



The Semantic Layer and BI 4 Migration

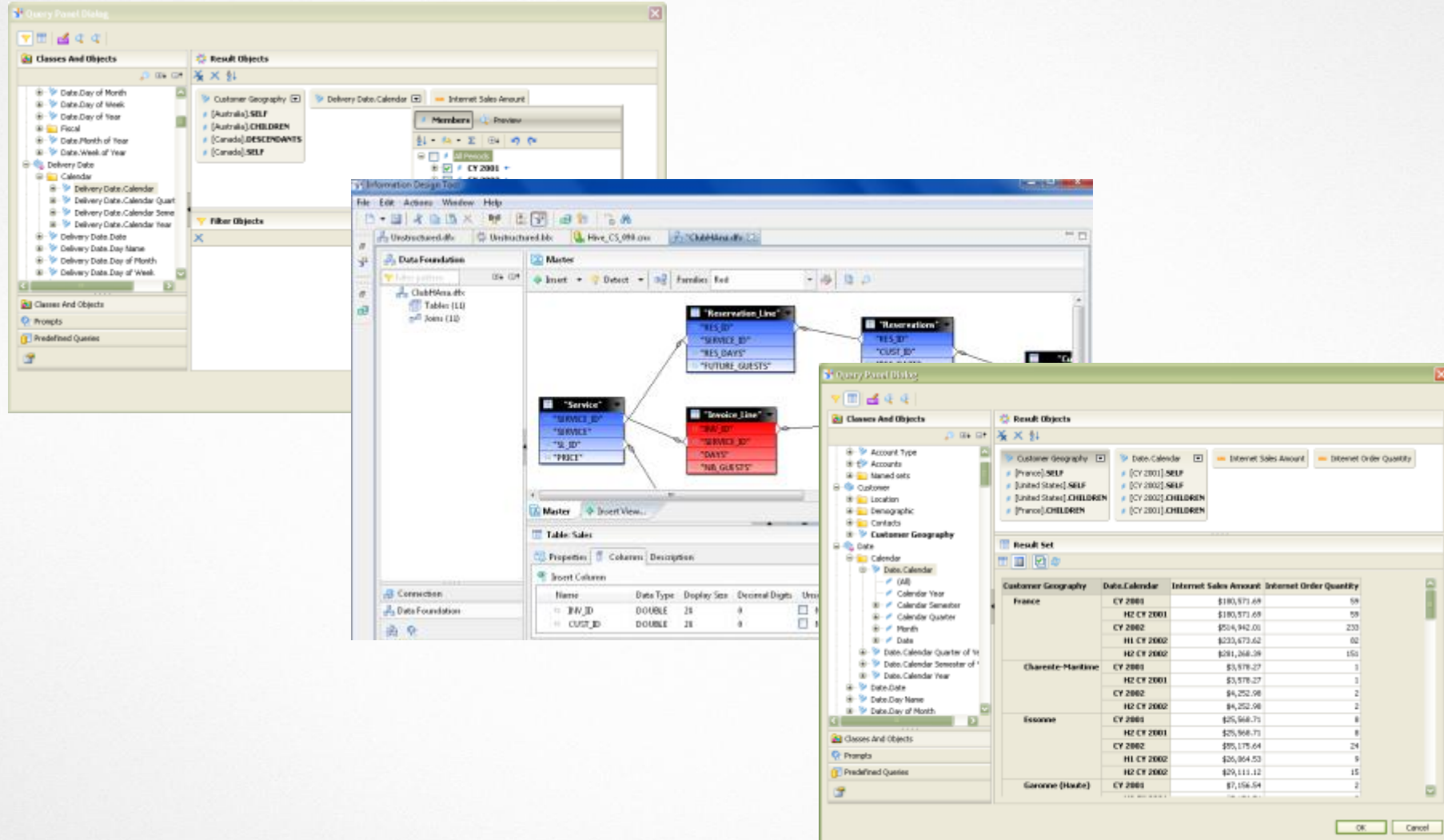
Agenda

- Introduction
- BI 4.1 Semantic Layer Update
- Semantic Layer Migration Discussion
- Semantic Layer Conversion Automation
- Q & A
- Wrap Up



- APOS Systems Inc. formed in 1992
- Focus on SAP BI solutions
- Solutions and products enabling BI platform management, administration and migration
- Simplifying, automating, extending the SAP BusinessObjects platform
- Strategic SDK development and consulting
- Hundreds of customers globally





The screenshot displays the SAP Information Design Tool interface, showing a data foundation diagram, a query panel dialog, and a result objects window.

