

Slide 1





How To Jazz Up Reports

Delyth Jones


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About Me




Glory Days! Age 3





That's Me!



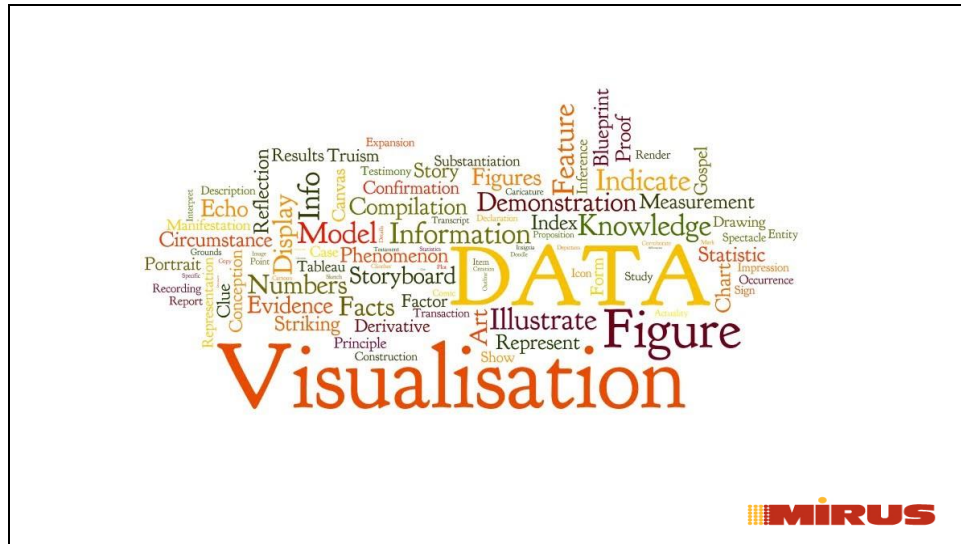
A little about me,

I have worked here at Mirus for 5 Years

I've lived in Texas my whole life & went to Sam Houston State University in Huntsville. Where I graduated in 2011 with a Bachelors of Business Administration in Management Information Systems.

I'm Welsh, my parents moved from Wales for my father's Job in Oil & Gas.

I'm the youngest child of 3



The act of managing your data by collecting, cleansing, and maintaining raw data is one thing - data analysis and visualization is another.

That's the fun stuff! Let's see how we can jazz up reports to better consume.

Why data visualization important

- Amplifies your message
- Quickly see trends and outliers
- Greater amount of people are able to retain visual data than data dumps



Data visualization refers to the techniques used to communicate data or information by encoding it as visual objects (e.g., points, lines or bars) contained in graphics. The goal is to communicate information clearly and efficiently to users.


When we see a chart, we quickly see trends and outliers. If we can see something, we internalize it quickly. It's storytelling with a purpose. If you've ever stared at a massive spreadsheet of data and couldn't see a trend, you know how much more effective a visualization can be.

Greater amount of people are able to retain visual data than data dumps

For Example my next slide

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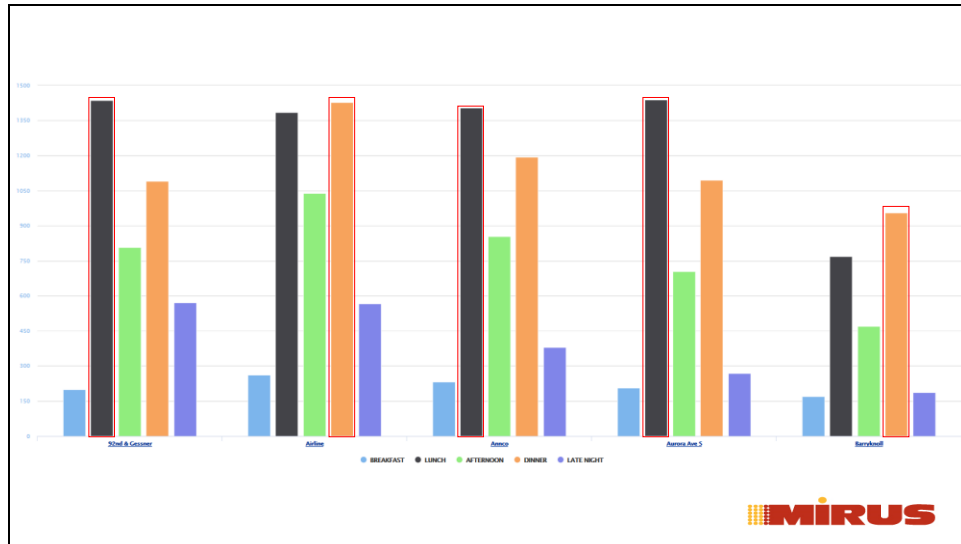
Daypart Store Name	Gross Sales				
	BREAKFAST	LUNCH	AFTERNOON	DINNER	LATE NIGHT
92nd & Gessner	200.43	1,436.22	807.81	1,089.99	571.81
Airline	261.86	1,383.10	1,038.28	1,427.16	566.28
Anncoco	232.12	1,404.08	854.84	1,192.81	380.67
Aurora Ave S	207.07	1,436.90	702.80	1,094.79	268.57
Barryknoll	170.22	767.19	469.92	954.97	186.89



Looking at this report quickly, can you tell me which Daypart had the highest Sales for each Location?

