



www.rittmanmead.com

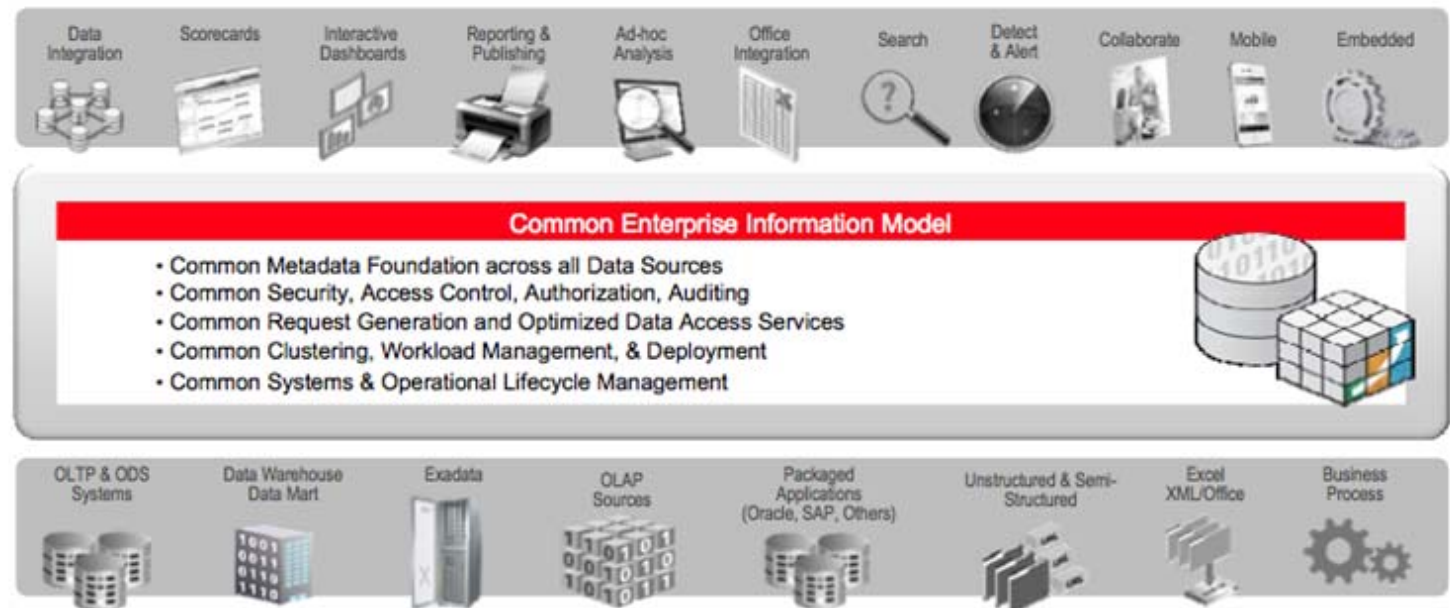
CONSULTANCY TRAINING SUPPORT

Getting Started with OBIEE 11g Visualizations

Mark Rittman, Technical Director, Rittman Mead
ODTUG BI/EPM Seriously Practical Conference, Sydney 2011

Oracle Business Intelligence 11g

- The latest release of OBIEE (Oracle BI Enterprise Edition)
- Major changes to front-end, integration, architecture
- Closely integrated with Oracle Fusion Middleware 11g
- Now available for download on OTN (<http://otn.oracle.com>)

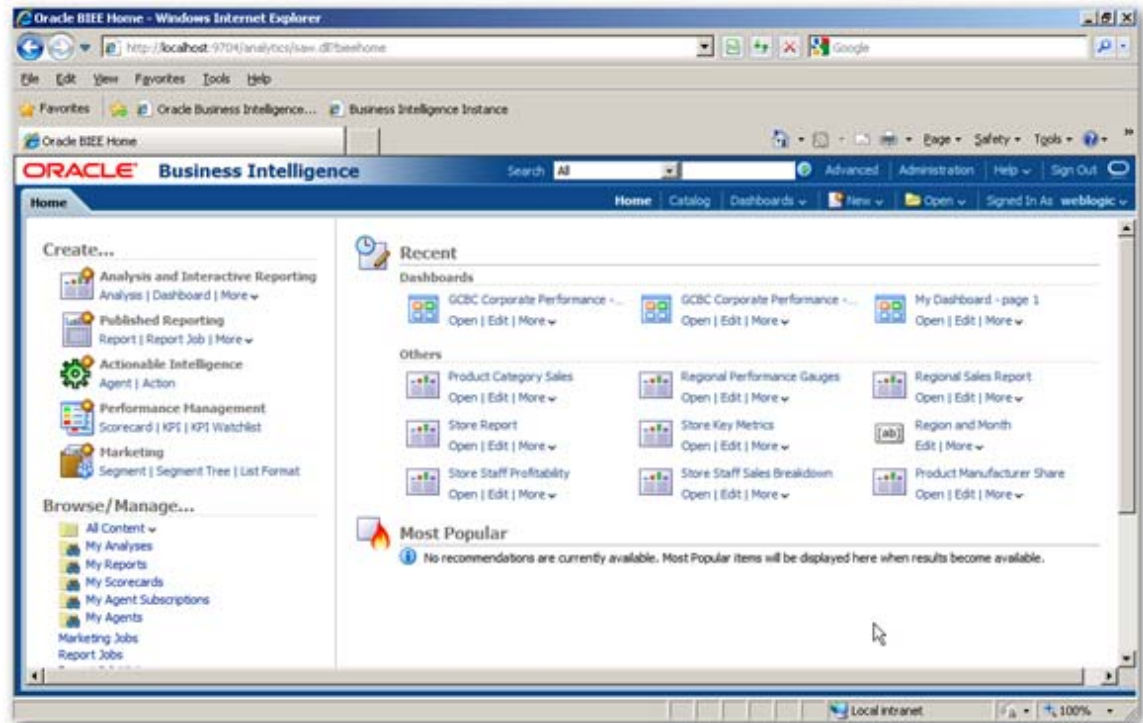


New Visualization Features in OBIEE 11g

- Oracle Business Intelligence 11g comes with lots of new visualization features
- An updated user interface that combines all the reporting tools
- New capabilities in Oracle Answers
- Integration with Oracle MapViewer
- Updated dashboard, catalog, search and home page
- New KPI and scorecard features
- An updated version of BI Publisher
- *New in 11.1.1.5 : Oracle BI Composer*
- *New in 11.1.1.5 : Enhancements to BI Publisher 11g*
- *New in 11.1.1.5 : Integrated Google Maps and Bing Maps*

OBIEE 11g Unified Framework

- Single UI for Answers, Dashboards, Delivers, BI Publisher etc
- Common menus, controls, menu buttons
- One-click access to common functions, catalog areas
- Requires IE7+, FF3+



