Oracle BI 11g Reports and Dashboards

Filters

PEAK
indicators

Filters
Agenda

- Filters Overview
- Variable Filters
- Filter Based on another Analysis
- Protecting Filters
- Nested Filters
- Saved Filters
- SQL Expressions
- Analysis Prompts

PEAK indicators Filters
Overview

Overview

- **Filters can be applied to limit the results returned by your Analysis**
  - **Filters can be added in two ways, depending on whether or not the relevant column exists in your Analysis**
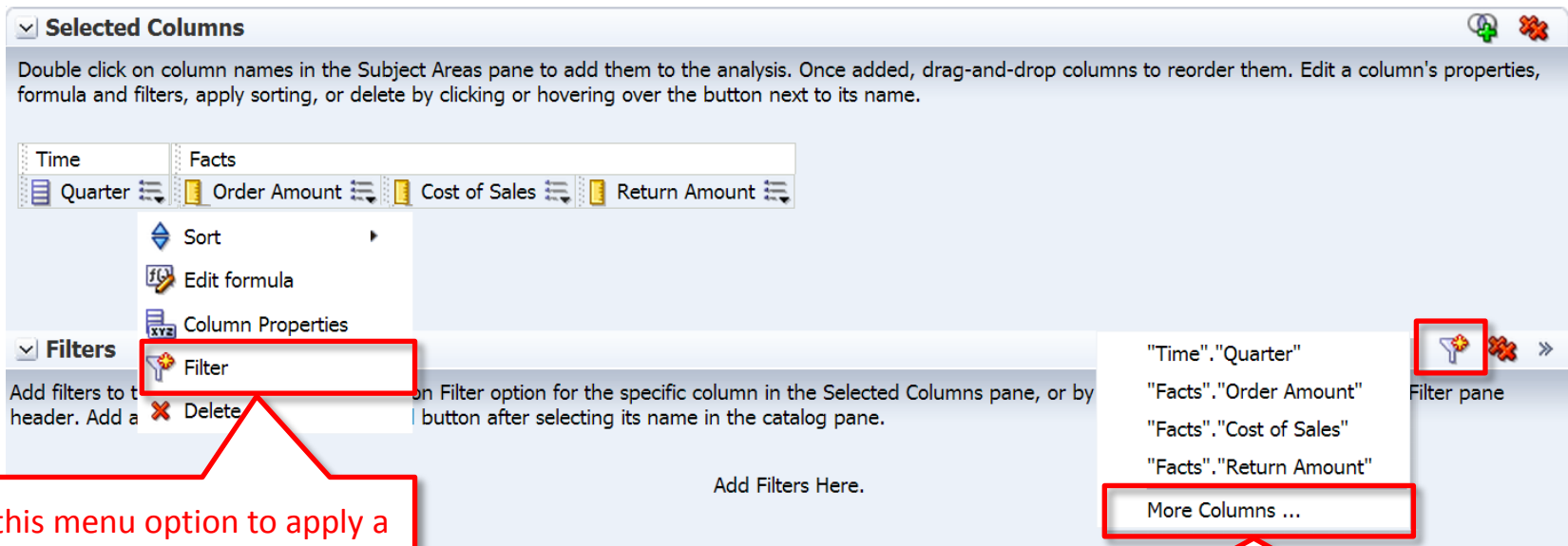
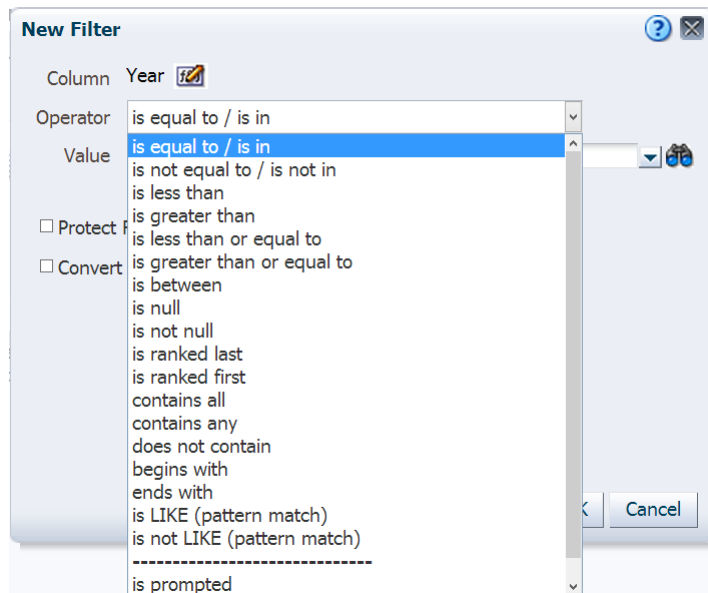Use this menu option to apply a filter on a column which already exists on the Analysis

You should use this "**Create Filter > More Columns**" menu option to apply a filter on a column which is not already included on the Analysis
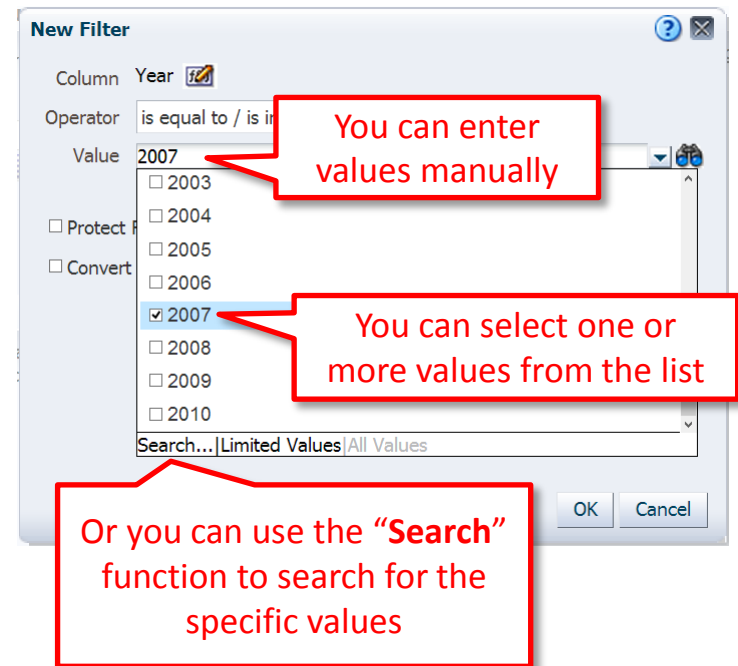
Overview
Adding Filters

