

# Customer Care & Billing: Functionality for Implementers Ed 7

Oracle Utilities

DURATION

**10 Days**

MODULES

**11 Lectures**

COURSE CODE

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## Course Overview

This Customer Care and Billing: Functionality for Implementers training provides in-depth information about the customer management product's configuration. You'll examine each CCB subsystem and discuss the configuration options and how they affect the system's operation.

## What You Will Learn

### Oracle Utilities Customer Care and Billing Overview

- Objectives
- The System
- Customer Information
- Sales & Marketing
- Device Management
- Field Work
- Meter Reading
- Billing
- Statements
- Rates
- Payments
- Adjustments
- Credit & Collections
- Budgets
- Deposits
- SA Relationships
- Service Credits
- Contract Management
- Loans
- Conservation Programs
- Framework Utilities

- Integration Tools
- Summary
- The System
- The Format of This Class
- The Documentation
- Caveat
- Summary

## Control Central and User Interface Standards

- Objectives
- Practice 2-1
- The Anatomy Of All Pages
- Control Central
- Control Central Search Facilities
- Invoking Help
- Help: Finding Information
- Find a Customer/Premise
- The Dashboard
- Dashboard + Account Information = 360-Degree View of the Customer
- Portals Versus Fixed Pages
- Portals Have Zones
- Portal Preferences
- New Zones Appear in Account Information
- Dictating Portal Preferences
- The Dashboard Is a Portal Too
- Zone Patterns
- Explorer Zone Layout
- Broadcasting
- Explorer Zones May Have End-User Filters
- Dragging and Dropping
- Work Lists
- Working the List
- Starting Business Processes
- Practice 2-2
- Map Zones
- Section and Element Help
- Explorer Zones Are Configured, Not Programmed
- Special-Purpose Zones
- Special Feature – Timeline Zone
- More Special Feature Zones
- You've Seen Several BPA Scripts
- The BPA Menu
- BPA Scripts Are Everywhere
- BPA Scripts Reflect An Organization
- Scripts Are Configured

- Fixed Pages
- Object Maintenance Pages
- Search Pages
- Other Pages
- Some Transactions Use Both Metaphors
- Portal-Based Maintenance is Becoming More Common
- Why Evolve?
- Menu and Admin
- Context Menus
- Context Menu – Opening a Search Page
- Context Menu – Opening a Portal
- Practice 2-3
- Grids
- Scrolls
- Search
- Recap of General Layout
- Recap of Dialogs
- Demo Versus Empty Install
- A Configuration Tools Example
- The Configuration Tools Class
- Summary
- Review Questions

## Metadata and Framework Overview

- Objectives
- Agenda
- Oracle Utilities Application Framework Overview
- Oracle Utilities Application Framework
- Browser UI Activities
- Web Server Activities
- Web Application Server Breakdown
- Application Server Activities
- Database Server Activities
- 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
- The PowerPoints Use Color-Coding To Group Tables into Logical Subsystems
- 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
- The 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
- No Recurring Groups

- Prime Keys
- Prime and Foreign Keys In The Application Viewer
- Very Little (Almost No) Redundant Data
- 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
- A BO's Elements Must Physically Reside Somewhere in its MO's Tables
- BOs Encapsulate Core Business Rules
- BOs and SOA
- Older MOs = Object Maintenance Newer MOs = Portal Maintenance
- Plug-in = Algorithm
- An Algorithm Example
- Use a Base Package Plug-In or Write Your Own
- Creating a New Plug-In
- Some Objects Are Preconfigured
- The Application Viewer Also Contains Algorithms
- Practice 3-2
- User-Defined Fields Extend ...
- 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
- Characteristic Values Are Effective-Dated on some Entities
- A Char Type Can be Used on Multiple Entities
- Practice 3-3
- Owning Metadata
- Owner Flag ERD
- Owner Flag Is Ubiquitous
- The System Stamps Owner Flag On New Metadata Rows
- Don't Even Think About It
- Practice 3-4
- Web Services Architecture
- XAI / Web Services
- More Web Services Information
- 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
- Practice 3-5
- Audit Trails
- Localization Support
- Isolating Implementation-Specific Business Rules
- The Conversion Tool
- Review Questions

## Batch Processing

- Objectives
- Batch Processes
- Batch Processes Are Documented In the Application Viewer
- What You Can Count On
- Errors
- Parallel Processing
- Optimal Number of Threads
- Parameters
- Batch Processing ERD
- Practice 4-1
- Separate Application Servers
- Submitting Ad Hoc Requests
- Practice - Instructor-Led
- Batch Process Dependencies
- Classic Batch Job Versus Sample and Submit
- Step 1: Identify the Batch Job
- Step 2: Enter the Criteria
- Step 3 (optional): See the Sample
- The Request
- How To
- Some Processes Can Be Viewed as Plug-Ins
- Review Questions

