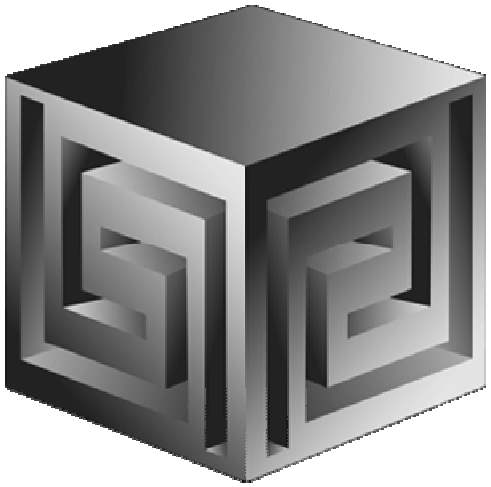
Using Multidimensional Data Sources in Oracle OBIEE+

Collaborate 2010
Session #239



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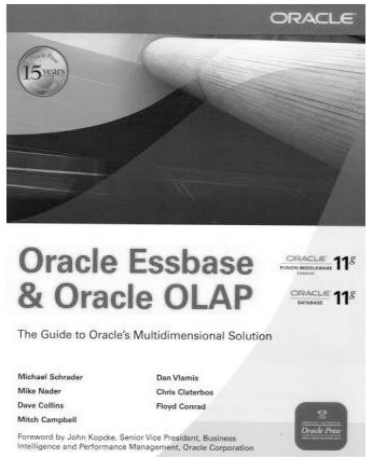
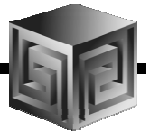
Speaker Information

- Chris Claterbos, Consulting Manager
  - Consulting and Development Manager for Vlamis Software Solutions, Inc.
  - DBA and applications developer for Oracle products, since 1981.
  - Beta tester and early adopter of - including Oracle 8i, 9i, 10g and 11g, OLAP, JDeveloper and BIBeans, Oracle AS, Portal , and Reports, OBIEE.
  - Expert Presenter and Author (newest book on OLAP).
  - Previous IOUG Focus Area Manager for Data Warehousing and BI
  - Member of Oracle Magazine Editorial Board



Silence Is Golden

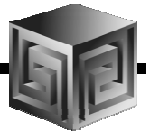


Please silence portable electronic devices

and

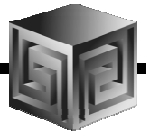
Please no pictures of the screens

Presentation Goals



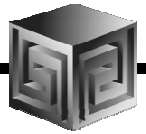
- Quick overview of Oracle OLAP and OBIEE
- Demonstrate “how to” integrate Oracle OLAP 10g and 11g cubes with OBIEE
- Discuss what is next for OBIEE

Oracle OLAP – 30,000 Ft View



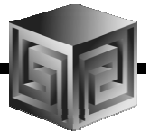
- OLAP cubes stored in an Analytic Workspace (LOB) in the Oracle database
- Data stored in multi-dimensional arrays
- Analytic workspaces created using Analytic Workspace Manager (AWM) or Oracle Warehouse Builder (OWB)
- Dimensions & Hierarchies
- Measures (Stored, Derived)
- FAST performance

Why MOLAP for BIEE?



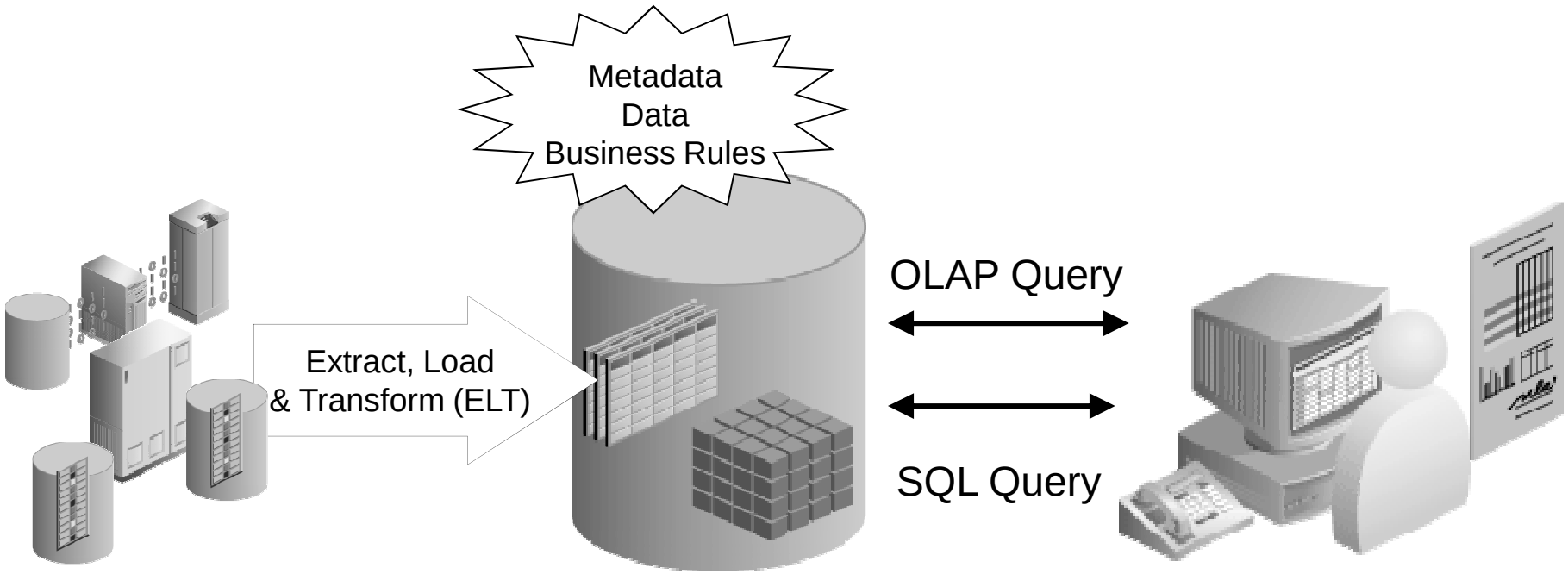
- Embedded Total view
- Measure columns return stored and calculated data at all summary levels
- Simple SQL for complex queries
- Summary management (sum, last, average, weighted average, etc…)

