



SOFTWARE SOLUTIONS

Accelerate your Data Warehouse with Oracle OBIEE, OLAP, and Essbase

Fusion Soup to Nuts (ODTUG)

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VlamiS Software Solutions, Inc.

- Founded in 1992 in Kansas City, Missouri
- Oracle Partner and reseller since 1995
- Developed more than 200 Oracle BI systems
- Specializes in ORACLE-based:
 - Data Warehousing
 - Business Intelligence
 - Data Transformation (ETL)
 - Web development and portals
- Delivers
 - Design and integrated BI and DW solutions
 - Training and mentoring
- Exclusive supplier world-wide for Windows-based Oracle BIC2G BI & EPM VMs
- Expert presenter at major Oracle conferences
- www.vlamiS.com (blog, papers, newsletters, services)



Who I Am



- **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 OBIEE11g, Oracle 8i, 9i, 10g and 11g and Jdeveloper.
- Beta Tester for All Phases of OBIEE11g Beta
- Speaker and author.
- Previous IOUG Focus Area Manager for Data Warehousing and BI

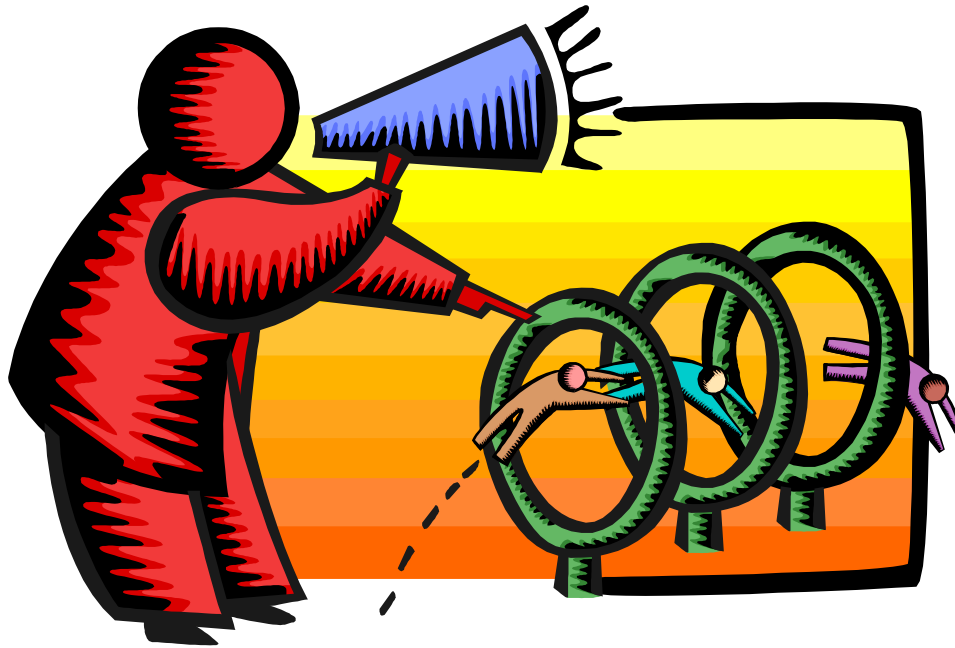




Overview

- Oracle OLAP Server Overview: OLAP option and Essbase
- OBIEE 11g Architecture
- OLAP Features in OBIEE11g “Why is it so special?”
- Process of Using OLAP in OBIEE – Accelerate the Metadata Build Process
- Demonstration
- Q&A

Demonstration of OLAP in OBIEE11g





Real Benefits of Using OLAP

- No Summary Tables required
- Reduced repository and maintenance time
- Development cycles times are reduce
 - Testing of design changes take less time
 - Change are easier to make and faster to implement
- Significantly Faster Performance!
 - Recent deployments performed 50 to 300% faster
 - If calculations are done in OLAP server performance is even better
- **IT's NOT AS HARD AS YOU THINK!**