## Maintaining Customer Information

- Objectives
- Customer Information
- Customer = Person and Account
- Practice 5-1
- Important Person Concepts
- Person ERD
- Person Contacts
- Practice 5-3
- Important Account Concepts
- Account ERD
- Practice 5-2

- Customer Contact: Overview
- Customer Contact ERD
- Practice 5-4
- Customer Contacts Trigger To-Do Entries
- Customer Contacts Trigger Letters
- Letter Images
- Important Premise Concepts
- Premise ERD
- Important Service Point Concepts
- Types of Service Points
- Metered Service Points
- Badged Item-Based Service Points
- Unbadged Item-Based Service Points
- Two Ways to Handle Area Lights: Badged or Unbadged
- Service Point ERD
- Practice 5-5
- Review: Bills Are Sent to Customers
- A Bill Contains Charges for Services
- An Account Must Have a Service Agreement For Every Service That Is Billed
- Some SAs Are Linked to Premises via SPs
- Some SAs Are Not Linked to Premises
- Service Agreement ERD
- Account Security: Overview
- Persons Can Also Be Secured
- Premises Can Also Be Secured
- Data Access Groups and Roles
- An Account's Access Group
- More Account Security Information
- The V Diagram
- Two SAs, Each Linked to a Single SP (A Normal, Single-Family Residence Scenario)
- Two SAs Linked to the Same SP
- One SA linked to Two SPs (To Consolidate Consumption Charges)
- Typical Family Moves
- Non-Utility Customer
- Customers Share One Line, Usage Goes Through One Meter on the Way to Another Customer
- Corporate Pays For Usage, Operating Units Pay For Transport & Metering
- SA Type and SP Type Control the Valid Relationships
- Most SAs Are Created Via Start Service
- Start Options Control Default Values
- Practice 5-6
- Service Agreement States
- Activating Pending Start SAs
- Important Service-Oriented Concepts Still to Come
- The Alert Zone
- The Control Central Alert Plug-In Spot
- Jurisdictional Rules

- Division = Jurisdiction
- Replicators
- Alternate Names and Addresses
- Address Validation
- Configuring Address Validation
- Address Validation BPA
- Introducing Custom Address Validation Logic
- Account Management
- Account Management Portal – Account Update
- Supported Account Updates
- Supported Service Agreement Updates
- Notification Preferences
- Notification Preferences: Key Relationships
- Notification Preferences Management Process Overview – Enabling Customer Choice
- Push versus Subscription Notification Types
- Push-Based Notifications
- Account – Account Portal: Push Communications Preferences Zone
- Subscription-Based Notifications
- Account – Account Portal: Subscription Communication Preferences Zone
- Account – Persons: Notification Preferences
- Account – Account Portal: Maintaining Contact Details
- Master Configuration
- Practice 5-7
- Review Questions

## To Do Lists

- Objectives
- Oracle Utilities Customer Care and Billing
- What Is To Do Processing?
- To Do Summary
- To Do List
- To Do Summary Zone
- Practice 6-1
- To Do Type
- Message
- To Do Roles
- Special Message Handling
- Role Assignment
- How Entries Are Created
- Batch Process
- The Creator Supplies Other Attributes
- Filling In The Blanks
- To Do Entry Summary ERD
- Practice 6-2
- Related To Do's
- Related Entries Are Also Shown in the Dashboard

- Related To Do ERD
- Practice 6-3
- To Do Entry Lifecycle
- Forwarding
- Manual Completion
- Batch Processes Can Complete Entries
- To Do Entries Have Logs
- Log Entries
- To Do Search Is Powerful
- Practice 6-4
- Entry Priority
- Priority Assignment
- Priority Updates: Scenario
- Assigning Entries to Users
- On Demand Assignment
- On Demand – How It Works
- Skill-Based Assignment: Overview
- Skill Level ERD
- Skill Level Override for a Specific Message ERD
- Skill-Based Summary
- The Benefits
- Supervisor Push
- Summary of Entries by User
- Supervisor Assignment
- Pick and Choose
- Multi-Use Pages
- Practice 6-5
- To Do Entries May be Routed To an External System
- Configuration to Implement External Routing
- Practice 6-6
- To Do Types Are Documented in the Application Viewer
- What To Do Entries Aren't
- Purging Old Entries
- Review Questions
- Creating New To Do Types
- Introducing a New Type of Entry Involves the Following Steps
- Analysis Example: Account has active SAs, but has no bill cycle
- Example Setup: Account has active SAs, but has no bill cycle
- Example Programming: Account has active SAs, but has no bill cycle
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- Objectives 7a-2
- Sales & Marketing 7a-3
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- Objectives
- Checkpoint
- Review: Service Points Define Services at a Premise
- Review: There are Three Types of Service Points
- Review: Metered Service Points
- A Meter's Registers Measure How Much Was Used
- Every Register Has Many Attributes
- A Register's Attributes Can Change Over Time
- Meter ERD
- There Are Many Ways to Identify a Meter
- Service Types Must Be in Sync ERD
- Practice 8-1
- A Configuration's Registers Are Read
- Subtractive Versus Consumptive Registers
- Meter Read ERD
- Important SP/Meter Installation Concepts
- Meter Installation ERD
- Practice 8-2
- How to Exchange the Meter at an SP
- Remember That There Are Two Types of Item-Oriented SPs
- This Discussion Concerns Badged Items
- When to Use a Badged Item
- Badged Item ERD
- There Are Two Ways to Identify a Badged Item
- Item Replicator
- Important SP/Item Installation Concepts
- Item Installation ERD
- Important Item Exchange Concepts
- Unbadged Items Are an Alternative
- Meter/Item Search Page
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- Objectives 9b-2

