



Download this presentation:
[Ex Libris Knowledge Center >](#)
[Cross-Product >](#)
[Conferences and Seminars >](#)
[2018 Technical Seminar](#)

Advanced Analytics

Session Objectives

- Session Description: Starting with scenarios describing what is required, we'll build a number of complex analyses that focus on advanced reporting capabilities
- Objective(s): By the end of this session you will be able to:
 - Create complex analyses
 - Build confidence in using advanced functions in Alma Analytics

Agenda

- 1 Introduction
- 2 Using Regular Expressions to Separate Multiple Appearances of Repeated Data
- 3 Adding Action Links to an Analysis
- 4 Fines and Fees Aging
- 5 Next Steps, Support Resources and Feedback



Using Regular Expressions to Separate Multiple Appearances of Repeated Data

Introduction

- In Analytics, a “one to many” relationship sometimes displays for one entity when the “many” values appear are found in a field that is delimited with a semicolon
- Some examples:
 - One Bibliographic record may have multiple ISBN entries
 - One Bibliographic record may have multiple 035 entries
 - One Course Reserves container may have multiple instructors

Introduction

- If desired, it is possible to have “semicolon-separated” values appear as separate columns in the results of an analysis
- Doing so can be useful for display and filtering purposes
- There are multiple ways in which this can be accomplished
- We will use the “regular expression,” perhaps the simplest method, to identify Bibliographic records with multiple ISBNs

We Begin With This Analysis and...

The screenshot displays a software interface with two main panes. The left pane, titled 'Physical Items', contains a tree view of folders: Physical Item Details, Holding Details, Item Creation Date, Item Modification Date, Bibliographic Details, Library Unit, Location, LC Classifications, Dewey Classifications, Temporary Location, PO Line, Fund Information, and Institution. The right pane is divided into two sections. The top section, 'Selected Columns', contains the text: 'Double click on column names in the Subject Area pane to add columns to the analysis. Double click on column names in the Subject Area pane while hovering over the button next to its name.' Below this text is a table with three columns: 'Bibliographic Details', 'MMS Id', 'Title', and 'ISBN'. Each column has a list icon and a dropdown arrow. The bottom section, 'Filters', contains the text: 'Add filters to the analysis criteria by clicking on the filter icon in the Subject Area pane while hovering over the button next to its name. Selecting its name in the catalog pane.' Below this text is a filter icon (a funnel) followed by the text 'ISBN is not null'.

Physical Items

- Physical Item Details
- Holding Details
- Item Creation Date
- Item Modification Date
- Bibliographic Details
- Library Unit
- Location
- LC Classifications
- Dewey Classifications
- Temporary Location
- PO Line
- Fund Information
- Institution

Selected Columns

Double click on column names in the Subject Area pane to add columns to the analysis. Double click on column names in the Subject Area pane while hovering over the button next to its name.

Bibliographic Details			
MMS Id	Title	ISBN	

Filters

Add filters to the analysis criteria by clicking on the filter icon in the Subject Area pane while hovering over the button next to its name. Selecting its name in the catalog pane.

ISBN is not null

...These Results

MMS Id	Title	ISBN
991000200000541	Aura /	0374107017; 0374511713; 9780374107017; 9780374511715
991000220000541	Freedom of the individual /	0691072086; 0691019843; 9780691072081; 9780691019840
991000340000541	Virginia Woolf; a biography.	0151937656; 0156935805; 9780151937653; 9780156935807
991000400000541	Byron of the Wager /	0698106695; 9780698106697
991000530000541	A dictionary of Protestant church music /	0810807882; 9780810807884
991000540000541	John Steinbeck,	0805706933; 9780805706932
991000650000541	The juniper tree, and other tales from Grimm.	0374180571; 9780374180577
991000660000541	Basque nationalism /	0874170427; 9780874170429
991000670000541	The provincial towns of Georgian England : a study of the building process, 1740-1820 /	0773502009; 9780773502000
991000680000541	Bioenergetics /	0698106164; 9780698106161
991000690000541	Manners and murders in the world of Louis-Napoleon /	0295954310; 9780295954318
991000700000541	Anthropology : perspective on humanity /	0471838691; 9780471838692
991000710000541	Money, whence it came, where it went /	0395198437; 9780395198438
991000720000541	The Dilemmas of euthanasia /	0385097301; 9780385097307
991000730000541	Uncontrollable spending for social services grants /	0815718136; 9780815718130
991000740000541	The evolution of economic thought /	0155250027; 9780155250024
991000750000541	Masterworks of the British cinema /	0064300609; 0064386147.; 9780064300605

Regular Expression Syntax

```
Evaluate('regexp_substr(%1,"[^\\;]+", 1,n)',REPLACE "Column". "Name",';','\\;'))
```

Occurrence of value

Name of column as it
appears in "edit formula"

- The “n” is the column number (occurrence of the value between the semicolons)
- The “Column”. “Name” is how the column appears by default when editing the formula

Regular Expression – ISBN

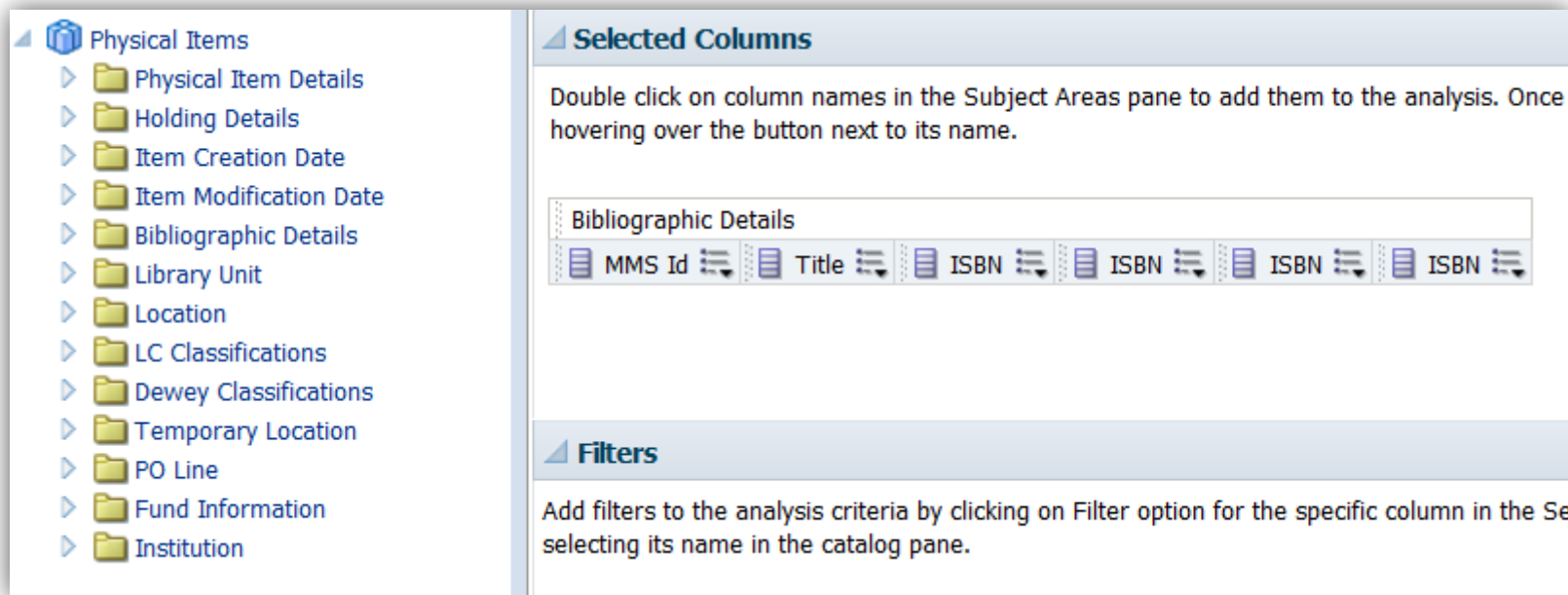
- To establish the display of the first ISBN, the regular expression will be:

These are two single quotes rather than one double quote

```
Evaluate('regexp_substr(%1,"[^\\;]+",  
1,1)',REPLACE("Bibliographic Details"."ISBN",';','\\;'))
```

Building the Analysis

- On the criteria tab, add the ISBN column for as many times as you want to display a separate column



Physical Items

- Physical Item Details
- Holding Details
- Item Creation Date
- Item Modification Date
- Bibliographic Details
- Library Unit
- Location
- LC Classifications
- Dewey Classifications
- Temporary Location
- PO Line
- Fund Information
- Institution

Selected Columns

Double click on column names in the Subject Areas pane to add them to the analysis. Once hovering over the button next to its name.

Bibliographic Details

- MMS Id
- Title
- ISBN
- ISBN
- ISBN
- ISBN

Filters

Add filters to the analysis criteria by clicking on Filter option for the specific column in the Selected Columns pane, then selecting its name in the catalog pane.