OBIEE 11g Home Page

The screenshot shows the Oracle Business Intelligence 11g Home Page. The page has a blue header with the Oracle logo and 'Business Intelligence' text. A search bar is located in the top right of the header. Below the header is a navigation bar with 'Home', 'Catalog', 'Dashboards', 'New', 'Open', and 'Signed In As weblogic'. The main content area is divided into sections. On the left, there is a 'Create' section with a gear icon and a list of items. On the right, there is a 'Recent and Popular Catalog Objects' section with a list of items. Three red callout boxes are overlaid on the page:

- Common Header**
 - Consistent menus
 - Search access to catalog
 - Links to administrative pages
- Task-Based Menu**
 - Create/Open catalog objects
 - Browse catalog folders
 - Drill down catalog edges
- Recent and Popular Catalog Objects**
 - Most recently accessed by you
 - Most popular amongst your groups

OBIEE 11g Catalog Page

The screenshot shows the Oracle Business Intelligence Catalog interface. The browser title is "Lab 1 - Standard 10g Analyses - Oracle BI Catalog". The page header includes "ORACLE Business Intelligence" and a search bar. The main content area is titled "Catalog" and shows a "User View" with a "Folders" tree on the left and a "Tasks" menu below it. A "Contents" list is visible on the right, and a gauge chart is at the bottom right.

Catalog Folder View

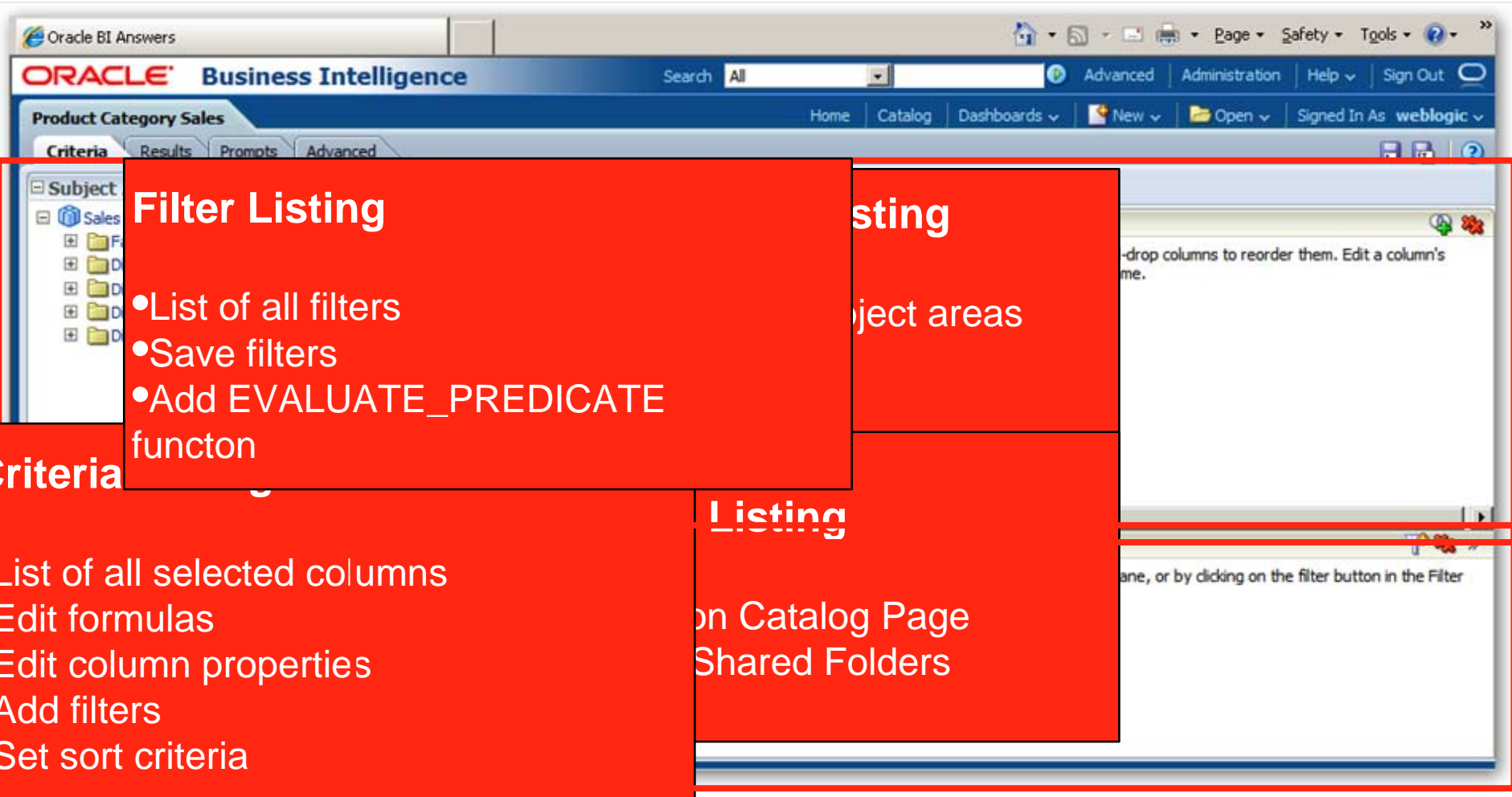
Object Listing

- Listing of all objects for selected folder, search etc
- Shortcuts to common actions
- Optional preview of analysis

Contents

- Context-specific
- Catalog-wide tasks (archive etc)
- Object-specific tasks (edit edit)

OBIEE 11g Answers - Criteria View



OBIEE 11g Answers - Results View

The screenshot shows the Oracle BI Answers interface. The main window is titled 'Product Category Sales' and is in the 'Results' tab. A 'Compound Layout' is visible, showing a 'View Selector' and a chart area. A legend on the right side of the chart lists 'Bread', 'Drinks', 'Gifts', and 'Snacks'. Two red callout boxes are overlaid on the interface:

- Results View** (left callout):
 - Defaults to compound layout
 - Preview of the analysis
 - Edit view
 - Add totals, change layout etc
- Views Listing** (right callout):
 - List of all available views
 - Add view to analysis, edit view
 - Moved from previous location above compound layout

OBIEE 11g Dashboard Editor

Dashboard Objects Listing

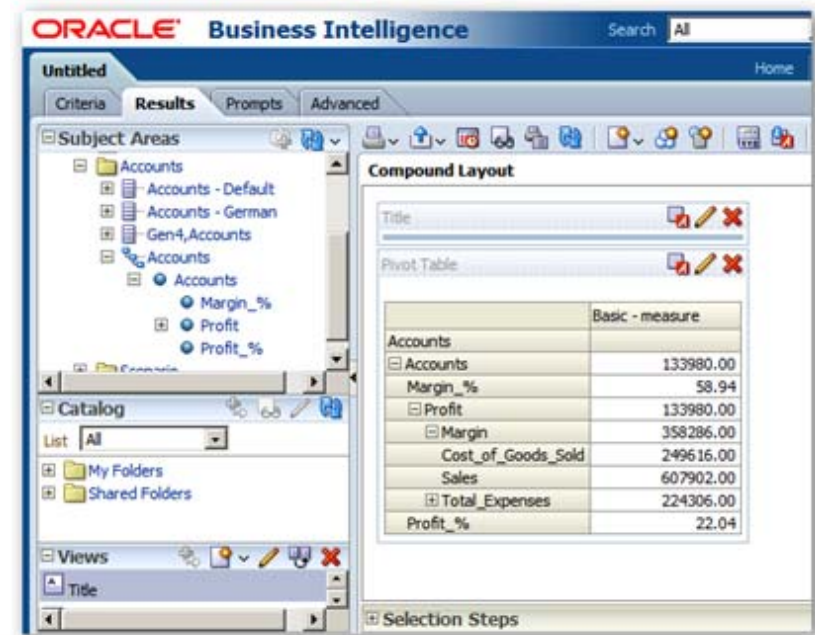
- Columns, Sections

Updated Dashboard Editor

- Add and move sections, columns
- Edit section and column properties
- Edit analysis
- Change report links etc

