



Integration of Oracle BI EE and Oracle Analytic Workspaces

**Mark Thompson
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Session 208**



Speaker Information

- **Mark Thompson, Senior Consultant, Vlamis Software Solutions**
- **23 years designing and building MOLAP solutions**
- **Author of numerous white papers for Oracle OLAP tools**
- **Presenter at IOUGA 2001 and Open World 1996, 2001**



Related Presentations

- **Building Cubes and Analyzing Data in Two Hours**
- **Wednesday, 11:00 a.m. – 12:45 p.m. , Palm B**
- **Presented by Dan Vlamis, Vlamis Software Solutions**

- **Using Oracle Warehouse Builder for Business Intelligence**
- **Monday, 3:30 p.m. – 4:30 p.m., Surf E**
- **Presented by Chris Claterbos, Vlamis Software Solutions**

Oracle By Example

- **http://www.oracle.com/technology/obe/obe_bi/bi_ee_1013/olap/index.html**



Silence Is Golden

Please silence portable electronic devices



Presentation Goals

- Overview of Analytic Workspace Manager (AWM) and MOLAP environment
- Overview of OBIEE (Siebel) environment
- New objects: OLAP_TABLE and LIMITMAP
- Integrate OBIEE Administrator with AW data
- View results in OBIEE Analytics



Overview of Analytic Workspace Manager (AWM) and MOLAP

- **AWM creates MOLAP workspaces**
- **Dimensions & Hierarchies**
- **Measures (Stored, Derived)**
- **Data traditionally viewed in Discoverer or BI Beans custom application**



Analytic Workspace Manager

30,000 ft. Fly-Over



Why MOLAP?

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



Overview of OBIEE (Siebel)

- **Presents relational data in a pseudo-multidimensional manner**
- **Dimensional and hierarchical presentation**
- **Use any ODBC-compliant relational data sources**
- **User-customizable Dashboards**
- **Rich feature set of analysis tools (crosstab, charts and graphs, links, tickers, speedometers...)**



OBIEE Analytics

30,000 ft. Fly-Over



Analytic Workspace Manager

Create Embedded Total View



OLAP_TABLE and LIMITMAP

- **OLAP_TABLE provides relational view of MOLAP data – embedded total view**
- **OLAP_TABLE makes MOLAP data available to any relational data retrieval tool**
- **Created by wizard in AW**
- **One OLAP_TABLE and LIMITMAP for each dimension and each cube**



OLAP_TABLE and LIMITMAP

```
CREATE VIEW UNITS_CUBEVIEW AS
SELECT "TIME","CUSTOMER","PRODUCT","CHANNEL","UNITS","SALES"
FROM table(OLAP_TABLE ('GLOBAL.GLOBAL duration session',
'&(UNITS_CUBE_LIMITMAP)'))
MODEL
DIMENSION BY (TIME, CUSTOMER, PRODUCT, CHANNEL)
MEASURES (
    TIME_LEVEL,...,TIME_CALENDAR_YEA_PRNT,
    CUSTOMER_LEVEL,..., CUSTOMER_MARKET_SEGME_PRNT,
    PRODUCT_LEVEL,..., PRODUCT_PRIMARY_PRNT,
    CHANNEL_LEVEL,..., CHANNEL_PRIMARY_PRNT,
    UNITS,
    SALES,etc...
    OLAP_CALC
) RULES UPDATE SEQUENTIAL ORDER()
```



UNITS_CUBE_LIMITMAP (in AW)

```
DIMENSION time_id AS varchar2(100) FROM time WITH  
HIERARCHY time_calendar_yea_parent AS varchar2(100) FROM  
time_parentrel(time_hierlist 'CALENDAR_YEAR')  
INHIERARCHY time_inhier  
FAMILYREL time_year_id AS varchar2(100), time_quarter_id AS  
varchar2(100), time_month_id AS varchar2(100), time_all_years_id AS  
varchar2(100)  
FROM time_familyrel USING time_levellist  
FAMILYREL time_year_desc AS varchar2(100), time_quarter_desc AS  
varchar2(100), time_month_desc AS varchar2(100), time_all_years_desc  
AS varchar2(100)  
FROM time_familyrel USING time_levellist LABEL time_long_description  
ATTRIBUTE time_level AS varchar2(100) FROM time_levelrel  
ATTRIBUTE time_end_date AS date FROM time_end_date  
ATTRIBUTE time_time_span AS number FROM time_time_span  
ATTRIBUTE time_long_description AS varchar2(100) FROM  
time_long_description
```



UNITS_CUBE_LIMITMAP (in AW)

....(continued)

```
DIMENSION customer_id AS varchar2(100) FROM customer WITH . . .  
DIMENSION product_id AS varchar2(100) FROM product WITH . . .  
DIMENSION channel_id AS varchar2(100) FROM channel WITH . . .  
MEASURE units AS number FROM units_cube_units  
MEASURE sales AS number FROM units_cube_sales etc...
```



OBIEE Administrator

- **OBIEE Administrator 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**
- **OBIEE Analytics – Web browser interface**



OBIEE Adminisrator

Demo



Presentation Summary

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



Questions?



Don't Forget...

- “Global” schema and AWM available for download from OTN
- Oracle By Example:
http://www.oracle.com/technology/obe/obe_bi/bi_ee_1013/olap/index.html
- Wednesday, 11:00 a.m., Palm B – Hands-on Demo – AWM
- Monday, 3:30 p.m., Surf E – Oracle Warehouse Builder



Thank You for Attending

- **Please complete the evaluation form**
- **Mark Thompson, “Integration of Oracle BI EE and Oracle Analytic Workspaces”, Session #208**
- **Further questions: mthompson@vlamis.com**
- **Vlamis Software Solutions: 816.781.2880**