



Learn SAP BusinessObjects Web Intelligence in an Hour: A Crash Course for Beginners

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In This Session

- Master the basic report writing techniques behind querying, analyzing, and formatting
- Understand when to apply each technique based on the problem at hand
- Learn more advanced concepts, including variable creation, merged dimensions, and document drilling
- See how all these techniques are used to create a Web Intelligence document from scratch

What We'll Cover

- Introduction
- Writing the query
- Analyzing the results
- Formatting for clarity
- Graduating to advanced techniques
- Wrap-up

■ Introduction

- Your Story:
 - Running a family-owned chain of resorts
 - Used SAP analytical solutions in a former job
 - New to SAP BusinessObjects
 - Attending BI 2014 to learn the latest
 - And ... you've gotten a little lucky



Your Hotel Geography

Hawaii



French Riviera



Bahamas



Your Hotels

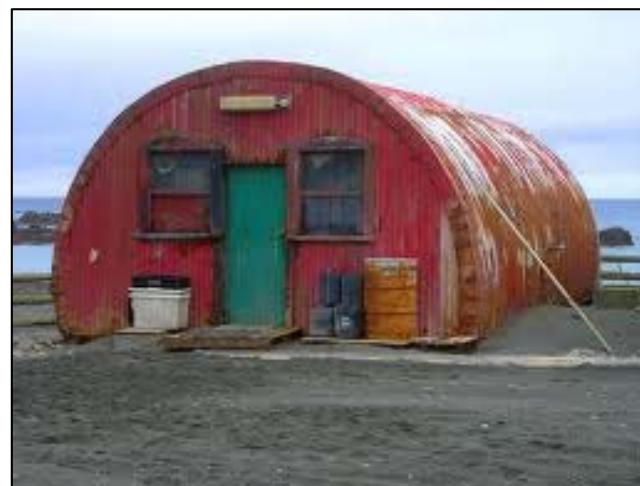
Hawaii



French Riviera



Bahamas



Your Company Accountant



■ Your Challenge

- Select your target customers ... quickly
- Choose the best time to launch a campaign
- Find on which hotel to focus your energies
- Decide on which services to improve
- Use Web Intelligence to achieve these objectives



Before We Begin ...

- Unlike this story, the techniques are REAL
 - Creating queries
 - Including conditions and prompts
 - Considering subqueries
 - Using sorts
 - Adding breaks and folding them
 - Setting up local filters
 - Creating report variables
 - Adding calculation contexts
 - Linking to more detailed documents
 - Merging two or more queries



■ Web Intelligence 4.1

- We'll use the latest version of Web Intelligence
- Many of the techniques will work in previous versions

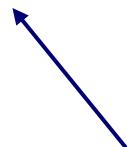
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Many Ways to Begin

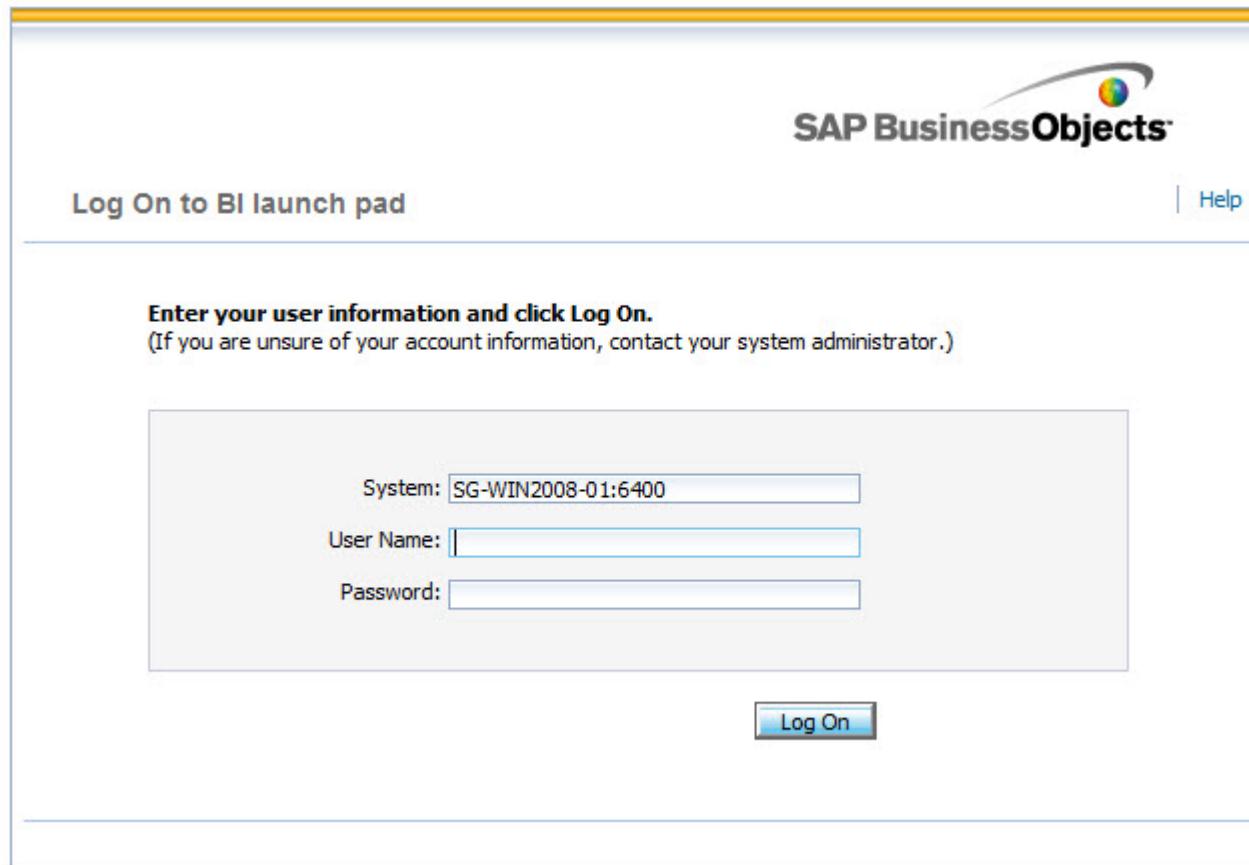
- Several Web Intelligence tools available
 - Web Intelligence Rich Client
 - ▶ Available for Windows users only (XI 3.1, 4.x)
 - Rich Internet Application (RIA)
 - ▶ This is the Java applet (4.x only)
 - ▶ Called the Java Report Panel in XI 3.1
 - Web Editor
 - ▶ Available in all versions
 - ▶ Greatly enhanced in 4.x

We'll use these editors for our demonstration



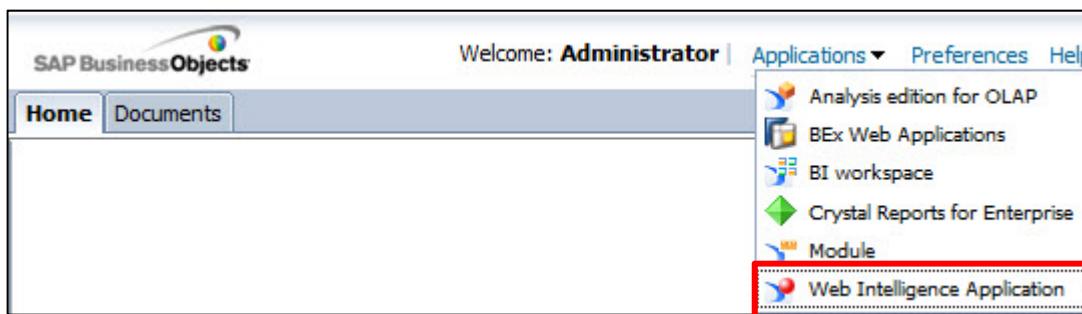
Logging into the BI Launch Pad

- URL: <http://<host and port>/BOE/BI>
 - Example: <http://sg-win2008-01:8080/BOE/BI>

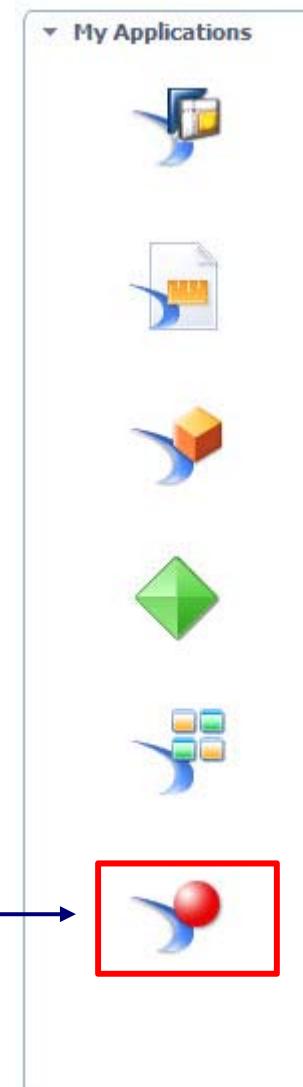


Launching Web Intelligence

- Use the Application menu from the Home or Documents tab



You can also choose Web Intelligence from the My Applications list (Home tab)



Logging into the BI Launch Pad

- If you see the following splash screen ...
 - You are using the Rich Internet Application (RIA)
 - This is a Java applet
 - ▶ Default for creating WebI documents



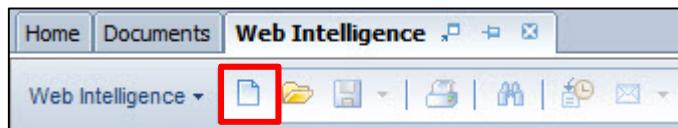
Company moving away from Java applets? Editor can be switched to Web under Preferences → Web Intelligence.



