



# Basic Spotfire Introduction

Mike Benzy / Sr. Analyst-Claims Prevention / NA District

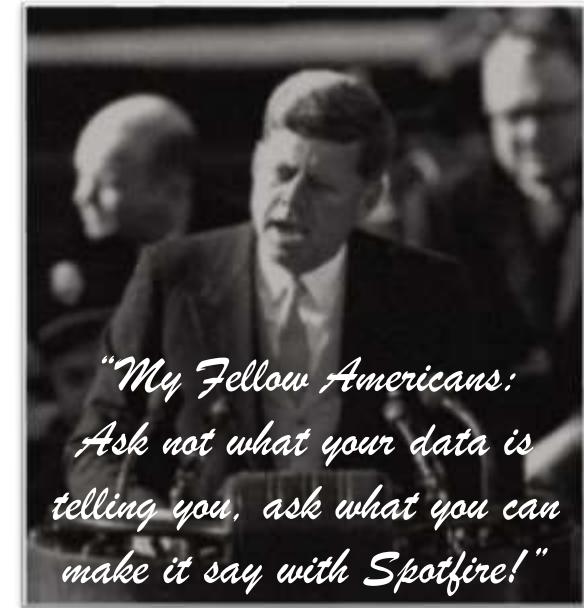
Little Rock, AR

October 16 – October 18, 2017

# Class Goals For Everyone In Attendance:



- Leave with the ability to successfully navigate a Spotfire report (*and show others how to do it too!*)
  - Obtain a working knowledge of how to create and modify a dashboard that conveys a visual message appropriate to the audience
  - Know where & how to access help when you get stuck
    - 1. **Learn To create**
    - 2. **Get your creations to interact**
    - 3. **Make it say what you want it to say**



John F. Kennedy / Inaugural Address

# Itinerary - Day 1

- Local messages / Team Introductions
- Spotfire Introduction – What is it? What can Spotfire do for you?
- Introduction to the dashboard & visualization flow
- Basic navigation through a completed report from SPS (or local backup)
- I have data – Now what?
  - Adding multiple pages / Page Navigation
  - Home Screen Options
- What do all the icons mean?

## LUNCH – 12:00pm

- Follow along with the instructors
  - Create Bar Chart (Colors Introduction)
  - Create Line Chart
  - Create Combination Chart
  - Create Pie Chart
  - Create Tree Map
- Follow along with the instructors
  - Create Table
  - Create Summary Table
  - Create Cross Table
  - Create Text Area
  - Sharing Data Options

Dinner at a good restaurant, like Mendy's

### Helpful Tips:

*To avoid having to take this class again...*

- ✓ Please take lots of notes!
- ✓ Please ask questions if you feel lost
- ✓ Please do not try to think ahead
- ✓ Please **BE HERE NOW**

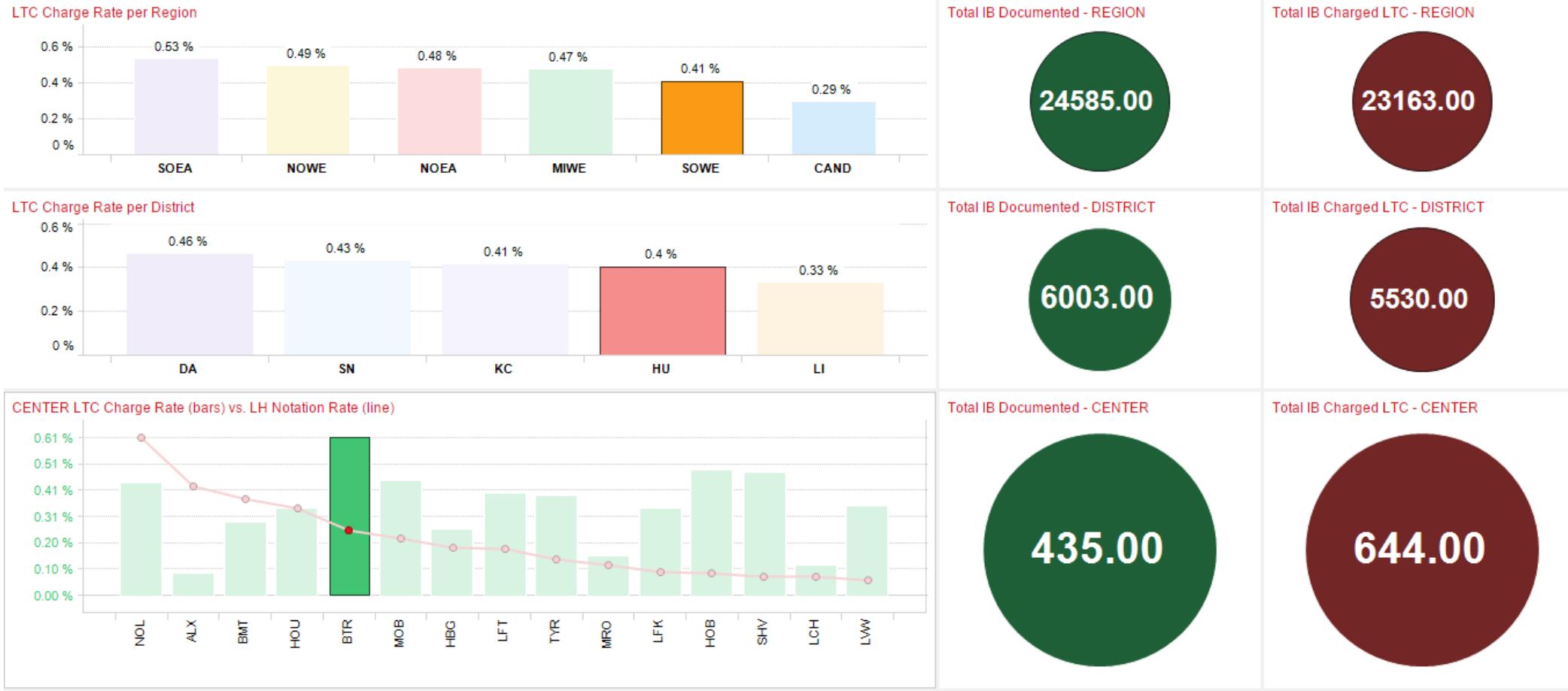
# What Is Spotfire???

- TIBCO Spotfire is a smart, secure, governed, enterprise-class analytics platform with built-in data wrangling that delivers AI-driven, visual, geo, and streaming analytics.
- Spotfire allows you to more quickly visualize your data, and in ways that display more dimensions of data than your standard excel charts.
- It allows you to ask and answer questions about data on the fly, without configuring pivots, formulas, ranges, olap cubes, indexes, keys, etc.



# What Can Spotfire Do For You?

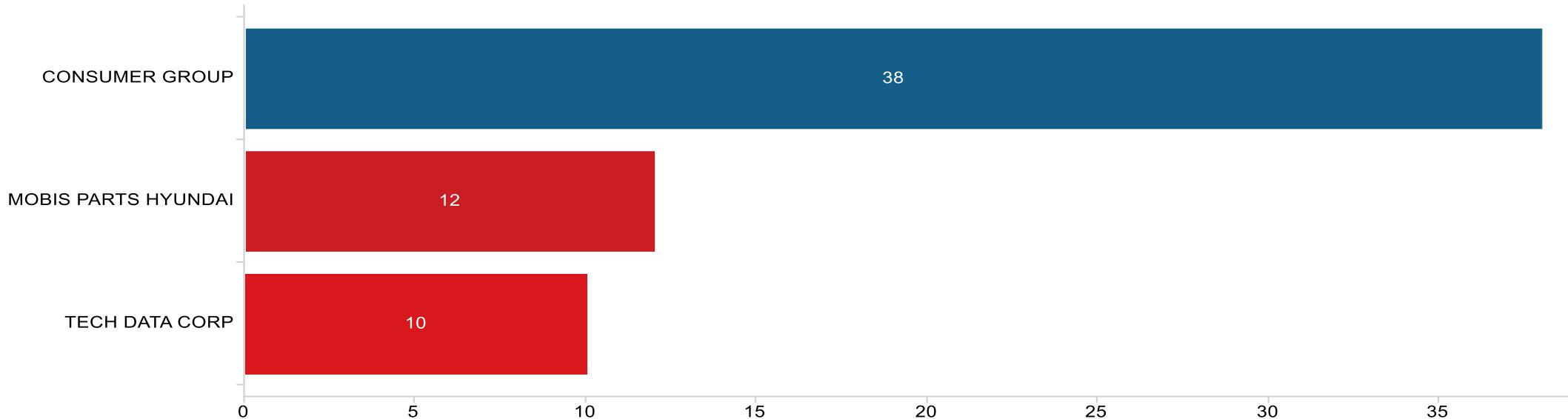
- Create drill-down report visualizations that can be easily exported:



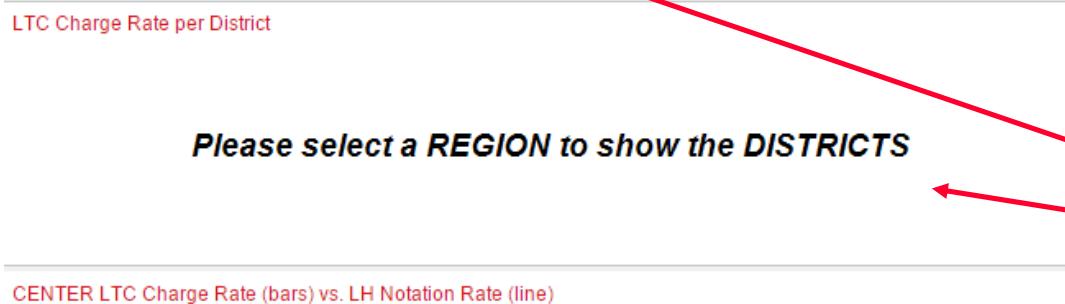
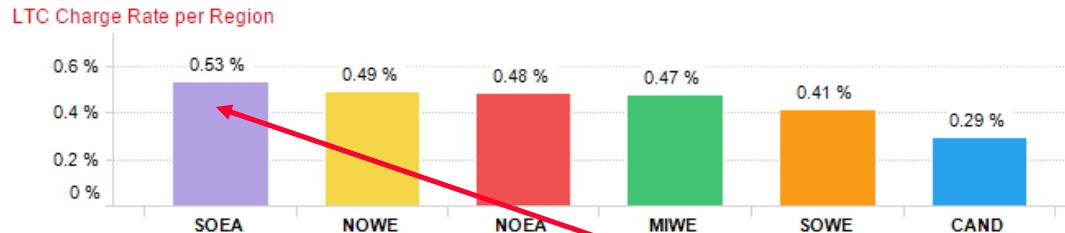
# What Can Spotfire Do For You?

- Spotfire can export report graph visualizations, eliminating the need for hundreds of lines of data:

## Total LTC Charges by Shipper:



# Introduction to the Dashboard & Visualization Flow (1):



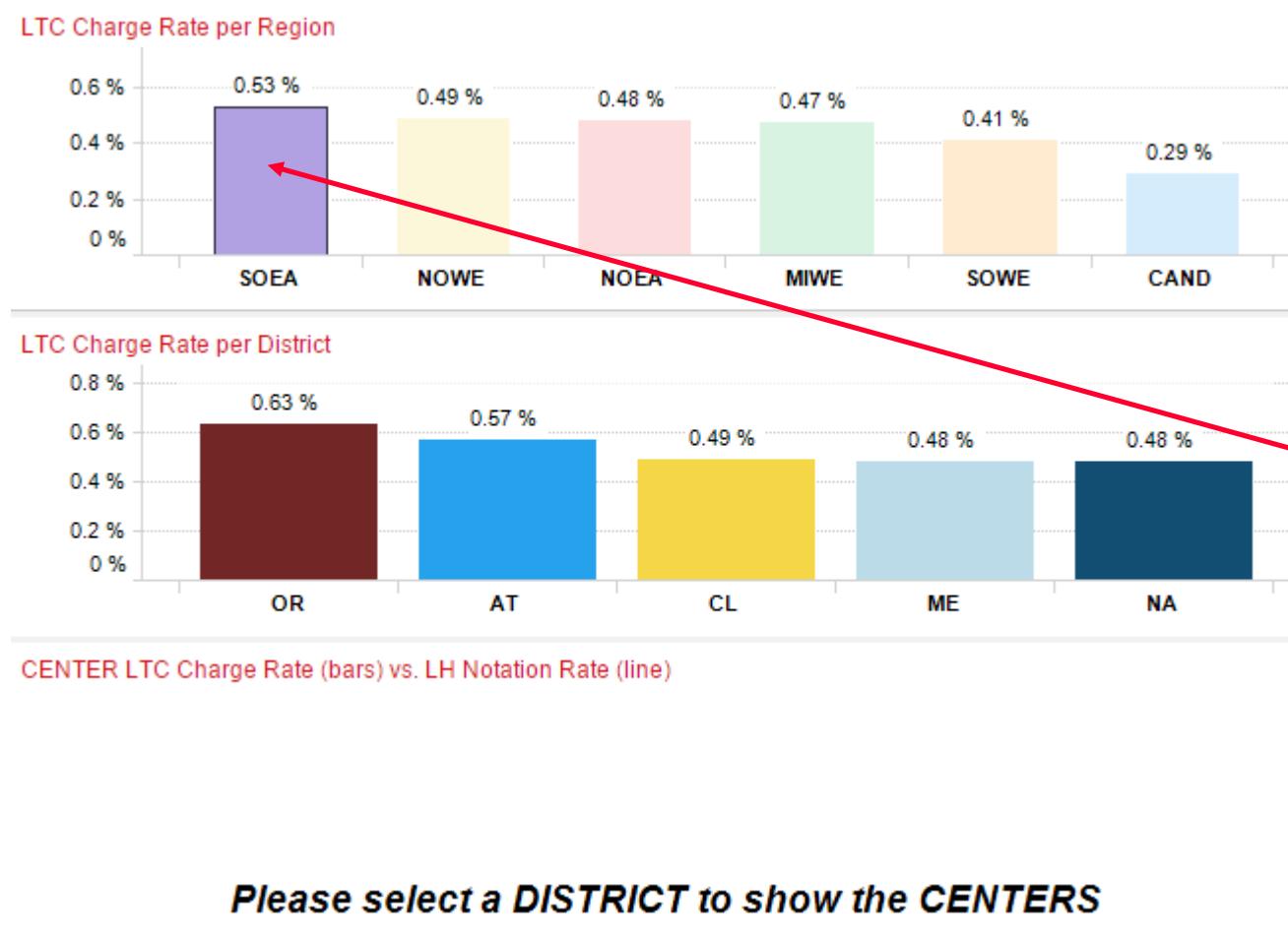
*Please select a DISTRICT to show the CENTERS*

Often times, a report will give you instructions how to get to the data you want to see.

In this example, we wish to see performance for an actual center, so we need to select an operating region to narrow the data to the district level.

One of the great benefits of Spotfire is the ease and ability to “drill down” and have the report create an immediate visualization of the drilldown results.

# Introduction to the Dashboard & Visualization Flow (2):

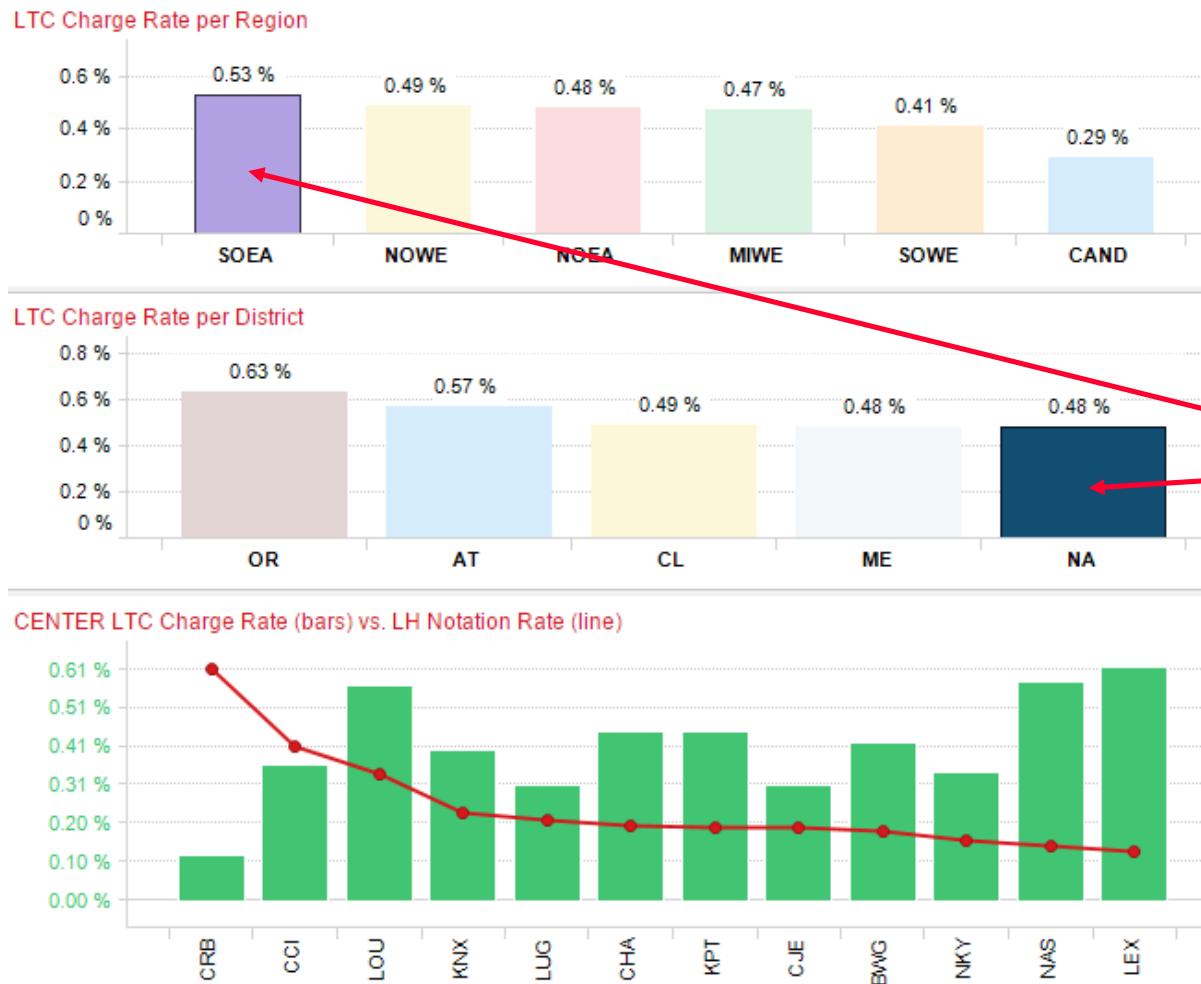


When “SOEA” is selected, it narrows the data to show only districts within the SOEA.

