



How WindStream Leverages EAL to Increase their Analytic Capabilities



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Webinar will begin 12:03pm

Agenda

- Introduction
- Audience Participation
- Windstream prior to EAL
- EAL Project Objectives
- The Solution
- DIA
- EAL
- Lessons Learned
- Questions



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Audience Participation

- How many people use HFM?
- How many people use HFM & Essbase (or Planning)?
- Do you have drill through?
 - Do you want it?
- How many people use EPMA?
 - How many of you want to keep EPMA?

Windstream prior to EAL project

- Analytics desired to be done at higher level than HFM
- Analysis done in HFM then users switch to different tool to launch queries of source data to back up analysis.
- Data loaded to HFM twice to show Pro-forma and Actual
 - Management Reporting needs were difficult to handle in HFM
- Plan data done in HFM at some levels

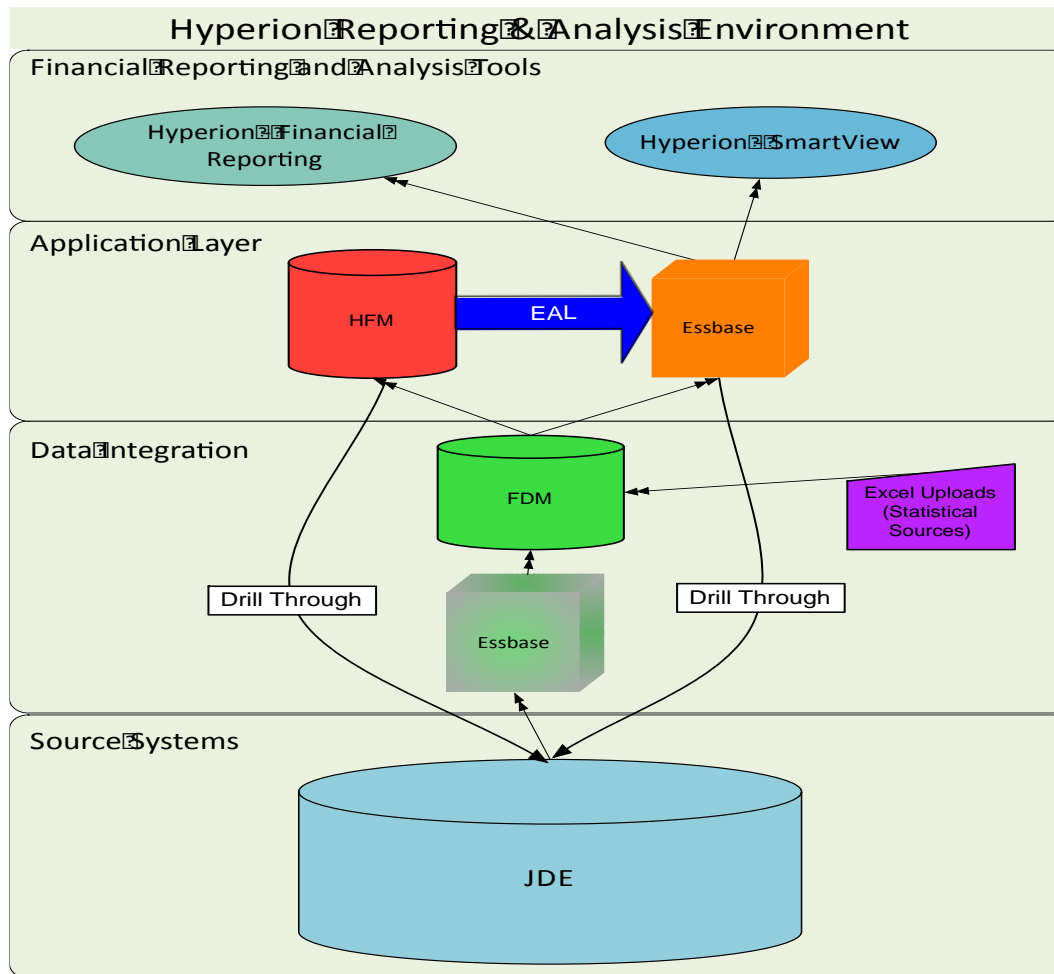
Windstream prior to EAL project - App

- 2 HFM Applications (Financial Reporting & Capital)
 - ~20,000+ Accounts
 - 13,000 Financial Accts & ~7,000 Stat Accts
 - ~4,500+ Entities
 - 3,500 Entities with 10 different rollup structures
 - Many not used hierarchies in Custom dimensions

EAL Project Objectives

- Provide Better Analytic capabilities
- Provide Drillback to detail data
- Streamline HFM application
 - Too many accounts and overly complex rules
- Make Management reporting easier
- Allow Planning to be done at a level higher than HFM current level and allow drillback for FP&A team to explain variances

Initial Solution Design



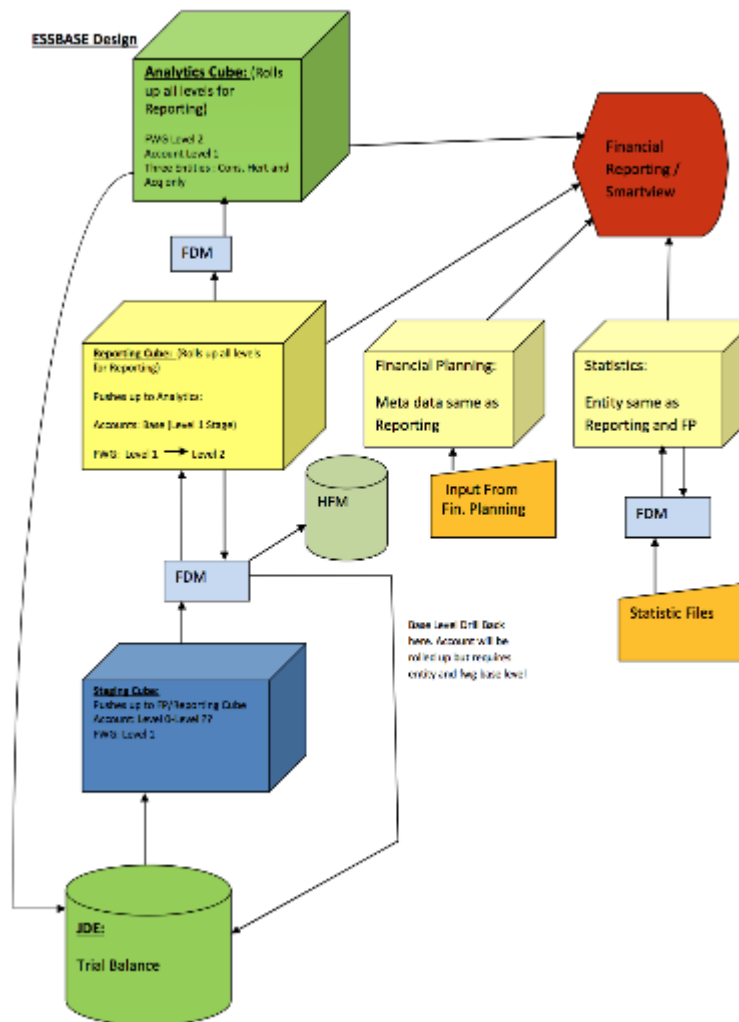
Design Discussions

- Essbase allows for faster aggregation of data. FDM/ERP i allows drill back into source systems to display transactions that make up the balances.
- In HFM, the base level contains over 10,000 Accounts, 496 FWGs (Cust1), 125 Product Values (Cust3) and over 3,200 Entities. That creates the opportunity for almost 2 trillion possible combinations. That is just for one Scenario. Multiply that by 5 for all the active scenarios.
- Drill back into JDE would require each drill back instance to be at a base level, i.e., each Entity, FWG, Account for this to work with the current HFM architecture.
- For this new tool to work efficiently and effectively for our users we determined that consolidation of Accounts and FWGs would be necessary.

