Alma Analytics – Beyond out-of-the-box reports: Tips for formatting and customization

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GIL User Group Meeting, 2018
Agenda

- Account default settings
- Title view
- Row count totals
- “No Results” messages
- Number and date formats
- String functions

- Bins
- Reordering and sorting columns
- Table formatting
- Conditional formatting
- Graphs/charts
- Prompts
Changing your default settings

When editing an analysis:

You can choose to start on the **Criteria** tab instead of the **Results** tab if you prefer.
General cosmetic improvements

A default analysis without any formatting provides no context clues for the user.

Unanswered questions:
-What am I looking at?
-How many results are there?
Adding an analysis title

In the Results tab, select the New View icon to add a title view.

By default this will display the name you have given your analysis, but you can customize this by editing the view.

Note: When you add views, they originally appear on the Compound Layout in the order you create them. You’ll need to drag a newly created Title view to the top.

Title (2)

Yesterday's loans
Editing the title view

Uncheck to replace the analysis title with your customized title.

You can also choose to add a subtitle or display the date and/or time the report ran.
Adding a row count total

In **Criteria** view, add **ANY** extra column to your analysis;
Keep note of the column #

Edit the column’s formula to be: `MAX(RCOUNT(1))`
Row count

Edit the column’s properties to hide it from display:

**Column Properties – Column Format** – top right check box

Even though the column isn’t visible in the results, it is useful to rename it something related to its function.
Row count

Add a **Narrative** view:

Switch to the **Results** tab - **New View** - **Other Views** - **Narrative**

The narrative view allows you to combine text with query column values - useful for providing context or extended descriptions, etc.

If you don’t need to pull values from the query, but just need to add text, you could also consider the **Static Text** view.
Row count

Edit **Narrative** view

In the **Narrative box**, call the column values you want to retrieve.

Use the @ symbol and the # of the column(s) you want to call. @6 calls the values for the Row Count column.

**Total rows** = is the text I’m adding in.

Total rows = @6

Put a 1 here if you only want to display the narrative once. Otherwise it will display for every row in the analysis.

Total rows = 313

Preview

Rows to display 1
7) Use the Format Container option to adjust the horizontal alignment of the Narrative.
### Improved analysis

#### Yesterday's loans from the Atlanta campus

Includes the main and browsing collections, excludes reserves

Date run: 5/19/2018

Total rows = 313

<table>
<thead>
<tr>
<th>MMS ID</th>
<th>Title</th>
<th>LC Classification Code</th>
<th>In House Loan Indicator</th>
<th>Loan Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>9912662223402952</td>
<td>Nietzsche and the fate of art /</td>
<td>B</td>
<td>N</td>
<td>5/9/2018</td>
</tr>
<tr>
<td>9912792235402952</td>
<td>The heirs of Plato : a study of the Old Academy, 347-274 B.C. /</td>
<td></td>
<td>Y</td>
<td>5/9/2018</td>
</tr>
<tr>
<td>991428843402952</td>
<td>The expulsion of the triumphant beast /</td>
<td>N</td>
<td>N</td>
<td>5/9/2018</td>
</tr>
<tr>
<td>99144753402952</td>
<td>Nietzsche and art,</td>
<td>N</td>
<td>N</td>
<td>5/9/2018</td>
</tr>
<tr>
<td>991497313402952</td>
<td>The Greek prose of poverty : origins of ancient Cynicism /</td>
<td>Y</td>
<td>Y</td>
<td>5/9/2018</td>
</tr>
<tr>
<td>991994734302952</td>
<td>Sense and non-sense /</td>
<td>N</td>
<td>N</td>
<td>5/9/2018</td>
</tr>
<tr>
<td>9920876002402952</td>
<td>Epicureanism /</td>
<td>Y</td>
<td>Y</td>
<td>5/9/2018</td>
</tr>
<tr>
<td>9921536938402952</td>
<td>Becoming God : pure reason in early Greek philosophy /</td>
<td></td>
<td>Y</td>
<td>5/9/2018</td>
</tr>
<tr>
<td>9921848723402952</td>
<td>The traveler's guide to classical philosophy /</td>
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<td>5/9/2018</td>
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<td>5/9/2018</td>
</tr>
<tr>
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<td>Tractatus logico-philosophicus /</td>
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<td>Y</td>
<td>5/9/2018</td>
</tr>
<tr>
<td>9929171483402952</td>
<td>The flesh of images : Merleau-Ponty between painting and cinema /</td>
<td></td>
<td>N</td>
<td>5/9/2018</td>
</tr>
<tr>
<td>9933668973402952</td>
<td>Gilles Deleuze's transcendental empiricism : from tradition to difference /</td>
<td></td>
<td>Y</td>
<td>5/9/2018</td>
</tr>
<tr>
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<td>The middle platonists : a study of platonism, 80 B.C. to A.D. 220 /</td>
<td></td>
<td>Y</td>
<td>5/9/2018</td>
</tr>
<tr>
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<td>The great tradition : further studies in the development of Platonism and early Christianity /</td>
<td></td>
<td>Y</td>
<td>5/9/2018</td>
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<tr>
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<td>Nietzsche's philosophy of art /</td>
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<td>N</td>
<td>5/9/2018</td>
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</tr>
<tr>
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<td>The middle platonists, 80 B.C. to A.D. 220 /</td>
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<td>Y</td>
<td>5/9/2018</td>
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<tr>
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<td>A companion to the philosophers /</td>
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<td>Y</td>
<td>5/9/2018</td>
</tr>
<tr>
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<td>What is the history of knowledge? /</td>
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<td>5/9/2018</td>
</tr>
<tr>
<td>9910460593402952</td>
<td>The archetypes and the collective unconscious /</td>
<td></td>
<td>N</td>
<td>5/9/2018</td>
</tr>
<tr>
<td>9914432464302952</td>
<td>Yoga and psychology : language, memory, and mysticism /</td>
<td></td>
<td>Y</td>
<td>5/9/2018</td>
</tr>
<tr>
<td>99199930402952</td>
<td>The way to fulfillment : psychological techniques.</td>
<td></td>
<td>Y</td>
<td>5/9/2018</td>
</tr>
</tbody>
</table>
Customizing the no results message

