ORACLE

Dare to OLAP – An Essbase Workshop

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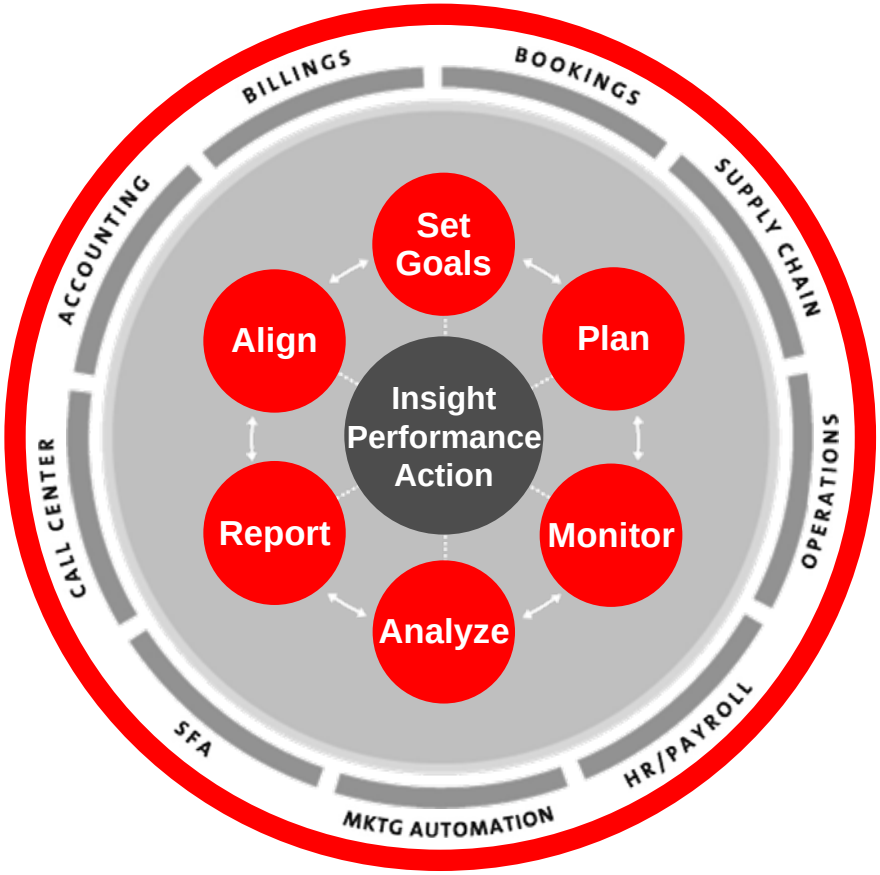
Oracle's EPM System Vision

Focus on Today and Plan for Tomorrow

- Link strategic goals to operational decisions
- Integrates all management processes
- Deliver consistent, reliable insights to drive action
- Lower costs and reduces system complexity
- Single version of the truth



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Oracle Hyperion Essbase

The OLAP (Online Analytical Processing) server that provides an environment for rapidly developing custom analytic and enterprise performance management applications

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BI Tools are Designed for Reporting

Essbase is Tuned for Analysis

REPORTING	ANALYSIS
Which customers spend the most?	Which customers are most profitable?
What did this customer buy?	What is the customer likely to buy next?
What is the Q4 revenue forecast?	What if demand falls short of forecast?

Essbase = Extended Excel Spreadsheet Base

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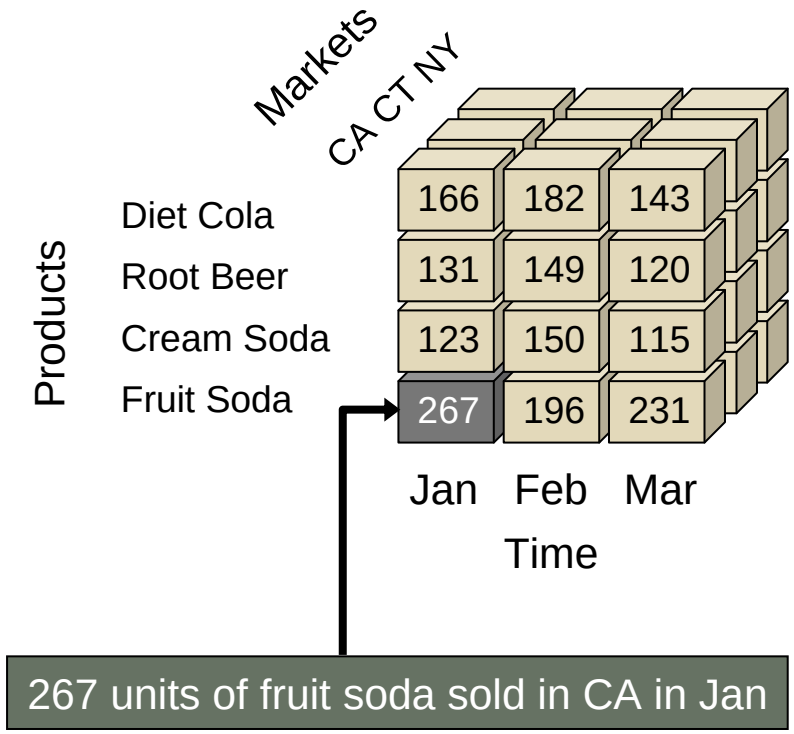
3-D Cube

- Dimensions
  - Time
  - Products
  - Markets
- Members
  - Jan, Feb, Mar (Time)
  - Diet Cola, Root Beer, Cream Soda, Fruit Soda (Products)
  - CA, CT, NY (Markets)
- Measures
  - Sales