Unique Solution Points

- Drill back from multiple levels of the hierarchies
 - MindStream DIA solution to allow various Drill Capabilities
 - Leverage JDE Category Codes
- Various applications connected but at different levels
 - Utilize Essbase as Data Integration Tool
 - FDM pulling data from Essbase to Essbase or HFM
- Synchronization of Data between HFM & Essbase
 - Unique EAL Configuration
 - Use of 2 Essbase databases to

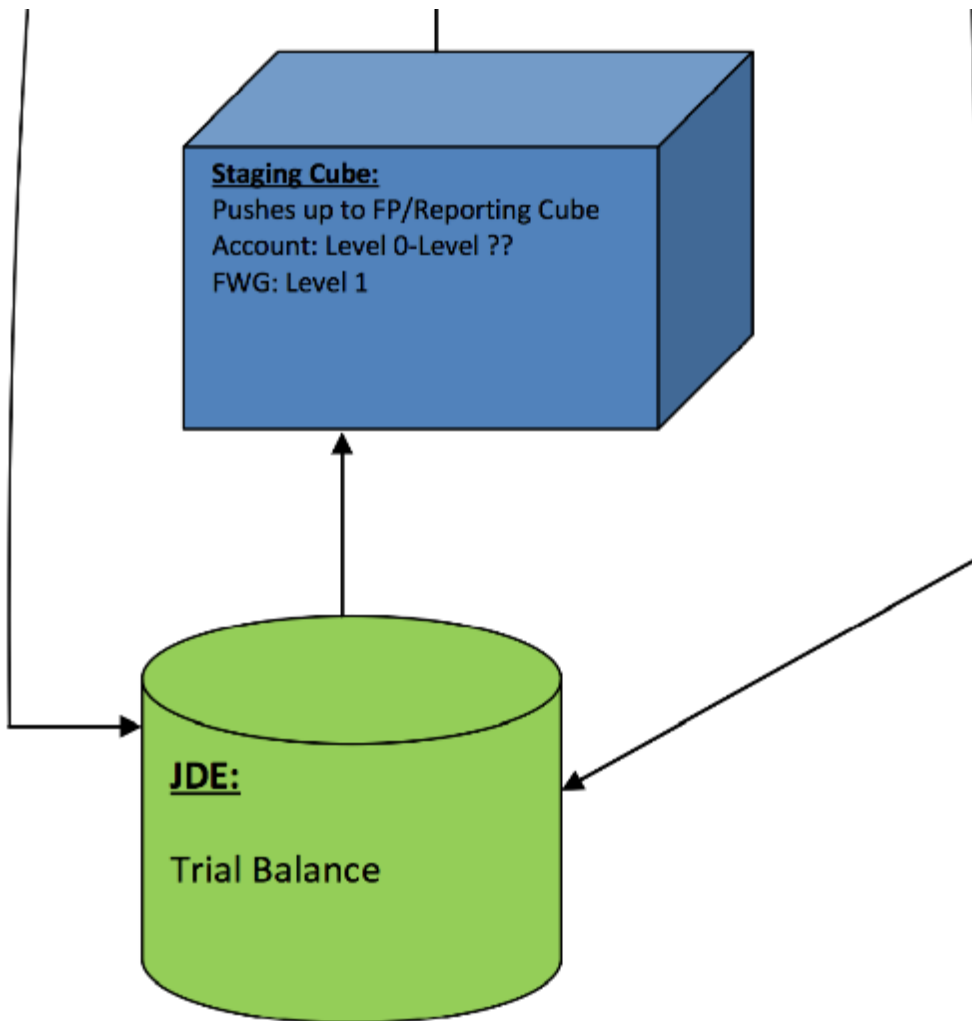
Final Solution Structure and Flow



Design Explanations

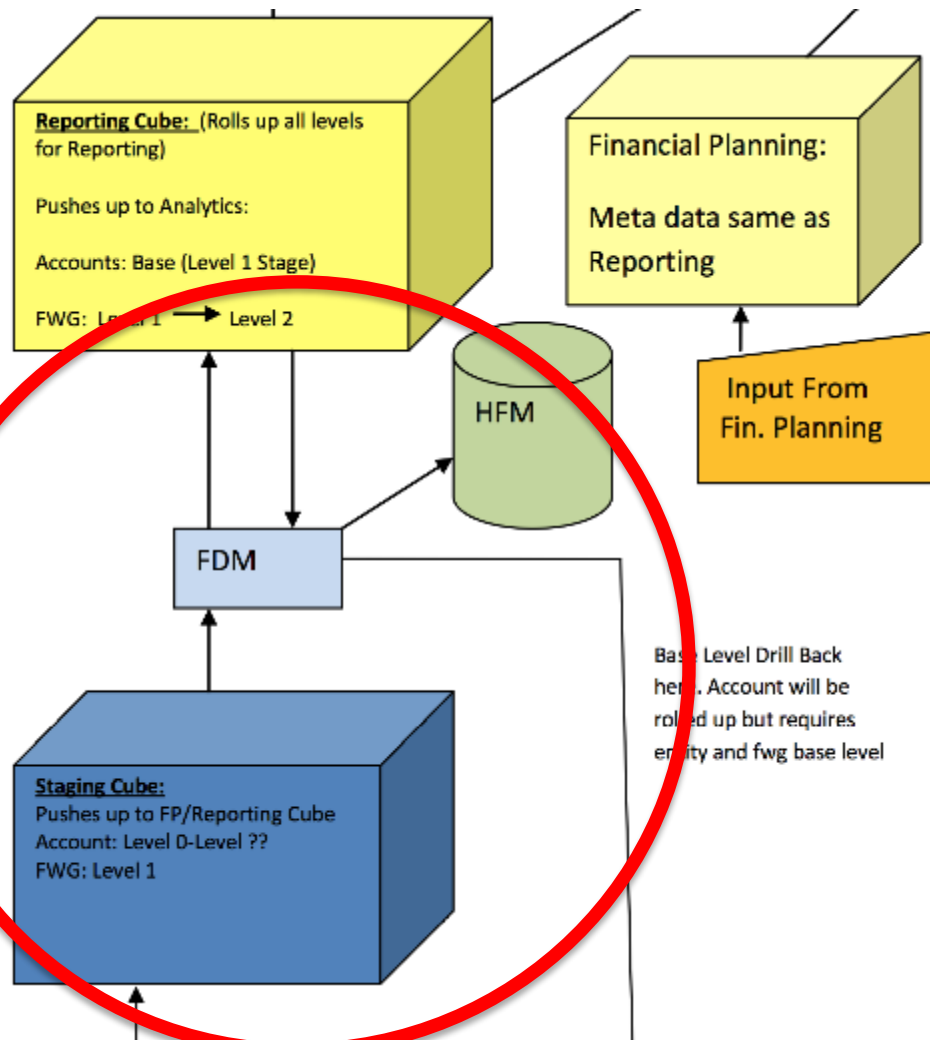
- “Staging” is used to store the data at its lowest level and roll it up to a more manageable number of Accounts, FWGs, etc. Most users will not ever need access to this cube.
- “Reporting” will contain the financial data used in all reports. It contains the Entity structure as it is today, but the number of Accounts has been consolidated to just over 1,000 and FWG’s to 150.
- “Analysis” consolidates the Entity structure to Acquired/Heritage, with everything rolling into Heritage right now. FWGs are consolidated further to approximately 70. This closely matches the Cash Expense book and is intended for our accounting group’s use during close in order to drill back in JDE easily and get activity at this level.
- “Stats” contains non-financial statistical data as in Units/Customer Counts/Sales Productivity. It will share the same Entity structure as Reporting as well as the FWGs.
- “Planning” is owned by the Financial Planning group. It will share the same structure as Reporting.
- Product is no longer a dimension but is tagged on each entity and will no longer be a required field for loading. We have also added Legal Entity, Guarantor and Market information at the entity level.