Building the Analysis

- For each column, go to “edit formula”

The screenshot shows a software interface with a header 'Bibliographic Details' and a list of columns: 'MMS Id', 'Title', and three 'ISBN' columns. A context menu is open over one of the 'ISBN' columns, listing the following options: 'Sort', 'Edit formula' (highlighted with a yellow border), 'Column Properties', 'Filter', 'Delete', and 'Save Column As'. A tooltip for 'Edit formula' is also visible, showing the text 'Edit formula'.

Filters

Add filters to the analysis criteria by clicking on the name of a specific column in the catalog pane.

Building the Analysis

Edit Column Formula

Column Formula | Bins

Folder Heading: Bibliographic Details

Column Heading: ISBN

Custom Headings

Contains HTML Markup

Aggregation Rule (Totals Row): Default (None)

Available

Subject Areas

Column Formula

"Bibliographic Details"."ISBN"

Edit Column Formula

Column Formula | Bins

Folder Heading: Bibliographic Details

Column Heading: ISBN 1

Custom Headings

Contains HTML Markup

Aggregation Rule (Totals Row): Default (None)

Available

Subject Areas

Column Formula

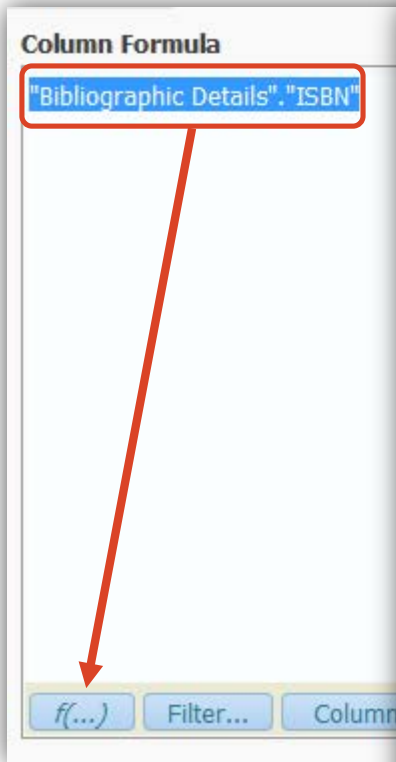
Evaluate('regexp_substr(%1,"[^;]+", 1,1),REPLACE("Bibliographic Details"."ISBN";';';'))

Edit Formula Step 1

Column Formula

"Bibliographic Details"."ISBN"

f(...)



Insert Function

Functions

- Functions
 - Aggregate
 - Running Aggregate
 - String
 - Math
 - Calendar/Date
 - Conversion
 - System
 - Expressions
 - DB Functions
 - Evaluate
 - Evaluate Aggregate

Selected Evaluate

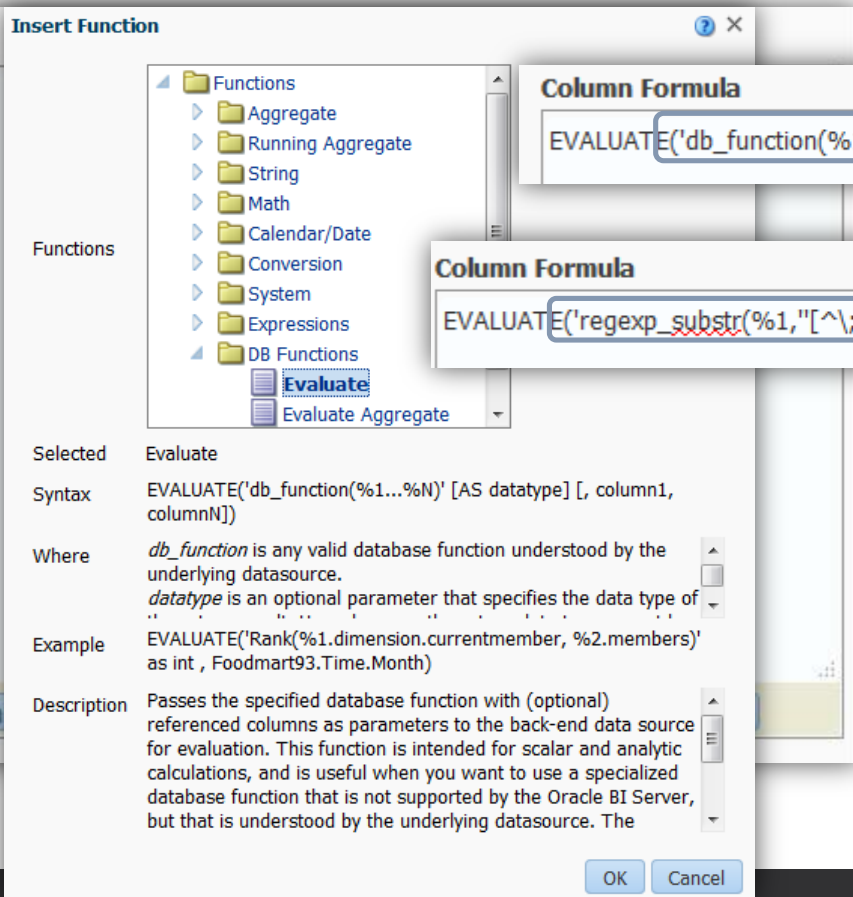
Syntax EVALUATE('db_function(%1...%N)' [AS datatype] [, column1, columnN])

Where *db_function* is any valid database function understood by the underlying datasource.
datatype is an optional parameter that specifies the data type of

Example EVALUATE('Rank(%1.dimension.currentmember, %2.members)' as int , Foodmart93.Time.Month)

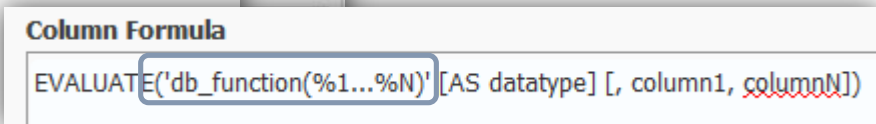
Description Passes the specified database function with (optional) referenced columns as parameters to the back-end data source for evaluation. This function is intended for scalar and analytic calculations, and is useful when you want to use a specialized database function that is not supported by the Oracle BI Server, but that is understood by the underlying datasource. The

OK Cancel



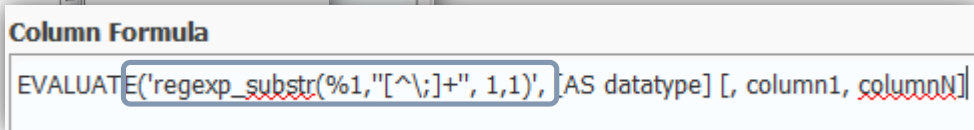
Column Formula

EVALUATE('db_function(%1...%N)' [AS datatype] [, column1, columnN])



Column Formula

EVALUATE('regexp_substr(%1,"[^;]+", 1,1)' [AS datatype] [, column1, columnN])



Edit Formula Step 1

Column Formula

EVALUATE('regexp_substr(%1,"[^;]+",1,1,' [AS datatype] [, column1, columnN])

Available

Subject Areas

- Bibliographic Level
- Bibliographic Lifecycle
- Brief Level
- Category of Material
- Creation Date
- Creator
- Dewey Classification
- Dewey Classification Top Line
- Edition
- End Publication Date
- ISBN
- ISBN (Normalized)
- ISSN
- ISSN (Normalized)

Column Formula

EVALUATE('regexp_substr(%1,"[^;]+",1,1)',

f(...)

Filter...

Column ▾

Variable ▾

+

-

x

/

%

(

)

||

Edit Formula Steps III

Column Formula

```
EVALUATE('regex_substr(%1,"[^\\;]+",1,1)', "Bibliographic Details"."ISBN"
```

f(...) Filter... Column ▾ Variable ▾ + - x / % (

Insert Function

Functions

- Char_Length
- Concat
- Insert
- Left
- Length
- Locate
- LocateN
- Lower
- Octet_Length
- Position
- Repeat
- Replace**
- Right

Selected Replace

Syntax REPLACE(expr1, expr2, expr3)

Where *expr1* is any expression that evaluates to a character string. This is the string in which characters are to be replaced.
expr2 is any expression that evaluates to a character string.

Example Replace('abcd1234', '123', 'zz')

Description Replaces one or more characters from a specified character expression with one or more other characters.

OK Cancel

Edit Formula Steps IV

Column Formula

```
EVALUATE('regexp_substr(%1,"[^;]+" ,1,1)', REPLACE("Bibliographic Details"."ISBN", expr2, expr3))
```

Column Formula

```
EVALUATE('regexp_substr(%1,"[^;]+" ,1,1)', REPLACE("Bibliographic Details"."ISBN", ';', '\;'))
```


```
Evaluate('regexp_substr(%1,"[^;]+" ,1,1)',REPLACE("Bibliographic Details"."ISBN",';','\;'))
```

What the Analysis Looks Like at This Point

Bibliographic Details					
MMS Id	Title	ISBN 1	ISBN	ISBN	ISBN

Filters

Add filters to the analysis criteria by clicking on Filter option for the specific column in the Selection pane and selecting its name in the catalog pane.

