

# Oracle Utilities: C2M v2.9.0.0 Functionality for Implementers Ed 1 LVC

Oracle Utilities

DURATION

**10 Days**

MODULES

**13 Lectures**

COURSE CODE

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## Course Overview

This Customer To Meter: Functionality for Implementers training provides in-depth information about the customer management product's configuration. You'll examine each C2M subsystem and discuss the configuration options and how they affect the system's operation.

## What You Will Learn

### Oracle Utilities Customer to Meter Overview

- Learning Objectives
- Solution Overview
- Customer to Meter: Application Components
- Functional Areas
- Preview of Course Topics
- The Format of This Course
- Before We Start
- The Documentation
- Additional Resources
- Caveats
- Summary

### User Interface Standards and Common Processes

- Learning Objectives
- Anatomy of All Pages
- The Anatomy of All Pages
- Redwood Look and Feel
- User Dashboard Controls
- Domain Name Support

- Unified Search
- Portals
- Portal Overview
- Portals Versus Fixed Pages
- Portals Have Zones
- Portal Configuration
- Portals May Appear on Portal Preferences
- Portal Preferences
- Dictating Portal Preferences
- The Dashboard Is a Portal Too
- Portal Page
- Maintenance Portal
- Search Portal
- Help Portal
- Zones
- Zone Patterns
- Explorer Zone Layout
- Explorer Zones May Have End-User Filters
- Map Zones
- Special-Purpose Zones
- Special Feature Zone - Tree
- Section and Element Help
- Standard User Interface Functions
- Menu and Navigation
- Menu and Admin
- Context Menus - Quick View
- Context Menus - Search and Portal Pages
- User Profile Definitions
- Scrolls (Go To Button)
- Standard Actions
- Logs
- Searches - The Fine Points
- Saved Searches
- Bookmarks
- Go To Button
- Work List
- Broadcasting
- Explorer Zone - Dragging and Dropping
- Scroll Bars with Dynamic Height
- Accordion Windows
- Pagination
- BPA Scripts
- The BPA Menu
- BPA Scripts Are Everywhere
- BPA Scripts Reflect An Organization's Business Practices
- Batch Processing

- Batch Processes
- Batch Concepts
- Batch Submission Concepts
- Types of Processing
- Online Submission
- Tracking Batch Processes
- Plug-in Driven Batch
- To Do Processing
- To Do Entry
- To Do Summary
- To Do List
- To Do Summary Zone
- To Do Type and To Do Role
- Message
- Special Message Handling
- Entry Priority
- How Entries Are Created
- Batch Process
- The Creator Supplies Other Attributes
- Filling In The Blanks
- Related To Do Entries
- To Do Entry Lifecycle
- Forwarding
- Manual Completion
- Batch Processes Can Complete Entries
- To Do Management
- To Do Search
- Work Distribution
- Pick and Choose
- Supervisor To Do Summary
- Supervisor Assignment
- Supervisor User Summary
- On Demand Assignment
- On Demand – How It Works
- The Benefits
- Multi-Use Pages
- Introducing a New Type of Entry Involves the Following Steps
- Security
- Database and Operating System Security
- Application Services
- Application Services and Access Modes
- Linking an Application Service to a User Group
- Field-Level Security
- Security Rights Are Cached
- Summary

- Learning Objectives
- Practice 3-1: Log On to Customer to Meter
- Control Central
- Find a Customer and Premise
- The Dashboard
- Dashboard + Account Information = Complete View of the Customer
- Practice 3-2: Use Control Central, Portals, and Zones
- Customer 360 Portal
- Customer 360 Portal Zones
- Customer 360 - Program Enrollment Zone
- Customer 360 Portal Zones: Customer Insights Zone
- Customer 360 Portal Zones: Customer Activity History
- Customer 360 Portal Zones: Financial Details
- 360°Search and View
- 360°Search
- 360°View Has Separate Portals For Each Object
- Practice 3-3: Use the 360 Search and View a Device
- Practice 3-4: Use Page and Portal Maintenance Dialogs
- Entity Relationship Diagramming Standards
- Entity Relationship Diagramming (ERD)
- ERDs Represent Tables and Relationships
- Color-Coding Highlights Subsystem Where Table's Rows Are Typically Maintained or Type of Data
- Color-Coding Used to Group Tables into Logical Subsystems
- ERDs Highlight Important Business Relationships
- Relationships Between Entities Are Highlighted
- Dashed Lines Represent Columns on Entities with Predefined "Lookup"
- Values
- Review Questions
- Summary

