

# Using Alma Analytics to answer the IPEDS

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## Scope

This handout will cover the following IPEDS data points:

- Physical and electronic collection counts
- Circulation of physical items
- Expenses

It will not include:

- Circulation/usage of electronic resources

Alma has unveiled a procedure for using Analytics to manage data from database COUNTER reports, so it is (theoretically) possible to use Analytics to answer e-collection usage questions. However, it is outside of the scope of this workshop.

## Intended Audience

This handout assumes that you have some familiarity creating Analysis in Alma analytics. For this reason, it will focus more on what columns to choose in your analysis rather than where to click and drag to choose them.

## Dashboards

This handout will offer tips for creating a dashboard in which to store the Analyses that answer your IPEDS questions. A dashboard is like a piece of poster board on which you paste analysis. Here is a screenshot of a sample IPEDS dashboard:

The screenshot displays the AlmaDataDashboard interface with the following sections:

- IPEDS Data:** A header section indicating that the data is up to 24 hours old and reflects current measurements requested by the IPEDS survey.
- Physical Collection:** A section containing three sub-tables:
  - Physical Books:** A table with columns 'Num of Items' and 'Library Name'.

Num of Items	Library Name
3,719	Colville
106	Inchelium
36	Ione
357	Newport
153	Pullman
196	Republic
47,464	SCC
41,361	SFCC
6	SFCC Resource Sharing Library
  - Count of Physical Items shelved in media locations:** A table with columns 'Library Name' and 'Num of Items'.

Library Name	Num of Items
Colville	468
SCC	1,578
SFCC	3,141
SFCC Math Lab	311
  - Count of Physical Serials:** A table with columns 'Library Name' and 'Count Of Bibs'.

Library Name	Count Of Bibs
Colville	1
SCC	109
SFCC	269
- Circulation:** A section with a 'Loan Fiscal Year' dropdown set to 'FY-2017' and 'Apply'/'Reset' buttons. It includes a 'Library Circulation' table:

Library Name	Loans
Colville	367
Newport	4
Pullman	4
Republic	1
SCC	16,631
SFCC	27,884
SFCC Math Lab	4,297
SFCC Resource Sharing Library	71

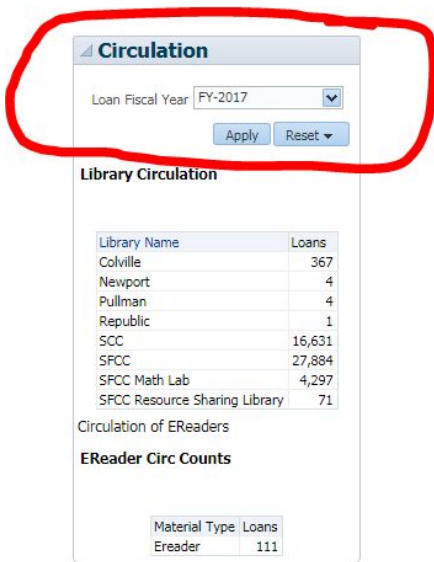
Below this is an 'EReader Circ Counts' table:

Material Type	Loans
Ereader	111
- Expenses:** A section with a fiscal year input field set to '2017' and 'Apply'/'Reset' buttons. It includes two sub-sections:
  - One Time Materials Purchases:** A table with a 'Transaction Amount' of 83,563.
  - Ongoing Material Purchases:** A table with a 'Transaction Amount' of 234,492.

If you are unfamiliar with creating dashboards, see the handout from the presentation Alma Analytics Dashboards.

### Dashboard Prompts:

A dashboard prompt allows the person viewing the dashboard to supply one or more criteria for the analysis. For example, a prompt allows the user to limit data to a specific fiscal year.



