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Carpe Data with Alma Analytics

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CARPE DATA

WITH ALMA ANALYTICS

Mary Ellen Willemsen – Gonzaga University
Julene Jones – University of Kentucky

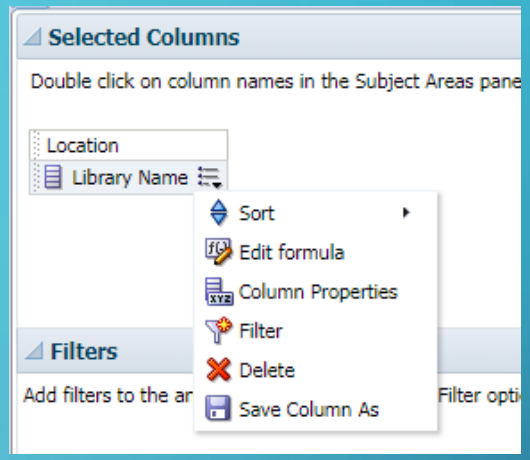
ELUNA 2019

WHAT WE HOPE TO COVER:

- Filter columns
- Add, subtract, and create percentages with columns
- Filter by date (TIMESTAMPADD)
- Save a column to reuse later
- Concatenate data
- Work with pivot tables
- Create sub-totals and grand totals
- Repeat data in results
- Import results into Alma to create a set
- Tips

FIELD CRITERIA

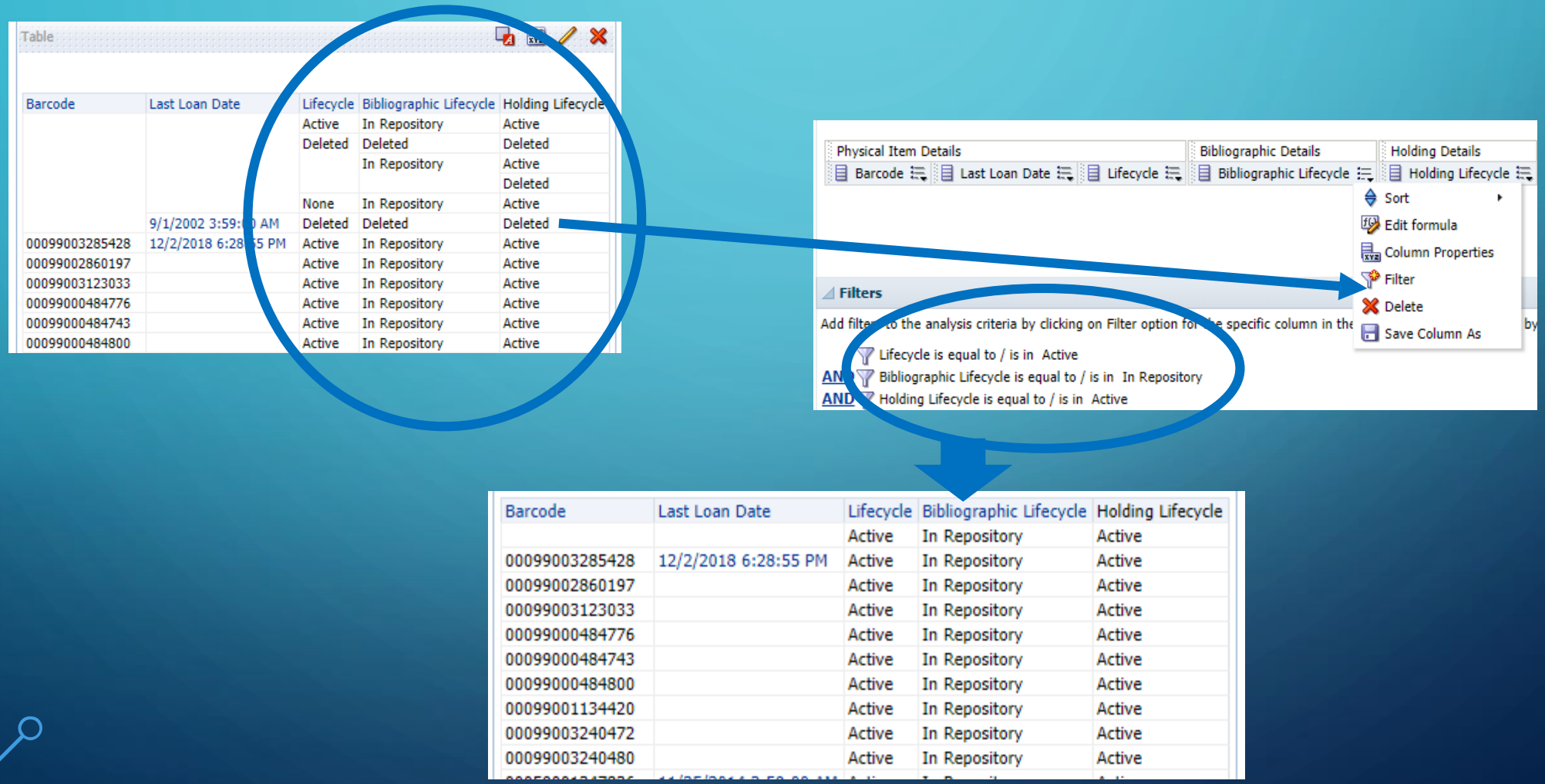
ADDING CRITERIA TO YOUR FIELDS:



- Sort allows to sort Ascending, Descending, Add multiple sorts or delete sorts.
- Edit formula – allows you to manipulate the data using Functional processes.
- Column Properties allows you to change the properties of the columns.
- Filter lets you filter a field on the data that is contained in that field of type.
- Delete
- Save Column As lets you save a column that is has a formula that you use over and over and apply it to other Analysis.

A COUPLE OF “HOUSE KEEPING” ITEMS

ADD "LIFECYCLE" TO AVOID HAVING DELETED RECORD RETURNS IN YOUR RESULTS IF YOU ARE WORKING WITH BIB, HOLDING, OR ITEM ANALYSIS.



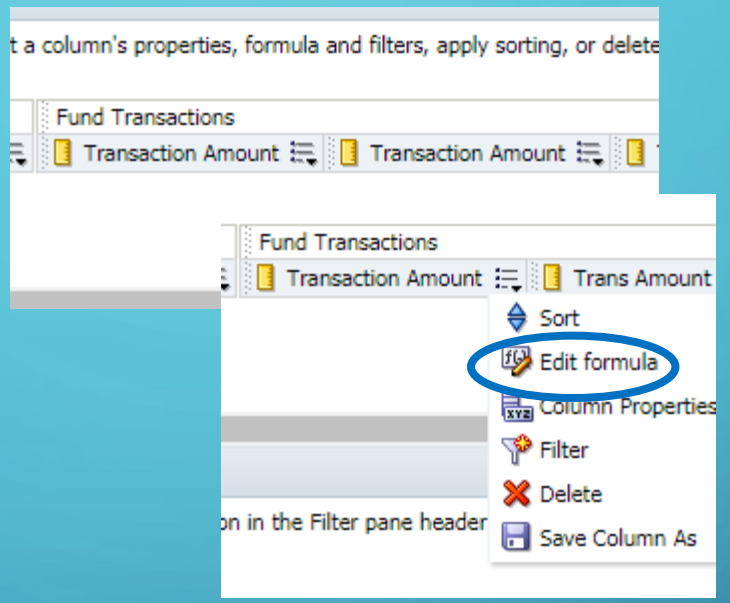
COMMON FILTERS IN THE PHYSICAL ITEMS SUBJECT AREA

- Exclude Bibs that are suppressed from discovery
- Exclude Holdings are suppressed from discovery
- Exclude Physical Item Details / Lifecycle is deleted
- Include Physical Item Details / Process type is none (or perhaps Exclude those that have Missing, Lost, Lost Resource Sharing, Lost and Paid, Acquisition, Technical-Migration, Loan, etc. Process types)

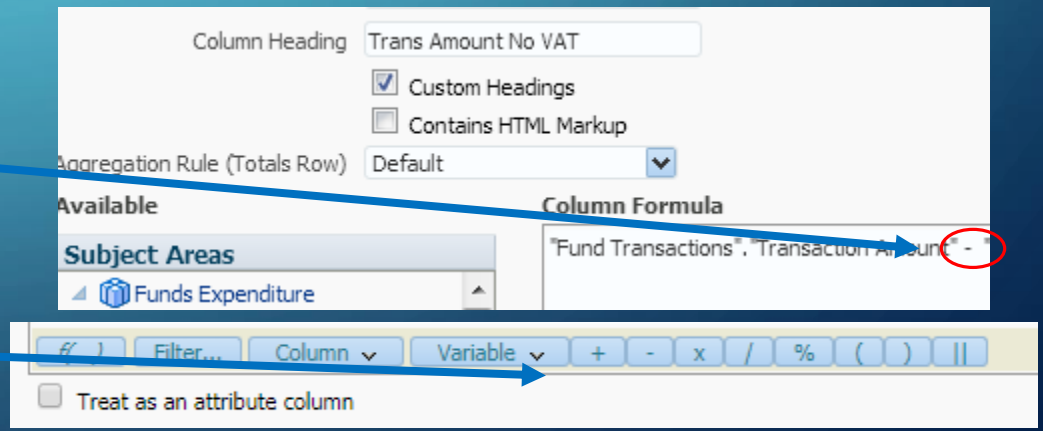
ADDING, SUBTRACTING, AND PERCENTAGES

ADDING OR SUBTRACTING ONE FIELD TO/FROM ANOTHER

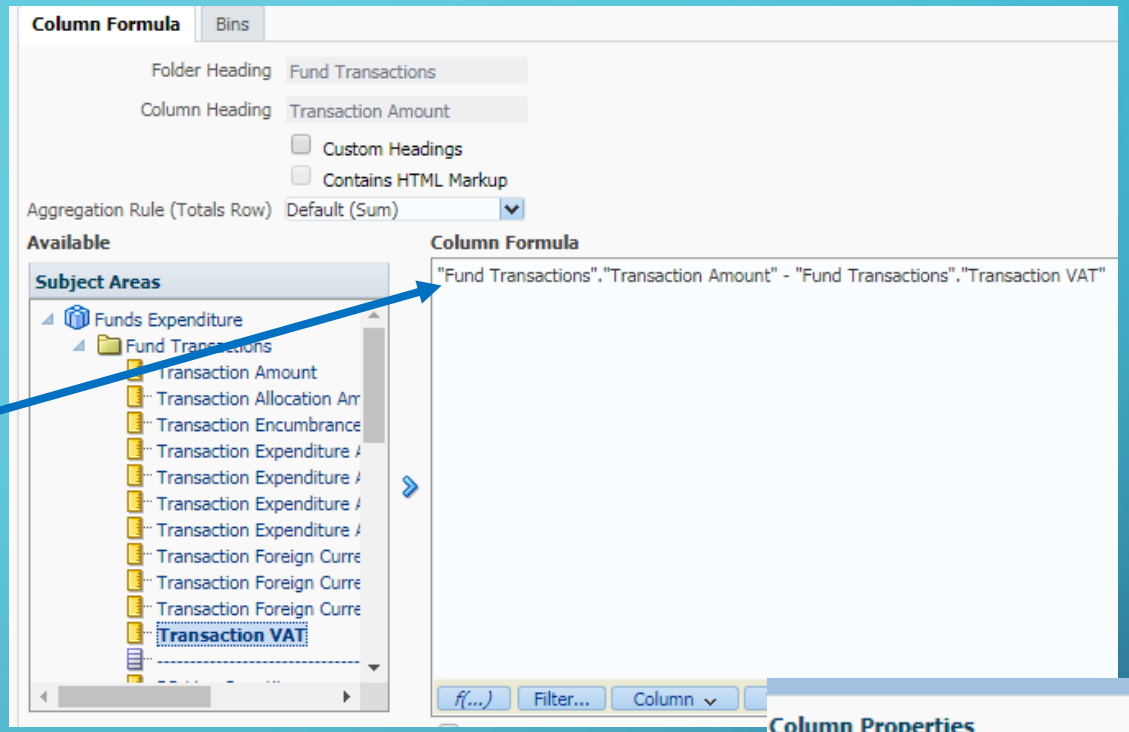
- Add the field you will be subtracting from twice. In this case, the “Transaction Amount“ from the "Fund Transactions“ Subject Area.
- Go to Edit formula in the drop down of one of those fields and add a minus sign after the dimension and field.
- You can use your keyboard or use the symbols in the tray.