## Customer Information - Part 1

- Learning Objectives
- Customer Information Overview
- Customer Information
- The 'V'
- Customer = Person and Account
- Practice 4-1: Find a Customer in Control Central
- Person Concepts
- Important Person Concepts
- Person ERD
- Practice 4-2: Add a Person and Account from Control Central
- Person Contacts
- Practice 4-3: Add a Person Contact

- Account Concepts
- Important Account Concepts
- Account ERD
- Customer Contacts
- Customer Contact: Overview
- Customer Contact ERD
- Customer Contacts Trigger To-Do Entries
- Customer Contacts Trigger Letters
- Letter Images
- Practice 4-4: Add a Customer Contact
- Premise and Service Point
- The 'V'
- Important Premise Concepts
- Premise ERD
- Practice 4-5: View and Add a Premise
- Service Point Basics
- Devices Are Installed at Service Points
- Service Points Have Installation Events
- Installation Events Reference Device Configurations
- Device Exchanges
- Device Exchanges and AMI Transitions
- Service Point Type
- Service Points Behave Like Other Master Data Objects
- Service Point Type – Service Point Category
- Practice 4-6: View a Service Point Type and Add a Service Point
- Service Points and Meters
- Metered Service Points
- Service Points and Items
- Single Item Service Points
- Multi-Item Service Points
- Service Point Hierarchy
- Measurement Cycles
- Measurement Cycles and Manually Read Meters
- A Measurement Cycle Has Routes and a Schedule
- Measurement Cycle Batch Processes
- Process D1-CMCS: Create Pending Measurement Cycle Schedule Routes
- Process D1-CSPSR: Create Pending SP Measurement Cycle
- Schedule Routes
- Process D1-PSPSR: Process Pending SP / Measurement Cycle Schedule
- Route Records
- Measurement Cycle Route Management
- Route Management
- Route Management: Searching for Service Points
- Route Management: Assigning Sequence Numbers to Service Points
- and Renumbering
- Route Management: Renumbering Service Points

- Route Management Transferring Service Points Between Routes
- Deregulated Markets
- Different Relationship Types In Different Markets
- Network Locations
- Network Locations Overview
- Facilities
- Network Locations
- Switching Network Locations
- Service Points and Facilities
- Account Security
- Account Security: Overview
- Securing Persons
- Securing Premises and Service Points
- Data Access Groups and Roles
- An Account's Access Group
- More Account Security Information
- Starting Service
- The 'V'
- Accounts and Service Agreements
- Creating Service Agreements Through Start Service
- Start Options Control Default Values
- Practice 4-7: Start Service at Your Premise
- Important Service-Oriented Concepts Still to Come
- Review Questions
- Summary

## Assets

- Learning Objectives
- Asset Locations
- Overview: What Are Locations?
- Organizations
- Organization Attributes
- Out of Service Locations
- Assets and Out of Service Locations
- Out of Service Location Attributes
- Organizations and Out of Service Locations
- Asset Locations
- Asset Location: Electric Residential Service Point
- Asset Location: Non-Service Point Locations
- Asset Locations and Service Points
- Assets and Asset Locations: Installed vs. Attached
- Asset and Asset Locations
- Assets
- What Are Assets?
- About Specifications