 ISBN is not null

Adding the Formula to All ISBN Columns

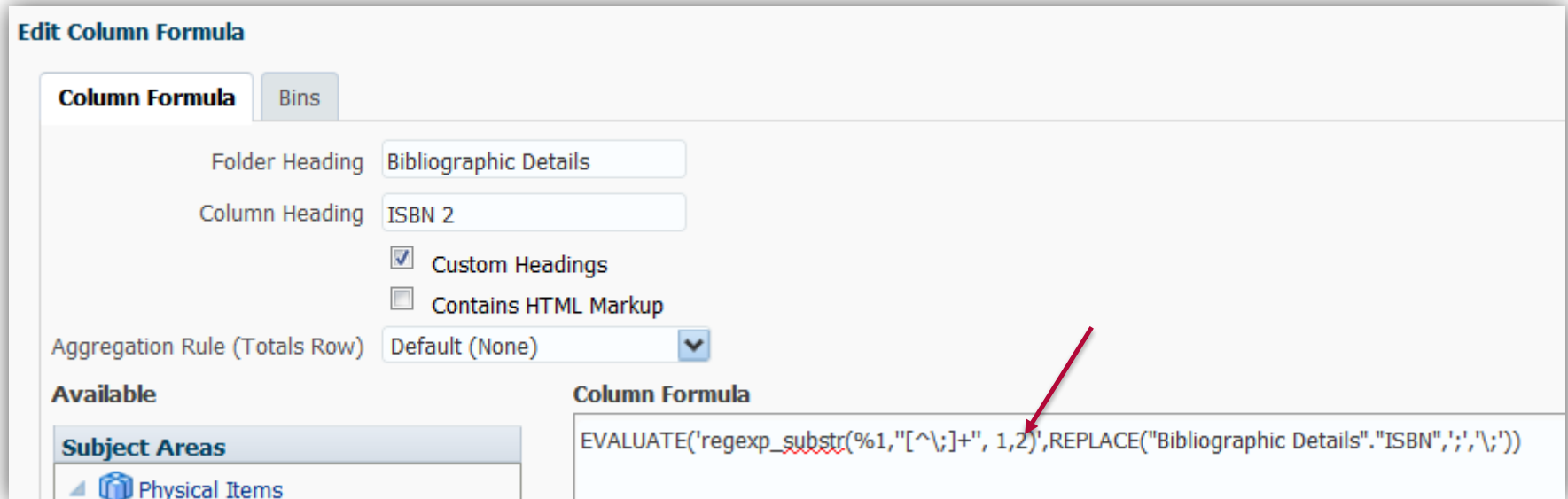
- Edit the formula for the ISBN 1 column and copy the entire EVALUATE statement

```
EVALUATE('regex_substr(%1,"[^\;]+",  
1,1)',REPLACE("Bibliographic Details"."ISBN",';','\;'))
```

- Close the ISBN 1 column and go to *Edit Formula* for the second ISBN column

Adding the Formula to All ISBN Columns

- Customize the Column Heading, changing to ISBN 2
- Paste in the EVALUATE statement and edit as follows, changing the second appearance of **1** to a **2**



Edit Column Formula

Column Formula | Bins

Folder Heading: Bibliographic Details

Column Heading: ISBN 2

Custom Headings

Contains HTML Markup

Aggregation Rule (Totals Row): Default (None)

Available

- Subject Areas
- Physical Items

Column Formula

```
EVALUATE('regex_substr(%1,\"[^;]+\", 1,2),REPLACE(\"Bibliographic Details\".\"ISBN\";';'\;'))
```

Adding the Formula to All ISBN Columns

- Perform the same copy and paste function for the remaining ISBN columns, updating as appropriate for ISBN 3 and ISBN 4



Bibliographic Details




MMS Id	Title	ISBN 1	ISBN 2	ISBN 3	ISBN 4
--------	-------	--------	--------	--------	--------

Filters





Add filters to the analysis criteria by clicking on Filter option for the specific column in the Selected Co selecting its name in the catalog pane.

ISBN is not null

When Complete, We Have...

Title   

MMS, Title and ISBNs

Table    

MMS Id	Title	ISBN 1	ISBN 2	ISBN 3	ISBN 4
991000200000541	Aura /	0374107017	0374511713	9780374107017	9780374511715
991000220000541	Freedom of the individual /	0691072086	0691019843	9780691072081	9780691019840
991000340000541	Virginia Woolf; a biography.	0151937656	0156935805	9780151937653	9780156935807
991000400000541	Byron of the Wager /	0698106695	9780698106697		
991000530000541	A dictionary of Protestant church music /	0810807882	9780810807884		
991000540000541	John Steinbeck,	0805706933	9780805706932		
991000650000541	The juniper tree, and other tales from Grimm.	0374180571	9780374180577		
991000660000541	Basque nationalism /	0874170427	9780874170429		
991000670000541	The provincial towns of Georgian England : a study of the building process, 1740-1820 /	0773502009	9780773502000		
991000680000541	Bioenergetics /	0698106164	9780698106161		
991000690000541	Manners and murders in the world of Louis-Napoleon /	0295954310	9780295954318		
991000700000541	Anthropology : perspective on humanity /	0471838691	9780471838692		
991000710000541	Money, whence it came, where it went /	0395198437	9780395198438		
991000720000541	The Dilemmas of euthanasia /	0385097301	9780385097307		
991000730000541	Uncontrollable spending for social services grants /	0815718136	9780815718130		
991000740000541	The evolution of economic thought /	0155250027	9780155250024		
991000750000541	Masterworks of the British cinema /	0064300609	0064386147.	9780064300605	

Adding Actions Links to an Analysis



Introduction

- Action links may be used to allow more interactivity in reports and dashboards
- Using drill-throughs, one report can feed into another
- One way to make large reports into more manageable chunks
- Involves two or more analyses that are linked together



Introduction

- Using the E-Inventory subject area, we'll create several analyses that are linked together
- Goal is to obtain a list of Electronic Collections and create a link to the Electronic Portfolios part of those collections
- As described on the previous slide, creating a report like this makes a potentially very large report much more manageable

The Master Query

The screenshot displays the Master Query interface. On the left is a tree view of subject areas under 'E-Inventory'. The right panel is divided into 'Selected Columns' and 'Filters' sections.

Selected Columns: Double click on column names in the Subject Areas pane to add them to the analysis. Once hovering over the button next to its name.

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

Filters: Add filters to the analysis criteria by clicking on Filter option for the specific column in the Selected Columns pane. Once hovering over the button next to its name.

The Master Query

Filters

Add filters to the analysis criteria by clicking on Filter o pane, or by clicking on the filter button in the Filter pan after selecting its name in the catalog pane.

Public Name
Material Type
No. of Portfolio (In Repository)
More Columns ...

Add Filters Here.

Select Column

- ▶ E-Inventory
 - ▶ Portfolio
 - ▶ Portfolio Activation Date
 - ▶ Portfolio Creation Date
 - ▶ Portfolio Modification Date
 - ▶ Portfolio Library Unit
 - ▶ Portfolio License
 - ▶ Portfolio PO Line
 - ▶ Electronic Collection
 - ▶ Electronic Collection Library Unit
 - ▶ Electronic Collection License
 - ▶ Electronic Collection Material Type
 - ▶ Electronic Collection PO Line
 - ▶ Electronic Collection Type
 - ▶ Bibliographic Details
 - ▶ Dewey Classifications
 - ▶ LC Classifications
 - ▶ Service Type
 - ▶ Vendor Interface
 - ▶ Portfolio Details for Consortia
 - ▶ Institution

OK Cancel

The Master Query

Select Column

- E-Inventory
 - Portfolio
 - No. of Portfolio (Deleted + In Repository)
 - No. of Portfolio (In Repository)
 - Active From Date
 - Active To Date
 - Availability**
 - Available For Group
 - Available For Group Members
 - Available For Resource Type
 - Coverage Information Combined
 - Coverage Statement
 - Creator
 - Embargo Months
 - Embargo Operator
 - Embargo Years
 - Expected Activation Date
 - IEE
 - Is Free
 - LC Classification Code
 - LC Classification Number