Essbase & Oracle OLAP Option Product Positioning

	Oracle's Hyperion Essbase	Oracle Database OLAP Option
Purpose	Custom analytic & BI applications with a focus on EPM; built and maintained by analysts.	Improves the performance and analytic content of SQL-based BI applications.
Buyer	Line of Business (LoB).	IT.
Typical End Users	Line of Business users who query and create data within Essbase tools and OLAP applications.	Users of SQL-based business intelligence tools who query data in the database.
Data Management Strategy	Easily combine data from a wide variety of data sources.	Optimized for data in the Oracle database.
Typical Front Ends for End Users	Excel – Smart View Oracle Hyperion Apps - Planning	OBIEE SQL Tools



Summary OLAP Product Positioning

- Both Essbase and the Oracle OLAP Option share common characteristics such as excellent query performance, fast update, rich analytic content and a dimensional model.
- Essbase is designed for Line of Business managed Enterprise Performance Management applications.
- Oracle OLAP Option is designed for IT managed database summary management and extending the database with analytic content.

**Hyperion
Essbase**

**Performance
Management**

**Oracle Database
OLAP Option**

**Enhanced
Data Warehousing**



Hyperion Terminology Legacy

Oracle BI EE uses the industry standard definitions

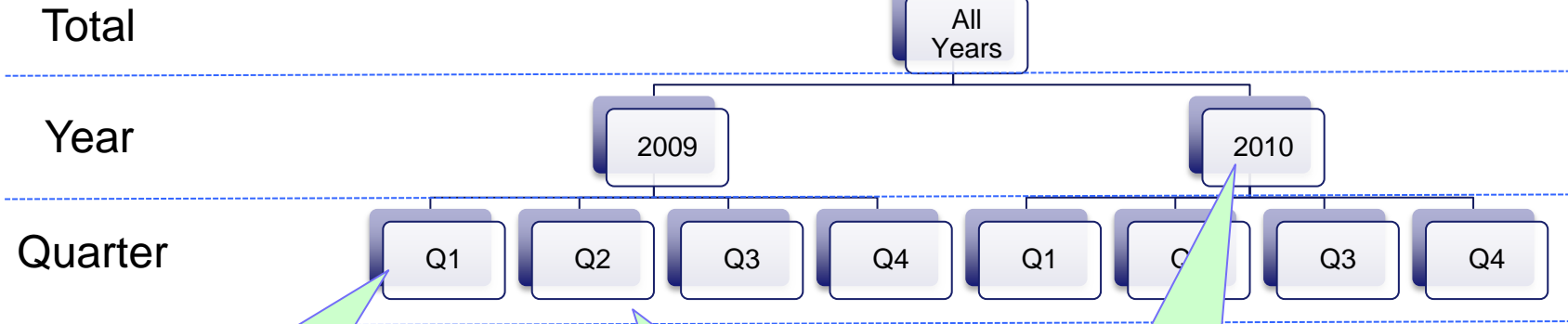
Hyperion “Generation” → **BI EE “Level”**

Hyperion “Level” → **(not used)**



“Member” Terminology from MOLAP

Levels



In Relational we use “rows” and “columns” in OLAP we use “members”

A “member” is a **node** in a hierarchy...

.. and it can be at **any level**



Product Legacies That Cause Confusion

We all have biases from past products:

- “Ragged” hierarchy (a.k.a. unbalanced)
 - Often used synonymously with parent-child, but it’s NOT
 - All parent-child hierarchies are naturally ragged
 - Some level-based business hierarchies are ragged
- Relational Star/Snowflake is naturally level-based
 - Many unnatural schemes are used to fake parent-child
- Essbase/HFM is naturally parent-child
 - This adds confusion to parent-child vs. leveled-ragged



OBIEE 11g Architecture

What has changed?

