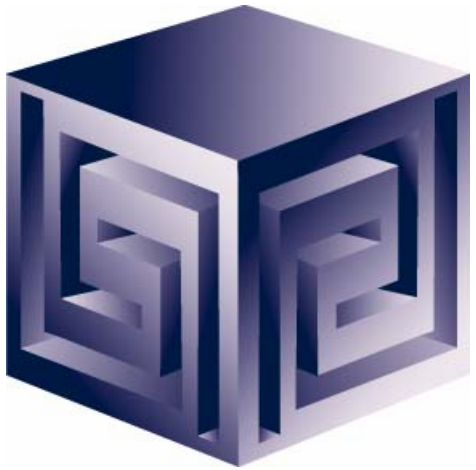
Using Oracle9i Warehouse Builder and Oracle 9i to create OLAP ready Warehouses

KCOUG

January 2004



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Vlamis Software Solutions, Inc.

- **Oracle Certified professional services company**
- **Provides business solutions to international and domestic clients based on Oracle technologies.**
- **Provide consulting and training on Oracle Technologies**
- **Authorized software reseller**
- **Creator of the first Oracle 9i Business Intelligence and Analytics tool.**
- **Core competency include:**
  - **Certified designers,**
  - **Developers,**
  - **Implementers**
  - **Nationally recognized technical authors, speakers and publishers.**

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Who are we?

- **Chris Claterbos, Consulting & Development Manager**
  - **DBA and applications developer for Oracle products, since 1981.**
  - **Beta tester and early adopter of - including Oracle 8i and 9i, 9i OLAP, JDeveloper and BIBeans, Oracle 9IAS, Portal (formerly WebDB), and Reports.**
  - **Speaker and author. (new Article on OTN May 12th)**
  - **IOUG Focus Area Manager for Data Warehousing and BI**
  - **Utilized Oracle SQL, Pl/sql, Oracle Forms, Reports, Discoverer, Express, Express Objects, Web Objects, OWB, Designer and Oracle Applications (since version 7).**

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Using OWB to Build 9i Databases

- What is OWB?
- Oracle 9i Integration
- The Process
- OWB Transfer Wizard
- Demonstration
- Administration
- AW Manager Demo
- Questions

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What is Oracle Warehouse Builder?

- **Integrated Tool for Data Warehousing**
- **Based on Common Warehouse Metadata Standard (OMG)**
- **Supports Design and ETL Functions**
- **Enterprise Framework for Designing and Deploying Datawarehouses and Datamarts**
- **Integration Platform for 9i OLAP**

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What is OWB?

Components: Overview

Components of Oracle Warehouse Builder

- Repository (CWM)
- Graphical User Interface
- Code Generator
- Integrators
- OWB Transfer Wizard

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Components: *OWB Repository*

- **Based upon Common Warehouse Metadata Standard (CWM)**
- **Supports Industry Standards**
- **Oracle 9i/10g based**
- **Integration point for future products (Designer, Developer, BI Beans …)**

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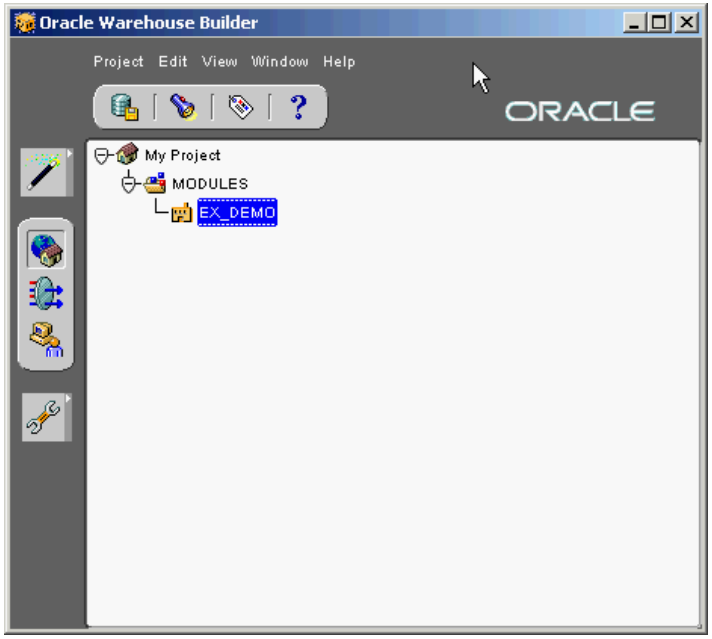
Components: *OWB User Interface*

- **Java Based**
- **Same look and feel as Designer 6i**
- **Run on Thin Client Platform**



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Components: *Code Generators*

Code Generators are provided for:

- **Transformations**
- **DDL**
- **SQL Loader scripts**
- **User Defined transformations**

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Components: *Integrators*

- **Several Integrators provided**
- **Relational and non-relational support**
- **Oracle Applications Data Source**
- **SAP R/3 Data Source**
- **Discoverer**
- **Express**
- **CWM**
- **Oracle OLAP**

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Components: *OWB Transfer Wizard*

- **Bridging Technology to Oracle OLAP, Express, CWM and Discoverer**
- **Two-way support for Oracle OLAP**
- **Only supports One Way to Express RAM metadata**
- **No support for Express MOLAP**

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Oracle OLAP Integration

- **OWB Bridge transports OWB metadata to Oracle OLAP Metadata**
- **Creates links to Relational Data for Facts and Dimensions**
- **User can use OEM Cube Builder to make changes**
- **Access to run via Java API**

