Oracle Utilities: CC&B v2.9.0.0 Functionality for Implementers Ed 1

Oracle Utilities

DURATION	MODULES	COURSE CODE
10 Days	**9 Lectures**	**—**

Course Overview

Oracle Utilities: CC&B v2.9.0.0 Functionality for Implementers Ed 1 - 99900540724

What You Will Learn

Overview

- Learning Objectives
- Functional Areas
- Customer Information
- Sales & Marketing
- Device Management
- Field Work
- Meter Reading
- Billing
- Statements
- Rates
- Payments
- Adjustments
- Credit & Collection
- Budgets
- Deposits
- SA Relationships
- Service Credits
- Contract Management
- Loans
- Conservation Programs
- Framework Utilities
- Integration Tools
- Summary

- The Format of This Class
- A Few Ancillary Topics Before We Start
- The Documentation
- Caveat
- Review
- 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
- 2b Control Central and Customer 360
- Learning Objectives 2b-2
- Practice 2b-1: Log On to Customer Care and Billing 2b-3
- Control Central 2b-4
- Find a Customer and Premise 2b-6
- The Dashboard 2b-7
- Dashboard + Account Information = Complete View of the Customer 2b-8
- Practice 2b-2: Find a Customer and Portal/Zone Introduction 2b-9
- Practice 2b-3: Use Page and Portal Maintenance Dialogs 2b-10
- Customer 360 Portal 2b-11
- Customer 360 Portal Zones 2b-13
- Customer 360 – Program Enrollment Zone 2b-14
- Customer 360 Portal Zones: Customer Insights Zone 2b-15
- Customer 360 Portal Zones: Customer Activity History 2b-16
- Customer 360 Portal Zones: Financial Details 2b-17
- Review Questions 2b-20
- Summary 2b-21

Metadata and Framework Overview

- Learning Objectives
- Agenda
- Architecture Overview
- Oracle Utilities Application Framework: Overview
- Browser User Interface (UI) Activities
- Web Server Activities
- Web Application Server Breakdown
- Application Server Activities
- Database Server Activities
- Entity Relationship Diagramming Standards
- 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
- Common Data Design Patterns
- No Recurring Groups
- Prime Keys
- Very Little (Almost No) Redundant Data
- Language Tables
- XML Extensions
- Maintenance Objects
- Maintenance Object: Definition
- Why Maintenance Objects?
- Maintenance Object, Table, and Field Metadata
- Maintenance Objects
- Maintenance Objects Encapsulate Core Business Rules
- Maintenance Objects Versus Business Objects
- Maintenance Object Has Fields, Business Object Has Elements
- Business Object Elements Must Physically Reside Somewhere
- in its Maintenance Object's Tables
- Business Objects Encapsulate Core Business Rules
- Business Objects and Service-Oriented Architecture (SOA)
- Older Maintenance Objects = Object Maintenance Newer
- Maintenance Objects = Portal Maintenance
- Plugin Component = Algorithm = Subroutine
- Plugin = Algorithm
- An Algorithm Example
- Use a Base Package Plugin or Write Your Own
- Creating a New Plugin
- Some Objects Are Preconfigured
- Practice 3-1: Examine an Algorithm
- Characteristic = User-Defined Field
- User-Defined Fields Extend…
- Many Maintenance Objects Support Characteristics
- There Are Four Types of Characteristic Types
- Predefined Characteristic Types
- Ad Hoc Characteristic Types
- Foreign Key (FK) Reference Characteristic Types
- File Location Characteristic Types
- Characteristic Values Are Effective-Dated on Some Entities
- A Characteristic Type Can be Used on Multiple Entities
- Practice 3-2: Examine a Char Type
- Data Ownership
- 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 3-3: Data Ownership
- Web Services
- Web Services Architecture
- Web Services
- More Web Services Information
- Security
- Database and Operating System Security
- Application Services Are Secured
- Application Services Have Valid Actions
- Field-Level Security
- Security Rights Are Cached
- Practice 3-4: Application Security
- Odd and Ends
- Plugin Driven Batch
- Audit Trails
- Localization Support
- Isolating Implementation-Specific Business Rules
- The Conversion Tool
- Review Questions
- Summary