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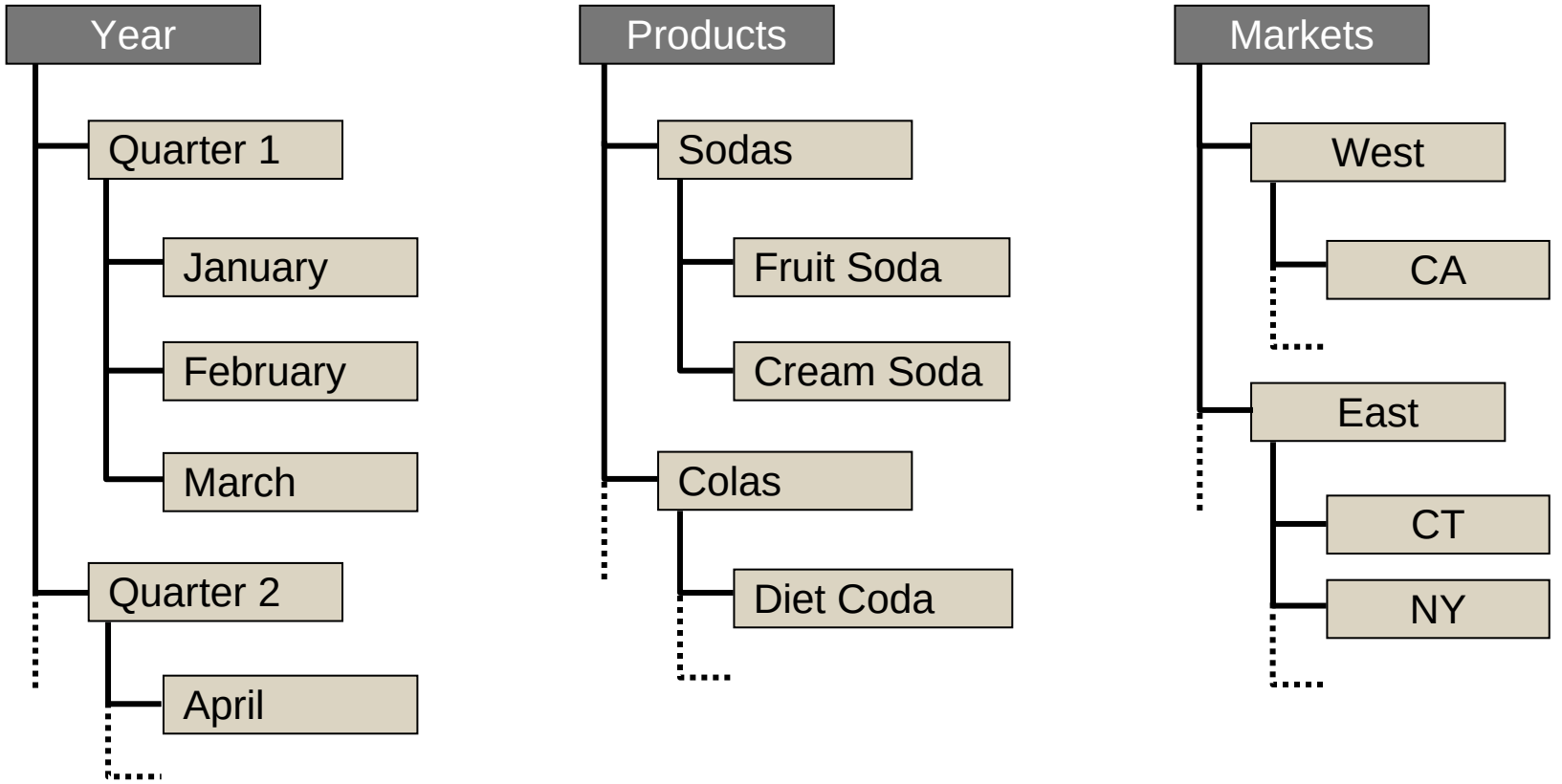
Dimension Hierarchies

For each dimension, you can organize the set of its members in a hierarchy.



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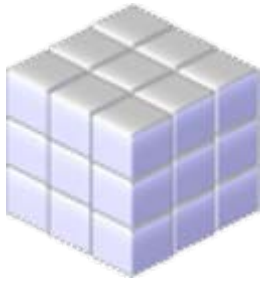
Rolling Up and Drilling Down

- Rollup summarizes data by climbing up the dimension hierarchy (dimension reduction).
- Drilldown is the reverse of rollup.

Sales		Qtr1
CA	Diet Cola	491
	Root Beer	400



rollup ↑ ↓ drilldown

Sales		Jan	Feb	Mar	Qtr1
CA	Diet Cola	166	182	143	491
	Root Beer	131	149	120	400

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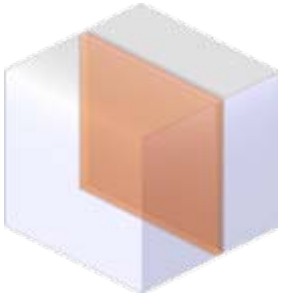
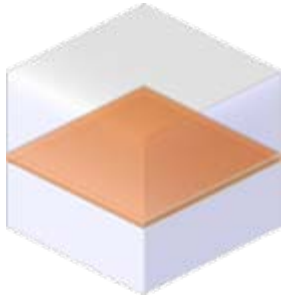
Pivoting

Pivot rotates the data cube to change the data visualization.

Sales		January	February
CA	Diet Cola	166	182
	Root Beer	131	149
CT	Diet Cola	78	56
	Root Beer	55	69



Sales	CA		CT	
	January	February	January	February
Diet Cola	166	182	78	56
Root Beer	131	149	55	69



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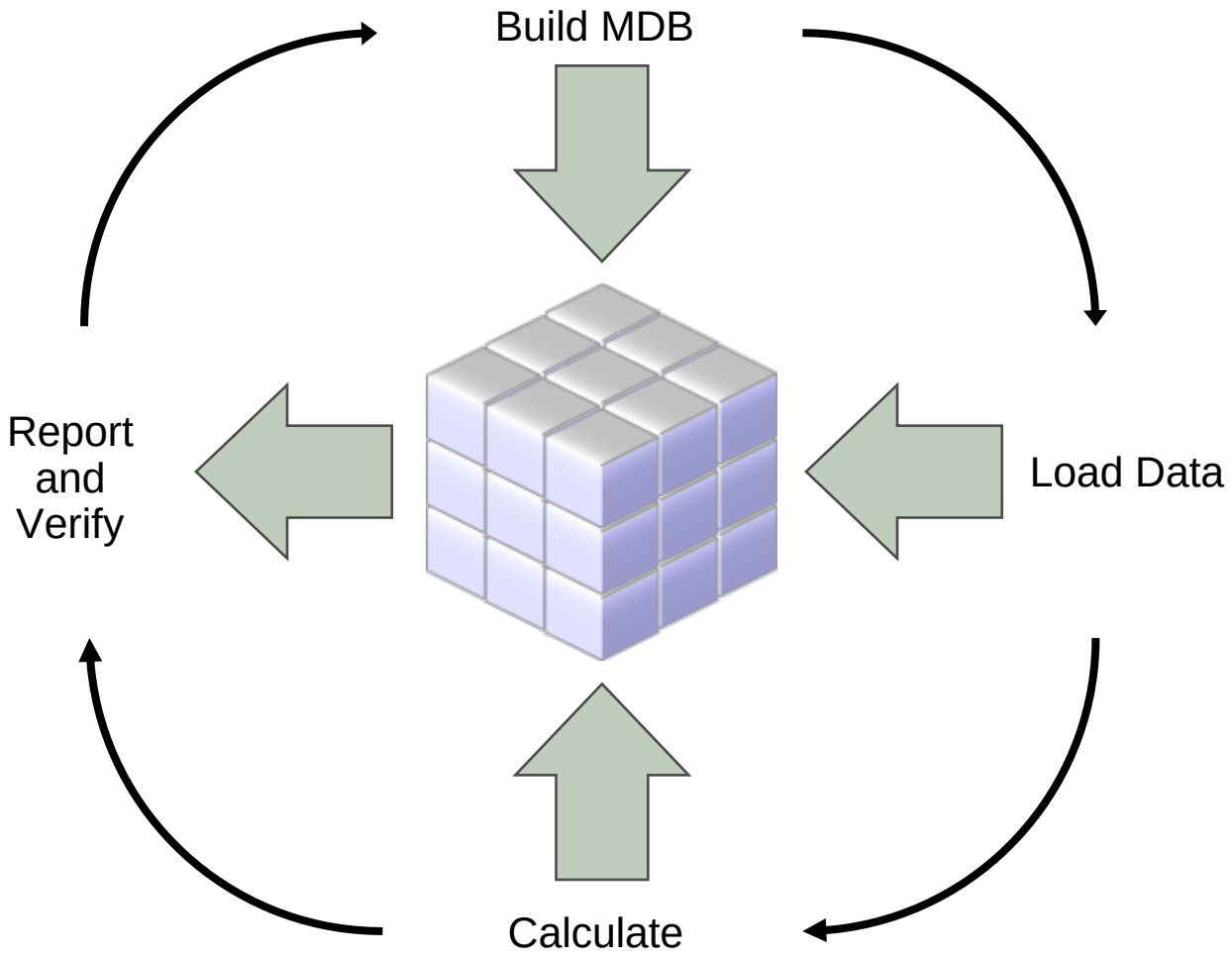
Life Cycle of Essbase Database Design

Designing an Essbase database is a cyclic process ...



