Primo Analytics Guide

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Web address: http://www.exlibrisgroup.com

Overview of Primo Analytics

Note

For additional details specific to Primo VE environments, see Primo VE Analytics.

Primo Analytics enables Primo Cloud customers to run reports on library activities. You can use out-of-the-box reports that are provided by Ex Libris, or you can create your own reports. Groups of reports can be displayed in dashboards that you customize. You can share reports and dashboards that you create with other Primo users in your institution or in other institutions. These reports help you to understand the activities that your library performs and to make informed decisions on how to run the library.

Primo Analytics is built on Oracle Business Intelligence Enterprise Edition 11.1.1.7. This document describes unique aspects of this tool for Primo customers and basic analytics activities. For a thorough description of all the activities available in Primo Analytics, click the **Help** button to view the online help and Oracle documentation, or refer to the Oracle® Fusion Middleware User's Guide for Oracle Business Intelligence Enterprise Edition 11g Release 1 (11.1.1):

http://docs.oracle.com/cd/E21764_01/bi.1111/e10544/toc.htm

This document describes how to perform basic activities such as building, formatting, and customizing Primo reports and how to provide reports to others, both internally and externally, by creating and updating dashboards.

Note

- This functionality is available to Primo Cloud customers only.
- Analytics data is updated on a daily basis. The regional updates start at 12:30 AM (UTC) and take 1 to 3 hours depending on the region.

Terminology

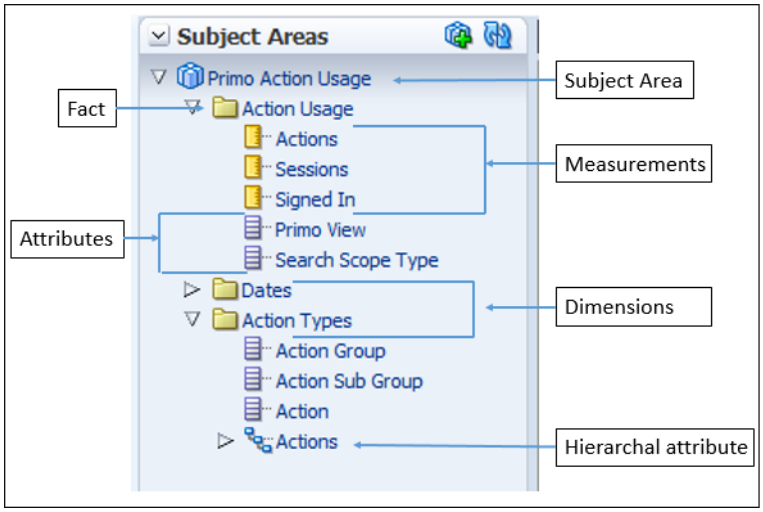
The following table describes various terms used for Primo Analytics and its user interface.

Terminology

Term	Description
Subject Area	Data in Primo Analytics that is organized into subject areas such as Action Usage, Popular Searches, PNX Records, and Pipes. Subject areas contain folders, measure columns, attribute columns, and hierarchical columns. For more information, see Subject Areas.
Fact Table	Consists of the measurements, metrics, or facts related to a type of usage or process and contains the core part of the subject area.

Term	Description
Dimension	Tables that contain descriptive attributes (or fields) that are typically textual fields or discrete numbers behaving like text. Dimension attributes such as Dates, Action Types, or Institutions give facts a context.
Measurement	A column of data in subject areas that holds a simple list of data values that can change or can be counted or aggregated in some way.
Attribute	A column in subject areas that holds a flat list of values that are also known as members.
Hierarchical Attribute	An attribute holds data values that are organized in a hierarchy. This kind of attribute is displayed using a treelike structure. Individual members are shown in an outline manner, with lower-level members rolling into higher- level members.

The following diagram illustrates where these elements exist in Primo Analytics:



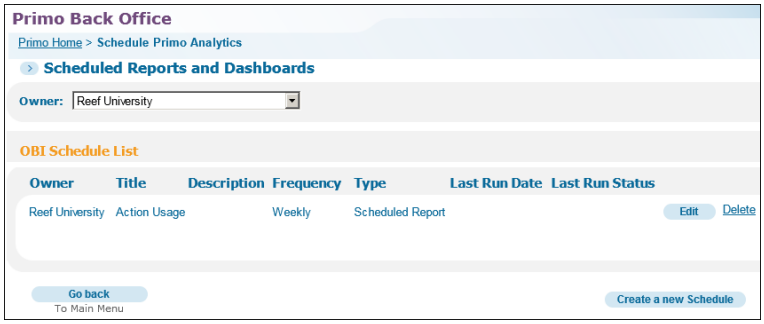
Primo Analytics Terminology

Scheduling Primo Analytics Reports

The Schedule Reports and Dashboards page (**Primo Home > Schedule Primo Analytics**) in the Primo Back Office allows you to create and modify report and dashboard jobs. In addition, the **Last Run Date** and **Last Run Status** columns allow you to monitor the status of your report and dashboard jobs.

Note

For Primo VE environments, see Primo VE Analytics.



Schedule Reports and Dashboards Page

During the creation of a job, staff users will be able to specify the following fields on the **Create a Schedule** page:

- **Title** – The report job's name.
- **Description** – An optional description of the report you are scheduling.
- **Analytics Folder** – The Primo Analytics folder from which to select a report.
- **Report** – The report or dashboard that you are scheduling.
- **Format** – The output format of the report that you are scheduling. The following options are permitted for reports only: **PDF**, **Excel**, and **Text**. For dashboards, only **PDF** is permitted.
- **Schedule Type** – Indicates the type of report that you are scheduling. Select either **Scheduled Report** or **Scheduled Dashboard**.
- **Frequency** – Indicates how the job should be run. When scheduled, the job will run at 2AM on the scheduled day. The following frequencies are supported:
    - **Monthly** – allows you to specify the day of the month.
    - **Weekly** – allows you to specify a day of the week.
    - **Daily** – allows you to run the job daily.
- **Emails** – A comma-separated list of email addresses to which the report is sent.

Primo Back Office

Primo Home > Schedule Primo Analytics

Scheduled Reports and Dashboards

Create a Schedule

Title*	Action Usage Example
Description	
Analytics Folder*	Primo/Usage/Reports
Report Name*	Action Usage example
Format*	PDF
Schedule Type*	Scheduled Report
Frequency	Monthly Day 1
Emails (Comma Separated) *	user1@myinst.edu,user2@myinst.edu

Cancel & Go back

To Scheduled Reports and Dashboards list

Save

Create a Schedule Page

Using Primo Analytics

This section describes the general activities that you can perform with Primo Analytics, such as the following:

- Navigating Primo Analytics
- Running out-of-the-box reports
- Creating reports
- Adding graphs to reports.

Navigating Primo Analytics

This section describes how to access the Primo Analytics and navigate among the various options.

Primo Analytics can be accessed by staff users with any institution-level Back Office role. All staff users can activate reports and also create new reports using data that belongs to their institution.

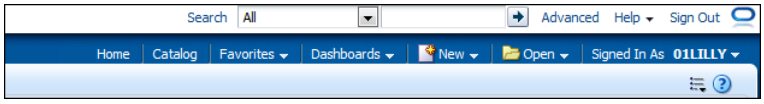
Note

If you have a “central institution” that is used to harvest only shared data sources, accessing Primo Analytics with a user that belongs to this institution will enable you to view only operations related reports regarding pipes and PNX records. If the “central institution” has a view that is in use, you will also be able to view usage-related reports.

To access Primo Analytics:

On the Monitor Primo Status page (**Primo Home > Monitor Primo Status**), click **Primo Analytics** to access the Primo Analytics interface.

You can use the Global Header (which displays at the top of each page) to navigate between components in the Primo Analytics interface.



Global Header

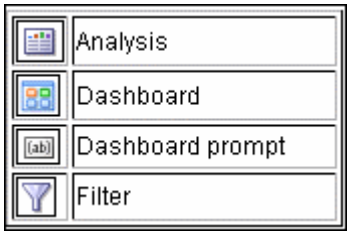
Global Header

The global header includes the following components:

- **Search** – Enables you to search the Catalog, which includes all of the objects created in OBI (such as reports, dashboards, and more).
- **Advanced** – Displays the Catalog page in search mode where you can search for objects in the catalog. In search mode, the Search pane is displayed rather than the Folders pane within the page.

- **Help** – Provides different help options relevant for Oracle BI and not specifically for Primo Analytics. It includes the following options:
  - *<page>* **Help** (where *<page>* is the name of the page, editor, or tab) – Dynamically changes to display the Help topic for the current page, editor, or tab.
  - **Help Contents**– Displays a cascading menu that provides options that link to the tables of contents for Oracle BI EE
  - **Documentation**– Displays the documentation library for Oracle BI EE
  - **OTN**– Displays the Business Intelligence and Data Warehousing Technology Center page on the Oracle Technology Network (OTN)
  - **About Oracle BI EE**– Displays a dialog identifying the Oracle BI EE version and copyright information
- **Sign Out**– Signs you out of Primo Analytics
- **Home**– Displays the Home page
- **Catalog**– The location where all reports are saved, including personal and shared reports. For more information, see Catalog.
- **Dashboards**– A shortcut to all available dashboards that are saved in the dedicated dashboard subfolders.
- **New**– Displays a list of the OBI objects that can be created. This document describes the Analysis option (which creates new reports) and the Dashboard option (which creates dashboards). For more details on creating new reports, see Creating New Reports.
- **Open**– Displays the following options:
  - **Recent –** Displays a list of the objects that you have recently viewed, created, or updated.
  - **Most Popular Objects**– Displays a list of the objects that are accessed the most often.
- **Signed In As username**– Displays the user name of the currently signed-in staff user.
- **My Account**– Displays the My Account page, which allows you to specify your preferences such as the timezone, delivery devices, and delivery profile.

The following figure shows some of the commonly used object icons in the Primo Analytics interface.

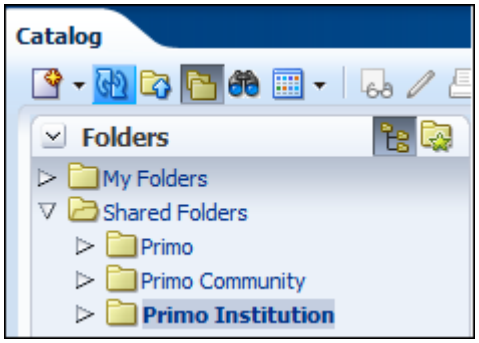


Analytics Icons

Catalog

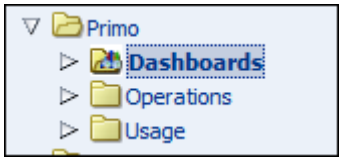
The Catalog arranges reports and dashboards (grouping of reports) into folders. In addition to reports and dashboards, it is also possible to store report prompts as standalone objects.

The Primo Analytics Catalog has the following folders, which display in the folder's pane:



Types of Analytics Folders

- **My Folders –** Stores your personal reports and dashboard in subfolders. The content in this folder will not be shared with others in your institution or the Primo community.
- **Shared Folders –** Stores reports, prompts and dashboards that can be shared at various levels in subfolders. The Shared Folders folder has the following subfolders:
  - **Primo** – Contains the out-of-the-box reports and dashboards created by Ex Libris. These reports cannot be modified directly, but you can copy them to My Folder and change them. The Primo folder contains the following subfolders:

    Primo Subfolders

    Primo Subfolders

Subfolder	Description
Dashboards	This subfolder contains the following dashboards: ▪ Example Dashboard – This dashboard contains a tab for each Primo subject area. ▪ Trends – This dashboard focuses on searches and usage.
Operations	This folder contains operation related reports, dashboards, and prompts for Pipes and PNX records. **Note** These types of reports, dashboards, and prompts are not applicable to Primo VE.
Usage	This subfolder contains usage related reports, dashboards, and prompts.

  - **Primo Community –** This folder contains reports and dashboards that are created by the entire Primo community. Reports placed in this folder can be viewed and edited by all Primo customers who have access to the OBI. The reports are shared across all regions using a scheduled synchronization that runs every week on Friday. You can copy these reports to your folders to make local modifications.

The Primo Community folder has the following out-of-the-box subfolders: Dashboard, Prompts, and Reports.

Primo Community Subfolders

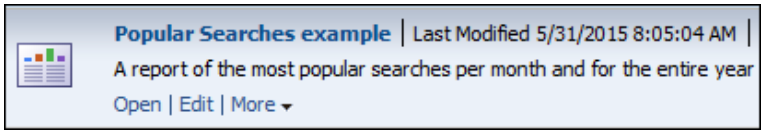
The Reports subfolder has a separate subfolder for each subject area, which are described in separate sections below. When adding reports to the Primo Community folder, make sure that you add reports to the appropriate folder and prefix the name of the reports with your institution name and a dash so that each report is identifiable by the contributing institution. For example:

- U. Minn - Search Related Actions
- U. Sienna - Sessions and Sign-in

Reports that are contributed by Ex Libris are prefixed with **Ex Libris –**.

Each institution can browse the folders for reports pertaining to a specific area or perform a search for reports from a specific institution.

Libraries are encouraged to add information in the properties of the reports so that other libraries are able to identify the functionality of the report easily. For example:

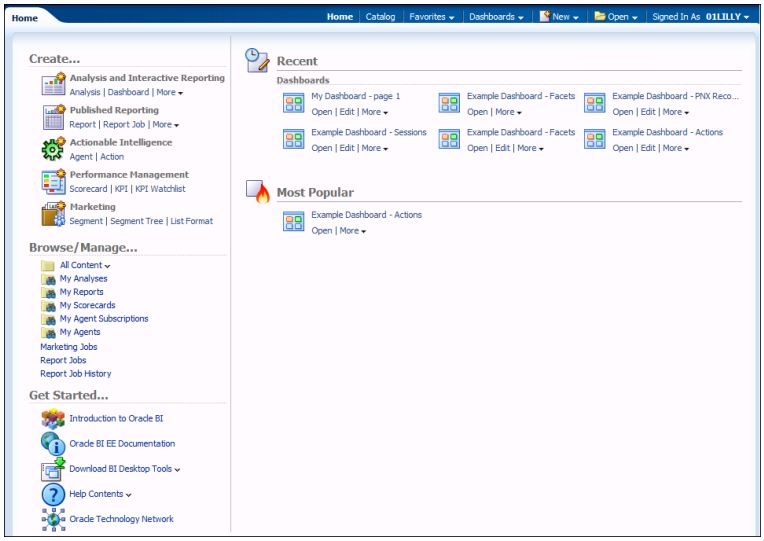


Popular Searches Example

- **Primo Institution –** Every Primo institution has its own folder. Out of the box, subfolders are provided for dashboards, prompts, and reports. Objects placed in this folder are only viewable to users who belong to the institution.

Home

Click the Home link to display the Primo Analytics home page:



Primo Analytics Home Page

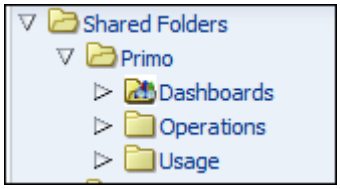
The Home page is a task-oriented, centralized workspace that is combined with a global header that provides access to Primo Analytics objects, their respective editors, help documentation, and other features.

Running the Out-Of-The-Box Reports

You can run reports whose criteria have been created by Ex Libris.

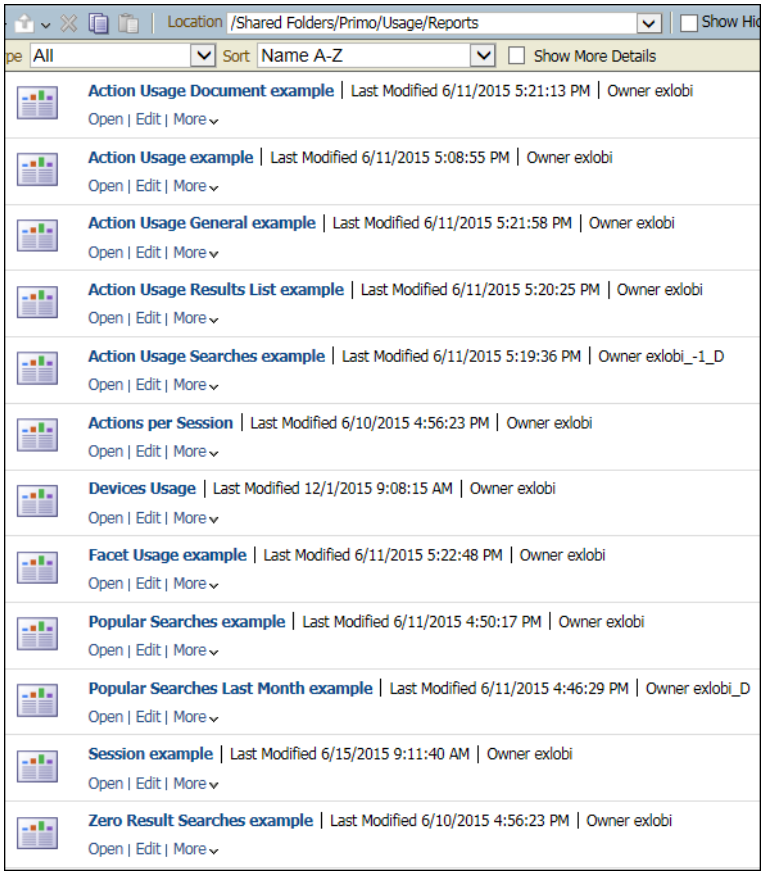
To run an out-of-the-box report:

1. Click **Catalog** and then select the **Primo** folder under **Shared Folders**.



Shared Folders

2. Click the expand buttons next to **Shared folders > Primo > Usage > Reports —** for example, the out-of-the-box reports that are related to Usage display:



Usage Reports

3. Click **Open** for the report that you want to run.

Displaying Dashboards

Dashboards provide an at-a-glance view of one or more reports. These dashboards my be provided by Ex Libris, the community, or yourself. You can display these dashboards from either the Catalog or the Dashboard drop-down list in the Global Header.

To display an out-of-the-box dashboard from the Catalog:

1. Click **Catalog** and then select the **Primo** folder under the **Shared Folders**.
2. Click the expand buttons next to **Shared folders > Primo > Dashboards**
3. Click **Open** for the dashboard you want to display.

To display a dashboard from the Community:

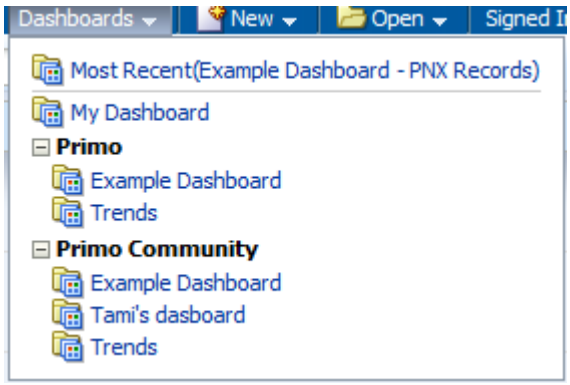
1. Click **Catalog** and then select the **Primo Community** folder under the **Shared Folders**.
2. Click the expand buttons next to **Shared folders > Primo Community > Dashboards**
3. Click **Open** for the dashboard you want to display.

To display your personal dashboard:

Click **Catalog > My Dashboard.**

To display a dashboard from the Global Header:

1. Click Dashboards in the Global Header:



Dashboards

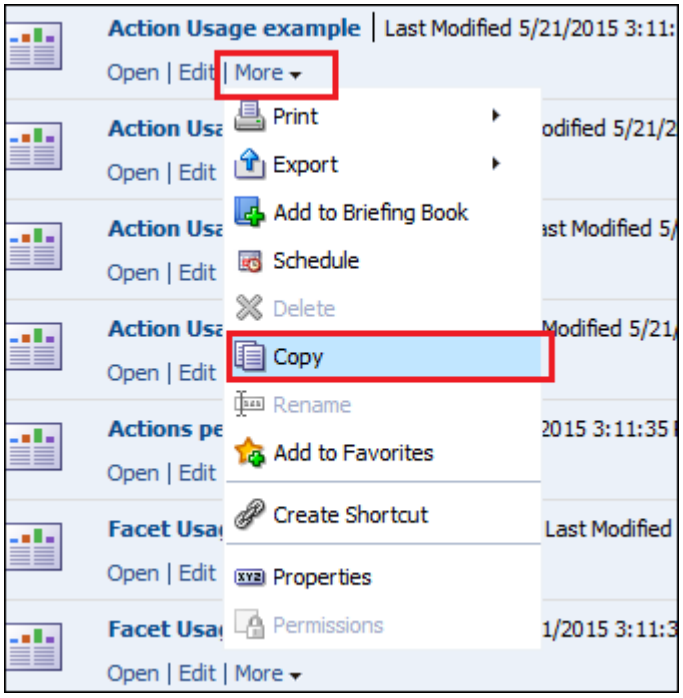
2. Select the dashboard that you want to view under **Primo** or **Primo Community**. If you want to see your personal dashboard, click **My Dashboard**.

Copying Reports

The copy function allows you to customize a report to create another report. This is useful if the original report includes similar information.

