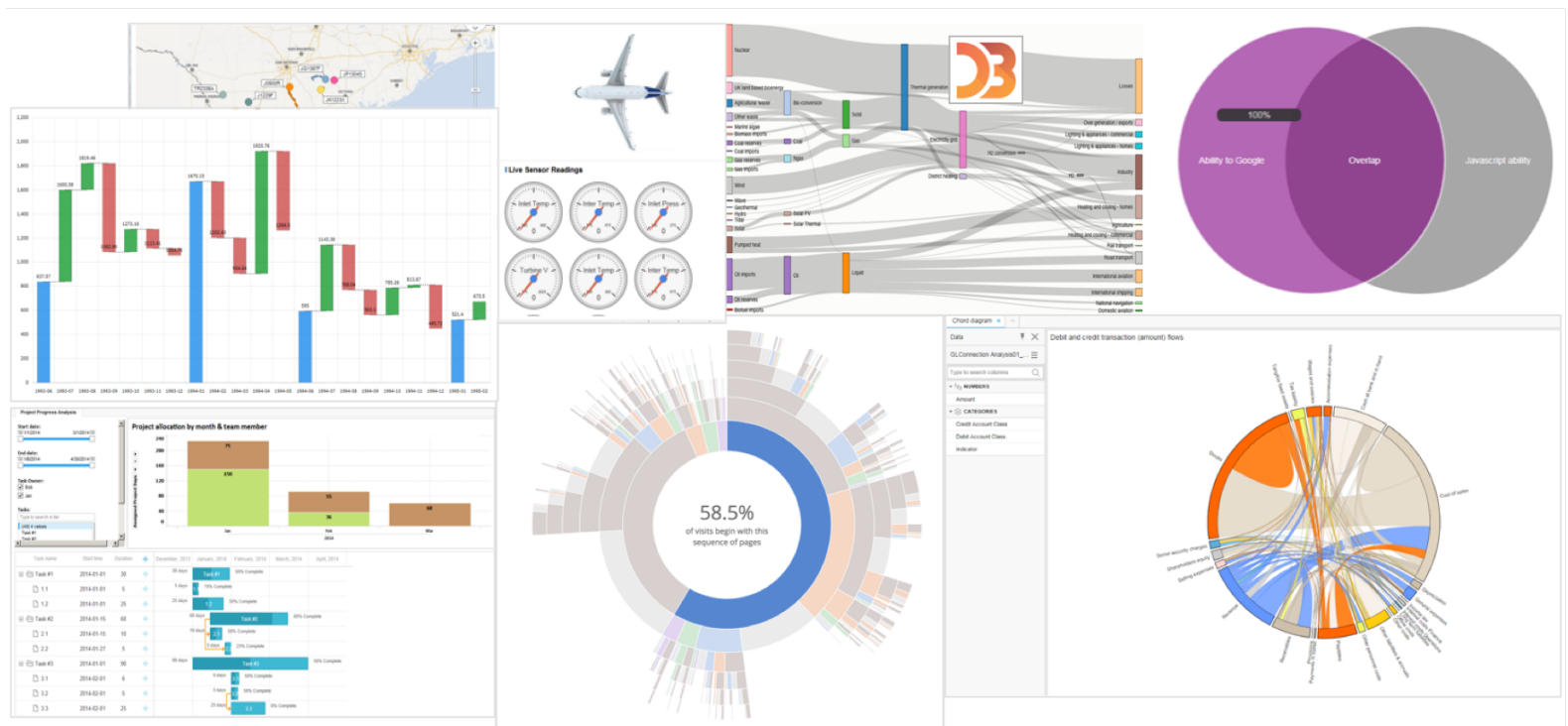


JavaScript Visualization Framework - JSViz

Tutorial #1 – Default Visualization using the JSViz Template



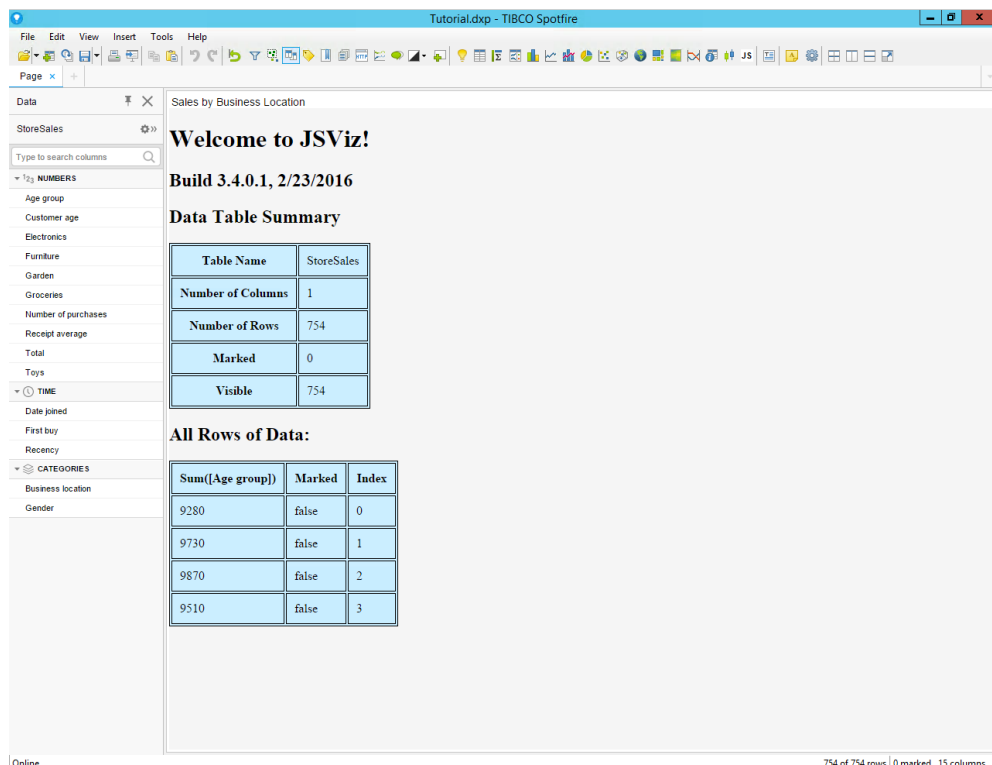
1. Introduction

In this set of tutorials we will walk through the process of recreating the Doughnut Chart visualization, which is one of the sample visualizations supplied with JSViz.

During this tutorial we will assume that you are working with the sample files installed on a Web Server. If you do not have access to a Web Server you can follow the tutorial by embedding the files directly into JSViz and skip the section on setting up the Tester.html file.

This first tutorial will walk through the process of creating a default visualization using the template files supplied with JSViz. This will serve as the starting point for creating our Doughnut Chart visualization. Here are the steps:

- Create a DXP file from our test data
- Insert a JSViz visualization
- Create our JavaScript and CSS files from the JSViz template files
- Create a default visualization using these files along with the JSViz.js library file



The screenshot shows the TIBCO Spotfire interface with the JSViz visualization loaded. The main window displays a welcome message and a data table summary. The sidebar on the left shows a list of columns categorized by type (NUMBERS, TIME, CATEGORIES).

Welcome to JSViz!
Build 3.4.0.1, 2/23/2016

Data Table Summary

Table Name	StoreSales
Number of Columns	1
Number of Rows	754
Marked	0
Visible	754

All Rows of Data:

Sum([Age group])	Marked	Index
9280	false	0
9730	false	1
9870	false	2
9510	false	3

Online 754 of 754 rows | 0 marked 15 columns

2. Opening the Starting Data File

As the basis for our visualization we will use the data file "StoreSales.sbf". The data contained in this file is included in the demo data installed with Spotfire Professional but for convenience a copy is also included with the extension in the "Documentation/Tutorials" folder.

Open this file in Spotfire Analyst and confirm that the data table "StoreSales" contains 754 rows. In the screenshot below we have created a Table visualization in Spotfire 7.5:

The screenshot displays the TIBCO Spotfire Analyst interface. The main window shows a table visualization of the 'StoreSales' data. The table has 15 columns: Age group, Business loc..., Customer age, Date joined, Electronics, First buy, Furniture, Garden, Gender, Groceries, and Number. The data is organized into rows, with each row representing a specific store location and date. The status bar at the bottom right indicates '754 of 754 rows | 0 marked | 15 columns'.