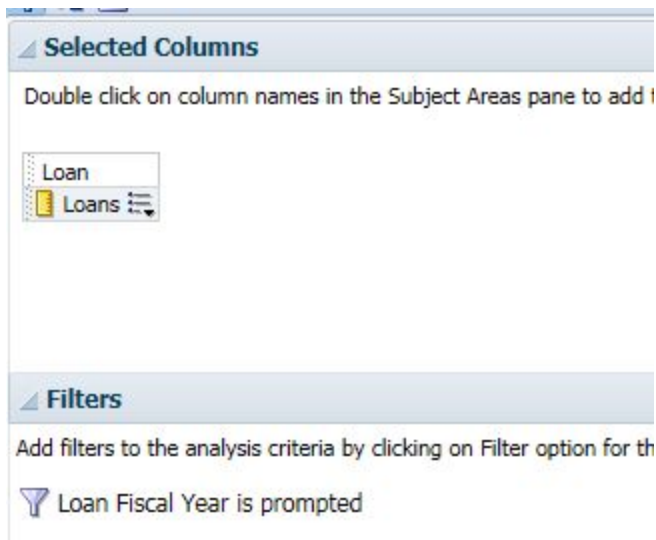
The image on the left is a screenshot of a dashboard, with the prompt circled.

The analysis in this handout are designed to be used with dashboard prompts. We will cover them briefly, but for more detailed information about creating a Dashboard prompt, see the handout for Alma Analytics Dashboards.

## Counting Circulation

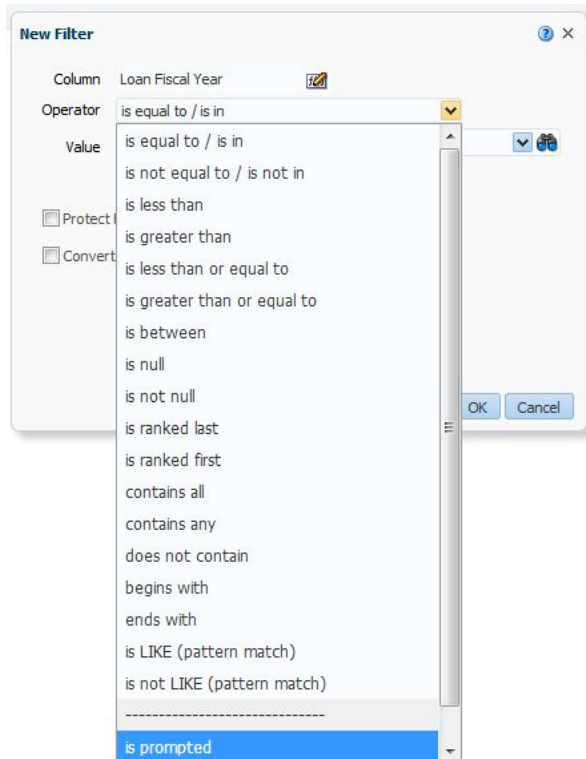
Create a new analysis in the Fulfillment subject area.

Ex Libris has a premade measured column that counts loans. Drag that into your frame.



### Limiting to circulation from one fiscal year

There are a number of date columns you can use to limit your data to one fiscal year (the reporting period used by the IPEDS.) I suggest filtering by loan date → fiscal year.



Because you will be interested in a different date each year, I suggest leaving this analysis open to be prompted by the user from the dashboard. To do so, select the Is Prompted option when setting the filter.

Save the analysis. When you are assembling the dashboard, you will create and add a dashboard prompt that will control this analysis filling in the user's preferred value for the fiscal year. This process is described in the Dashboard Prompts section of this handout.

## Counting Your Physical Collection

The IPEDS asks for counts of the following physical items:

- Books
- Media
- Serials

Every library's data is a little different, so different libraries will use different fields to determine which items are books, which are serials, etc. This handout will list suggested fields to try, and also describe analysis that will help you determine if the field will work for you.

### **Count of physical books/media.**

Analytics includes a calculated field that counts the number of physical items in your catalog. Use that field. Not that this will count item records, so every copy of *To Kill a Mockingbird* will be included in this count. If you prefer to report on a title level, see instructions for counting bib records in the Count of Physical Serials section of this handout.

You will then need to apply filters to count only physical books or media: Below is a screenshot of an analysis with some sample filters:

**Selected Columns**




Double click on column names in the Subject Areas pane to add them to the analysis. Once added, drag-and-drop col

Physical Item Details  
 Num of Items

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**Filters**

Add filters to the analysis criteria by clicking on Filter option for the specific column in the Selected Columns pane, or b

 Lifecycle is equal to / is in Active  
**AND**  Material Type is not equal to / is not in Blu-Ray And DVD; Compact Disc; DVD; Issue; Laptop  
**AND**  Creation Date is prompted

Excluding items that have been weeded

Filter Column: Physical Items Details → Lifecycle

Alma analytics keeps track of both records currently in your system, and records you have deleted. This is good because it lets you get a count of how many items you have discarded in a given year. But, you don't want to report deleted records on the IPEDS. Use a filter to display only records where the lifecycle field is equal to Active.