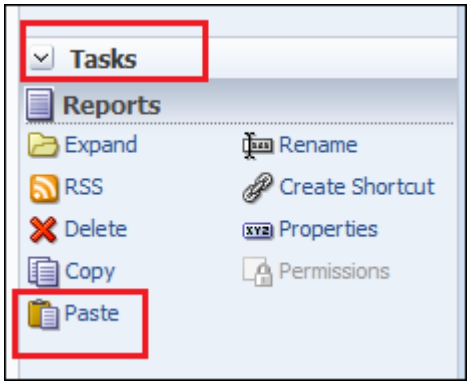
To copy a report:

1. Open the catalog and locate the report that you want to copy.
2. Select **More > Copy**.



Selecting a Report to Copy

3. Navigate to the target folder of the report and select **Tasks > Paste**.



Pasting the Report in the Target Folder

Creating New Reports

You can create new reports to provide you with information on library activities. The simplest way to create a report is based on one subject area. There are cases in which you need to combine data from more than two subject areas. (For more information on creating a report from two subject areas, see Creating Advanced Reports).

Note

Analytic reports can have a maximum of one million cells and up to 65,000 lines.

Reports in Primo Analytics can be based on data that is organized by subject areas that include two broad categories:

- **Usage** – Subject areas that are related to usage of the Primo Front End:
  - Primo Action – Provides information on end-user use of the various Primo functionality.

- Primo Facets – Provides information on facet usage.
- Primo Popular Searches – Lists the details for the most popular searches.
- Primo Sessions – Provides information on Primo sessions.
- Primo Zero Result Searches – Lists the details for searches that found no results.

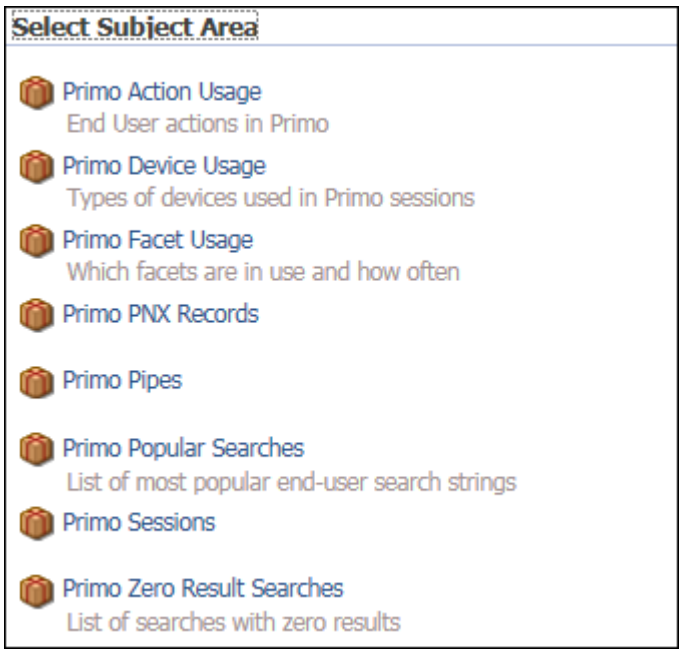
- **Operations** – These types of reports are not applicable to Primo VE. Subject areas that are related to Primo Back Office processes and Primo's database:
  - Primo Pipes – Provides details on Primo pipes processing.
  - Primo PNX Records – Provides information on PNX records.

Creating Basic Reports

The following procedure is a basic example of how to create a report:

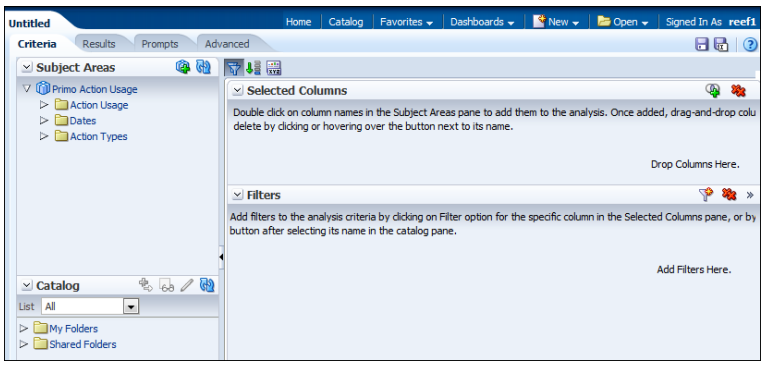
To create a report:

1. Select **New > Analysis**. The Select Subject Area menu opens.



Select Subject Area Descriptions Menu

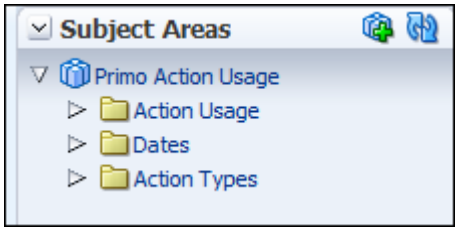
2. From the Select Subject Area menu, select **Primo Action Usage** — for example, to open the Analysis Editor.



Analysis Editor

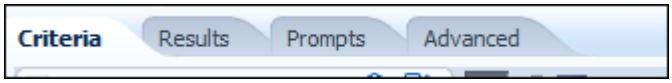
The Analysis Editor contains the following components:

- The left pane displays the elements of the Primo Actions Usage subject area:



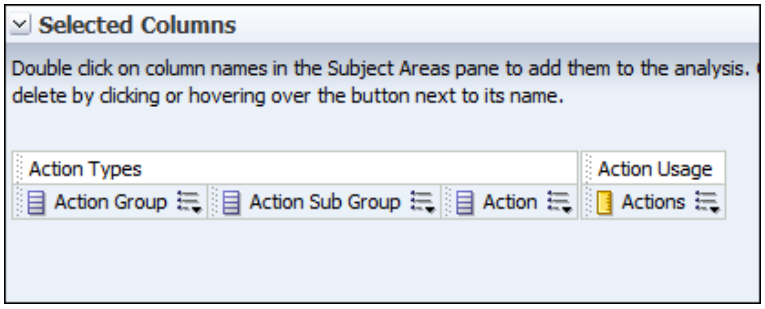
Primo Action Usage Area

- The Analysis Editor contains the following tabs and their use are described later sections:
  - **Criteria** – Used to create the report columns and filters.
  - **Results** – Used to display the report with data relevant to your institution.
  - **Prompts** – Used to add report prompts.
  - **Advanced** – This tab is not described in this document and requires expert knowledge of OBI.



Analysis Editor Tabs

3. To create a report of the number of times a certain action was invoked, perform the following steps:
   1. Click the arrow next to the **Actions Type** to expand the **Actions Type** dimension folder. Double-click the **Action Group**, **Action Sub Group** and **Action** fields (or drag and drop them into the Selected Columns pane).
   2. Click the arrow next to the **Action Usage** folder and then double-click the **Actions** measure. The selected columns should look similar to the following example.



Selected Columns

Note

You can reorder the columns in your report by clicking and dragging them to the new position.

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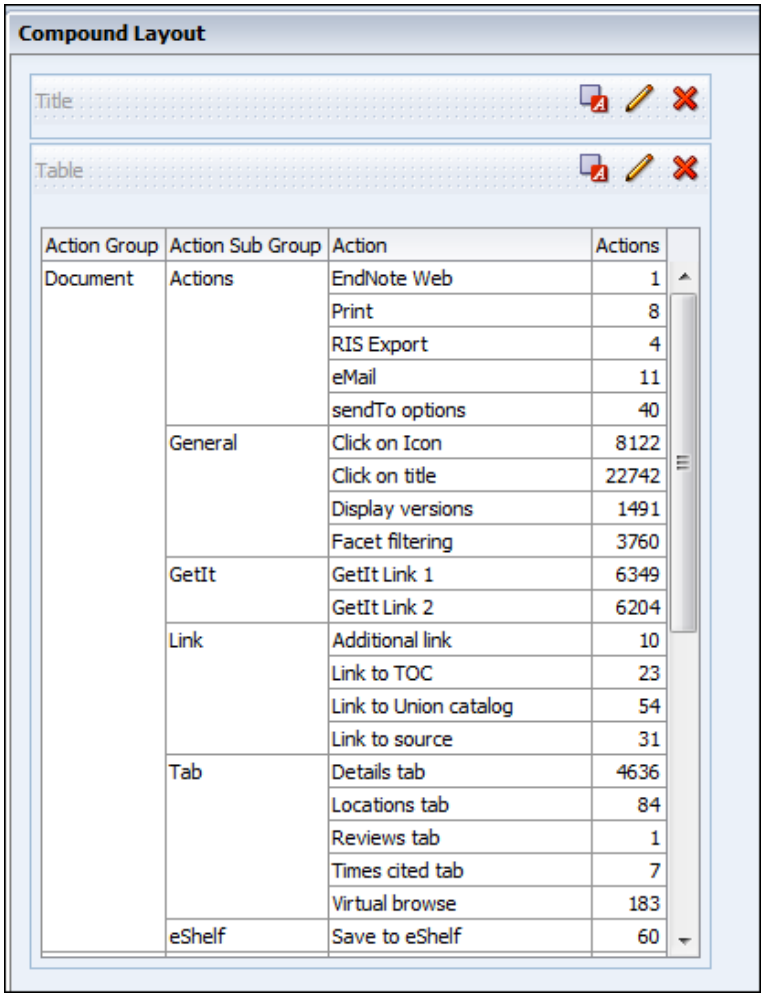
3. Click the Results tab to see the report's results.



Action Group	Action Sub Group	Action	Actions
Document	Actions	EndNote Web	1
		Print	8
		RIS Export	4
		eMail	11
		sendTo options	40
	General	Click on Icon	8122
		Click on title	22742
		Display versions	1491
		Facet filtering	3760
	GetIt	GetIt Link 1	6349
		GetIt Link 2	6204
	Link	Additional link	10
		Link to TOC	23
		Link to Union catalog	54
		Link to source	31
	Tab	Details tab	4636
		Locations tab	84
		Reviews tab	1
		Times cited tab	7
		Virtual browse	183
	eShelf	Save to eShelf	60

Results

Creating Advanced Reports

You may want to include information in a report from two subject areas. In order to be able to create reports from two subject areas, the following conditions must be met:

- There must be at least one common dimension between the two subject areas.
- Descriptive fields must come from the common dimensions.

Note

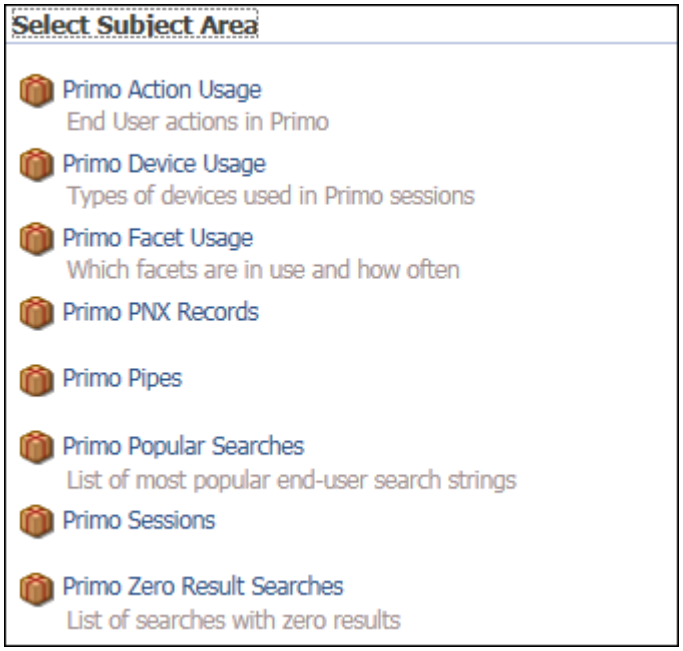
Measurement fields can come from the facts, although they are not common dimensions.

If you attempt to create a report from two descriptive fields that are not in common between the two subject areas, an error message will display.

In this example, we create a report from the Actions Usage and Sessions to create a report that on the average number of actions per session.

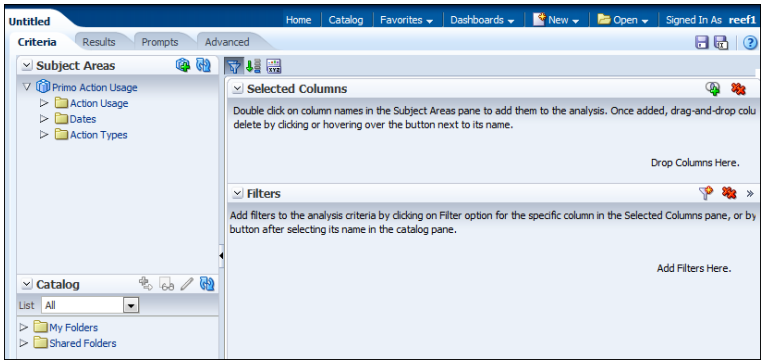
To create a report from two subject areas:

1. Select **New > Analysis**. The Select Subject Area menu opens.



Select Subject Area Descriptions Menu

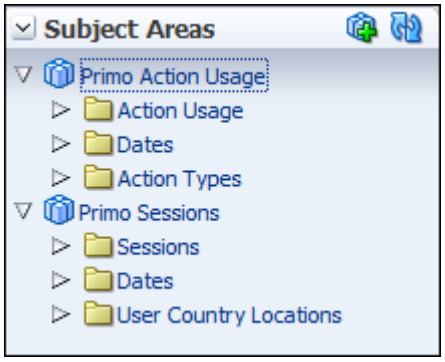
2. In the Select Subject Area menu, select **Primo Action Usage** — for example, to open the Analysis Editor.



Analysis Editor

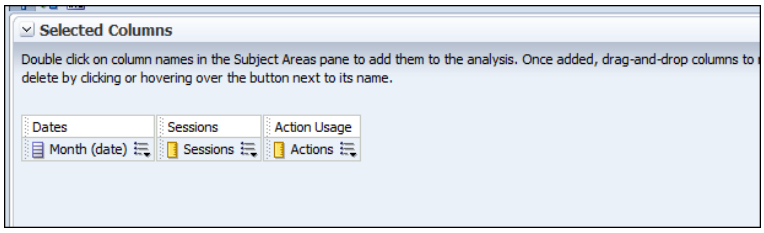
3. In the left pane, click the Add/Remove Subject Areas icon

and select **Sessions**. Both the Action Usage and Sessions subject areas appear:



Action Usage and Session Subject Areas

4. The Action Usage and Sessions subject areas have the Dates dimension in common. Add any date to the report as well as any measurement dimensions. For example, select Sessions from the Sessions column and Actions from the Action Usage column.



Report Criteria from Two Subject Areas

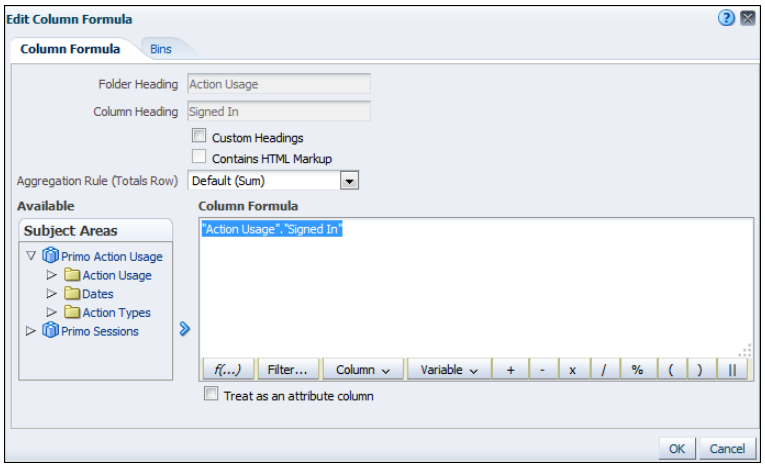
5. Add a column that calculates the average number of actions per session:

   1. Click the Criteria tab and add a new column of any kind — for example, **Signed-In**.

   2. Click the More Options icon

      of the new column and select **Edit Formula**. The Edit Column Formula dialog box opens:



Edit Column Formula Dialog Box

6. Highlight and replace the existing formula with the following formula, and then click **OK**:

```
1.0*"Action Usage"."Actions"/"Primo Sessions"."Sessions"."Sessions"
```

7. Click the More Options icon


of the new column and select **Column Properties > Column Format**.

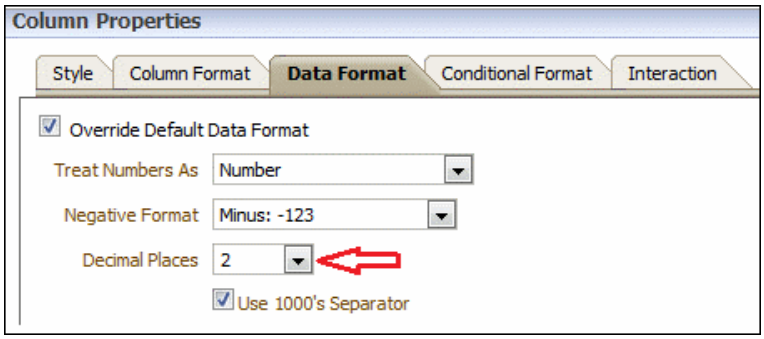
8. Select the **Custom Headings** check box.

9. Enter a new name for the column in the **Column Heading** field.

10. Click **OK**.

11. Click the More Options icon


of the new column and select the Data Format tab:

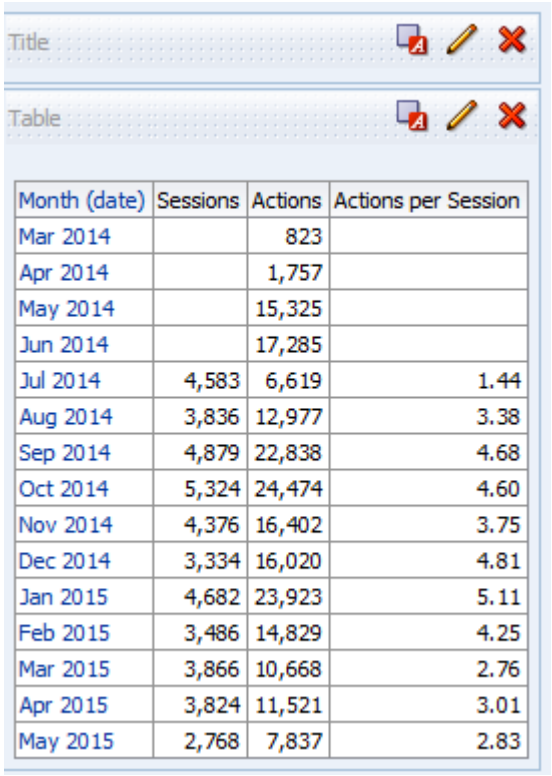


Column Properties Dialog Box

12. Select the **Override Default Data Format** check box.

13. Select 2 from the **Decimal Places** drop-down list.

14. Click the Results tab to display the report.



Month (date)	Sessions	Actions	Actions per Session
Mar 2014		823	
Apr 2014		1,757	
May 2014		15,325	
Jun 2014		17,285	
Jul 2014	4,583	6,619	1.44
Aug 2014	3,836	12,977	3.38
Sep 2014	4,879	22,838	4.68
Oct 2014	5,324	24,474	4.60
Nov 2014	4,376	16,402	3.75
Dec 2014	3,334	16,020	4.81
Jan 2015	4,682	23,923	5.11
Feb 2015	3,486	14,829	4.25
Mar 2015	3,866	10,668	2.76
Apr 2015	3,824	11,521	3.01
May 2015	2,768	7,837	2.83

Analytics Report

Filtering a Report

Filters allow you to limit the amount of data displayed in the report and are applied before the report is aggregated. Filters affect the report and, thus, the resulting values for measures. Filters can be applied directly to attribute columns and measure columns.

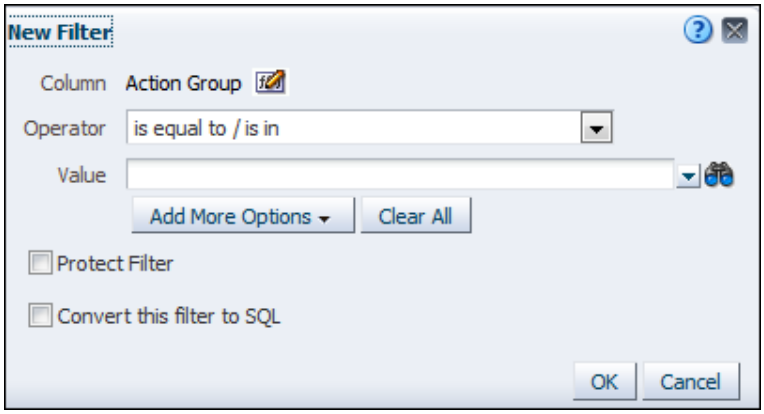
To filter a report:

1. Click the More Options icon

   next to the column whose data you want to filter and select **Filter**. Alternatively, click the **Filter** icon

   and select the appropriate column from the drop-down list.

   The New filter dialog Box opens — for example, for the Action Group:

   New Filter - Action Group

2. Select an option from the **Operator** drop-down list.

3. Enter a value in the **Value** field.

   The filter appears at the bottom of the Filter pane.