Why MOLAP for BIEE?



- Supports all hierarchy types (skip level, value based, ragged, etc…)
- Can include very complex formulas and functions using OLAP DML
- Extremely FAST!

One Cube, Dimensional or SQL Tools



Centrally managed data, meta data and business rules

Oracle BI Suite Enterprise Edition
Unified Business Intelligence Infrastructure

Interactive Dashboards

Reporting & Publishing

Ad-hoc Analysis

Proactive Detection and Alerts

Disconnected Analytics

MS Office Plug-in

Microsoft Office

Oracle BI Server

- Simplified Business Model and Abstraction Layer
- Intelligent Caching Services
- Multidimensional Calculation and Integration Engine
- Intelligent Request Generation and Optimized Data Access Services

OLTP & ODS Systems

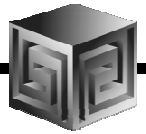
Data Warehouse Data Mart OLAP

SAP, Oracle PeopleSoft, Siebel, Custom Apps

Files Excel XML

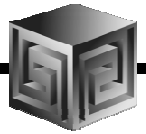
Business Process

Overview of OBIEE



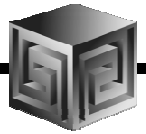
- Presents relational data in a pseudo-multidimensional manner
- Dimensional and hierarchical presentation
- Use any Oracle Database (Relational and Multidimensional)
- Use any ODBC-compliant relational data sources
- User-customizable Dashboards
- Rich feature set of analysis tools (crosstab, charts and graphs, links, tickers, speedometers…)
- Ad-hoc, Dashboards, and Alerts

OBIEE Administration Tool



- OBIEE Administration tool defines environment
- Physical Layer – imports tables and views from relational sources
- Business Model Layer – Organizes physical tables/views into logical business model
- Presentation Layer – Converts Business Model to user presentation view
- OBIEE Analytics – Web browser interface

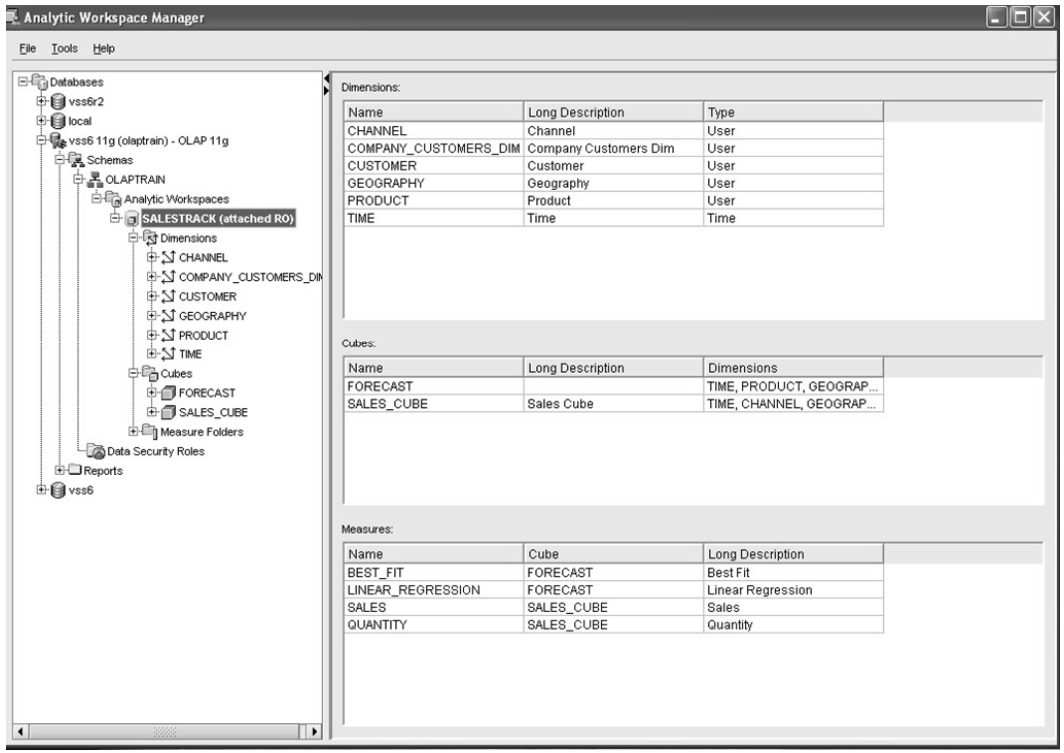
Process Overview



- Design and Build OLAP Dimensions and Cubes
- Using Analytic Workspace Manager create OBIEE Metadata Repository file
- Validate and enhance the repository using OBIEE Administration tool
- Create reports/dashboards using OLAP data in OBIEE Analytics

