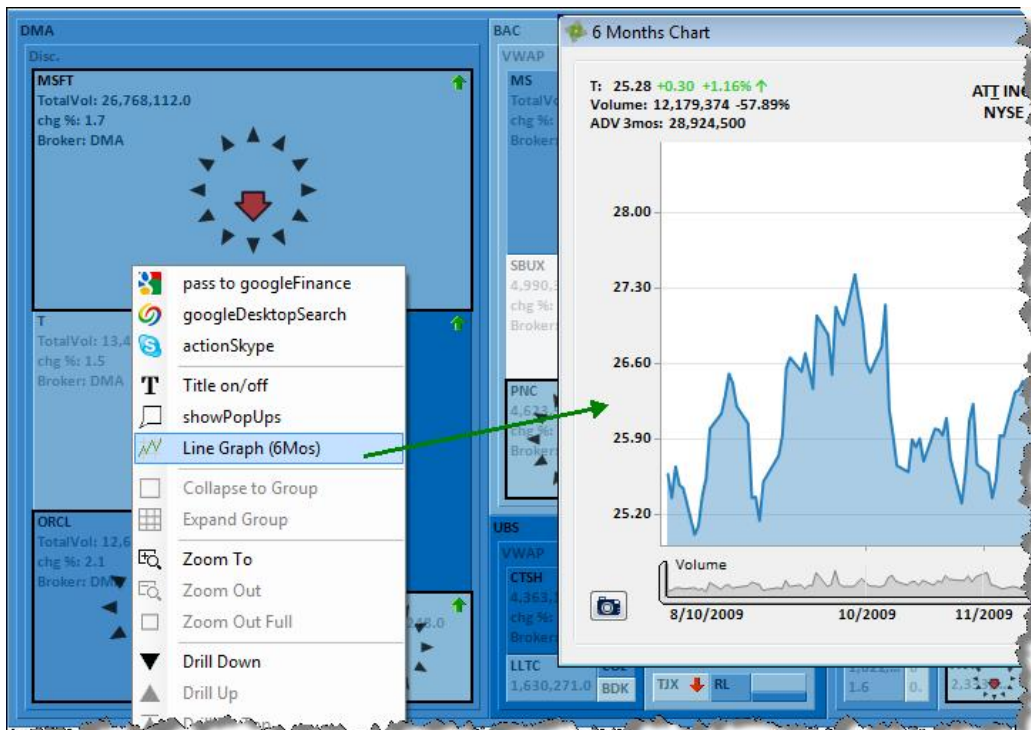


ezViz Office 1.7 Users Guide



* Note: ezViz does not directly provide real-time streaming data. ezViz reads spreadsheets that have existing real-time data feeds (most likely via DDE technology). Vendors like Bloomberg, Thomson Reuters, Capital IQ, Standard & Poor's, to name a few, provide data feeds into excel spreadsheets.

Visualize static excel data or

Stream these popular data feeds to Excel for viewing in ezViz:



Author	Date	Version	Status – Notes
Brian O'Keefe	23-Mar-2011	3.0.1	1.7 release

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Purpose of this Software

The purpose of ezViz software is to enable users to analyze, drill down and understand data stored in spreadsheets. The data can be static, real-time or a combination of these two.

ezViz Benefits:

- Provides stunning visual representations of spreadsheet data using heatmaps, scatterplots, bar graphs, pie charts and bar series.
- Contains interactive controls so users can query and drill down into their data to find deeper insights, patterns and trends
- Allows users to monitor real-time data streams from spreadsheets and set visual alerts at custom thresholds
- Is easy to use, easy to install and easy to integrate with other applications

Who Should use this Document

This document is designed to assist a new user of ezViz Office in the process of getting started with this application. This document should be used in conjunction with the sample data file: **ezVizOffice_sampleData_static.xls**. This file will allow you to gain hands-on experience with an example dataset. Although this example may not be configured in a way which is *exactly* identical to your customized requirements, the principal benefits of this example and the application of ezViz Office features will be transferable to your own analysis situation.