4. Click the Results tab to display the results filtered according to the criteria you set.

Sorting a Report

You can sort the data in a column — for example, to be ascending or descending.

To sort a column:

1. Click the More Options icon

   next to the column whose data you want to sort and then select **Sort**.

2. Select a sort option to sort the column.

Saving a Report

After you create a report, you can save a private or public version by placing it under the appropriate area:

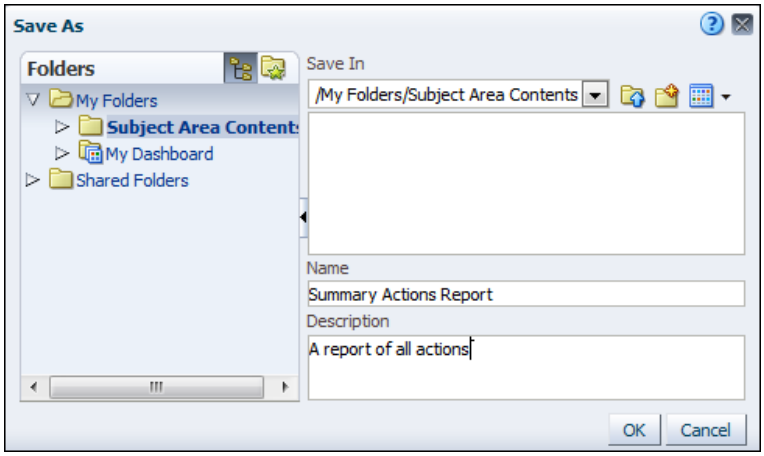
- My Folders – Area reserved for private reports.
- Shared Folders – Area reserved for shared reports. Place all shared reports in the appropriate folder under Primo Community. Do not forget to prefix the report with your institution name and to include a description of the report.

To save a report:

1. Click the Save icon

   to open the Save As dialog box.

   Save As Dialog Box

2. Select a folder under either the My Folders area (for private usage) or the Shared Folders are (for shared usage).
3. Specify a name and a description for the new report in the corresponding fields.
4. Click **OK**.

   The title appears at the top of the report. To change the title:

   1. Click the Results tab.
   2. Click the Edit icon

      in theViews pane.
   3. Enter a new title in the **Title** field.

Adding Totals to a Report

You can display the total of a column of a report.

To display a column's total:

1. Click the Edit icon

of the report in the Results Tab. The Table Editor opens:

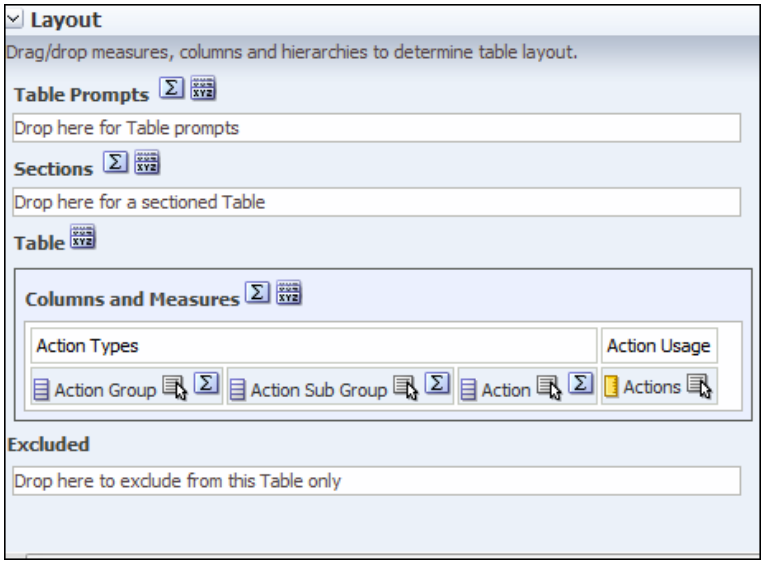


Table Editor

2. Click the Totals icon

in the Columns and Measures section and then select **After**. The green check mark indicates that a grand total has been added to the analysis.

3. Click **Done** to display a grand total.

Action Group	Action Sub Group	Action	Actions
		Reviews tab	1
		Times cited tab	7
		Virtual browse	183
	eShelf	Save to eShelf	60
General		Change personalized ranking	4
		Citation linker	304
		Sign-in	19
		Sign-out	158
Results Page	General	Next page	5792
		Previous page	704
		RSS subscription	7
		bX Hot Articles	1
Search	Browse	Browse authors	3
		Browse page	6
		Browse related records	12
		Browse subjects	7
		Browse titles	3
	Search	AZ list	1249
		Advanced search	6480
		Basic search	49138
Grand Total			**117708**

Grand Total Example

Formatting a Report

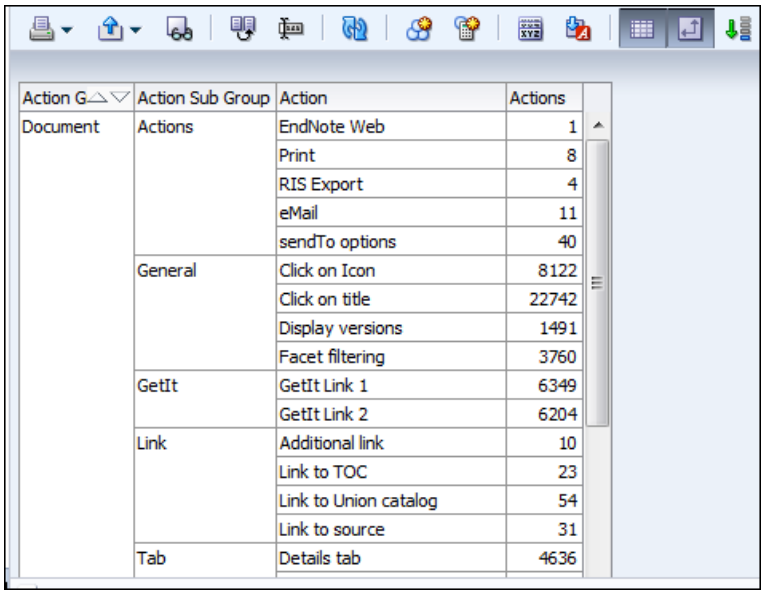
You can format a report.

To format a report:

1. On the Results tab of a report, click the edit icon

   . For example, the following page opens:

Action G	Action Sub Group	Action	Actions
Document	Actions	EndNote Web	1
		Print	8
		RIS Export	4
		eMail	11
		sendTo options	40
	General	Click on Icon	8122
		Click on title	22742
		Display versions	1491
		Facet filtering	3760
	GetIt	GetIt Link 1	6349
		GetIt Link 2	6204
	Link	Additional link	10
		Link to TOC	23
		Link to Union catalog	54
		Link to source	31
	Tab	Details tab	4636

   Example Results for a Report

2. On the top of the toolbar, click the Table View Properties icon

   . The table properties dialog box opens:

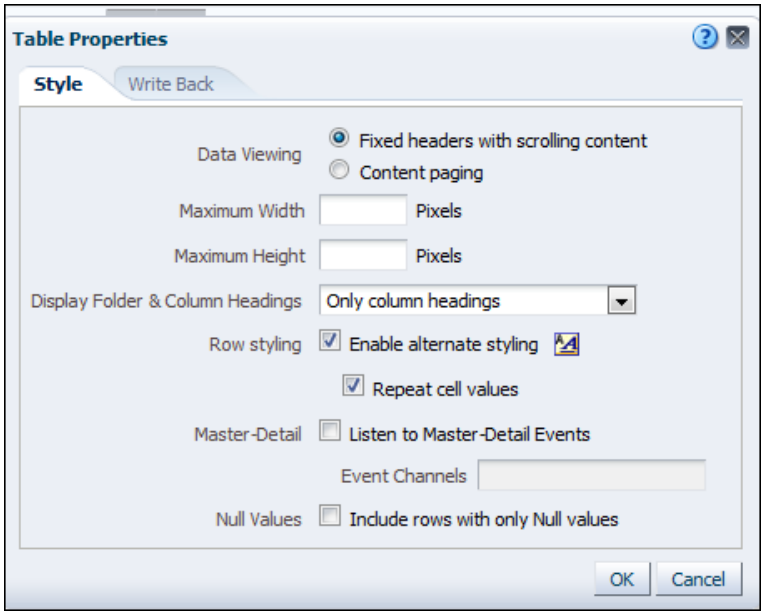
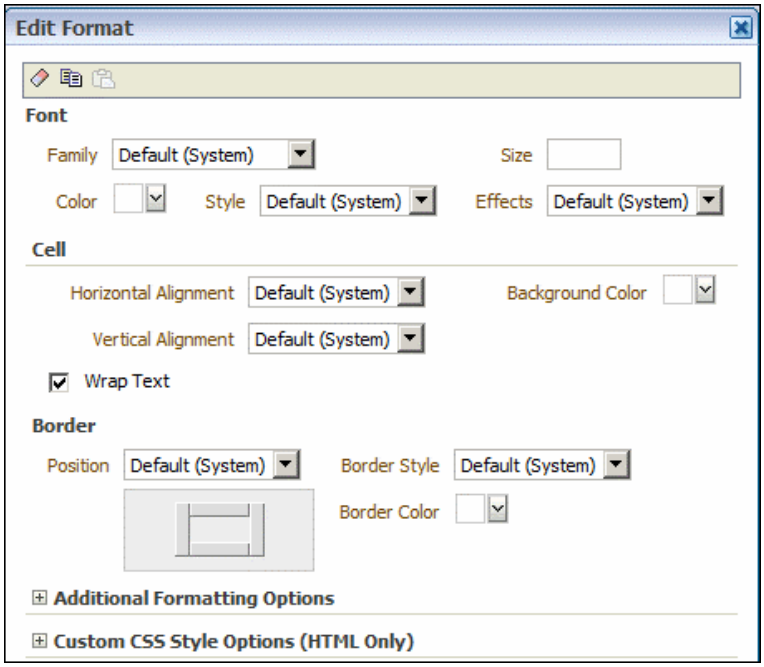


Table Properties

3. On the Style tab, select **Enable alternate row styling**.

4. Select **Repeat cell values** to display each full row in the table in a separate color.

5. Click **Set alternate format**. The following is displayed:



Edit Format Dialog Box

6. Select the formatting options you want — for example, from the **Background Color** drop-down list, select yellow for the background color.

7. Click **OK**.

   The table is now formatted with alternating yellow rows:

Action Group	Action Sub Group	Action	Actions
Document	Actions	EndNote Web	1
Document	Actions	Print	8
Document	Actions	RIS Export	4
Document	Actions	eMail	11
Document	Actions	sendTo options	40
Document	General	Click on Icon	8122
Document	General	Click on title	22742
Document	General	Display versions	1491
Document	General	Facet filtering	3760
Document	GetIt	GetIt Link 1	6349
Document	GetIt	GetIt Link 2	6204
Document	Link	Additional link	10
Document	Link	Link to TOC	23
Document	Link	Link to Union catalog	54
Document	Link	Link to source	31
Document	Tab	Details tab	4636

Rows Alternating Colors

Adding a Graph to a Report

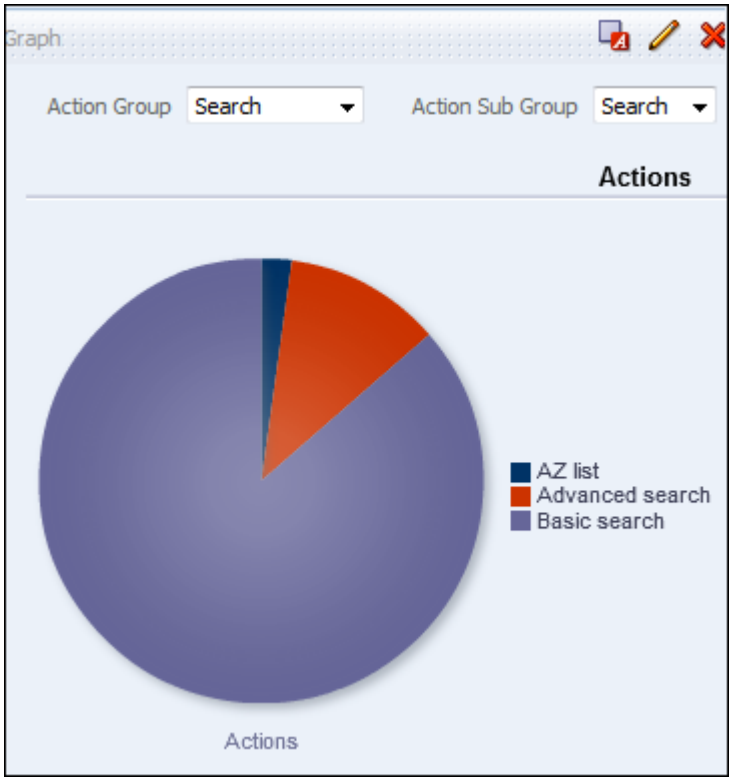
You can add a graph, such as a pie chart, to the report.

To add a graph to a report:

1. On the Results tab, click the New View icon

   and select **Graph > Pie**.



Pie Chart

2. If you want only the pie chart, click the Remove View from Compound Layout icon

for both Title and Table views. Both views are removed to display the graph only.

Note

The Title and Table views are still available for use from the Views pane.

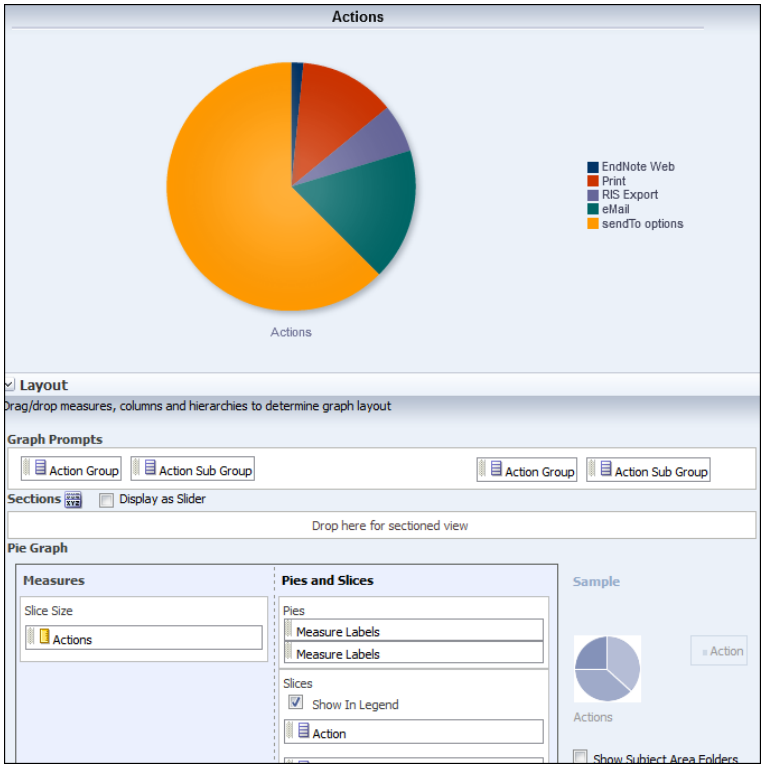
Formatting a Graph

You can format a graph. The formatting options available are different depending on the type of graph you are formatting. In this example, we format a pie graph.

To format a graph:

1. On the Results tab, click the Edit View icon

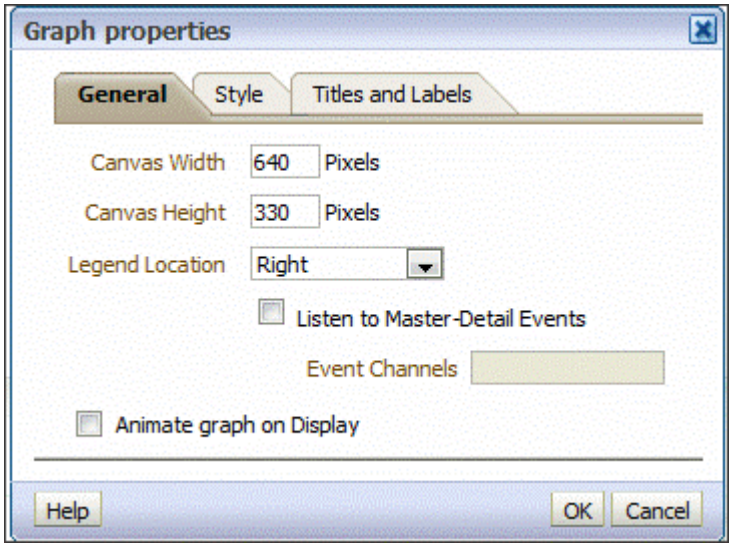
to open the Graph Editor.



Graph Editor

2. Click the Edit Graph Properties icon

on the top toolbar to open the Graph Properties dialog box.



Graph Properties Dialog Box

3. You can change various graph properties from the General, Style, and Titles and Labels tabs. For example, perform the following steps:

    1. On the General tab, select **Left** from the Legend Location drop-down list.

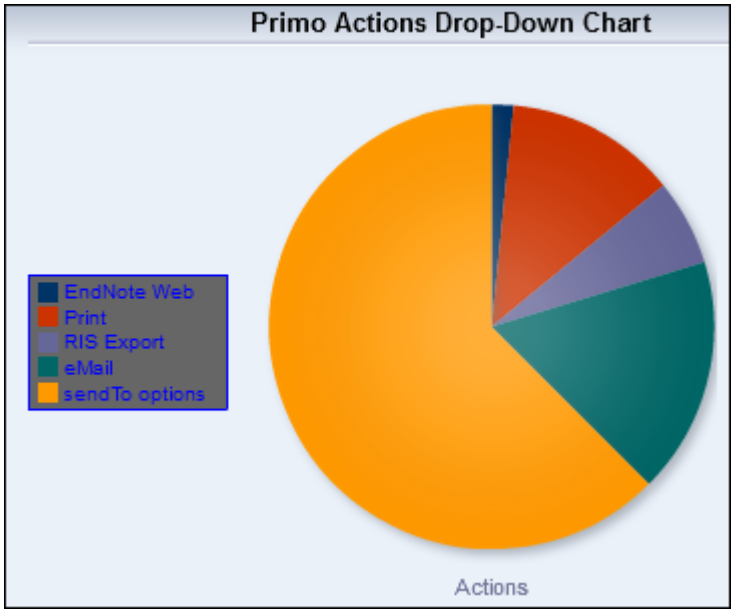
    2. On the Style tab, make the following changes:

        - In the Legend section, select gray as the background color and blue as the border color.

- In the Canvas Colors and Borders section, select turquoise for the background color and blue for the background color.
- Clear the **Gradient** check box.

3. On the Titles and Labels tab, make the following changes:
   - Clear the Use measure name as graph title check box and enter a title (such as **Primo Actions Drop-Down Chart**).
   - In the Labels section, click the Format Title icon

     next to legend, select **Arial** from the **Family** drop-down list, enter 10 in the **Size** field, and select the color.
4. Click **OK** to open the modified graph.



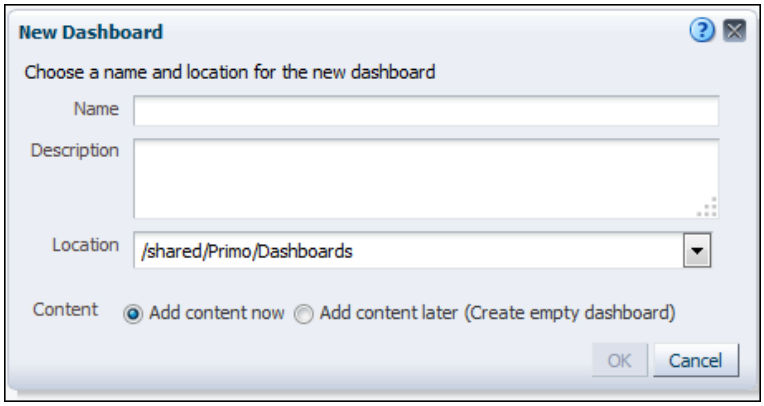
Customized Pie Chart

Creating a Dashboard

This section describes how to create a new dashboard.