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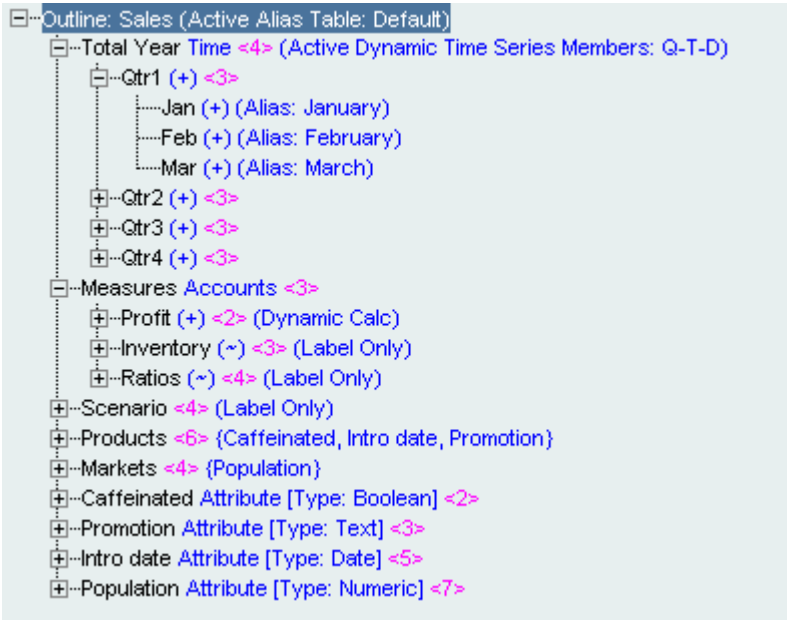
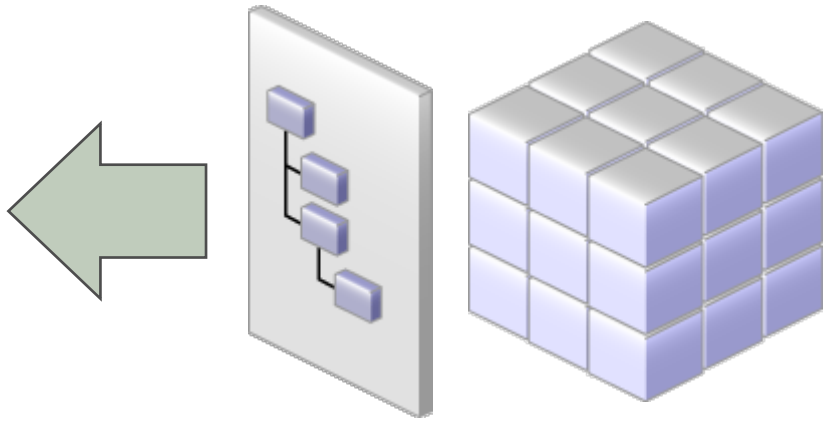
Database Outline

- Plays the key role in the life cycle of the Essbase database design
- Database development begins with creating a database outline
- Tree structure for dimension hierarchies
- Consolidations and mathematical relationships between members
- Outline Editor





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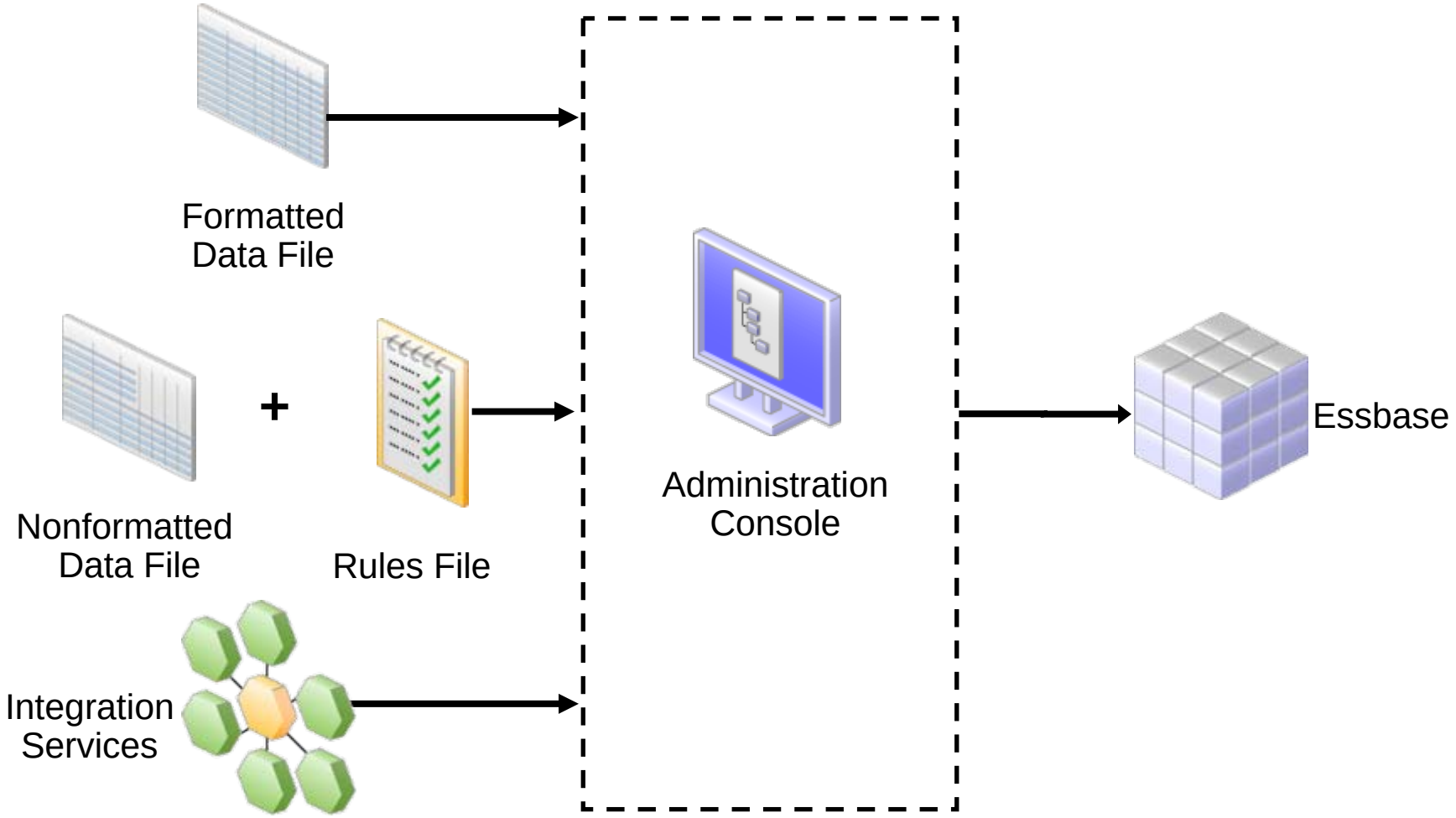
Loading Data and Metadata