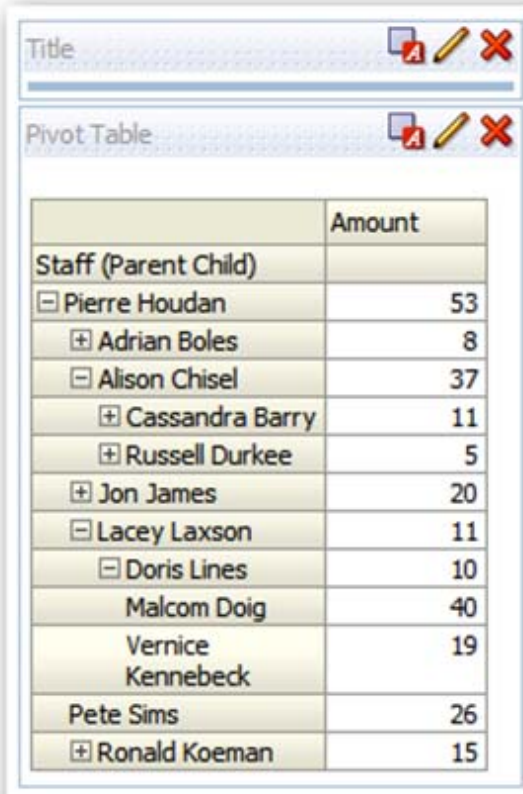
New Answers and Dashboards Features in OBIEE 11g

- Improved support for OLAP-style reporting
 - Hierarchical columns
 - Support for ragged and skip-level hierarchies
 - Dynamic re-arrangement of pivot tables in the dashboard
- Dynamic grouping and custom aggregates
- New visualizations and dashboard controls
- Updated graphing engine (ADF DVT)
- New gauge types and graphics



Hierarchical Columns

- OBIEE 11gR1 now supports concept of “hierarchical columns”
 - ▶ In-column drilling up and down a hierarchy
 - ▶ Similar concept to Discoverer and other OLAP tools
 - ▶ Regular columns still supported, now renamed “attribute columns”
- Supports level-based and ragged (parent-child) hierarchies
- Flexible totalling and ability to determine leaf-levels, ancestors, parents etc
- Works with both relational and OLAP (Essbase, Oracle OLAP etc) data sources



The screenshot shows a Pivot Table window with a title bar and a toolbar. The table displays a hierarchical structure of staff members and their corresponding amounts. The hierarchy is as follows:

	Amount
Staff (Parent Child)	
[-] Pierre Houdan	53
[+] Adrian Boles	8
[-] Alison Chisel	37
[+] Cassandra Barry	11
[+] Russell Durkee	5
[+] Jon James	20
[-] Lacey Laxson	11
[-] Doris Lines	10
Malcom Doig	40
Vernice Kennebeck	19
Pete Sims	26
[+] Ronald Koeman	15

Hierarchical Columns and Selection Steps (Filtering)

- Incremental (status-aware) filter steps can be defined for hierarchical columns
- Add, remove, keep dimension members
- Reference members by their position in the hierarchy
- Add member conditions referencing measures
- Combine with regular filters on attribute columns

The screenshot displays a software interface with a pivot table and a configuration dialog. The pivot table shows data for 'Staff (Parent Child)' with columns for 'Amount' and rows for 'Alison Chisel', 'Gerardo Sae', 'Malcom Doig', and 'Pierre Houdan'. The configuration dialog, titled 'Edit Condition Step - Staff (Parent Child)', shows a condition type of 'X>=Value', an action of 'Keep only', a measure of 'Sales', 'Amount', and an operator of 'Greater than' with a value of 30.

Staff (Parent Child)	Amount
Alison Chisel	37
Gerardo Sae	32
Malcom Doig	40
Pierre Houdan	53

Edit Condition Step - Staff (Parent Child)

Condition Type X>=Value

Action: Keep only Of "Store Sales - Sales"."Staff (Parent Child)". "Staff (Parent Child)"

WHERE

Measure: Sales, "Amount"

Operator: Greater than

Value: 30

Override with: Prompt

Selection Steps

List: ALL

Measures

Sales - Amount

Staff (Parent Child) - Staff (Parent Child)

1. Start with all members
2. Then, Keep only members of Staff (Parent Child) where "Store Sales - Sales"."Sales", "Amount" is greater than 30
3. Then, New Step...

Hierarchy Groups

- Groups can be created in Answers 11g for custom aggregations
- Preserves hierarchy within group, can drill-down from selected members
- Existing calculated member feature still available

The image illustrates the process of creating a hierarchy group in Oracle Answers 11g. On the left, the 'Compound Layout' window shows a pivot table with 'Stores' and 'Product Category' as columns. A 'New Group' dialog box is open, showing a tree view of 'Stores' with 'Macys, NY' selected. The dialog box also shows a 'Selected' list with 'Fishermans Wharf', 'Central SF', and 'Macys, NY'. On the right, a pivot table shows the resulting hierarchy with 'Revenue' as the value. A red box highlights the 'Test Stores and Areas' group in the pivot table.