The library was closed yesterday...
Customizing the no results message

Use the “xyz” Edit Analysis Properties button on the Results tab.

Change the No results settings to Display Custom Message and create your own.
Customizing error messages

System generated error messages are technically customizable, but not by us. Access to administration in Oracle BI analytics and server files is required 😊
Changing the format of numbers

Edit Column Properties – Data Format tab – Check Override Default Data Format – select desired options

Reformatted price is treated as currency
Changing the format of dates

The **Data Format** tab is contextual. Alter the date format the same way:

Edit **Column Properties** – **Data Format** tab – Check **Override Default Data Format** – select desired options

Revised custom date format: **yyyyMMdd**

Custom formats are available
Formatting with string functions

String functions perform various character manipulations.

**Criteria** tab – Edit **Column Formula** – Insert Function – **String**
String functions

LEFT returns a specified number of characters from the left of a string.
Syntax = \texttt{LEFT(expression, integer)}

\texttt{LEFT("Bibliographic Details"."Title", 25)}
Concatenation

Concatenation combines two or more values into one, for example combining two columns or appending text to a column. **Tip:** use the `||` symbol provided at the bottom of the formula box as a shortcut.

Syntax: `expression||expression`

"Bibliographic Details"."Author" || ' +++ ' || "Bibliographic Details"."Begin Publication Date"

Note the difference between the use of ' and "
More string functions

RIGHT – returns a specified number of characters from the right of a string.

INSERT – Inserts a specified string into a specific location in another string.

LOWER and UPPER – converts string to lower or upper case.

TRIMBOTH, TRIMLEADING, or TRIMTRAILING - Trims specified characters from the front and/or back of a string.

REPLACE – replaces a specified character or string with another character or string.
Bins

Bins are used to group results contained in a column into your desired categories.
Bins

Edit Column Formula – Bins – Add Bin

Then add each bin as you would a filter.

Provide a name for them when prompted.
There is a catch-all bin for all other values not categorized.
Reordering columns

I’m creating a link resolver report, and have added a new column – I dragged it to the location where I wanted it on the left.

But when I preview in the **Results** tab, the order is not what I wanted.
Reordering columns

Column order is set on the **Results** tab by dragging and dropping. (It may look like you have some control on the Criteria tab, but that’s mostly an optical illusion.)