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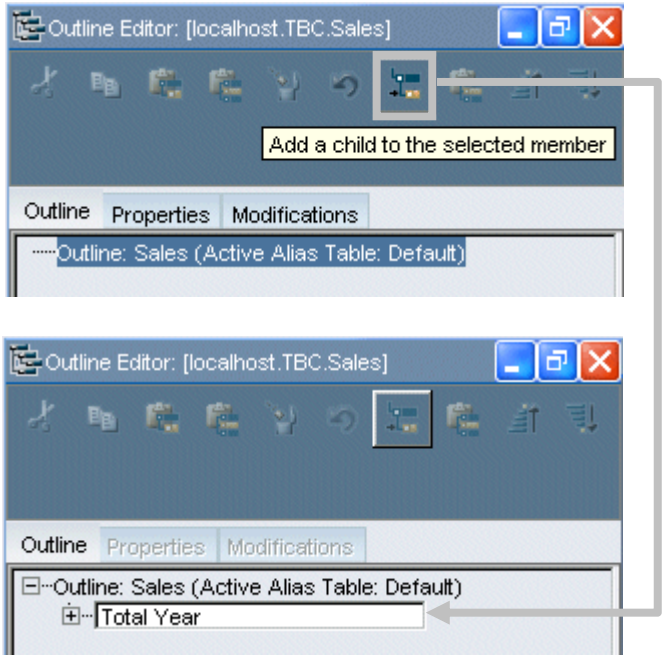
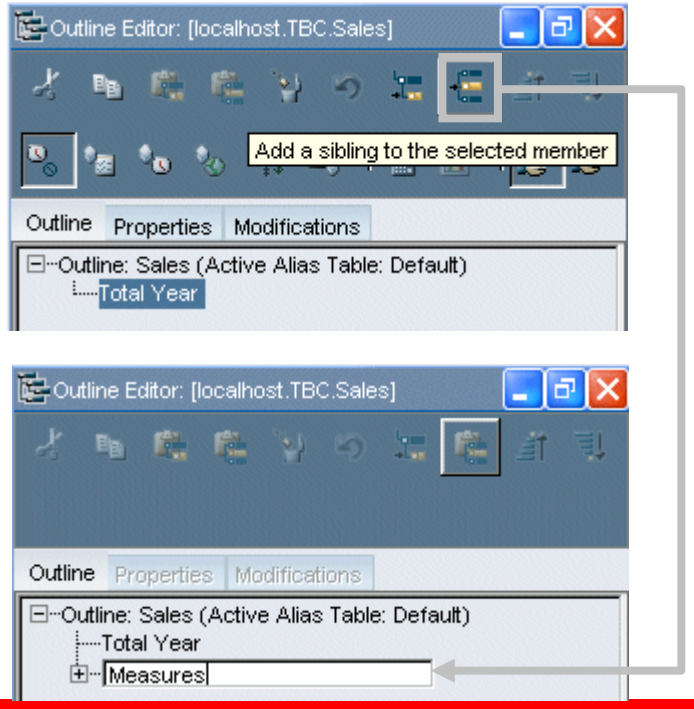
Adding Dimensions and Members

You can add dimensions and members to the outline manually or dynamically.

Adding a child



Adding a sibling



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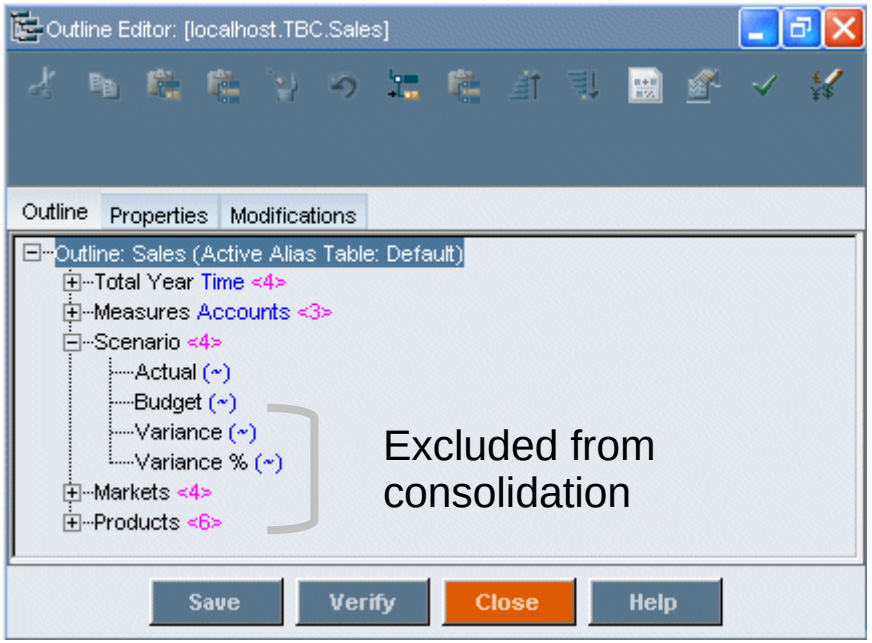
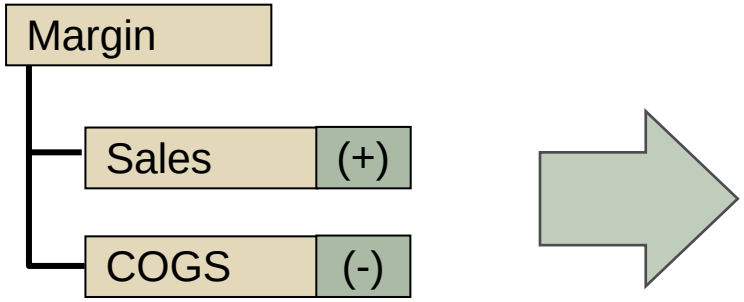
Consolidation Property and Operators

- Consolidation property defines how the member rolls up to its parent.
- Consolidation operators:
  - Addition (+)
  - Subtraction (-)
  - Multiplication (*)
  - Division (/)
  - Percent (%)
  - Ignore (~)