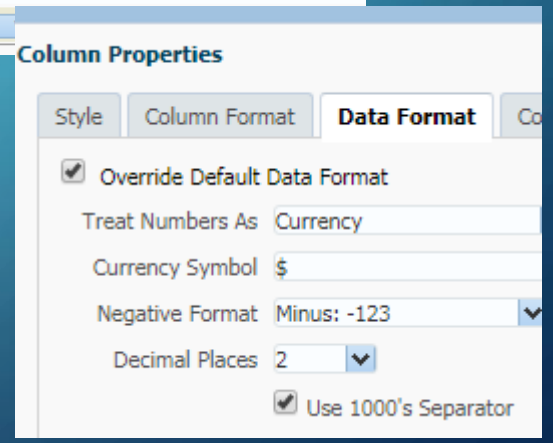
One of these “Transaction Amount” columns I will leave as it is, the other will be used for our formula.



- Then add the field you wish to subtract from the Subject Area list to the left.
- It will look something like this: "Fund Transactions"."Transaction Amount" - "Fund Transactions"."Transaction VAT".
- I rename my column so it makes more sense.
- **REMEMBER** – these must be numeric fields.



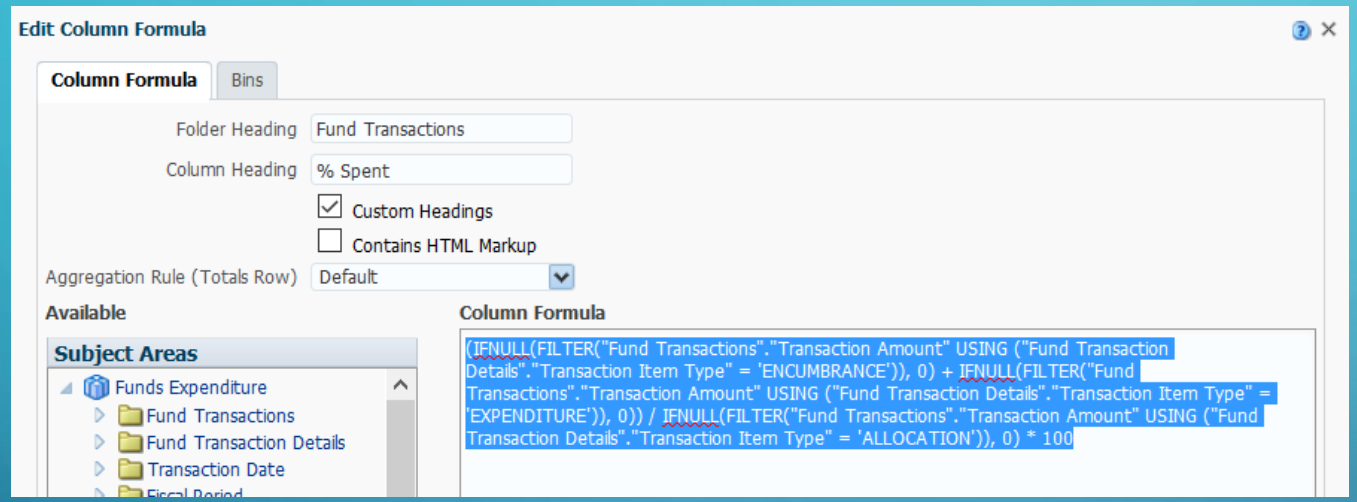
- I also used the Column Properties>Data format editor to change my numbers to currency.



PERCENTAGES

Use the same general idea as on last 2 slides, in this example in the Fund Transactions folder:

Concept: ((Encumbrance + Expenditure) / Allocation) * 100



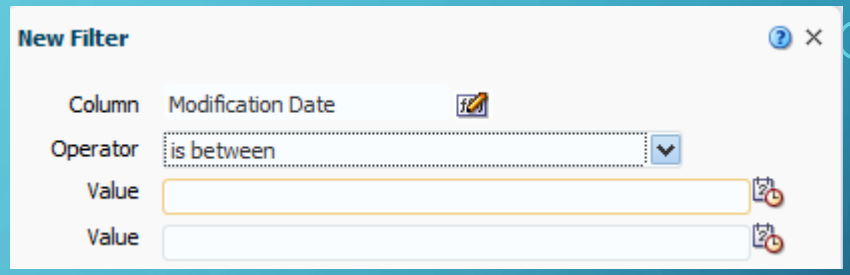
Also change the Column Properties / Data Format to be "Percentage"

Formula: (IFNULL(FILTER("Fund Transactions"."Transaction Amount" USING ("Fund Transaction Details"."Transaction Item Type" = 'ENCUMBRANCE')), 0) + IFNULL(FILTER("Fund Transactions"."Transaction Amount" USING ("Fund Transaction Details"."Transaction Item Type" = 'EXPENDITURE')), 0)) / IFNULL(FILTER("Fund Transactions"."Transaction Amount" USING ("Fund Transaction Details"."Transaction Item Type" = 'ALLOCATION')), 0) * 100

FILTER BY DATE

DATES

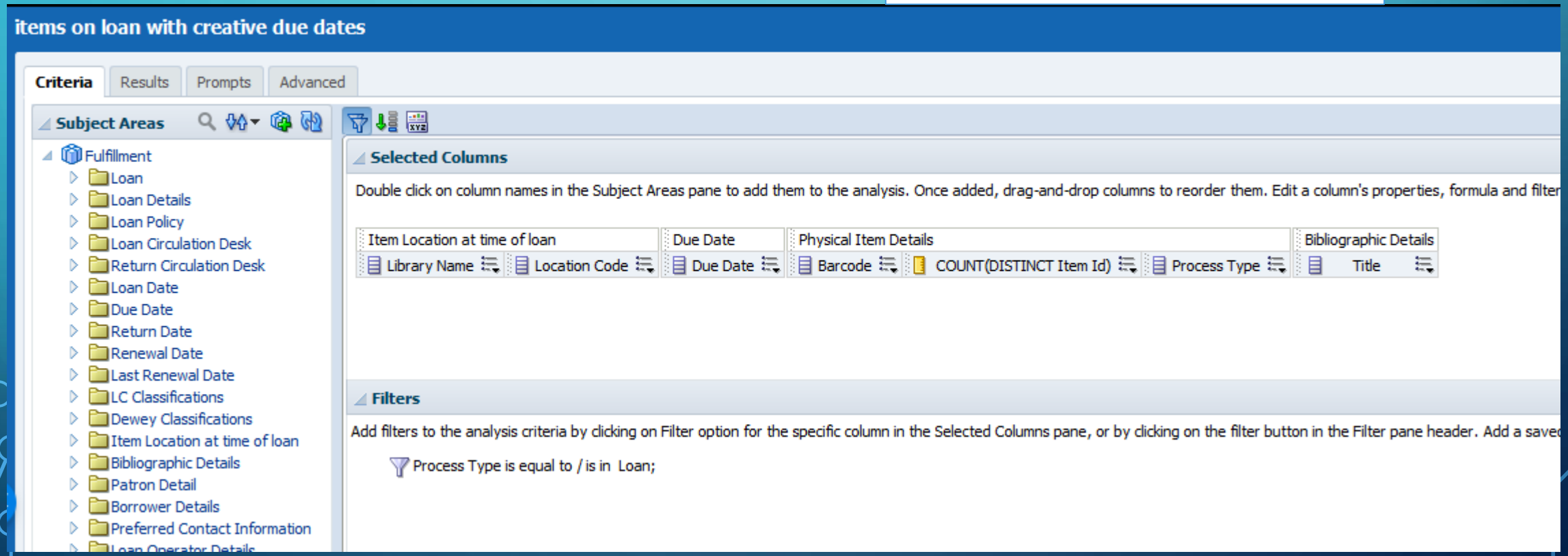
- Can filter for actions occurring between 2 given dates:



- Can also filter for actions occurring based on [TODAY] using TIMESTAMPADD filter:
  - TIMESTAMPADD(SQL_TSI_YEAR, 3, CURRENT_DATE): 3 years in the future
  - TIMESTAMPADD(SQL_TSI_MONTH, -4, CURRENT_DATE): 4 months ago
  - TIMESTAMPADD(SQL_TSI_WEEK, -5, CURRENT_DATE): 5 weeks ago
  - TIMESTAMPADD(SQL_TSI_DAY, 6, CURRENT_DATE): 6 days in the future