Many important design functions are controlled in the Compound Layout of Results view.
Sorting tips

Problem: This query built from the Fulfillment subject area sorts the months alphabetically by default. The only sorting choices for Loan Month are ascending and descending.
Sorting tips

Solution: Add the column **Loan Month Key** (or Loan Fiscal Month Key) to the report, and sort on that column. Then hide this column from the results.
To solve a similar issue where the Permanent Call Number field doesn’t properly sort, also include **Normalized Call Number** in your analysis. Then alphabetically sort and hide this column.
Another sort problem

This is a modification of the out of box report **Count of Items Loaned**. In addition to applying some filters, I added the **Loan Month** dimension. Again, the months are sorting alphabetically.

But, adding the **Loan Month Key** column with an ascending sort in the **Criteria** tab does not fix the problem in the **Pivot Table View**.
Editing the pivot table

You also need to edit the pivot table layout.

The order of the columns matters. Reverse positions of Loan Month and Loan Month key, then the ascending sort of Loan Month Key will be recognized.
Editing the pivot table

Then you can hide the **Loan Month Key** column from the pivot table and the problem is solved.
Sectioned Tables

While editing Table Layout - drag and drop a column into the **Sections** field. This creates separate “mini” tables – one for each value in the column.
Several format options for tables are located in the Table Layout view in the **Columns and Measures** area.

Use the **Sum** ($\Sigma$) buttons to add totals to columns.

The general **Sum** button adds totals to the bottom of columns with measures.

Sum buttons in a non-measure column add totals for each value in the column.
Table formatting

More Options is another important formatting button under Columns and Measures. General stylistic changes are found on the Style tab. Changes in Column Properties and Format Headings to alter font, border, and cell padding in the MMS Id column are reflected in the table below.
Conditional formatting

Use the **Conditional Format** tab to apply special formatting to specific conditions.

Select column for condition

Set condition:
Transaction Amount > 50

Apply formatting for condition

Add more conditions if desired.
Adding graphs and charts

Add charts and graphs by using **New View** on the **Results** tab.

What initially appears might not be what you had in mind. Use the **pencil** to edit. For example, I want the user to choose the month, and for locations to appear on the horizontal axis.
Graphs

I want to move Location Name to the Bars area and Loan Month to the Prompts area.

If I have fields I want to exclude from this graph, but keep in the analysis, they go in the Excluded area.

One of the places where you can remove the key – uncheck the box.
Graphs

Other edits are made using the tabs under View Properties. The tabs are contextual, so will relate to the chart you are editing.

Use the General tab to change the canvas size of the chart.

This is where you reposition the legend, and another place where you can turn it off.
The **Style** tab contains options such as changing the colors of the bars or configuring grid lines.
Graphs

The **Titles and Labels** tab lets you choose if you want to display these things and to format them if you do. For example, you can set data markers to always display instead of just on rollover (default setting).

Revised chart with new bar colors and no axis titles or key.
Removing views

This X will remove the selected View from the analysis.

If the selected View is hidden from the Compound Layout, the Add View icon is green and enabled, so you can add it back in. If the View is already visible, the icon is grey.

This X will remove the View from the Compound Layout, but will keep it in the analysis.
Prompts

You can allow users to select filters when they run a report by adding prompts: Select **New Prompt** in the Definition area of the **Prompts** tab.

A Column Prompt lets users select a value from a column (either visible or not) that exists within the Alma Analytics subject area(s) you are using.
Prompts

Prompt choices:

**Text Field** – requires user to enter a single value

**Choice List** – select one or more values from a drop-down menu

**Check Boxes** – select one or more values from a list

**Radio Buttons** – select a single value

**List Box** – allows user to make a single or multiple selections using SHIFT and CTRL; very flexible and configurable
Prompts

Setting which choices appear: Initially the check boxes for Request Year include all the years the system can see – way too many for the report being designed. To adjust this, select the prompt in the Definition section and click the pencil to edit.
Prompts

Expand the **Options** under Edit Prompt. Under **Check Boxes Values**, select **Specific Column Values**. Use $+$ to add values.
Prompts

Selecting a default choice for the user:
This is also under Edit Prompt – Options. Under Default Selection choose Specific Values. Then add your selection.
The finished prompt is a manageable list, with the most probable selection already made.

Remember to use “Open” instead of “Edit” in Analytics if you want to view/select the prompts.
Opening image: Boo in Soda Box, by elorgwhee, https://www.flickr.com/photos/elorg/2196371990, (CC BY-NC-ND 2.0)