



University of Colorado

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OnBase Guide - Reporting Dashboards

Goal: To create dashboards and reports from OnBase data

Complexity Level: Departmental Reporting Dashboard Developers

5/12/2022

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Background & Terminology

The Reporting Dashboards module in OnBase provides a point-and-click configurable designer to create highly visual, interactive dashboards and user-customized reports. This guide is intended to supplement the [resources](#) listed below, please refer to the MRG for full details on configuration.

Within the module, you can configure:

- **Dashboards** - these are pre-configured and can include visual elements such as charts, graphs, etc.
 - Dashboards can be made [available via URL](#) if they do not include personally identifiable information.
- **Reports** - these are a more traditional report format without visual elements. Users with access to the report can choose the columns to include, so this is better suited for power users who are willing and able to customize their reports.
- **Data Providers** - this is the query that retrieves the information to use in a dashboard and or report.
- **Categories** - these are groups of dashboards and reports to provide organization

Make sure all your configuration aligns with the [CU OnBase Naming Conventions](#).

It can be helpful to create dashboards, reports and data providers in DMOSTG to have access to updated data that's not always available in DMOTST.

Prerequisites

In order to configure anything in the Reporting Dashboards module, you will need to use the Unity client and be in the appropriate user group for reporting configuration privileges.

You'll need to complete the trainings below to be given access to administrative reporting dashboard privileges.

Resources

- Hyland's premium subscription includes these trainings, which are great starting points for learning about dashboards.
 - A [hands-on lab for Reporting Dashboards](#).
 - [Intro to Reporting Dashboards](#)
 - [Reporting Dashboards Beyond the Basics](#) (covers WorkView reporting)
- [Reporting Dashboards MRG](#)
- [Reporting Dashboards Connect page](#)
- [Reporting Dashboards - Share by URL](#) on the UIS OnBase Training page.

Please contact UIS_DM_Support@cu.edu for assistance as needed.

Administrative Dashboards

In addition to the dashboards and reports you create for your own department, a variety are already available and shared with applicable user groups. Some are available to all OnBase users while others are limited to the appropriate administrative groups.

More information is available in the [Certified Admin Handbook](#).

User Groups/Access

There are several layers to granting access to reporting items. In order to access dashboards and/or reports, users will need to be members of a group that is assigned to the dashboard/report and all data providers used by the dashboard/report.

If the data provider is based on a WorkView module association, the user group will also need to be assigned to the module association. Refer to our [WorkView for Unity Form Reporting guide](#) for more information.

Assign to User Groups, not Users

While items can be assigned to individual user accounts, instead this should be assigned by user groups for easier maintenance as users change or leave.

Assignments made directly to user accounts can only be seen or changed in the Unity client, which requires identifying, locating and modifying each individual dashboard, report and data provider.

When assigning using groups, this can be managed from any client where you can assign groups (Unity client, web client, or Configuration) and fewer changes are needed and access is more likely to be updated correctly for staffing changes.

“Reporting” User Groups

As described in the [Expectations and Tips for Certified Admins guide](#), reporting items should be assigned using “Reporting” user groups, not other types of groups.

In order to appear in the list of groups available for assignment to dashboards, reports, and data providers, the group will need to have the “User Access” reporting dashboards privilege.

This is assigned in Configuration > Users & Groups > User Groups/Rights > select group > Reporting Dashboards.

No other privileges should be assigned beyond “User Access”. This is monitored and any additional privileges will be removed.

Functional User Groups

Users who have completed the appropriate training may be in either of the Functional groups that provide administrative access to dashboard configuration.

Functional - Developer - Reporting Dashboards & Functional - Admin - System (Certified Only):

- Allows creation of categories, dashboards, reports and data providers (excluding SQL data providers or use of external data sources).
- This group allows modification of any items the user has “full control” access to or items they create, and access to those items through Administration in the Unity client.
- Users in this group can also delete the items they have “full control” access to or have created themselves.
- Items assigned to them as read-only or execute-only cannot be modified or deleted.

Access Levels for Dashboards/Reports

When assigning a “Reporting” group to a dashboard or report, the following access levels can be applied to the group:

- **Read Only:** users in the group can view the dashboard/report but cannot change or delete the dashboard/report.

- **Modify:** users in the group can view and modify the dashboard/report but cannot delete.
- **Full Control:** users in the group can view, modify and delete the dashboard/report. **This is true even when the user is not in any functional groups allowing reporting dashboard privileges!**

Extra permissions can also be assigned for dashboards:

- **Re-Share Dashboard/Report:** users in the group can share the dashboard or report with other users.
- **Export Dashboard/Report Data:** users in the group can export the data that was used to create the dashboard or report.
- **Add/Remove Data Providers:** users in the group can change the data providers used to retrieve data for the dashboard or report. This permission is only available to change if the user has **Modify** access.

Access Levels for Data Providers

When assigning a “Reporting” group to a dashboard or report, the following access levels can be applied to the group:

- **Execute Only:** users in the group can only use the data provider to view results on a dashboard or report.
- **Full Control:** users in the group can modify or delete the data provider, including assigning other user groups. **This is true even when the user is not in any functional groups allowing reporting dashboard privileges!**

Configuring Data Providers

Most reporting needs can be met with one of the pre-defined data provider types. To create a new data provider, go to the Unity client then Reporting Dashboards. Click the **Create New Data Provider** button on the menu from Administration. Or, if you select **Create New Dashboard**, the dashboard wizard will include creating a data provider if it doesn’t already exist.

Data Providers should follow the standard [OnBase naming conventions](#).

- **Document Query** - Used for reporting on keyword values for selected document types.
 - This is the most commonly used of the built-in data provider types.
 - This can also include the current workflow queue and queue entry date so is great for basic workflow reporting.
 - Generally, document values you want to report on should be configured as keywords.
- **Workflow Activity** - Used for reporting on ad hoc task execution and an item’s transition through workflow queues

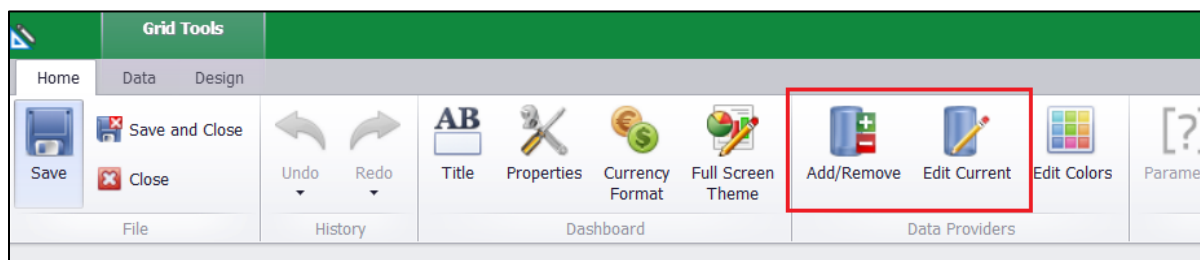
- This will include historical/previous workflow activity and additional detail, beyond the current activity available in the Document Query data provider.
- For ad hoc task execution, you'll need to have "[log execution](#)" enabled on the tasks. There is an option to enable this in the data provider configuration, but that will only begin going forward, you won't have the historical data.
- **Workflow Inbox** - Used for reporting on items currently in the selected workflow queues.
 - As of June 2020, the "Assigned To" field does not work. (Workaround: store the assigned to user value as a keyword value).
- **Workflow Configuration** - Used for reporting on configuration of a life cycle/selected queues.
 - This can provide information on load balancing configuration (there is an administrative dashboard for this as well in the Configuration category).
- **Document Imaging Query - Time in Queue/Time to Process** - Used to report on activity in batch scanning and batch processing.
 - These data provider types have been incompatible with our Oracle database in some versions, so use with caution.
- **WorkView** - Used for reporting on attribute values for the selected applications/classes
 - This requires that a module association is configured for the filter that returns the data you want to use on the dashboard/report.