- Asset Specifications
- Specification Attributes
- Peer Specifications
- Manufacturers
- About Assets
- Assets and Devices
- Asset Attributes
- Admin Data: Asset Types
- Assets and Devices
- Asset and Device Configuration Synchronization
- Asset and Device Configuration Synchronization – Items
- Practice 5-1: View an Asset
- Practice 5-2: Create an Asset
- Components
- About Components
- Sample Component: Gas Meter Faceplate
- Component Attributes
- Admin Data: Asset Type
- Asset Disposition
- About Asset Disposition
- Asset Disposition and Location
- Asset Disposition and Lifecycle Status
- Asset Disposition: Examples
- Asset Disposition and Install Events
- Shipping Memo
- Shipping Memo Category
- Service History
- About Service History
- Creating Service History Records
- Service History Attributes
- Admin Data: Service History Types
- Example: Asset Inspections
- Service History Questionnaire
- Asset Activities
- Overview: Asset Activities
- About Activities
- Types of Activities
- Activity Attributes
- Admin Data: Activity Type
- About Completion Events
- Completion Event Attributes
- Admin Data: Completion Event Type
- Activities and Completion Events: Ad-Hoc and Local/Scheduled Activities
- Outbound Activities
- Outbound Messages
- Admin Data: Outbound Message Types

- Inbound Communications
- Inbound Communication Attributes
- Inbound Communication Attributes: Completion Events
- Admin Data: Communication Type
- Outbound Activity Processing Overview
- Asset Activity Generators
- Overview: What are Activity Generators
- Activity Generators
- Types of Activity Generators
- Activity Generators
- Activity Generators and Activities: Ad-Hoc and Local or Scheduled Activities
- Activity Generator Attributes
- Activity Generator Templates
- Asset Receipt Inspection
- Overview
- Overview: What is Asset Receipt Inspection
- Asset Replication
- Asset Replication Activity Attributes
- Replicating Assets
- Asset Inspection
- Mass Asset Disposition Update
- Using Mass Asset Disposition Update
- Configuration Report
- Configuration Report – Overview
- Configuration Report – Functionality Overview
- What Is a Configuration
- What Is a Configuration Class
- “Communicate To” Location-To-Location Relationship
- Valid “Communicate To” Location Types
- Base Configuration Classes
- Configuration Report Overview
- Configuration Report Example: Criteria
- Configuration Report Example: Result
- Configuration Report Example: Notes
- Configuration Criteria Activity Generator Overview
- Activity Generator Refresher
- A New Way To Create an Activity Generator
- Additional Activity Generator Criteria
- Summary

## Devices and Measuring Components

- Learning Objectives
- Device and Measuring Component Basics
- Device and Measuring Components
- Device versus Measuring Component Attributes

- What A Measuring Component Measures
- Scalar versus Interval Measuring Components
- Practice 6-1: View Existing Device and Measuring Components
- Changing Measuring Component Attributes over Time
- Reconfiguring Devices
- Measuring Components And Measurements
- Measuring Components and Measurements
- Subtractive versus Consumptive Measuring Components
- Interval Measuring Components
- Scalar Measuring Components
- Interval and Scalar Measuring Components On a Single Device
- A Note About Initial Measurements (IMDs)
- Admin versus Master Data
- Master Data versus Admin Data
- Practice 6-2: View Device and Measuring Component Admin Data
- Device-Oriented Tables and Maintenance Objects
- Types Of Measuring Components
- Setting Up Admin Data
- Practice 6-3: Create a “Manual Read” Traditional Scalar Meter
- Items
- Items Overview
- Items Overview: Badged vs. Unbadged Items
- Device - Item
- Admin Data - Item Types
- Device Type - Item Type
- Device Type Service Quantity
- Item (Device) Configurations and Configuration Types
- Measuring Component Level Communication Modules
- Measuring Component Level Communication Modules - Example
- Review Questions
- Summary

## Field Work and Service Order Management

- Learning Objectives
- Overview
- Service Order Management
- Field Activities
- Field Activities - Overview
- Field Task Types
- Example Field Task Type
- Limit Field Work by Service Point Type
- How do Field Activities Work?
- How Do Field Activities Work?
- Example Field Activity
- Field Activity Processing

