

Extending the capabilities of Oracle Business Intelligence Applications (OBIA)

ORACLE CERTIFIED
PARTNER

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Agenda

- Introduction
- Overview of OBIEE & OBIA
- How to extend OBIA?
 - Simple Gaps
 - Complex Enhancements
- Lessons learned
- Q&A

P3 Overview

- 3+ years in operation
- 50+ years of Oracle implementation (R8 to R12)
- Oracle, KPMG, Deloitte, Hackett, Corio, AppShop

EXPERIENCE

- Project Management
- Business Process design
- App Implementation, Integration and Business Intelligence
- System Administration
- Custom Development

EXPERTISE

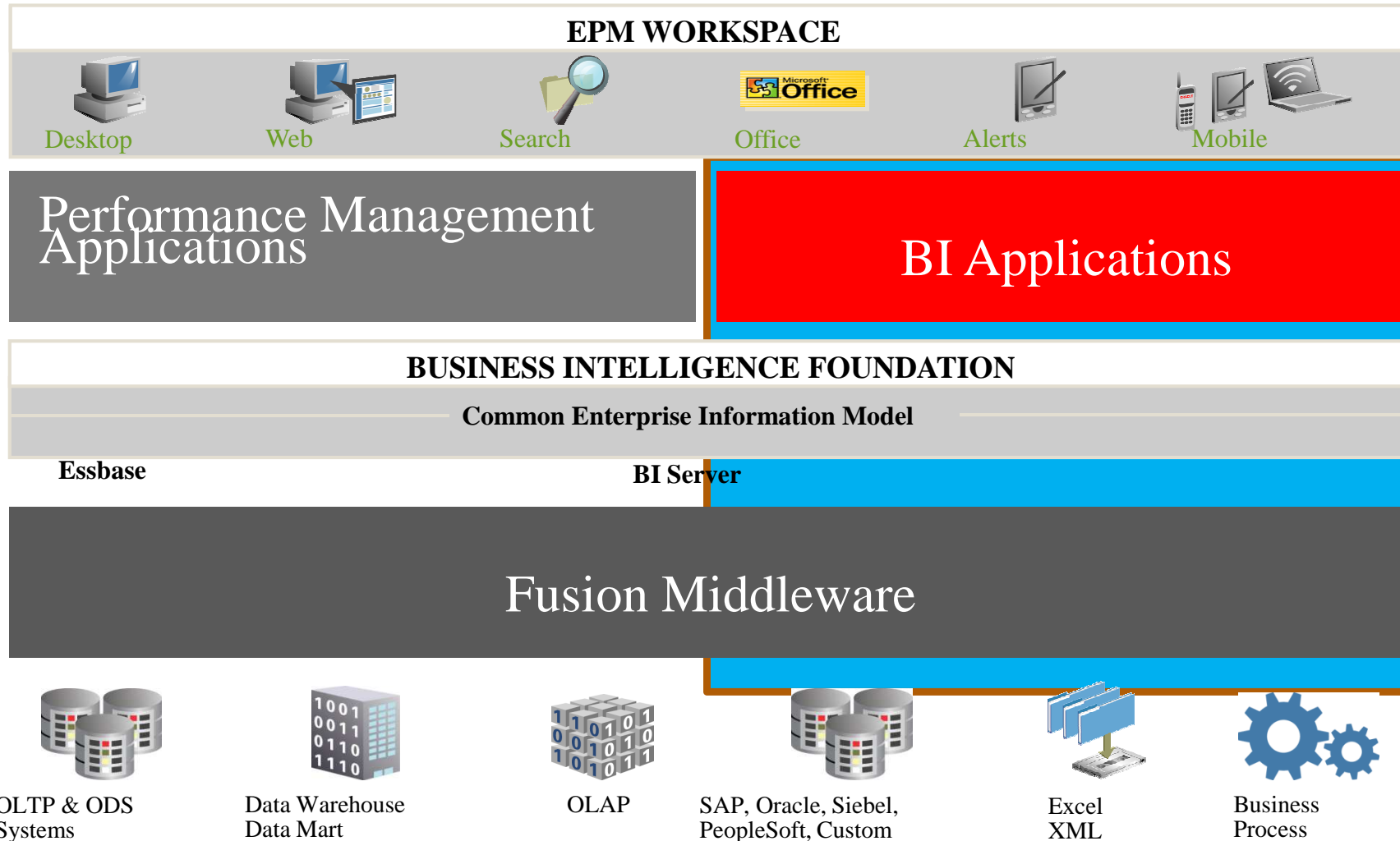
SUCCESS



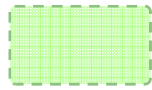
FOCUS

- Oracle EBS
- OBIEE
- Hyperion
- Remote Management
- Custom Development

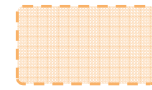
Overview of Oracle BI Architecture



OBIEE Apps



Resident Expertise



Resources Available



Sales	Service & Contact Center	Marketing	Order Management & Fulfillment	Supply Chain	Financials	Human Resources
Pipeline Analysis	Churn Propensity	Campaign Scorecard	Order Linearity	Supplier Performance	A/R & A/P Analysis	Employee Productivity
Triangulated Forecasting	Customer Satisfaction	Response Rates	Orders vs. Available Inventory	Spend Analysis	GL / Balance Sheet Analysis	Compensation Analysis
Sales Team Effectiveness	Resolution Rates	Product Propensity	Cycle Time Analysis	Procurement Cycle Times	Customer & Product Profitability	HR Compliance Reporting