EXAMPLE: USE TIMESTAMPADD FILTER TO FIND "CREATIVE" DUE DATES

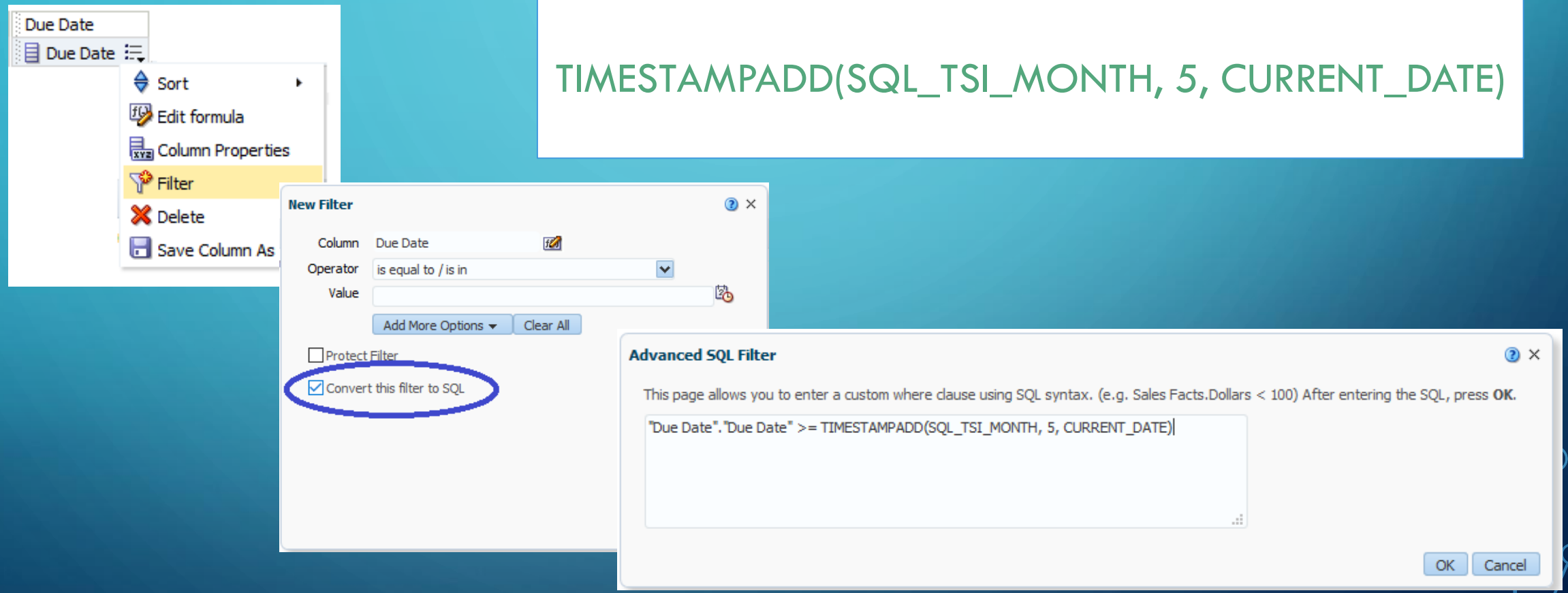
First, find what is currently on loan



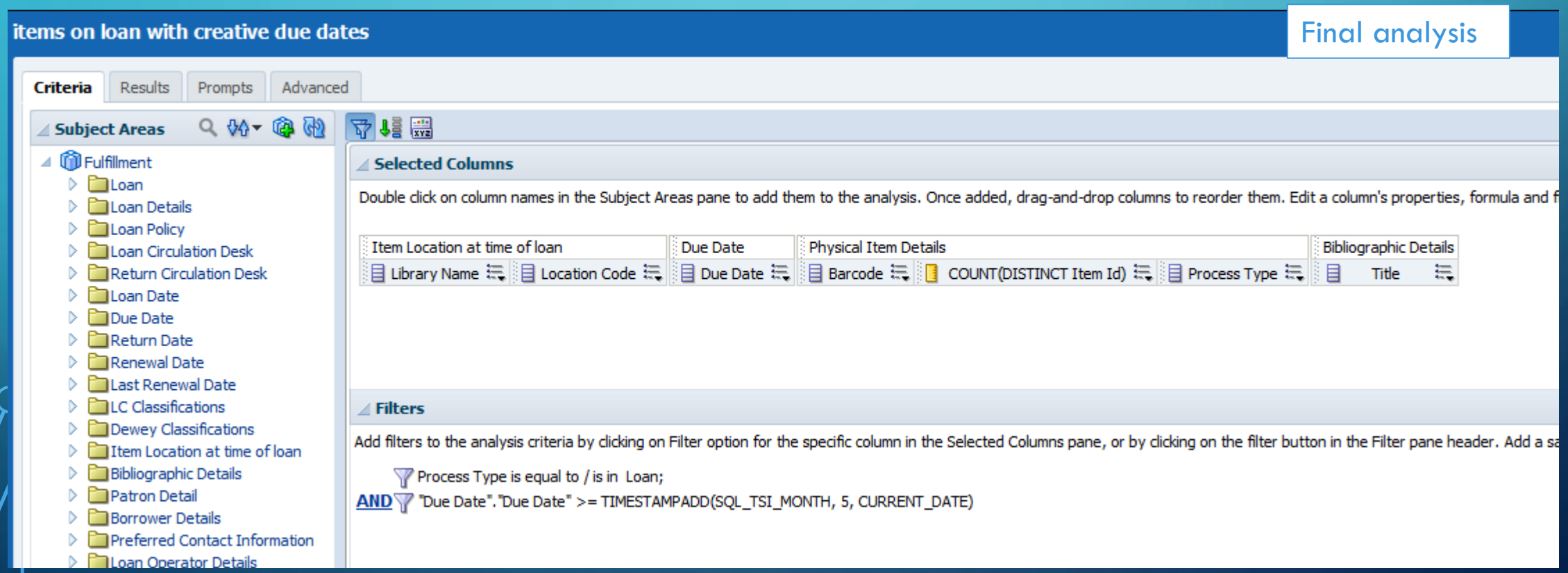
ADD TIMESTAMPADD FILTER

Add a filter based on the current date + 5 months

TIMESTAMPADD(SQL_TSI_MONTH, 5, CURRENT_DATE)



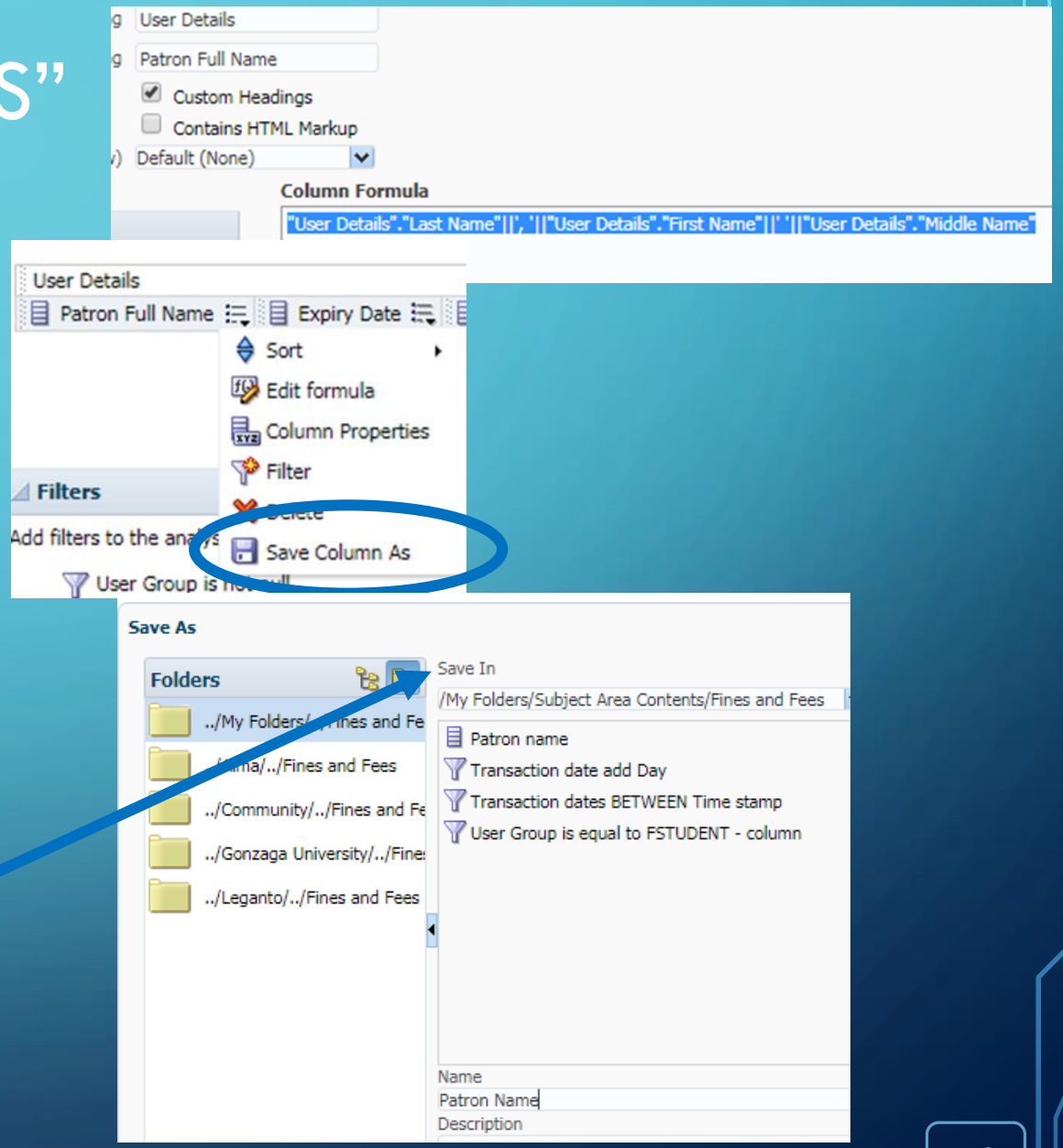
NOW HAVE: ITEMS ON LOAN DUE 5 OR MORE MONTHS FROM [DATE REPORT IS RUN]



SAVE COLUMN AS

USING "SAVE COLUMN AS"

- In a new analysis, add and edit the column ***using a formula***.
- Or open a analysis that contains the field and the formula you want to reuse.
- Click on the column drop down menu and choose : "Save Column As".
- Pay attention to where your column is being saved and remember you will only be able to reuse the column in analysis with those fields.



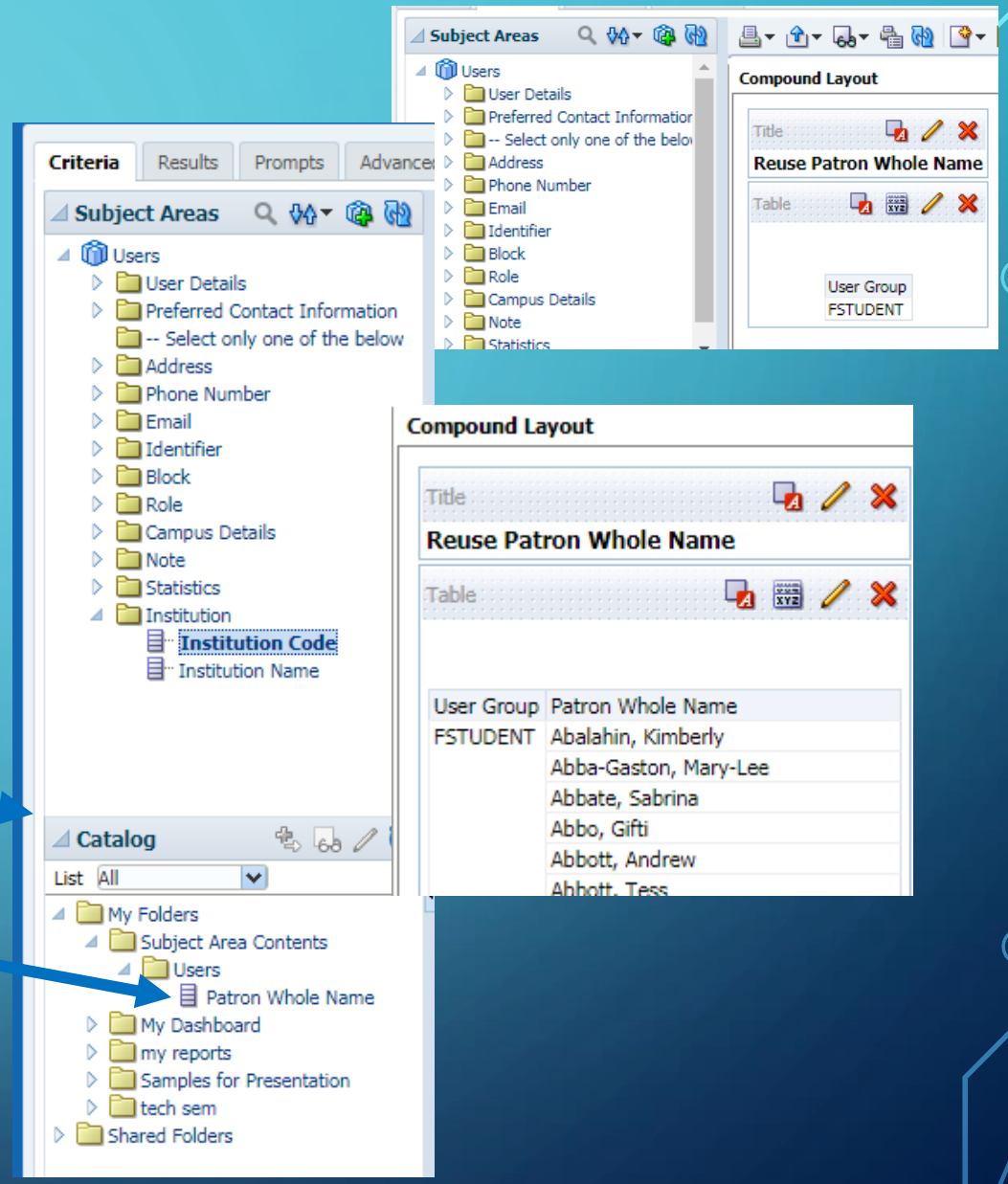
Now you've created your reusable field – how do you reuse it?

Start by creating a new analysis (or you may also add these to an existing analysis).

In the left hand pane, you will see the "Catalog" area with the tree of available catalogs.

Find your column, and double click or drag it to your analysis.

That's it! So simple.