Dashboards can use multiple data providers, and data providers can be used on multiple dashboards/reports.

If needed, custom SQL data providers can be written to retrieve information from the OnBase database or other external data sources. Please contact the UIS team for creation of custom SQL data providers.

Editing Data Providers

From the dashboard designer, there is easy access to edit the current data provider or add/remove data providers on the dashboard (including creating new data providers).



Or you can go to Administration in Reporting Dashboards in the Unity client, then choose Data Providers and find the data provider in the list.

Configuring Dashboards

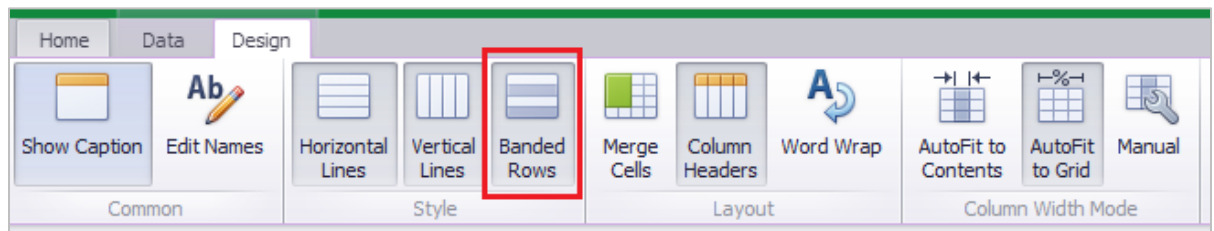
To create a new dashboard, go to the Unity client then Reporting Dashboards. Click the **Create New Dashboard** button on the menu, or you can copy from an existing dashboard to save time if a similar one already exists. After completing the dashboard creation wizard, you'll be directed to the dashboard designer.

Dashboards and Reports should follow the standard [OnBase naming conventions](#).

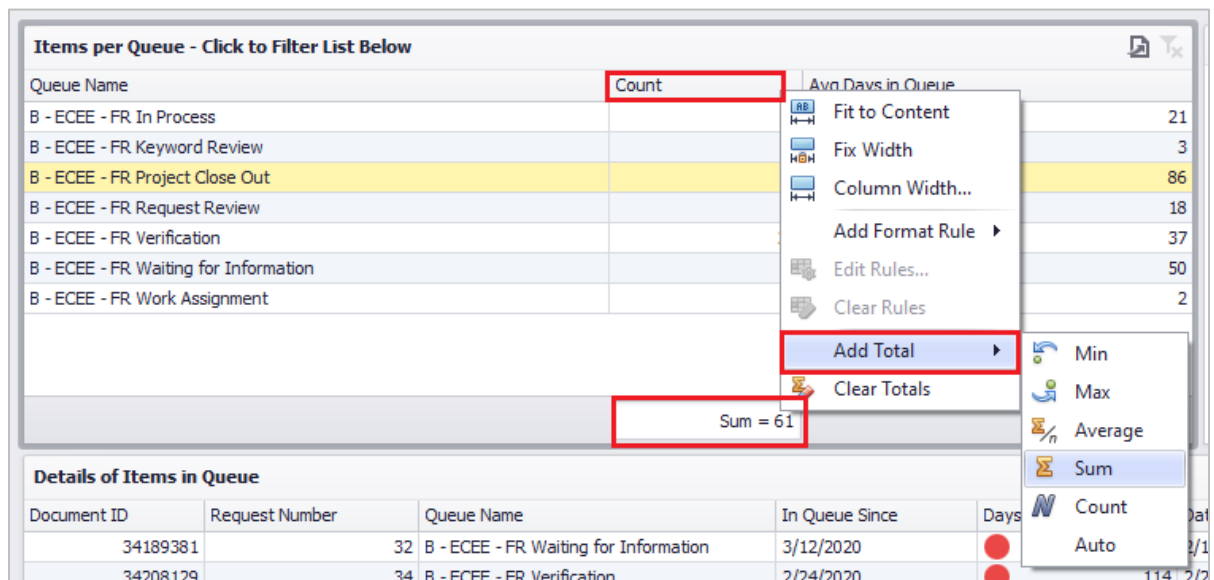
Dashboard Items/Elements

While others are available, the most commonly-used data provider items are:

- **Grid** - this item appears like a spreadsheet of columns and rows.
 - On the design tab, enabling **banded rows** makes it easier to read across lines of data.

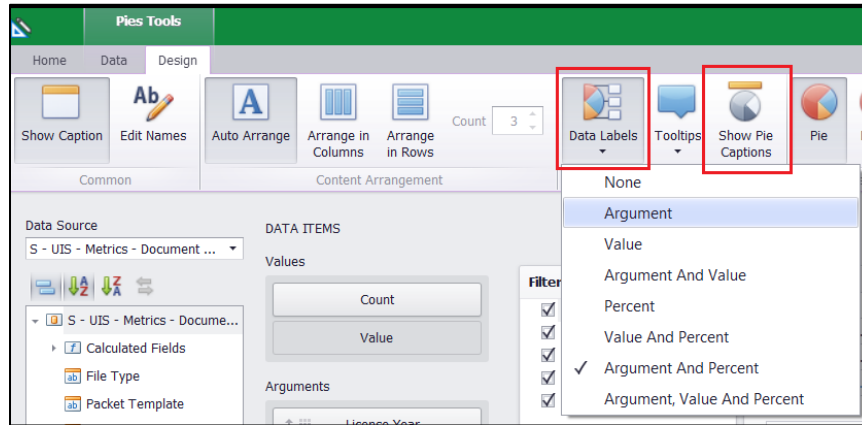


- You can add **totals** (count, sum, etc.) for columns by clicking the column heading in the dashboard designer.

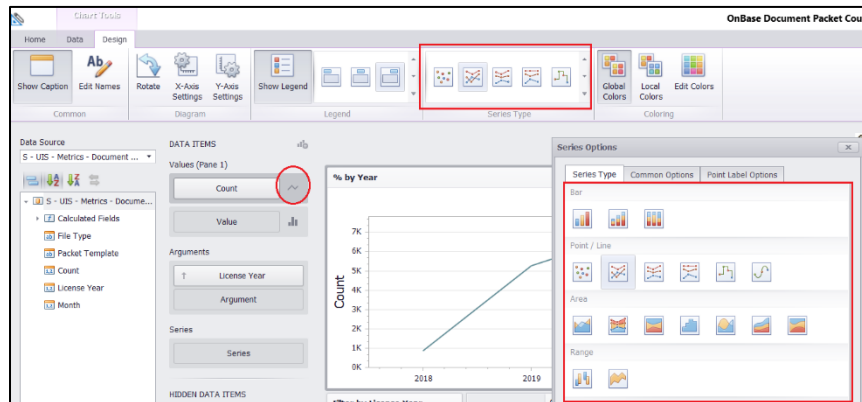


- **Pie Chart**
 - On the Design tab, the **Data Labels** option lets you set whether to show the argument name, value, and/or percentage.