Data Extract Step 1 – JDE to Essbase



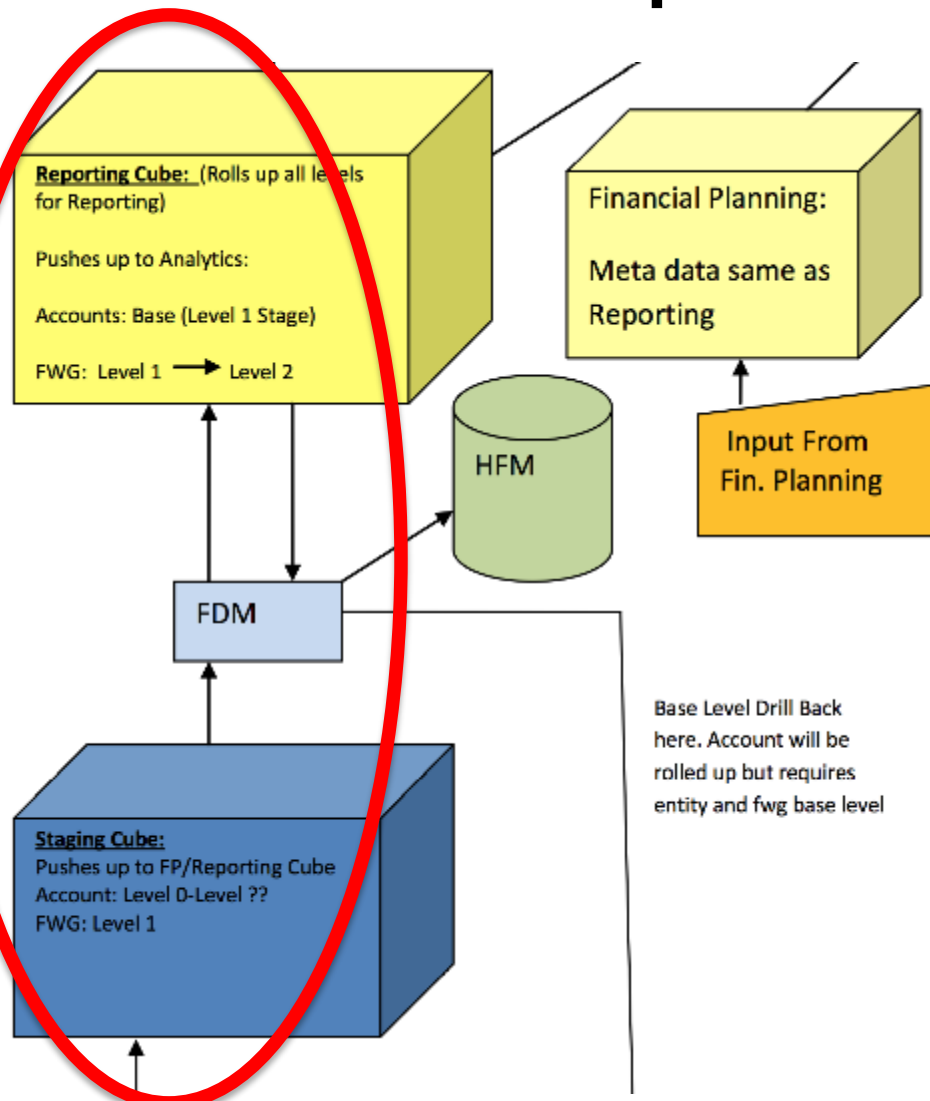
- Data loaded to Essbase via SQL Load Rule
- Essbase Staging Aggregates data to higher level than previously in HFM

Data Extract Step 2 – Staging to HFM



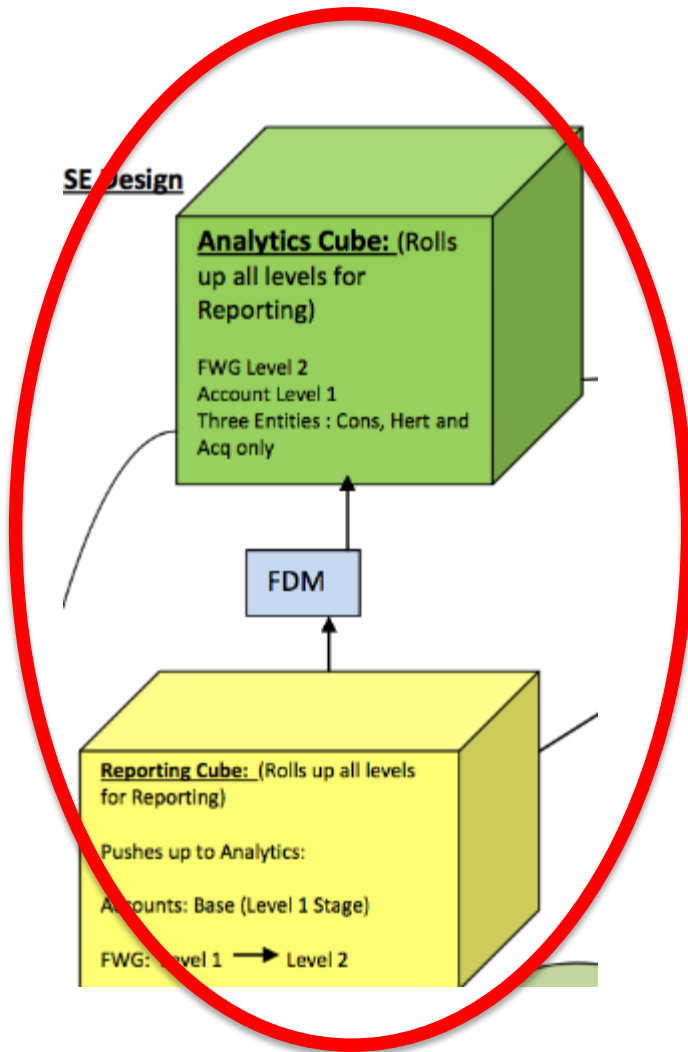
- FDM Pulls data out of Staging database and feeds to HFM
- DIA facilitates drill back from FDM to JDE at higher levels of detail

