



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

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Solid Ground Technologies

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
 - ♦ Attended 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

What We'll Cover ...

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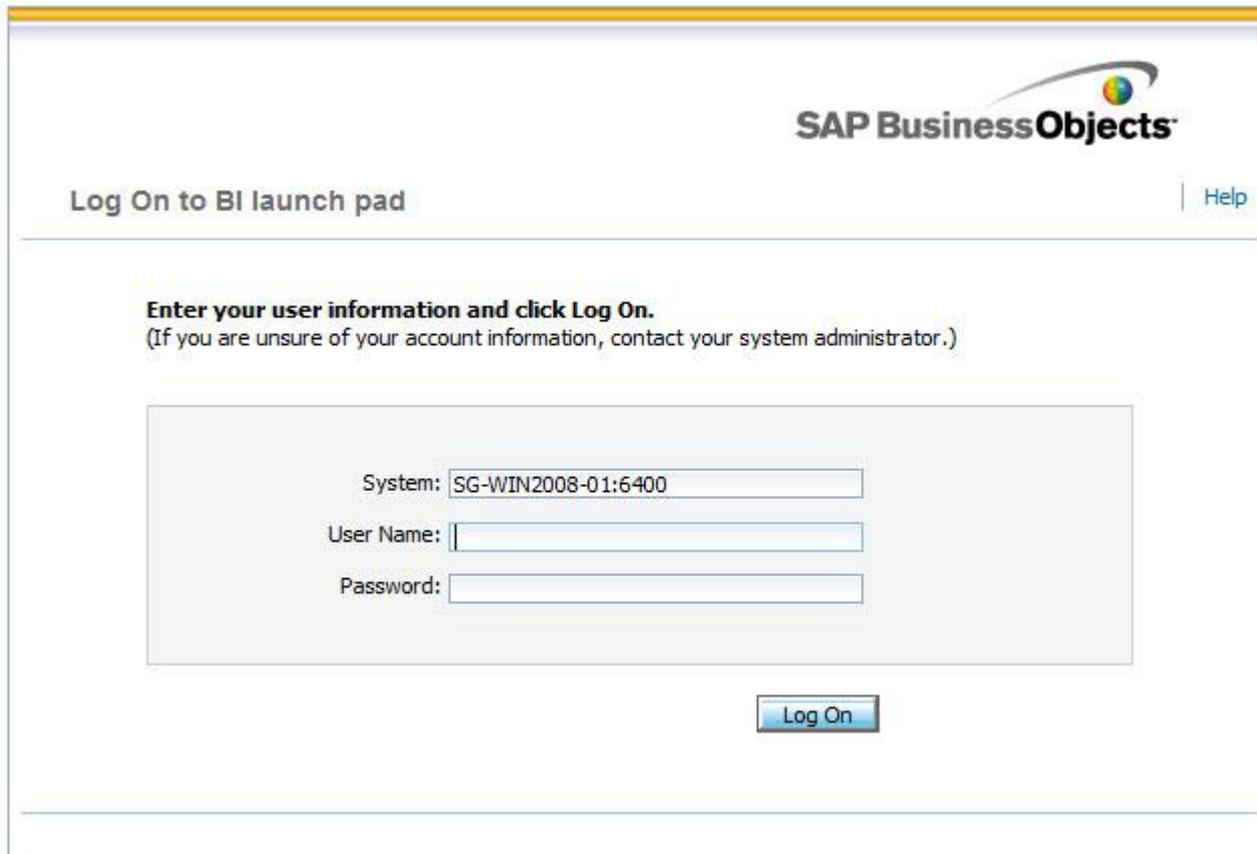
Many Ways to Begin

- **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`



The screenshot shows the SAP Business Objects BI Launch Pad login interface. At the top right is the SAP Business Objects logo. Below it, the text "Log On to BI launch pad" is displayed on the left, and a "Help" link is on the right. The main content area contains the instruction: "Enter your user information and click Log On. (If you are unsure of your account information, contact your system administrator.)". Below this instruction is a form with three input fields: "System:" with the value "SG-WIN2008-01:6400", "User Name:" with an empty field, and "Password:" with an empty field. A "Log On" button is positioned below the form.

SAP Business Objects

Log On to BI launch pad | [Help](#)

Enter your user information and click Log On.
(If you are unsure of your account information, contact your system administrator.)