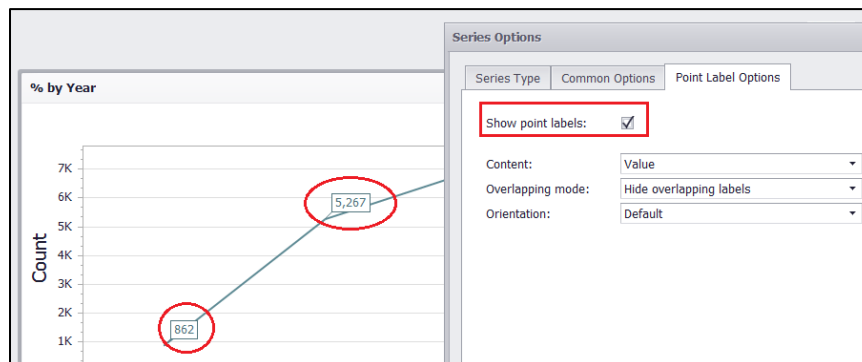
- Also on the Design tab, you can enable or disable the **Show Pie Captions** option. Usually this is redundant or unnecessary so it can be hidden. It's still a good idea to set a logical caption so that if the item is exported to an image (where it may be shown despite disabling captions) it will not be confusing.



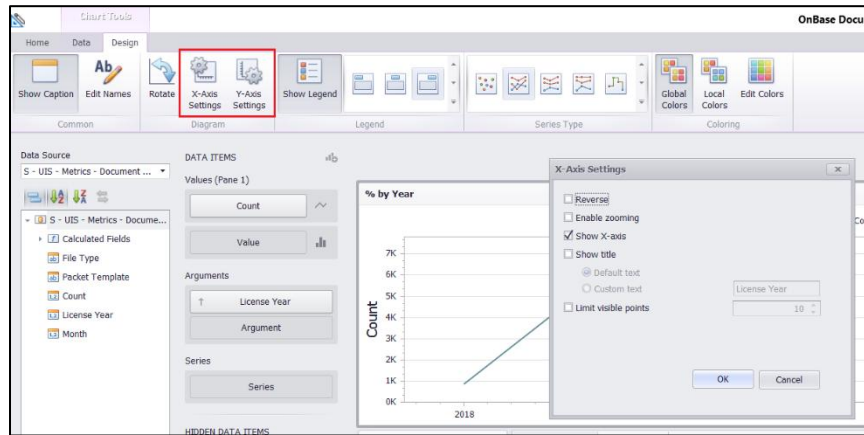
- **Chart** - Includes bar charts, line graphs, etc.
 - After adding a chart, you can change the type of chart from the Design tab or with the option button next to the value in the Data Item list.



- Another useful option there is on the Point Label Options tab. Checking **Show point labels** adds the values to each point on the chart.



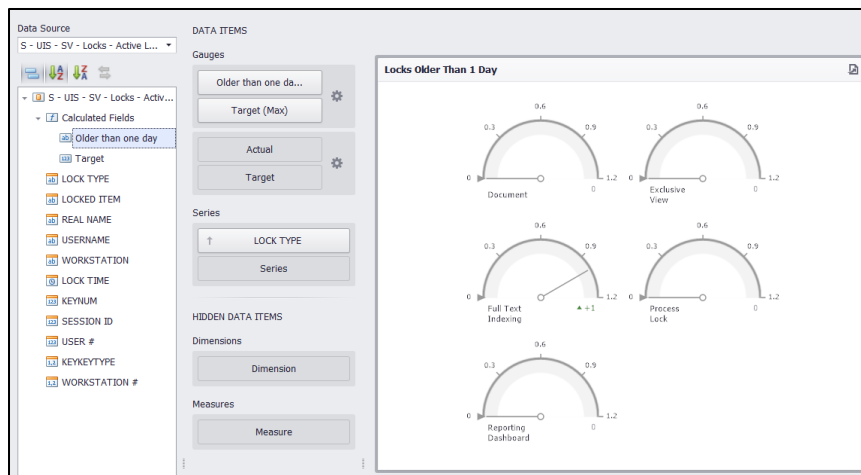
- There are also options in the **X-Axis Settings** and **Y-Axis Settings**. For example, enable zooming on the x-axis allows users to scroll when hovering over a chart to zoom in for more details.



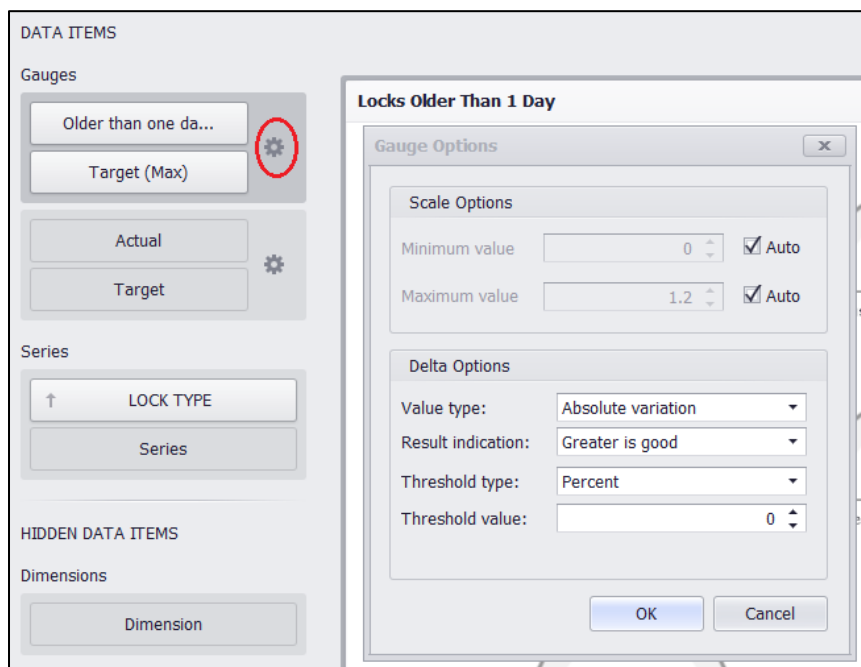
- **Pivot Table** - Columns and rows with summarized/aggregated values.
 - You can choose whether columns and rows are expanded or collapsed by default and which totals to include.

License Year	Packet Template	Count Total
2018 Total		862
	C - ADM - Completed Application Document Packet	188
	C - ADM - Review Committee Document Packet	673
	C - PSY - PhD Interview Packet	1
2019 Total		5,267
	A - BSP - Application Export Document Packet	1
	C - ADM - Completed Application Document Packet	3,080
	C - ADM - Review Committee Document Packet	1,730
	C - PSY - PhD Interview Packet	3
	D - FA - P3 Dependency Override Packet	16
	D - FA - P3 Parent Estimated Income Packet	19
	D - FA - P3 Student Estimated Income Packet	32
	D - FA - Selective Service Packet	72
	D - FA - Unusual Enrollment Packet	28
	D - REG - Residency Petition Document Packet AMC	286
2020 Total		7,098
	B - REG - BAM Intent Packet	210
	B - REG - EDUC JUT Packet	75
	B - REG - UF Attachment Packet	5
	C - ADM - Completed Application Document Packet	2,938
	C - ADM - Review Committee Document Packet	2,018
	C - COB - Internship Document Packet	32

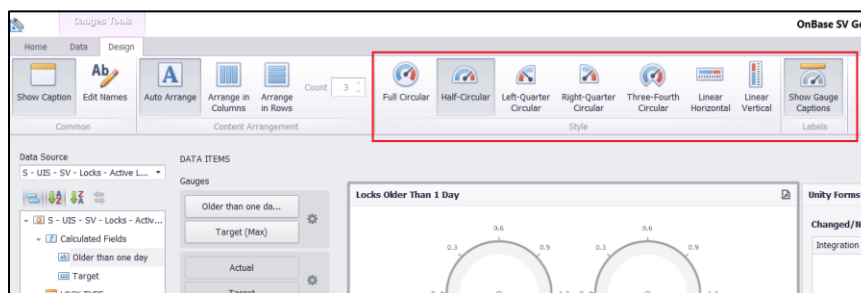
- **Gauge** - Shows actual value vs. a target value
 - You can use a [calculated field](#) to set a target value



- You can specify in the settings next to your values whether above the target or below the target is the goal.