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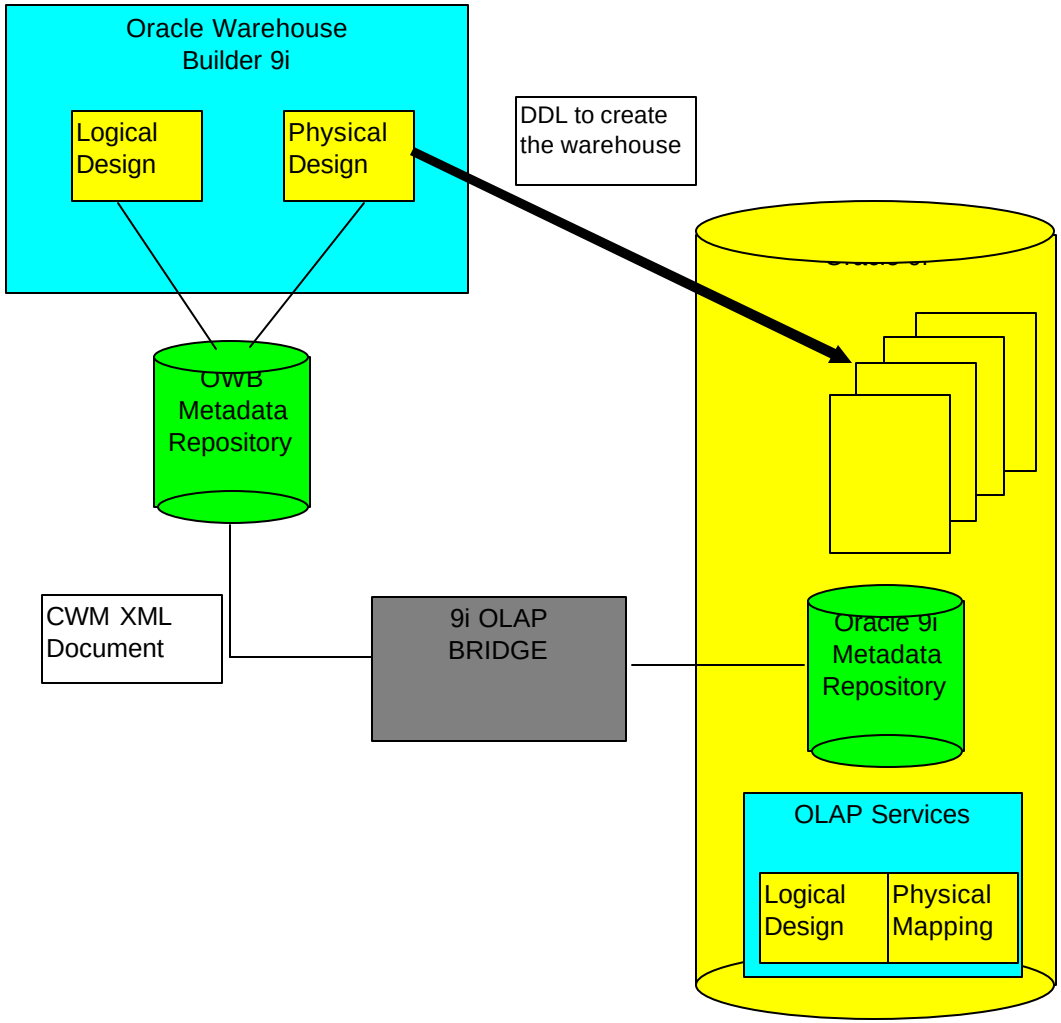
OLAP Bridge



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The Process

- **Design or Import Relational Schema**
  - ❑ **Define Fact Table(s)**
  - ❑ **Define Dimensions**
  - ❑ **Define Materialized Views (summary tables)**
- **Create Physical Schema**
- **Create Script for Oracle OLAP**
- **Run Script**
- **View/Modify in OEM/Cube Builder**
- **Run Application**
- **Gather Statistics / Tune**