System:

User Name:

Password:

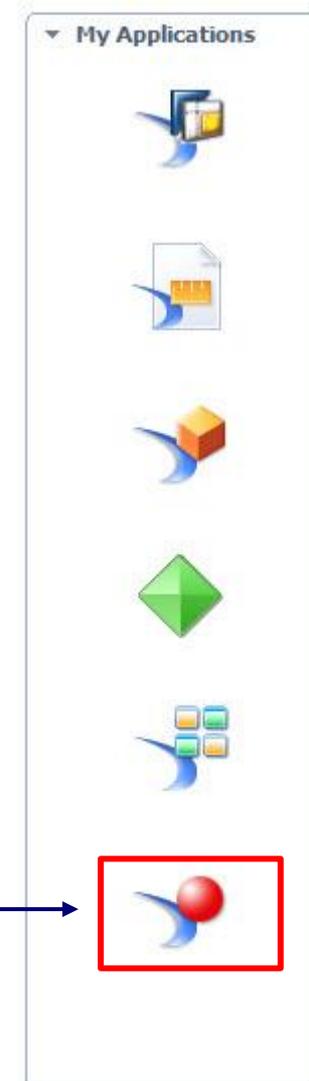
Launching Web Intelligence

- Use the Application menu from the Home or Documents tab



Tip

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**



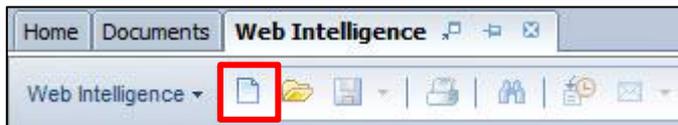
Company moving away from Java applets? Editor can be switched to Web under Preferences → Web Intelligence.



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

Universe

Select a universe for the query.

Type here to filter table

Available Universes: Refresh universe list

State	Name	Revision	Folder
🔍	BI40 Audit.unx	1	@SG-Win2008-01_6400\ASUG 2012
🔍	BOEXI40-Audit-MSSQL.unx	2	@SG-Win2008-01_6400\ASUG 2012
🔍	Club.unx	2	@SG-Win2008-01_6400\ASUG 2012
🔍	eFashion	125	@SG-Win2008-01_6400\
🔍	eFashion	127	@SG-Win2008-01_6400\webi universes
🔍	eFashion.unx	1	@SG-Win2008-01_6400\ASUG 2012
🔍	HR.unx	3	@SG-Win2008-01_6400\ASUG 2012
🔍	Island Resorts Marketing	136	@SG-Win2008-01_6400\webi universes
🔍	Island Resorts Marketing Costs	137	@SG-Win2008-01_6400\webi universes
🔍	Monitoring TrendData Universe	7	@SG-Win2008-01_6400\Monitoring TrendData Universes
🔍	Report Conversion Tool Audit Universe	12	@SG-Win2008-01_6400\Report Conversion Tool Universes
🔍	Resorts.unx	1	@SG-Win2008-01_6400\
🔍	Resorts.unx	4	@SG-Win2008-01_6400\ASUG 2012

The Island Resorts Marketing universe is part of every default install

Understanding the Query Panel

- The Query Panel is where queries are created

Classes and objects
(building blocks for
our query)

Data to be returned

Conditions which
restrict the data

The screenshot shows the SAP Query Panel interface. The 'Outline' pane on the left contains a tree view of data objects under 'Island Resorts Marketing', including 'Resort', 'Country', 'Service Line', 'Service', 'Bahamas resort', 'Hawaiian resort', 'Sales', 'Customer', 'Reservations', and 'Measures'. The 'Result Objects' pane on the right contains a text box with instructions: '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.' The 'Query Filters' pane at the bottom contains a text box with instructions: 'To filter the query, drag predefined filters here or drag objects here then use the Filter Editor to define custom filters.' Three yellow circles with numbers 1, 2, and 3 are placed on the interface. Circle 1 is at the bottom left of the Outline pane. Circle 2 is at the bottom left of the Result Objects pane. Circle 3 is at the bottom left of the Query Filters pane. A 'Building Blocks' logo is in the bottom left corner. The status bar at the bottom shows 'Query 1' and '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