Application Overview

Requirements

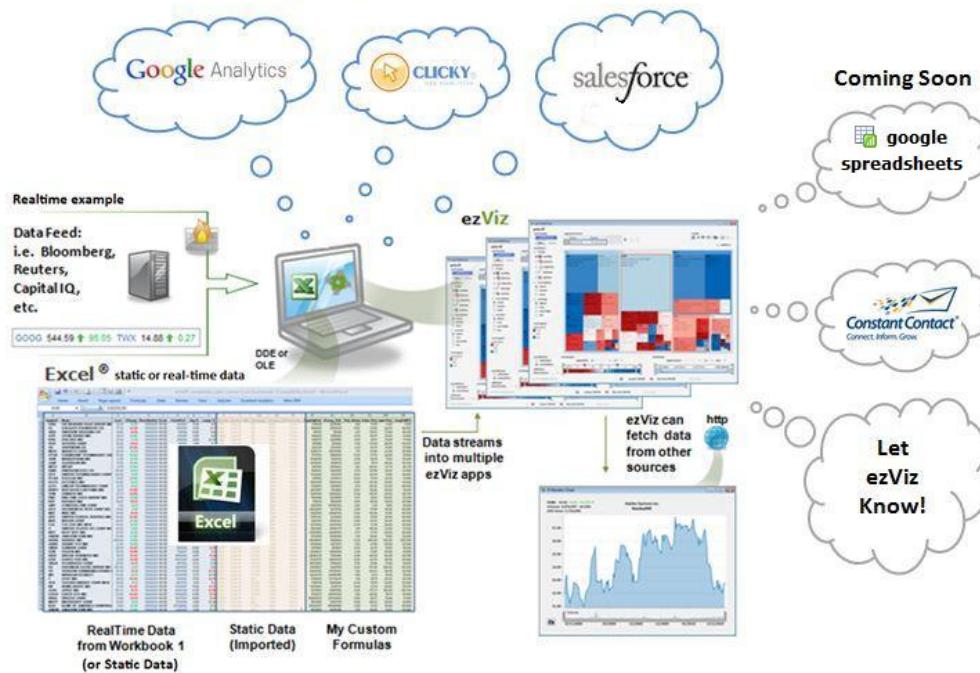
Windows OS: XP/Vista/7
 RAM: 512MB of system memory
 Hard Drive: 10 MB of available space
 Microsoft Excel: .xls or .xlsx file types

Recommended

RAM: 2GB of system memory

Technology Schema

ezViz Office -- Technology Schema

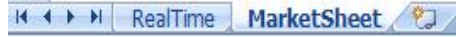


The Example .xls File

The example file provided with this document: **ezVizOffice_sampleData_static.xls** contains sample data which will help you gain familiarity with ezViz Software.

This sample dataset contains market information for a list of stocks. For the purpose of this guide a static data set is used, however real-time data or the combination of static and real-time data could easily have been used.

The sample file contains two workbooks.



Workbook 1 is named, "RealTime", and typically holds the real-time data, i.e. the DDE links.

Workbook 2 is named "MarketSheet" and links to the realtime data in workbook 1. It also contains many columns of static data and custom calculations that enrich the user's analytical experience. This guide will reference data from Workbook 2 only.

Example: (data always starts in Row 1)

