BUSINESS INTELLIGENCE TOOL

TIBCO Spotfire

INTRODUCTION

- Quick to analyze data and share on the web.
- Data could be imported from Desktop File, Network File System, Database.
- Visualize data:
 - Clear concise sleek and colorful visualizations.
 - Bar charts, cross tables, scatter plots, tree map, combination chart etc could be generated.
 - Features are easy to use through point-and-click and drag-and-drop.
 - Tool Tips, Tags, Formatting, Color Patterns etc to enhance Interactivity.
 - Data Relationship using Regression, Anova, Clustering,
 Spearman Co-efficient etc could be studied.
 - Share your Results:
 - Data could be shared as Image, html, ppt, pdf and also printed.

INSTALLING THE TIBCO SPOTFIRE CLIENT

• System Requirement:

- OS: MS Windows 7; vista; XP SP3.
- Processor: 1 GHz.
- RAM: 512 MB (minimum recommended).
- Hard Disk Space: Approx 90 MB.
- Further Details: http://support.spotfire.com/sr_spotfire_silverspotfire.asp
- Register and Download:
- use the link: https://silverspotfire.tibco.com/us/download
- Start Up and Login:
- Launch the Spotfire Client and login with your credentials.

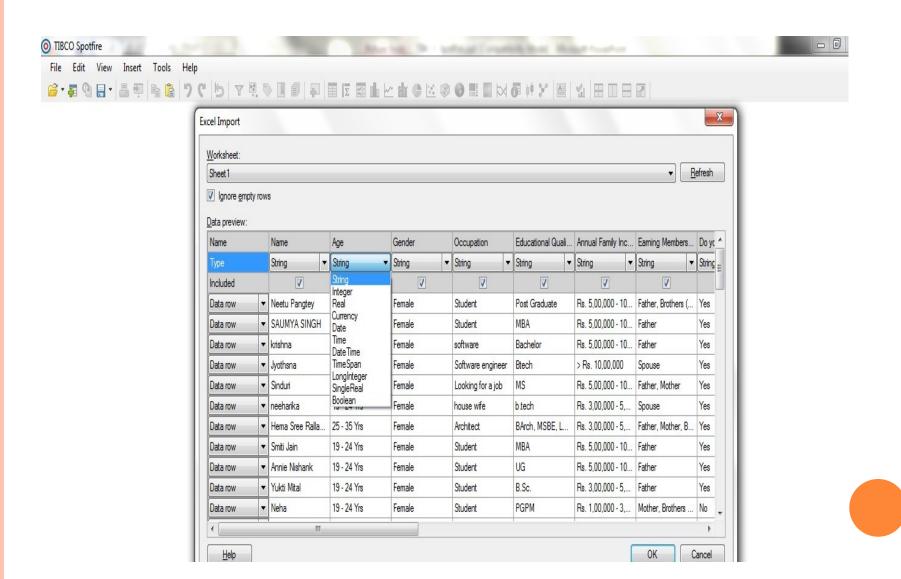
USING SPOTFIRE: LOAD DATA

- Sources of Data Import:
 - Pasting from clipboard.
 - From simple text files.
 - Microsoft excel Files.
 - SAS Files.
 - Database.
 - Information Link.
 - Load Data from File, Text, Excel:
 - Click on File> Open.
 - Browse to the file click Open.
 - Look through the preview and make settings as desired for the data set > click OK.