Tip

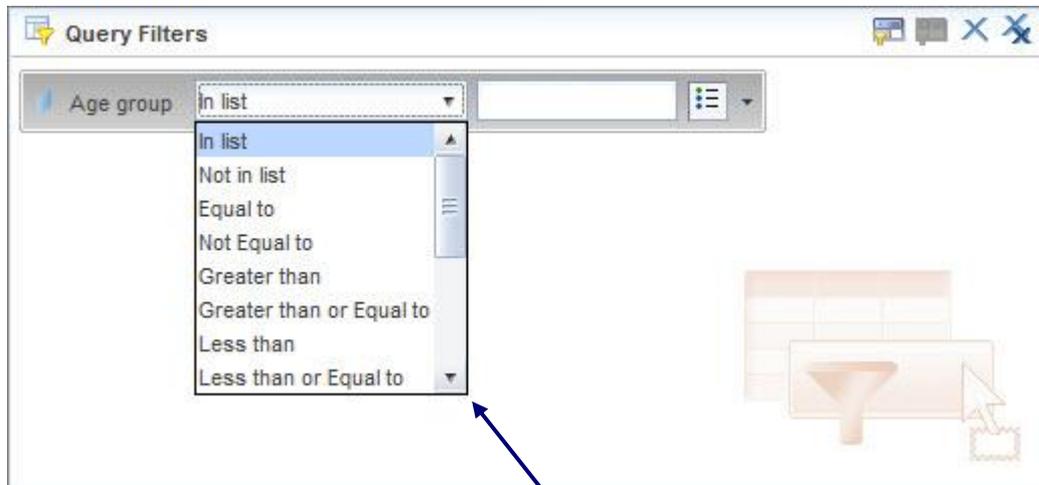
Thinking About Conditions

- Which age group should you target?



Building Your First Condition – Operator

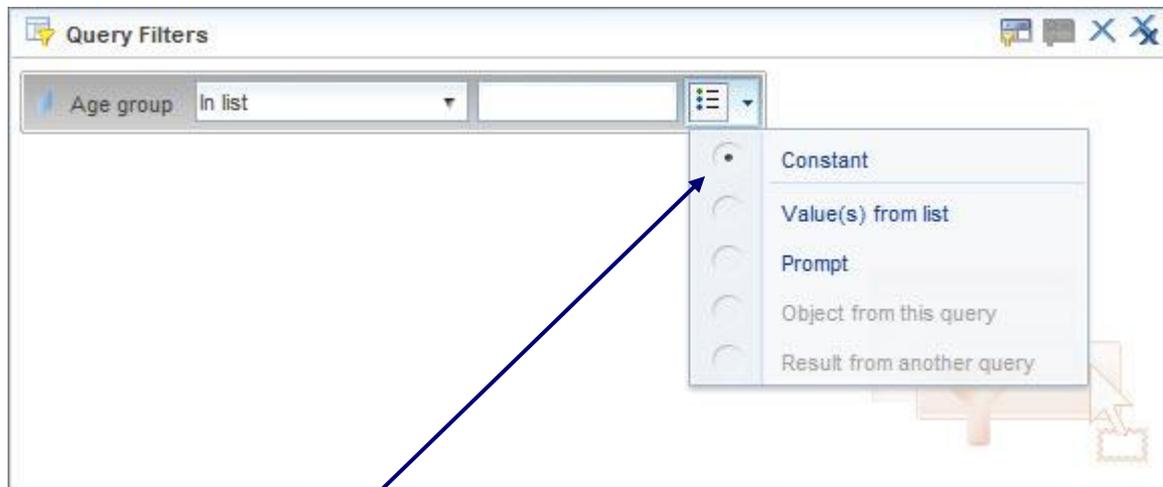
- Drag the Age group object to the Query Filters panel
- Select an operator (comparison)



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

Building Your First Condition – Operand

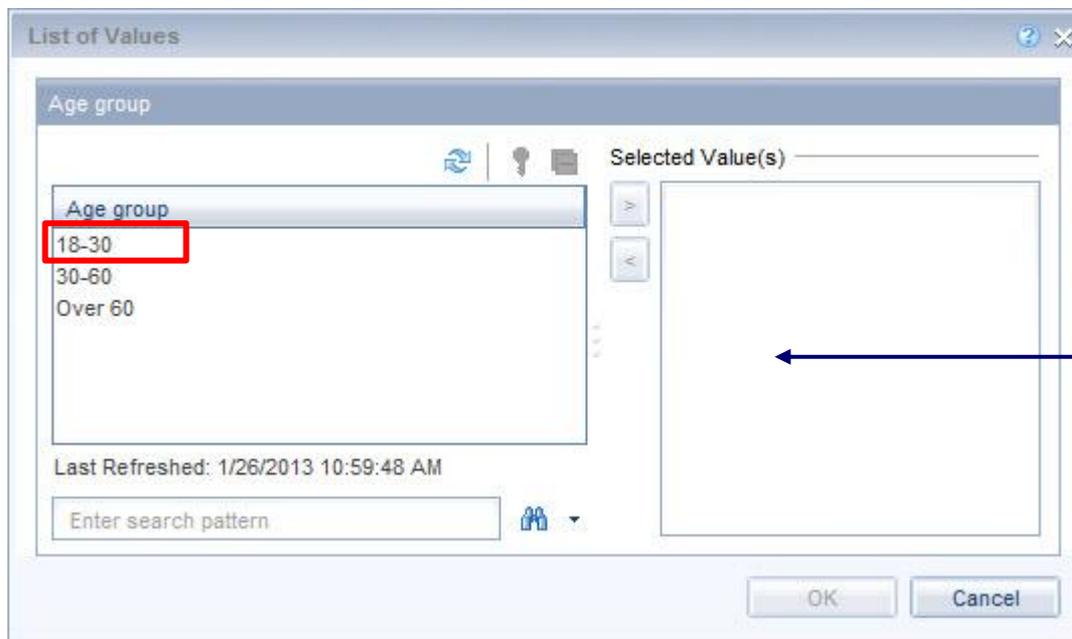
- You know the age group – college kids
- How is that age group stored in the system, though?



