect from the ServerControl but not from an application, it might be an application-specific problem, or it may be that the client JAR files are not set up correctly.

TCF Server and Forms Server Mode

Make sure the TCF Server and Forms Server runs in the same mode (Socket or Http) to get the Gantt and Assignment Manager to work properly.

Resolution:

To check what modes they are running in check the following files in the \$COMMON_TOP/admin/scripts:

- adtcfcctl.sh for TCF Server
- adfmstctl.sh for Forms Server (The Forms Server should run in the mode that is defined in appsweb.cfg)

Note: Remember to bounce the Apache Server after changes are made for the changes to take effect.

Gantt Frequently Asked Questions (FAQs)

The following are frequently asked questions. Answers to these questions may help you in troubleshooting problems with TCF Server.

How to Check the Status of the TCF Server?

Answer: Execute the script 'adtcfcctl.sh status' or use the server control class to check jre oracle.apps.fnd.tcf.ServerControl STATUS

How Do I Start or Stop the TCF Server?

If TCF Server is not running it could be the reason the Assignment Manager will not function properly

Action: In Unix under \$OAH_TOP/admin/script execute adtcfcctl.sh stop/start.

Checking the TCF:HOST and TCF:PORT profile options

What type of values should they contain?

Resolution:

1. If connectMode=http, set profile option TCF:Host to 'http://.' TCF:Host http://oa_servlets TCF:HOST is automatically updated to the same value as the APPS_SERVLET_AGENT Profile option. If the APPS_SERVLET_AGENT profile contained a value ending with the virtual directory OA_HTML, it should end with the name of a valid servlet zone.
2. If connectMode=socket, set profile option TCF:Host to just '.' -- omit 'http://'
3. Make sure that the profile option value of TCF:Port is the port that the TCF Socket Server is listening on. TCF:PORT -1.

Business Rule Monitor Implementation Overview

This chapter covers the following topics:

- Business Rule Monitor Overview
- Business Rule Monitor Implementation Steps

Business Rule Monitor Overview

An escalation is a process used to highlight or flag certain issues within an organization, so that the appropriate personnel can react to these situations and monitor the resolutions. Escalation management is comprised of two modules: Escalation Manager and the Business Rule Monitor. The Business Rule Monitor is the proactive process.

In a proactive escalation, you take the necessary action to monitor customers issues before the customer complains. The Business Rule Monitor (BRM) is used to raise awareness. It provides a centralized place to define and also monitor business rules on a regular basis. Proactive escalation is used not just in response to problems but can be set up as a follow-up action.

Business Rule Monitor Implementation Steps

The Business Rule Monitor is used to check active business rules by setting up an Oracle Workflow process which continuously loops and checks at a specified interval for all active business rules. This section provides a summary of the steps for implementing the Business Rule Monitor. Each step is performed in the Forms-based interface by the Implementor or the System Administrator.

Define the Business Rule Monitor Workflow Administrator

The Business Rule Monitor workflow administrator can receive workflow notifications when the business rule monitoring process starts and stops, as well as when errors are

detected.

Set the Business Rule Monitor Workflow Administrator profile option

Before starting the business rule monitoring process, the Business Rule Monitor Workflow Administrator system profile option must be set and be linked to the E-Business suite Workflow Administrator.

Start the Background Processes

Before starting the business rule monitoring process, the background process for the Business Rule Monitor Main Process must be run. The following background processes are optional depending on which objects have active rules defined. Also, a background process should be started for any user-defined workflows that are being used.

- Business Rule Monitor Task Process
- Business Rule Monitor Service Request Process

Create a New Business Rule

The implementor or system administrator can optionally create a new rule by defining a rule's general information, specifying workflow and workflow attributes, and defining a rule's condition which reflect your business logic.

Enable the New Business Rule

Before monitoring your business rules, the implementor or system administrator must enable them by entering the effective dates in the Business Rule Workbench window.

Verify that an Escalation Territory has been created and contains at least one resource

Ensure that you have a resource assigned to an escalation territory. The escalation territory can be a catch all for all escalations. The resource needs to be a primary contact.

Start the Business Rule Monitor

The Business Rule Monitor is the control panel used to determine when the workflow process will run and stop.

Set Up Business Rules

This chapter covers the following topics:

- Setting Up the Business Rule Monitor
- Defining the Business Rule Monitor Workflow Administrator
- Setting Business Rule Monitor Profile Options
- Starting the Background Workflow Processes

Setting Up the Business Rule Monitor

The Business Rule Monitor is one of the modules in Escalation Management. It is considered "proactive escalation" in that you can create rules based on your business logic and set them in a workflow process which will periodically check them. When the business rule is violated, the BRM workflow puts the violated rule in a queue, where it is picked up by Oracle Workflow. If a rule is violated, then a notification will be generated. How is this done? The Business Rule Monitor is integrated with other applications and modules, such as Oracle Workflow. The user that owns this workflow process receives notifications when the process starts and stops, and also when errors are detected.

Defining the Business Rule Monitor Workflow Administrator

A workflow process controls the Business Rule Monitor, which in turn periodically checks all the active business rules. The BRM workflow administrator, typically the system administrator or workflow administrator who owns the workflow process, receives notifications when the monitoring process starts and stops, and also when errors are detected. This is to ensure that an owner of the workflow process exists and that the notifications can be sent successfully.

You must first set up the BRM workflow administrator user and add the following responsibilities to the workflow administrator, so that the administrator can start the Business Rule Monitor and receive workflow notifications:

- **CRM Administrator responsibility:** The workflow administrator can access the Business Rule Monitor module through this responsibility. He can start the Business Rule Monitor and monitor the workflow process.
- **Workflow (Oracle Self-Service Web Applications):** The workflow administrator can check the workflow processes, and can view workflow notifications from the customize link Worklist region if it is set up correctly in your personal homepage.
- **Preferences (Oracle Self-Service Web Applications):** Use it to set up user preferences, for example, send or do not send e-mail notifications.

Note: You can assign Workflow and Preferences responsibilities to many users, so that they can view workflow notifications if a business rule is violated and they are responsible for taking care of this automated escalation. However, there is only one BRM workflow administrator who will receive the notifications about when the monitoring process starts and stops, and also when errors are detected.

There are two types of notifications that can be sent through the Business Rule Monitor Main Process, to indicate the start and stop of the Business Rule Monitor, and any error conditions:

1. **Workflow Notification:** This type of notification can be viewed from the Worklist region if it is set up correctly in your personal homepage.
To receive workflow notifications, select the Preferences responsibility. Then select General Preferences and change the value in the "Send me electronic mail notifications" field to "Do not send me mail". This tells the system not to send you e-mail notifications, but instead to send them to your notifications page.
2. **E-mail Notification:** This notification requires correct workflow and email server setup and is usually done by the system or workflow administrator. To receive email notifications, select the Preferences responsibility. Then select General Preferences and finally select the appropriate value in the "Send me electronic mail notifications" field.

Setting Business Rule Monitor Profile Options

The following table describes the profile option that is specific to the Business Rule Monitor.

Business Rule Monitor Profile Options

Name	Default Value	Level	Description	Outcome
Business Rule Monitor Workflow Administrator	No Default Value	Site	This profile option must be set first in order to grant this profile option to the BRM Workflow Administrator.	The Administrator can receive workflow notifications when the monitoring process starts and stops, and also when errors are detected.

Starting the Background Workflow Processes

The Business Rule Monitor, like other Oracle Workflow process, needs to have its background processes started in order for it to run. This is done using the standard applications concurrent manager.

There are three predefined workflow item types. The Business Rule Monitor Main Process is the only one that is internal to the Business Rule Monitor. This process services the Business Rule Monitor looping workflow which itself checks all the active rules defined in the workbench and identifies if any rule is violated.

The Business Rule Monitor Task Process is used when the violated business rule which is identified by the Business Rule Monitor Main Process is related to tasks (object). This BRM Task Process services the consequent activities based on the workflow information identified for the rule. For example, if the Escalate a Task (notification only) workflow is selected in the workbench for the rule, then a workflow notification will be sent automatically to the person identified in the workflow attributes window.

The Business Rule Monitor Service Request Process is used when a violated rule is related to service requests (object).

These attributes are maintained within the Business Rule Workbench, and can be viewed by clicking the button next to the workflow field. The following table describes the seeded workflow processes.

Seeded Workflow Processes

Item Types	Description
JTFBRM	Business Rule Monitor Main Process
JTFBRMPR	(Optional) Business Rule Monitor Task Process
JTFBRMSR	(Optional) Business Rule Monitor Service Request Process

Proper operation of the Business Rule Monitor requires that the Business Rule Monitor Main Process be started before starting the Business Rule Monitor. Perform the following procedure to start these background processes. Additionally, the optional background workflow processes may be started if necessary.

Steps:

1. Select **Requests > Run**.
The Submit a New Request window opens.
2. Select Single Request and click **OK**.
3. In the Submit Requests window, type **W** in the Name field and select **Enter** on the keyboard.
The Reports window opens and displays report names that begin with W.
4. Select **Workflow Background Process** and click **OK**.
5. Type "bu" in the Item Type field and select **Enter** on the keyboard.
The Item Type window opens and displays the four Workflow background processes required by the Business Rule Monitor.
6. Select one of the Business Rule Monitor processes and click **OK**.
Leave the Minimum Threshold and Maximum Threshold fields empty.
7. Enter **Yes** in the Process Deferred field, in the Process Timeout field, and the Process Stuck field and click **OK**.
The Submit Request window appears in front.
8. Click **Schedule** on the Submit Request window.

The Schedule window appears in front.

9. Select **Run the Job...Periodically**.

More options appear for defining the time period.

10. Define the Start time and the End time. An end time of two hours after the start time is recommended.

Warning: Be sure to define an end time. If the end time field is blank, then the process runs indefinitely and cannot be shut off.

- 1.** In the Rerun Every field, enter the number of minutes that defines the interval between job runs. A rerun time of two minutes is recommended.
- 2.** Select the From the Completion of the prior run box and click **OK**.
- 3.** Repeat this entire procedure for any of the optional background workflow processes that you require, or for your own customized processes.

Restrictions

If the seeded background processes are not used, you still need to run the Business Rule Monitor Main Process, plus any of your own workflow processes that are used. Initially select some parameters and allow the background processes to run. Monitor their performance and tune the parameters as necessary to meet the needs of your enterprise.

Remember to run your workflow processes periodically, for example, every 15 minutes throughout the expected duration of the Business Rule Monitor.

Administering Business Rules

This chapter covers the following topics:

- Creating a New Business Rule
- Enabling a Business Rule
- Verifying an Escalation Territory
- Starting the Business Rule Monitor

Creating a New Business Rule

In addition to the seeded business rules provided with the Business Rule Monitor, you can define your own business rules.

You can leave the Effective Dates field empty until the time you want to start the business rule. Once you enter the effective dates for your rule, you enable and start the rule.

