

# Oracle Utilities: WAM v2.2.0.4 Advanced Implementation Ed 1

Oracle Utilities

DURATION

**5 Days**

MODULES

**27 Lectures**

COURSE CODE

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## Course Overview

Oracle Utilities: WAM v2.1.1 Advanced Implementation training provides trainees with advanced configuration concepts for implementing the product.

## What You Will Learn

### Overview

- Objectives
- The 5-Minute Overview
- Prerequisites
- Product Stack
- What's Included in W1
- Format of This Class
- Practice 1-1: WAM Login
- Summary

### User Interface Standards

- Objectives
- 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: Explore Preferences
- Map Zones
- Section and Element Help
- Explorer Zones Are Configured, Not Programmed
- Configuring Map Zones
- Special Zones: Feature Configuration
- You Have 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: Menu Navigation
- Summary

## Metadata and Framework: Overview

- Agenda
- Objectives
- Four Tiers and Supported Platforms
- The Location of the 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 Type of Data Stored in the Table
- 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
- The Application Viewer Is Your Primary Documentation of Tables and Fields
- The Application Viewer Is Generated from Metadata
- Practice 3-1: Explore Application Viewer
- 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
- 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
- Practice 3-2: Explore Business Objects
- 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
- Summary

## Common Extension Patterns

- Objectives
- Business Object Extension Is a Design Intension
- Parent Business Objects Remain Untouched

- Product Parent BO Versus Customer Child BO
- BO Extension Is a Design Intention
- 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: Mapping to an Identifier Type
- Generic Characteristic Child Table ERD
- When to Map to a Characteristic
- How to Map to a Characteristic
- Practice 4-2: Mapping to a Characteristic Type
- Generic XML ERD
- When to Map to XML
- How to Map to XML
- What to Map to?
- When Not to Map to XML
- Extension Helper Documentation
- Practice 4-3: Mapping to XML
- Review Question
- Summary

## Location

- Objectives
- Asset Definition
- The Relationship of the Asset Objects
- Locations Describe the Asset Life Cycle: Overview
- Asset Location Is Where Assets Are Installed
- Location Definition
- Single Node Table, Three Different Objects
- Asset, Storeroom, Out of Service, 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: Explore Location and Organization Type
- Contact Type, Contact, and BO
- Location Contacts ERD
- Practice 5-2: Explore Contacts
- Asset Location, Storeroom, Out of Service Location, and Organization
- Detailed Location ERD

- Parent Location
- Peer Location
- More Location Information
- Location and Organization BOs
- Practice 5-3: Explore Locations
- Summary

## Specifications

- Objectives
- Asset Definition
- The Relationship of the Asset Objects
- An Asset Can Have Two Different Specifications
- Practice 6-1: Explore Manufacturer Specifications
- Practice 6-2: Specification Business Object
- Summary

## Asset

- Objectives
- Asset Definition
- The Relationship of the Asset Objects
- Asset Type, Asset, and BO
- Asset Type ERD
- Configurable Asset Attributes by Asset Type
- More Asset Type Configuration
- More Component Type Configuration
- Practice 7-1: Explore Asset Type
- Asset ERD
- Asset Attributes
- An Asset Must Have a 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 BO Lifecycle
- In/Out of Service Asset BO Lifecycle
- Tracked Component BO Lifecycle
- In/Out of Service Component Asset BO Lifecycle

- Practice 7-2: Explore Assets
- New State May Require New Disposition
- Existing Asset Dispositions
- Summary

## Service History

- Objectives
- Asset Definition
- The Relationship of the Asset Objects
- The Purpose of Service History
- Service History ERD
- Service History Types Defined for Asset Types
- Follow Up Work
- Follow Up Work Automation Through SH Type Configuration
- Corrective Compliance
- Compliance Type
- Compliance Class
- Practice 8-1: Explore Service History
- Summary

