

Oracle® Content Manager

Implementation Guide

Release 11*i*

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Oracle Content Manager Implementation Guide, Release 11i

Part No. B10594-01

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Oracle Content Manager Implementation Guide, Release 11*i*

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

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USA

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If you have problems with the software, please contact your local Oracle Support Services.

Preface

Intended Audience

Welcome to Release 11*i* of the Oracle Content Manager Implementation Guide.

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

- The principles and customary practices of your business area.
- Oracle Content Manager

If you have never used Oracle Content Manager, Oracle suggests you attend one or more of the Oracle Content Manager training classes available through Oracle University.

- The Oracle Applications graphical user interface.

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

See Other Information Sources for more information about Oracle Applications product information.

How To Use This Guide

This document contains the information you need to understand and use Oracle Content Manager (OCM).

- Chapter 1 introduces you to the Oracle E-Business Suite of applications.
- Chapter 2 gives a list of documentation related to OCM and information about modules that must be installed and verified before you implement OCM.
- Chapter 3 provides the tasks that you must perform to implement OCM.

- Chapter 4 allows you to verify your implementation.
- Chapter 5 helps you to troubleshoot your implementation.

Apart from the above chapters, this guide includes appendixes that provide profile options and other settings, as well as useful reference information.

Documentation Accessibility

Our goal is to make Oracle products, services, and supporting documentation accessible, with good usability, to the disabled community. To that end, our documentation includes features that make information available to users of assistive technology. This documentation is available in HTML format, and contains markup to facilitate access by the disabled community. Standards will continue to evolve over time, and Oracle Corporation is actively engaged with other market-leading technology vendors to address technical obstacles so that our documentation can be accessible to all of our customers. For additional information, visit the Oracle Accessibility Program Web site at <http://www.oracle.com/accessibility/>.

Accessibility of Code Examples in Documentation JAWS, a Windows screen reader, may not always correctly read the code examples in this document. The conventions for writing code require that closing braces should appear on an otherwise empty line; however, JAWS may not always read a line of text that consists solely of a bracket or brace.

Other Information Sources

You can choose from many sources of information, including online documentation, training, and support services, to increase your knowledge and understanding of Oracle Content Manager.

If this guide refers you to other Oracle Applications documentation, use only the Release 11*i* versions of those guides.

Online Documentation

All Oracle Applications documentation is available online (HTML or PDF). Online help patches are available on MetaLink.

Related Documentation

Oracle Content Manager shares business and setup information with other Oracle Applications products. Therefore, you may want to refer to other product documentation when you set up and use Oracle Content Manager.

You can read the documents online by choosing Library from the expandable menu on your HTML help window, by reading from the Oracle Applications Document Library CD included in your media pack, or by using a Web browser with a URL that your system administrator provides.

If you require printed guides, you can purchase them from the Oracle Store at <http://oraclestore.oracle.com>.

Documents 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) available with this release of Oracle Content Manager (and any other Oracle Applications products). This guide also includes information on setting user profiles, as well as running and reviewing reports and concurrent processes.

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

Documents Related to This Product

Oracle Applications Concepts

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

Oracle 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 must be set up in OCM to submit content items for approval and translation.

Oracle Applications System Administrator's Guide

This guide provides planning and reference information for the Oracle Applications System Administrator. It contains information on how to define security, customize menus and online help, manage concurrent processing, and setting up your environment to work with multiple languages.

Installation and System Administration

Installing Oracle Applications

This guide provides instructions for managing the installation of Oracle Applications products. In Release 11*i*, much of the installation process is handled using Oracle Rapid Install, which minimizes the time to install Oracle Applications, the Oracle8 technology stack, and the Oracle8*i* Server technology stack by automating many of the required steps. This guide contains instructions for using Oracle Rapid Install and lists the tasks you need to perform to finish your installation. You should use this guide in conjunction with individual product user's guides and implementation guides.

Oracle Applications Supplemental CRM Installation Steps

This guide contains specific steps needed to complete installation of a few of the CRM products. The steps should be done immediately following the tasks given in the Installing Oracle Applications guide.

Upgrading Oracle Applications

Refer to this guide if you are upgrading your Oracle Applications Release 10.7 or Release 11.0 products to Release 11*i*. This guide describes the upgrade process and lists database and product-specific upgrade tasks. You must be either at Release 10.7 (NCA, SmartClient, or character mode) or Release 11.0, to upgrade to Release 11*i*. You cannot upgrade to Release 11*i* directly from releases prior to 10.7.

Maintaining Oracle Applications

Use this guide to help you run the various 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 Applications System Administrator's Guide

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

Oracle Alert User's Guide

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

Oracle 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 6i forms so that they integrate with Oracle Applications.

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 how to apply this UI to the design of an application built by using Oracle Forms.

Other Implementation Documentation

Multiple Reporting Currencies in Oracle Applications

If you use the Multiple Reporting Currencies feature to record transactions in more than one currency, use this manual before implementing Oracle Content Manager. This manual details additional steps and setup considerations for implementing Oracle Content Manager with this feature.

Multiple Organizations in Oracle Applications

This guide describes how to set up and use Oracle Content Manager with Oracle Applications' Multiple Organization support feature, so you can define and support different organization structures when running a single installation of Oracle Content Manager.

Oracle Workflow Developer's Guide

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

Oracle Workflow User's Guide

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

Oracle Workflow API Reference

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

Oracle Applications Flexfields Guide

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

Oracle eTechnical Reference Manuals

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

Oracle Manufacturing APIs and Open Interfaces Manual

This manual contains up-to-date information about integrating with other Oracle Manufacturing applications and with your other systems. This documentation includes APIs and open interfaces found in Oracle Manufacturing.

Oracle Order Management Suite APIs and Open Interfaces Manual

This manual contains up-to-date information about integrating with other Oracle Manufacturing applications and with your other systems. This documentation includes APIs and open interfaces found in Oracle Order Management Suite.

Oracle Applications Message Reference Manual

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

Oracle CRM Application Foundation Implementation Guide

Many CRM products use components from CRM Application Foundation. Use this guide to correctly implement CRM Application Foundation.

Training and Support

Training

Oracle offers training courses to help you and your staff master Oracle Content Manager and reach full productivity quickly. You have a choice of educational environments. You can attend courses offered by Oracle University at any one 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's 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 Oracle Content Manager 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*8i* server, and your hardware and software environment.

OracleMetaLink

Oracle*MetaLink* is your self-service support connection with web, telephone menu, and e-mail alternatives. Oracle supplies these technologies for your convenience, available 24 hours a day, 7 days a week. With Oracle*MetaLink*, you can obtain information and advice from technical libraries and forums, download patches, download the latest documentation, look at bug details, and create or update TARs. To use MetaLink, register at (<http://metalink.oracle.com>).

Alerts: You should check Oracle*MetaLink* alerts before you begin to install or upgrade any of your Oracle Applications. Navigate to the Alerts page as follows:

Technical Libraries/ERP Applications/Applications Installation and Upgrade/Alerts.

Self-Service Toolkit: You may also find information by navigating to the Self-Service Toolkit page as follows: Technical Libraries/ERP Applications/Applications Installation and Upgrade.

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 Oracle Applications 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.

About Oracle

Oracle Corporation develops and markets an integrated line of software products for database management, applications development, decision support, and office automation, as well as Oracle Applications, an integrated suite of more than 160 software modules for financial management, supply chain management, manufacturing, project systems, human resources and customer relationship management.

Oracle products are available for mainframes, minicomputers, personal computers, network computers and personal digital assistants, allowing organizations to

integrate different computers, different operating systems, different networks, and even different database management systems, into a single, unified computing and information resource.

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

Part I

Getting Started

This section contains the following chapters:

- [Chapter 1, "Introduction"](#)
- [Chapter 2, "Before You Begin"](#)

1.1 The Oracle E-Business Suite

The Oracle E-Business Suite is a comprehensive web-based answer for business-to-business (B2B) and business-to-consumer (B2C) selling, marketing, and servicing through the Internet. The Oracle E-Business Suite consists of front-office Customer Relationship Management (CRM) applications and back-office Enterprise Resource Planning (ERP) applications. These applications automate marketing, sales, contracts, service, manufacturing, and supply chain processes as well as financial operations, project management, human resources operations, and business intelligence systems.

The Oracle E-Business Suite sits on a multi-layer platform which includes:

- Oracle *9i* Database
- Oracle *9i* Application Server
- Common Services and Components
- Oracle Internet Business Intelligence

Oracle9i Database

All applications reside on the Oracle9i Database. The Oracle database drives enterprise E-Business applications, online transaction processing applications (OLTP), query-intensive data warehouses, and high capacity web sites. Because the Oracle database is available on many different platforms, applications can scale from handheld to laptop to desktop to enterprise providing consistent information over multiple channels.

Oracle9i Application Server

The Oracle9i Application Server (Oracle9iAS) is a middle-tier server which independently delivers the technology needed to build web sites and applications, create personalized portals, extract business intelligence, and manage a secure web site infrastructure.

Common Services and Components

All the applications can leverage the common infrastructure and services components. Functionality includes Oracle Forms, Oracle Reports, Oracle Application Object Library (AOL), the Oracle JDeveloper and Oracle Discoverer development tools, the coding and UI standards, and other functionality used by the applications.

For example, you can extend the applications according to your business needs using flexfields. You can create and assign responsibilities using the system administrator responsibility. Also, you can use Oracle Workflow to configure background processes and set up notifications so that all the appropriate managers and groups are notified.

Oracle Internet Business Intelligence

Above the E-Business Suite sits the Internet Business Intelligence application. This application integrates data from all of the E-Business Suite applications to provide key performance measurements, operating alerts, and management reports to every decision maker across the enterprise.

1.1.1 The Applications in the E-Business Suite

Customers can seamlessly share data from front end applications (CRM) to back end applications (ERP). The CRM applications include:

- the Marketing Suite
- the Sales Suite
- the Contracts Suite
- the Service Suite
- the eCommerce Suite

The ERP applications include:

- Oracle Order Management
- Oracle Supply Chain Planning

- Oracle Manufacturing
- Oracle Financials
- Oracle Human Resources Management System

Customer Relation Management (CRM)

Companies use Oracle's CRM suite of applications to acquire, maintain, and enhance customer relationships, by assisting companies with marketing automation, sales force automation, contracts management, customer service and support, and business intelligence, in a multi-channel environment.

- The Marketing Suite provides campaign planning and execution, budget management, list creation, reporting and analysis tools. Marketing professionals use the Oracle Marketing applications to drive quality leads to sales, to expand reach and to maximize marketing effectiveness by using a comprehensive set of marketing automation, analysis and multi-channel execution capabilities. The Marketing Suite offers seamless integration with sales, service, and operations.
- The Sales Suite provides integrated tools for all those who are involved in the sales process, including field sales people, telesales agents, distributors and resellers, customers purchasing over the Internet and sales executives.

Armed with up-to-the minute information regarding customers, leads and opportunities, as well as forecasts and compensation plans and projections, managers can proactively and effectively manage a sales force while providing the sales people with the information needed to close sales. Using this information, the field sales force, telesales teams, resellers, and web storefronts can collaborate in closing more business together as one sales team.

- The Contracts Suite enables authoring, executing and managing contracts, warranties and extended warranties which provides visibility to contract entitlements and proactively acting upon contractual commitments. Whether a buyer or a seller, issuing contracts or receiving them, the Contracts Suite automates the full contract life cycle.
- The Service Suite manages service activities with the goals of profitability, employee productivity and complete customer satisfaction by addressing all service and support activities from initial contact with the customer through issue resolution. Automating service efforts can potentially transform an area that has historically proven to be a cost center into a revenue generator.

This suite of applications provides customer support, field service and depot repair functionality. In addition, Oracle Services offers complete visibility into

spare parts availability, logistics, service billing and customer contract entitlements. Oracle Customer Care provides full access to customer information from each touch point in the enterprise and to each customer care agent or other employees who interact with the customer. All of the Service products can be deployed across web, call center and mobile field channels.

- The eCommerce Suite of products aids in establishing profitable long-term relationships with customers through one-to-one marketing and personalized shopping experiences as well as proactive support and self-service capabilities. Oracle eCommerce synchronizes all customer interactions and transactions by integrating web-based channels with traditional channels.

Enterprise Resource Planning (ERP)

Companies use the ERP applications to control their back-office operations. For example:

- Oracle Order Management applications feature advanced configurator functionality, global available to promise, flexible pricing support, efficient delivery, high volume transactions and flexibility to adapt to changing business conditions.
- Oracle Supply Chain Planning applications provide the tools required to optimize flow of material, cash, and information across the extended supply chain.
- Oracle Manufacturing applications support all styles of manufacturing - engineer-to-order, discrete, process, flow, lot based, and project based manufacturing.
- Oracle Financials provide solutions for strategic planning, accounting, treasury, project management, and travel management.
- Oracle Human Resources Management System is a comprehensive solution for managing the human resources of a company, allowing organizations to attract, retain and develop critical skills and knowledge on a global basis.