Up-sell / Cross-sell	Service Rep Effectiveness	Loyalty and Attrition	Backlog Analysis	Inventory Availability	P&L Analysis	Workforce Profile
Cycle Time Analysis	Service Cost Analysis	Market Basket Analysis	Fulfillment Status	Employee Expenses	Expense Management	Turnover Trends
Lead Conversion	Service Trends	Campaign ROI	Customer Receivables	BOM Analysis	Cash Flow Analysis	Return on Human Capital

Prebuilt adapters:

ORACLE

PeopleSoft.

SIEBEL.

SAP

Other Operational & Analytic Sources

OBIA Components

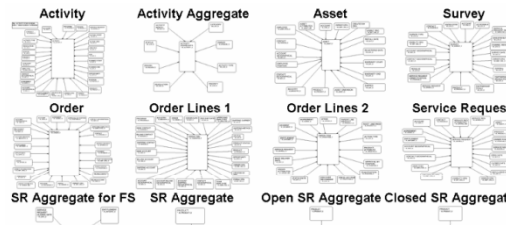
PRESENTATION LAYER

- User Roles, Preferences
- Simplified View
- Logical SQL Interface



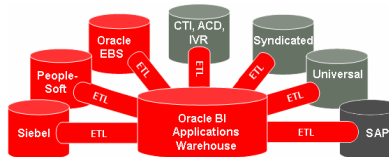
SEMANTIC OBJECT LAYER

- Dimensions
- Hierarchies
- Measures
- Calculations
- Aggregation Rules
- Time Series



PHYSICAL LAYER

- Map Physical Data
- Connections
- Schema



- Customize role-based views, data integration, reports, dashboards, alerts, mobile delivery and MS Office/Outlook integration

- End-user training

- Tailor std models and metadata
- Define custom models, calculations, subject areas etc.

- Performance optimization

- Access security

- Configure standard extracts

- Define custom extracts (ETL)

- Propagate Flexfields

- Schema optimization & security

- Leverage standard adapters

- Define custom adapters

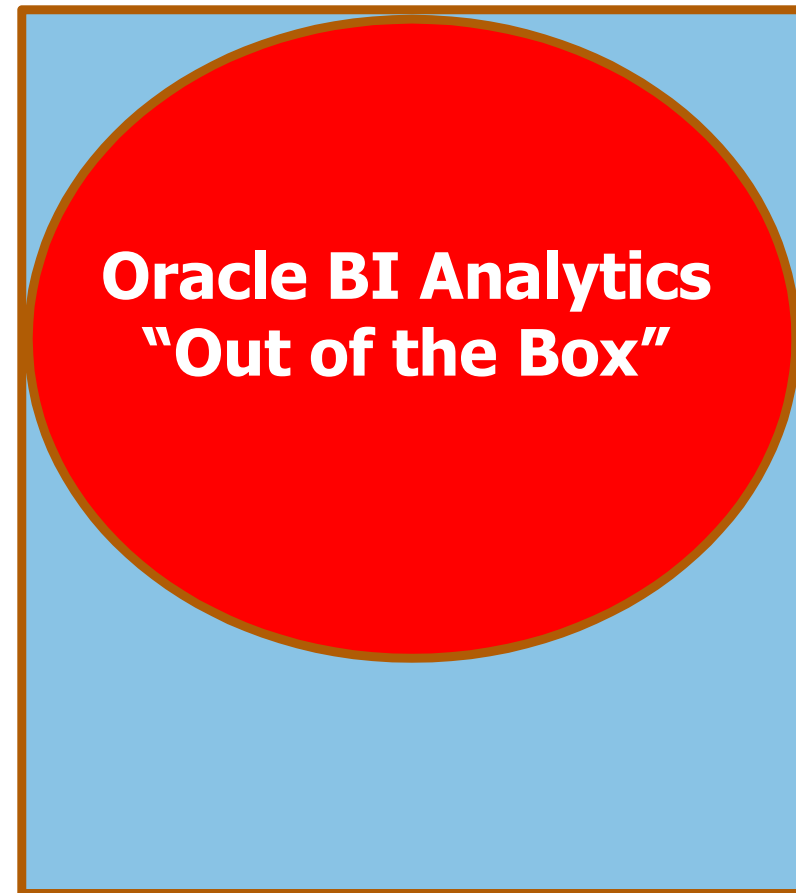
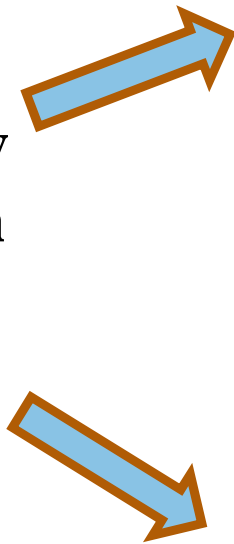
- Resident expertise in Oracle, Siebel

- Resources available for JD Edwards, Peoplesoft and SAP

How do you extend OBIA?