## Assessment

- Objectives
- Asset Definition
- The Relationship of the Asset Objects
- The Beauty of Assessment
- Assessment Belongs to Asset
- Question and Answer Metadata
- The Four Flavors of Assessment
- The Five Flavors of Questions
- A Percent of New Question: Example
- A General Weighted Question: Example
- A Deficiency Scoring Question: Example
- Practice 9-1: Explore Assessment Functionality
- Assessment Class and Assessment Group
- How an Asset's Condition Is Scored
- Where an Asset's Condition Is Scored: Assessment
- Practice 9-2: Assessment Classes
- Summary

## Measurement

- Objectives
- Asset Definition
- The Relationship of the Asset Objects
- An Asset's Measurements

- Asset Has Measurement Types
- Measurement Classes
- Measurement BO
- Measurement Alerts
- Measurement Type BO
- Measurement Lifecycle
- Measurement BO Lifecycle
- Practice 10-1: Explore Measurements
- Summary

## Approval Processing

- Objectives
- Overview
- Purpose of an Approval Request
- Every Approval Request References an Approval Profile
- Purpose of an Approval Profile
- An Approval Profile Is for One Type of Object Only
- Approval Types
- To Do Type and To Do Role
- Notification Types
- Three 'Classes' of Approval Profiles
- A New Plug-In Spot
- Practice 11-1: Explore Approval Profiles
- Purpose of an Approval Request (Reminder)
- Life Cycle of Approval Requests
- What an Approval Request Looks Like
- Work With Approval Requests
- Work with Approval Requests
- Practice 11-2: Explore Approval Requests
- Configuring Approval Process: Introduction
- Add an MO Option
- Add Approval Request History Zone
- BO Life Cycle: Example to Add a Status
- BO Life Cycle: Example to Add Algorithms
- Review Questions
- Summary

## Work Order and Work Order Activity

- Objectives
- Overview
- Purpose of a Work Order
- Purpose of Activity
- Purpose of Activity Resource Requirement
- Different Ways to Add Activity Resource Requirements
- Work Order Number

- Activity Asset List
- Practice 12-1: Explore Work Order Requirements
- Changes Do or Do Not Require Re-Submit for Approval
- Approved Versus Activated
- How to Activate a Work Order and Activity
- Original Estimate Versus Revised Estimate
- Activity Material Requirements' Impact on Inventory
- Reserve Material in Storeroom
- Held For Parts
- Practice 12-2: Approved Work Orders
- Purpose of a Template Work Order
- Template Work Order ERD
- General Versus Location-Specific
- Create Template Work Order
- Practice 12-3: Template Work Orders
- Completion Events
- Completion Event and Activity
- Completion Event Execution Information
- More About the "Create Any Service History Completion Event"
- Completion Event Type and Completion Event
- Completion Event and Integration
- Tracking Cost
- Time Sheet Restriction
- Practice 12-4: Completion Events
- Summary

## Preventive Maintenance

- Objectives
- Maintenance Schedule and Maintenance Trigger
- A Simple Maintenance Example (From Your Glove Box)
- Trigger Philosophy - Squared
- Maintenance Trigger Types
- Calendar Anniversary Timeline
- Calendar Interval Timeline
- Runtime Anniversary Timeline
- Runtime Interval Timeline
- Common Trigger Processing
- Common Runtime Processing
- Preventive Maintenance (PM) Work Calendar
- Anniversary Processing
- Maintenance Trigger
- Preventive Maintenance Compliance
- Compliance Type
- Compliance Class
- Asset Location Specific Template Work Order

- Asset Location Specific Maintenance Trigger
- Practice 13-1: Maintenance Schedules and Triggers
- Specification Schedule Relationship Types
- Maintenance Specification Algorithm Entity
- Practice 13-2: Maintenance Specifications and Algorithms
- Asset Monitor: In-Service and In-Store States
- Asset Trigger Forecast
- Common Trigger API
- Summary

## Scheduling

- Objectives
- Shift ERD
- Crew Shift Capacity
- Time Periods
- Schedule Priority
- Capacity Behavior
- Time Periods: Example
- What's Really Being Scheduled
- Activity Labor Requirement: Time to Schedule
- Scheduler Warnings Are Not Errors
- Schedule Update
- Scheduling from Different Pages
- Practice 14-1: Explore Scheduling
- Summary