- Once you have selected the column on which to filter, specifying the filter criteria is easy:
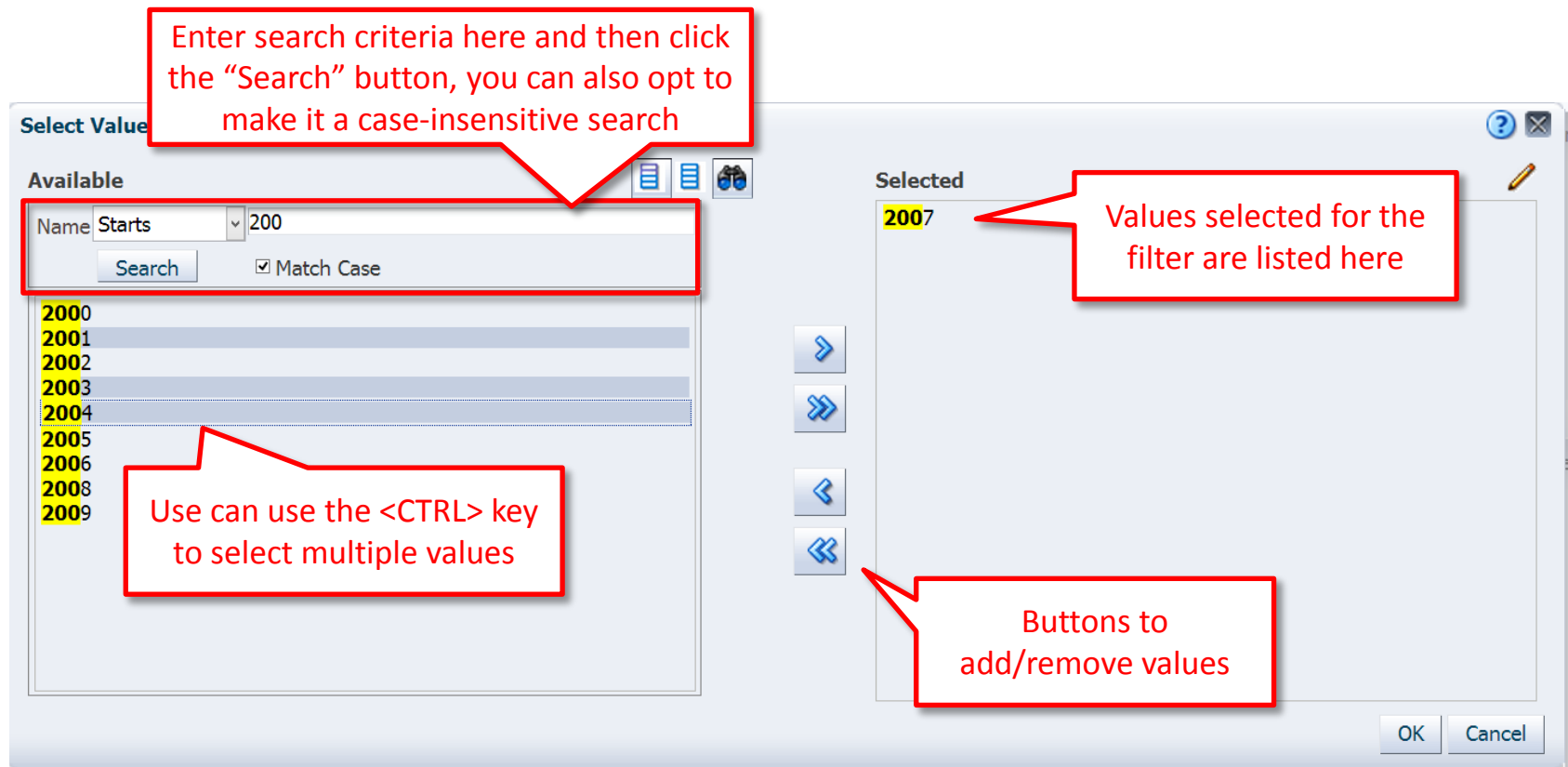
Choose the "Operator"

....then choose the "Value"

Overview
Search

- **The "Search" facility is straight forward to use for selecting your filter criteria:**

Enter search criteria here and then click the "Search" button, you can also opt to make it a case-insensitive search