- Manually Completing Field Activities
- Pass-Through Field Activities
- Field Activity Communications
- Communications and Communication Types
- Outbound Communications
- Outbound Communications and External Applications
- Outbound Communications and Processing Methods
- Sample Outbound Communication
- Outbound Communications: Passing Additional Data
- Inbound Communications
- Inbound Communications and Inbound Web Services
- OUAF Components
- OUAF Components Outbound – External Systems
- OUAF Components Outbound – Message Senders
- OUAF Components Outbound – Outbound Message Types
- OUAF Components Inbound – Inbound Web Services
- Completion Events
- Sample Completion Event
- Service Order
- What is a Service Order?
- Purpose of a Service Order (Orchestration)
- Understanding Service Orders
- Service Orders – Child Activities
- Example Service Order
- Service Order Activity Types
- Service Order Activity Processing
- Evaluating Service Point and Device
- Creating Specific Activities – Evaluating the Service Point’s State
- Creating Specific Activities – Creating the Activity
- Updating Devices
- Update Device Algorithms
- Canceling or Updating Service Order Activities
- A Closer Look: Enable Service
- Enable Service – Functional Overview
- Enable Service – “Are SP and Device Ready?” State Algorithms
- Customer Processes and Service Orders
- Field Activity Requests
- Field Activity Request Types and Service Order Activity Types
- Mapping Field Activity Request Types to Service Order Activity Types
- Practice 7-1: Examine the Field Activity Request
- Practice 7-2: View Enable Service Activity
- Practice 7-3: Create an Inbound Communication
- Practice 7-4: Re-Examine the Field Activity Request that was Created Earlier
- Appointment Booking Process Overview
- Appointment Booking Process
- Summary

- Appendix
- Enable Service: “Are SP and Device Ready?” Algorithms
- Enable Service: Customer-Device Compatibility Check – Algorithm Logic
- Enable Service: Connect SP and/or Install Device – Algorithm Logic
- Enable Service: Connect SP and/or Install Device – Algorithm Soft Parameters
- Enable Service: Connect Device – Algorithm Logic
- Enable Service: Connect Device – Algorithm Soft Parameters
- Enable Service: Check for Measurement – Algorithm Logic
- Enable Service: Update US/SP’s Override Start Date Time for Enable
- Service – Algorithm Logic

## Customer Information - Part 2

- Learning Objectives
- Service Agreements
- The ‘V’
- 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 through SPs
- Some SAs Are Not Linked to Premises
- Service Agreement ERD
- Activating Pending Start Service Agreements
- Service Agreement States
- Activating Pending Start Service Agreements
- Practice 8-1: Activate Your Service Agreement
- Practice 8-2: Explore a Service Agreement
- Usage Subscriptions
- The ‘V’
- Subscribing To Usage (Bill Determinants)
- Multiple Service Points and Measuring Components
- Usage Subscription Types
- Usage Subscriptions Behave Like the Other Master Data Objects
- Practice 8-3: View Your Usage Subscriptions
- Alerts
- The Alerts Zone
- The Control Central Alert Plug-In Spot
- Jurisdictions
- Jurisdictional Rules
- Division = Jurisdiction
- Multiple Jurisdictions
- Other Features
- Account/Person Replicator
- 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
- Message-Based vs. Template-Based Notifications There are two
- notification formats:
- Push vs. Subscription Notification Types There are two notification types:
- Push-Based Notifications
- Account – Account Portal: Push Communications Preferences Zone
- Subscription-Based Notifications
- Account – Account Portal: Subscription Communication Preferences Zone
- Setting Notification Preferences
- Account – Persons: Notification Preferences
- Account – Account Portal: Maintaining Contact Details
- Practice 8-4: Investigate a Notification Preference
- Master Configuration
- The Flexibility of the V
- The V Diagram
- Two SAs, Each Linked to a Single SP
- Two SAs Linked to the Same SP
- One SA linked to Two SPs
- 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, and Metering
- SA Type and SP Type Control the Valid Relationships
- Review Questions
- Summary

## Measurements and Scalar VEE

- Learning Objectives
- Examples: Interval vs. Scalar Measurements
- Measurement Basics
- Initial Measurements vs. Final Measurements vs. Usage
- VEE Is Discussed Later
- Interval Initial Measurements Create Final Measurements
- Pre-VEE and Post-VEE Quantities
- Measurement Conditions
- Updating Final Measurements
- Final Measurements and Derived Values

