

ESR Business Intelligence

Variables

Introduction

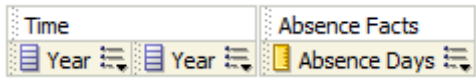
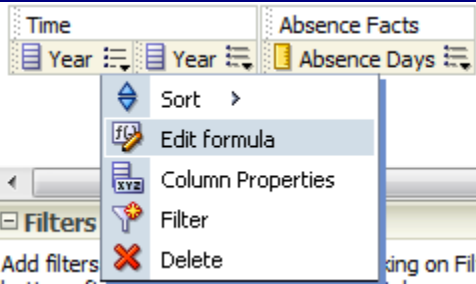
Variables are 'pockets' of memory available within a dashboard to assign specific values to reuse across dashboards.

A user can reference variables in several areas of ESR BI, including in analyses, dashboards and filters. For example, a reference variable can be used to include a user's name in the title of an analysis.

There are three types of variables that can be used: Session, Repository and Presentation. This document will describe how to add each type of variable to a specific area of ESR BI, however the variables can be added to each area as required.

Session Variables

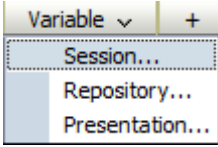
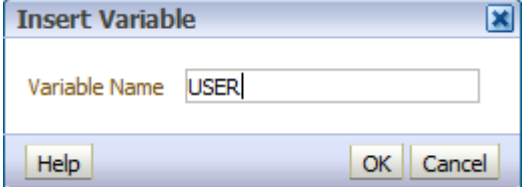
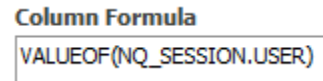
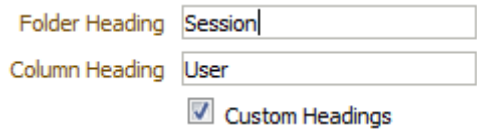

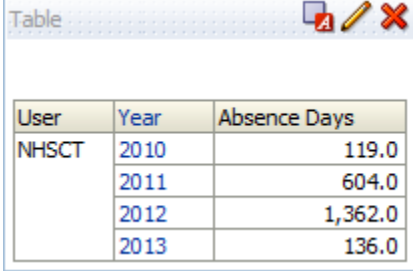
A session variable is a variable that is initialised at the login time for each user. When a user begins a session, ESR BI creates a new instance of a session variable and initialises it. For example, the variable USER would return the logon name of the current ESR BI user. To add a session variable to an analysis:

Step	Screen	Description
1		Select the required columns in the Criteria tab. Note two 'Year' columns are selected. One of these will become the User column.
2		Select Edit Formula from the column options



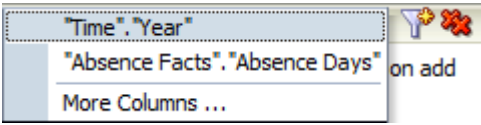

Electronic Staff Record

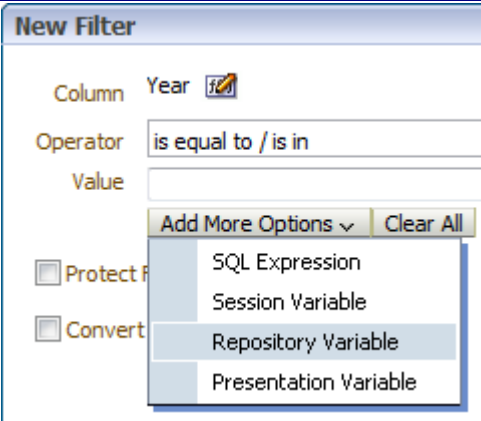
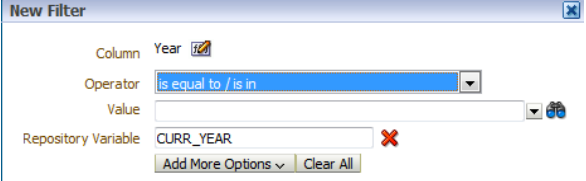
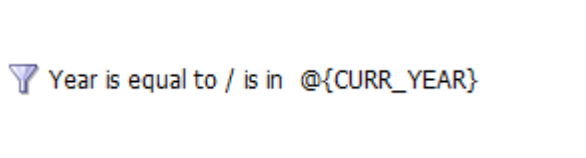
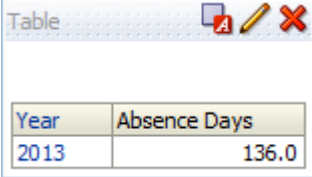


