## Custom Filters and Formulae

Analyze allows the users to build Widgets that represent one or more data points. These widgets can be manipulated to quickly pull the information you are looking for through customizing the filters and formulae.
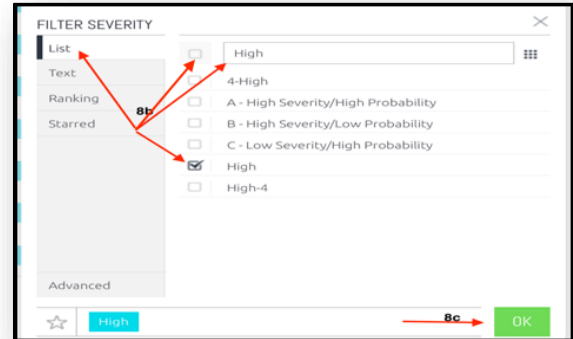
Filters

The use of filters allows you to tweak your Widgets and Dashboards to limit or exclude included data to only specific instances **(please refer to documents PSC-17:005 and PSC-17:011 for more info on Filters)**.

As an example, let's take a Widget that shows Categories and their Unsafe totals. We will update this Widget to show the "**Top 10 Most At-Risk Categories**" and limit the findings to just "**High**" and "**Life Threat**" severities.

1. Click on the "**Pencil**" icon on the Widget's top right hand corner to get to the edit screen;

2. On the top right hand side, click on Filters button to access the filters.

3. Click on the "**+**" sign which is to the right of Widget Filters to access the Filters section;

4. On the Filters window, type category and click the "**category**" option from the drop down.

5. On the "**Filter Category**" window, click on "Ranking" option on the left hand side;

6. Based on the element that you previously selected, you should see some default selections such as Top 10 and a formula. "[#Unsafes]" represents total At-Risks. You can customize the formula and it is covered under the section below;

7. Click on "**OK**" button;

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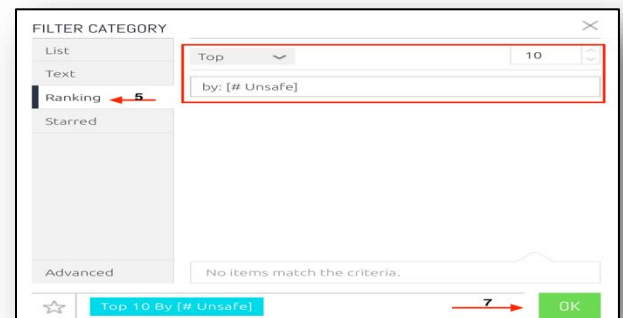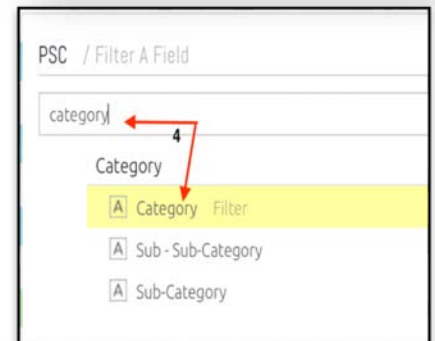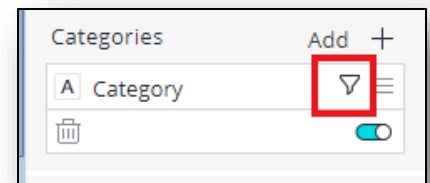
8. Another Widget filter can be added by following steps 3 and 4 -
    a. On the "Filter" window, type "Severity" and click on "Severity" option.

    b. On the "Filter Category" window, click on "List" option to manually search for the options you want to include. First uncheck the top checkbox to the left of the text field which would deselect all the available options and select "**High**". Do the same for "Life Threat".

    c. Click "**OK**".

The Widget filters on the right-hand side show the selected options and your chart would reflect the list the **Top 10 Most At-Risk Categories**. Suggest ordering them from most to least using the Widget values: A-Z, Descending

Formulae (*fx*)

Analyze provides many pre-defined formulae that can be used in building up the charts and reports. You can also create a new one or edit an existing formula based on your requirements. For this example, let's take a widget that displays **Inspections Total**. We will **customize** the Widget's formula to get us the **Average Inspections per Inspector**. The formula we are looking for is "**Total number of Inspections/Total number of Inspectors**".

1. Click on the "**Pencil**" icon to edit the widget;

2. Check the left-hand section for "**Values**".

3. The Widget we chose for this guide lists the "Total Number of inspections". Hover the mouse over the "**Value**" you want to edit and click on the "**Pencil**" icon to get to the "**Edit Formula**" window.

4. On the "**Edit Formula**" window, the existing formula is displayed. You can add more functions to or delete it by right clicking on it and then clicking on the "**Delete**" option.

5. Under the "**Data Browser**" section –

    a. Type "Inspections" and select "# Inspections" from the options (this is an existing formula in Analyze), and click on it to select;

    b. Type "/" to get the division function;