- Deriving Other Values
- Derived Values
- Scalar/Interval Measurements, Initial Measurements, and Final Measurements
- Interval versus Scalar Measuring Components
- Scalar Measuring Components
- IMDs for Subtractive Measuring Components
- Practice 9-1: Examine Scalar Measurement Data
- The Source of Initial Measurements
- IMDs Interfaced from External Systems
- IMDs Loaded Real-Time By Supplying an XML Document
- IMDs Created by Functions
- Estimations
- IMDs Created To Estimate Consumption
- Estimating for at Billing Time for Traditionally Read Scalar MCs
- Estimation Parameters for Daily Scalar MC Types
- Detecting Missing Final Measurements
- Scalar Measurements - User Interface
- Scalar Measurements - User Interface Screens
- User Interface to Create and Update Scalar Readings
- Creating and Updating Scalar Readings
- Creating Scalar Readings
- Updating Scalar Readings
- Creating Scalar Readings - Multiple Registers
- Creating and Updating Scalar Readings - New Initial Measurements
- Reader Remarks
- Meter Reader Remarks - Overview
- Meter Reader Remarks - Process Overview
- Creating Meter Reader Remarks - Scalar Initial Measurements
- Creating Meter Reader Remarks
- Creating Reader Remarks - Reader Remark Types
- Reader Remark Processing
- Reader Remark Processing - Execute
- Reader Remark Processing - Complete
- Searching and Viewing Reader Remarks
- Measurement Tables and Maintenance Objects
- Validation, Editing, and Estimation (VEE) Overview
- The VEE Process
- Critical Validations Occur Before VEE
- Reprocessing Critical Validation Failures
- Applying Multipliers
- And One Last Phase Before VEE
- A VEE Group Contains VEE Rules
- Eligibility Criteria
- Base Package VEE Rules
- VEE Rules - Decision Making Rules
- VEE Rules - Validation Rules

- VEE Rules – Estimation Rules
- Practice 9-2: Examine a VEE Group
- VEE Tables and Maintenance Objects
- Practice 9-3: Create Initial Measurement Data and Final Measurements
- Review Questions
- Summary

## Integrations

- Learning Objectives
- Business Flags
- Business Flags: Analytics Insights Integration
- Business Flags
- Business Flags: Business Flag Types
- Business Flags: Standard Names
- Business Flags: Lifecycle Processing
- Business Flags: Example
- Business Flags and the 360°View
- Service Investigative Orders
- Service Investigative Orders: Overview
- Service Investigative Orders: Process Overview
- Creating Service Issue Monitors
- Creating Service Issue Monitors: Triggering Events
- Service Issue Monitor Triggering Events: Device Events and Device
- Event Type
- Service Issue Monitor Triggering Events: VEE Exceptions and
- Exception Type
- Service Issue Monitor Triggering Events: Failed Commands and
- Activity Type
- Creating Service Issue Monitors: Service Issue Monitor Types
- Service Issue Monitor Types: Evaluation Criteria
- Service Issue Monitor Types: Evaluation Criteria – Multiple Criteria
- Service Issue Monitor Types: Completion Criteria
- Service Issue Monitor Types: Discard Rules
- Service Issue Monitor Types: Service Investigative Orders
- Service Issue Monitor Processing
- Service Issue Monitor Processing: Pending
- Service Issue Monitor Processing: Analyzing Service Points
- Service Issue Monitor Processing: Processed
- Searching and Viewing Service Issue Monitors
- Service Investigative Order Activities
- Searching and Viewing Service Investigative Orders
- Configuring Service Investigative Orders
- DataConnect
- Overview
- DataConnect Overview