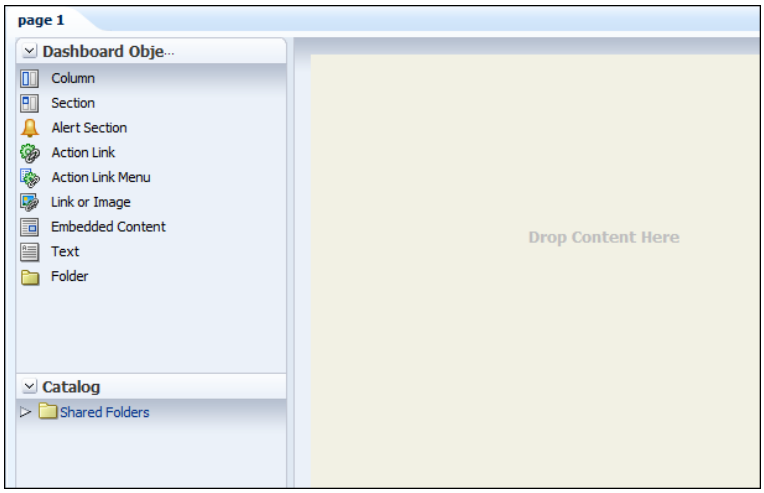
To create a new dashboard:

1. Click **New > Dashboard** to open the New Dashboard dialog box:



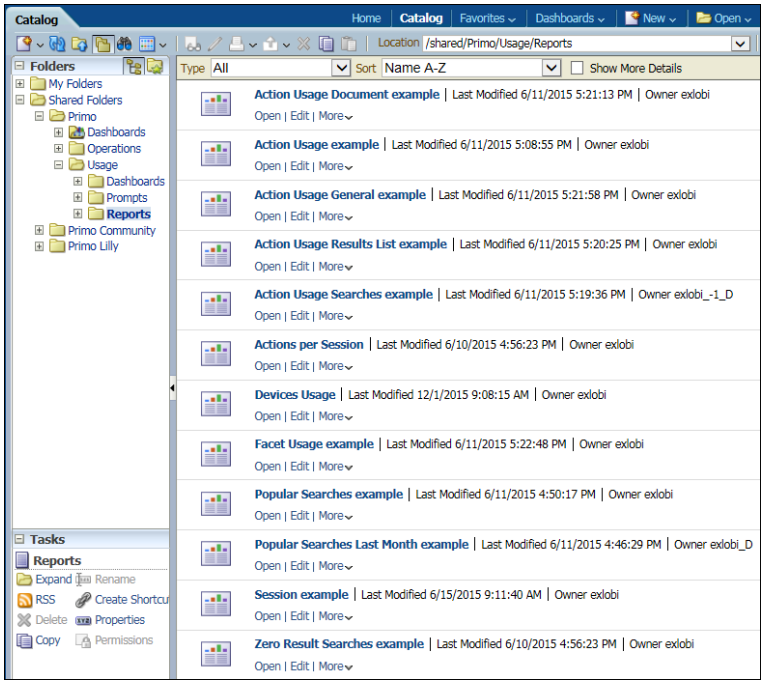
New Dashboard Dialog Box

2. Enter the following information:
   - **Name** – Enter a name for the dashboard.
   - **Description** – Enter a description for the dashboard.
   - **Location** – Enter the location where you want the dashboard to be saved.
   - **Content** – If you want to add content now, select **Add content now**, which is the default option. If you want to add content later and create an empty dashboard, select **Add content later (Create empty dashboard)**.
3. Click **OK**.



Selecting Reports for Dashboards

4. If you want to create a dashboard with reports from your local institution folder, drag and drop reports from your institution's folder in the Catalog pane to the drag-and-drop area in the right pane.
5. If you want to use an out-of-the-box report in a dashboard, you must first copy it to your local institution:
   1. Click **Catalog** to open the list of folders:



List of Folders in Catalog

2. Select **More > Copy** for the report that you want to copy to your local institution folder.

3. Navigate to your local institution folder and select **More > Paste** to paste the out-of-the-box report to your local folder.

   You can now configure the dashboard to be displayed.

Common Primo Analytics Procedures

This section describes some common procedures.

Adding Subtotals to a Report

This section describes how to add a subtotal to your report and the impact of the order of the columns on your subtotals.

To create an analytics report with a subtotal:

1. From the Global Header, select **New > Analysis** and then select **Subject Area > Actions**.
2. Create a report with the following columns:
   - Dates > Month (date)
   - Action Type > Action Group
   - Action Type > Action Sub Group
   - Action Type > Action
   - Action Usage > Actions
3. Click the Results tab to display the report. For example:

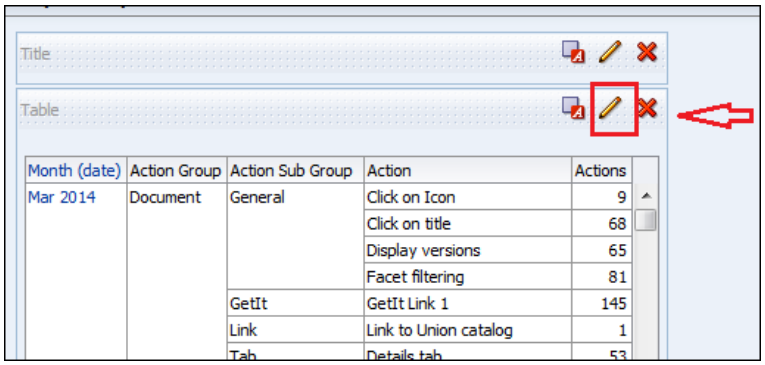
Month (date)	Action Group	Action Sub Group	Action	Actions
Mar 2014	Document	General	Click on Icon	9
			Click on title	68
			Display versions	65
			Facet filtering	81
		GetIt	GetIt Link 1	145
		Link	Link to Union catalog	1
		Tab	Details tab	53
			Reviews tab	5
			Virtual browse	1
	General		Citation linker	2
			Sign-in	26
			Sign-out	17
	Results Page	General	Next page	9
	Search	Search	AZ list	15
			Basic search	326
Apr 2014	Document	Actions	sendTo options	3
		General	Click on Icon	3
			Click on title	563
			Display versions	56
			Facet filtering	96
		GetIt	GetIt Link 1	279

Actions per Month Report - Example

4. Calculate a subtotal for each subgroup per month.

1. Click the Edit icon

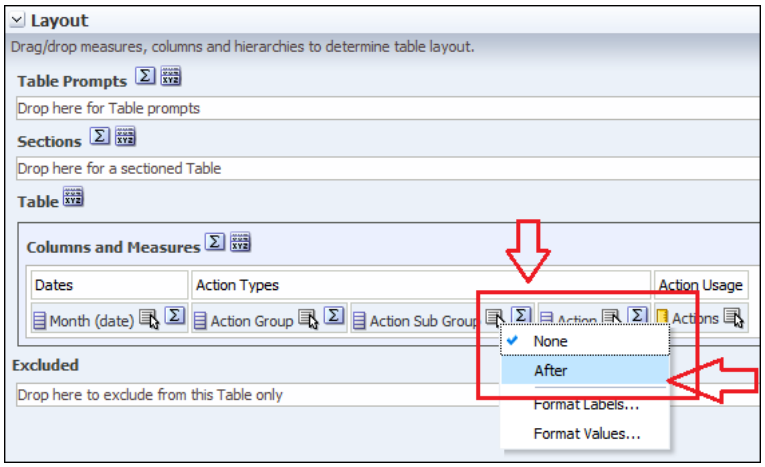
to display the Edit view.



Edit View

2. For the column that you want to calculate a subtotal, click the Sigma icon

and then click **After**. For this example, the Action Sub Group column is used.



After Option

The subtotals are now shown:

Month (date)	Action Group	Action Sub Group	Action	Actions
May 2015	Document	Actions	EndNote Web	2
			Print	8
			RIS Export	2
			Remove from eShelf	1
			eMail	11
		Actions Total		**24**
		General	Citations	2
			Click on Icon	57
			Click on title	3,777
			Display versions	146
			Facet filtering	108
		General Total		**4,090**
		GetIt	GetIt Link 1	594
			GetIt Link 2	233
		GetIt Total		**827**
		Link	Additional link	5
			Link to TOC	6
			Link to Union catalog	14
			Link to source	8
		Link Total		**33**
		Tab	Details tab	316

Subtotals

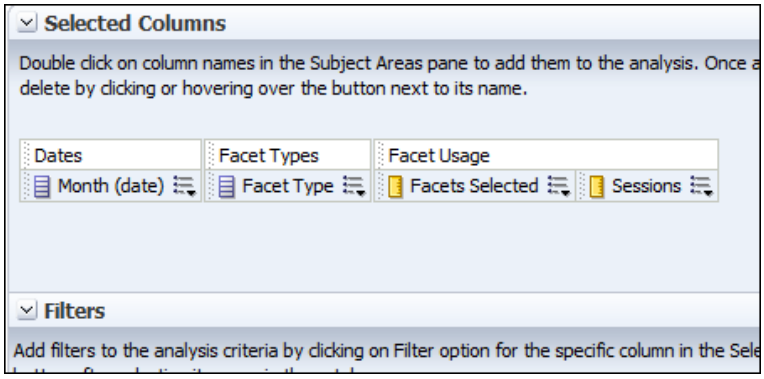
Creating a Report That Performs a Mathematical Formula on Two Columns

In the following example, one column displays the number of times a facet was selected and the second column displays the number of sessions in which the facet was selected. A third column is created that displays the number of times a facet was selected divided by the number of sessions. This gives an average of how many times the facet was selected within a single session.

To create this analytics report:

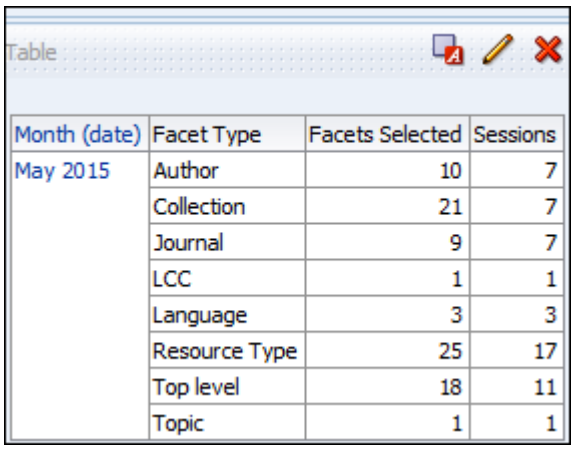
1. From Primo Analytics, select **New > Analysis** and then select **Subject Area > Facets**.
2. Create a report with the following columns:
   - Dates > Month Date
   - Facets Types > Facet Type
   - Facets Usage > Facets Selected
   - Facets Usage > Sessions

   The criteria for the report appears as follows:



Selected Columns

3. Click the Results tab. The following is an example of the results:

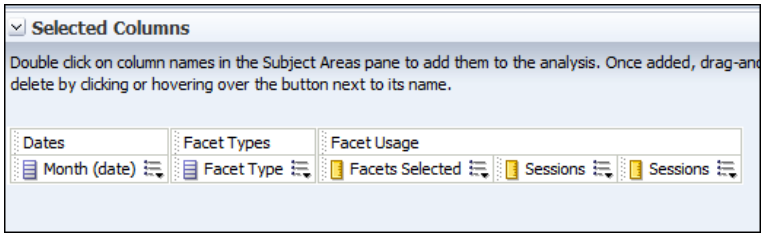


Table

Month (date)	Facet Type	Facets Selected	Sessions
May 2015	Author	10	7
	Collection	21	7
	Journal	9	7
	LCC	1	1
	Language	3	3
	Resource Type	25	17
	Top level	18	11
	Topic	1	1

Report

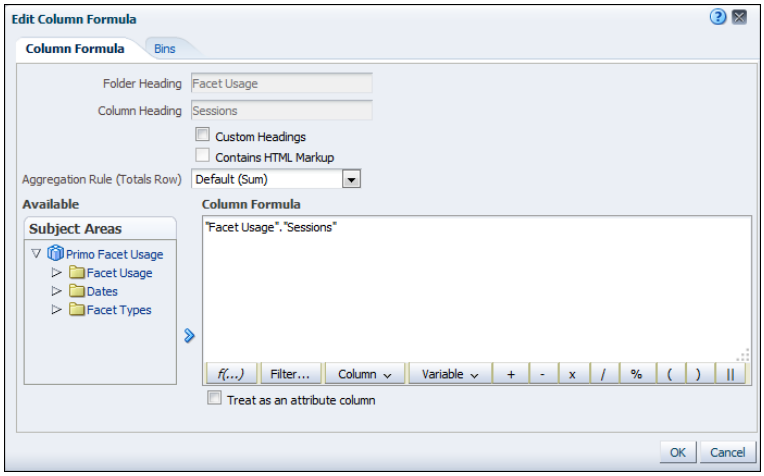
4. Click the Criteria tab and add a new column that is a measurement — for example, the Sessions column (it is okay that it is selected twice).



Selected Columns

5. Click the More Options icon

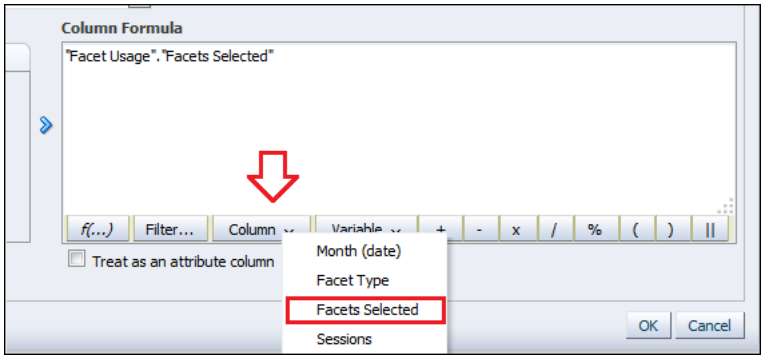
of the new column and select **Edit Formula**. The Column Formula dialog box is displayed:



Edit Column Formula

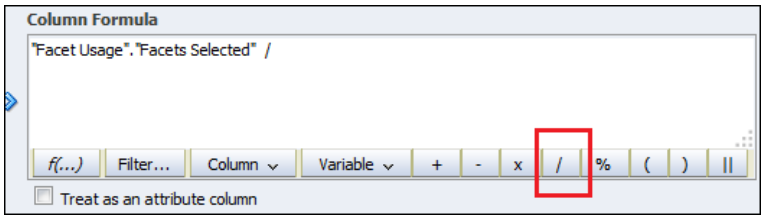
6. Delete the existing formula.

7. At the bottom of the Column Formula box, select the Columns tab and select **Facets Selected**.



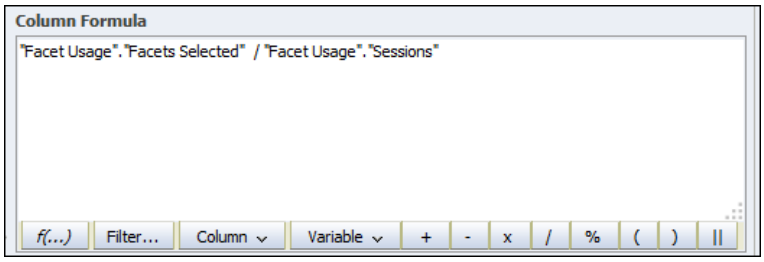
Facets Selected Option

8. Place the cursor at the end of the formula and then select the forward slash (/) button.



Add Division Symbol

9. Select the Columns tab and select **Sessions**. The formula should appear as follows:



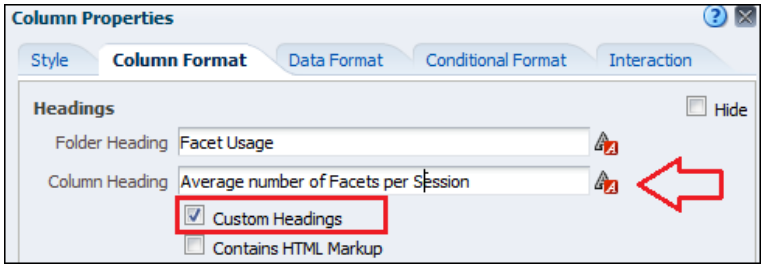
Updated Column Formula

10. Click the More Options icon

of the new column and select **Column Properties > Column Format**.

11. Select the **Custom Heading** check box.

12. Enter a new name for the column in the **Column Heading** field.



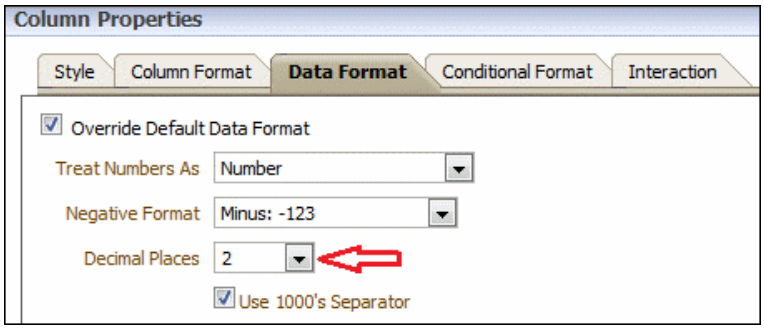
Custom Headings

13. Click the More Options icon

of the new column and select Column Properties.

14. Select the Data Format tab and check the **Override Default Data** option.

15. Select **2** from the Decimal Places drop-down list and click **OK**.



Adjusting Decimal Places

16. Click the Results tab to display the report:

Month (date)	Facet Type	Facets Selected	Sessions	Average number of Facets per Session
May 2015	Author	11	8	1.38
	Collection	21	7	3.00
	Journal	10	8	1.25
	LCC	1	1	1.00
	Language	3	3	1.00
	Resource Type	28	19	1.47
	Top level	19	12	1.58
	Topic	1	1	1.00

Analytics Report

Displaying Values Above Each Bar in a Bar Graph

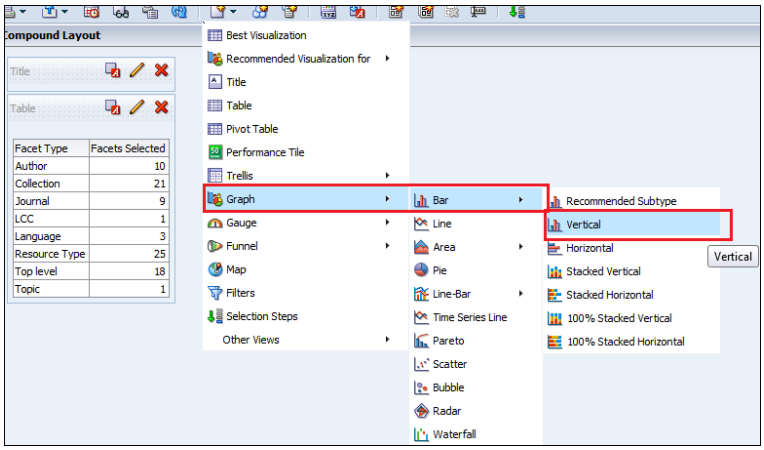
This section describes how to display values on the top of each bar of a Primo Analytics bar graph.

To display values on the top of each bar in a Primo Analytics bar graph:

1. In Alma Analytics, select New > Analysis and then select Subject Area > Facet Usage.
2. Create a report with the following columns, for example:
   - Facet Types > Facet Type
   - Facet Usage > Facets Selected
3. In the Results pane click the New View icon

   and then select **Graph > Bar > Default (Vertical)**.