Select Value

Available

Name Starts ▾ 200

Search ☑ Match Case

2000
2001
2002
2003
2004
2005
2006
2008
2009

Use can use the <CTRL> key to select multiple values

Selected

2007

Values selected for the filter are listed here

Buttons to add/remove values

OK   Cancel

Overview
Adding Filters

- Once defined, you can see all the filters listed in the "Filters" pane at the bottom of the Criteria tab
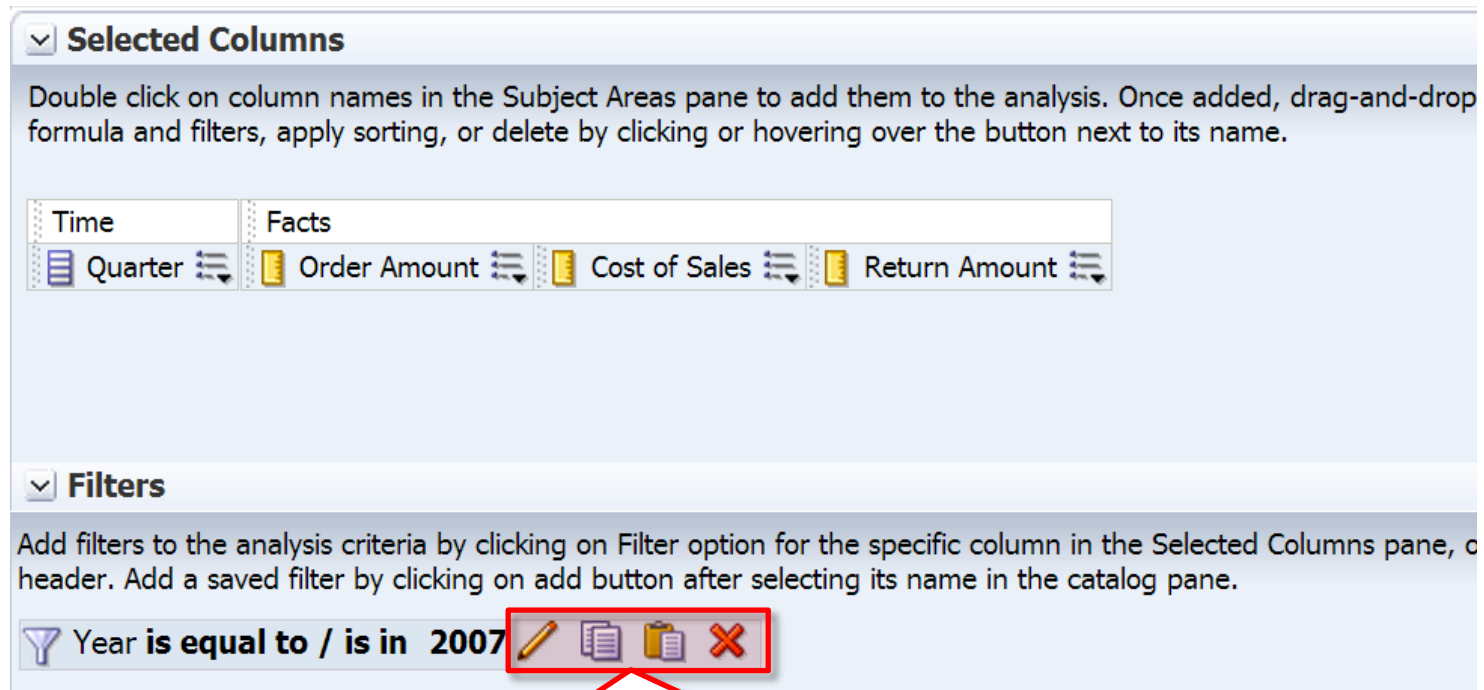
Hover the mouse over the filter to view its Edit, Copy, Paste and Delete options

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Filters
Variable Filters

Variable Filters

- It is desirable in many situations to filter based on a "variable" rather than a static value

- For example, if you want a request to show results for the current year then you do not want to filter on "Year = 2010" as it would require you to update the request every year

- Instead, choose to filter the request based on a variable. For example:
  - Year = VALUEOF(CURR_YEAR)

Variable Filters
Example

- **To apply a variable filter:**
  - **Click the "Add More Options" menu**
  - **Choose the type of variable: Session, Repository or Presentation**
  - **Type in the name of the variable in the field provided e.g. CURR_YEAR**

NOTE: The development team are responsible for providing users with a list of possible variables to choose from

Variable Filters
Types of Variable

- There are 3 types of variable which can be created by Developers:

  - **Session Variables** are variables that are unique to each user's session. When a user logs in, a process takes place to "initialise" all their Session Variables. For example:
    - USER: Your OBIEE user name e.g. ASMITH
    - MY_ORG: The name of your own specific Organization

  - **Repository Variables** are global variables where all users see the same value (they are not unique to each user's session). For example:
    - YEAR_AGO_CAL: The calendar date 1 year ago
    - CURR_YEAR: The current year e.g. 2011

  - **Presentation Variables** are variables that can be created by report developers and referenced in their reports. Users are able to change the value assigned to a Presentation Variable using a "Dashboard Prompt". For example, a user could select the Year "2010" in a Dashboard Prompt and the text "Year 2010" would appear in the report's subtitle.
    - NOTE: Presentation Variables are covered in a later topic

Filters

Filter Based on another Analysis

Filter Based on another Analysis

- You can filter one Request based on the results of another Analysis

- For example, we have a "Top 5 Accounts" Analysis which filters the list of "Customer Names" based upon another Analysis which returns the "Top 5 Customer Accounts for Order Revenue":