StoreSales.txt

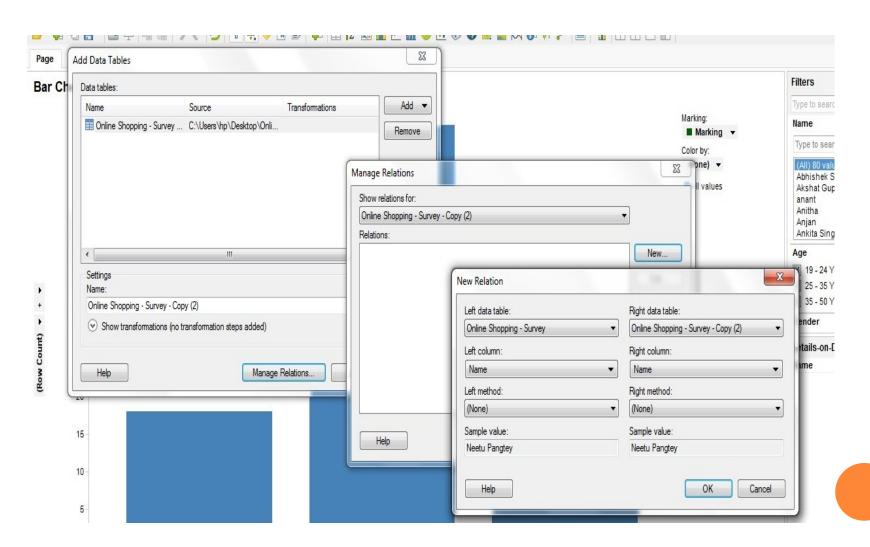
USING SPOTFIRE: LOAD DATA



..USING SPOTFIRE LOAD DATA.. DATA MANIPULATIONS

- The data type of the columns could be selected as Integer, Real, Currency, date, Time etc.
- The row type be selected as Data Row, Ignore, Name Row and Type Row.
- The data in a particular file could be normalized, could be used for computation of additional columns using relational operators, the column names could be formatted- some of the features of data set manipulations.
- Multiple data files could be added to the existing files.
- The relationship between the columns of the files could be defined.

..USING SPOTFIRE LOAD DATA DATA MANIPULATIONS



USING SPOTFIRE VISUALIZATION

- The various visualizations offered by the tool are:
 - Table
 - Cross Table
 - Graphical Table
 - Bar Chart
 - Line Chart
 - Combination Chart
 - Pie Chart
 - Scatter Plot
 - 3D Scatter Plot
 - Map Chart
 - Tree Map
 - Heat Map
 - Parallel Coordinate Plot
 - Summary Table
 - Box Plot

- The properties for the selected visualization could be set:
 - Data: Data could be highlighted using markings, also selected markings could be included, omitted.
 - Data: Data to be included could be limited using filter schemes.
 - Data: Data to be shown could be limited using expressions.
 - Appearance, Format, Fonts can be defined.
 - X-axis, Y-axis: Columns, Scale Order, inclusion of slider and grid lines, Label View.
 - Color, Label, Tooltip properties can be added to desired values.

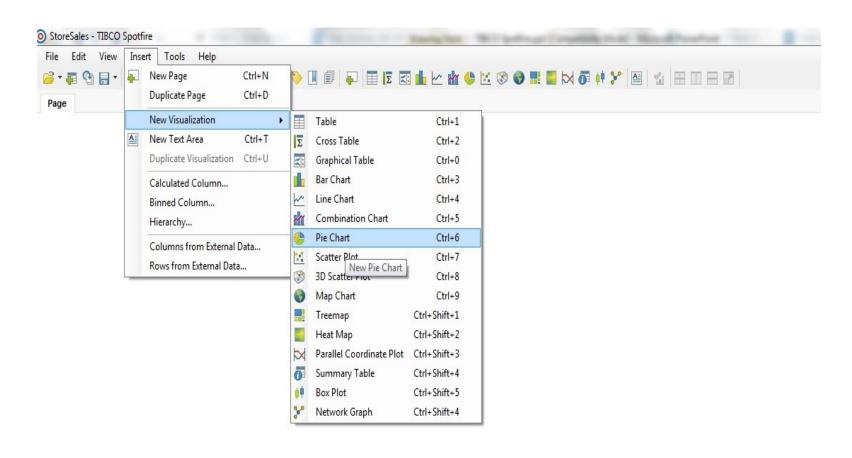
..USING SPOTFIRE VISUALIZATION.. PAGE VIEW

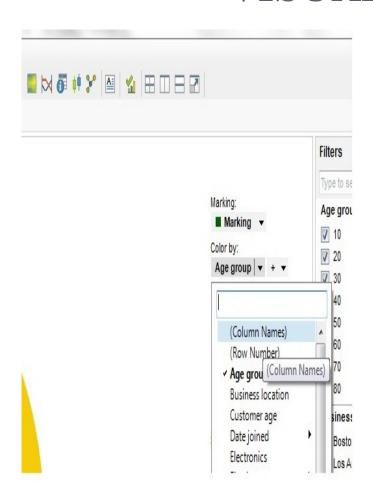
- Multiple Visualizations on a page could be viewed in the following patterns:
 - Arrange Evenly
 - Arrange Side by Side
 - Arrange Stacked
 - Maximize Active