After defining a rule, specify its condition for your rule in SQL format. This can be done in either of the following tabs:

- **Simple:** Use the Simple tab to make guided SQL statements by specifying the appropriate values for the necessary fields. For example, if your rule is defined for a task with Open status, then you need to select Status (Task) from the LOV in the Left Value field, "=" in the Operator field, and "Open" from the Right Value field.
- **Complex:** Use the Complex tab if you are knowledgeable in SQL and want to directly write SQL statements.

Workflows. Choose the appropriate workflows, attributes, and document owners when defining a business rule.

Business Rule Monitor Workflows

Workflow	Description
Notification Only	An Oracle Workflow notification will be sent. The person who receives this notification can be selected from the Value field in the Workflow Attributes window. Click the "..." button, to display this attributes window.
Create a Task Only	An automated escalation task will be created. This is generated through the seeded Automated Escalation Template Group for Task Manager (Service Request). The owner and assignee of this task can be selected from the Value field in the Workflow Attributes window.
Notification and Create Task	Besides the workflow notifications that will be sent, an automated escalation task will also be created. The owner and assignee of this task can be specified in the Value field. If the unassigned option is selected in the Automated Escalation Notification Task Assignee Role field in the Workflow Attributes window, then the task that is created has no assignee.
Escalated Object	An escalated document will be created. The owner of this escalated document can be specified in the Value field.

Note: The selection in the Value field can be document owner, document owner's HR manager, escalation territory primary contact, and business (rule) owner. If this value is not specified, it defaults to the business owner.

Since the automated escalation can happen to the document owner in addition to employee resource type, the person who will receive the notifications is determined as follows:

Document Owner	Description
Document Owner	<p>The Document Owner is selected as the value in the workflow attributes:</p> <ul style="list-style-type: none"> • If the document owner type is Employee Resource, this document owner will receive notifications. • If the document owner resource is of any other type, then the primary contact with the employee resource type in the escalation territory is used. If there is no resource that satisfies this criteria, then the primary contact with the employee resource type in the catch-all territory is used. Again, if there is no resource that satisfies this criteria, then the Business Rule Owner is used because the business rule owner is guaranteed to be a resource of type Employee Resource.

Document Owner	Description
Document Owner's HR Manager	<p>The Document Owner's HR Manager is selected as the value:</p> <ul style="list-style-type: none"> • If the document owner type is Employee Resource, then the notification is sent to the HR manager of that resource. If there is no resource that satisfies this criteria, then the primary contact with the employee resource type in the escalation territory is used. Otherwise, the primary contact with the employee resource type in the catch-all territory is used, and then the Business Rule Owner. • If the document owner resource is of type Group Resource, then the notification is sent to the first resource of type Employee Resource within the resource group who has a manager. If there is no resource that satisfies this criteria, then the primary contact with the employee resource type in the escalation territory is used. Otherwise, the notification is sent to the primary contact with the employee resource type in the catch-all territory, and then the Business Rule Owner. • If the document owner resource is of any other type other than employee or group resources, then the same rule is used—the primary contact with the employee resource type in the escalation territory, then the primary contact with the employee resource type in the catch-all territory, and then the Business Rule Owner.
Escalation Territory Primary Contact	The notification is sent to the primary contact with employee resource in the escalation territory. If there is no resource that satisfies this criteria, then the notification is sent to the primary contact with employee resource in the catch-all territory. Otherwise, the Business Rule Owner.

Steps:

1. Select **Business Rule Monitor > Business Rule Workbench**.
2. Enter values for the following:
 - **Name:** The name of the new business rule.
 - **Object:** The object for which the rule will operate.
 - **Check Rule Every:** The time interval that you want.
 - **Effective:** Use the LOV to select the date to start the rule.
Only put an end date to stop the rule.
 - **Owner:** Mandatory field.
 - **Workflow:** Choose a workflow from the drop down menu.
Attributes can be defined for the Workflow and an Owner for the business rule.
See the Guidelines section for a description of Business Rule Monitor
workflows and their attributes.
3. Use the fields in the Simple tab to define conditions when the business rule is triggered.
4. Click **Validate** to check the syntax of the PL/SQL statement defined in the Simple tab. The syntax check verifies whether or not the syntax is correct.
A dialog box confirms that the syntax validation was successful.
5. Click **OK**.
6. Click **Generate**.
A dialog box confirms that your business rule has been generated.
7. Select **File > Save**.

Enabling a Business Rule

Before monitoring your business rules, you need to enable them first by entering the effective dates in the Business Rule Workbench window. Use the following procedure to first search for a rule, and then second, enable it.

Steps:

1. Select **Business Rule Monitor > Business Rule Workbench**.

2. Select **View > Find**.
3. Enter a name, an object, or other search criteria, and click **Find** to return to the Business Rule Workbench. Use the up or down arrow keys to select the rule that you want to use if there is more than one rule that matches your search criteria.
4. Enter the effective date in the Business Rule Workbench window.
5. Save your work.

Restrictions

If this rule has been generated and the Business Rule Monitor has been started, this rule will then be monitored from the effective date. If this rule has not been generated, you can click Generate to generate your business rules. If a business rule is generated without problems, a note message displays "Your Business Rule has been generated."

Note: The Generate button dynamically creates a view in the database. This view queries the objects that fit the conditions you have defined in the business rule and is used by the main BRM process when it checks the rule, to detect the objects that it needs to take action about.

Verifying an Escalation Territory

The automatic assignment and notification of escalations depends heavily on the Territory Manager module. So what happens if escalation territories are not there?

If the identity of a person who receives notifications defined in the Workflow Attributes window cannot be determined, then a notification is sent to the primary contact for the escalation territory associated with the source document owner's territory if the territory ID exists. If the territory ID does not exist, it is sent to the primary contact in the catch-all territory, or the Business Rule Owner.

Therefore, the system administrator needs to ensure that the correct structure of escalation territories or a catch-all territory is defined at installation time.

Starting the Business Rule Monitor

Use the Business Rule Monitor to monitor the workflow processes. Specify the time interval in the Control Panel region. This sets up an Oracle Workflow process which continuously loops and checks at a specified interval for all active business rules.

For example, suppose the Open Task business rule is defined to be checked every hour. Now, if the interval is set to five minutes and the Start button is selected, then the BRM starts the monitoring process. The main background process (Business Rule Monitor Main Process) services the Business Rule Monitor looping workflow which itself checks

all the active rules, not just your Open Task rule, every five minutes to see which of the active rules are due to be checked. If it is less than one hour since the Open Task rule was checked last time, then this rule won't be checked until it is due. For those that are due, the BRM looping workflow then goes on to see if there are any objects that violate the rule. If a high priority task has stayed open for more than four hours, then this task will be identified. The appropriate background workflow process (such as Business Rule Monitor Task Process) is then performed to service the escalation activity workflow for that business rule. If the Escalate a Task (notification only) workflow is selected in the workbench, then the task owner will receive a workflow notification automatically. Perform the following procedure to start the Business Rule Monitor.

Prerequisites

- Any workflow process that is used in the Business Rule Monitor must be started. If you have designed customized workflow background processes, then the background processes for these workflows must also be started. In addition, the *Business Rule Monitor Administrator* profile option must be set.

Steps:

1. Select **Business Rule Monitor > Business Rule Monitor**.
2. Enter the time period in the Interval field. Enter a time unit (minutes or hours) in the UOM field.
3. Click **Save**.
4. Click **Start** to activate the Business Rule Monitor.
A dialog box confirms that the Business Rule Monitor started successfully.
5. Click Workflow Monitor to view details of this process.
6. After the monitor is started, the Stop button appears. Click **Stop** to stop the monitor.
7. Click **Refresh Status** to get an immediate status on the BRM main process.

Troubleshooting the Business Rule Monitor

This chapter covers the following topics:

- Troubleshooting Tips
- General Tips for Defining Rules
- Stopping the Business Rule Monitor
- Answers to Frequently Asked Questions (FAQs)

Troubleshooting Tips

If you are having difficulties using the Business Rule Monitor after implementing it, verify the following:

- The Concurrent Manager is running.
- Workflow background processes for all Escalation Workflows are running periodically.
- Oracle Workflow is installed and correctly running.
- Profile Option Business Rule Monitor Workflow Administrator is set to the Apps user ID of a valid user with the Workflow responsibility.
- Profile Option Escalation: Default Level is set to a value which exists in the Define Escalation Level form.

General Tips for Defining Rules

The following suggestions are helpful when defining rules in the BRM:

- **The condition should not reflect an absolute state.** Otherwise, the monitor will keep detecting the same objects and acting upon them; you may have repeated

notifications sent.

- **Use reasonable check intervals.** The check interval also determines the notification interval. So, if you check a rule every two minutes, notifications are sent every two minutes.
- **Take loop time into consideration.** If the main scan cycle is set to run every ten minutes, then there is no point in setting the check frequency to two minutes.
- **Even in a simple rule, SQL syntax applies.** You can use SQL functions, but you also have to use quotes around your character values. Also use IS NULL and IS NOT NULL instead of =NULL and <>NULL.
- **Verify that the view does what you intended for it to do.** The simplest way to do this is to cut and paste the view definition from the Complex tab into a SQL+ session.
- **Check the performance of the view.** Do a Select from your view. If it takes a long time to return the values, then ask a SQL expert for assistance.

Stopping the Business Rule Monitor

Some patches for CRM Foundation require the Business Rule Monitor to be stopped before the patch can continue. You can tell if the Business Rule Monitor is running by entering the CRM Administrator responsibility and navigating to Business Rule Monitor > Business Rule Monitor - this invokes the Control Panel. The Status field will show 'Active' or 'Stopping' if the Business Rule Monitor is in a running state.

To stop the Business Rule Monitor press the 'Stop' button on the Business Rule Monitor Control Panel. Note that the workflow background process for the 'Business Rule Monitor Main Process' workflow should be running in order for the 'Stop' command to be processed.

If the Business Rule Monitor Control Panel shows a status of 'Stopping' for an unusually long period of time, this is normally caused by the workflow background process not being running at the time the 'Stop' button is pressed. To start the workflow background process perform the following steps:

Steps:

1. Select System Administrator responsibility from the Requests menu option.
2. Select Run.
3. Run a Single Request.
 1. The name is Workflow Background Process.

2. The item type is Business Rule Monitor Main Process
3. Leave min and max threshold blank.
4. Process deferred to Yes.
5. Process timeout to Yes.
4. Click **OK**.
5. Select the Schedule button.
6. Select Periodically.
7. Enter an end date and time of 15 minutes later.
8. Re-run every three minutes.
9. From Completion of the prior run, click **OK**.
10. Select Submit.
11. Note that if your Business Rule Monitor main process is running every 30 minutes, for example, then you will need to extend the end time of the background process so that it is still running the next time the BRM process checks for instructions.
12. You then need to wait for the BRM to do its next run so that it will process the 'STOP' command, then the status should show 'Complete' and you can continue with the patch.
13. You should not comment out this script and continue with the patch as this will leave your system in an undefined state.
14. If for some reason the main BRM workflow will not process the 'STOP' command then you will need to abort the process from within the Workflow Monitor. To do this:
 1. Find the error notification for itemkey JTFBRM and the process ID that is shown on the BRM control screen: these notifications are usually sent to the SYSADMIN user.
 2. View the notification for this process.
 3. At the bottom of the screen there is a poplist from where you choose what you want to happen next, select **Abort**.
 4. After a short while the process should stop.