Oracle Analytic Workspace Manager

- **Tool used to create and maintain OLAP Cubes in Oracle Database.**
- **Plug-in Technology to add features**



Analytic Workspace Manager

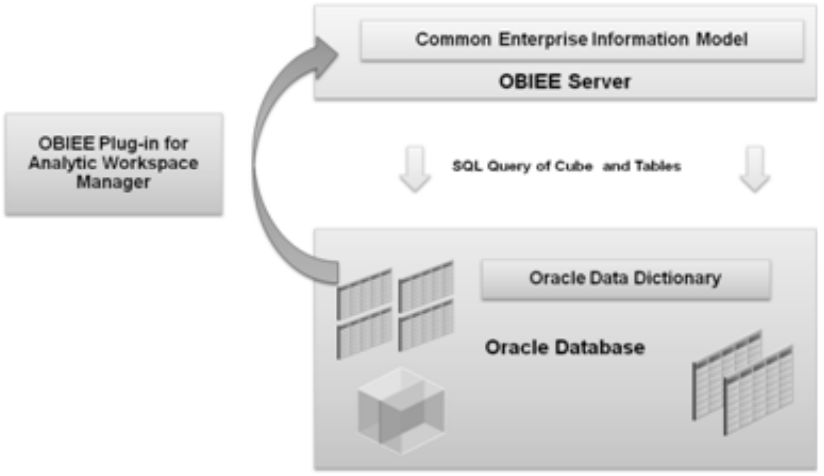
OLAP OBIEE Plug-in

http://www.oracle.com

/technology/products/bi/olap/olap_downloads.html#software

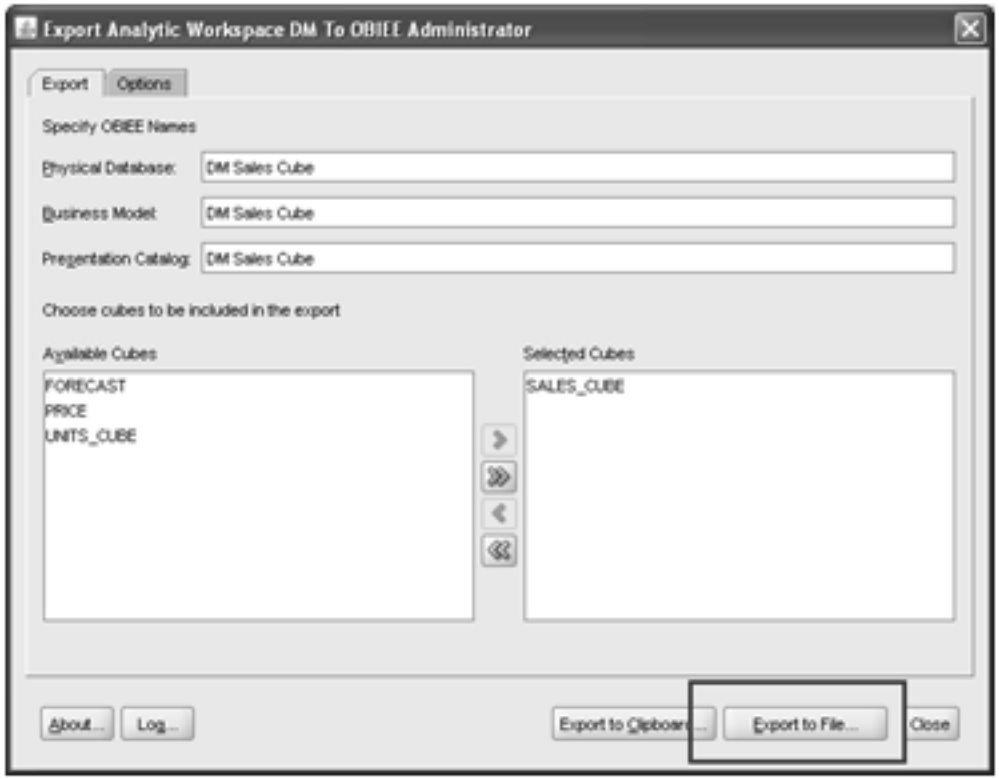
Download and extract obieeplugin.jar to that specified directory.

Requires AWM 11.1.0.7

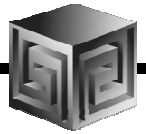


Analytic Workspace Manager

- **Start Plug-in**
- **Select Cubes to Export**
- **Export to XML File**



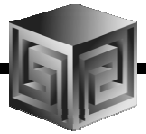
OBIEE Administrator and OLAP



Convert the XML file from plug-in to repository file using nqudmlexe utility.