OK Cancel

New Filter

Column: Availability

Operator: is equal to / is in

Value: Available
 None
 Not Available

Protect F
 Convert

Search... | Limited Values | All Values

OK Cancel


The Master Query


Select Column


- E-Inventory
 - Portfolio
 - Portfolio Activation Date**
 - Portfolio Activation Month Key
 - Portfolio Activation Month
 - Portfolio Activation Full Month
 - Portfolio Activation Quarter
 - Portfolio Activation Year
 - Portfolio Activation Fiscal Month Key
 - Portfolio Activation Fiscal Year
 - Portfolio Activation Date Filter
 - Portfolio Creation Date
 - Portfolio Modification Date
 - Portfolio Library Unit
 - Portfolio License
 - Portfolio PO Line
 - Electronic Collection
 - Electronic Collection Library Unit
 - Electronic Collection License
 - Electronic Collection Material Type


OK Cancel

New Filter

Column Portfolio Activation Date 

Operator is greater than 

Value 01/01/2016 

Add More Options  Clear All

Protect Filter

Convert this filter to SQL

OK Cancel

The Master Query

E-Inventory

- Portfolio
- Portfolio Activation Date
- Portfolio Creation Date
- Portfolio Modification Date
- Portfolio Library Unit
- Portfolio License
- Portfolio PO Line
- Electronic Collection
- Electronic Collection Library Un
- Electronic Collection License
- Electronic Collection Material T
- Electronic Collection PO Line
- Electronic Collection Type
- Bibliographic Details
- Dewey Classifications

Selected Columns

Double click on column names in the Subject Areas pane to add them to the analysis. Once added, drag-and-drop columns to reorder them. Edit a column's properties, formula and filters, apply sorting, or delete by clicking or hovering over the button next to its name.




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

Filters





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

- Availability is equal to / is in Available
- AND** Portfolio Activation Date is greater than 01/01/2016

The Master Query

Title   

Electronic Collections by Material Type and Number of Portfolios

Table    

Public Name	Material Type	No. of Portfolio (In Repository)
	Book	8
	Unknown	28
Brill Online Journals	Journal	14
Ebook Library	Book	8
Elsevier ScienceDirect eBook - Information Management pre-2008	Book	178
Free E- Journals	Journal	150
	Unknown	2
Gale Cengage Financial Times Historical Archive	Newspaper	2
Gale Cengage Shakespeare Collection Periodicals	Journal	106
	Newspaper	8
Highwire Press Journals	Journal	2
PubMed Central	Journal	22
Sage Open Access Journals	Journal	330
SpringerLink Books Springer Reference De German 2017	Book	24
US Government Documents	Journal	44
ebrary Perpetual Titles	Book	2

The Details Query

The screenshot displays a software interface for a 'Details Query'. On the left is a tree view under 'E-Inventory' with various folders. On the right, the 'Selected Columns' section shows a grid of columns from different subject areas. Below it, the 'Filters' section provides instructions on how to add filters to the analysis criteria.

E-Inventory

- Portfolio
- Portfolio Activation Date
- Portfolio Creation Date
- Portfolio Modification Date
- Portfolio Library Unit
- Portfolio License
- Portfolio PO Line
- Electronic Collection
- Electronic Collection Library Unit
- Electronic Collection License
- Electronic Collection Material Type
- Electronic Collection PO Line
- Electronic Collection Type
- Bibliographic Details
- Dewey Classifications
- LC Classifications
- Service Type
- Vendor Interface
- Portfolio Details for Consortia
- Institution

Selected Columns

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

Electronic Collection	Portfolio	Bibliographic Details	
Public Name	Material Type	Author	Title

Filters

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

The Details Query

Filters

Add filters to the analysis criteria by clicking on Filter of pane, or by clicking on the filter button in the Filter pan after selecting its name in the catalog pane.

Public Name
Material Type
No. of Portfolio (In Repository)
More Columns ...

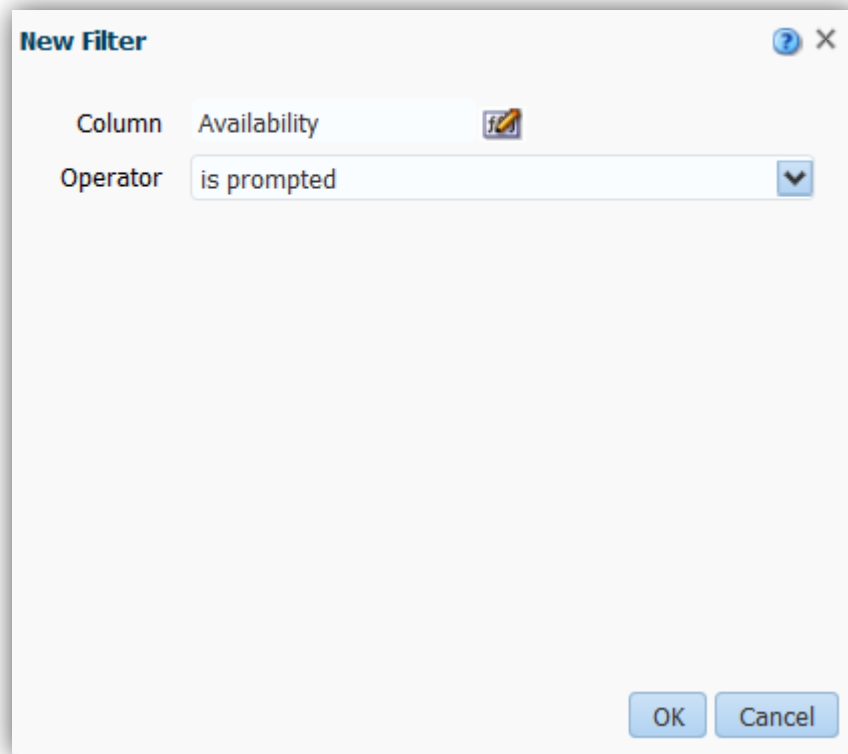
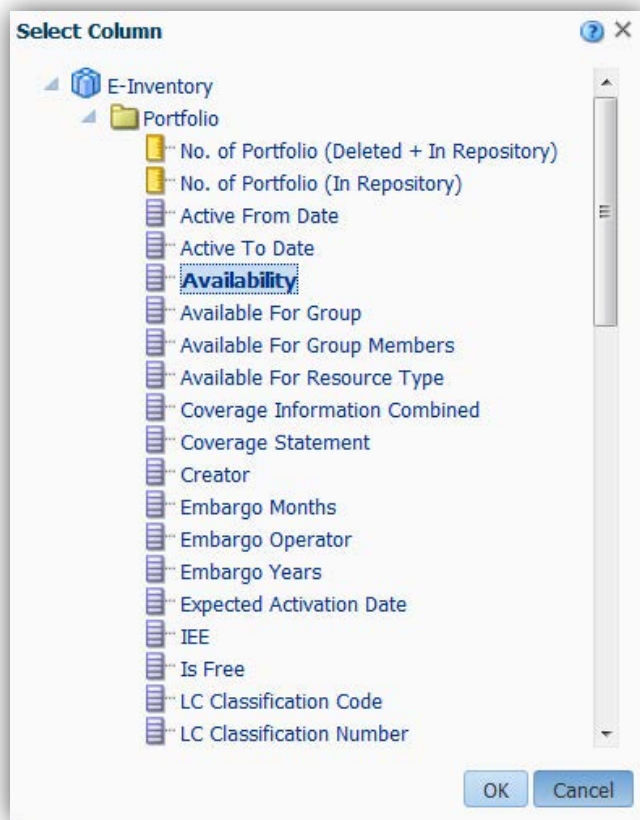
Add Filters Here.