- Weblogic replaces OC4J and OAS
- Security is now done with Weblogic
- Servers now stay up!
- RPD and Webcat management done in Enterprise Manager (Weblogic)
- Can now setup and administrate shared servers



OBIEE 11g Source Support

OLAP Style Analysis Across Any Source

- Works with any set of data sources:
 - Relational
 - Leveled hierarchies with skips and raggedness
 - Parent-child hierarchies
 - Multidimensional (including Oracle OLAP and Essbase)
 - XML
 - Federated
- Features to support Essbase as a data source



OBIEE 11g and OLAP

- The Next Generation
- Oracle OBIEE provides traditional Relational OLAP
- Oracle OLAP and Essbase provide Multidimensional OLAP
- Each has a different sweet-spot in business and performance
- OBIEE 11g combines the power of both and extends the look and feel no matter what the source
- Adds Support for Complex Hierarchies
- Adds Hierarchical Columns
- Adds Agregate Members and Aggregate Groups

Answers 11g Overview

- 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 Prompts
- New dashboard controls
- New gauge types and graphics

The screenshot displays the Oracle Business Intelligence interface. The main window is titled "Product Time Revenue w/Prompt" and shows a "Compound Layout" with a pivot table. The pivot table has "Products Hierarchy" as the column and "Total Time Revenue" as the row. The data is as follows:

Products Hierarchy	Total Time Revenue
BizTech	21,000,000
Communication	10,885,416
Electronics	10,114,584
Accessories	2,698,715
Audio	7,415,869
SoundX Nano 4Gb	2,476,985
MicroPod 60Gb	4,938,884
FunPod	17,500,000

Below the pivot table, there is a "Static Text" box with the text: "Keep Only the Selected Members <determined via Prompt Selections>. Default Values are BizTech and FunPod." The interface also shows a "Subject Areas" tree on the left and a "Catalog" pane at the bottom.



OBIEE Column Types

The screenshot shows the 'Subject Areas' tree in OBIEE. The tree is expanded to show the 'Paint' subject area, which contains several folders and columns. Annotations with arrows point to specific columns:

- Attribute Column:** Points to the 'Total US' column under the 'Markets' folder.
- Hierarchical Column (New):** Points to the 'Geography' column under the 'Markets' folder.
- Measure Column:** Points to the 'Dollars' column under the 'Sales Measures' folder.



Hierarchical Columns

- OLAP Analysis
 - Serve all the use cases in one place
 - Unifying models and terminology
- What are Hierarchical Columns
 - Hierarchical columns vs. attribute columns
 - Outline vs tabular display
 - Expand/collapse vs. drill down/ drill up
- Business Model Implementation
 - Physical Model: Parent-Child, Star Schema, Snowflake
 - Business Model: parent-child, skip and ragged
 - Presentation Model: dimension tree



Hierarchical Columns

- Now supports expanding and compressing hierarchy in same column
- Just like other OLAP tools like Discoverer
- Supports ragged and skip level hierarchies
- Integrated with new grouping and custom aggregate capabilities
- Works with ANY datasource (OLAP, Relational, XML)

	Revenue
	[-] Total Time
[-] Total Products	50,000,000
[-] BizTech	21,000,000
[-] Communication	10,885,416
[-] Electronics	10,114,584
[-] FunPod	17,500,000
[-] Digital	7,735,105
[-] Games	9,764,895
[-] HomeView	11,500,000
[-] Services	1,005,845
[-] TV	10,494,155
[-] Hot Products	18,822,801
[-] Cell Phones	5,917,903
[-] Camera	7,735,105
MPEG4 Camcorder	3,995,040
7 Megapixel Digital Camera	3,740,065
[-] Plasma	5,169,794



Hierarchical Reporting

- Hierarchical Columns can be put in Table or Pivot Table views
- Can be mixed with other column types
- Drag and Drop rearrangement supported