3		<p>Click on the Variable drop down list from the Edit Column Formula window and select Session... <i>Note: a Repository or Presentation Variable can also be chosen (covered later in this document).</i></p>
4		<p>Insert the Variable Name. In the example, USER has been entered</p>
5		<p>Click Ok and the formula of the column changes to reflect the variable name entered.</p>
6		<p>Tick the Custom Headings tick box and enter a Folder and Column Heading. In the example, the folder has been named 'Session' and the Column 'User'</p>
7		<p>Click Ok to return to the Criteria view and notice how the folder and column names have changed.</p>
8		<p>Go to the Results tab and the column 'User' will now appear in the compound layout showing the logon name of the user.</p> <p>Clearly in this example the 'User' column is not relevant, however the same formula could be used to add the value to the dashboard header which then shows who ran the dashboard following export / print.</p>

Repository Variables

A repository variable is a variable that has a single value at any point in time for example the variable CURR_YEAR is a repository variable that returns the current year value. To add a repository variable to a filter:

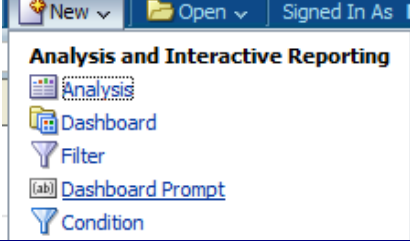
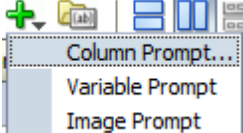

Step No.	Screen	Description
1		<p>Click on the  icon to add a new filter to an analysis and select the column to base the filter on.</p>

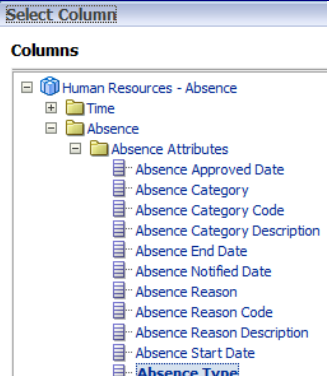
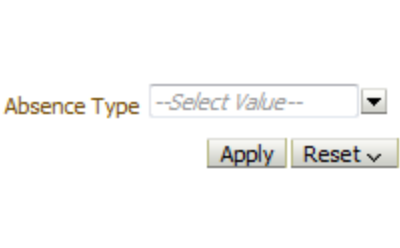


2		<p>In the New Filter window open the Add More Options drop down box and select Repository Variable. <i>Note: a Session Variable can also be selected (described earlier in this document) or a Presentation Variable, covered later.</i></p>
3		<p>Enter the Variable as required. This example uses CURR_YEAR</p>
4		<p>Click Ok and the filter will appear in the filter pane showing the variable entered</p>
5		<p>Select the results tab to view the results filtered by the current year</p>

Presentation Variables


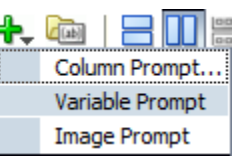

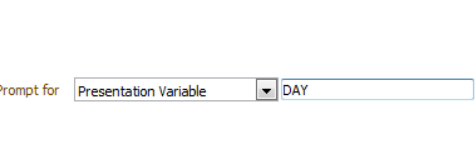
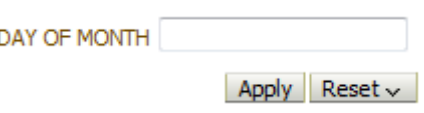
A presentation variable is a variable that can be created as part of the process of creating either a column or a variable prompt (see ESRBI – Prompts available on the ESR Hub within the Reporting folder). The value of a presentation variable is populated by the column or variable prompt with which it is created. That is, each time a user selects a value in the column or variable prompt, the value of the presentation variable is set to the value that the user selects.

Setting up a Presentation Variable based on Column Prompt

Step	Screen	Description
1		<p>Click on the New drop down menu, select Dashboard Prompt and select the Subject Area to base the prompt on</p>
2		<p>Click on the  icon and select Column Prompt from the drop down list to add a new prompt</p>

3		<p>Select the Column to base the prompt on. This example uses Absence Type</p>
4		<p>Setup the prompt as required then within the New Prompt window expand the Options menu and select Presentation Variable from the 'Set a Variable' drop down box. Give the new variable a name. In the example it has been named ABS_TYPE</p>
5		<p>Click Ok and the prompt will appear in the display window. The variable ABS_TYPE has now been defined as based on the Absence Type column prompt. Save the prompt  .</p>

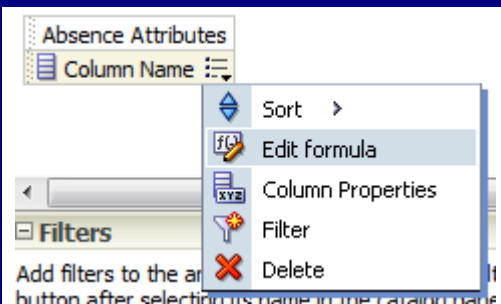
Setting up a Presentation Variable based on Variable Prompt