Data Extract Step 3 – Staging to Reporting



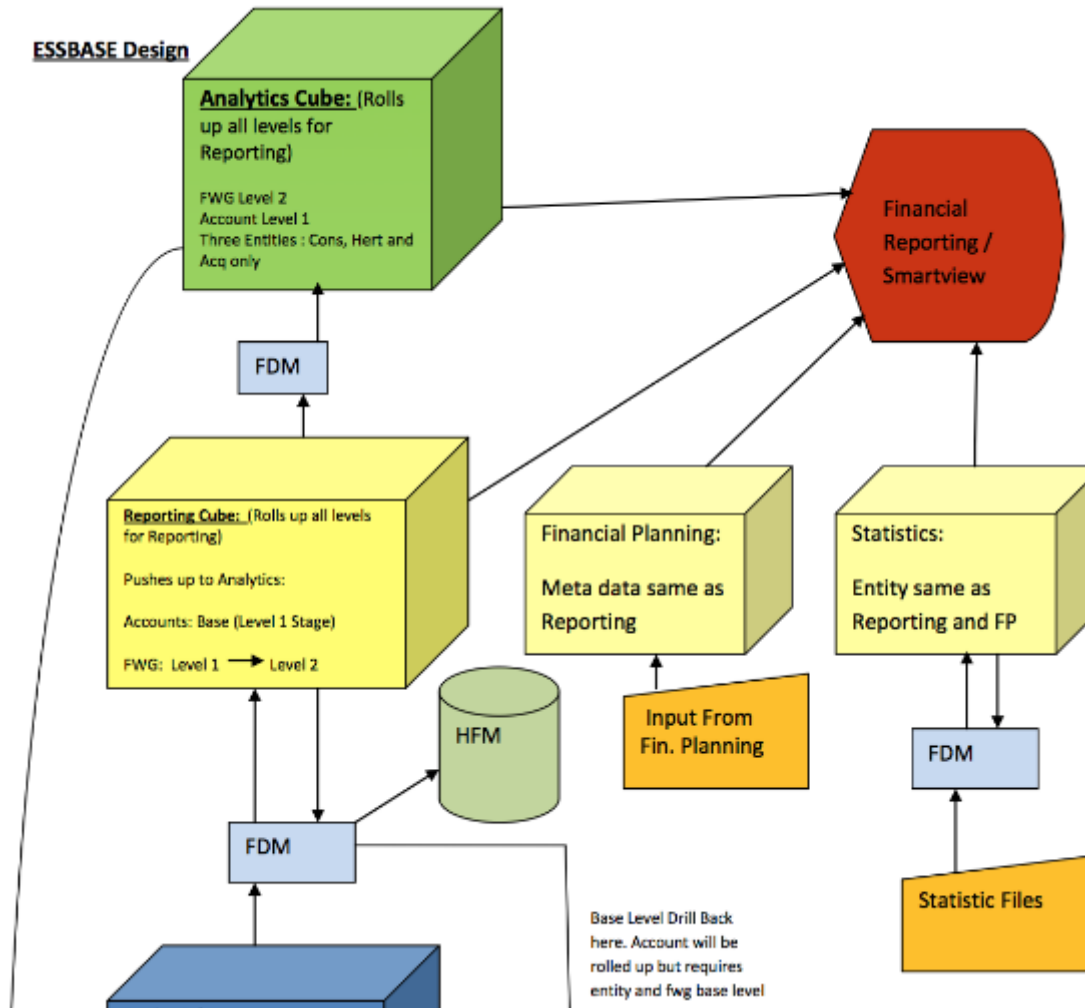
- FDM Pulls data out of Staging database and feeds to Essbase Reporting database
- DIA facilitates drill back from FDM to JDE at Account level 1 and base FWG and Entity

Data Extract Step 4 – Report to Analysis



- FDM Pulls data out of Reporting database and feeds to Essbase Analytics database which is at an even higher level of detail
- DIA facilitates drill back from Analytics to JDE at Account level 1, FWG level 2 and 1 of three Entities