Excluding items that are the wrong format

Possible columns to filter: Physical Items → Details Material type. OR Location → Location Name

IPEDS asks that you count books and media separately. The most logical filter for this is the material type column. It's a good idea to run a few analysis' first to see how well this field is used in your database. For example, run an analysis that shows you how many of each item type you own. If something looks odd (for example, only owning one DVD, or a large number of items cataloged with the material type "unknown"), run additional queries (such as an analysis of records where material type is unknown that displays their bibliographic title, their barcode and their location). This can give you more information and help you decide how to filter, or if it is better to use another field.

If your data contains a large number of records with unknown or incorrect material types, you may be able to use Location instead, provided that your library shelves book and media items in separate locations.

Excluding new items you have added since the fiscal year in question.

Column to filter: Creation date

This can get complicated depending on if your database has records that don't include a creations date. To find out if you are in that board, first apply a filter where creation date is null, and see how many records Alma counts.

No records with null values? Excellent! Set the filter to “Is Prompted” and let a dashboard prompt control it later. This is the best case scenario, since it allows you to get data year after year without editing the analysis at all.

If you have null values, it’s time to dust off your boolean logic! Usually null values come from old records that were created before you moved to Alma. You need Alma to count them along with any items created before the close of your fiscal year. For this you will need the all powerful OR operator. Here is a screenshot of an analysis filtered to count records with no creation date OR that were created before June 30, 2017, which was the close of the last fiscal year for this institution:

The screenshot shows the Alma analysis configuration interface. It is divided into two main sections: "Selected Columns" and "Filters".

**Selected Columns:** This section has a header with a left-pointing triangle and the text "Selected Columns". Below the header is a light blue bar containing the text: "Double click on column names in the Subject Areas pane to add them to the analysis. Once added, drag-and-drop col". Underneath this bar is a list of columns. The first column is "Physical Item Details" with a dotted border. The second column is "Num of Items" with a yellow folder icon on the left and a small menu icon on the right.

**Filters:** This section has a header with a left-pointing triangle and the text "Filters". Below the header is a light blue bar containing the text: "Add filters to the analysis criteria by clicking on Filter option for the specific column in the Selected Columns pane, or by". Below this bar are four filter rules, each preceded by a blue funnel icon:

- Lifecycle is equal to / is in Active
- AND** Material Type is not equal to / is not in Blu-Ray And DVD; Compact Disc; DVD; Issue; Laptop
- AND** Creation Date is null
- OR** Item Creation Date is less than 06/30/2017

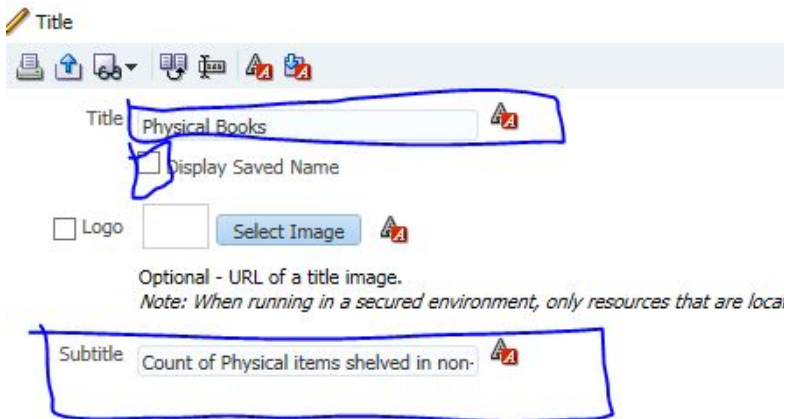
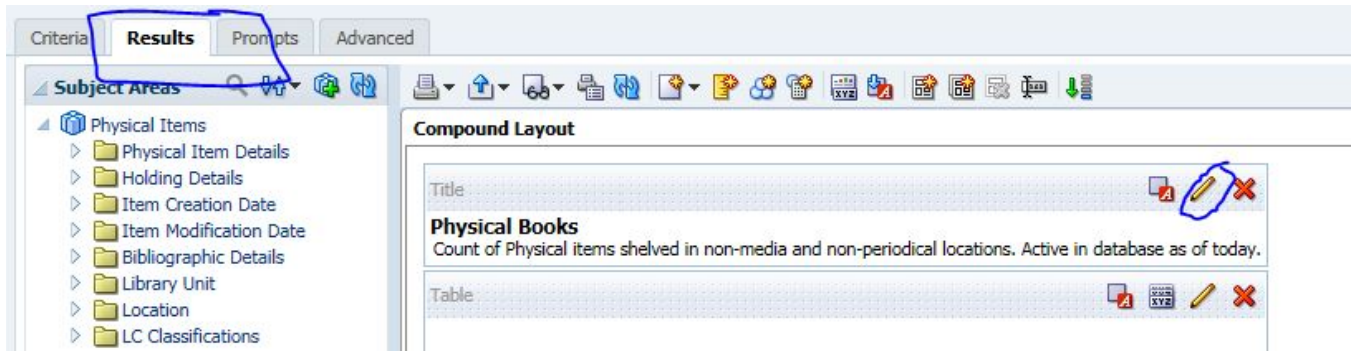
Alma defaults to the AND boolean operator, but you can change it by clicking on the blue AND.