- DataConnect Data Extracts
- Master Data Extracts
- Billing Data Extracts
- Billing Data Extracts: Business Objects
- Billing Data Extracts: Pre-Processing Algorithms
- Consumption Extracts
- Initial Load Extracts
- Incremental and Ongoing Extracts
- Historical Correction Extracts
- Consumption Extract Requests
- Admin Data: Request Types
- Admin Data: Consumption Extract Types
- Consumption Extract Request Query Portal
- Consumption Extract Request Portal
- Consumption Extract Request Portal: Attachments
- Extract Files
- Sample Extract Files
- Data Extracts and Export
- Overview
- Types of Extracts and Exports
- Configurable Consumption Extract
- Configurable Consumption Extract - Interval Snapshot Mapping Records
- Configurable Consumption Extract - Consumption Extract Type
- Configurable Consumption Extract - Consumption Extract Requests
- Generalized Data Export
- Specialized Data Export
- Measurement Data Export
- Measurement Data- Data Export Control Records
- Measurement Data Export - Batch Controls
- Initial Measurement Data (IMD) Header Export
- IMD Header Export - Data Export Control Records
- IMD Header Export - Batch Controls
- Customer Self Service
- Rate Compare Overview
- Rate Compare: Process Overview
- Self-Service Master Configuration: Rate Compare Configuration
- Usage Adjustment Factors
- Usage Adjustment Factors: Profile Measuring Components
- Rate Comparisons and Usage Subscriptions
- Rate Comparisons and Usage Subscription Types
- Usage Transaction: Calculation Mode and Usage Adjustment Profiles
- Profile Accumulation Usage Rules
- Creating Usage Adjustment Profiles: Summary
- Rate Comparison Example: Existing Usage Transaction
- Rate Comparison Example
- Summary

- 10b C2M Consolidated Maintenance
- Customer to Meter Consolidated Maintenance and Data Mapping 10b-2
- Oracle Utilities Customer to Meter Application Components 10b-3
- Deployment Options 10b-4
- Main Interactions Between Application Components 10b-6
- Master Data Model 10b-8
- Oracle Utilities Customer to Meter Specific Functionality 10b-9
- Oracle Utilities Customer to Meter Master Configuration Summary of Internal
- Interaction Configuration 10b-10
- Multiple Merged Maintenance Types 10b-11
- Merged Maintenance: Combined User Interfaces 10b-12
- Internal Synchronization 10b-13
- External Synchronization 10b-15
- Data Audit Maintenance 10b-16
- Lookup Value Mapping 10b-17
- Transactional Data Mapping 10b-19
- Usage Requests and Usage Transactions 10b-20
- Field Activity Requests and Service Order Activities 10b-21
- Summary 10b-22

## Payload Processing - Native Implementations

- Objectives
- Standard Payload Format Processing
- Native Implementations Payload Processing Overview
- Cloud Service Payload Processing Configuration
- Key Rings and Key Pairs
- Creating Key Rings and Key Pairs
- Object Storage Locations
- File Storage Configuration Extendable Lookup Values
- Head End Systems
- Adapter Extendable Lookups
- SGG Payload Processing Configuration
- Payload Processing Batch Controls
- Payload Processing Batch Control Parameters
- Itron OpenWay Payload Processing
- Upload Statistics Activities
- What are Upload Statistics Activities
- How Upload Statistics Activities are Created
- Suppressing Upload Statistics Activities
- Searching and Viewing Upload Statistics Activities
- Filtering Usage and Device Events
- Custom Payload Format Processing Using the Adapter Development Kit
- Adapter Development Kit Custom Payload Processing
- Custom Payload Processing Overview
- Oracle Utilities Meter Data Framework Processing

- Payload Parser Processing
- Payload Transformer Processing
- Payload Processing User Exit Interceptor Scripts
- Payload Processing User Exit Interceptor Scripts – Parser Script
- Payload Processing User Exit Interceptor Scripts – Transformer Script
- Configuration Steps
- Sample Implementation
- Summary