FORMULA EXAMPLES:

852 formula to get only the i and h subfields:

```
CONCAT(REPLACE(Evaluate('regexp_substr(%1,"\$\$h[^\$]+", 1,1)',"Holding Details"."852 MARC"), '$$h ', ''), REPLACE(Evaluate('regexp_substr(%1,"\$\$i[^\$]+", 1,1)',"Holding Details"."852 MARC"), '$$i ', ''))
```

Date formulas:

Example 1:

```
FILTER("Usage Data Details"."JR1 - Journal Usage Counter (total)" USING ("Usage Date"."Usage Date" >= TIMESTAMPADD(SQL_TSI_WEEK, -5, CURRENT_DATE)))
```

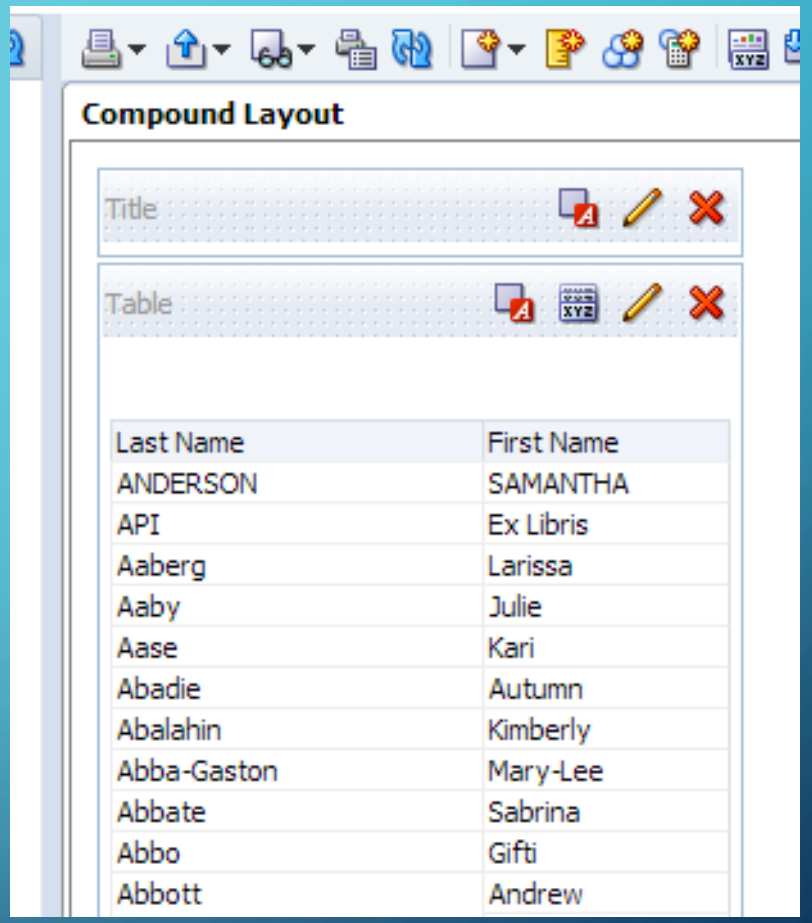
Example 2:

```
FILTER("Loan"."Loans (Not In House)" USING ("Fulfillment"."Loan Date"."Loan Date" >= TIMESTAMPADD(SQL_TSI_YEAR, -1, CURRENT_DATE)))
```

CONCATENATION

CONCATENATING MULTIPLE FIELDS

- You want to combine two fields such as the patron first and last name.
- Add one of the columns you want to concatenate
- Click on the drop down and choose “Edit Formula”



EDIT THE FORMULA TO LOOK LIKE THIS:

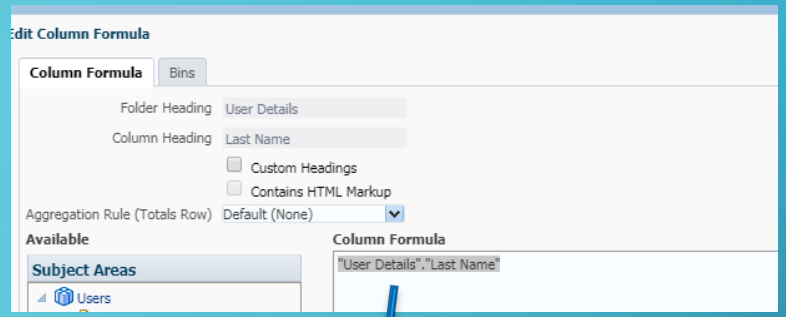
"User Details"."Last Name"||', '|| "User Details"."First Name“ *(NOTE: if you don't have a space or a dash, it will butt the two fields together)*

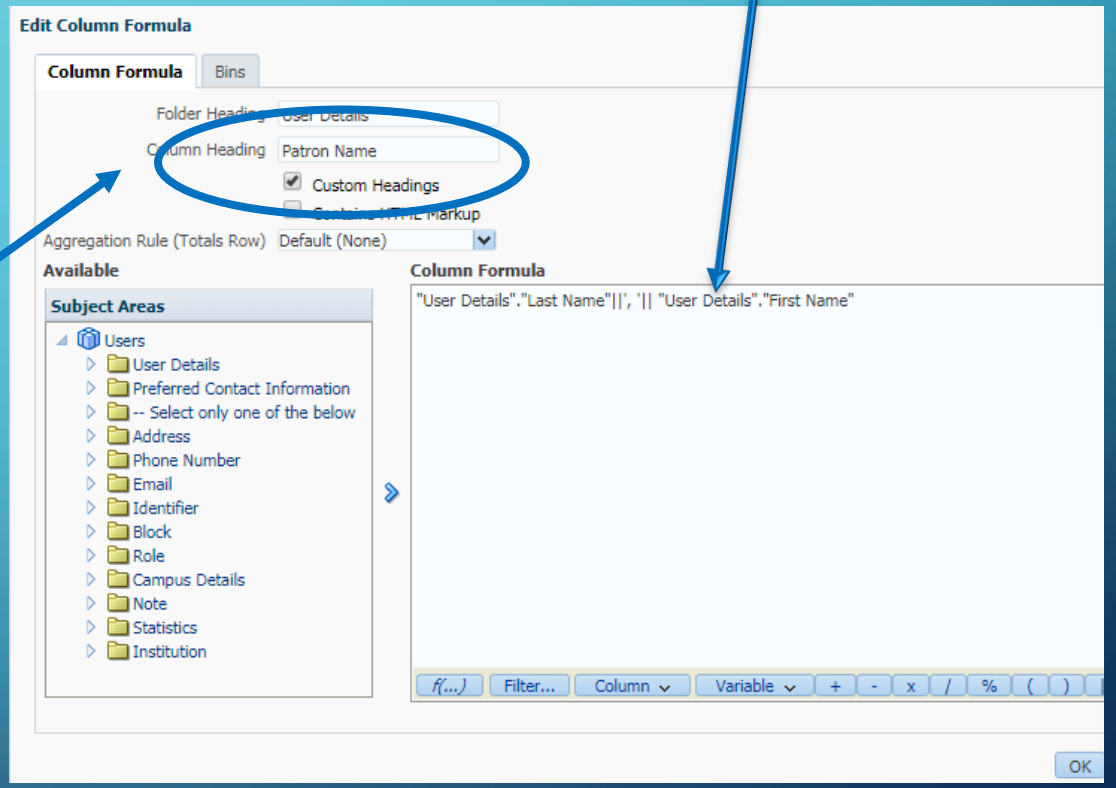
This format also works if you want to add text to a field for instance "Bibliographic Details"."ISBN“||**'-13'**

Click the Custom Heading box and change the Column Heading name to “Patron Name”

Click OK.

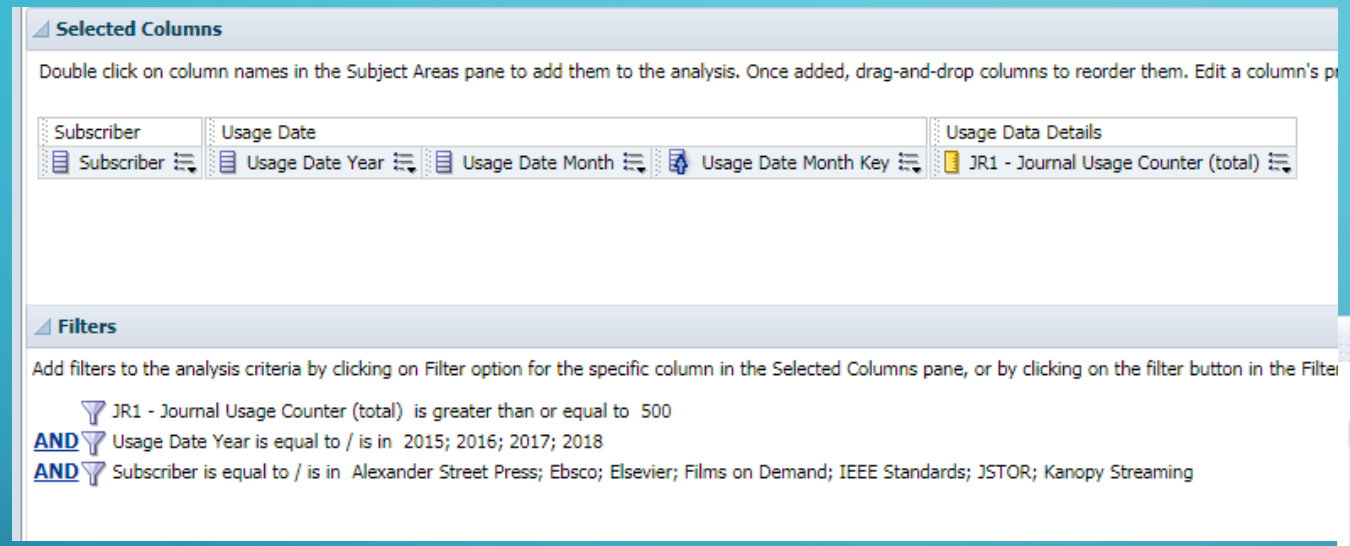
If you get a syntax error at this point, make sure that you have only single quotes around your comma and space, double quotes around the dimensions and fields. Also, make sure you have two pipes between each segment.





USING PIVOT TABLES

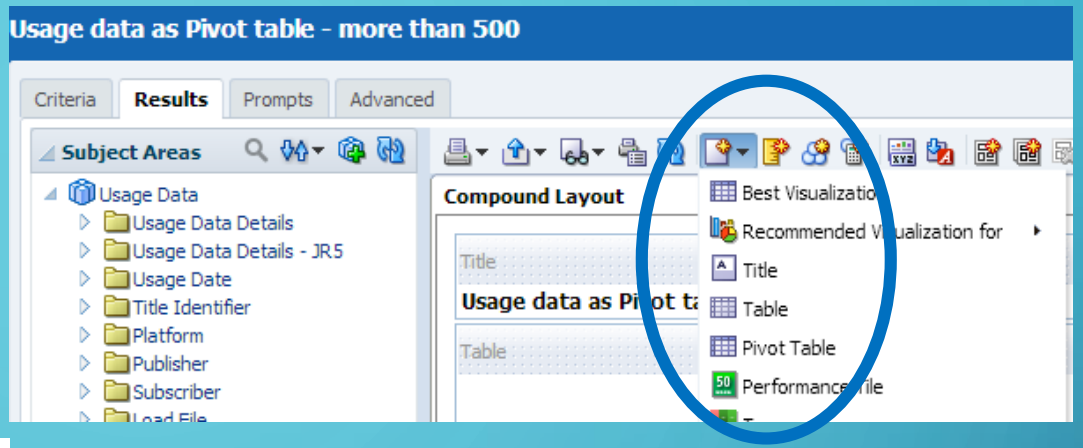
JOURNAL USAGE COUNTS THAT ARE GREATER THAN 500 PER MULTIPLE YEARS

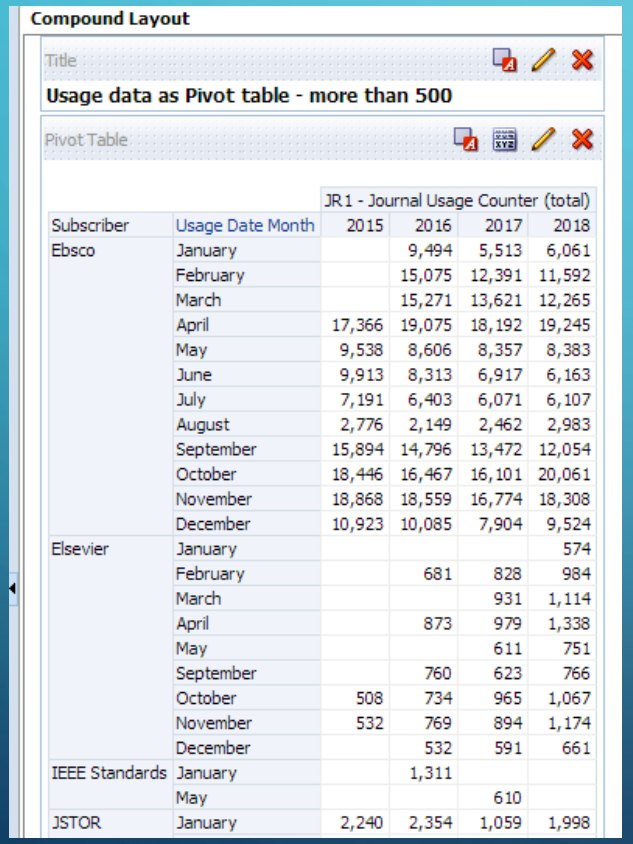


Here are the results

Subscriber	Usage Date Year	Usage Date Month	JR1 - Journal Usage Counter (total)
Ebsco	2016	January	9,494
	2017	January	5,513
	2018	January	6,061
Elsevier	2018	January	574
IEEE Standards	2016	January	1,311
JSTOR	2015	January	2,240
	2016	January	2,354
	2017	January	1,059
	2018	January	1,998
Ebsco	2016	February	15,075
	2017	February	12,391
	2018	February	11,592
Elsevier	2016	February	681
	2017	February	828
	2018	February	984
JSTOR	2015	February	4,292
	2016	February	4,036
	2017	February	2,776
	2018	February	3,666