## Inventory

- Objectives
- Location Type ERD
- Stock Item Is One Class of Resource Type (MO)
- Lot Managed, Tracked Asset, and Regular Inventory
- Stock Item Detail (SID)
- Stock Item Detail Classes
- Inventory-Related Quantities
- Master Versus Specific Lot SID
- Master and Lot-Specific SID ERD
- Lot-Specific SID Is Created By the System
- SID Lifecycle
- Stock Transaction (ST)
- Stock Reorder
- Reorder Review
- Purchase Document Creation
- Inventory Financial Information Configuration
- Storeroom Financial Information
- Stock Item Financial Information

- Stock Item Detail Financial Information
- Tracked Asset and Inventory Management
- Tracked Asset Inventory
- Bills of Material (BOM)
- BOM ERD
- Miscellaneous
- Practice 15-1: Explore Inventory Processes
- Summary

## Purchasing

- Objectives
- PO Revision
- What Does Create Revision Do?
- What to Do on the New Revision?
- What Happens to the Old PO?
- Practice 16-1: Explore Purchase Orders
- Taxes
- Tax Rate Schedule ERD
- Tax Example
- Understand Bill Factor
- Characteristic Source Algorithm
- Retrieve Value (Factor BO) Algorithm
- Tax Calculation (PR/PO/Invoice Line BOs) Algorithm
- Extend the System to Include Taxes
- Set Up Characteristic Type
- Set Up Factor
- Set Up a Rate Schedule
- Extend BOs: Data Area Extension
- Extend BOs: New BOs
- Practice 16-2: Explore Taxing Data
- Summary

## Financials

- Objectives
- Overview
- Financial Transaction ERD
- Accounting Calendar
- Financial Transaction Type
- Activity ID on Financial Transaction
- How/When Are FT(s) Created
- What Happens Upon Cancellation
- "Allow User Charge" Flag on Cost Center
- Distribution Code
- Base GL Account Construction Algorithm Type
- GL Account Construction Algorithm: Example

- A Complete List of Objects (MO) That Create FT
- Interface GLs to Your Financial System
- FT Process
- FT BO Lifecycle
- FT Error
- Fixing FT Error
- Practice 17-1: Lifecycle Business Objects
- Summary

## Warranty

- Objectives
- Asset Definition
- Classes of Warranty
- Warranty Term and Warranty
- Calendar Warranty ERD
- Runtime Warranty ERD
- Warranty Dependency
- Expiring Warranty Warning
- When to Warn About Expiring Warranties
- Practice 18-1: Explore Warranties
- Summary

## Material Disposition

- Objectives
- Overview
- How a Material Disposition Is Created
- Stock Item Detail ERD
- Material Disposition ERD
- Material Disposition Actions
- How Are Material Dispositions Closed?
- Practice 19-1: Explore Material Disposition
- Summary

## Maintenance Event

- Objectives
- Maintenance Event
- Maintenance Event: What, Where, and When
- Maintenance Event Objects
- Maintenance Event: What, Where, and When
- Maintenance Plan Configuration - Think Location
- Maintenance Event: What, Where, and When
- Maintenance Event Configuration - Trigger Selection
- Maintenance Event: How to Generate Work Orders
- Maintenance Event: Scheduling Information

- Practice 20-1: Maintenance Event Configuration
- Practice 20-2: Maintenance Event Generation
- Summary

## Compatible Units

- Objectives
- Construction - Three Pieces to Create New Assets
- Compatible Unit (CU) Subsystem Overview
- Compatible Unit Objects
- CU Set - Where to Configure Hierarchy of Information
- Practice 21-1: Compatible Unit Set
- Compatible Unit: Three Types
- Compatible Unit ERD
- Compatible Units - Referenced CU
- Compatible Units - Price
- Selectable Compatible Units: CU Application
- Functional Compatible Unit - Constructed Asset
- Practice 21-2: Compatible Unit Review
- Contractor Bid - Applied CU Only
- Practice 21-3: Contractor Bid Review
- Summary