## Financial Transactions

- Objectives
- Financial Transaction Basics
- Determining an Account's Balance
- Source of Financial Transactions
- Bill Segments
- Payment Segments
- Adjustments
- Practice 12-1: Mark Brazil's Financial Transactions
- Current Balance Versus Payoff Balance
- Current Amount and Payoff Amount
- When Current Balance Does Not Equal Payoff Balance
- The General Ledger (GL)
- General Ledger Details
- Examples of Financial Transactions Without GL Details
- Debt Age
- How Old is the Debt?
- Specific Days Shown on Several Transactions
- Arrears Date
- Arrears Date Typically Populated by Billing
- Practice 12-2: Mark Brazil's Aged Debt
- Financial Transaction Creation Algorithms
- Financial Transaction Algorithms
- Financial Transaction Status
- Important Peripheral Effects
- Financial Transactions Affect More Than Balances
- Practice 12-3: View a Financial Transaction
- The GL Interface
- Updating the General Ledger
- The GL Download Processes
- Process GLASSIGN
- Process GLS: Prepare Financial Transactions for Download
- Process GLDL: Create Download Flat File
- Practice 12-3: View a Financial Transaction
- Balance Control
- Overview of Balance Control

- 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
- Review Questions
- Summary

## Usage and Billing

- Objectives
- Billing Basics
- A Bill Contains Charges for Services
- A Service Agreement for Every Service That Is Billed
- Service Agreement Types
- What's a Bill?
- Definitions
- Bill ERD
- Bill Lifecycle
- Bill Cycles Control Batch Billing
- Batch Bill Creation Process
- Bill Cycles
- Window Billing
- Other Bill Cycle Schedule Functions
- How an Account Gets Its Bill Cycle
- If the Service Point's Meter-Read Cycle Changes
- Practice 13-1: View Your Account's Bill Cycle
- Billing and Usage Requests
- Usage Requests
- Bill Segments are Created by Calling Plug-Ins
- Bill Segment Creation Algorithms
- SA Type Attributes
- Get Consumption is First
- Get Consumption
- Scalar Processing Details
- Interval Processing Details
- Usage Request Example
- Bill Segment Creation is Next
- Bill Segment Creation
- Rated Bill Segment ERD
- An Aside: Bill Segments are Snapshots
- Controlling Bill Segment Creation Order
- Control Processing Sequence
- Processing Sequence on Service Agreement Type
- Review: Bill Segment Financial Transactions
- Review: Bill Segments' Financial Transactions
- Practice 13-2: Examine the SA Type Configuration for Bill Determinant-Oriented

- Service Agreements
- Usage Business Objects
- Usage ERD
- Usage Request Business Object Lifecycle
- Usage User Interface
- Usage Request Portal (Request)
- Usage Request Portal (Response)
- Usage Request Portal (Exceptions)
- Usage Request Log
- Standard Bill Segment Page
- Usage Request Query Portal
- Practice 13-3: Review the Usage Business Objects
- Practice 13-4: Create a Bill for Your Account
- Practice 13-5: View a Usage Request
- Bill Segment Start and End Dates
- Metered Service Agreements
- Time Period Derivation for Non-Metered Service
- Use a Bill Period to Derive the End Date
- Anniversary Date
- The Default - Current Business Date
- Preventing Short Bill Segments
- More to Come
- Bill Segment Lifecycle
- Freeze at Bill Completion
- Errors
- Classic Errors
- Bill Segment Errors
- Bill Segment Remarks
- Bill Errors
- Errors After The Window Closes
- Bill Completion
- Bill Lifecycle
- Bill Completion Is Intensive
- Customer Class Pre-Completion Algorithms
- Service Agreement Type Pre-Completion Algorithms
- Bill Due-Date Calculation ERD
- Late Payment Charge Computation - Levying The Charge
- Late Payment Charge - Manual Intervention
- Bill Routings
- Bill Routing ERD
- Route Method
- Four Potential Mailing Addresses ERD
- An Aside: Reprints
- Customer Class Bill-Completion Algorithms
- Service Agreement Type Bill-Completion Algorithms
- Messages Linked to a Bill or Bill Segments

- Messages with Variables
- A Bill Summarizes Financial Transactions
- All New Financial Transactions Swept onto the Bill
- Customer Class Post-Completion Algorithms
- Bill Download
- Review: Bill Routing ERD
- Postal Routing
- Marking a Routing Record with a Batch Control and Run
- Process POSTROUT: Create Download Flat File for Postal Routing
- Configurable Bill Print Extract
- Bill Print Extract Record Types
- How is the XML Extract Constructed?
- Extending the XML Extract
- Bill-Print Intercept
- Online Bill and Bill Segment Disp