



Business Intelligence New Microsoft BI Features

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3/ 6/2008

Agenda

- Microsoft BI Technologies
- SQL server Integration Services
- SQL Server Analysis Services
- Excel 2007
- Performance Point

Microsoft BI Technologies

- SQL Server Database Engine
 - high-performance data storage engine for the Data Warehouse.
- SQL Server Integration Services
 - ETL platform for population and synchronization of your data warehouse
- SQL Server Analysis Services
 - analytical engine for Online Analytical Processing (OLAP) solutions

Microsoft BI Technologies

- SQL Server Reporting Services
 - Extensive reporting Tool
- Excel 2007
 - Analysis Tool
- Performance Point server 2007
 - Monitoring(Scorecards)
 - Analytics
 - Plan

Microsoft BI Technologies

- ✓ ■ Microsoft BI Technologies
 - SQL server Integration Services
 - SQL Server Analysis Services
 - Excel 2007
 - Performance Point

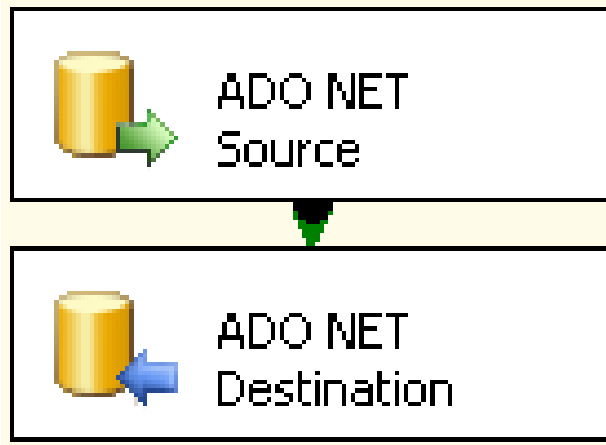
SQL Server Integration Services 2008

- Script Tasks & Components

- Support VB.NET, or C#
- Environment improve (More of the familiar VS environment)



- ADO.NET Source and Destination



SQL Server Integration Services 2008

- Data Profiling Task & viewer

- Null ratio, length distribution, value distribution ...



Data Profiling Task

Null Count	Null Percentage
8499	42.5546 %

Column Value Distribution Profile - Occupation

Number Of Distinct Values
5

Value Distribution

Encrypted Connection All Rows

Value	Count	Percentage
Professional	5520	29.8637 %
Manual	2384	12.8976 %
Clerical	2928	15.8407 %
Management	3075	16.6360 %
Skilled Manual	4577	24.7620 %

SQL Server Integration Services 2008

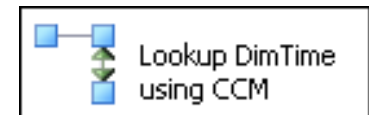
■ Data Flow performance



- In 2005, an execution tree is executed on a single thread
- In 2008, this is handled differently (smarter thread allocation)