Batch Processing

- Learning Objectives
- Batch Processes
- Batch Processes Are Documented In the Application Viewer
- What You Can Count On
- Errors
- Parallel Processing
- Optimal Number of Threads
- Parameters
- Plugin Driven Batch
- Batch Processing ERD
- Practice 4-1: View Results of a Batch Run
- Executing Batch Jobs
- Separate Application Servers
- Submitting Ad Hoc Requests
- Practice – Instructor-Led
- Dependencies Between Batch Jobs
- Batch Process Dependencies
- Sample and Submit
- 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 Batch Jobs Can Be Thought of as Plugins
- Some Processes Can Be Viewed as Plugins
- Review Questions
- Summary

Maintaining Customer Information

- Learning Objectives
- Customer Information
- Customer = Person and Account
- Practice 5-1: Find a Customer on Control Central
- Person Concepts
- Important Person Concepts
- Person ERD
- Person Contacts
- Practice 5-2: Add a Person Contact
- Account Concepts
- Important Account Concepts
- Account ERD
- Practice 5-3: Add a Person and Account from Control Central
- Customer Contacts
- Customer Contact: Overview
- Customer Contact ERD
- Practice 5-4: Create a Customer Contact
- Customer Contacts Trigger To-Do Entries
- Customer Contacts Trigger Letters
- Letter Images
- Premise and Service Point
- 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: View a Premise and Add a Premise
- Service Agreements
- 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
- 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 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 (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, and Metering
- SA Type and SP Type Control the Valid Relationships
- Starting Service
- Most SAs Are Created Via Start Service
- Start Options Control Default Values
- Practice 5-6: Start Service at Your Premise
- Activating Pending Start SAs
- Service Agreement States
- Activating Pending Start SAs
- Important Service-Oriented Concepts: Still to Come
- Alerts
- The Alert Zone
- The Control Central Alert Plugin Spot
- Jurisdictions
- Jurisdictional Rules
- Division = Jurisdiction
- Other Features
- 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 There are two Notification Types: Push and Subscription.
- 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
- Master Configuration
- Practice 5-7: Investigate a Notification Preference
- Review Questions
- Summary

Maintaining Meters and Items

- Learning 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 6-1: Add Meters Using the Meter Replicator
- Meter Reading – Part 1
- A Configuration’s Registers Are Read
- Subtractive Versus Consumptive Registers
- Meter Read ERD
- Meter Installation
- Important SP and Meter Installation Concepts
- Meter Installation ERD
- Practice 6-2: Install the New Meters at Your Premise
- Meter Exchange
- How to Exchange the Meter at an SP
- Item Management
- 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
- Item Installation
- Important SP and Item Installation Concepts
- Item Installation ERD
- Important Item Exchange Concepts
- Unbadged Items Are Alternatives
- Meter and Item Search
- Meter/Item Search Page
- Practice 6-3: Find Your Meters Using Meter/Item Search
- Review Questions
- Summary
- 7a Field Work: Managing Field Work
- Preface 7a-2
- Learning Objectives 7a-3
- Checkpoint 7a-4
- Field Activities 7a-5
- Field Activity ERD 7a-6
- Field Activity State Transition 7a-7
- Practice 7a-1: Examine the Field Activities That Were Created Earlier 7a-8
- Dispatch Groups and Operations Areas 7a-9
- Operations Areas 7a-10
- Dispatch Groups and Representatives 7a-11
- Field Service Control Is a Multidimensional Matrix 7a-12
- Dispatch Group Assignment Is in a Plugin 7a-13
- Practice 7a-2: Confirm the Dispatch Group on the Electric Service
- Point’s Field Activities 7a-14
- Field Orders and Field Activities 7a-15
- Field Orders Are Premise-Oriented, Field Activities Are SP-Oriented 7a-16
- Different Dispatch Groups Result in Different Field Orders 7a-17
- Field Orders May Be Assigned a Specific Rep 7a-18
- Field Order and Rep ERD 7a-19
- Field Order State Transition 7a-20
- Reschedule and Cancel Reasons 7a-21
- Capturing Reasons 7a-22
- Enabled with a Feature Configuration 7a-23
- The Pages Change 7a-24
- Reschedule Reason Audits 7a-25
- Group Premise Field Activities 7a-26
- The Group Premise FAs Alternative 7a-27
- The Group Premise FAs Page 7a-28
- Lowest Common Denominator Dispatch Group 7a-29
- Batch Dispatcher 7a-30
- Practice 7a-3: Use Group Premise FAs to Create a Field Order 7a-31
- Most Field Activities Are System Generated 7a-32
- Automatic Field Activity Creation 7a-33
- Field Activity Type Profile 7a-35