    c. Type "Inspectors" from the options in the Data Browser and select "# Inspectors" from the options and click on it to select.
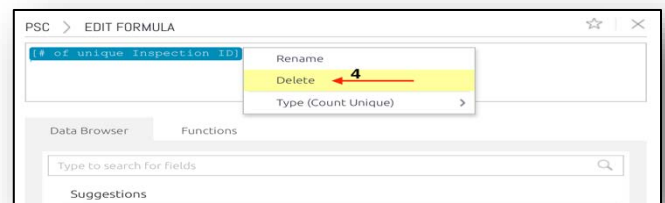
6. Your formula can be validated by checking the bottom left hand section of the Edit formula window. Any error would show up in red text, and "**OK**" button will be greyed out.
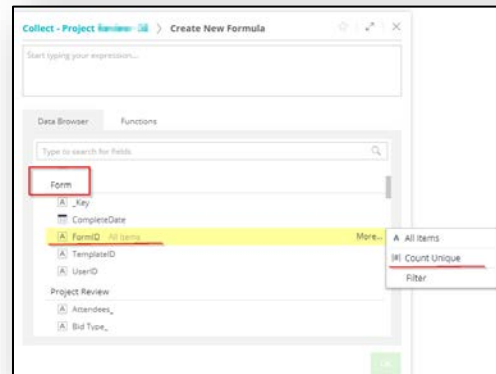
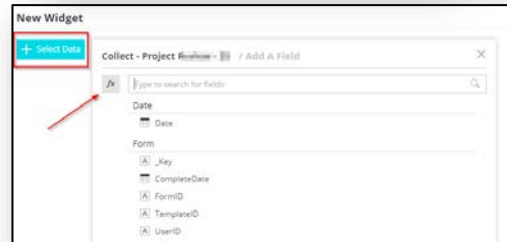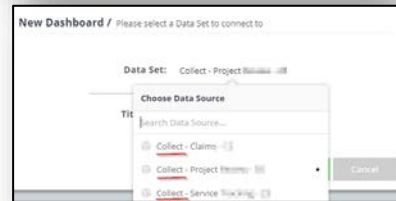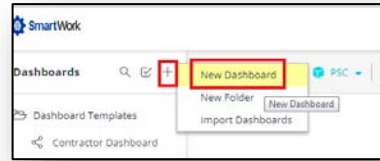7. Click "**OK**" to get your formula applied.
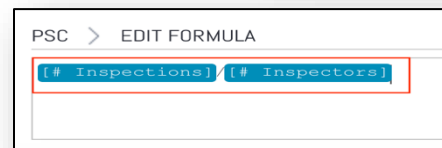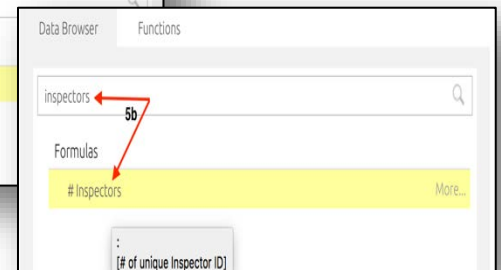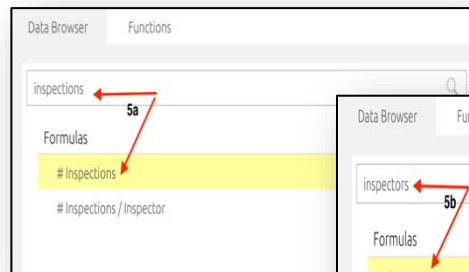
In the "**Edit Formula**" window, there is a "**Functions**" tab that gives you all the available mathematical functions you could choose to customize your formula.

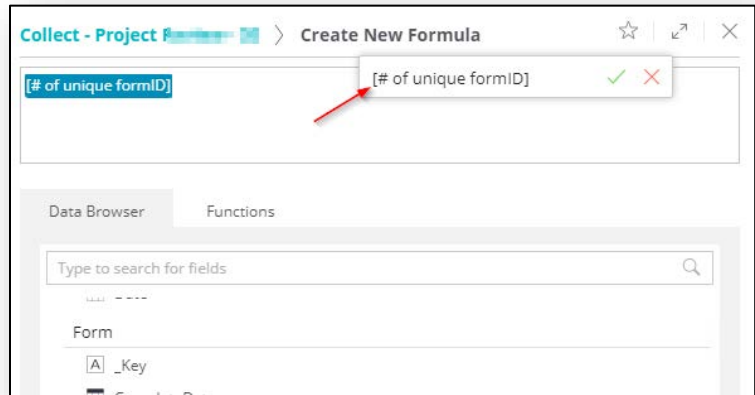|	Prepared/Responsible Kiran Jagilinki	Document No.- PSC-17:023	Rev. - B	Page 3 of 5

Creating a New Formula for Collect -Template Count (*fx*)

Once you have created a Template in Collect and have completed Forms available. You may now create a dashboard to aggregate this data in Analyze.

1. Click on the + to create a New Dashboard.

2. Select a data set. Collect templates will be listed along with PSC (SafetyNet data). Select the template you will be charting data from.

3. Click on +Select Data. The filter window will appear. Click on fx to open the window to add the data for the formula.

4. Scroll down to see the Form options. FormID – Move mouse to the right until you see More…

5. Click on More…

6. Select [#] Count Unique.

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7. [# of unique formID] will populate in the formula window.

8. Click on the STAR to Save the formula.
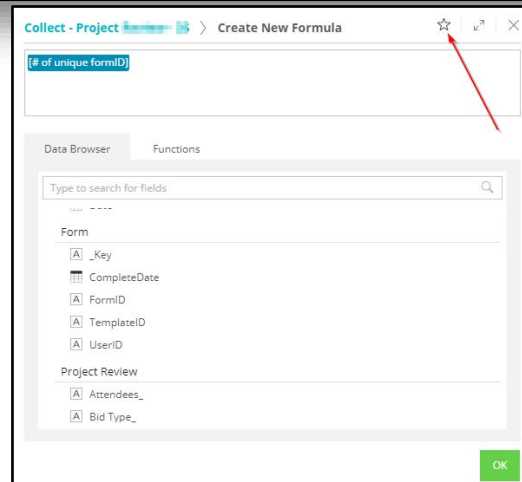
NOTE: The name of the formula can be changed by clicking on the formula window. Type in the name of the formula and click on the Green Check Mark.

Click on OK to save the formula.

The formula will appear in the listing under Formulas.

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