Stores	Product Category	Revenue
[-] All Stores	Bread	6246.00
	Drinks	1821.69
	Gifts	923.44
	Snacks	2037.36
[-] Test Stores and Areas	Bread	304.15
	Drinks	76.27
	Gifts	113.95
	Snacks	90.88
[-] Central SF	Bread	94.70
	Drinks	28.42
	Gifts	58.97
	Snacks	41.95
SFO	Bread	79.80
	Drinks	20.94
[-] Fishermans Wharf	Bread	209.45
	Drinks	47.85
	Gifts	54.98
	Snacks	35.95
Macys, SF	Bread	14.95
	Drinks	2.99
Nordstroms, SF	Drinks	6.48
	Snacks	15.98
Macys, NY	Snacks	12.98

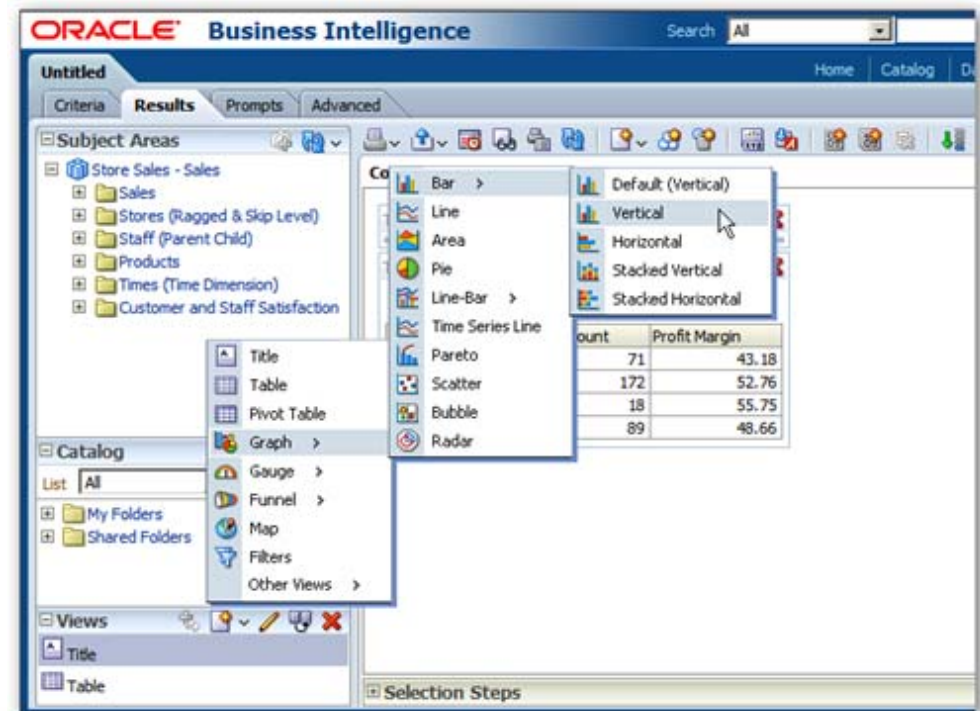


Demonstration

Hierarchical Columns, Pivot Tables and Selection Steps

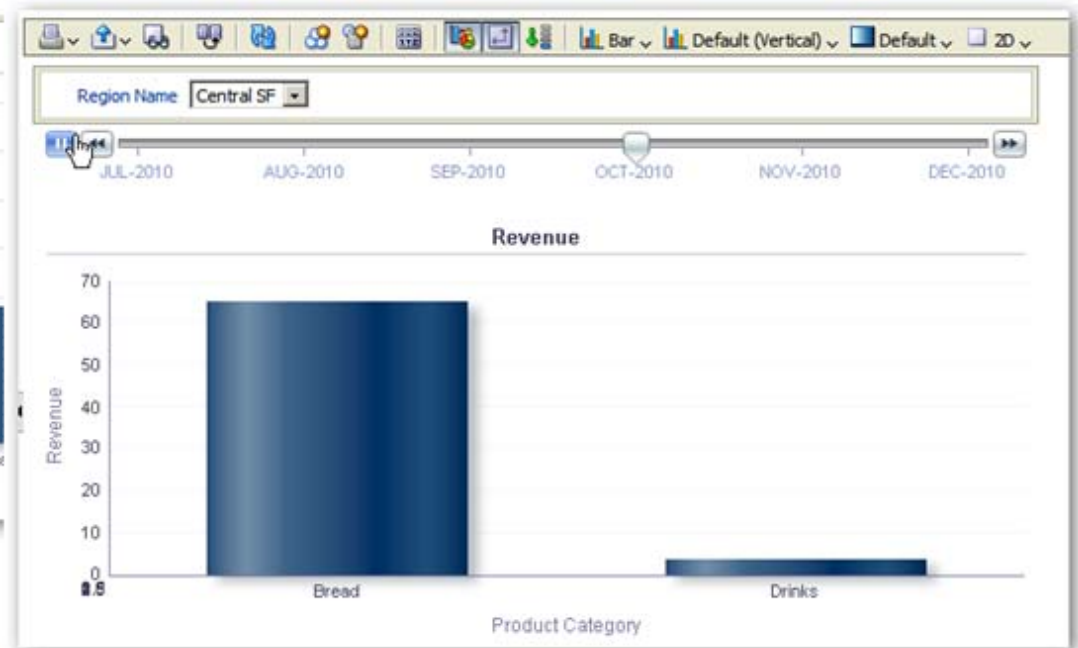
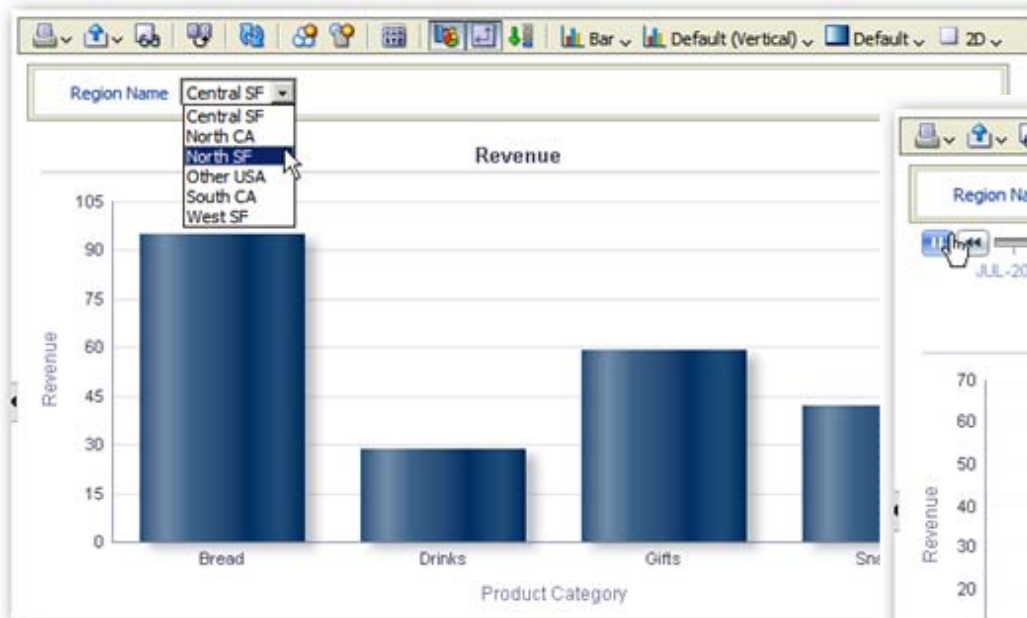
New Graphing Engine, Controls and Layout Editor

- Graphing engine in OBIEE 11gR1 has been moved to ADF DVT
- Easy access to graph types from main Results tab
- New layout controls to determine X, Y axis, measures graphed etc
- Ability to define time-based animations, and opening animations
- Graph Prompts
- Chart zoom



Graph Prompts and Section Sliders

- Column(s) can be designated as prompts (drop-downs)
- Section sliders can be used to animate graph over timescale



New Dashboard Prompts

- Wider range of dashboard prompts now available with OBIEE 11gR1
- Radio buttons, check-boxes, multi-select lists etc

The image displays two screenshots of the Oracle Business Intelligence (OBIEE) dashboard interface, illustrating new dashboard prompts available in version 11gR1.