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- Limiting the Number of Appointments 9b-9
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- Practice 9-2: Scheduling and Cancelling Appointments 9b-19
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- 10a Devices Inventory and Testing: Equipment Management
- Objectives 10a-2

#### Equipment, Meters, and Items Are Installed at a Premise to Regulate and Measure Service 10a-3

- There are Two Types of Items 10a-4
- Equipment May Be Associated with Meters 10a-5
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## Meter Reading

- Objectives
- There are Many Sources of Meter Reads
- Meter Read ERD
- Meter Read Remarks Can Trigger Other Events
- Consumption Estimation Is in a Plug-In
- Important Estimation Concepts
- How Does MR EST TREND Work?
- An Example: Estimating Consumption for February
- An Example: Estimating Non-Peak Consumption
- An Example: Estimating Peak Consumption
- Trend ERD
- Ensuring a Statistically Significant Sample
- Trend Is Updated in Batch
- High/Low Limits Are Calculated in a Plug-In
- High/Low Check Plug-In
- High/Low Factor ERD
- Failing High/Low and Use on Bill
- Reviewing Readings That Failed High/Low Checks
- Practice 11-1
- Review Questions

## Route Management and Field Activity Upload

- Objectives
- Important Service Cycle Concepts
- SP Type Controls The Number of Cycles on a Service Point
- Single Service Cycle ERD
- SPs Also Need a Route and Sequence
- Renumbering Service Points in a Route
- Transferring a Route
- Practice 12-1
- Downloading Meter-Read Requests
- When Cycle and Route Frequency Differ
- The Three Download Batch Processes
- Process MSR: Create MR Schedule Routes
- Process MDS: Create Download Staging

- Process MDL: Create Download Flat File
- The Source of the Batch Control
- Summary: Meter Read Download ERD
- Important! The Service Cycle Schedule Is Also Used by Billing
- Practice 12-2
- The Upload Processes
- Process X: Populate Upload Staging
- Process MUP1: Populate Meter Config
- Process MUP2: Create Meter Reads
- Important: The MR Upload Has Other Uses
- Purging Upload Records
- Practice 12-3
- Demo Database Contains a Sample Transaction
- Find a Scheduled Date for a Route Zone
- See Service Points in a Route for a Scheduled Selection Date Zone
- See Register Reads in a Route for a Scheduled Selection Date Zone
- Multiple Service Cycles
- Waste Collection Background Information
- Multi-Service Cycle ERD
- Waste Collection Scenario 1
- Waste Collection Scenario 2
- The Three Download Batch Processes
- Service Route Download ERD
- Field Order Completion Details Can Be Uploaded
- Step Types That Are Supported By the Batch Completion Process
- The Upload Processes
- Process X: Populate Upload Staging
- Processes MUP1 and MUP2: Create Reads
- Process FACOMPL: Complete Field Activities
- Process FACOMPL: Complete Field Activities – Errors
- Purging Upload Records
- Uploading “Generic” Step Types
- Review Questions

## Financial Transactions

- Objectives
- FTs Determine an Account’s Balance
- Source of FTs
- Bill Segments Create FTs
- Payment Segments Create FTs
- Adjustments Create FTs
- Practice 13-1
- Current Balance Versus Payoff Balance
- Every FT Contains Current Amt and Payoff Amt
- Practice 13-2
- Examples When Current Balance Does Not Equal Payoff Balance

- GL Details
- Examples of FTs Without GL Details
- How Old is the Debt?
- Specific Days are Shown on Several Transactions
- Arrears Date
- Arrears Date is Typically Populated by Billing
- Practice 13-3
- FT Algorithms Control how FTs are Created
- FT Status
- FTs Affect More Than Balances
- Updating the General Ledger
- The the GL Download Processes
- Process GLASSIGN
- Process GLS: Prepare FTs for Download
- Process GLDL: Create Download Flat File
- Practice 13-4
- Overview of Balance Control
- The Balance Control Batch Processes
- Process BCGNEW: Create a New Balance Control Group
- Process BCASSIGN: Assign New FTs a Balance Control Group
- Process BCGSNAP: Insert Balance Control Members And Check Financial Integrity
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## Managing Statements

- Objectives
- Checkpoint
- A Statement Consolidates SA FTs
- Statements Can Also Be