C:> nqudmlexec –I sales_cube_obiee.txt –O sales_cube.rpd

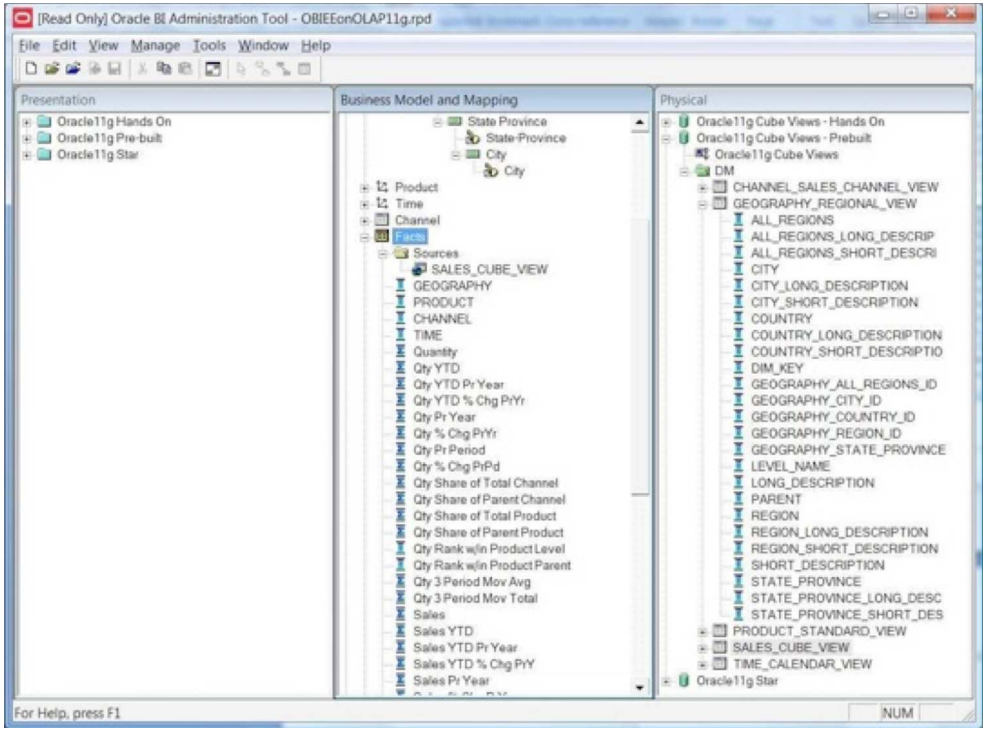
Oracle BIEE Advantages



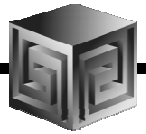
- End-to-end visibility to the customer
- Provide trending in customer data
- Provide trending across customers data
- Benchmarking data
- Information at the customers finger tips
- Tool with a competitive advantage
- Tool needs to be flexible and customizable to the customers needs

Oracle BIEE Administration

- Open Repository
- Validate Dimensions and Facts
- Verify Security
- Add any additional measures



Process Demonstration



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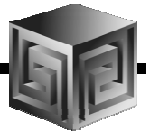
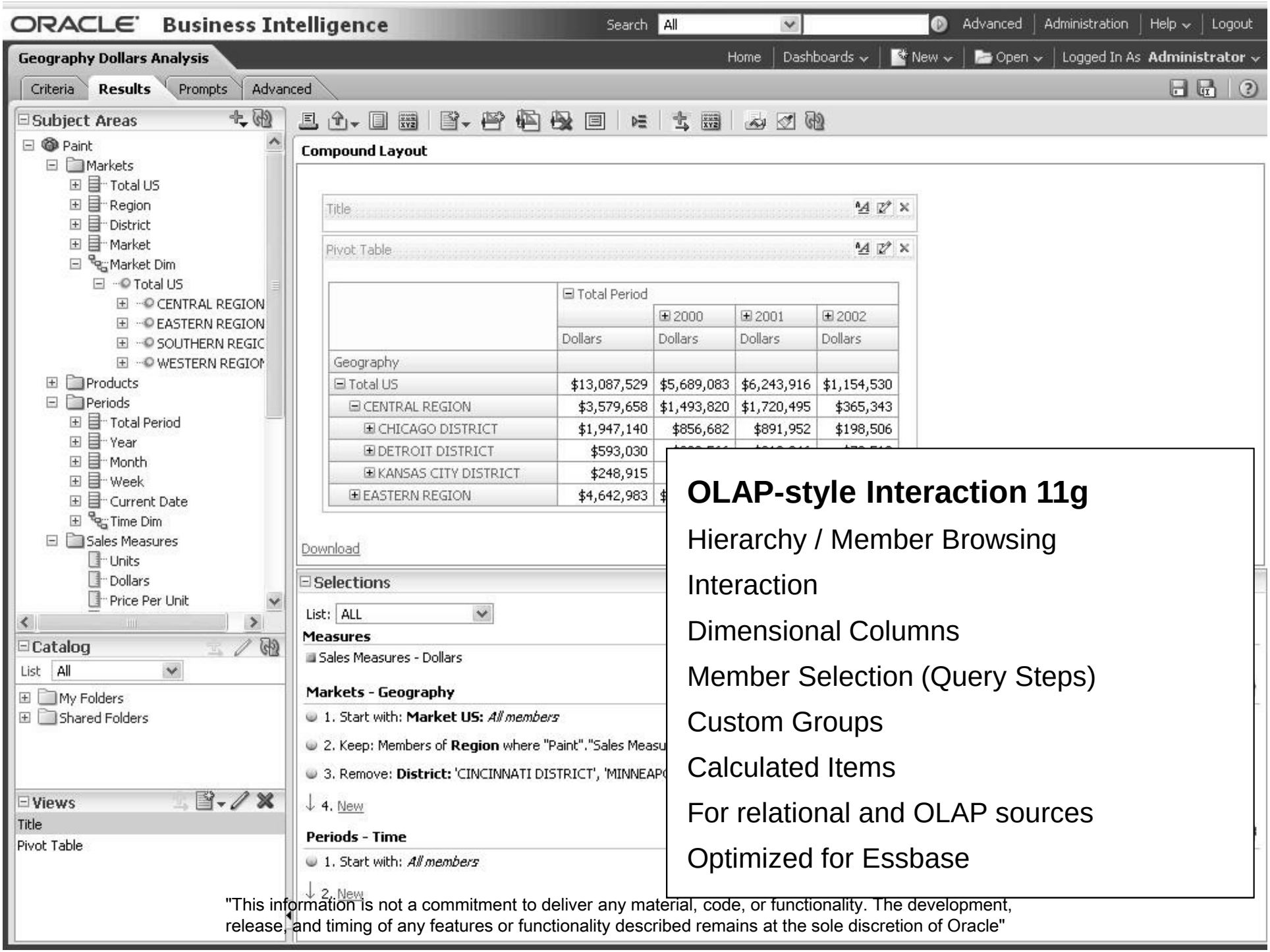
Oracle BIEE 11g – Coming Soon!