Common Application Architecture

The Common Application Architecture includes functionality that supports both CRM and ERP applications. For example, TCA, Oracle's Trading Community Architecture, consists of a database schema and Application Programming Interfaces (APIs) where you can model the complex relationships that occur within a business community and enter that data consistently throughout the enterprise. Because the model is not hierarchical, Oracle applications can model complex

B2B2C relationships and not to be limited to either a B2B or B2C implementation. TCA delivers a 360-degree view of the customer.

1.1.2 Oracle Marketing Family Overview

The Oracle Marketing family provides complete campaign management to help shorten time to market. To become more cost-effective and more responsive to changing market conditions and customer requirements, a marketing organization must be able to manage its planning, execution, and reporting in fully centralized and automated fashion.

The Oracle Marketing family of applications includes:

- Oracle Marketing
- Oracle Advanced Marketing Online
- Oracle Marketing Intelligence

1.1.3 Oracle Content Manager Overview

The rise of the Internet has definitely changed everything; it gave companies a new way of selling products and getting information to consumers. Anyone and everyone who had access to a text editor and a web server could deploy information to the world faster than ever before in history. This ease and speed gave rise to a new problem: Could this content be trusted? For the end consumer this problem is frustrating. For companies trying to protect their brand, and consumer loyalty, it can be crippling.

Oracle Content Manager (OCM) improves corporate information accuracy by putting the control into the hands of the experts. This model is not new; before the Internet, public relations, marketing firms, and product managers, etc., were responsible for developing and releasing company information. This model was abandoned for multiple reasons:

- The content experts were not HTML experts, thus could not develop "attractive web sites".
- Waiting for content experts to create and approve new content that then needed to be reformatted into HTML added to a lifecycle which needed to be short.
- Every creator had their own definition of content and did not always ensure consistency and accuracy. Therefore, there was no single source of truth.
- There was no collaboration or reuse of content, and business processes were not in synchronization with the corporate viewpoint.

Content management encompasses all business practices and technical processes that are performed for the purpose of capturing, maintaining, sharing, and preserving recorded meaning. Electronic content is not limited to the web or to print. Increasingly, content must be created for multiple channels, including customers, business partners, and employees.

OCM addresses these issues by enabling content experts to develop content without worrying about how it is going to be published, and giving publishers the tools they need to get the latest, most accurate information out to the public.

1.1.4 Oracle Content Manager Features

With OCM, you can:

- Create and manage content types
- Create and manage content items
- Translate content items

Before You Begin

This chapter provides an overview of what you need to have installed, implemented, and verified before implementing Oracle Content Manager. Topics include:

- [Section 2.1, "Related Documentation"](#)
- [Section 2.2, "Installation Verification"](#)
- [Section 2.3, "Application Procedures"](#)
- [Section 2.4, "Oracle Content Manager Dependencies"](#)
- [Section 2.5, "Mandatory Dependencies"](#)

2.1 Related Documentation

Following are additional documents relating to the modules discussed in this guide or referred to in implementation tasks:

- *Oracle Content Manager User Guide*
- *Oracle Workflow Administrator's Guide*
- *Oracle CRM Application Foundation Implementation Guide*
- *Oracle CRM Application Foundation User Guide*

2.2 Installation Verification

Before attempting to run CRM applications, first verify that you can perform the tasks outlined in [Table 2-1](#). The listed tasks are generic tasks that are typical for all users of the Oracle E-Business Suite. Depending on your business processes, and

the modules that you are installing, not every listed task is applicable to your installation.

Table 2–1 describes the non-CRM application module tasks that need to be performed, and which CRM modules require the completion of the task before implementation.

Table 2–1 Application Dependency Checklist

Application	Task	CRM Module
Application Object Library	<ol style="list-style-type: none"> 1. Creating a FND user 2. Assigning AOL responsibility to the user 3. Setting up users, application, responsibility, or site level profile options 	Resource Manager
Oracle Workflow	Creating a workflow with notifications	Resource Manager

2.3 Application Procedures

You must be able to complete each of the following non-CRM tasks successfully for your CRM applications to work properly. If you are unable to complete a task successfully, then correct the problem before continuing.

2.3.1 Creating an FND User

Perform the following steps to create a FND user in the Application Object Library.

Reference

Oracle Applications System Administrator's Guide, see Chapter 2, Managing Oracle Applications Security

Prerequisites

None

Login

Oracle Forms

Responsibility

System Administrator

Navigation

Security > User > Define

Steps

1. In the User window, enter a new user name in the User Name field.
2. Enter a password in the Password field.
3. Re-enter the password for verification.
4. Select the employee's name from the list of Values (LOV) in the Person Field.
5. In the Responsibilities sub-tab, select the CRM HTML Administration responsibility from the drop-down list.
6. Save the new user.

To verify that the user setup is successful, perform the following steps:

1. Login to your Personal Home Page as the newly created user.
2. Enter the password when prompted.

You should now be able to access the Personal Home Page for this user.

Note: For this user to have access to HTML applications, you must set additional profile options as detailed in the *Implementing Oracle CRM Application Foundation* guide.

2.3.2 Assigning AOL Responsibilities to the User

A responsibility defines an application user's current privileges while working with Oracle Applications. When an application user signs on, the user selects a responsibility that grants certain privileges, specifically:

- The functions that the user may access. Functions are determined by the menu assigned to the responsibility.
- The concurrent programs, such as reports, that the user may run.
- The application database accounts to which forms, concurrent programs, and reports connect.

You cannot delete a responsibility because this information helps to provide an audit trail. You can deactivate a user's responsibility at any time by setting the End

Date to the current date. If you wish to reactivate the responsibility for the user, change the End Date to a date after the current date, or clear the End Date.

After creating the FND User, perform the following steps to assign the user AOL responsibilities.

Reference

Managing People Using Oracle HRMS (US), see Chapter 1, Employee Management

Prerequisites

None

Login

Oracle Forms

Responsibility

System Administrator

Navigation

Security > User > Define

Steps

1. With the user information populated in the window, select the Responsibility field in the Responsibilities tab.
2. Select the necessary responsibility from the List of Values (LOV).
3. Define the Effective dates.
4. Save your work.

2.3.3 Setting User Application, Responsibility, or Site Level Profile Options

A user profile is a set of changeable options that affect the way your application looks and behaves. As System Administrator, you control how Oracle Applications operate by setting user profile options to the values you want. You can set user profile options at four different levels: site, application, responsibility, and user.

After creating the FND User, perform the following steps to set profile options.

Reference

Managing People Using Oracle HRMS (US), see Chapter 1, Employee Management

Prerequisites

None

Login

Oracle Forms

Responsibility

System Administrator

Navigation

Security >Profile > System

Steps

1. In the Find System Profile Values window, enter the profile option you want to set and click **Find**.

The System Profile Values window opens with the profile option you searched for.

2. Set at least one of the following:

- a. Set the Site value.

This field displays the current value, if set, for all users at the installation site.

- b. Set the Application value.

This field displays the current value, if set, for all users working under responsibilities owned by the application identified in the Find Profile Values block.

- c. Set the Responsibility value.

This field displays the current value, if set, for all users working under the responsibility identified in the Find Profile Values block.

- d. Set the User value.

This field displays the current value, if set, for the application user identified in the Find Profile Values block.

You should set site-level default values for any required options after installation of an application. If you do not assign a particular profile option at any of the four levels, that option does not have a default value and may cause errors when you use forms, run reports, or run concurrent requests.

3. Save your work.

2.3.4 Creating a Workflow With Notifications

Perform the following steps to create and run a workflow with notifications.

Reference

Oracle Workflow User's Guide

Prerequisites

None

Responsibility

Workflow Administrator

Navigation

Workflow >Launch Processes

Steps

1. In the Launch Processes window's Item Type column, click **Document Management**. If you have renamed the item types, this option appears in the Internal Name column as WFDM.
The Initiate Workflow-WFDM page opens.
2. Enter values in the following fields:
 - Item Key: Enter your name plus a sequence number (for example, jdoe1001)
 - User Key: You may copy the value in the Item Key field
 - Process Name: Enter Document Review
 - Process Owner: Your logged in user name populates automatically
 - Send Document: Leave blank
 - Document Owner: Select a valid resource name

- Document Reviewer: Choose one from the list of values
 - Comments: Enter Workflow Verification
 - Response Document: Leave blank
3. Click **OK**.

The Activities List page opens to show workflow statuses. The status of the workflow you just initiated should be *Active*.
 4. If the status of the workflow is **Error**, click **Exception** in the Result column to see an explanation of the error.
 5. Click **View Diagram** to see a graphical representation of the workflow process.

Leave the View Diagram window open as you continue to check the workflow.
 6. Save your work.

To Review the Progress of a Workflow

Use the following procedure to verify that the Workflow notification is sent.

Steps

1. Login to your Personal Home Page.
2. In the list of Self Service Apps, choose the Workflow User Web Application responsibility.
3. In the Navigator, choose **Workflow >Find Notifications**.

The Find Notifications page opens.
4. In the Type field, enter Document Management. In the To field, enter the document reviewer.
5. Click **Find**.

The Worklist window opens.
6. Click **Subject** to open the notification.

If you see the notification, then workflow is set up correctly.
7. Click **Approve** to return to the Worklist window.

Further Verification

You may return to the View Diagram window that you opened earlier. Click **Reload** in the browser window to refresh the contents of the window. After the workflow process completes successfully, you can see a green line from the Start icon to the End (Approve) icon.

2.4 Oracle Content Manager Dependencies

Oracle Content Manager is dependent on the Oracle applications that provide the underlying technology stack, schema, and structure.

2.5 Mandatory Dependencies

OCM's mandatory dependencies are:

- Oracle CRM Technology Foundation
- Oracle Sales and Marketing Framework

Part II

Implementing Oracle Content Manager

This section contains the following chapter:

- [Chapter 3, "Implementation Tasks for Oracle Content Manager"](#)

Implementation Tasks for Oracle Content Manager

This chapter takes you through the necessary tasks that must be performed to implement Oracle Content Manager (OCM). Topics include:

- [Section 3.1, "Setting Initial Profile Options"](#)
- [Section 3.2, "Setting Up Users"](#)
- [Section 3.3, "Launching the OCM Administrator User Interface"](#)
- [Section 3.4, "Setting Up Stylesheets"](#)
- [Section 3.5, "Environment Settings for Translations"](#)
- [Section 3.6, "Setting Session Timeouts"](#)

3.1 Setting Initial Profile Options

Profiles control the behavior of all Oracle Applications. Every Oracle Applications profile option begins with a two or three letter code that is tied to the application or functionality group that the profile controls. All OCM profile options begin with the prefix IBC.

Prerequisites

None

Responsibility

System Administrator

Login

Oracle Forms

Steps

1. To enable OCM's User Interface (UI), see the following sections:
 - a. [Section 3.1.1, "Setting CRM Technology Foundation Profile Options"](#)
 - b. [Section 3.1.2, "Setting OCM Data Security Profile Options"](#)
 - c. To set other OCM profile options, see [Section A, "Oracle Content Manager Profile Options and Lookups"](#).
2. To set permissions for folders, see [Section 3.1.3, "Setting Up Foldering Security"](#).

See Also

- See [Section A.2, "Setting Profile Options"](#) for general instructions on how to set profile options in Oracle Applications.
- See *Oracle Applications System Administrator's Guide* for more information about Oracle Applications profile options, in general.
- See [Section A.4, "Oracle CRM Technology Foundation \(JTT\) Profile Options"](#) for JTT profile option descriptions and values.

3.1.1 Setting CRM Technology Foundation Profile Options

[Table 3–1](#) lists the Oracle CRM Technology Foundation profile options. These profiles must be set at the User level.

Table 3–1 CRM Technology Foundation Profiles

Profile	Value
JTF_PROFILE_DEFAULT_APPLICATION	549
JTF_PROFILE_DEFAULT_BLANK_ROWS	5
JTF_PROFILE_DEFAULT_CSS	Leave blank. The value set at the Site level is applied.
JTF_PROFILE_DEFAULT_CURRENCY	Leave blank. The value set at the Site level is applied.
JTF_PROFILE_DEFAULT_NUM_ROWS	10

Table 3–1 CRM Technology Foundation Profiles

Profile	Value
JTF_PROFILE_DEFAULT_RESPONSIBILITY	23812. This is a seeded value for the OCM Super User responsibility. See Section C, "Seeded Roles and Responsibilities" for other seeded responsibilities.