YOU CAN TURN IT INTO A PIVOT TABLE:



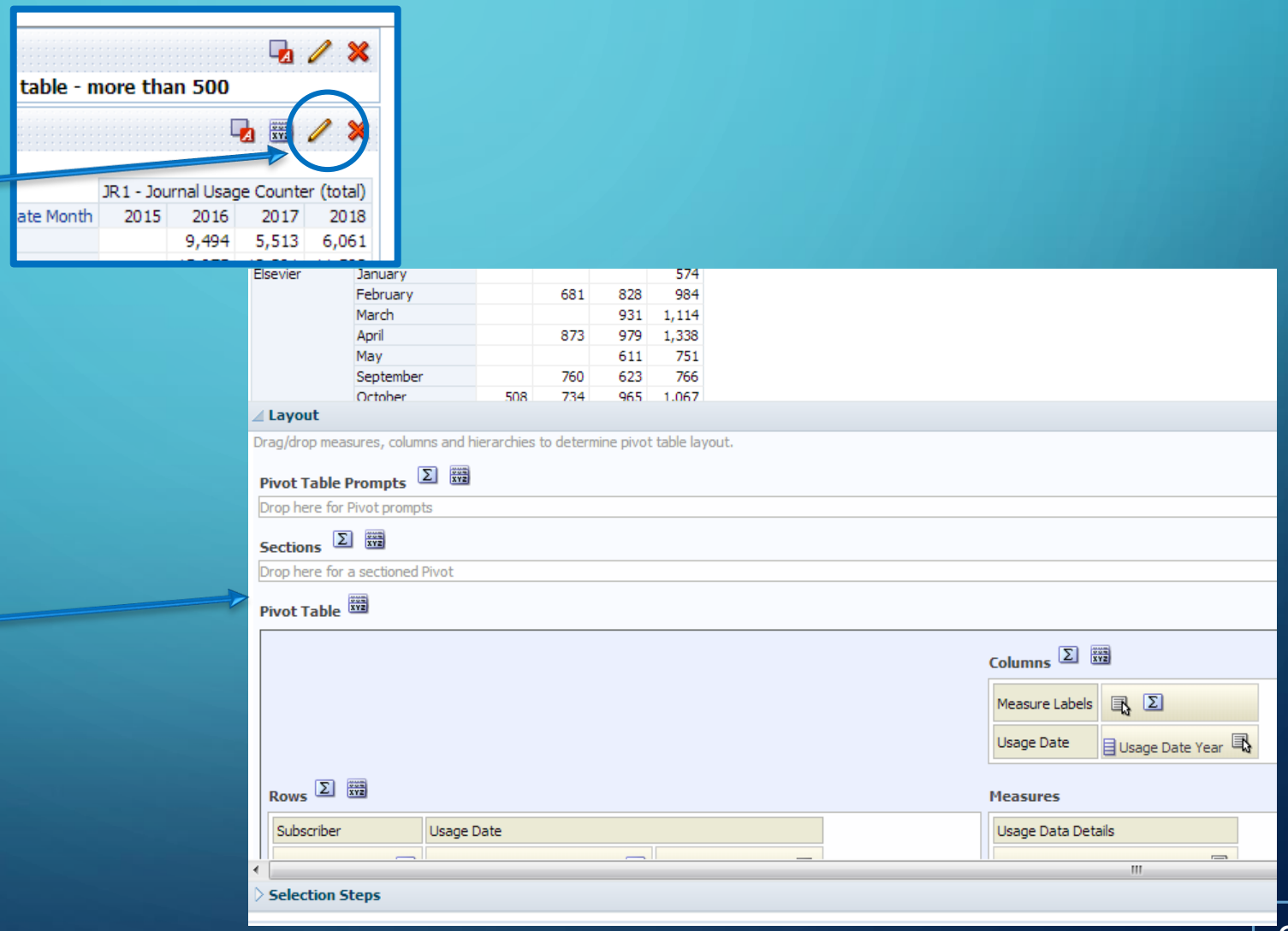


		JR1 - Journal Usage Counter (total)			
Subscriber	Usage Date Month	2015	2016	2017	2018
Ebsco	January		9,494	5,513	6,061
	February		15,075	12,391	11,592
	March		15,271	13,621	12,265
	April	17,366	19,075	18,192	19,245
	May	9,538	8,606	8,357	8,383
	June	9,913	8,313	6,917	6,163
	July	7,191	6,403	6,071	6,107
	August	2,776	2,149	2,462	2,983
	September	15,894	14,796	13,472	12,054
	October	18,446	16,467	16,101	20,061
	November	18,868	18,559	16,774	18,308
	December	10,923	10,085	7,904	9,524
Elsevier	January				574
	February		681	828	984
	March			931	1,114
	April		873	979	1,338
	May			611	751
	September		760	623	766
	October	508	734	965	1,067
	November	532	769	894	1,174
	December		532	591	661
IEEE Standards	January		1,311		
	May			610	
JSTOR	January	2,240	2,354	1,059	1,998

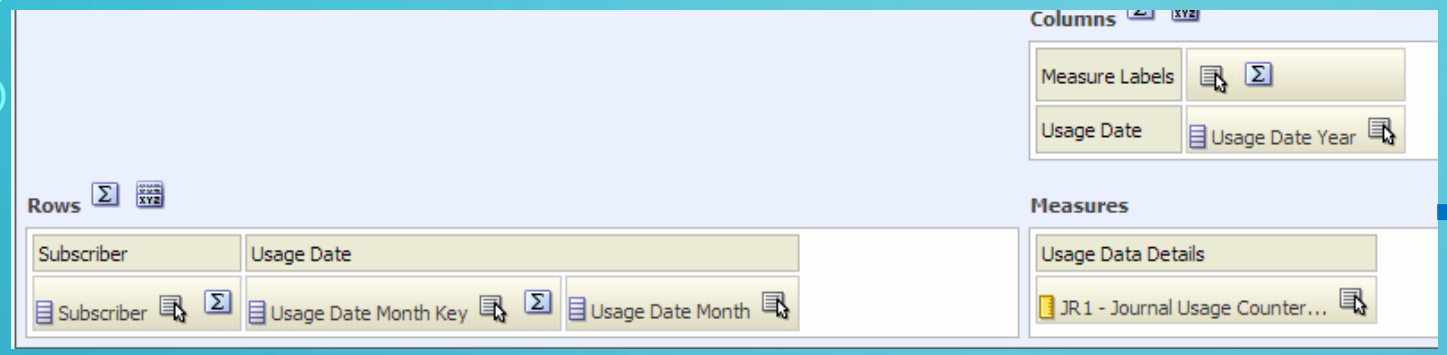
- You may want to change my header columns or add totals to sections or add grand totals to everything.

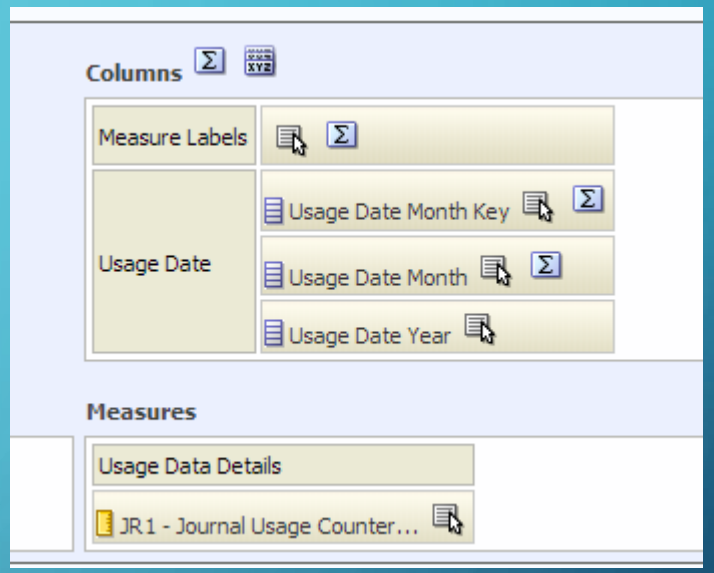
MOVING RESULTS AROUND

- To move your columns around, click on the "edit" pencil in the pivot table section of your report. That will open your Layout configuration at the bottom of your screen.



MOVE FIELDS YOU WOULD LIKE AS COLUMN HEADINGS TO THE "COLUMNS" BOX

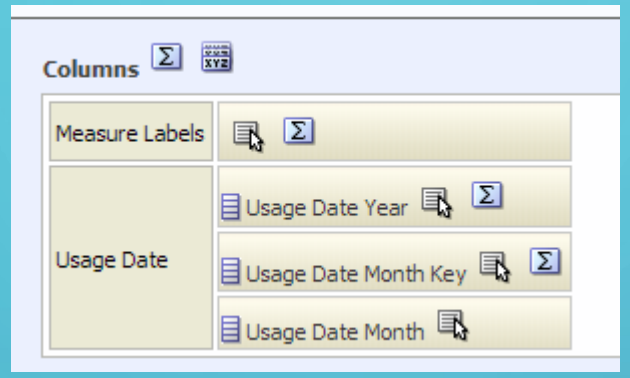


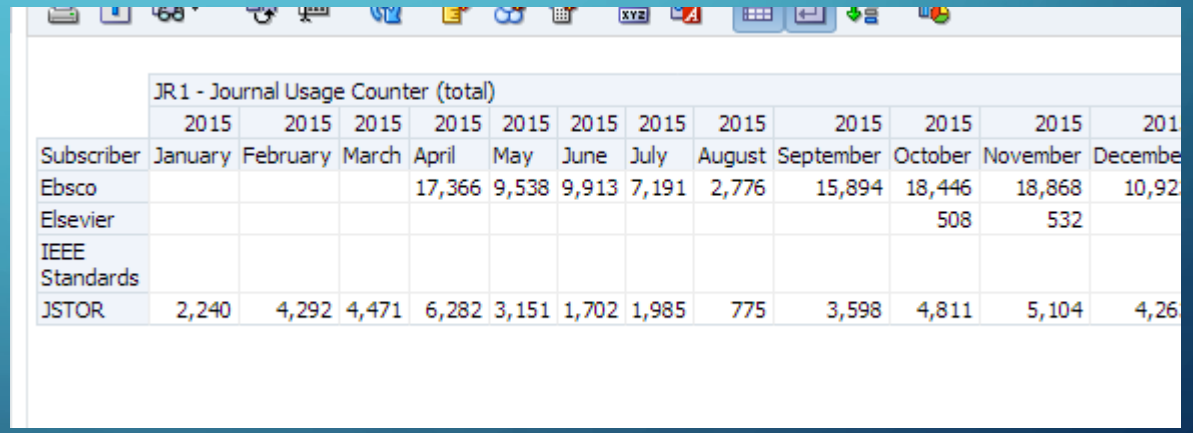


- Again, you will be able to see your changes in "preview",

	JR1 - Journal Usage Counter (total)													
	January	January	January	January	February	February	February	February	March	March	March	March	April	April
Subscriber	2015	2016	2017	2018	2015	2016	2017	2018	2015	2016	2017	2018	2015	20
Ebsco		9,494	5,513	6,061		15,075	12,391	11,592		15,271	13,621	12,265	17,366	19,0
Elsevier				574		681	828	984			931	1,114		8
IEEE Standards		1,311												
JSTOR	2,240	2,354	1,059	1,998	4,292	4,036	2,776	3,666	4,471	4,471	4,021	3,743	6,282	7,1

- Here are the results of moving the year above the month.

