



Introduction to Charting

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INTRODUCTION

This document is intended for the DataBlock designers and report writers in **Argos** who have the authority to create DataBlocks and/or reports. The charting tool in both the parameter form (valuable for dashboards) and the banded editor are used to chart data; making analysis easier. As shown below, charts are completely customizable depending on the needs of each institution. Additionally, charts can be run from datasets that are independent of the report query, making them flexible.

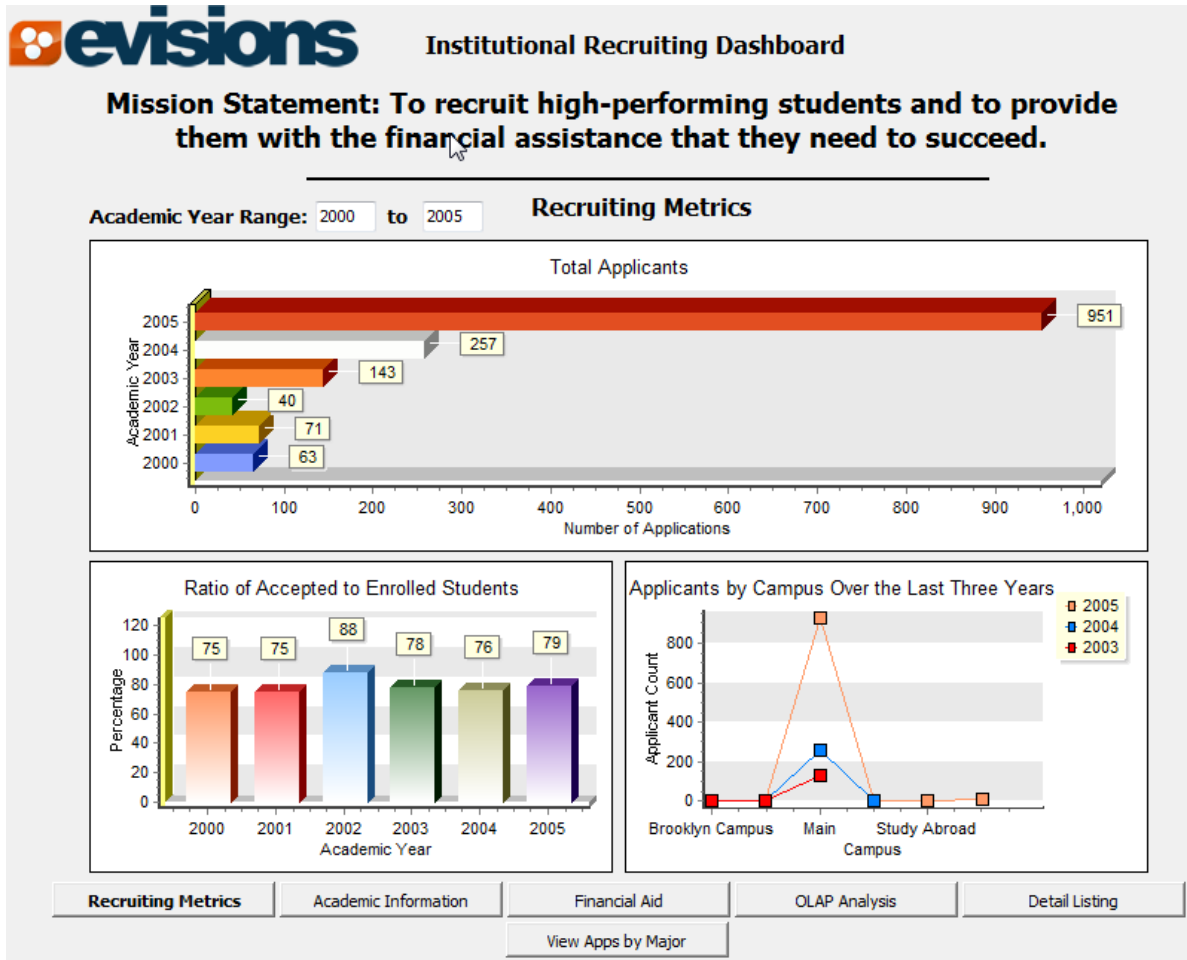


Figure 1 - Sample Dashboard

The following document will describe in detail how to create and use a chart. To be successful, it is best to have at least an introductory knowledge of the Argos interface.



CHART CREATION – PARAMETER FORM

Following are steps to create a chart. The chart will display student counts by ethnicity for an input term. The steps can be easily adapted for any other chart types desired.