Reporting and Analysis Solution



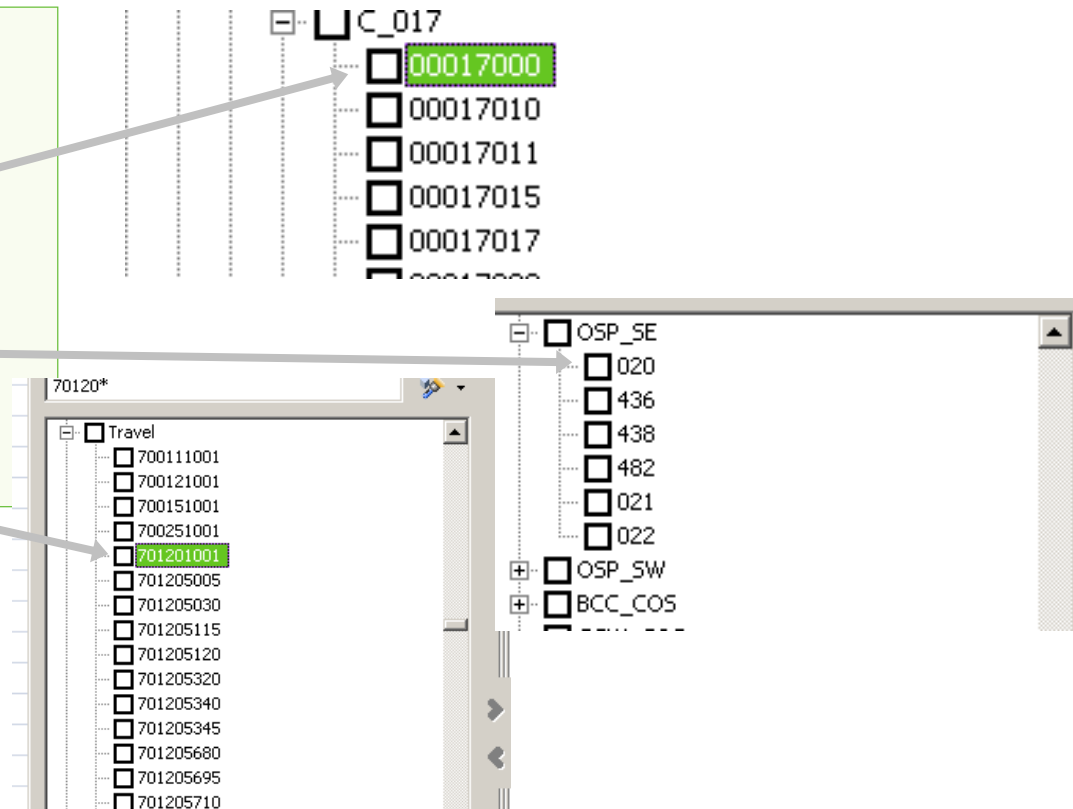
Example of Staging Versus Reporting

If you wanted to find General Travel expense recorded on BU 017000020 in JDE:

HFM Entity = 00017000

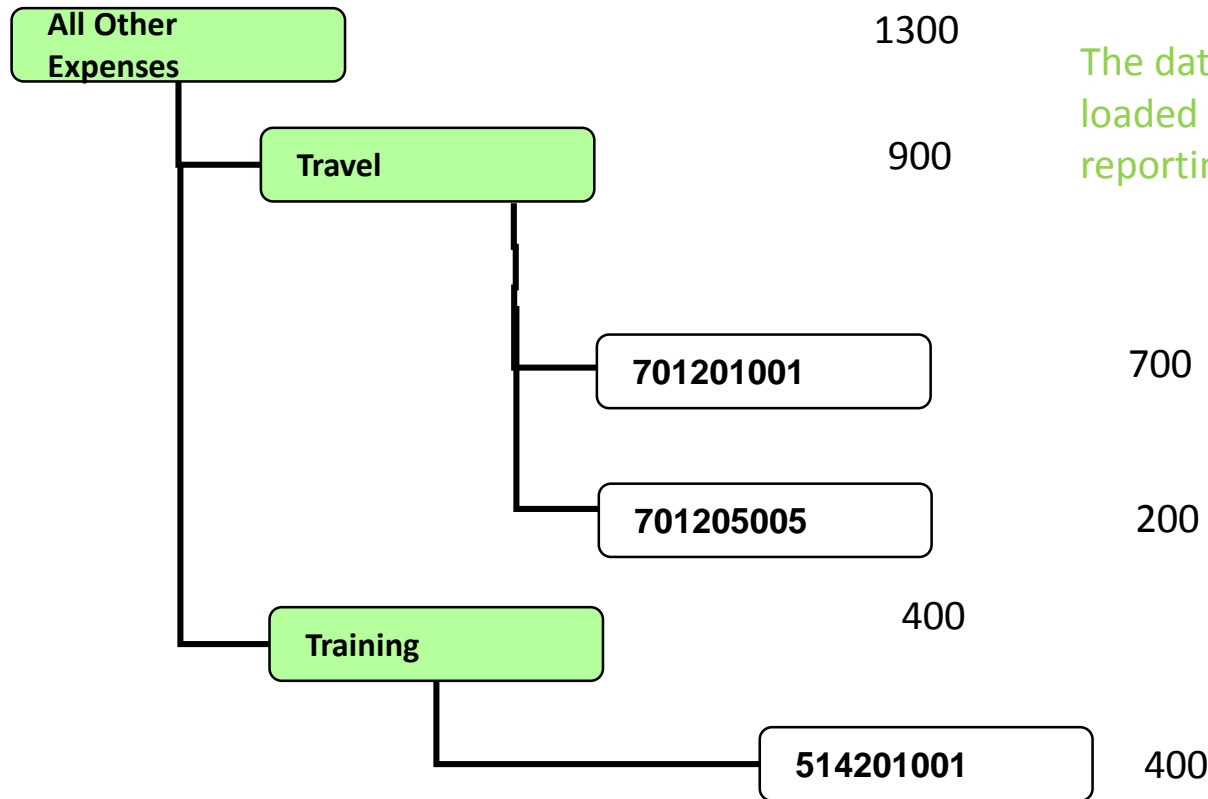
Custom1 = 020 (OSP_SE) BU CC 29

Account = 701201001 (Travel) Account CC 23



Mapping now is done in Staging so you no longer see the base FWG but a roll up of several FWGs. Accounts are done the same way. Entity will rollup as it does today except in Analysis which will all be Heritage.

Dimensions and Data and Cubes



The data in Stage is aggregated and loaded to the level we report in the reporting and analysis cubes.

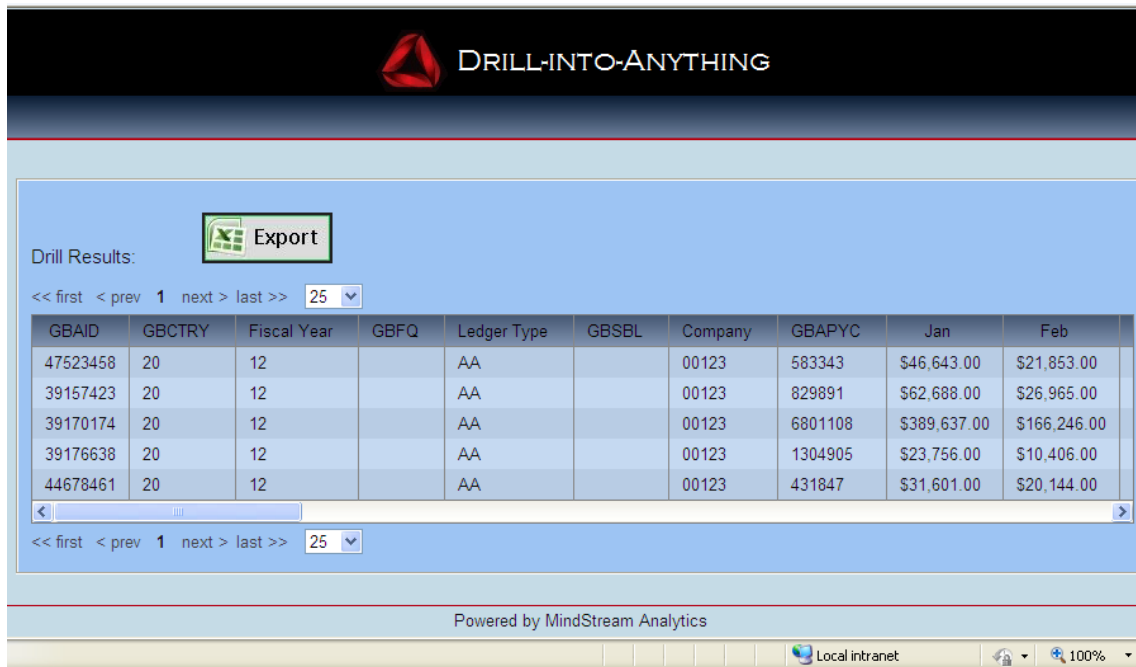
Data is input at base-level members of stage.

