

# Oracle Utilities: ODM v2.2.0.2 Advanced Implementation Ed 2

Oracle Utilities

DURATION

**4 Days**

MODULES

**14 Lectures**

COURSE CODE

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## Course Overview

This Oracle Utilities: ODM Advanced Implementation training is designed to educate technical implementers. Explore maintenance objects, business objects, zones, and business processes related to Operational Device Management (ODM) functional areas.

## What You Will Learn

### Overview

- The Five-Minute Overview
- Prerequisites
- The Product Stack Depends on What Is Installed
- This Class Describes All Products
- Format of This Class
- Practice: 1-1: ODM Login

### User Interface Standards

- Anatomy of All Pages
- Portals Versus Fixed Pages
- Portals Have Zones
- Portal Configuration
- Portals May Appear on Portal Preferences
- If Users Can Override a Portal's Default Configuration
- Dictating Portal Preferences
- The Dashboard Is a Portal Too
- Zone Patterns
- Layout of Explorer Zones
- Broadcasting
- Work Lists
- Working the List
- Starting Business Processes

- Practice 2-1
- Map Zones
- Section and Element Help
- Explorer Zones Are Configured, Not Programmed
- Configuring Map Zones
- Special Zones: Feature Configuration
- You've Seen Several BPA Scripts
- BPA Scripts Are Everywhere
- BPA Scripts Reflect an Organization
- Scripts Are Configured
- Menu Bar
- Menu Items
- Context Menus
- Practice 2-2
- Review Questions

## Metadata and Framework Review

- Agenda
- 4 Tiers and Supported Platforms
- Location of Business Rules
- A Quick Word About the UI Tier
- Entity Relationship Diagramming (ERD)
- Information Is Stored in Tables; Each Box in an ERD Is a Table
- Color-Coding Highlights the "Subsystem" Where the Table's Rows Are Typically Maintained
- We Use ERDs to Highlight Important Business Relationships
- Relationships Between Entities Are Highlighted with Arrows Between Boxes
- Dashed Lines Represent Columns on Entities with Predefined "Lookup"
- Values
- Table and Field Metadata
- Application Viewer Is Your Primary Documentation of Tables and Fields
- Application Viewer Is Generated from Metadata
- Practice 3-1
- No Recurring Groups
- Primary Keys
- Prime and Foreign Keys in the Application Viewer
- Language Tables
- XML Extensions
- MO Definition
- Why MOs?
- MO, Table, Field Metadata
- MOs Are Also in the App Viewer
- MOs Encapsulate Core Business Rules
- Maintenance Objects Versus Business Objects
- A Maintenance Object Has Fields; a Business Object Has Elements
- Every BO Element Must Physically Reside Somewhere in Its MO's Tables

- BOs Encapsulate Core Business Rules
- BOs and SOA
- All Business Objects Can Be Extended
- Product Parent BO Versus Customer Child BO
- Extended BO References Parent BO
- Extension Simplified by UI Rendered Schemas
- UI Hint Namespace
- Schema Designer
- UI Hints Are Powerful
- Practice 3-2
- Extension Made Easy by XML Area
- Format of Data when Mapped to XML
- Lookup Requires Field
- Lookup Creation
- Many MOs Support Characteristics
- There Are Four Types of Char Types
- Predefined Char Types
- Ad Hoc Characteristic Types
- Foreign Key Reference Characteristic Types
- File Location Characteristic Types
- A Char Type Can Be Used on Multiple Entities
- Owning Metadata
- Owner Flag ERD
- Owner Flag Is Ubiquitous
- The System Stamps Owner Flag on New Metadata Rows
- Don't Even Think About It
- Database and Operating System Security
- Application Services Are Secured
- Application Services Have Valid Actions
- Field-Level Security
- Field-Level Security: Overview
- Security Rights Are Cached
- Audit Trails
- Localization Support
- Isolating Implementation-Specific Business Rules
- Review Questions

## Common Extension Patterns

- Business Object Extension Is a Design Intension
- Parent Business Objects Remain Untouched
- Product Parent BO Versus Customer Child BO
- BO Extension Is a Design Intension
- BO Data Element Mapping Choices
- Generic Child Table ERD
- Common Child Tables