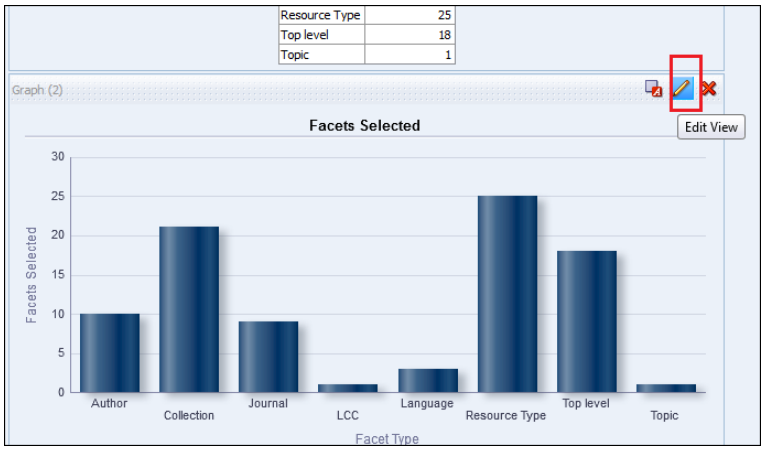


Default Bar Graph

4. Click the Edit icon

   to edit the graph:

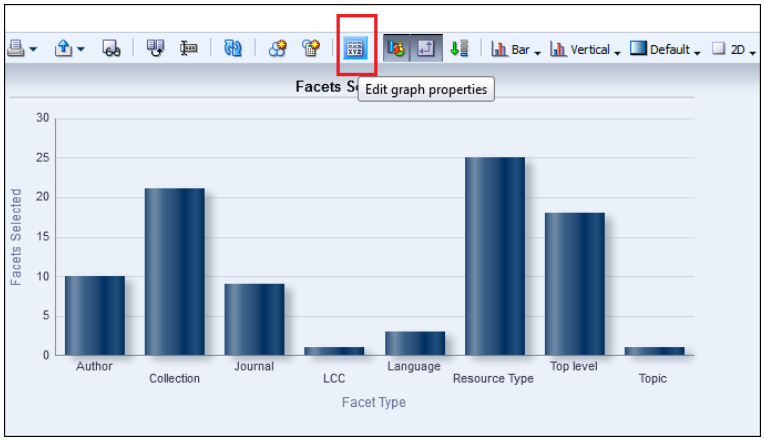


Pencil Icon

5. Click the Edit Graph Properties icon

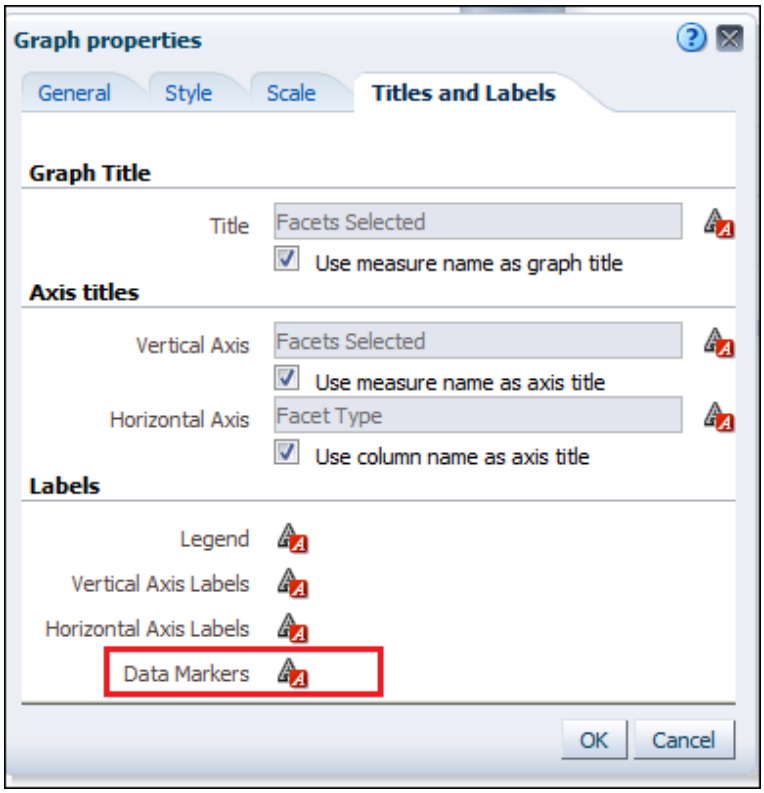
   

   :



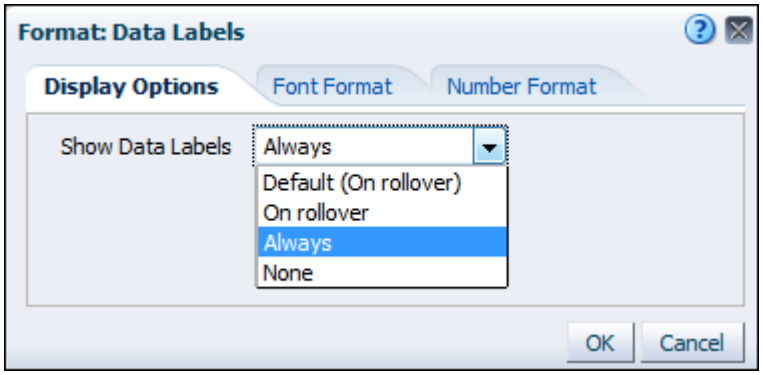
Edit Graph Properties Icon

6. On the Titles and Labels tab, click **Data Markers**:



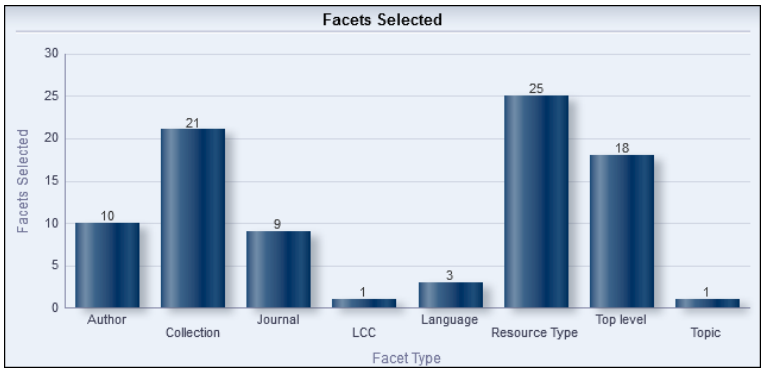
Titles and Labels

7. On the Display Options tab, select **Always**:



Display Options

The values are now displayed on the top of each bar of the bar graph:



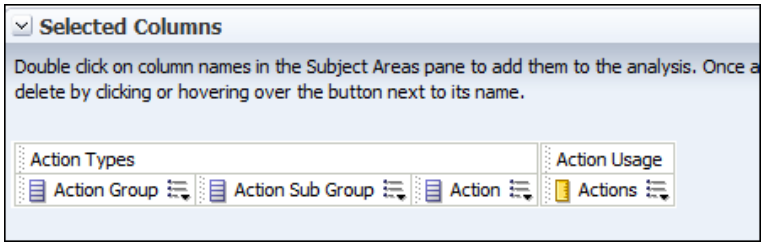
Values on Top of Each Bar

Merging Two or More Fields in a Report

You may want to put several fields together and have text between them (such as joining the Action Group, Sub Group, and Action in a single column separated by spaces). This section describes one way of merging fields.

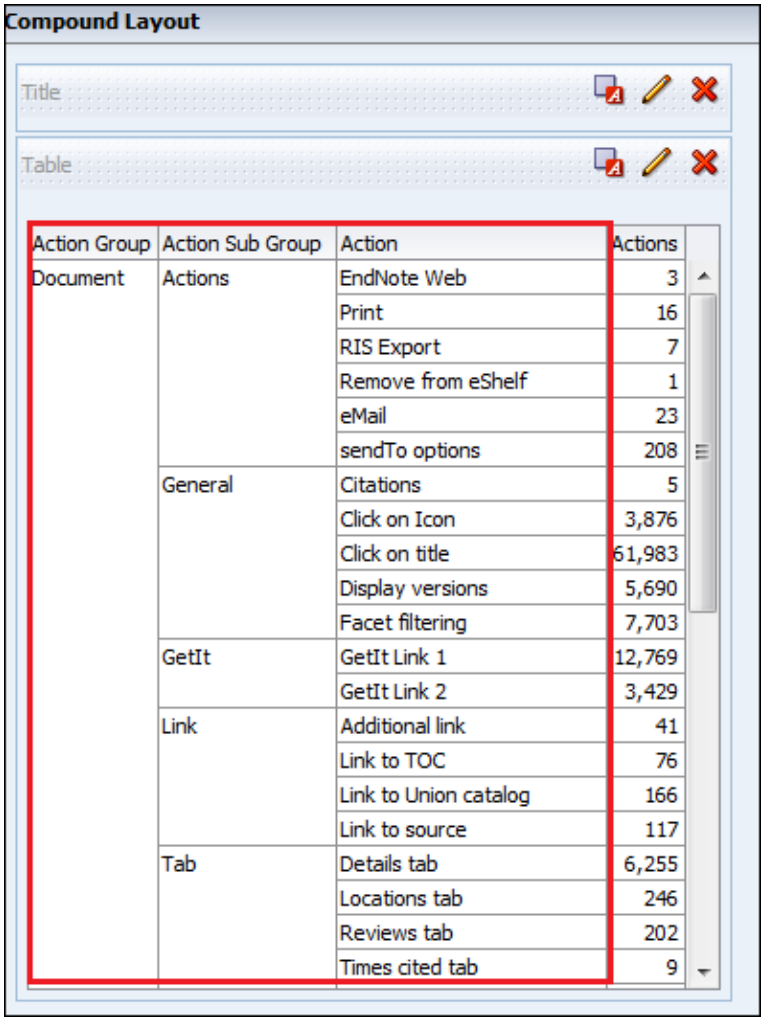
To merge two or more fields in a Primo Analytics report:

1. Select **New > Analysis**.
2. Select **Subject Area > Actions**.
3. Create a report with the following columns —for example:
   - Action Types > Action Group
   - Action Types > Action Sub Group
   - Action Types > Action
   - Action Usage > Actions



Selected Columns

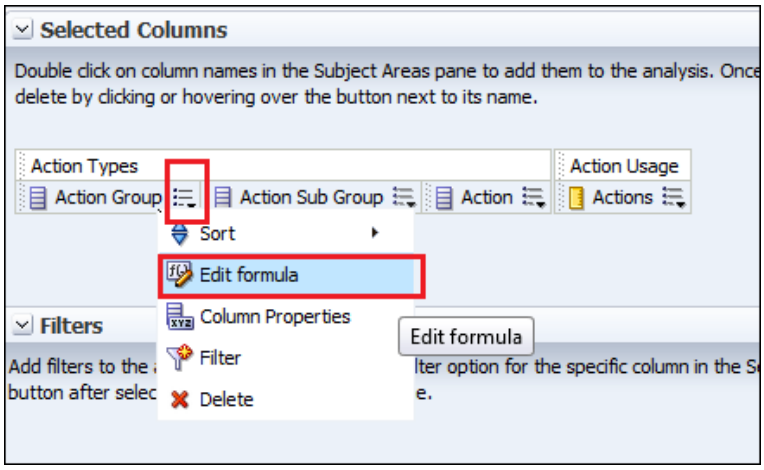
4. Click the Results tab and verify that the columns have been merged:



Compound Layout

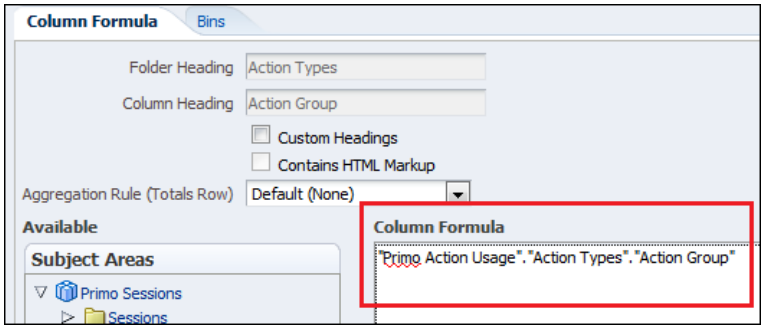
5. In the Criteria tab of each column that you want to merge, click the More Options icon

and then select **Edit Formula**:



Edit Formula

The formula of the column is displayed:



Column Formula

The formulas are as follows:

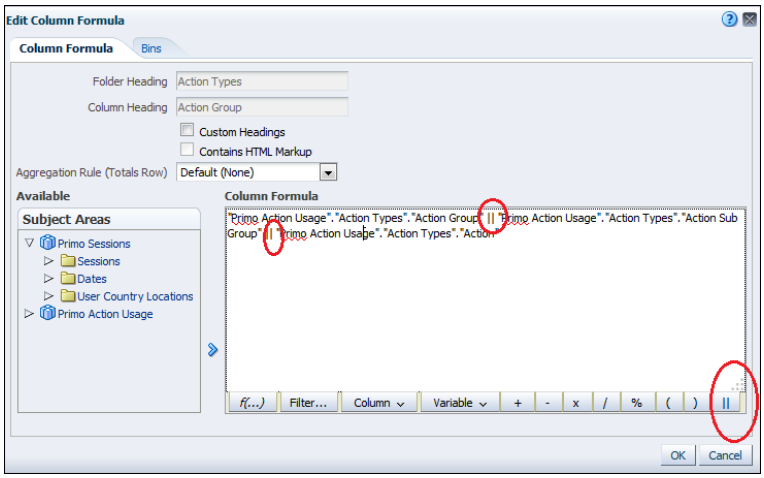
- Action Group – "Primo Action Usage"."Action Types"."Action Group"
- Action Sub Group – "Primo Action Usage"."Action Types"."Action Sub Group"
- Action – "Primo Action Usage"."Action Types"."Action"

6. Click the More Options icon

.

7. Select **Edit Formula** for the Action Group field.
8. After the existing formula, add a pipe and then formulas of the field (or fields) that you want to appear. For example:

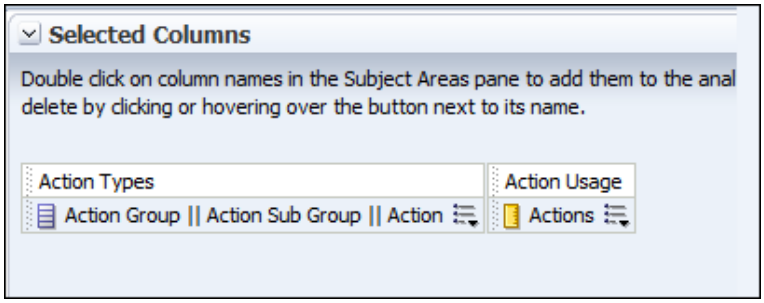
```
"Primo Action Usage"."Action Types"."Action Group" || "Primo Action Usage"."Action
Types"."Action Sub Group" || "Primo Action Usage"."Action Types"."Action"
```



Column Formula

9. Delete the non-desired fields (Action Sub Group and Action fields) by clicking the More Options icon

next to the field and then selecting **Delete**. The updated criteria appears as follows:



Selected Columns

10. Click the Results tab. The column now contains Action Group, Sub Group, and Action:

Action Group || Action Sub Group || Action	Actions
Document ActionsEndNote Web	3
Document ActionsPrint	16
Document ActionsRIS Export	7
Document ActionsRemove from eShelf	1
Document ActionseMail	23
Document ActionssendTo options	208
Document GeneralCitations	5
Document GeneralClick on Icon	3,876
Document GeneralClick on title	61,983
Document GeneralDisplay versions	5,690
Document GeneralFacet filtering	7,703
Document GetItGetIt Link 1	12,769
Document GetItGetIt Link 2	3,429
Document LinkAdditional link	41
Document LinkLink to TOC	76
Document LinkLink to Union catalog	166
Document LinkLink to source	117
Document TabDetails tab	6,255
Document TabLocations tab	246
Document TabReviews tab	202
Document TabTimes cited tab	9

Merged Fields - No Delimiters

11. To add delimiters between the merged fields, click the More Options icon

and then select **Edit Formula**.

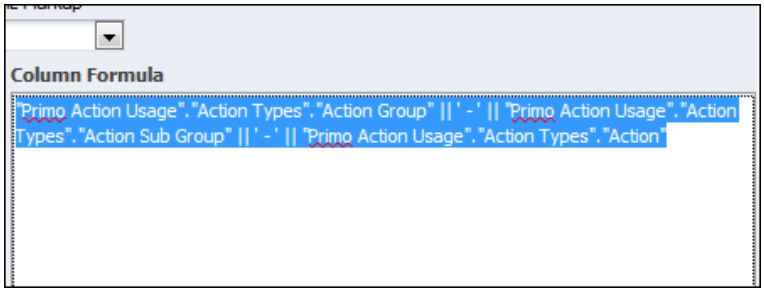
12. After each double pipe symbol (||), add the following text to include a dash between each field in the merged column results: **' - ' ||**.

Change the following formula:

```
"Primo Action Usage"."Action Types"."Action Group" || "Primo Action Usage"."Action
Types"."Action Sub Group" || "Primo Action Usage"."Action Types"."Action"
```

To the following formula:

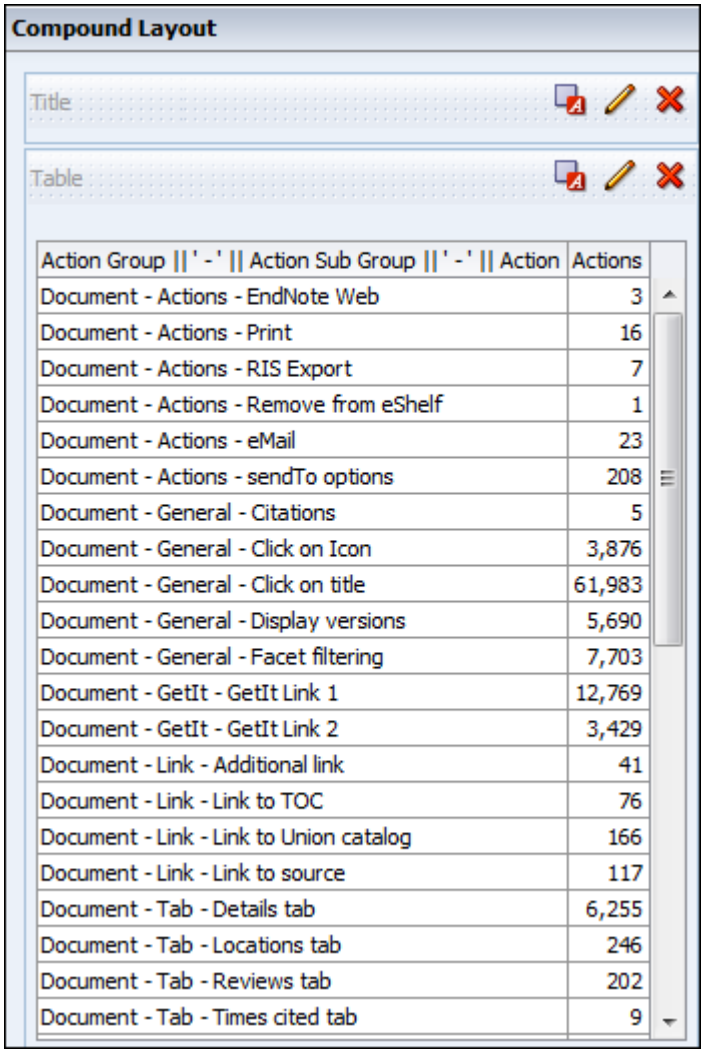
```
"Primo Action Usage"."Action Types"."Action Group" || ' - ' || "Primo Action
Usage"."Action Types"."Action Sub Group" || ' - ' || "Primo Action Usage"."Action
Types"."Action"
```



Edit Column Formula

13. Click the Results tab.

    The fields are separated with a space, dash, and space between each part:



Action Group || ' - ' || Action Sub Group || ' - ' || Action	Actions
Document - Actions - EndNote Web	3
Document - Actions - Print	16
Document - Actions - RIS Export	7
Document - Actions - Remove from eShelf	1
Document - Actions - eMail	23
Document - Actions - sendTo options	208
Document - General - Citations	5
Document - General - Click on Icon	3,876
Document - General - Click on title	61,983
Document - General - Display versions	5,690
Document - General - Facet filtering	7,703
Document - GetIt - GetIt Link 1	12,769
Document - GetIt - GetIt Link 2	3,429
Document - Link - Additional link	41
Document - Link - Link to TOC	76
Document - Link - Link to Union catalog	166
Document - Link - Link to source	117
Document - Tab - Details tab	6,255
Document - Tab - Locations tab	246
Document - Tab - Reviews tab	202
Document - Tab - Times cited tab	9

Compound Layout

14. Rename the merged field:

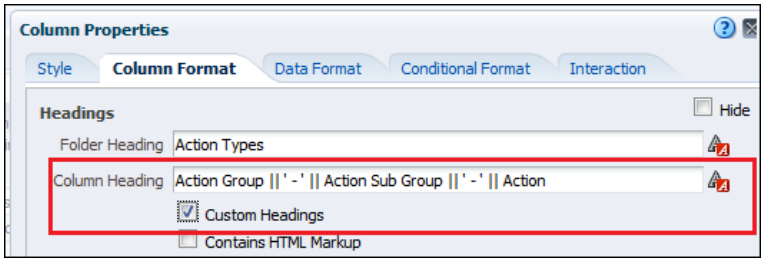
1. Click the More Options icon

   and select **Column Properties**:

2. Enter a new name in the **Column Heading** field.

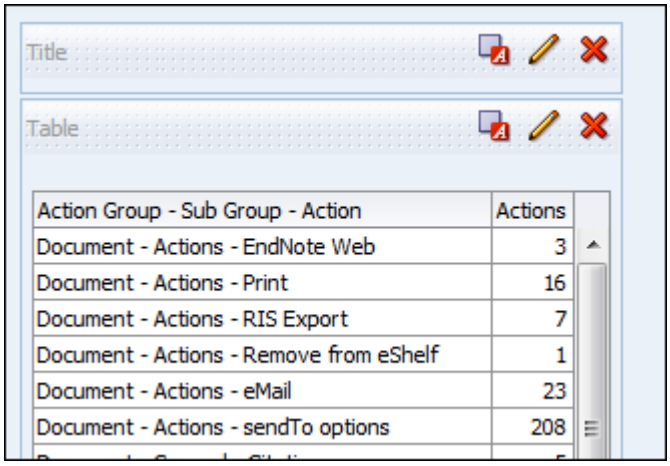
3. Select the **Custom Headings** check box.



Column Heading

4. Change the **Column Heading** field.

15. Click the Results tab to see the results:



Compound Layout

Using the CASE Condition to Change Text in a Report

You can use the CASE condition to have an alternate text displayed as a value in an analytics report. In this example, the CASE condition is used to make the following changes:

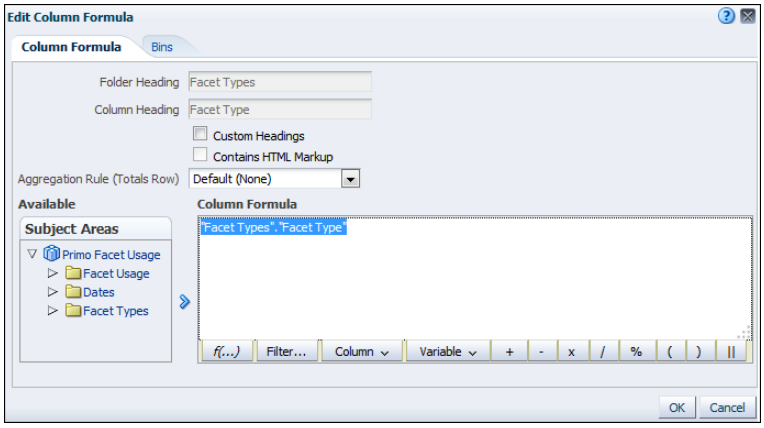
- The value for the LCC Facet type is changed to **Library of Congress**.
- The value for the Journal Facet type is changed to **Journal title**.