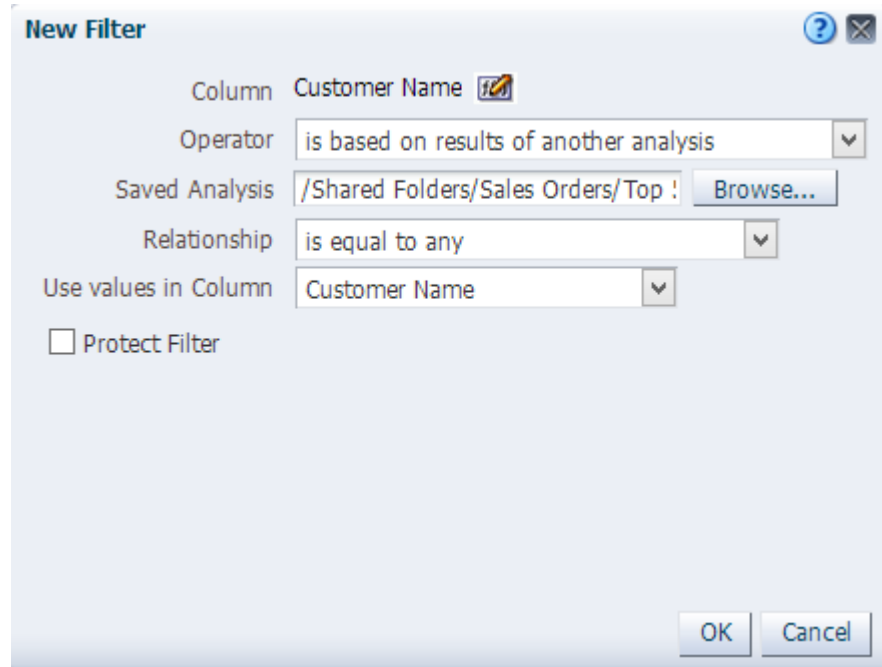**Top 5 Accounts**
Based on Total Order Revenue in the current year

Customer Name	# Orders	Total Revenue (Millions)
Advantage Corp	90	20.23
Business World	71	12.93
MAIN	81	14.99
Modern Truck	49	13.84
Vision	99	17.74
Grand Total	**390**	**79.73**

Year is equal to / is in @{CURR_YEAR}

AND Customer Name **is equal to any** Customer Name in 🔍 **Top 5 Customer Accounts for Order Revenue**

Filter Based on another Analysis

- To apply a filter based on another Analysis:
  - Choose the Operator "is based on results of another analysis"
  - Browse for and choose the Analysis to filter on
  - Specify the relationship e.g. "is equal to any"
  - Specify which column to compare with e.g. "Customer Name"

New Filter

Column	Customer Name
Operator	is based on results of another analysis
Saved Analysis	/Shared Folders/Sales Orders/Top ! Browse...
Relationship	is equal to any
Use values in Column	Customer Name

☐ Protect Filter

OK   Cancel
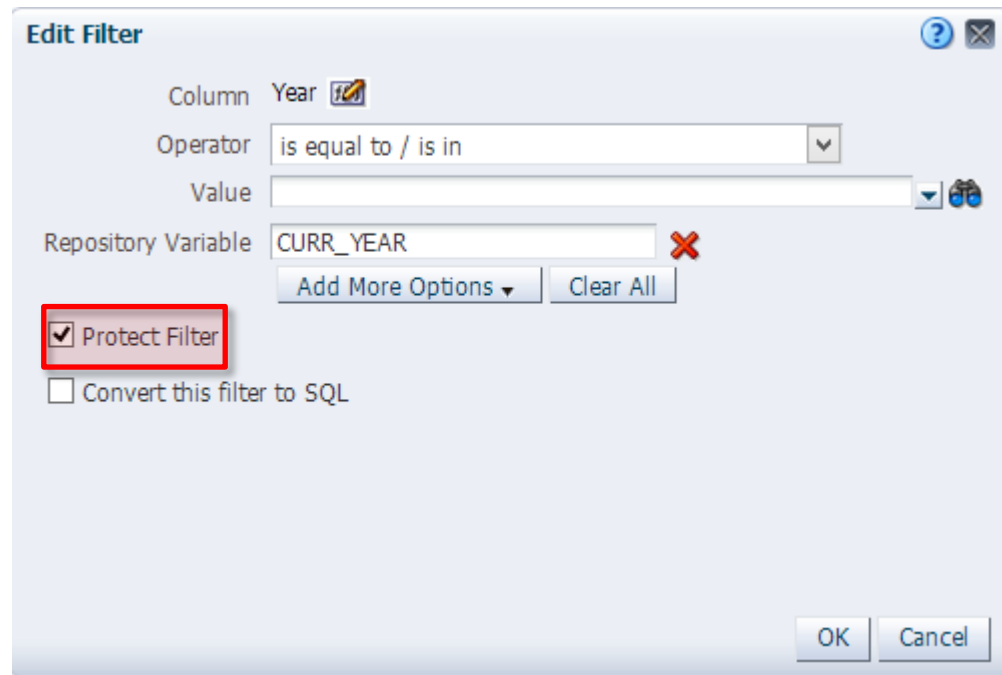
Protecting Filters

Protecting Filters

- Filters can be "protected" so that they cannot be overridden at run-time (by the end user or when interacting with another request)

- To protect a filter, simply enable the "Protect Filter" option:

PEAK indicators

Nested Filters

Nested Filters

- By default, the filters added to your request will all use "AND" operators, meaning all of the filter criteria must be met in order to return any results

- However, it is possible to make the filters more advanced by having "nested" filters with AND/OR operators to build complex arrays of filters

- The nesting feature allows you to group together filters in to sets of conditions