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

Parameter Properties

New Parameter
 Use Universe Parameters

Prompt text: Age group:

Prompt Properties

Prompt with list of values
 Keep last values selected
 Select only from list
 Optional prompt

Set default values

Type a value

18-30

Values...

OK Cancel



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

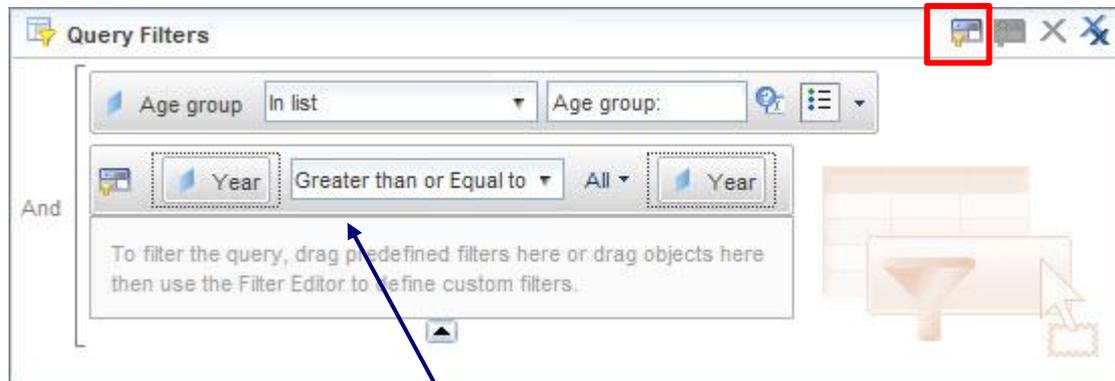


Conjunctions (AND, OR) are placed between conditions. Conditions can also be nested (indented) to represent complex restrictions.



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!

What We'll Cover ...

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- Writing the query
- Analyzing the results
- Formatting for clarity
- 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

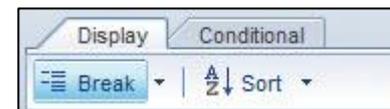
Adding Your First Break

- 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				

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				



Select any Country value, then click the Break button above

Adding Your Second Break

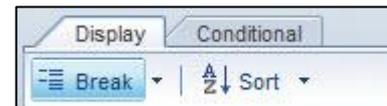
- Group revenue further by adding a break on Resort

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				

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
	Hawaiian Club	FY2006	Apr	53,820
		FY2006	Jan	56,235
		FY2006	Jul	62,100
		FY2006	Oct	62,790
	Hawaiian Club			
US				



Select any Resort value, then click the Break button above

Add Totals

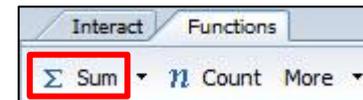
- Find the totals by country and resort

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
US	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
			Sum:	381,253



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).



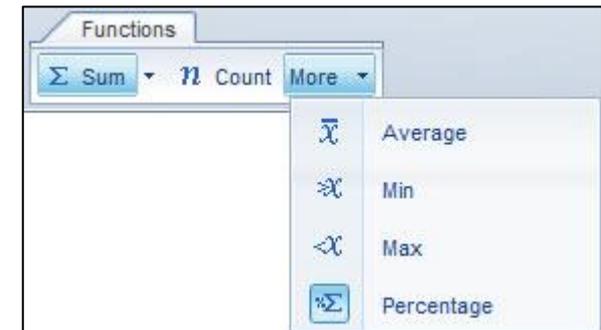
Tip

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%

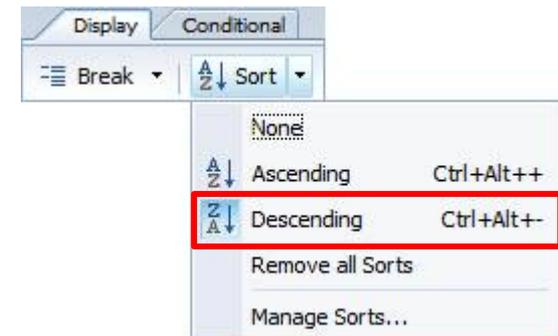


Select any Revenue value then click the More → Percentage button above

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

What We'll Cover ...