The good news, OBIA has a lot of “out of the box” metrics
However, for every business you can expect some gaps that you might need to fill.

We are going to show you examples of both Simple and Complex gaps.



Example of Gaps

● Simple

- View product cost by historical time frame
- Configure OBIA to support “PTO” “Pick To Order ” & “ATO” product structure
- Compare Freight Charges VS Invoiced freight, by freight carriers and freight terms
- Inclusion of Drop Shipments data to Shipment Fact
- Created new dimensions, “Fulfillment Status”, “Hold Types” to review backlog metrics
- Extend Financial Analytics to create FSG reports

● Complex

- Quoting Analytics
- RMA Failure Analysis
- Integration with 3rd party cloud applications

Small Gap Example - Add “Drop Shipment data to Shipping Metrics”

Informatica
Designer

- Identify the shipment [SDE](#) mapping “SDE_ORA_SalesPickLinesFact”
- Edit the maplet’s “mplt_BC_ORA_SalesPickLinesFact” - find the existing SQL query

EBS

- Identify the drop shipment query
- Ensure the number of columns/ports selected matches with the existing query

Informatica
Designer

- Edit the [maplet](#) “mplt_BC_ORA_SalesPickLinesFact” -Add the new SQL query

Informatica
Workflow
Manager

- Edit the reusable session to add the new query to the “[Full](#)” workflow

Informatica
Workflow
Monitor

- [Test](#) the modified map to see it runs correctly

DAC

- Using the [DAC](#) client, execute the task to do a unit testing.

OBIEE

- Edit the OBIEE [repository](#), to create/modify metrics in the BMM Layers.