Nested Filters

- ## To create a nested filter:
  - Click on the "AND" condition to turn it in to an "OR" operator – if there are multiple filters on either sides of the OR operator then the filters will automatically nest
  - Continue to click on the "AND" or "OR" operators until you have the desired nesting
 - Filter options are available to ungroup, delete or duplicate the group
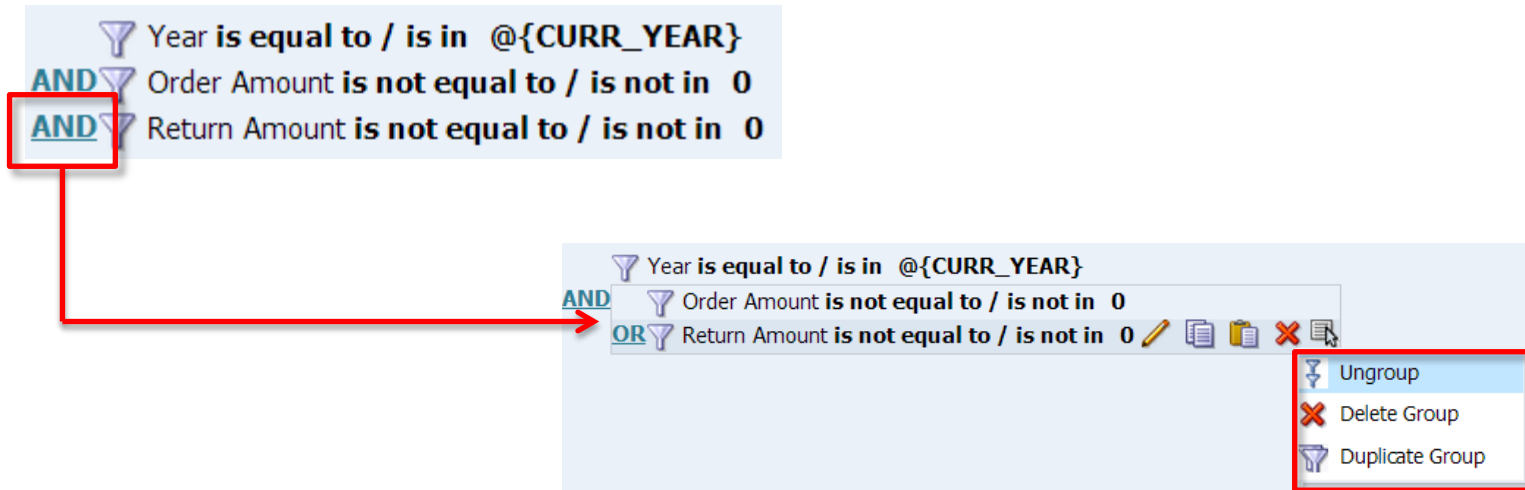
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Saved Filters

Saved Filters

- Filters can be saved and shared to encourage greater reuse of code and consistency across Requests

- For any complex filters or filters which are going to be re-used across multiple Analyses, it is suggested that you make use of a "**Saved Filter**"

- One way to create a Saved Filter is within the Answers "Criteria" tab
  - Click on the "More Options" » button to the right of the "Filters" window pane and choose "Save Filters" to save the filter criteria as a reusable object in the catalog:
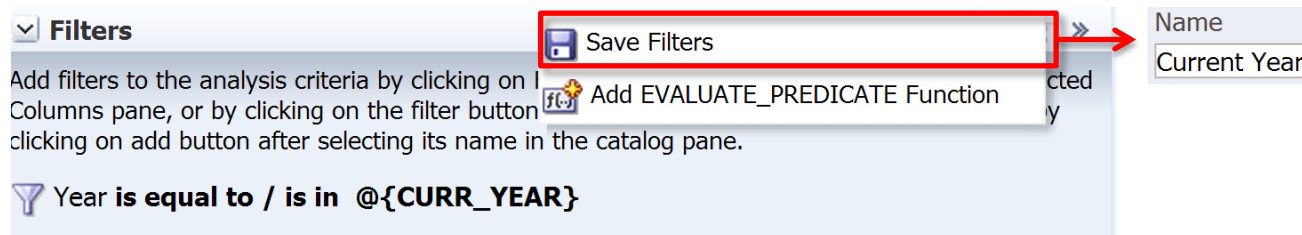
Saved Filters
Creating via the "New" Menu