Age group	Business loc...	Customer age	Date joined	Electronics	First buy	Furniture	Garden	Gender	Groceries	Number
60.00	New York	68.00	3/28/1993 12.0...	4860.00	4/8/1994 12.00...	5865.00	5429.00	Female	5394.00	
40.00	Boston	41.00	3/28/1993 12.0...	885.00	4/28/1994 12.0...	1362.00	1431.00	Male	1419.00	
50.00	New York	58.00	3/28/1993 12.0...	216.00	4/22/1994 12.0...	524.00	467.00	Female	4286.00	
70.00	New York	77.00	3/28/1993 12.0...	0.00	4/3/1994 12.00...	238.00	0.00	Female	684.00	
60.00	Los Angeles	61.00	3/28/1993 12.0...	10013.00	4/1/1994 12.00...	3488.00	6999.00	Female	5165.00	
40.00	Seattle	45.00	3/28/1993 12.0...	6386.00	4/8/1994 12.00...	5774.00	7156.00	Female	4449.00	
60.00	Los Angeles	62.00	3/28/1993 12.0...	153.00	5/28/1994 12.0...	0.00	0.00	Male	0.00	
40.00	Los Angeles	44.00	4/11/1993 12.0...	1139.00	4/11/1994 12.0...	825.00	2373.00	Female	3532.00	
50.00	Boston	52.00	4/11/1993 12.0...	1033.00	4/25/1994 12.0...	584.00	1582.00	Female	649.00	
10.00	Seattle	18.00	4/8/1993 12.00...	0.00	4/8/1994 12.00...	417.00	0.00	Female	5951.00	
70.00	Los Angeles	74.00	3/28/1993 12.0...	436.00	5/18/1994 12.0...	0.00	467.00	Female	122.00	
50.00	Boston	55.00	3/28/1993 12.0...	5586.00	4/7/1994 12.00...	1369.00	731.00	Female	1369.00	
70.00	New York	75.00	4/5/1993 12.00...	474.00	5/17/1994 12.0...	379.00	1626.00	Female	1478.00	
40.00	Los Angeles	44.00	4/4/1993 12.00...	492.00	5/2/1994 12.00...	91.00	464.00	Female	1431.00	
60.00	New York	66.00	4/5/1993 12.00...	2593.00	4/5/1994 12.00...	4377.00	5535.00	Female	2223.00	
50.00	Boston	56.00	4/10/1993 12.0...	3846.00	4/21/1994 12.0...	219.00	4154.00	Female	1164.00	
40.00	Los Angeles	42.00	4/10/1993 12.0...	555.00	5/24/1994 12.0...	282.00	122.00	Male	521.00	
50.00	Boston	58.00	4/8/1993 12.00...	797.00	4/13/1994 12.0...	609.00	0.00	Female	0.00	
60.00	Seattle	66.00	3/31/1993 12.0...	4688.00	4/13/1994 12.0...	4452.00	1186.00	Male	4034.00	
50.00	Seattle	59.00	3/31/1993 12.0...	527.00	4/30/1994 12.0...	0.00	0.00	Female	0.00	
60.00	Boston	65.00	3/28/1993 12.0...	609.00	4/22/1994 12.0...	0.00	747.00	Female	0.00	
40.00	Los Angeles	42.00	4/8/1993 12.00...	587.00	4/3/1994 12.00...	1761.00	1434.00	Male	3388.00	
40.00	Seattle	42.00	4/6/1993 12.00...	379.00	4/1/1994 12.00...	1265.00	248.00	Female	832.00	