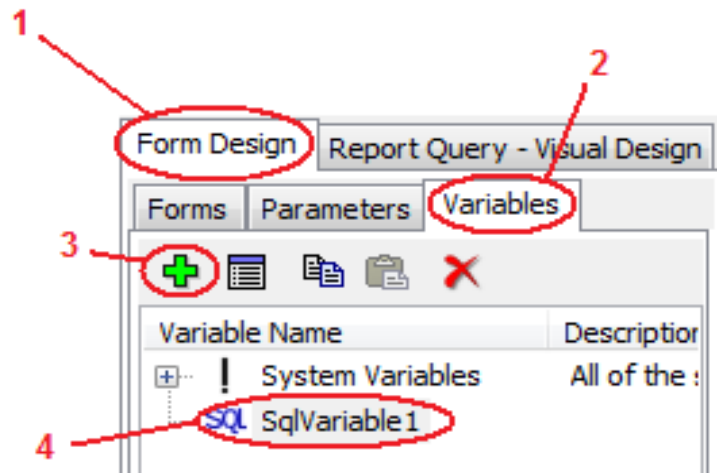
Data Set Creation

When creating a chart on the parameter form, a dataset for which the chart will be designed will need to be generated. Currently, Argos charts on the parameter form use SQL Variables to drive the chart's functions. Follow the steps below to create an SQL variable.

NOTE: This is an unnecessary step if a chart is being created for a banded report, as the datasets have already been defined during DataBlock design.

1. Click the Form Design Tab
2. Click on the Variables Tab
3. Click the Green Plus Sign to Create a New Variable
4. Double Click on the New Variable to Enter SQL Design Mode

NOTE: This is also a good time to rename the variable to something meaningful.



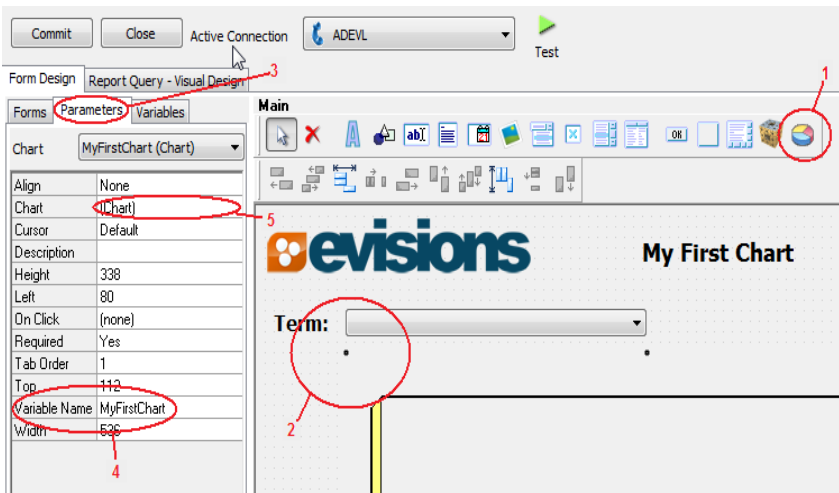
Once the SQL variable has been successfully created, it will need to be populated with the query necessary to gather data for the chart. For the purpose of the rest of this document, a query against baseline Banner will be used to chart registered student counts by ethnicity for a given term. The SQL is described below and was built using Argos' visual designer.

NOTE: A parameter for term will need to be created, called parm_dd_term, to match exactly this example or hardcode a term in place of the parameter.

```
select Count( distinct sfrstcr_pidm ) "StudentCount" ,
       STVETHN.STVETHN_DESC "Ethnicity"
  from SATURN.SFRSTCR SFRSTCR,
       SATURN.SPBPERS SPBPERS,
       SATURN.STVETHN STVETHN
 where ( SPBPERS.SPBPERS_PIDM = SFRSTCR.SFRSTCR_PIDM
        and STVETHN.STVETHN_CODE = SPBPERS.SPBPERS_ETHN_CODE )
        and ( SFRSTCR.SFRSTCR_TERM_CODE = :parm_dd_term.TERM )
 group by STVETHN.STVETHN_DESC
```

Creating a Basic Chart

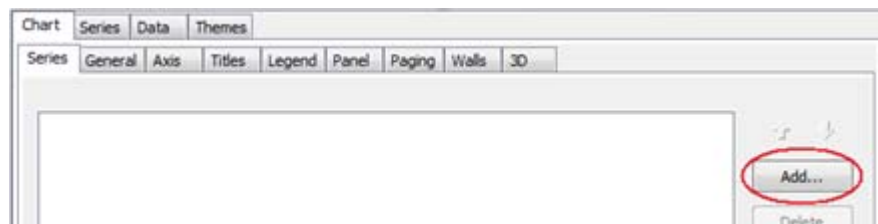
To complete a chart, there are three things necessary, a chart, a series defined in the chart, and a dataset to fill the series. The dataset has already been defined, so the next steps will be to create a chart and define a series. After that, there are just a couple steps required to connect all three pieces together.