Unfortunately, this boolean logic is too complicated for a dashboard prompt to handle, so you will have to edit this analysis every year, replacing the fiscal year close date. Be sure to make note of this in your dashboard so that anyone who runs it understands what data it is pulling.

### Leaving explanatory text

Whenever you create an analysis that will be displayed in a dashboard, it is important to leave information about the criteria being used. This helps the next person who views the dashboard understand where the data is coming from. It also helps you remember what you did when you access your dashboard again next year. I like to put this information into the subtitle of my analysis as follows:

Move to the results tab and click on the pencil to edit the title section.



Enter information about the analysis in the subtitle field:

You can also customize the heading that will display over this analysis in the dashboard by unchecking the Display Saved Name box and entering custom text in the Title box.

The screenshot below shows how this information will display once your

analysis is added to a dashboard.

**IPEDS Data**  
The following data is up to 24 hours old, and reflects current measurements requested by the IPEDS survey.

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**Physical Collection**

**Physical Books**  
Count of Physical items shelved in non-media and non-periodical locations. Active in database as of today.

Num of Items	Library Name
3,719	Colville
106	Inchelium
36	Ione
357	Newport
152	Dufur

**Circulation**

Loan File

**Library**

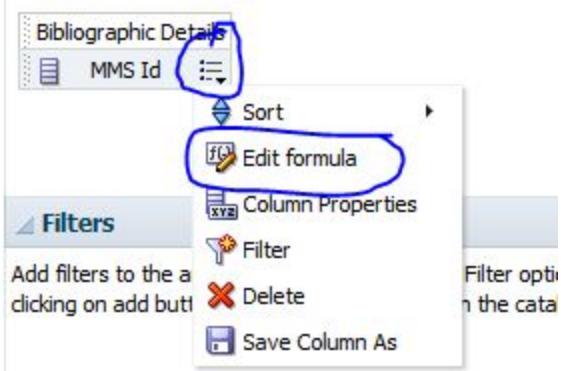
Library Colville

## Count of Physical Serials

To answer this question, you will want to count periodical titles that you carry, as opposed to a sum off all the issues of every title you own. There is no pre-made measured column at the title level, but you can create your own as follows:

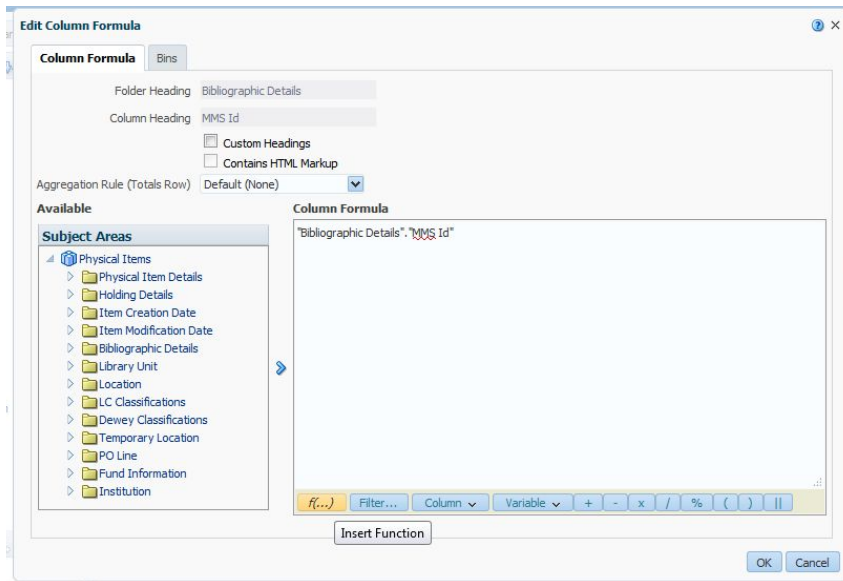
Double click on column names in the Subject Areas pane for sorting, or delete by clicking or hovering over the button