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

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%

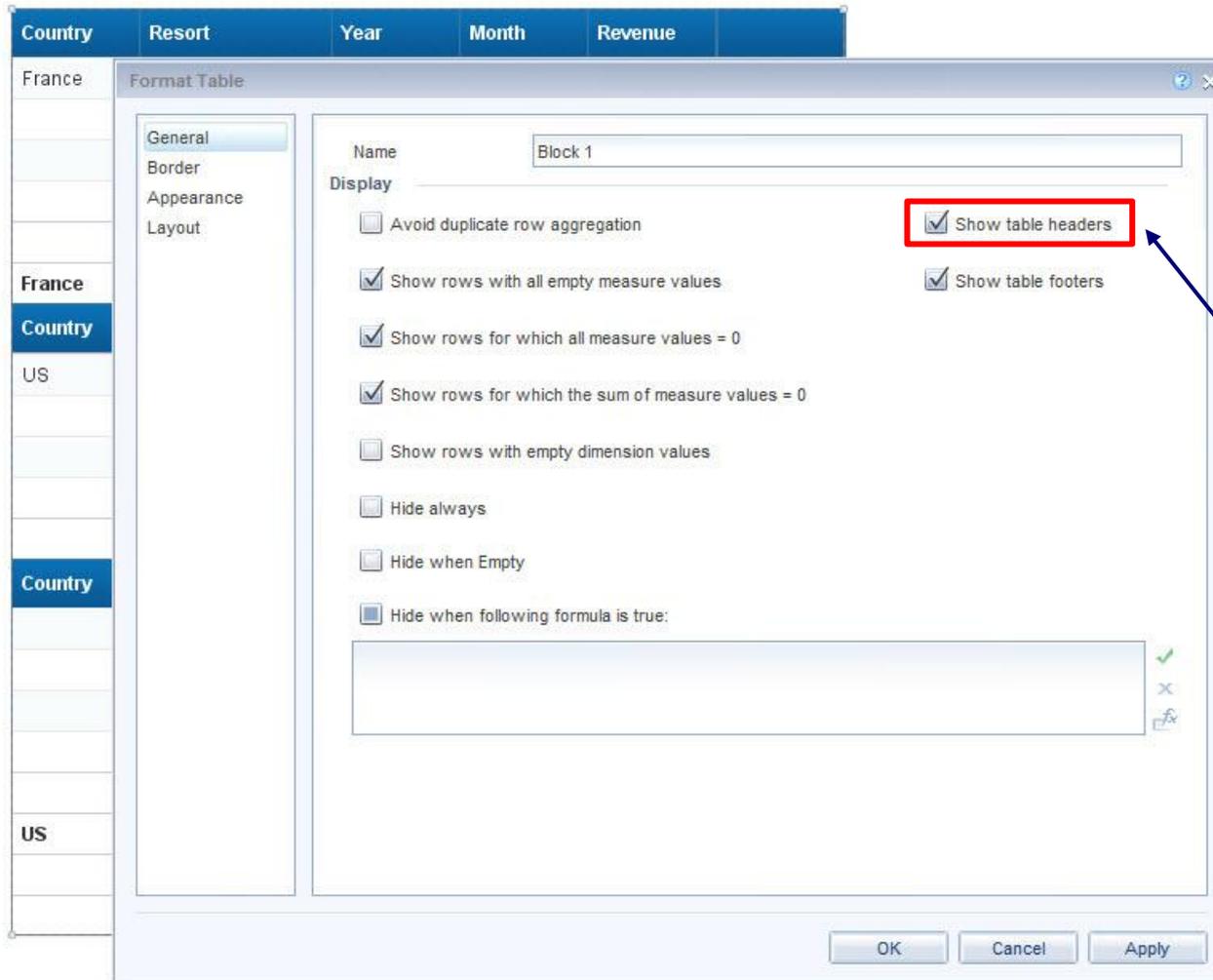
Many beginners leave the multiple headers on the report. You'll know better!



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.)