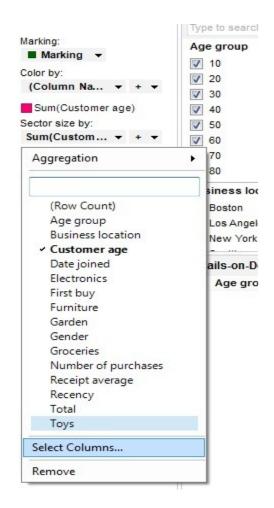
- For the data file StoreSales.txt we generate the following visualization:
 - Goods Per Type Per Gender.
 - Total Sales Per Age Group Per Gender.

- Goods Per Type Per Gender:
- Select Pie Chart as the visualization: Insert > New Visualization > Pie Chart.
- In the dropdown- Color By : Select "(Column Names)"
- In the dropdown- Sector Size By: Select "Select Columns.." In the selection box now:
 - Select the column "*Electronics*" and <u>Add apply the aggregation "'Sum</u>" to it.
 - Select the column "Furniture" and Add apply the aggregation "'Sum" to it.
 - Select the column "Garden" and $\underline{A}dd$ apply the aggregation "Sum" to it.
 - Select the column "*Groceries*" and <u>Add apply the aggregation "'Sum"</u> to it.
 - Select the column "*Toys*" and <u>A</u>dd apply the aggregation "*Sum*" to it.

- Right Click and Select "Properties".
- Select Trellis.
- Check the radio button "Rows and Columns".
- In Rows dropdown select Gender.
- Close.

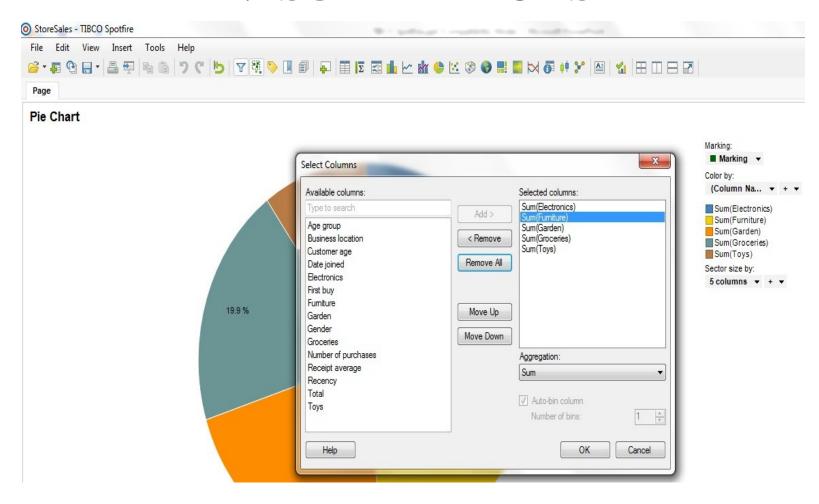




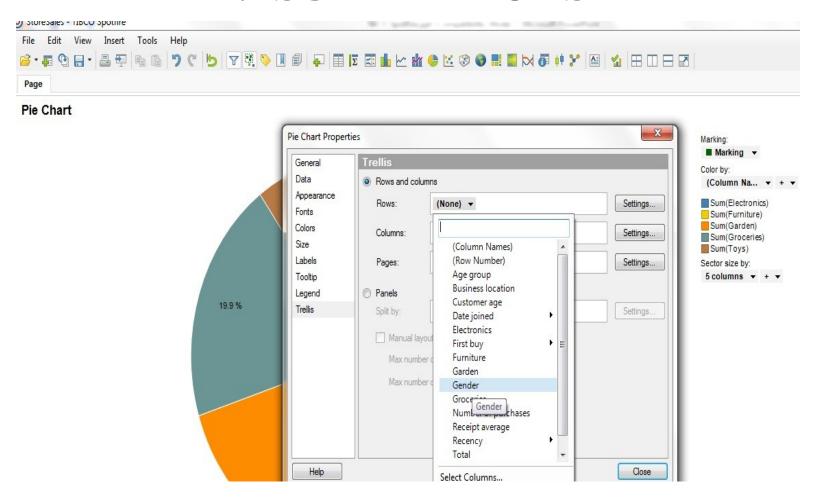


Select (Column Names) In dropdown Color By:

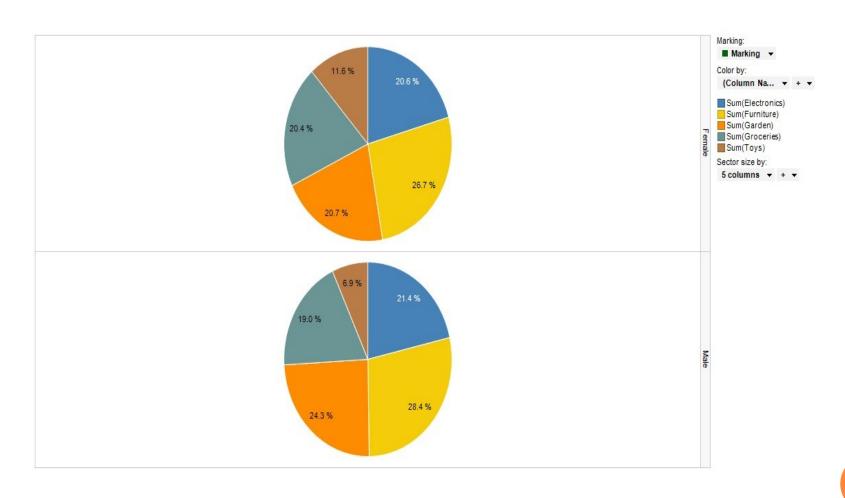
Select "Select Columns.." In the dropdown Sector Size By:



Select the columns apply aggregation "Sum" to them click OK.

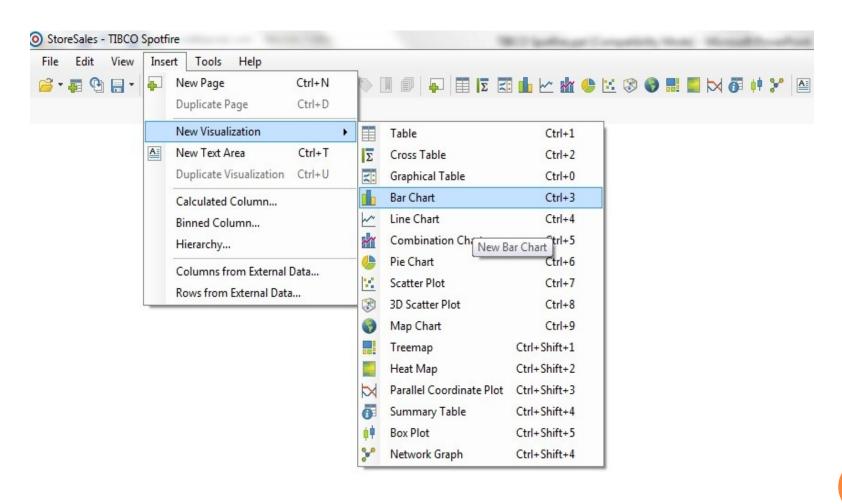


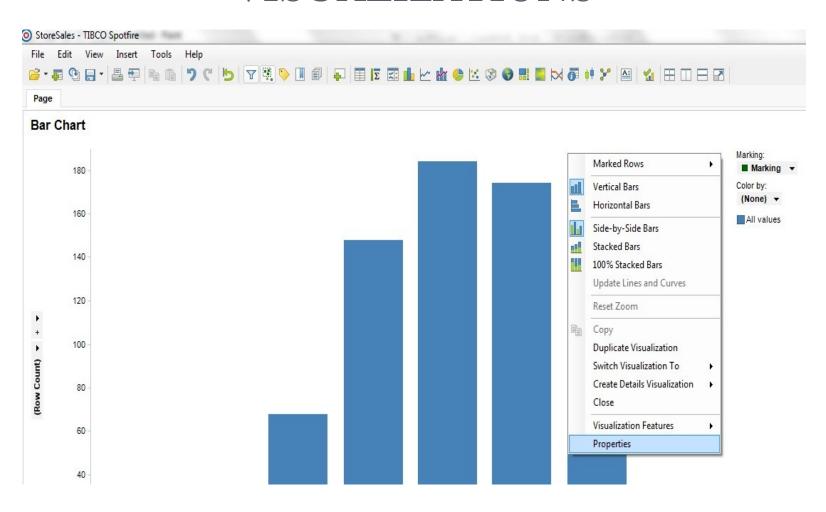
Right Click Select "Properties" In "Trellis" In the Rows dropdown Select "Gender".