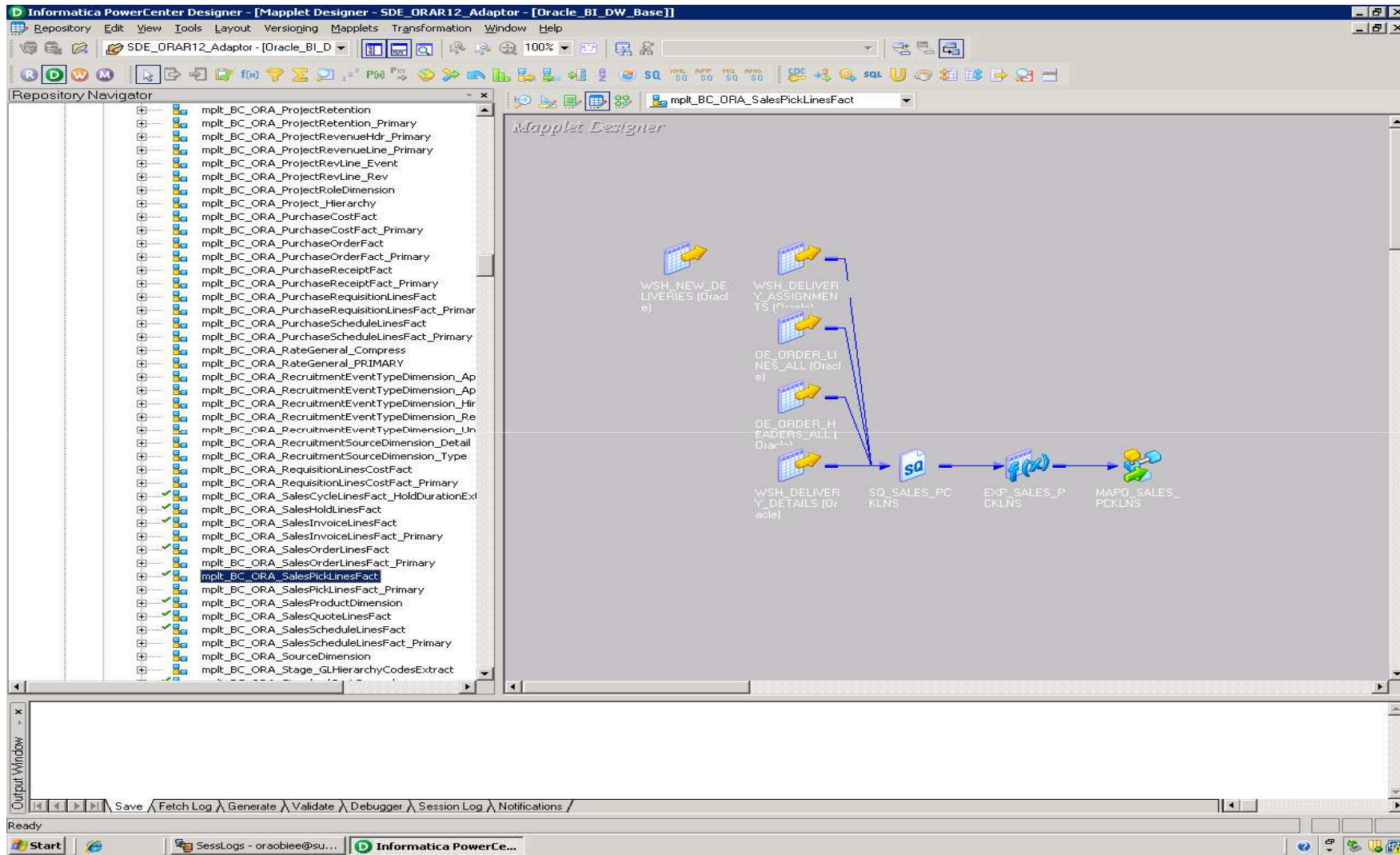
Informatica Designer – SDE Mapping

The screenshot displays the Informatica PowerCenter Designer interface for SDE Mapping. The main window is titled "Mapping Designer" and shows a data flow diagram. On the left, the "Repository Navigator" lists various fact tables, with "SDE_ORA_SalesPickLinesFact" selected. The mapping diagram includes the following components:

- Source: `mplt_BC_ORA_SalesPickLinesFact`
- Transformation: `EXPTRANS`
- Transformation: `EXP_Custom_Expression_Field`
- Target: `mplt_SA_ORA_SalesPickLinesFact`
- Transformation: `MPLT_CURLY_CONVERSION_RATES_All`
- Target: `W_SALES_PICK_LINE_FS (Oracle)`

The interface also shows a menu bar (Repository, Edit, View, Tools, Layout, Versioning, Mappings, Transformation, Window, Help), a toolbar, and a status bar at the bottom with options like Save, Fetch Log, Generate, Validate, Debugger, Session Log, and Notifications.

Informatica Designer – SDE Maplet



Informatica Designer – Modify the source qualifier

The screenshot shows the Informatica Designer SQL Editor window titled "SQL Editor - SQ_SALES_PCKLNS (Expression)". The window is divided into several sections:

- Ports:** A list of columns from the source table, including: HEADER_ID, ORG_ID, ORDER_TYPE_ID, ORDER_NUMBER, VERSION_NUMBER, EXPIRATION_DATE, ORDER_SOURCE_ID, SOURCE_DOCUMENT_TYPE, ORIG_SYS_DOCUMENT_REF, SOURCE_DOCUMENT_ID, ORDERED_DATE, REQUEST_DATE, PRICING_DATE, SHIPMENT_PRIORITY_CODE, DEMAND_CLASS_CODE, PRICE_LIST_ID, TAX_EXEMPT_FLAG, TAX_EXEMPT_NUMBER, TAX_EXEMPT_REASON_CODE, CONVERSION_RATE, CONVERSION_TYPE_CODE, CONVERSION_RATE_DATE, PARTIAL_SHIPMENTS_ALLOWED, SHIP_TOLERANCE_ABOVE, SHIP_TOLERANCE_BELOW, TRANSACTIONAL_CURRENCY_CODE, AGREEMENT_ID, TAX_POINT_CODE, CUST_PO_NUMBER, INVOICING_RULE_ID, ACCOUNTING_RULE_ID, and PAYMENT_TERM_ID.
- Instance Name:** OE_ORDER_HEADERS_ALL
- Transformation Type:** Source Definition
- SQL:** A SQL query starting with `SELECT /*+ USE_NL (WSH_DELIVERY_DETAILS, OE_ORDER_HEADERS_ALL, OE_ORDER_LINES_ALL) */` followed by a list of columns from WSH_DELIVERY_DETAILS and OE_ORDER_HEADERS_ALL.
- Connect to database:** A section with fields for ODBC data source (oap9 (Microsoft ODBC for Oracle)), Username (Apps), and Password.
- Buttons:** OK, Cancel, Generate SQL, Validate, and Help.