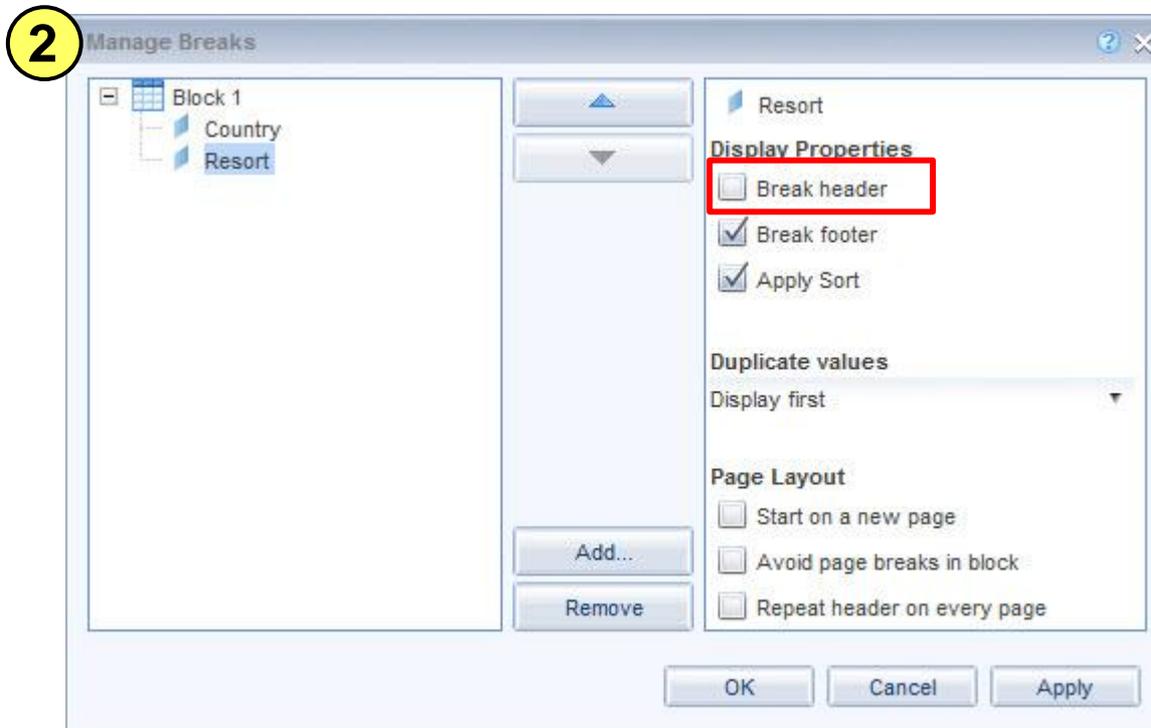
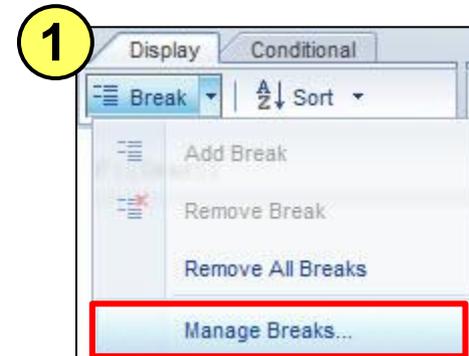
- The table header shows as the row on top

Country	Resort	Year	Month	Revenue	
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**

What We'll Cover ...

- Introduction
- Writing the query
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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%



<i>fx</i>				=Sum([Revenue])
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How a Formula Works

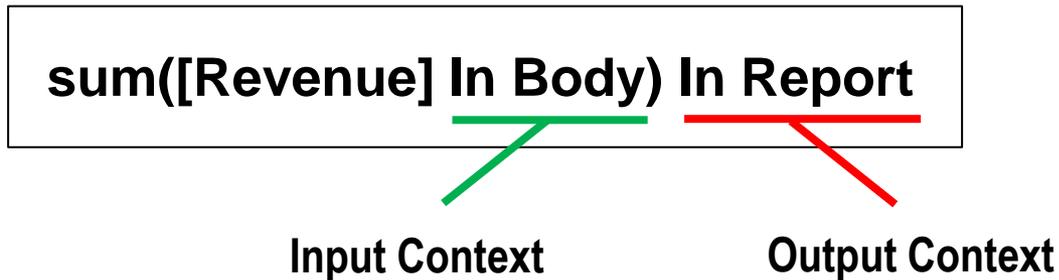
- The results of the formula change depending on **WHERE** it is placed
- We'll need to consider the formula's **CONTEXT**
- What is a context?
 - ◆ The environment in which the formula is calculated
 - ◆ Think of how contexts are used in real life
 - ▶ **Presidential Candidate A: "I will give everyone \$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

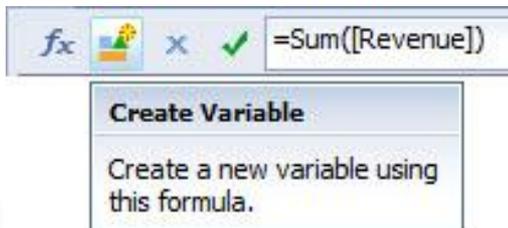


- **Input Context controls WHAT to sum**
 - ◆ Inside the parenthesis of a function
- **Output Context tells how many rows to consider**
 - ◆ Outside the parenthesis of a function