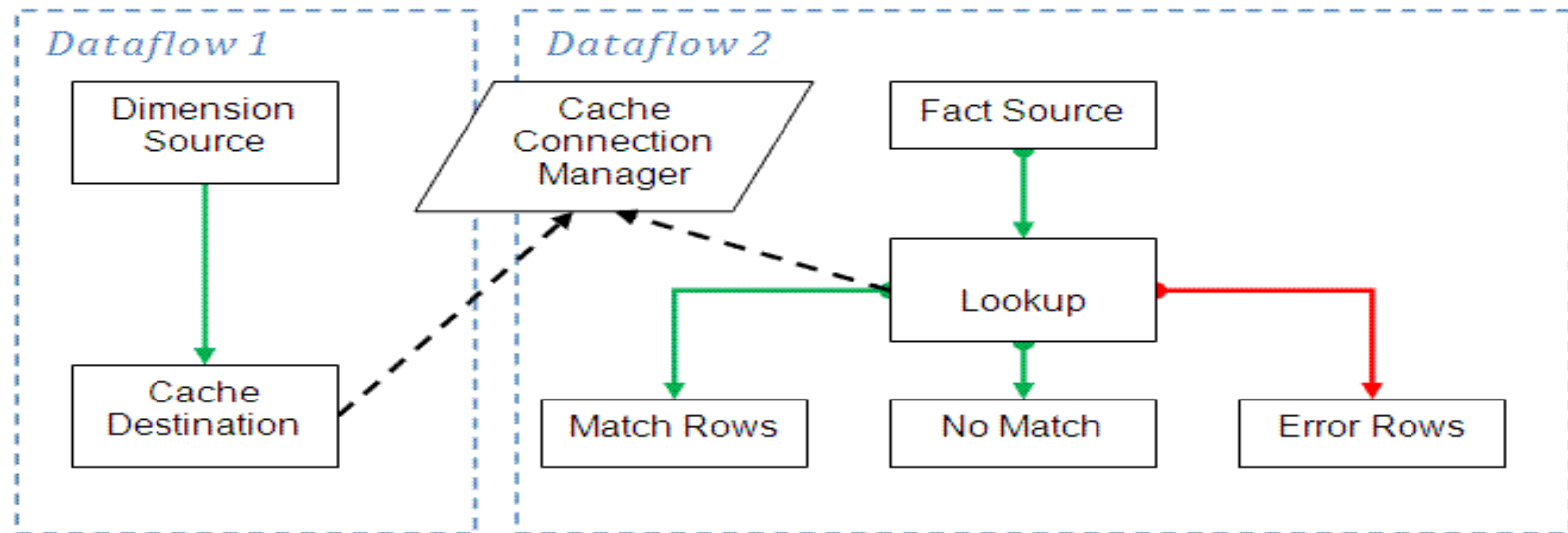
■ Lookup Transformation

- Share cached lookup across packages
- More granular control over cache use for matched/non-matched data



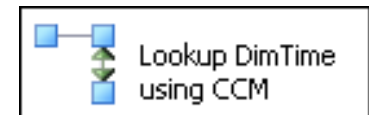
EXAMPLE

SQL Server Integration Services 2008



■ Lookup Transformation

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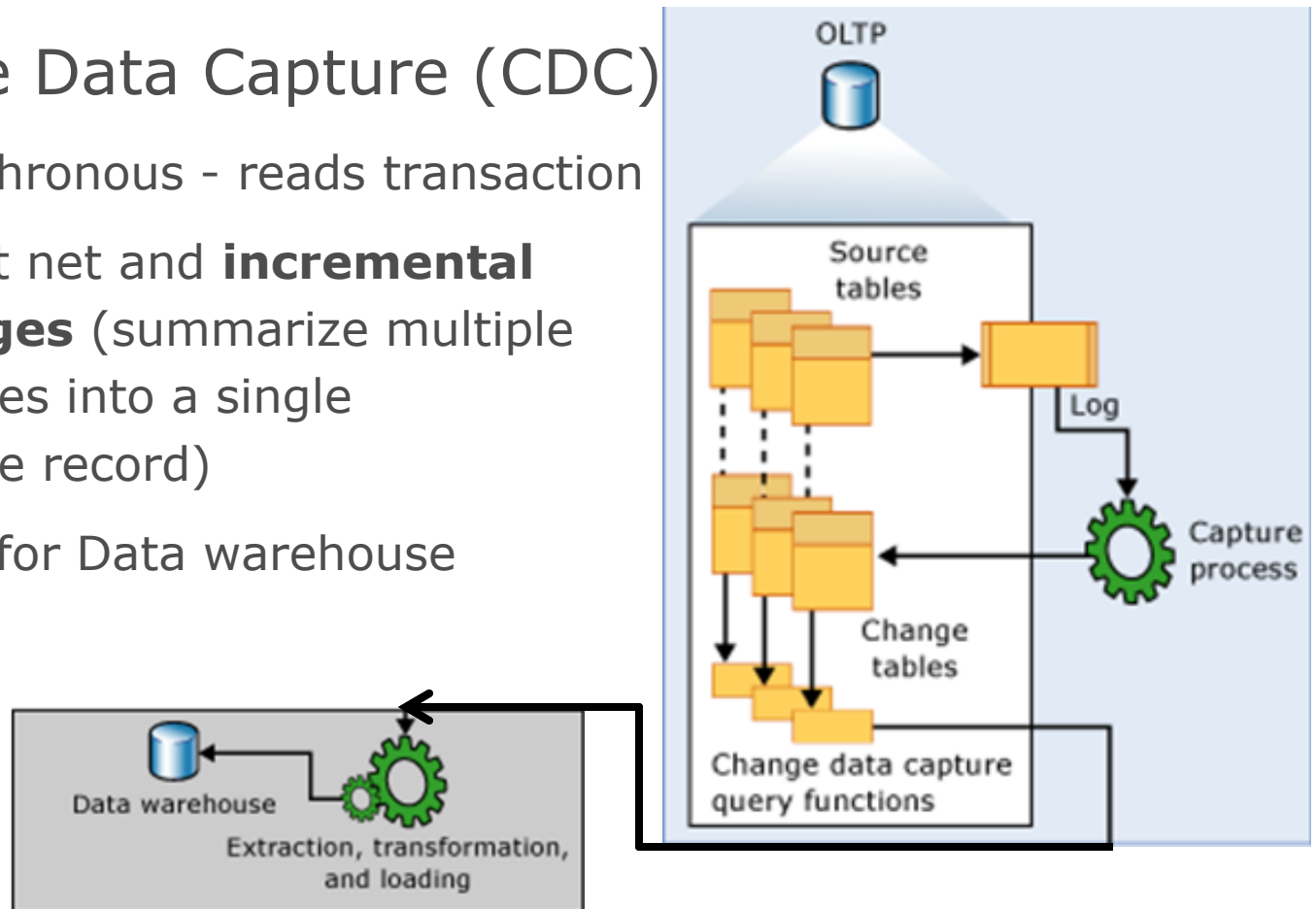
EXAMPLE