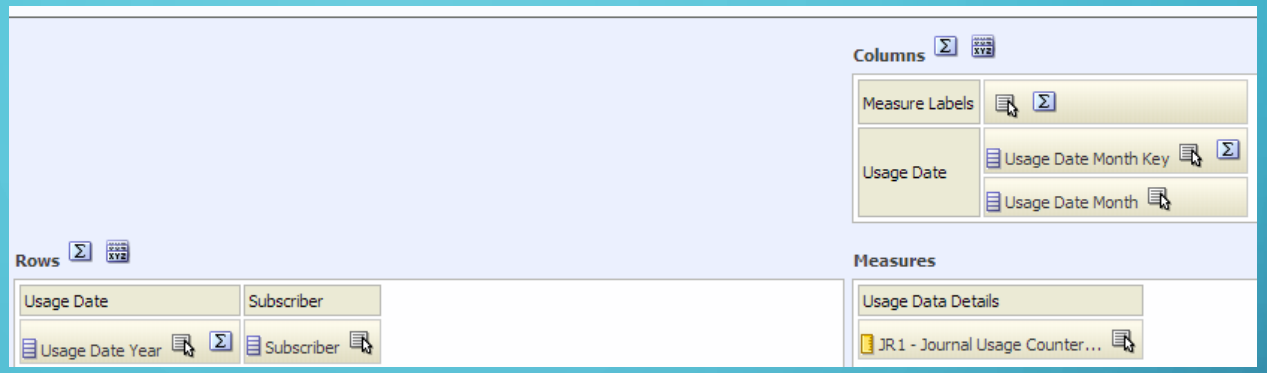


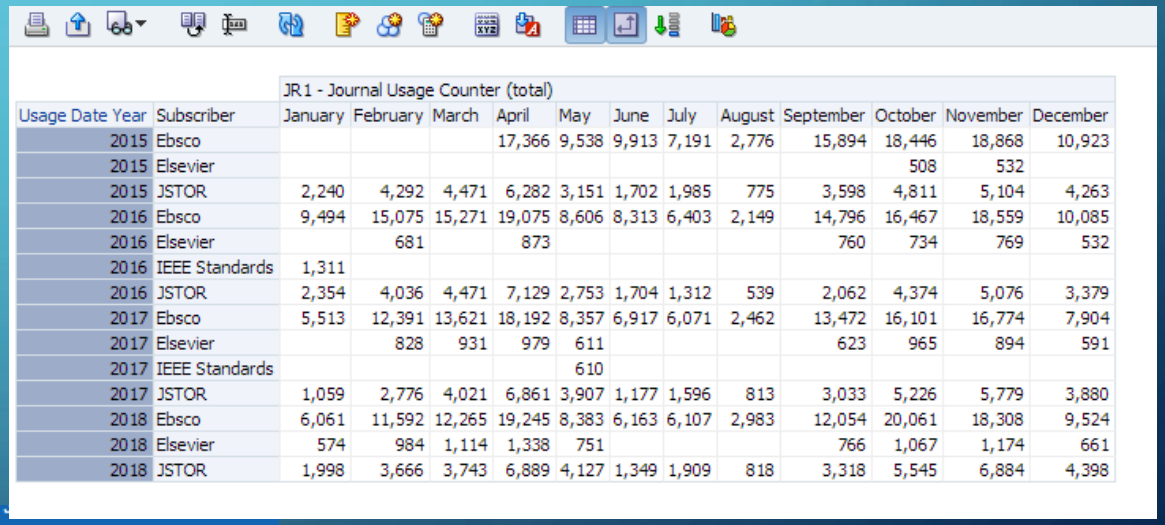


	JR1 - Journal Usage Counter (total)											
	2015	2015	2015	2015	2015	2015	2015	2015	2015	2015	2015	201
Subscriber	January	February	March	April	May	June	July	August	September	October	November	Decembe
Ebsco				17,366	9,538	9,913	7,191	2,776	15,894	18,446	18,868	10,92
Elsevier										508	532	
IEEE Standards												
JSTOR	2,240	4,292	4,471	6,282	3,151	1,702	1,985	775	3,598	4,811	5,104	4,26

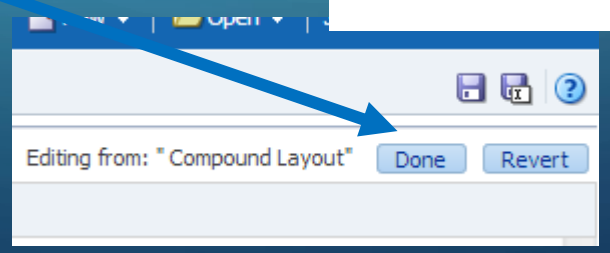
PLAY AROUND WITH THE FIELDS TO SEE WHICH OPTION GIVES YOU THE BEST RESULTS

- Moving the year to the rows gives you a new look. You may also change the order of the rows. **When you are happy, be sure and click the "Done" button on the top right of your screen.**



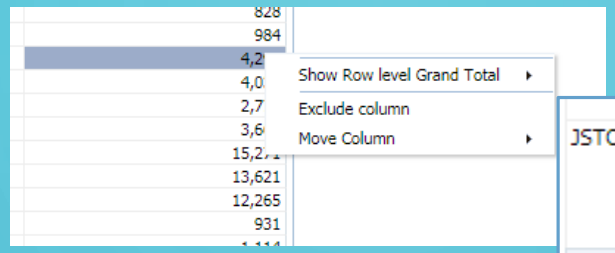


		JR1 - Journal Usage Counter (total)											
Usage Date Year	Subscriber	January	February	March	April	May	June	July	August	September	October	November	December
2015	Ebsco				17,366	9,538	9,913	7,191	2,776	15,894	18,446	18,868	10,923
2015	Elsevier										508	532	
2015	JSTOR	2,240	4,292	4,471	6,282	3,151	1,702	1,985	775	3,598	4,811	5,104	4,263
2016	Ebsco	9,494	15,075	15,271	19,075	8,606	8,313	6,403	2,149	14,796	16,467	18,559	10,085
2016	Elsevier		681		873					760	734	769	532
2016	IEEE Standards	1,311											
2016	JSTOR	2,354	4,036	4,471	7,129	2,753	1,704	1,312	539	2,062	4,374	5,076	3,379
2017	Ebsco	5,513	12,391	13,621	18,192	8,357	6,917	6,071	2,462	13,472	16,101	16,774	7,904
2017	Elsevier		828	931	979	611				623	965	894	591
2017	IEEE Standards					610							
2017	JSTOR	1,059	2,776	4,021	6,861	3,907	1,177	1,596	813	3,033	5,226	5,779	3,880
2018	Ebsco	6,061	11,592	12,265	19,245	8,383	6,163	6,107	2,983	12,054	20,061	18,308	9,524
2018	Elsevier	574	984	1,114	1,338	751				766	1,067	1,174	661
2018	JSTOR	1,998	3,666	3,743	6,889	4,127	1,349	1,909	818	3,318	5,545	6,884	4,398

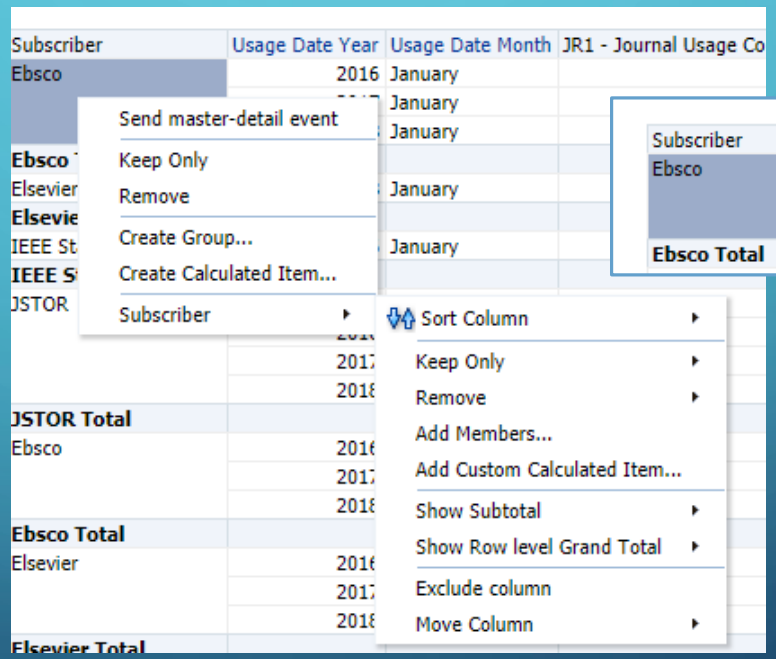


SUB-TOTALS AND GRAND TOTALS

- Right click on a column you want to total
- Choose “Show Row level Grand Total” and “After Values”
- You’ll get a grand total at the bottom.
- You can also click on a specific area to get sub-totals.



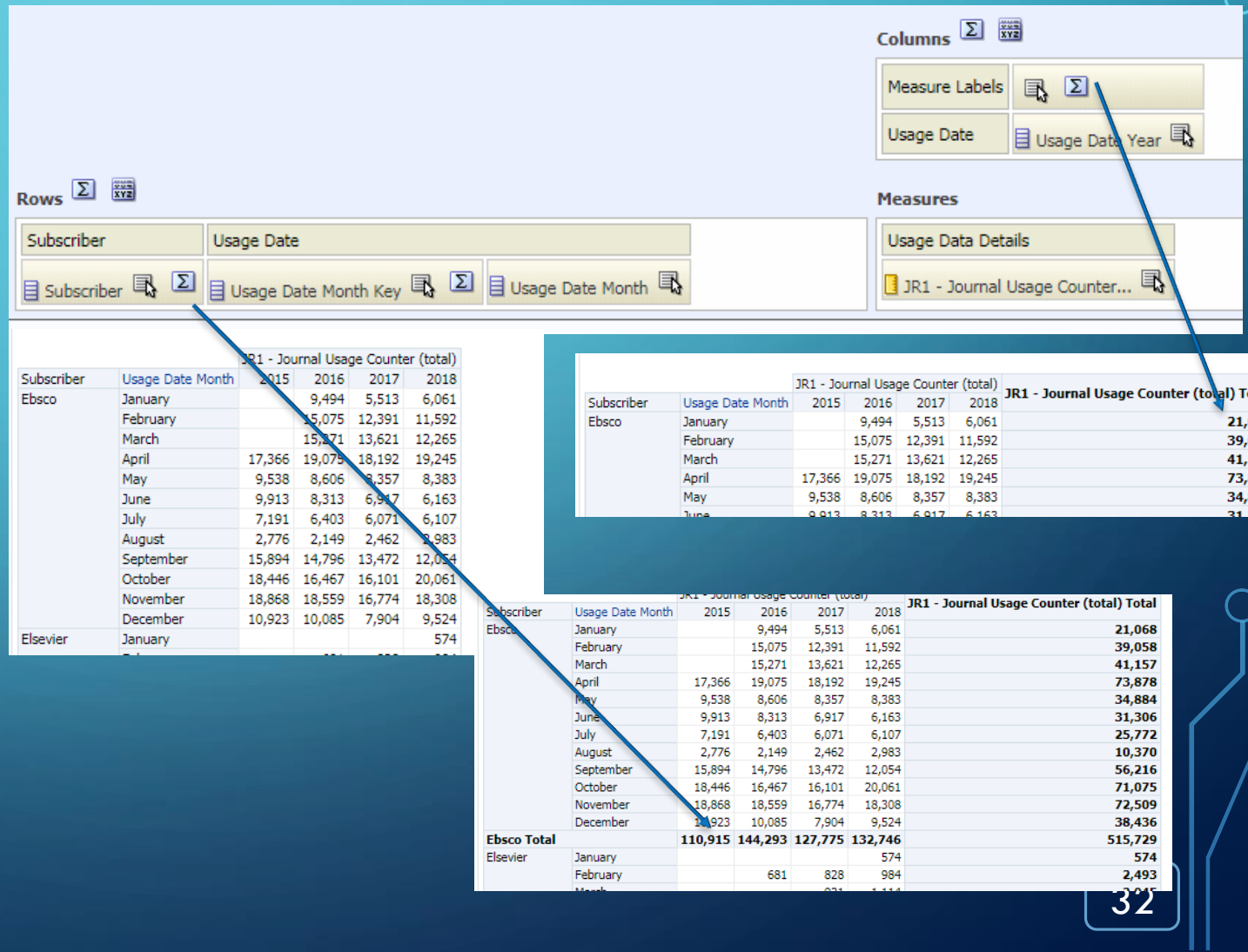
	2018	December	661
JSTOR	2015	December	4,263
	2016	December	3,379
	2017	December	3,880
	2018	December	4,398
Grand Total			**704,525**