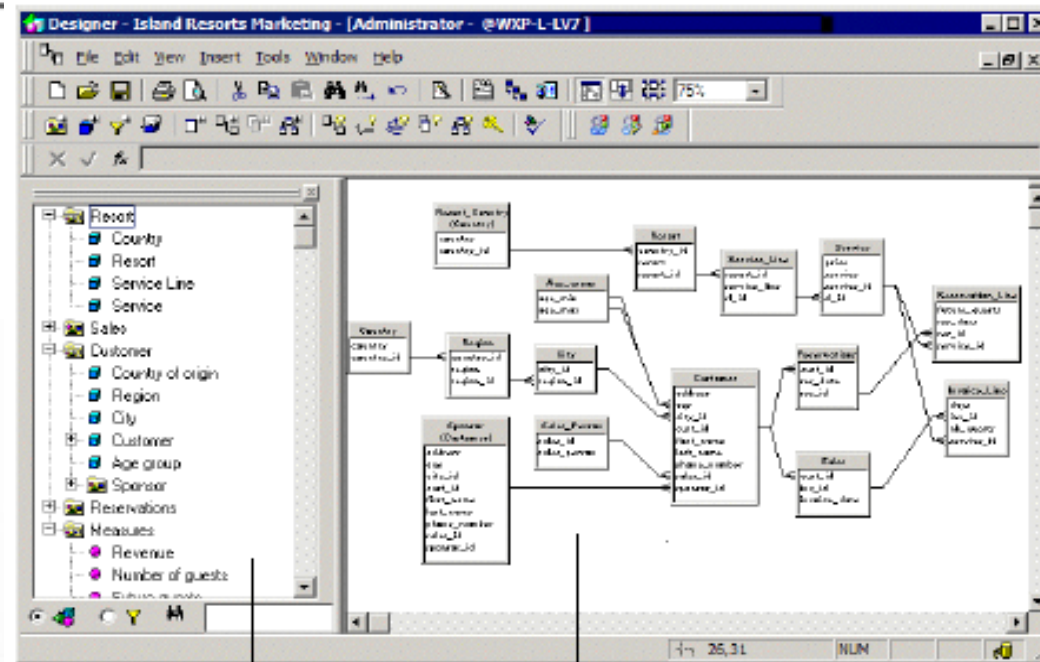
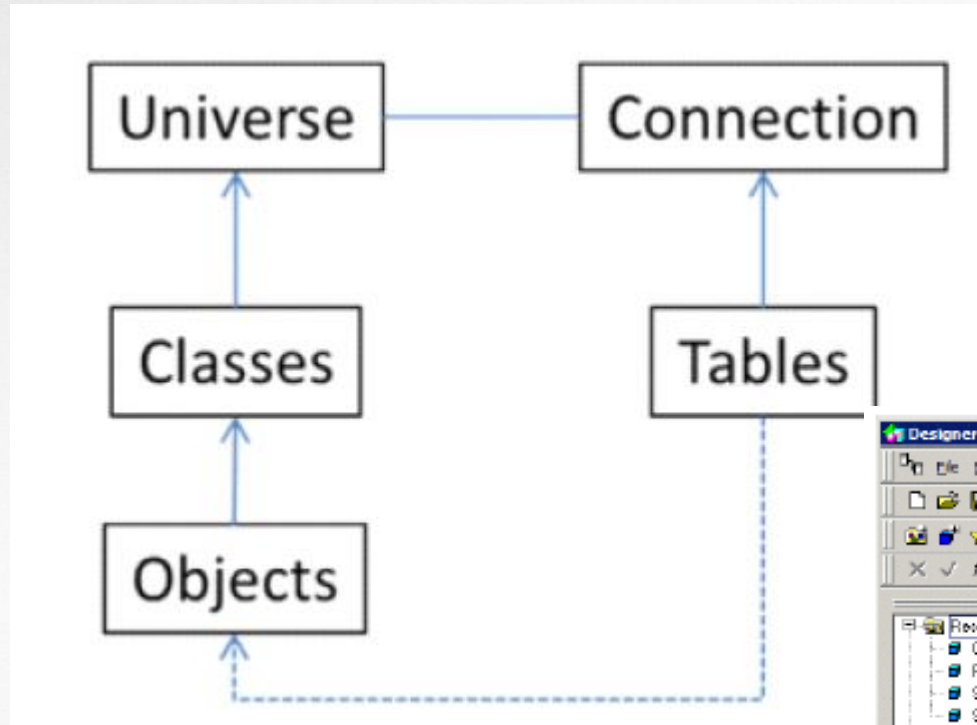
Data Foundation Diagram: Shows a central 'Service' table connected to 'Reservation_Line' and 'Invoice_Line' tables. 'Reservation_Line' is further connected to 'Reservations' and 'Future_Guests' tables.