	A	B	C	D	E	F	G	H	I	J	K	L
1	Symbol	Name	Last	52WHigh	52WLow	Ask	AskSize	Bid	BidSize	Change	DateUpdate	Exch
2	XTO	XTO ENERGY INC	43.06	55.27	23.80	43.06	18.00	43.05	1000	0.93	09/22/09	NYSE
3	COIM	COUIMRIA SPORTSWEAR CO	41.64	46.98	24.63	41.65	3.00	41.62	0.00	-0.36	09/22/09	NMSE
4	GIL	GILDAN ACTIVEWEAR INC	19.55	27.82	5.66	19.56	1.00	19.53	1.00	-0.15	09/22/09	NYSE
5	IUIII	IUIII FNON ATHLETICA INC.	24.50	25.14	4.33	24.50	0.00	24.47	1.00	0.38	09/22/09	NMSE
6	CME	CHICAGO MERC. EXCH	308.48	440.00	155.06	308.62	1.00	308.14	3.00	3.88	09/22/09	NASD
7	VAR	VARIAN MED SYS INC	43.06	64.00	27.10	43.06	23.00	43.05	3.00	-0.04	09/22/09	NYSE
8	BDK	BLACK & DECKER CORP	48.24	66.60	20.10	48.25	2.00	48.23	1.00	-0.02	09/22/09	NYSE
9	RHI	ROBERT HALF INTL INC	27.12	28.26	14.06	27.12	0.00	27.11	4.00	-0.02	09/22/09	NYSE
10	SYK	STRYKER CORP	46.61	65.36	30.82	46.61	3.00	46.60	6.00	-0.49	09/22/09	NYSE
11	ATI	ALLEGHENY TECHNOLOGIES INC	35.69	45.38	15.00	35.69	0.00	35.67	6.00	0.82	09/22/09	NYSE
12	COL	ROCKWELL COLLINS INC	50.78	51.35	27.67	50.79	3.00	50.76	3.00	0.08	09/22/09	NYSE
13	SRE	SEMPRA ENERGY	50.52	53.76	34.29	50.52	7.00	50.50	0.00	0.00	09/22/09	NYSE
14	HSY	HERSHEY CO	39.05	44.32	30.27	39.06	8.00	39.04	4.00	-0.33	09/22/09	NYSE
15	RL	POLO RALPH LAUREN CORP	77.20	76.87	31.22	77.24	1.00	77.21	1.00	0.86	09/22/09	NYSE
16	STR	QUESTAR CORP	36.99	47.59	20.66	36.99	0.00	36.98	0.00	0.88	09/22/09	NYSE
17	BEN	FRANKLIN RES INC	102.59	109.00	37.11	102.61	2.00	102.56	0.00	1.05	09/22/09	NYSE
18	CMI	CUMMINS INC	45.63	60.82	17.70	45.64	0.00	45.63	1.00	0.83	09/22/09	NYSE
19	SY	SYSCO CORP	25.45	33.52	19.39	25.45	8.00	25.44	4.00	-0.14	09/22/09	NYSE
20	ESRX	EXPRESS SCRIPTS INC	79.32	79.79	42.75	79.32	0.00	79.31	6.00	0.06	09/22/09	NYSE
21	JNY	JONES APPAREL GROUP INC	18.33	19.56	2.34	18.36	3.00	18.33	5.00	-0.17	09/22/09	NYSE
22	CEG	CONSTELLATION ENERGY GROUP I	32.59	33.33	15.00	32.59	6.00	32.58	0.00	0.22	09/22/09	NYSE
23	UA	UNDER ARMOUR INC	30.82	39.75	11.94	30.84	0.00	30.81	3.00	0.15	09/22/09	NYSE
24	TROW	PRICE T ROWE GROUP INC	46.65	65.00	20.09	46.65	5.00	46.63	2.00	0.89	09/22/09	NYSE
25	CVH	COVENTRY HEALTH CARE INC	21.00	35.46	7.97	21.01	10.00	21.00	0.00	-0.40	09/22/09	NYSE
26	SIAL	SIGMA ALDRICH CORP	53.39	56.84	31.45	53.37	5.00	53.34	0.00	0.31	09/22/09	NYSE
27	RX	IMS HEALTH INC	15.42	21.28	9.63	15.43	17.00	15.42	6.00	-0.12	09/22/09	NYSE
28	CBG	CB RICHARD ELLIS GROUP INC	12.29	15.08	2.34	12.29	11.00	12.28	6.00	0.25	09/22/09	NYSE
29	CL	COLGATE PALMOLIVE CO	75.32	77.66	54.36	75.34	6.00	75.31	6.00	-0.38	09/22/09	NYSE
30	SHW	SHERWIN WILLIAMS CO	61.42	63.24	42.19	61.43	0.00	61.41	3.00	-0.16	09/22/09	NYSE
31	AVP	AVON PRODS INC	32.01	42.09	14.40	32.02	27.00	32.00	7.00	0.02	09/22/09	NYSE

Tips:

i) Column Headers have to be located on Row 1.