3.1.2 Setting OCM Data Security Profile Options

The data security profile options disable or enable security in OCM. By default, data security is disabled. When you enable it, it is important to understand its implications.

Apart from enabling data security, you must also specify the folder in which new content items will be stored.

See [Appendix A, "Oracle Content Manager Profile Options and Lookups"](#) for details on all OCM profiles.

Note: You must set these profile options for Content Items to be submitted properly.

Table 3–2 Data Security Profiles

Profile Name	Default Value	Comments
IBC: Use Access Control	N	Data security is disabled. Any user can create, update or delete a content item. All content items created are immediately approved. If set to Y, data security is enabled. A check is made to see if the user has appropriate permissions to perform the actions.

Table 3–2 Data Security Profiles

Profile Name	Default Value	Comments
IBC: Folder/Directory for new items	COMMON	<p>Specifies the folder where new content items will be created.</p> <p>Note: If data security is enabled, the user must have the required permission on this folder to perform the necessary tasks. For example, if John’s IBC: Folder/Directory is CRM, John must have permission to create, update, and delete items in this folder.</p> <p>Permissions can be granted from the Foldering tab. See Setting Up Foldering Security to grant permissions on folders in OCM.</p>

3.1.3 Setting Up Foldering Security

When data security is enabled by setting the IBC: Use Access Control profile to \forall , each user must be granted specific privileges that can be performed on each folder. Use the following procedure to assign these permissions.

Prerequisites

Enable Data Security

Login

Oracle E-Business Suite HTML login

Responsibility

OCM Super User

Navigation

Foldering > Workgroup Folder Permissions page

Steps

1. Select the user or group to set permissions for.
 - a. Select your option - User or Group - using the Select drop-down list.
 - b. Click the **Search** icon.

The Search and Select List of Values pop-up window appears.

- c. Enter the user or group name partly or fully in the Search By field.

You can use the % wildcard, if required.

- d. Click **Go**.

The search results appear in the Results region.

- e. Select the user or group to set permissions for.

- f. Click **Select**.

The name of the selected user or group is displayed in the Select field.

- g. Click **Go**.

The permissions for the user or group is displayed in the Results region.

2. To grant permissions, select the check boxes for the appropriate permission and folder in the table.

To remove a permission, clear the appropriate check box.

Note: Grant `Create` permission to the folder which is set as the value for the IBC: Folder/Directory for new items profile.

3. Click **Submit**.

3.2 Setting Up Users

You can categorize users in your organization according to the function that they will perform in OCM. The users may be administrators, content item creators, approvers, or translators.

In OCM, the administrator is called the OCM Super User with the `IBC_SUPER_USER` responsibility. Apart from this, four other responsibilities are seeded in OCM. See [Appendix C, "Seeded Roles and Responsibilities"](#) for more details. The users get access to all the required tabs and privileges to create, edit, approve, translate and delete content through these responsibilities.

3.2.1 Setting Up the OCM Super User

You must create an administrator user or a OCM Super User who will have all the privileges in the OCM application. The menu assigned to the IBC Super User responsibility is called Oracle Content Manager Root Menu (`IBC_ROOT_MENU`).

Reference

To create a user, see [Section 3.2.3, "Creating a User"](#).

3.2.2 Setting Up Multiple Users for OCM

Multiple users can access OCM having specific responsibilities, depending upon their roles in the organization. Examples of such roles could be Content Creators, Content Users, Content Approvers, and Content Translators.

With multiple users having access only to their specific functions, management of users becomes more efficient and secure. You must create users and assign them the required responsibilities. See [Appendix C, "Seeded Roles and Responsibilities"](#) for more information.

Apart from assigning appropriate responsibilities, as OCM Super User, you must grant foldering permissions to these users. See [Section 3.1.3, "Setting Up Foldering Security"](#).

Reference

To create a user, see [Section 3.2.3, "Creating a User"](#).

3.2.3 Creating a User

Use the following procedure to create a user and assign responsibilities.

Reference

For information on creating responsibilities and mapping them to tabs, see the *Oracle Applications System Administrator's Guide*.

Prerequisites

None

Responsibility

System Administrator

Navigation

Security > User > Define

Login

Oracle Forms

Steps

1. In the User Name field, enter the name that the user will use to log in to OCM.
2. In the Password field, enter the user's password.
3. In the Responsibilities block, choose the appropriate responsibility from the Responsibility LOV.

For more information on OCM responsibilities, see [Appendix C, "Seeded Roles and Responsibilities"](#).

4. Additionally, to see workflow notifications in self service applications, choose the Workflow Administrator responsibility.
5. Click **Save**.
6. Set the profile options as applicable.

See Also

- [Setting CRM Technology Foundation Profile Options](#).
- [Seeded Roles and Responsibilities](#).

3.3 Launching the OCM Administrator User Interface

All content item tasks are performed from the OCM User Interface (UI). You can enter the UI by logging in to `http://<host>:<port>/OA_HTML/jtfflogin.jsp` with a user name that the system administrator has set up for you.

3.3.1 Enabling Cookies for the UI

Verify that cookies are enabled for your browser before accessing the UI. Clearing all browser cookies is a common solution to many errors found when accessing Oracle's Java-based applications.

3.4 Setting Up Stylesheets

Stylesheets are associated with content types and tell the rendering engines how to display the content item in the calling application. Each content type may have many stylesheets associated with it. However, only one stylesheet can be set as the default. In OCM, a stylesheet is a content type, and individual stylesheets are stored in the repository like any other content item.

Note: OCM only supports stylesheets that are of type Extensible Stylesheet Language (XSL).

A stylesheet in OCM serves two purposes. Firstly, it defines how content should be rendered on a Web site or any other device. Secondly, it enables users to preview a content item before it is released.

OCM cannot display an item in context with other content items used to build a Web page, unless all the content used to build a page is stored in OCM. This is the responsibility of the calling applications.

3.4.1 Creating a Stylesheet

Stylesheets are created using XSL.

Prerequisites

You must know XSL, and understand the XML format of OCM content items. For more information on XML format of content items, see [Chapter D, "Content Item XML Formats"](#).

Responsibility

None

Navigation

None

Steps

1. Create a XSL stylesheet.

Note: A valid XSL stylesheet must be a well-formed XML. This also applies to HTML tags.

2. If the content item in which the XSL is intended to apply on contains URLs that access OCM, make sure you plug in an OCM extension to your stylesheet.

- a. Add a security name space into the XSL root tag:

```
<xsl:stylesheet version="1.0"
xmlns:xsl="http://www.w3.org/1999/XSL/Transform"
xmlns:security="http://www.oracle.com/XSL/Transform/java/oracle.apps.abc.util.SecurityUtil" exclude-result-prefixes="security">
```

- b.** To retrieve a URL attribute value from the content item XML, use "security:encryptUrl (@url) " instead of directly using "@url".

Example:

```
<xsl:attribute name="href">  
<xsl:value-of select="security:encryptUrl (@url) " />  
</xsl:attribute>
```

- 3.** While creating a content item of type Stylesheet, upload the XSL file as an attachment. For information on creating a content item, see the *Oracle Content Manager User Guide, Creating a Content Item*.

3.5 Environment Settings for Translations

In OCM, the Translations tab provides an area for translators to:

- perform translations for content items
- view and update completed translations

To be able to translate and view translations, it is recommended that you use the UTF8 character set on all three tiers: database server, middle tier application server, and browser client. Ensure that the character set encoding of the session language is a superset of the base language and the translated language. For instance, the Western European encoding will allow translations between any of the Western European languages such as English and French but may not work for translations into other languages such as Japanese.

For more information on setting up your environment for translation, see the *Oracle Application System Administrator's Guide*.

3.6 Setting Session Timeouts

Oracle Content Manager is built on two frameworks - the OA framework and the JTT framework. The session timeout in the OA framework must always be *greater* than the session timeout in the JTT framework.

3.6.1 Modifying the Session Timeout

JTT Framework

The JTT session timeout is configured at the JTT Administrative Console. Navigate to Settings > System > Sessions. Enter a value in the **Expires if idle for (mins)** field. The default value is 60 minutes.

OA Framework

The OA session timeout is driven by the **session.timeout** directive in the **zone.properties** file of the Apache configuration. The default value is 30 minutes.

Set this value to a number greater than the JTT Framework session timeout value.

Part III

Post Implementation Tasks

This section contains the following chapters:

- [Chapter 4, "Verify the Implementation"](#)
- [Chapter 5, "Diagnostics and Troubleshooting"](#)

Verify the Implementation

This chapter gives you a verification process using a case study to verify your implementation of Oracle Content Manager (OCM). Topics include:

- [Section 4.1, "Administering OCM"](#)
- [Section 4.2, "Case Study"](#)

4.1 Administering OCM

Answer the following questions to arrive at your administration strategy:

1. Do you want to strictly secure data? If there are few users using OCM, you may not have elaborate security. On the other hand, if you have highly sensitive data, and you are concerned about two users accessing the same content, you must enable data security.

Do you want users to store their data in specific folders? Or will content items of all users be stored in a common folder?

For more information, see [Section 3.1.2, "Setting OCM Data Security Profile Options"](#)

2. Do users in your organization perform specific roles? Will a user who approves content items also translate them? What are the responsibilities available to you in OCM?

For more information, see [Appendix C, "Seeded Roles and Responsibilities"](#).

4.2 Case Study

Use the following case study to verify your implementation. Create the users, assign responsibilities, and perform the tasks in the sequence listed.

Anna, Michael, Joseph, and John work on OCM.

[Table 4-1](#) lists their responsibilities and foldering permissions in OCM.

Table 4-1 Responsibilities and Foldering Permissions

User Name	Responsibility	Folder	Permission
Anna	OCM Super User	All folders	All permissions
John	Content Creator	OMO, COMMON	Create, Update, Remove, and Restore
Joseph	Approver	OMO, COMMON	Approve
Michael	Translator	OMO, COMMON	Translate

[Table 4-2](#) lists the tasks that you must perform to verify the implementation.

Table 4-2 Verifying Implementation Task Sequence

No.	Task	Reference
1	Create users and assign responsibilities as specified in Table 4-1 .	Section 3.2, "Setting Up Users"
2	Enable data security.	Section 3.1.2, "Setting OCM Data Security Profile Options"
3	Assign permissions to folders as specified in Table 4-1 .	Section 3.1.3, "Setting Up Foldering Security"
4	Log in as John. Create a content item. Indicate 'Translation Required' for the content item.	See the <i>Oracle Content Manager User Guide</i> , Creating a Content Item .
5	Log in as Joseph. Have you received a notification about a content item submitted for approval? Approve the content item submitted by John.	See the <i>Oracle Content Manager User Guide</i> , Approving a Content Item .
6	Log in as Michael. Have you received a notification about a content item submitted for translation? Translate the content item approved by Joseph.	See the <i>Oracle Content Manager User Guide</i> , Translating and Updating a Translated Content Item .

Table 4–2 Verifying Implementation Task Sequence

No.	Task	Reference
7	Log in as John. Preview the content item.	See the <i>Oracle Content Manager User Guide</i> , Previewing a Content Item.

Diagnostics and Troubleshooting

5.1 Diagnosing using PL/SQL Logging

Oracle Content Manager (OCM) allows user level logging of debug messages. This feature creates separate user log files for the PL/SQL layers. You must use this feature only to diagnose problems in the application.

5.1.1 Setting Up PL/SQL Level Logging

When PL/SQL level logging is set, the application writes all log messages for the user to a user-specific log file in the directory specified by the IBC: Debug Log Directory profile. The file name has the syntax IBC_<Username>.log.

Use the following procedure to set up PL/SQL level logging.

Prerequisites

None

Login

Oracle Forms

Responsibility

System Administrator

Navigation

Profile > System

Steps

1. Select a user.

2. Set the profile option IBC: Enable Debug to Yes at User level.
3. Set the profile option IBC: Debug Log Directory at Site level to a directory that is writable by the database server.
4. Set the `init.ora` `UTL_FILE_DIR` parameter to point to the same directory.