SQL Server Integration Services 2008

- Other Improvements elsewhere

- Change Data Capture (CDC)

- Asynchronous - reads transaction
- Detect net and **incremental changes** (summarize multiple changes into a single change record)
- Good for Data warehouse

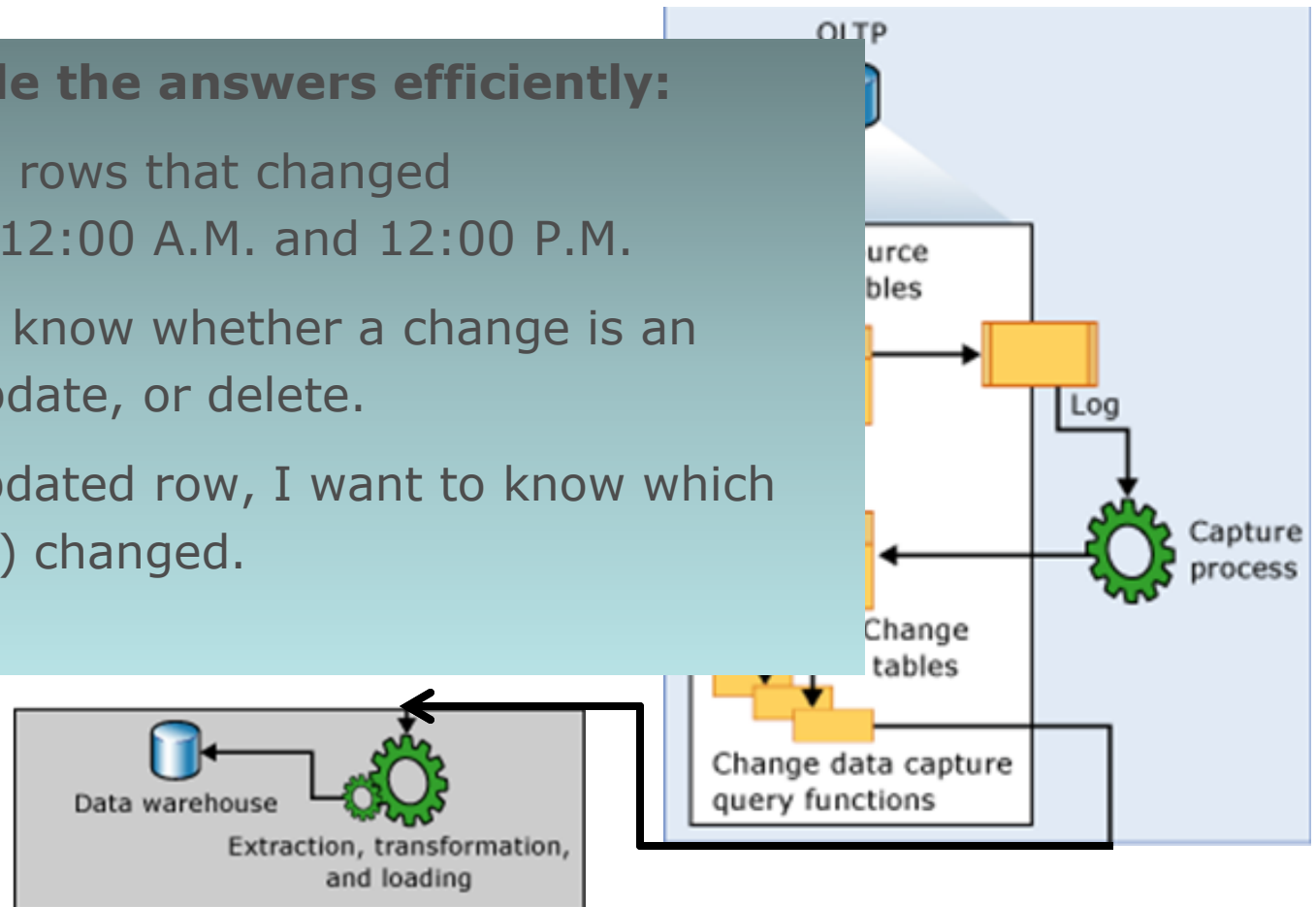


SQL Server Integration Services 2008

- Other Improvements elsewhere

can provide the answers efficiently:

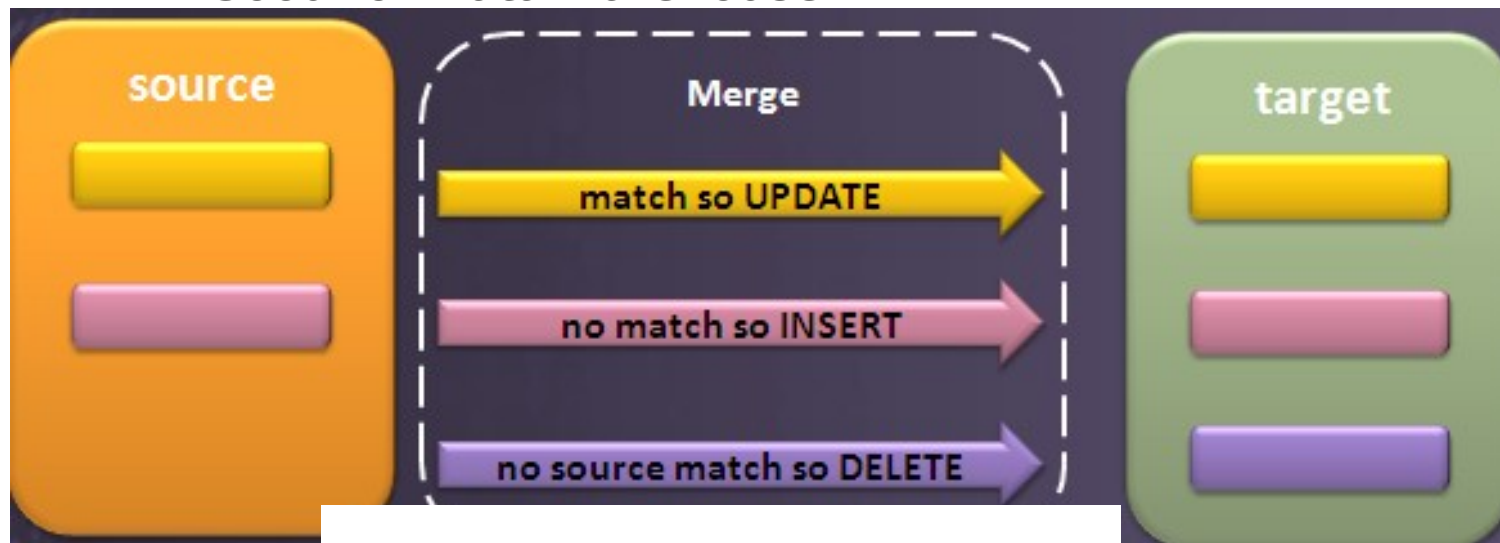
- I want all rows that changed between 12:00 A.M. and 12:00 P.M.
- I need to know whether a change is an insert, update, or delete.
- For an updated row, I want to know which column(s) changed.



SQL Server Integration Services 2008

– Merge

- allows you to insert, update, or delete data based on certain join conditions **in the same statement(transaction)**.
- Good for Data warehouse