Left Screenshot: Product Listing Dashboard

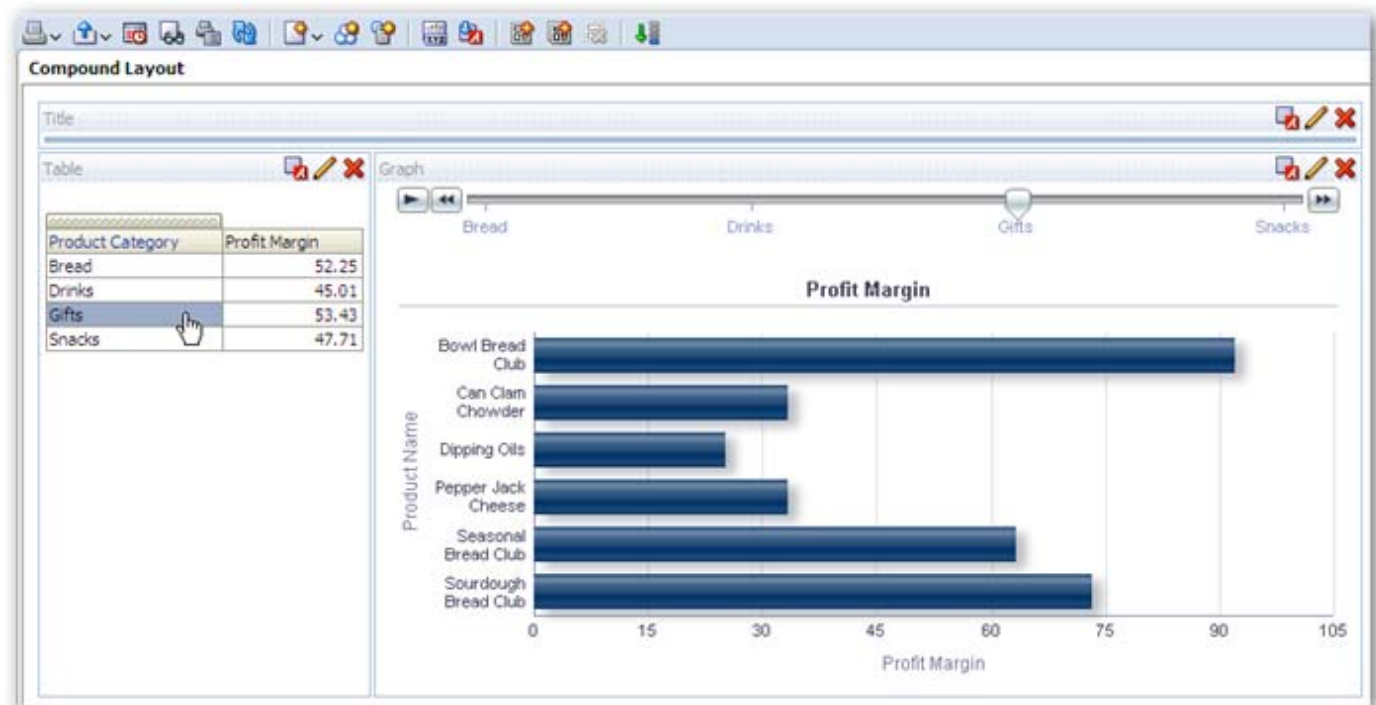
- Prompt:** A radio button prompt for "Perishable Y/N" with options "N" (selected) and "Y".
- Product Name List:** A multi-select list containing items such as Banner Assortment, Beef Broth, Bovill Bread Club, Bread Bowls, Breakfast Muffin, Can Clam Chowder, Challah Bread, Clam Chowder, Cobb Salad Sandwich, Dipping Oils, English Muffin, Ham Crossant, Harvest Bread Trio, Heet's Cafe Latte, Heet's Cappuccino, Heet's Drip Coffee, Heet's Earl Grey Tea, Heet's Tea, Holiday Bread Trio, Mineral Water, Minestrone, North Beach Sandwich, and Panettone.
- Chart:** A bar chart titled "Product Listing" showing the amount for "Breakfast Muffin" (approx. 5) and "Clam Chowder Soup Y 8.99" (approx. 55).

Right Screenshot: Breakdown of Regional Target Dashboard

- Prompt:** A check-box prompt for "Product Category" with options "Bread", "Drinks" (checked), "Gifts" (checked), and "Snacks".
- Region Name List:** A multi-select list for "Region Name" with options: North CA/North (selected), Central SF, East SF, North CA (checked), North SF (checked), Other USA, South CA, and West SF.
- Chart:** A pie chart titled "Breakdown of Regional Target" showing the distribution of targets for Bread, Drinks, Gifts, and Snacks. The "Drinks" category is the largest segment.

Master-Detail Linking

- Columns can be enabled for Master-Detail Linking
- Selecting a column causes master-detail messages to be sent to other views
- Provides a Qlikview-like experience for users