Tip

Creating a New Document

- Once in the editor, click the blank page to create a new document



- Select a data source

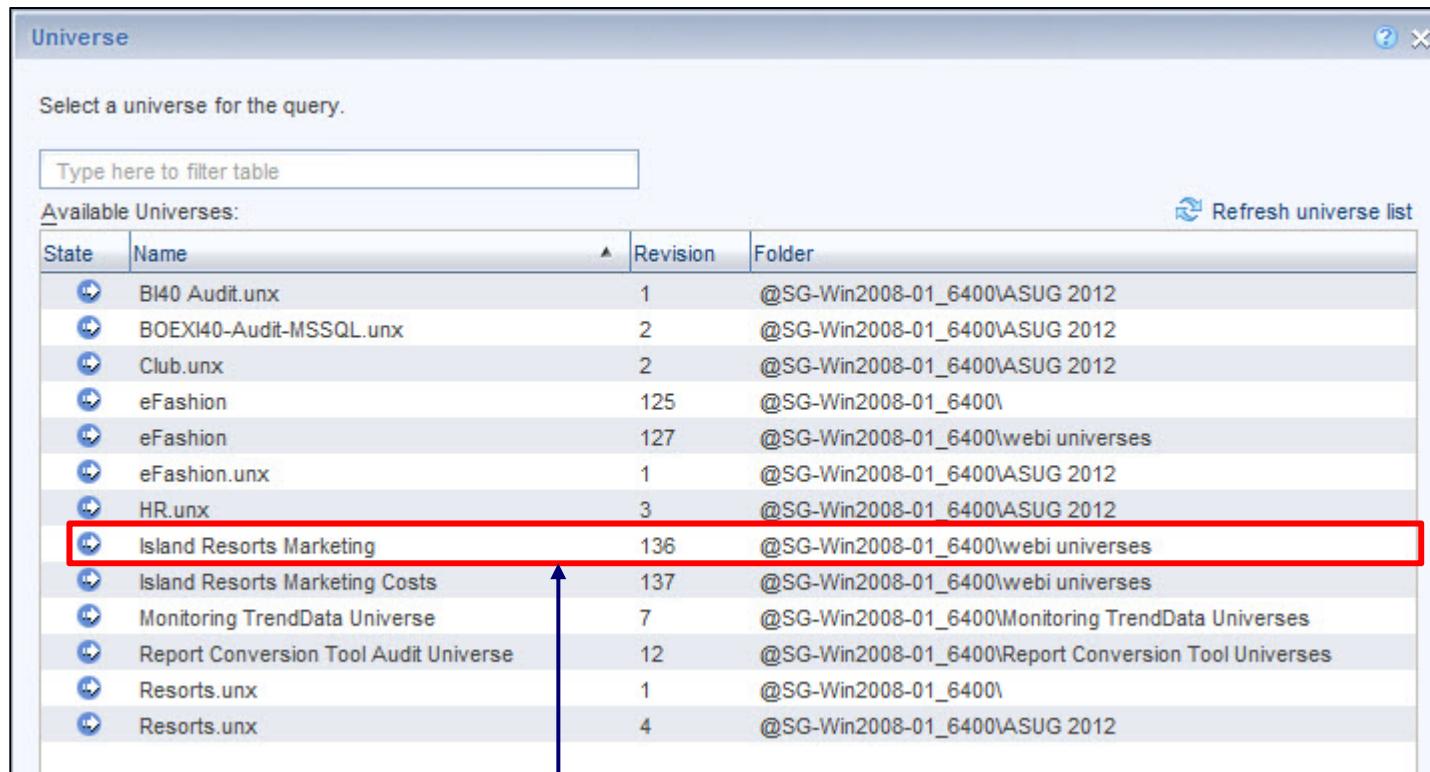


We'll be using universes today.
Only the RIA (Java applet)
allows you to build a query
directly from a BEx query or BI
Analysis view.



Choosing a Universe

- Choose a universe from the list that appears next



The Island Resorts Marketing universe is part of every default install

Understanding the Query Panel

- The Query Panel is where queries are created

The screenshot shows the SAP Query Panel interface. On the left, there is a tree view of "Classes and objects (building blocks for our query)". The tree includes categories like Island Resorts Marketing, Resort, Sales, Customer, Reservations, and Measures, with specific items like Country, Resort, Service Line, Service, Bahamas resort, Hawaiian resort, Revenue, Number of guests, and Future guests. A blue callout box labeled "Building Blocks" with a blue icon points to this area. A yellow circle labeled "1" is placed near the tree view. In the center, there is a "Result Objects" panel with a message: "To include data in the report, select objects in the Data tab and drag them here. Click Run Query to return the data to the report." A blue callout box labeled "Data to be returned" with a blue icon points to this panel. A yellow circle labeled "2" is placed near the top of this panel. At the bottom, there is a "Query Filters" panel with a message: "To filter the query, drag predefined filters here or drag objects here then use the Filter Editor to define custom filters." A blue callout box labeled "Conditions which restrict the data" with a blue icon points to this panel. A yellow circle labeled "3" is placed near the top of this panel. The bottom of the interface shows a toolbar with icons for Run query, Close, and other functions, and a status bar indicating "Last refresh date: (this document has never been refreshed.)".

Classes and objects
(building blocks for
our query)

1

2

3

Result Objects

To include data in the report, select objects in the Data tab and drag them here. Click Run Query to return the data to the report.

Data to be returned

Query Filters

To filter the query, drag predefined filters here or drag objects here then use the Filter Editor to define custom filters.

Conditions which
restrict the data

Building
Blocks

Last refresh date: (this document has never been refreshed.)

Choosing Result Objects

- Select objects from the Universe Panel
- Drag or double-click those objects to the Results Objects panel



Hovering your cursor over an object will show the help text and where it came from



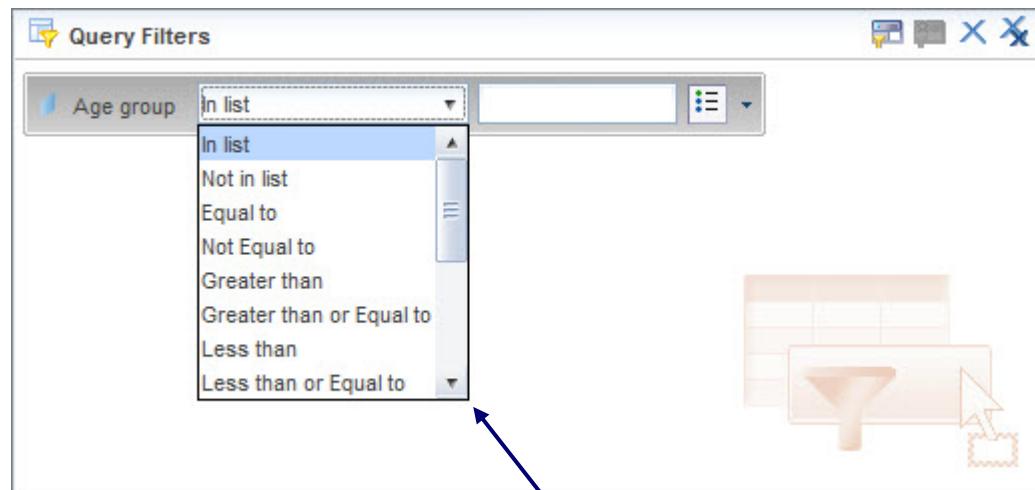
Thinking About Conditions

- Which age group should you target?



Building Your First Condition – Operator

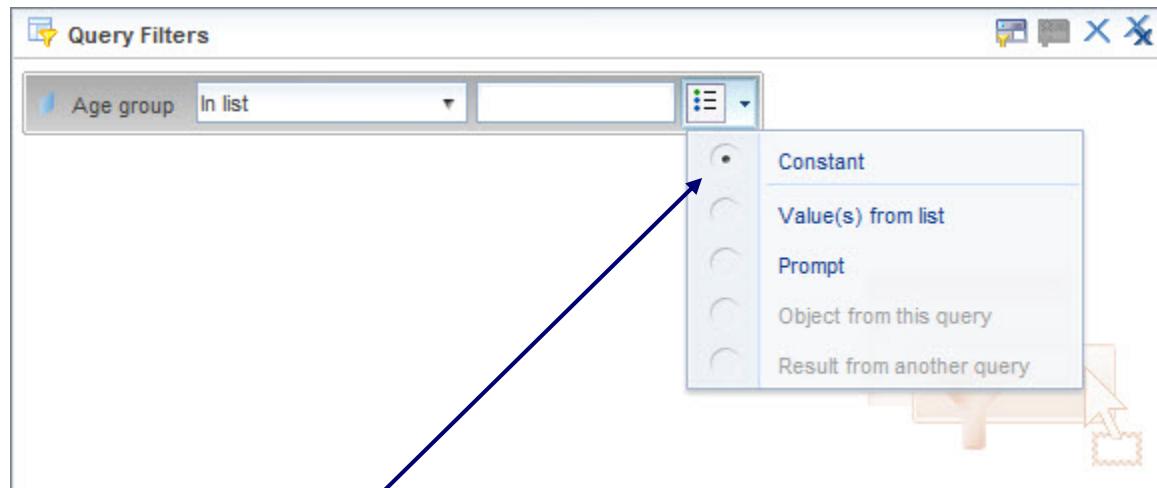
- Drag the Age group object to the Query Filters panel
- Select an operator (comparison)



We want one age group.
Equal to or In list will
work well here.