Part IV

Appendixes

This section contains the following appendixes:

- [Appendix A, "Oracle Content Manager Profile Options and Lookups"](#)
- [Appendix B, "Seeded Data"](#)
- [Appendix C, "Seeded Roles and Responsibilities"](#)
- [Appendix D, "Content Item XML Formats"](#)
- [Appendix E, "Oracle Content Manager API Reference"](#)

Oracle Content Manager Profile Options and Lookups

This chapter describes profile option settings that are required for successful implementation of Oracle Content Manager (OCM). Topics include:

- [Section A.1, "Before You Begin"](#)
- [Section A.2, "Setting Profile Options"](#)
- [Section A.3, "Finding Responsibility ID Values"](#)
- [Section A.4, "Oracle CRM Technology Foundation \(JTT\) Profile Options"](#)
- [Section A.5, "Oracle Content Manager Profile Options"](#)
- [Section A.6, "Oracle Content Manager Lookups"](#)

A.1 Before You Begin

Before making settings in Oracle Forms, ensure that all Oracle Applications server processes are up and running. In particular, if you stopped concurrent managers before applying Oracle Applications patchsets, restart them now by changing to `$COMMON_TOP/admin/scripts`, and executing `adcmctl.sh <APPS username/APPS password> start`.

A.2 Setting Profile Options

Use the following procedure to set any profile option.

Prerequisites

None

Login

Oracle Forms

Responsibility

System Administrator

Navigation

Profile > System

Steps

1. Check the level(s) at which you want to set the profile option. The available levels are listed below:
 - **Site**
 - **Application**
If you select this level, choose the application from the Application LOV for which you want to set the profile option.
 - **Responsibility**
If you select this level, choose the responsibility from the Responsibility LOV for which you want to set the profile option.
 - **User**
If you select this level, choose the user from the User LOV for whom you want to set the profile option.
2. In the Profile field, enter the profile name, such as `IBC:Use Access Control`, or a wildcard search criterion such as `IBC%`.
3. Click **Find**.
The System Profile Values window opens with the results of your search.
4. Verify or set the profile option(s) at the levels that you selected.

A.3 Finding Responsibility ID Values

You must know the `APPLICATION_ID` values and `RESPONSIBILITY_ID` values for Oracle iContent and IBC Super User responsibilities before you can set the required Oracle CRM Technology Foundation (JTT) profile options for users with these responsibilities.

Note: The APPLICATION_ID value for the seeded IBC Super User responsibility is 549 (for Oracle iContent). The RESPONSIBILITY_ID value for IBC Super User is 23812.

Use the following procedure to find the APPLICATION_ID value and RESPONSIBILITY_ID value of a responsibility.

Prerequisites

None

Login

Oracle Forms

Responsibility

System Administrator

Navigation

Security > Responsibility > Define

Steps

1. Choose **View > Find**. Search for the responsibility, highlight it, and click **OK** in the search window.

The Responsibilities window is populated with the record for the responsibility that you chose.

2. With your cursor in any field of the record, choose **Help > Diagnostics > Examine**.

The Examine Field and Variable Values window opens.

3. In the Examine Field and Variable Values window, choose **APPLICATION_ID** from the Field LOV.

The Value field in the Examine Field and Variable Values window is populated with the value of APPLICATION_ID.

4. In the Examine Field and Variable Values window, choose **RESPONSIBILITY_ID** from the Field LOV.

The Value field in the Examine Field and Variable Values window is populated with the value of RESPONSIBILITY_ID.

A.4 Oracle CRM Technology Foundation (JTT) Profile Options

This section summarizes the Oracle CRM Technology Foundation (JTT) profile options that you need to set when implementing OCM.

A.4.1 JTT Profile Options for the OCM UI

Set the profile options in this section at the Site and Application levels.

Note: Choose Oracle iContent as the application.

Table A-1 lists the JTT profile options for the OCM UI.

Table A-1 JTT Profile Options for the OCM UI

Profile Option Name	Value	Description
JTF_PROFILE_DEFAULT_APPLICATION	549	Default application ID (549=Oracle iContent).
JTF_PROFILE_DEFAULT_BLANK_ROWS	3	Number of blank rows on OCM UI forms (Can be set to any integer > 0).
JTF_PROFILE_DEFAULT_CSS	jtfucss.css	Default Oracle CRM Technology Foundation Cascading stylesheet.
JTF_PROFILE_DEFAULT_CURRENCY	USD	Default currency. Enter the currency code in all uppercase letters.
JTF_PROFILE_DEFAULT_NUM_ROWS	10	-
JTF_PROFILE_DEFAULT_RESPONSIBILITY (application level only)	23812	Default responsibility ID (23812=IBC Super User).

A.5 Oracle Content Manager Profile Options

Table A-2 provides the profile options used by OCM.

Table A-2 OCM Profiles

Req?	Profile Option	Level	Set to	Default Value	Notes
N	IBC: Use Access Control	Site	-	No	If set to No, users have access to all folders. Apart from this, newly created content items are immediately Approved. If set to Yes, permissions set on folders are enabled.
Y	OSO: Define Column On	Site	No	-	-
N	IBC: Enforce Available Date	Application	-	Yes	Each content item created in OCM can be set to have an Available Date. Set this profile to No to turn off this enforcement.
N	IBC: Enforce Expiration Date	Application	-	Yes	Each content item created in OCM can be set to have an Expiration Date. Set this profile to No to turn off this enforcement.
Y	AMS: Profile Search Set Size	Site	50	-	-
Y	IBC: Function Security Region	Application	IBC_FUNC_SEC_REG	IBC_FUNC_SEC_REG	-
Y	OSO:Application Utility Class	Application	oracle.pps.ams.util.PageUtil	oracle.pps.ams.util.PageUtil	Class name of the Application Utility Class. For example, oracle.apps.asf.util.OsoAppUtility.
Y	OSO:Debug Messages On	Application	Yes	Yes	Oracle Sales Online profile to display or hide debugging messages.
Y	OSO:Enable Record Count in Tables	Application	Yes	Yes	Enables record count in tables.

Table A-2 OCM Profiles

Req?	Profile Option	Level	Set to	Default Value	Notes
Y	Number of Rows for Fetch	Application, User	10	-	-
Y	Disable Page Level Security	Application	No	No	-
Y	ICX:Language	User	American English	-	-
Y	JTF: Profile Default Application	User	549	-	-
Y	JTF: Profile Default Blank Rows	User	5	-	-
Y	JTF: Profile Default Num Rows	User	10	-	-
Y	JTF: Profile Default Responsibility	User	23812	-	The value given here is applicable for the IBC Super User responsibility. To set values for other responsibilities, see Table C-1, "Seeded Responsibilities" .
Y	AMS : Server URL	Site	http://<host_name>:<port number>/OA_HTML/	-	The settings given here is only a format. Replace <host name> and <port number> with valid values.
N	IBC: Enable Encryption	Application	-	No	OCM supports encryption of sensitive URL parameters such as internal IDs. Set this profile to Y to turn on encryption.

A.6 Oracle Content Manager Lookups

There are three types of lookups:

- **System** - System lookups may not be modified or deleted, and may not have additional values added.
- **Extensible** - Extensible lookups may have additional values added to the list. Seeded extensible lookups may not be deleted.
- **User** - User lookups are completely modifiable. They may be modified and/or added to. Seeded user lookups, if any, may be modified or deleted.

Note: All levels of lookups may have their visible value (the text displayed to the user) modified.

Table A-3 provides the Lookup settings used by OCM.

Table A-3 Lookup Settings

Key	Type	Values	Meaning
IBC_ATTRIBUTE_DATA_TYPE	System	attachment boolean component dateTime decimal html string url	Attachment Boolean Content Item Date Number Html Text URL
IBC_CITEM_PERMISSIONS	System	CITEM_READ CITEM_APPROVE CITEM_TRANSLATE CITEM_DELETE CITEM_ARCHIVE CITEM_EDIT	Read Content Item Approve Content Item Translate Content Item Delete Content Item Archive Content Item Edit Content Item

Table A-3 Lookup Settings

Key	Type	Values	Meaning
IBC_CITEM_STATUS	System	APPROVED ARCHIVED PENDING STOPPED	Approved Archived In Progress Stopped
IBC_CITEM_VERSION_STATUS	System	APPROVED ARCHIVED INPROGRESS REJECTED SUBMITTED	Approved Archived In Progress Rework Submitted
IBC_CTYPE_STATUS	System	ACTIVE INACTIVE	Active Inactive
IBC_DIRECTORY_PERMISSIONS	System	DIR_CITEM_ADD DIR_CREATE DIR_EDIT	Add Content Item in directory Create Sub-directory Edit Current Directory
IBC_IMAGE_TYPES	System	GIF JPEG JPG PNG	Supported image types are .gif, .jpeg, .jpg, and .png.

Seeded Data

This appendix chapter details seeded data in Oracle Content Manager under the following headings:

- [Section B.1, "Seeded Content Type: IBC_IMAGE"](#)
- [Section B.2, "Seeded Content Type: IBC_STYLESHEET"](#)

B.1 Seeded Content Type: IBC_IMAGE

[Table B-1](#) gives the seeded attributes for Content Type Image.

Table B-1 *Attributes of IBC_IMAGE*

Attribute Name	Data Type	Description
Alternate Text	String	When the image binary is not available, or the browser cannot display images, display this text instead.
Image Attachment	Attachment	The image is a binary file.
Description	String	Description of the image.
Height	Decimal	Height of the image.
Link URL	URL	When the image is clicked, which URL to go to.
Name	String	Name of the image.
Width	Decimal	Width of the image.

B.2 Seeded Content Type: IBC_STYLESHEET

[Table B-2](#) gives the seeded attributes for Content Type Stylesheet.

Table B-2 Attributes of IBC_STYLESHEET

Attribute Name	Data Type	Description
Stylesheet Attachment	Attachment	Stylesheet file attachment
Delivery Channel	String	Delivery channel this stylesheet is designed for. Values are WEB, FAX, EMAIL, WAP Device, and so on.
Description	String	Description of the stylesheet.
Name	String	Name of the stylesheet.
Output Type	String	Output data format after applying the stylesheet to a content item. Values are html, wml, text, and so on.

Seeded Roles and Responsibilities

C.1 Oracle Content Manager Customer UI Responsibilities

Oracle Content Manager (OCM) provides two levels of security - Functional and Data Level.

Functional Level: This controls the availability of tabs and enabling certain functions in the UI application. This appendix details the seeded responsibilities and the tabs available for each responsibility.

Data Level: Enables OCM users to execute different tasks in the application. To learn about the data level security, see [Section 3.1.2, "Setting OCM Data Security Profile Options"](#).

C.1.1 Seeded Responsibilities

[Table C-1](#) lists the seeded responsibilities in OCM along with a brief description of each responsibility.

Table C-1 Seeded Responsibilities

Responsibility ID	Responsibility Name	Responsibility Key	Description
23812	IBC Super User	IBC_SUPER_USER_KEY	OCM Super User
23811	IBC Approver	IBC_APPROVER_KEY	OCM Approver
23814	IBC User	IBC_USER_KEY	OCM User
23813	IBC Translator	IBC_TRANSLATOR_KEY	OCM Translator
23810	IBC Creator	IBC_CREATOR_KEY	OCM Creator

[Table C-2](#) lists the tabs that are available for the seeded responsibilities.

Table C-2 Oracle Content Manager Tabs and Responsibilities

Tab	Creator	Approver	Super User	Translator	User
My Content	Y	Y	Y	N	N
Library	Y	Y	Y	Y	Y
Pending Approvals	N	Y	Y	N	N
Translations	N	Y	Y	Y	N
Trash	Y	Y	Y	N	N
Content Type	N	N	Y	N	N
Foldering	N	N	Y	N	N

Content Item XML Formats

This appendix chapter gives the XML formats of content items in Oracle Content Manager (OCM). You must understand the XML format of OCM content items to write a proper XSL stylesheet. XSL stylesheets are used to render an OCM content item.

D.1 Regular Expressions

The following regular expressions give the formal description of the XML format of OCM content items.