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

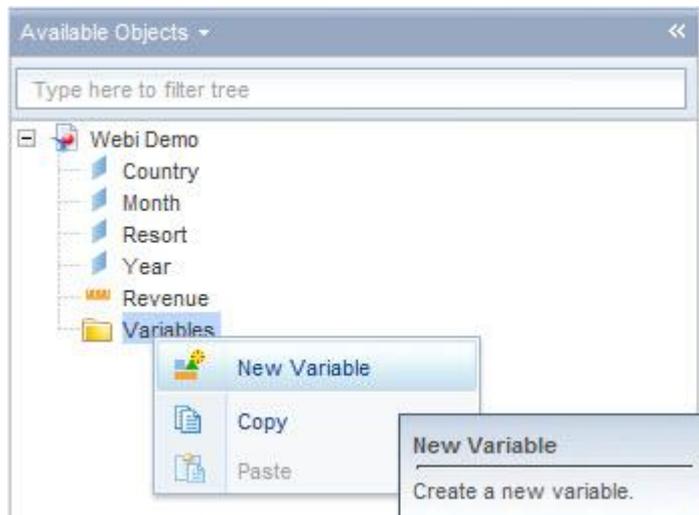
The 'Create New Variable' dialog box is shown with the following fields:

- Definition:**
 - Name: Grand Total
 - Type: Number
- Qualification:** Measure
- Formula:** `=Sum([Revenue] In Body) In Report`

Buttons for 'OK' (checkmark) and 'Cancel' (X) are visible at the bottom right of the dialog.

The Overall % Variable

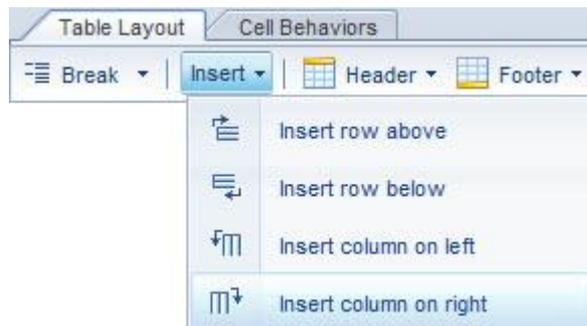
- Create a new variable for Overall %
 - ◆ Right-click on the Variables folder and choose New Variable



- ◆ Add a new variable called Overall %
 - ▶ Formula: $=[\text{Revenue}] / [\text{Grand Total}]$

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%
			Oct	12,160	27.60%	3.19%
			Jul	10,800	24.52%	2.83%
			Jan	8,760	19.89%	2.30%
	French Riviera			44,050	100.00%	11.55%
France			Total:	44,050	11.55%	
US	Bahamas Beach	FY2006	Jul	30,298	29.63%	7.95%
			Apr	26,348	25.77%	6.91%
			Jan	23,984	23.45%	6.29%
			Oct	21,628	21.15%	5.67%
	Bahamas Beach			102,258	30.33%	26.82%
	Hawaiian Club	FY2006	Oct	62,790	26.73%	16.47%
		Jul	62,100	26.43%	16.29%	
		Jan	56,235	23.94%	14.75%	
		Apr	53,820	22.91%	14.12%	
	Hawaiian Club			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 the SAP report interface. At the top, there are two dropdown menus: 'All Resort' and 'Apr'. Below these is a table with the following data:

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



Break values can be expanded/collapsed by clicking on outline bars

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

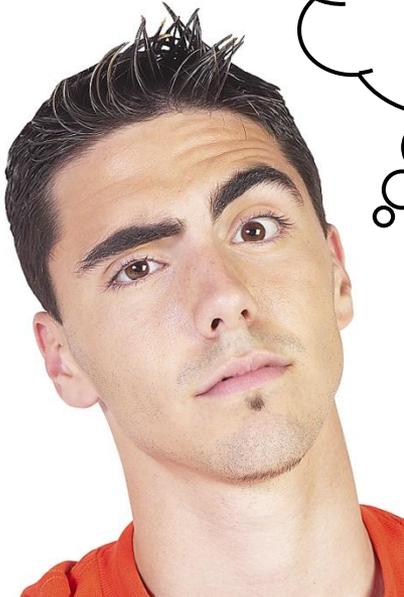
- **How are we generating our revenue?**
 - ◆ Room bills
 - ◆ Drinks
 - ◆ Poker tournaments
- **We can use Web Intelligence to find out!**
- **You can try providing all information in one query**
 - ◆ That may not be wise for large amounts of data
 - ◆ Try returning details for one resort/month
 - ◆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



Where's all that money coming from?

Providing the Details – Step 2

2 Create a second document to retrieve the details

The screenshot shows the SAP Query Designer interface. The 'Result Objects' section at the top contains three buttons: 'Service Line', 'Service', and 'Revenue'. Below this is the 'Query Filters' section, which contains four filter rows. Each row has a field name, a dropdown menu set to 'Equal to', and a text input field. The filter rows are: 'Country', 'Resort', 'Year', and 'Month'. The word 'And' is positioned to the left of the filter rows. A large blue arrow points downwards from the 'Query Filters' section towards the resulting table.