From here, we can see how NA compares to all other districts, or go even further to see individual centers.

You can tell what was selected, because it is often highlighted.

# Introduction to the Dashboard & Visualization Flow (3):



When “NA” is clicked on, it narrows the data to show only centers within the SOEA.

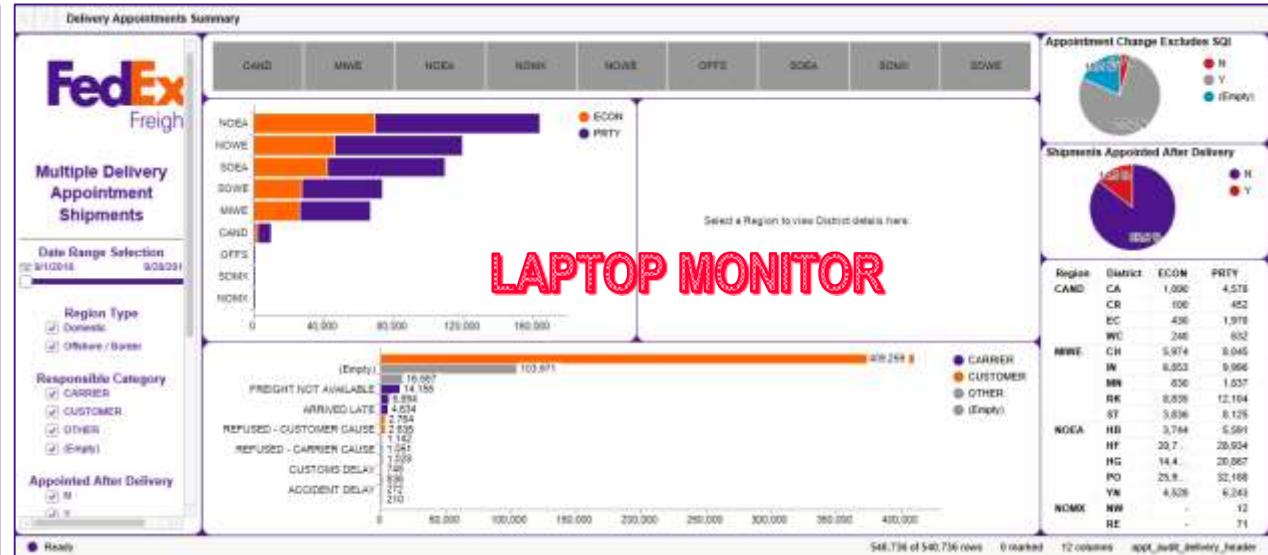
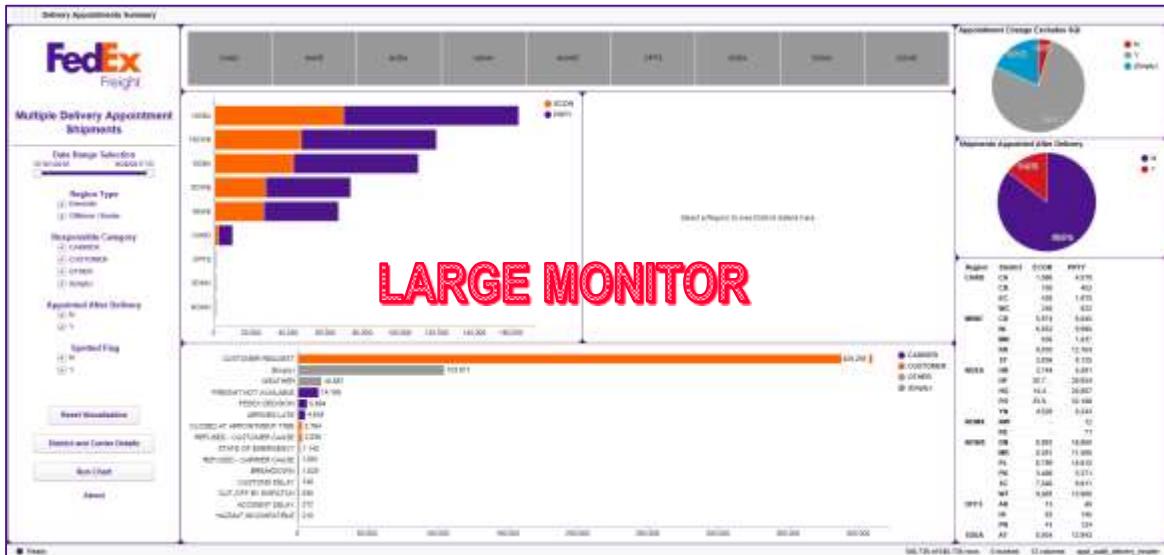
From here, we can get details from an individual center, often narrowing down as detailed as you like in just a few clicks, compared to sorting & filtering through excel.

The screenshot shows the SPS Reporting interface with a blue header containing the logo and the text "SPS Reporting Data Aquisition & Analysis". The left sidebar lists various operational reports, with "Delivery Appointments" highlighted by a red arrow. The main area displays a report titled "FAX Loss & Damage" with dropdown filters for "Revenue" and "On Time Service".

# What Does A Spotfire Report Tell Us That Other Reports Cannot?

## Delivery Appointments report used for the example

- Multiple marking
- Tooltips
- Scrolling
- Navigating pages
- Manipulating filters
- Resetting data & starting over



# Signing In



Spotfire Desktop  
or Dock Icon



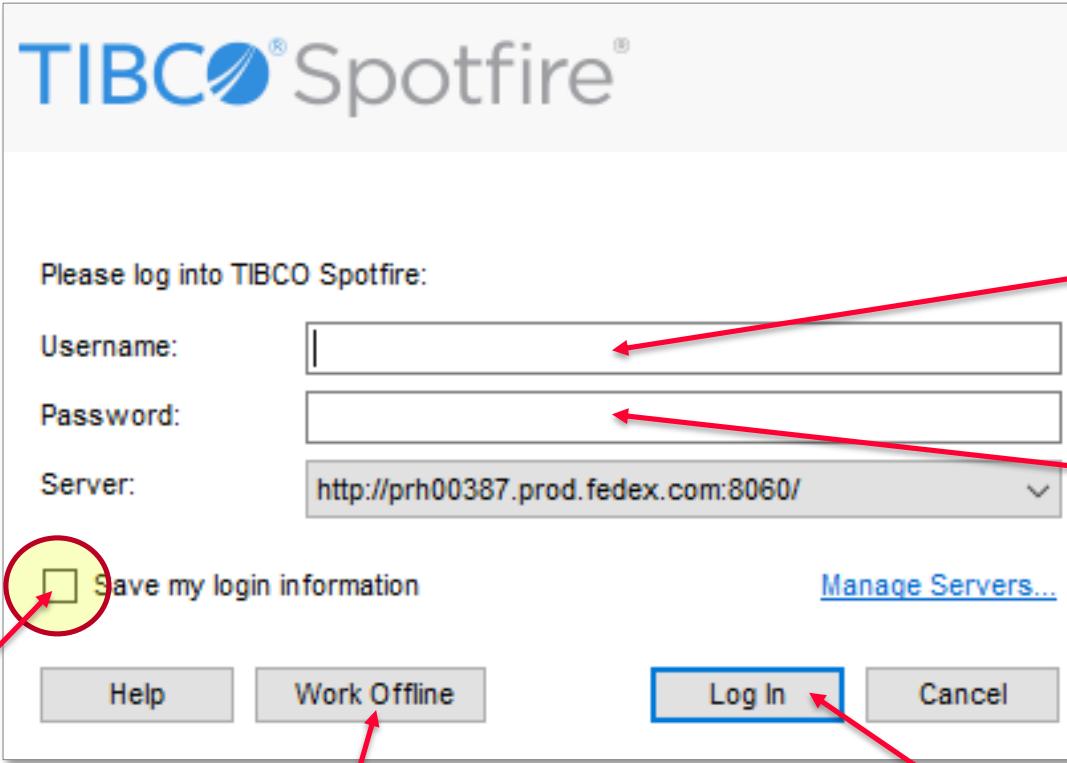
Spotfire Active  
Analysis Dock Icon

Please Start Spotfire Now!

**DO NOT  
Click This  
Box**



✓ In order to work in offline mode, you must connect to the server at least once



The screenshot shows the TIBCO Spotfire login interface. At the top, the TIBCO Spotfire logo is displayed. Below it, the text "Please log into TIBCO Spotfire:" is followed by three input fields: "Username:", "Password:", and "Server:". The "Server:" field contains the URL "http://prh00387.prod.fedex.com:8060/". To the right of these fields, a red arrow points from the "Numeric FedEx Employee Number" label to the "Username:" field. Another red arrow points from the "LDAP Password" label to the "Password:" field. At the bottom of the login form, there is a checkbox labeled "Save my login information" with a red circle around it, and a red arrow pointing from the "DO NOT Click This Box" text to this checkbox. Next to the checkbox are "Help" and "Work Offline" buttons. On the right side, there are "Manage Servers...", "Log In" (which is highlighted with a red box), and "Cancel" buttons.

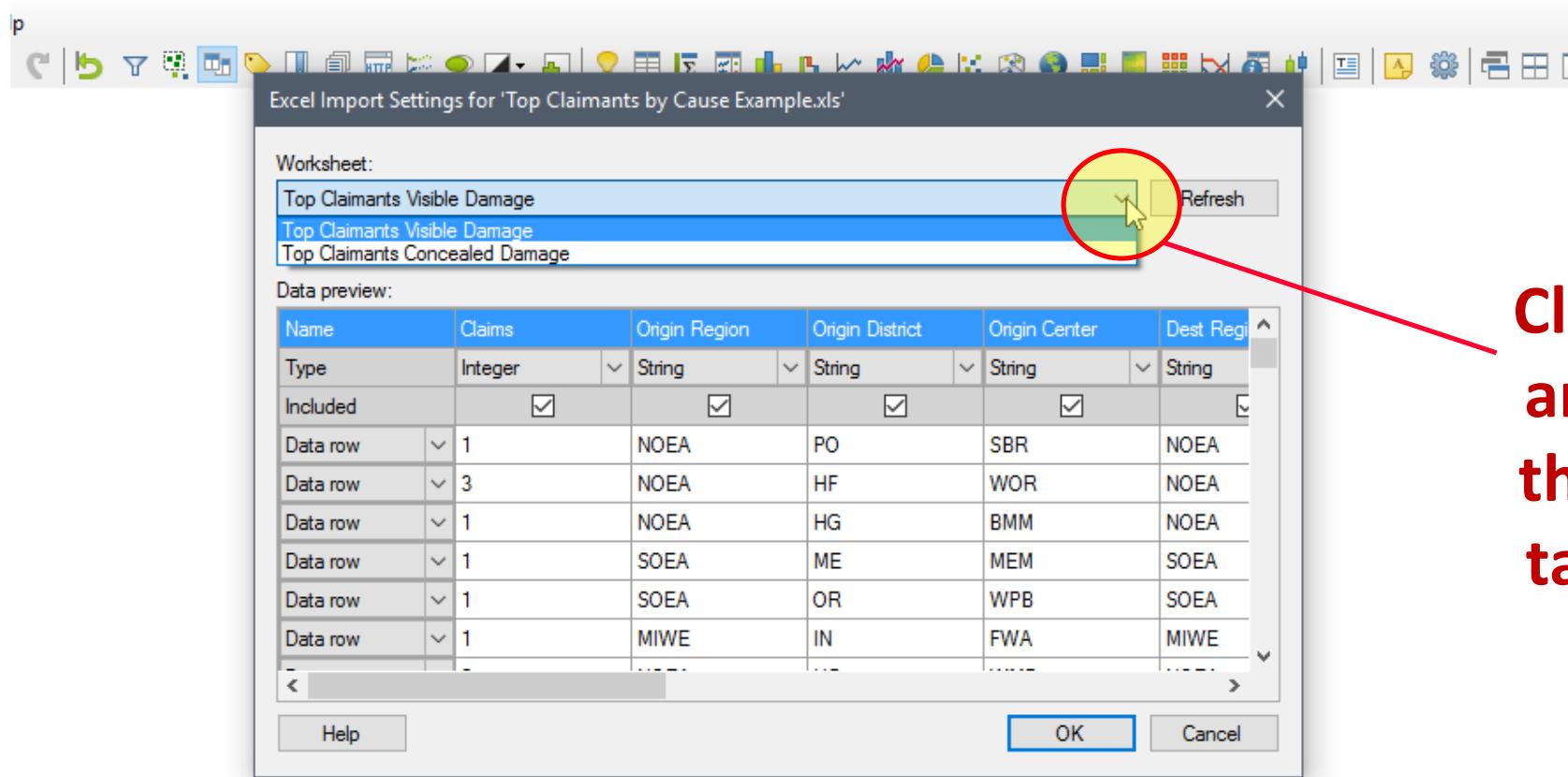
Numeric FedEx  
Employee Number

LDAP Password

**Click to Work Offline**  
*(Don't enter username & password)*

**Click to Work Online**  
*(data accessed on server)*

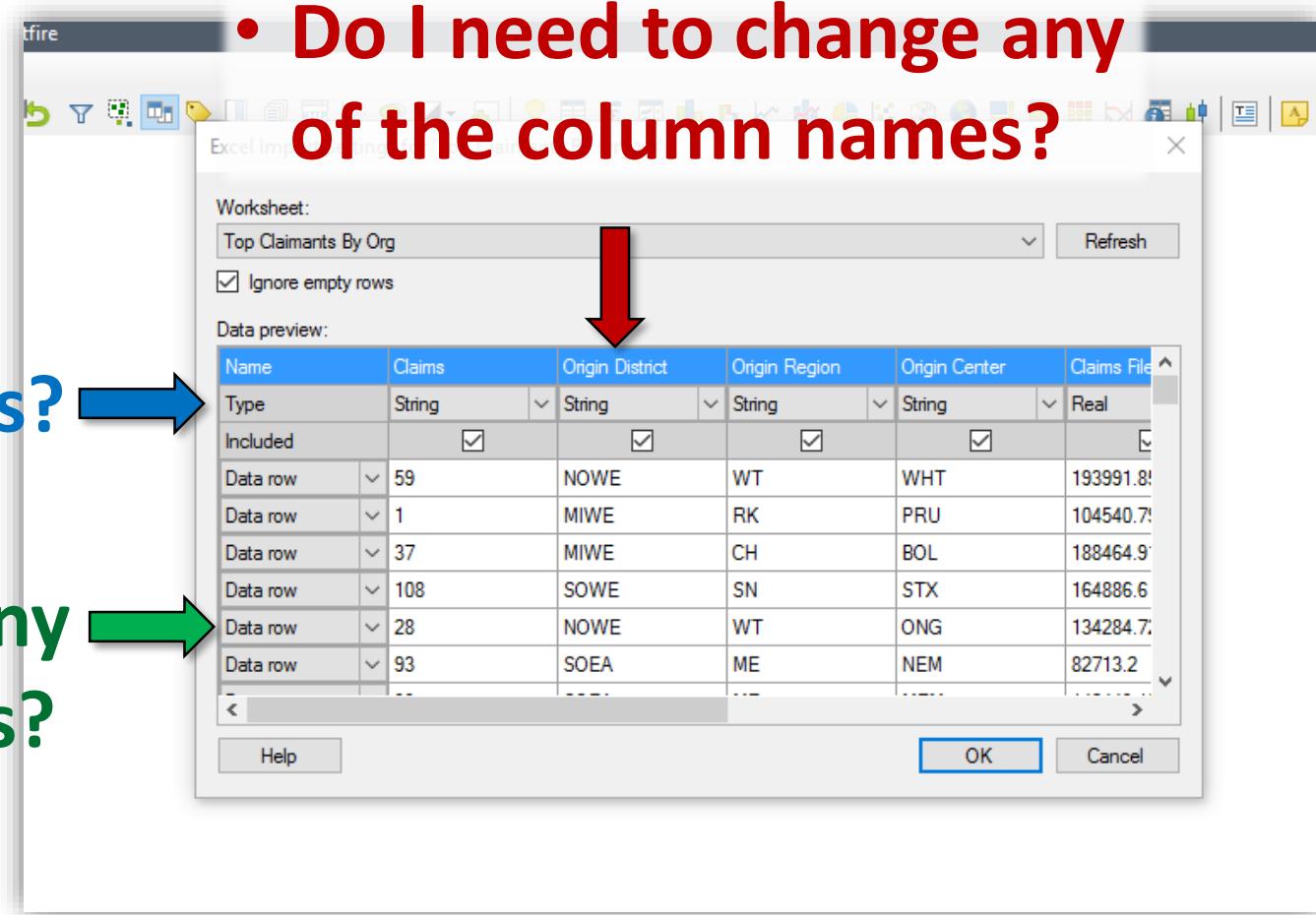
# I Have Data – Now What?? Importing your data



**Click on this down arrow to show all the available data tabs in your excel sheet**

# I Have Data – Now What?? Importing your data

- Do I need to change any of the data types?
- Do I need to exclude any of the columns or rows?



# What Do All those Data Types Mean? Spotfire Icon Glossary

## **BOOLEAN**

True and false. Booleans are used to represent true and false values returned by comparison operators and logical functions.

## **CURRENCY**

The data format behind the currency type is decimal. The decimal data format uses the base 10 in its calculations

## **DATE / DATETIME**

A date and time format depending on the locale on your computer. Dates from January 1, 1583 and forward are supported.

## **INTEGER**

Integer values are written as a sequence of digits, possibly prefixed by a + or - sign.

## **LONGINTEGER**

LongInteger can be used if the range for the standard Integer is not enough for your needs.

## **REAL**

Real values are written as standard floating point numbers with a period for a decimal point and no thousands separator.

## **SINGLREAL**

SingleReal values are written as standard floating point numbers with lower precision and range than Real.

## **STRING**

A value represented as text – will not add & total

## **TIME**

A date and time format depending on the locale on your computer.