Content Item XML ::=

```
{ Content Item Open Tag },
{ Attachment Attribute }?,
{ Primitive Attribute }*,
{ Component Item Attribute Reference }*,
{ Component Item Attribute }*,
{ Content Item End Tag }
```

Content Item Open Tag ::=

```
<CONTENT_TYPE_CODE datatype="citem" id="content_item_id" version="version_
number"
available="available_date" expiration="expiration_date"
ircode="item_reference_code" ref="f"
url="ibcGetContentItem.jsp?cItemId=content_item_id">
```

Content Item End Tag ::=

```
</CONTENT_TYPE_CODE>
```

Attachment Attribute ::=

```
<ATTACHMENT_ATTRIBUTE_TYPE_CODE datatype="attachment" id="attachment_file_id"
ref="t" file="attachment_file_name" mimeType="attachment_mime_type">
```

```
renditionName="rendition_name" defaultMimeType="t"  
url="ibcGetAttachment.jsp?fileId=attachment_file_id" />
```

Primitive Attribute ::=

```
{ Primitive String Attribute } | { Primitive Number Attribute } | { Primitive  
Date Attribute } |  
{ Primitive Boolean Attribute } | { Primitive HTML Attribute } | { Primitive URL  
Attribute }
```

Primitive String Attribute ::=

```
<TEXT_ATTRIBUTE_TYPE_CODE datatype="string">  
string value  
</TEXT_ATTRIBUTE_TYPE_CODE>
```

Primitive Number Attribute ::=

```
<NUMBER_ATTRIBUTE_TYPE_CODE datatype="decimal">  
number value  
</NUMBER_ATTRIBUTE_TYPE_CODE>
```

Primitive Date Attribute ::=

```
<DATE_ATTRIBUTE_TYPE_CODE datatype="dateTime">  
date value  
</DATE_ATTRIBUTE_TYPE_CODE>
```

Primitive Boolean Attribute ::=

```
<BOOLEAN_ATTRIBUTE_TYPE_CODE datatype="boolean">  
boolean value  
</BOOLEAN_ATTRIBUTE_TYPE_CODE>
```

Primitive HTML Attribute ::=

```
<HTML_ATTRIBUTE_TYPE_CODE datatype="html">  
html value  
</HTML_ATTRIBUTE_TYPE_CODE>
```

Primitive URL Attribute ::=

```
<URL_ATTRIBUTE_TYPE_CODE datatype="url">  
url value  
</URL_ATTRIBUTE_TYPE_CODE>
```

Component Item Attribute Reference ::=

```
<COMPONENT_ATTRIBUTE_TYPE_CODE datatype="component" id="component_item_id"  
ref="t" url="ibcGetContentItem.jsp?cItemId=component_item_id" />
```

Component Item Attribute ::=

```
{ Component Item Attribute Open Tag},
```

```
{ Content Item XML },
{ Component Item Attribute End Tag }
```

Component Item Attribute Open Tag ::=

```
<COMPONENT_ATTRIBUTE_TYPE_CODE datatype="component" id="component_item_id"
ref="f" url="ibcGetContentItem.jsp?cItemId=component_item_id" >
```

Component Item Attribute End Tag ::=

```
</COMPONENT_ATTRIBUTE_TYPE_CODE>
```

D.2 Example of OCM Content Item XML

```
<WHITEPAPER datatype="citem" id="10017" version="2" available="2002-05-01"
expiration="2003-05-01" ircode="WP123" ref="f"
url="ibcGetContentItem.jsp?cItemId=10017">
  <!-- Attachment Attribute -->
  <WP_ATTACHMENT datatype="attachment" id="24357" ref="t" file="wp123.pdf"
mimeType="application/pdf" renditionName="PDF" defaultMimeType="t"
url="ibcGetAttachment.jsp?fileId=24357" />
  <!-- Primitive Attributes -->
  <NAME datatype="string">Oracle 9i</NAME>
  <DESCRIPTION datatype="string">Oracle 9i Description</DESCRIPTION>
  <PUBLISH_DATE datatype="dateTime">27-DEC-01 17:24:18 PST</PUBLISH_DATE>
  <RELEASED datatype="boolean">T</RELEASED>
  <PRODUCT_ID datatype="decimal">1234567</PRODUCT_ID>
  <!-- Component Item Attribute Expanded -->
  <WP_IMAGE datatype="component" id="10003" ref="f"
url="ibcGetContentItem.jsp?cItemId=10003">
    <IMAGE datatype="citem" id="10003" version="9" available="" expiration=""
ircode="WPIMAGE123" ref="f" url="ibcGetContentItem.jsp?cItemId=10003">
      <IMAGE_FILE datatype="attachment" id="24358" ref="t"
file="image123.gif"
mimeType="image/gif" renditionName="GIF" defaultMimeType="t"
url="ibcGetAttachment.jsp?cItemId=24358" />
      <NAME datatype="string">Image</NAME>
      <DESCRIPTION datatype="string">Image Description</DESCRIPTION>
      <AUTHOR datatype="string">Test Author</AUTHOR>
    </IMAGE>
  </WP_IMAGE>
</WHITEPAPER>
```

Oracle Content Manager API Reference

Oracle Content Manager (OCM) provides a set of public Application Programming Interfaces (API) to retrieve contents that are stored in the OCM repository for viewing purposes. If you would like to customize or create front-end applications to display contents from the OCM repository, you can make use of these APIs to achieve your goal.

It is important to note that these public APIs are provided to retrieve contents for the viewing of end users. Therefore, the contents requested must be public and approved contents.

The main Java class that you will be using for retrieving contents is `ContentDeliveryManager`. For more details, see [Section E.8, "Class ContentDeliveryManager"](#). OCM internally supports content caching to enhance runtime performance. If you choose to build your own pages to administer the runtime cache, `ContentCacheManager` provides the APIs to do so. For more details, see [Section E.7, "Class ContentCacheManager"](#).

Topics in this appendix include:

- [Section E.1, "Content Manager API Interface Summary"](#)
- [Section E.2, "Interface ContentItemMeta"](#)
- [Section E.3, "Interface ContentItem"](#)
- [Section E.4, "Content Manager API Class Summary"](#)
- [Section E.5, "Class Attribute"](#)
- [Section E.6, "Class ComponentItemAttribute"](#)
- [Section E.7, "Class ContentCacheManager"](#)
- [Section E.8, "Class ContentDeliveryManager"](#)

- [Section E.9, "Class Rendition"](#)
- [Section E.10, "Exception Classes"](#)

E.1 Content Manager API Interface Summary

APIs for the OCM procedures are located in the package `oracle.apps.ibr.runtime`. [Table E-1](#) describes the interfaces briefly.

Table E-1 OCM Interface Summary

Interface Name	Description
Interface ContentItemMeta	The ContentItemMeta interface provides the APIs to access a content item's meta data.
Interface ContentItem	The ContentItem interface provides the APIs to access the content item's details and attributes.

E.2 Interface ContentItemMeta

The ContentItemMeta interface provides the APIs to access a content item's meta data.

A content item object can be loaded in three different levels: `Meta_Loaded`, `Basic_Loaded`, and `Deep_Loaded`.

- `Meta_Loaded` loads attributes that are required in all items, such as Name, Description, and Reference Code.
- `Basic_Loaded` loads attributes that form a superset of the `Meta_Loaded` attributes. It also contains the user-defined item's attributes. If the item contains component attributes, they are loaded as references.
- `Deep_Loaded` is similar to `Basic_Loaded` except that the item's component attributes are fully loaded instead of being references. In other words, the entire component item is loaded.

```
public interface ContentItemMeta
```

E.2.1 Variables for Interface ContentItemMeta

BASIC_LOADED

```
public static final int BASIC_LOADED
```

DEEP_LOADED

```
public static final int DEEP_LOADED
```

META_LOADED

```
public static final int META_LOADED
```

RCS_ID

```
public static final java.lang.String RCS_ID
```

E.2.2 Methods for Interface ContentItemMeta

Table E-2 is an index of ContentItemMeta interface methods.

Table E-2 Method Index for Interface ContentItemMeta

Method	Description
getAttachmentFileId	Returns the attachment file ID if the content item has an attachment. If no attachment, it returns -1.
getAttachmentFileName	Returns the attachment file name if the content item has an attachment. If no attachment, it returns NULL.
getAttachmentUrl	Returns the URL to access the default rendition attachment through HTTP.
getAvailableDate	Returns the available date of the content item.
getContentItemId	Returns the content item ID.
getContentItemName	Returns the name of the content item.
getContentTypeId	Returns the content type code.
getDefaultRenditionMimeType	Returns the default rendition mime type if the content item has an attachment.
getDefaultRenditionName	Returns the default rendition mime type if the content item has an attachment.
getDescription	Returns the description of the content item.
getExpirationDate	Returns the expiration date of the content item.
getItemReferenceCode	Returns the item reference code.
getLoadLevel	Return the load level of this content item.

getAttachmentField

```
public int getAttachmentFieldId()
```

Description

The `getAttachmentField` method returns the attachment file ID if the content item has an attachment. If no attachment, it returns -1.

Returns

The attachment file ID if the content item has an attachment. If no attachment, it returns -1.

getAttachmentFileName

```
public java.lang.String getAttachmentFileName()
```

Description

The `getAttachmentFileName` method returns the attachment file name if the content item has an attachment. If no attachment, it returns `NULL`.

Returns

Returns the attachment file name if the content item has an attachment. If no attachment, it returns `NULL`.

getAttachmentUrl

```
public java.lang.String getAttachmentUrl()
```

Description

The `getAttachmentUrl` method returns the URL to access the default rendition attachment through HTTP. If no attachment, it returns `NULL`.

Returns

Attachment URL

getAvailableDate

```
public java.util.Date getAvailableDate()
```

Description

Returns the available date of the content item if it was set up. If the date is not set up, it returns `NULL`.

Returns

Available Date

getContentItemId

```
public int getContentItemId()
```

Description

The `getContentItemId` method returns the content item's ID.

Returns

Content Item Id

getContentItemName

```
public java.lang.String getContentItemName()
```

Description

The `getContentItemName` method returns the name of the content item.

Returns

Content item name

getContentTypeCode

```
public java.lang.String getContentTypeCode()
```

Description

The `getContentTypeCode` method returns the type of the content code.

Returns

Content type code

getDefaultRenditionMimeType

```
public java.lang.String getDefaultRenditionMimeType()
```

Description

Returns the default rendition mime type if the content item has an attachment. If no attachment, returns NULL.

Returns

Default rendition MIME type

getDefaultRenditionName

```
public java.lang.String getDefaultRenditionName()
```

Description

Returns the default rendition name if the content item has an attachment. If no attachment, returns NULL.

Returns

Default rendition name

getDescription

```
public java.lang.String getDescription()
```

Description

The `getDescription` method returns the description of the content item.

Returns

Content item description

getExpirationDate

```
public java.util.Date getExpirationDate()
```

Description

Returns the expiration date of the content item if it was set up. If the content item is not set up, it returns NULL.

Returns

Expiration Date

getItemReferenceCode

```
public java.lang.String getItemReferenceCode()
```

Description

The `getItemReferenceCode` method returns the item reference code.

Returns

Item reference code

getLoadLevel

```
public int getLoadLevel()
```

Description

The `getLoadLevel` method returns the level of load in this content item. The return value of this method could be:

- `META_LOADED` - Content item is meta data loaded
- `BASIC_LOADED` - Content item is basic data loaded with references for component items
- `DEEP_LOADED` - Full data loaded with component items fully loaded

Returns

Content item load level

E.3 Interface ContentItem

```
public interface ContentItem  
extends ContentItemMeta
```

The `ContentItem` interface provides the APIs to access the content item's details and attributes. A content item object can be loaded in three different levels: `Meta_Loaded`, `Basic_Loaded`, and `Deep_Loaded`.

If the load level of the content item is `Deep_Loaded`, the dynamic type of the attribute object will be *ComponentItemAttribute*. The developers can access the full component item through this object type, which is a sub-class of class `Attribute`.

If the load level of the content item is `Basic_Loaded`, the dynamic type of its component item attribute is *Attribute*.

E.3.1 Fields Inherited

The following fields are inherited by interface `ContentItem` from interface `oracle.apps.abc.runtime`:

- `BASIC_LOADED`
- `DEEP_LOADED`

- META_LOADED

E.3.2 Methods Inherited by Interface ContentItem

The following methods have been inherited from interface oracle.apps.ibc.runtime:

- getAttachmentFileId
- getAttachmentFileName
- getAttachmentUrl
- getAvailableDate
- getContentItemId
- getContentItemName
- getContentTypeCode
- getDefaultRenditionMimeType
- getDefaultRenditionName
- getDescription
- getExpirationDate
- getItemReferenceCode
- getLoadLevel

E.3.3 Methods for Interface ContentItem

[Table E-3](#) is an index of ContentItem interface methods.

Table E-3 Method Index for Interface ContentItem

Method	Description
getAllAttributes	Returns both primitive and component attributes.
getAllPrimitiveAttributes	Returns all the primitive attributes.
getAllComponentItemAttributes	Returns all the component attributes.
getAttributes	Returns a list of attributes matching the given attribute type code.

getAllAttributes

```
public Attribute[] getAllAttributes()
```

Description

The `getAllAttribute` method returns both primitive and component attributes.

Returns

List of attributes

getAllPrimitiveAttributes

```
public Attribute[] getAllPrimitiveAttributes()
```

Description

The `getAllPrimitiveAttributes` method returns all the primitive attributes. Primitive attributes are attributes whose data types are string, decimal, datetime, and boolean.