- **You can also create and define Saved Filters via the "New" menu**
  - **You first need to choose a Subject Area**
  - **You can then define your filter criteria**
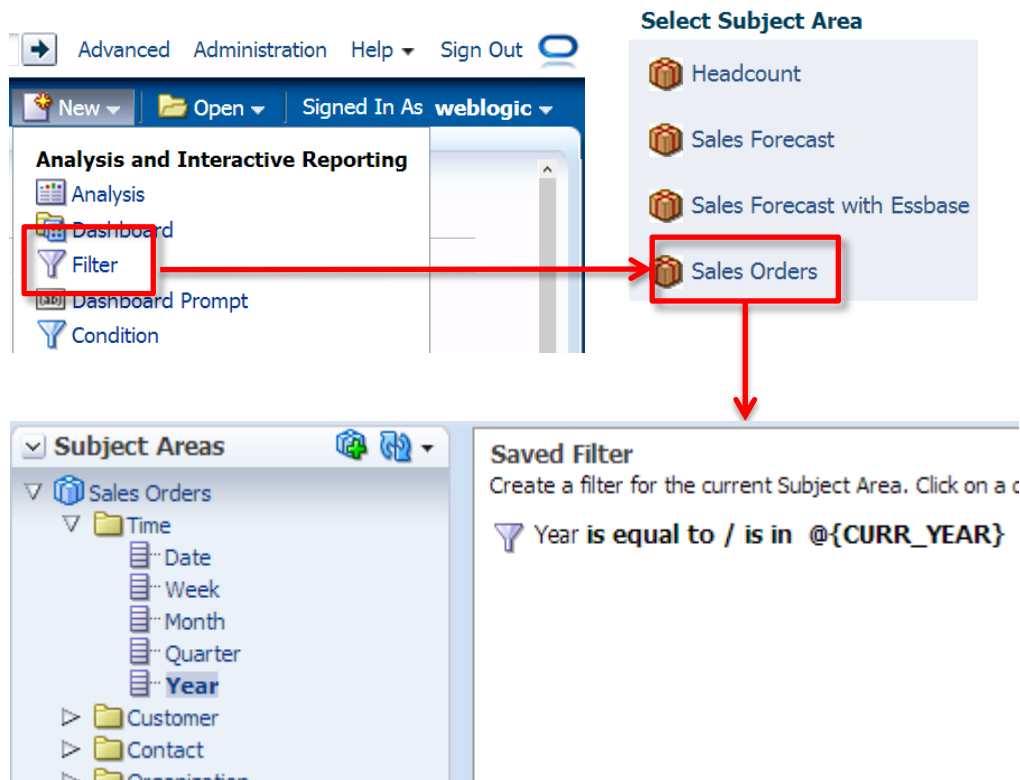
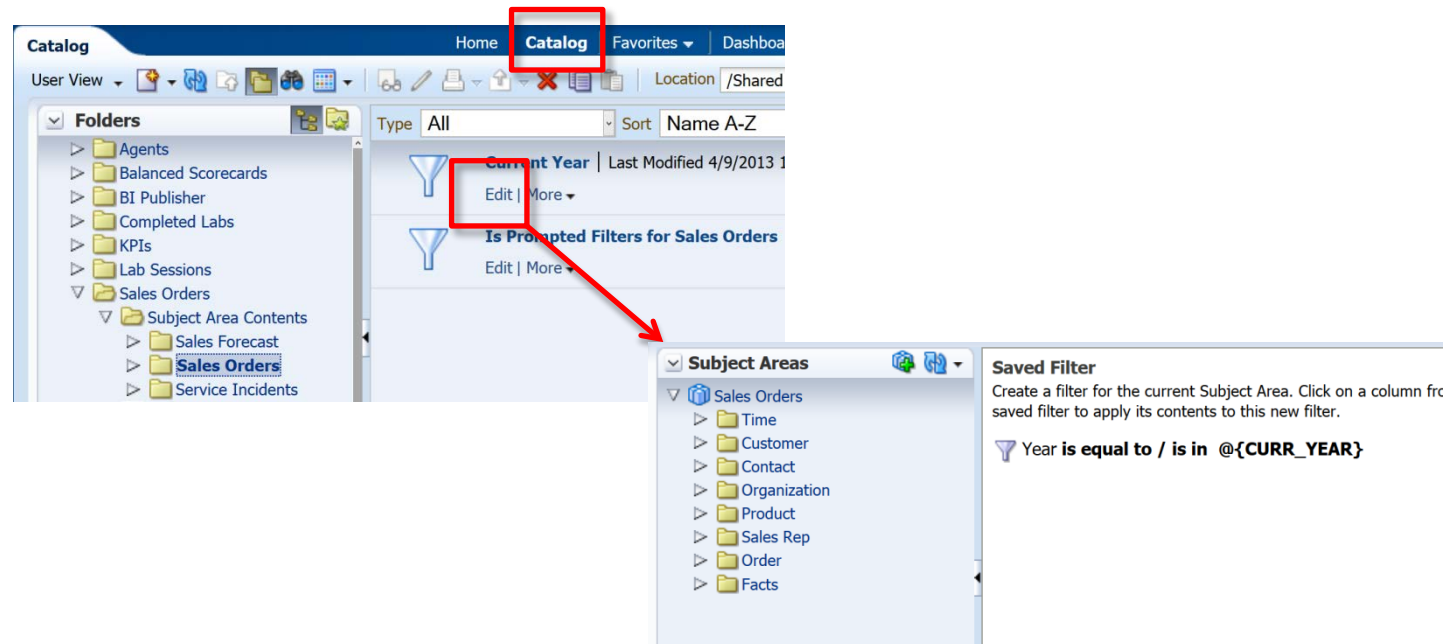# Saved Filters
Adding to an Analysis

- Once created, you can add a Saved Filter to an Analysis by browsing and selecting it from the "Catalog" pane within the Answers "Criteria" tab
  - You will find the Saved Filters inside a sub-folder called "**Subject Area Contents**"
  - Simply double-click on the filter to add it to the Analysis
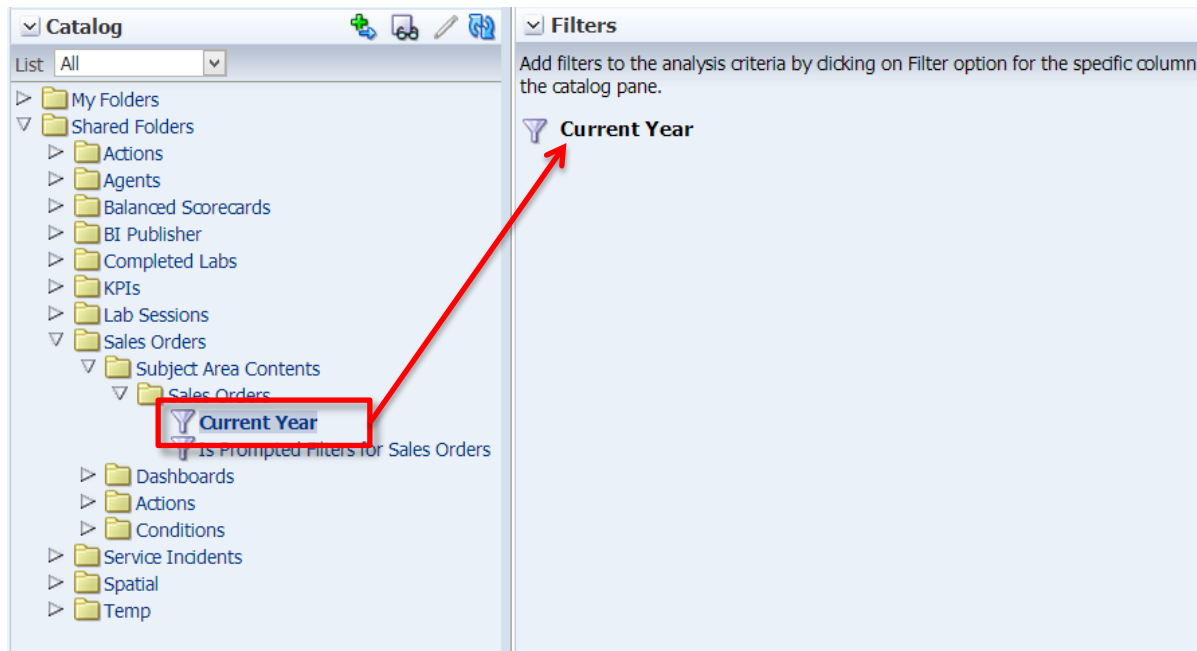
Saved Filters
Editing