Step	Screen	Description
1		<p>Click on the New drop down menu, select Dashboard Prompt and select the Subject Area to base the prompt on</p>
2		<p>Click on the  icon and select Variable Prompt from the drop down list to add a new prompt</p>
3		<p>Enter a name for the Presentation Variable and setup the Prompt as required.</p>
4		<p>Click Ok and the prompt will appear in the display window. The variable DAY</p>

		has now been defined as based on the DAY OF MONTH (Prompt Label) variable prompt. Save the prompt   .
--	--	--

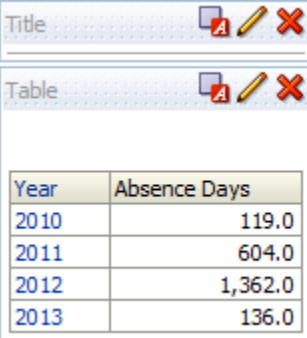

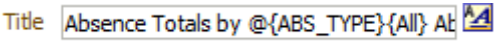

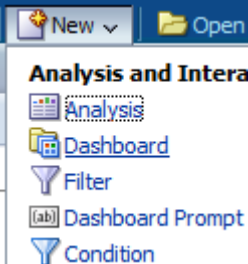
Using a Presentation Variable within a Formula

Once a Presentation Variable has been setup, it can be used within a formula so that when the analysis is run within the dashboard, the prompt can affect the formula within the analysis directly:

Step	Screen	Description
1		When setting up the analysis from the criteria tab, click 'Edit Formula' to navigate to the Edit Column Formula window
2	'@{VariableName}{Defaultvalue}'	When referencing a Presentation Variable in a formula, the following format is used where the first value in brackets is the variable name and the second is a default value.
3	CASE WHEN "Absence Type / Reason"."Absence Type" = '@{absType}{Sickness}' THEN 'Sickness Absence' ELSE NULL END	In this example, we have set a presentation variable titled <i>absType</i> and used it with the Absence Type data item. We have also set a default value of <i>Sickness</i> . When the Case statement is met, 'Sickness Absence' is returned else Null. When we run this example in the dashboard, <i>absType</i> will be replaced with a value from the prompt which will complete the Case Statement.

Displaying a Presentation Variable

Once a Presentation Variable has been setup, it can be added to the title or text of an Analysis or Dashboard and will update the text in line with the value of the prompt. To add a Presentation Variable to the title or text of an analysis or dashboard:

Step	Screen	Description
1		<p>Setup an analysis as required and view it in the results tab. Click on the  icon of the Title View to open the Edit View</p>
2		<p>Enter the title and reference the Presentation variable by entering <code>@{Variable Name}{Default Value}</code>. In the example, 'Absence Totals by <code>@{ABS_TYPE}{All}</code> Absence Type(s)' has been entered where ABS_TYPE is the Presentation Variable name setup earlier</p>
3		<p>Check the preview pane below to see how the title will look in the compound view. Click <input type="button" value="Done"/> to return to the compound layout. <i>Note: The title will reflect the default value until placed into the dashboard and controlled by the prompt</i></p>
4		<p>Create a new dashboard and add the prompt and analysis saved earlier</p>

5	<p>Absence Type <input type="text" value="--Select Value--"/></p> <p><input type="button" value="Apply"/> <input type="button" value="Reset"/></p> <hr/> <p>Absence Totals by All Absence Type(s)</p> <table border="1"> <thead> <tr> <th>Year</th> <th>Absence Days</th> </tr> </thead> <tbody> <tr> <td>2010</td> <td>119.0</td> </tr> <tr> <td>2011</td> <td>604.0</td> </tr> <tr> <td>2012</td> <td>1,362.0</td> </tr> <tr> <td>2013</td> <td>136.0</td> </tr> </tbody> </table>	Year	Absence Days	2010	119.0	2011	604.0	2012	1,362.0	2013	136.0	<p>This shows that no value has been selected within the prompt and the analysis title shows the default value.</p>
Year	Absence Days											
2010	119.0											
2011	604.0											
2012	1,362.0											
2013	136.0											
6	<p>Absence Type <input type="text" value="Sickness"/></p> <p><input type="button" value="Apply"/> <input type="button" value="Reset"/></p> <hr/> <p>Absence Totals by Sickness Absence Type(s)</p> <table border="1"> <thead> <tr> <th>Year</th> <th>Absence Days</th> </tr> </thead> <tbody> <tr> <td>2010</td> <td>119.0</td> </tr> <tr> <td>2011</td> <td>604.0</td> </tr> <tr> <td>2012</td> <td>1,362.0</td> </tr> <tr> <td>2013</td> <td>136.0</td> </tr> </tbody> </table>	Year	Absence Days	2010	119.0	2011	604.0	2012	1,362.0	2013	136.0	<p>Select a value from the prompt and click 'Apply'. The analysis title and data updates in line with the prompt value selected.</p>
Year	Absence Days											
2010	119.0											
2011	604.0											
2012	1,362.0											
2013	136.0											

The same principles apply when adding text to a dashboard. In the example below a text box and relevant text has been added along with the Presentation Variable.