This is an example of how **NOT** to structure your workbook:

	A	B	C	D
1	Timestamp: Nov 21, 2009 10:46am EST			
2	Portfolio: Long / Short US Opportunity			
3	Symbol	Name	Last	52WHigh
4	XTO	XTO ENERGY INC	43.06	55.27

ii) Limit the use of special characters when naming columns i.e. %\$#@,&*(^,+!

1DayPctChange => best practice 1Day%Change=> okay

iii) Do Not Start a column name with a special character

%Change1Day => change to acceptable method like 1DayPctChange

Getting Started

=>Open Excel File

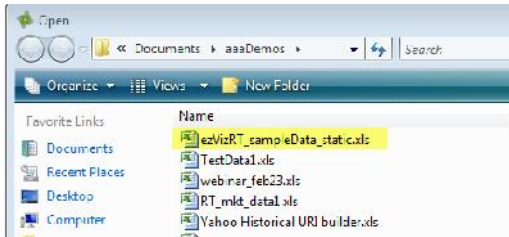
In Excel, open **ezVizOffice_sampleData_static.xls**

(needed only for RealTime datasets, however this step isn't needed for Static data sets)

=>Start ezViz RealTime and click 'spreadsheet' button



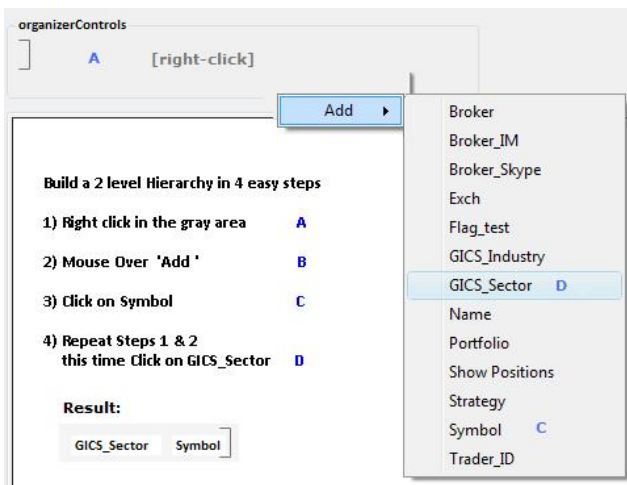
=>Select File: **ezVizOffice_sampleData_static.xls**



=>Select Worksheet or Range: **MarketSheet**



=> Build a Data Hierarchy (i.e. Country\Sector\Industry/etc.)



Getting Started (cont'd)