- **To edit a Saved Filter, browse for it in the "Catalog" screen and then click on the "Edit" link**
  - **NOTE: You cannot edit a Saved Filter directly within Answers**
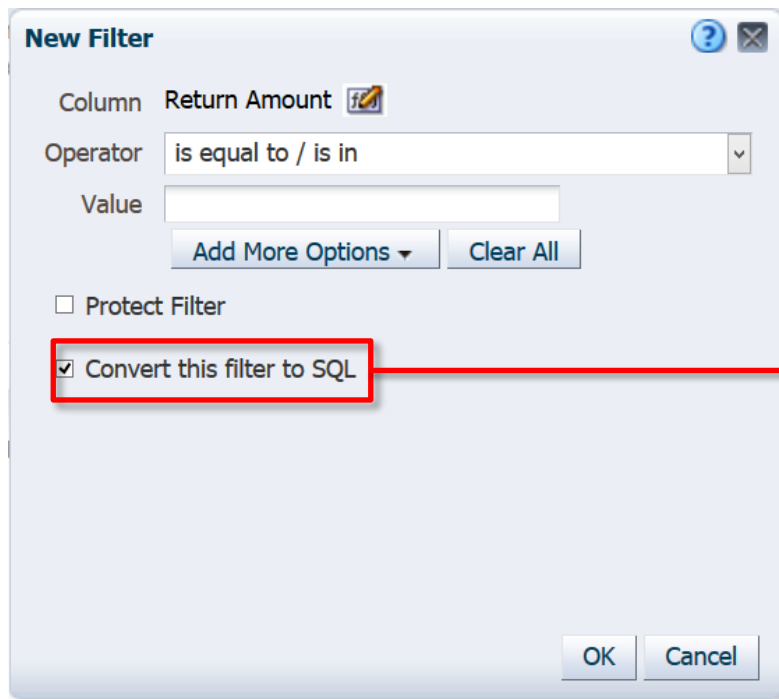
Filters

SQL Expressions

SQL Expressions
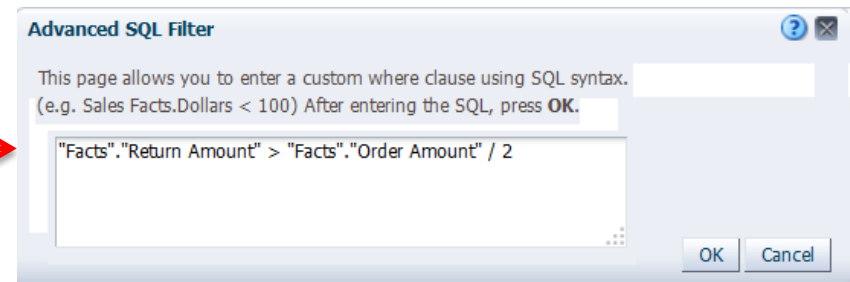
- Very occasionally the filter criteria you need to specify is too advanced for the standard wizard, so it is possible to manually provide your own SQL expression
- You can do this by enabling the "**Convert this filter to SQL**" option and then clicking the "OK" button

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Analysis Prompts

Analysis Prompts

- Sometimes it is necessary to force the user to enter a set of filter criteria before they can view an individual Analysis
- Consider the example below where the user has opened a "detail" Analysis within Answers, 1000s of records are returned since hardly any filter criteria has been applied
- This could result in serious performance issues across the system

Sales Order Details by Sales Rep
Time run: 4/24/2013 7:51:41 PM

Vision Ireland; Vision UK and Ireland

Sales Rep	Customer Name	Account Number	Order Number	Deal Size	Order Date	Order Type	Order Status	Product Category	Order Amount	Return Amount
Derek, Ms. Amy	%	1928	200721	50K - 75K	22-02-2007	ORDER	CLOSED	Capacitors	29,874	2,297
								Discretes	3,150	
								Electronic Components	33,024	2,297
								Gates	3,150	
								Passives	29,874	2,297
								Product Requirements	31,468	4,198
								Service Plans	1,575	
								Vision High-Tech	66,067	6,496
	% Total								**198,181**	**17,586**
	2180	2038	250700	0K - 10K	16-01-2007	ORDER	CLOSED	Cable Assemblies	337	21
								Capacitors	3,953	558
								Electronic Components	8,226	575
								Interconnect Components	337	21
								LED's	4,273	16
								Optoelectronics	4,273	16
								Passives	3,953	558
								Vision High-Tech	8,564	596
	2180 Total								**33,917**	**2,363**
	ABC Corporation Worldwide	2575	200733	100K+	10-03-2007	ORDER	CLOSED	Connectors	49,137	
								Electromechanical Components	34,161	
								Interconnect Components	49,137	
								Power Components	34,161	
								Power Supplies	34,161	
								Product Requirements	25,762	
								Vision High-Tech	109,061	
	ABC Corporation Worldwide Total								**335,581**	
	Acme Distribution Incorporated	5731	250705	25K - 50K	07-02-2007	ORDER	CLOSED	Capacitors	16,235	
								Computer Parts and Components	10,500	