- You can also change the layout of the gauge and enable/disable captions on the Design tab.



- **Images** - Images can be added to the dashboard or within the Title configuration. Starting with version 24 this functionality is problematic so images should not be used.
 - **Load Image:** Add an image to the dashboard by reference. If the path to an image added by reference cannot be resolved when the dashboard is accessed, the image is not displayed.
 - **Import Image:** Add an image to the dashboard by importing it to the system. Images added in this way are always available when the dashboard is accessed.
 - **NOTE:** Images imported this way are stored to the SYS System Bitmaps document type, which are then are available as [icon selections](#).

Dashboard items can also be placed into groups on the dashboard. This can help organize and label information but also affects [filtering using filter elements](#).

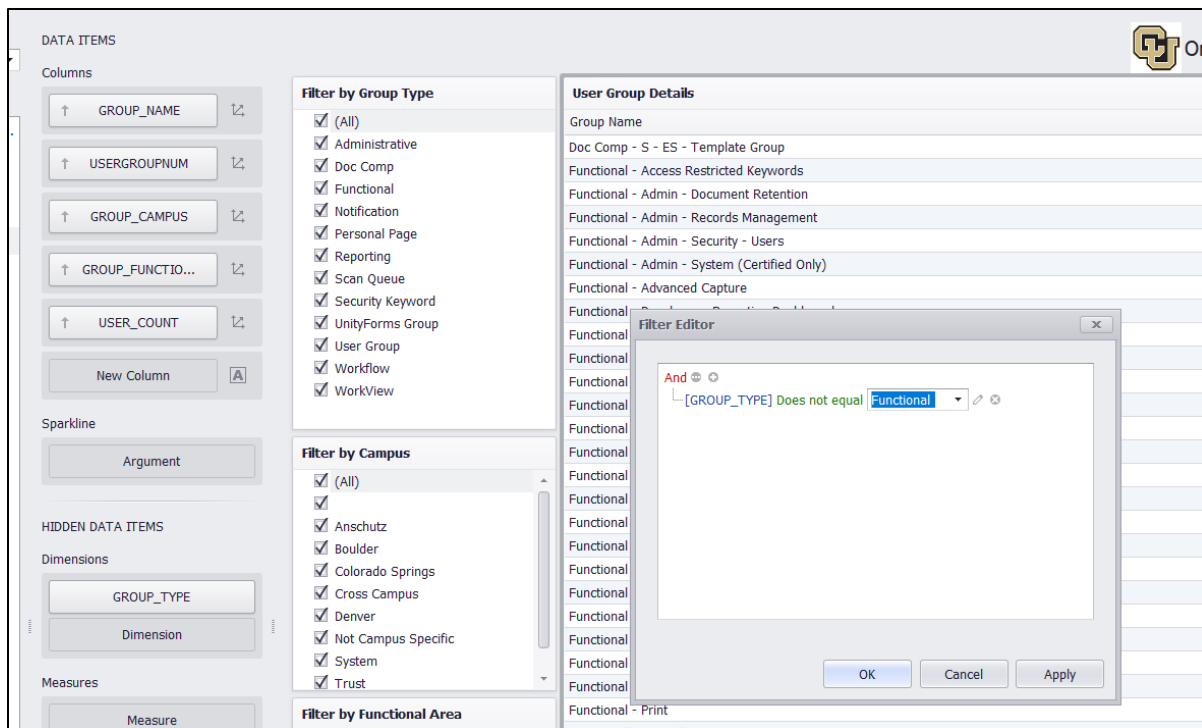
Filtering Dashboards

There are a variety of ways that you can filter data on your dashboard, whether that's within the design of the dashboard so certain values will not appear, or configured as options for users of the dashboard to filter as they are viewing the dashboard.

Most of the “end user” filtering options described here require additional configuration in the dashboard designer but will make the dashboard easier to use and provide more valuable information.

Exclude Values from Dashboard Items (Pre-configured)

To exclude certain values from appearing on a dashboard element, right click the item and choose Edit Filter. The value for the filter must be assigned to the dashboard item. If you don't want the value you are using for filtering to be visible, add it as a Dimension in Hidden Data Items.



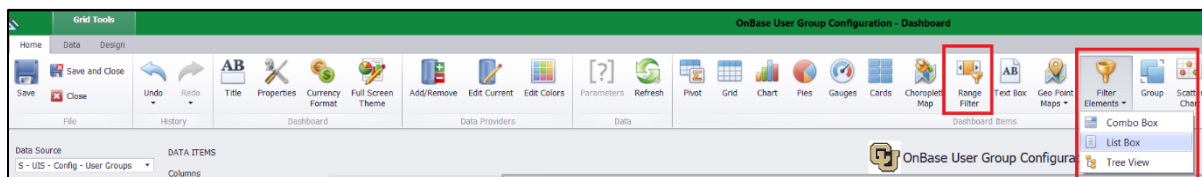
Default Filtering Options (End User)

Without any additional configuration, dashboard items like grids can be filtered using the column headers.

QUEUE NAME	DOCUMENT TYPE	QUEUE ENTRY	AVERAGE TIME IN QUEUE (DAYS)
D - FA - Buffer Que	D - FA - Aggregate Loan Limits	(Custom)	
D - FA - Buffer Que	D - FA - Certificate of Naturalization	D - FA - Active Duty Documentation	
D - FA - Buffer Que	D - FA - Certificate of Naturalization	D - FA - Aggregate Loan Limits	
D - FA - Buffer Que	D - FA - DHS Document	D - FA - Bankruptcy	
D - FA - Buffer Que	D - FA - DHS Document	D - FA - Birth Certificate	
D - FA - Buffer Que	D - FA - Family Information - Dependent	D - FA - Certificate of Citizenship	
D - FA - Buffer Que	D - FA - Family Information - Dependent	D - FA - Certificate of Naturalization	
D - FA - Buffer Que	D - FA - Family Information - Dependent	D - FA - DD214 Form	
D - FA - Buffer Que	D - FA - Family Information - Dependent	D - FA - DHS Document	
D - FA - Buffer Que	D - FA - Family Information - Dependent	D - FA - Employee/Spouse/Child Grant Application	
D - FA - Buffer Que	D - FA - Family Information - Dependent	D - FA - Family Information - Dependent	
D - FA - Buffer Que	D - FA - Family Information - Dependent	D - FA - Family Information - Independent	

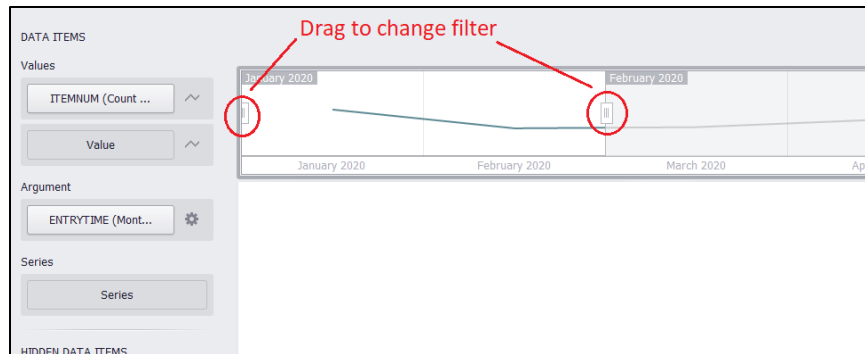
Filter Values using Filter Elements (End User)

A variety of filters can be added to the dashboard layout so that users can more easily filter the results as they like. Insert these from the Home tab of the designer.