- Field Activity Type Profile Is a Multidimensional Matrix 7a-36
- FA Type Profile Also Defines Valid FA Types 7a-37
- Service-Oriented Field Activities Are Created by a Plugin 7a-38
- When Service-Oriented Activities Are Created 7a-39
- You Don’t Know About Schedule Read Dates Yet… 7a-40
- Not All Automated FA Creations Use FA Type Profiles 7a-42
- Dispatching and Completing Field Orders 7a-43
- Dispatching Field Orders 7a-44
- Dispatched to Completed 7a-45
- Complete Activities, Then Complete Order 7a-46
- Completion Algorithms 7a-47
- Completion Algorithms ERD 7a-48
- Practice 7a-4: Complete the Activities 7a-49
- Field Order Upload 7a-50
- Completion Upload 7a-51
- Field Order Download 7a-52
- Two Batch Process Are Used to Download Field Orders 7a-53
- Process FDS: Create Download Staging 7a-54
- Each Download Record Gets Marked with a Batch Control and Run 7a-55
- Process FODL: Create Download Flat File 7a-56
- FODL Executes an Algorithm to Format the Flat File Information 7a-57
- An Aside: Ongoing Instructions and Warnings 7a-58
- Post Completion Activities 7a-59
- Metered SAs Need Start Reads to Bill 7a-60
- SA Activation Batch Process 7a-61
- Metered SA’s Need Stop Reads to Final Bill 7a-62
- SA Activation Also Handles Pending Stops 7a-63
- SA, FA, and MR Flow 7a-64
- Credit & Collection 7a-65
- Practice 7a-5: Activate Your Service Agreements 7a-66
- Not Just For Meters 7a-67
- Field Activities Are for All SP-Related Efforts 7a-68
- Review Questions 7a-69
- Summary 7a-70
- 7b Field Work: Appointments
- Learning Objectives 7b-2
- Appointment Scheduling 7b-3
- Dispatch Group Refresher 7b-4
- A Dispatch Group Refresher Before We Start 7b-5
- Dispatch Group Assignment ERD 7b-6
- Appointment Periods and Appointments 7b-7
- Limiting the Number of Appointments 7b-9
- Appointment Period Maintenance 7b-10
- Updating Appointment Periods 7b-11
- Practice 7b-1: Create and Update Appointment Periods 7b-12
- Scheduling an Appointment 7b-13