- **Oracle BIEE 11g is in Beta now**
- **Significant changes to the Look and Feel**
- **OLAP Presentation is a Major Update**



OLAP-style Interaction 11g

Hierarchy / Member Browsing Interaction

Dimensional Columns

Member Selection (Query Steps)

Custom Groups

Calculated Items

For relational and OLAP sources

Optimized for Essbase

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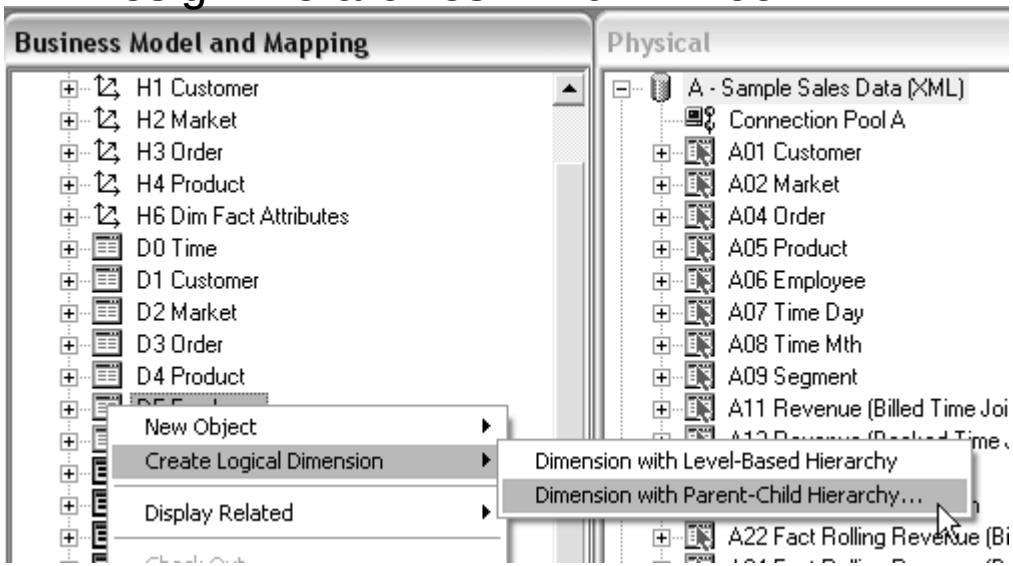
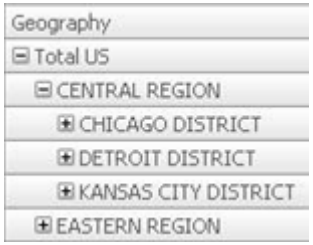
OLAP-Style Interaction

- **Asymmetric queries (outline style) and member selection**
- **Skip-level and unbalanced hierarchies**
- **Parent-child hierarchies**
  - **Generates “closure table” for relational source performance**