- Generic Identifier Child Table ERD
- When to Map to an Identifier
- How to Map to an Identifier
- Practice 4-1
- Generic Characteristic Child Table ERD
- When to Map to a Characteristic
- How to Map to a Characteristic
- Practice 4-2
- Generic XML ERD
- When to Map to XML
- How to Map to XML
- Practice 4-3
- Generic Attachment Child Table ERD
- When to Map to an Attachment
- How to Map to an Attachment
- Practice 4-4
- What to Map To?
- When Not to Map to XML
- Extension Helper Documentation
- Review Questions

## Locations

- Locations Describe the Asset Life Cycle
- Asset Location is Where Assets are Installed
- Location Definition
- Single Node Table, Three Different Objects
- Asset Location, Out of Service Location, and Organization
- Why a Single Node Table
- The Asset's Location Relation
- Loc/Org Type, Node, and BO
- Asset Location, Out of Service Location, and Organization
- Detailed Location / Organization Type ERD
- Basic Node Configuration
- More Node Configuration
- Practice 5-1
- Contact Type, Contact, and BO
- Location Contacts ERD
- Practice 5-2
- Asset Location, Out of Service Location, and Organization
- Detailed Location ERD
- Parent Location
- Peer Location
- More Location Information
- Location and Organization BOs
- Practice 5-3
- Review Questions

## Specifications

- Asset Definition
- The Relationship of the Four Asset Objects
- Specification ERD
- Specification Business Objects
- Child Specification Business Objects
- Three Types of Specification
- Practice 6-1
- Practice 6-2

## Asset

- Asset Definition
- The Relationship of the Four Asset Objects
- Asset Type, Asset, and BO
- Asset Type ERD
- More Asset Type Configuration
- More Component Type Configuration
- Practice 7-1
- Asset ERD
- An Asset Must Have Location
- Asset Disposition
- Why Extendable Lookup
- Asset Lifecycle and Asset Disposition
- Another Class Of Asset
- Component Disposition
- Look At Asset Disposition Again
- Asset Disposition
- Notes on Asset
- Asset Condition
- Asset MO Rules
- Overview
- Status Transition Map and Scripts
- Tracked Asset Business Object Lifecycle
- In/Out of Service Asset Business Object Lifecycle
- Tracked Component Business Object Lifecycle
- In/Out of Service Component Asset Business Object Lifecycle
- Practice 7-2
- New State May Require New Disposition
- Existing Asset Dispositions

## Service History

- Asset Definition
- Relationship of the Four Asset Objects
- The Purpose of Service History

- Service History Belongs to Asset
- Service History Types Defined for Asset Types
- Practice 8-1

## Asset Replication

- Purpose of Asset Replication
- Replication Activity Objects
- Replication Mechanism
- Fixing Problems
- Practice 9-1
- Asset Disposition Update
- Asset Disposition Update: Technical
- Practice 9-2
- Extending Replication Functionality
- Extending Mass Update Functionality

## Activity Generator

- Purpose of an Activity Generator
- An Activity Generator Has Many Activities
- Activity Generator
- How to “Work” an Activity Generator
- Activity Generator BO Lifecycle (W1)
- Practice 10-1
- Generation Capability
- Location-Only Generation Capability
- Location and Asset Generation Capability
- Location and Asset (Component) Generation Capability
- Asset List Generation Capability
- Asset (Component) List Generation Capability
- Generation Capability
- Generation Criteria
- Selection Criteria Defined on Business Object
- Selection Criteria Defined as Business Object XML
- Activity Generator Location Generator BO Criteria
- Activity Generator Asset Generator BO
- Activity Generator Component Generator BO
- Activity Generator Asset List BO Criteria
- Activity Generator Component List BO
- Practice 10-2
- Criteria Extension
- Generation Driving Tables
- Generation Criteria
- Criteria Extension
- Commit Every n Activities
- Practice 10-3

- Activity Generation Events
- Service Schedules
- How to Create a Template Activity Generator
- Practice 10-4