Answers to Frequently Asked Questions (FAQs)

The following are frequently asked questions. Answers to these questions may help you in troubleshooting problems with the Business Rule Monitor.

What is the relationship between the following "Time Related Features"?

Answer: In Business Rule Monitor (BRM), you have the option to select how often (in <<Interval>> Field) you want the BRM to check the rules noted in Business Rule Workbench (BRW).

In BRW, you have option to select how often (in <<Check Rule Every>>, <<Tolerate Condition For>> Fields) you want the BRM to check the rule noted here.

In Workflow background process (WBP), you have option to select how often you want to run the workflow background process.

How Are The Parameters Discussed In Step 1 Related?

For example, you can set five minutes as the Interval in BRM, set one minute in Check Rule Every in BRW for one of the rules AND only run the Workflow background process every DAY, then what will happen?

What is the point of reference for time in the BRM? If it is run at 12:00 PM, and started at 12:05 PM, will the BRM continue to check every five minutes until a specified time?

Answer: Be realistic when setting the time intervals as there is no cross-referencing between them, so all times are independent of each other.

In the example of having the BRM run every five minutes, the BR check every minute and the WBP run once a day, then the BRM will run once when the WBP 24-hour anniversary occurs each day. The checking of the actual BR will depend on when its WBP is next run after the BRM has run. The Workflow processes cannot do anything unless the WBP associated with that process is executed, so the timing of the BRM is dependant on when the WBP runs.

The point of reference for the BRM is when the 'Start' button was pressed in the Control screen. So if it is started at 12.00 pm to run every five minutes, then it will check at 12.00 pm, then at 12.05 pm, until the 'Stop' button is pressed OR until the WBP stops repeating. However, this is dependent on when the WBP is run for the BRM Main Process. If the WBP is run from 12.00 pm every one minute then the above will hold true. However, if it is run every two minutes then it will only check at 12.02 pm, 12:04 pm, 12:06 pm, and so forth, so the 12:05 pm run of the BRM will be delayed by a minute.

For each BR the timing is taken from when the last iteration of that BR occurred. This is affected also by the timing of the WBP for that individual BR Process, in the same way as the main BRM as explained above, plus the timing of the main BRM run and how it

coincides with the timing of each BR check.

Can You Stop the Notifications From Repeating?

Once the conditions set in a Business Rule are met, then the notifications are sent continuously. Is this the intended functionality? Do you have the option to have a flag to indicate that only one notification should be sent?

Answer: If you choose to send a notification or create a Task, then that will happen each time the BR is checked if the condition is still true. This is as designed, you should set the BR interval to how often you want the notification to be sent. If you want to send the notification only once then you can either customize the Escalation Activity code to do that, or raise it as an Enhancement Request which will be considered for a future release.

Can You Expand the Fields Available From The 3D View?

In the BRW, you are limited to fields in the CS_BRM_3D_SERVICE_REQUEST_V view. For example, there is no problem code field in CS_BRM_3D_SERVICE_REQUEST_V. Is there an option to use fields from other tables or views?

Answer: The seeded 3D view makes available the fields that you see on the Service Request UI that are audited. You only use the fields that are audited because this is how you are able to detect how the values have changed over time. If you need additional fields then you can use the 'Complex' style of rule definition to specify these in standard SQL format.

How Do You Control Who Receives the Workflow Notifications?

When defining business rules, you have the ability to associate a Workflow process with each business rule. It is the Workflow process that generates the notifications.

The client can view the definition of these seeded workflow processes in the Workflow builder, however, it is not clear as to how the process determines whom the notifications should be sent to. For example, in the Workflow Builder, viewing the process definition of "Escalate a Service Request (notification only)", it has a notification activity called "Object Conformed to a Rule" which sends a notification to a role defined in the "Notification Person" item attribute.

What is the default behavior of this workflow process? What is the hierarchy of criteria that the system uses to determine who to notify?

Answer: Select the button labelled "..." which is next to the Workflow LOV. This brings up the Workflow Attributes window, and from there you can select a value for each of the attributes for that specific Workflow process. For example, for the notification workflow you can choose the Notification Role, which is the role of the (in relation to the object, i.e. Service Request) who you want the notification to go to. The options are:

- Business Owner
- Document Owner
- Document Owner's HR Manager
- Escalation Territory Primary Contact

The default setting is Business Owner, which is the owner of the Business Rule. If an individual resource cannot be identified programmatically for any reason, then the notification will always default to Business Owner.

Where Can I View the Workflow Process Launched by the BRM?

I want to see if anything is happening for the rule I created which has six records in the database that have matched criteria. I completed all the necessary preliminary set ups to get the BRM running.

Answer: Perform the following steps.

1. First check that the rule will actually return the records that you think it should. Do this by going to the Complex tab in the rule definition and copy the text into SQL*Plus. If it returns rows, then the rule is fine, if not then re-examine your rule. Start simply, such as 'Task Number' = '12345'.
2. If rows are returned, then next look at the Workflow processes using the Workflow Monitor. Ensure that the SYSADMIN user has 'Workflow' responsibility attached, then connect to Applications as SYSADMIN through the PHP login for the instance that you are using.
3. Under the heading 'Self Service', click **Workflow**.
4. At the next page click **View Progress**.
5. In 'Item Type' choose the name of the Workflow process that you believe should be invoked for your rule. For example, any of the Task seeded Workflow processes would use 'Business Rule Monitor Task Process'.
6. Click **Find**. All of the Workflow processes that have been started in that instance will be displayed. Drill down into the details of each process.
7. If there are none, there can be a problem with the main BRM Workflow. You can look at its progress using the same method, but select **Business Rule Monitor Main Process**.

It could be that there is a problem with the Workflow you are using, so again it is suggested that you try the simplest case first so that you can see it working. Try using the "Escalate a Task - send a Notification" seeded Workflow and have the notification

sent to the Business Rule Owner or the Document Owner.

Customizations

This chapter covers the following topics:

- Setting Up Metadata Objects
- Setting Up the Source Object Code and Context

Setting Up Metadata Objects

You can add additional data in the JTF objects table. Metadata source objects have static definitions to dynamically retrieve data during runtime. This allows for the code to call the metadata source name, instead of writing the code out in every location.

Note: In some instances, Customer Profiles and Service Request notes, require a specific prefix or code name.

Perform the following steps to add data in JTF objects for use in Tasks Manager.

Responsibility: CRM Administrator

Steps:

1. Navigate to **Task and Escalation Manager > Setup > Objects Meta-data**.
2. Enter a name, description, and unique object code.
3. Enter or select information in the fields for all sections that are needed for this source.
 - Seeded check box: It indicates that the data is seeded. It cannot be updated by users.
 - From task check box: Select this check box if tasks can be created, updated, and deleted using the standalone Task Manager. Otherwise, tasks can only be queried in read-only format.

- Start Date: Enter a start date that the object code is available in the text field.
- End Date: Enter an end date that the object code is unavailable in the text field.
- Application: Select the Application name from the list of values.

4. Enter the following information in the Launch Details tab:

- Function Name: Select the form function name registered as type, FORM from the LOV.
- Parameter: Enter the parameters to be passed to the form function to open the source form. The following parameters are passed to open the source form.
 - ID - Source_object_id
 - NAME - Source_object_name

The rest of the parameters should be hard coded.
- Launch Method: Use the drop-down list to select the Launch method. The Launch method is only for forms. They are:
 - FND_FUNCTION: Executes a specified form function only if the form is attached. It always starts a new instance of the form.
 - APP_NAVIGATE: Executes a specified form function only if the form is attached and also allows a form to be restarted if it is invoked a second time.
- URL: Enter the URL for the application.
- Web Function: Select the web function from the LOV. This is the JSP Function Name. It should be registered in Functions as type JSP.
- Web Parameters: Enter the web parameters in the text field. These are the parameters to be passed to the JSP page. The following parameters are passed to open the source form.
 - ID - Source_object_id
 - NAME - Source_object_name

The rest of the parameters should be hard coded.

5. Enter the following database information in the Select Statement Details tab:

- ID Column: Enter the ID value to be fetched from a given table in the text field,

such as task_id. The ID identifies the unique column that is stored as the records place holder.

- Name Column: Enter the NAME value to be fetched from a given table in the text field, such as task_number. This column shows as the main search/result column value a user uses to select data.
- Details Column: Enter the details value to be fetched from given a table, such as description. The details column gives user more information on the column to choose from in the LOV listing.

Enter your select statement:

- From: Enter the name of the table where the data is obtained, such as jtf_tasks_vl.
- Where: Enter any Conditions of the selected data in the where clause, such as source_object_type_code = "TASK".
- Order By: Enter the order by which the records should be sorted, such as task_number.
- Select Statement: This read-only text field displays your select statement when clicking the **Check Syntax** button to validate the syntax of your statement before it is saved.

6. Enter the following information in the LOV and Data Security tab:

In the LOV region:

- Window: Enter a title for the List of values window in the text field. This is the Title that appears for the LOV generated for this source object.
- Name: Enter the column name for List of values specified in the Select Statement Detail's "Name Column" field.
- Details: Enter the Title for details column for List of values specified in the Select Statement Detail's "Detail Columns" field.

In the Data Security Setup region:

- Object Name: The name for a corresponding JTF_OBJECTS code. This name serves as the foreign key to FND_OBJECTS. This field is not required and can be empty (null).
- Predicate Alias: This field adds security information to application query. It should only be used to avoid ambiguity when LOV query contains more than one table joined by data object primary key(s) values. For example, two tables

("jtf_tasks_b" and "jtf_tasks_tl") are used, then it must be entered with either "jtf_tasks_b" or "jtf_tasks_tl". Otherwise Oracle DBMS will report ambiguous task_id reference at the run time.

If it is entered and the object name is not null, the value will be passed to an internal API to add security to a generated query for the LOV. However, if the object name is empty, then security predicate will not be added to the generated query.

Refer to Customizing the List of Values (LOV) Security Access, page 8-11, Customizing Task Security chapter for details.

7. Define the object user in the Usage tab:

Object User: Select the object user from the list of values.

The **Seeded** check box is not editable. It indicates that the data is seeded.

Usage users are specified access locations where an object can be used. As long as the object is not seeded, all usages can be assigned.

Setting Up the Source Object Code and Context

When defining a new document, the Notes implementor or system administrators must associate Notes usage to the new document. In the Forms-based Notes, the document name appears in the Source list. Each item in the Source list has an associated related object, which appears in the Related To list.

Perform the following steps in Forms to define the source code usage as NOTES.