Margin = Sales – COGS

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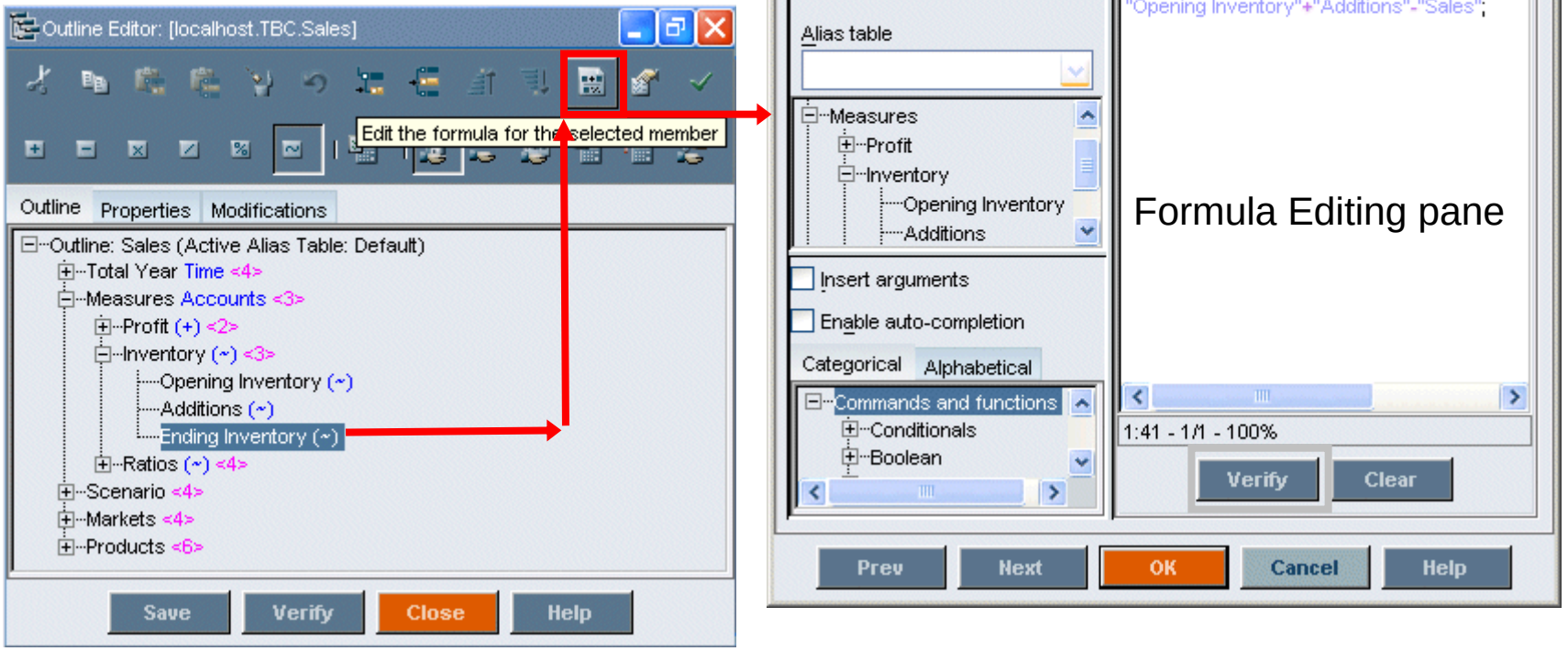
Creating Member Formulas

- Create the member formula in Formula Editor



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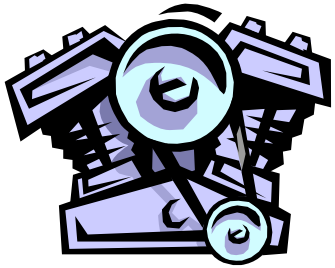
Superior Calculation Power

- Widest range of functionality
  - Simple aggregations to complex cross dimensional allocations
  - Results stored or calculated upon retrieval
  - Relationship aware
  - Application wide or subset specific
  - Conditional and procedural logic



Outline: Basic (Active Alias Table: Default)

- Year
  - Qtr1 (+)
    - Jan (+)
    - Feb (+)
    - Mar (+)
  - Qtr2 (+)
  - Qtr3 (+)
  - Qtr4 (+)
- Measures
  - Profit (+)
    - Margin (+)
      - Sales (+)
      - COGS (-)
    - Total Expenses (-)
  - Inventory (~)
  - Ratios (~)
- Product
  - 100 (+) (Alias: Colas)
  - 200 (+) (Alias: Root Beer)
  - 300 (+) (Alias: Cream Soda)
  - 400 (+) (Alias: Fruit Soda)
  - Diet (~) (Alias: Diet Drinks)
- Market
- Scenario

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Comprehensive Library of Functions

- 350+ functions
- Simple syntax
- Extensible
- Single point of maintenance

@ABS
@ACCUM
@ALLANCESTORS
@ALIAS
@ALLOCATE
@ANCEST
@ANCESTORS
@ANCESTVAL
@ATTRIBUTE
@ATTRIBUTEBVAL
@ATTRIBUTESVAL
@ATTRIBUTEVAL
@AVG
@AVGRANGE
@CALCMODE
@CHILDREN
@COMPOUND
@COMPOUNDGROWTH
@CONCATENATE
@CORRELATION
@COUNT
@CURGEN
@CURLEV
@CURRMBR
@CURRMBRRANGE
@DECLINE
@DESCENDANTS
@DISCOUNT
@EXP
@FACTORIAL
@GEN
@GENMBRS
@GROWTH
@IALLANCESTORS
@IANCESTORS
@ICHILDREN
@IDESCENDANTS
@ILSIBLINGS
@INT
@INTEREST
@IRDESCENDANTS
@IRR
@IRSIBLINGS
@ISACCTYPE
@ISANCEST
@ISCHILD
@ISDESC
@ISGEN
@ISIANCEST
@ISIBLINGS
@ISICHILD
@ISIDESC
@ISIPARENT
@ISISIBLING
@ISLEV
@ISMBR
@ISPARENT
@ISSAMEGEN
@ISSAMELEV
@ISSIBLING
@ISUDA
@LEV
@LEVMBRS
@LIST
@LN
@LOG
@LOG10
@LSIBLINGS
@MATCH
@MAX
@MAXRANGE
@MAXS
@MAXSRANGE
@MDALLOCATE
@MDANCESTVAL
@MDPARENTVAL
@MDSHIFT
@MEDIAN
@MEMBER
@MERGE
@MIN
@MINRANGE
@MINS
@MINSRANGE
@MOD
@MODE
@MOVAVG
@MOVMAX
@MOVMED
@MOVMIN
@MOVSUM
@MOVSUMX
@NAME
@NEXT
@NEXTS
@NPV
@PARENT
@PARENTVAL
@POWER
@PRIOR
@PRIORS
@PTD
@RANGE
@RANK
@RDESCENDANTS
@RELATIVE
@REMAINDER
@REMOVE
@ROUND
@RSIBLINGS
@SANCESTVAL
@SHARE
@SHIFT
@SHIFTMINUS
@SHIFTPLUS
@SIBLINGS
@SLN
@SPARENTVAL
@SPLINE
@STDEV
@STDEVP
@STDEVRANGE
@SUBSTRING
@SUM
@SUMRANGE
@SYD
@TODATE
@TREND
@TRUNCATE
@UDA
@VAR
@VARPER
@VARIANCE
@VARIANCEP
@WITHATTR
@XREF
@XRANGE