EXAMPLE

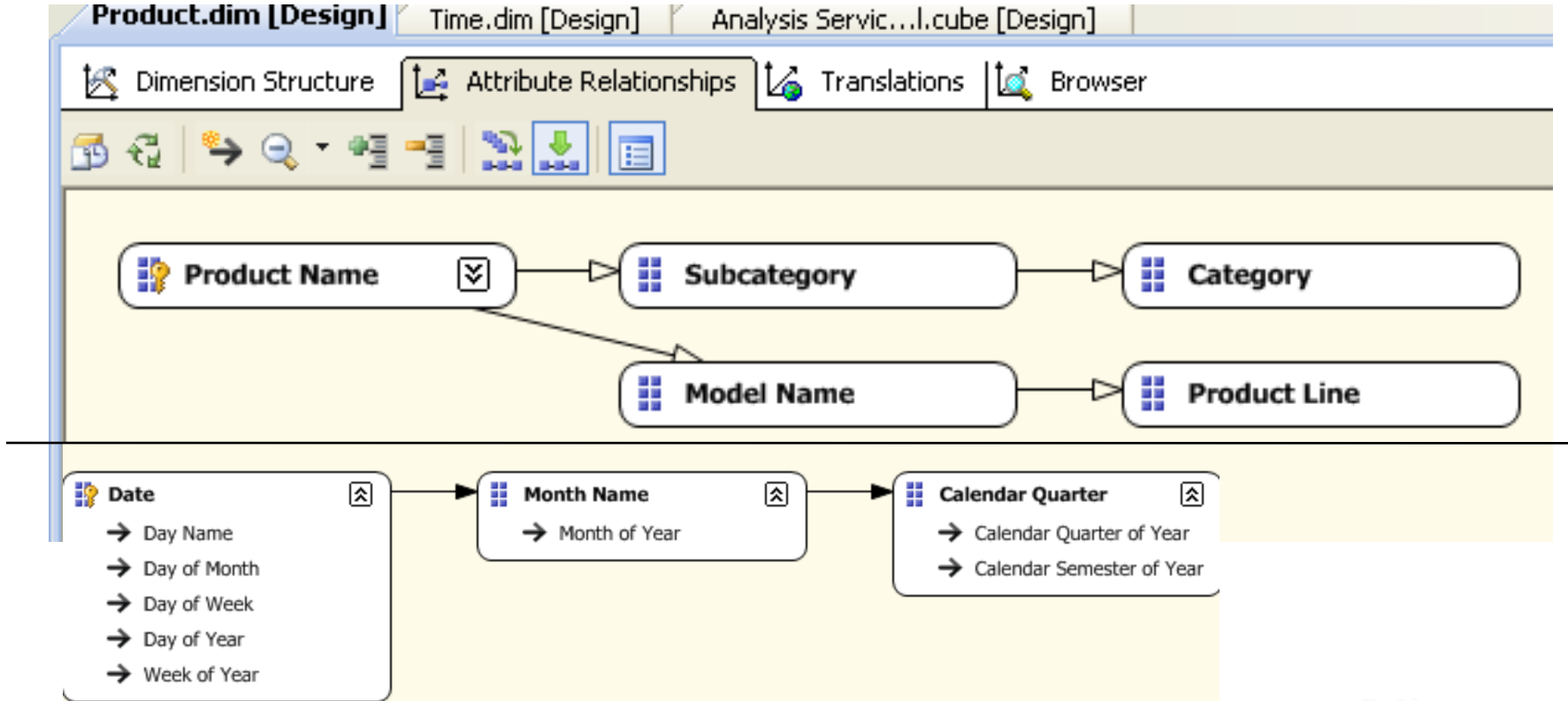
 **GLASSHOUSE**

SQL Server Integration Services 2008

- Microsoft BI Technologies
- ✓ ■ SQL server Integration Services
- SQL Server Analysis Services
- Excel 2007
- Performance Point

SQL Server Analysis Services 2008

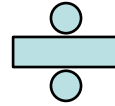
- Best Practice advisor
- Declarative attribute relationships



SQL Server Analysis Services 2008

■ Block computation (Engine improve)

	Caps	Jerseys	Socks
Europe	(null)	(null)	(null)
NA	(null)	(null)	(null)
North America	\$2,686.87	\$28,255.57	\$3,433.89
Pacific	(null)	(null)	(null)



	Clothing
Europe	(null)
NA	(null)
North America	\$34,376.34
Pacific	(null)