www.rittmanmead.com

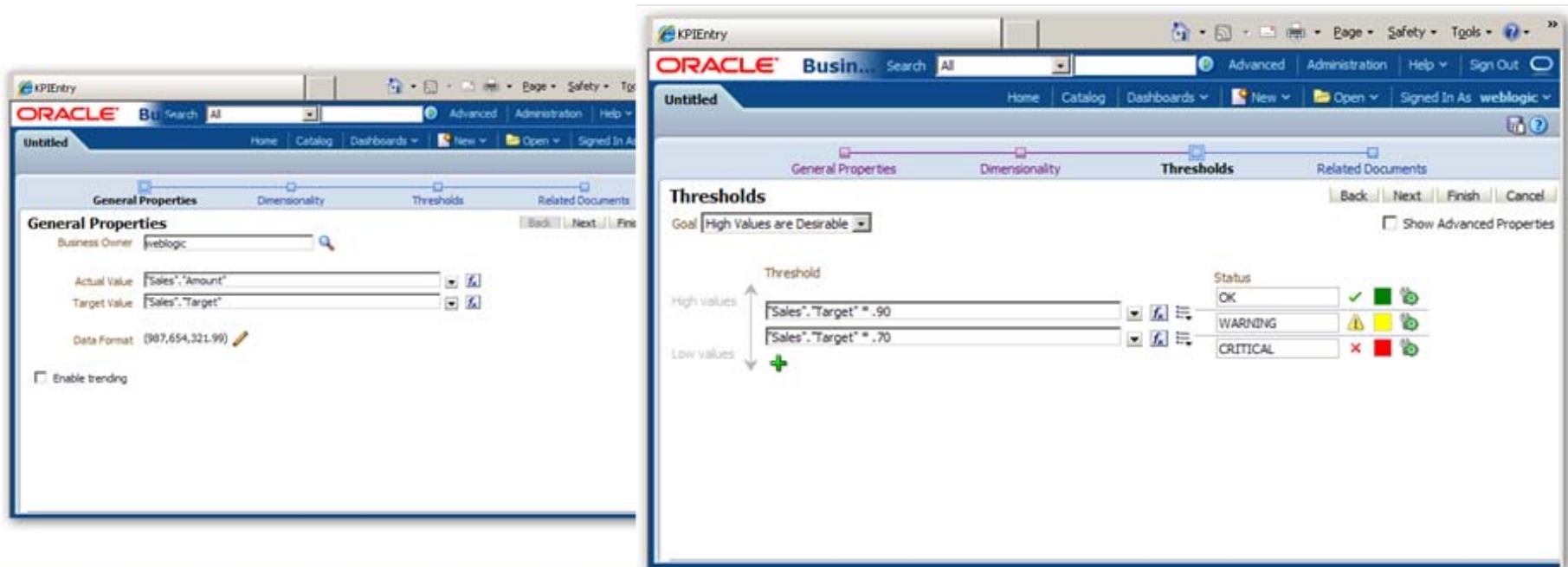
CONSULTANCY TRAINING SUPPORT

Demonstration

Creating a Master-Detail View in OBIEE 11g

Key Performance Indicators

- KPIs can be defined in the web catalog
- Requires measures for actual and target
- Thresholds for good, bad etc performance can be set
- KPIs can be dimensioned (time, customer, product etc)



KPI Watchlists

- Users can define watchlists, to monitor their KPIs
- KPIs can be pinned, or user can analyze them by their allowed dimensions
- Supports collaboration with KPI owner to record comments etc

Oracle BI KPI Watchlist

ORACLE Business Intelligence

Search All

Advanced Administration Help Sign Out

Home Catalog Dashboards New Open Signed In As weblogic

New KPI Watchlist

"Store Sales - Sales", "Stores (Ragged & Skip Level)", "Region Name"
 "Store Sales - Sales", "Stores (Ragged & Skip Level)", "Store Name"
 "Store Sales - Sales", "Times (Time Dimension)", "Month" Q4-2010 FQ2-2010

Catalog

Objects View

My Folders
 _temp
 Drills
 Store Performance Scorecard
 Store Customer Satisfaction
 Store Margin
 Store Sales
 Store Staff Satisfaction
 Shared Folders

Performance Details

New KPI Watchlist

Objects View Summary: ✓ OK (2) ⚠ WARNING (1) ✗ CRITICAL (1)

Label	Status	Trend	Actual	Target	Variance	% Variance	Change	% Change
Store Sales	✓		262.00	238.00	(24.00)	-10.08%		
Store Margin	⚠		48.00	70.00	22.00	31.43%		
Store Customer Satisfaction	✓		82.94	89.21	6.27	7.03%		
Store Staff Satisfaction	✗		42.40	89.21	46.81	52.47%		

KPI Scorecards

- Arrange KPIs into hierarchies, strategies etc
- Define strategy trees, cause-and-effect relationships etc
- Weighting of KPIs
- Analyze by dimensions
- Top-down approach to reporting





www.rittmanmead.com

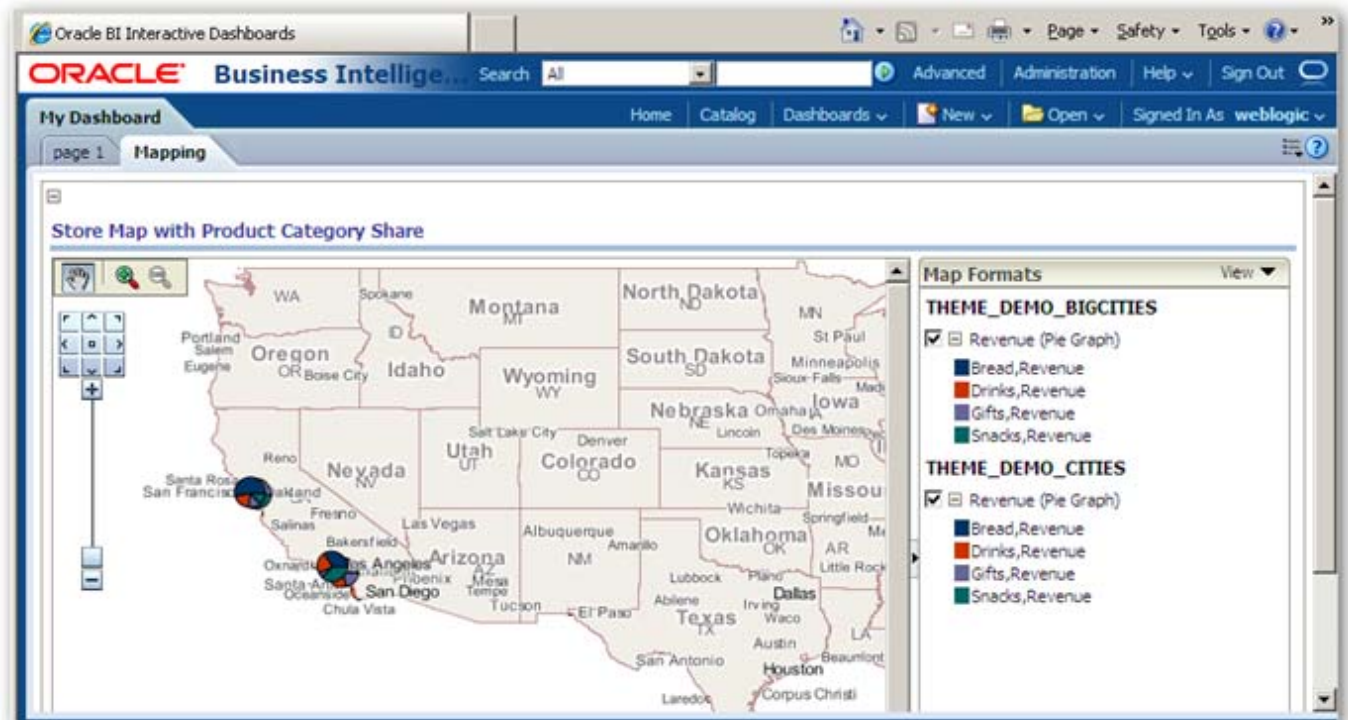
CONSULTANCY TRAINING SUPPORT

Demonstration

KPIs, KPI Watchlists and Scorecards

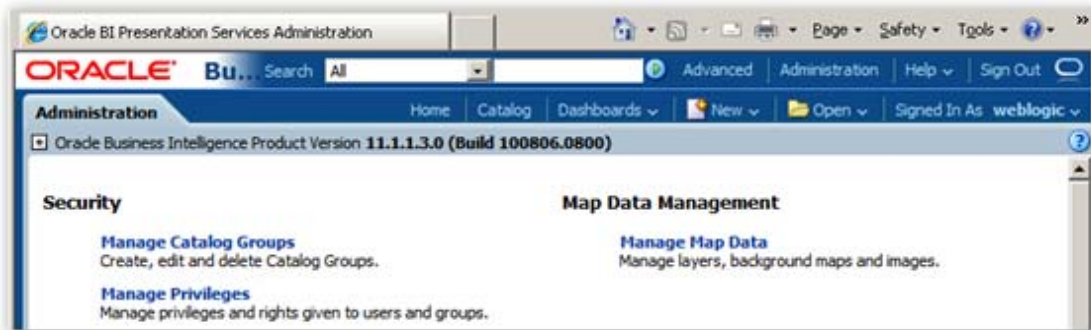
Mapping and Location Intelligence

- OBIEE 11gR1 ships with Oracle MapViewer 11g
- Use in conjunction with Oracle RDBMS and spatial datasets to add map views
- Good way to help visualize geographic/location element of BI dataset