Building Your First Condition – Operand

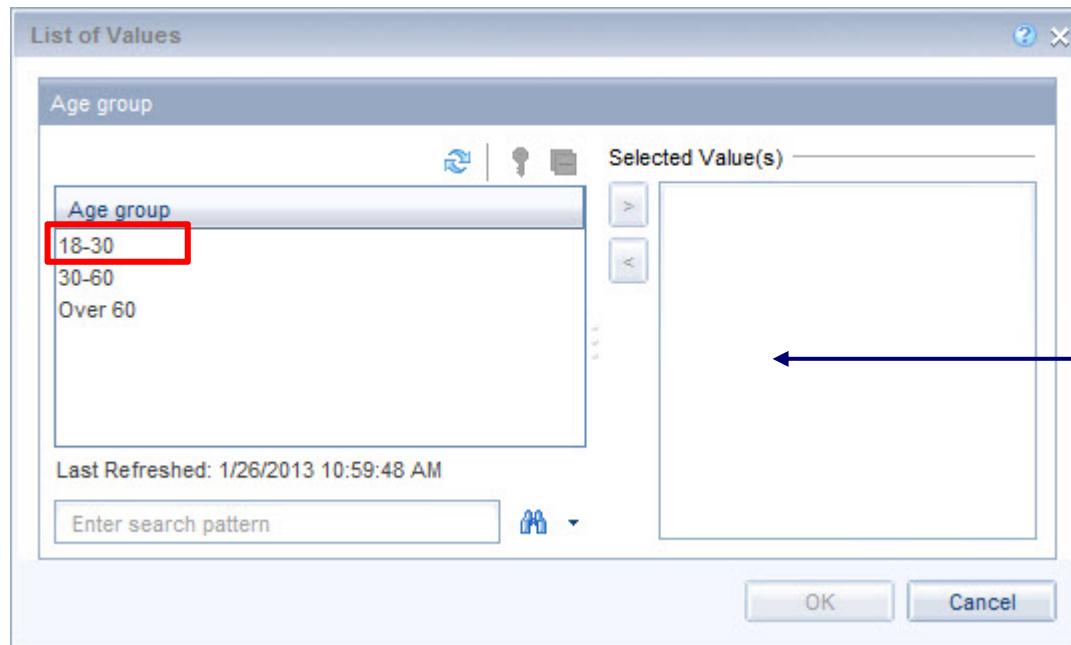
- You know the age group – college kids
- How is that age group stored in the system, though?



Constant means you know the value EXACTLY and can type it in error free

Building Your First Condition – List of Values

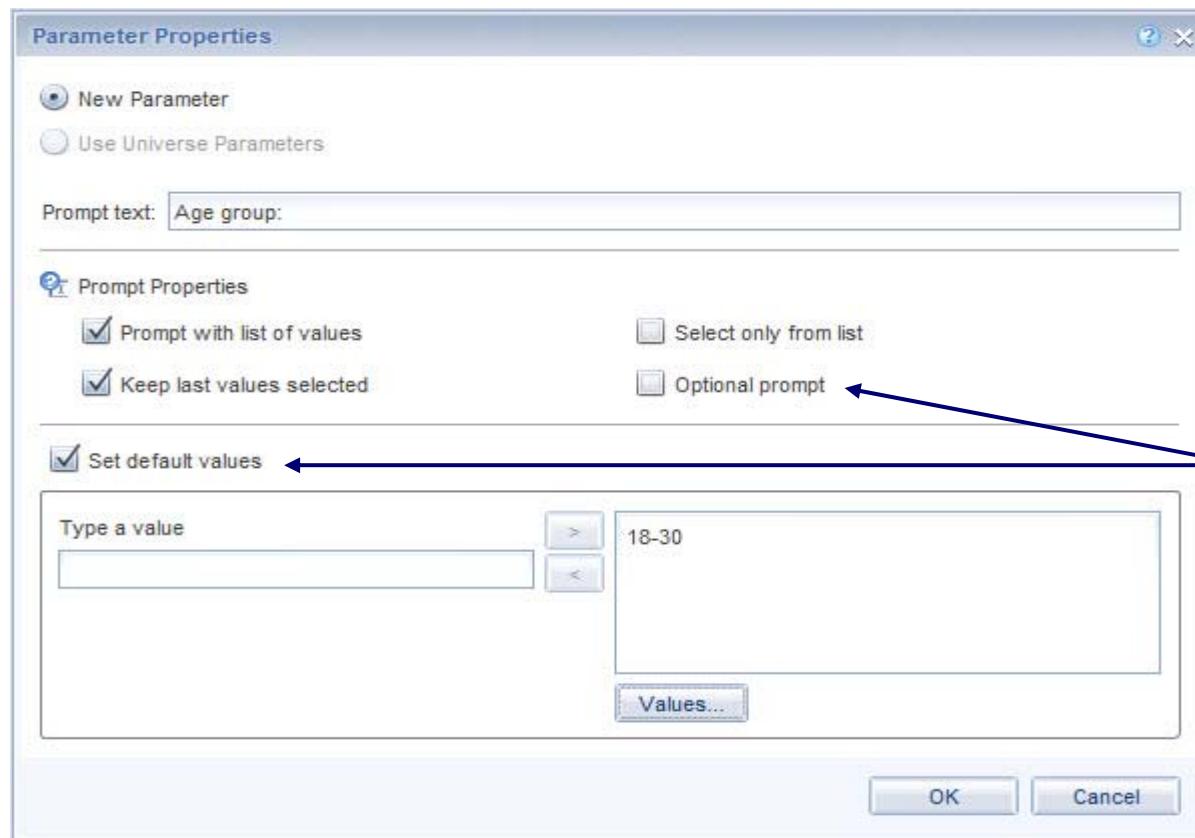
- Fortunately for you, SAP BusinessObjects offers a cheat sheet
 - Value(s) from list
 - Also known as List of Values



Number of values
that can be selected
depends on the
operator

Building Your First Condition – Prompts

- Prompts are a popular alternative
 - More flexible – postpones the decision
 - Allows for different values to be chosen per refresh

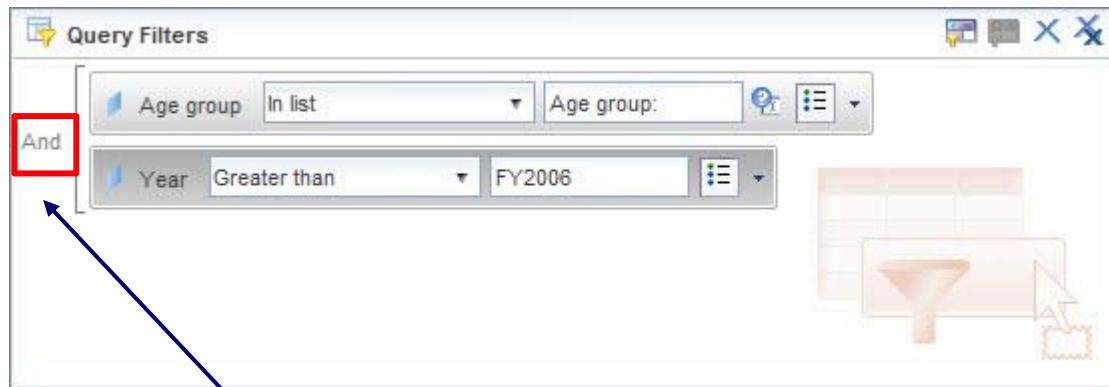


Tip

Lots of choices!
A default value can
be chosen or prompt
could be marked as
optional.

Building Your Second Condition – Year

- A second condition can be placed on Year
 - Data is old
 - Choose the latest year available
- The condition below used List of Values to find that year

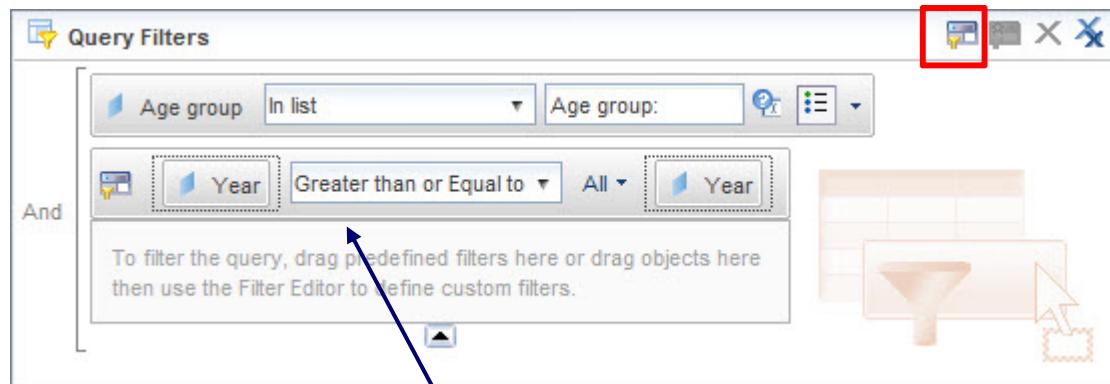


Conjunctions (AND, OR) are placed between conditions. Conditions can also be nested (indented) to represent complex restrictions.