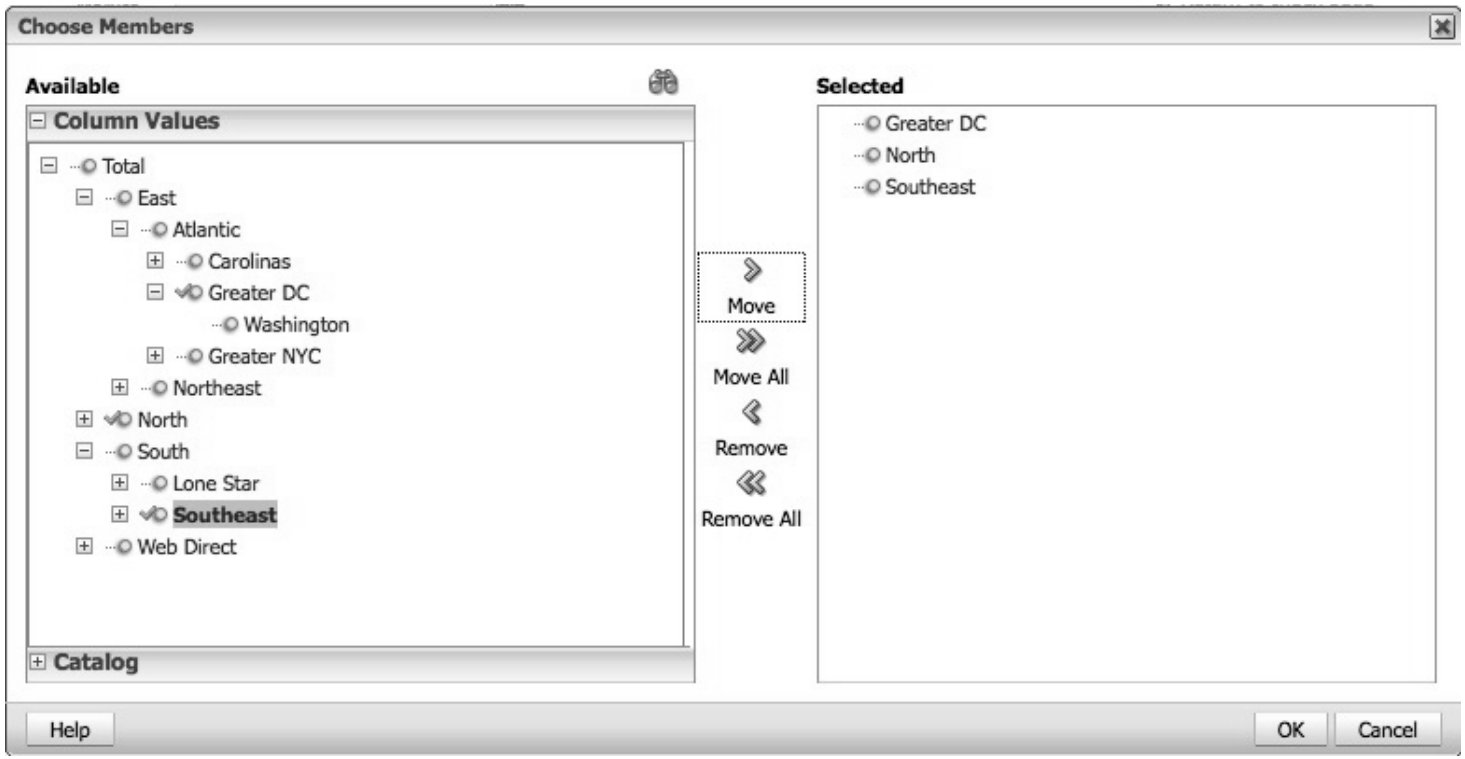
Design Hierarchies in Admin Tool



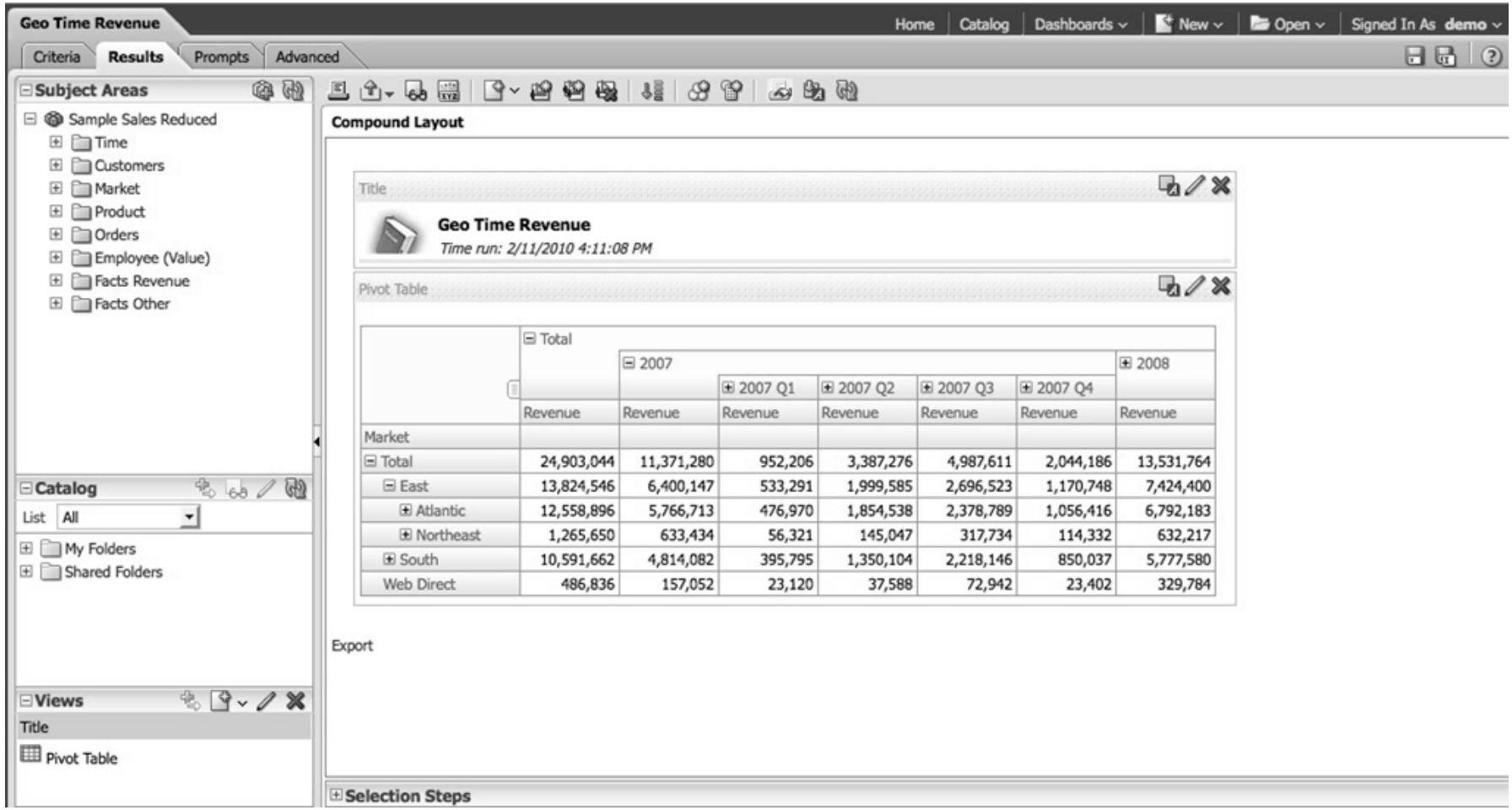
Consume Hierarchies in Answers and Dashboards