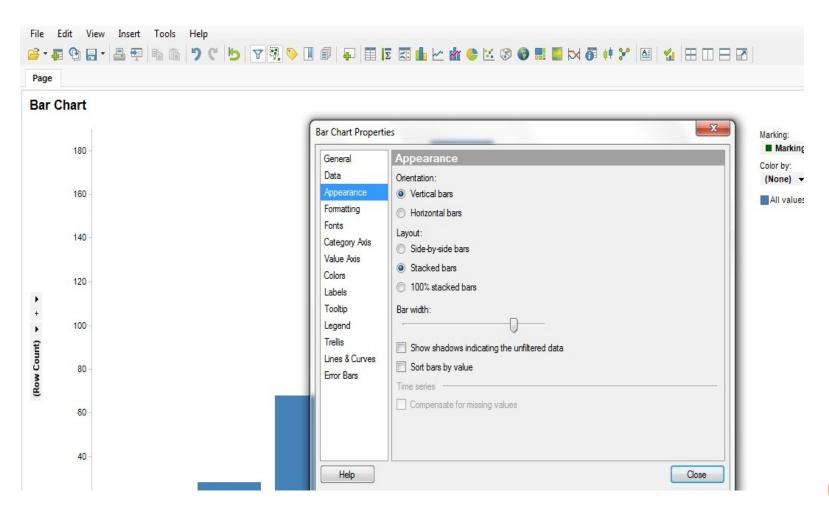
Goods Per Type Per Gender

- Total Sales per age group per gender:
 - Select Bar Chart as the visualization: Insert > New Visualization > Bar Chart.
 - Right Click and Select "Properties".
 - In "Appearance" check "Stacked Bars" Radio Button.
 - In "Category Axis" in dropdown "Columns:" select "Age Group".
 - In "Value Axis" in dropdown "Columns:" select "total".
 - In "Colors" in dropdown "Columns:" select "gender".