Query Panel Dialog: Shows the 'Result Objects' section with the following configuration:

- Customer Geography: [France].SELF
- Date.Calendar: [CY 2001].SELF
- Internet Sales Amount: [CY 2001].CHILDREN
- Internet Order Quantity: [CY 2001].CHILDREN

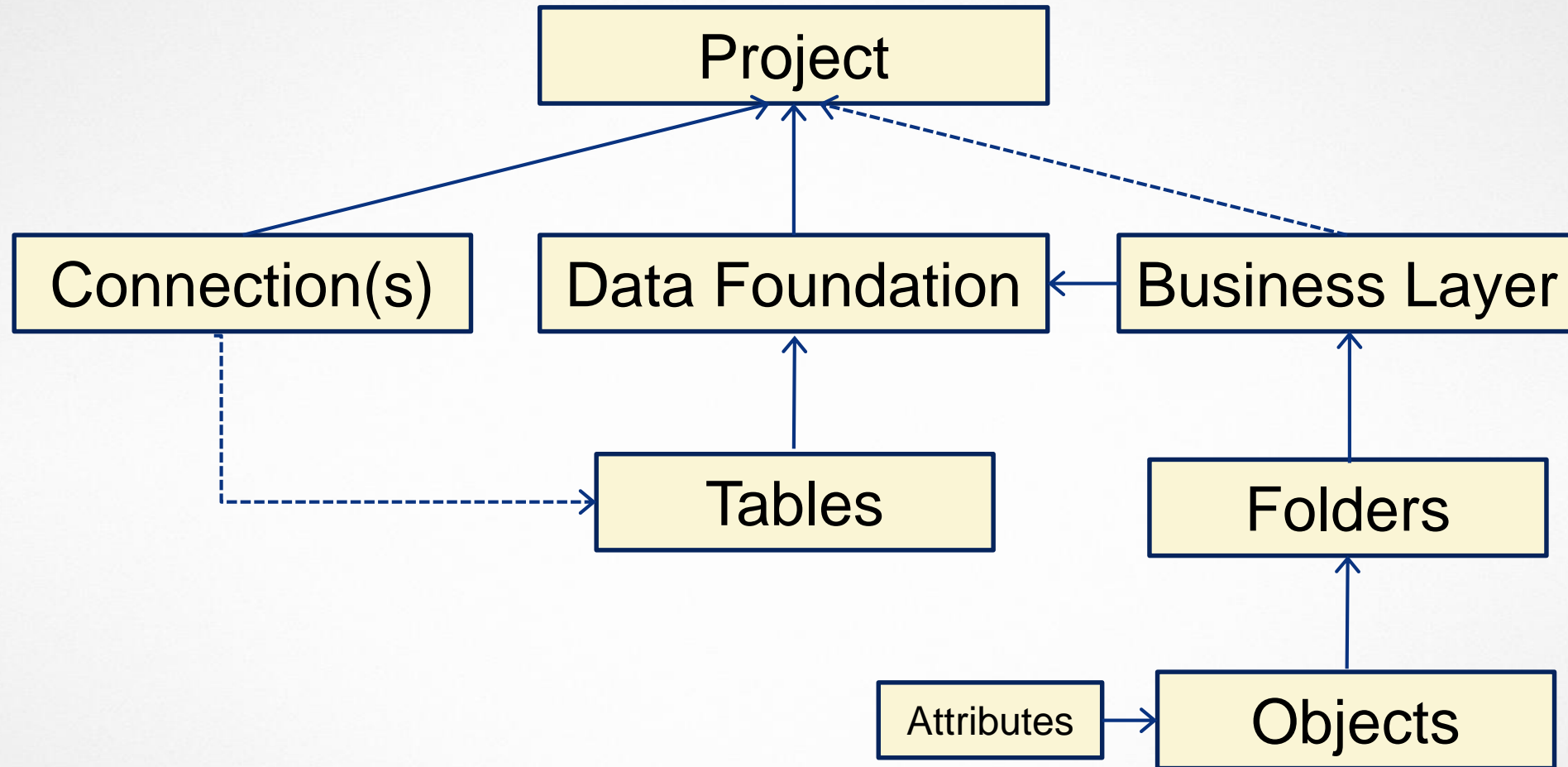
Result Objects Window: Displays a table with the following data:

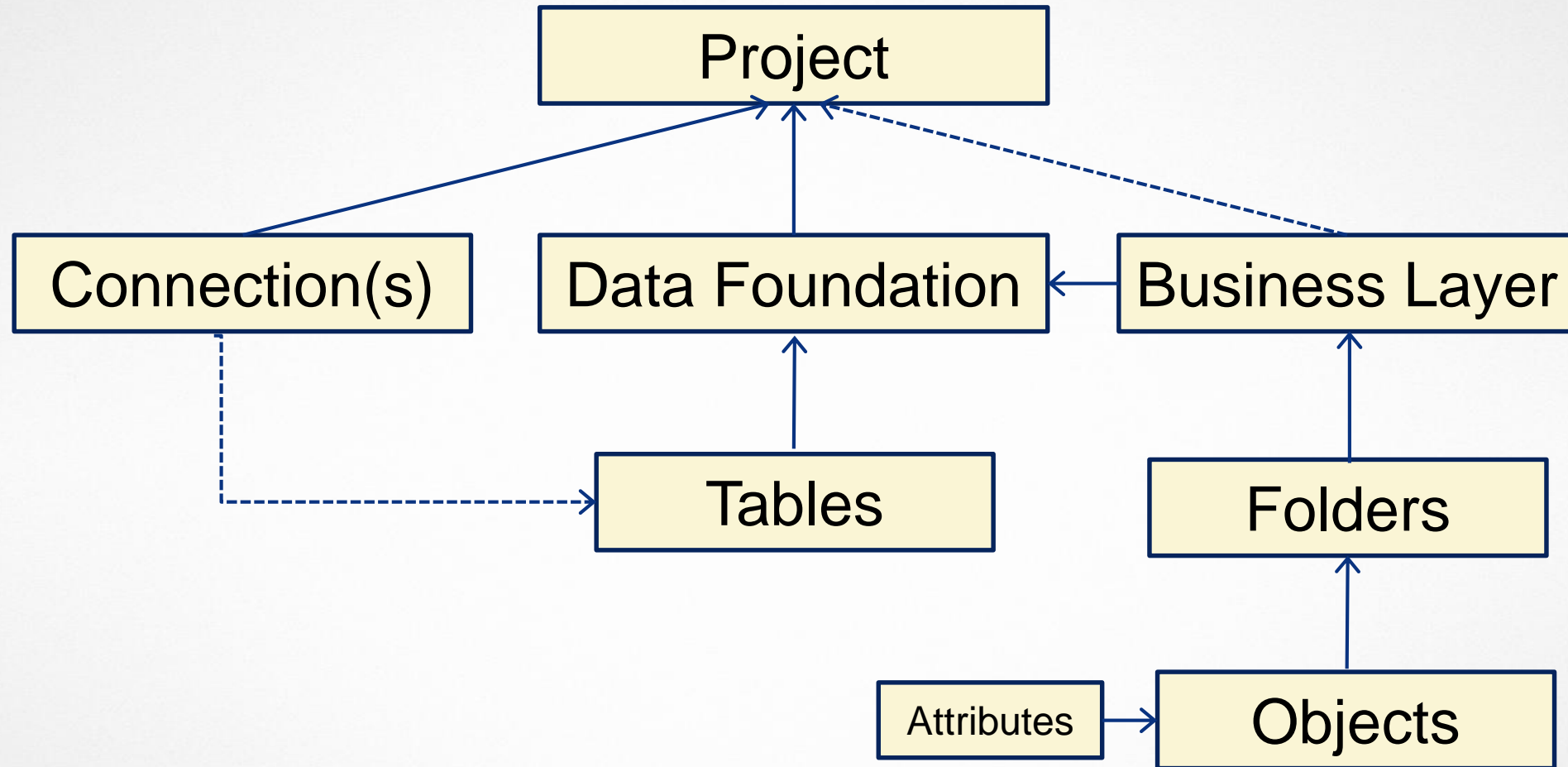
Customer Geography	Date.Calendar	Internet Sales Amount	Internet Order Quantity
France	CY 2001	\$180,571.69	59
	H2 CY 2001	\$180,571.69	59
	CY 2002	\$504,942.00	230
Charente-Meridionale	H1 CY 2002	\$233,473.62	60
	H2 CY 2002	\$281,268.38	150
	CY 2001	\$3,576.27	1
Garonne	H2 CY 2001	\$3,576.27	1
	CY 2002	\$4,252.08	2
	H2 CY 2002	\$4,252.08	2
Garonne (Haute)	CY 2001	\$25,968.71	8
	H2 CY 2001	\$25,968.71	8
	CY 2002	\$95,175.64	24
Garonne (Haute)	H1 CY 2002	\$26,864.53	9
	H2 CY 2002	\$29,111.12	15
Garonne (Haute)	CY 2001	\$7,156.54	2