No, you can't, unless you look line by line.

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Now, Take a look at this report, and tell me which Daypart had the highest sales per location.

92nd Gessner Lunch

Airline Dinner

Annco Lunch

Aurora Ave 5 Lunch

Baryknoll Dinner

Visualizations allow you to quickly see what you need to see


Key Performance Indicators

- Key Performance Indicators (KPI)
 - Allows your eyes to quickly identify the values to look at.

Indicates Values *Above*

Indicates Values *Between*

Indicates Values *Below*

The MIRUS logo is located in the bottom right corner of the slide. It consists of the word "MIRUS" in a bold, red, sans-serif font. To the left of the text is a small icon composed of several vertical bars of varying heights, resembling a stylized bar chart or a signal indicator.


The first example that we are going to look at to 'jazz up your reports is with KPI (Key Performance Indicators. KPIs as we call them allow your eyes to quickly identify the values to look at.

Can indicate to you values above, below or even between two values.

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Daily Report						
Store Name	Gross Sales	Gross Transactions	Discounts	Labor/Sales	Tot Labor \$	Tot Labor Hrs
92nd & Gessner	4,629.73	5,158.89	(5.37)	15.25%	706.14	79.35
Airline	5,357.07	5,950.38	(9.36)	11.20%	599.84	69.50
Annco	4,620.13	5,078.88	(38.67)	14.83%	685.35	79.77
Aurora Ave S	4,160.98	4,613.05	(15.88)	13.82%	575.13	61.35
Barryknoll	2,974.93	3,353.89	(7.99)	18.00%	535.49	61.75
Beaumont	6,324.45	7,641.43	(7.18)	13.77%	870.67	98.25
E Division	4,693.21	5,148.52	(14.38)	13.25%	621.69	71.85
Flahers Landing	4,098.38	4,537.76	(27.53)	15.57%	638.14	70.58
Freeport Blvd	3,560.13	3,982.90	(25.54)	18.33%	652.85	76.15
Georgetown Crossing	8,176.11	8,803.39	(26.78)	12.85%	1,050.90	107.85
Greenridge	4,256.09	4,679.16	(8.69)	15.40%	655.44	73.87
Houston	5,286.86	5,932.37	(9.27)	13.50%	713.93	82.15
Huntington	4,917.69	5,743.50	(33.32)	14.25%	700.55	79.60
Kennerly	2,980.91	3,298.56	(7.28)	16.74%	499.08	56.77
King Street	6,774.79	7,440.27	(112.67)	12.59%	852.85	94.32

Which stores had *below* \$4000 in Gross Sales for Yesterday?



We are looking at a Daily Report. All I see are values, and let's say I want to look at this report quickly and see which stores had under \$4000 in Gross Sales.
As the report is now, my eyes would read each line to identify them.

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Daily Report						
Store Name	Gross Sales	Gross Transactions	Discounts	Labor/Sales	Tot Labor \$	Tot Labor Hrs
92nd & Gesaner	4,629.73	5,158.89	(5.37)	15.25%	706.14	79.35
Airline	5,357.07	5,950.38	(9.36)	11.20%	599.84	69.50
Anco	4,620.13	5,078.88	(38.67)	14.83%	685.35	79.77
Aurora Ave S	4,160.90	4,613.05	(15.88)	13.82%	575.13	61.35
Barryknoll	2,974.93	3,353.89	(7.99)	18.00%	535.49	61.75
Beaumont	6,324.45	7,041.43	(7.18)	13.77%	870.87	96.25
E Division	4,693.21	5,145.52	(14.38)	13.25%	621.69	71.85
Fishers Landing	4,098.38	4,537.76	(27.53)	15.57%	638.14	70.58
Freeport Blvd	3,560.13	3,982.90	(25.54)	18.33%	652.85	70.15
Georgetown Crossing	8,178.11	8,803.39	(26.78)	12.85%	1,050.90	107.85
Greenridge	4,256.09	4,679.16	(6.69)	15.40%	655.44	73.87
Houston	5,286.86	5,932.37	(9.27)	13.50%	713.93	82.15
Huntington	4,917.89	5,743.50	(33.32)	14.25%	700.55	79.60
Kennerly	2,980.91	3,298.56	(7.28)	16.74%	499.08	56.77
King Street	6,774.79	7,440.27	(112.67)	12.59%	852.85	94.32

Which stores had *below*
\$4000 in Gross Sales
for Yesterday?