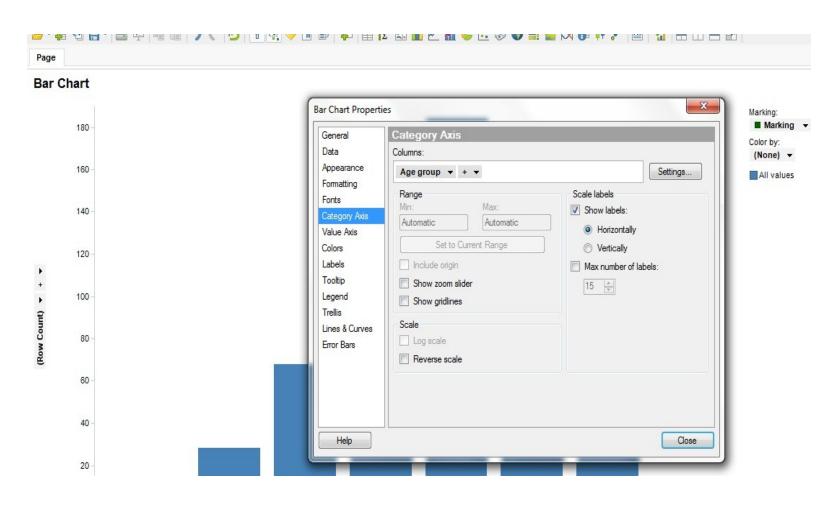




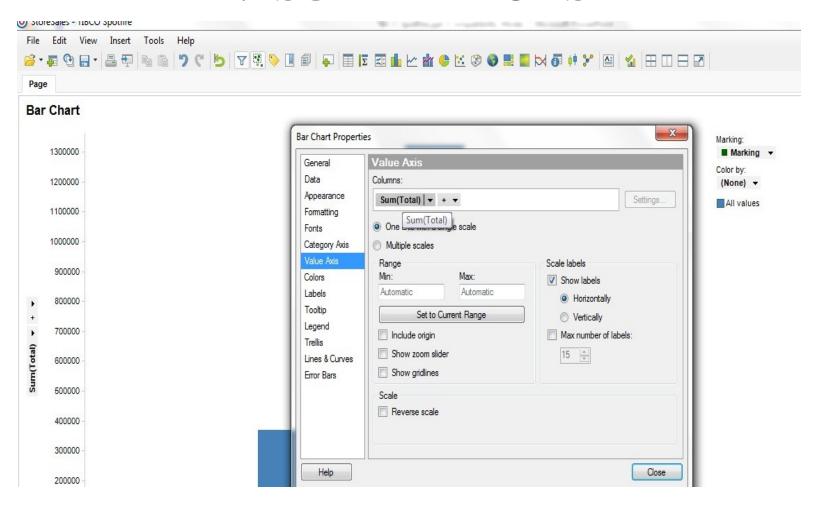
Right click select "Properties"



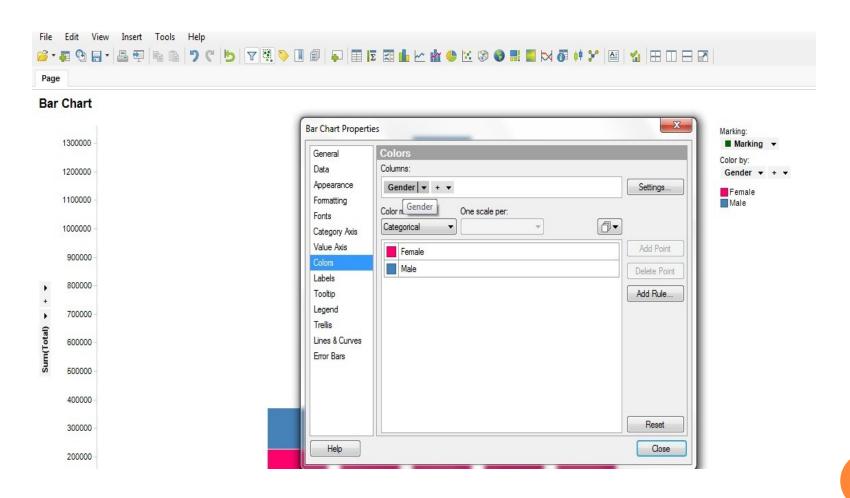
In "Appearance" under "Layout:" check radio button "Stacked Bars".



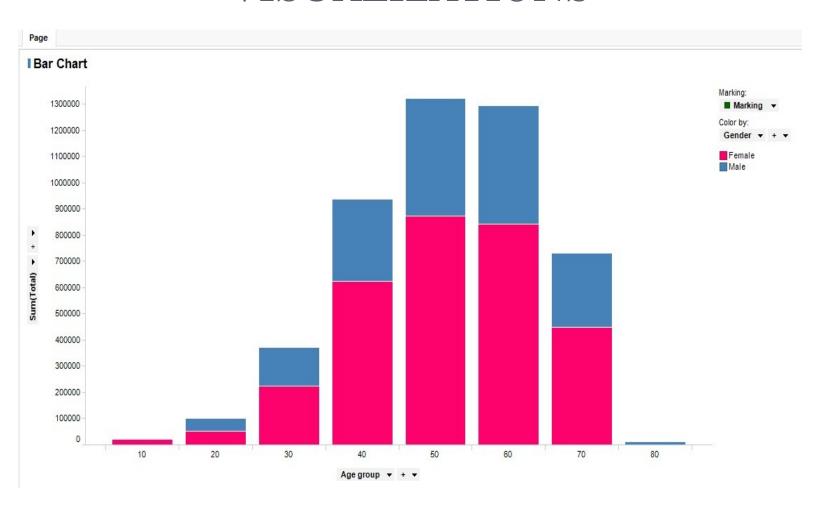
In "Category Axis" in dropdown "Columns:" select "Age Group".