Subquery as an Alternative

- The problem with that last condition – very static
 - If newer years are added, we're stuck using FY2006
- Consider a SUBQUERY to find the latest year



Translated:

The year should be greater than or equal to all years available. This will only return the highest (latest) year!

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- Graduating to advanced techniques
- Wrap-up

Query Results

- The results that are returned show some interesting facts
 - Only three resorts need to be considered
 - Only 4 out of 12 months show any activity

Report 1

Country	Resort	Year	Month	Revenue
France	French Riviera	FY2006	Apr	12,330
France	French Riviera	FY2006	Jan	8,760
France	French Riviera	FY2006	Jul	10,800
France	French Riviera	FY2006	Oct	12,160
US	Bahamas Beach	FY2006	Apr	26,348
US	Bahamas Beach	FY2006	Jan	23,984
US	Bahamas Beach	FY2006	Jul	30,298
US	Bahamas Beach	FY2006	Oct	21,628
US	Hawaiian Club	FY2006	Apr	53,820
US	Hawaiian Club	FY2006	Jan	56,235
US	Hawaiian Club	FY2006	Jul	62,100
US	Hawaiian Club	FY2006	Oct	62,790

Adding Your First Break

- Adding a report break will help isolate our revenue

Report 1

Country	Resort	Year	Month	Revenue
France	French Riviera	FY2006	Apr	12,330
	French Riviera	FY2006	Jan	8,760
	French Riviera	FY2006	Jul	10,800
	French Riviera	FY2006	Oct	12,160
France				



Select any Country value,
then click the Break button
above

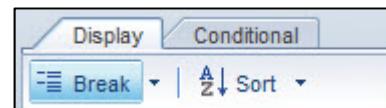
Country	Resort	Year	Month	Revenue
US	Bahamas Beach	FY2006	Apr	26,348
	Bahamas Beach	FY2006	Jan	23,984
	Bahamas Beach	FY2006	Jul	30,298
	Bahamas Beach	FY2006	Oct	21,628
	Hawaiian Club	FY2006	Apr	53,820
	Hawaiian Club	FY2006	Jan	56,235
	Hawaiian Club	FY2006	Jul	62,100
	Hawaiian Club	FY2006	Oct	62,790
US				

Adding Your Second Break

- Group revenue further by adding a break on Resort

Report 1

Country	Resort	Year	Month	Revenue
France	French Riviera	FY2006	Apr	12,330
		FY2006	Jan	8,760
		FY2006	Jul	10,800
		FY2006	Oct	12,160
French Riviera				
France				



Select any Resort value, then click the Break button above

Country	Resort	Year	Month	Revenue
US	Bahamas Beach	FY2006	Apr	26,348
		FY2006	Jan	23,984
		FY2006	Jul	30,298
		FY2006	Oct	21,628
Bahamas Beach				
Country	Resort	Year	Month	Revenue
		FY2006	Apr	53,820
		FY2006	Jan	56,235
		FY2006	Jul	62,100
		FY2006	Oct	62,790
Hawaiian Club				
US				

Add Totals

- Find the totals by country and resort

Report 1

Country	Resort	Year	Month	Revenue
France	French Riviera	FY2006	Apr	12,330
		FY2006	Jan	8,760
		FY2006	Jul	10,800
		FY2006	Oct	12,160
French Riviera			Sum:	44,050
France			Sum:	44,050

Country	Resort	Year	Month	Revenue
US	Bahamas Beach	FY2006	Apr	26,348
		FY2006	Jan	23,984
		FY2006	Jul	30,298
		FY2006	Oct	21,628
Bahamas Beach			Sum:	102,258
Country	Resort	Year	Month	Revenue
	Hawaiian Club	FY2006	Apr	53,820
		FY2006	Jan	56,235
		FY2006	Jul	62,100
		FY2006	Oct	62,790
Hawaiian Club			Sum:	234,945
US			Sum:	337,203



Select any Revenue value, then click the Sum button above

TIP!

Always add your breaks before your calculations. All totals will be calculated as a result (subtotals, grand total).



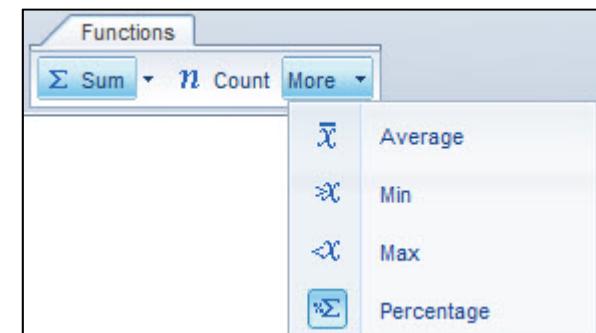
Tip

Add Percentages

- Find the monthly and resort percentage of revenue

Report 1

Country	Resort	Year	Month	Revenue	
France	French Riviera	FY2006	Apr	12,330	27.99%
		FY2006	Jan	8,760	19.89%
		FY2006	Jul	10,800	24.52%
		FY2006	Oct	12,160	27.60%
	French Riviera		Sum:	44,050	
				Percentage:	100.00%
France			Sum:	44,050	
				Percentage:	11.55%

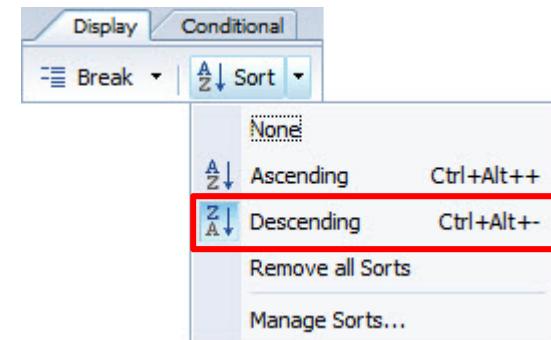


Select any Revenue value then click the More → Percentage button above

Add Sorts

- Sort by Revenue – highest to lowest

Country	Resort	Year	Month	Revenue	Monthly %
France	French Riviera	FY2006	Apr	12,330	27.99%
		FY2006	Oct	12,160	27.60%
		FY2006	Jul	10,800	24.52%
		FY2006	Jan	8,760	19.89%



Select any Revenue value then click the Sort
→ Descending button above

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Cleaning Up the Results

- Percentages and sums are on different lines
 - Drag and drop percentage values to the total line

Country	Resort	Year	Month	Revenue		
France	French Riviera	FY2006	Apr	12,330	27.99%	
		FY2006	Oct	12,160	27.60%	
		FY2006	Jul	10,800	24.52%	
		FY2006	Jan	8,760	19.89%	
French Riviera		Sum:		44,050	100.00%	
				Percentage:		
France			Sum:	44,050	11.55%	
				Percentage:		



Remove Extra Rows

- Remove rows that are no longer needed
 - Right click on any row
 - Choose Delete → Remove Row

Country	Resort	Year	Month	Revenue		
France	French Riviera	FY2006	Apr	12,330		
		FY2006	Oct	12,160		
		FY2006	Jul	10,800		
		FY2006	Jan	8,760		
French Riviera			Sum:	44,050		
				Percentage:		
France			Sum:	44,050	11.55%	
				Percentage:		

Remove

Remove

Remove Row

Remove Column

OK Cancel

Too Many Headers

- Only one blue column header is needed

Country	Resort	Year	Month	Revenue	
France	French Riviera	FY2006	Apr	12,330	27.99%
		FY2006	Oct	12,160	27.60%
		FY2006	Jul	10,800	24.52%
		FY2006	Jan	8,760	19.89%
	French Riviera		Sum:	44,050	100.00%
France			Sum:	44,050	11.55%
Country	Resort	Year	Month	Revenue	
US	Bahamas Beach	FY2006	Jul	30,298	29.63%
		FY2006	Apr	26,348	25.77%
		FY2006	Jan	23,984	23.45%
		FY2006	Oct	21,628	21.15%
	Bahamas Beach		Sum:	102,258	30.33%
Country	Resort	Year	Month	Revenue	
	Hawaiian Club	FY2006	Oct	62,790	26.73%
		FY2006	Jul	62,100	26.43%
		FY2006	Jan	56,235	23.94%
		FY2006	Apr	53,820	22.91%
	Hawaiian Club		Sum:	234,945	69.67%
US			Sum:	337,203	88.45%
			Sum:	381,253	
				Percentage:	100.00%