Now, this is the same report as before, but by adding KPIs to the report I can quickly see that 3 locations had gross sales less than 4000 for yesterday.

Barryknoll
Freeport Blvd
Kennerly

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Daily Report		
Store Name	Gross Sales	Gross Transactions
92nd & Gessner	4,629.73	5,158
Airline	5,357.07	5,950
Anrico	4,620.13	5,078
Aurora Ave S	4,160.98	4,613
Barryknoll	2,974.93	3,353
Beaumont	6,324.45	7,641
E Division	4,693.21	5,148
Fishers Landing	4,098.38	4,537
Freeport Blvd	3,560.13	3,982
Georgetown Crossing	8,176.11	8,803
Greenridge	4,256.09	4,679
Houston	5,286.86	5,932
Huntington	4,917.69	5,743
Kennerly	2,980.91	3,298
King Street	6,774.79	7,440

Daily Report		
Store Name	Gross Sales	Gross Transactions
92nd & Gessner	● 4,629.73	5,158
Airline	● 5,357.07	5,950
Anrico	● 4,620.13	5,078
Aurora Ave S	● 4,160.98	4,613
Barryknoll	● 2,974.93	3,353
Beaumont	● 6,324.45	7,641
E Division	● 4,693.21	5,148
Fishers Landing	● 4,098.38	4,537
Freeport Blvd	● 3,560.13	3,982
Georgetown Crossing	● 8,176.11	8,803
Greenridge	● 4,256.09	4,679
Houston	● 5,286.86	5,932
Huntington	● 4,917.69	5,743
Kennerly	● 2,980.91	3,298
King Street	● 6,774.79	7,440



Again, here is a side-by-side example.

The picture on the left is my report without any data visualization

The picture on the right is my report with data visualization applied, which allows me to quickly identify the information that I am looking for.

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The screenshot displays the MIRUS dashboard configuration interface on the left and a 'Daily Report' table on the right.

KPI Configuration Interface:

- Tabs: Measures, Dimensions, Display, Alert Settings
- Buttons: Select, Format, Filter, Measure Builder, Mix Measure, Ranking
- Sub-tabs: General, KPI
- Measure: Gross Sales
- Show me: ☒ Values ☒ Icons
- Above: 4,000 (Green icon)
- Below: 4,000 (Red icon)
- Image Size: 20

Daily Report Table:

Store Name	Gross Sales	Gross Transactions
92nd & Gessner	4,629.73	5,158
Airline	5,357.07	5,950
Anrico	4,620.13	5,078
Aurora Ave S	4,160.98	4,813
Berryknoll	2,974.93	3,353
Beaumont	6,324.45	7,641
E Division	4,693.21	5,148
Fishers Landing	4,098.38	4,537
Freepoint Blvd	3,560.13	3,982
Georgetown Crossing	8,176.11	8,803
Greenridge	4,256.09	4,679
Houston	5,286.88	5,932
Huntington	4,917.69	5,743
Kannerly	2,980.91	3,298
King Street	6,774.79	7,440

MIRUS

In the edit pages, click on Measure > Format > KPI

From the dropdown, select the Measure or Measures you want to add the KPI to.

For this example, I selected Gross Sales, Show me the Values and Icons

In the Above box I placed 4000

In the below box I placed 4000

Clicked Save and View. Now, any value above 4000 is Green and any value under 4000 is Red.

So Now I quickly look at this report and see that 3 of the stores are under 4000 in Gross Sales. This saves me time by quickly identifying them for me.

Make sure that you can add it to comparison

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Non comparison report

Measures

Dimensions

Display

Alert Settings

Select

Format

Filter

Measure Builder

Mix Measure

Ranking

General

KPI

Measure:

Gross Sales

Show me: ☒ Values ☒ Icons

Above:

4,000

Below:

4,000

Image Size:

20

Comparison report

Measures

Dimensions

Display

Alert Settings

Select

Format

Filter

Base

Comparisons

* Comparisons:

1: Previous Day vs. Same Period Week Ago

Base

Comp

Actual

Percent

Matching

Advanced

KPI

For:

Gross Sales

Display for Base ☒

Show me: ☒ Values ☒ Icons

Above:

4000

Below:

4000

Image Size:

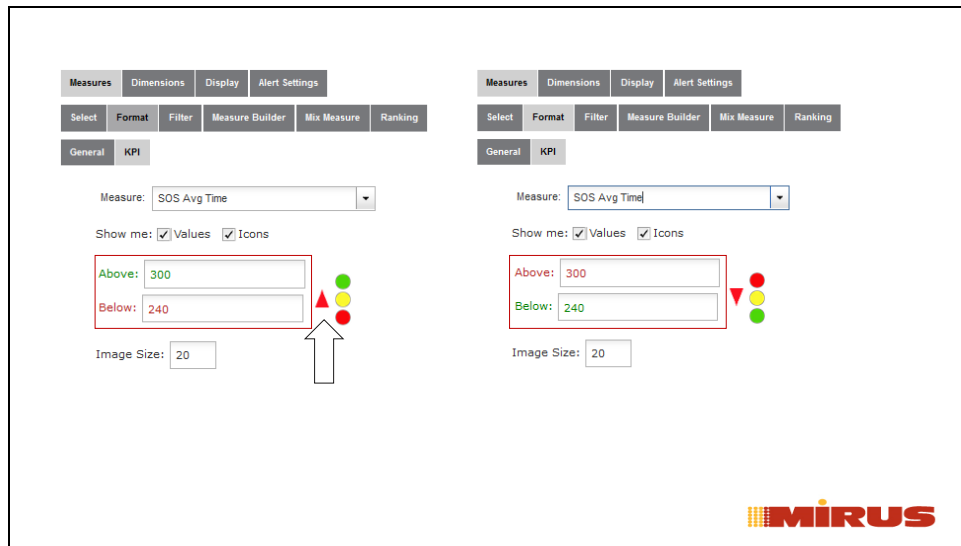
20

Apply these settings to Base and Comp Values



You can also add KPIs to comparisons

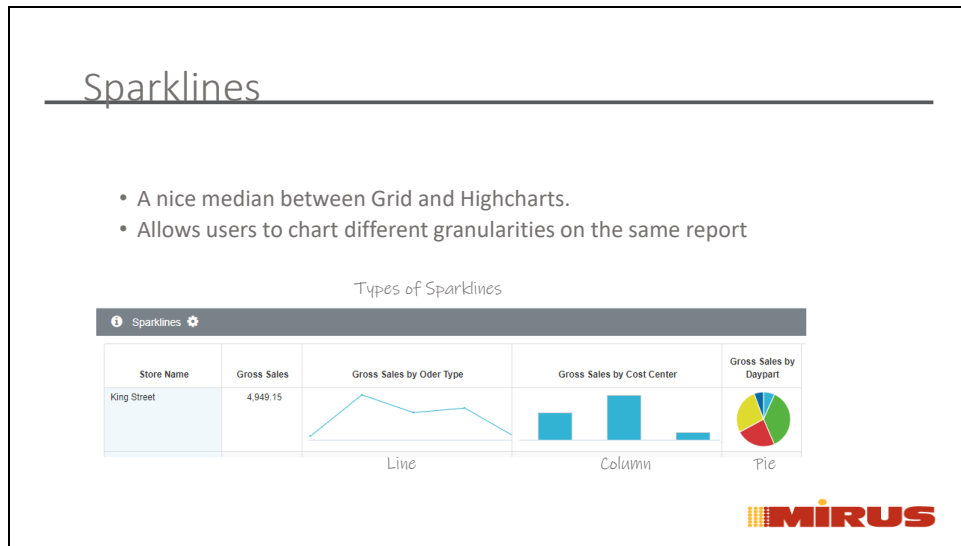
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Able to change the Direction for KPIs

For Example, I want this measure to display above 5 Minutes for SOS Avg Time to show red, and below 4 minutes to show green. Anything between will show yellow.

Once I get my values in, I click the red arrow. Now, you will see that above is red and below is Green.



Sparklines –

What are Sparklines –?

Sparklines is a feature that allows for daily trending or disaggregation of a measure by some more granular dimension.

A report writer would want to use sparklines on a report when they want to visually show different granularities on one report.

We have 3 types of Sparklines (shown here) Line, Column, & Pie

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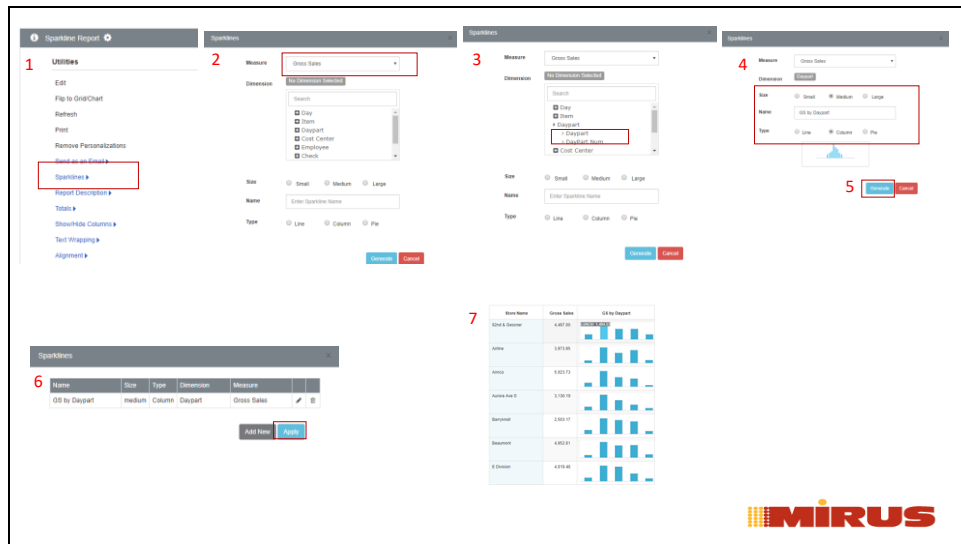


By Adding to Sparklines to a simple day/store report I am able to see the breakout by Daypart and Cost Center on the same report.