To use the CASE condition:

1. Create a report with the following columns from the Facet Usage subject area:
   - Facet Types > Facet Type
   - Facet Usage > Facets Selected

2. In the Criteria column, click the More Options icon

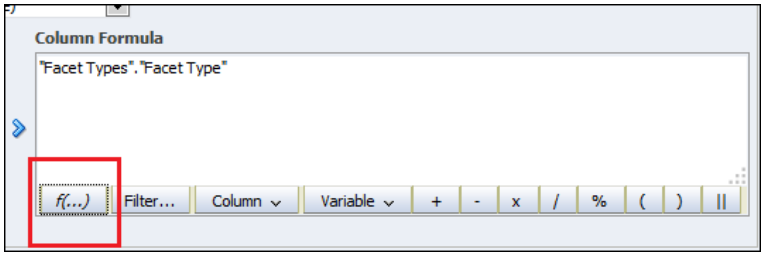
of the Facet Type column and select **Edit Formula**. The Column Formula dialog box opens:



Edit Column Formula - Action Group

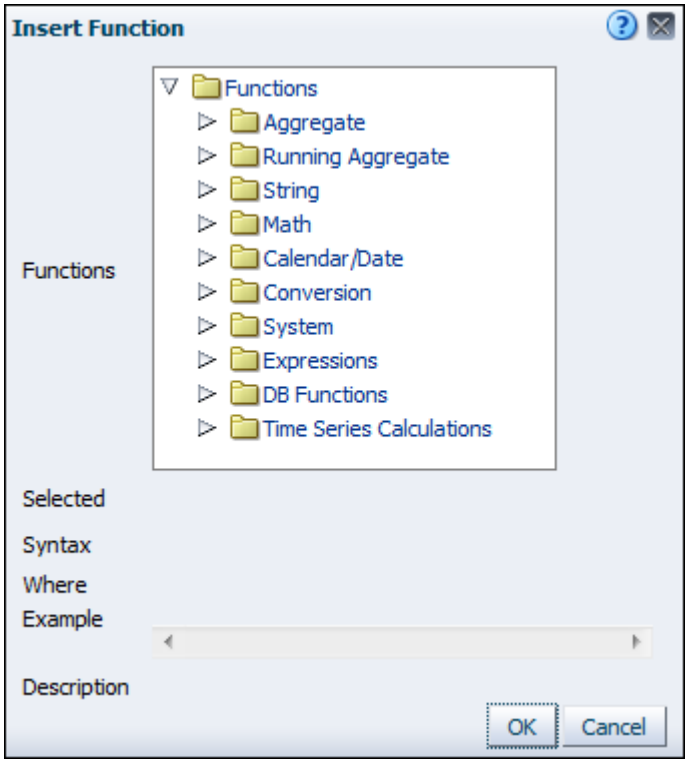
3. Delete the existing formula.

4. Click the Function button in the Column Formula area:



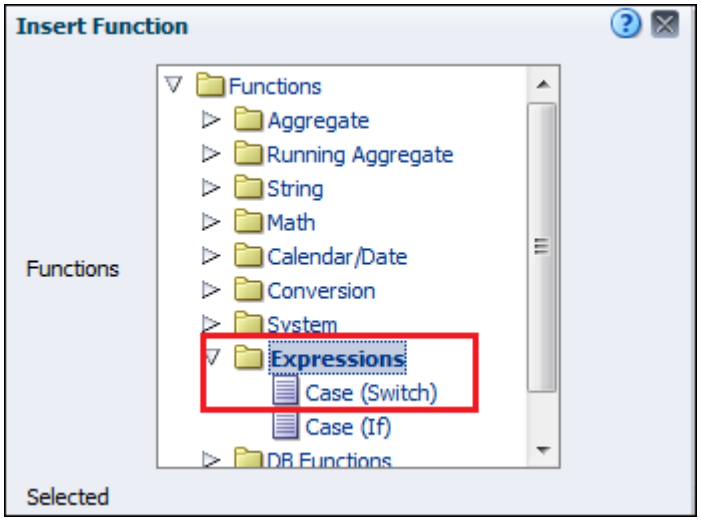
Function Button

5. The Insert Function dialog box opens:



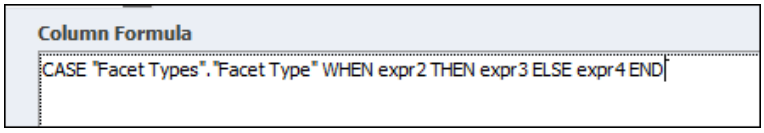
Insert Function Dialog Box

6. Select the **Expressions** folder and then **Case (Switch)**:



Select Expressions Folder

The formula now displays as follows:

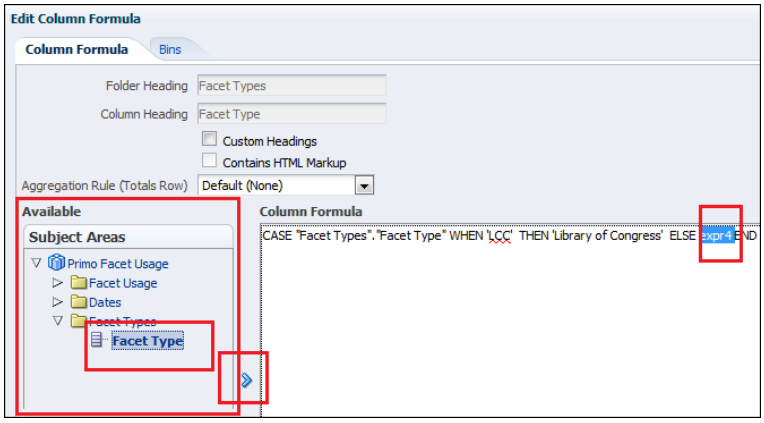


Column Formula

The placeholder expressions (expr2, expr3, and expr4) need to be changed as follows:

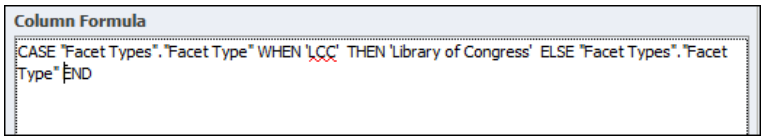
- expr2 – Replace **expr2** with **LCC**. The value must be enclosed in single quotes.

- expr3 – Replace **expr3** with **Library of Congress**. The value must be enclosed in single quotes.
- expr4 – Should be the **Facets Types."Facet Type"** field. This can be done by selecting **Facet Types/Facet Type** in the Subject Areas pane, highlighting **expr4** in the formula, and then clicking the right arrow.



Edit Column Formula

The formula should now appear as follows:

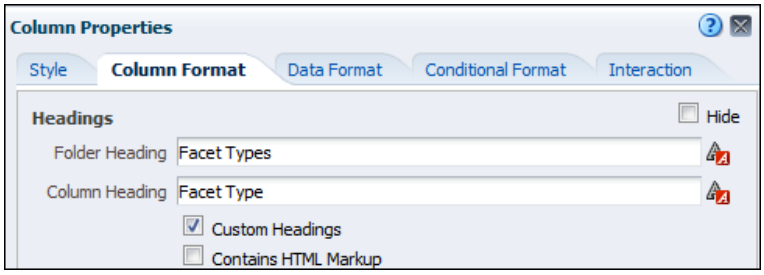


Updated Column Formula

7. Click the More Options icon

of the new column and select **Column Properties > Column Format**.

8. Select the **Custom Heading** option.
9. Enter a new name for the column in the **Column Heading** field.



Column Properties

10. Click the Results tab to display the report. **LCC** now displays as **Library of Congress**.

Facet Type	Facets Selected
Author	11
Collection	21
Journal	10
Language	3
Library of Congress	1
Resource Type	28
Top level	19
Topic	1

LCC Displays in Results

11. It is possible to add multiple conditions as shown in the following steps:

Column Formula

```
CASE "Facet Types"."Facet Type" WHEN 'LCC' THEN 'Library of Congress' WHEN 'Journal' THEN
'Journal title' ELSE "Facet Types"."Facet Type" END
```

Adding Multiple Conditions

The report should now appear as follows:

Facet Type	Facets Sel
Author	11
Collection	21
Journal title	10
Language	3
Library of Congress	1
Resource Type	28
Top level	19
Topic	1

Updated Results

Conditionally Changing the Text Format in a Report

You can change the text in an analytics report to be different colors in order to identify different values at a glance. The following report is used as an example that highlights actions that occurred more than 10,000 times.

Title

Table

Action (	Action Sub Group	Action	Actions
Document	Actions	EndNote Web	3
		Print	16
		RIS Export	7
		Remove from eShelf	1
		eMail	23
		sendTo options	208
	General	Citations	5
		Click on Icon	3,876
		Click on title	61,983
		Display versions	5,690
		Facet filtering	7,703
	GetIt	GetIt Link 1	12,769
		GetIt Link 2	3,429
	Link	Additional link	41
		Link to TOC	76
		Link to Union catalog	166
		Link to source	117
	Tab	Details tab	6,255
		Locations tab	246
		Reviews tab	202
		Times cited tab	9

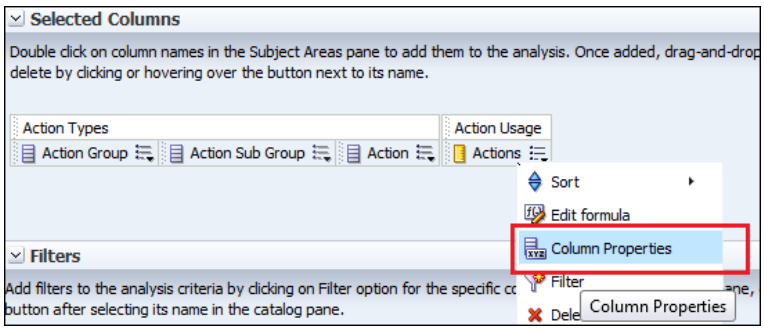
Example Reports with Multiple Actions

To conditionally change the format of a value in a Primo Analytics report:

1. In the **Actions** field, click the More Options icon

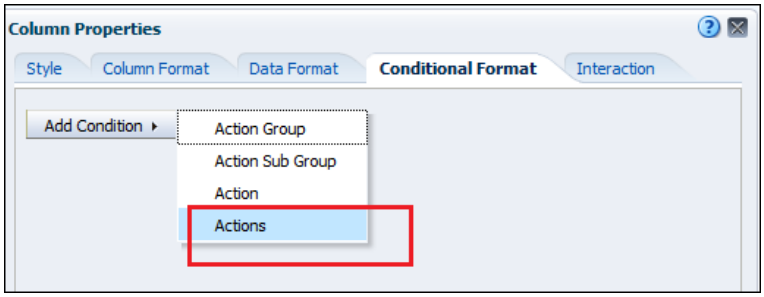
   

   and select **Column Properties**:

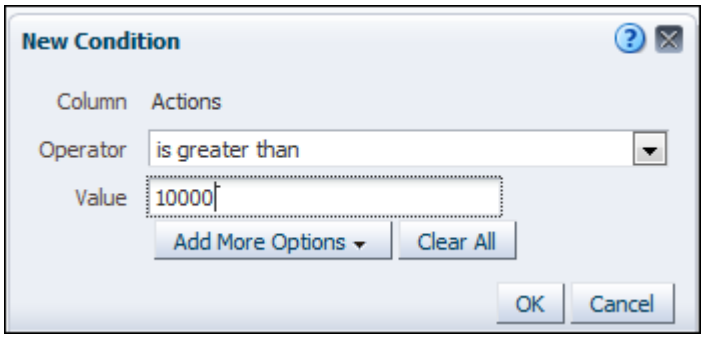
   Column Properties

2. On the Conditional Format tab, select Add Condition > Actions.



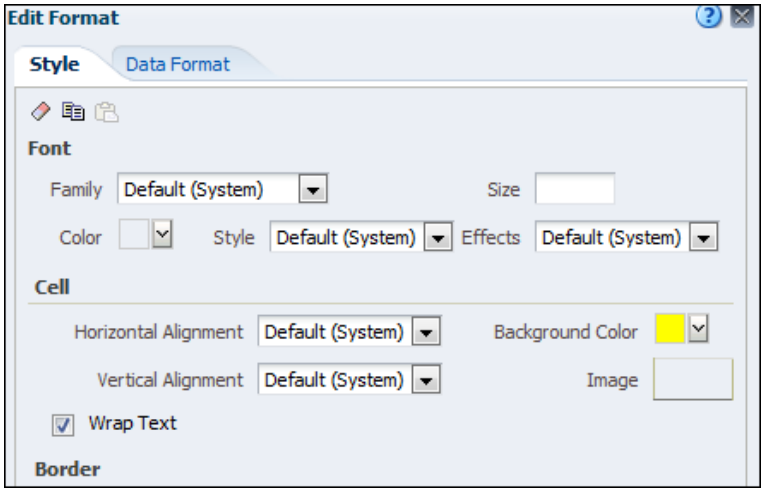
Conditional Format

3. For example, configure the following fields and then click **OK** to add the new condition:
   - Operator – Select **is greater than**.
   - Value – Select **10000**.
4. Select **is greater than** from the **Operator** field and then select **10000** from the **Value** field.



Add New Condition

5. Select the style for the value – for example, change the background color to yellow.



Change Value's Background to Yellow

Actions that are greater than 10,000 now have a yellow background in results.

Action Group	Action Sub Group	Action	Actions
Document	Actions	EndNote Web	3
		Print	16
		RIS Export	7
		Remove from eShelf	1
		eMail	23
		sendTo options	208
	General	Citations	5
		Click on Icon	3,876
		Click on title	61,983
		Display versions	5,690
		Facet filtering	7,703
	GetIt	GetIt Link 1	12,769
		GetIt Link 2	3,429
	Link	Additional link	41
		Link to TOC	76
		Link to Union catalog	166
		Link to source	117
	Tab	Details tab	6,255
		Locations tab	246
		Reviews tab	202
		Times cited tab	9

Highlighted Values in Results

Action Group	Action Sub Group	Action	Actions
Document	Actions	EndNote Web	3
		Print	16
		RIS Export	7
		Remove from eShelf	1
		eMail	23
		sendTo options	208
	General	Citations	5
		Click on Icon	3,876
		Click on title	61,983
		Display versions	5,690
		Facet filtering	7,703
	GetIt	GetIt Link 1	12,769
		GetIt Link 2	3,429
	Link	Additional link	41
		Link to TOC	76
		Link to Union catalog	166
		Link to source	117
	Tab	Details tab	6,255
		Locations tab	246
		Reviews tab	202
		Times cited tab	9

Creating a Prompt in a Report

You can create a Primo Analytics report with prompts that ask you to select the variables with which to create a report. The report in this example is for a report on the number of Search group actions within a date range. You are prompted to enter a date range, which is used to create the report.

Note

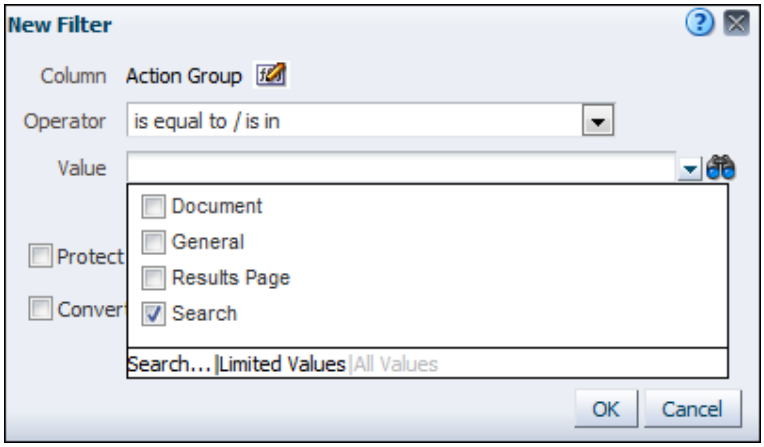
Although there are three kinds of prompts available in Primo Analytics reports (column prompt, variable prompt, and image prompt), this example only demonstrates the column prompt.

To create the analytics report:

1. Select New > Analysis.
2. Select Subject Area > Actions.
3. Select from the following columns — for example, the **Action Group** column:
   - Action Types > Action Group
   - Action Types > Action Sub Group
   - Action Types > Action
   - Action Usage > Actions
4. Click the More Options icon

   and select **Filter**.
5. In the New Filter dialog box, specify the following fields.
   - **Operator** – Select **is equal to / is in**.
   - **Value** – Select **Search**.



Add New Filter

Note

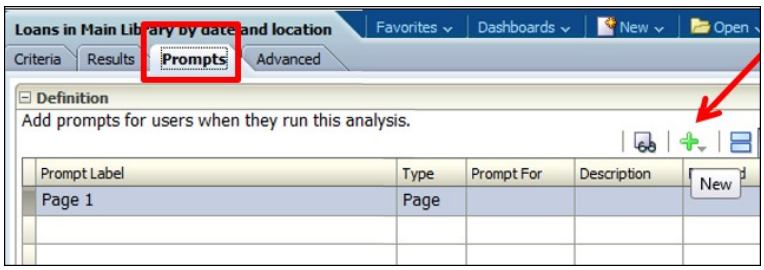
Do not set filters for the columns that you want to have a prompt.

6. Click the Results tab. For example, the following is displayed:

Action Group	Action Sub Group	Action	Actions
Search	Browse	Browse authors	35
		Browse generic call numbers	4
		Browse page	148
		Browse related records	52
		Browse subjects	26
		Browse titles	53
	Search	AZ list	9,685
		Advanced search	3,238
		Basic search	74,324

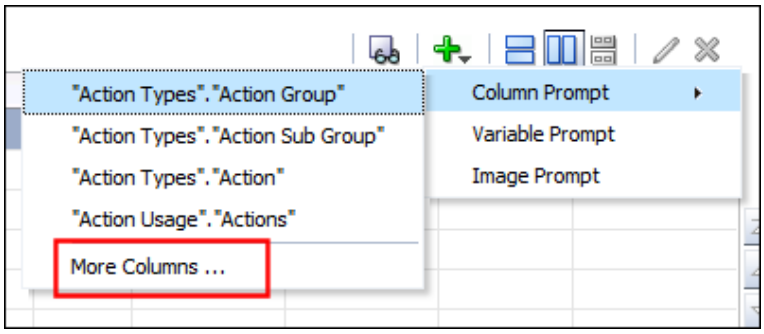
Report Results

7. On the Prompts tab, click the plus sign to add a new prompt.



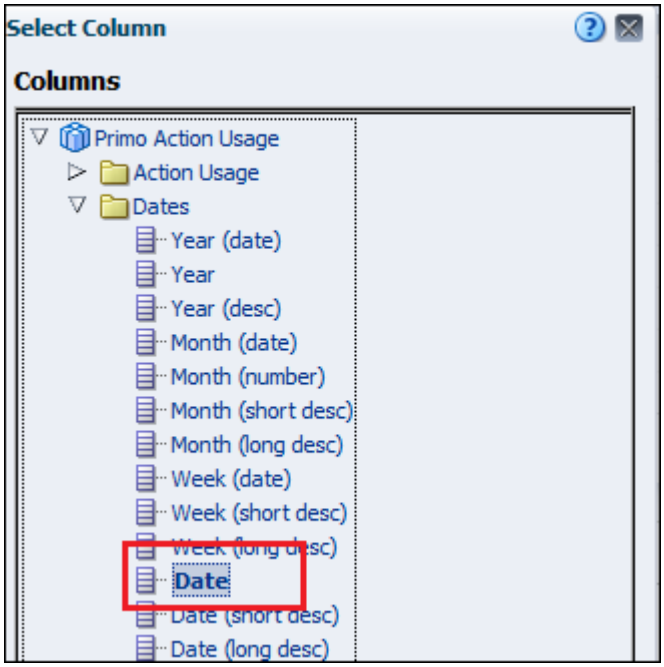
Prompts Tab

8. Select **More Columns**.



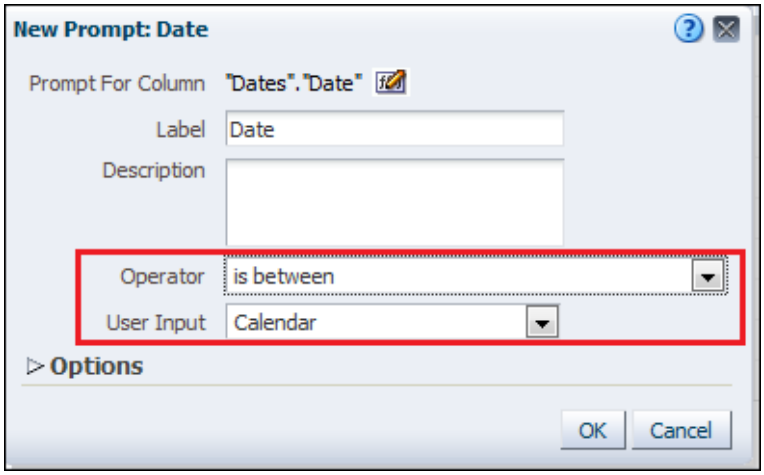
More Columns Option

9. Select the **Dates > Date** field.



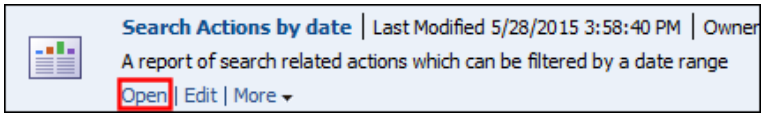
Select the Date Option

10. In the New Prompt dialog box, specify the following fields for the date and click **OK**.
    - **Operator** – Select **is between**.
    - **User Input** – Select **Calendar**.