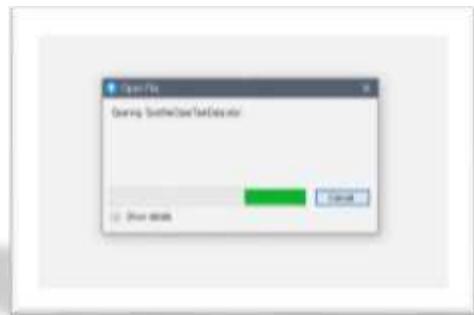
## **TIMESPAN**

TimeSpan is a value describing the difference between two dates.

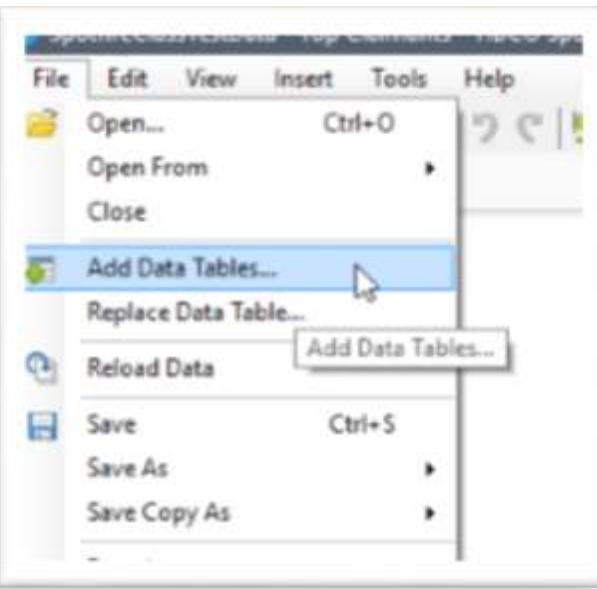
It has 5 possible fields.

# I Have Data – Now What?? Importing your data / Adding data tables

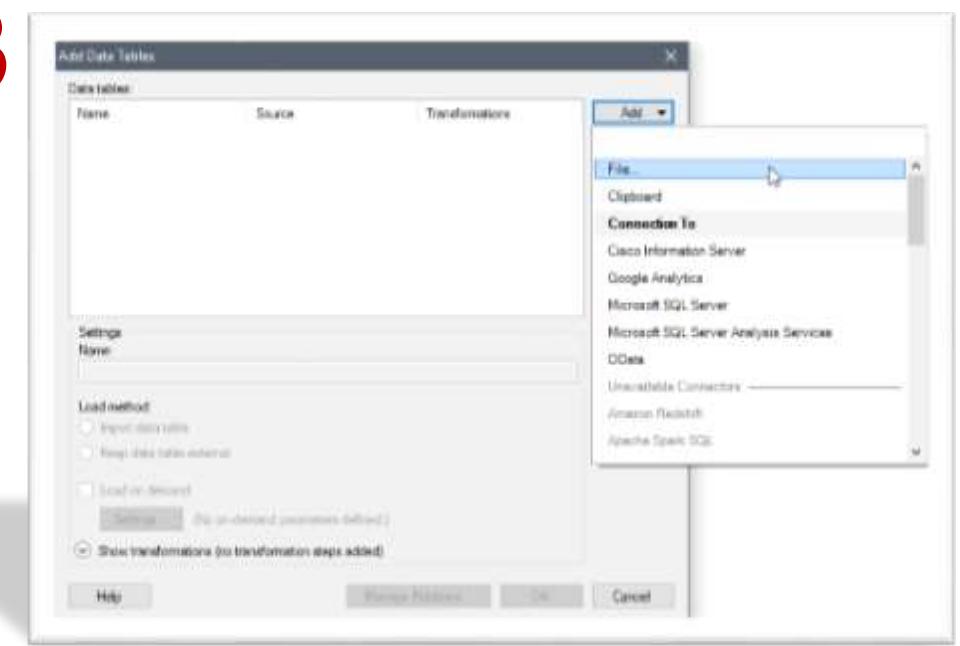
1



2



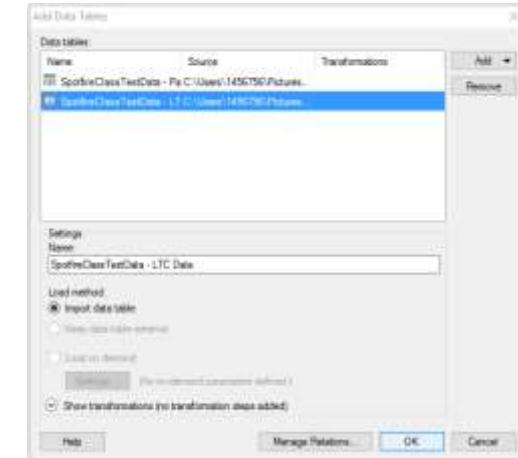
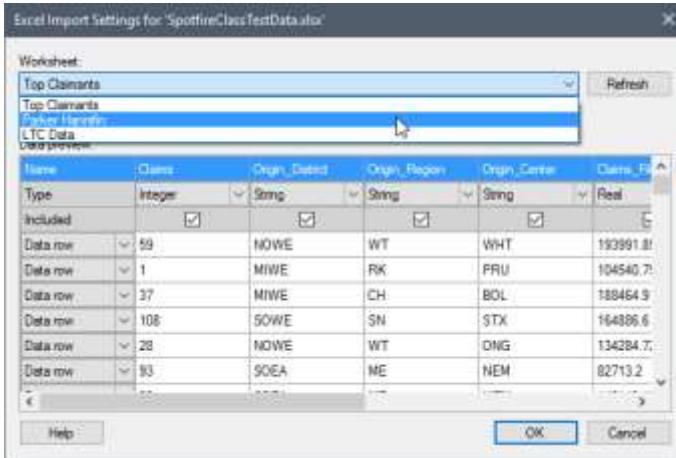
3



Open SpotfireClassTestData.xlsx

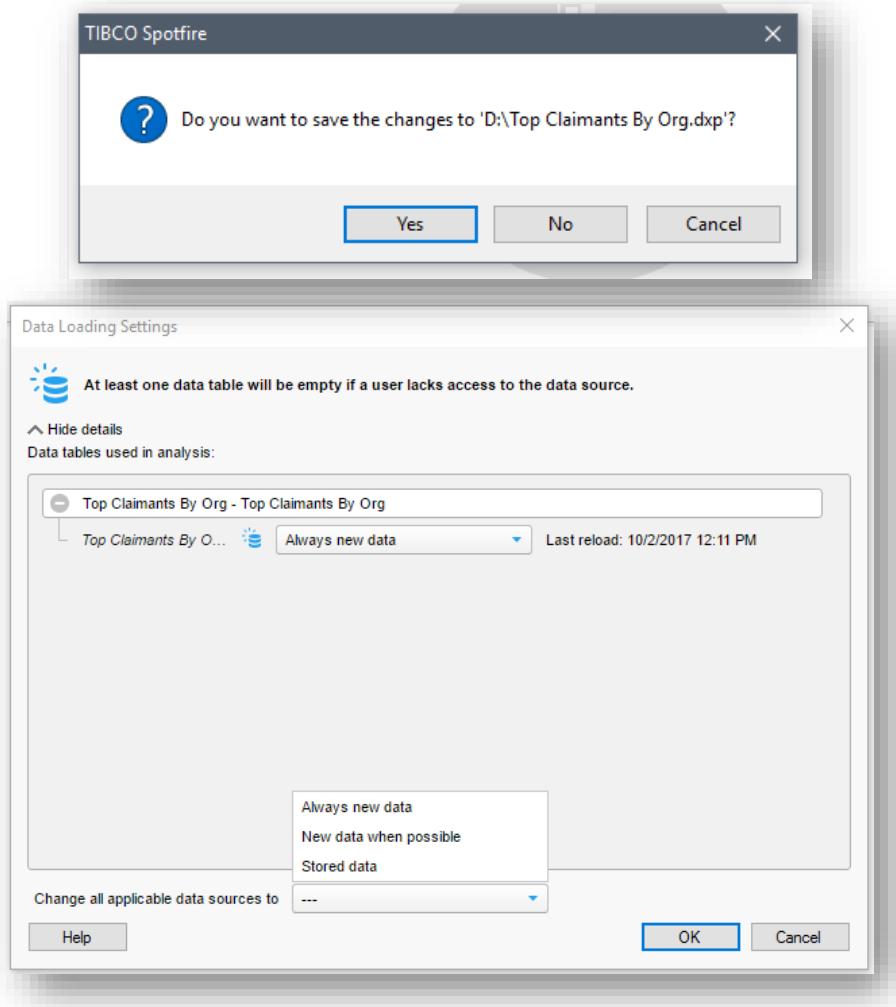
Add Data Tables

Open the same excel file – SpotfireClassTestData.xlsx



Add the other 2  
worksheets to  
your existing  
data

# I Have Data – Now What?? Saving Your Work



## Always new data

- At least one data table will be empty if a user doesn't have access to the data source

## New data when possible

- At least one data table will use stored data if a user doesn't have access to the data source

## Stored data

- All data is stored in the analysis. No further access to the data sources is needed.

# Options From the Home Screen: Recent Analysis



# Options From the Home Screen: Recent Data

The screenshot shows the TIBCO Spotfire interface. At the top, the TIBCO Spotfire logo is displayed. Below the logo is a search bar with the placeholder text "Type to search". Underneath the search bar are four navigation tabs: "Recent Analyses", "Recent Data", "Add Data", and "Samples". The "Recent Data" tab is currently selected, indicated by a blue underline. Below the tabs, a list of recent files is shown in a table format. Each row contains a file name and a "Local File" status indicator.

File Name	Type
SpotfireClassTestData.xlsx	Local File
NA LTC.xlsx	Local File
Decking Racks Query for Ticket 33276 (1).xlsx	Local File

# Options From the Home Screen: Add Data



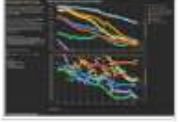
The image shows the TIBCO Spotfire home screen. At the top, the TIBCO Spotfire logo is displayed. Below the logo is a search bar with the placeholder text "Type to search". Underneath the search bar are four tabs: "Recent Analyses", "Recent Data", "Add Data", and "Samples". The "Add Data" tab is currently selected, indicated by a blue underline. Below the tabs, there are four options with corresponding icons:

- Open File** (Icon: folder with arrow): Files of type DXP, SBDF, TXT, XLSX, CSV, etc...
- Open from Library** (Icon: books): Analyses, information links and data connections.
- Add Data Tables** (Icon: grid with plus): Data tables from multiple sources.
- Add Data Connection** (Icon: database with gear): Cisco Information Server, Google Analytics, Microsoft SQL Server, Microsoft SQL Server Analysis Services, OData, Other...

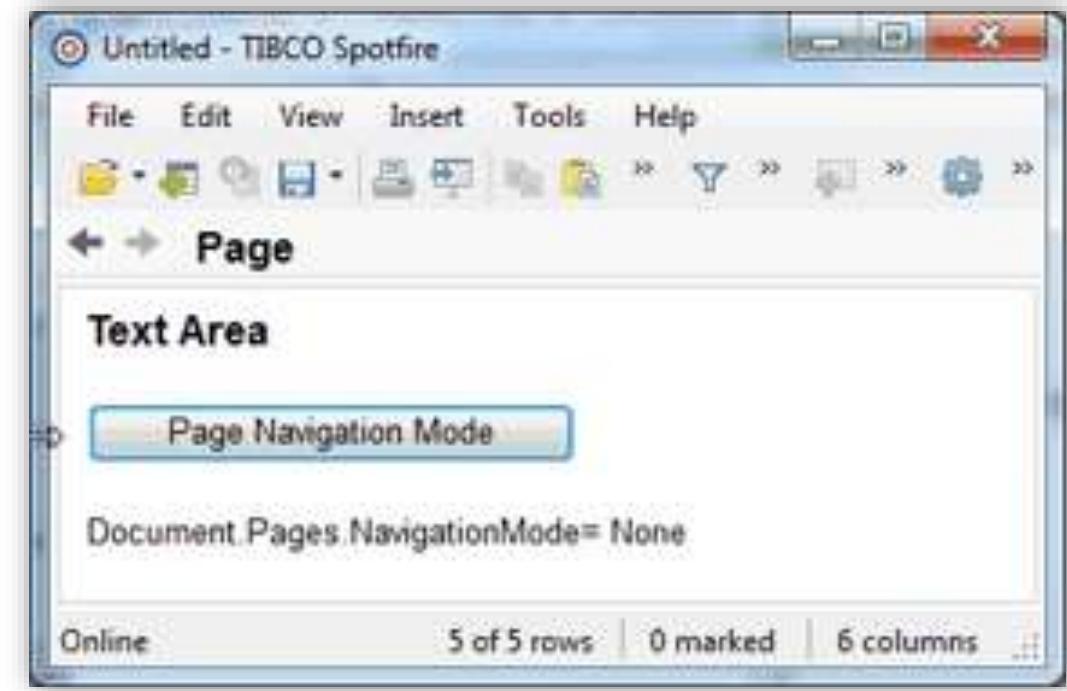
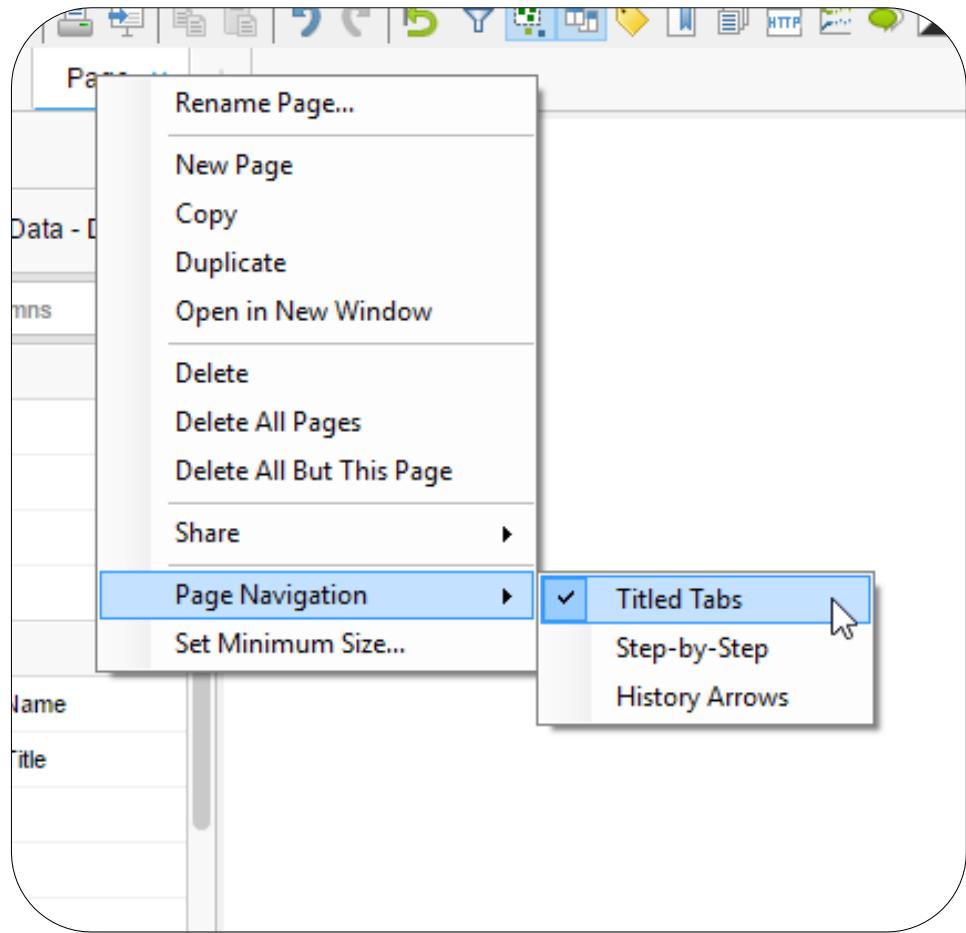
# Options From the Home Screen: Samples

Type to search

Recent Analyses      Recent Data      Add Data      **Samples**

 <b>Introduction to Spotfire.dxp</b> A quick overview of the essential visualization concepts in Spotfire	 <b>Sales and Marketing.dxp</b> Analyzing performance of stores and effectiveness of promotions with the classic BCG matrix
 <b>Analyzing Stock Performance.dxp</b> Interactive application for analyzing stock performance	 <b>Configuring Advanced Visualization...</b> How to configure some more advanced visualization types in Spotfire
 <b>Expense Analyzer Dashboard.dxp</b> Styled dashboard example	 <b>Advanced Analytics.dxp</b> Shows forecasting, clustering and other more advanced analytic operations

# Changing Your Navigation: Titled Tabs, Step-by-Step, History Arrows



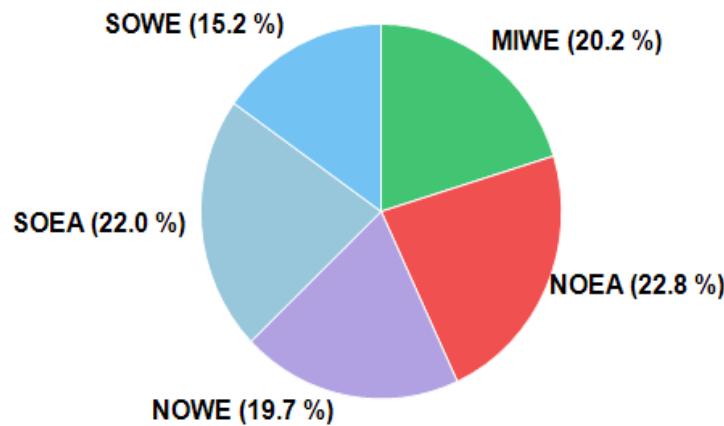
# What Do All the Icons Mean? Spotfire Icon Glossary