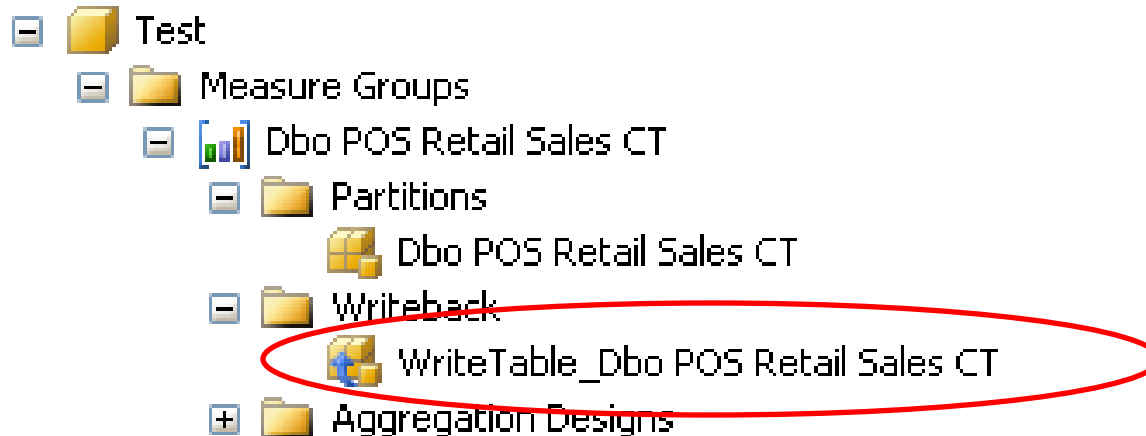


	Caps	Jerseys	Socks
Europe	(null)	(null)	(null)
NA	(null)	(null)	(null)
North America	7.82%	82.19%	9.99%
Pacific	(null)	(null)	(null)

doing work just for the non-null values

SQL Server Analysis Services 2008

- Writeback to MOLAP: The ability for end users to update cell values at the leaf or aggregate levels
 - Use “Update” sentence with: EQUAL ALLOCATION, WEIGHTED_ALLOCATION (ex. Increase budget)



- CREATE/DROP KPIs
- Changed dimension and cube wizards


SQL Server Analysis Services 2008

■ Aggregation design

Aggregation Design Wizard

Review Aggregation Usage
Review aggregation usage settings and optionally modify settings to include or exclude attributes from consideration.

Cube Objects	Default	Full	None	Unrestricted
Reseller	2	0	0	0
Reseller	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Business Type	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Order Date	3	1	0	0
Date	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Calendar Year	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Quarter	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Month	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Sales Territory	3	0	0	0
Sales Territory	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Sales Territory Country	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

 **GLASSHOUSE**

SQL Server Analysis Services 2008

- Aggregation design

Measure Group: Dbo POS Retail Sales CT

Sorting: (none)

	A0	A1	A2
Properties			
Status	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Productat_for_test			
Product Key (5)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Product Catennrv (2)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