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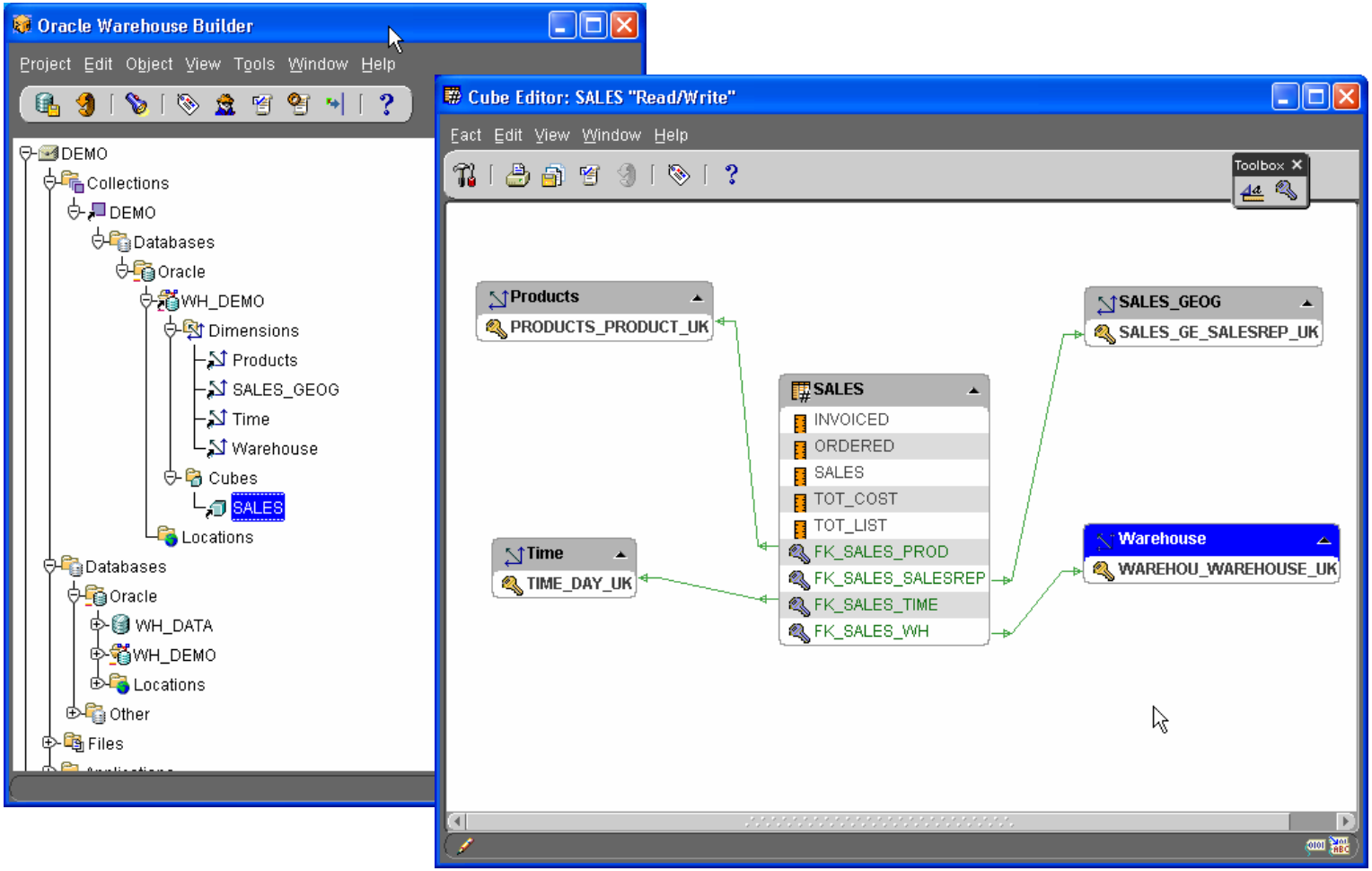
Design and Generate Schema



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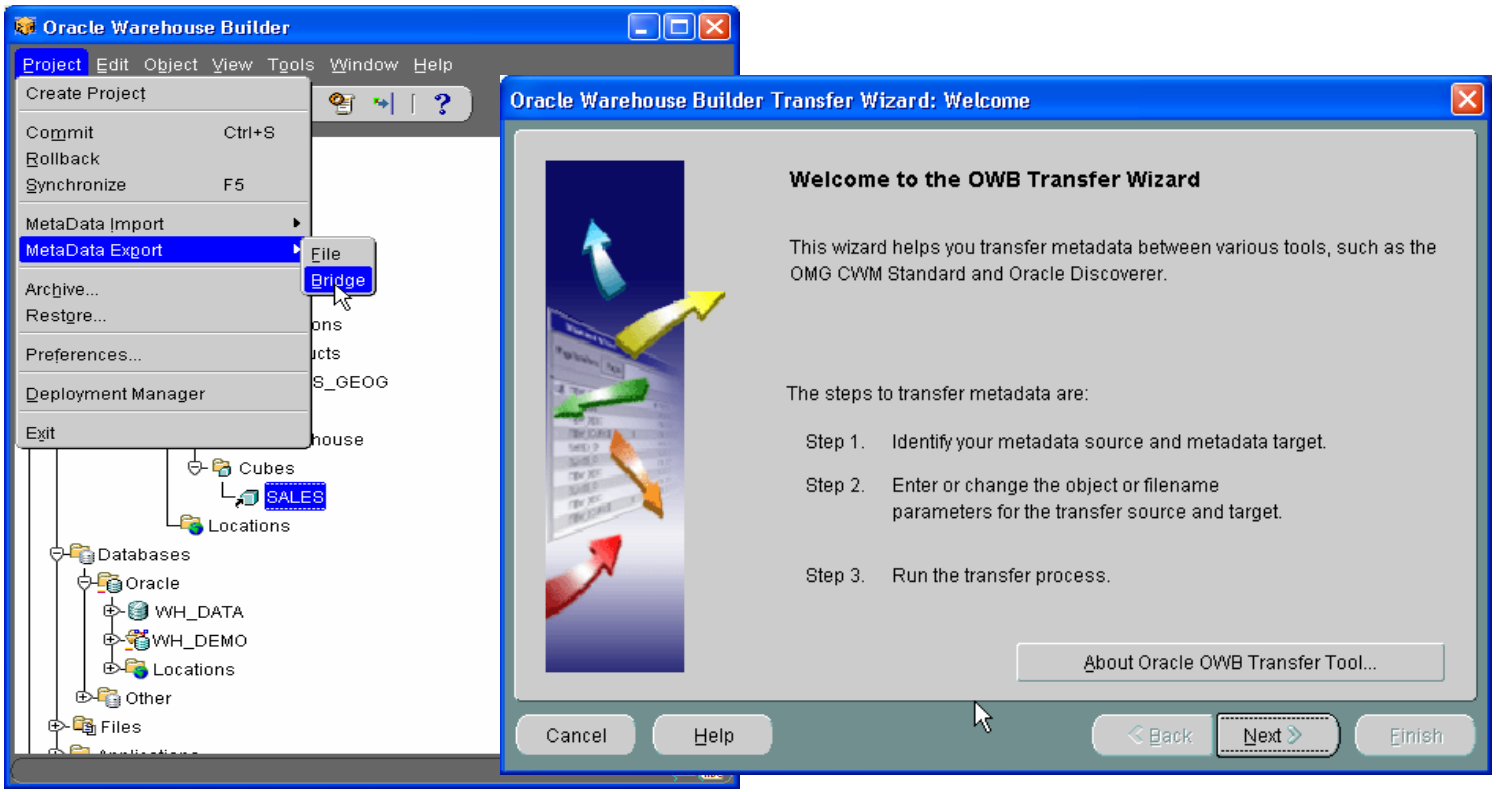
Metadata Export – Transfer Wizard