Returns

List of primitive attributes

getAllComponentItemAttributes

```
public Attribute[] getAllComponentItemAttributes()
```

Description

The `getAllComponentItemAttributes` method returns all the component item attributes.

Returns

List of component attributes

getAttributes

```
public Attribute[] getAttributes(java.lang.String attributeTypeCode)
```

Description

The `getAttributes` method returns a list of attributes matching the given attribute type code. The method returns `NULL` if there is no match.

Returns

List of attributes

Parameters

AttributeTypeCode - This is the type of attribute code.

E.4 Content Manager API Class Summary

APIs for the Oracle Content Manager procedures are located in the package `oracle.apps.ibruntime`.

Table E-4 describes the classes briefly.

Table E-4 OCM Class Summary

Interface Name	Description
Class Attribute	Class Attribute is the superclass of all classes representing an attribute of a content item.
Class ComponentItemAttribute	ComponentItemAttribute is a sub-class of Attribute. It represents a component item attribute of a content item.
Class ContentCacheManager	The OCM run-time cache enhances performance when delivering content items to the end users.
Class ContentDeliveryManager	The ContentDeliveryManager class provides APIs for applications to retrieve content items stored in the OCM Content Repository that are to be used by public end users.
Class ContentDeliveryException	This class extends the FrameworkException class and indicates that there are problems in calling the OCM Runtime APIs.

E.5 Class Attribute

```
public class Attribute
extends java.lang.Object
```

Attribute is the superclass of all classes representing an attribute of a content item.

E.5.1 Constructors for Class Attribute

Attribute

```
public Attribute(java.lang.String attributeTypeCode,
                 java.lang.String dataTypeCode,
                 java.lang.String attributeValue)
```

E.5.2 Methods Inherited

The following methods are inherited by class `Attribute` from class `java.lang.Object`

- `equals`
- `getClass`
- `hashCode`
- `notify`
- `notifyAll`
- `toString`
- `wait`

E.5.3 Methods for Class `Attribute`

[Table E-5](#) is an index of `Attribute` class methods.

Table E-5 Method Index for Class `Attribute`

Method	Description
getAttributeTypeCode	Returns the attribute type code of the attribute.
getAttributeValue	Returns the attribute value.
getDataTypeCode	Returns the data type code of this attribute.

getAttributeTypeCode

```
public java.lang.String getAttributeTypeCode()
```

Description

The `getAttributeTypeCode` method returns the type of attribute code of the attribute.

Returns

Attribute type code of the attribute.

getAttributeValue

```
public java.lang.String getAttributeValue()
```

Description

The `getAttributeValue` method returns the attribute value. If the data type code of this attribute is of primitive type (for example, string, decimal, or boolean), the return value will be the attribute value. If the data type code of this attribute is component, the return value will be the ID of the component item.

Returns

Attribute value or Component item ID

getDataTypeCode

```
public java.lang.String getDataTypeCode()
```

Description

The `getDataTypeCode` method returns the data type code of this attribute.

Returns

Data type code of this attribute.

E.6 Class ComponentItemAttribute

```
public class ComponentItemAttribute  
extends Attribute
```

`ComponentItemAttribute` is a sub-class of `Attribute`. It represents a component item attribute of a content item.

E.6.1 Constructor for Class ComponentItemAttribute

ComponentItemAttribute

```
public ComponentItemAttribute(java.lang.String attributeTypeCode,  
                               java.lang.String dataTypeCode,  
                               java.lang.String attributeValue,  
                               ContentItem item)
```

E.6.2 Methods Inherited

The following methods are inherited by class `ComponentItemAttribute` from class `oracle.apps.abc.runtime.Attribute`.

- `getAttributeTypeCode`

- `getAttributeValue`
- `getDataTypeCode`

The following methods are inherited by class `ComponentItemAttribute` from class `java.lang.Object`.

- `equals`
- `getClass`
- `hashCode`
- `notify`
- `notifyAll`
- `toString`
- `wait`
- `wait`
- `wait`

E.6.3 Methods for Class `ComponentItemAttribute`

[Table E-6](#) is an index of `ComponentItemAttribute` class methods.

Table E-6 *Method Index for Class `ComponentItemAttribute`*

Method	Description
getComponentItem	Returns a component item of this Component Item Attribute.

getComponentItem

```
public ContentItem getComponentItem()
```

Description

The `getComponentItem` method returns a component item of the component item attribute.

Returns

Component item object.

E.7 Class ContentCacheManager

```
public class ContentCacheManager
extends java.lang.Object
```

The OCM run-time cache enhances performance when delivering content items to the end users.

This run-time cache is not used in the OCM Administrative APIs. The ContentCacheManager provides APIs for explicitly updating the OCM Runtime Cache. These APIs are primarily intended for applications or modules that do not make use of the OCM Administration module to maintain their content, but instead do the administration of the content themselves. Such modules would require to explicitly update the OCM Runtime Cache. These APIs update only the cache entries, and therefore should always be called after the actual update to the database.

E.7.1 Methods Inherited

The following methods are inherited by class ContentCacheManager from class java.lang.Object

- equals
- getClass
- hashCode
- notify
- notifyAll
- toString
- wait
- wait
- wait

E.7.2 Methods for Class ContentCacheManager

[Table E-7](#) is an index of ContentCacheManager class methods.

Table E-7 Method Index for Class ContentCacheManager

Method	Description
invalidateAssociation	Invalidates an association between a CRM object and a content item in the OCM cache.
invalidateLabelVersion	Invalidates the specified label version in the OCM cache.
invalidateLiveVersion	Invalidates the live version of the specified content item in the OCM cache.
preloadContentItems	Preloads the requested content items in the versions specified in their labels and in the requested languages into the OCM Cache.
putAssociation	Associates a CRM object and a content item into the OCM Cache.
updateLabelVersion	Updates the OCM cache with a new version number for the specified label version.
updateLiveVersion	Updates the OCM cache with the new live version number for the specified content item.

invalidateAssociation

```
public static void invalidateAssociation(
    java.lang.String associatedObjectVal1,
    java.lang.String associatedObjectVal2,
    java.lang.String associatedObjectVal3,
    java.lang.String associatedObjectVal4,
    java.lang.String associatedObjectVal5,
    int contentItemId)
    throws oracle.apps.jtf.base.resources.FrameworkException
```

Description

The `InvalidateAssociation` method invalidates an association between a CRM object and a content item in the OCM cache. This should be used when an association is deleted.

Parameters

- `associationTypeCode` - the association type
- `associatedObjectVal1` - ID value of the associated object
- `associatedObjectVal2` - ID value of the associated object (pass `NULL` if not applicable)

- associatedObjectVal3 - ID value of the associated object (pass NULL if not applicable)
- associatedObjectVal4 - ID value of the associated object (pass NULL if not applicable)
- associatedObjectVal5 - ID value of the associated object (pass NULL if not applicable)
- contentItemId - ID of the content item that is associated with the specified CRM object

Throws

oracle.apps.jtf.base.resources.FrameworkException - Framework Cache Error

invalidateLabelVersion

```
public static void invalidateLabelVersion(  
java.lang.String label,  
int contentItemId)  
throws oracle.apps.jtf.base.resources.FrameworkException
```

Description

The `InvalidateLabelVersion` method invalidates the specified label version in the OCM cache. This should be used when a version of an item linked to the label has changed.

Parameters

- label - label code
- contentItemId - content item ID

Throws

oracle.apps.jtf.base.resources.FrameworkException - Framework Cache Error

invalidateLiveVersion

```
public static void invalidateLiveVersion(int contentItemId)  
throws oracle.apps.jtf.base.resources.FrameworkException
```

Description

The `InvalidateLiveVersion` method invalidates the live version of the specified content item in the OCM cache. This should be called when the live version of the given content item has changed.

Parameters

contentItemId - content item ID

Throws

oracle.apps.jtf.base.resources.FrameworkException - Framework Cache Error

preloadContentItems

```
public static void preloadContentItems(int[] contentItemIds,  
                                     java.lang.String[] labels,  
                                     java.lang.String[][] languageCodes)  
                                     throws InvalidInputException,  
oracle.apps.jtf.base.resources.FrameworkException
```

Description

The `preloadContentItems` method preloads the requested content items in the versions specified in their labels and in the requested languages into the OCM Cache. If any inputs are invalid, the loading process continues by skipping the invalid ones.

Parameters

- `contentItemIds` - 1D array of content item IDs
- `labels` - 1D array of labels
- `languageCodes` - 2D array of language codes (each `contentItemId`-label mapping returns ties to an array of languages to be loaded)

Throws

InvalidInputException - Input Error. Input arrays must be parallel (equal in length)

oracle.apps.jtf.base.resources.FrameworkException - Framework Cache Error

putAssociation

```
public static void putAssociation(java.lang.String associationTypeCode,  
                                 java.lang.String associatedObjectVal1,  
                                 java.lang.String associatedObjectVal2,  
                                 java.lang.String associatedObjectVal3,  
                                 java.lang.String associatedObjectVal4,  
                                 java.lang.String associatedObjectVal5,  
                                 int contentItemId)  
throws oracle.apps.jtf.base.resources.FrameworkException
```

Description

The `putAssociation` method associates a CRM object and a content item into the OCM Cache. This should be used when a new association is created.

Parameters

- `associationTypeCode` - the association type
- `associatedObjectVal1` - ID value of the associated object
- `associatedObjectVal2` - ID value of the associated object (pass `NULL` if not applicable)
- `associatedObjectVal3` - ID value of the associated object (pass `NULL` if not applicable)
- `associatedObjectVal4` - ID value of the associated object (pass `NULL` if not applicable)
- `associatedObjectVal5` - ID value of the associated object (pass `NULL` if not applicable)
- `contentItemId` - ID of the content item to be associated with the specified CRM object

Throws

`oracle.apps.jtf.base.resources.FrameworkException` - Framework Cache Error

updateLabelVersion

```
public static void updateLabelVersion(java.lang.String label,  
                                     int contentItemId,  
                                     int versionNumber)  
throws oracle.apps.jtf.base.resources.FrameworkException
```

Description

The `UpdateLabelVersion` method updates the OCM cache with a new version number for the specified label version. This should be used when a version of the given item linked to the label has changed.

Parameters

- `label` - label code
- `contentItemId` - content item ID
- `versionNumber` - the new version number

Throws

oracle.apps.jtf.base.resources.FrameworkException - Framework Cache Error

updateLiveVersion

```
public static void updateLiveVersion(int contentItemId,  
                                     int versionNumber)  
throws oracle.apps.jtf.base.resources.FrameworkException
```

Description

The `UpdateLiveVersion` method updates the OCM cache with the new live version number for the specified content item. This should be called when the live version of the given content item has changed.

Parameters

- `contentItemId` - content item ID
- `versionNumber` - the new live version

Throws

oracle.apps.jtf.base.resources.FrameworkException - Framework Cache Error

E.8 Class ContentDeliveryManager

```
public class ContentDeliveryManager  
extends java.lang.Object
```

Description

The `ContentDeliveryManager` class provides APIs for applications to retrieve content items stored in the OCM Content Repository that are to be used by public end users.

The `ContentDeliveryManager` makes use of the OCM Runtime Cache underneath it to enhance the performance of content retrieval. An application that chooses to administer its content on its own, instead of using the OCM administrative component, may need to use `ContentCacheManager` in parallel.

A content item can be loaded in 3 different levels: META, BASIC and DEEP.

- META will load attributes that are required in all items, such as Name, Description, and Reference Code.

- BASIC will load attributes that form a superset of the META_LOADED; it will also contain the user-defined item's attributes. If the item contains component attributes, they will be loaded as references.
- DEEP is similar to BASIC except that the item's component attributes are fully loaded instead of being references (i.e., the entire component item is loaded).

E.8.1 Methods Inherited

The following methods are inherited by class ContentDeliveryManager from the class java.lang.Object:

- equals
- getClass
- hashCode
- notify
- notifyAll
- toString
- wait
- wait
- wait

E.8.2 Methods for Class ContentDeliveryManager

Table E-8 is an index of ContentDeliveryManager class methods.

Table E-8 Method Index for Class ContentDeliveryManager

Method	Description
getAttachmentUrlByCItemId	Returns the URL to access the IBC binary loader to stream an attachment file through HTTP.
getCitemsMetaByAssoc	Returns a list of content items with their metadata based on association and, optionally, on label.
getCitemsMetaByAssocCtype	Returns a list of content items with their metadata based on association, content type and, optionally, on label.