To create a chart, first choose the chart tool icon from the parameter menu (1). After that, simply click anywhere on the parameter form to place the chart (2). Notice that the chart was placed so that the left border lines up with the other parameters to make it easier to navigate. Also note that clicking the parameter icon (1) and dragging it to the parameter form will NOT add the chart to the parameter form.

Once the chart has been added, rename it to something meaningful by clicking on the parameter tab (3) and modifying the variable name (4). Now the chart is ready to be edited. To do so, double click on the chart property (5) or double click on the chart object itself. This should bring up the screen below.

The first step in editing a chart is to create a series. To do so, click the add button on the right of the editor panel.



Once clicked, the designer is presented with a large number of choices for different series styles. These include pie charts, bar charts, line graphs, and other choices as shown below. There are several other important options to note, all of which are circled in red on Figure 2 – Series Options.

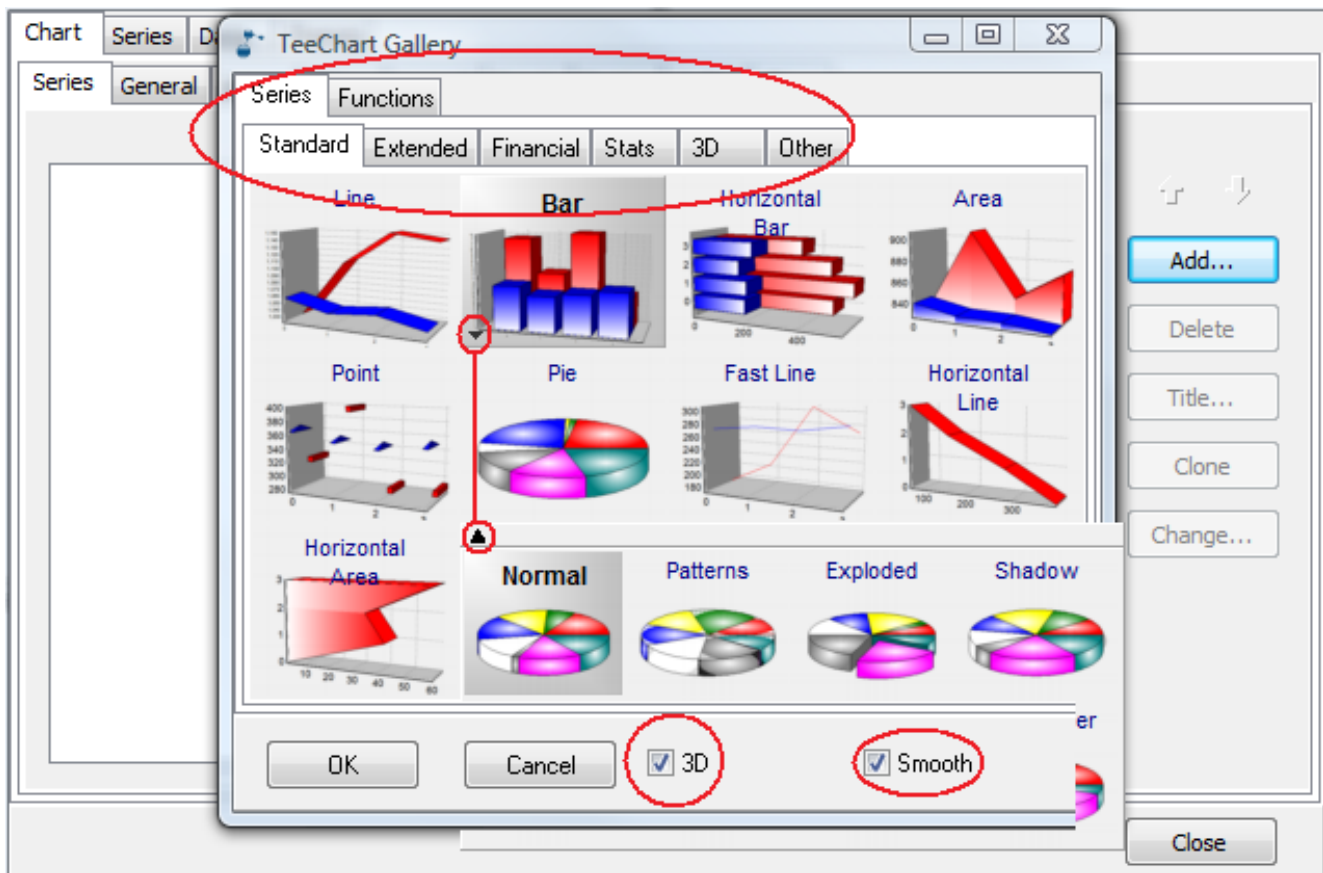
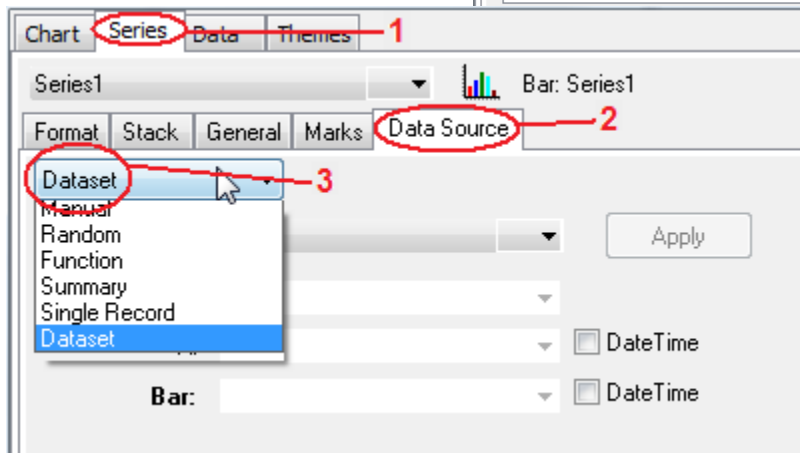
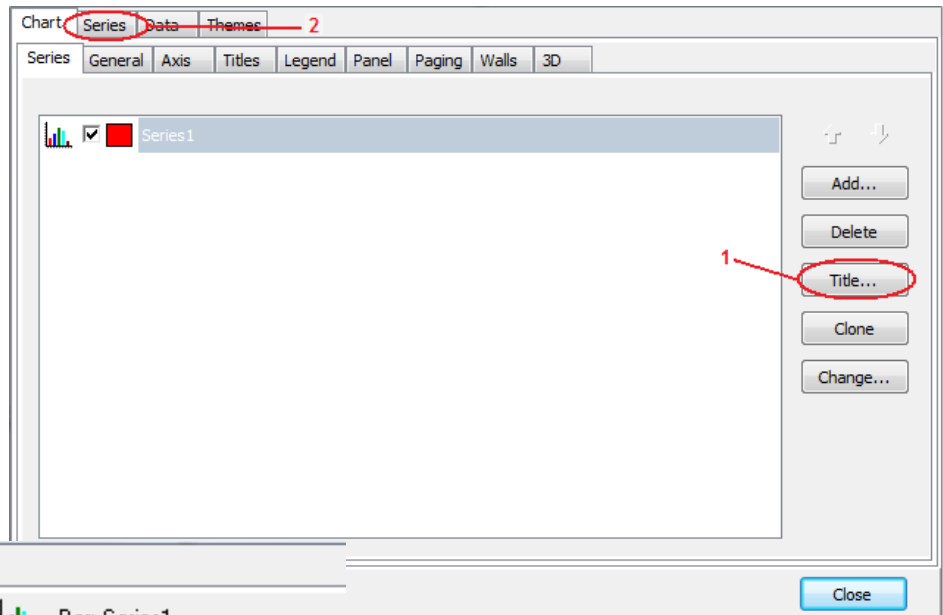


Figure 2 - Series Options

Note the many tab options on the form. From these, a choice of many different chart and graph styles are available. The styles are split into categories as described by the tab names. Additionally, there is a functions tab that allows the creation of charts and graphs based on manipulating more than one series (subtracting them, etc). Within the series editor, there are several default options for the chart type. Notice the down arrow circled in red. When clicked, a drop down menu is displayed with chart options for the designated chart (gradient, patterning, borders, and more). If a chart is configured as wanted, then choose it from the menu here rather than editing each property separately in the chart editor. Finally, there are two check boxes located at the bottom of the editor. These toggle boxes change the aspect of the chart between 2D and 3D and between smooth and rough. As the toggle boxes are checked or unchecked, the displays above will change to reflect the style chosen. Once satisfied with the styles chosen, click OK. Now the dataset can be added to the chart.

At this time, titles can be added to each series in the chart (1). However, this is unnecessary unless the series name will be displayed in the legend or if there is more than one series.

Once the title of the series is set, click on the Series tab (2). This will display many series.