I can quickly see for my first location that the Cost Center Drive Thru has the highest Gross Sales & that the Lunch Daypart has the highest gross sales for yesterday.

Now, I'm going to show you how I added Sparklines to my report.

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How to add sparkline(s) to your report.

1. Report Options - Click Sparklines

2. Sparkline Modal displays.

Select the Measure you want to display the Sparkline for.

This example I am going to use Gross Sales

3. Now, Select the Dimension you want your measure broken out by.

This example I am going to select Daypart.

4. I am going to select the size 'Medium

Name the Sparkline, I named by GS by Daypart.

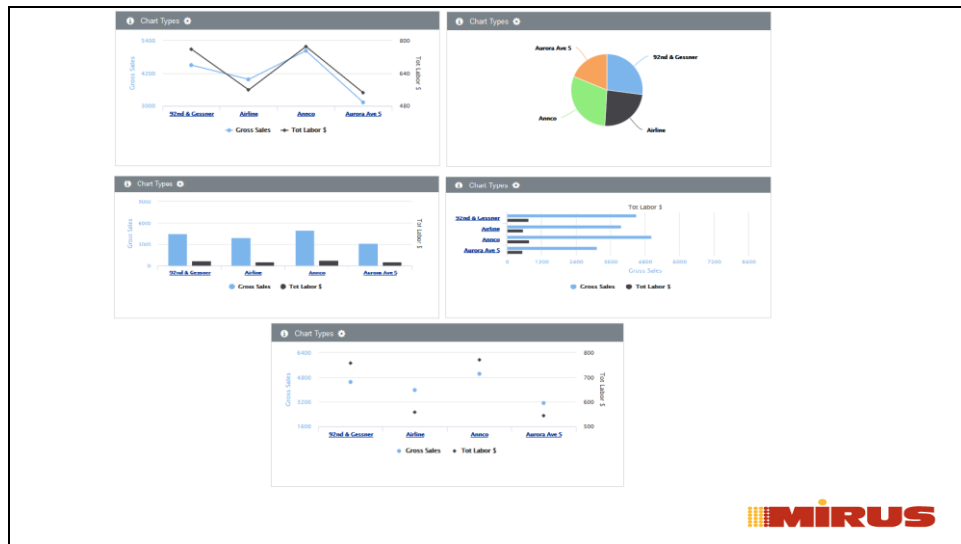
Now, select the type of sparkline (Line, Column, or Pie). My favorite is Column, so I picked this one.

5. Click Generate.

6. Now if you want, you can add more sparklines to your report, or click Apply

7. The report will load, and you will see that the Sparkline(s) will apply to the right of the Measure that you used in the Sparkline. Now, on a Grid view, I can visually see the GS Breakout by Daypart.

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Mirus has many different types of Charts.

This picture shows a few of the Charts that Mirus has to Offer.

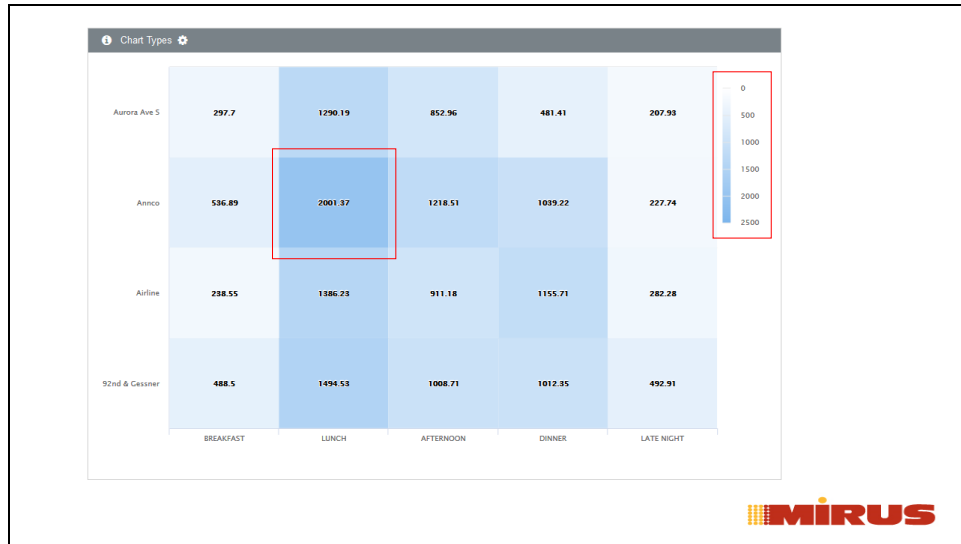
Line, Pie, Column, Bar, & Scatter Point

Types of Charts

- Heatmap
- Stacked Columns



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Here are a few new chart types that we have, that I would like to introduce to you.