Data is entered at the base level members of the dimensions in JDE and then we load them into the Staging Cube. The values for the parent-level members are aggregated from their children. These aggregated amounts are then loaded into Reporting and Analysis so that you see Travel in total.

In the illustration, the data values from the base level members are rolled up to the parent level members, Travel and Training. These are then rolled up to their parent, All Other Expense, and so on.

Drill Into Anything Solution

- Custom MindStream solution to allow drill through from FDM into other source systems beyond what ERPi allows.
- Customized for Windstream to allow drill through at 0-level of only certain dimensions



Drill Results:

Export

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GBAID	GBCTRY	Fiscal Year	GBFQ	Ledger Type	GBSBL	Company	GBAPYC	Jan	Feb
47523458	20	12		AA		00123	583343	\$46,643.00	\$21,853.00
39157423	20	12		AA		00123	829891	\$62,688.00	\$26,965.00
39170174	20	12		AA		00123	6801108	\$389,637.00	\$166,246.00
39176638	20	12		AA		00123	1304905	\$23,756.00	\$10,406.00
44678461	20	12		AA		00123	431847	\$31,601.00	\$20,144.00

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Powered by MindStream Analytics

Local intranet 100%

Drill Through Example Step 1

- User starts in Smart View and would like details of the Travel expense

Home

Insert

Page Layout

Formulas

Data

Review

View

Smart View

Essbase

Acrobat

Zoom In

Zoom Out

Pivot

Keep Only

Remove Only

Member Selection

Query

Member Information

Preserve Format

Change Alias

Data Perspective

Smart Slice

Cascade

Refresh

POV

View Comments

Calculate

Visualize

Drill-through

Linked Objects

Adjust

Submit Data

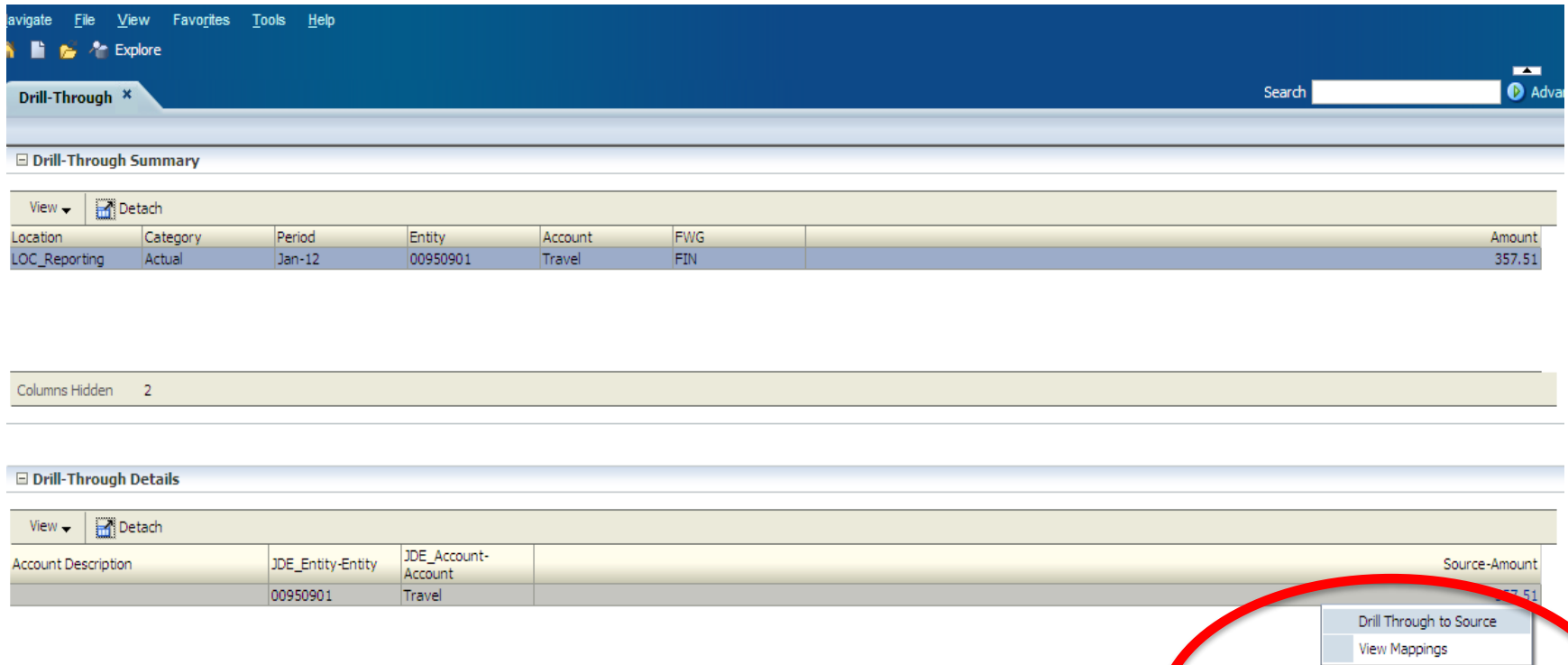
Analysis

Data

<

Drill Through Step 2

- Initial Drill through takes the user into FDM



The screenshot shows the 'Drill-Through' window in MindStream Analytics. It has a menu bar (Navigate, File, View, Favorites, Tools, Help) and a toolbar (Explore, Search, Adv). The 'Drill-Through Summary' section contains a table with the following data:

Location	Category	Period	Entity	Account	FWG	Amount
LOC_Reporting	Actual	Jan-12	00950901	Travel	FIN	357.51

Below the summary table, it indicates 'Columns Hidden 2'. The 'Drill-Through Details' section contains a table with the following data:

Account Description	JDE_Entity-Entity	JDE_Account-Account	Source-Amount
	00950901	Travel	357.51

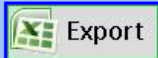
A red circle highlights the bottom right corner, containing two buttons: 'Drill Through to Source' and 'View Mappings'.