=> Choose a Size and Color Variable

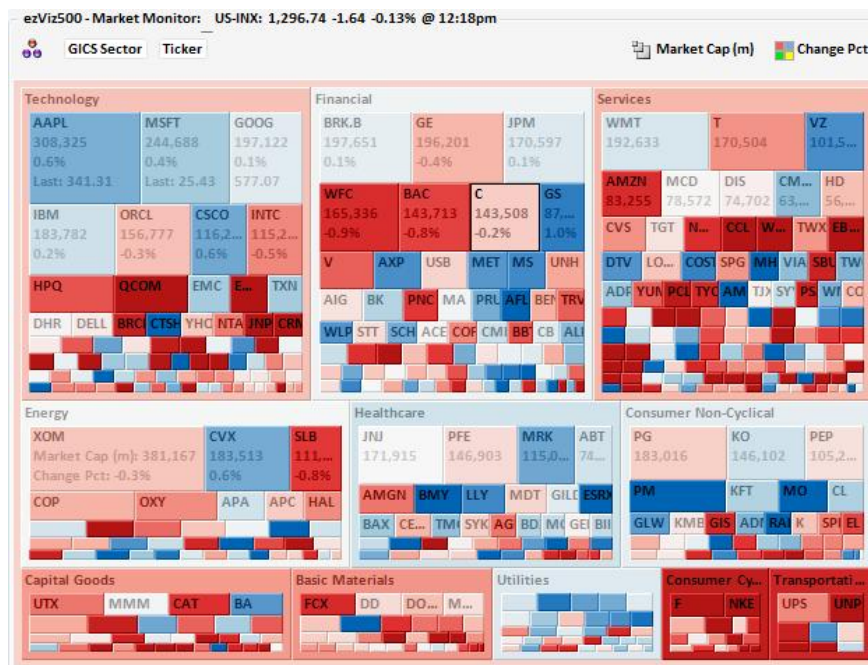
FRS 500 views variables alerts

US-INX: 1,296.74 -1.64 -0.13% @ 12:18pm

Market Cap (m) Change Pct

dimension	column	aggregation	format
size	Market Cap (m)	Sum (Σ)	,0
color	Change Pct [-/+]	Mean (μ)	0.0 %'
y-axis	Y		
x-axis	X		
date	17		
detail1	Last	Sum (Σ)	0.00
detail2	Change [-/+]	Sum (Σ)	0.00
detail3	--Pick Column--		
map			getValues

Now the Visualization has Hierarchy, Color and Size variables and looks like this...



Congratulations! You encoded a data set to a Heatmap visualization.

Now, let's look at more ezViz features.

Features

To make it easier on the reader, this guide categorizes features into 3 main areas. One caveat: some features are overlapping and other features are unique in their own right so they were thrown into the last category called the 'Other'.

Feature Categories (3)

- Visualizations (Dimensions, User Options, Layouts)
- User Interactivity (Filters, Context Menu, Visual Alerts, Zoom)
- Other (Monitoring, Tool Bar, Details, Effects, Customization)

Visualizations

After connecting to data, ezViz has 5 visualizations that users can choose from. They are: Heatmap, Bar Series, Scatterplot, Bar Graph and Pie Chart.

Heatmap

Dimensions: (3) - Hierarchy, Size, Color
Type: Parts of Whole
Value: Quickly pinpoint outliers and identify dominant themes in data sets
Image: Organizer: GICS Sector > Symbol Size: Vol_Ratio Color: chg %



User Options:

Style: Cluster



Window



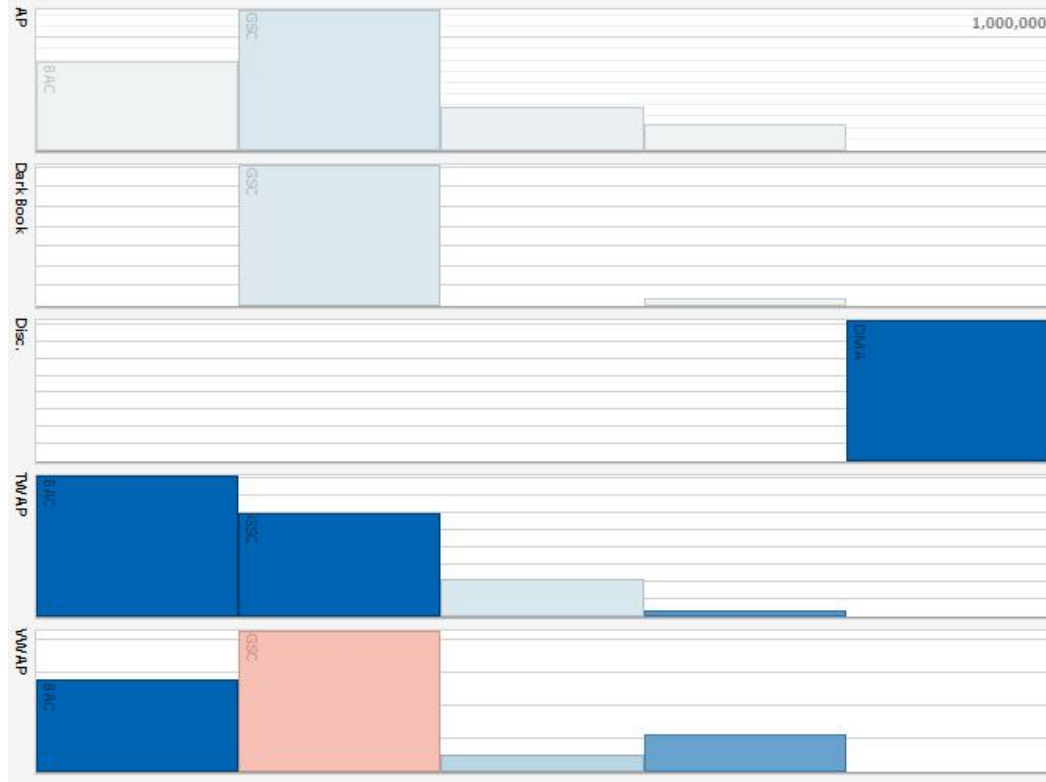
Classic



Features – Visualizations (cont.)