Select Column

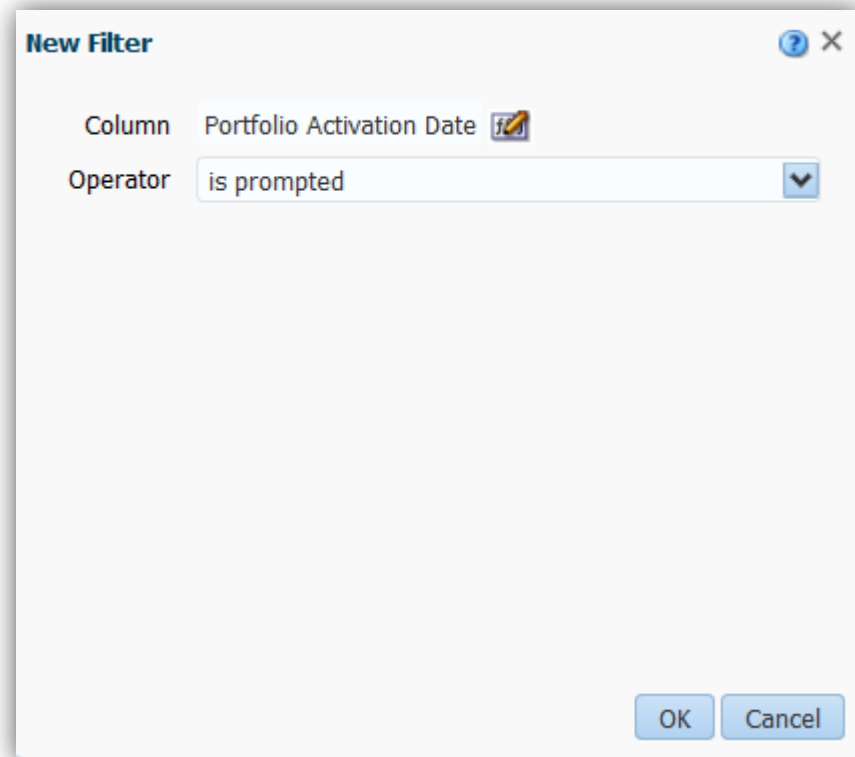
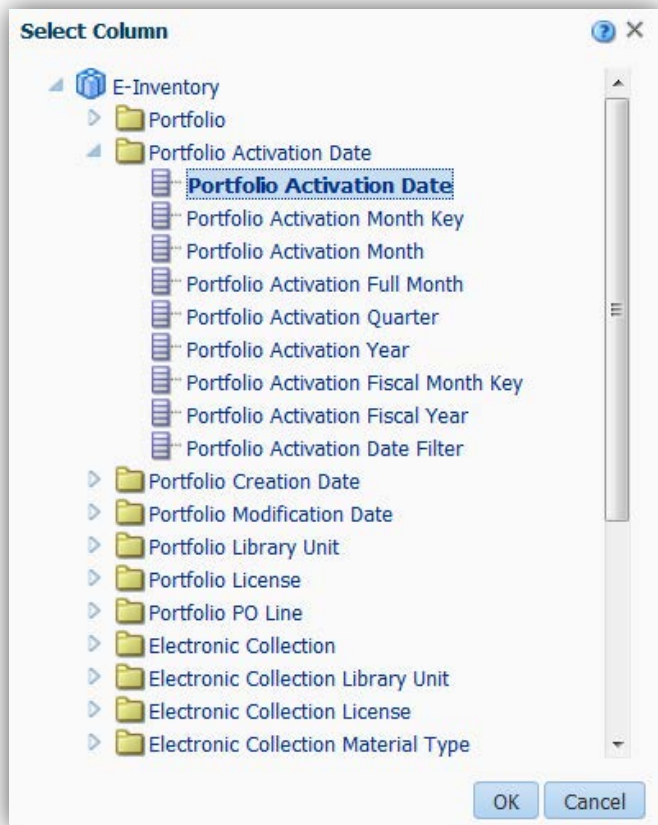
- ▶ E-Inventory
 - ▶ Portfolio
 - ▶ Portfolio Activation Date
 - ▶ Portfolio Creation Date
 - ▶ Portfolio Modification Date
 - ▶ Portfolio Library Unit
 - ▶ Portfolio License
 - ▶ Portfolio PO Line
 - ▶ Electronic Collection
 - ▶ Electronic Collection Library Unit
 - ▶ Electronic Collection License
 - ▶ Electronic Collection Material Type
 - ▶ Electronic Collection PO Line
 - ▶ Electronic Collection Type
 - ▶ Bibliographic Details
 - ▶ Dewey Classifications
 - ▶ LC Classifications
 - ▶ Service Type
 - ▶ Vendor Interface
 - ▶ Portfolio Details for Consortia
 - ▶ Institution

OK Cancel

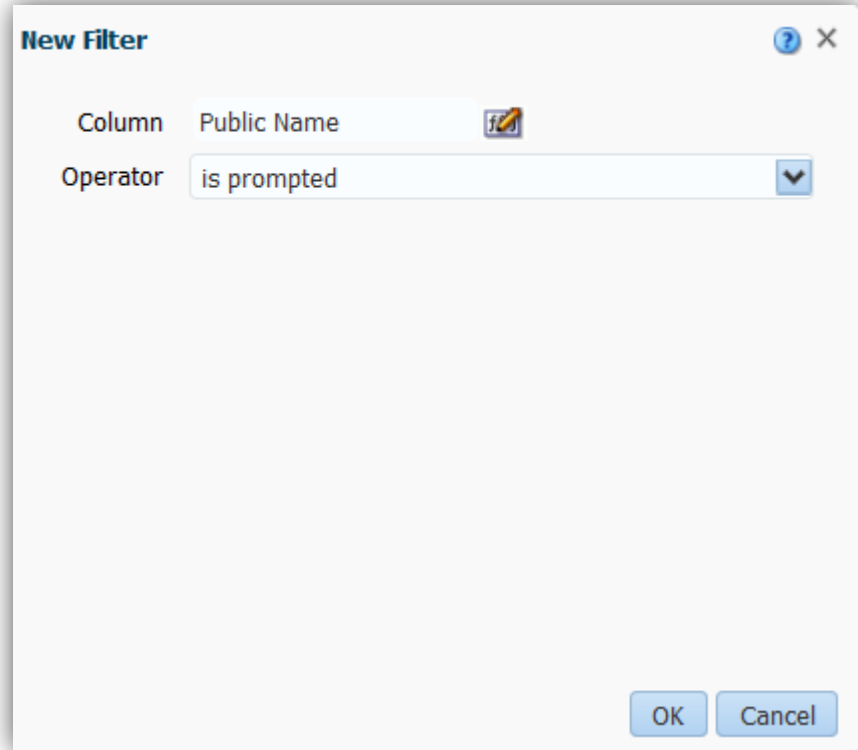
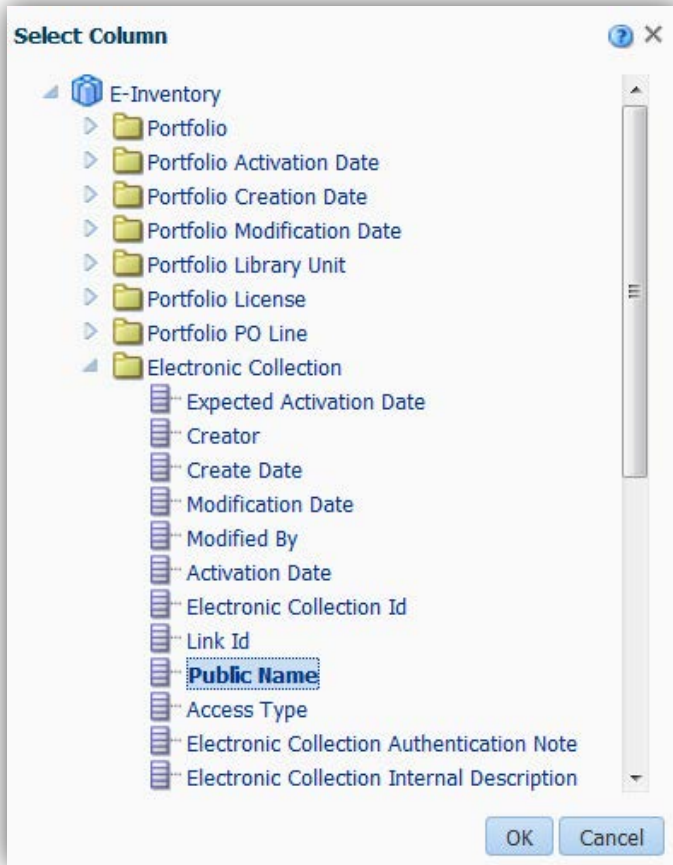
The Details Query



The Details Query



The Details Query



The Details Query

The screenshot displays a software interface for configuring a query. On the left is a tree view titled 'E-Inventory' containing various folders such as 'Portfolio', 'Electronic Collection', and 'Bibliographic Details'. On the right, the 'Selected Columns' section shows a grid of columns: 'Electronic Collection' (with 'Public Name' sub-column), 'Portfolio' (with 'Material Type' sub-column), and 'Bibliographic Details' (with 'Author' and 'Title' sub-columns). Below this, the 'Filters' section shows a list of filter conditions: 'Availability is prompted', 'AND Portfolio Activation Date is prompted', and 'AND Public Name is prompted'.

E-Inventory

- Portfolio
- Portfolio Activation Date
- Portfolio Creation Date
- Portfolio Modification Date
- Portfolio Library Unit
- Portfolio License
- Portfolio PO Line
- Electronic Collection
- Electronic Collection Library Unit
- Electronic Collection License
- Electronic Collection Material Type
- Electronic Collection PO Line
- Electronic Collection Type
- Bibliographic Details
- Dewey Classifications
- LC Classifications
- Service Type
- Vendor Interface
- Portfolio Details for Consortia
- Institution

Selected Columns

Double click on column names in the Subject Areas pane to add them to the analysis criteria. A Filter button is available when hovering over the button next to its name.

Electronic Collection	Portfolio	Bibliographic Details	
Public Name	Material Type	Author	Title

Filters

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

- Availability is prompted
- AND** Portfolio Activation Date is prompted
- AND** Public Name is prompted

Return to the Master Query

Open *Electronic Collections by Material Type and Number of Portfolios*.