- Default Dispatch Group and Date 7b-15
- Available Appointments Are Controlled By an Algorithm 7b-16
- The Base-Package Available Appointments Algorithm 7b-17
- Canceling Appointments 7b-18
- Practice 7b-2: Schedule and Cancel Appointments 7b-19
- Paying a Penalty if an Appointment is Missed 7b-20
- Penalties 7b-21
- Review Questions 7b-22
- Summary 7b-23
- 8a Devices Inventory and Testing: Equipment Management
- Learning Objectives 8a-2
- Equipment, Meters, and Items Are Installed at a Premise to Regulate
- and Measure Service 8a-3
- There are Two (Notional) Types of Items 8a-4
- Equipment May Be Associated with Meters 8a-5
- Equipment May Be Associated with Service Points and Items 8a-6
- Preventing Invalid Equipment Linkages 8a-7
- Foreshadowing: Equipment Is NOT Billed 8a-8
- Generic Equipment 8a-9
- Generic Equipment – How To Do It 8a-10
- Installations 8a-11
- An Installation Service Point Holds Multiple Pieces of Equipment 8a-12
- Installation SP ERD 8a-13
- Practice 8a-1: Explore Equipment Linked to a Service Point 8a-14
- Review Questions 8a-15
- Summary 8a-16
- 8b Devices Inventory and Testing: Device Testing
- Learning Objectives 8b-2
- Item and Meter Tests 8b-3
- Device Test Example 8b-4
- Badged Items and Meters Can be Tested 8b-5
- Device Test Type Example 8b-6
- The Control Tables Are Sophisticated 8b-7
- Device Test Lifecycle 8b-8
- Practice 8b-1: Add a Device Test Result for Your Meter 8b-9
- Device Testing and Field Activities 8b-10
- Device Tests Occur Because of Field Activities 8b-11
- How to Create Device Test Field Activities 8b-12
- Test Selection Creates Field Activities Based on an Algorithm 8b-13
- Review Questions 8b-14
- Summary 8b-15
- 8c Devices Inventory and Testing: Asset Inventory
- Learning Objectives 8c-2
- Stock Location Tracking 8c-3
- Stock Location 8c-4
- Stock Location Characteristics 8c-5

- Asset Stock Location History 8c-6
- Asset Stock Location History ERD 8c-7
- Default Location for SP Removals 8c-8
- Manually Changing an Asset’s Stock Location 8c-9
- Practice 8c-1: Review Stock Location and Asset Location History 8c-10
- Review Questions 8c-11
- Summary 8c-12

Meter Reading

- Learning Objectives
- There are Many Sources of Meter Reads
- Meter Read ERD
- Meter Read Remarks Can Trigger Other Events
- Trends and Estimated Consumption
- Consumption Estimation Is in a Plugin
- 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
- Read Type and High or Low
- High and Low Limits Are Calculated in a Plugin
- High and Low Check Plugin
- High and Low Factor ERD
- Failing High and Low, and Use on Bill
- Reviewing Readings That Failed High and Low Checks
- Practice 9-1: Add a Meter Read
- Review Questions
- Summary

Route Management, Meter Read Upload, and Field Activity Upload

- Learning Objectives
- Important Service Cycle Concepts
- SP Type Controls the Number of Cycles on a Service Point
- Single Service Cycle SPs
- Single Service Cycle ERD
- SPs Also Need a Route and Sequence
- Renumbering Service Points in a Route
- Transferring a Route
- Practice 10-1: Examine the Service Cycle and Route on Your SPs
- Downloading Meter Read Routes
- 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
- The Service Cycle Schedule Is Also Used by Billing
- Practice 10-2: Examine Schedule Read Dates
- Meter-Read Upload Process
- The Upload Processes
- Process X: Populate Upload Staging
- Process MUP1: Populate Meter Config
- Process MUP2: Create Meter Reads
- The MR Upload Has Other Uses
- Purging Upload Records
- Practice 10-3: Examine a Meter Read Upload Record
- Another Way to Add Reads
- 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
- Multi-Cycle Service Points
- 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 Upload and Completion
- Field Order Completion Details Can Be Uploaded
- Step Types 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
- Summary