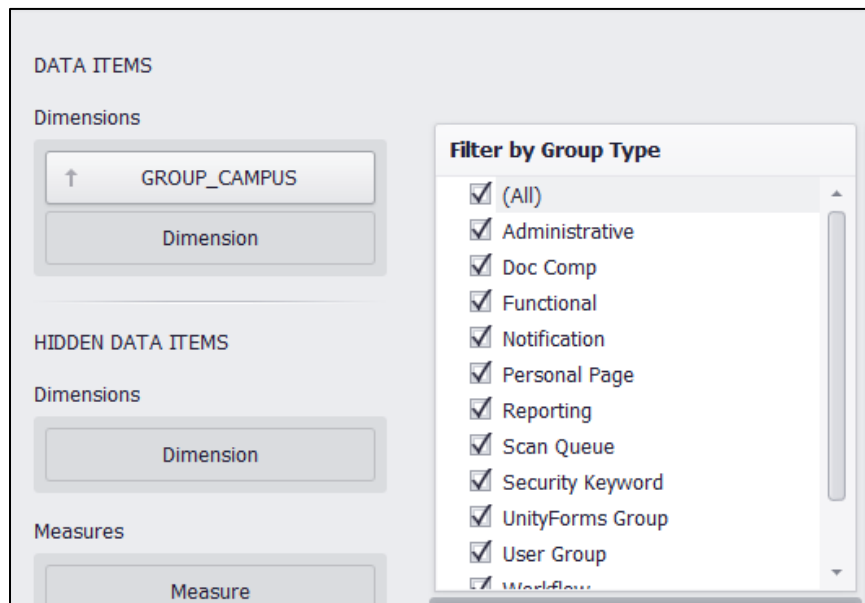
- **Range Filter**
 - Provides a slider that can be adjusted to narrow or expand the results

- Good for filtering by date or a numeric value
- A distinct count (ex. Using Document Handle to get a count of documents) is a good option for the **Value**.
- Your **Argument** can then be the value (ex. Date) you want to filter on.



- **List Box**

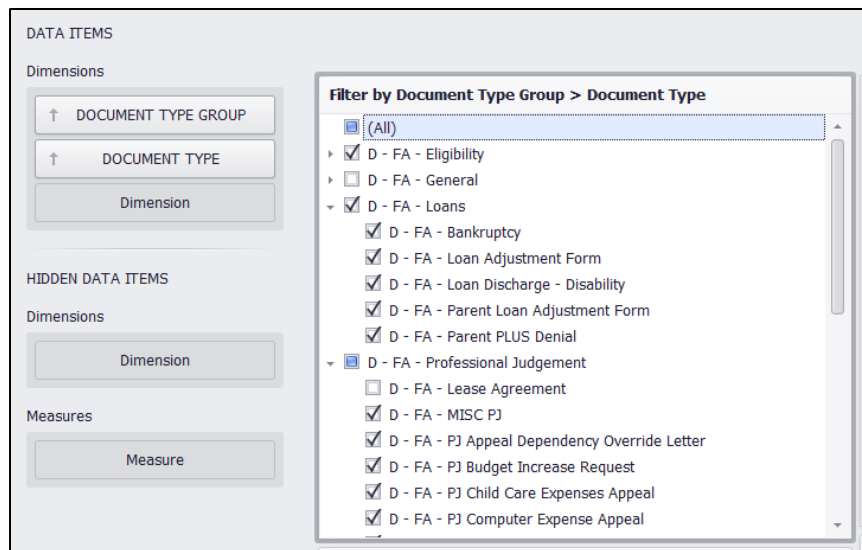
- Provides a list of checkboxes for each value so they can be included/excluded
- Good for a short list of values



- **Tree View**

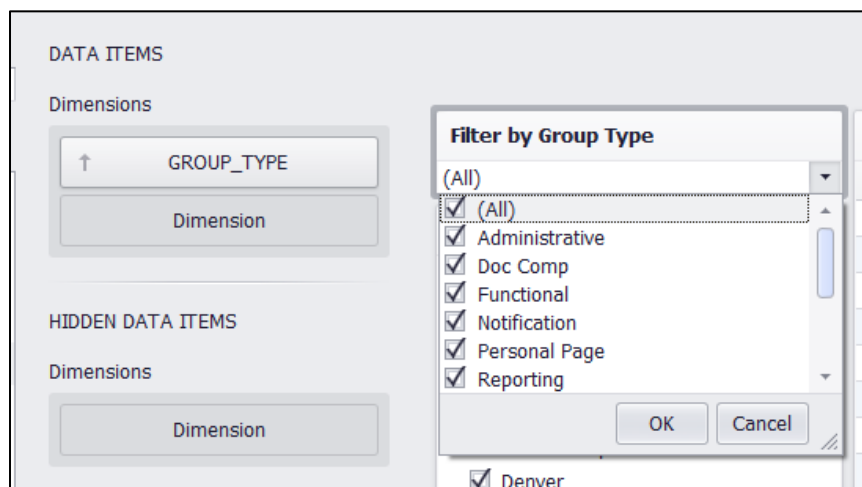
- Same as List Box but allows for nesting of values.
- For example, could be used to filter by document type groups/document types, where document types will be nested within their groups.





- **Combo Box**

- Same as List Box but displays checkboxes in a drop-down list



Drill Down (End User)

Enabling the Drill Down option on the Data tab will summarize your numeric/aggregate values based on the first column. Then as you click on a row, you “drill down” into the results for that row.



DATA ITEMS

Columns

- LIFE CYCLE
- QUEUE NAME
- DOCUMENT TYPE
- ENTRYTIME (Mont...
- Time in Queue - D...
- Time in Queue - H...
- ITEMNUM (Count ...)
- New Column

Average Time per Queue per Document Type (Highlight = Above Average)

LIFE CYCLE	AVERAGE TIME IN QUEUE (DAYS)	AVERAGE TIME IN QUEUE (HOURS)	COUNT
D - FA - StdChklist	1.5	35	15,330

Average Time per Queue per Document Type (Highlight = Above Average) - D - FA - StdChklist

QUEUE NAME	AVERAGE TIME IN QUEUE (DAYS)	AVERAGE TIME IN QUEUE (HOURS)	COUNT
D - FA - Buffer Que	0.0	0	2,379
D - FA - CP - Admin Review	20.2	485	247
D - FA - CP - Awarding	6.8	162	375
D - FA - CP - Educational Purpose	6.0	143	141
D - FA - CP - Eligibility	4.4	104	1,220

When you want to move back up a level, click the arrow in the corner.