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OWB Transfer Wizard

- **What does the OWB to Oracle OLAP Transfer do?**
  - ❑ **Converts Metadata to CWM Format**
  - ❑ **Create SQL Script to update 9i OLAP Metadata**
  - ❑ **Executes Script (optional)**
  - ❑ **Allows for Building AW Cubes**
  - ❑ **Moves Data from relational to AW**

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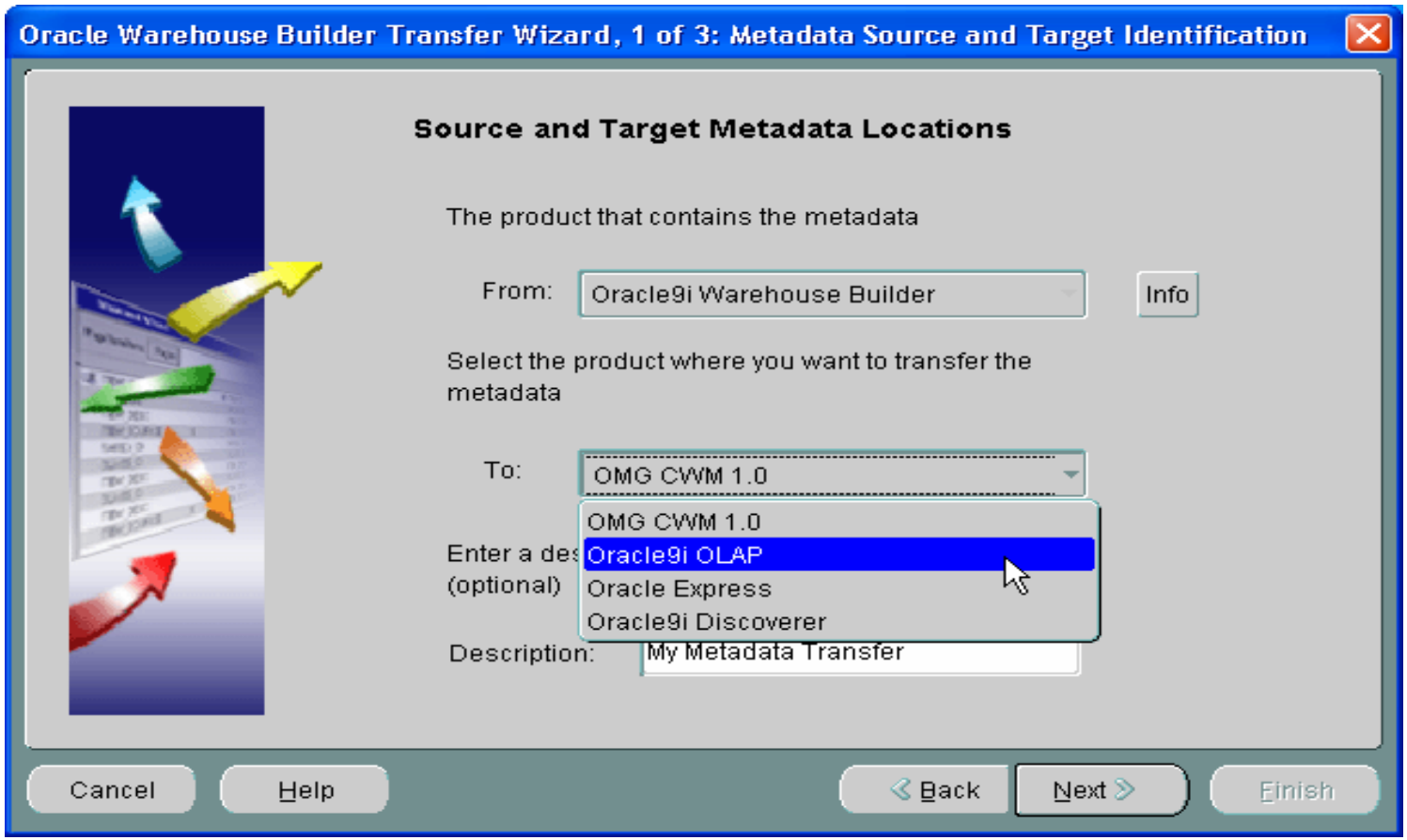
OWB Transfer – Choose Destination