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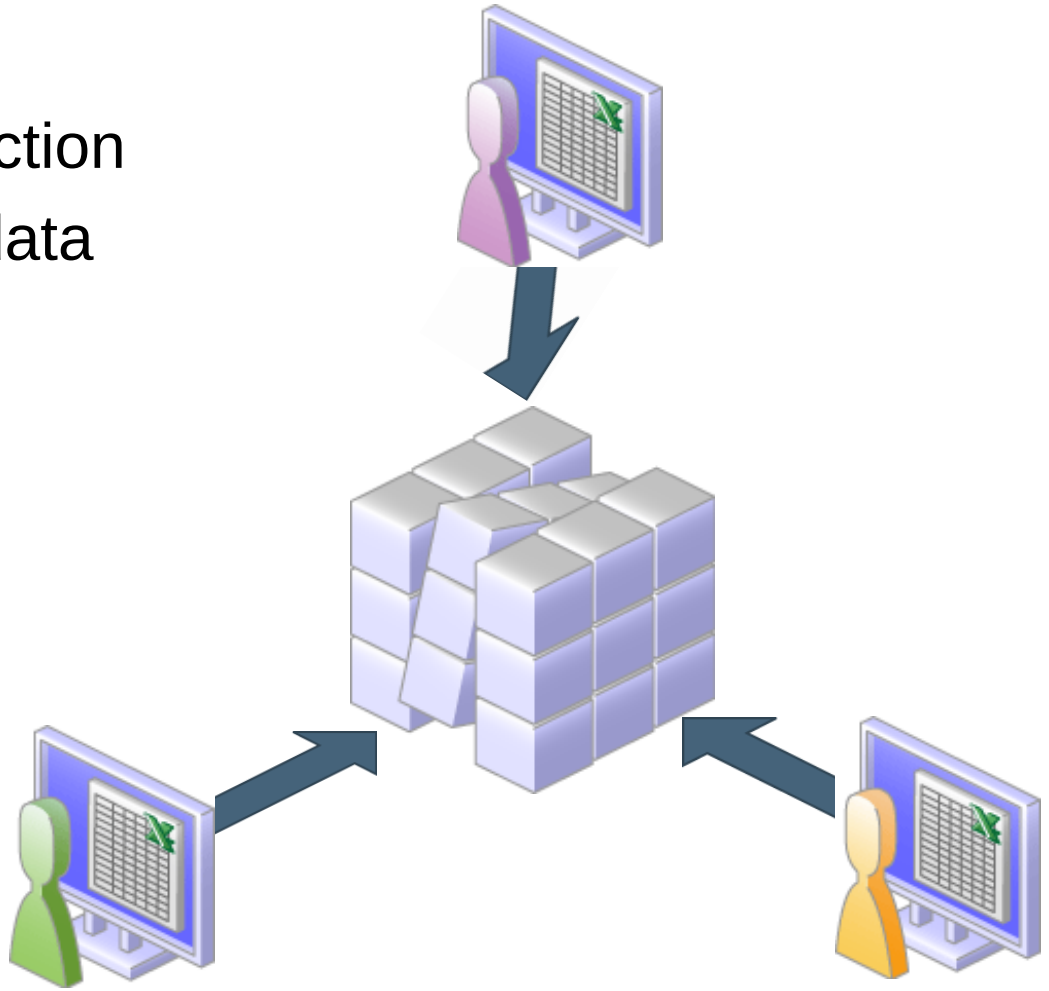
Write-Back

1. Choose the intersection
2. Type the updated data value
3. Click submit



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Demo: Essbase Outline

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Speed of Thought Response

Essbase enables this “conversation with the data” – understanding that an answer to a question typically leads to another question – and business users can’t wait hours (or days) for that question to be answered

> “A conversation with the data”

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Oracle BI Suite Enterprise Edition Plus

Pervasive Information Delivery

Interactive Dashboards

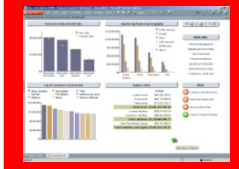
Ad hoc Analysis

Proactive Detection and Alerts

Microsoft Office

Microsoft Office

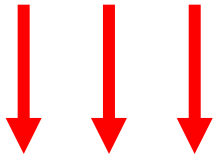
Reporting & Publishing



- BI Publisher
- Financial Reporting
- Interactive Reporting
- SQR Production Reporting
- Web Analysis

Common Enterprise Information Model

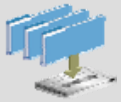
Oracle BI Server



OLTP & ODS Systems

Data Warehouse Data Mart

SAP, Oracle PeopleSoft, Siebel, Custom Apps



Files Excel XML

Business Process

Oracle Essbase

Financial Performance Management Applications

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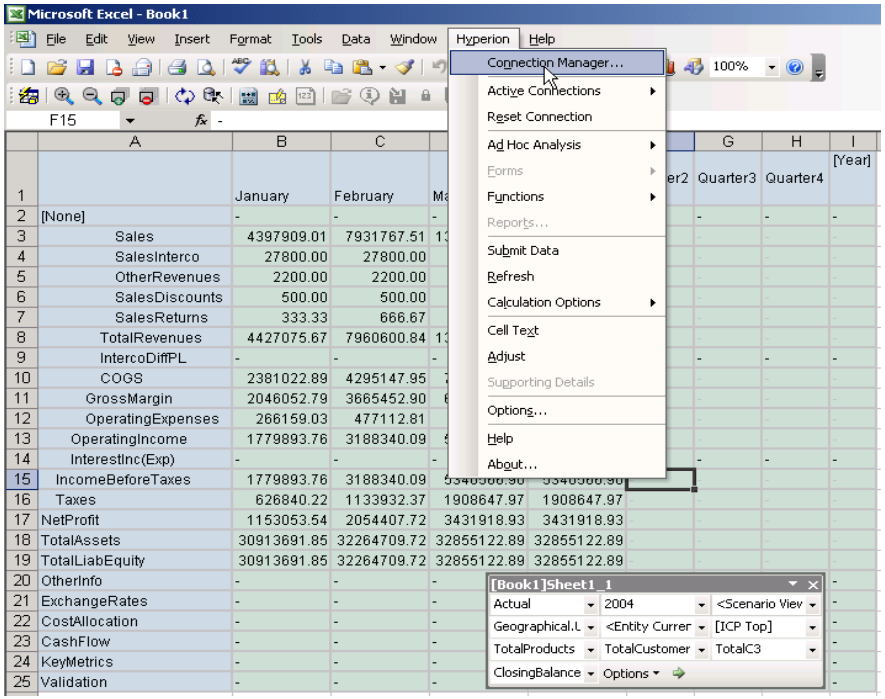
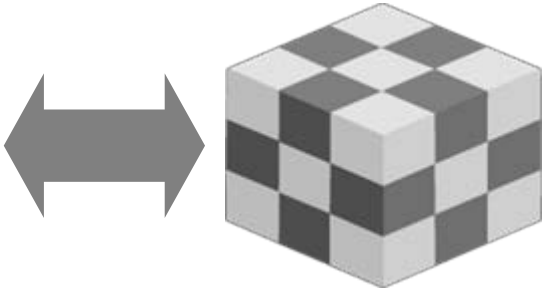
SmartView: Microsoft Office Integration





- familiar MS Office UI
- robust OLAP server with advanced analytics

- Capabilities across:
  - Excel
  - Word
  - PowerPoint
  - Outlook

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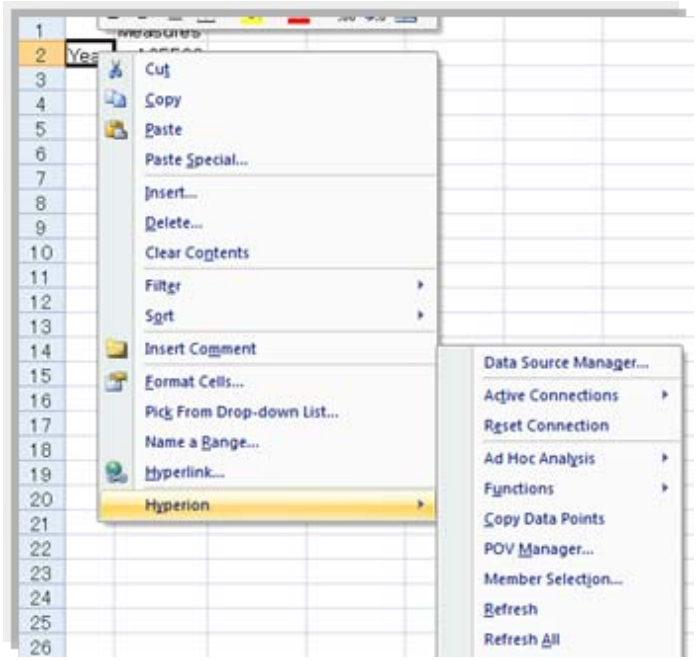
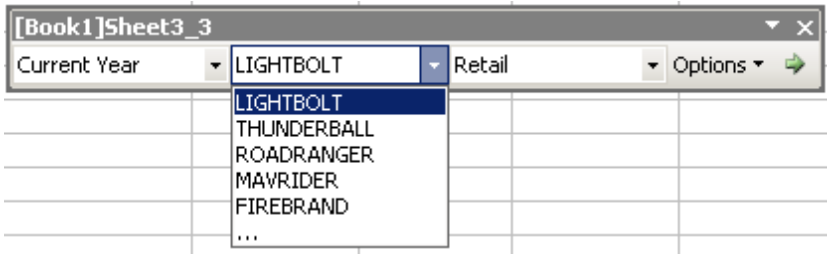
Smart View for Office Toolbar