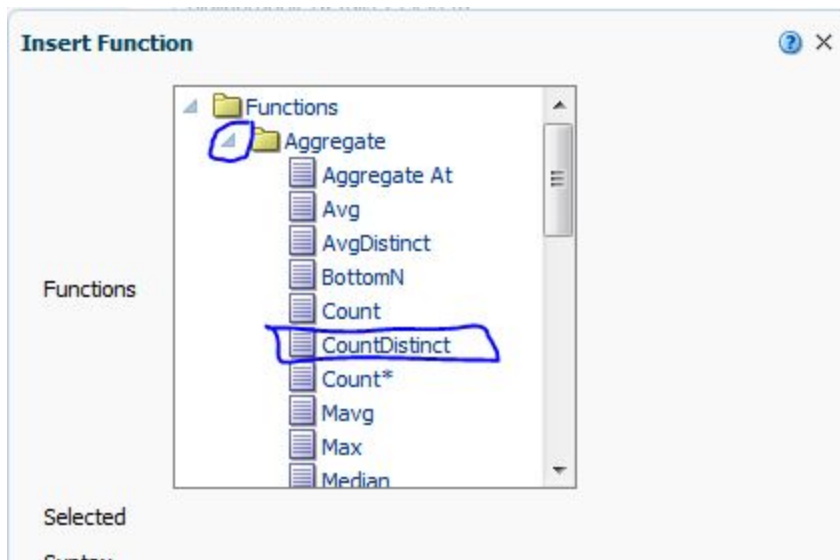
Add the MMSid column to your analysis. The MMS Id is a number Alma assigns to each bib record.



Click on the icon that looks like a list of bullet points, and select Edit Formula.

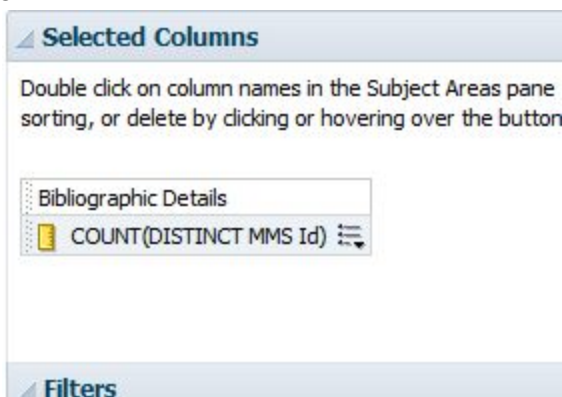
A new dialog box will open. Select the  $f(\dots)$  button to insert a function. Think of it like creating a formula in excel.





The function you want is under the Aggregate folder, and is called Count Distinct.

Close out of the dialog boxes, and you will see that your column has become a measured field with a golden ruler icon.



Congratulations! You have made your own measured field!

Now you want to apply filters to limit your count to bib records that correspond to periodicals. You may build this filter using the Physical Item Details → Material Type column, or the Location → Location



Name column depending on your library's set up. Here is a sample completed query below:

**Selected Columns**

Double click on column names in the Subject Areas pane to add them to the analysis, or delete by clicking or hovering over the button next to its name.

Bibliographic Details  
 COUNT(DISTINCT MMS Id)

**Filters**

Add filters to the analysis criteria by clicking on Filter option for the specific column, or clicking on add button after selecting its name in the catalog pane.