Steps:

1. Navigate to **Task and Escalation Manager > Setup > Objects Meta-data**.
2. In the Tasks Setup: Object Types window opens, perform one of the following tasks:
 - If the source object code you want to seed already exists, then define the usage as NOTES.
 - If the source object code is not defined, then you must define the source object code, the name, and select its details and usage. (Usage should be NOTES.)
3. For detailed instruction on how to enter each field, please see **Setting Up Metadata Objects.**, page 28-1

A

Profile Options

This appendix covers the following topics:

- Before You Begin
- Common Application Calendar Profile Options

Before You Begin

This appendix chapter describes profile option settings that are required for successful implementation. These profile options are only for Common Application Calendar. For additional functionality, you may need to set additional profile options from the appropriate calling applications. Consult the calling application's documentation for additional information.

Common Application Calendar Profile Options

This section summarizes the Oracle Common Application Components profile options per module that you need to set.

- Notes, page A-2
- Gantt, page A-3
- Assignment Manager, page A-5
- Task Manager, page A-12
- Calendar Synchronization, page A-25
- Calendar, page A-22
- Escalation Manager, page A-31

- Business Rule Monitor, page A-34

Notes Profile Options

The following table describes the profile options that are specific to Notes.

Notes Profile Options

Name	Category	Default Value	Level	Description	Outcome
Notes: Default Note Status	Notes	Public	Site	<p>This profile option sets the default note status. Profile option values include private, public, or publish.</p>	<p>If you select Publish, then that is the default value shown in the Status drop-down list when creating a new note.</p> <p>If no profile option is set, default is Public.</p>

Name	Category	Default Value	Level	Description	Outcome
Notes: Default Note Type	Notes	N/A	Site	This profile option sets the default note type only to the Notes in Oracle Applications Framework. It does not apply to the HTML and Forms-based Notes.	Set the desired value to the note type. If this profile option is not set or the note type default value is not mapped to a source, then there will not have a default value in the Note Type field during note creation. Otherwise, the default note type will appear in the field.

Gantt Profile Options

The following table describes the profile options that are specific to Gantt

Gantt Profile Options

Name	Default Value	Level	Description	Outcome
JTF_GANTT_SN AP_VALUE_DA YS_MODE	60 minutes	User	Enables the start or end of a taskbar to automatically readjust (snap) during drag and drop operations in the "Day" view.	Snaps to the default value if the user does not specify a snap value.

Name	Default Value	Level	Description	Outcome
JTF_GANTT_SN AP_VALUE_SIX _HOURS_MOD E	60 minutes	User	Enables the start or end of a taskbar to automatically readjust (snap) during drag and drop operations in the "6 Hour" view.	Snaps to the default value if the user does not specify a snap value.
JTF_GANTT_SN AP_VALUE_TH REE_HOURS_M ODE	30 minutes	User	Enables the start or end of a taskbar to automatically readjust (snap) during drag and drop operations in the "3 Hour" view.	Snaps to the default value if the user does not specify a snap value.
JTF_GANTT_SN AP_VALUE_HO URS_MODE	15 minutes	User	Enables the start or end of a taskbar to automatically readjust (snap) during drag and drop operations in the "Hour" view.	Snaps to the default value if the user does not specify a snap value.
JTF_GANTT_SN AP_VALUE_30 MIN_MODE	10 minutes	User	Enables the start or end of a taskbar to automatically readjust (snap) during drag and drop operations in the "30 Minute" view.	Snaps to the default value if the user does not specify a snap value.

Name	Default Value	Level	Description	Outcome
JTF_GANTT_SN AP_VALUE_15 MIN_MODE	5 minutes	User	Enables the start or end of a taskbar to automatically readjust (snap) during drag and drop operations in the "15 Minute" view.	Snaps to the default value if the user does not specify a snap value.
JTF_GANTT_DE F_TIMELINE_MODE	Day Mode	Site Application ResponsibilityUser	Enables specification of one of the following modes upon startup: <ul style="list-style-type: none"> • 15 Minutes Mode • 30MIN • Hours Mode • 3 Hours Mode • 6 Hours Mode • Days Mode 	Specifies one of six available modes on startup.

Assignment Manager Profile Options

The following table describes the profile options that are specific to Assignment Manager.

Assignment Manager Profile Options

Name	Category	Default Value	Level	Description	Outcome
JTFAM: Activate Auto Selection of Resources	Assignment Manager	Yes	Application	This profile option is set to activate the auto-selection of resources by the Assignment Manager engine. The engine uses this profile option setting to determine where the user needs to make a selection from the provided list of resources, or if this task is performed automatically by the Assignment Manager engine itself.	If you set this profile option to No , the Assignment Manager engine will automatically make a selection from the provided list of resources.

Name	Category	Default Value	Level	Description	Outcome
JTFAM: Activate Contracts Preferred Resources	Assignment Manager	No	Application	This profile option is set to retrieve the preferred resource information from the Contracts module. The engine uses this profile option setting to determine whether the Contracts Preferred Engineers are picked up automatically by the Assignment Manager engine or not.	If you set this profile option to No , it will uncheck the Contracts in the Assignment Manager.
Activate Installed Based Preferred Resources	Assignment Manager	No	Application	This profile option is set to retrieve the preferred resource information from the Installed Base module. The engine uses the profile option setting to determine whether the Installed Base Preferred Engineers are picked automatically by the engine.	If you set this profile option to No , it will uncheck Territories in the Assignment Manager.

Name	Category	Default Value	Level	Description	Outcome
JTFAM: Activate Workflow Name	Assignment Manager	No default value	Application	<p>This profile option is set to a user-defined workflow procedure name. This workflow procedure is user-programmed code for further filtering the resources. The engine retrieves the procedure name from this profile option, and uses it to process the user's request.</p>	This profile option is an additional filter based on the user's criteria.
JTFAM: Resource Type for Unassisted Mode	Assignment Manager	Employee Resource	Site	<p>This profile option sets the default value for resource type in the unassisted mode.</p>	<p>This profile option is a convenience to the user who wants the resource type to be the defaulted value in the unassisted mode.</p>

Name	Category	Default Value	Level	Description	Outcome
JTFAM: Resource Search Order	Assignment Manager	Contracts Preferred Resource	Site	<p>This profile option sets the default order for resource selection between Contracts and Installed Base if both check boxes are selected in the Assignment Manager for a service request assignment.</p> <p>If Contracts Preferred Resource is selected, then Assignment Manager engine checks Contracts and Installed Base if both check boxes are selected in the Assignment Manager for a service request assignment.</p> <p>If Contracts preferred resource is found, then stop the process. If not, then check the Installed Base preferred resources. If a Installed Base preferred resource is found, and stop the process. If not, then continue check the territories.</p>	<p>If Contracts Preferred Resource is selected, then Assignment Manager engine checks Contracts preferred resources. If a Installed Base preferred resource is found, then stop the process. If not, then continue check the territories.</p> <p>If Installed Base Preferred Resource is selected, then Installed Base preferred resources are checked first, if a resource is found, then stop the process. If</p>

Name	Category	Default Value	Level	Description	Outcome
				not, then continue check the Contracts.	
JTFAM: Usage for Groups and Teams	Assignment Manager	All	Site	If "Both Contracts and Installed Base" is selected, then Assignment Manager checks both preferred resources simultaneously before retrieving qualified resources from winning territories.	This profile option sets the default value for the group and team resource selection used in a service request assignment. If it is set to All , then all group or team resources, regardless of its usage, are all displayed in the Gantt chart. If it is set to Support , then only the group or team with Support usage can then be retrieved for a service request assignment.

Name	Category	Default Value	Level	Description	Outcome
JTFAM:UOM code used by Assignment Manager for Tasks	Assignment Manager	HR	Site	Tasks contains a profile that defines the Time Class used to define a task duration. The UOM (Unit of Measure) that defines Hour in that time class must be set for this profile.	By default if the value is not set for this profile "HR" is considered to be the UOM that denotes Hour.
JTFAM: Use Current Date, Time for Assignments	Assignment Manager	Yes	Site	This functionality enables the sysdate/time to be used for determining a task start date.	When set to Yes , the sysdate/time is used to determine a task start date. When set to No , a date and time that precede the sysdate and time can be used to determine the task start date.
JTFAM:Filter resources based on group membership	Assignment Manager	Yes	Site	This functionality filters resources based on group membership.	When set to Yes , the profile option filters resources based on resource by group membership. When set to No , filtering does not occur.

Task Manager Profile Options

The following table describes the profile options that are specific to Task Manager.

Task Manager Profile Options

Name	Category	Default Value	Level	Description	Outcome
Task Manager: Default Task Type	Task - Defaults	Meeting	Site	Use the Default Task Type profile option to set the default task type. Possible values include appointment and lead.	Set the value to the task type that you want to appear in the task type drop-down list when you are creating a task.
Task Manager: Default Task Status	Task - Defaults	Open	Site	Use the Default Task Status profile option to set the default task status. Possible values include open and completed.	Set the value to the task status that you want to appear in the task status drop-down list when you are creating a task.
Task Manager: Default Assignee Status	Task - Defaults	Accepted	Site	Use the Default Assignee Status profile option to set the default assignee status.	Set the value to the assignee status that you want to appear in the Assign To Status drop-down list when you are creating a task.

Name	Category	Default Value	Level	Description	Outcome
Task Manager: Default Priority	Task - Defaults	Medium	Site	Use the Default Priority profile option to set the default task priority. Possible values include critical and medium.	Set the value to the task priority that you want to appear in the task priority drop-down list when you are creating a task.
Task Manager: Default Task Owner	Task - Defaults	No default value	Site	Use the Default Task Owner profile option to set the default task owner.	Set the value to the name of the default task owner.
Task Manager: Owner Type for a Task	Task - Defaults	No default value	Site	Use the Owner Type for Task profile option to set the default owner type. Possible values include employee resource and party.	Set the value to the owner type for the task.

Name	Category	Default Value	Level	Description	Outcome
Task Manager: JTF Tasks Default Date Selected	Task - Defaults	Scheduled	Site	Use the JTF Tasks Default Date Selected profile option to set the default date selected. Possible values include Planned, Scheduled, or Actual.	Set the value to the default date that you want to default in the Create Task window.
Time Unit of Measure Class	Task - Administration	Time	Site	Use the Time Unit of Measure Class profile option to define the time unit of measure class in the inventory module. Depending on the time unit of measure class, you will see the list of UOM codes in the Tasks module.	Depending upon the value of this profile, the Time UOM codes are shown in the list of values. If the value of this profile changes, then there will be a discrepancy between the existing data and the new LOV shown for the new Time UOM class.

Name	Category	Default Value	Level	Description	Outcome
Task Manager: Create Quick Task	Task - Adminstrati on	No default value	Site	Use the Create Quick Task profile option to display the "Create Quick Task" button on the Tasks Summary window.	Set the value to Yes if you want the "Create Quick Task" button to appear in the Task Summary.
Client Timezone	America/Los_Angeles		Site	The Client Time zone profile option is used by Calendar to set the default time zone for the client in the Create Appointment window.	Set the value to the location where your appointments take place.