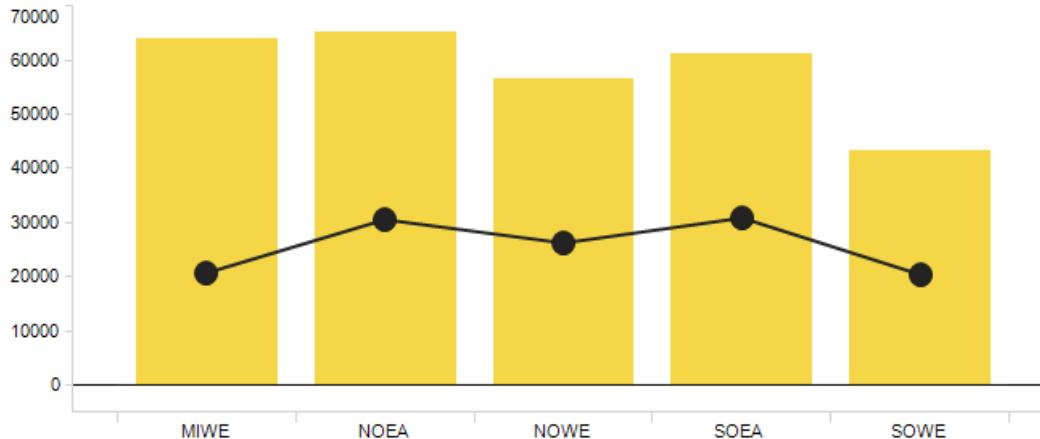
- |                         |                                |                              |
|-------------------------|--------------------------------|------------------------------|
| 1. Open new analysis    | 17. Lists                      | 33. 3D scatter plot          |
| 2. Add data tables      | 18. Web page                   | 34. Map chart                |
| 3. Reload data          | 19. Analytic models            | 35. Treemap                  |
| 4. Save                 | 20. Collaboration              | 36. Heat map                 |
| 5. Print                | 21. Visual theme               | 37. KPI chart                |
| 6. Export to PowerPoint | 22. New page                   | 38. Parallel coordinate plot |
| 7. Copy                 | 23. Recommended visualizations | 39. Summary table            |
| 8. Paste                | 24. Table                      | 40. Box plot                 |
| 9. Undo                 | 25. Cross table                | 41. Text area                |
| 10. Redo                | 26. Graphical table            | 42. Annotation               |
| 11. Reset all filters   | 27. Bar chart                  | 43. Visualization properties |
| 12. Filters             | 28. Waterfall chart            | 44. New window               |
| 13. Details on demand   | 29. Line chart                 | 45. Evenly                   |
| 14. Data                | 30. Combination chart          | 46. Side by side             |
| 15. Tags                | 31. Pie chart                  | 47. Stacked                  |
| 16. Bookmarks           | 32. Scatter plot               | 48. Maximize active          |

# Possible Choices For Your Data

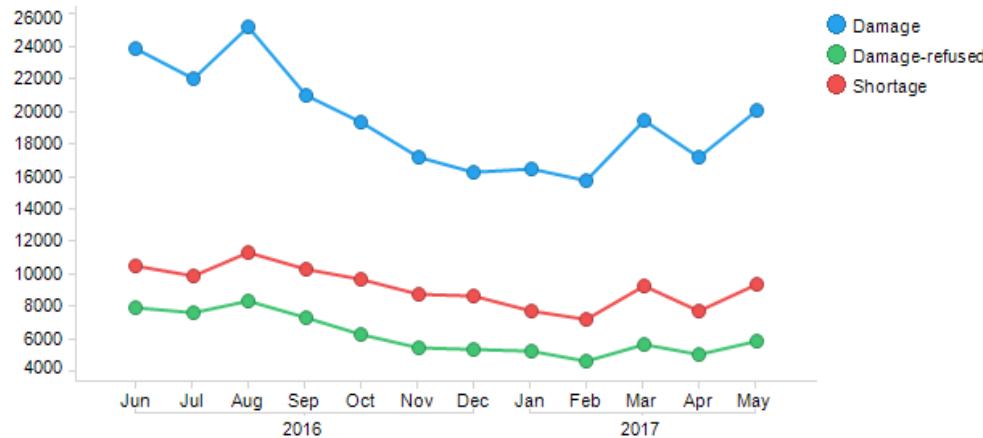
Failures by Region



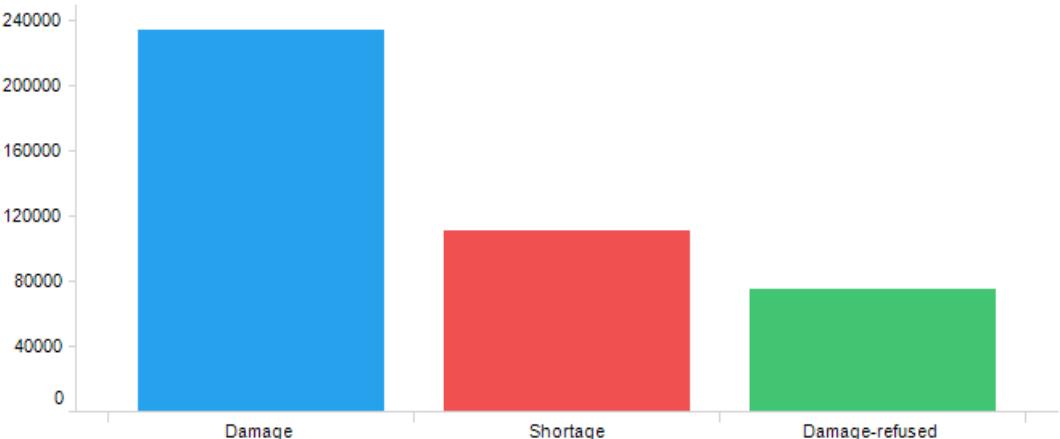
Economy vs Priority



Exception Trends



Failure Type Totals

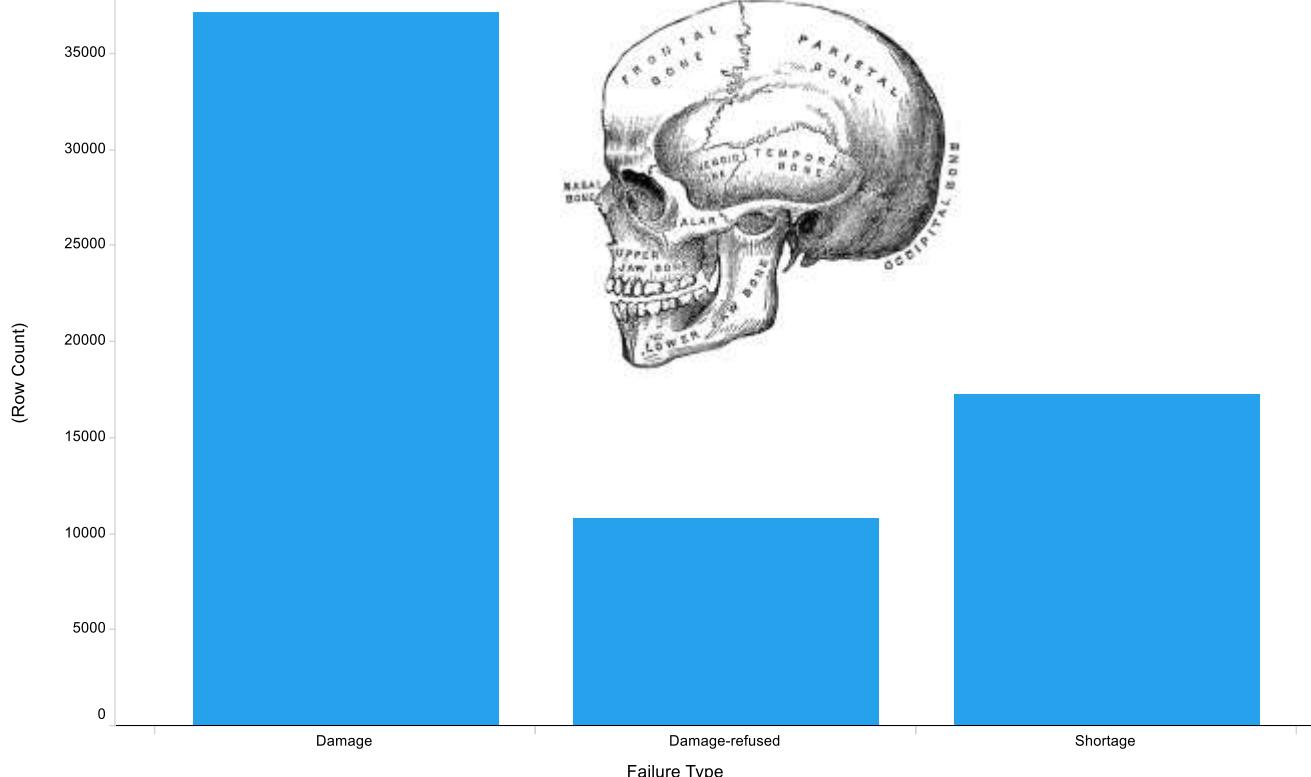


# Basic Chart Anatomy: What are the parts?

**Title** (Hiding the title bar takes away the ability to reposition the visualization)

Distribution – Failure Type

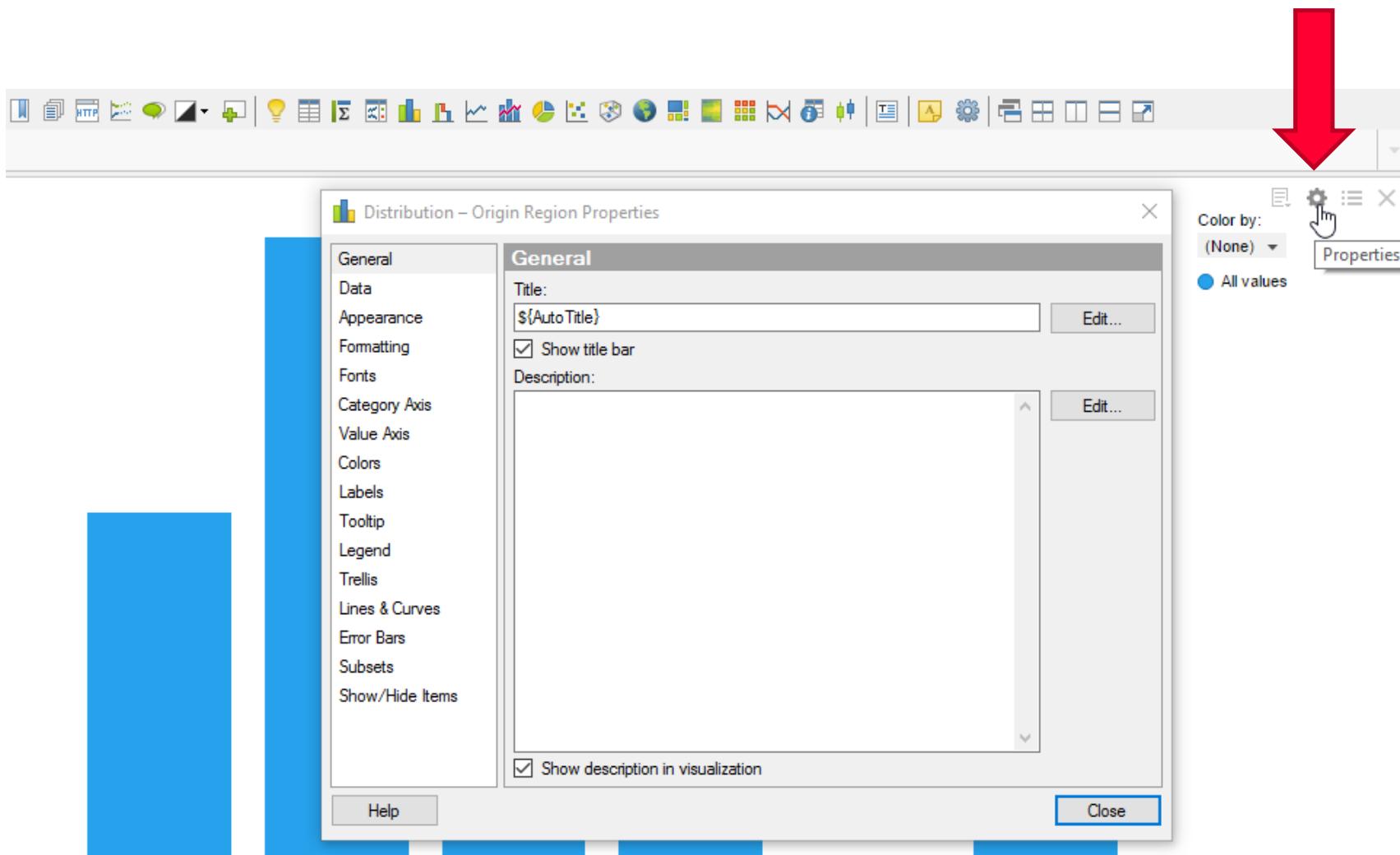
**Y Axis  
(Value Axis)**



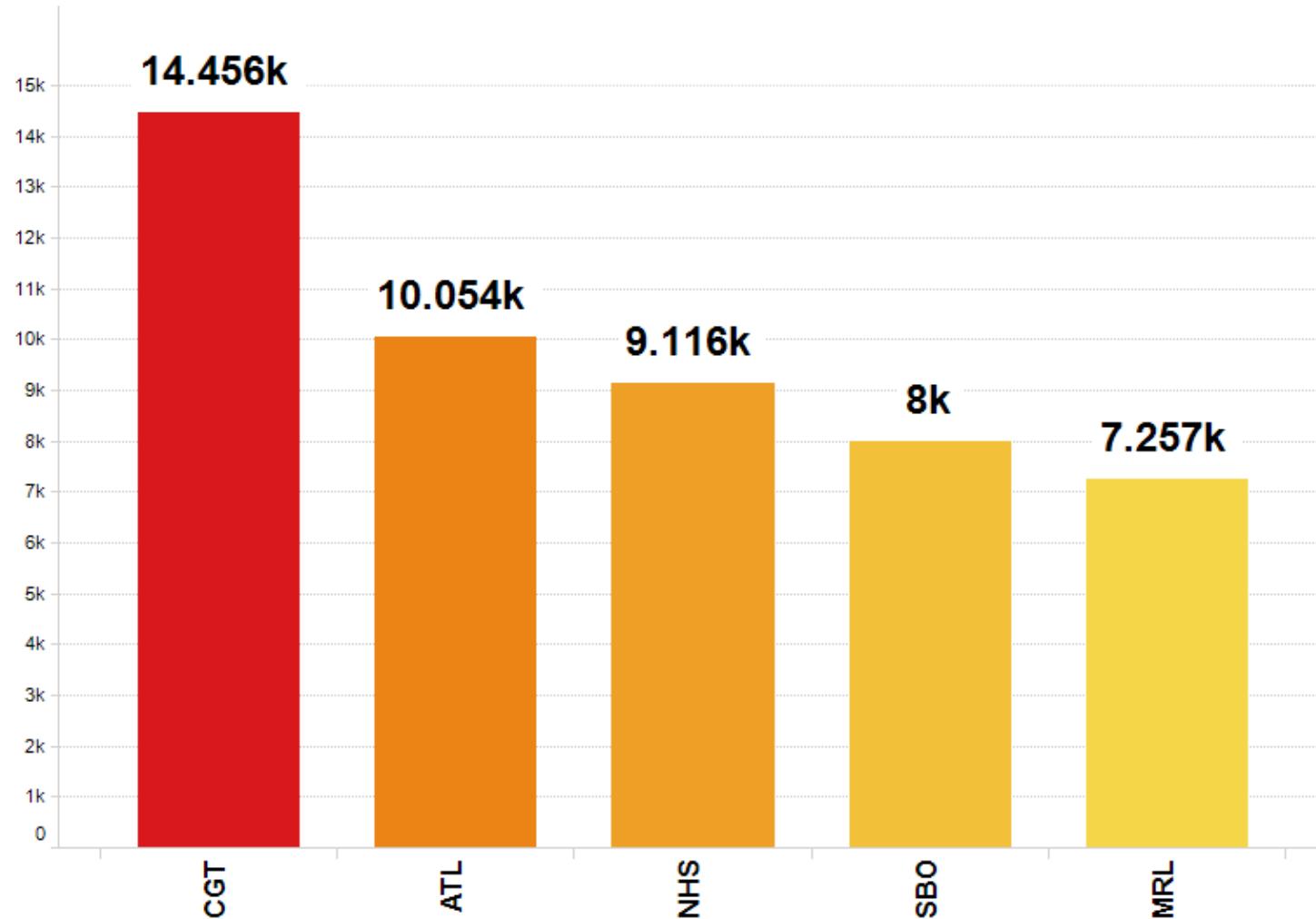
**X Axis  
(Category Axis)**

Distribution – Failure Type  
Data table:  
Test Data for Class - LTC SS  
Marking:  
■ Marking