Bar Series

Dimensions: (4) - Hierarchy, Size, Color, Time[not used here]
 Type: Comparison
 Value: Compare values between categories over time
 Image: Organizer: Strategy > Broker Size: Order Amount Color: Unrealized Impact



User Options:

Sort: Color, Size, Text

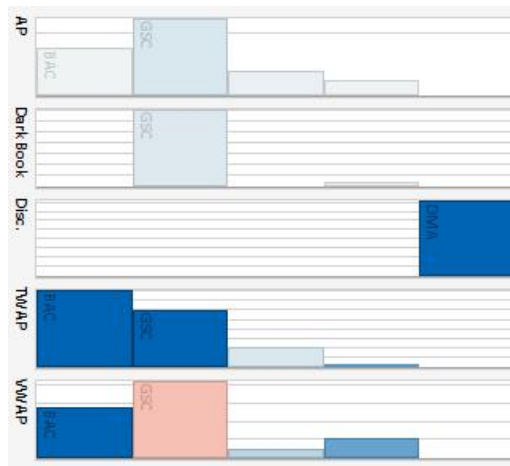
Pivot: (by Hierarchy Variables)

pivotColumn

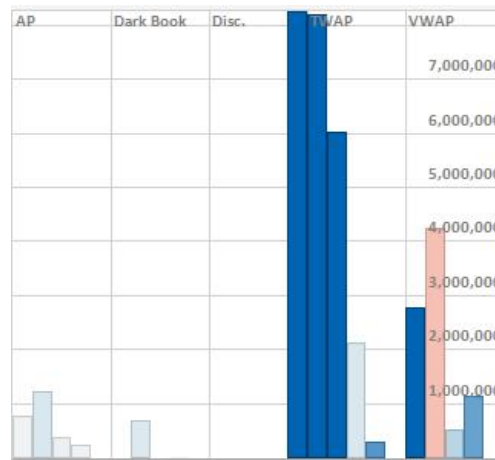
Broker

Strategy

by Broker



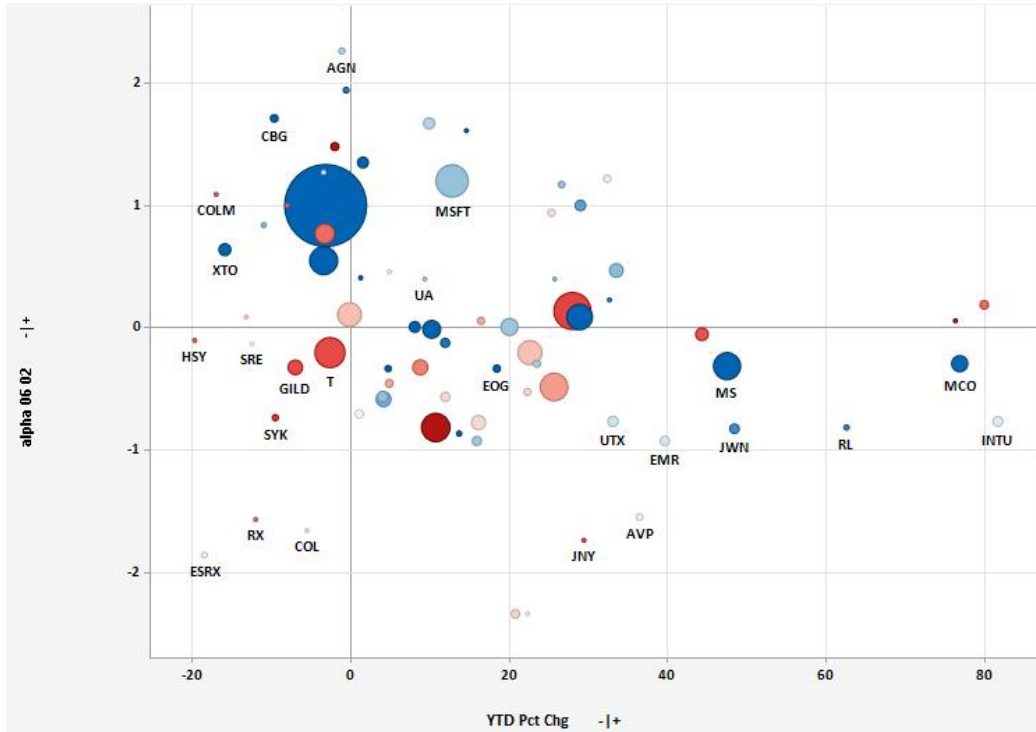
by Strategy