		Revenue								
		Total Time								
		2008						2009	2010	
		2008 Q1	2008 Q2	2008 Q3	2008 Q4					
Total Products	Genmind Corp	16,792,560	5,470,146	932,961	2,672,378	1,441,689	423,117	5,036,331	6,286,083	
	Stockplus Inc.	13,566,400	4,574,096	741,234	2,191,716	1,227,819	413,327	3,999,836	4,992,468	
	Tescare Ltd.	19,641,040	6,455,758	1,033,491	3,245,622	1,669,336	507,310	5,963,833	7,221,449	
BizTech	Genmind Corp	6,638,825	2,192,909	376,077	1,064,310	577,364	175,158	1,999,213	2,446,703	
	Stockplus Inc.	6,289,013	2,136,281	361,774	989,802	573,723	210,983	1,839,924	2,312,808	
	Tescare Ltd.	8,072,162	2,661,551	431,809	1,325,976	685,449	218,318	2,462,950	2,947,660	
Communication	Genmind Corp	2,920,284	899,128	162,373	438,735	219,250	78,771	908,519	1,112,638	
	Stockplus Inc.	4,240,828	1,405,532	235,636	647,880	374,437	147,579	1,228,562	1,606,733	
	Tescare Ltd.	3,724,305	1,228,831	179,706	628,925	326,636	93,564	1,141,531	1,353,943	
Electronics	Genmind Corp	3,718,541	1,293,781	213,705	625,575	358,114	96,387	1,090,694	1,334,066	
	Stockplus Inc.	2,048,185	730,749	126,137	341,922	199,286	63,404	611,362	706,075	
	Tescare Ltd.	4,347,857	1,432,721	252,102	697,051	358,813	124,754	1,321,419	1,593,718	
FunPod	Genmind Corp	6,674,101	2,208,040	379,356	1,112,519	549,015	167,150	1,968,610	2,497,451	
	Stockplus Inc.	3,448,054	1,123,130	186,146	530,059	317,494	89,431	984,165	1,340,760	
	Tescare Ltd.	7,377,844	2,392,018	380,614	1,218,792	618,980	173,632	2,207,565	2,778,262	
HomeView	Genmind Corp	3,479,633	1,069,197	177,528	495,550	315,311	80,809	1,068,508	1,341,928	
	Stockplus Inc.	3,829,333	1,314,686	193,315	671,855	336,603	112,914	1,175,746	1,338,901	
	Tescare Ltd.	4,191,034	1,402,189	221,068	700,854	364,907	115,360	1,293,318	1,495,527	
Hot Products	Genmind Corp	6,745,760	2,117,535	337,647	1,047,151	556,629	176,108	2,001,707	2,626,518	
	Stockplus Inc.	4,315,039	1,516,319	255,707	774,003	346,365	140,244	1,224,600	1,574,120	
	Tescare Ltd.	7,762,002	2,490,454	338,620	1,277,676	687,457	186,701	2,353,559	2,917,989	
Camera	Genmind Corp	2,944,394	956,202	171,198	470,167	245,994	68,842	860,294	1,127,898	
	Stockplus Inc.	1,495,109	531,747	91,765	265,213	128,359	46,410	381,834	581,527	
	Tescare Ltd.	3,295,602	1,098,828	142,405	583,275	300,668	72,479	985,180	1,211,594	
Cell Phones	Genmind Corp	2,155,126	655,182	82,108	351,183	165,440	56,451	659,225	840,719	



The Process 'Soup to Nuts'

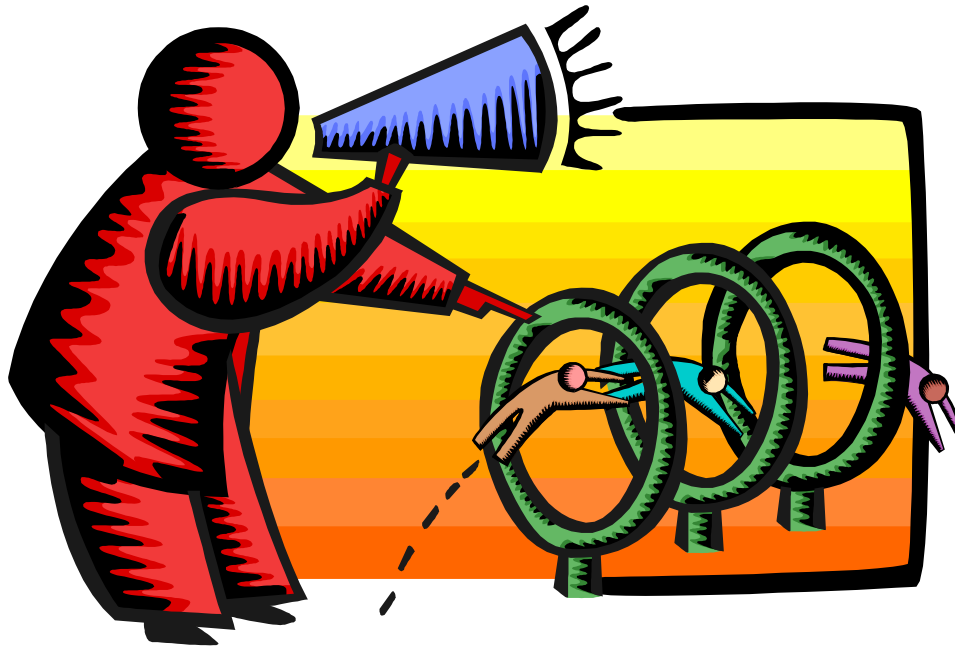
- Start with Relational Tables
- Star or Snow-Flake Schema Preferred
- Build OLAP Model (Analytic Workspace Manager or Essbase Studio)
- Import Model into OBIEE 11 Admin Tool
- Setup Data Security and Presentation Layer
- Build reports in Answers