Creating a Map View Step 1 : Link Maps to Dataset Columns

- Administration task, one-off at system configuration stage
- Import maps from Oracle MapViewer and associate theme keys with subject area columns
- Columns then need to be included in the request criteria when map created
- Note - basic (state/county/global) data available on OTN, more detailed data needs to be licensed from NAVTEC



BI Associations
Associate map layers to BI columns to enable their display on maps.

Layer Key: STATE_ABRV [Sample Data: AL](#)

BI Key Delimiter:

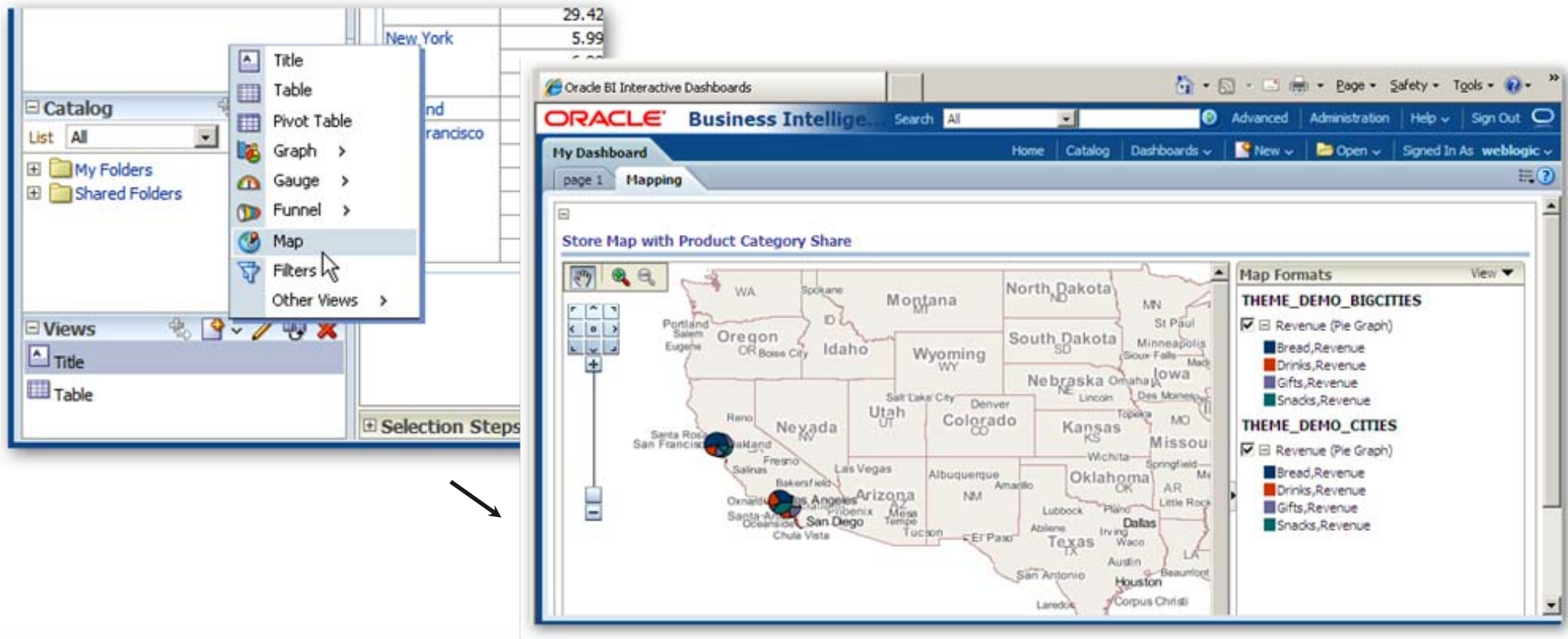
Geometry Type: Polygon

BI Key Columns + ✕ ✎

BI Key	Subject Areas
"Store GIS State Abbr" Sample Data:	"Sales - Fact Sales"

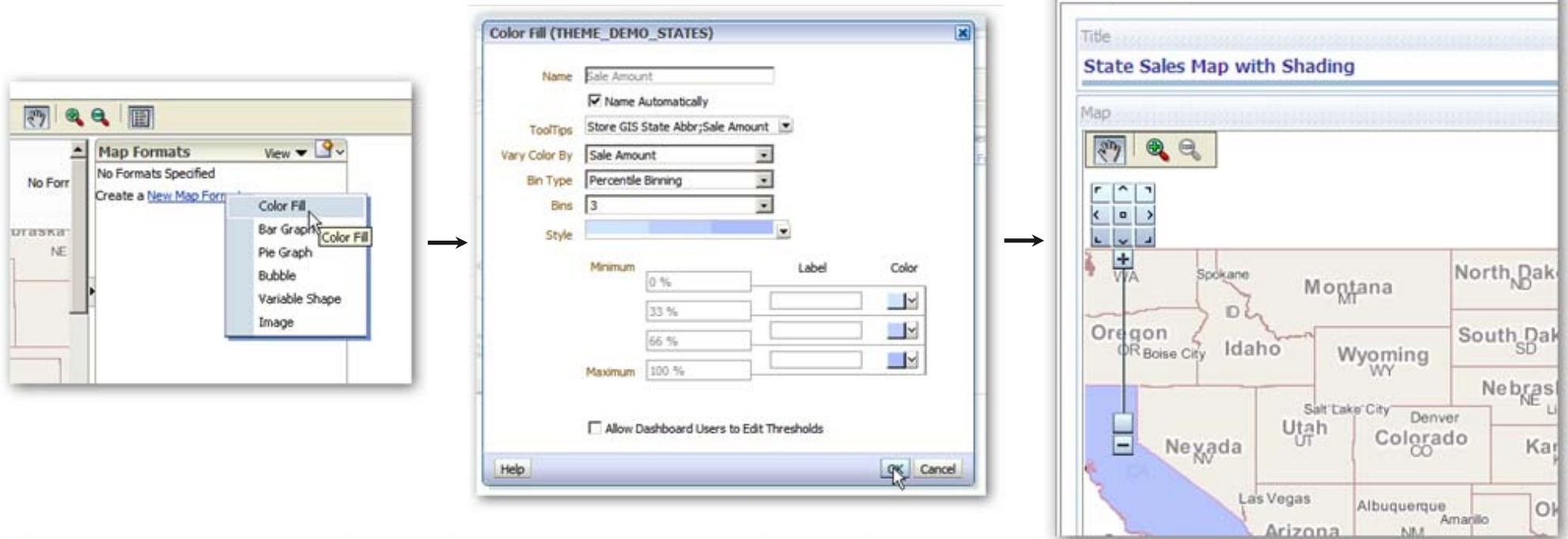
Creating a Map View Step 2 : Add View to Analysis