Location Name is equal to / is in SCC Periodicals

## Counting Your Electronic Collection

The decision to use Alma to count your electronic holdings will depend on the accuracy of your records in Alma. Libraries who have not been proactive about activating and deactivation collections in Alma whenever they subscribe or unsubscribe to a database will have some clean up work to do before Alma analytics can do the heavy lifting for them. Also, Alma relies on communication between the database vendors and Ex Libris to keep its holdings for each database up to date. Some libraries find it better to get title lists and statistics from their vendors directly. However, it certainly is easier to have Alma count them for you! Here is a sample analysis for counting electronic titles and serials and some ideas about how to check to see if you data is clean.

**Selected Columns**

Double click on column names in the Subject Areas pane to add them to the analysis, or delete by clicking or hovering over the button next to its name.

Electronic Collection    Portfolio  
 Public Name    No. of Portfolio (In Repository)

**Filters**

Add filters to the analysis criteria by clicking on Filter option for the specific column, or clicking on add button after selecting its name in the catalog pane.

No. of Portfolio (In Repository) is greater than 0  
 AND Material Type is equal to / is in Book  
 AND Is Free is equal to / is in No

Public Name	No. of Portfolio (In Repository)
ABC-CLIO eBooks	2
CREDOreference Academic Core	695
CREDOreference All Content	44
Cambridge Histories Online	384
EBSCOhost Academic Search Complete	1,484
EBSCOhost Art & Architecture Complete	188
EBSCOhost Associates Programs Source Plus	190
EBSCOhost eBooks	4,772
Gale Biography In Context	318
Gale Cengage Health Reference Center Academic	1,330
Gale Cengage Hospitality Tourism and Leisure Collection	356
Gale Cengage Literature Resource Center	2
Gale Cengage Virtual Reference Library	16,475
Gale Opposing Viewpoints in Context	207
NetLibrary Publicly Accessible eBooks	3,464
Oxford Reference Library	2
ProQuest ABI/INFORM Trade & Industry	12
ProQuest Entrepreneurship Database	520
ProQuest Family Health Database	20
ProQuest Research Library	44
<b>Grand Total</b>	<b>30,509</b>

*Analysis*

*Results*

Create your new analysis in the E-Inventory subject area.

To count titles in your databases, select the measured column “no. of Portfolio (In Repository)”

It may be helpful to have your count broken down by the name of the database, as in the examples above. This allows you can get a sense of how accurate the records are. If you know that your subscription to EBSCO e-books includes over 3,000 titles, but your count only shows 200, you will know that something is wrong. If you want to break your total down by name of database, add the electronic collection → public name field.

Limit by material type to count only books, only media, or only serials. For serials, use select both “Newspapers” and “Journals” as the material types.

You may have records in Alma that correspond to open source journals. You may or may not want to count them. To exclude them from your count for the IPEDS, create a filter using the portfolio → IS free column and setting the filter to no.

If you chose to break down your list by collection title, you can add a grand total to the bottom of your list by navigating to the results tab, and right clicking on the no. of Portfolio (In repository) column, and selecting “Show Level Grand Total.”

## Counting Expenses

Create a new analysis is the Funds Expenditure subject area

Ex Libris has a premade measured column that shows transactions amounts. Add that column to your pane.

### Differentiating between one-time and continuous expenses

There is a pre-made field in Alma Analytics designed to help you answer this question, however, as always, the accuracy of the data will depend on how your acquisitions team uses the fields in Alma. It is important to run some analysis to check your data before using a field. I recommend calling in the expertise of your acquisitions librarian, and checking the data together.

Possible columns to filter: PO Line Type → Continuity OR PO Line Type Acquisition Material Type



The most obvious candidate is PO Line Type → Continuity. To test your data, add continuity to your analysis, and check the totals (you may want to filter by a particular fiscal year, or other period of transactions that you are familiar with.)

If your totals look odd given your knowledge of your transactions, or if you have a large quantity of transactions that are classified as neither Continuous nor One Time, then you may need to use a different field. See example results below:

#### Compound Layout



The screenshot shows a dashboard with two panels. The top panel is titled 'Title' and has icons for a document, a pencil, and a red X. The bottom panel is titled 'Table' and has icons for a document, a calendar, a pencil, and a red X. Below the 'Table' header is a table with two columns: 'Transaction Amount' and 'Continuity'. The table contains three rows of data.

Transaction Amount	Continuity
5,685,390	
17,660	CONTINUOUS
43,465	ONETIME

Acquisition Material Type can tell you which transactions were books, journals, etc. Depending on how your library uses the field, it may be helpful.