Informatica Designer – Add the drop-shipment query

```
UNION
SELECT /*+ USE_NL (OE_ORDER_HEADERS_ALL, OE_ORDER_LINES_ALL, ) */
OE_ORDER_LINES_ALL.LINE_ID,
OE_ORDER_LINES_ALL.INVENTORY_ITEM_ID,
OE_ORDER_LINES_ALL.ship_from_org_id,
OE_ORDER_LINES_ALL.SHIP_TO_ORG_ID,
OE_ORDER_LINES_ALL.ACTUAL_SHIPMENT_DATE,
OE_ORDER_LINES_ALL.SCHEDULE_SHIP_DATE,
OE_ORDER_LINES_ALL.UNIT_SELLING_PRICE,
OE_ORDER_LINES_ALL.ORDER_QUANTITY_UOM,
OE_ORDER_LINES_ALL.LATEST_ACCEPTABLE_DATE,
OE_ORDER_LINES_ALL.LINE_ID*1000 DELIVERY_DETAIL_ID, --UNIQUE KEY
OE_ORDER_HEADERS_ALL.SHIP_TO_CONTACT_ID,
OE_ORDER_LINES_ALL.SUBINVENTORY,
'R' RELEASED_STATUS,
OE_ORDER_LINES_ALL.SHIPPING_METHOD_CODE,
OE_ORDER_LINES_ALL.CREATED_BY,
OE_ORDER_LINES_ALL.LAST_UPDATED_BY,
OE_ORDER_LINES_ALL.CREATION_DATE,
OE_ORDER_LINES_ALL.LAST_UPDATE_DATE,
OE_ORDER_LINES_ALL.SHIPPED_QUANTITY,
OE_ORDER_LINES_ALL.ORDERED_QUANTITY,
0 NET_WEIGHT,
0 VOLUME,
NULL WEIGHT_UOM_CODE,
NULL VOLUME_UOM_CODE,
OE_ORDER_LINES_ALL.SHIPMENT_PRIORITY_CODE,
OE_ORDER_HEADERS_ALL.HEADER_ID,
OE_ORDER_HEADERS_ALL.ORG_ID,
OE_ORDER_HEADERS_ALL.CONVERSION_RATE,
OE_ORDER_HEADERS_ALL.TRANSACTIONAL_CURR_CODE,
OE_ORDER_HEADERS_ALL.SOLD_TO_ORG_ID,
OE_ORDER_HEADERS_ALL.SALES_CHANNEL_CODE,
OE_ORDER_LINES_ALL.INVOICE_TO_ORG_ID,
OE_ORDER_HEADERS_ALL.ORDERED_DATE,
OE_ORDER_LINES_ALL.FREIGHT_TERMS_CODE,
OE_ORDER_HEADERS_ALL.PAYMENT_TERM_ID,
```

Informatica Workflow – Modify the workflow - SDE_ORA_SalesPickLinesFact_Full

The screenshot displays the Informatica PowerCenter Workflow Manager interface. The title bar reads "Informatica PowerCenter Workflow Manager - [Workflow Designer - SDE_ORAR12_Adaptor - [Oracle_BI_DW_Base]]". The menu bar includes "Repository", "Edit", "View", "Tools", "Layout", "Versioning", "Workflows", "Tasks", "Service", "Connections", "Window", and "Help". The toolbar contains various icons for workflow management.

The **Repository Navigator** on the left lists numerous fact tables, with **SDE_ORA_SalesPickLinesFact_Full** selected and highlighted. The **Workflow Designer** in the center shows a simple workflow with a **Start** task (green arrow) connected to a task named **SDE_ORA_SalesP...** (represented by a server icon). The **Output Window** at the bottom shows the message: "1/18/2010 4:28:34 PM *** Fetching workflow SDE_ORA_SalesPickLinesFact_Full".

Informatica Workflow – Modify the workflow session- SDE_ORA_SalesPickLinesFact_Full

Edit Tasks

General | Properties | Config Object | Mapping | Components | Metadata Extensions

Select task: SDE_ORA_SalesOrderLinesFact

Task type: Session (Reusable)

SDE_ORA_SalesOrderLinesFact.mplt_BC_ORA_SalesOrderLinesFact.SQ_BCI_SALES_ORDLNS

Readers

Instance	Readers
SQ mplt_BC_ORA_SalesOrderLinesFact...	Relational Reader

Connections

Type	Value
SQ mplt_BC_ORA_SalesOrderLinesFact.SQ_BCI_SALES_ORDLNS - DB Connection	Relational
	\$DBConnection_OLTP

Properties Show Session Level Properties

Attribute	Value
Post SQL	
Sql Query	SELECT /*+ USE_NL (TEMP, OE_ORDER_HEADERS_ALL, OE_AGRI...
Source Filter	OE_ORDER_LINES_ALL.CHARGE_PERIODICITY_CODE IS NULL ...
mplt_BC_ORA_SalesOrderLinesFact.OE_ORDER_LINES_ALL - Source	
Owner Name	
Source Table Name	