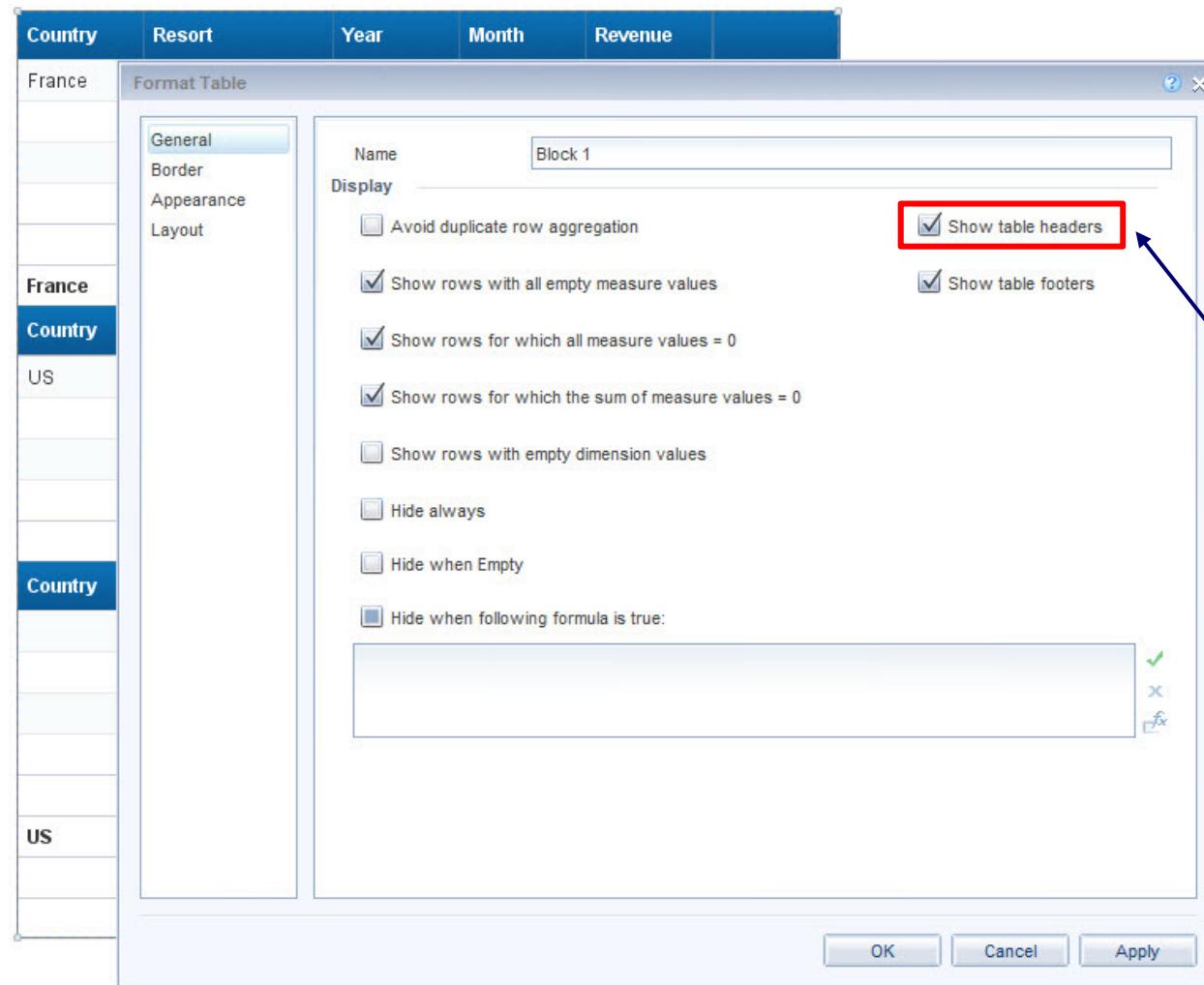
Many beginners leave the multiple headers on the report. You'll know better!



Note

Add a Table Header

- Right-click on the table edge and choose Format Table



Check the table
headers option

Add a Table Header (cont.)

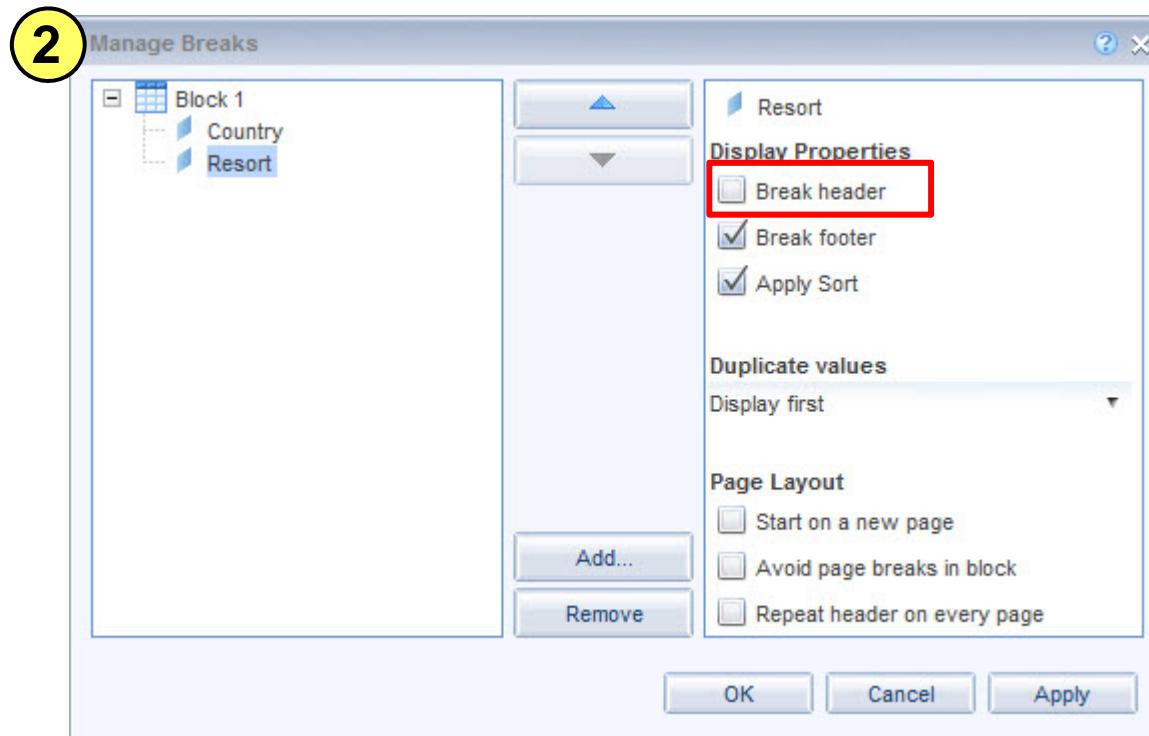
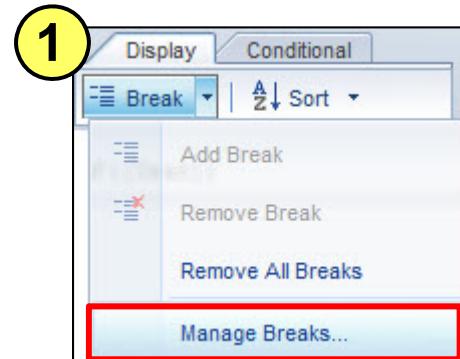
- The table header shows as the row on top

Country	Resort	Year	Month	Revenue	
Country	Resort	Year	Month	Revenue	
France	French Riviera	FY2006	Apr	12,330	27.99%
		FY2006	Oct	12,160	27.60%
		FY2006	Jul	10,800	24.52%
		FY2006	Jan	8,760	19.89%
	French Riviera		Sum:	44,050	100.00%
France			Sum:	44,050	11.55%
Country	Resort	Year	Month	Revenue	
US	Bahamas Beach	FY2006	Jul	30,298	29.63%
		FY2006	Apr	26,348	25.77%
		FY2006	Jan	23,984	23.45%
		FY2006	Oct	21,628	21.15%
	Bahamas Beach		Sum:	102,258	30.33%
Country	Resort	Year	Month	Revenue	
	Hawaiian Club	FY2006	Oct	62,790	26.73%
		FY2006	Jul	62,100	26.43%
		FY2006	Jan	56,235	23.94%
		FY2006	Apr	53,820	22.91%
	Hawaiian Club		Sum:	234,945	69.67%
US			Sum:	337,203	88.45%
			Sum:	381,253	
			Percentage:	100.00%	

All of these break header rows should be deleted

Remove Break Headers

- Select any cell in the table
 - Choose Break → Manage Breaks
 - Remove the header from any break



The Final Reformatted Block

Country	Resort	Year	Month	Revenue	Monthly %
France	French Riviera	FY2006	Apr	12,330	27.99%
		FY2006	Oct	12,160	27.60%
		FY2006	Jul	10,800	24.52%
		FY2006	Jan	8,760	19.89%
French Riviera				44,050	100.00%
France			Total:	44,050	11.55%
US	Bahamas Beach	FY2006	Jul	30,298	29.63%
		FY2006	Apr	26,348	25.77%
		FY2006	Jan	23,984	23.45%
		FY2006	Oct	21,628	21.15%
Bahamas Beach				102,258	30.33%
	Hawaiian Club	FY2006	Oct	62,790	26.73%
		FY2006	Jul	62,100	26.43%
		FY2006	Jan	56,235	23.94%
		FY2006	Apr	53,820	22.91%
Hawaiian Club				234,945	69.67%
US		Total:		337,203	88.45%
		Grand Total:		381,253	100.00%

Double-clicked and added additional text here where highlighted in RED

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- Wrap-up

The Next Step ...