40.00	Los Angeles	48.00	4/9/1993 12.00...	0.00	5/4/1994 12.00...	681.00	4606.00	Female	1651.00	
30.00	New York	37.00	4/8/1993 12.00...	712.00	4/18/1994 12.0...	7410.00	468.00	Female	1855.00	
50.00	New York	51.00	4/6/1993 12.00...	916.00	4/13/1994 12.0...	285.00	141.00	Male	4890.00	
60.00	Los Angeles	60.00	4/6/1993 12.00...	81.00	4/8/1994 12.00...	2373.00	467.00	Male	0.00	
50.00	Seattle	59.00	4/7/1993 12.00...	8229.00	4/21/1994 12.0...	1667.00	1921.00	Female	1488.00	
60.00	Los Angeles	61.00	4/7/1993 12.00...	5887.00	4/8/1994 12.00...	612.00	4955.00	Female	709.00	
20.00	Los Angeles	27.00	4/12/1993 12.0...	50.00	4/5/1994 12.00...	3278.00	1189.00	Female	367.00	
60.00	Seattle	61.00	4/12/1993 12.0...	2323.00	8/7/1994 12.00...	1491.00	1679.00	Male	794.00	
40.00	New York	46.00	4/8/1993 12.00...	75.00	5/18/1994 12.0...	449.00	935.00	Male	1312.00	
40.00	Seattle	43.00	4/2/1993 12.00...	2273.00	4/7/1994 12.00...	1526.00	5139.00	Female	3720.00	
60.00	Boston	61.00	4/2/1993 12.00...	1262.00	4/1/1994 12.00...	464.00	0.00	Male	2414.00	
50.00	Los Angeles	53.00	4/2/1993 12.00...	1862.00	4/27/1994 12.0...	131.00	869.00	Female	2512.00	
50.00	New York	57.00	3/30/1993 12.0...	260.00	8/21/1994 12.0...	471.00	2439.00	Male	251.00	
60.00	Seattle	69.00	4/5/1993 12.00...	6656.00	7/22/1994 12.0...	0.00	0.00	Male	0.00	
70.00	Seattle	76.00	3/31/1993 12.0...	59.00	7/1/1994 12.00...	153.00	248.00	Male	429.00	
50.00	New York	56.00	3/31/1993 12.0...	5507.00	4/18/1994 12.0...	285.00	0.00	Female	0.00	
50.00	New York	51.00	3/31/1993 12.0...	938.00	6/19/1994 12.0...	2163.00	0.00	Female	854.00	
60.00	Los Angeles	65.00	3/31/1993 12.0...	2150.00	4/11/1994 12.0...	4306.00	1029.00	Female	169.00	
50.00	Boston	54.00	3/30/1993 12.0...	1384.00	4/7/1994 12.00...	0.00	405.00	Female	153.00	
40.00	Seattle	48.00	4/18/1993 12.0...	1482.00	4/12/1994 12.0...	3221.00	4182.00	Female	2311.00	
50.00	Seattle	57.00	4/15/1993 12.0...	4427.00	5/9/1994 12.00...	4953.00	4684.00	Female	3400.00	
40.00	New York	41.00	4/20/1993 12.0...	236.00	5/22/1994 12.0...	6179.00	245.00	Female	871.00	
40.00	Seattle	49.00	4/22/1993 12.0...	1252.00	4/1/1994 12.00...	6999.00	2398.00	Female	3884.00	
30.00	Seattle	39.00	4/15/1993 12.0...	37.00	4/4/1994 12.00...	734.00	1051.00	Female	1670.00	