Sql Query

User-defined SQL statement

OK Cancel Apply Help

Informatica Workflow Monitor – Unit Test the workflow session

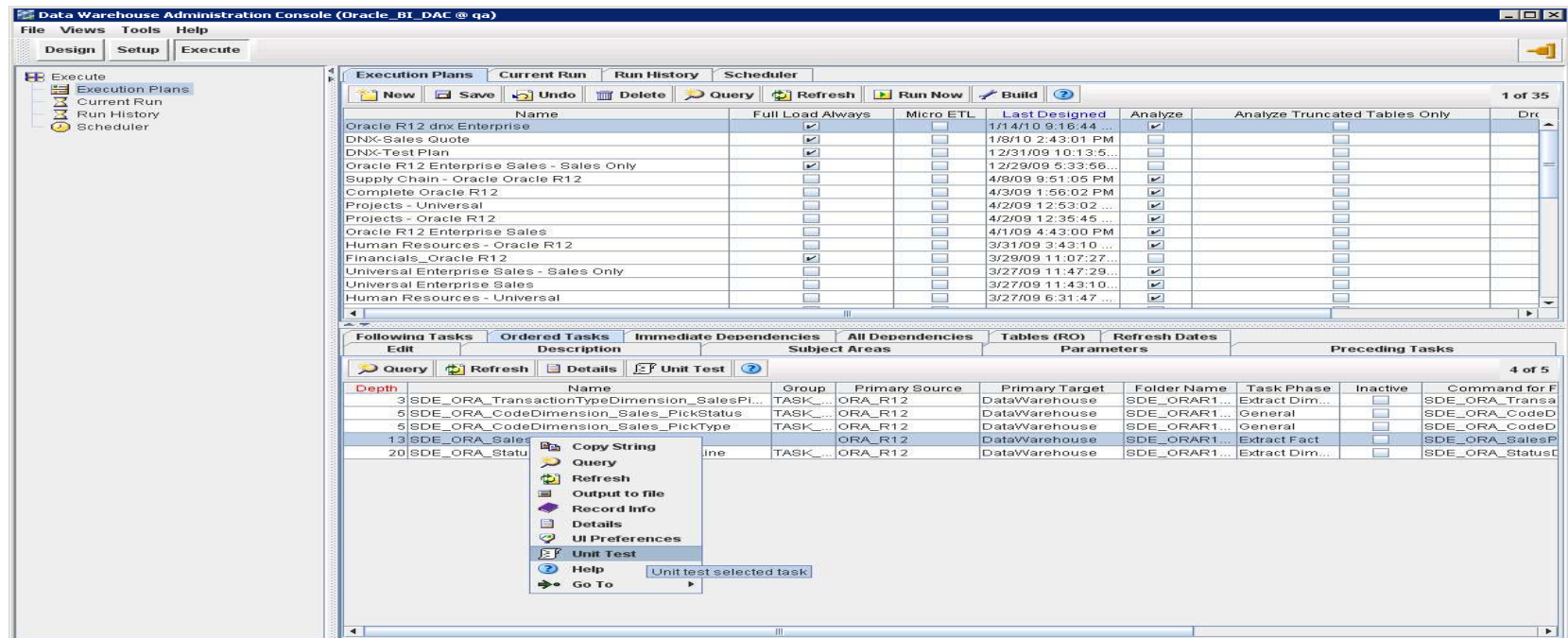
The screenshot displays the Informatica PowerCenter Workflow Manager interface. The main window is titled "Workflow Designer" and shows a workflow diagram with a "Start" task and a task named "SDE_ORA_SalesPickLinesFact_Full". A context menu is open over the "SDE_ORA_SalesPickLinesFact_Full" task, listing various actions such as "Edit...", "Open Task", "Export...", "Dependencies...", "Clear from the Workspace", "Delete from workflow/worklet", "View Persistent Values...", "Refresh Mapping", "Highlight Path", "Validate", "Start Task", "Start Workflow From Task", "Recover Task", "Recover Workflow From Task", "Cold Start Task", "Cold Start Workflow from Task", "Set Options...", and "Versioning". The "Start Workflow From Task" option is highlighted.

The left pane shows the "Repository Navigator" with a list of tasks, including "SDE_ORA_SalesOrderLinesFact_Full" which is selected. The bottom pane shows the "Output Window" with log messages:

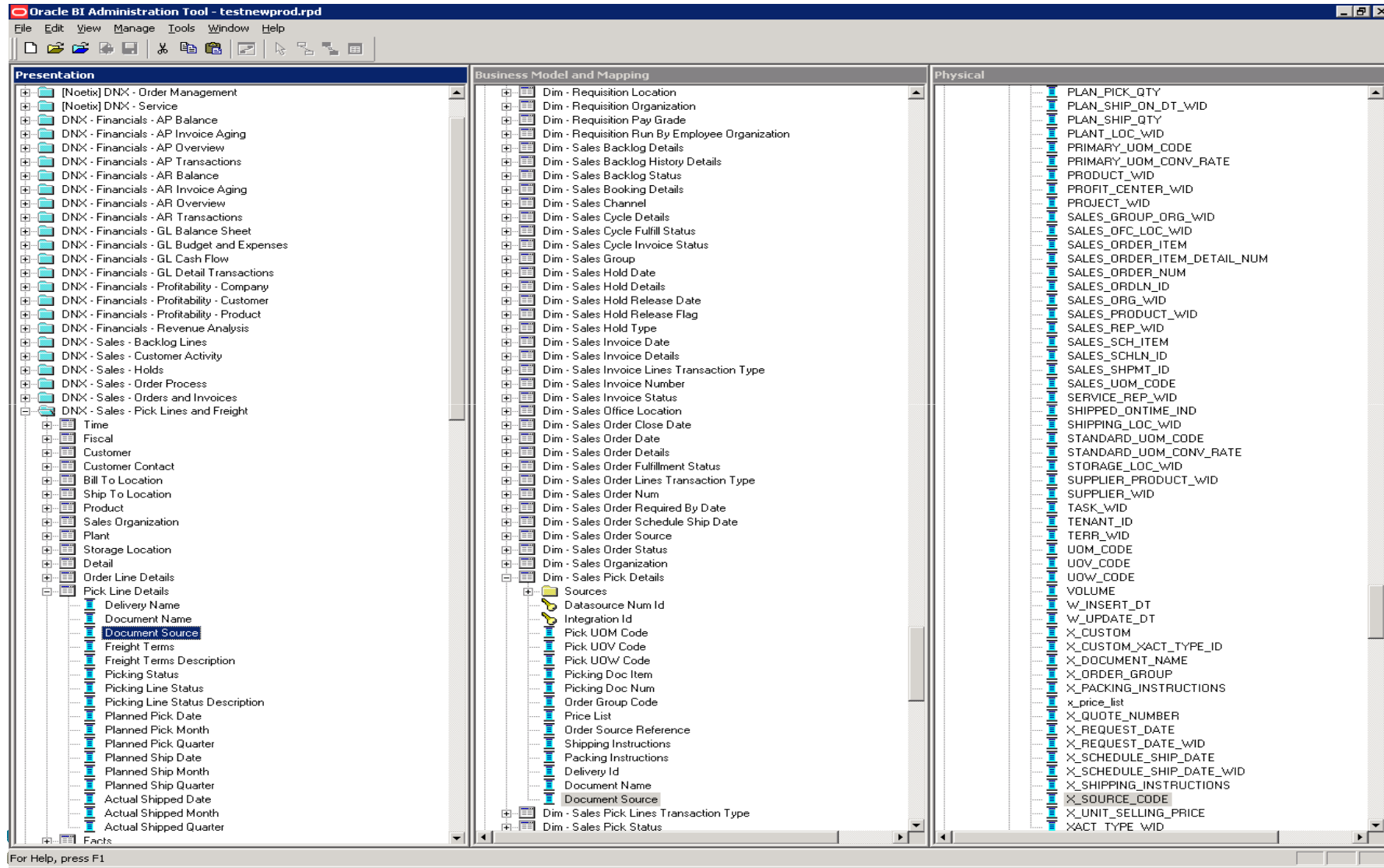
```
1/18/2010 4:37:08 PM *** Fetching session instance SDE_ORA_SalesPickLinesFact_Full
-----
1/18/2010 4:37:08 PM *** Fetching session SDE_ORA_SalesPickLinesFact_Full
```

The bottom status bar indicates "Start workflow from selected task".

DAC “Data Access Control” – Unit Test the workflow session



OBIEE Administrator – Modify the RPD file



OBIEE Answer – Shipment Amount for the current Quarter “By Source”

The screenshot shows the Oracle BI Answers interface in a Microsoft Internet Explorer browser. The address bar displays the URL: <http://sunbi1.na.dionex.internal:9704/analytics/saw.dll?Answers&SubjectArea=%20DNX%20-%20Sales%20-%20Pick%20Lines%20and%20Freight%22>. The page title is "Oracle BI Answers - Microsoft Internet Explorer".

The main content area displays a table with the following data:

Fiscal Quarter	Document Source	Actual Shipped Amount
2010 Q 2	PO	9,300,051
	WSH	33,386,604

Below the table, there are links for "Download" and "Copy", and a "Results" button.

The left sidebar contains a navigation tree with the following categories:

- Columns
 - Time
 - Fiscal
 - Customer
 - Customer Contact
 - Bill To Location
 - Ship To Location
 - Product
 - Sales Organization
 - Plant
 - Detail
 - Order Line Details
 - Pick Line Details
 - Delivery Name
 - Document Name
 - Document Source
 - Freight Terms
 - Freight Terms Description
 - Picking Status
 - Picking Line Status
 - Picking Line Status Description
 - Planned Pick Date
 - Planned Pick Month
 - Planned Pick Quarter
 - Planned Ship Date
 - Planned Ship Month
 - Planned Ship Quarter
 - Actual Shipped Date
 - Actual Shipped Month
 - Actual Shipped Quarter
- Facts
 - Fact - Sales Pick Lines
 - Actual Shipped Amount
 - Selling Price
 - Actual Picked Quantity
 - Actual Shipped Quantity
 - Freight Charge
 - Number of On Time Picks
 - Number of On Time Shipping
 - On Time Pick Rate
 - On Time Ship Rate
 - On Time Pick Performance
 - On Time Picked Quantity
 - On Time Shipped Quantity
 - On Time Ship Performance
 - Picked Early Quantity
 - Picked Late Quantity
 - Planned Pick Quantity
 - Shipped Early Quantity
 - Shipped Late Quantity
 - Late Pick Rate
 - Late Ship Rate
 - Fact - Sales Invoice Lines
- Filters

Complex Gap Example – Extend Order-to-Cash Process



Supply Chain & Order Management Analytics

- Provides insight into critical Order Management business processes and key information, including Orders, Order Fulfillment, Invoices, sales effectiveness and customer scorecards.
- The delivered analysis of every step in the back-office sales processes from Order to Cash, enables companies to respond more quickly to customer issues and resolve them before they become problems.