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

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

Filters

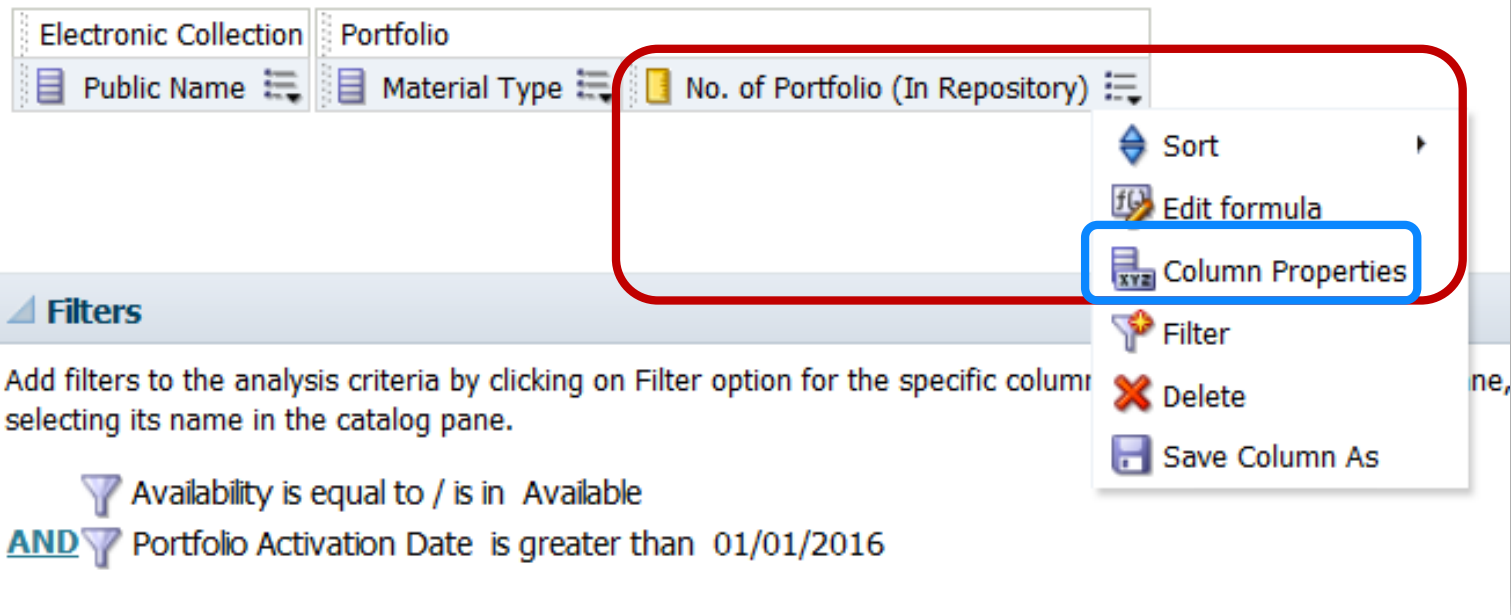
Add filters to the analysis criteria by clicking on Filter option for the specific column, selecting its name in the catalog pane.

- Availability is equal to / is in Available

AND Portfolio Activation Date is greater than 01/01/2016

More on the Master Query

Double click on column names in the Subject Areas pane to add them to the analysis. Once added, drag-and-drop hovering over the button next to its name.



The screenshot displays a software interface with a table of columns. The columns are grouped into two sections: 'Electronic Collection' and 'Portfolio'. The 'Portfolio' section contains three columns: 'Public Name', 'Material Type', and 'No. of Portfolio (In Repository)'. A red rounded rectangle highlights the 'No. of Portfolio (In Repository)' column and its associated menu. The menu is open, showing several options: 'Sort', 'Edit formula', 'Column Properties' (highlighted with a blue rounded rectangle), 'Filter', 'Delete', and 'Save Column As'. Below the table, there is a 'Filters' section with a blue header. It contains two filter rules: 'Availability is equal to / is in Available' and 'AND Portfolio Activation Date is greater than 01/01/2016'.

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

Filters

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

- Availability is equal to / is in Available
- AND** Portfolio Activation Date is greater than 01/01/2016

More on the Master Query

Column Properties [?] X

Style | Column Format | Data Format | Conditional Format | **Interaction**

Column Heading

Primary Interaction: Default (Drill) ▼

Value

Primary Interaction: Action Links ▼

Action Links + ✎ ✕

Link Text	Action	Show Link
Add Menu Action Links		

Do not display in a popup if only one action link is available at runtime

Enable on Totals

New Action Link ... [?] X

Link Text: Click for details

Action: ⚙️ ⚙️ ✎ ➤

Show Link: Always Conditionally

Create New Action

OK Cancel

More on the Master Query

The image displays two overlapping windows from a software application. The background window, titled "New Action Link ...", is used for configuring an action link. It features a "Link Text" field containing "Click here for details", an "Action" dropdown menu, and "Show Link" radio buttons set to "Always". A green box highlights the "Action" dropdown, which is open to show a list of actions: "Navigate to BI Content", "Navigate to a Web Page", "Invoke a Web Service", "Invoke a Java Method", "Invoke a Browser Script", "Invoke Server Script", and "Invoke an HTTP Request". A green arrow points from the "Navigate to BI Content" option in this list to the foreground window.

The foreground window, titled "Select BI Content For Action", is used for selecting the specific BI content to link. It shows a "Folders" pane on the left and a main list of content items. The item "Electronic Collections by Material Type and Number of Portfolios with Action Link to Portfolios" is highlighted with a green box. Below the list, the "Name" field contains the text "Electronic Collections by Material Type and Number of Portfolios with Action Link to Portfolios".

More on the Master Query

The image shows two overlapping dialog boxes. The background dialog is titled "Action Options" and has a sub-tab "Invoke Action". It contains several configuration options:





- Run Confirmation: Are you sure you want to invoke this action?
- Dialog Title: Invoke Action
- Action Help Text: Enter the values for action parameters and execute
- Link URL: [Empty field] Label: [Empty field]
- Execute Button Text: Execute
- Open In New Window

An inset dialog titled "Create New Action" is overlaid on top. It features a gear icon and a question mark icon. The main heading is "Navigate to BI Content". Below it, the text reads: "Select the BI Content from the Catalog that you want to navigate to." There is a text field containing "/shared/Training and Integration/Rc" followed by a "Browse..." button. At the bottom, there are "OK" and "Cancel" buttons. A red box highlights the "Options..." button in the "Create New Action" dialog, and a red arrow points from this button to the "Invoke Action" sub-tab in the background dialog.

More on the Master Query

New Action Link ... ? ×

Link Text

Action    

Show Link Always Conditionally

Column Properties ? ×



Style | Column Format | Data Format | Conditional Format | **Interaction**

Column Heading

Primary Interaction ▼

Value

Primary Interaction ▼

Action Links +  

Link Text	Action	
Click here for details	Electronic Collections by Material Type and Number of Portfolios	⌵
		⬆
		⬇
		⬇

Do not display in a popup if only one action link is available at runtime

Enable on Totals

More on the Master Query

Electronic Collections by Material Type and Number of Portfolios

Table



Public Name	Material Type	No. of Portfolio (In Repository)
	Book	8
	Unknown	28
Brill Online Journals	Journal	14
Ebook Library	Book	8
Elsevier ScienceDirect eBook - Information Management pre-2008	Book	178
Free E- Journals	Journal	150
	Unknown	2
Gale Cengage Financial Times Historical Archive	Newspaper	2
Gale Cengage Shakespeare Collection Periodicals	Journal	106
	Newspaper	8
Highwire Press Journals	Journal	2
PubMed Central	Journal	22
Sage Open Access Journals	Journal	330
SpringerLink Books Springer Reference De German 2017	Book	
US Government Documents	Journal	44
ebrary Perpetual Titles	Book	2



Click for details

Results from Details Query

Electronic Collections by Material Type and Number of ...

Home | Catalog | Favo

Electronic Collections by Material Type and Number of Portfolios with Action Link to Portfolios

Public Name	Material Type	Author	Title
Sage Open Access Journals	Journal		AERA open.
			ASN neuro.
			Academic pathology.
			Acta radiologica open.
			Adsorption science & technology
			Advances in mechanical engineering.
			Air, soil and water research.
			American journal of men's health.
			Analytical chemistry insights.
			Antiviral chemistry & chemotherapy.
			Autism & developmental language impairments.
			Big data & society.
			Biochemistry Insights.
			Bioinformatics and biology insights.
			Biomarker insights.
			Biomarkers in cancer.
			Biomedical engineering and computational biology.
			Biomedical informatics insights.
			Bone and Tissue Regeneration Insights
			Brain and neuroscience advances.