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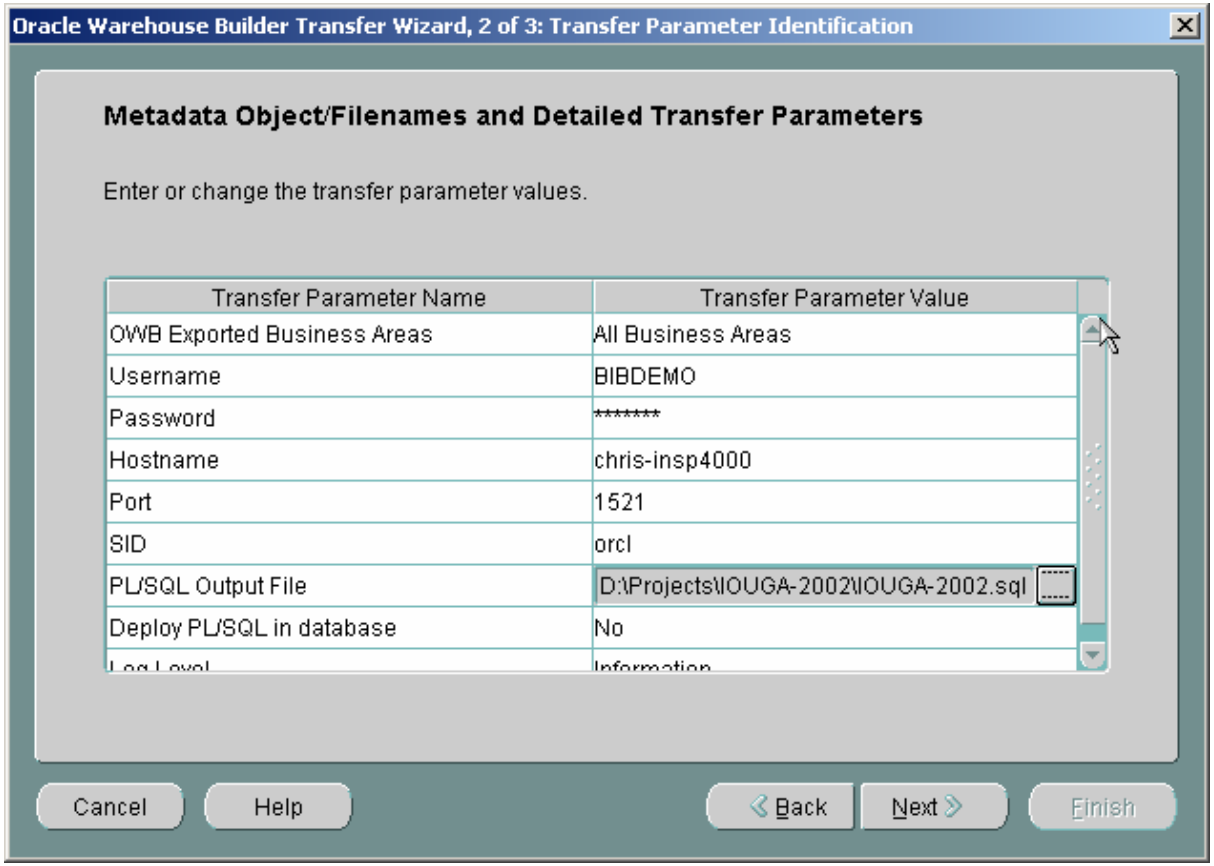
OLAP Bridge – Transfer Parameters



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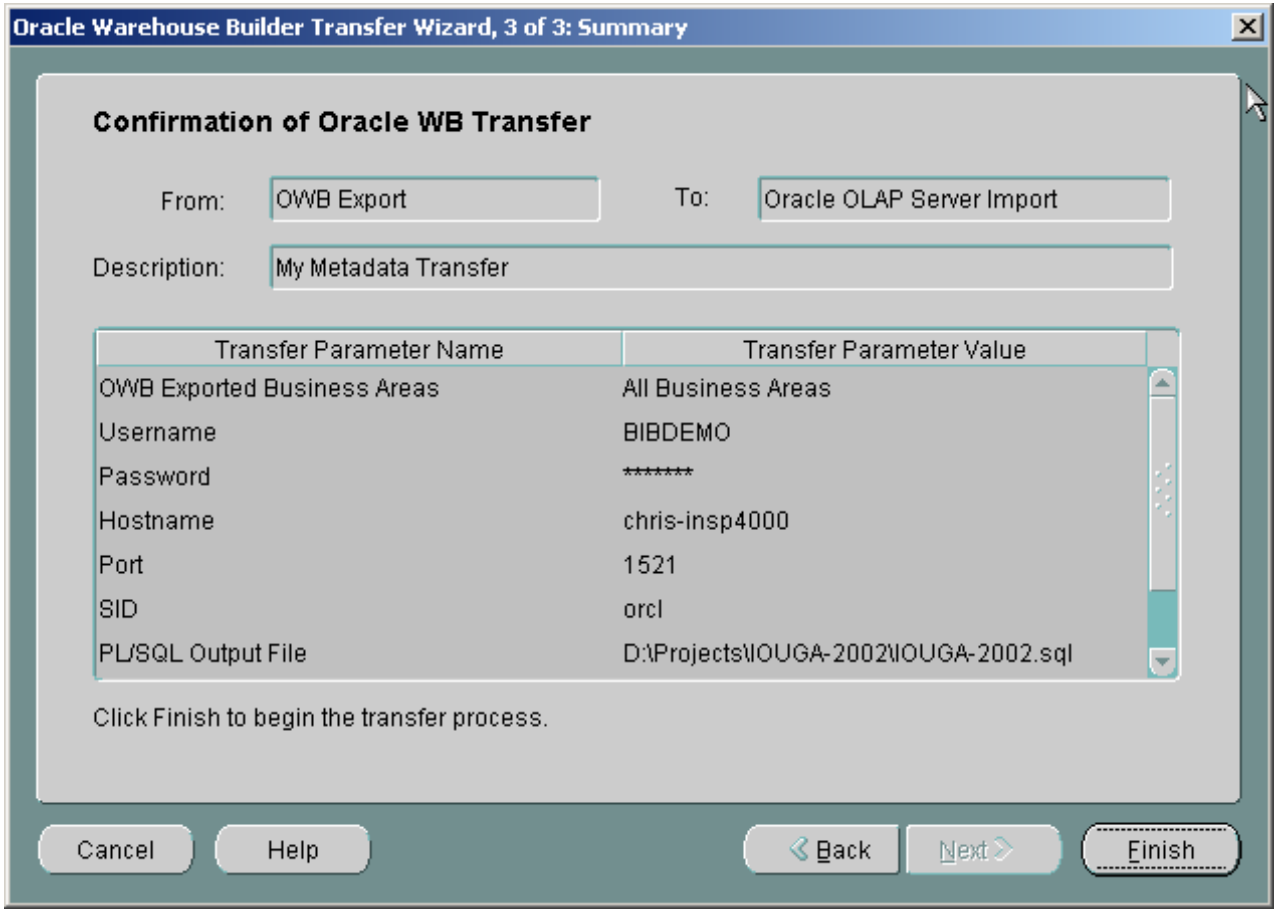
OLAP Bridge – Transfer Parameters