Heat Map

This Heat Map is showing you the Stores broken out by Daypart.

The Darker the square the higher the Gross Sales is.

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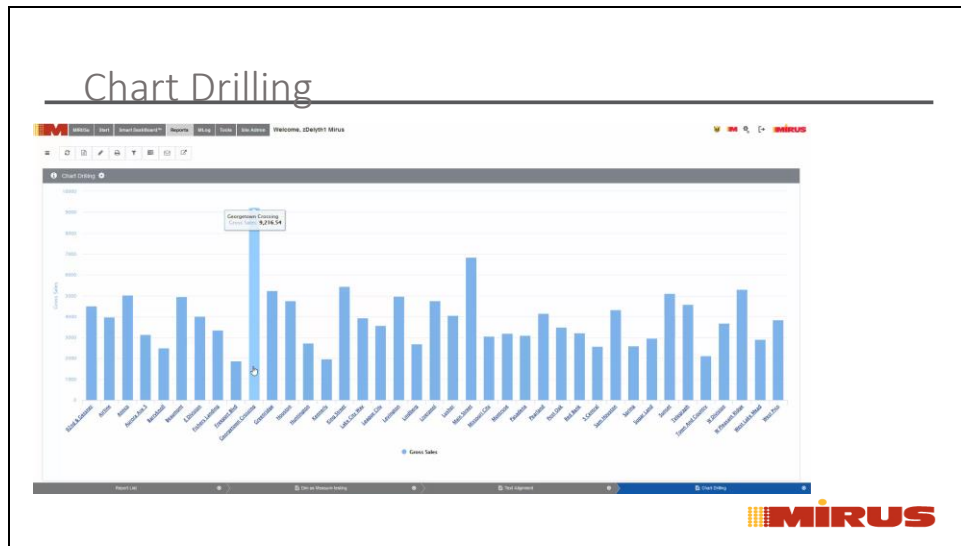
Here are a few new chart types that we have, that I would like to introduce to you.

Stack Columns

The Green is my Total Hours

The Blue is my Reg Hours

Instead of having two columns, it allows me to have more space by stacking them.



Users now have the ability to Drill Down on Charts. At this time, only the following chart types are drillable: Line, Bar, Column and Scatter Point.

How to Drill Down on a Chart:

To Drill, Left-click on the chart itself to drill or the dimension value.

Here is a video of me drilling on a report to Daypart for the Location Georgetown Crossing

Then I drill down on the Lunch Daypart to see the cost centers

Other Ways to Jazz up Reports


- Total Lines
- Density
- Text Wrapping
- Text Alignment



Here are some other visual changes you can apply to your reports

Total Lines

- Total Lines
 - Giving a visual break between data
 - Allows user to see summary and detailed data on the same report



Total lines give you a nice visual break between data, and it also allows you see summary and detailed data on the same report.

This report displays the Daypart Breakout of Gross Sales by Day for the Airline Store.

However, I want to add Total Line for Day to see the summary of each day on the report. I am also going to add a Grand Total to display the summary total for the date Range

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Daily Daypart Report

Store Name	Day	Daypart	Gross Sales
Airline	08/17/2018	BREAKFAST	276.51
		LUNCH	1,931.58
		AFTERNOON	1,399.80
		DINNER	1,809.25
	08/18/2018	LATE NIGHT	753.80
		BREAKFAST	411.02
		LUNCH	2,157.84
		AFTERNOON	1,609.02
	08/19/2018	DINNER	1,252.67
		LATE NIGHT	603.22
		BREAKFAST	131.09
		LUNCH	1,423.36
	08/20/2018	AFTERNOON	1,061.69
		DINNER	1,220.29
		LATE NIGHT	297.40
		BREAKFAST	203.19
08/21/2018	LUNCH	1,449.50	
	AFTERNOON	1,033.18	
	DINNER	1,360.74	
	LATE NIGHT	311.45	
08/22/2018	BREAKFAST	355.31	
	LUNCH	1,379.57	
	AFTERNOON	1,084.28	
	DINNER	1,186.84	
08/23/2018	LATE NIGHT	415.80	
	BREAKFAST	388.57	
	LUNCH	1,037.95	
	AFTERNOON	984.13	
	DINNER	1,524.27	
	LATE NIGHT	448.68	
	BREAKFAST	335.28	
	LUNCH	1,597.69	
	AFTERNOON	1,180.40	
	DINNER	1,664.53	
	LATE NIGHT	579.17	
	Total		