Because of our workflow, my library system was not confident in using any of the PO line type fields to determine continuity of costs. However, we had elected to set up and use the optional reporting codes feature for every transaction. Since we used these consistently, we could confidently decide which were one time purchases and which were continuous, and filter accordingly.

### Limiting to one fiscal year

As you did with circulation data, you will need to filter your results by fiscal year. Again, I recommend controlling this filter with a dashboard prompt so that the user can supply the fiscal year whenever they access the analysis on the dashboard.

Add a filter using the Transaction date → fiscal year column.

Set the filter operator to “Is Prompted” (see screenshot in circulation section.)

Save analysis, add it to your dashboard, and then create a dashboard prompt to control it as described below.

## Dashboard prompts for IPEDS analysis

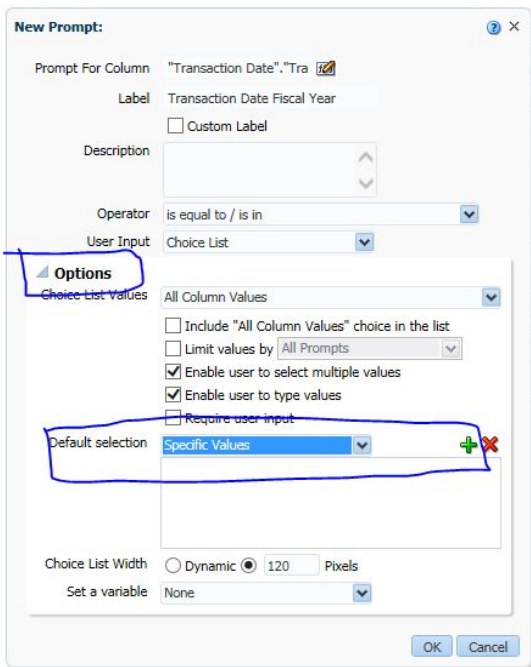
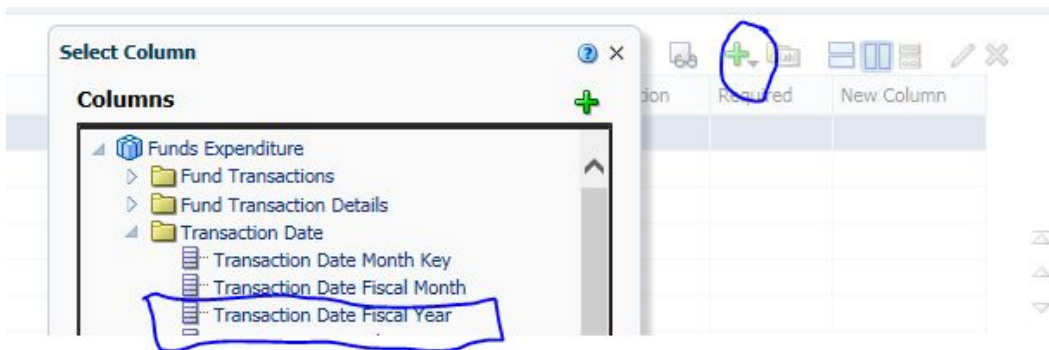
A dashboard prompt allows a dashboard visitor to supply criteria for filtering an analysis. In this workshop we have left two analysis open to filtering via a dashboard prompt: The circulation count and the expense count.

Dashboard prompts must be made in the same subject area in which that the analysis was made. To make a prompt that will control the circulation analysis, select New → Dashboard prompt -->Fulfillment. To make a prompt that will control the expense analysis, select New → Dashboard prompt -->Fund expenditures



Click on the green plus sign to select the column for your prompt. Prompt control the exact column that was set to “is prompted” in the analysis.

For the prompt controlling the the circulation analysis, select Loan Date → Loan Fiscal year.  
 For the prompt that will control the expense analysis, select Transaction date → Fiscal Year