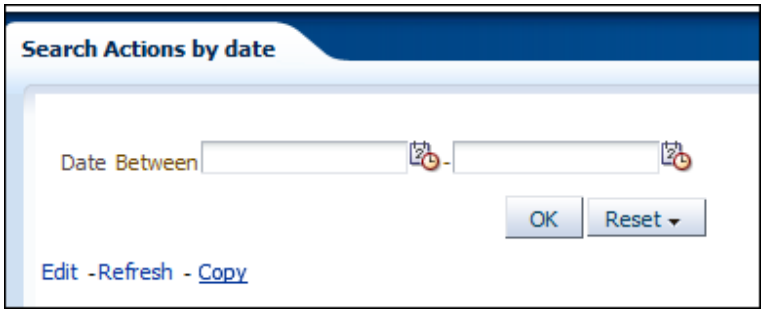
New Prompt Dialog Box

11. Navigate to the report from the Catalog/Dashboard in which it was saved.
12. Click the **Open** action (not Edit) to run the report.



Run Report - Open Action

The prompts are displayed:

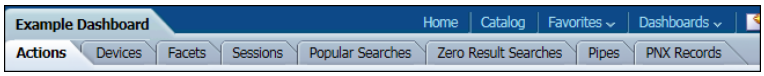


Date Prompt

13. Specify the date range and click **OK**.

Out-Of-The-Box Dashboards

The Example dashboard includes a tab for every Subject Area:



Example Dashboard Tabs

Each of the tabs is described in the following table:

List of Subject Areas

Subject Area	Description
Actions	A monthly report of the actions taken in Primo by end-users. Using the prompt at the top of the report it is possible to display a report by the number of actions per month, number of sessions in which actions were invoked or number of times the action was invoked when the user was signed in. There are separate reports for each Action sub group: Search, Results List, Document, and General.
Devices	A monthly report of the number of times specific devices were used.
Facets	A monthly report of the number of times specific facets were used. Using the prompt at the top, it is possible to display the number of sessions in which specific facets were used.
Sessions	A monthly report of the number of sessions divided by the location (country) of the end-user. Using the prompt at the top, it is possible to display a report for the average duration of sessions, total number of actions taken and number of times users signed-in within a session.
Popular Searches	The tab displays two reports – a monthly report of the most popular searches and a report of the most popular searches for the entire year.
Zero Results Searches	A report of searches that found no results. **Note** Data for this report is available only from the Primo July 2015 release.
Pipes	A report of the pipes that ran for your institution.

Subject Area	Description
	Note Not applicable to Primo VE environments.
PNX Records	A monthly report of the number of PNX records per data source. **Note** Not applicable to Primo VE environments.

The Trends dashboard includes the Actions and Popular Searches reports as described above.

Subject Areas

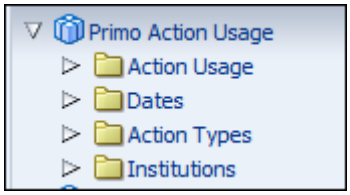
This section describes each of the subject areas provided with the out-of-the-box dashboard.

Primo Action Usage

Using the Primo Action Usage subject area, you can create reports that help to answer the following types of business questions:

- How many times did users invoke a certain action in Primo (such as basic versus advanced searches)?
- How often were users signed-in when they invoked a certain action?
- On average how many times are specific actions invoked in a single session?

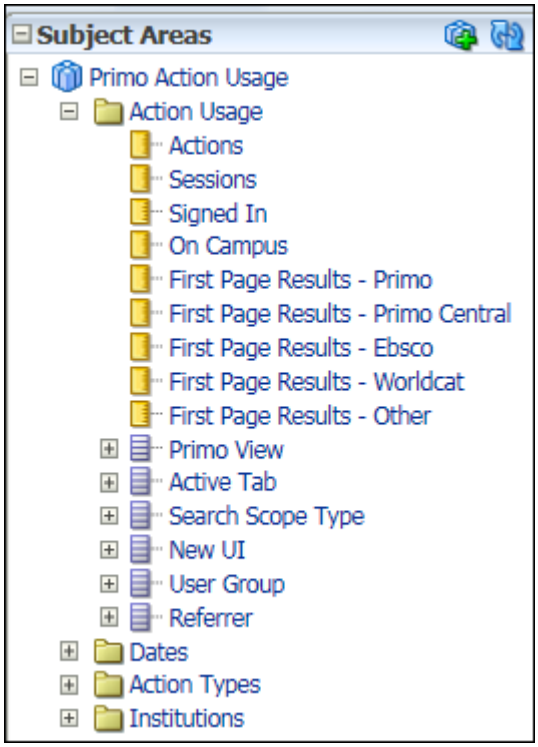
The Primo Action Usage subject area contains many fields used to create reports associated with usage. Refer to the following sections for more information on each field.



Primo Action Usage Fields

Action Usage

The Action Usage table is the fact table that stores information about the actions taken by end users in Primo.



Action Usage

The following table lists the fields provided by the Action Usage fact table:

Action Usage Fact Table

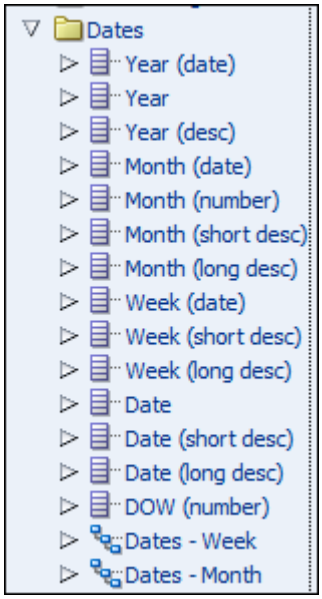
Field	Description
Actions	A measurement field that tracks the number of times an action was taken.
Sessions	A measurement field that tracks the number of sessions in which an action was taken. Sessions are counted only one per action. For example if the user ran two searches in the same session – the session will be counted only once. Note that if you total the number of sessions in the Actions table it will be greater than the number of sessions for the same period in the Sessions table – since the same session will be counted more than once.
Signed-in	A measurement field that tracks the number of times an action was taken from a user who was signed-in.
On Campus	A measurement field that tracks the number of times an action was taken from a user who was on campus. This field is available with the November 2015 release.
First Page Results - Primo	A measurement field that tracks the average percentage of local Primo records that display on the first page of search results. This field is available with the November 2015 release.

Field	Description
First Page Results - Primo Central	A measurement field that tracks the average percentage of Primo Central records that display on the first page of search results. This field is available with the November 2015 release.
First Page Results - EBSCO	A measurement field that tracks the average percentage of EBSCO records that display on the first page of search results (using the EBSCO deep search adaptor). This field is available with the November 2015 release.
First Page Results - WorldCat	A measurement field that tracks the average percentage of WorldCat records that display on the first page of search results (using the WorldCat deep search adaptor). This field is available with the November 2015 release.
First Page Results - Other	A measurement field that tracks the average percentage of records from other sources (such as locally-defined deep search adaptors or MetaLib) that display on the first page of search results. This field is available with the November 2015 release.
Primo View	An attribute field that stores the view in which the action was performed. **Note** This attribute is available with the July 2015 release. Actions that predate this release will not have this attribute.
Active Tab	An attribute field that stores the tab in which the action was performed. **Note** This attribute is available with the November 2015 release. Actions that predate this release will not have this attribute.
Search Scope Type	A search attribute field that indicates which type of search scope was used in the search. A search scope type is provided for search and results list actions. For all other actions, the search scope type will have a null value. The Search scope type has the following values: • Local – A search performed on the local repository. For example, it will not include articles from the Primo Central index. Some libraries may have a separate tab in Primo that is dedicated to searching the local repository. For example, they may call it **University collections**. • Blended – Any search that includes records from both the local repository and the deep search adaptors (such as Primo Central). For example, some libraries may have one tab in Primo that is used to search all sources. • Remote – Any search that includes MetaLib. The search will include MetaLib and may include any of the following repositories: local and deep search adaptors (such as Primo Central).

Field	Description
	• PC/Deep Search – A search that includes only deep search adaptors (such as Primo Central and EBSCO). For example, some libraries may have a separate tab in Primo called **Articles** that does not include the local and remote repositories. **Note** The Search Scope Type has been added in the July 2015 release. Actions that predate the installation of this release will not have this attribute.
New UI	A search attribute field that indicates whether the new UI was used in the search. The valid values are **Yes** or **No**.
User Group	A search attribute field that indicates the user group of the user. The User Groups for Primo Analytics mapping table defines the user groups that display in the reports. A user's group is determined as follows: • If a user has signed in and belongs to a user group, the system will try to map the user group to one of eight user groups defined in the User Groups for Primo Analytics mapping table. If a match is not found, the **Not Guest** user group is used. • If a user has signed in and does not belong to a user group, the **Not Guest** user group is used. • If the user has not signed in, the **Guest** user group is used. For more details, see User Groups for Primo Analytics. **Note** This attribute has been added in the May 2016 release. Actions that predate the installation of this release will not have this attribute.
Referrer	A search attribute field that contains the referrer information (such as Google Scholar, Yahoo, and Primo), which indicates how users are accessing information from the Primo Front End. **Note** This attribute has been added in the May 2016 release. Actions that predate the installation of this release will not have this attribute.

Dates

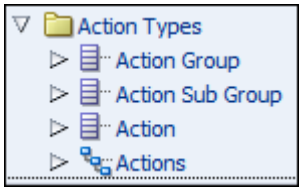
The Dates table is a dimension table that contains different date ranges and formats. The date dimension is used to limit reports to specific date ranges (such as year, month, week, and day).



Dates Dimension Table

Action Types

The Action Types table is a dimension table with several attributes.



Action Types Dimensions Table

The following table lists the attributes contained the Action Types dimension table.

Action Types

Field	Description
Action Group	An attribute field that divides actions into groups. See Action Groups and Subgroups for list of Actions groups.
Action Sub Group	An attribute field that divides actions into subgroups. See Action Groups and Subgroups for list of Action subgroups.
Action	An attribute field for the type of action. See Action Attributes by Group for a list of actions.
Actions	A hierarchical attribute field in which actions are organized into groups and subgroups.

The following table lists the hierarchical attributes of each action group:

Action Attributes by Group and Subgroup

Subgroup	Action	Description
Document group: The Document group includes all actions taken on a specific PNX record.		
Actions	Permalink, Remove from eShelf, RefWorks, Delicious, eMail, Print, EndNote Web, RIS Export, Citation, EasyBib, sendTo options	Users invoked one of the actions from the Actions menu.
External Link	Permalink	Users accessed a record full display using a Permalink
	Deep Link	Users accessed a record full display using a Deep link (for example, from an email).
Get It	GetIt Link 1, GetIt Link 2	Users invoked either the Get It 1 or Get It2 tab.
General	Click on title	Users clicked a title in the brief results.
	Click on icon	Users clicked a thumbnail/icon in the brief results.
	Display Versions	Users invoked a link to display all versions for either a Primo Central or local record.
	Display FRBR Versions	From the July 2015 release, the system distinguishes between clicking a links to FRBR groups and PC groups.
	Display Primo Central Versions	From the July 2015 release, the system distinguishes between clicking links to FRBR groups and PC groups.
	Display full record	Users invoked the option to open a record in the full page.
Lateral Linking	Lateral Linking - *<field>*	Users invoke a lateral link from the Details tab (Author, Subject or local field). For example: **Lateral Linking - Local Field 30**

Subgroup	Action	Description
Link	Link to review, Link to request, Link to Finding aid, Native interface, Additional link, Link to times cited, Link to TOC, Link to abstract, Union catalog, openURL, Local link NN, Link to price, Link to source, openURL FT	Users invoked one of the links in the Details tab. Local links are indicated by Local link and the link number.
Navigation menu	Services Menu	
PNXs	PNXs	
Tab	Reviews tab, Virtual browse tab, Details tab, Recommendations tab, Times cited tab, Locations tab	Users invoked a record tab. Note that the delivery tabs (View Online/View It and Request/Get It) are included in a separate group.
Tags & Reviews	Add review, Add tag	Users added a review or a tag.
Users	Users	
eShelf	Save to eShelf	Users added a record to the e-Shelf.
	Save to eShelf (Web Service)	Users added a record to the e-Shelf using a Web service.
	Save to eShelf (X-Service)	Users added a record to the e-Shelf using an X service.
Exploration group: The Exploration group includes all actions related to clicking citation trails, resource recommendations, and bX recommendations.		
Citation Trail	Display Citations from citation trail Display Citations from results list Display Cited By from citation trail Display Cited By from results list	User clicked citation.
Resource Recommender	Click on recommended resource	User clicked recommendation.

Subgroup	Action	Description
bX	Click on bX recommendation	User clicked bX recommendation.
General group: The General group includes miscellaneous actions.		
General	Change language	Users changed their language.
	Citation linker	Users invoked the Citation Linker option.
	Find database	Users invoked the Find Database option (MetaLib).
	Go to eShelf	Users accessed the e-Shelf. Data for this action is available starting with the November 2015 release.
	Sign-in	Users signed in.
	Sign-out	Users signed out.
	Help	Users clicked the Help link. Data for this action is available starting with the November 2015 release.
My Account	Go to My Account	Users accessed My Account. Data for this action is available starting with the November 2015 release.
	Go to My Account (Deep Link)	Users accessed My Account using a deep link. Data for this action is available starting with the November 2015 release.
	Loans	Users accessed the Loans list in My Account. Data for this action is available starting with the November 2015 release. **Note** Because the Loans list opens by default when accessing My Account, this action is tracked only when users access the Loans list directly.

Subgroup	Action	Description
	Requests	Users accessed the Requests list in My Account. Data for this action is available starting with the November 2015 release.
	Fines and Fees	Users accessed the Fines and Fees list in My Account. Data for this action is available starting with the November 2015 release.
	Blocks and Messages	Users accessed the Blocks and Messages page in My Account. Data for this action is available starting with the November 2015 release.
	Personal Settings	Users accessed the Personal Settings page in My Account. Data for this action is available starting with the November 2015 release.
	Library Card	For OPAC via Link environments, users accessed the Library Card in My Account. Data for this action is available starting with the November 2015 release. **Note** Because the Library Card opens by default when accessing My Account, this action is tracked only when users access the Library Card directly.
Results List group: The Results List group includes all actions taken on the results list.		
Featured Results	Display more results and Display record	Users invoked option on the results list.
General	Display more institutions	Users invoked the **Display more institutions** option from the Alma Get It tab.
	Facet filtering	Users invoked a facet. For more information on facets, see Primo Facet Usage.
	Facet set as persistent - Exclude	Users set an exclude persistent facet.

Subgroup	Action	Description
	Facet set as persistent - Include	Users set an include persistent facet.
	Remove Facet filtering	Users removed facet filtering – every facet removed is counted. This action starts tracking from the July 15 release. Previously, it was tracked as selection of a facet.
	Next page	Users displayed new page in the results list (including using the “Next” option or page number)
	Previous page	Users displayed a previous page by clicking on the **Previous** option.
	bX hot articles	Users displayed bX Hot Articles.
	RSS subscription	Users requested an RSS subscription
	Expand PC Results (Checked)	Users invoked the **Expand beyond library collections** option. Data for this action is available starting with the November 2015 release.
	Expand PC Results (Unchecked)	Users disabled the **Expand beyond library collections** option.
	Go to Journal A-Z List	Users invoked the Journal A-z List (SFX). Data for this action is available starting with the November 2015 release. **Note** The use of the Alma A-Z List is recorded as a search action.
	Go to eShelf	Users accessed the e-Shelf. Data for this action is available starting with the November 2015 release.
	Go to eShelf (Deep Link)	Users accessed the e-Shelf using a deep link. Data for this action is available starting with the November 2015 release.

Subgroup	Action	Description
	Help	Users clicked the Help link. Data for this action is available starting with the November 2015 release.
	Update Personalized Results Profile	Users updated their Personalized Results Profiles.
	Remove Personalized Results Profile	Users removed their Personalized Results Profiles. Data for this action is available starting with the July 2015 release.
	Click on availability statement	Users clicked an availability statement in the brief results.
	Save page to eShelf	Users saved page to their e-Shelf.
	Suggested Search - Author/Subject	Users clicked suggested search. This action is tracked from the July 15 release. Previously, searches that were run with Suggested Search were counted as a regular search.
Sort	Sort by title, Sort by author, Sort by date, Sort by rank, Sort by popularity, Sort by local	Users invoked a sort option
Search group: The Search group includes all search related actions:		
Search	Basic search	A search invoked from the Basic search box.
	Advanced search	A search invoked from the Advanced search box.
	AZ list	A search invoked from an e-Journal A to Z list (Alma).
	Database search	A search invoked from the Database Search page.
	Suggested search	Users invoked a suggested search. No longer used. See Results List > General > Suggested Search - Author/Subject.

Subgroup	Action	Description
Browse	Browse page	Users invoked the Browse option.
	Browse authors, Browse subjects, Browse titles, Browse generic call numbers, Browse Dewey call numbers, Browse LC call numbers , Browse SUDOC call numbers, Browse NLM call numbers	A browse search on a specific type of browse list.
	Browse related records	Users clicked on an entry in a Browse list to display linked records
Search history	Session Query	Users invoked a search from saved queries from the session. This action is counted from the July 15 release and previously was counted as a regular search.
	Saved Query	Users invoked a search from their saved queries. This action is counted from the July 15 release and previously was counted as a regular search.

Institutions

The Institutions table is a dimension table with the following attributes: Primo Institution Code and Institution Name.

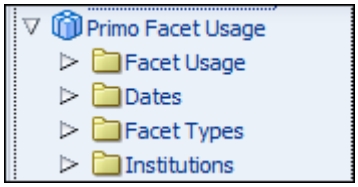
Institutions Dimensions Table

Primo Facet Usage

Using the Primo Facet Usage subject area, you can create reports that help to answer the following types of business questions:

- Which facets are most used?
- On average how often are facets used in a single session?

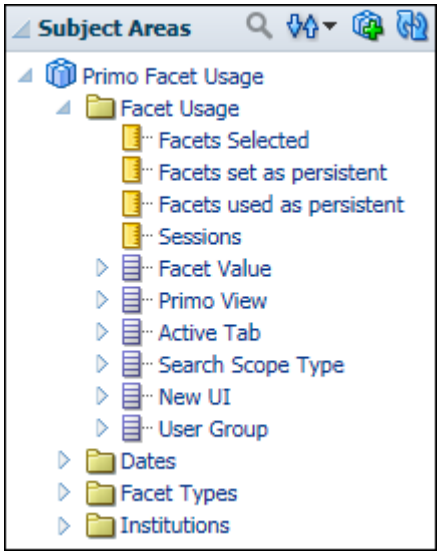
The Primo Facet Usage subject area contains many fields used to create reports associated with facet usage. Refer to the following sections for more information on each field.



Primo Facet Usage Subject Area

Facet Usage

The Facet Usage table is the fact table that stores information about the facets selected by end users in Primo.



Facet Usage

The following table lists the fields provided by the Facet Usage fact table:

Facet Usage Fields

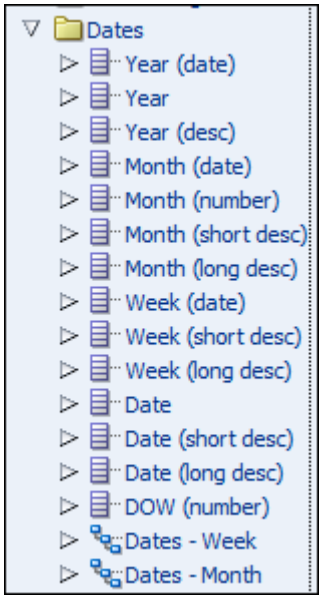
Field	Description
Facets Selected	This measurement field tracks the number of times an action was taken.
Facets set as persistent	This measurement field tracks the number of times facets are made persistent.
Facets used as persistent	This measurement field tracks the number of times persistent facets are used in a search.
Sessions	This measurement field tracks the number of sessions in which an action was taken. Sessions are counted only once per action. For example, if the user selected a facet twice in the same session, the session is counted only once.