Daily Daypart Report

Store Name	Day	Daypart	Gross Sales
Airline	08/17/2018	BREAKFAST	276.51
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		AFTERNOON	1,609.02
	08/19/2018	DINNER	1,252.67
		LATE NIGHT	603.22
		BREAKFAST	131.09
		LUNCH	1,423.36
	08/20/2018	AFTERNOON	1,061.69
		DINNER	1,220.29
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08/23/2018	LATE NIGHT	415.80	
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	LATE NIGHT	448.68	
	BREAKFAST	335.28	
	LUNCH	1,597.69	
	AFTERNOON	1,180.40	
	DINNER	1,664.53	
	LATE NIGHT	579.17	
	Total		



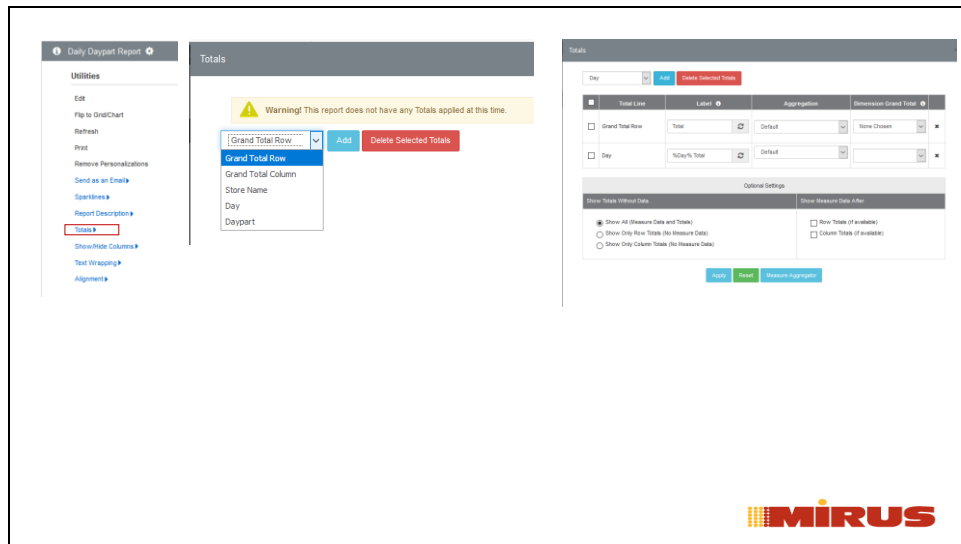
This report displays the Daypart Breakout of Gross Sales by Day for the Airline Store.

Now, look at the report side – by – side with and without total lines.

Looking at the report that has Total lines on the report. See how nicely the report is broken out visually?

Now, I'm going to show how I added these total lines to my report.

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Click on Report Options

1. Under Utilities, click Totals

2. Now, from the drop down select the Dimension you want to see totals for.
First I selected Grand Total Row, then click add.


3. On this report I repeated the process by selecting Day from the Drop down and clicking add.

Now, I have both Day and Grand Total Row Total Lines.

Click Apply

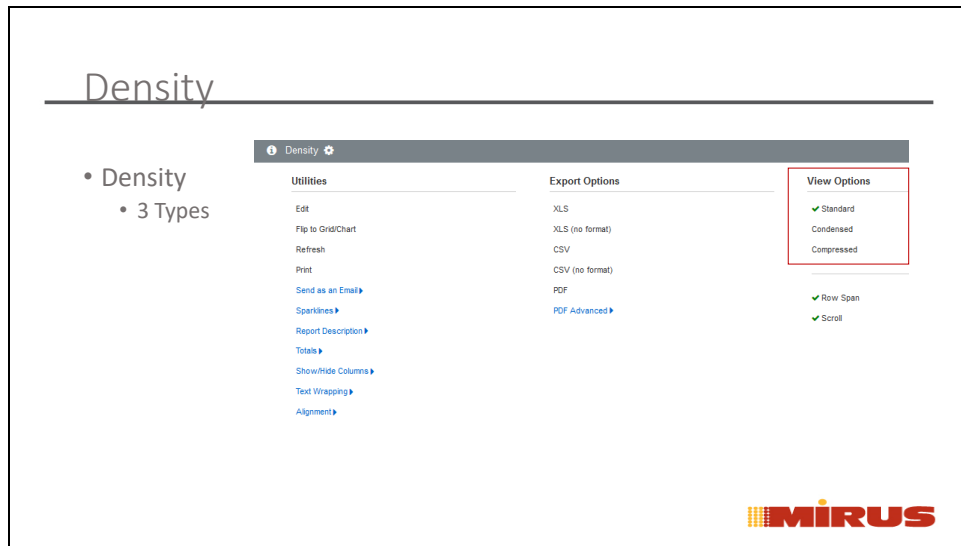
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Daily Daypart Report			
Store Name	Day	Daypart	Gross Sales
Arlene	08/17/2018	BREAKFAST	276.51
		LUNCH	1,931.58
		AFTERNOON	1,389.80
		DINNER	1,609.26
		LATE NIGHT	753.80
	08/17/2018 Total		6,170.94
	08/18/2018	BREAKFAST	411.02
		LUNCH	2,157.84
		AFTERNOON	1,609.62
		DINNER	1,252.67
		LATE NIGHT	663.22
	08/18/2018 Total		6,033.77
	08/19/2018	BREAKFAST	121.09
		LUNCH	1,423.36
		AFTERNOON	1,061.69
		DINNER	1,220.28
		LATE NIGHT	297.40
	08/19/2018 Total		4,123.82
	08/20/2018	BREAKFAST	203.19
		LUNCH	1,449.50
		AFTERNOON	1,033.16
		DINNER	1,360.74
		LATE NIGHT	311.45
	08/20/2018 Total		4,358.04
	08/21/2018	BREAKFAST	355.31
		LUNCH	1,379.57
		AFTERNOON	1,084.29
		DINNER	1,188.54
		LATE NIGHT	415.80
	08/21/2018 Total		4,433.51
	08/22/2018	BREAKFAST	383.57
		LUNCH	1,037.95
		AFTERNOON	984.13
		DINNER	1,524.22
		LATE NIGHT	448.60
	08/22/2018 Total		4,388.47
	08/23/2018	BREAKFAST	335.28
		LUNCH	1,597.69
		AFTERNOON	1,180.40
		DINNER	1,664.63
		LATE NIGHT	579.17
	08/23/2018 Total		5,357.17
Total			34,871.89