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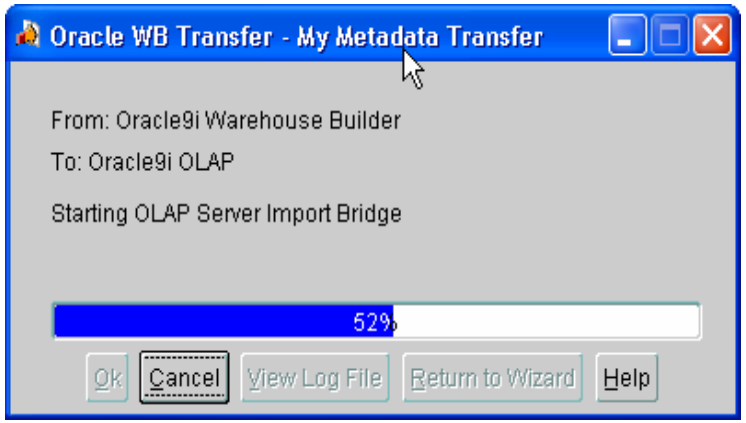
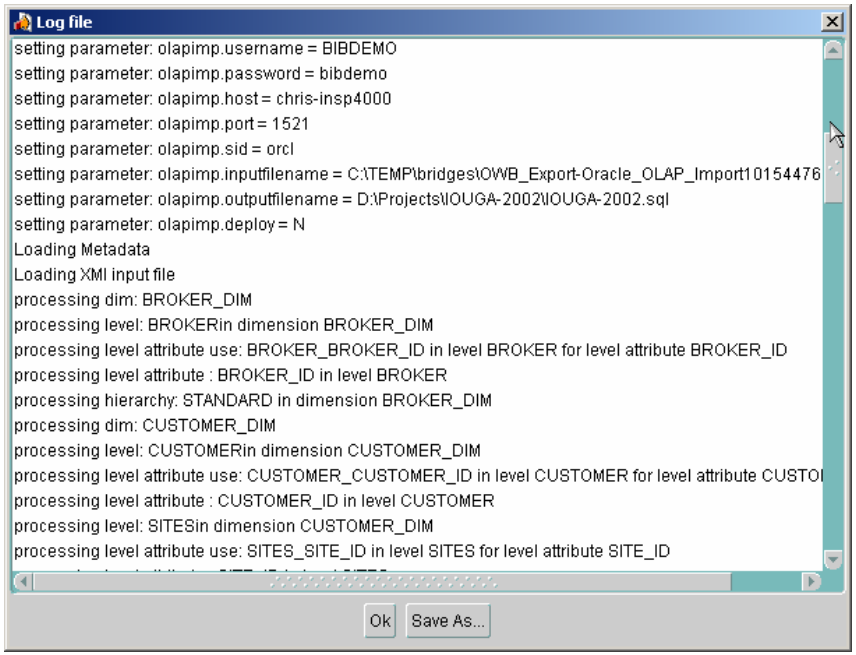
CWM Bridge – Running