Average Time per Queue per Document Type (Highlight = Above Average) - D - FA - StdChklist - D - FA - CP - Admin Review

DOCUMENT TYPE	AVERAGE TIME IN QUEUE (DAYS)	AVERAGE TIME IN QUEUE (HOURS)	COUNT
D - FA - Birth Certificate	72.0	1,732	3
D - FA - Certificate of Citizenship	75.0	1,803	4
D - FA - DHS Document	163.7	3,929	3
D - FA - Employee/Spouse/Child Grant Application	0.0	0	1

Filter Dashboard Items based on other Dashboard Items (End-User)

Dashboard data can also be filtered based on selection of a value on another dashboard item like a grid or a chart.

Select the item you want to use as the source of the filter and then go to the Data tab. Enable the **Single Master Filter** or **Multiple Master Filter** option depending on whether more than one item should be selected as the filter value.

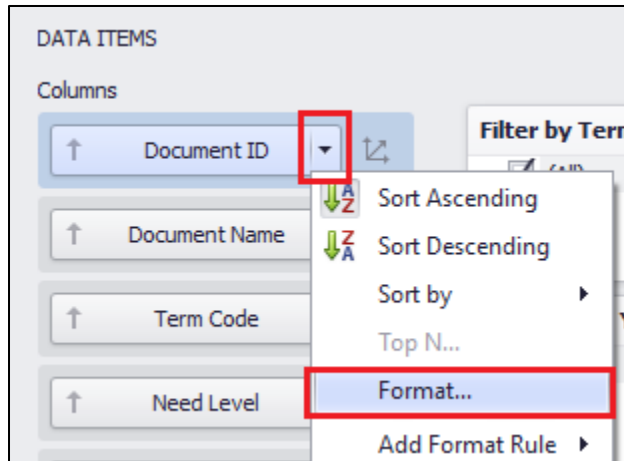
If any items should not be affected by the filter, select them then enable the **Ignore Master Filter** option on the Data tab.

By default, master filters will only affect other dashboard items based on the same data provider. But it is possible to filter between items using different data providers. To do so, each item involved will need to have a common value with the same column/field name in both data providers. Then each item will need to have that value included in its visible or hidden data items. Once that is done, select the item that will be the source of the filter, then enable **Cross-Data-Source Filtering** on the Data tab.

Formatting

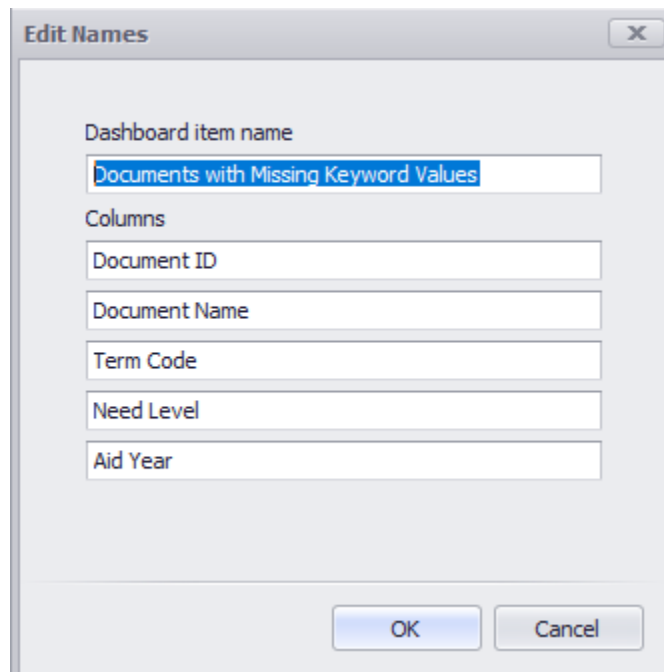
Value Formatting

By default, dashboards will apply certain formatting based on the data type. To change the format of a value, click to open the menu for the column on the desired dashboard item.



Names

You can change the name on items by right clicking and choosing Edit Names (there's also a button on the menu).



Rules

You can apply rules to add formatting (highlight, bold/italic, icons, bars, etc.) to dashboard items based on the value (similar to conditional formatting in Excel).



Items per Queue - Click to Filter List Below				
Queue Name	Count	Avg Days in Queue		
B - ECEE - FR In Process	5	18		
B - ECEE - FR Keyword Review	8	4		
B - ECEE - FR Project Close Out	1	86		
B - ECEE - FR Request Review	6	18		
B - ECEE - FR Verification	21	39		

Details of Items in Queue					
Request Number	Queue Name	In Queue Since	Days In Queue	Date Submitted	
60	B - ECEE - FR Waiting for Information	3/26/2020	83	3/16/2020	
61	B - ECEE - FR Verification	3/16/2020	93	3/16/2020	
69	B - ECEE - FR Verification	3/17/2020	92	3/17/2020	
72	B - ECEE - FR In Process	6/8/2020	9	3/19/2020	
74	B - ECEE - FR Waiting for Information	3/19/2020	90	3/19/2020	
75	B - ECEE - FR Verification	3/23/2020	86	3/23/2020	
76	B - ECEE - FR Project Close Out	3/23/2020	86	3/23/2020	

Configure your item then right click and choose Edit Rules. You'll need to choose which value to base the rule on, then configure the rule depending on the data type. To apply rules based on fields that are not visible on the dashboard, add the field as a Measure in the Hidden Data Items section.

Make sure not to rely on *only* color differentiation (ex. Use yellow highlight with bold font and orange highlight with italic font) when configuring rules so that users who cannot perceive the color difference are able to get the same information as users who can.

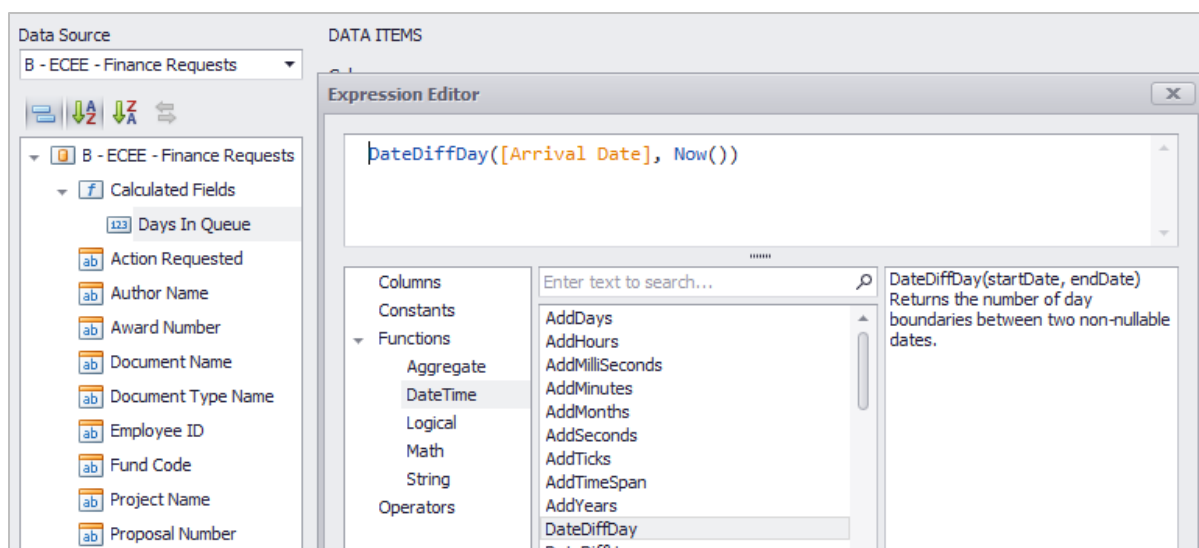
Calculated Fields

Calculated fields allow you to adjust any values in your data provider to display a different value, to combine/concatenate values, group like items, or perform more common calculations (addition, subtraction, etc.).