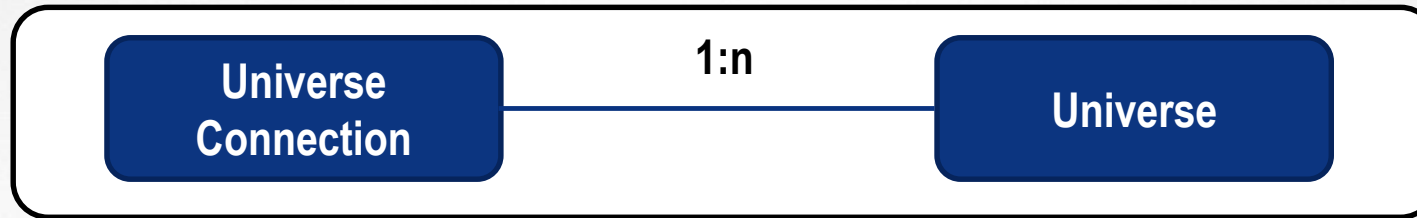
Universe pane

Structure pane

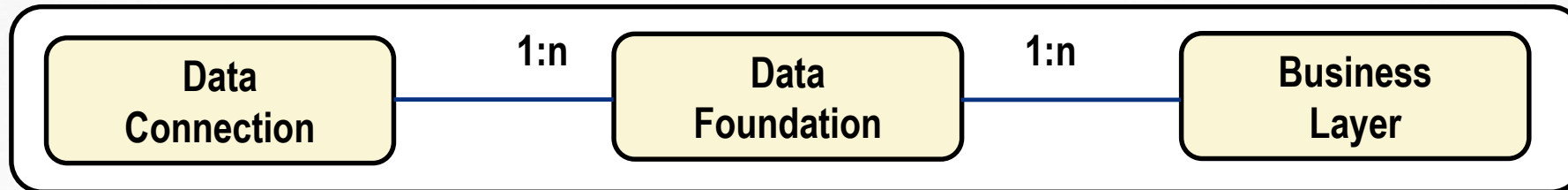




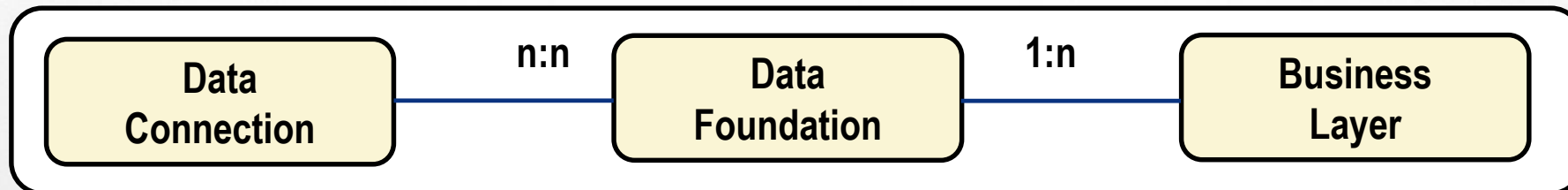
SAP BusinessObjects XI 3.1








SAP BusinessObjects BI 4.1 – Single-Source Universe



SAP BusinessObjects BI 4.1 – Multi-Source Universe



Security Setting Changes

▼ Specific Rights for Information Design Tool	Implicit Value					
Administer security profiles	Granted	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Compute statistics	Granted	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Create, modify, or delete connections	Granted	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Publish universes	Granted	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Retrieve universes	Granted	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Save for all users	Granted	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Share projects	Granted	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Opportunities:

- Multi-source universes
- New design SDK
- New consumption SDK

Opportunities:

- BI Dashboards, Design Studio, Lumira, Crystal Reports Enterprise support
- Teams can work on same universe
- Semantic layer for the future
 - Vendor development focused on UNX

Challenges:

- Currently no linked universe support
- Must use ANSI 92 SQL with Multiple Data Sources

Challenges:

- Not all UNV can migrate to UNX
 - No OLAP Universes conversion
 - No Stored Procedure Universes conversion
 - No conversion of UNV based on Data Federator

- QaaWS, Live Office, CR 2011/13 – UNV ONLY

SAP BI Content Type	UNV Support	UNX Support
Web Intelligence	✓	✓
Crystal Reports 2011/2013	✓	
Crystal Reports Enterprise		✓
SAP Dashboards 4 (Xcelsius)	✓ (QaaWS)	✓
Design Studio		✓
Lumira	✓	✓
Explorer	✓	✓
Live Office	✓	
Predictive Analysis	✓	✓

Category	Notes
Readability	All metadata (class names, object names & descriptions) should use business terminology
Usability	Re-use Business Logic
Usability	The universe should be created from the end-user perspective
Usability	Avoid creating the same objects as a Measure and a Dimension, unless the distinction is known to the end user

Category	Notes
Usability	Create Object Formatting for Dates
Usability	Create Object Formatting for Currency
Usability	Custom Hierarchies should be created based on end-user requirements
Usability	Object Names should be unique in the universe, and not repeated
Functional	Avoid unconnected tables, unless you've clearly documented their purpose in the universe
Functional	Avoid using LEFT OUTER joins where possible

- Video Tutorial Series
 - <http://scn.sap.com/docs/DOC-8461>

- Universe Design with SAP BusinessObjects BI: The Comprehensive Guide
 - SAP Press: <http://bit.ly/1mJtTyn>

- Semantic Layer Update Webinar – with Pierpaolo Vezzosi of SAP
 - <http://www.apos.com>

Moving ahead:

- 3 possible choices to the UNX question

Moving ahead:

- Stay fully on UNV
 - No immediate action
 - Falling behind, not current technology
 - Missing opportunity with new capabilities

Moving ahead:

- Move fully to UNX
 - New capabilities and staying current
 - Updating skill sets
 - Universe conversion effort
 - Report re-pointing effort

Moving ahead:

- Run both UNV and UNX, new development on UNX
 - Transition phase
 - Get exposure to UNX, retain current UNV to start
 - Double Maintenance
 - Field change maintenance
 - New reports on old UNVs
 - Two tool sets
 - Two skill sets
 - Two documentation sets
 - Two testing processes