# Basic Chart Anatomy: How do I make changes?



# #1 Creating a Bar Chart: *Follow Along with the Instructions*

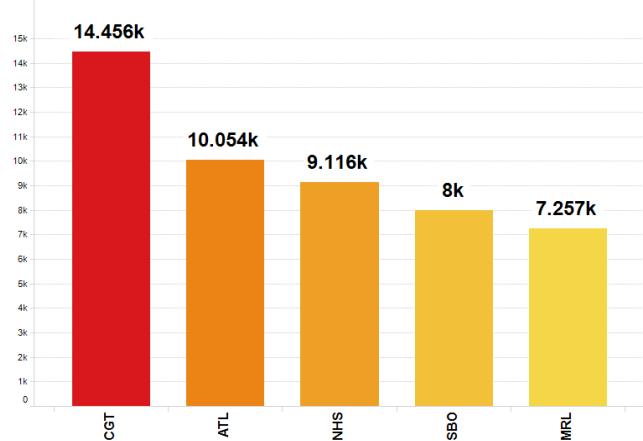


# Creating a Bar Chart: SpotfireClassTestData / LTC Data Worksheet

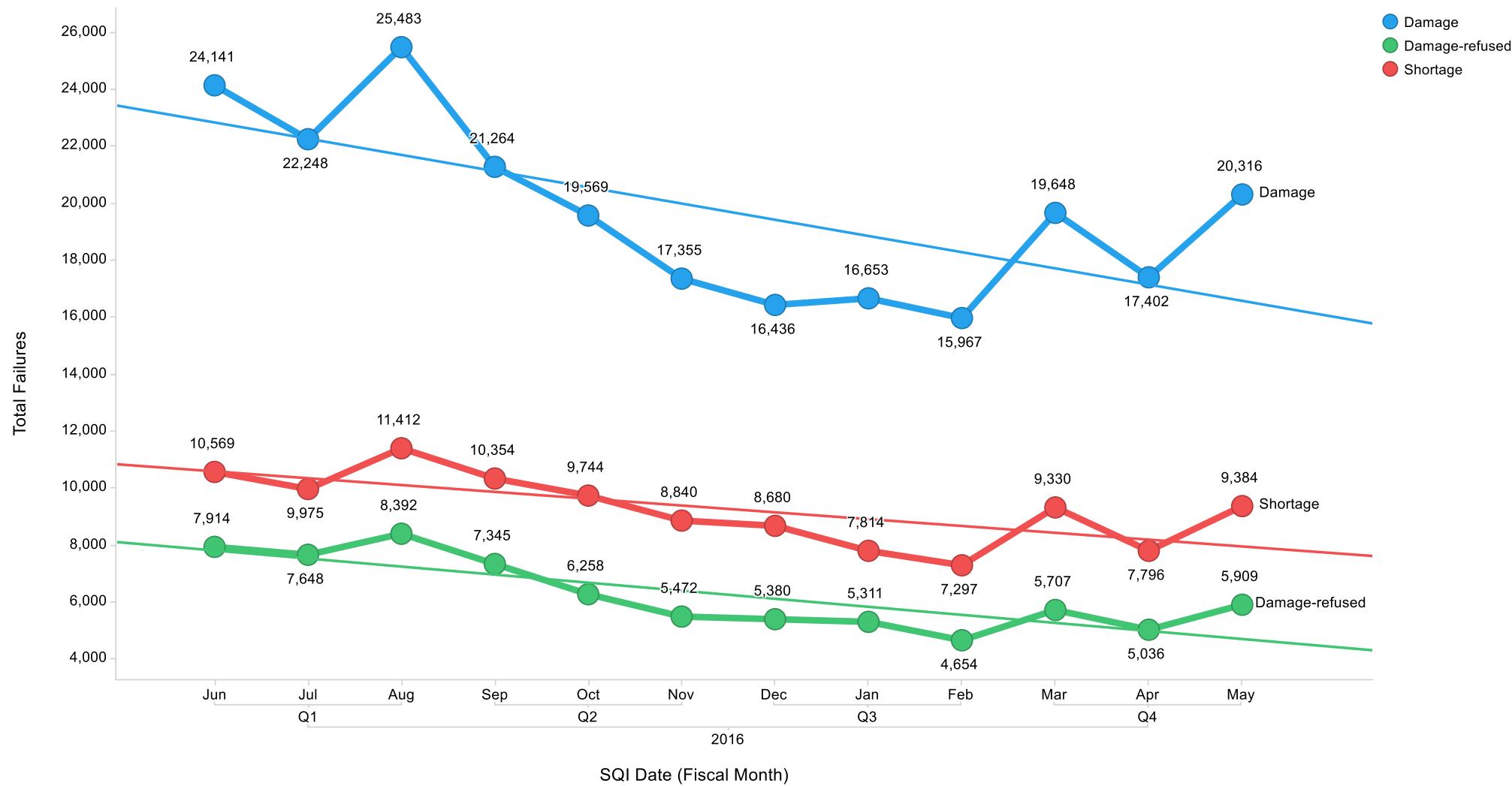


Click on the **Bar Chart** icon (#27 in the Spotfire Icon Glossary)

1. **Category Axis (X)** = LTC Service Center
2. **Value Axis (Y)** = Failure Type, Aggregation = Count / Display Name = "Exception Totals"
3. Click on **Properties** sprocket (appears when you hover over the upper right corner)
4. In the **General** section, change the title to "Top 6 LTC Locations"
5. Click on **Show/Hide Items** (very bottom selection), Add, Column = Pro Number, aggregation = count
6. **Rule type:** Top Value = 6
7. **Colors**, Columns = LTC Service Center, aggregation = count
8. **Color mode** = Gradient / Max change to red by clicking on the color, change Min to yellow
9. Double-click in the middle of the **color line** to add another point & change to orange
10. Right click in the **chart area** / click on sort bars by value
11. Click on **Show/Hide Controls** (appears when you hover over the upper right corner, farthest choice on the left)
12. Uncheck **Category Axis Selector**, uncheck **Value Axis Selector**, uncheck **Legend** (can also toggle on and off by clicking the **Legend** icon – appears when you hover, third from the left)
13. Click on Properties, **Appearance** / Slide **bar width** to 3/4 the size
14. Click on **Formatting** / Value Axis, Category, Number, use **short number format**
15. Click on **FONTs / Category axis** scale labels, size = 12 / **Value axis** scale labels, size = 16, Bold = Yes
16. Category axis / **Scale labels** = Vertically
17. Value axis = **Show gridlines**
18. **Labels** / Show labels for All / **Types of labels** = Complete bar / Click on **FONTs / Bar Chart** labels, size = 18, Bold = Yes
19. Click on **FONTs / Bar Chart** labels, size = 18, Bold = Yes
20. **Tooltip** / Uncheck Category axis, Value axis, **color by** /Add Column IB/OB/Hub, aggregation = **Most Common** / change **Name** to Top Shift, Add LTC Employee Name, aggregation = **Most Common**, change name to "Top Employee", click **Move Up** to change the order
21. Click on Properties, Data, **Limit data using expression**, [LTC Employee Name]<>"UNK"



## #2 Creating a Line Chart: Follow Along with the Instructions



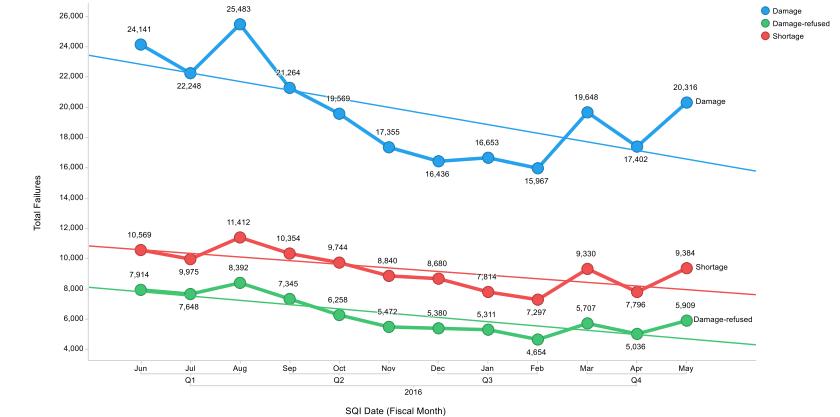
# Creating a Line Chart:

SpotfireClassTestData / LTC Data Worksheet

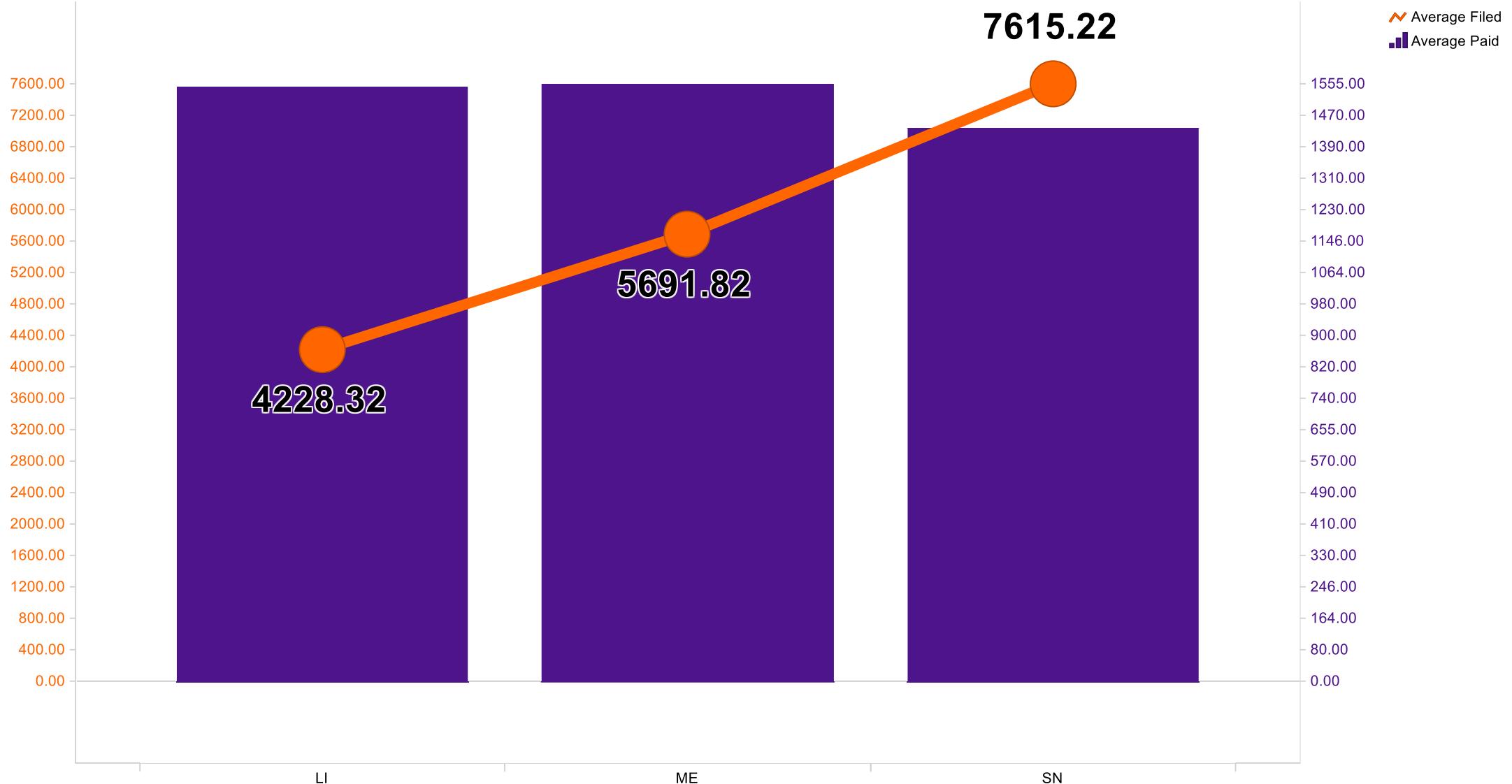


Click on the **Line Chart** icon (#29 in the Spotfire Icon Glossary)

1. **Category Axis (X)** = SQI Date
2. **Value Axis (Y)** = Pro Number, Aggregation = Count / Display Name = "Total Failures"
3. **Line by** (In upper right corner) = Failure Type
4. Color by = **Failure Type**, Aggregation = "(None)"
5. In the **General** section, change the **Title** to "Exception Trends FY17"
6. Edit / **Document Properties** / Properties / **FiscalYearOffset** = 5
7. Click on SQI Date on **Y axis**, click on right arrow for more options, "**Fiscal Year >>Quarter >> Month**"
8. Click on Properties, **Appearance**, Line Width = 5, Check box for "**Show markers**" / Slide marker size to make bigger
9. Remaining in Properties, **Lines & Curves**, Add "**Straight Line Fit**", check box for One Per = Color
10. Remaining in Properties, **Labels**, check boxes for "**Line Identifier**" and "**Individual Values**"
11. Remaining in Properties, **Formatting**, Y:Total Failures, **Number**, Check box for "**Use thousands separator**"
12. Remaining in Properties, **Legend**, uncheck everything but "Color by", **click on the words "Color by"**
13. Still in Legend, **at the bottom** – uncheck the boxes for "**Show title**", and "**Show axis selector**"



# #3 Creating a Combination Chart: *Follow Along with the Instructions*



# Creating a Combination Chart:

SpotfireClassTestData / Top Claimants Worksheet

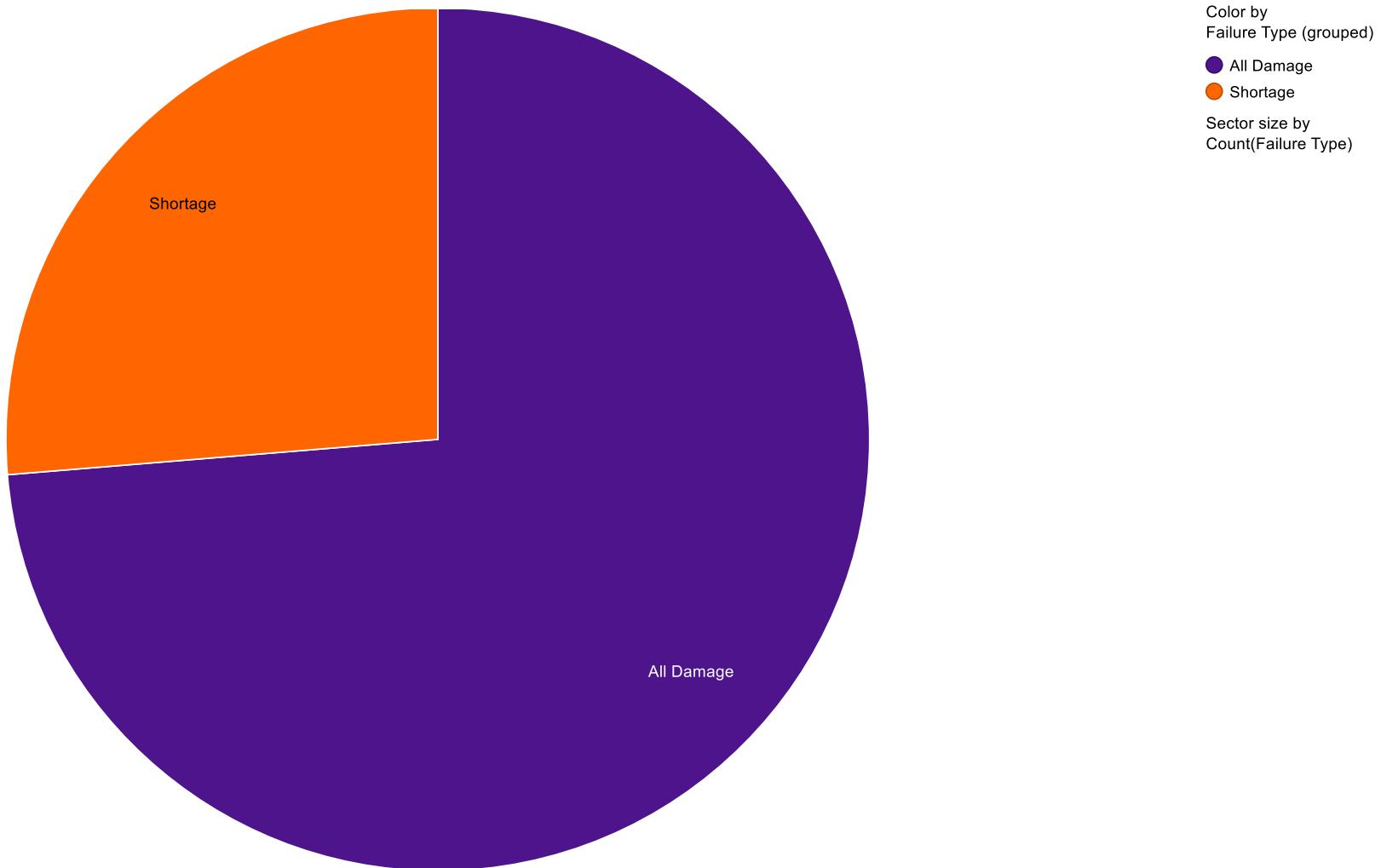


Click on the **Combination Chart** icon (#30 in the Spotfire Icon Glossary)

1. **Category Axis (X)** = Origin District
2. Click on the **Filers icon**, under the “Type to search filters” box, click on the arrow and make sure the Top Claimants data is highlighted. **Uncheck** all boxes except for mainland US regions. Close filters panel.
3. **Value Axis (Y)** = Claims Filed Dollars, Aggregation = Avg (Average) / Display Name = “Average Filed”
4. **Value Axis (Y, second axis)** = Claims Paid Dollars, Aggregation = Avg (Average) / Display Name = “Average Paid”
5. Properties, General, Title = **“Top 3 Average Filed vs Average Paid”**
6. Remaining in **Properties**, Show/Hide Items, Add, Column = Claims\_Paid\_Dollars, Aggregation = Avg (Average), Rule type = Top, Value = 3
7. Remaining in **Properties**, Appearance, Line width = 8, use slider to **increase marker size**
8. Click on the **Average Filed** icon under “Series by” in the **legend**, Show as lines, click on the color wheel at the bottom left, enter **“FF6600”** in the # entry box to change the color to **FedEx orange**
9. Click on the Average Paid icon under “Series by” in the legend, show as bars, click on the color wheel at the bottom left, enter **“4D148C”** in the # entry box to change the color to **FedEx purple**
10. Properties, Labels, Show labels for = All, uncheck “Show bar labels”, check **“Show line marker labels”**
11. Remaining in Properties, Fonts, Labels, Size = 20, Bold = Yes
12. Click on **“Show/Hide Controls”** (appears when you hover over the upper right corner, uncheck everything but “Title Bar”, “Legend”, and “Scale Labels”
13. Properties, Legend, uncheck everything but “Series by”, click on the words **“Series by”**, uncheck “Show title”, and ‘Show axis selector’



## #4 Creating a Pie Chart: *Follow Along with the Instructions*



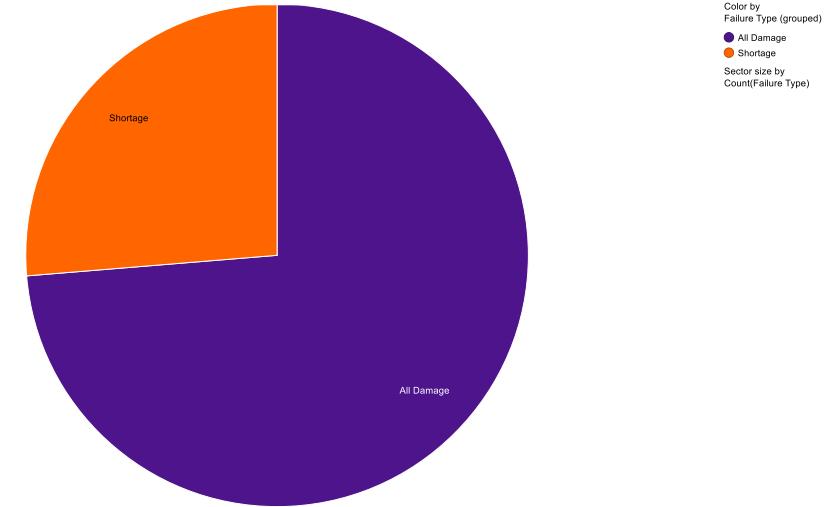
# Creating a Pie Chart:

SpotfireClassTestData / Top Claimants Worksheet

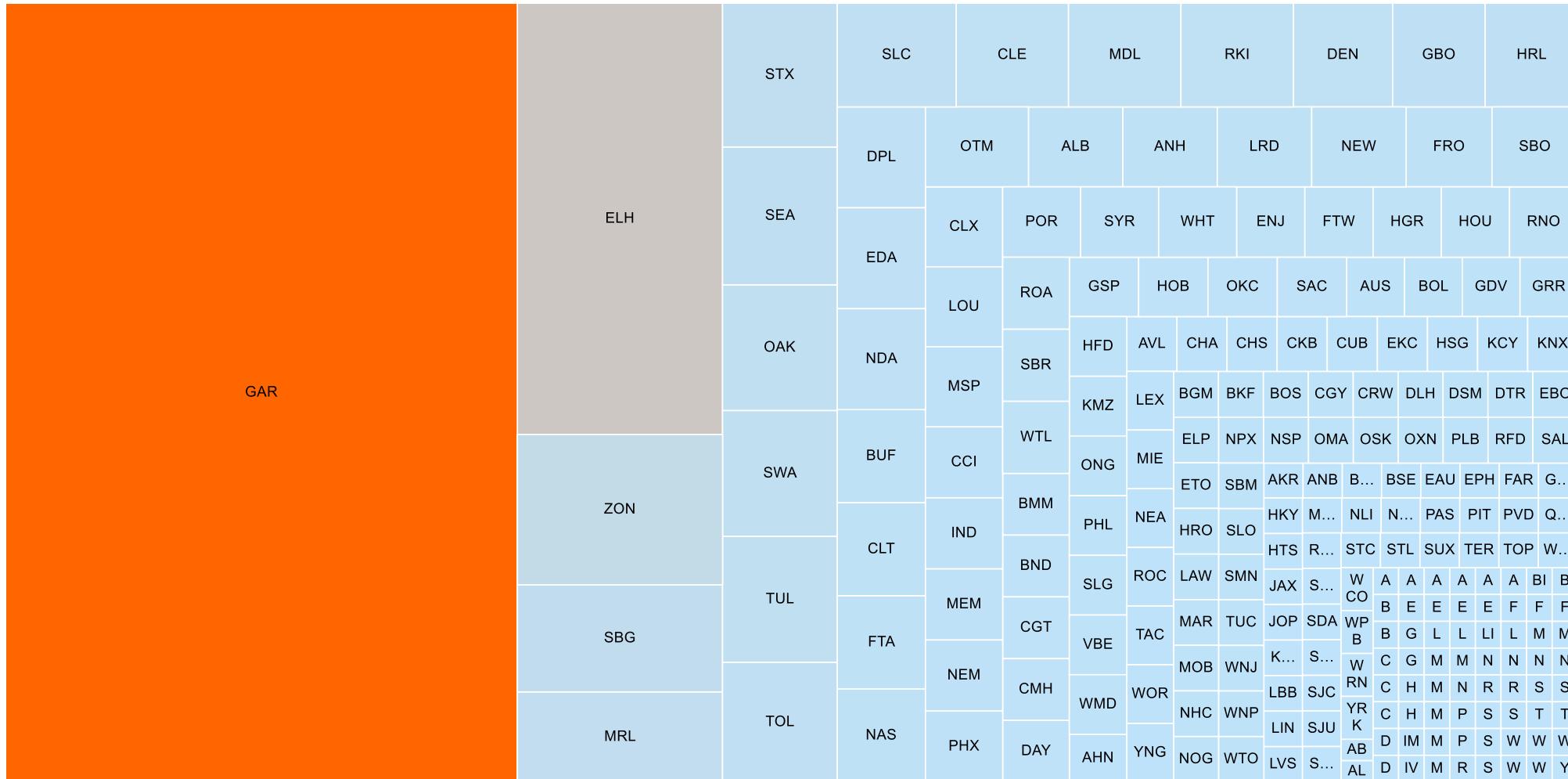


Click on the **Pie Chart** icon (#31 in the Spotfire Icon Glossary)

1. Properties, General, Title = **"Damage vs Shortage"**
2. **Mark (select)** the sections that represent Damage (light blue) & Damage-refused (green)
3. Right-click, **Group from Marked Categories**, rename to "All Damage"
4. **Color by** = Failure Type, click on the yellow dot next to "All Damage", and change to FedEx purple = "4D148C".
5. **Color by** = Failure Type, click on the red dot next to "Shortage", and change to FedEx orange = "**FF6600**".
6. Properties, Labels, Check box for "Sector category", label position = **Inside pie**, show labels for All
7. Remaining in Properties, size, **make pie size as large as it gets**



# #5 Creating a Treemap: Follow Along with the Instructions



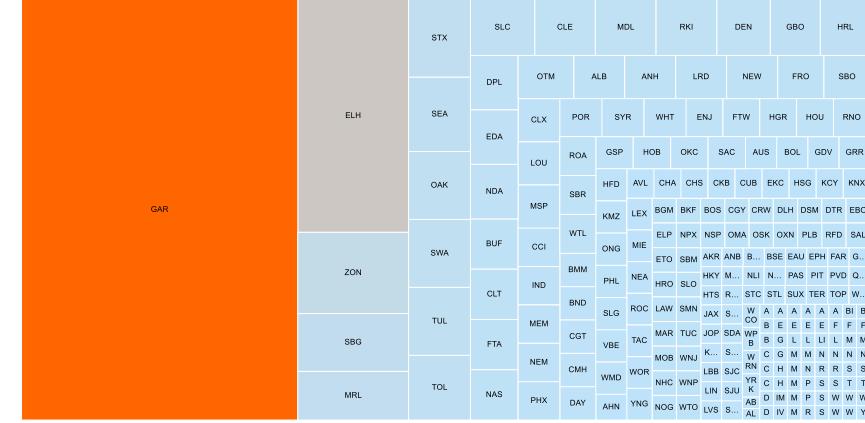
# Creating a Treemap:

SpotfireClassTestData / Parker Hannifin Worksheet

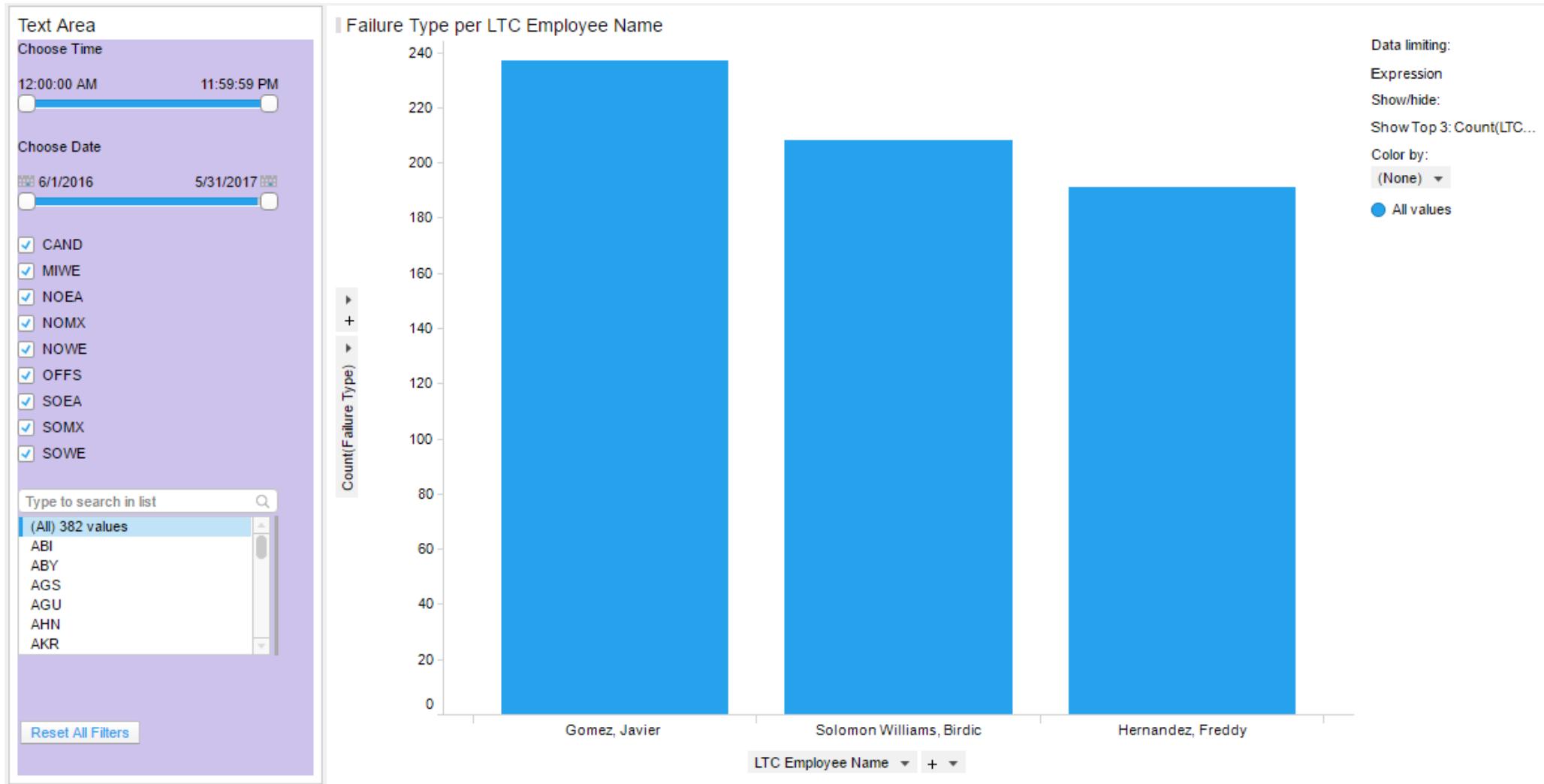


Click on the **Treemap** icon (#35 in the Spotfire Icon Glossary)

1. In the Legend, **Data table**: SpotfireClassTestData – Parker Hannifin
2. **Color by Pro**, Aggregation = Count
3. **Size by Pro**, Aggregation = Count
4. **Hierarchy** = DEST
5. Properties, Colors, Color mode = Gradient, change Max to **FedEx orange**, Red = 255, Green = 102, Blue = 0
6. Remaining in Colors, change **Min to light blue**
7. Remaining in Properties, **Tooltip**, uncheck all boxes
8. Column **CONSIGNEE NAME**, Aggregation = Most Common, Name = “Top Consignee”
9. Column PRO, Aggregation = Count, Name = “**Total Exceptions**”
10. Properties, General, **Title** = “Total Exceptions by DEST”
11. Click on Legend (**appears in upper right corner**) to toggle the legend off



# #7 Creating a Text Area: *Follow Along with the Instructions*



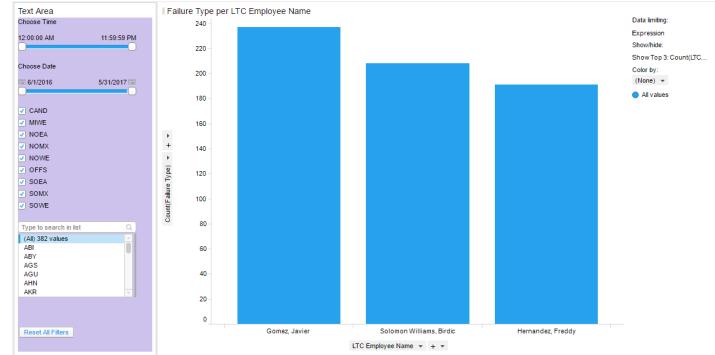
# Creating a Text Area:

SpotfireClassTestData / LTC Data Worksheet



Click on the **Text Area** icon (#41 in the Spotfire Icon Glossary)

1. Click on the **Bar Chart icon** to also bring in a bar chart
2. Click on the **Side-by-Side icon** on the far right of the icons across the top
3. Type “**Choose Time**”, press enter
4. Click on Insert Filter icon (**looks like a funnel**) - Filtering scheme = Text Area, LTC Time, press enter
5. Type “**Choose Date**”, press enter
6. Click on Insert Filter, SQL Date, press enter, click on the save icon and your items will appear in the text area. **Nothing will record in the text area until you hit save.**
7. Insert Filter, **LTC Region**, hit enter
8. Insert Filter, **LTC District**, hit enter
9. Click on background color (**looks like a paint can**), change background color to light purple
10. On bar chart, **X axis** = LTC Employee Name / **Y axis** = Pro Number, Aggregation = Count
11. Properties, **Show/Hide Items**, Add, Value = 3
12. Size the text area so it fits with the **visualization**



# #8 Creating a Table: Follow Along with the Instructions

SQI Date	Delivery Date	SQI Month	Failure Type	Concealed...	Pro Number	LTC Emplo...	LTC Emplo...	LTC Emplo...	LTC Unit
1/31/2017	1/31/2017	001 JAN	Damage	N	1001957972	1731602	Morgan, Brian	City Driver	P28074
6/20/2016	6/20/2016	006 JUN	Damage	N	1002812753	2448939	Williamson,...	Dockworker...	257300
6/24/2016	6/24/2016	006 JUN	Damage	N	1002812775	1389346	Hughes, Eric	Dockworker...	531945
8/15/2016	1/1/0001	008 AUG	Damage	N	1002812823	2721725	Watts, Kendell	Dockworker...	70867
8/18/2016	1/1/0001	008 AUG	Damage	N	1002812845	1512828	Braden, Steve	Dockworker	P30700
8/30/2016	1/1/0001	008 AUG	Damage	N	1002812871	1515083	Hemp, Kath...	Service Cen...	X6975
7/27/2016	7/27/2016	007 JUL	Damage	N	1002814875	2651208	Modlin, Brian	Dockworker...	P36547
7/8/2016	7/8/2016	007 JUL	Damage	N	1002815726	2861622	Overdorff, T...	Dockworker...	17196
10/6/2016	10/6/2016	010 OCT	Damage	N	1002815822	2878569	Birt, Nathan	Dockworker...	P36188
11/15/2016	11/15/2016	011 NOV	Damage-ref...	N	1004193072	2729884	LeBlanc, Lyle	Road Driver	P35477
12/14/2016	12/14/2016	012 DEC	Damage	N	1005384461	2657136	Barger, Blaine	Dockworker...	P29683
5/15/2017	5/15/2017	005 MAY	Shortage	N	1012106970	2654143	Long, Robert	Dockworker...	P35619
7/8/2016	7/8/2016	007 JUL	Shortage	N	1012108230	1172378	Bell, Christo...	Dockworker...	20969
12/1/2016	12/1/2016	012 DEC	Damage	N	1013773095	2389214	Halstead, Ji...	Dockworker	P14643
12/28/2016	12/28/2016	012 DEC	Damage	N	1013773994	1461962	Tran, Dung	Dockworker...	4900136
1/17/2017	1/17/2017	001 JAN	Damage	N	1013774086	2671863	McMillon, Ez...	Dockworker...	P17546
3/10/2017	3/10/2017	003 MAR	Damage-ref...	N	1013774812	1302388	Martin, Lance	Dockworker	P36030
4/24/2017	4/24/2017	004 APR	Damage	N	1013774845	2974531	Meister, And...	Dockworker...	X4278
4/28/2017	4/28/2017	004 APR	Damage	N	1013775976	2725253	Cooper, Heath	Road Driver	P19947
9/1/2016	1/1/0001	009 SEP	Damage	N	1013777122	1517825	Hamrick, St...	City Driver	X4101
2/7/2017	2/7/2017	002 FEB	Damage	N	1013780143	2087204	Perez, Albert	Dockworker	532424
5/23/2017	5/23/2017	005 MAY	Shortage	N	1016118246	2857006	Perez, Michael	Dockworker...	X10865
9/1/2016	9/2/2016	009 SEP	Damage-ref...	N	1021785951	2680412	Jones, Tonia	Dockworker...	P13349
3/28/2017	3/28/2017	003 MAR	Damage-ref...	N	1025498202	2605958	Lopez, David	City Driver	P27583
3/28/2017	3/28/2017	003 MAR	Damage	N	1025572660	2689091	Harris, Wyatt	Dockworker...	P19697
11/3/2016	11/3/2016	011 NOV	Shortage	N	1026950072	2892689	Lerner, David	City Driver	284
5/30/2017	5/30/2017	005 MAY	Damage-ref...	N	1030606850	2877765	Avalos, Paulo	Dockworker...	P35681

# Creating a Table:

SpotfireClassTestData / LTC Data Worksheet



Click on the **Table** icon (#24 in the Spotfire Icon Glossary)

1. Click on the “Pro Number” column heading, click on the first arrow to **sort ascending**
2. Hold your cursor between 2 column headings so it forms a **double arrow**. Right-click with your mouse, and click on **“Resize Columns to Fit”** to change the width of each column to fit the data in that column.
3. With your cursor **between 2 column headings** so it forms a double arrow, hold down the ctrl button and **drag the red line** left or right. When you release the mouse button, all columns will **snap to that new width**
4. **Properties**, General, Title = “Opportunities”
5. Remaining in Properties, Appearance, Check **“Show Cell Borders”**, Number of **frozen columns** = 1 (now it freezes the first column as you scroll)
6. Grab the Delivery Date column and **drag it** just to the right of the SQI Date column
7. **Properties, Columns, SQI Year, Remove**
8. Click on a cell about 1/3 of the way down and **drag over several rows**. Marked rows will turn green.