Data Model

- Dimensions
 - Channel – All Channels -> Class -> Channel
 - Product - All Prod->Dept -> Cat -> Type -> SubType -> Item
 - Time - All Years -> Year-> Qtr-> Month
 - Geography – Region -> Country -> State
- Cube
 - Sales fact with Sales and Quantity Measure

Begin to End in 25 Minutes!



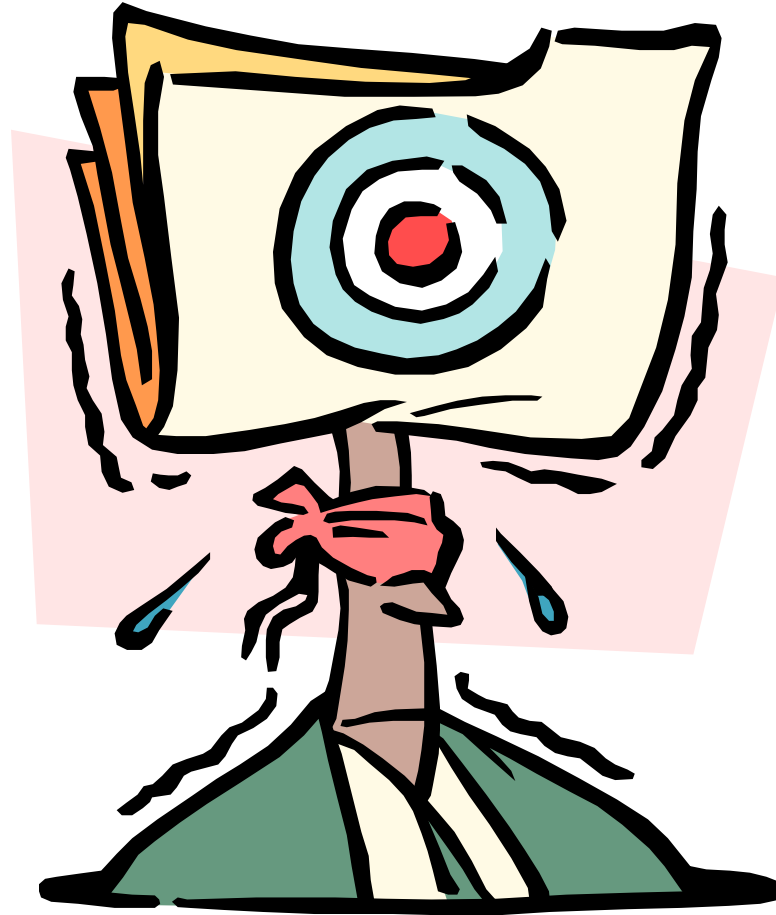


Tips on Getting Started

- Choose the OLAP Platform of your choice
- Setup OBIEE 11g on Separate Server if possible (64-bit preferred)
- Load SampleApp and use it as an example
- Must have 32-bit Admin Client for now (64-bit coming in 11.1.1.14)
- Use import wizard as much as possible.



Questions?





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