Moving ahead:

- Stay fully on UNV
- Move fully to UNX
- Run both UNV and UNX

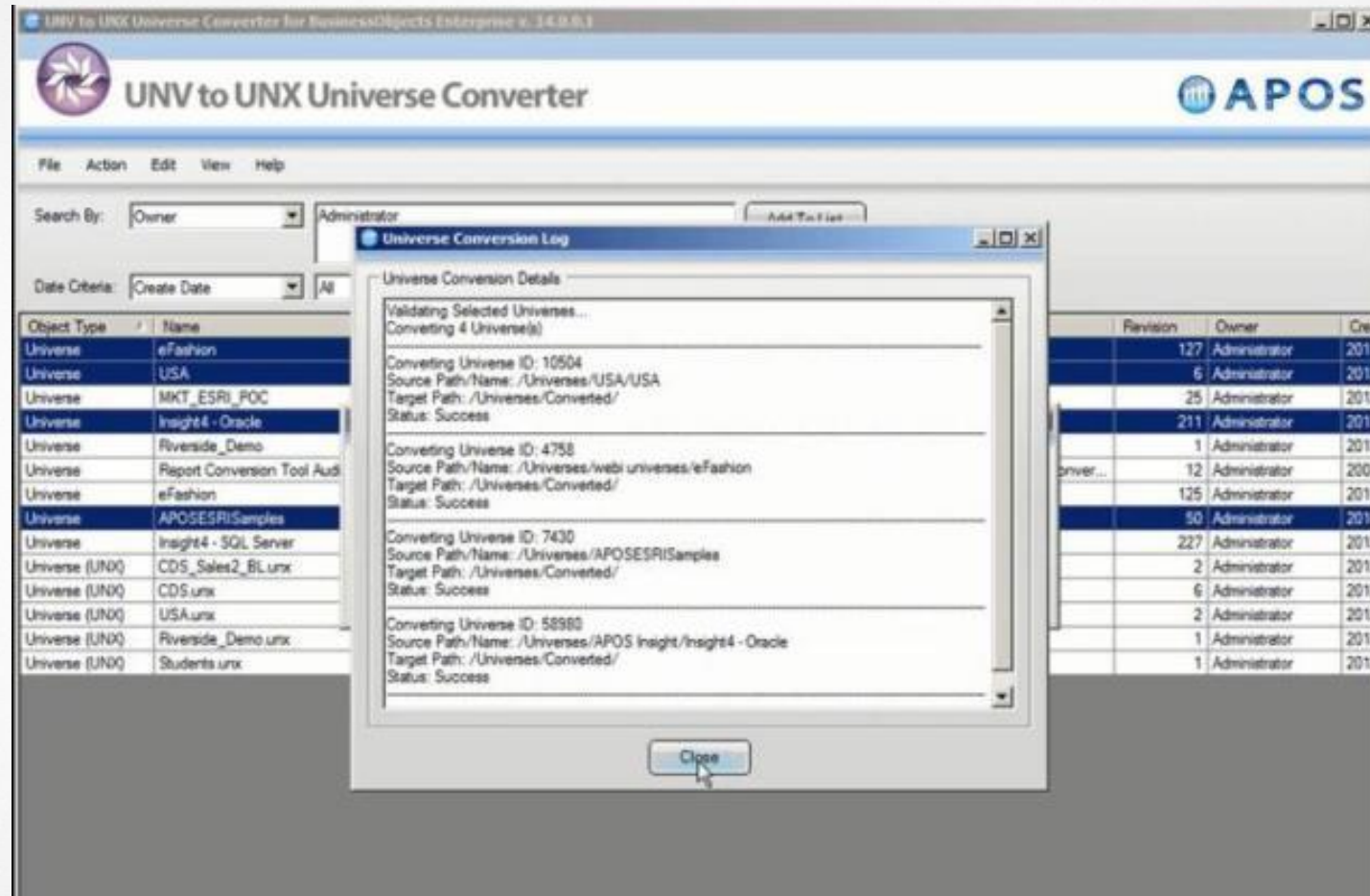


High volume conversion from UNV to UNX

High volume repointing of Web Intelligence reports to new UNX universes

- Bulk conversion of universes from UNV to UNX
- Re-point Web Intelligence reports from UNV universes to UNX universes
- Update existing reports or create a new copy in the desired location and naming convention
- Convert UNV to UNX and re-point Web Intelligence reports in a single, two-phase process
- Log conversions and issues

APOS Web Intelligence Migrator



The screenshot displays the 'UNV to UNX Universe Converter' application window. The main interface includes a menu bar (File, Action, Edit, View, Help), search filters (Search By: Owner, Date Criteria: Create Date), and a list of universes. A modal window titled 'Universe Conversion Log' is open, showing 'Universe Conversion Details' for four universes. The details include the universe ID, source path, target path, and a success status. A 'Close' button is visible at the bottom of the log window.