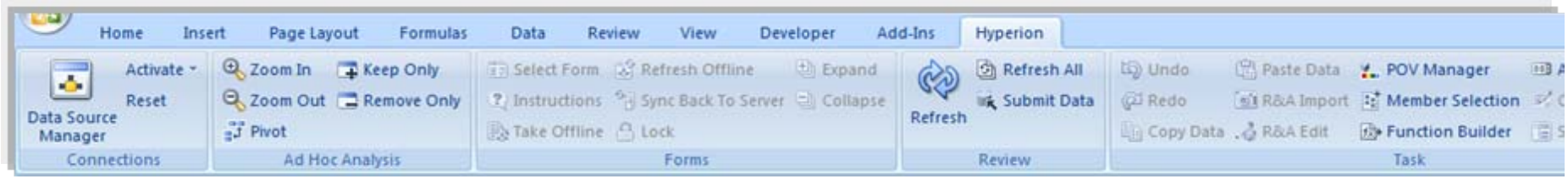
Context Menu

- three principal interfaces you leverage when working with Smart View to query data from Essbase:





Point of View Bar



Hyperion Ribbon

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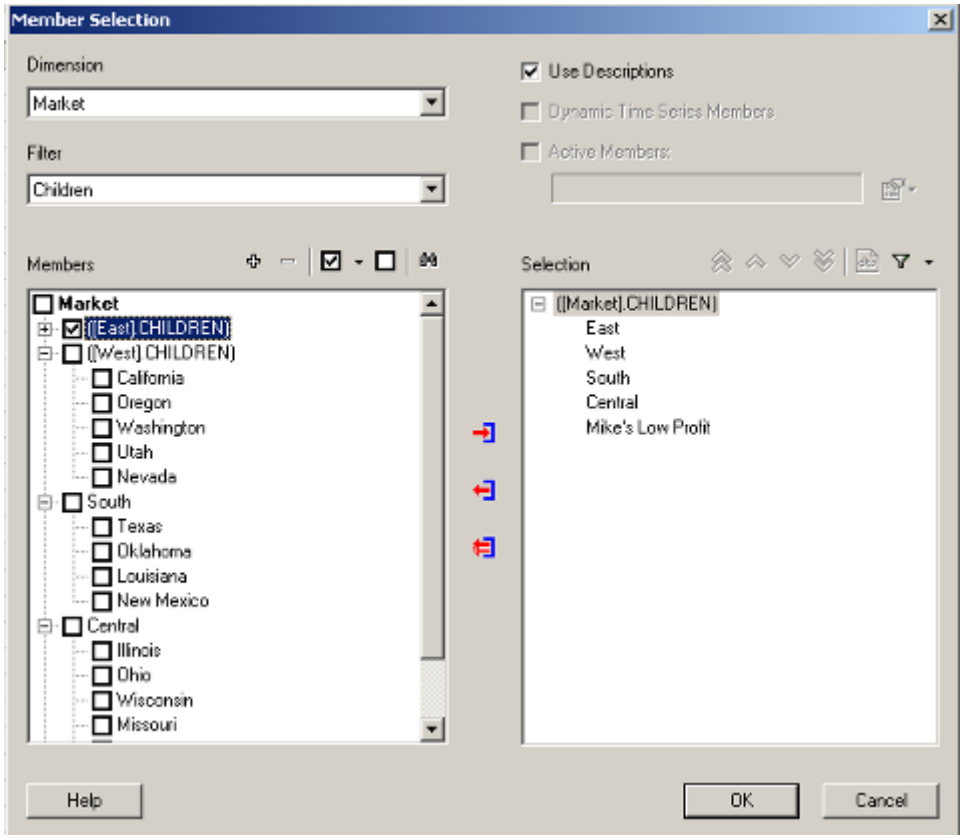
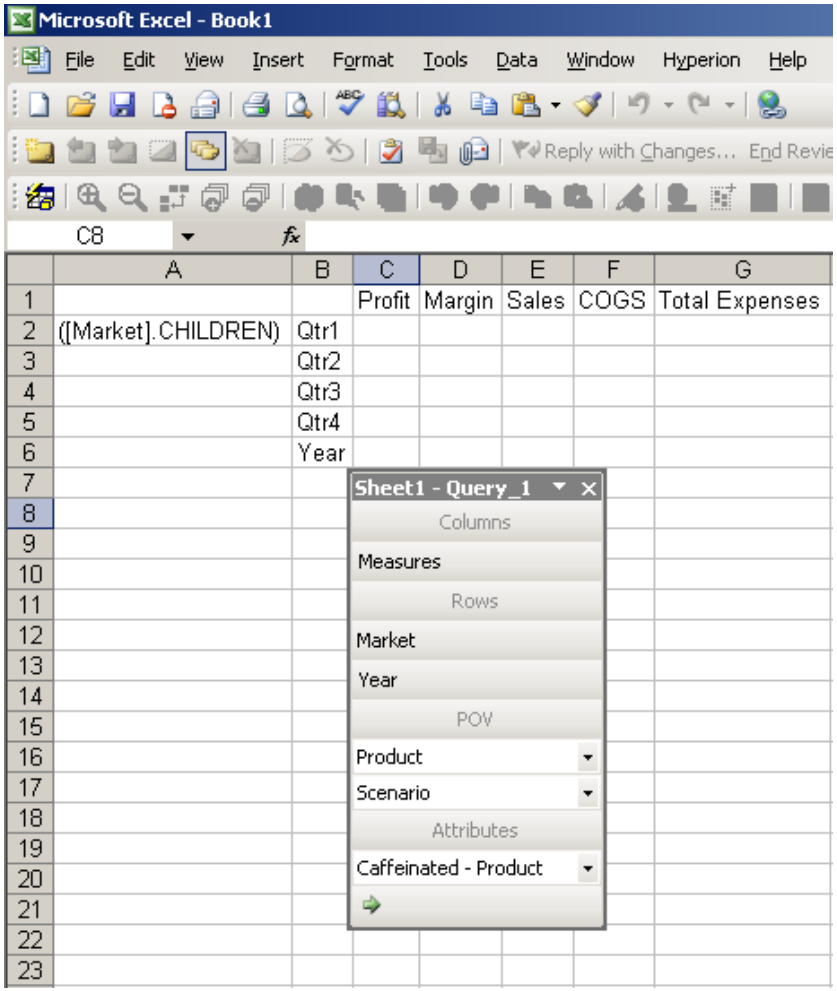
Member Selection and Query Design