Name	Category	Default Value	Level	Description	Outcome
Task Manager: Send Notifications to Group or Team Members	Task - Administrati on	No	Site	<p>The Task Manager: Send Notifications to Group and Team Members profile option provides the ability to notify either the Owner or the Assignee of a Group or Team resource, when a task is modified.</p> <p>This profile option is for workflow only.</p>	<p>If the value is set to No or Null, then notification is sent to group's or team's e-mail ID.</p> <p>If the profile option is set to Yes, then the system looks at any resources of type Group or Team and expand them to include any of their members whose resource type is RS_EMPLOYEE, RS_PARTY or PARTY_PERSON.</p> <p>When adding a resource to the notify list, the system checks to see if the resource is already on the list before adding it.</p>

Name	Category	Default Value	Level	Description	Outcome
Task Manager: Abort Previous Task Workflow if it is still active	Task - Administration	No	Site	The Task Manager: Abort Previous Task Workflow if it is still active profile option is used to determine whether to abort the previous workflow processes before starting the next one.	If the value is set to No , then the previous Task Workflows that are still active are not aborted. If the value is set to Yes , then the previous Task Workflows that are still active are aborted.
Task Manager: Default Task Summary Source or All	Task - Defaults	Source	User	The JTF_TASK_SUMMARY_SOURCE profile option sets the view drop-down list value in the Task Summary context sensitive window and in the contextual summary region in OA Frame. Possible values are Source and All.	Set the value to Source to have all tasks created with a particular source in the contextual window. Set the value to All to have all tasks created with a source as well as those which refer to that source in the context sensitive Task Summary.

Name	Category	Default Value	Level	Description	Outcome
Task Manager: Mass Task Reassign Access	Task - Administrati on	No	Site	Use the Task Manager: Mass Task Reassign Access profile option to display the Task Reassignment window.	If the profile option is set to Yes , the Task Reassignment window is accessible and the administrator is able to reassign tasks. If the value is set to No , then the Task Reassignment window is not accessible and a relevant message is shown.

Name	Category	Default Value	Level	Description	Outcome
Task Manager: Copy Task Start Date to End Date	Task - Defaults	Yes	Site	<p>This profile option is used to control the task start and end date for the Palm and Outlook synchronization.</p> <p>For example, if it is set to Yes, then any changes the user made to the task start date while the user is in the task creation screen will automatically be populated to the task end date field.</p>	If it is set to Yes, the task start date is defaulted from the system date and the task end date is defaulted to the task start date.

Name	Category	Default Value	Level	Description	Outcome
Task Manager: Set Context Data Security	Task - Administration	Full Access	Site	Use the Task Manager: Set Context Data Security profile option to set task data security for the context sensitive task instances.	If Full Access is selected, then all the tasks related to the context can be viewed, updated, and deleted. If Security Access is selected, then whether the task for that context can be updateable is based on the privileges granted to the user.
Task Manager: automatically launch workflow	Task - Administration	Yes	Site	Use the Task Manager: automatically launch workflow profile option to disable the task subscription workflow events.	If it is set to Yes , then workflow notification will be sent when subscribed events are raised. If it is set to No which disables the workflow event, then no workflow notifications will be sent when subscribed events are raised.

Name	Category	Default Value	Level	Description	Outcome
Task Manager: Default Duration	Task - Defaults	No Duration	Site	Use the Task Manager: Default Duration profile to set the default value of the duration field.	If this profile is set, then the task end date can be automatically calculated based on start date and time plus the duration.

Name	Category	Default Value	Level	Description	Outcome
Task Manager: Restricted Task Update	Task - Administrati on	Yes	Site	Use the Task Manager: Restricted Task Update profile option to allow task updates in the standalone Forms-based Tasks.	If it is set to the default value Yes, then tasks created from other sources cannot be updated in the standalone Forms-based Tasks to avoid breaking product specific business rules enforced on the task. If it is set to No, then users can update contextual tasks. Setting to No is not recommended because it can result in breaking business rules and possible data corruption for some tasks such as Field Service tasks.

Calendar Profile Options

The following table describes the profile options that are specific to the HTML Calendar.

Calendar Profile Options

Name	Category	Default Value	Level	Description	Outcome
JTF HTML Calendar Administrator	Calendar - Administrati on	No default value	User	The JTF HTML Calendar Administrator option sets the Calendar System Administrator who grants approval and subscription requests for group and public calendars.	Set the value to the username of the calendar user who grants group and public calendar requests.
Client Timezone	America/Los_Angeles	Site	The Client Time zone profile option is used by Calendar to set the default time zone for the client in the Create Appointment window.	The Client Time zone profile option is used by Calendar to set the default time zone for the client in the Create Appointment window.	Set the value to the location where your appointments take place.

Name	Category	Default Value	Level	Description	Outcome
JTF HTML Calendar Task Span Days on Calendar	Calendar - Administration	No	Site	The JTF HTML Calendar Task Span Days profile option sets tasks that spans over more than one day to appear continuously across days on your personal calendar.	Set the profile option to Yes to have your tasks that span over more than one day to appear continuously across days on your personal calendar.
ATGCA: Enable Web Mail	Calendar - Administration	No	User	The "ATGCA: Enable Web Mail" profile option is used to enable or disable web mails sent from an integrated webmail, such as Oracle Collaboration Suite, through the Calendar Availability window.	If the value is set to No , the task shows as a memo for each day affected.

Name	Category	Default Value	Level	Description	Outcome
ATGCA: Web Mail Server URL	Calendar - Administration	N/A	User	The "ATGCA: Web Mail Server URL" profile option is used to specify the URL address for the integrated webmail server.	Set valid server URL for the web mail server in order to send web mails through an integrated web mail, such as Oracle Collaboration Suite, from Availability view.
Self Service Accessibility Features		No	User	This "Self Service Accessibility Features" profile option is used to access the Accessibility Daily View page in the Oracle Applications Framework based Calendar.	If it is set to "Screen Reader" or "Yes", then users can access the Accessibility Daily View page. If it is set to "No", then users cannot access this accessibility page.

Calendar Synchronization Profile Options

The following table describes the profile options that are specific to the OA Calendar Synchronization with Oracle Sales for Handhelds and Oracle Sales.

Calendar Profile Options

Name	Category	Default Value	Level	Description	Outcome
CAC Sync: Appointment Category	Calendar - Synchronization	Oracle Appointments	Site	When appointments are synchronized between Common Application Calendar (CAC) and Pocket PC or Desktop Outlook, the appointments from Oracle Sales are placed in the category specified in this profile option. If this profile option is changed after the initial implementation, then users must perform a Full Synchronization.	
CAC Sync: Contact Sync Mode	Calendar - Synchronization	Download Only at the site level, Two Way at the application level for ASP (Oracle Sales for Handhelds)	Site and application	Determines if contacts can be synchronized both ways or download only. Choices are Disabled, Download Only, and Two Way	

Name	Category	Default Value	Level	Description	Outcome
CAC Sync: Contacts Category	Calendar - Synchronization	Oracle Contacts	Site	When contacts are synchronized between Common Application Calendar and Pocket PC or Desktop Outlook, the contacts from Oracle Sales are placed in the category specified in this profile option. If this profile option is changed after the initial implementation, then users must perform a Full Synchronization.	

Name	Category	Default Value	Level	Description	Outcome
CAC Sync: Days Before	Calendar - Synchronization	14	Site. This profile can also be set by users.	The number of days set here determines the number of past days for which tasks and appointments are synchronized from the server to the client during initial (full) synchronization. Tasks and appointments due or occurring within the previous x days as well as tasks and appointments due or occurring anytime in the future are included. Recommend using between 7 and 21 days. There are no limits for synchronizing from the client to the server.	

Name	Category	Default Value	Level	Description	Outcome
CAC Sync: Include Details	Calendar - Synchronization	Yes for ASP	Application	If set to yes, then appointments that are synchronized include appointment details in the body notes.	
CAC Sync: Include Links	Calendar - Synchronization	Yes for ASP	Application	If set to yes, then contacts and appointments synchronized to the offline device include links to related pages. If set to yes, then <i>CAC Sync: Include Details</i> must also be set to yes.	
CAC Sync: Include Tasks Without Date	Calendar - Synchronization	Yes at site level, No at application level for ASP	Site and application	If set to yes, then tasks without due dates are included in the synchronization for the user.	

Name	Category	Default Value	Level	Description	Outcome
CAC: Maximum number of Contact Preferences for each user	Calendar - Synchronization	200	Site	Users create lists of contacts to include during synchronization. This profile sets the maximum number of contacts for all users.	
CAC Sync: Tasks Category	Calendar - Synchronization	Oracle Tasks	Site	When tasks are synchronized between Common Application Calendar and Pocket PC or Desktop Outlook, the tasks from Oracle Sales are placed in the category specified in this profile option. If this profile option is changed after the initial implementation, then users must perform a Full Synchronization.	

Name	Category	Default Value	Level	Description	Outcome
JTF SYNC: Category Value	Calendar - Synchronization	Oracle Business	System	<p>This profile option is used in the Palm and Outlook synchronization process.</p> <p>It is to set the default value for the category while trying to download business contacts to the offline device.</p>	<p>All business contacts downloaded to the offline device will be created with this category.</p> <p>If the category does not exist in the offline device, then it will be created upon synchronization.</p>

Escalation Manager Profile Options

The following table describes the profile options that are specific to Escalation Management.

Escalation Manager Profile Options

Name	Category	Default Value	Level	Description	Outcome
Escalation: Close Only When De-escalated	Escalation	Yes	Site	The escalation document cannot be closed (you cannot set up the escalation status to 'Close') without first changing the Escalation Level to 'De-escalated'	If set to Yes , then it can regulate the escalation status change sequence from De-escalated to Close. If set to No , then it will not.
Escalation: Default Contact Type	Escalation	Employee	Site	This profile option sets the default contact type to Employee in the Contacts tab.	You can also set it to Customer , and then it will default the contact type to Customer.
Escalation: Default Escalation Owner	Escalation	Name	Site	This profile option sets the default escalation owner to a specific resource name, such as John Smith.	See description.

Name	Category	Default Value	Level	Description	Outcome
Escalation: Default Customer Contact Point	Escalation	Phone	Site	This profile option sets the default customer contact point to Phone in the Contacts tab.	You can also set it to other values such as Cell, Email, Pager, or Web.
Escalation: Default Document Type	Escalation	Task Manager	Site	This profile option sets the default document type to Task in the Document field on the Reference Document tab.	You can also set it to other values such as Service Request or Defects.
Escalation: Default Employee Contact Point	Escalation	Work	Site	This profile option sets the default employee contact point to Work in the Contacts tab.	You can also set it to other values such as Home, Mobile, or Pager.
Escalation: Default Escalation Level	Escalation	Level 1	Site	This profile option sets the default escalation level to Level 1.	You can also set it to other values such as Never Escalated, Level 2, or De-Escalated.
Escalation: Default Status	Escalation	Open	Site	This profile option sets the default escalation Status field to Open.	You can also set it to other values such as Closed or Working.