EXAMPLE

SQL server Integration Services 2008

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- Performance Point

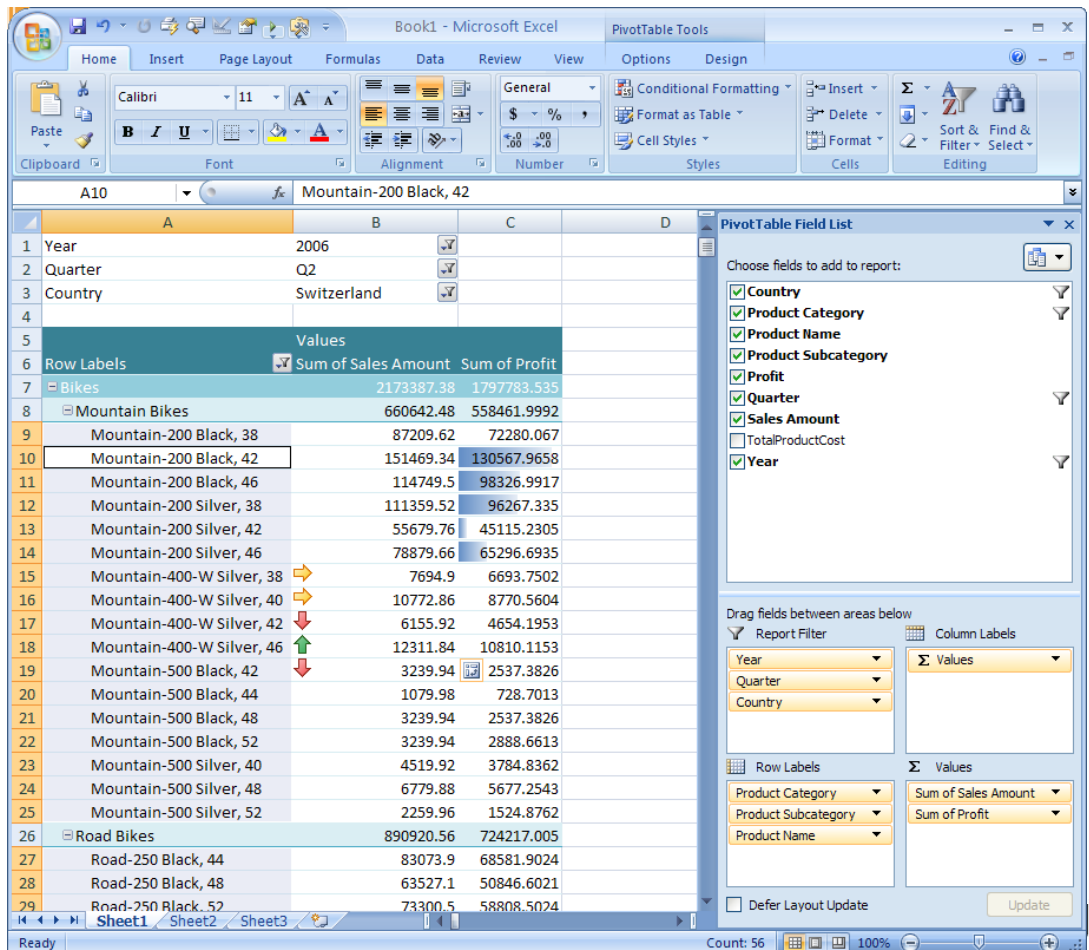
Excel 2007

- Excel BI tools –Tables and PivotTables
- What's new in these tools?
 - Easy to create and intuitive to work with
 - Quickly explore data with improved sorting and filtering
 - Find exceptions and see trends using new data visualization
 - Structured reference

Excel 2007

- New UI (ProClarity)

- Styles
- colorScale
- Icon Set
- Drill through



Excel 2007

■ DEMO

	A	B	C	D	E	F
1	Sales Amount Quota					
2		⊕ Europe	⊕ NA	⊕ North America	⊕ Pacific	Grand Total
3	⊕ CY 2001		\$35,000.00	\$9,478,000.00		\$9,513,000.00
4	⊕ CY 2002	\$4,162,000.00	\$563,000.00	\$24,284,000.00		\$29,009,000.00
5	⊕ CY 2003	\$9,376,000.00	\$1,367,000.00	\$27,172,000.00	\$867,000.00	\$38,782,000.00
6	⊕ CY 2004	\$4,820,000.00	\$421,000.00	\$12,349,000.00	\$820,000.00	\$18,410,000.00
7	Grand Total	\$23,077,600.00	\$3,167,650.00	\$85,676,000.00	\$2,332,300.00	\$114,253,550.00

Drag fields between areas below:

Report Filter

Column Labels

Row Labels

Values

☐ Defer Layout Update

Update

Sales Territory

Date.Calendar

Sales Amount Quota

PivotTable Field List

Show fields related to:

Sales Targets

Σ Sales Targets

☒ Sales Amount Quota

⊕ Date

⊕ Employee

⊕ Sales Territory

⊕ ☒ Sales Territory

⊕ More fields

Drag fields between areas below:

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Sales Territory

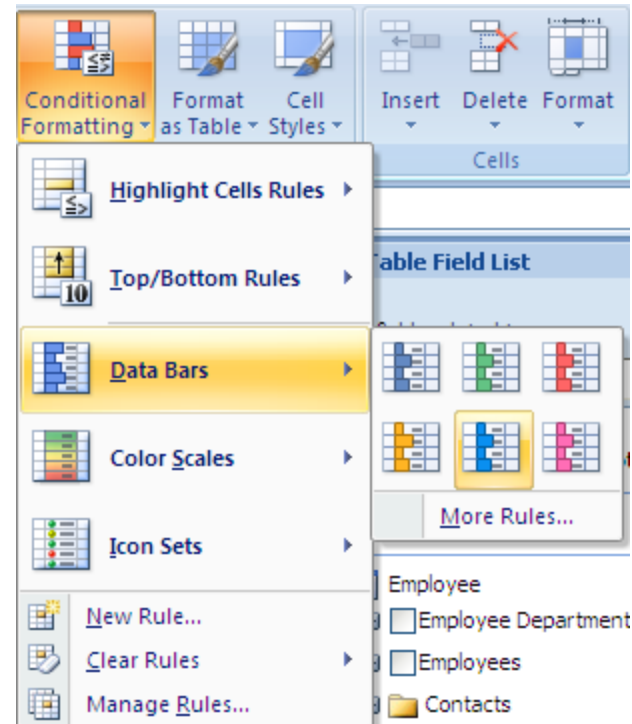
Date.Calendar

Sales Amount Quota

Excel 2007

■ DEMO

	A	B
1	Sales Amount Quota	
2		Europe
3	⊕ CY 2001	
4	⊕ CY 2002	\$4,162,000.00
5	⊕ CY 2003	\$9,376,000.00
6	⊕ CY 2004	\$4,820,000.00
7	Grand Total	\$23,077,600.00



■ DEMO



GLASSHOUSE

Excel 2007

■ DEMO

The screenshot displays the Microsoft Excel 2007 interface. A PivotTable is visible with columns for 'Sales Amount' (A), 'Calendar Year' (B), and 'Region' (C). The 'Filter' task pane is open on the right side of the screen. The 'Filter' button is highlighted in the task pane. Red arrows point to the 'Filter' button and the 'Filter' task pane. The background shows a PivotTable with columns for 'Sales Amount' and 'Calendar Year'.