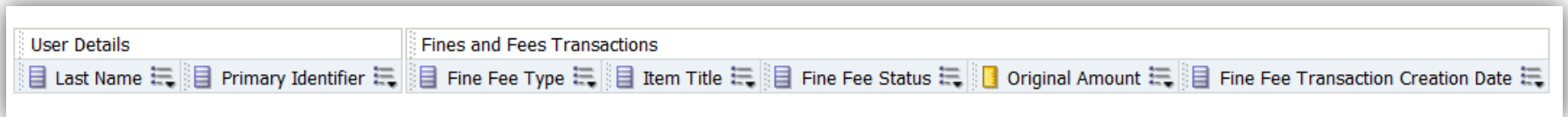
Fines and Fees Aging Report



Introduction

- Looking for a report that shows aging of fines and fees in defined numbers of days
- We tried adding an Advanced SQL filter and received errors
- What do we do?

Fines and Fees Aging



Fines and Fees Aging

Fine Fee Transaction Creation Date

- Sort
- Edit formula
- Column Properties
- Filter

button in the Filter pane header. Add

Column Properties

Column Properties

Style **Column Format** Data Format Conditional Format Interaction

Headings Hide

Folder Heading Fines and Fees Transactions

Column Heading Days Aged

Custom Headings Show TimeZone Icon

Contains HTML Markup

Value Suppression

XX	XXXX	XX	XXXX
	XXXX	XX	XXXX
XX	XXXX	XX	XXXX
	XXXX	XX	XXXX

Fines and Fees Aging

Days Aged

- Sort
- Edit formula
- Column Properties

utton in the F

Edit Column Formula

Column Formula Bins

Folder Heading: Fines and Fees Transactions

Column Heading: Days Aged

Custom Headings

Contains HTML Markup

Aggregation Rule (Totals Row): Default (None)

Available

Subject Areas

- Fines and Fees
 - Fines and Fees Transactions
 - Transaction Date

Column Formula

"Fines and Fees Transactions"."Fine Fee Transaction Creation Date"



Fines and Fees Aging

- Edit the Column Formula statement to change it from...

Column Formula

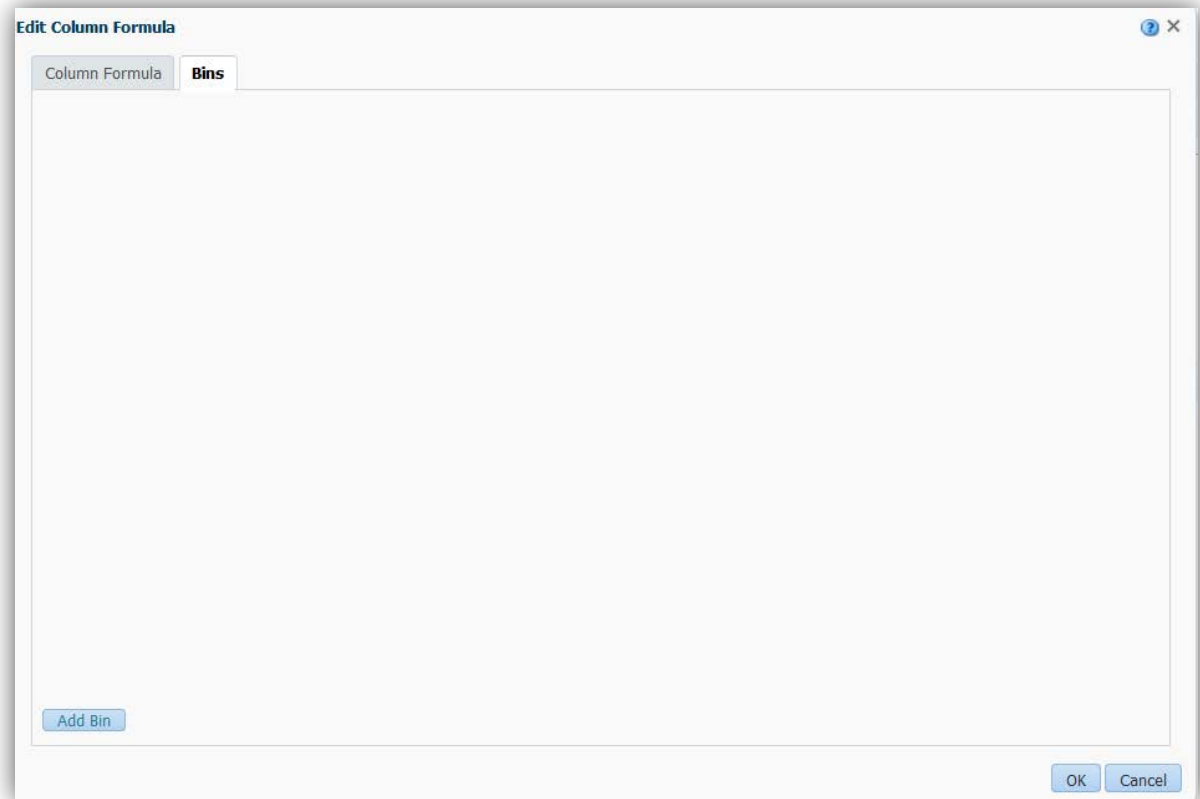
```
"Fines and Fees Transactions"."Fine Fee Transaction Creation Date"
```

Column Formula

```
TIMESTAMPDIFF(SQL_TSI_DAY, "Fines and Fees Transactions"."Fine Fee Transaction Creation Date",  
CURRENT_DATE)
```

Fines and Fees Aging

- Edit the formula for the **Days Aged** column again, this time going to the **Bins** tab.



Fines and Fees Aging

Edit Column Formula

Column Formula Bins

1.			
2.	All other values		

New Filter ? X

Column TIMESTAMPDIFF(SQL_TSI_DAY , I

Operator is less than or equal to ▼

Value 30 ▼

Add More Options ▼ Clear All

Protect Filter

Convert this filter to SQL

OK Cancel

Edit Bin Name X

1 - 30

OK Cancel

Fines and Fees Aging

Edit Column Formula

Column Formula **Bins**

1.	TIMESTAMPDIFF(SQL_TSI_DAY , Fi... is less than or equal to 30	1 -		
2.				
3.	All other values			

New Filter ? ×

Column TIMESTAMPDIFF(SQL_TSI_DAY , F

Operator is between ▼

Value 31 ▼

Value 60 ▼

Add More Options ▼ Clear All

Protect Filter

Convert this filter to SQL

OK Cancel

Edit Bin Name ×

31 - 60

OK Cancel

Fines and Fees Aging

Edit Column Formula [?] [X]

Column Formula **Bins**

1.	TIMESTAMPDIFF(SQL_TSI_DAY , Fi... is less than or equal to 30		1 - 30				
2.	TIMESTAMPDIFF(SQL_TSI_DAY , Fi... is between 31 and 60		31 - 60				
3.	TIMESTAMPDIFF(SQL_TSI_DAY , Fi... is between 61 and 90		61 - 90				
4.	TIMESTAMPDIFF(SQL_TSI_DAY , Fi... is between 91 and 180		91 - 180				
5.	All other values		> 180				

Treat result as a numeric value or expression

OK Cancel

Fines and Fees Aging

Edit Column Formula

Column Formula Bins

Folder Heading: Fines and Fees Transactions

Column Heading: Days Aged

Custom Headings

Contains HTML Markup

Aggregation Rule (Totals Row): Default (None)

Available

Subject Areas

- Fines and Fees
 - Fines and Fees Transactions
 - Transaction Date
 - Creation Date
 - Owning Library
 - Executed by Unit

Column Formula

```
CASE WHEN TIMESTAMPDIFF(SQL_TSI_DAY, "Fines and Fees Transactions"."Fine Fee Transaction Creation Date", CURRENT_DATE) <= 30 THEN '1 - 30' WHEN TIMESTAMPDIFF(SQL_TSI_DAY, "Fines and Fees Transactions"."Fine Fee Transaction Creation Date", CURRENT_DATE) BETWEEN 31 AND 60 THEN '31 - 60' WHEN TIMESTAMPDIFF(SQL_TSI_DAY, "Fines and Fees Transactions"."Fine Fee Transaction Creation Date", CURRENT_DATE) BETWEEN 61 AND 90 THEN '61 - 90' WHEN TIMESTAMPDIFF(SQL_TSI_DAY, "Fines and Fees Transactions"."Fine Fee Transaction Creation Date", CURRENT_DATE) BETWEEN 91 AND 180 THEN '91 - 180' ELSE '> 180' END
```


Fines and Fees Aging

Title						
Fines and Fees Aging						
Table						
Last Name	Primary Identifier	Fine Fee Type	Item Title	Fine Fee Status	Original Amount	Days Aged
	None	Card renewal		Closed	180	> 180
		Damaged item fine		Closed	60	> 180
		Lost item process fee		Closed	35	> 180
		Lost item replacement fee		Closed	70	> 180
		Other		Closed	10	> 180
		Overdue fine		Closed	117	> 180
			A subtreasury of American humor /	Closed	25	> 180
			Aging, society and life course / Leslie A. Morgan, Suzanne R. Kunkel.	Closed	25	> 180
			Big structures, large processes, huge comparisons /	Closed	25	> 180
			Chocolate : food of the gods /	Closed	25	> 180
			Cooperative games and sports	Closed	25	> 180
			Developing attitude toward learning,	Closed	22	> 180
			Development of language	Closed	25	> 180
			Driving climate change : cutting carbon from transportation /	Closed	25	> 180
			Fraction fun /	Closed	1,173	> 180