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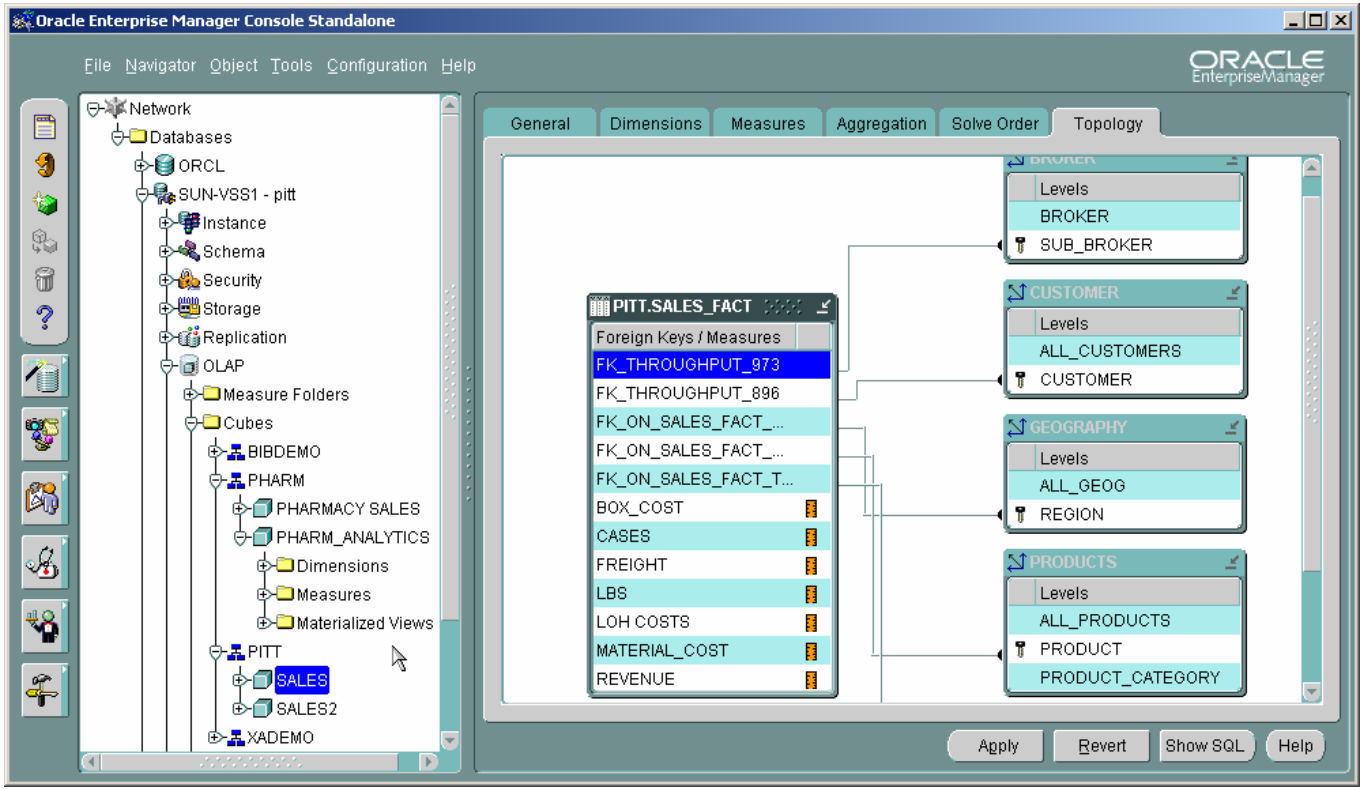
OEM Cube Builder – The Results



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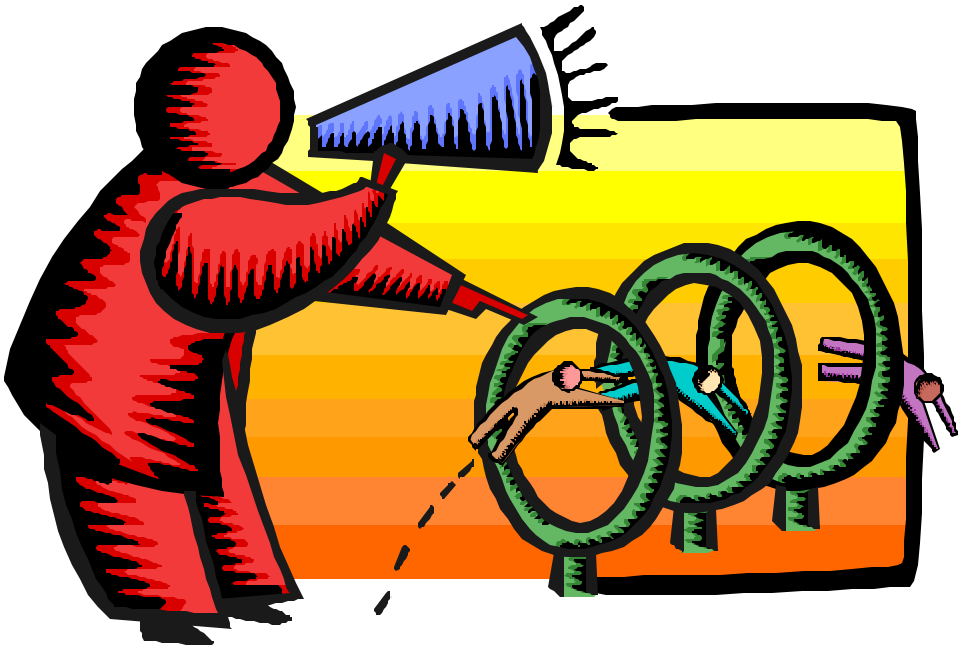
Demonstration



Demo.exe

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Relational or Analytic Workspace?