Subscriber	Usage Date Year	Usage Date Month	JR1 - Journal Usage Counter (total)
Ebsco	2016	January	9,494
	2017	January	5,513
	2018	January	6,061
Ebsco Total			**21,068**

YOU HAVE LOTS OF OPTIONS ON A PIVOT TABLE

- Click the “edit” pencil.
- If you want a row total click the sigma in the columns section.
- You can also add totals after each section with a sigma



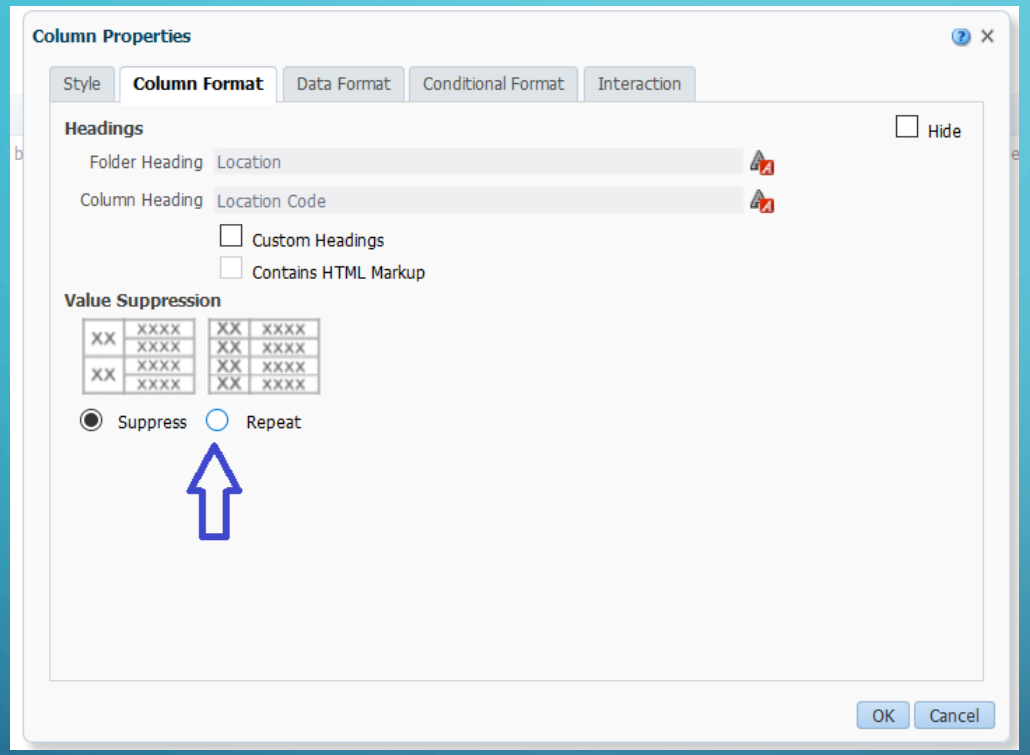
REPEATING DATA

WHAT IF YOU WANT YOUR DATA TO REPEAT?

DVDs in Spanish

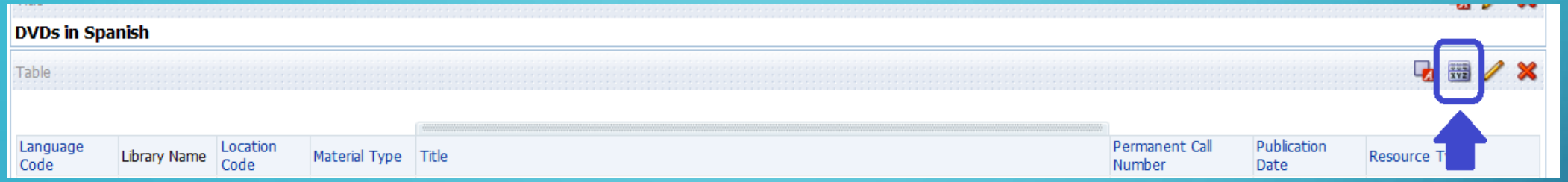
Language Code	Library Name	Location Code	Material Type	Title	Permanent Call Number	Publication Date	Resource Type
spa	Fine Arts Library	famctr	DVD	El dúo de "La africana" /	DVD1322	©2006.	Projected medium - Physical
				La Dolores /	DVD1320	©2006.	Projected medium - Physical
				Madrileña bonita : homenaje a la mujer Madrileña en la zarzuela, 1856-1956 /	DVD1321	©2006.	Projected medium - Physical
				Solidaridad en Saya : un movimiento musical afroboliviano /	ML3575.B6 S65 2013	[2013]	Digital File - Video
			Other	Luisa Fernanda	DVD698	c2007.	Projected medium - Physical
				Tango un giro extraño	DVD1213	2006	Projected medium - Physical
				Tangos, el exilio de Gardel	DVD1216	2006.	Projected medium - Physical
				Tâecnica de la guitarra clâasica = The classic guitar technique	DVD1241	D.L. 2007.	Projected medium - Physical
				Three by Duato	DVD329	2000 ;	Projected medium - Physical
				Volavérunt	DVD766	1999.	Projected medium - Physical
	Young Library	ylmedia	Blu-Ray And DVD	No /	AV-D10390	[2013]	Digital File - Video
			Book	Lo que sé de Lola /	AV-D0570	©2007.	Projected medium - Physical
				Pan's labyrinth /	AV-D6699	[2016]	Digital File - Video
			DVD	A fantastic woman	AV-D0448	2018.	Digital File - Video
				Al otro lado To the other side /	AV-D10401	[2007]	Projected medium - Physical
				Amador	AV-D10394	2012, c2010.	Projected medium - Physical
				Bajarí	AV-D0357	D.L. 2013	Projected medium - Physical
				Caballos salvajes /	AV-D0807	©2004.	Digital File - Video
				Cabriola	AV-D10400	D.L. 2002.	Projected medium -

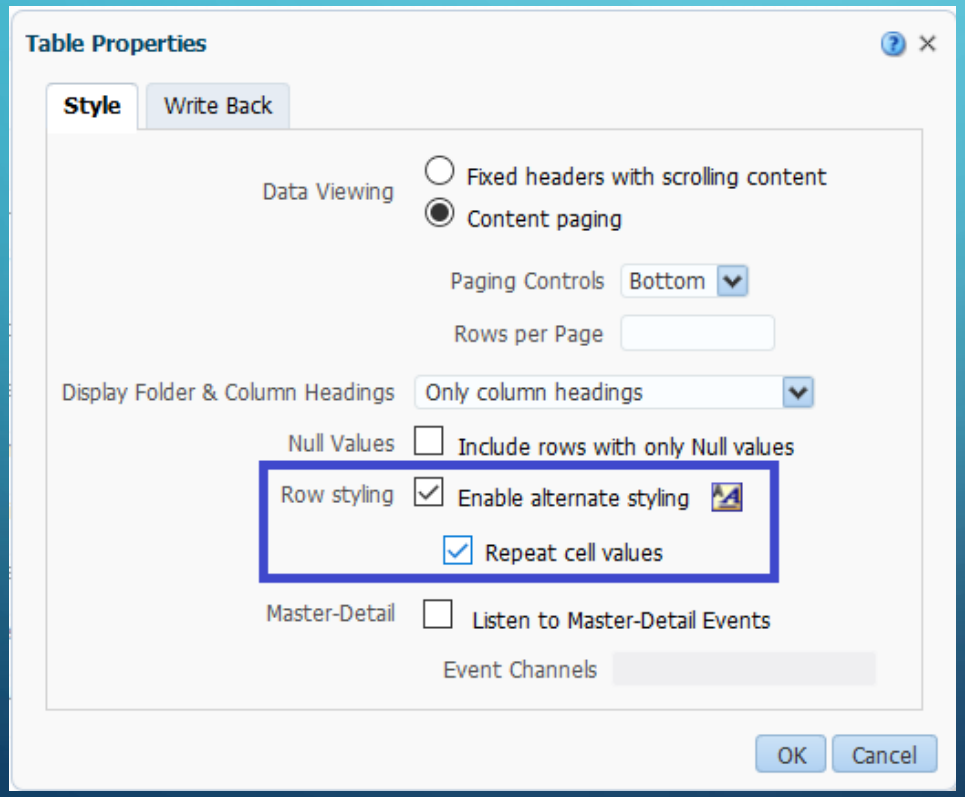
DATA NOT REPEATING: ANNOYING SOLUTION



For **each** resulting column that is not repeating, in the Criteria tab, change the Column Properties / Column Format to repeat

DATA NOT REPEATING: EASY SOLUTION





In the Results tab, in the Table, click the "View Properties" icon

On the pop-up screen, select "Enable alternate styling" then "Repeat cell values"

DATA NOW REPEATS!

Title

DVDs in Spanish

Table

Language Code	Library Name	Location Code	Material Type	Title	Permanent Call Number	Publication Date	Resource Type
spa	Fine Arts Library	famctr	DVD	El dúo de "La africana" /	DVD1322	©2006.	Projected medium - Physical
spa	Fine Arts Library	famctr	DVD	La Dolores /	DVD1320	©2006.	Projected medium - Physical
spa	Fine Arts Library	famctr	DVD	Madrileña bonita : homenaje a la mujer Madrileña en la zarzuela, 1856-1956 /	DVD1321	©2006.	Projected medium - Physical
spa	Fine Arts Library	famctr	DVD	Solidaridad en Saya : un movimiento musical afroboliviano /	ML3575.B6 S65 2013	[2013]	Digital File - Video
spa	Fine Arts Library	famctr	Other	Luisa Fernanda	DVD698	c2007.	Projected medium - Physical
spa	Fine Arts Library	famctr	Other	Tango un giro extraño	DVD1213	2006	Projected medium - Physical
spa	Fine Arts Library	famctr	Other	Tangos, el exilio de Gardel	DVD1216	2006.	Projected medium - Physical
spa	Fine Arts Library	famctr	Other	Tâecnica de la guitarra clâasica = The classic guitar technique	DVD1241	D.L. 2007.	Projected medium - Physical
spa	Fine Arts Library	famctr	Other	Three by Duato	DVD329	2000 ;	Projected medium - Physical
spa	Fine Arts Library	famctr	Other	Volavérunt	DVD766	1999.	Projected medium - Physical
spa	Young Library	ylmedia	Blu-Ray And DVD	No /	AV-D10390	[2013]	Digital File - Video
spa	Young Library	ylmedia	Book	Lo que sé de Lola /	AV-D0570	©2007.	Projected medium - Physical
spa	Young Library	ylmedia	Book	Pan's labyrinth /	AV-D6699	[2016]	Digital File - Video