SQI Date	Delivery Date	SQI Month	Failure Type	Concealed...	Pro Number	LTC Emplo...	LTC Emplo...	LTC Emplo...	LTC Unit
1/31/2017	1/31/2017	001 JAN	Damage	N	1001957972	1731602	Morgan, Brian	City Driver	P28074
6/20/2016	6/20/2016	006 JUN	Damage	N	1002812753	2448939	Williamson,...	Dockworker...	P257300
6/24/2016	6/24/2016	006 JUN	Damage	N	1002812775	1389346	Hughes, Eric	Dockworker...	P51945
8/15/2016	1/1/0001	008 AUG	Damage	N	1002812823	2721725	Watts, Kendall	Dockworker...	70867
8/18/2016	1/1/0001	008 AUG	Damage	N	1002812845	1512828	Braden, Steve	Dockworker...	P30700
8/30/2016	1/1/0001	008 AUG	Damage	N	1002812871	1515083	Hemp, Kath...	Service Cen...	X6975
7/27/2016	7/27/2016	007 JUL	Damage	N	1002814675	2651208	Modlin, Brian	Dockworker...	P36547
7/8/2016	7/8/2016	007 JUL	Damage	N	1002815726	2861622	Overdorff, T...	Dockworker...	17196
10/6/2016	10/6/2016	010 OCT	Damage	N	1002815622	2878569	Birt, Nathan	Dockworker...	P36188
11/15/2016	11/15/2016	011 NOV	Damage-ref...	N	10044193072	2729884	LeBlanc, Lyle	Rosie Driver	P35477
12/14/2016	12/14/2016	012 DEC	Damage	N	1005384461	2657136	Barger, Blaine	Dockworker...	P29683
5/15/2017	5/15/2017	005 MAY	Shortage	N	1012106970	2654143	Long, Robert	Dockworker...	P35619
7/8/2016	7/8/2016	007 JUL	Shortage	N	1012108230	1172378	Bell, Christo...	Dockworker...	20968
12/1/2016	12/1/2016	012 DEC	Damage	N	1013773095	2389214	Halstead, Ji...	Dockworker...	P14643
12/28/2016	12/28/2016	012 DEC	Damage	N	1013773994	1461962	Tran, Dung	Dockworker...	4900136
1/17/2017	1/17/2017	001 JAN	Damage	N	1013774086	2671863	McMillon, Ez...	Dockworker...	P17546
3/10/2017	3/10/2017	003 MAR	Damage-ref...	N	1013774812	1302388	Martin, Lance	Dockworker...	P36030
4/24/2017	4/24/2017	004 APR	Damage	N	1013774845	2974531	Meister, And...	Dockworker...	X4278
4/28/2017	4/28/2017	004 APR	Damage	N	1013775976	2725253	Cooper, Heath	Road Driver	P19947
9/1/2016	1/1/0001	009 SEP	Damage	N	1013777122	1517825	Hamrick, St...	City Driver	X4101
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5/23/2017	5/23/2017	005 MAY	Shortage	N	1016118246	2857008	Perez, Michael	Dockworker...	X10865
9/1/2016	9/2/2016	009 SEP	Damage-ref...	N	1021785951	2680412	Jones, Tonia	Dockworker...	P13349
3/28/2017	3/28/2017	003 MAR	Damage-ref...	N	1025498202	2605958	Lopez, David	City Driver	P27583
3/28/2017	3/28/2017	003 MAR	Damage	N	1025572660	2689091	Harris, Wyatt	Dockworker...	P19697
11/3/2016	11/3/2016	011 NOV	Shortage	N	1026950072	2892689	Lerner, David	City Driver	284
5/30/2017	5/30/2017	005 MAY	Damage-ref...	N	1030606850	2877765	Avalos, Paulino	Dockworker...	P35681

# #9 Creating a Summary Table: *Follow Along with the Instructions*

Column	Origin_Region	Sum	Avg	Min	Max	Median	StdDev
Claims	SOEA	10741.00	2.95	1	237	1.00	8.14
	MIWE	9497.00	2.44	1	115	1.00	5.29
	NOEA	8064.00	2.12	1	191	1.00	5.02
	NOWE	7095.00	2.32	1	142	1.00	5.38
	SOWE	6226.00	2.42	1	108	1.00	4.97
	CAND	404.00	1.80	1	29	1.00	2.78
	SOMX	19.00	1.12	1	2	1.00	0.33
	NOMX	13.00	1.30	1	2	1.00	0.48
	OFFS	3.00	1.00	1	1	1.00	0.00
Claims_Filed_Dollars	SOEA	17377467.63	4766.17	0.01	696456.85	1058.25	18438.93
	MIWE	16428415.38	4214.58	0.01	750000.00	976.06	19103.15
	NOWE	16037563.60	5253.05	0.01	2004490.57	925.42	39808.36
	NOEA	15731320.82	4130.04	0.01	441927.64	975.17	14119.46
	SOWE	12133393.73	4723.00	0.01	521307.00	957.62	18738.59
	CAND	1135785.03	5070.47	18.14	139130.42	1176.96	13452.43
	SOMX	101148.52	5949.91	42.56	46524.00	1175.38	12095.61
	OFFS	55787.48	18595.83	1712.00	47410.48	6665.00	25076.81
	NOMX	16790.84	1679.08	377.30	7638.80	952.50	2172.85
Claims_Paid_Dollars	MIWE	4601495.09	1180.48	0.00	104540.79	282.79	3692.40
	SOEA	4558144.41	1250.18	0.00	77649.87	303.09	3645.87
	NOEA	4152126.23	1090.08	0.00	61613.20	285.00	3062.97
	NOWE	3217720.23	1053.95	0.00	118859.36	227.06	3796.09
	SOWE	3074939.86	1196.94	0.00	80647.27	287.53	3406.37
	CAND	266316.50	1188.91	0.00	21936.30	271.06	2769.18
	SOMX	11594.38	682.02	0.00	4976.34	0.00	1416.32
	OFFS	1562.43	520.81	0.00	833.52	728.91	454.06
	NOMX	915.00	91.50	0.00	915.00	0.00	289.35

# Creating a Summary Table:

SpotfireClassTestData / Top Claimants Worksheet



Click on the **Summary Table** icon (#39 in the Spotfire Icon Glossary)

1. **Properties**, General, Title = Claims Information
2. Remaining in Properties, Columns, **Categorization = Origin Region**
3. Remaining in Properties, Sorting, **Sort by Sum**, choose Descending
4. Click on Legend (**appears in the upper right when you hover over it**) to toggle it off

Column	Origin_Region	Sum	Avg	Min	Max	Median	StdDev
Claims	SOEA	10741.00	2.95	1	237	1.00	8.14
	MIWE	9497.00	2.44	1	115	1.00	5.29
	NOEA	8064.00	2.12	1	191	1.00	5.02
	NOWE	7095.00	2.32	1	142	1.00	5.38
	SOWE	6226.00	2.42	1	108	1.00	4.97
	CAND	404.00	1.80	1	29	1.00	2.78
	SOMX	19.00	1.12	1	2	1.00	0.33
	NOMX	13.00	1.30	1	2	1.00	0.48
	OFFS	3.00	1.00	1	1	1.00	0.00
	SOEA	17374467.63	4766.17	0.01	696456.85	1058.25	18438.93
Claims_Filed_Dollars	MIWE	16428415.38	4214.58	0.01	750000.00	976.06	19103.15
	NOWE	16037563.60	5253.05	0.01	2004490.57	925.42	39808.36
	NOEA	15731320.82	4130.04	0.01	441927.64	975.17	14119.46
	SOWE	12133393.73	4723.00	0.01	521307.00	957.62	18738.59
	CAND	1135785.03	5070.47	18.14	139130.42	1176.96	13452.43
	SOMX	101148.52	5949.91	42.56	46524.00	1175.36	12095.61
	OFFS	55787.48	18595.83	1712.00	47410.48	6665.00	25076.81
	NOMX	16790.84	1679.08	377.30	7638.80	952.50	2172.85
	MIWE	4601495.09	1180.48	0.00	104540.79	282.79	3692.40
	SOEA	4558144.41	1250.18	0.00	77649.87	303.09	3645.87
Claims_Paid_Dollars	NOEA	4152126.23	1090.08	0.00	61613.20	285.00	3062.97
	NOWE	3217720.23	1053.95	0.00	118859.36	227.06	3796.09
	SOWE	3074939.86	1196.94	0.00	80647.27	287.53	3406.37
	CAND	266316.50	1188.91	0.00	21936.30	271.06	2769.18
	SOMX	11594.38	682.02	0.00	4976.34	0.00	1416.32
	OFFS	1562.43	520.81	0.00	833.52	728.91	454.06
	NOMX	915.00	91.50	0.00	915.00	0.00	289.35

# #10 Creating a Cross Table: Follow Along with the Instructions

		Failure Type		IB / OB / Hub		+					
LTC Employee Job		Damage		Damage-refused			Shortage				Grand total
		Inbound	Outbound	Hub	Inbound	Outbound	Hub	Inbound	Outbound		
LTC Employee Job	Dockworker Part-time	5720	51887	42543	10607	16932	13701	14105	25126	19374	229995
	Dockworker	8634	8517	7838	8694	3520	3220	11446	4891	3767	80527
	City Driver	4278	15564	8913	1249	4219	3237	1617	7105	7448	53630
	Road Driver	4311	1476	1493	4056	445	446	5685	699	675	29286
	Supv-Operations	2228	3040	1427	675	1217	457	1827	1870	1327	14068
	UNK	690	692	1472	167	169	560	306	281	1096	5433
	Driver Apprentice	471	738	497	158	236	184	210	395	246	3135
	Dock Associate	47	1392	282	11	140	37	14	424	72	2419
	City Driver Part-time	85	280	181	21	90	42	15	103	102	919
	Mgr-Operations	69	192	36	29	79	16	46	129	46	642
	Service Center Support	41	96	96	8	67	19	41	85	52	505
	Driver Apprentice-Part-Time	28	109	44	4	35	18	9	43	19	309
	Mgr-Service Center 3	2	84	19	-	27	4	4	57	18	215
	Supv-Operations Part-Time	16	28	56	6	13	16	17	22	31	205
	Team Leader Part-Time	14	40	35	1	15	15	14	22	23	179
	Operations Supervisor I	4	66	14	-	10	2	-	34	2	132
	Mgr-Service Center 2	3	56	8	-	11	-	3	25	7	113
	Contractor City Driver	-	21	43	-	2	24	-	11	3	104
	Operations Coordinator	-	51	2	-	8	2	-	9	2	74
	Dock Associate-Part Time	-	38	12	-	2	1	-	5	11	69
	Driver Development Instructor	3	20	10	-	3	5	2	15	10	68
	Asst Mgr-Service Center	6	21	7	1	6	2	4	10	7	64
	Contractor Supervisor	-	3	33	-	3	18	-	2	2	61
	Operations Supervisor	1	37	6	-	2	-	-	10	2	58
	Transportation Planner	22	-	11	5	-	2	11	-	1	52
	Service Center Maint Part-time	7	-	21	3	1	8	3	-	6	49
	Service Center Support PT	8	9	8	2	3	2	-	12	5	49
	Contractor	-	28	1	-	3	-	-	11	2	45
		Count(Pro Number)		+							

# Creating a Cross Table: SpotfireClassTestData / Top Claimants Worksheet

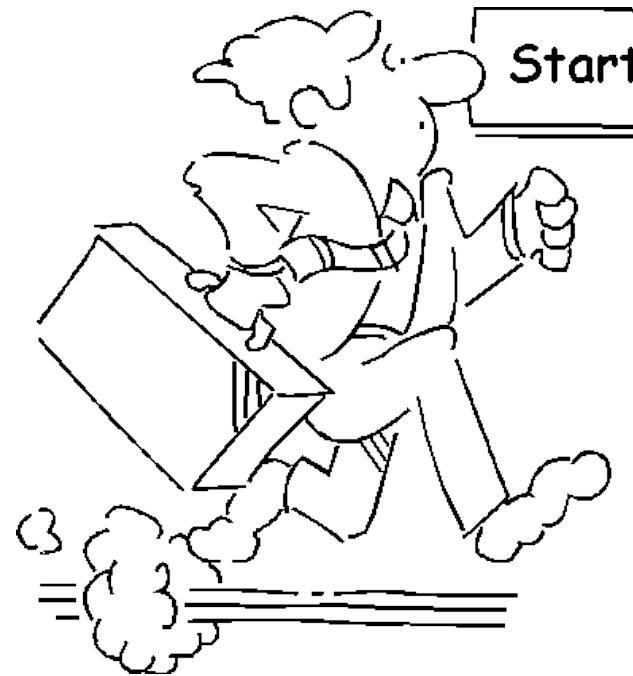


Click on the **Cross Table** icon (#25 in the Spotfire Icon Glossary)

1. Properties, Axes, **Horizontal** = Failure Type + IB/OB/Hub / **Vertical** = LTC Employee Job / Cell Values = Pro Number, Aggregation = Count
2. Right-click in the visualization, click on “**Grand Total for Columns**”
3. Click at the top of the Grand total column, **sort by descending**

	Failure Type	IB / OB / Hub	Damage			Damage-refused			Shortage			Grand total
			Inbound	Outbound	Hub	Inbound	Outbound	Hub	Inbound	Outbound		
LTC Employee Job												
Dockworker Part-time	5720	51887	42543	10607	16932	13701	14105	25126	19374	229995		
Dockworker	8634	8517	7838	8694	3520	3220	11446	4891	3767	80527		
City Driver	4278	15564	8913	1249	4219	3237	1617	7105	7448	53630		
Road Driver	4311	1476	1493	4056	445	446	5685	699	675	29266		
Supv-Operations	2250	3040	1427	675	1217	457	1857	1970	1327	14600		
UNK	680	692	1472	107	169	560	366	331	1056	5433		
Driver Apprentice	471	738	497	158	236	164	210	395	246	3135		
Dock Associate	47	1392	282	11	140	37	14	424	72	2419		
City Driver Part-time	85	280	181	21	90	42	15	103	102	919		
Mgr-Operations	69	192	36	29	79	16	46	129	46	642		
+ Service Center Support	41	96	96	8	67	19	41	85	52	506		
Driver Apprentice-Part-Time	28	109	44	4	35	18	9	43	19	309		
Mgr-Service Center 3	2	84	19	-	27	4	4	57	18	215		
Supv-Operations Part-Time	16	28	56	6	13	16	17	22	31	205		
Task Driver Part-Time	14	40	35	1	15	15	14	22	25	179		
Operations Supervisor I	4	66	14	-	10	2	-	34	2	132		
Mgr-Service Center 2	3	56	8	-	11	-	3	25	7	113		
Contractor City Driver	-	21	43	-	2	24	-	11	3	104		
Operations Coordinator	-	51	2	-	8	2	-	9	2	74		
Dock Associate-Part-Time	-	38	12	-	2	1	-	5	11	69		
Driver Development Instructor	3	20	10	-	3	5	2	15	10	68		
Asst Mgr-Service Center	6	21	7	1	6	2	4	10	7	64		
Contractor Supervisor	-	3	33	-	3	18	-	2	2	61		
Operations Supervisor	1	37	6	-	2	-	-	10	2	58		
Transportation Planner	22	-	11	5	-	2	11	-	1	62		
Service Center Maint Part-time	7	-	21	3	1	8	3	-	6	49		
Service Center Support PT	8	9	8	2	3	2	-	12	5	49		
Contractor	-	28	1	-	3	-	-	11	2	45		

# Getting a Fast Start with Recommended Visualizations



A screenshot of a data visualization software interface. At the top, there's a toolbar with various icons. Below the toolbar is a "Recommended visualizations" panel. This panel includes a search bar labeled "Type to search columns" and a list of columns categorized into "NUMBERS" and "CATEGORIES". The "Dest Region" column is highlighted with a blue selection bar. Below the list are several recommended visualizations:

- Distribution – Dest Region**: A bar chart showing the distribution of dest regions. The y-axis is labeled "(Row Count)" and the x-axis is labeled "Dest Region". The bars represent MIWE, NOEA, SOEA, and another unlabeled category.
- (Row Count) per Dest Region**: A pie chart showing the distribution of dest regions. The legend indicates "Dest Region". The segments are colored red, yellow, green, and purple.
- Row Count per Dest Region**: A step chart showing the cumulative row count for dest regions. The y-axis is labeled "(Row Count)" and the x-axis is labeled "Dest Region". The steps are labeled MIWE, SOWE, SOEA, and CAND.
- Row Count per Dest Region**: A bar chart showing the row count for dest regions. The y-axis is labeled "(Row Count)" and the x-axis is labeled "Dest Region". The bars represent MIWE, SOWE, SOEA, and CAND.
- 1 column from Top Claimants by Cause Example - Top Claimants Visib...**: A small text link at the bottom of the panel.

A large red arrow points downwards from the top of the slide towards the "Recommended visualizations" panel.

# Itinerary - Day 2

- Brief Basic Spotfire Review from Day 1
- What's In All Those Tabs?
- Configuring Interactivity – Walkthrough With Instructors
  - Filtering Data Before It Reaches The Report / Creating Filtering Schemes
  - Marking (test data) / Marking as in Selecting / Marking as in Data Limiting (create simple bar chart)
  - Creating Markings Through Document Properties / How Markings Work To Differentiate Data
  - Different Colors For Markings / Different Names For Markings / Creating A Hierarchy
  - Multiple Marking By Dragging Across Multiple Items / CTRL + Select
  - Details Visualizations / Details On Demand Options (Using Table vs DOD Icon)
  - Limit Data Using Filters / Limit Data Using Expressions
  - Creating a dashboard to tie it all together

## LUNCH – 12:30PM

- Activity #1 – Create a 3-Tier hierarchy with bar charts allowing you to drill down from Regions to Districts to Centers
- Activity #2 – Create a treemap that shows the top 10 documenting locations sized & colored by totals, a text filter that distinguishes between failure types & allows you to pick dates. Add 2 more interactive visualizations that make sense.
- Configuring Interactivity – Dashboard Scenario Activity, use a tree map, text area date selector, pie chart, bar graph, line chart histogram, details on demand
  - #1 Who are the top 3 LTC employees by shift for each district in your region?
  - #2 Show the results for Q3 & Q4 + the trends