Analysis Prompts
Defining the Prompts

- You can define Analysis Prompts on the "Prompts" tab within Answers

- Analysis Prompts request the user to enter filter criteria before the Analysis is actually run
  - In the example below, the user will be prompted to filter on 4 columns:

Options to preview, add, delete and edit Prompts

A preview pane shows how the prompts will look like to the user

Analysis Prompts
Settings

- There are a number of possible settings for each Prompt:

Edit Prompt: Organization Name

Prompt For Column	"Organization"."Organization Name"
Label	Organization Name
Description	
Operator	is equal to / is in
User Input	Choice List

▽ **Options**

Choice List Values	All Column Values

☐ Include "All Column Values" choice in the list
☑ Limit values by Business Group
☐ Enable user to select multiple values
☐ Enable user to type values
☑ Require user input

Default selection	None
Choice List Width	○ Dynamic ◉ 120 Pixels
Set a variable	None

OK   Cancel

Define the precise list of values which appear in the Prompt

Choose between a Choice List, Check Boxes, Radio Buttons, etc

Allows user to choose "All Column Values" and/or multiple values etc

Limit results based on the selections made in another prompt

A Prompt selection can be made mandatory

Specify a default value

Analysis Prompts
The Result

- When the user now opens the Analysis, a series of Prompts will make sure the Analysis now only returns an appropriate number of records:

Analysis Prompts
Further Notes

- Analysis Prompts are not applied in the following situations:
  - When you view the Analysis on the Answers "Results" tab
  - When you "navigate" from one Analysis to another (covered in a later topic)

- However the Request Prompts do get applied in all other situations:
  - The request is displayed on a dashboard
  - The request is "previewed" within Answers
  - You "Open" the Analysis from the "Catalog" screen

- A Request Prompt can only ever apply filters to one request
  - Even when on a dashboard!

- "**Dashboard Prompts**" are covered later in this training – these Prompts are more widely used and enable users to apply filters to multiple Analyses on a dashboard at the same time
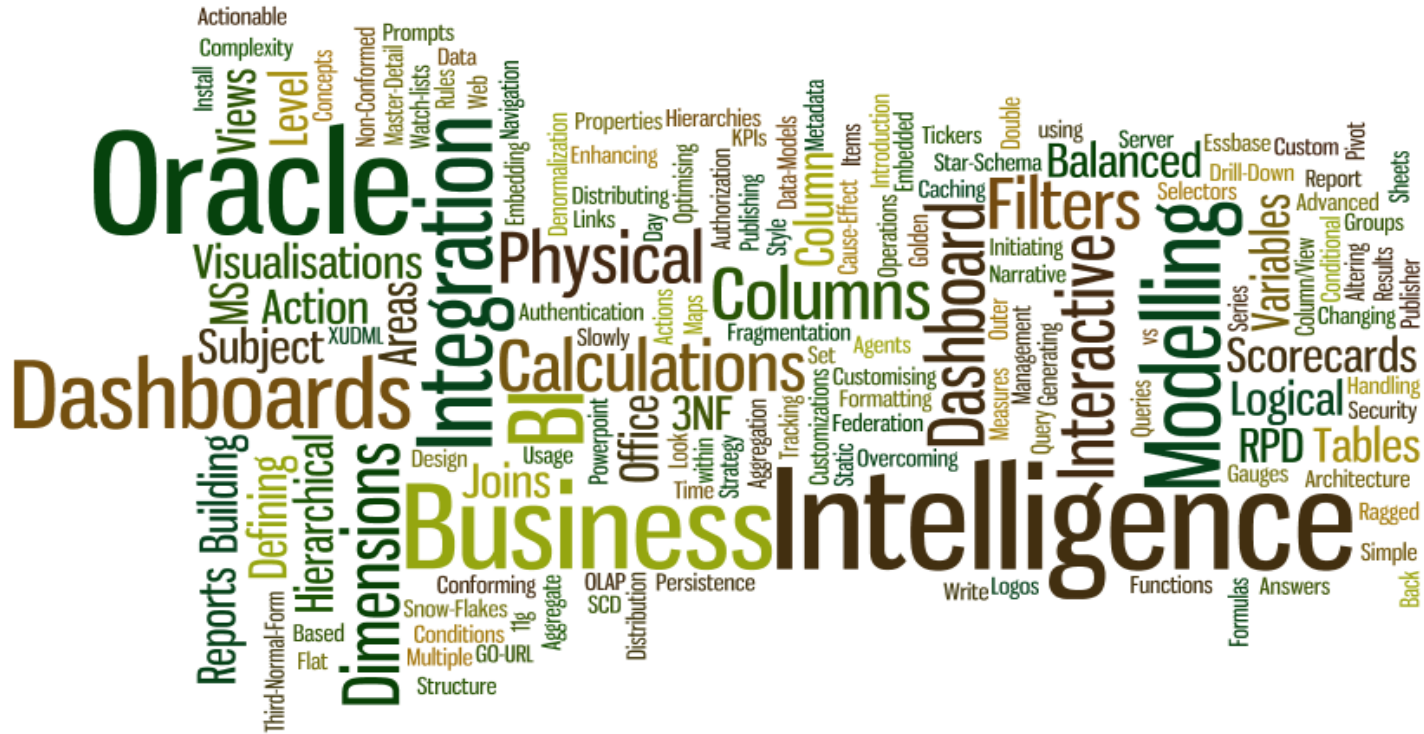
Questions?

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