	A	B	C	D	E
1	Sales Am				
2					
3	+ CY 200				
4	+ CY 200	\$4,162,000.00	\$563,000.00	\$24,284,000.00	
5	+ CY 200			\$27,172,000.00	\$867,000.00
6	+ CY 200			\$12,349,000.00	\$820,000.00
7	Grand To			\$85,676,000.00	\$2,332,300.00

SQL server Integration Services

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Performance Point

Planning

- What do I want to happen?
- What will happen?

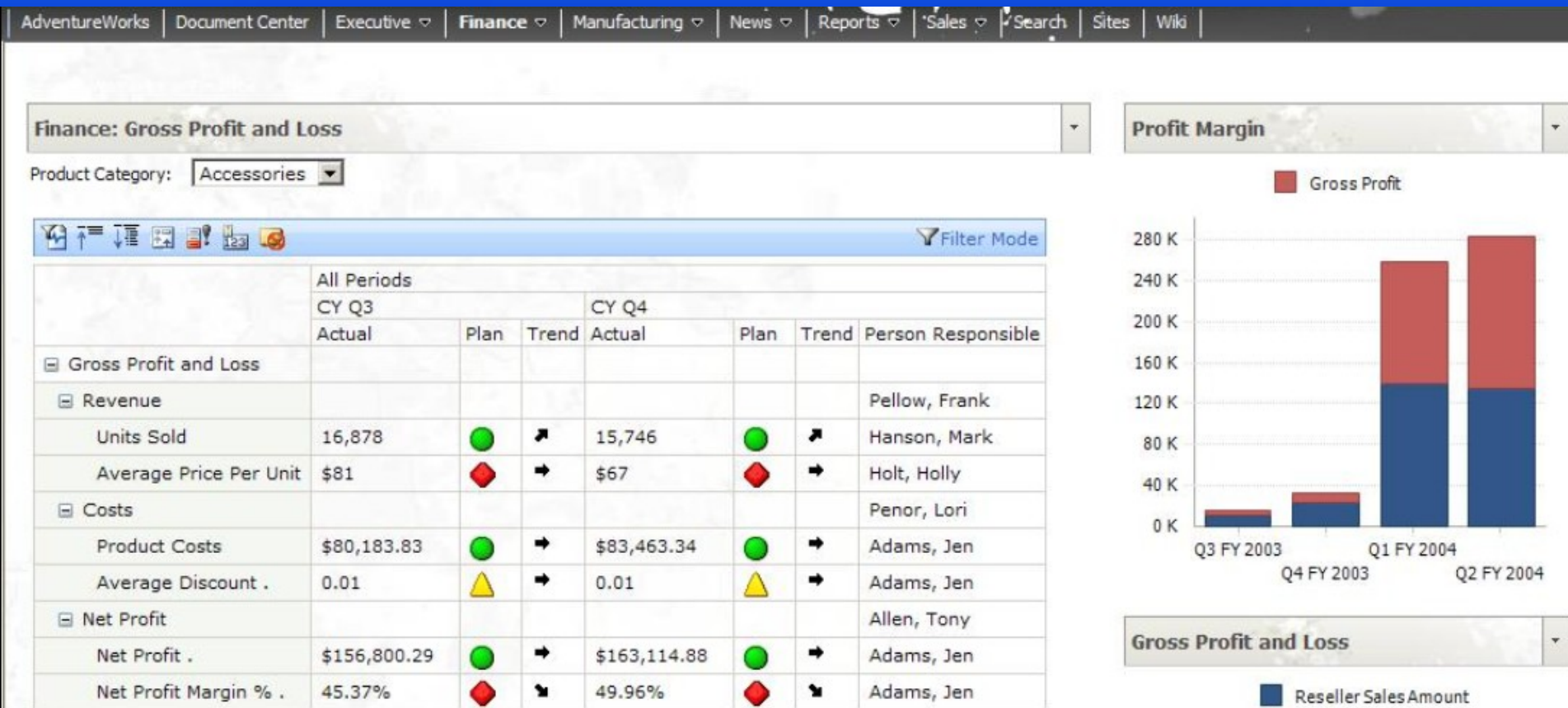
Analytics

- Why?

Scorecarding

- What is happening(health)?
- What happened?

Performance Point



Performance Point

Planning



Analytics



Scorecarding



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Thank You

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