Object Type	Name
Universe	eFashion
Universe	USA
Universe	MKT_ESRI_POC
Universe	Insight4 - Oracle
Universe	Riverside_Demo
Universe	Report Conversion Tool Aud
Universe	eFashion
Universe	APOSESRI:Samples
Universe	Insight4 - SQL Server
Universe (UNX)	CDS_Sales2_BLunx
Universe (UNX)	CDS.unx
Universe (UNX)	USA.unx
Universe (UNX)	Riverside_Demo.unx
Universe (UNX)	Students.unx

Revision	Owner	Created
127	Administrator	2011
6	Administrator	2012
25	Administrator	2012
211	Administrator	2013
1	Administrator	2013
12	Administrator	2008
125	Administrator	2011
50	Administrator	2010
227	Administrator	2013
2	Administrator	2012
6	Administrator	2012
2	Administrator	2012
1	Administrator	2013
1	Administrator	2012

APOS Web Intelligence Migrator - Demonstration

APOS Migrator for BI 4.0 Web Intelligence - Select Source



Enter a Valid User Name and Password for this System.

Logon Using:

User Name:

Password:

CMS:

Licensed To: Fred



APOS Validation Manager automates comparison testing and validation of reports during SAP BI migrations and service pack upgrades. Dramatically streamline the

Validation Manager automates the process of answering these questions:

- Is the data of my newly run reports the same?
- Is the data of my historical instances the same?