Financial Transactions

- Learning Objectives
- FTs Determine an Account’s Balance

- Source of FTs
- Bill Segments Create FTs
- Payment Segments Create FTs
- Adjustments Create FTs
- Practice 13-1: Explore Mark Brazil’s Financial Transactions
- Current Balance Versus Payoff Balance
- Every FT Contains Current Amt and Payoff Amt
- Practice 13-2: Financial Balances
- Examples When Current Balance Does Not Equal Payoff Balance
- The General Ledger (GL)
- GL Details
- Examples of FTs Without GL Details
- Debt Age
- How Old is the Debt?
- Specific Days are Shown on Several Transactions
- Arrears Date
- Arrears Date is Typically Populated by Billing
- Practice 13-3: Aged Debt
- FT Creation Algorithms
- FT Algorithms Control how FTs are Created
- FT Status
- Important Peripheral Effects
- FTs Affect More Than Balances
- The GL Interface
- Updating the General Ledger
- The GL Download Processes
- Process GLASSIGN
- Process GLS: Prepare FTs for Download
- Process GLDL: Create Download Flat File
- Practice 13-4: View a Financial Transaction
- Balance Control
- 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
- Review Questions
- Summary
- 14aBilling
- Learning Objectives 14a-2
- Checkpoint 14a-3
- A Bill Contains Charges for Services 14a-4

An Account Must Have a Service Agreement for Every Service That Is Billed 14a-5

- SA Type Controls Everything 14a-6
- What’s a Bill? 14a-7

- Definitions 14a-8
- Bill ERD 14a-10
- Bill Lifecycle 14a-11
- Bill Cycles Control Batch Billing 14a-12
- Most Bills Are Produced in Batch 14a-13
- Bill Cycles 14a-14
- Window Billing 14a-15
- Other Bill Cycle Schedule Functions 14a-17
- How an Account Gets its Bill Cycle 14a-18
- If the SP’s Meter-Read Cycle Changes 14a-19
- Practice 14a-1: Examine Your Account’s Bill Cycle 14a-20
- Bill Segments Are Created by Calling Plugins 14a-21
- Bill Segment Creation Algorithms 14a-22
- Bill Segments for Consumption-Oriented Services 14a-23
- Get Consumption Is First 14a-24
- Bill Segment Consumption Snapshot ERD 14a-25
- Creating Estimated Reads 14a-26
- Estimating Earlier Than the Schedule Allows 14a-27
- Creating Bill Segments by Applying a Rate 14a-28
- Rated Bill Segment ERD 14a-29
- An Aside: Bill Segments Are Snapshots 14a-30
- Multiple Bill Segments May Be Created 14a-31
- Controlling Bill Segment Creation Order 14a-32
- Control Processing Sequence 14a-33
- Processing Sequence on SA Type 14a-34
- Review: Bill Segment Financial Transactions 14a-35
- Review: Bill Segments’ FTs 14a-36
- Practice 14a-2: Create a Bill for Your Account 14a-37
- Bill Segment Start and End Dates 14a-38
- Metered SAs Are Special 14a-39
- Time Period Derivation for Non-Metered Service 14a-40
- Use a Bill Period to Derive the End Date 14a-41
- Anniversary Date 14a-42
- The Default – Current Business Date 14a-43
- Preventing Short Bill Segments 14a-44
- More to Come 14a-45
- Bill Segment Lifecycle 14a-46
- Freeze at Bill Completion 14a-48
- Errors 14a-49
- Classic Errors 14a-50
- Bill Segment Errors 14a-51
- Bill Segment Remarks 14a-52
- Bill Errors 14a-53
- Errors After The Window Closes 14a-54
- Prioritize To Do Entries Based on When Bill Cycle Window Is Closing 14a-55
- Bill Completion 14a-56