## Work Design

- Objectives
- Construction: Three Pieces to Create New Assets
- Work Design Overview
- Work Design Objects
- Work Design: Overview
- Work Design: Design Version
- Work Design: Add CU to Multiple Design Elements
- Work Design: Estimate
- Work Design: Adjusting the Resource Total
- Work Design: Adding new Line Items
- Work Design: Estimate Grand Total
- Work Design: Create a Design Element
- Work Design: Design Element Information
- Design Element - Add CU, Compatible Unit Portal Tab
- Modifying Design Element Resources
- Design Element Resources - Crew Type
- Work Design - Generate Work
- Design Element vs. Work Activity
- Practice 22-1: Explore a Work Design
- Practice 22-2: Create a New Design Version
- Summary

## Construction Work Order

- Objectives
- Construction: Three Pieces
- Construction Work Order: Objects
- How to Identify Construction Work Order/Activity
- Construction Activity vs Regular Work Activity
- Work Design is Used to Create a Construction Work Order
- Construction Location
- Construction Location ERD
- Construction Work Order/Activity Cost Summaries
- CU and Activity Resource Requirement
- CU Contractor Bid
- Direct Overhead Cost
- When/How Is Direct Overhead Cost Applied
- Direct Overhead Cost is Applied As Other Direct Charge
- Indirect Overhead Cost
- Indirect Overhead Admin Object
- When/How Is Indirect Overhead Cost Applied
- Construction Work Activity: Lifecycle Accounting
- Work In Progress (WIP) Cost Center Can Be Defaulted
- Reconciliation Cost Centers
- CU Usage
- Practice 23-1: Review of Direct and Indirect Overheads
- Overview
- Algorithms On Activity Reconciliation BO
- Activity Reconciliation ERP
- Closing the Construction Work Activity
- Activity Reconciliation Creation
- What's The Significance of CU
- Construction Activity Completion
- Understand Asset Actions
- Practice 23-2: Review of Activity Reconciliation
- Summary

## Work Request and Service Call

- Objectives
- Work Request Versus Service Call
- Work Request MO ERD
- Service Category and Service Code
- Service Code
- How A Service Call Is Processed
- Related Service Calls
- Contact
- Communication Log

- Practice 24-1: Explore Service Call
- Summary

## Checklist

- Objectives
- Overview
- Checklist ERD
- Checklist Type ERD
- Where Checklist Is Used
- How/Where Are Processing Impact Rule Enforced
- How To Enable Checklist For Other MO's
- Practice 25-1: Explore Checklist
- Summary

## Permit

- Objectives
- Overview
- Permit Template ERD
- Permit ERD
- Permit Class ERD
- Permit Can Have Checklists
- Activity and Permit
- Checklist Type ERD
- Checklist ERD
- Different BO's and Zones for General Checklist/Type and Permit Item
- Only Checklist
- Permit Service History
- Service History ERD
- Practice 26-1: Explore Permit
- Summary

## GIS Integration

- Objectives
- Architecture: Overview
- GIS Map Viewer
- GIS Map Viewer Is Web Maps Based
- Launching the GIS Map Viewer
- Creating Work
- Creating a Work Location
- Master Configuration
- Additional Master Configuration
- GIS Map Viewer Configuration Summary
- Practice 27-1: Explore GIS Map Viewer
- Supported Synchronized Entities
- GIS to WAM Synchronization Is Version Based

- Asset Synchronization
- GIS Feature Synchronization Eligibility
- GIS to WAM Field Mapping
- Use Characteristics for Custom GIS Fields
- GIS to WAM Field Value Mapping
- GIS to WAM Asset Detail Sync
- Design Your Mapping Between the Systems
- Practice 27-2: Explore Mapping Entities
- Asset Synchronization Modes
- Master Data Synchronization
- GIS to WAM Initial Synchronization
- GIS to WAM Ongoing Synchronization
- Geo Processing Service
- Additional Custom Rules
- Asset Synchronization Configuration Summary
- Asset Removals and Abandonments
- Referencing Original Asset
- Removal and Abandonment Configuration Notes
- Asset Updates Are Sent Synchronously
- Work Locations Are Created Synchronously
- Practice 27-3: Explore Asset Synchronization Configuration
- Summary