Cover all available help, Cover Spotfire Demo File

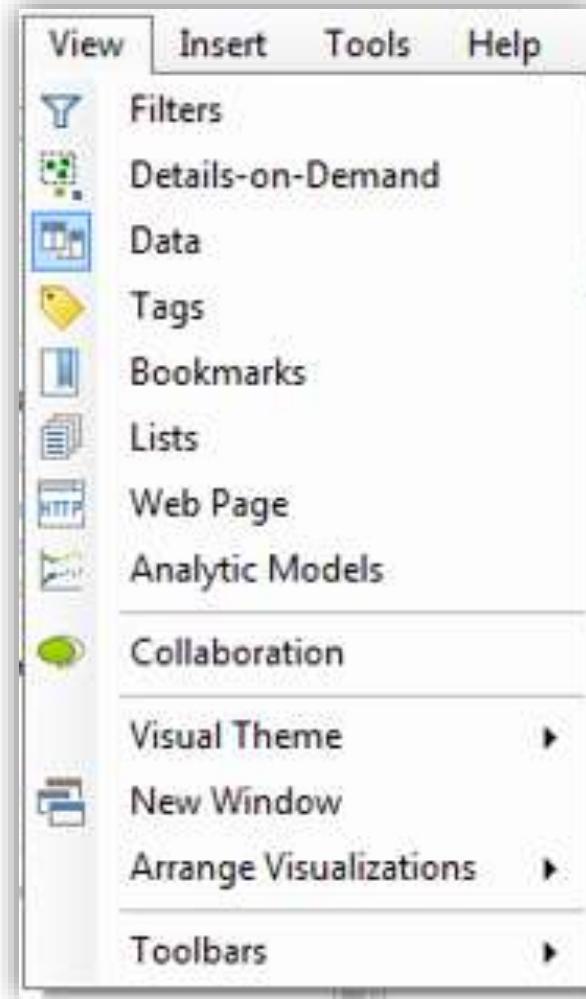
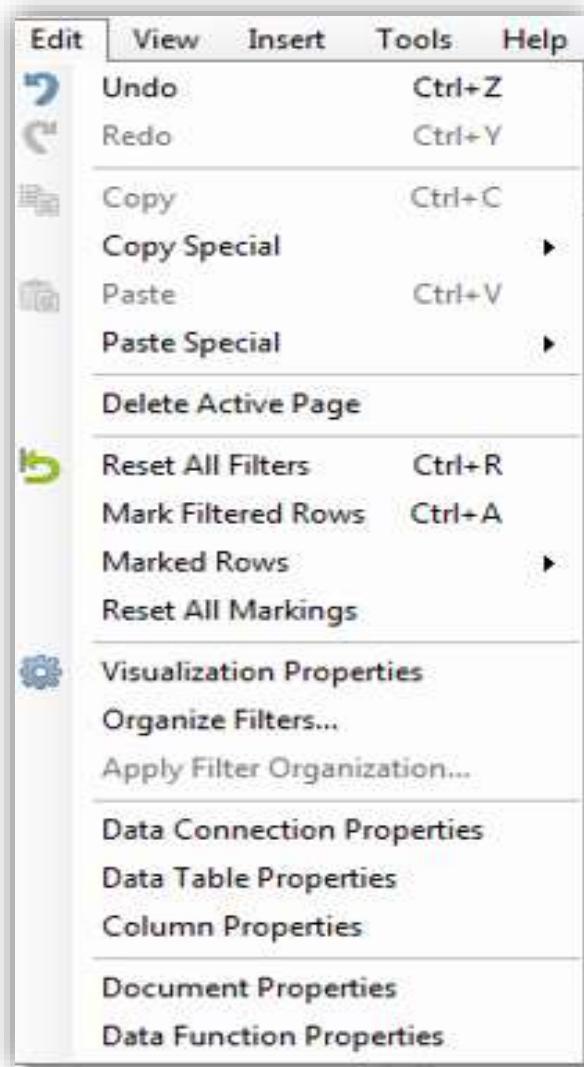
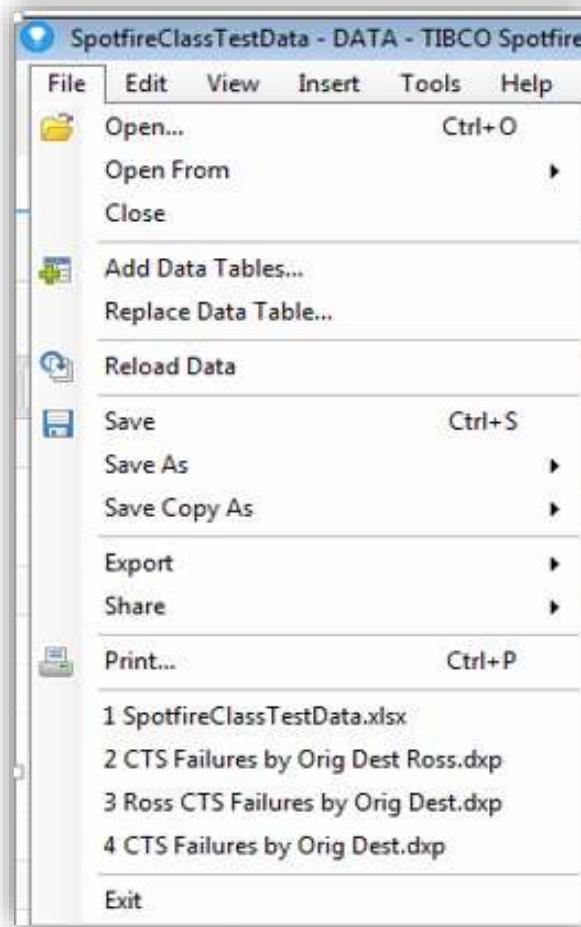
Use your own data or use ours to create a dashboard / Additional Help time

## Helpful Tips:

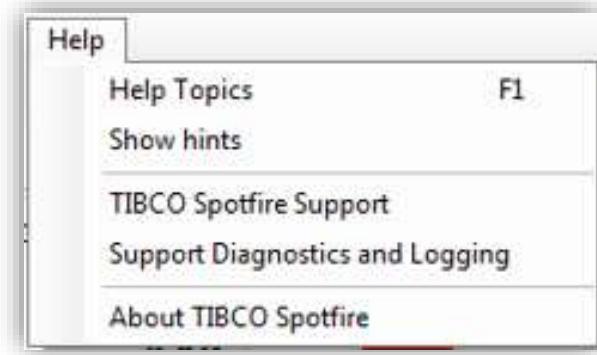
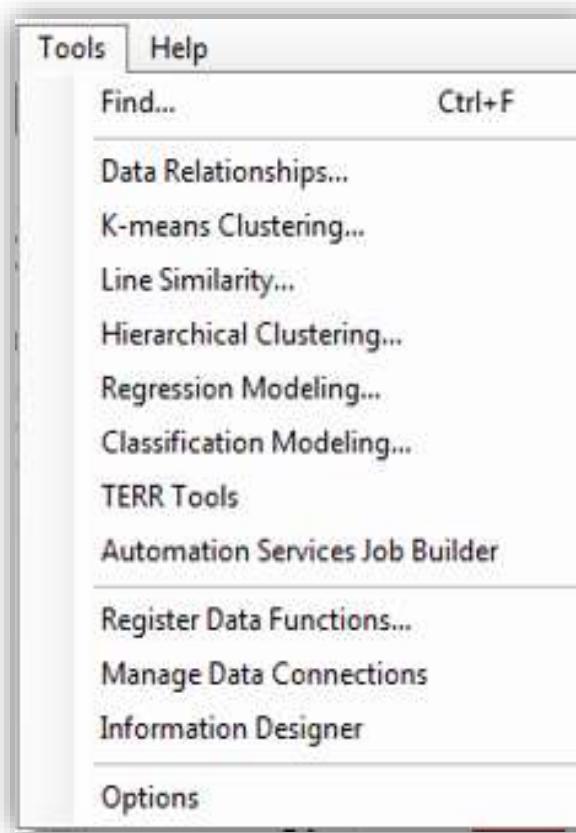
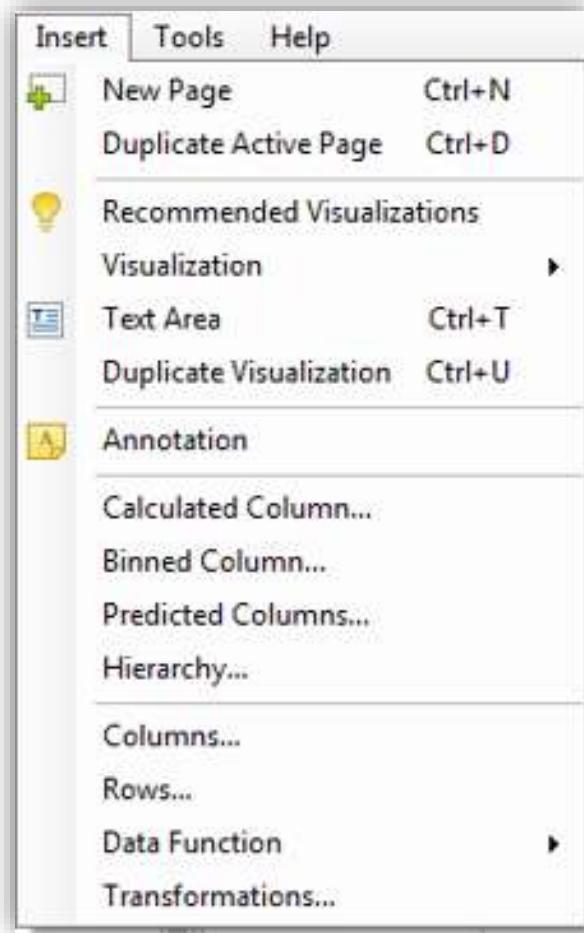
*To avoid having to take this class again...*

- ✓ Please take lots of notes!
- ✓ Please ask questions if you feel lost
- ✓ Please do not try to think ahead
- ✓ Please **BE HERE NOW**

# What's in All Those Tabs? Spotfire Menu Glossary 1

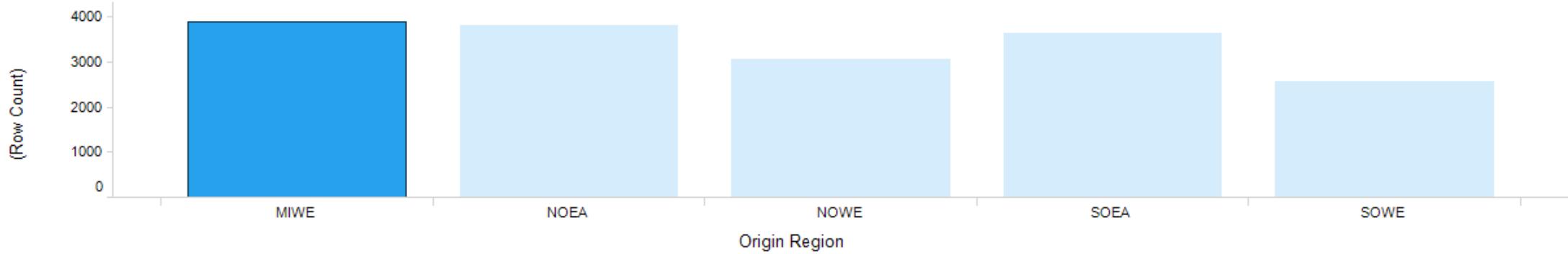


# What's in All Those Tabs? Spotfire Menu Glossary 2

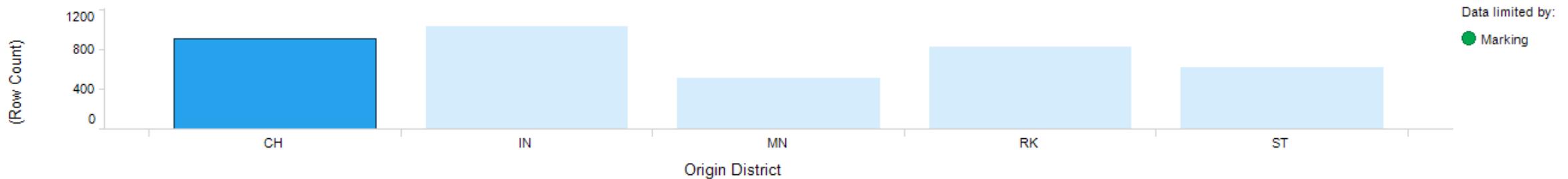


# Activity #1 - Create a 3-Tier hierarchy with bar charts allowing you to drill down from Regions to Districts to Centers

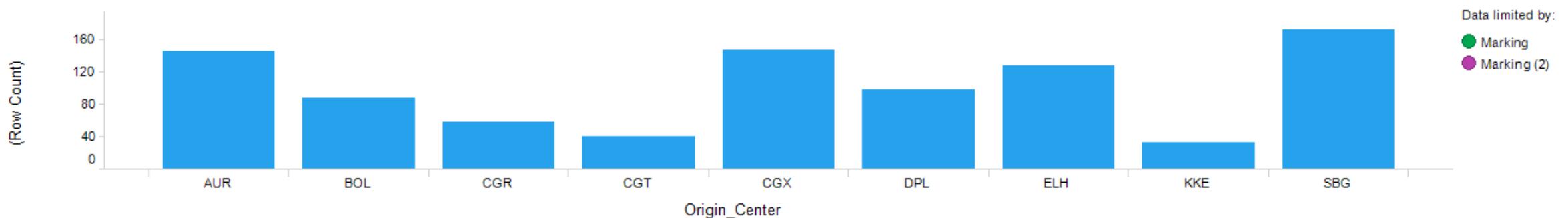
Distribution – Origin Region



Distribution – Origin District



Distribution – Origin\_Center

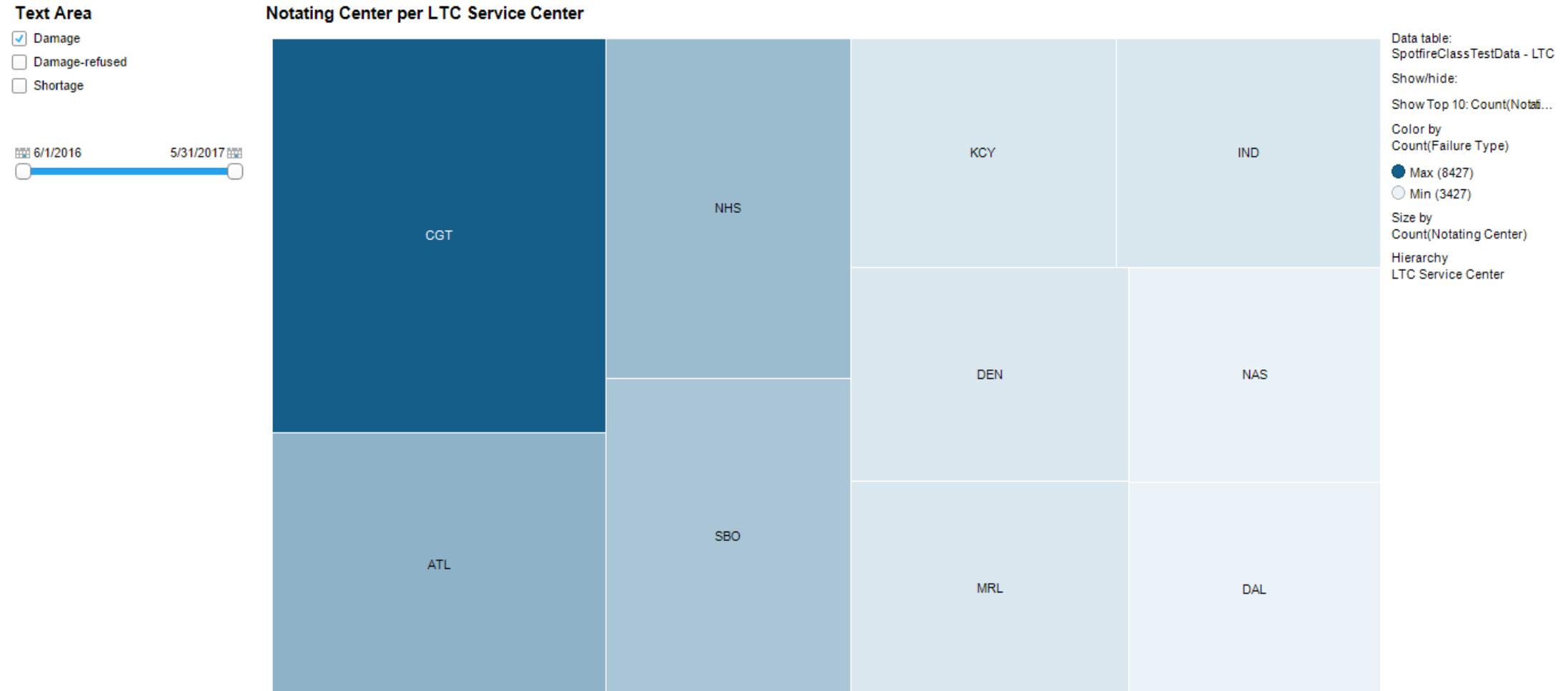


## Filter Settings

- Origin Region: (MIWE, NOEA, NOWE, SOEA, SOWE)



**Activity #2** - Create a treemap that shows the top 10 documenting locations sized & colored by totals, a text filter that distinguishes between failure types & allows you to pick dates. Add 2 more interactive visualizations that make sense.



# Configuring Interactivity – Making it all work together



# Tibco Software Consumer User's Guide Links

[Creating a Bar Chart](#)

[Creating a Line Chart](#)

[Creating a Combination Chart](#)

[Creating a Pie Chart](#)

[Creating a Tree Map](#)

[Creating a Table](#)

[How to Use A Summary Table](#)

[Creating a Cross Table](#)

[Calculated Columns](#)

[Marking](#)

[Spotfire Learn](#)

**Fiscal Year Offset = 5**

(Edit-Document Properties-Properties-Fiscal Year Offset-Edit-Value = 5)



Color	Sample	Hex Code	R	G	B
Purple		4D148C	77	20	140
Orange		FF6600	255	102	0
Office Blue		3A9DD3	58	157	211
Custom Critical		0099CC	0	153	204
Alert Red		D60D0D	214	13	13
Freight Red		FF0033	255	0	51
Green		00CC00	0	204	0
Yellow		FFCC00	255	204	0
Dark Gray 1		333333	51	51	51
Dark Gray 2		666666	102	102	102
Medium Gray 1		999999	153	153	153
Medium Gray 2		CCCCCC	204	204	204
Light Gray 1		E5E5E5	229	229	229
Light Gray 2		F5F5F5	245	245	245
Purple Gradient (dark)		4D148C	77	20	140
Purple Gradient (light)		9578BA	149	120	186
Blue Gradient (dark)		0073A0	0	115	160
Blue Gradient (light)		00A0D3	0	160	211
Gray Gradient 1 (dark)		666666	102	102	102
Gray Gradient 1 (light)		999999	153	153	153
Gray Gradient 2 (dark)		999999	153	153	153
Gray Gradient 2 (light)		E5E5E5	229	229	229
Gray Gradient 3 (dark)		E5E5E5	229	229	229
Gray Gradient 3 (light)		FFFFFF	255	255	255

# Itinerary - Day 3

- Spotfire Review from Days 1 & 2
- Any Questions???
- Using Spotfire with Realistic Scenarios:
  1. The SCM for SWA has received calls from 3 different customers complaining they have seen a spike in exceptions on their OB freight since July (we are living in 2016). He comes to you and asks you to point out top OB opportunities for the center as a whole.
  2. The NAS SCM tells you their LTC is getting out of control. Can you provide the top 5 LTC employees for each shift & point out some opportunities?
  3. We are about to lose Parker Hannifin due to high exceptions. Your MD needs a couple of slides for an RVP presentation tomorrow.
- Class-suggested scenarios, time permitting
- Reconvene on a call in 2 weeks, project requirements

## Helpful Tips:

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# CLASS DISMISSED!!!