Country	Resort	Year	Month	Revenue	Monthly %
France	French Riviera	FY2006	Apr	12,330	27.99%
		FY2006	Oct	12,160	27.60%
		FY2006	Jul	10,800	24.52%
		FY2006	Jan	8,760	19.89%
French Riviera				44,050	100.00%
France			Total:	44,050	11.55%
US	Bahamas Beach	FY2006	Jul	30,298	29.63%
		FY2006	Apr	26,348	25.77%
		FY2006	Jan	23,984	23.45%
		FY2006	Oct	21,628	21.15%
Bahamas Beach				102,258	30.33%
	Hawaiian Club	FY2006	Oct	62,790	26.73%
		FY2006	Jul	62,100	26.43%
		FY2006	Jan	56,235	23.94%
		FY2006	Apr	53,820	22.91%
Hawaiian Club				234,945	69.67%
US			Total:	337,203	88.45%
			Grand Total:	381,253	100.00%

Looks good!

It would be nice to see
an Overall % – each
month's percentage of
the Grand Total

The Problem ...

- Overall Percentage would use the Grand Total in its formula
 - Monthly Revenue/Grand Total
- All totals currently use the same formula!
 - Grand Total
 - Country subtotal
 - Resort subtotal

	Hawaiian Club		234,945	69.67%
US		Total:	337,203	88.45%
		Grand Total:	381,253	100.00%



How a Formula Works

- The results of the formula change depending on WHERE it is placed
- We'll need to consider the formula's CONTEXT
- What is a context?
 - The environment in which the formula is calculated
 - Think of how contexts are used in real life
 - ▶ Presidential Candidate A: "I will give everyone \$1,000,000"
 - ▶ In context:
 - ▶ "I'll give everyone \$1,000,000 *if they donate \$5,000,000 to my campaign*"
 - If you don't define the contexts for a variable or formula, SAP BusinessObjects will



Heads-Up

Calculation Contexts

- Look at our calculation with contexts added

sum([Revenue] In Body) In Report

Input Context

Output Context

- Input Context controls **WHAT** to sum
 - Inside the parenthesis of a function
- Output Context tells how many rows to consider
 - Outside the parenthesis of a function



Key Feature

45

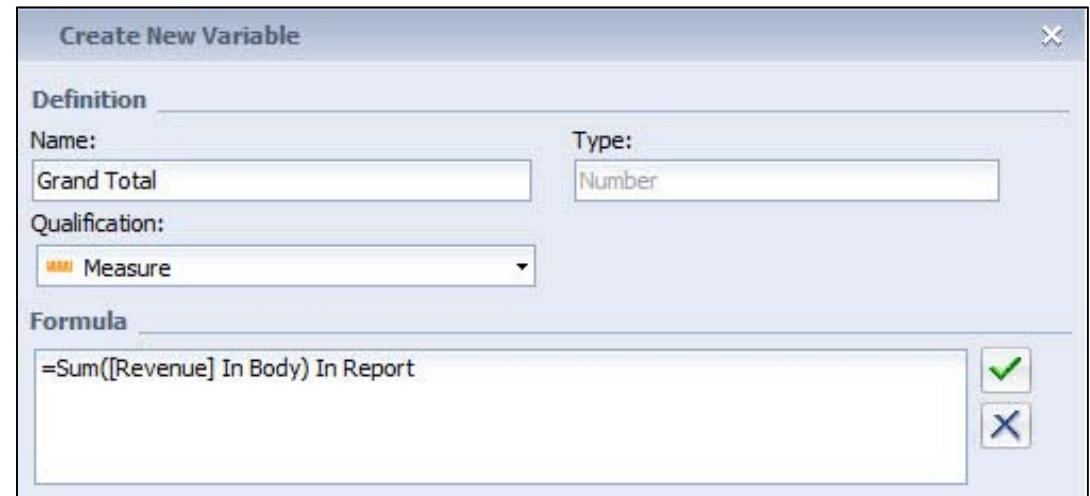
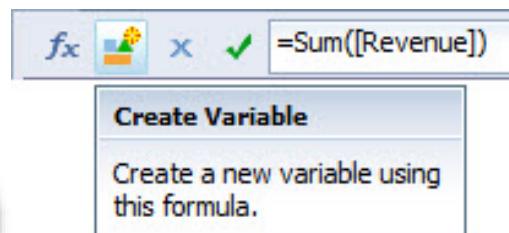
Defining Grand Total with Contexts

- Our current Grand Total is a formula created by SAP BusinessObjects
- We'll convert that formula to a variable
 - Then we can reuse it for other calculations, like Overall %
- Use the Create Variable button on the Formula Bar
 - Converts an existing formula to a variable



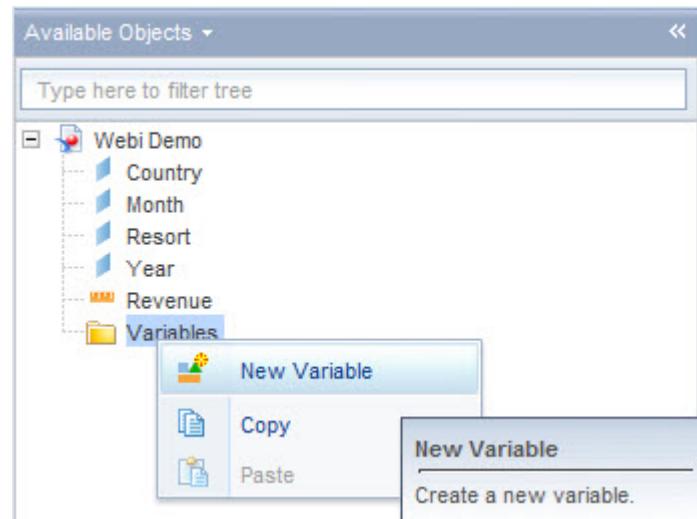
Best Practice

Most experienced report developers use ONLY variables



The Overall % Variable

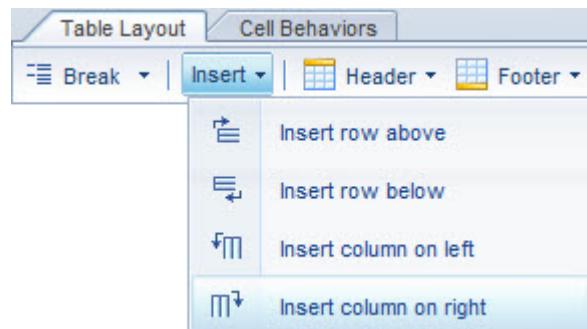
- Create a new variable for Overall %
 - Right-click on the Variables folder and choose New Variable



- Add a new variable called Overall %
 - ▶ Formula: =[Revenue] / [Grand Total]

Adding a New Column

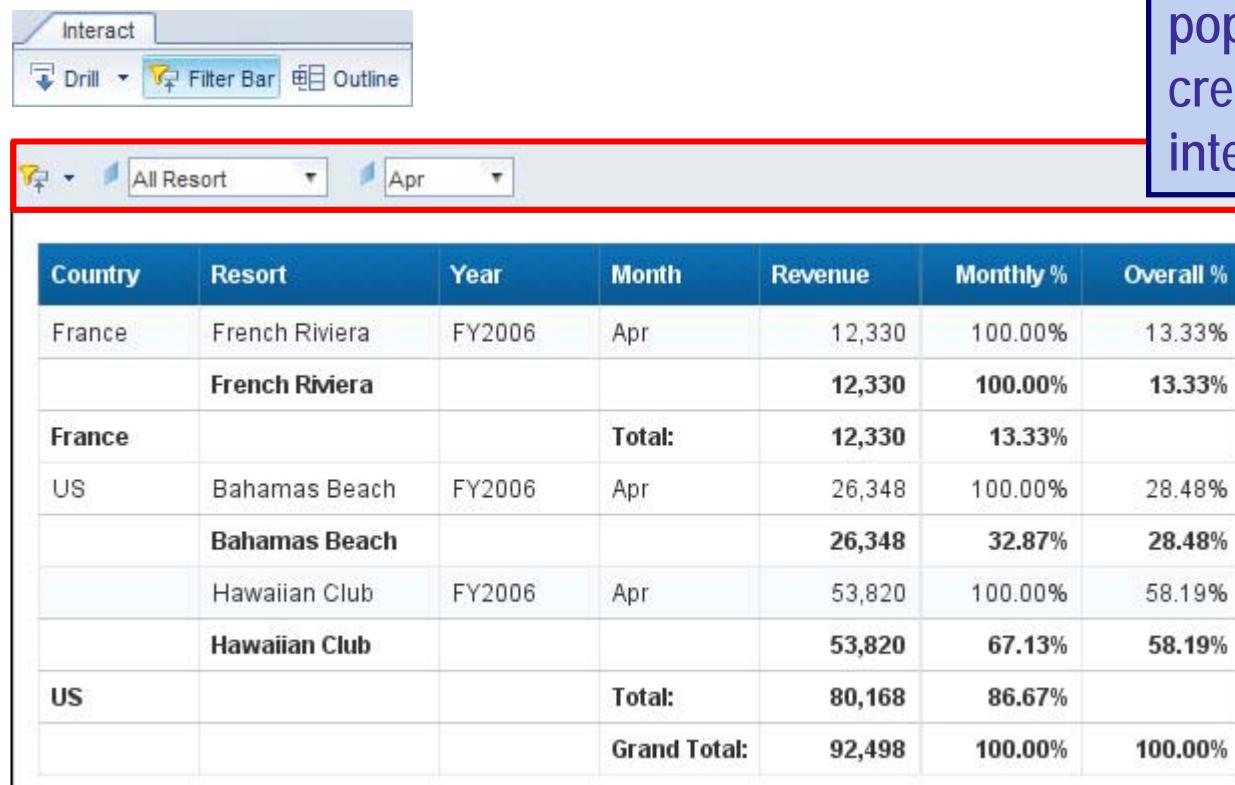
- Add a new column to the right for the Overall % variable
 - Use the Insert → Insert column button
 - Drag the Overall % inside the new column