Name	Category	Default Value	Level	Description	Outcome
Escalation: Default New Note Type	Escalation	General Note	Site	This profile option sets the default note type to General Note if additional notes are attached to an escalation document.	You can also set it to other values such as Event or Approved.
Escalation: Default Notify	Escalation	Yes	Site	This profile option sets the default Notify check box to "checked" in the Contacts tab.	You can also set it to No, which will leave the check box "unchecked" in the Contacts tab.
Escalation: Default Reason Code	Escalation	Slow Progress	Site	This profile option sets the default escalation Reason field to Slow Progress.	You can also set it to other values such as Unacceptable Solution, or Unresponsive Owner.
Escalation: Default Reference Type	Escalation	Escalation	Site	This profile option sets the default escalation reference type to Escalation in the Reference Document tab.	You can also set it to other values such as For Your Information.

Business Rule Manager Profile Options

The following table describes the profile options that are specific to the Business Rule Monitor.

Business Rule Monitor Profile Options

Name	Category	Default Value	Level	Description	Outcome
Business Rule Monitor	Escalation Workflow Administrator	No Default Value	Site	This profile option must be set first in order to grant this profile option to the BRM Workflow Administrator.	The Administrator can receive workflow notifications when the monitoring process starts and stops, and also when errors are detected.

Concurrent Programs

This appendix covers the following topics:

- About Concurrent Programs
- Running Concurrent Programs
- Common Application Calendar Concurrent Programs

About Concurrent Programs

This appendix chapter contains information relating to concurrent programs. These concurrent programs belong to Core Application Components and for additional functionality, you may need to run additional concurrent programs from the appropriate calling applications. Consult the calling application's documentation for additional information.

Concurrent programs are tasks run by a concurrent manager. A concurrent process runs simultaneously with interactive functions and other concurrent processes. A concurrent manager coordinates the processes generated by user's requests to run various data-intensive programs. A Foundation module can have several concurrent programs.

System administrator run concurrent programs periodically to update and synchronize their information.

Running Concurrent Programs

The following is a general procedure for running a concurrent program. Refer to the applicable chapter for specific information on running each specific concurrent program.

Responsibility:

CRM Administrator or

System Administrator

Navigation:

Navigate to the Navigator - CRM Administrator window, or

Navigate to the Navigator - System Administrator window

Steps:

1. Select **Request > Run**.

The Submit a New Request window opens.

2. Select **Single Request**.

3. In the Name field in the Submit Request window, select your chosen concurrent program.

4. Enter additional information if necessary in the appropriate fields.

5. Click **Submit**.

Common Application Calendar Concurrent Programs

Concurrent programs are used by the Tasks and Notes modules.

The following tables describe the type of seeded program, its use, and the frequency in which you need to run it.

Task Manager Concurrent Programs

Name	Description	Frequency
Rebuilding Intermedia Index for Task Names	This program is used to rebuild the intermedia index so a user can use the quick find to search for new and updated tasks as well as to search by task name.	As needed

Name	Description	Frequency
Task Purge Program	This program purges standalone tasks per the parameters set. It considers timezone ID only when the profile option "Enable Timezone Conversions" is set to Yes and the profile option "Server Timezone" is properly set in the instance. If the profile options are not set, then the program assumes all times are in the database server timezone.	As needed

Notes Concurrent Programs

Name	Description	Frequency
Synchronize JTF_NOTES_TL_C1_index	This program is used to rebuild the intermedia index so a user can use the quick find to search for new and updated notes as well as to search by notes text.	As needed

Customizing Oracle Common Application Calendar

This appendix covers the following topics:

- Oracle Common Application Calendar User-Personalizable Pages
- Oracle Common Application Calendar Admin-Personalizable Pages
- Extending Oracle Common Application Calendar BC4J Objects

Oracle Common Application Calendar User-Personalizable Pages

A user-personalizable page is a Search page that allows end-users to create personalized views of their search results. Not all Search pages are user-personalizable. If a Search page is user-personalizable it renders a **Views** button in the Simple or Advanced Search panel. The **Views** button displays the Views panel that allows users to create or manage their personalized views. If no personalized view exists yet, the Search page may instead render a **Save Search** button that allows users to save their search criteria as a new personalized view. To learn more about user-personalizable pages, see User-Level Personalization User Interface, *Oracle Application Framework Personalization Guide*.

In addition to user-personalizable pages, LOV Choice Lists may also be personalized by end-users. A LOV Choice List is a hybrid between a poplist and a list of values. You may personalize a LOV Choice List if a **Personalize** button renders next to it.

Important: Make sure the **Disable Self-service Personal** profile option is set to **No** at the site or application level as appropriate for your page. If this is set to **Yes**, the **Views** option will not be accessible to your users.

This section lists the pages and LOV Choice Lists in Oracle Common Application Calendar that end users may personalize.

User-Personalizable Pages

- Tasks link >Tasks page

Oracle Common Application Calendar Admin-Personalizable Pages

Admin-personalizable pages are pages that may be personalized by a system or personalization administrator. All OA Framework-based pages may be admin-personalizable. To personalize a page, you must first log in as a user or with a responsibility for which the **Personalize Self-Service Defn** profile option is set to **Yes**. You can then choose the **Personalize Page** global button that renders on each page to create your personalizations.

Note: Please refer to the discussions about Profile Options Used By OA Personalization Framework, *Oracle Application Framework Personalization Guide* and Administrative-Level Personalizations, *Oracle Application Framework Personalization Guide*.

This section lists only those pages in Oracle Common Application Calendar for which we have identified special considerations for personalizations. Please note that all pages from Oracle Common Application Calendar are admin-personalizable; a page may be omitted from this list if we have no personalization considerations to mention.

Note: It is possible for regions within a page to not be admin-personalizable. This occurs if Oracle sets the region's **Admin Personalization** property to **False**. This section also identifies those pages whose regions are not admin-personalizable.

When you personalize a page, keep in mind that you can create new UI elements in the page, using the Create Item page in the Admin-Personalization UI. You may also personalize SPEL (Simplest Possible Expression Language)-supporting properties in a region to bind the property to a view object attribute or to a function name for function security.

Note: Please refer to the separate discussions about Personalizing SPEL-supporting Properties, *Oracle Application Framework Personalization Guide*, the Create Item page, *Oracle Application Framework Personalization Guide*, and the Personalize page, *Oracle Application Framework Personalization Guide*.

The pages discussed in this section are listed by functional flow:

- Tasks (CacTaskPerzSumPG), page C-3

- Create Task (TaskCreatePG), page C-4
- Update Task (TaskUpdatePG), page C-5
- Notes Details (CacNotesDetailsPG), page C-6

Tasks (CacTaskPerzSumPG)

The Tasks page provides a summary of existing tasks.

Hidden items

The following items (fields) are hidden on this page. To display any of these items, set the **Rendered** property for the item to True:

- **CacTaskCustomerName:** Styled Text to show customer name
- **CacTaskOwnerTypeCode:** Choice to show Owner Type (To be rendered along with CacTaskOwner)
- **CacTaskOwner:** LOV Input to show Owner Name (To be rendered along with CacTaskOwnerTypeCode)
- **CacTaskPriorityId:** Choice to show Priority Name
- **CacTaskVisibility:** Choice to show Visibility
- **CacTaskCreator:** Styled Text to show Created By (person name)
- **CacTaskCreationDate:** Styled Text to show Creation Date
- **CacTaskDescription:** Text Input to show Task Description
- **CacTaskPlannedEffort:** Text Input to show Planned Effort (To be rendered along with CacTaskPlannedEffortUOM)
- **CacTaskPlannedEffortUOM:** Choice to show Planned Effort Unit of Measure (To be rendered along with CacTaskPlannedEffort)

Required items

The following items (fields) are required on this page. You can change whether an item is required by changing the **Required** property for the item:

- **CacTaskSubject:** Text Input to show Task Subject in which required property should not be chang
- **CacTaskTypeId:** Choice to show Task Type in which required property should not

be changed

- **CacTaskStatusId:** Choice to show Task Status in which required property should not be changed

Shareable Regions

Although this page does not provide any shareable regions, it does extend the shared Standard Copyright and Privacy footer and the shared Required Field description provided by OA Framework.

Descriptive Flexfields

Oracle Common Application Calendar provides the following descriptive flexfield in the current page:

- **CacTaskFlex (flex item)** - set the Rendered property to True

Create Task (TaskCreatePG)

The page is used to create a new task.

Required items

The following items (fields) are required on this page. You can change whether an item is required by changing the **Required** property for the item:

- **Subject:** Text Input to show Task Subject in which required property should not be changed
- **Type:** Choice to show Task Type in which required property should not be changed
- **Status:** Choice to show Task Status in which required property should not be changed

Hidden regions

The following regions are built into the page but are not displayed. To display any of these regions, set the **Rendered** property for the region to True:

- **TaskNotesHideShowRN:** This region allows you to show Notes region for this page
- **TaskAttachmentHideShowRN:** This region allows you to show Attachment region for this page

Shareable Regions

Oracle Common Application Calendar provides regions you can add to (reference from) your own pages or add to existing Oracle Applications pages:

- **oracle/apps/jtf/cac/task/webui/TaskHeaderRN** - To build your own Task Create page
- **/oracle/apps/jtf/cac/task/webui/TaskDetailRN** - To build your own Task Create page
- **/oracle/apps/jtf/cac/task/webui/TaskDateRN** - To build your own Task Create page
- **/oracle/apps/jtf/cac/task/webui/TaskAssigneeRN** - To build your own Task Create page
- **/oracle/apps/jtf/cac/task/webui/TaskContactRN** - To build your own Task Create page
- **/oracle/apps/jtf/cac/task/webui/TaskReferenceRN** - To build your own Task Create page

Update Task (TaskUpdatePG)

This page is used to make changes to existing tasks.

Required items

The following items (fields) are required on this page. You can change whether an item is required by changing the **Required** property for the item:

- **Subject:** Text Input to show Task Subject in which required property should not be changed
- **Type>:** Choice to show Task Type in which required property should not be changed
- **Status:** Choice to show Task Status in which required property should not be changed

Hidden regions

The following regions are built into the page but are not displayed. To display any of these regions, set the **Rendered** property for the region to True:

- **TaskNotesHideShowRN:** This region allows you to show Notes region for this page

- **TaskAttachmentHideShowRN:** This region allows you to show Attachment region for this page

Shareable Regions

Oracle Common Application Calendar provides regions you can add to (reference from) your own pages or add to existing Oracle Applications pages:

- `/oracle/apps/jtf/cac/task/webui/TaskHeaderRN` - To build your own Task Update page
- `/oracle/apps/jtf/cac/task/webui/TaskDetailRN` - To build your own Task Update page
- `/oracle/apps/jtf/cac/task/webui/TaskDateRN` - To build your own Task Update page
- `/oracle/apps/jtf/cac/task/webui/TaskAssigneeRN` - To build your own Task Update page
- `/oracle/apps/jtf/cac/task/webui/TaskContactRN` - To build your own Task Update page
- `/oracle/apps/jtf/cac/task/webui/TaskReferenceRN` - To build your own Task Update page

Notes Details (CacNotesDetailsPG)

This page is for viewing full note details.