Calculated fields are configured per dashboard, they do not carry over to other dashboards/reports using the same data provider so you'll need to recreate the field and copy and paste the expression.

To create a calculated field, right click on the list of available data fields and choose Add Calculated Field.

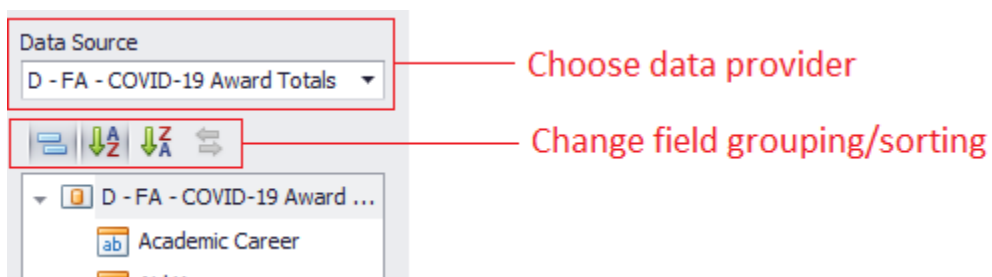
This will open an expression editor with lists of your existing columns/fields and the functions you can use. This expression editor offers slightly different functions and requires different syntax than the workflow expression editor.



Once you save the field, right click to rename it. You can also modify the expression by right clicking.

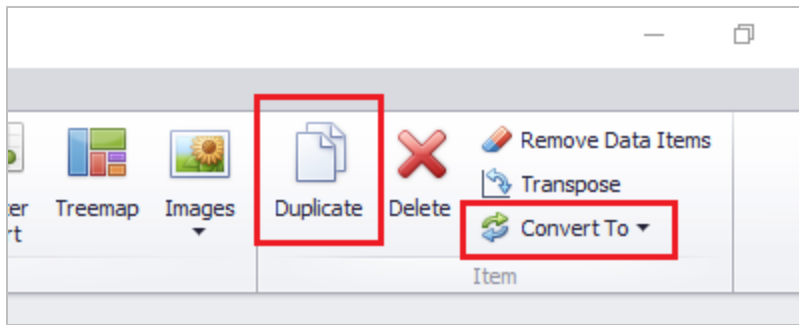
Dashboard Designer Tips

- If you have multiple data providers assigned to a dashboard, choose between them using the drop-down above the field list.
- By default, the field list is grouped by data type, then sorted alphabetically. You can turn this grouping off by clicking the button with two blue boxes.



- To save time, you can duplicate dashboard items and then make small adjustments. Duplicating items will retain any filters or rules you have configured. To duplicate, right click on an item or select it and choose Duplicate from the menu.
- Another way to save time is by converting items to another type (ex. From pivot table to a pie chart). You can duplicate an item then convert it to test out an idea or to avoid reconfiguring the item. Either right click or use the menu option.

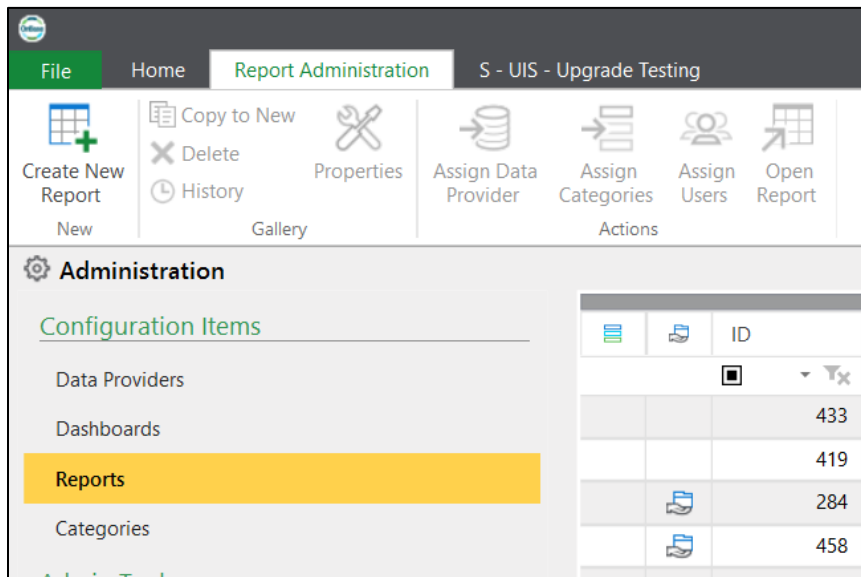




Configuring Reports

Reports use the same data providers as dashboards. Instead of configuring a pre-defined visual display of the information, reports will prompt users to define the columns, layout and aggregation when the first view the report.

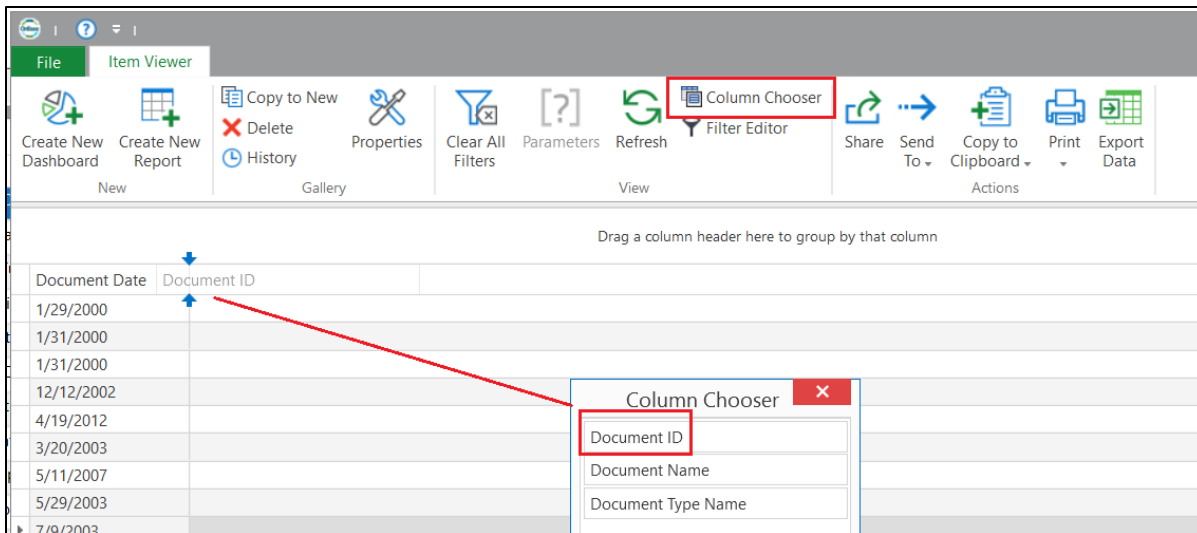
To create a report, go to the Unity client then navigate to Reporting Dashboards > Administration. Choose Reports, then click **Create New Report**. Or you can right click in the Gallery and choose **Create Report**.