Table E-8 Method Index for Class ContentDeliveryManager

Method	Description
getContentItemUrlBasic	Returns the URL to access the IBC content item loader to stream a content item (basic load), with the specified stylesheet applied, through HTTP.
getContentItemUrlBasic	Returns the URL to access the IBC content item loader to stream a content item (basic load), with its content type's default stylesheet applied, through HTTP.
getContentItemUrlDeep	Returns the URL to access the IBC content item loader to stream a content item (deep load), with the specified stylesheet applied, through HTTP.
getContentItemUrlDeep	Returns the URL to access the IBC content item loader to stream a content item (deep load), with its content type's default stylesheet applied, through HTTP.
loadContentItemBasic	Returns a content item with its basic data.
loadContentItemBasicWithXSL	Loads a content item (basic load), with the specified stylesheet applied, into an Output stream.
loadContentItemBasicWithXSL	Loads a content item (basic load), with its content type's default stylesheet applied, into an Output stream.
loadContentItemBasicXml	Returns a content item with its basic data in XML.
loadContentItemBasicXmlDom	Returns a content item with its basic data in XML.
loadContentItemDeep	Returns a content item with its full data.
loadContentItemDeepWithXSL	Loads a content item (deep load), with the specified stylesheet applied, into an Output stream.
loadContentItemDeepWithXSL	Loads a content item (deep load), with its content type's default stylesheet applied, into an Output stream.
loadContentItemDeepXml	Returns a content item with its full data.
loadContentItemDeepXmlDom	Returns a content item with its full data.
loadContentItemMeta	Returns a content item with its metadata.
loadContentItemsMeta	Returns a list of content items with their metadata based on their IDs.

getAttachmentUrlByCitemId

```
public static java.lang.String getAttachmentUrlByCitemId(int cItemId,  
                                                         java.lang.String label)
```

Description

The `getattachmentUrlByCItemID` method returns the URL to access the IBC binary loader to stream an attachment file through HTTP.

Returns

The URL of the IBC binary loader.

Parameters

- `cItemId` - ID of the content item whose attachment has to be streamed back.
- `label` - Label to specify the version of a particular content item (pass `NULL` if not applicable).

getAttachmentURLByFileId

```
public static java.lang.String getAttachmentUrlByFileId(int fileId)
```

Description

The `getattachmentUrlByFileID` method returns the URL to access the IBC binary loader to stream an attachment file through HTTP.

Returns

The URL of the IBC binary loader.

Parameters

`fileId` - The file ID of the content item attachment that has to be streamed back.

getAttachmentUrlByItemRefCode

```
public static java.lang.String getAttachmentUrlByItemRefCode  
(java.lang.String iRCode,  
 java.lang.String label)
```

Description

The `getattachmentUrlByItemRefCode` method returns the URL to access the IBC binary loader to stream an attachment file through HTTP.

Returns

The URL of the IBC binary loader.

Parameters

- `iRCode` - Item reference code of the content item whose attachment has to be streamed back.
- `label` - Label to specify a particular content item's version (pass `NULL` if not applicable).

getCItemsMetaByAssoc

```
public static ContentItemMeta[] getCItemsMetaByAssoc(java.lang.String
associationTypeCode,
java.lang.String associatedObjectVal1,
java.lang.String associatedObjectVal2,
java.lang.String associatedObjectVal3,
java.lang.String associatedObjectVal4,
java.lang.String associatedObjectVal5,
java.lang.String label)
throws InvalidInputException,
ContentDeliveryException
```

Description

The `getCItemMetaByAssoc` method returns a list of content items with their metadata based on association and, optionally on label.

Returns

List of matched content items

Parameters

- `associationTypeCode` - The association type (required)
- `associatedObjectVal1` - ID value of the associated object (required)
- `associatedObjectVal2` - ID value of the associated object (pass `NULL` if not applicable)
- `associatedObjectVal3` - ID value of the associated object (pass `NULL` if not applicable)
- `associatedObjectVal4` - ID value of the associated object (pass `NULL` if not applicable)
- `associatedObjectVal5` - ID value of the associated object (pass `NULL` if not applicable)

- label - The label for retrieving specific approved content item versions that is previously set up (pass NULL if not applicable). If a label is passed in, items that are not linked with the label will not be returned.

Throws

InvalidInputException - Thrown if associationTypeCode or label is invalid, and if associationTypeCode or associatedObjectVal1 is NULL.

ContentDeliveryException - Thrown if the content items that match the input criteria should not be returned at runtime for any of these reasons:

- Content item is not approved (status is not APPROVED)
- Content item is working directory private
- Content item not being retrieved at a time between its start and end date.

This is also thrown if other system setups are not correct. For example, database connection cannot be established.

getCitemMetaByAssocCtype

```
public static ContentItemMeta[] getCitemMetaByAssocCtype
(java.lang.String associationTypeCode,
java.lang.String associatedObjectVal1,
java.lang.String associatedObjectVal2,
java.lang.String associatedObjectVal3,
java.lang.String associatedObjectVal4,
java.lang.String associatedObjectVal5,
java.lang.String contentTypeCode,
java.lang.String label)
throws InvalidInputException,
ContentDeliveryException
```

Description

The getCitemMetaByAssocCtype method returns a list of content items with their metadata based on association, content type and, optionally on label. Only items that belong to the given association and the given content type will be returned.

Returns

List of matched content items.

Parameters

- associationTypeCode - the association type (required)

- `associatedObjectVal1` - ID value of the associated object (required)
- `associatedObjectVal2` - ID value of the associated object (pass `NULL` if not applicable)
- `associatedObjectVal3` - ID value of the associated object (pass `NULL` if not applicable)
- `associatedObjectVal4` - ID value of the associated object (pass `NULL` if not applicable)
- `associatedObjectVal5` - ID value of the associated object (pass `NULL` if not applicable)
- `contentTypeCode` - the content type (required)
- `label` - Label for retrieving specific approved content item versions that has been previously set up (pass `NULL` if not applicable). If a label is passed in, items that are not linked with the label will not be returned.

Throws

`InvalidInputException` - Thrown if `associationTypeCode` or `label` is invalid, and if `associationTypeCode`, `associatedObjectVal1` or `contentTypeCode` is `NULL`.

`ContentDeliveryException` - Thrown if the content items that match the input criteria should not be returned at runtime for any of these reasons:

- Content item is not approved (status is not `APPROVED`)
- Content item is working directory private
- Content item not being retrieved at a time between its start and end date

Also thrown if other system setups are not correct. For example, database connection cannot be established.

getContentItemUrlBasic

```
public static java.lang.String getContentItemUrlBasic (int contentItemId,  
java.lang.String contentItemLabel,  
int stylesheetId,  
java.lang.String stylesheetLabel)
```

Description

The `getContentItemUrlBasic` method returns the URL to access the IBC content item loader to stream a content item (basic load), with the specified stylesheet applied, through HTTP.

Returns

URL of the IBC content item loader.

Parameters

- `contentItemId` - ID of the content item to be returned.
- `contentItemLabel` - Label to specify a particular content item version (pass `NULL` if not applicable).
- `stylesheetId` - ID of the stylesheet item to be used to apply on the content item.
- `stylesheetLabel` - Label to specify a particular version of the stylesheet (pass `NULL` if not applicable).

getContentItemUrlBasic

```
public static java.lang.String getContentItemUrlBasic  
int contentItemId,  
java.lang.String contentItemLabel,  
java.lang.String stylesheetLabel)
```

Description

The `getContentItemUrlBasic` method returns the URL to access the IBC content item loader to stream a content item (basic load), with the content type's default stylesheet applied, through HTTP.

Returns

URL of the IBC content item loader.

Parameters

- `contentItemId`- ID of the content item to be returned.
- `contentItemLabel`- Label to specify a particular content item version (pass `NULL` if not applicable).
- `stylesheetLabel`- Label to specify a particular version of the default stylesheet (pass `NULL` if not applicable).

getContentItemUrlDeep

```
public static java.lang.String getContentItemUrlBasic (int contentItemId,  
java.lang.String contentItemLabel,  
java.lang.String stylesheetLabel)
```

Description

The `getContentItemUrlDeep` method returns the URL to access the IBC content item loader to stream a content item (deep load), with the specified stylesheet applied, through HTTP.

Returns

URL of the IBC content item loader.

Parameters

- `contentItemId` - ID of the content item to be returned.
- `contentItemLabel` - Label to specify a particular content item version (pass `NULL` if not applicable).
- `stylesheetId` - ID of the stylesheet item to be used to apply on the content item.
- `stylesheetLabel` - Label to specify a particular version of the stylesheet (pass `NULL` if not applicable).

getContentItemUrlDeep

```
public static java.lang.String getContentItemUrlDeep (int contentItemId,  
java.lang.String contentItemLabel,  
java.lang.String stylesheetLabel)
```

Description

The `getContentItemUrlDeep` method returns the URL to access the IBC content item loader to stream a content item (deep load), with the content type's default stylesheet applied, through HTTP.

Returns

URL of the IBC content item loader.

Parameters

- `contentItemId` - ID of the content item to be returned.
- `contentItemLabel` - Label to specify a particular content item version (pass `NULL` if not applicable).
- `stylesheetLabel` - Label to specify a particular version of the default stylesheet (pass `NULL` if not applicable).

loadContentItemBasic

```
public static ContentItem loadContentItemBasic (int contentItemId,  
java.lang.String label)
```

throws `InvalidInputException`,
`ContentDeliveryException`

Description

The `loadContentItemBasic` method returns the content item with its basic data. Basic data includes the item's metadata, attachment information, all its attributes, and references to any of its component items.

Returns

Content item with basic data

Parameters

- `contentItemId` - Content item ID
- `label` - Label for retrieving a specific approved content item version that has been previously set up (pass `NULL` if not applicable). If a label is passed in, items that are not linked with the label will not be returned.

Throws

`InvalidInputException` - Thrown if `contentItemId`, or `label` is invalid.

`ContentDeliveryException` - Thrown if the content item should not be returned at runtime for any of these reasons:

- Content item is not approved (status is not `APPROVED`)
- Content item is working directory private
- Content item not being retrieved at a time between its start and end date.

Also thrown if other system setups are not correct. For example, database connection cannot be established.

loadContentItemBasicWithXSL

```
public static void loadContentItemBasicWithXSL(int contentItemId,  
java.lang.String contentItemLabel,  
int stylesheetID,  
java.lang.String stylesheetLabel,  
java.io.OutputStream out)  
throws InvalidInputException,  
ContentDeliveryException
```

Description

The `loadContentItemBasicWithXSL` method loads a content item (basic load), with the content type's default stylesheet applied, into an Output stream.

Parameters

- `contentItemId` - ID of the content item to be loaded.
- `contentItemLabel` - Label to specify a particular content item version (pass `NULL` if not applicable)
- `stylesheetLabel` - Label to specify a particular version of the default stylesheet (pass `NULL` if not applicable)

Throws

`InvalidInputException` - Thrown if `contentItemId`, `contentItemLabel`, or `stylesheetLabel` is invalid, and if `out` is `NULL`.

`ContentDeliveryException` - Thrown if the content item or the default stylesheet item should not be retrieved at runtime for any of these reasons:

- Content item is not approved (status is not `APPROVED`)
- Content item is working directory private
- Content item not being retrieved at a time between its start and end date.

Also thrown if other system setups are not correct. For example, database connection cannot be established.

loadContentItemBasicWithXSL

```
public static void loadContentItemBasicWithXSL
(int contentItemId,
java.lang.String contentItemLabel,
java.lang.String stylesheetLabel,
java.io.OutputStream out)
throws InvalidInputException,
ContentDeliveryException
```

Description

The `loadContentItemBasicWithXSL` method loads a content item (basic load), with the content type's default stylesheet applied, into an Output stream.

Parameters

- `contentItemId` - ID of the content item to be loaded.

- `contentItemLabel` - Label to specify a particular content item version (pass `NULL` if not applicable).
- `stylesheetLabel` - Label to specify a particular version of the default stylesheet (pass `NULL` if not applicable).

Throws

`InvalidInputException` - Thrown if `contentItemId`, `contentItemLabel`, or `stylesheetLabel` is invalid, and if `out` is `NULL`.

`ContentDeliveryException` - Thrown if the content item or the default stylesheet item should not be retrieved at runtime for any of these reasons:

- Content item is not approved (status is not `APPROVED`)
- Content item is working directory private
- Content item not being retrieved at a time between its start and end date.

Also thrown if other system setups are not correct. For example, database connection cannot be established.

loadContentItemBasicXml

```
public static java.lang.String loadContentItemBasicXml
(int contentItemId,
java.lang.String label)
throws InvalidInputException,
ContentDeliveryException
```

Description

The `loadContentItemBasicXML` method returns a content item with its basic data in XML. Basic data includes the item's metadata, attachment information, all attributes and references to any of its component items.

Returns

Content item with basic data in XML.