- **Relational**
  - **Very large data sets**
  - **Very sparse data**
  - **Need to query with complex SQL**
- **Analytic Workspace**
  - **Summary level or relatively dense data**
  - **Complex, multidimensional calculations**
  - **Planning functions**
  - **What-if analysis**
  - **Computational scalability**
  - **Complex joins**

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Administration and Moving to AW

- **Administration of OLAP Option and Cubes is performed using OEM**
- **New Tools for Analytic Workspace – AW Manager**
- **Using OLAP DML and OLAP Worksheet**

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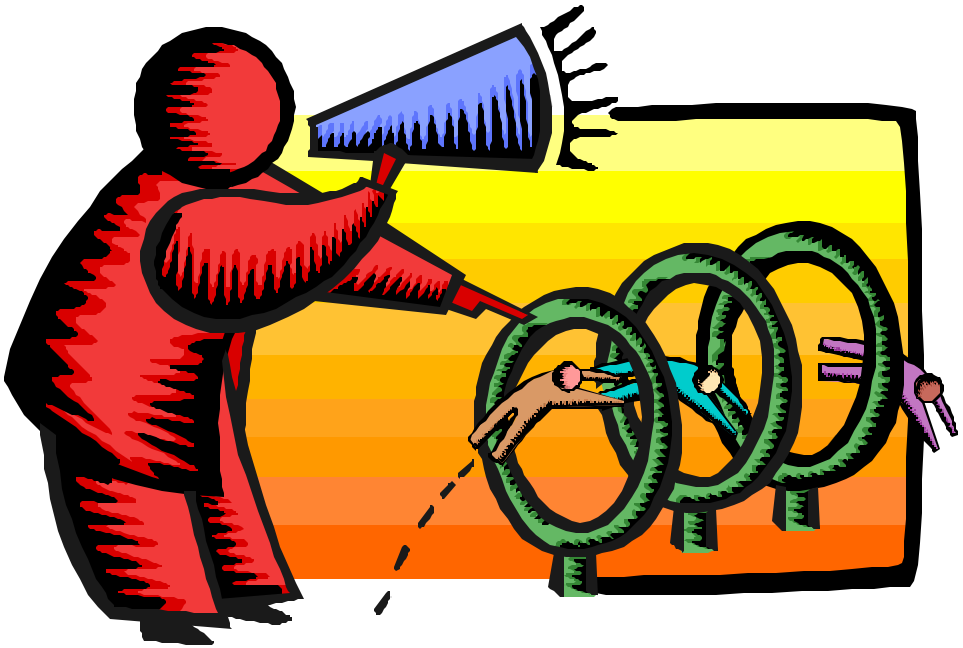
AW Manager Demonstration



Oem_awm.exe

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Conclusions

- **We can finally design OLAP Solutions**
- **Support for both ROLAP and MOLAP (AW)**
- **Strong Foundation for the Future**
- **Still Lacking all the Pieces**
  - **Bi-Directional Bridge does not support incremental changes**
  - **No Migration for Express Databases (never)**

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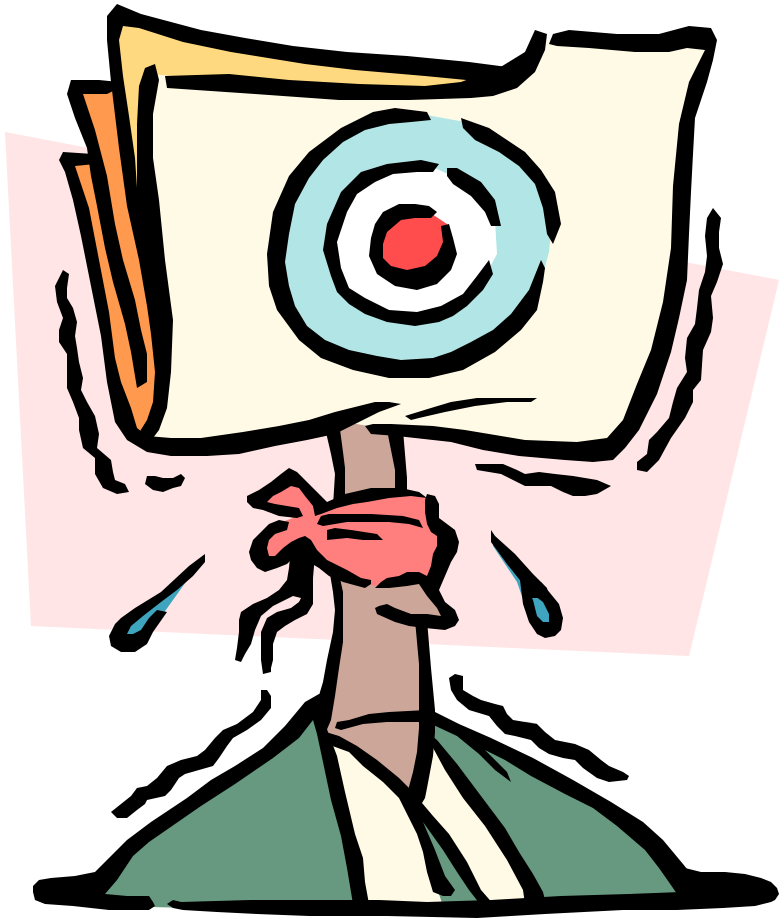
QUESTIONS?



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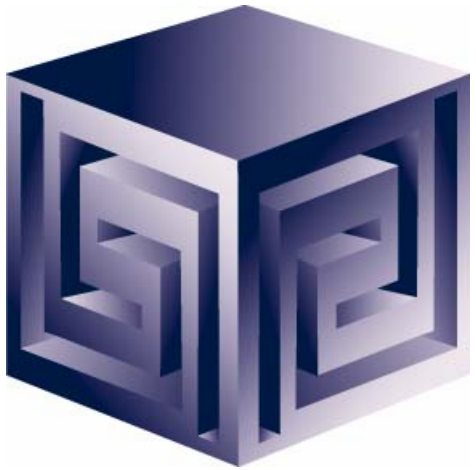

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