3. Adding a JSViz Visualization

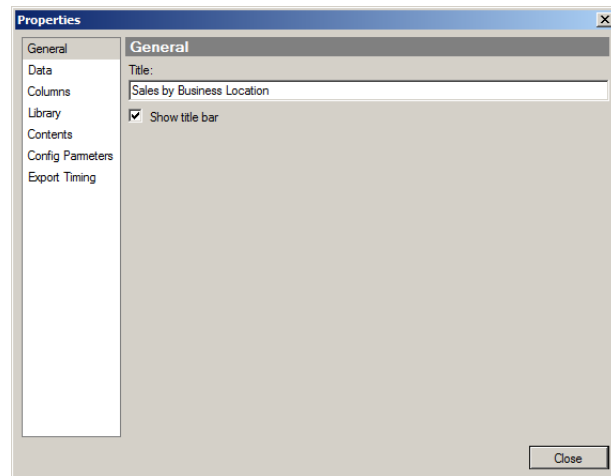
Remove any existing visualizations so you have a blank page.

Insert a new JSViz visualization by clicking on the JSViz icon in the toolbar.

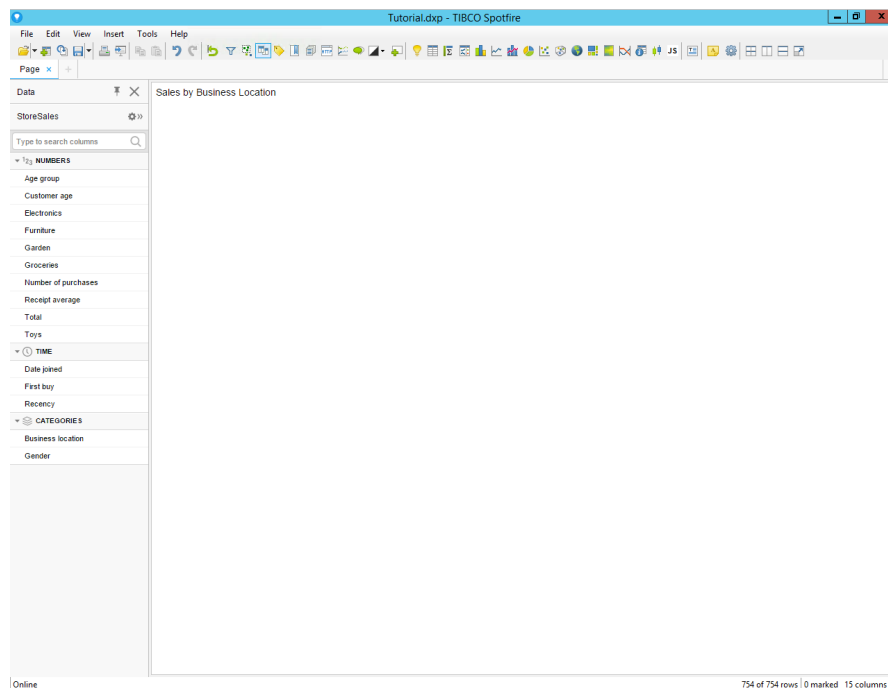


Click on the configuration cog.

Set the visualization title to be "Sales by Business Location".



Save the DXP file as "Tutorial1.dxp".



4. Creating the JavaScript and CSS Files

Navigate to the folder on your Web Server where you installed the JSViz sample files.

Within the "src/js" folder, make a copy of the "Template.js" file and call it "MyDoughnutChart.js".

Within the "src/css" folder make a copy of the "Template.css" file and call it "MyDoughnutChart.css".

5. Add the JS and CSS Files to the JSViz Library

Here we will bring the files we just created, along with jQuery and the JSViz.js helper file, into the JSViz Library and tell JSViz to use these files to draw a visualization.

Note: we will use localhost as the address of our Web Server. Make sure to use the actual address of your Web Server.

Start by opening the JSViz Configuration by clicking on the configuration cog.

Switch to the "Library" Property Page.

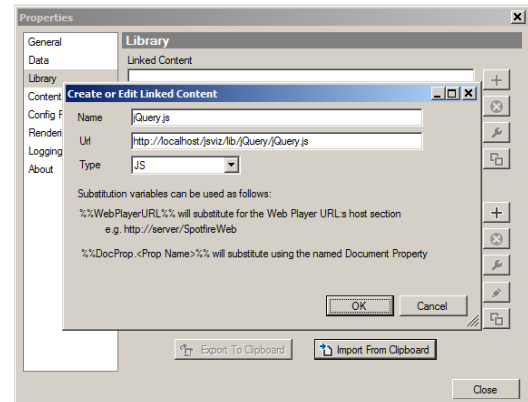
Add a "Linked Content" item by clicking on the "+" button next to the Linked Content list. Enter the details as follows:

Name: jQuery.js

URL: <http://localhost/jsviz/lib/jquery/jquery.js>

Type: JS

Click OK when done



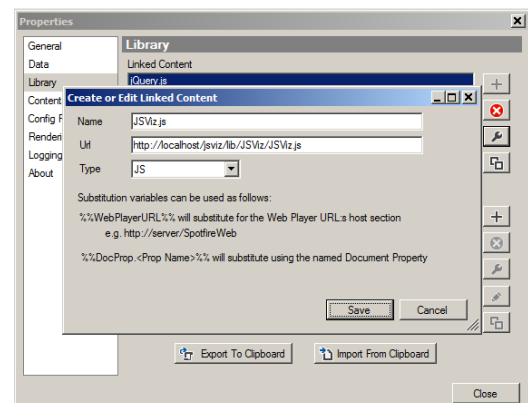
Repeat the above steps to add JSViz.js to the Linked Content list. Enter the details as follows:

Name: JSViz.js

URL: <http://localhost/jsviz/lib/JSViz/JSViz.js>

Type: JS

Click OK when done



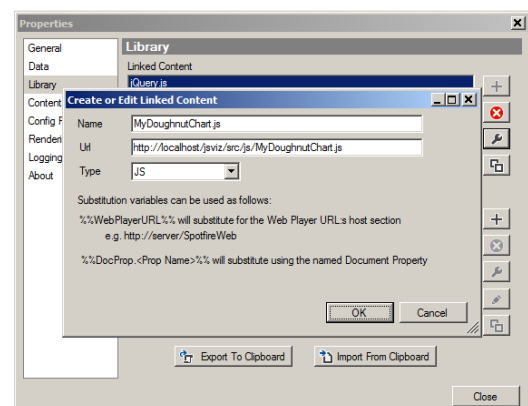
Repeat the above steps to add MyDoughnutChart.js to the Linked Content list. Enter the details as follows:

Name: MyDoughnutChart.js

URL: <http://localhost/jsviz/src/js/MyDoughnutChart.js>

Type: JS

Click OK when done



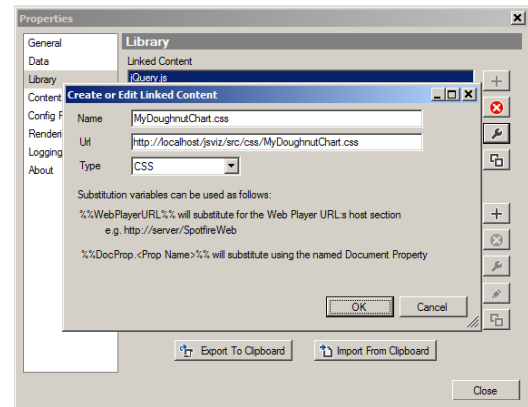
Repeat the above steps to add
MyDoughnutChart.css to the Linked Content list.
Enter the details as follows:

Name: MyDoughnutChart.css

URL: http://localhost/jsviz/src/css/MyDoughnutChart.css

Type: CS

Click OK when done



Save your changes.

Notice at this point that nothing changes. The JSViz visualization is still blank. This is because the above steps only add the JavaScript and CSS files to the JSViz library.

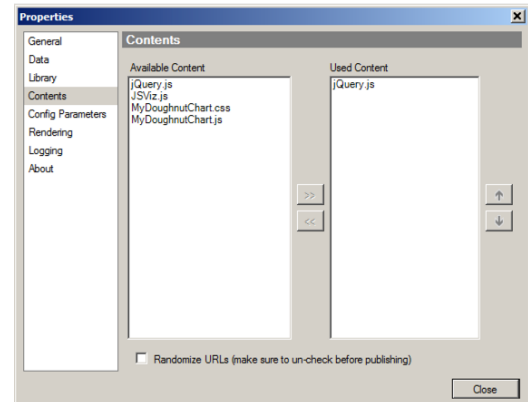
The next step is to tell the JSViz visualization to use these files to draw our visualization.

6. Add the Library Files to the Visualization

In this step we will tell the JSViz visualization which Library items to use and in which order.

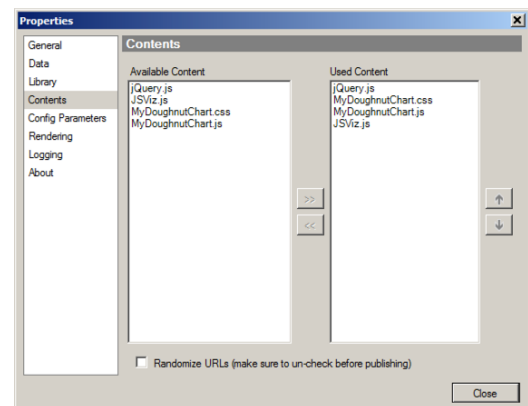
Switch to the "Contents" Property Page.

Select the `jQuery.js` item from the "Available Content" list and click the ">>" button to add it to the "Used Content" list.



Repeat the above process for the remaining items in the following order:

- `MyDoughnutChart.css`
- `MyDoughnutChart.js`
- `JSViz.js`



Notice that as you added the `MyDoughnutChart.js` file, the visualization updated to show the Default Visualization.