- Select New View > Map from Answers Results tab
- Requires setup in advance (integration with MapViewer, Spatial dataset)



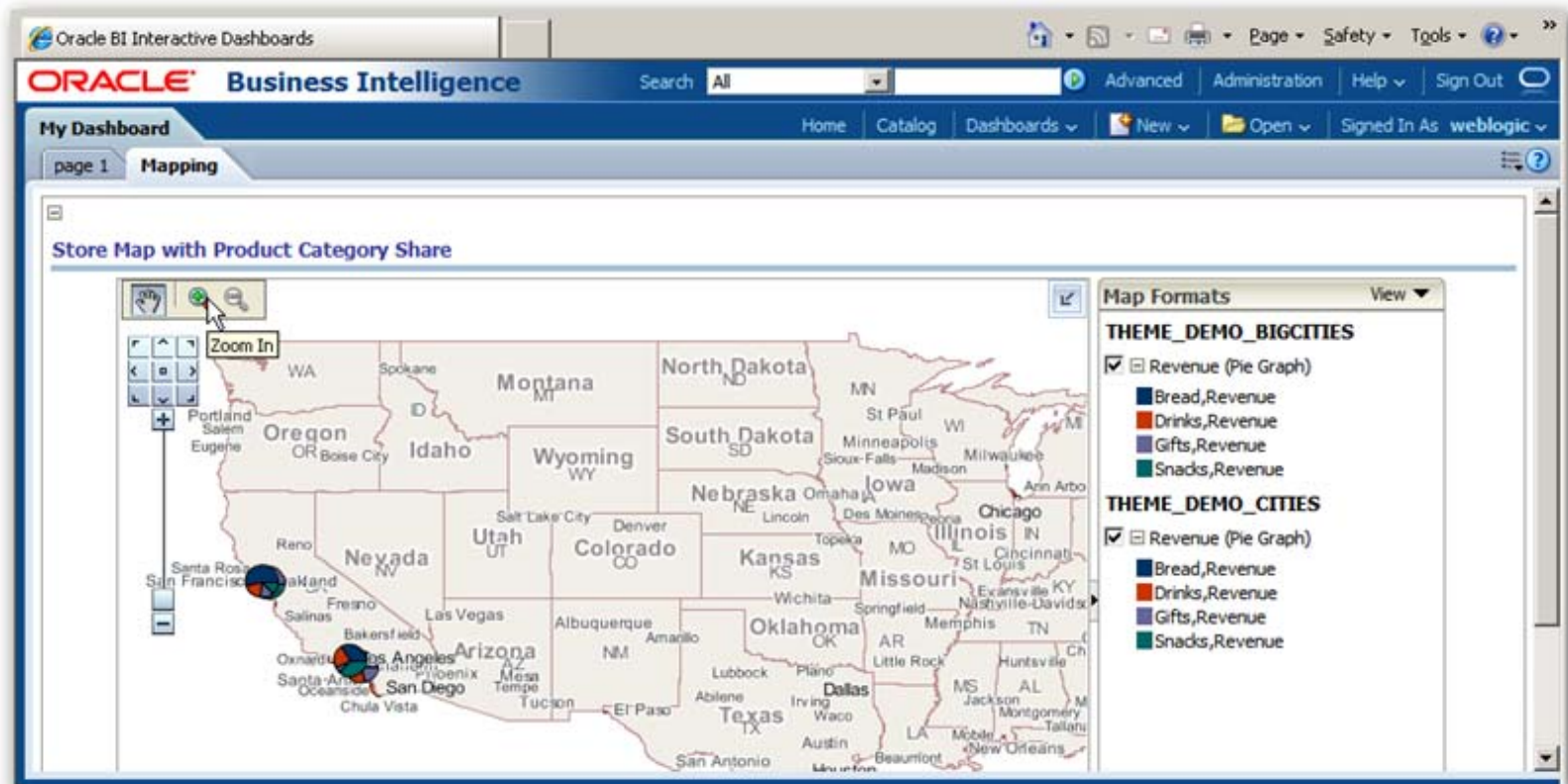
Creating a Map View Step 2 : Select Graphs for Layer Themes

- Graphs and other visualizations can be added for individual layers in view
- Pie charts, bar charts, variable size bubbles, icon selection etc
- Shade polygons based on measure binning/
value ranges



Creating a Map View Step 4 : Embed in Dashboard, Pan & Zoom

- Embed map in dashboard, use as any other view
- Link to dashboard prompts, Master-Detail links etc



New in OBIEE 11.1.1.5 : Google Maps and Bing Maps

- Google Maps and Bing Maps can be used for background maps
- Requires developer API, map backgrounds then retrieved over internet
- Layers in database still required to render over map

The screenshot displays the Oracle Fusion Middleware 11g MapViewer interface. On the left, the 'Manage MapViewer' section includes a 'Manage Map Tile Layers' tab and a 'Select type of map source:' dropdown menu. The dropdown menu is open, showing options: Internal, External, Oracle eLocation, Bing Maps, and Google Maps. A 'Continue' button is visible below the dropdown. A tip states: 'TIP You must first specify where the map tile images are.' Below the tip is a 'Continue' button. The main area shows a map of the United States with state revenue data overlaid as bar charts and color-coded regions. The legend on the right, titled 'ORIEE_STATE', includes options for 'State Revenue by Year (Pie Graph)', 'State Revenue by Brand (Bar Graph)', and 'State Billed Qty (Color Fill)'. The 'State Billed Qty (Color Fill)' option is selected, showing a color scale from 11713.00 to 117000.00. The map shows states colored in green, yellow, and red, with bar charts overlaid on each state. The interface also includes a 'Select Map From Dropdown' menu set to 'Google Map' and a 'Map Formats' dropdown menu.

Summary

- OBIEE 11gR1 comes with significant improvements in reporting
- Updated version of Answers has better support for OLAP analysis
- New task-based UI integrates reporting across product areas
- Action Framework, KPIs and Scorecards add further functionality to OBIEE
- Updated version of BI Publisher significantly increases web functionality
- New features in 11.1.1.5 for mapping, BI Publisher; new BI Composer UI
- Read more about OBIEE 11gR1 at <http://www.rittmanmead.com>



www.rittmanmead.com

CONSULTANCY TRAINING SUPPORT

Getting Started with OBIEE 11g Visualizations

Mark Rittman, Technical Director, Rittman Mead
ODTUG BI/EPM Seriously Practical Conference, Sydney 2011