Fines and Fees Aging

The screenshot displays a software interface with two main data areas: "User Details" and "Fines and Fees Transactions". The "User Details" area includes columns for "Last Name" and "Primary Identifier". The "Fines and Fees Transactions" area includes columns for "Fine Fee Type", "Item Title", "Fine Fee Status", "Original Amount", and "Days Aged". A context menu is open over the "Patron" column heading, with the "Edit formula" option selected. The "Edit Column Formula" dialog box is open, showing the following settings:

- Folder Heading: User Details
- Column Heading: Patron
- Custom Headings:
- Contains HTML Markup:
- Aggregation Rule (Totals Row): Default (None)
- Available: Subject Areas
- Column Formula: `CONCAT(CONCAT("User Details"."First Name",' '), "User Details"."Last Name")`

CONCAT(CONCAT("User Details"."First Name",' '), "User Details"."Last Name")





Fines and Fees Aging

The screenshot shows a software interface with a 'Compound Layout' containing a table titled 'Fines and Fees Aging'. A red arrow points to the 'Pivot Table' option in a visualization menu. The table displays data for various patrons, including Adam Zimmerman, Agostinho Marques, Alexander Rich-Shea, and Amanda Robertson, with columns for 'Fine Fee Status', 'Original Amount', and 'Days Aged'.

Patron	Primary			Fine Fee Status	Original Amount	Days Aged
Adam Zimmerman	200001		power and human reason : from judgment to calculation / Joseph Weizenbaum.	Active	\$25.00	> 180
			ologies for energy efficiency / by Michael F. Hordeski.	Active	\$25.00	> 180
			lture, new media and digital literacy in early childhood / edited by Jackie Marsh.	Active	\$25.00	> 180
			security in the information age : investigating the role of the state in cyberspace / edited by Myriam Dunn	Active	\$25.00	> 180
Agostinho Marques	agostinh		ctor Mauer, Sai Felicia Krishna-Hensel.	Active	\$25.00	> 180
			f Mexico.	Active	\$25.00	> 180
			exico / Roland H. Wauer.	Active	\$25.00	> 180
			ack Rummel.	Active	\$25.00	> 180
Alexander Rich-Shea	alexande		an Andean enigma / David W. Schodt.	Active	\$25.00	> 180
			Jungle pilot : the life and witness of Nate Saint / by Russell T. Hitt ; photos. by Nate Saint, other missionaries, and Cornell Capa ; Picture editor Cornell Capa.	Active	\$25.00	> 180
			Portrait of an American painter: Edward Gay, 1837-1928, by Richard G. Coker.	Active	\$25.00	> 180
Amanda Robertson	amanda.robertson	Overdue fine	Dazzling disguises and clever costumes / Angela Wilkes ; costumes by Jane Bull.	Active	\$25.00	> 180
			Nickel and dimed : on (not) getting by in America / Barbara Ehrenreich.	Active	\$25.00	> 180

Fines and Fees Aging – Pivot Table View

Fines and Fees Aging

Pivot Table





Days Aged	Fine Fee Type	Patron	Primary Identifier	Item Title	Active Original Amount
61 - 90	Overdue fine	Dominic Nast	dominic.nast	The natural world of Winnie-the-Pooh : a walk through the forest that inspired the Hundred Acre Wood / Kathryn Aalto.	\$25.00
		Leslie Farrell	100033	Motivation, altruism, personality and social psychology : the coming age of altruism / Michael Babula, University of Greenwich, UK.	\$25.00
		Napoleon Gulley	100043	Managing interactive media projects / Tim Frick.	\$25.00
> 180	Card renewal	Sara Carr	sarac		\$5.00
	Credit	Laurie Welling	laurie.welling	The snow leopard / Peter Matthiessen.	-\$75.00
		Matthew Ball	100003	Artful universe expanded / John D. Barrow.	-\$75.00
	Damaged item fine	Carmen Freeman	carmen.freeman		\$40.00
		Daria Jetson	daria.jetson		\$40.00
		George Morgendorf	george.morgendorf		\$40.00
		Huey Sandiego	huey.sandiego		\$40.00
	Library Card Replacement	Carmen Freeman	carmen.freeman		\$10.00
		Daria Jetson	daria.jetson		\$10.00
		George Morgendorf	george.morgendorf		\$10.00
Huey Sandiego		huey.sandiego		\$10.00	

Fines and Fees Aging – Pivot Table View

Days Aged	Fine Fee Type	Patron	Primary Identifier	Item Title	Active Original Amount
61 - 90	Overdue fine	Dominic Nast	dominic.nast	The natural world of Winnie-the-Pooh : a walk through the forest that inspired the Hundred Acre Wood / Kathryn Aalto.	\$25.00
		Leslie Farrell	100033	Motivation, altruism, personality and social psychology : the coming age of altruism / Michael Babula, University of Greenwich, UK.	\$25.00
		Napoleon Gulley	100043	Managing interactive media projects / Tim Frick.	\$25.00
> 180	Card renewal	Sara Carr	sara.c		\$5.00

Layout

Drag and drop measures, columns and hierarchies to determine pivot table layout.

Pivot Table Prompts

Drop here for Pivot prompts

Sections

Drop here for a sectioned Pivot

Pivot Table

Columns

- Fines and Fees Transactions
- Fine Fee Status
- Measure Labels

Rows

- Fines and Fees Transactions
- User Details
- Fines and Fees Transactions
- Days Aged
- Fine Fee Type
- Patron
- Primary Identifier
- Item Title
- Original Amount

Fines and Fees Aging – Pivot Table View

Fine Fee Type	Patron	Primary Identifier	Item Title	Fine Fee Status	61 - 90 Original Amount	> 180 Original Amount
Card renewal	Sara Carr	sarac		Active		\$5.00
Credit	Laurie Welling	laurie.welling	The snow leopard / Peter Matthiessen.	Active		-\$75.00
	Matthew Ball	100003	Artful universe expanded / John D. Barrow.	Active		-\$75.00
Damaged item fine	Carmen	carmen.freeman		Active		\$40.00

Layout

Drag/drop measures, columns and hierarchies to determine pivot table layout.

Pivot Table Prompts

Drop here for Pivot prompts

Sections

Drop here for a sectioned Pivot

Pivot Table

Rows

Fines and Fees Transactions	User Details	Fines and Fees Transactions
Fine Fee Type	Patron	Primary Identifier
Item Title	Fine Fee Status	

Columns

Fines and Fees Transactions	Days Aged
Measure Labels	

Measures

Fines and Fees Transactions
Original Amount

Fines and Fees Aging – Pivot Table View

Title: Fines and Fees Aging Pivot Table View

Pivot Table

Fine Fee Type	Patron	Primary Identifier	Item Title	Fine Fee Status	61 - 90	> 180
					Original Amount	Original Amount
Card renewal	Sara Carr	sarac		Active		\$5.00
Credit	Laurie Welling	laurie.welling	The snow leopard / Peter Matthiessen.	Active		-\$75.00
	Matthew Ball	100003	Artful universe expanded / John D. Barrow.	Active		-\$75.00
Damaged item fine	Carmen Freeman	carmen.freeman		Active		\$40.00
	Daria Jetson	daria.jetson		Active		\$40.00
	George Morgendorf	george.morgendorf		Active		\$40.00
	Huey Sandiego	huey.sandiego		Active		\$40.00
Library Card Replacement	Carmen Freeman	carmen.freeman		Active		\$10.00
	Daria Jetson	daria.jetson		Active		\$10.00
	George Morgendorf	george.morgendorf		Active		\$10.00
	Huey Sandiego	huey.sandiego		Active		\$10.00
Lost item replacement fee	Carmen Freeman	carmen.freeman		Active		\$75.00
	Daria Jetson	daria.jetson		Active		\$75.00
	George Morgendorf	george.morgendorf		Active		\$75.00
	Huey Sandiego	huey.sandiego		Active		\$75.00

Next Steps, Support Resources and Feedback



Next Steps and Resources

- Include documentation links in the CKC relative to your topic:
 - [Analytics Documentation](#)
 - [Creating Analyses and Dashboards](#) (Oracle)
- Additional support resources within the ExLibris Ecosystem:
 - [Idea Exchange](#)
 - [Developer Network](#)
- [2018 Technical Seminar Presentations](#) (Cross-Product section of CKC)

Questions?

Any Final Questions?





Thank You!

ExLibris[®]
a ProQuest Company