In "Value Axis" in dropdown "Columns:" select "Total".



In "Color" in dropdown "Columns:" select "Gender" and click "Close".

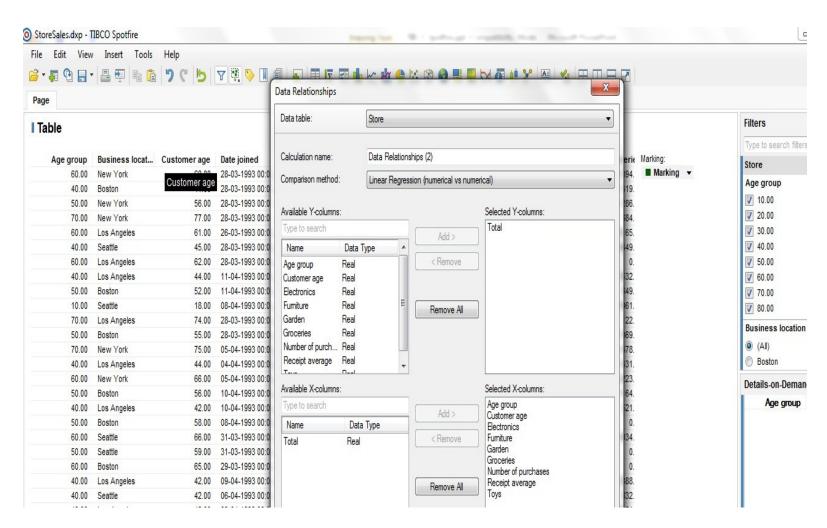


Total Sales Per Age Group Per Gender

USING SPOTFIRE: DATA RELATIONSHIPS REGRESSION

- Go to <u>Tools</u> > Data Relationships.
- Select "Linear Regression" in the Dropdown "Comparison Method".
- In the "Available Y Columns" add:
 - Total.
- In the "Available X Columns" add:
 - Age Group
 - Customer Age
 - Electronics
 - Furniture
 - Garden
 - Groceries
 - Number of Purchases
 - Receipt Average
 - Toys
 - Click OK.

USING SPOTFIRE: DATA RELATIONSHIPS ..REGRESSION..



USING SPOTFIRE: DATA RELATIONSHIPS ..REGRESSION

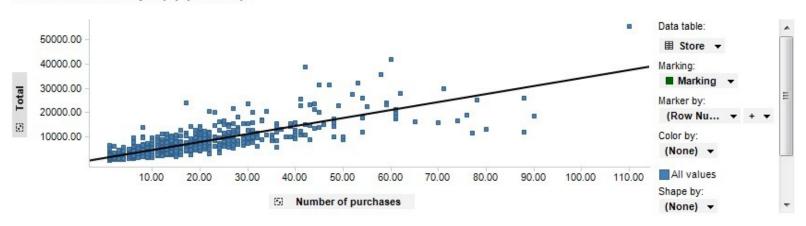
Page Data Relationships (2)

Data Relationships (2) (2)

Data Relationships (2) (Linear Regression)

Y (numerical)	X (numerical)	p-value ▲	FStat	RSq▼	R	Df	n
Total	Number of purch	6.79E-187	1578.68	0.68	0.82	752	754
Total	Garden	5.62E-122	814.69	0.52	0.72	752	754
Total	Furniture	1.23E-109	700.79	0.48	0.69	752	754
Total	Electronics	1.28E-087	517.84	0.41	0.64	752	754
Total	Groceries	3.75E-084	491.20	0.40	0.63	752	754
Total	Toys	4.51E-062	334.33	0.31	0.55	752	754
Total	Customer age	1.65E-001	1.94	0.00	0.05	752	754
Total	Age group	2.18E-001	1.52	0.00	0.04	752	754
Total	Receipt average	6.80E-001	0.17	0.00	0.02	752	754

Data Relationships (2) (Details)



USING SPOTFIRE: SHARE RESULTS

- To export use File > Export.
- Export Options:
 - Image
 - Data
 - To Microsoft PowerPoint
 - To PDF
 - To HTML

THANK YOU