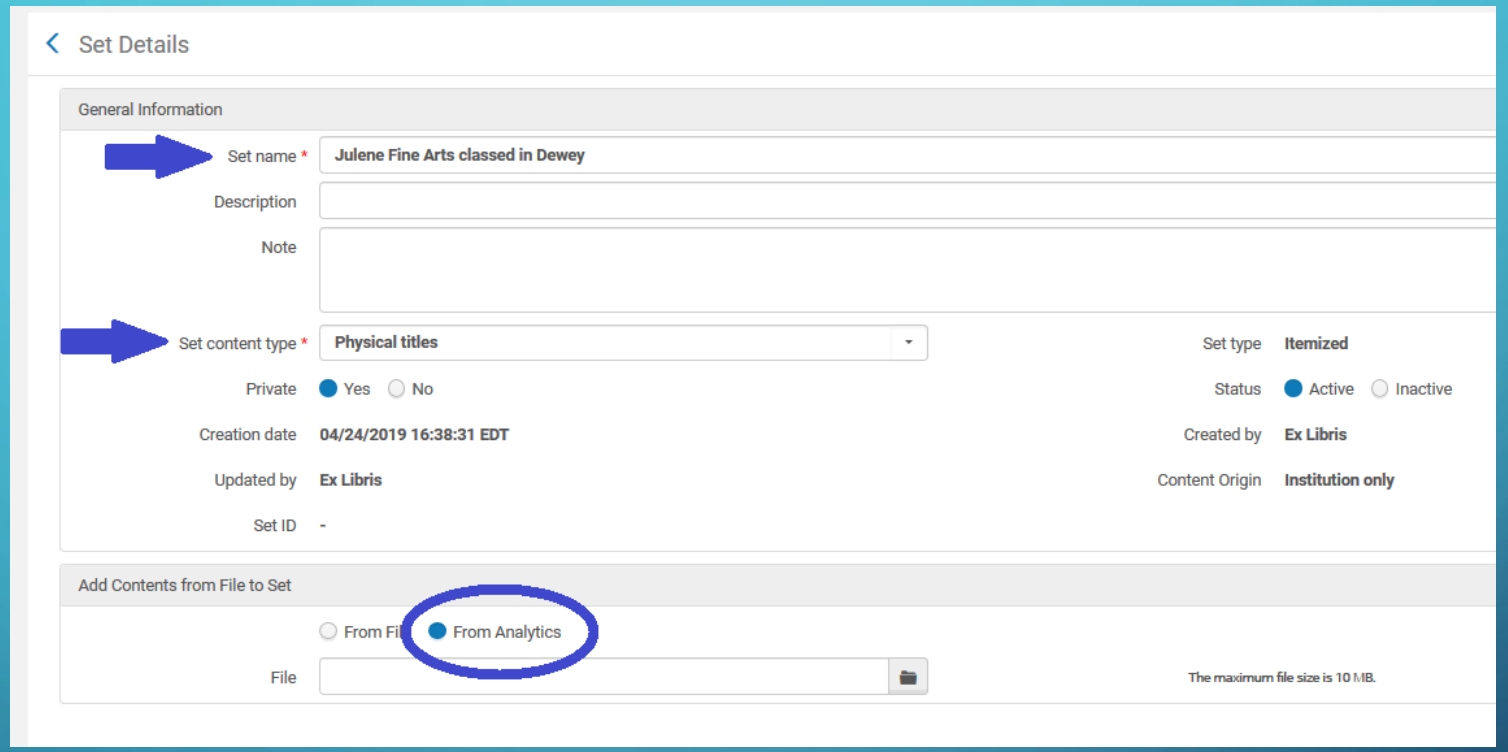
IMPORTING AN ANALYTICS REPORT INTO AN ALMA SET

IMPORTING RESULTS OF AN ANALYSIS INTO A SET IN ALMA

1. Determine what set type you want to create (hint: check the list of jobs)
2. Determine what data point (header) your Analytics analysis should include
3. Create and save your analysis in Analytics

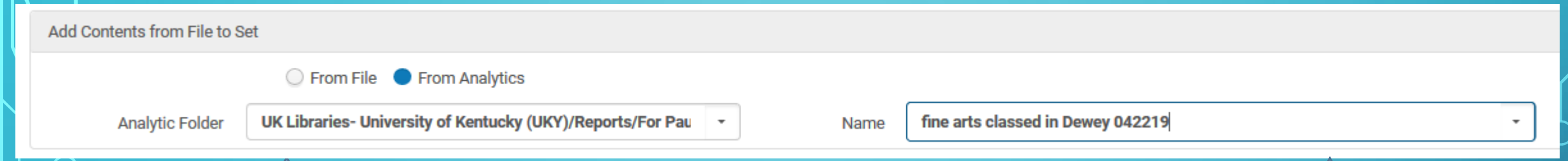
Set content type	Required Header	Set content type	Required Header
All Titles	MMS ID	Electronic titles	PID
	ISSN		ISSN
	ISBN		ISBN
	OCLC number		OCLC number
	035 field		035 field
Authorities	MMS ID	PO line	PO line reference
Collections	PID	Physical items	Item ID (or PID or Item PID)
Digital files	PID		Barcode
Digital titles	PID	Physical titles	PID
	ISSN		ISSN
	ISBN		ISBN
	OCLC number		OCLC number
	035 field		035 field
Electronic collections	PID	User	Barcode
Electronic portfolios	PID		User name
	Portfolio ID		Institution ID
			Facebook
			Google
			Twitter
		Vendor	Vendor code

4. In Alma, go to Manage Sets. Click “Add set” at top and select “itemized”.



Fill in the set name, content type, description, etc.

At the bottom, click the button to add contents “From Analytics”.



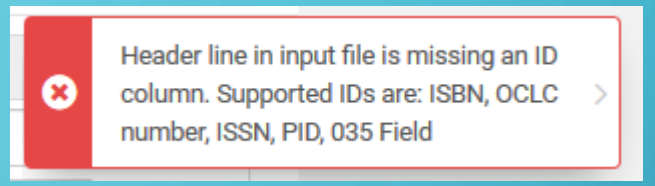
5. Select the **Analytics Folder** your analysis is saved in.

   Recent reports are reports you've run in the last hour, regardless of where they are saved. All other reports available here should be saved in your institution's shared folder

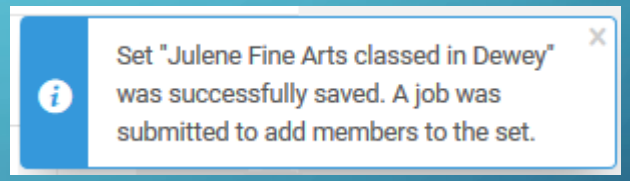
6. Select the analysis you want to import results from in the **Name** field.

7. Click save at the top of the screen.

If you have the wrong content type for your set, you'll see something like this:

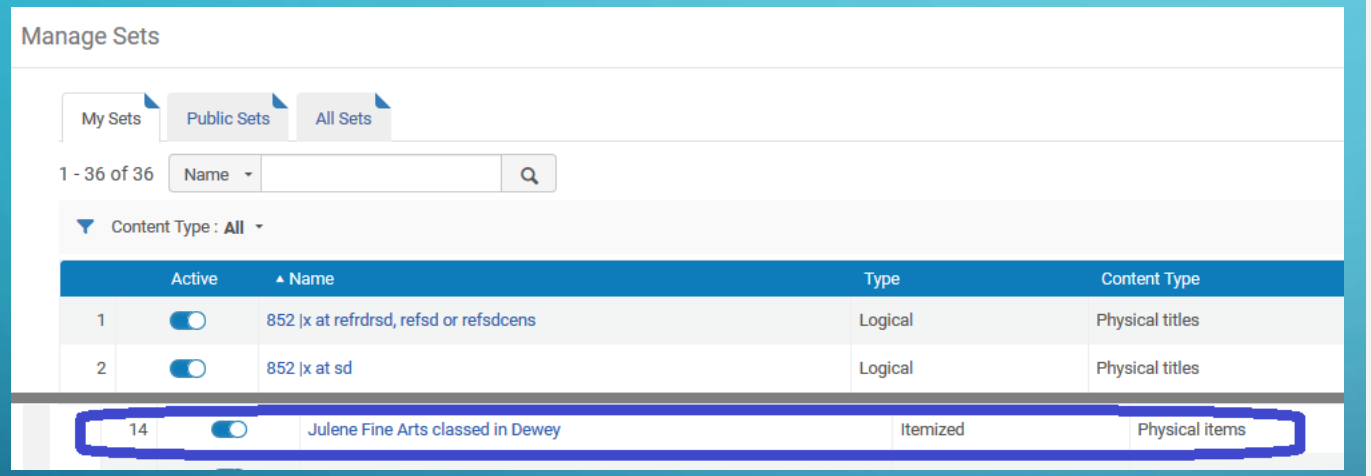


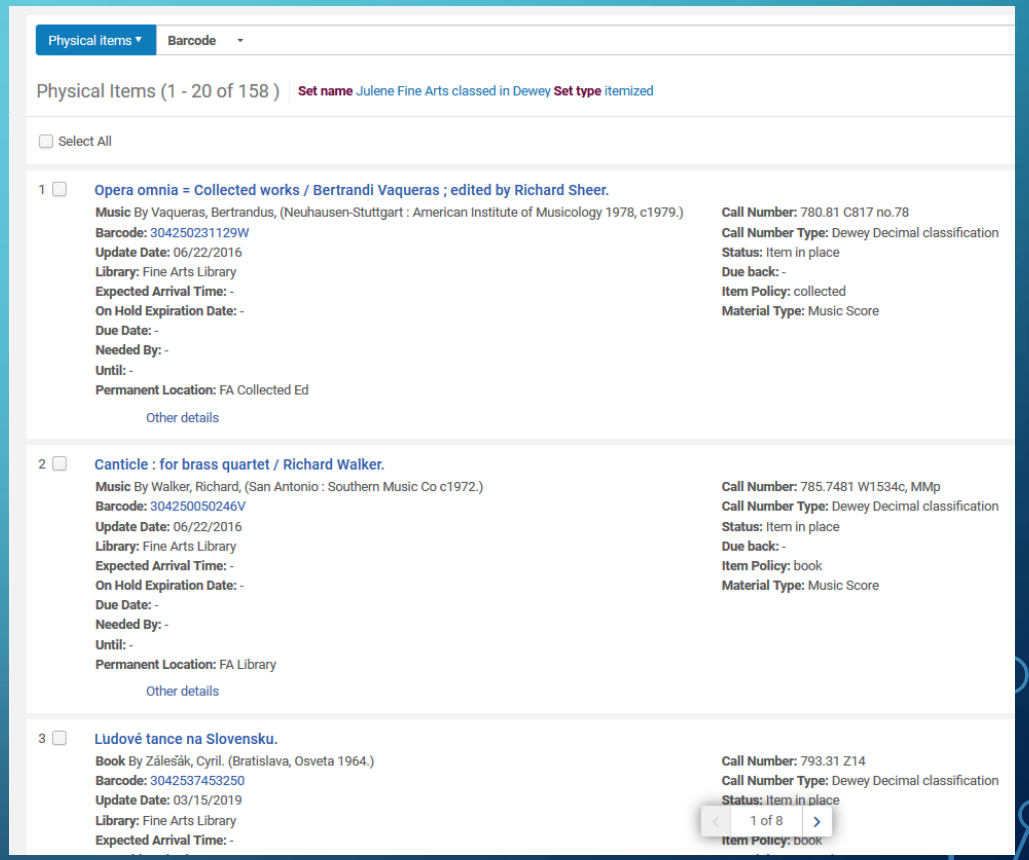
If you have the correct content type for your set, you'll see something like this:



A job will run to add the results of your analysis to a set.

Once it's complete, your set will display under Manage sets.

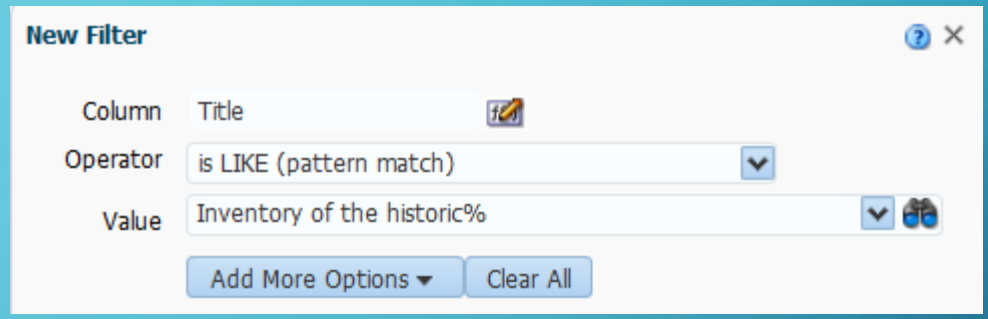




OTHER TIPS AND RESOURCES

OTHER TIPS

- Wildcards
  - use underscore (_) for a single character
  - use percent (%) for multiple characters
- Where was that?
  - “fund code” in Alma = “fund ledger code” in Analytics
- Use the search function to find reports created by others to use as a jumping off point.



RESOURCES:

https://innhold.bibsys.no/edx/alma/UserGuides/Alma%20Analytics%20Guide.pdf

https://knowledge.exlibrisgroup.com/Alma/Product_Documentation/010Alma_Online_Help_(English)/080Analytics

The queries we've used in this presentation are saved in
Shared Folders/Community/Reports/Institutions/WIN Library Network/ELUNA 2019

QUESTIONS?

THANK YOU!

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