## Configuration Report

- Overview
- Functionality: Overview
- What Is a Configuration?
- What Is Configuration Class?
- “Communicate To” Location-To-Location Relationship
- Why Location-To-Location Relationship
- Valid “Communicate To” Location Types
- Base Configuration Classes
- Configuration ERD
- Configuration Business Objects
- Configuration Lifecycle
- Practice 11-1
- Configuration Report: Overview
- Configuration Report Example: Criteria
- Configuration Report Example: Result
- Report Criteria
- Configuration Report ERD
- Configuration Report Business Objects
- Assets/Components in Report Criteria and Results
- Configuration Report Life Cycle
- Enter Algorithm For ‘Generate Report’
- Back To Configuration Class
- Configuration Class Is Extendable Lookup
- Enter Algorithm Parameters
- Practice 11-2
- Configuration Criteria Activity Generator: Overview
- Activity Generator Refresher
- A New Way to Create Activity Generator
- Configuration Criteria Activity Generator Business Objects
- Asset Detail Data Area
- Activity Generator Lifecycle Refresher
- Enter Algorithm for ‘Generate Activities’
- Target Asset
- Target Asset Lookup Naming Convention
- Additional Activity Generator Criteria
- Practice 11-3
- Extension
- Support New Configuration Class
- Support New Configuration Class – Cont

- Quiz
- Quiz: Answer

## Activity

- Purpose of an Activity
- Activities Manage Diverse Business
- ODM Activity Goals: Automate Updates
- Three Components of an Activity
- Detailed Activity ERD
- Activity Type and Completion Event Type ERD
- Detailed Activity Type ERD
- The Parts of the Completion Event Type
- Completion Event Execution Information ERD
- Practice 12-1
- Activity Type Business Objects
- Activity Business Objects
- Key Ad-hoc Activity Lifecycle Events
- Detailed Ad Hoc Activity BO Lifecycle
- Key Local Activity Lifecycle Events
- Detailed Local Activity BO Lifecycle
- Key Outbound Activity Lifecycle Events
- Outbound Activity BO Lifecycle
- Practice 12-2
- Completion Event Type BO and the Completion Event BO
- Completion Event Type BOs
- Practice 12-3
- Completion Event ERD and Life Cycle
- Completion Event Business
- Completion Event Business Objects
- How Does It Work? Payload
- Many Assets, Single Completion Event
- An Editing Problem
- Editing the Payload
- Completion Event Subclass
- Practice 12-4

## Activity Messaging

- Outbound Activity Business
- Sending an Outbound Activity
- Outbound Message Configuration
- Outbound Message Business Objects
- Outbound Information
- Practice 13-1
- Inbound Communication
- Inbound Communication ERD

- Inbound Communication Business Objects
- Inbound Communication Life Cycle
- Practice 13-2
- Raw Message Becomes Completion Event List
- Practice 13-3
- Three Different Business Problems to Solve
- Creating an Outbound Activity
- Creating and Completing an Activity
- Completing an Outbound Activity
- Practice 13-4

## Integration

- Entities Being Synchronized
- PKs Are Different in Each System: Target System Keeps Source System ID in the Identifier Table
- Outbound and Inbound Sync BOs Lie Between
- "Day 1 Conversion" Versus "Ongoing Sync"
- Generic Batch Job to Create Outbound Syncs for Initial Sync
- Data Synchronization Architecture
- Outbound Sync MO
- Outbound Sync Schema
- Outbound Sync BO Life Cycle
- How the Outbound Sync BO Is Determined
- The Inbound Sync Seeder BO (W1-SyncRequestSeeder) Life Cycle
- Inbound Sync MO
- Inbound Sync Schema
- Day 1 Conversion Versus Ongoing Sync BOs
- Day 1 Conversion (Initial Sync) Life Cycle
- Key Transformation Is Sophisticated
- Batch Job Execution Sequence
- Ongoing Sync Request Life Cycle
- Overview
- Asset-Node Ongoing Sync Request Life Cycle
- Install Events Outbound Sync in MDM
- Background: Faceplates
- Background: Removals
- Background: Office Exchanges
- Installation Events Are Added / Updated for Asset Location Changes (and for things ODM does not care about)
- Background: Retroactive Changes