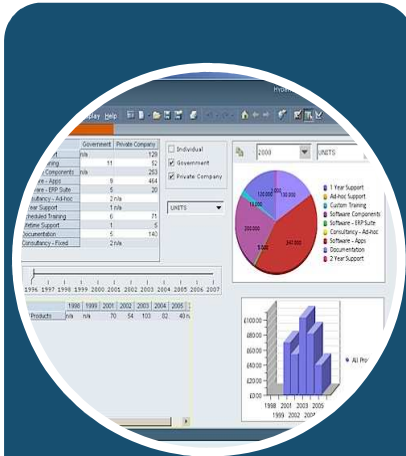
Extending O2C Process with Q2C “Quote To Cash”



Quoting Analytics

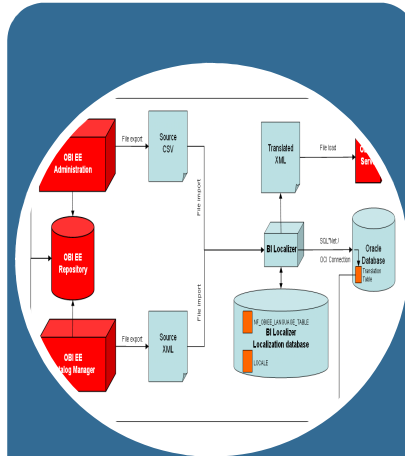
- Currently supports iSupport and Oracle Quoting data model
- Provides insight into critical metrics :
 - Conversion Ratio
 - Gross Margin % of a Quote
 - Discount % of a Quote
 - Average Conversion Timeline
- Supports common dimensions
 - Time, Customer, Product, Sales Organization, Sales Reps, Inventory Organization
- New dimensions supported
 - Quote Import Source
 - Quote Statuses
 - Quote Expiration Date
 - Sales Group
 - Quote Versions
- All metrics are available in multi-currency

“Knowing the Source” - Critical



EXPERTISE

- R8 to 11i to R12
- Over 100 projects
- Strategic Business Process knowledge
- Technical prowess
- Deep Oracle connections



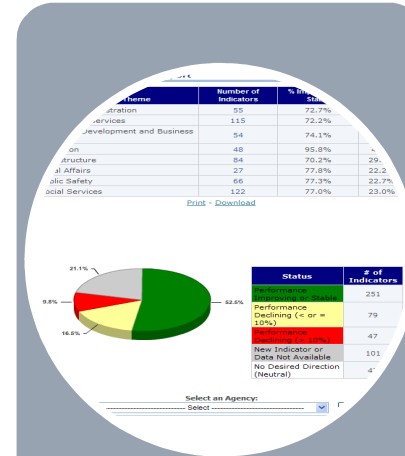
FLEXIBILITY

- Predictable cost
- Flexible pricing
- Onsite, offsite
- Onshore, Offshore
- Configurable service levels



BEST PRACTICES

- System performance
- Security
- Incremental implementation
- User adoption and training



INTELLECTUAL PROPERTY

- Rapid reuse
- Common change libraries
- Gap analyzer
- Impact analyzer
- Auto-brander
- IP under development

◆ RAPID VALUE ◆ PREDICTABLE COST ◆ BUILT-IN QUALITY ◆ WARRANTED SUPPORT

Key Success Factors and Best Practices

■ IMPLEMENTATION

- Engage C-level exec support on key metrics and indicators
- Incremental releases by subject area (Order Entry, CRM etc.)
 - Phase 1: General OBIEE features ... dashboards, reports, column/view selectors (do not rollout Answers right away for adhoc reporting)
 - Phase 2: “Answers” with training for underlying metadata
 - Phase 3: Delivers, Alerts etc.
 - Implement "current state" KPI's before moving to "what if's“

■ USER ADOPTION/TRAINING

- UI Branding
- Customized/CBT training
- “Train-the-trainer” approach
- Usage tracking
- Manage slowly changing dimensions

■ PERFORMANCE

- Leverage existing Data warehouse Analytics friendly data model to the maximum extent.
- Reliance on caching should be used wisely based on the KPI

■ SECURITY

- Adopt to Oracle’s SSO strategy when appropriate
- Column level security ... associate roles or individual user accounts to specific columns (e.g. SS# column is accessible by very few users).
- Rollup security ... regions or groups of users see one slice of information for their specific region etc.
- Usage tracking ... audit the access to the system.

Contact information

P3 Solutions, Inc.

US Headquarters:
42840 Christy Street
Suite 207
Fremont, CA 94538

www.p3si.net

Subhajit Purkayastha,
VP, Industry Solutions
510.344.3975 (work)
spurkaya@p3si.net

Mark West, VP, EPM & BI
510.621.7374 (work)
mwest@p3si.net

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