Country	Resort	Year	Month	Revenue	Monthly %	Overall %
France	French Riviera	FY2006	Apr	12,330	27.99%	3.23%
		FY2006	Oct	12,160	27.60%	3.19%
		FY2006	Jul	10,800	24.52%	2.83%
		FY2006	Jan	8,760	19.89%	2.30%
				44,050	100.00%	11.55%
France			Total:	44,050	11.55%	
US	Bahamas Beach	FY2006	Jul	30,298	29.63%	7.95%
		FY2006	Apr	26,348	25.77%	6.91%
		FY2006	Jan	23,984	23.45%	6.29%
		FY2006	Oct	21,628	21.15%	5.67%
				102,258	30.33%	26.82%
	Hawaiian Club	FY2006	Oct	62,790	26.73%	16.47%
		FY2006	Jul	62,100	26.43%	16.29%
		FY2006	Jan	56,235	23.94%	14.75%
		FY2006	Apr	53,820	22.91%	14.12%
				234,945	69.67%	61.62%
US			Total:	337,203	88.45%	
			Grand Total:	381,253	100.00%	

Filtering Interactively

- Allow further exploration by activating the Filter Bar
 - Use the Filter Bar button from the Interact tab
 - Drag Resort and Year to this bar



The screenshot shows a SAP Crystal Reports interface. At the top, there's a toolbar with tabs like 'Interact' (selected), 'Drill', 'Filter Bar' (which is highlighted with a red box), and 'Outline'. Below the toolbar is a filter bar with dropdown menus for 'All Resort' (set to 'French Riviera') and 'Apr' (set to 'Apr'). A large table below displays revenue data for different countries, resorts, and years. The table has columns for Country, Resort, Year, Month, Revenue, Monthly %, and Overall %. The data shows revenue for French Riviera in April 2006, Bahamas Beach in April 2006, and Hawaiian Club in April 2006.

Country	Resort	Year	Month	Revenue	Monthly %	Overall %
France	French Riviera	FY2006	Apr	12,330	100.00%	13.33%
	French Riviera			12,330	100.00%	13.33%
France			Total:	12,330	13.33%	
US	Bahamas Beach	FY2006	Apr	26,348	100.00%	28.48%
	Bahamas Beach			26,348	32.87%	28.48%
	Hawaiian Club	FY2006	Apr	53,820	100.00%	58.19%
	Hawaiian Club			53,820	67.13%	58.19%
US			Total:	80,168	86.67%	
			Grand Total:	92,498	100.00%	100.00%

This is an extremely popular option when creating an interactive report



Best Practice

Folding

- Allow the user to expand the detail for one or more values
 - Value must be part of a report break
 - Report must be in Outline mode



Tip

The screenshot shows a SAP Crystal Reports interface. At the top, there's a toolbar with buttons for 'Interact', 'Drill', 'Filter Bar', and 'Outline'. Below the toolbar is a table with columns: Country, Resort, Year, Month, Revenue, Monthly %, and Overall %. The data includes rows for France (French Riviera) and US (Bahamas Beach) across different months and years. On the left side of the table, there are vertical outline bars. A callout box with a blue border and white text points to these bars with the text: 'Break values can be expanded/collapsed by clicking on outline bars'. At the bottom of the table, there are horizontal outline bars with buttons labeled '1' and '2'. A callout box with a blue border and white text points to these buttons with the text: 'Entire breaks can be expanded/collapsed using the break buttons'.

Country	Resort	Year	Month	Revenue	Monthly %	Overall %
France	French Riviera	FY2006	Apr	12,330	27.99%	3.23%
		FY2006	Oct	12,160	27.60%	3.19%
		FY2006	Jul	10,800	24.52%	2.83%
		FY2006	Jan	8,760	19.89%	2.30%
French Riviera				44,050	100.00%	11.55%
France			Total:	44,050	11.55%	11.55%
US	Bahamas Beach	FY2006	Jul	30,298	29.63%	7.95%
		FY2006	Apr	26,348	25.77%	6.91%
		FY2006	Jan	23,984	23.45%	6.29%
		FY2006	Oct	21,628	21.15%	5.67%
Bahamas Beach				102,258	30.33%	26.82%

Folding (cont.)

- Example of folding all countries

Country	Resort	Year	Month	Revenue	Monthly %	Overall %
France			Total:	44,050	11.55%	11.55%
US			Total:	337,203	88.45%	88.45%
			Grand Total:	381,253	100.00%	100.00%

- ... Or unfolding a particular resort

Country	Resort	Year	Month	Revenue	Monthly %	Overall %
France	French Riviera	FY2006	Apr	12,330	27.99%	3.23%
		FY2006	Oct	12,160	27.60%	3.19%
		FY2006	Jul	10,800	24.52%	2.83%
		FY2006	Jan	8,760	19.89%	2.30%
	French Riviera			44,050	100.00%	11.55%
France			Total:	44,050	11.55%	11.55%
US			Total:	337,203	88.45%	88.45%
			Grand Total:	381,253	100.00%	100.00%

Providing the Details

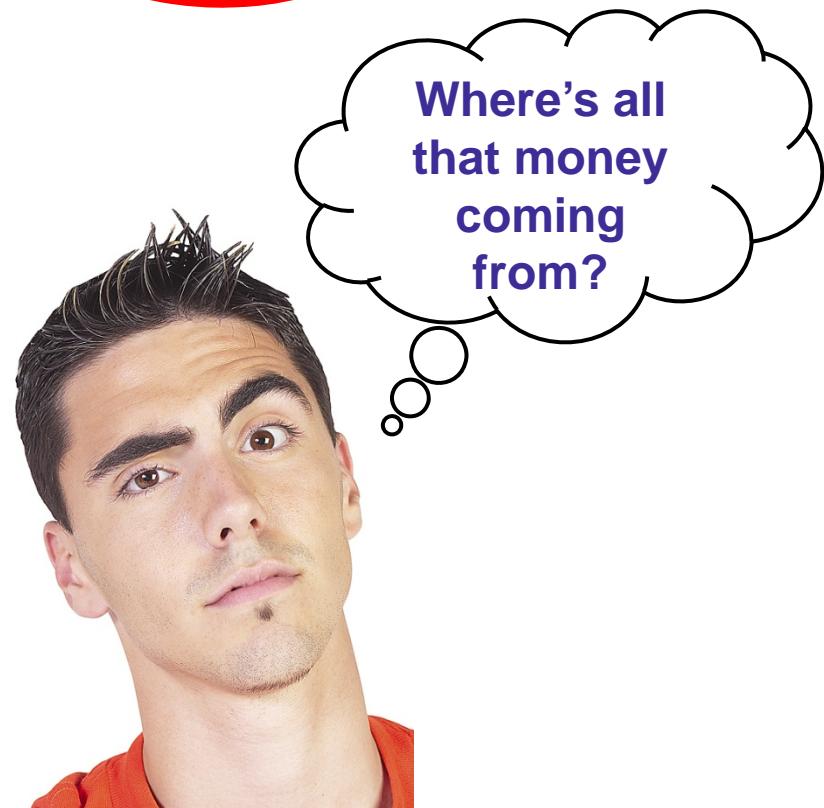
- How are we generating our revenue?
 - Room bills
 - Drinks
 - Poker tournaments
- We can use Web Intelligence to find out!
- You can try providing all information in one query
 - That may not be wise for large amounts of data
 - Try returning details for one resort/month
 - That second query should run much faster



Providing the Details – Step 1

- 1 Decide at what point more details are needed

Country	Resort	Year	Month	Revenue
France	French Riviera	FY2006	Apr	<u>12,330</u>



Providing the Details – Step 2

2 Create a second document to retrieve the details

The screenshot shows the SAP Fiori Query Filter dialog. At the top, there are three tabs: 'Service Line' (selected), 'Service', and 'Revenue'. Below the tabs is a 'Query Filters' section with four filter criteria under the heading 'And':

- Country: Equal to [input field]
- Resort: Equal to [input field]
- Year: Equal to [input field]
- Month: Equal to [input field]

Each filter row has a small orange callout pointing to the right, indicating where the prompt will appear.