Now my report refreshes, and displays the Day Total Lines

And the Grand Total Row Line



Density allow you to see more rows on your computer screen without having to scroll or use the zoom on the browser.

Density is found under the Report Options

It is a Personalization setting --- each user can change the Density to which they want to view the report.

There are 3 types (Standard, Condensed, and Compressed)

Density

- Density
 - Standard

Store Name	Gross Sales	Check Count
92nd & Gessner	4,497.00	475
Airline	3,973.95	418
Annco	5,023.73	533
Aurora Ave S	3,130.19	351
Barryknoll	2,503.17	249
Beaumont	4,952.81	524
E Division	4,019.48	414
Fishers Landing	3,361.83	373
Freeport Blvd	1,864.37	249
Georgetown Crossing	9,216.54	883
Greenridge	5,241.14	499



Standard – This is the default size of the rows.

Density

- Density
 - Condensed

Store Name	Gross Sales	Check Count
S2nd & Gessner	4,497.00	475
Airline	3,973.95	418
Amco	5,023.73	533
Aurora Ave S	3,130.19	351
Berryknoll	2,503.17	249
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Fishers Landing	3,361.63	373
Fresport Blvd	1,864.37	249
Georgetown Crossing	9,216.54	863
Greenridge	5,241.14	499



Condensed – is one size smaller

Density

- Density
 - Compressed

Store Name	Gross Sales	Check Count
92nd & Gessner	4,497.00	475
Aurora	3,973.95	418
Annco	5,023.73	533
Aurora Ave S	3,130.19	351
Barryknoll	2,503.17	249
Beaumont	4,952.81	524
E Division	4,019.48	414
Fishers Landing	3,361.83	373
Freeport Blvd	1,864.37	249
Georgetown Crossing	9,216.54	863
Greenidge	5,241.14	499



Compressed – is the smallest

Text Wrapping

- Text Wrapping
 - Allows you to wrap the Measure data within the cells

Name	Wrap
Measures	
Tender Amt	<input type="checkbox"/>
Tender Count	<input type="checkbox"/>
Tender Amt Total	<input type="checkbox"/>
%	<input type="checkbox"/>

Apply

MIRUS

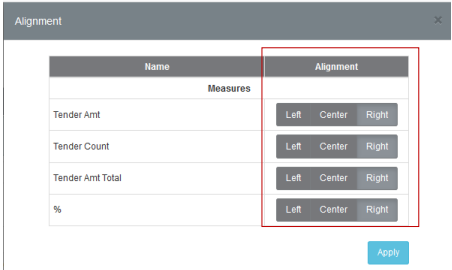
You have to be the owner of the report to apply text wrapping.

This option is found under Report Options – Utilities.

This is save setting, which can be too applied to 1 or many measures on the report.

Text Alignment

- Text Alignment – Brand new feature
 - Alignments
 - Left
 - Center
 - Right



Utilities

- Edit
- Print to Grid Chart
- Refresh
- Print
- Send as an Email
- Export to Excel
- Report Description
- Totals
- Show/Hide Columns
- Alignments

Name	Measures
Tender Amt	Left Center Right
Tender Count	Left Center Right
Tender Amt Total	Left Center Right
%	Left Center Right

Apply

MIRUS

You have to be the owner of the report to apply text alignment.

This option is found under Report Options – Utilities.

This is save setting, which can be too applied to 1 or many measures on the report.

Questions?

Visualizations

DataPie HighCharts
ScatterPoint Column
PolarChartDrillingHeatMap
StackedColumnsTrends
DimensionTotalsLine
DensityTextAlignmentBar
TextWrapping
TotalLines