Refining the Query

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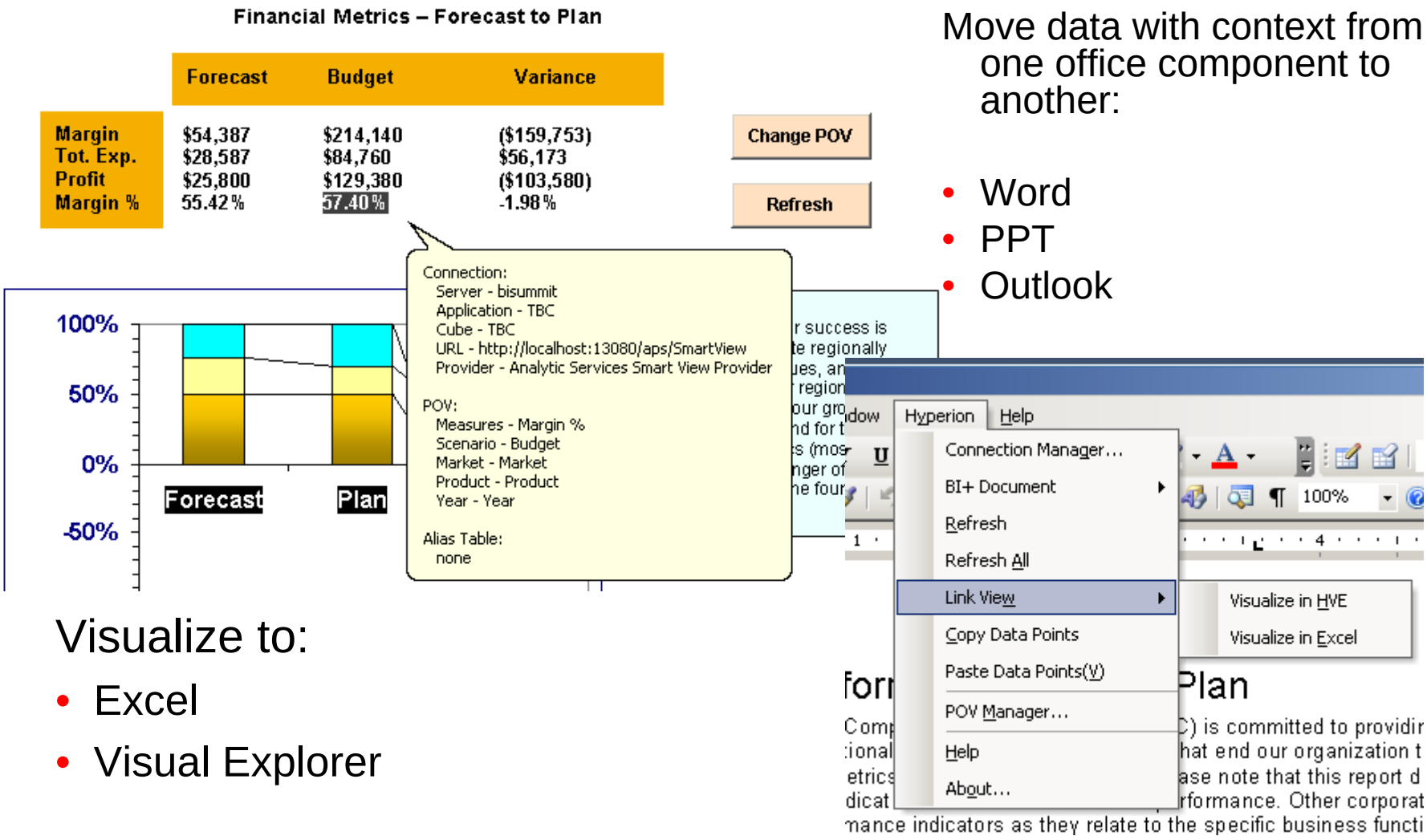
Dynamic Data Points



Move data with context from one office component to another:

- Word
- PPT
- Outlook

Visualize to:

- Excel
- Visual Explorer

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Demo: Smart View & OBI EE

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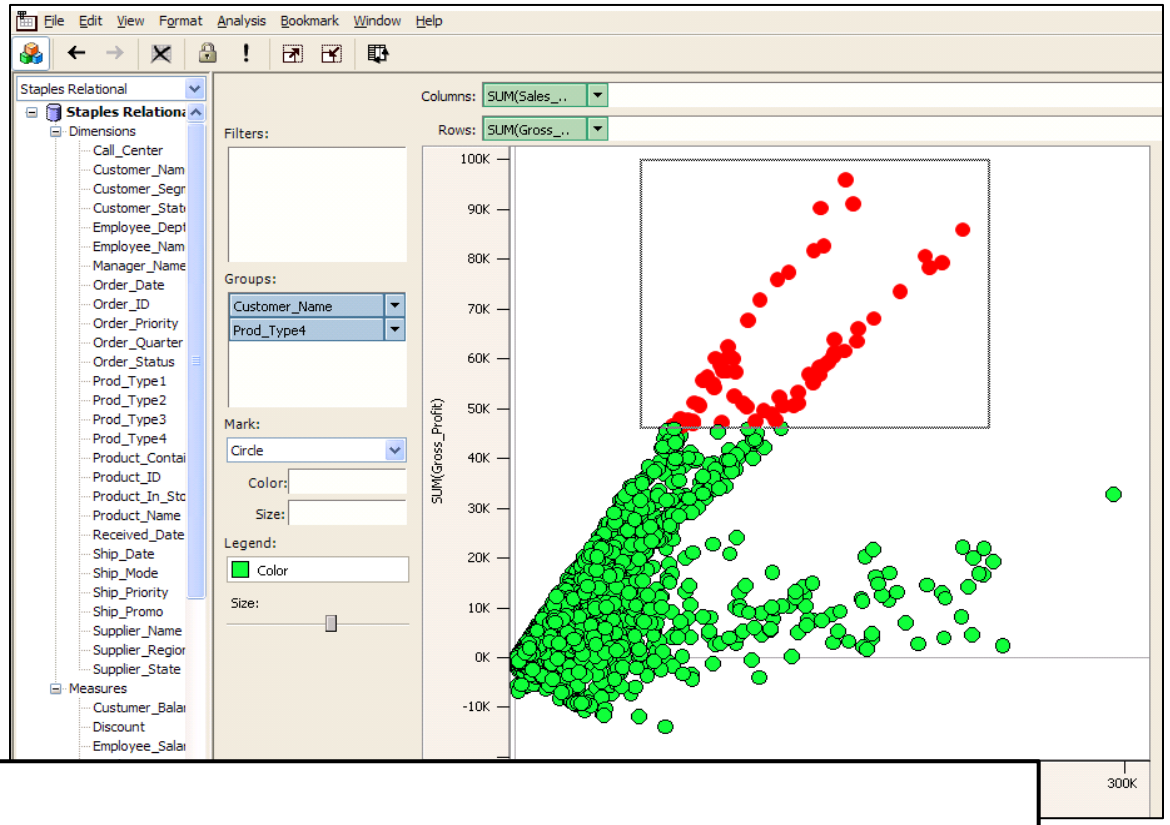
Visual Explorer – Best in Class

- adaptive visualization tool that lets you see patterns in your data
- numeric outliers stand up clearly – then you can bring data in spreadsheet for enterprise distribution



"Visual Explorer is not just a slick way to visualize, it's a slick way to visually analyze."

– Wayne Eckerson, Industry Analyst, TDWI

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Demo: Hyperion Visual Explorer

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Why Essbase?

1	Richest Business User Experience
2	Highly Advanced Calculation Engine
3	Best Custom Analytic Environment

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