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

Link to web page | **Link to document**

Name:

Hyperlink properties

Use complete URL path to create hyperlink

Refresh on open

Link to document instance

Target area within the document

Document prompts:

Country: ▾

Resort: ▾

Year: ▾

Month: ▾

Customize the look and behavior of the hyperlink:

Document format: ▾

Target window: ▾

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**

1

2

The screenshot shows the 'Add Query' menu on the left, which is open to show three options: 'From Universe', 'From Bex', and 'From Analysis View'. The 'From Universe' option is selected. The main window displays the 'Available Universes' dialog box, which contains a search filter and a table of universes. The 'Island Resorts Marketing Costs' universe is highlighted in blue.

State	Name	Revision	Folder
↕	BI40 Audit.unx	1	@SG-Win2008-01_6400\ASUG 2012
↕	BOEXI40-Audit-MSSQL.unx	2	@SG-Win2008-01_6400\ASUG 2012
↕	Club.unx	2	@SG-Win2008-01_6400\ASUG 2012
↕	eFashion	125	@SG-Win2008-01_6400\
↕	eFashion	127	@SG-Win2008-01_6400\webi universes
↕	eFashion.unx	1	@SG-Win2008-01_6400\ASUG 2012
↕	HR.unx	3	@SG-Win2008-01_6400\ASUG 2012
↕	Island Resorts Marketing	136	@SG-Win2008-01_6400\webi universes
↕	Island Resorts Marketing Costs	137	@SG-Win2008-01_6400\webi universes
↕	Monitoring TrendData Universe	7	@SG-Win2008-01_6400\Monitoring TrendData Universes
↕	Report Conversion Tool Audit Universe	12	@SG-Win2008-01_6400\Report Conversion Tool Universes
↕	Resorts.unx	1	@SG-Win2008-01_6400\
↕	Resorts.unx	4	@SG-Win2008-01_6400\ASUG 2012

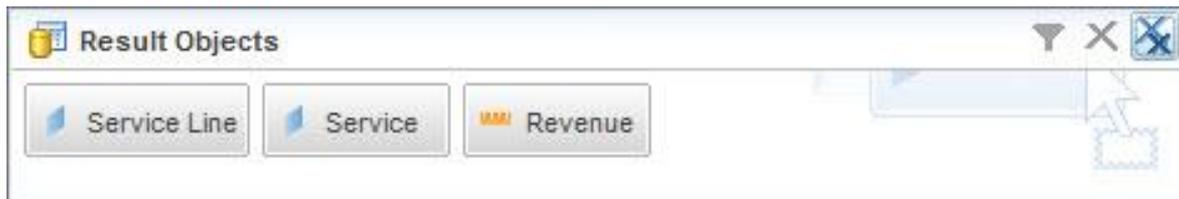
Creating a Second Query (cont.)

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

Query 2



Query 1



Heads-Up

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?

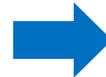
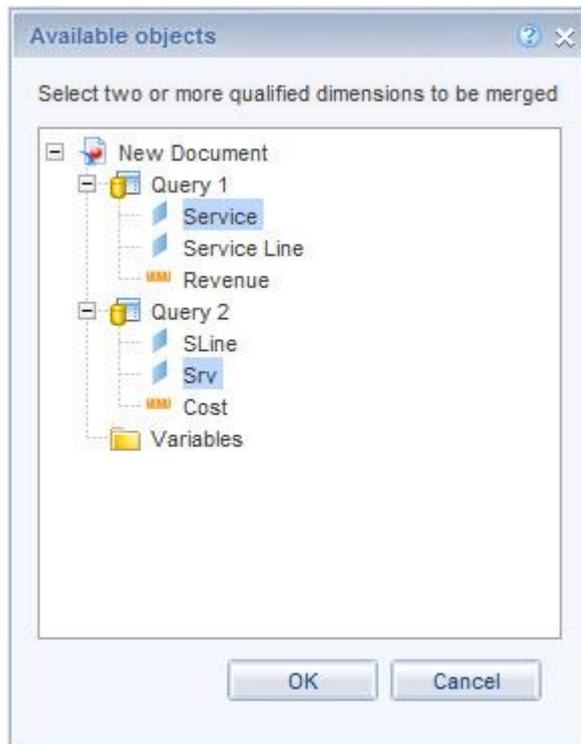
Service Line	Service	Revenue	Cost
Accommodation	Hotel Room	9,180	9,247.5
Food & Drinks	Restaurant	2,550	9,247.5
Recreation	Activities	600	9,247.5

- 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)



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**



Your Turn!



Questions?

How to contact me:
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Please remember to complete your session evaluation

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