Features – Visualizations (cont.)

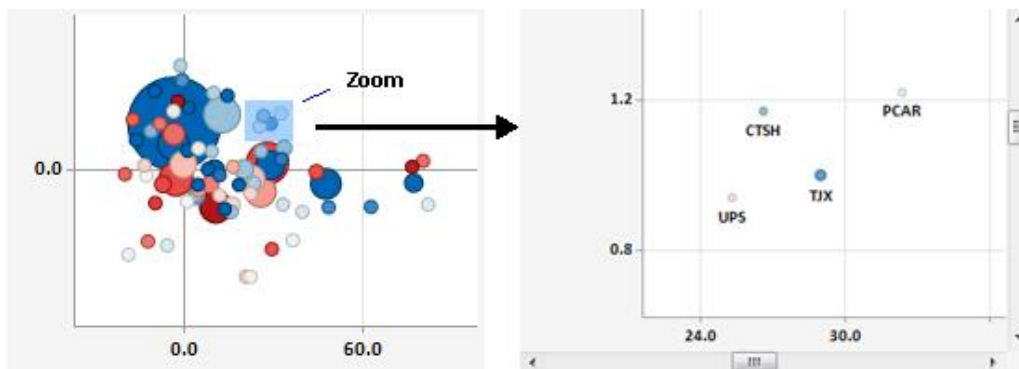
Scatterplot

Dimensions: (5) - Hierarchy, Size, Color, X-Axis, Y-Axis
 Type: Relationship
 Value: Compare one variable with other variables, identify groups and outliers
 Image: Organizer: Strategy > Symbol Size: TotalVol Color: Chg %
 X-Axis: YTD Pct Chg Y-Axis: Alpha 06 02



Zoom :

rubberBand: right-click and drag to highlight an area to zoom to. When you release the mouse button, the highlighted area will expand.