Required items

The following items (fields) are required on this page. You can change whether an item is required by changing the **Required** property for the item:

- **Note:** - Text Input to show Note Description in which required property should not be changed.

Shareable Regions

Oracle Common Application Calendar provides regions you can add to (reference from) your own pages or add to existing Oracle Applications pages:

- `/oracle/apps/jtf/cac/notes/webui/CacNotesCreateRN` - To build your own Notes Create page
- `/oracle/apps/jtf/cac/task/webui/CacNotesHistoryRN` - To build your own Notes History page

Extending Oracle Common Application Calendar BC4J Objects

OA Framework provides support for programmatically extending Oracle E-Business Suite application functionality. For general instructions on how to extend an Oracle E-Business Suite application, refer to the discussion about Extending OA Framework Applications in the *Oracle Application Framework Developer's Guide*, available from Oracle MetaLink note 369655.1, Oracle Application Framework Release 12 Documentation Road Map [<https://metalink.oracle.com/metalink/plsql/showDoc?db=NOT&id=369655.1>].

Glossary

approval

An optional feature in User Management, whereby approvers can reject or approve new user accounts. In the User tab, the System Administrator Console provides windows so you can view, create, modify, delete, enable, and disable approvals, including those for specific organizations.

approval flow

The approval flow is a predefined flow of steps required to approve user registration or service enrollment requests in User Management.

assignee

An assignee is the designated person who is assigned to fulfill a specific task or assignment. If an assigned task cannot be completed by the assignee, then the owner of this task can reassign a new resource (assignee) to this task.

The assignee, can also be the owner of the task.

Assignment Manager

The Assignment Manager is a tool that helps you assign resources to a task or a document.

assisted assignment option

The assisted assignment option is used to assign a resource to a task or a document based on predefined criteria in the Assignment Manager.

attachment

An attachment is any document associated with one or more application modules. You can view attachments as you review and maintain a module. For example: operating instructions, purchase order, notes, item drawings, presentations, or an employee photo can be an attachment.

audit

An audit displays a history of changes that have been made to information in Oracle

e-Business Suite.

automatic assignment

Automatic assignment refers to the matching of territories to resources resulting in a "Winning Territory" in Territory Management.

bins

Bins are small reports, which display high-level summary information in a tabular format on your homepage.

business rule

A business rule is a user-defined condition. When a rule is violated, a relevant workflow process can be triggered.

Business Rule Monitor (BRM)

The Business Rule Monitor is the engine that monitors documents over time against user-defined business rules.

business rule owner

A business rule owner is an employee resource who enforces the business rules.

business rule workbench

The Business Rule workbench is used to define a business rule in BRM.

business user

A business user is a typical Business to Business (B2B) user, associated with an organization. Generally, the Primary user(s) of the same organization approves these users.

Calendar (HTML)

The HTML Calendar is a tool to effectively manage your daily activities, appointments, and tasks.

Calendar (Forms)

The Forms-based Calendar is a scheduling tool used to define and view available and non-available time for a resource or group of resources.

calendar datebook

The calendar datebook displays time availability for yourself, a resource, or a group of resources in the Forms-based Calendar.

concurrent manager

The concurrent manager is a process manager that coordinates the processes generated by users' requests to run various data-intensive programs. An Oracle applications product group can have several concurrent managers.

contact

A contact contains information about a person and how to locate them such as their phone number and e-mail address.

control tower

The Control Tower is a window in Field Service where you can view resource availability or assign resources to a task.

customer

Customers are typically primary users, Business to Business (B2B) users, business to Customer (B2C), and (individual) users.

customer relationship escalation

A customer relationship escalation is an escalation document that escalates multiple support requests or tasks.

customization

Customizations are enhancements to an Oracle Applications system made to fit the needs of a specific user community.

dependency

A dependency is where one task must complete before another. This functionality is only available in the Forms-based Task Manager.

dynamic group

A dynamic group is a group which is created based on your criteria by using SQL statements in the Resource Manager.

effective dates

Effective dates are the dates used by Oracle E-Business Suite to specify when something is going to begin.

employee

An employee is a resource type that represents a person who is hired to work for a company. Employee resources can be imported as resources from the Oracle Human Resources Management System (HRMS).

enrollment

Enrollment is a set of add-on services that you can receive during or after registration in User Management. One enrollment corresponds to zero or one responsibility, zero or one template, zero or one approval and zero or more roles. Enrollments are application specific and can be tied to user types.

escalation

An escalation is a modification of a process, a status, or both, to reflect an increased level of importance and a more immediate degree of response.

escalation management

Escalation Management is the process of managing proactive and reactive escalations. Proactive escalations are managed using the Business Rule Monitor and reactive escalations are managed using Escalation Manager.

Escalation Manager

Escalation Manager is a tool used to reprioritize, reassign, and monitor a situation, such as a service request or task, to a satisfactory completion.

escalation owner

An escalation owner is a person who oversees the escalation task, or document in Escalation Management. Once a task or document is escalated, the responsibility of the original owner of the escalated task is transferred to the escalation owner.

escalation plan

An escalation plan is a series of follow up tasks that are attached to the escalation document.

exception

An exception is defined the time that a resource is not available in the Forms-based Calendar. Examples of exceptions include holidays, vacations, sick days, or weekends.

explicit enrollment

Explicit enrollments are enrollments that you manually register for during the registration process from the "Register Here" link in User Management.

forms

Forms are a logical collection of fields, regions, and graphical components that appears on a single screen. Oracle applications forms resemble paper forms used to run a business. You enter data by typing information into the form.

forms server

A Forms server is a type of application server that hosts the Forms server engine. It mediates between the desktop client and the database, providing input screens for the Forms-based products on the desktop client and creating or changing database records based on user actions.

framework

A framework is a collection of collaborating classes. The interaction framework dictates the architecture. It defines the overall structure, its partitioning into classes and objects, the key responsibilities, how the classes and objects collaborate, and the thread of control.

full access

Full access provides you with the ability to read and edit, and delete a record. This access type does not include the capability of granting access to others.

functions (privileges)

A function is an action that can be performed on an object or object instance. It can be granted to a user or user group that means gives them permission to perform that function. Therefore, a function can also be referred as a permission or privilege from a user's point of view.

Gantt Chart

The Gantt chart provides a graphical overview of the scheduled tasks for resources.

grant (authorization)

A grant is an authorization for the grantee (users, or user groups) to perform the specified object role on the specified object instance or object instance set.

group calendar

A group calendar is a calendar used only by its subscribers in the HTML Calendar. For example, a group calendar called Key Account can be used by any subscriber after the subscription is approved.

GUI

An interface used with personal computers and workstations that allows the user to access fields and regions of the screen with a pointing device, typically a mouse. The acronym is pronounced "goo-ee."

HTML (hypertext markup language)

HTML is a simple language used to format documents, predominantly for viewing with a web browser. Portions of text or images, called hypertext, can be associated with other

documents.

HTTP (Hypertext transfer protocol)

The TCP/IP-based network protocol used to transmit requests and documents between an HTTP server and a web browser.

HTTP listener

An HTTP listener is a program on an HTTP server that accepts and processes incoming HTTP requests from web browsers.

implicit enrollment

These are enrollments for which a user is automatically registered for during the registration process using the "Register Here" link in User Management. The user is not asked to register for these enrollments. Instead, they are automatically attached to the user upon registration.

individual user

An individual user is an individual with no relationship to an organization in User Management. Generally, no approval is required for this type of user.

intelligent assignment option

The intelligent assignment option is no longer used.

JAR (java archive) file

JAR files are a collection of Java classes compressed into files for faster download to a desktop client.

java class

Java classes are components of a Java program that define objects and operations performed on objects. A Java class also identifies an operating system file that contains a program or part of a program written in Java.

JInitiator

Oracle JInitiator enables end users to run Oracle Developer Server applications directly within Netscape Navigator or Microsoft Internet Explorer on the Windows 95, 98, or 2000 and Windows NT4.0 platforms. Implemented as a plug-in (Netscape Navigator) or ActiveX component (Microsoft Internet Explorer), Oracle JInitiator allows you to specify the use of Oracle's Java Virtual Machine (JVM) on web clients instead of having to use the browser's default JVM.

JSP

Java server pages are an extension to the Java servlet technology that was developed by Sun as an alternative to Microsoft's ASPs (Active Server Pages). JSPs have dynamic

scripting capability that works in tandem with HTML code, separating the page logic from the static elements — the actual design and display of the page.

list of values (LOV)

A list of value is a predefined list of choices that the user has to chose from.

menus (roles)

A menu is a grouping of functions. It is required to group functions into related sets of menus necessary to perform a particular job role on an object instance. A good example is an "Administrator" menu, which might include many functions required for a user with an administrator role to perform his job. Therefore, menus can also be referred as roles.

merchant administrator (system administrator)

The Merchant or System Administrator is the main administrator of a company who approves requests for primary, business, and individual users in the User Management process. This System Administrator, who has the JTREG_APPROVAL permission, sees all the pending requests to be approved and is able to approve them.

merchants

Merchants refer to implementors of the Oracle E-Business Suite. This term is used to clear up any confusion with the term "customers", which refers to customers of a business using Oracle products as opposed to those implementing the product.

Notes

Notes is a tool that provides additional text locations where you can specify more detail, if needed. A note can be added to a task.

note source

A note source is the originating module of the note. For example, if the notes are entered from a service request application, then the source of the note is Service Request.

note status

Note status determines note accessibility. For example, you can define a private note with status of Personal so that only you can see the note. There are three statuses available for notes that you can set:

- Private: Only the creator can view it.
- Public: The creator and others can read or write to it.
- Publish: Publishable over the Internet. Everyone can view it. This status is currently not used.

note text

A large type note, such as a customer's letter or directions.

note type

Note types provide a further categorization to the notes based on a user's individual needs. Also, a note type can be tied to a source type and such note types are visible only to that mapped source. Therefore, you must choose between the entire note types that have been defined for your source and those which do not have any source type attached to them.

Objects

An object is a type of thing on which security can be managed. For example, Tasks and Notes can be examples of an object.

In a technical definition, each object must be registered in the FND_OBJECTS tables. Every object definition will contain related database object (table or view) and primary key information for the object.

Object Instances

An object instance is a subset of an object. This generally corresponds to a row (or related set of rows) in the database. For example, if Notes is considered an object, then the Note with number 1541 is an object instance.

In a technical explanation, object instances are derived from the primary key values. The primary key values should be set for the registered object in the FND_GRANTS table.

Object Instance Sets

An object instance set is a group of multiple object instances. For example, all notes with a number smaller than 5 could be considered as an object instance set.

In a technical definition, object instance set definition is stored in the FND_OBJECT_INSTANCE_SET table. The definition contains a SQL where clause, the predicate, that combined with the object definition will return all the object instances that are part of the object instance set.

OMO

OMO is an acronym for Oracle Marketing Online.