Once on the Series tab (1), choose the Data Source tab (2), and then choose the Dataset option from the associated dropdown box (3). This will populate the dropdown for the chart's axis with values from the dataset.

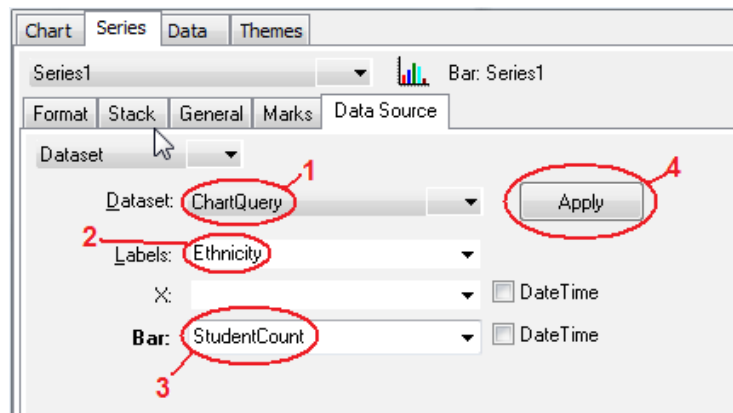
From here, establish which part of the dataset is the query, and x and y axis (the y axis is labeled bar when a bar

chart is chosen).

NOTE: required parameters for the chart to function are bolded (**Bar** in this case).

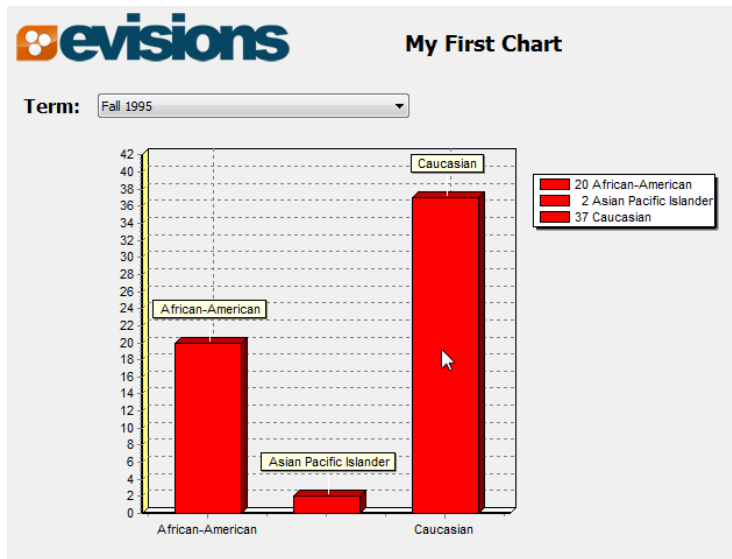
First choose the appropriate dataset from the dropdown list labeled Dataset (1). This will automatically populate with any available datasets currently defined in the DataBlock. This includes SQL variables as well as other parameter form objects, but does NOT include data from the report query.

Now, choose different fields from the dataset to populate the labels, x axis, and y axis of the chart. In this case, the labels will be set to the different ethnicities in the system (2) and the bar (or y axis) will be set to show the count of students for each ethnicity (3). It is important to note that only numeric values are acceptable for the x and y axis unless the DateTime toggle is checked (in which



case the chart will expect a DateTime field). Now, the chart is ready for execution. Click the apply button (4) and notice that the chart is immediately populated with data. These are NOT actual values, but are an example of what the chart will look like based on the information currently available. Click close in the bottom right hand corner of the chart editor and congratulations, the chart is complete!

Executing a Chart



The next step is to execute the chart created. Do this by committing the DataBlock and pressing the green Triangle at the top of the screen next to the word 'test'. When executed the chart should look something like the picture to the left.

NOTE: There are several options available to improve the chart, such as changing the labels at the top of the bars to the numeric value or changing the bars so that each bar is a different color.



CONCLUSION

There should now be an understanding on how to use the Chart feature of **Argos**. Please contact Evisions to schedule any purchased user training, or utilize the free resources located in the support section of our website. If there are any problems or any errors, either with the Chart Editor or this document, please contact us!

Getting Help

To find potential solutions to problems, please search our Knowledge Base:

<http://helpdesk.evisions.com>

If a solution is not available, please submit a HelpDesk request including a detailed explanation of the problem.

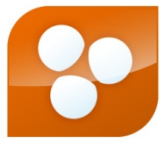
Also, if areas of this documentation require additional detail or clarification, please let us know. We are constantly trying to improve our documentation.

Important Links

<http://www.evisions.com/support>

<http://helpdesk.evisions.com>

<http://evisions.com/support/argos>



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