Drill Through Step 3

- Secondary Drill takes the user to transactional detail via DIA



DRILL-INTO-ANYTHING



Export

Drill Results:

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ROWNUMBER	Year	Period	Bus Seg	Co.#	Business Unit	Entity	Cost Cntr_LVL2	Cost Cntr_LVL2 Desc.	Cost Cntr_LVL1	Cost Cntr_LVL1 Desc.	Object
1	12	1	ACS	00950	950901857	00950901	FIN	MCRP1701	FIN	MCRP2901	70120
2	12	1	ACS	00950	950901857	00950901	FIN	MCRP1701	FIN	MCRP2901	70120
3	12	1	ACS	00950	950901857	00950901	FIN	MCRP1701	FIN	MCRP2901	70120
4	12	1	ACS	00950	950901857	00950901	FIN	MCRP1701	FIN	MCRP2901	70120
5	12	1	ACS	00950	950901857	00950901	FIN	MCRP1701	FIN	MCRP2901	70120

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Grids now allow Drill Back into JDE for transactional data by month

- In Reporting Cube – You can drill to the Base account and Entity and FWG.
 - Things to remember:
 - Pro Forma is not base (Actual is base level)
 - ERPi is always JDE drill back. You are given an option of FDM and ERPi. FDM would be there for anything that is not financial data
 - You always have to be at the base level to drill back and get results
- In Analysis Cube – Drill back is at the Account and FWG level but all data is loaded to one entity today. This entity is called Heritage. We have an entity called Acquired and will be loaded when we have a new acquisition so they can be reported separately.

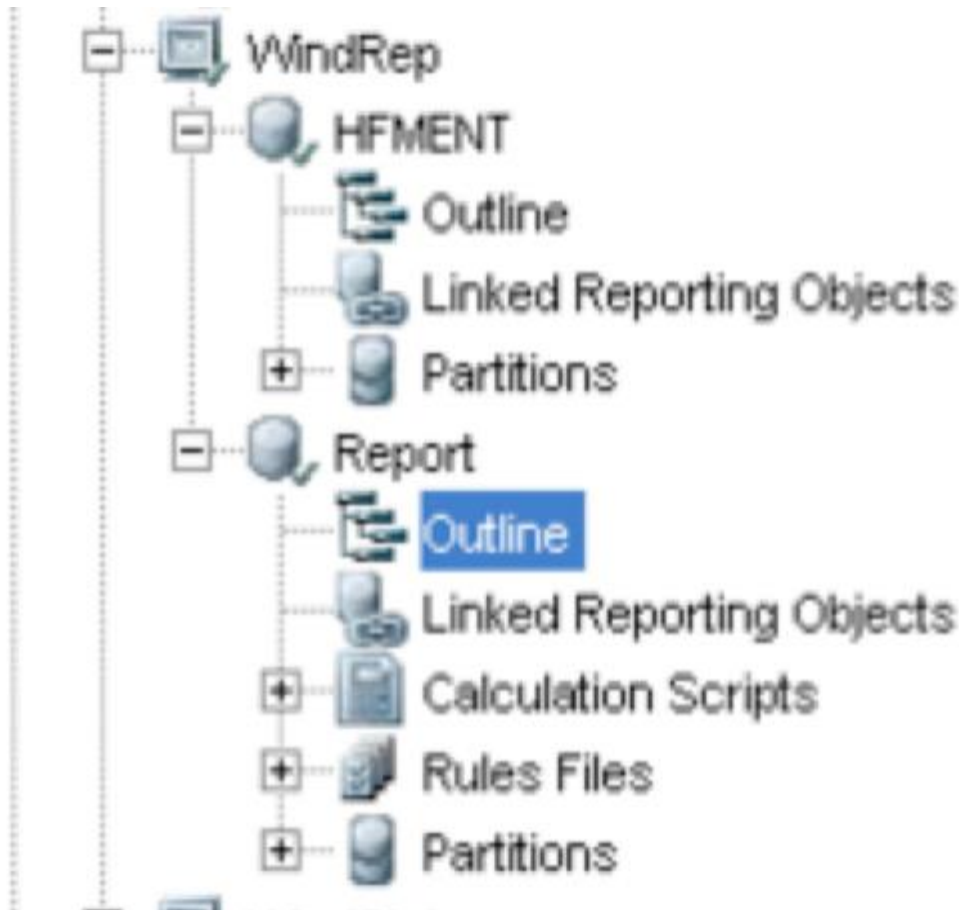
EAL Used for?

- EAL was originally proposed in order to allow HFM and Essbase to stay in sync so that adjustments that would affect pro forma reporting would be in sync
- Since the different dimension leveling in the overall solution what was really needed was just a way to move Journal entries in HFM to Essbase

EAL Challenges

- EAL target database can't be "owned" by HFM
- EAL was only moving Journals not all HFM data
- If EAL overwrote all Essbase Actual data the drill back links would be lost
- EAL Replicated partitions would overwrite total account value with just Journal entry instead of adding to total value
- EAL does not send over #Missing for emptied out values when using a replicated partition

EAL Solution – Transparent Partition



- Must use Transparent partition
- Set up Extra “Transparent” Database in Essbase application

HFM Region (Extraction) Definition

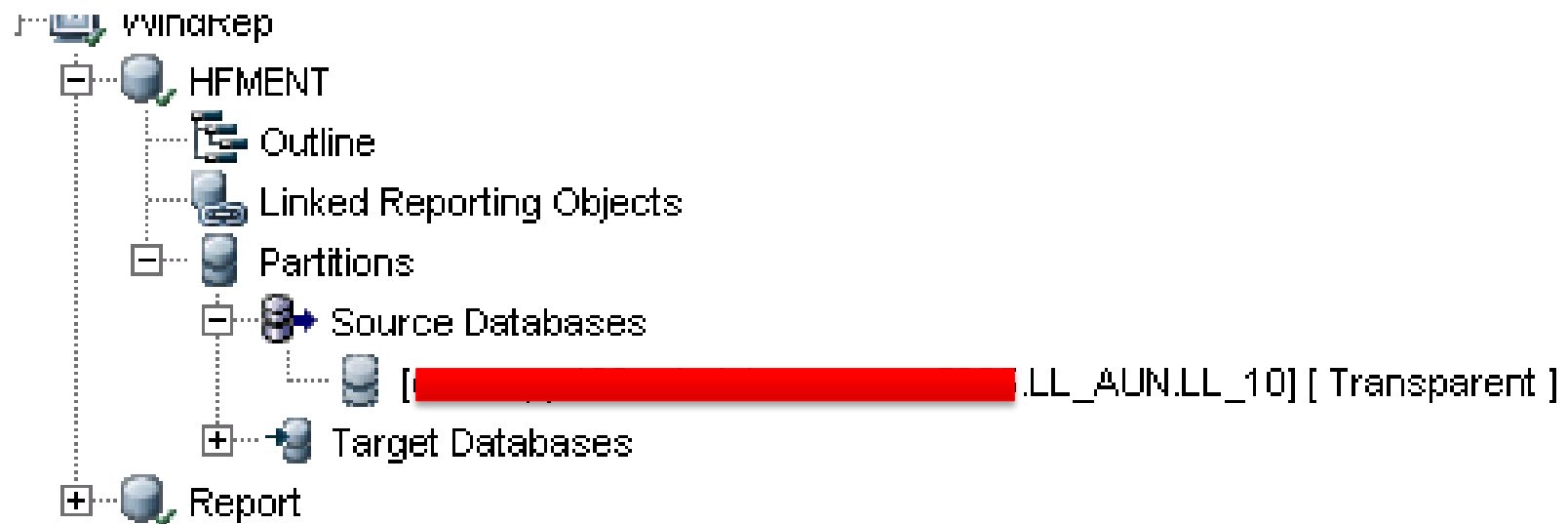
Edit HFM Region

Name:

HFM Dimension	Selection Type	Member Selection
Year	BASE	
Scenario	MEMBERS	Actual
Entity	BASE	
Period	BASE	
CP	MEMBERS	[ICP None]
Value	ALL	
Custom1	BASE	
Custom2	MEMBERS	Total Guarantor
Custom3	MEMBERS	JRNL,HFSJRNL
Custom4	MEMBERS	[None]
View	MEMBERS	Periodic
Account	BASE	

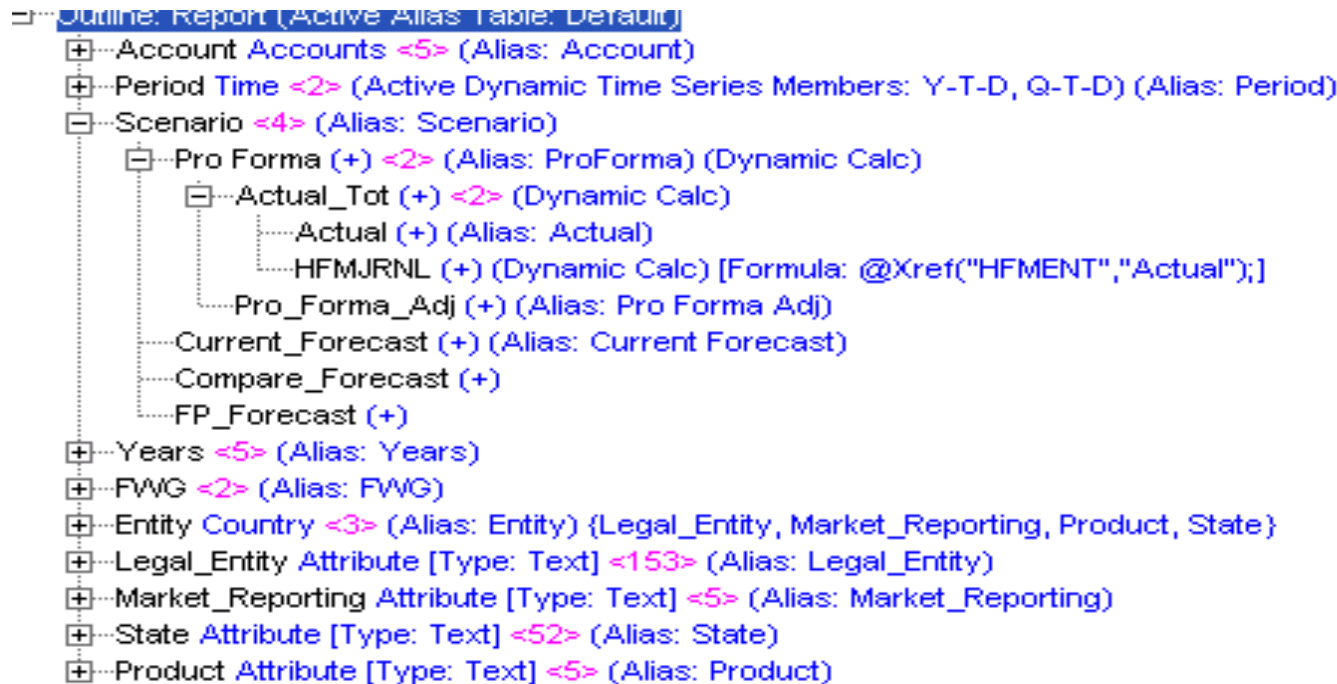
☐ Include Dynamic Accounts

EAL Solution – Transparent Partition



- Must use Transparent partition
- Set up Extra “Transparent” Database in Essbase application

EAL Solution – Link DBs with XREF



- Scenario already dense
- Link Existing Reporting database with new “Transparent” Database using XREF

EAL Target Translation

Enterprise View

- Administration Servers
- Essbase Servers
- Provider Servers
- Business Rules
- Analytics Link Servers
 - PRODLINK
 - HFM Servers
 - HFMTEST
 - WINDPROD [Default]
 - Regions
 - Default
 - Journals
 - JRNLS2
 - DEMOAPP [Default]
- Essbase Servers
- Data Synchronization Servers
- Data Stores
- Bridges
 - DEMOAPP
 - WINTST3
 - Test2
 - TestWPD
 - Test2DevEssbase
 - Test2DevRDBMS
 - EALP_Replicated
 - HFMENTRYDEV
 - HFMENTRYPROD

Bridge Console: HFMENTRYPROD (10)

Summary | Data Synch | Properties | Target Design Grid | Essbase | Extract

Mapping Grid

Transformation Type	Source Dimensions	Target Dimensions	Member Selection	Mapping Table	Prefix
Dimension Creation	Scenario	Scenario			
Dimension Creation	Year	Years		YRMAPEB	
Dimension Creation	Period	Period		PERMAP	
Dimension Creation	Account	Account			
Dimension Creation	Custom1	FWG			
Not In Outline	Custom2		Total Guarantor		
Not In Outline	Custom3		JRNL_HFSJRNL		
Not In Outline	Custom4		[None]		
Dimension Creation	Entity	Entity			
Not In Outline	Value		<Entity Curr Total>		
Not In Outline	ICP		[ICP None]		
Not In Outline	View		Periodic		

Row Up Row Down

Export to XML Import from XML Reset Grid Save Grid Synchronize Mappings

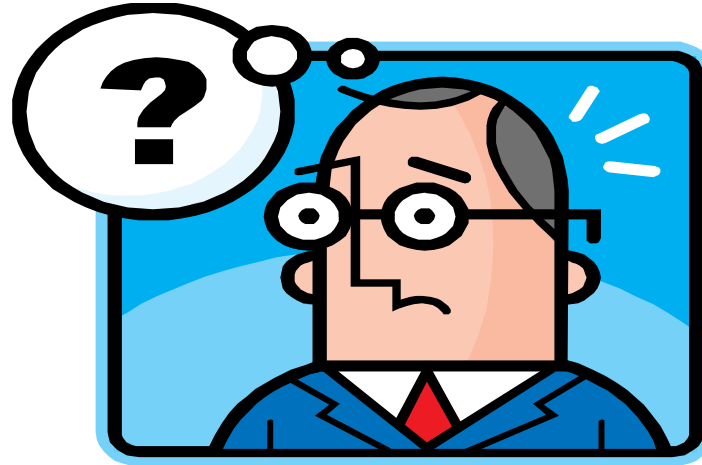
Validate ☒ Perform Full Mapping Validation

Enterprise View BR Language BR Outline

Lessons Learned

- EPMA is a problem when using with Essbase
- EAL is very different between versions
 - Still getting big updates
 - Need Relational Table Access to update Mapping tables
 - Replicated Partitions need work
- EAL doesn't like to share the Essbase Database it's using

Questions?



Contact Information

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