Reduce migration costs

Reduce migration timelines

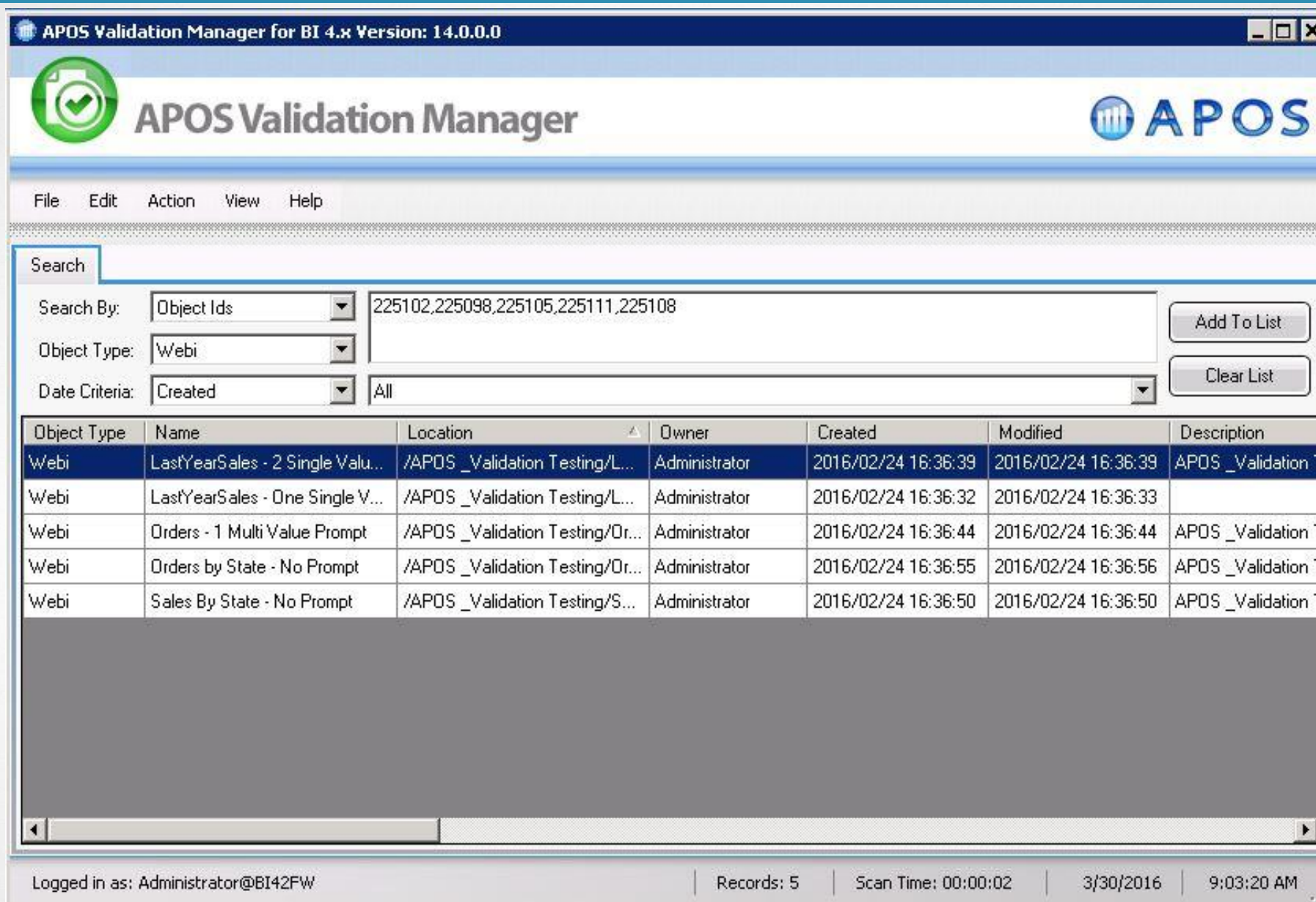
Increase confidence and assurance

Increase flexibility for migrations and upgrades

- SAP BI 4.1 to 4.2 migrations
- Service Pack upgrades within SAP BI 4.x



APOS Validation Manager - Demonstration



The screenshot shows the APOS Validation Manager interface. At the top, the title bar reads "APOS Validation Manager for BI 4.x Version: 14.0.0.0". Below the title bar is a header area with the APOS logo and the text "APOS Validation Manager". A menu bar contains "File", "Edit", "Action", "View", and "Help".

The main area features a search section with the following fields and controls:

- Search By:** Object Ids (dropdown), 225102,225098,225105,225111,225108 (text input)
- Object Type:** Webi (dropdown)
- Date Criteria:** Created (dropdown), All (dropdown)
- Buttons:** Add To List, Clear List

Below the search section is a table with the following data:

Object Type	Name	Location	Owner	Created	Modified	Description
Webi	LastYearSales - 2 Single Valu...	/APOS _Validation Testing/L...	Administrator	2016/02/24 16:36:39	2016/02/24 16:36:39	APOS _Validation T
Webi	LastYearSales - One Single V...	/APOS _Validation Testing/L...	Administrator	2016/02/24 16:36:32	2016/02/24 16:36:33	
Webi	Orders - 1 Multi Value Prompt	/APOS _Validation Testing/Or...	Administrator	2016/02/24 16:36:44	2016/02/24 16:36:44	APOS _Validation T
Webi	Orders by State - No Prompt	/APOS _Validation Testing/Or...	Administrator	2016/02/24 16:36:55	2016/02/24 16:36:56	APOS _Validation T
Webi	Sales By State - No Prompt	/APOS _Validation Testing/S...	Administrator	2016/02/24 16:36:50	2016/02/24 16:36:50	APOS _Validation T

At the bottom of the window, a status bar displays the following information:

- Logged in as: Administrator@BI42FW
- Records: 5
- Scan Time: 00:00:02
- 3/30/2016
- 9:03:20 AM

APOS Validation Manager - Demonstration

APOS Validation Manager for BI 4.x Version: 14.0.0.0

APOS Validation Manager






File Edit Action View Help

Search

BI Connection Info
Source: Administrator@BI42FW **Target:** Administrator@BI41SP6FW

Filters
 Show Not Attempted Show Successful Show Successful With Warnings Show Failed

Webi Objects

Last Validated	Result	Source Name	Source Path	Source CUID	Source Parameters	Schedules	Instances	Target
2016/02/24 16:5...		Sales By State - No Prompt	/APOS _Validation Testing/...	ATfj.0.5uNUrgx_...		1	0	Sales B...
2016/03/01 15:5...		Orders by State - No Prompt	/APOS _Validation Testing/...	AWy70o0C9qJ...		1	0	Orders b...
		Orders - 1 Multi Value Prompt	/APOS _Validation Testing/...	AUy6ob1Z_QtDi...	Country	1	0	Orders -
2016/02/24 16:5...		LastYearSales - One Single ...	/APOS _Validation Testing/...	AWmwibrp.NJIn...	Country	1	0	LastYea...
2016/02/24 16:5...		LastYearSales - 2 Single Val...	/APOS _Validation Testing/...	AU0Lytwllj5Mrc...	Country,Region	1	0	LastYea...

Legend
Object Not Found In BI System Value Doesn't Match BI System Value Doesn't Match Source Value Doesn't Match Source or BI System

Logged in as: Administrator@BI42FW | 3/30/2016 | 9:06:43 AM

APOS Solutions



Migration

Speed and simplify migration processes

- APOS Migrator for Web Intelligence
- APOS Validation Manager
- APOS Migrator for Crystal Reports

Take command of your BI deployment



Insight

System analysis and monitoring



Administrator

Automated administration and management



Storage Center

Archive, backup, versioning, selective restore



IDAC

BI Query Governance



Publisher

Document Bursting, consolidation and delivery



Adoption Accelerators

Speed and simplify adoption of new BI options



Data Gateway

Expanded data source and data transformation options



Semantic Data Driver

Expanded connectivity to semantic layer



Validation Manager

Validating SAP BI Content, Appearance, Functionality & Calculations

- **Webinar – Delivering Better Healthcare BI with Advanced Query Management**
April 7, 2016 – Minding the Gap between the BI & Data teams
- **Webinar – What’s New in SAP BI 4.2**
April 28, 2016 – SAP’s Sathish Rajagopal joins us to discuss what’s new in SAP BI 4.2

Register at www.apos.com