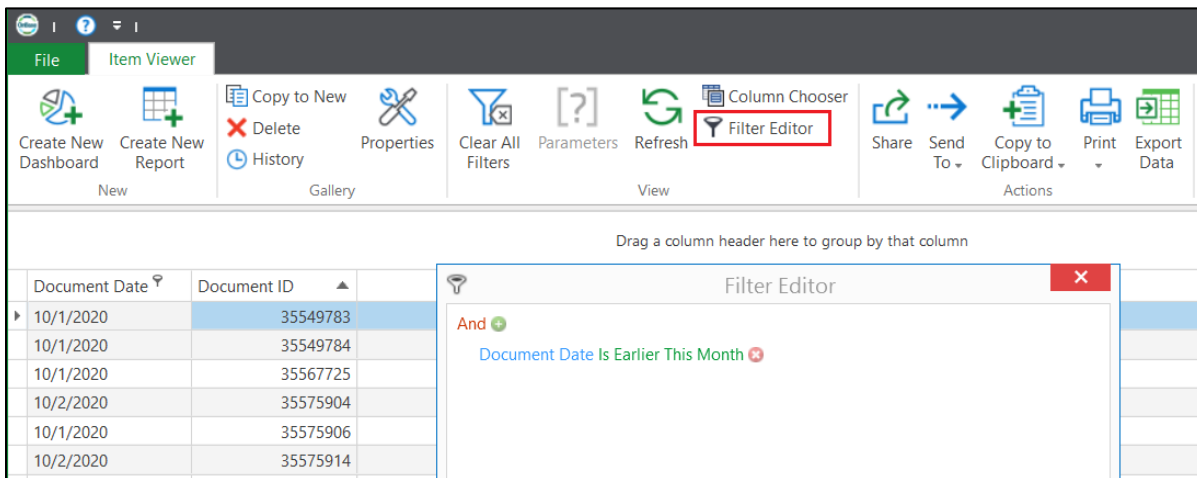
You'll be prompted to enter a name, choose/create a data provider, and assign user groups. At that point, the report can be accessed by users.

If the report has not been viewed by the current user, they'll need to add columns as desired. This does not carry over from user to user. If the **Column Chooser** is not shown by default, you can open it from the menu. Then drag the columns into the desired order.



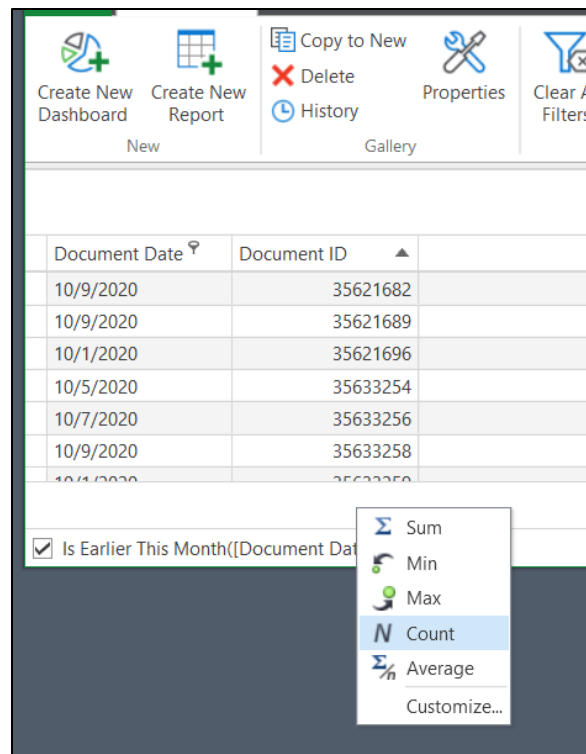


You can filter data by using the **Filter Editor**.



Right click below a column to add a total or a count.





Configuring Categories

Categories can be used to group your dashboards and reports so they are more organized and easy to find. You will need to share the category with user groups (in addition to the individual reports and dashboards) for other users to see them.

To create a category, go to the Unity client then navigate to Reporting Dashboards > Administration. Choose Categories, then click **Create New Category**. Or you can right click in the Gallery and choose **Create Category**.

You'll be prompted to enter a name, assign user groups, and assign items. Later on, you can make changes by right clicking the category in the Gallery and going to Properties.

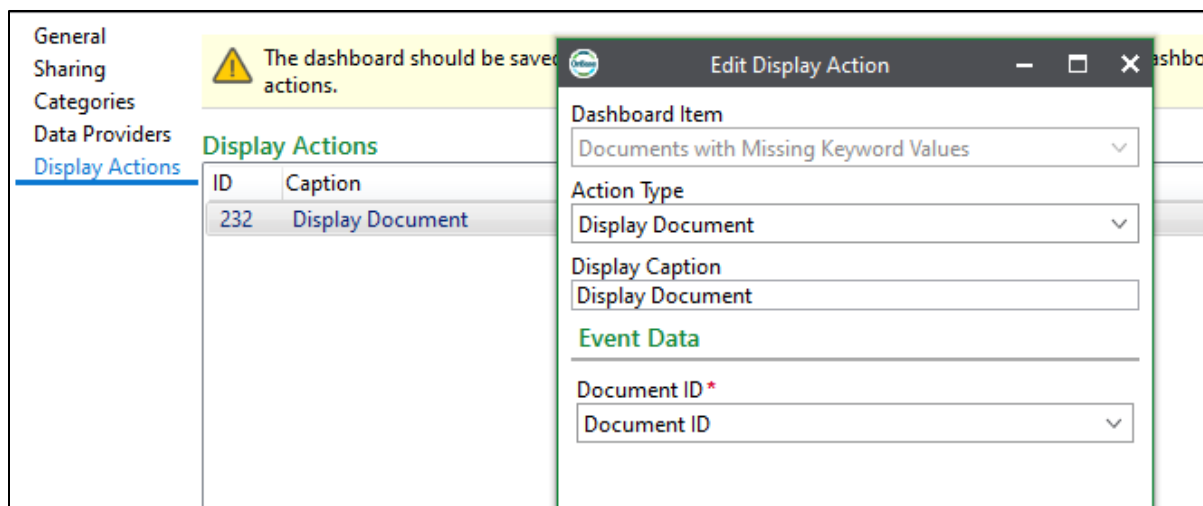
Display Actions

If they have the required permissions, users can open documents, folders, workflow queues, or WorkView objects from dashboards/reports using display actions.

To configure a display action, the relevant unique identifier will need to be included on the element that will be clicked. For example, to open documents, you'd need to include the Document ID (document handle). If you don't want the value to be visible on the dashboard, add it to the item as a Dimension in the Hidden Data Items section.



Once you've saved the dashboard, go to Properties for the dashboard/report and choose Display Actions. Add an action and choose the appropriate dashboard item, what type of item to display, and the unique ID for that item type.



Migration

Migration of reporting dashboard configuration is done in the Unity client. Refer to our [Exporting and Importing Configuration](#) guide for more details.

Scheduling

In Unity Management Console, you can schedule reports or data provider exports. The generated report/data can be stored to a network location that is accessible by the scheduler server or stored as an OnBase document.

To have a report/data provider export delivered by email, save it as an OnBase document and route it through workflow to be sent as a notification attachment.

More information about scheduling reports is available in the Unity Scheduler MRG.