Hierarchical View of Data

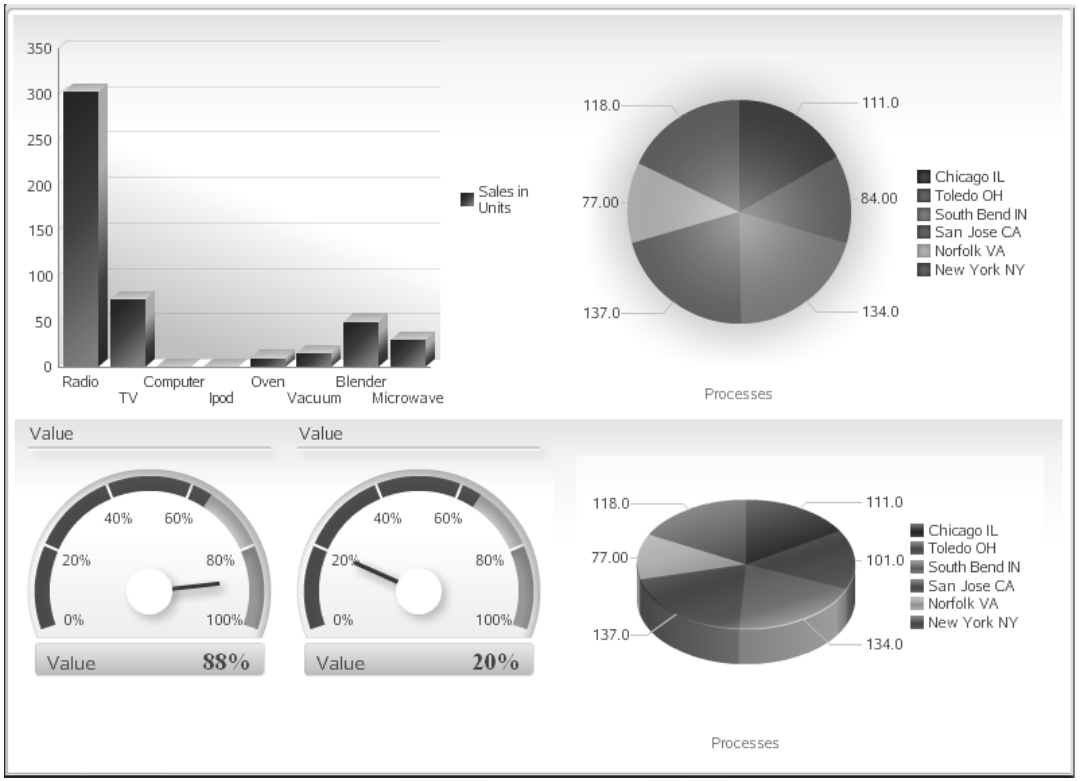


And More...



Improved BI Visualizations

- Technology
  - Uses ADF DVT chart engine
  - Exposed as native views within Answers
  - Fully integrated with BI Action Framework
- Increased visual appeal
- New additional chart types
- Interactivity
  - Animated transitions
  - Master-Detail linking
  - Paging sliders (time, segments)
  - Range sliders
  - Legend-based interactionns



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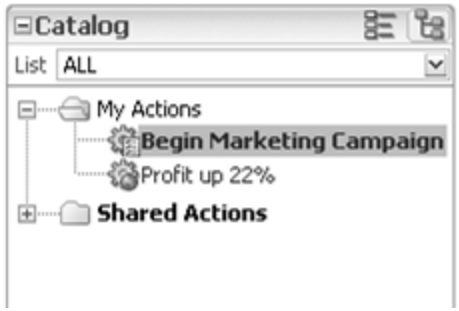
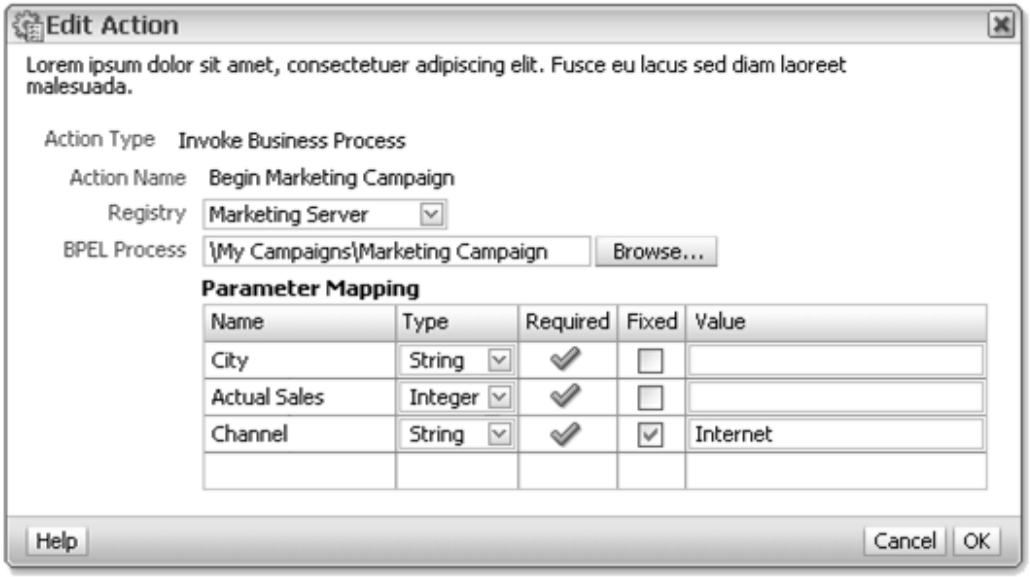
OBIEE Action Framework