Field	Description
	Note If you total the number of sessions in the Facets table it will be greater than the number of sessions for the same period in the Sessions table – since the same session will be counted more than once.
Facet Value	An attribute field that stores the specific facet value that users select in the following cases: • Top-Level facet • Resource Type facet If this attribute is added to a report, nothing will appear for other facets. Data for this attribute is available starting with the November 2015 release.
Primo View	An attribute field that stores the view in which the action was performed. This attribute has been added for the July 2015 release. Actions that predate the installation of this release will not have this attribute.
Active Tab	An attribute field that stores the tab in which the facet was selected: This attribute has been added for the November 2015 release. Actions that predate the installation of this release will not have this attribute.
Search Scope Type	An attribute field that indicates the active search scope while the facet was selected. The Search Scope Type has been added in the July 2015 release. Facet selections that predate the installation of this release will not have this attribute. The Search scope type has the following values: • Local only – Any search on local data only • Blended – Any search on local data and Primo Central or a Deep-Search • Remote – Any search with MetaLib, including MetaLib with another search engine (e.g. Primo Local or Primo Central or a Deep-search) • PC/Deep Search – A search in Primo Central or another Deep Search node. This includes blended deep search nodes (such as Primo Central and EBSCO).
User Group	A search attribute field that indicates the user group of the user. The User Groups for Primo Analytics mapping table defines the user groups that display in the reports. A user's group is determined as follows: • If a user has signed in and belongs to a user group, the system will try to map the user group to one of eight user groups defined in the User Groups for Primo Analytics mapping table. If a match is not found, the **Not Guest** user group is used. • If a user has signed in and does not belong to a user group, the **Not Guest** user group is used. • If the user has not signed in, the **Guest** user group is used.

Field	Description
	Note This attribute has been added in the May 2016 release. Actions that predate the installation of this release will not have this attribute.

Dates

The Dates is a dimension table for different date ranges and formats. The date dimension can be used to limit reports to specific date ranges (such as year, month, week, and day).



Dates Dimension Table

Facet Types

The Facet Types table is a dimension table with a single attribute: the type of facet.

Facet Types

Field	Description
Facet Type	The facet type. All out-of-the-box and locally defined facets are included.

Institutions

The Institutions table is a dimension table with the following attributes: Primo Institution Code and Institution Name.

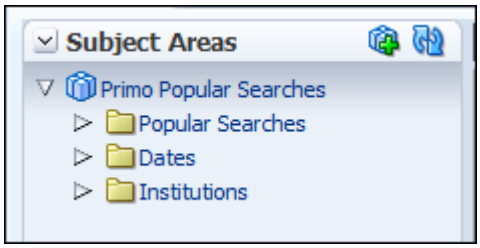
Institutions Dimensions Table

Primo Popular Searches

Using the Primo Popular Searches subject area, you may create reports that help to answer the following types of business questions:

- Which queries are most popular?
- Are there any trends in popularity of certain topics over time?

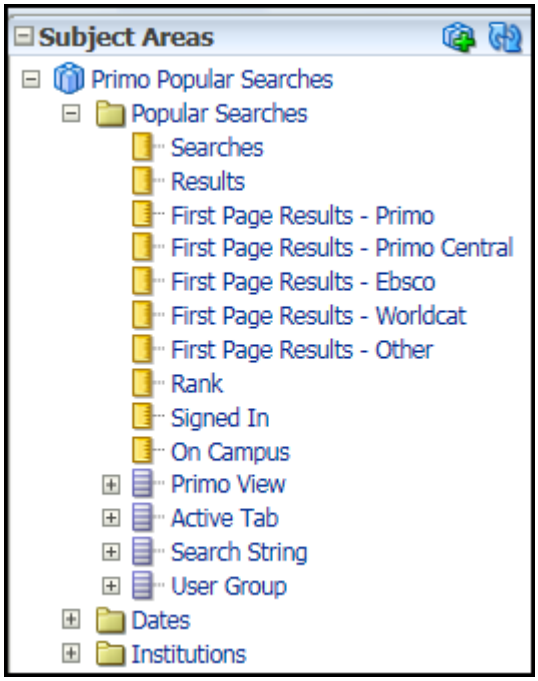
The Primo Popular Searches subject area contains many fields used to create reports associated with popular searches. Refer to the following sections for more information on each field.



Primo Popular Search Usage

Popular Searches

The Popular Searches table is a fact table that stores information about the most popular searches. Popular searches are gathered on a monthly basis. A search is considered popular if it has been performed at least 10 times within a month. Up to 500 popular searches are saved per month. At least 200 searches will be saved even if they are not considered popular. This means that no more than 200 searches will be saved unless there are 200 or more searches with 10 occurrences.



Popular Searches

The following table lists the fields provided in the Popular Searches fact table:

Popular Searches Fields

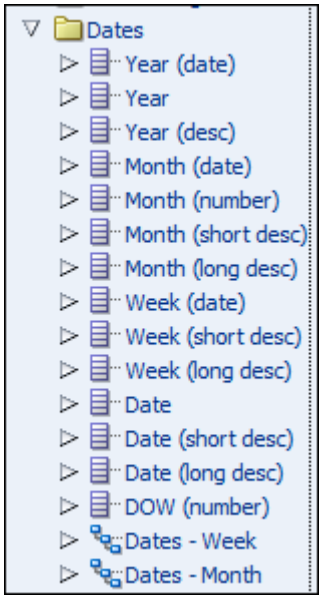
Field	Description
Searches	A measurement field that stores the number of searches for the query.
Results	A measurement field that stores the average number of results per search.
First Page Results - Primo	A measurement field that tracks the average percentage of local Primo records that display on the first page of search results. This field is available with the November 2015 release.
First Page Results - Primo Central	A measurement field that tracks the average percentage of Primo Central records that display on the first page of search results. This field is available with the November 2015 release.
First Page Results - EBSCO	A measurement field that tracks the average percentage of EBSCO records that display on the first page of search results (using the EBSCO deep search adaptor). This field is available with the November 2015 release.
First Page Results - WorldCat	A measurement field that tracks the average percentage of WorldCat records that display on the first page of search results (using the WorldCat deep search adaptor).

Field	Description
	This field is available with the November 2015 release.
First Page Results - Other	A measurement field that tracks the average percentage of records from other sources (such as locally-defined deep search adaptors or MetaLib) that display on the first page of search results. This field is available with the November 2015 release.
Rank	The rank of the search in terms of number of results. This field can useful for sorting purposes.
Sign-in	The number of times an action was taken when the user was signed-in.
On Campus	A measurement field that tracks the number of times an action was taken from a user who was on campus. This field is available with the November 2015 release.
Primo View	An attribute field that stores the view in which the action was performed. **Note** This attribute is available with the July 2015 release. Actions that predate this release will not have this attribute.
Active Tab	An attribute field that stores the tab in which the action was performed. **Note** This attribute is available with the November 2015 release. Actions that predate this release will not have this attribute.
Search String	The user's query.
User Group	A search attribute field that indicates the user group of the user. The User Groups for Primo Analytics mapping table defines the user groups that display in the reports. A user's group is determined as follows: • If a user has signed in and belongs to a user group, the system will try to map the user group to one of eight user groups defined in the User Groups for Primo Analytics mapping table. If a match is not found, the **Not Guest** user group is used. • If a user has signed in and does not belong to a user group, the **Not Guest** user group is used. • If the user has not signed in, the **Guest** user group is used.

Field	Description
	Note This attribute has been added in the May 2016 release. Actions that predate the installation of this release will not have this attribute.

Dates

The Dates table is a dimension table used to different date ranges and formats. The dates dimension can be used to limit reports to specific date ranges (such as year, month, week, and day).



Dates Dimension Table

Institutions

The Institutions table is a dimension table with the following attributes: Primo Institution Code and Institution Name.

Institutions Dimensions Table

Primo Zero Result Searches

Using the Zero Results Searches subject area, you may create reports that help to answer the following types of business questions:

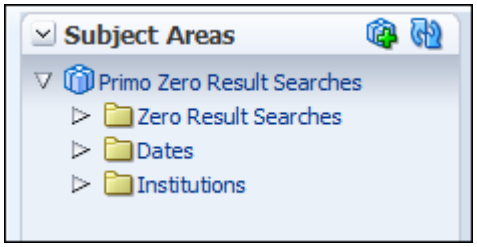
- Which kind of queries result in no results?

- What kind of errors do end users make in queries that cause no results to be found?

Note

Data for this subject area is available starting with the July 2015 release.

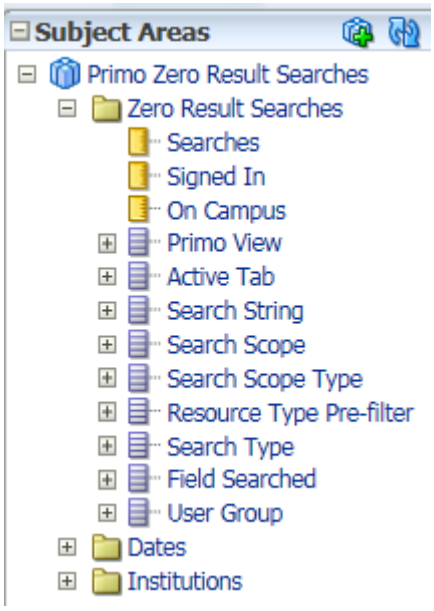
The Primo Zero Result Searches subject area contains many fields used to create reports associated with searches that return no results. Refer to the following sections for more information on each field.



Zero Result Searches Subject Area

Zero Result Searches

The Zero Result Search table is a fact table that stores information about searches that had zero results.



Zero Result Searched Subject Area

The following table lists the fields provided by the Zero Result Searches fact table:

Zero Results Searches Fields

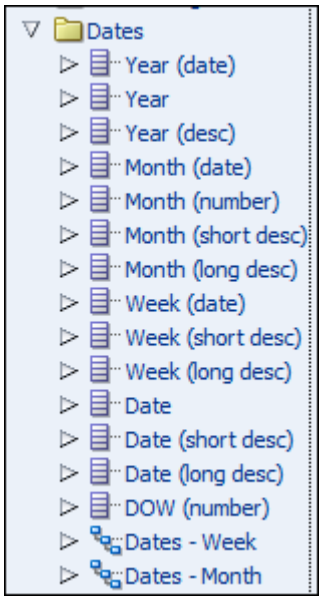
Field	Description
Searches	The number of searches for the query.
Signed-in	A measurement field that tracks the number of times a signed-in user performed a search and received no results.

Field	Description
On Campus	A measurement field that tracks the number of times an action was taken from a user who was on campus. This field is available with the November 2015 release.
Primo View	An attribute field that stores the view in which the action was performed.
Active Tab	An attribute field that stores the tab in which the action was performed. **Note** This attribute is available with the November 2015 release. Actions that predate this release will not have this attribute.
Search string	An attribute field that stores the search string that returned no results.
Search scope	An attribute field that stores the search scope in which the search was performed when no results were received by the user.
Search scope type	An attribute field that stores the active search scope type, which allows the following values: • Local only – any search on local data only • Blended - any search on local data and Primo Central or a Deep-Search • Remote - any search with MetaLib, including MetaLib with another search engine (e.g. Primo Local or Primo Central or a Deep-search) • PC/Deep Search – A search in Primo Central or another deep search index. This includes a blended deep search indexes (such as Primo Central and EBSCO).
Resource Type Pre-filter	An attribute field that stores the resource type pre-filter (for example, Books or Articles) selected by the user. The default is **All Items**. **Note** This attribute is available with the November 2015 release. Actions that predate this release will not have this attribute.
Search Type	An attribute field that stores the search type or operator that was selected by the user: • Keyword (default) • Exact • Starts with

Field	Description
	Note This attribute is available with the November 2015 release. Actions that predate this release will not have this attribute.
Field searched	An attribute field that stores the field being searched. This is relevant if the user performed a search on a specific field (such as authors only).
User Group	A search attribute field that indicates the user group of the user. The User Groups for Primo Analytics mapping table defines the user groups that display in the reports. A user's group is determined as follows: • If a user has signed in and belongs to a user group, the system will try to map the user group to one of eight user groups defined in the User Groups for Primo Analytics mapping table. If a match is not found, the **Not Guest** user group is used. • If a user has signed in and does not belong to a user group, the **Not Guest** user group is used. • If the user has not signed in, the **Guest** user group is used. **Note** This attribute has been added in the May 2016 release. Actions that predate the installation of this release will not have this attribute.

Dates

The Dates is a dimension table for different date ranges and format. The dates dimension can be used to limit reports to specific date ranges (such as year, month, week, and day).



Dates Dimension Table

Institutions

The Institutions table is a dimension table with the following attributes: Primo Institution Code and Institution Name.

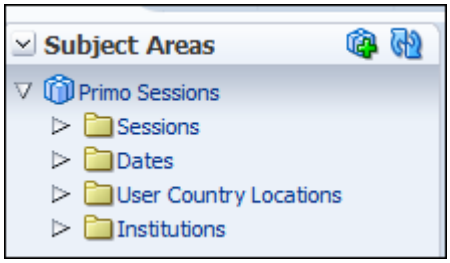
Institutions Dimensions Table

Primo Sessions

Using the Primo Sessions subject area, you can create reports that help to answer the following types of business questions:

- How many sessions are opened in a given time period?
- On average how many users sign in within a session?
- On average how many actions are taken within a session?
- In which countries are users located when they open a session?

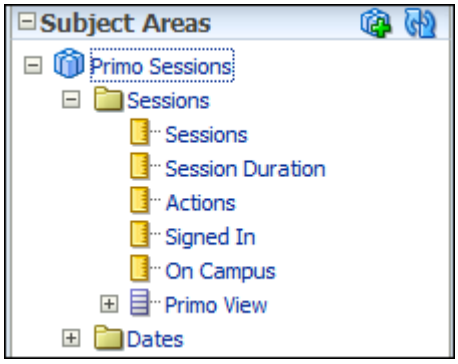
The Primo Sessions subject area contains many fields used to create reports associated with Primo sessions. Refer to the following sections for more information on each field.



Primo Sessions Subject Area

Sessions

The Sessions table is the fact table that stores information about sessions.



Sessions Table

The Sessions fact table has four measurement fields and one attribute fields:

Sessions Fields

Field	Description
Sessions	The number of sessions.
Session Duration	The average session duration (minutes), which is counted from the first action to the last action within a session.
Actions	The number of actions within sessions.
Signed-in	A measurement field that tracks the number of times a user signed in within a session.
On Campus	A measurement field that tracks the number of times an action was taken from a user who was on campus (which is determined by the IP ranges configured for the Primo institution). This field is available with the November 2015 release.
Primo View	An attribute field that stores the View in which the action was done. The View has been added in the July 2015 release. Actions that predate the installation of this release will not have this attribute.

Dates

The Dates is a dimension table for different date ranges and format. The dates dimension can be used to limit reports to specific date ranges (such as year, month, week, and day).

User Country Location

The User Country Location is a dimension table for information about the location of end-users when they start sessions.

Zero Result Searches Subject Area

The User Country Location dimension has the following attributes:

User Country Location Fields

Field	Description
Country	The country name, which is based on the end user's IP.
Country Code	The country code, which is based on the ISO 3166-1 standard.
Latitude	The latitude of the country.
Longitude	The longitude of the country.

Institutions

The Institutions table is a dimension table with the following attributes: Primo Institution Code and Institution Name.

Institutions Dimensions Table

Primo PNX Records

Using the Primo PNX subject area, you can create reports that help to answer the following types of business questions:

- How many PNX records do I have from every data source, and how many records are added over time?
- How many dedup and FRBR groups are there?

The Primo PNX Records subject area contains many fields used to create reports associated with PNX records. Refer to the following sections for more information on each field.

Primo PNX Records Subject Area

PNX Records

The PNX Record table is the fact table that stores information about PNX records.

PNX Records Fields

The PNX Records fact table has four measurement fields and one attribute fields:

PNX Record Fields

Field	Description
Records	The number of records.
FRBR Groups	The number of FRBR groups.
Dedup Groups	The number of dedup groups.
Data source	The data source to which the records belong.

Dates

The Dates is a dimension table for different date ranges and format. The dates dimension can be used to limit reports to specific date ranges (such as year, month, and week). The information is a snapshot of the database for the given time frame.

Institutions

The Institutions table is a dimension table with the following attributes: Primo Institution Code and Institution Name.

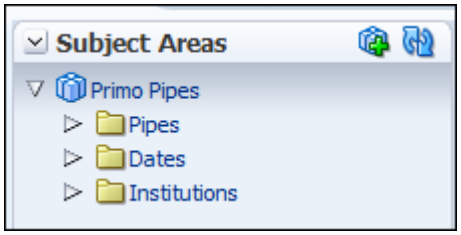
Institutions Dimensions Table

Primo Pipes

Using the Primo Pipes subject area, you can create reports that help to answer the following types of business questions:

- On average how many records are processed by pipes?
- On average what is the pipe duration?

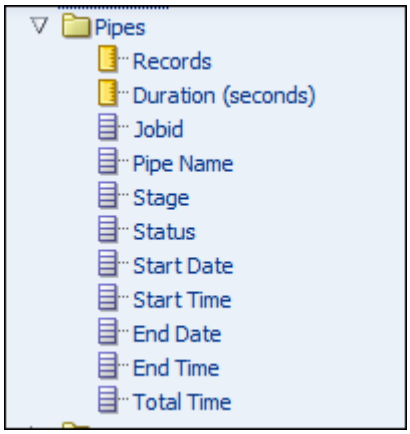
  The Primo Pipes subject area contains many fields used to create reports associated with pipes. Refer to the following sections for more information on each field.



Primo Pipes Subject Area

Pipes

The Pipes table is the fact table that stores information about pipes. Currently, all pipe runs can be included. In the future this will be limited to a year.



Pipes Table

The following table lists the fields provided in the Pipes fact table:

Pipes Fields

Field	Description
Records	The number of records processed by the pipe.
Duration	The duration of the pipe in seconds.
Jobid	The Job ID of the pipe.
Pipe Name	The pipe name.
Stage	The final stage of the pipe.
Status	The status of the final stage of the pipe.

Field	Description
Start Date	The start date of the pipe.
Start Time	The start time of the pipe, which includes the date and time in the following format: HH:MM
End Date	The end date of the pipe.
End Time	The end time of the pipe, which includes the date and time in the following format: HH:MM
Total Time	The total time of the pipe, which includes the date and time in the following format: HH:MM

Dates

The Dates is a dimension table for different date ranges and format. The dates dimension can be used to limit reports to specific date ranges (such as year, month, and week).

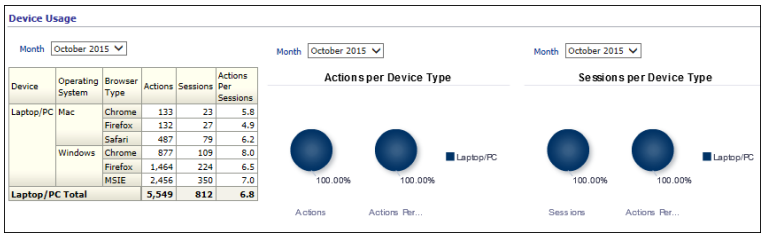
Institutions

The Institutions table is a dimension table with the following attributes: Primo Institution Code and Institution Name.

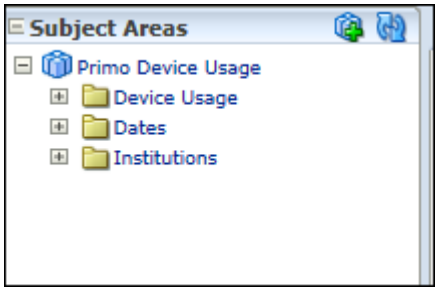
Institutions Dimensions Table

Primo Device Usage

Using the Primo Device Usage subject area, you can create reports that show the number of actions and sessions that are processed for each device type (including the operating system and browser type). For example:



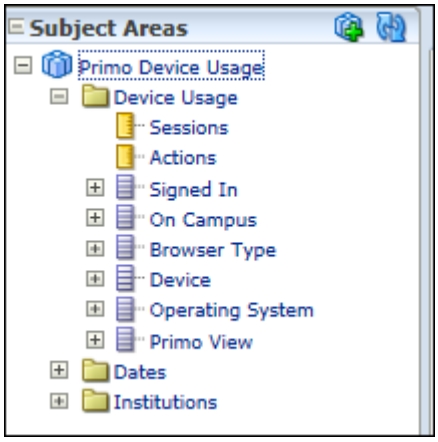
The Primo Device Usage subject area contains many fields used to create reports associated with device usage. Refer to the following sections for more information on each field.



Primo Device Usage Subject Area

Device Usage

The Device Usage table is the fact table that stores information about device usage.



Device Usage Table

The Device Usage fact table has two measurement fields and several attribute fields:

Device Usage Fields

Field	Description
Sessions	The number of times in which a type of device was used.
Actions	The number of actions for a device type.
Signed-in	A measurement field that tracks the number of times a user signed in when using a type of device.
On Campus	A measurement field that tracks the number of times a user was on campus when using a type of device.
Browser Type	An attribute field that stores the type of browser.
Device	An attribute field that stores the type of device.

Field	Description
Operating System	An attribute field that stores the type of operating system. It allows you to merge different versions of the same operating system into a single value.
Primo View	An attribute field that stores the View in which the device was used.

Dates

The Dates is a dimension table for different date ranges and format. The dates dimension can be used to limit reports to specific date ranges (such as year, month, and week).

Institutions

The Institutions table is a dimension table with the following attributes: Primo Institution Code and Institution Name.

Institutions Dimensions Table