OSO

OSO is an acronym for Oracle Sales Online.

other/TBH

Other/TBH is the only resource that is created and not imported in the Forms-based

version of Resource Manager. Use this resource to create a salesperson that is going to be hired (TBH) but is not yet an employee.

owner

An owner is a resource person who oversees a task or a document. Use the Task Manager: Default Task Owner profile option to set the default to a specific owner. For example, tasks can be owned by a specific employee such as Ms. Marsha Able. This way she can oversee the work completed per task.

partner

A partner is one of two or more persons who contribute capital to establish or maintain a commercial venture and who usually share in the risks and profits.

party

A party is a person, group, or organization and is owned by TCA. Party relates to an employee, customer, or organization that can be related to a task.

permissions

A permission is the HTML equivalent to a responsibility.

platform

Within a resource category, there could be numerous platforms in skills management. A resource can be rated individually for each of those platforms. Platforms can be rated with the following: foundation, intermediate, skilled, advanced, expert, or N/A.

PL/SQL

PL/SQL is a procedural extension of SQL that provides programming constructs such as blocks, conditionals, and functions.

port

In TCP/IP and UDP networks, a port is an endpoint to a logical connection. The port number identifies what type of port it is. For example, port 80 is used for HTTP traffic.

primary user

A primary user is a designated person of an external organization, like a business partner, who is responsible for some administrative functions on behalf of the external organization in User Management. In the case of registration the primary user is responsible for managing the registration and maintenance of users, accounts, and enrollments. Primary users of different parties may have access to different responsibilities and they may be granted different access rights.

privileges

Privileges define how a user can operate a system resource on a network or a file server.

Privileges also define a right to execute a particular type of SQL statement or to access another user's object. For example, the right to create a table or session.

problem code

Within a category in skills management, there could be numerous problem codes. A resource can be rated individually for each of those problem codes. Problem codes can be rated with the following: foundation, intermediate, skilled, advanced, expert, or N/A.

product

Within a category in skills management, it is possible to have numerous products. A resource can be rated individually for each of those products. A product can be sub-divided into components. Products can be rated with the following: foundation, intermediate, skilled, advanced, expert, or N/A.

profile option

A profile option is a set of changeable attributes that affect the way Oracle applications appear and how they function. You set profile options whenever you want the application to react in different ways for different users, depending on specific user attributes. They can be set at the user, application, site, or responsibility level.

proxy server

A server that sits between a client application, such as a Web browser, and a real server. It intercepts all requests to the real server to see if it can fulfill the requests itself. If not, it forwards the request to the real server.

public calendar

A public calendar can be used by everyone. Examples of public calendars can be corporate holiday calendar and local holiday calendars for branch offices.

read-only

Read-only access provides you with read-only capability. You **cannot** edit or delete any information.

recurrence

Recurrence is where a task is repeatedly assigned to a user in a pre-specified time increment such as daily, weekly, monthly, or yearly.

reference document

A reference document is a document that is linked to an escalation document. For example, a service request (number 9229) is escalated to John Smith in an escalation document (number 11749), then this service request (number 9229) is a reference document.

reference

Reference is where one task relates to another document. For example, a task can be related to a service request.

reference type

A reference type specifies whether or not a reference document is escalated or used to provide additional information in Escalation Management.

registration

Registration is the process by which any user gains some access to the application's functionality.

registration self-service administration UI

The registration self-service administration UI is used by System Administrators, and at times primary users, to maintain external organization or internal group, users, parties, and accounts in User Management.

registration self-service user UI

The registration self-service user UI is used by the primary, individual, or business users to register themselves in User Management.

registration templates

Applications require varying pieces of information to register different types of users in User Management. Registration templates refer to JSP files that are used to capture the registration information that is special to a particular user type or enrollment.

repeating task

A repeating task is repeated in specified time increment such as daily, weekly, monthly, or yearly.

request owner

The request owner is the current approver based on the approver list and current state of workflow defined for a given approval in User Management. The request owner is only able to approve the requests which they currently own. This user should have "JTAPPROVER" permission. The request owner is tied to the JTUM_APPROVAL_OWNER profile option.

resource

A resource is the basic element of the Resource Manager and is defined as people, places and things.

resource category

There are five types of resources defined in Resource Manager: party, employee, partner, supplier contact, other/to be hired (TBH).

resource component

Within a product in skills management, there are numerous components. A resource can be rated individually for each of those components. Components can be rated with the following: foundation, intermediate, skilled, advanced, expert, or N/A.

Resource Manager

The Resource Manager is a tool used to define, access, and maintain all resources in Oracle E-Business Suite.

resource skill category

A resource skill category is the highest level that a resource can be rated in relation to skills management. If a resource is rated at the category level, and not rated at any one of the product, platform, or product code levels, it does not imply the resource is also rated at those levels. Categories can be rated with the following: foundation, intermediate, skilled, advanced, expert, or N/A.

responsibilities

Responsibilities are groupings of application menus that determine the user interface accessible to a particular user.

role

Roles are groupings of permissions, which are page level and function level granular privileges used to maintain application security.

role attribute

A role attribute is associated with a role. It defines the responsibility for each role in a group or team in the Resource Manager. For example, a Telesales Agent role represents the Member role attribute in a group, and a Sales Manager role represents the Manager role attribute in a group.

role type

A **role type** is a collection of roles associated with a particular module in Oracle E-Business Suite.

salesperson

A salesperson is a generic term used for any person involved in the sale or support of products and services.

self-service registration

Rather than asking an Administrator to register users manually, users can register themselves through a self-service UI in User Management. Self-service registration includes the UI and the background processes used to complete the registration process. This involves assigning users the correct data and UI access privileges.

service request

A service request is a document that tracks information about a customer's product and service problems.

servlet

A servlet is a Java program executed on an HTTP server, rather than downloaded to a desktop client.

shift

Shifts define a resource's availability to work in the Forms-based Calendar.

shift pattern

Shift pattern is a set of shifts, such as First Shift Monday through Friday 08:00 a.m. - 05:00 p.m. in the Forms-based Calendar.

skills management

Skills management provides the ability to add a new skill rating to a resource in the Resource Manager. The resource can update and maintain their skill rating, attach a numeric value to each skill level, and change the actual name of each skill level.

source

A source is the originator of the note. For example, if the notes are entered from a service request application, then the source of the note is Service Request. Sources are pre-defined.

source object

The source object is the originator of the task, note, or appointment; for example, Sales, Service, or Contract.

Spreadtable

A spreadtable is the user interface component that contains row, columns, and column headers set in a grid that can be embedded into an Oracle form.

SQL (structured query language)

SQL is an internationally standard language used to access data in a relational database. The acronym is pronounced "sequel."

SQL*Plus

SQL*Plus is an Oracle tool used to submit SQL statements to an Oracle database server for execution. It has its own command language.

SQL script

A SQL script is a file containing SQL statements that you run with a tool such as SQL*Plus to query or update Oracle data.

supplier contact

A supplier contact is the contact information for a person or agency that sells raw material or goods in the Resource Manager. Supplier resources can be imported as resources from the purchasing (PO) application.

system administrator

The System Administrator is the person who manages administrative tasks in Oracle Applications, such as registering new users and defining system printers, using the System Administrator responsibility.

task

A task is a discrete unit of work that is assigned to one or more individuals. Tasks are managed by the Task Manager. Tasks are often scheduled events and have defined expirations.

task assignee

An assignee is the person that is assigned to a task, which can include the owner. An assignee can accept, refuse, or reassign the task.

task category

A task category as a way of organizing tasks. For example, the task can be a phone call and the category could be call back customer.

task creator

The creator is the originator of the task and defaults to the owner. However, the owner can be modified.

task template

A task template is a skeleton or surrogate task.

task group template

A task group template is a grouping of different task templates defined during setup.

Task Manager

Task Manager is a tool used to manage tasks throughout other applications. Task Manager provides a mechanism for tasks to be created, assigned, managed, sorted, and prioritized to provide timely response to customer issues.

task owner

An owner is the person (resource) that creates and is responsible for the task.

task type

A task type defines the nature of the task such as a callback or a meeting.

TCP/IP (transmission control protocol / internet protocol)

A widely-used industry-standard networking protocol used for communication among computers.

team

A team is a collection of cross-functional resources. It is organized for the purpose of accomplishing a project in the Resource Manager. Team members are chosen for their availability, qualifications, and location. This functionality can be defined in the Forms version of Resource Manager only.

template handler

Template handlers refers to how the data flow built by other applications occur among registration and how they are associated with enrollments and user types in User Management.

Thin Client Framework (TCF)

The Thin Client Framework server is a middle tier process that enables certain Java components of the Oracle Applications user interface to communicate with the middle tier and database tier.

tier

A set of machines that perform similar tasks. Client/server is a two-tier architecture, with machines on the client tier connecting to machines on the server tier. Internet Computing Architecture consists of three tiers. Machines on the desktop client tier communicate with machines on the application tier, which in turn, communicate with each other and with machines on the database tier.

to do list

A to do list is a personal listing of things to do.

unassisted assignment option

The unassisted assignment option is used to manually assign a resource to a document or task of your choice without taking predefined criteria into account in the Assignment Manager.

universal primary user approver

Create a universal primary user approver if you want to have multiple primary users in User Management.

user

A user is a single person with an account on the system (represented by a row entry in FND_USER). Users can be referred as Grantee if they are the subjects of a data security grant. These users must be exposed in the WUSER table.

Users can be grouped into groups.

user group

A user group is any grouping of FND_USERS who are exposed through the WROLES view. User groups can be referred as Grantee if they are the subjects of a data security grant. These user groups must be exposed in the WROLES table.

user ID

The User ID is a combination of a username and its password.

User Management

User Management is a tool used to registering a user and thereafter maintaining the user in the system by granting or revoking privileges, accounts, customer profile information, and party relationships based on a set of business requirements set-forth by the organization where the process is deployed.

username

A name that grants access to a secure environment or program, such as an Oracle database or Oracle applications. A username is customarily associated with a collection of privileges and data available to a particular user (responsibilities in Oracle Applications). Every username is associated with a password.

user profile

User profiles, which are associated with responsibilities, are a set of user interfaces that give users access to their personal data and preferences.

user type

A user type is a category of users that caters to the specific needs of an application's business requirements in User Management. User types allow flexible and extensible

ways for defining, categorizing and implementing behavior of users. A user type is associated to only one template, one responsibility, zero or one approval and zero or more roles.

web availability

Web availability is defined as a resource who has the immediate ability to attend to a service request that is assigned online in the Resource Manager.

window to promise assignment option

The Window to Promise assignment option is no longer used.

work

Work is broadly defined as a collection of items presented to an agent through the Oracle E-Business application to be processed. Work items can be either a media item or a task.

workflow

Oracle Workflow automates and continuously improves business processes, routing information of any type according to business rules you can change. Oracle Workflow manages business processes according to rules that you define. The rules, which we call a workflow process definition, include the activities that occur in the process and the relationship between those activities. An activity in a process definition can be an automated function defined by:

- a PL/SQL stored procedure or an external function
- a notification to a user or role that they may request a response
- a business event
- a subflow that itself is made up of many activities.

workflow attributes

Workflow attributes control the behavior of the workflow.

workflow monitor

The workflow monitor is a Java based tool used for administering and viewing workflow process.

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