Seamless integration with BPM and workflow in 11g

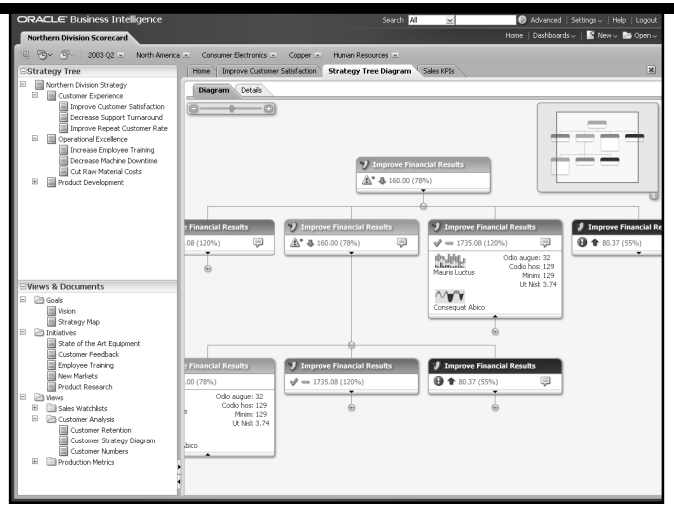
- Invoke Workflow/Business Processes (BPEL)
- Send Message/Post Event (ESB)
- Navigate to BI Content
- Navigate to Analytic App Views
- Navigate to Web Content
- Execute Java Method
- Execute Siebel Workflow
- Invoke a Delivers iBot
- Deliver BI Content
- Deliver Web Content
- Invoke Web Service

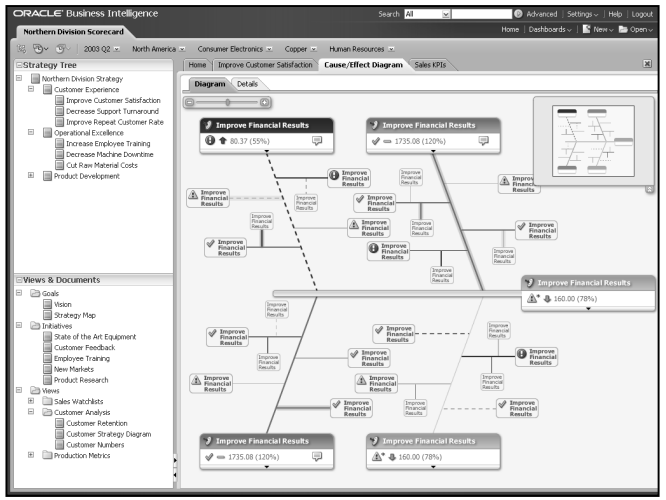




Oracle BI Scorecard

Scorecards and KPIs as First Class Citizens





New in OBIEE 11g

- Scorecards
- Cause and Effect Maps (Fishbone Diagrams), Strategy Trees, Strategy Maps
- Key Performance Indicators as first class metadata objects

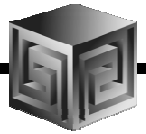
KPIs calculated from …

- Common Enterprise Information Model
- Heterogeneous data sources

KPIs everywhere…

- Interactive Tables, Crosstabs, Charts
- Briefing Books, Dashboards, Reporting
- Alerting, Notification, Workflow

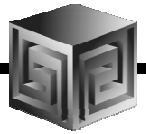
Summary



It is a far, far better thing we have, than we have ever had before.

(With apologies to Charles Dickens.)

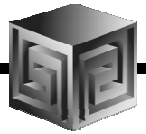
Presentation Summary



- Oracle OLAP and OBIEE are complementary technologies
- AWM and the Oracle OLAP multi-dimensional environment extend the functionality of OBIEE
- OBIEE provides an alternative presentation layer for Oracle OLAP (vs. Discoverer)

Questions?

Thank You for Attending



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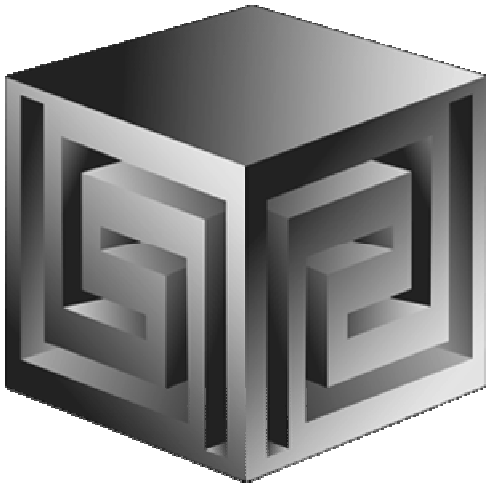

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