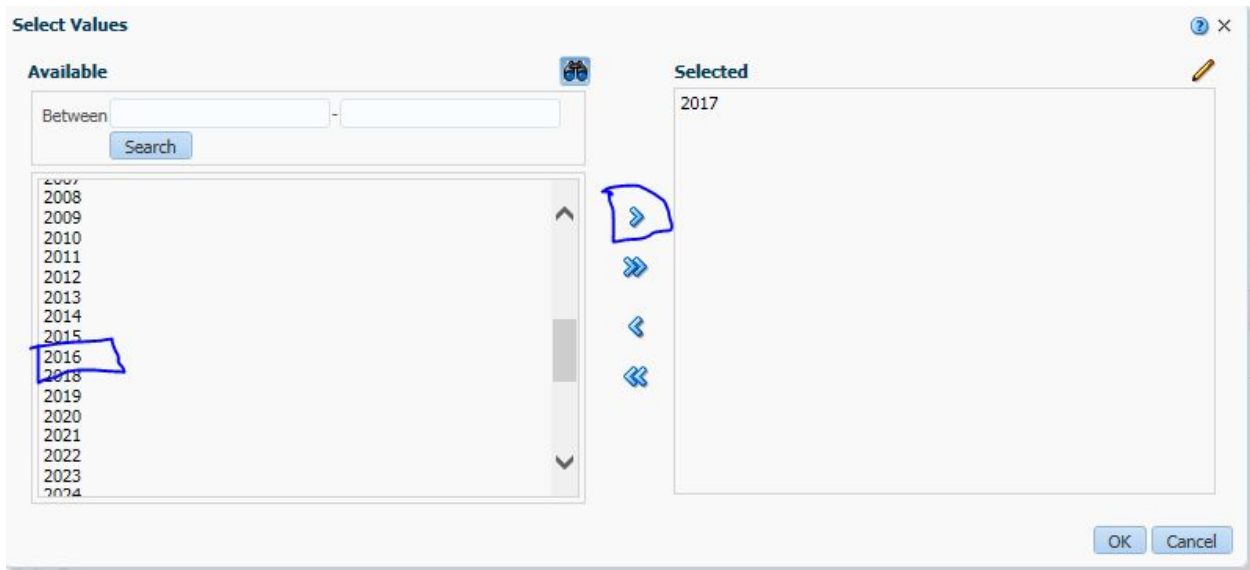


The list of fiscal years can be rather long. It will help your user if you set the prompt to default to a value close to the present day.

To do this, expand the Options section of the New Prompt dialog box.

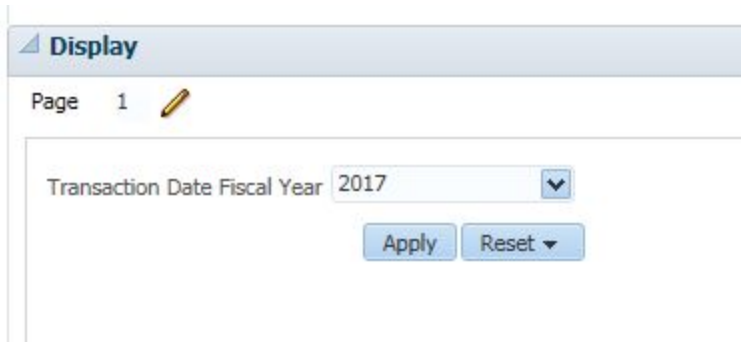
Set the Default Selection drop down menu to “Specific Values.”

Click the green plus sign.



You can then move a recent fiscal year into the selection pane to use it as the default value whenever the dashboard is opened.

Your finished prompt will look something like this:



## Create and Assemble the Dashboard

Once you have created all the analysis and prompts to answer the IPEDS questions, create a new dashboard and drag and drop the saved analysis and prompts into the dashboard. For step by step screenshots of this process, see the handout from the Alma Analytics Dashboards workshop.

## Conclusion

Creating an IPEDS dashboard from scratch brings a lot of benefits to your library. It can:

**Store all your IPEDS info in one place.** No more sorting through dozens of saved queries to find the answers to next year's data.

**Provide the most accurate data.** Your library's use of Alma is unique. Creating a dashboard from scratch allows you to find your idiosyncrasies and adjust your analysis accordingly to get the most accurate data.

**Improve your workflow.** The better you understand how your data is stored, the better workflow choices you can make. Use projects like answer the IPEDS to explore your data fearlessly with the subject matter experts in your library (circulation supervisors, catalogues, acquisitions librarians). Where possible, reassess workflows to store data better. Where not possible, look for alternate fields you can use to answer the same data questions.

**Boost your confidence in Analytics.** Once you have found the fields that hold the answers to data questions like those found on the IPEDS, you will be better able to answer new, unique data questions as they arise.

Go forth and vanquish the IPEDS!