- Bill Lifecycle 14a-57
- Bill Completion is Intensive 14a-58
- SA Type Pre-Completion Algorithms 14a-59
- Customer Class Pre-Completion Algorithms 14a-60
- Bill Due-Date Calculation ERD 14a-61
- LPC Computation – Levying Charges 14a-62
- Late Payment Charge – Manual Intervention 14a-64
- Bill Routings 14a-65
- Bill Routing ERD 14a-66
- Route Method 14a-67
- Four Potential Mailing Addresses ERD 14a-68
- An Aside: Reprints 14a-69
- Customer Class Bill-Completion Algorithms 14a-70
- SA Type Bill-Completion Algorithms 14a-71
- Messages can be Linked to a Bill or Bill Segments 14a-72
- Messages with Variables 14a-75
- A Bill Summarizes Financial Transactions 14a-76
- All New FTs will be Swept onto the Bill 14a-77
- Customer Class Post Completion Algorithms 14a-78
- Practice 14a-3: Freeze the Bill Segments and Complete the Bill 14a-79
- Overriding Billed Consumption 14a-80
- Overriding SQs and Items 14a-81
- Bill Download 14a-82
- Review: Bill Routing ERD 14a-83
- Postal Routing 14a-84
- Marking a Routing Record with a Batch Control and Run 14a-85
- Process POSTROUT: Create Download Flat File for Postal Routing 14a-86
- Configurable Bill Print Extract 14a-87
- Bill Print Extract Record Types 14a-88
- How is the XML Extract Constructed? 14a-89
- Extending the XML Extract 14a-90
- Bill-Print Intercept 14a-91
- Online Bill and Bill Segment Display 14a-92
- UI Interlude 14a-93
- Bill Summary Differs for Open-Item Customers 14a-94
- Bill Segments Differ for Accounts with Many Service Agreements 14a-95
- Bill – Bill Segment for Large Accounts 14a-96
- Other Places Where Bills Are Displayed 14a-97
- Financial Information Dashboard Zone 14a-98
- Online Bill Image 14a-99
- Bill Info Is Constructed by a Plugin 14a-100
- Warning: Demo Portals and Zones Ahead 14a-101
- Bill History Zone on Control Central 14a-102
- Bill Segment Calc Lines Zone 14a-103
- View Bill Zone 14a-104
- SA Billing History Portal 14a-105

- SP Consumption Summary Portal 14a-107
- Practice 14a-4: Examine a Large Bill 14a-108
- Bill Print Groups 14a-109
- Bill ERD 14a-111
- Bills Are Presented in the Customer’s Language 14a-112
- Bill Segments Produced by Applying a Rate 14a-113
- When the Flat File is Created, the Language Tables Are Accessed
- to Download Language Dependent Values 14a-114
- Reporting a Bill 14a-115
- Reopening a Completed Bill 14a-116
- Mass Reopen 14a-118
- How to Avoid Reopening 14a-119
- Freezing and Completing 14a-120
- Closing Bills 14a-121
- Closing Bills (… Bill Segments, really) 14a-122
- Sequential Bill Numbers 14a-123
- When Sequential Bill Numbers are Assigned 14a-125
- Correcting Bills 14a-126
- Correction via Cancellation 14a-127
- Different Correction Methods 14a-129
- The Cancel/Rebill Method 14a-131
- Cancel Only 14a-132
- Online Cancel / Rebill 14a-133
- Mass-Cancel an Entire Batch 14a-134
- Automatic Cancel Rebill 14a-135
- Automatic Cancel Rebill: An Example 14a-137
- Credit Notes 14a-138
- Online Credit Note Creation 14a-139
- Correction Notes 14a-140
- Online Correction Note Creation 14a-141
- Bill Segment Remarks 14a-142
- Cancellations Prior to Completion 14a-143
- Practice 14a-5: Cancel/Rebill the Electric Bill Segment 14a-145
- Other Types of SA Have Other Types of Bill Segment Creation Plugins 14a-146
- Checkpoint 14a-147
- Billable Charges 14a-148
- Billable Charges may have Bill Lines 14a-150
- A Different Bill Segment Creation Algorithm 14a-151
- Billable Charge ERD 14a-152
- Billable Charges with Consumption 14a-153
- Billable Charges with Service Quantities 14a-154
- Billable Consumption ERD 14a-155
- Billable Charge Bill Segment ERD 14a-156
- Billable Charge With Read Details 14a-157
- Billable Charge Read Details 14a-158
- Billable Charge Read Details ERD 14a-159