Service Line	Service	Revenue
Accommodation	Hotel Room	9,180
Food & Drinks	Restaurant	2,550
Recreation	Activities	600

KEY:

We have to prompt
for every value from
the previous line
(Step 1)

The prompts will tie
the two documents
together!

Providing the Details – Step 3

③ Create a link between the two documents

- Right-click on the Revenue column (first document)
- Linking → Add Document Link

Screenshot of the SAP Fiori Launchpad interface showing the "Link to document" configuration screen. The "Name" field is set to "Webi Demo Detail". Under "Hyperlink properties", the "Refresh on open" checkbox is checked and highlighted with a red box and a blue arrow pointing to it from the text on the right. Other options like "Use complete URL path to create hyperlink" and "Link to document instance" are also listed. Below, "Document prompts" are defined for Country, Resort, Year, and Month, each with a dropdown menu showing =[Country], =[Resort], =[Year], and =[Month]. At the bottom, "Customize the look and behavior of the hyperlink:" includes settings for Document format (Default), Target window (New window), and Tooltip.

Refresh on open is important!
It feeds values from the data row to the second query.



Heads-Up

Providing the Details – The Results

- Clicking on Revenue from the first document ...

Country	Resort	Year	Month	Revenue
France	French Riviera	FY2006	Apr	<u>12,330</u>

Country = France
Resort = French Riviera
Year = FY2006
Month = Apr



- ... Completes the prompts for the second document

Service Line	Service	Revenue
Accommodation	Hotel Room	9,180
Food & Drinks	Restaurant	2,550
Recreation	Activities	600

Adding Information from Other Places

- Sometimes, not all the information you need is available
- In those cases, you may need other sources
 - Another universe
 - BEx query
 - BI Analysis view
- Web Intelligence can merge data from multiple sources
 - Not easy using other tools
 - ▶ Try doing the following example in Excel

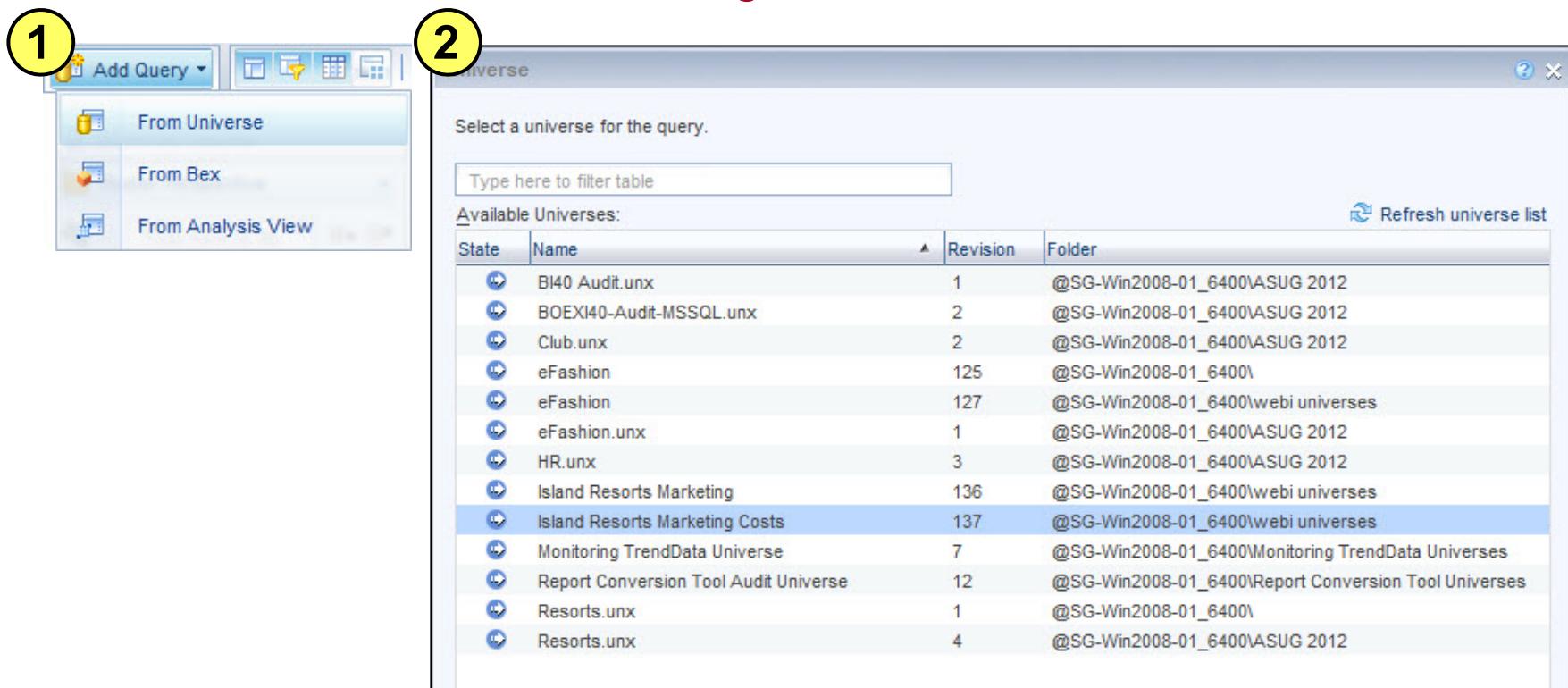


Key Feature



Creating a Second Query

- For example, we want to add cost to our detailed document
 - Click the Add Query button
 - Build a query that includes Cost
 - ▶ Not available in our original universe



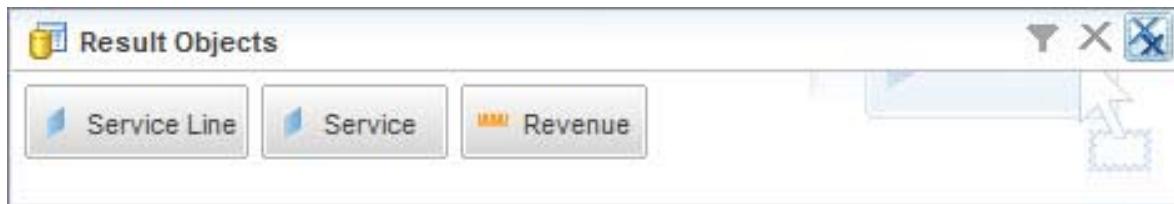
Creating a Second Query (cont.)

- Add enough objects in Query 2 to tie back to Query 1
 - The dimensions (blue cubes) will provide that relationship

Query 2



Query 1



Object names for dimensions
may not match!

Merging Dimensions

- If Cost is added to the original block, results are less than stellar
 - How are costs the same for every line?

Service Line	Service	Revenue	Cost
Accommodation	Hotel Room	9,180	9,247.5
Food & Drinks	Restaurant	2,550	9,247.5
Recreation	Activities	600	9,247.5

- Dimensions should be merged
 - Use the Data Objects → Merge button



Merging Dimensions (cont.)

- Merge each pair of similar dimensions
 - The results will be much better (and more accurate)

The screenshot illustrates the process of merging dimensions in SAP. On the left, the 'Available objects' dialog shows a tree view of objects under 'New Document'. Under 'Query 1', 'Service' and 'Service Line' are selected. Under 'Query 2', 'SLine' and 'Srv' are selected. A blue arrow points from this dialog to a report table on the right.

Available objects

Select two or more qualified dimensions to be merged

- New Document
 - Query 1
 - Service
 - Service Line
 - Query 2
 - SLine
 - Srv
 - Variables

OK Cancel

Service Line	Service	Revenue	Cost
Accommodation	Hotel Room	9,180	6,885
Food & Drinks	Restaurant	2,550	1,912.5
Recreation	Activities	600	450

What We'll Cover

- Introduction
- Writing the query
- Analyzing the results
- Formatting for clarity
- Graduating to advanced techniques
- Wrap-up

Where to Find More Information

- SAP BusinessObjects Web Intelligence User's Guide
(http://help.sap.com/boall_en/)
 - Follow Web Intelligence → SAP BusinessObjects 4.0
- Using functions, formulas, and calculations in Web Intelligence
(http://help.sap.com/boall_en/)
 - Follow Web Intelligence → SAP BusinessObjects 4.0
- Official Product Tutorials – SAP BusinessObjects Web Intelligence
(<http://scn.sap.com/docs/DOC-7819>)
- Jim Brogden, Heather Sinkwitz, et al., *SAP BusinessObjects Web Intelligence: The Comprehensive Guide (2nd Edition)* (SAP PRESS, 2012).



Where to
Find it

7 Key Points to Take Home

- Web Intelligence is simple to use, easy to master
- Many techniques work regardless of the version (4.x, 3.1)
- Basic concepts like querying, analyzing, and formatting are similar to other office tools
- Creating variables allows tremendous report flexibility
- Advanced techniques, like document linking, can pay huge dividends in performance
- Merging queries via dimensions allows data to be added from many sources
- This tool is the future for ad hoc reporting – many more improvements coming your way



Don't Forget

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Your Turn!



Questions?

How to contact me:

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Please remember to complete your session evaluation

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