Parameters

- `contentItemId` - Content item ID
- `Label` - Label for retrieving a specific approved content item version that has been previously set up (pass `NULL` if not applicable). If a label is passed in, items that are not linked with the label will not be returned.

Throws

InvalidInputException - Thrown if contentItemId, or label is invalid.

ContentDeliveryException - Thrown if the content item should not be returned at runtime for any of these reasons:

1. Content item is not approved (status is not APPROVED)
2. Content item is working directory private
3. Content item not being retrieved at a time between its start and end date.

Also thrown if other system setups are not correct. For example, database connection cannot be established.

loadContentItemBasicXmlDom

```
public static org.w3c.dom.Document loadContentItemBasicXmlDom
(int contentItemId,
java.lang.String label)
throws InvalidInputException,
ContentDeliveryException
```

Description

The loadContentItemBasicXMLDom method returns a content item with its basic data in XML. Basic data includes the item's metadata, attachment information, all attributes and references to any of its component items.

Returns

Content Item with basic data in XML Dom object.

Parameters

- contentItemId - Content item ID
- label - Label for retrieving a specific approved content item version that has been previously set up (pass NULL if not applicable). If a label is passed in, items that are not linked with the label will not be returned.

Throws

InvalidInputException - Thrown if contentItemId, or label is invalid.

ContentDeliveryException - Thrown if the content item should not be returned at runtime for any of these reasons:

- Content item is not approved (status is not APPROVED)
- Content item is working directory private

- Content item not being retrieved at a time between its start and end date.

Also thrown if other system setups are not correct. For example, database connection cannot be established.

loadContentItemDeep

```
public static ContentItem loadContentItemDeep
(int contentItemId,
java.lang.String label)
throws InvalidInputException,
ContentDeliveryException
```

Description

The `loadContentItemDeep` method returns a content item with its full data. The item's component items are fully loaded instead of being references. If the item's component in turn has some other components, they will also be fully loaded.

Returns

Content item with full data

Parameters

- `contentItemId` - Content item ID
- `label` - Label for retrieving a specific approved content item version that has been previously set up (pass `NULL` if not applicable). If a label is passed in, items that are not linked with the label will not be returned.

Throws

`InvalidInputException` - Thrown if `contentItemId`, or `label` is invalid.

`ContentDeliveryException` - Thrown if the content item should not be returned at runtime for any of these reasons:

- Content item is not approved (status is not `APPROVED`)
- Content item is working directory private
- Content item not being retrieved at a time between its start and end date.

Also thrown if other system setups are not correct. For example, database connection cannot be established.

loadContentItemDeepWithXSL

```
public static void loadContentItemDeepWithXSL
```

```
(int contentItemId,
java.lang.String contentItemLabel,
int stylesheetId,
java.lang.String stylesheetLabel,
java.io.OutputStream out)
throws InvalidInputException,
ContentDeliveryException
```

Description

The `loadContentItemDeepWithXSL` method loads a content item (deep load), with the specified stylesheet applied, into an Output stream.

Parameters

- `contentItemId` - ID of the content item to be loaded.
- `contentItemLabel` - Label to specify a particular content item version (pass `NULL` if not applicable).
- `stylesheetId` - ID of the stylesheet item to be used to apply on the content item.
- `stylesheetLabel` - Label to specify a particular version of the stylesheet (pass `NULL` if not applicable).

Throws

`InvalidInputException` - Thrown if `contentItemId`, `contentItemLabel`, `stylesheetId`, or `stylesheetLabel` is invalid, and if `out` is `NULL`.

`ContentDeliveryException` - Thrown if the content item or the stylesheet item should not be retrieved at runtime for any of these reasons:

1. Content item is not approved (status is not APPROVED)
2. Content item is working directory private
3. Content item not being retrieved at a time between its start and end date.

Also thrown if other system setup is not correct. For example, database connection cannot be established.

loadContentItemDeepWithXSL

```
public static void loadContentItemDeepWithXSL
(int contentItemId,
java.lang.String contentItemLabel,
java.lang.String stylesheetLabel,
java.io.OutputStream out)
```

throws `InvalidInputException`,
`ContentDeliveryException`

Description

The `loadContentItemDeepWithXSL` method loads a content item (deep load), with the content type's default stylesheet applied, into an Output stream.

Parameters

- `contentItemId` - ID of the content item to be loaded.
- `contentItemLabel` - Label to specify a particular content item version (pass `NULL` if not applicable).
- `stylesheetLabel` - Label to specify a particular version of the default stylesheet (pass `NULL` if not applicable).

Throws

`InvalidInputException` - Thrown if `contentItemId`, `contentItemLabel`, or `stylesheetLabel` is invalid, and if `out` is `NULL`.

`ContentDeliveryException` - Thrown if the content item or the default stylesheet item should not be retrieved at runtime for any of these reasons:

- Content item is not approved (status is not `APPROVED`)
- Content item is working directory private
- Content item not being retrieved at a time between its start and end date.

Also thrown if other system setups are not correct. For example, database connection cannot be established.

loadContentItemDeepXml

```
public static java.lang.String loadContentItemDeepXml  
(int contentItemId,  
java.lang.String label)  
throws InvalidInputException,  
ContentDeliveryException
```

Description

The `loadContentItemDeepWithXML` method returns a content item with its full data. The item's component items are fully loaded instead of being references. If the item's component in turn has some other components, they will also be fully loaded.

Returns

Content item with full data in XML.

Parameters

- `contentItemId` - Content item ID
- `label` - Label for retrieving a specific approved content item version that has been previously set up (pass `NULL` if not applicable). If a label is passed in, items that are not linked with the label will not be returned.

Throws

`InvalidInputException` - Thrown if `contentItemId`, or `label` is invalid.

`ContentDeliveryException` - Thrown if the content item should not be returned at runtime for any of these reasons:

- Content item is not approved (status is not `APPROVED`)
- Content item is working directory private
- Content item not being retrieved at a time between its start and end date.

Also thrown if other system setups are not correct. For example, database connection cannot be established.

loadContentItemDeepXmlDom

```
public static org.w3c.dom.Document loadContentItemDeepXmlDom
(int contentItemId,
java.lang.String label)
throws InvalidInputException,
ContentDeliveryException
```

Description

The `loadContentItemDeepWithXMLDom` method returns a content item with its full data. The item's component items are fully loaded instead of being references. If the item's component in turn has some other components, they will also be fully loaded.

Returns

Content item with full data in XML Dom object.

Parameters

- `contentItemId` - Content item ID

- label - Label for retrieving a specific approved content item version that has been previously set up (pass NULL if not applicable). If a label is passed in, items that are not linked with the label will not be returned.

Throws

InvalidInputException - Thrown if contentItemId, or label is invalid.

ContentDeliveryException - Thrown if the content item should not be returned at runtime for any of these reasons:

- Content item is not approved (status is not APPROVED)
- Content item is working directory private
- Content item not being retrieved at a time between its start and end date.

This is also thrown if other system setups are not correct. For example, database connection cannot be established.

loadContentItemMeta

```
public static ContentItemMeta loadContentItemMeta
(int contentItemId,
java.lang.String label)
throws InvalidInputException,
ContentDeliveryException
```

Description

The loadContentItemMeta method returns a content item with its metadata.

Returns

Content item with its metadata.

Parameters

- contentItemId - Content item ID
- label - Label for retrieving a specific approved content item version that has been previously set up (pass NULL if not applicable). If a label is passed in, items that are not linked with the label will not be returned.

Throws

InvalidInputException - Thrown if contentItemId, or label is invalid.

ContentDeliveryException - Thrown if the content item should not be returned at runtime for any of these reasons:

- Content item is not approved (status is not APPROVED)

- Content item is working directory private
- Content item not being retrieved at a time between its start and end date.

This is also thrown if other system setups are not correct. For example, database connection cannot be established.

loadContentItemsMeta

```
public static ContentItemMeta[] loadContentItemsMeta
(int[] contentItemIds,
java.lang.String label)
throws InvalidInputException,
ContentDeliveryException
```

Description

The `loadContentItemsMeta` method returns a list of content items with metadata based on their IDs.

Returns

List of content items.

Parameters

- `contentItemIds` - List IDs of the content items to be returned
- `label` - Label for retrieving specific approved content item versions that has been previously set up (pass `NULL` if not applicable). If a label is passed in, items that are not linked with the label will not be returned.

Throws

`InvalidInputException` - Thrown if any of the `contentItemIds`, or `label` is invalid, and if `contentItemIds` is `NULL`.

`ContentDeliveryException` - Thrown if the content items that match the input criteria should not be returned at runtime for any of these reasons:

- Content item is not approved (status is not `APPROVED`)
- Content item is working directory private
- Content item not being retrieved at a time between its start and end date.

This is also thrown if other system setups are not correct. For example, database connection cannot be established.

E.9 Class Rendition

```
public class Rendition
extends java.lang.Object
```

Description

Rendition is a specific MIME type of an attachment of a content item.

E.9.1 Methods Inherited

The following methods are inherited by the Rendition class from the class `java.lang.Object`:

- `equals`
- `getClass`
- `hashCode`
- `notify`
- `notifyAll`
- `toString`
- `wait`
- `wait`
- `wait`

E.9.2 Methods for Class Rendition

[Table E-9](#) is an index of Rendition class methods.

Table E-9 Method Index for Class Rendition

Method	Description
getFileId	Returns the file ID of this rendition.
getFileName	Returns the file name of this rendition.
getMimeType	Returns the MIME type of this rendition.
getRenditionName	Returns the translatable name of this rendition MIME type.

getFileId

```
public int getFileId()
```

Description

The `getFileId` method returns the file ID of this rendition.

Returns

File ID

getFileName

```
public java.lang.String getFileName()
```

Description

The `getFileName` method returns the file name of this rendition.

Returns

File Name

getMimeType

```
public java.lang.String getMimeType()
```

Description

The `getMimeType` method returns the MIME type of this rendition.

Returns

MIME type

getRenditionName

```
public java.lang.String getRenditionName()
```

Description

The `getRenditionName` method returns the translatable name of this rendition MIME type.

Returns

Rendition name

E.10 Exception Classes

The `ContentDeliveryException` is the exception class for the Oracle Content Manager procedures. The class is located in the package `oracle.apps.ibruntime`.

E.10.1 Class `ContentDeliveryException`

```
public class ContentDeliveryException
    extends oracle.apps.jtf.base.resources.FrameworkException
```

The `ContentDeliveryException` class extends the `FrameworkException` class and indicates that there are problems in calling the OCM Runtime APIs.

E.10.2 Constructors for Class `ContentDeliveryException`

ContentDeliveryException

```
public ContentDeliveryException(java.lang.Exception ex,
                               java.lang.String errorKey)
```

Description

Creates a new exception with a base exception and a predefined key.

Parameters

- `ex` - Base exception
- `ErrorKey` - `ErrorKey` defined for this exception

ContentDeliveryException

```
public ContentDeliveryException(java.lang.String errorKey)
```

Description

Creates a new exception with a predefined key.

Parameters

`errorKey` - `ErrorKey` defined for this exception

E.10.3 Fields Inherited

The following fields are inherited by class `ContentDeliveryException` from class `oracle.apps.jtf.base.resources.FrameworkException`.

- DEBUG
- defaultMsgMgr
- ERROR
- FATAL
- INFORMATION
- NONE
- WARNING

E.10.4 Methods Inherited

The following methods are inherited by class `ContentDeliveryException` from class `oracle.apps.jtf.base.resources.FrameworkException`.

- `addException`
- `convertException`
- `getAllInfo`
- `getCurrentMessageManager`
- `getExceptionStack`
- `getExceptionStackRec`
- `getExternException`
- `getKey`
- `getMessage`
- `getMessageManager`
- `getMessageStack`
- `getParameters`
- `getParentExcept`
- `getRootException`
- `getRootExternExcept`
- `getSeverity`
- `getThrowerInfo`

- `getWholeStack`
- `printAllInfo`
- `printAllInfo`
- `printMesg`
- `printMesg`
- `printMessageStack`
- `printMessageStack`
- `printStackTrace`
- `printStackTrace`
- `printThrowerInfo`
- `printThrowerInfo`
- `printWholeStack`
- `printWholeStack`
- `setCurrents`
- `setStackTrace`

The following methods are inherited by class `ContentDeliveryException` from class `java.lang.Throwable`.

- `fillInStackTrace`
- `getLocalizedMessage`
- `printStackTrace`
- `toString`

The following methods are inherited by class `ContentDeliveryException` from class `java.lang.Object`.

- `equals`
- `getClass`
- `hashCode`
- `notify`
- `notifyAll`

- wait
- wait
- wait

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