- Billable Charge Line Characteristics 14a-160
- Billable-Charge Line Characteristics ERD 14a-161
- Billable Charge Templates and Start Options 14a-162
- Billable Charge Templates Save Typing 14a-163
- How are Billable Charge Templates Used? 14a-164
- Practice 14a-6: Add a Billable Charge for Yourself 14a-165
- Billable Charge Upload or Billable Consumption Upload 14a-166
- Billable Charge Upload Overview 14a-167
- The Upload Processes 14a-168
- Process X: Populate Upload Staging 14a-169
- Process BCU1: Populate and Validate SA ID and Line Details 14a-171
- Process BCU2: Create Billable Charge 14a-172
- Purging Upload Records 14a-174
- Strict and Wait Options 14a-175
- Recurring Charge Service Agreements 14a-176
- Recurring Charge SAs 14a-177
- Recurring Charge Bill Segment ERD 14a-179
- More to Come 14a-180
- Review Questions 14a-181
- Summary 14a-182
- 14bPart 2: Off Cycle Bill Generator
- Learning Objectives 14b-2
- Financial Transactions on Bills 14b-3
- Off Cycle Bill Generator Overview 14b-4
- Off Cycle Bill Generator ERD 14b-5
- Off Cycle Bill Generator Lifecycle 14b-6
- Creating the Bill 14b-7
- Practice 14b-1: Examine the Off Cycle Bill Generator Business Object 14b-8
- Off Cycle Bill Generator Portal 14b-9
- Standard Bill Page 14b-10
- Off Cycle Bill Generator Query Portal 14b-11
- How to Access the Off Cycle Bill Generator Portal 14b-12
- How to Create an Off-Cycle Bill Generator 14b-13
- Realigned Standard Bill Page Functions 14b-15
- Practice 14b-2: Create an Off-Cycle Bill 14b-16
- Review Questions 14b-17
- Summary 14b-18
- 14cBilling Part 3: Usage Requests
- Learning Objectives 14c-2
- Not Applicable to All Implementations 14c-3
- Integration Overview 14c-4
- BPEL Orchestrates the Transformation and Load of Payloads Between
- CCB and MDM 14c-5
- Billing Creates Usage Requests 14c-6
- MDM Responds with Bill Determinants (or Errors) 14c-7
- The Usage Object Generates a Bill Segment 14c-8

- Billing for Service Agreements That Require Bill Determinants (BD) 14c-9
- Usage Requests Are Not for Meters Only 14c-10
- SA Type Controls Everything 14c-11
- Get Consumption 14c-12
- Scalar Processing Details 14c-15
- Interval Processing Details 14c-16
- Usage Request Example 14c-17
- Bill Segment Creation 14c-18
- Practice 14c-1: Examine the SA Type Configuration for BD-Oriented SAs 14c-21
- Usage Business Objects 14c-22
- Usage ERD 14c-24
- Usage Request Business Object Lifecycle 14c-25
- Creating the Outbound Message 14c-30
- External Message Configuration 14c-31
- Practice 14c-2: Review the Usage Business Objects 14c-32
- User Interface 14c-33
- Usage Request Portal (Request) 14c-34
- Usage Request Portal (Response) 14c-35
- Usage Interval Data Overlay 14c-36
- Usage Request Portal (Exceptions) 14c-37
- Usage Request Log 14c-38
- Standard Bill Segment Page 14c-39
- Usage Request Query Portal 14