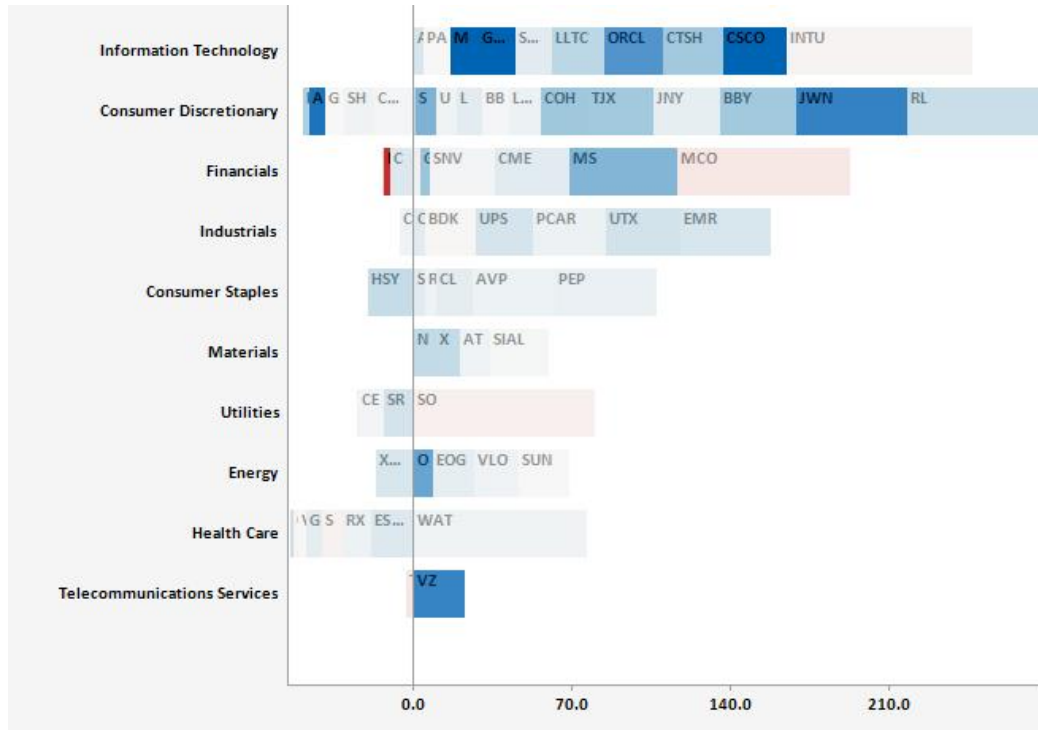


Features – Visualizations (cont.)

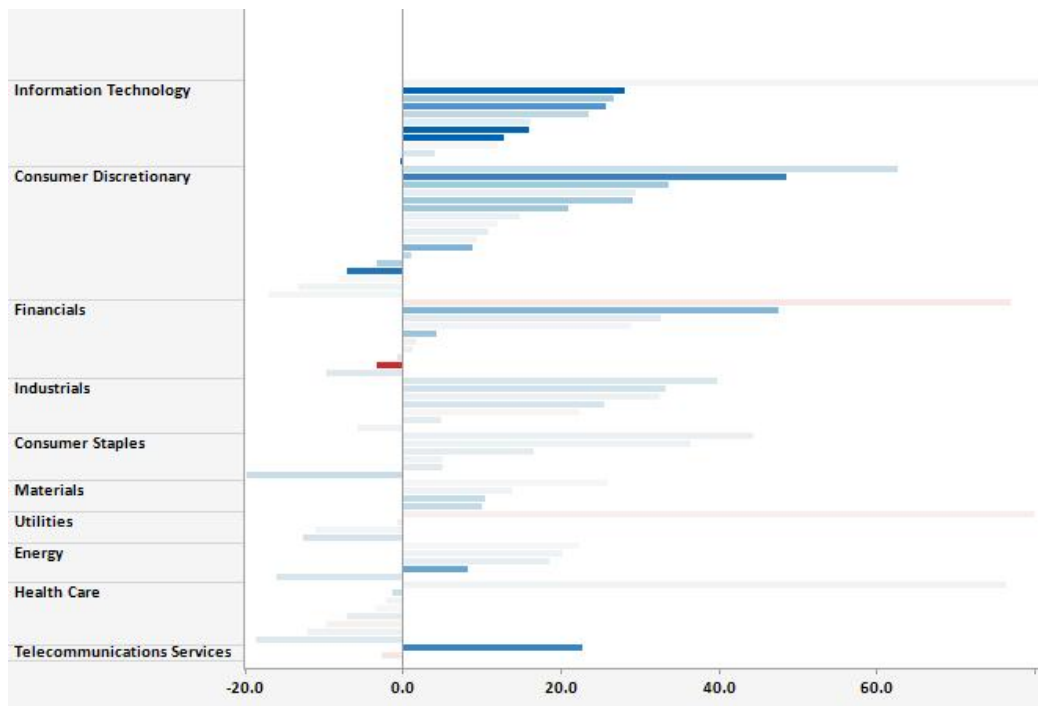
Bar Graph

Dimensions: (3) - Hierarchy, Height, Color
 Type: Comparison
 Value: Compare variables or aggregated variables
 Image: Organizer: GICS Sector > Symbol Height: YTD Pct Chg Color: Total Impact

Stacked:



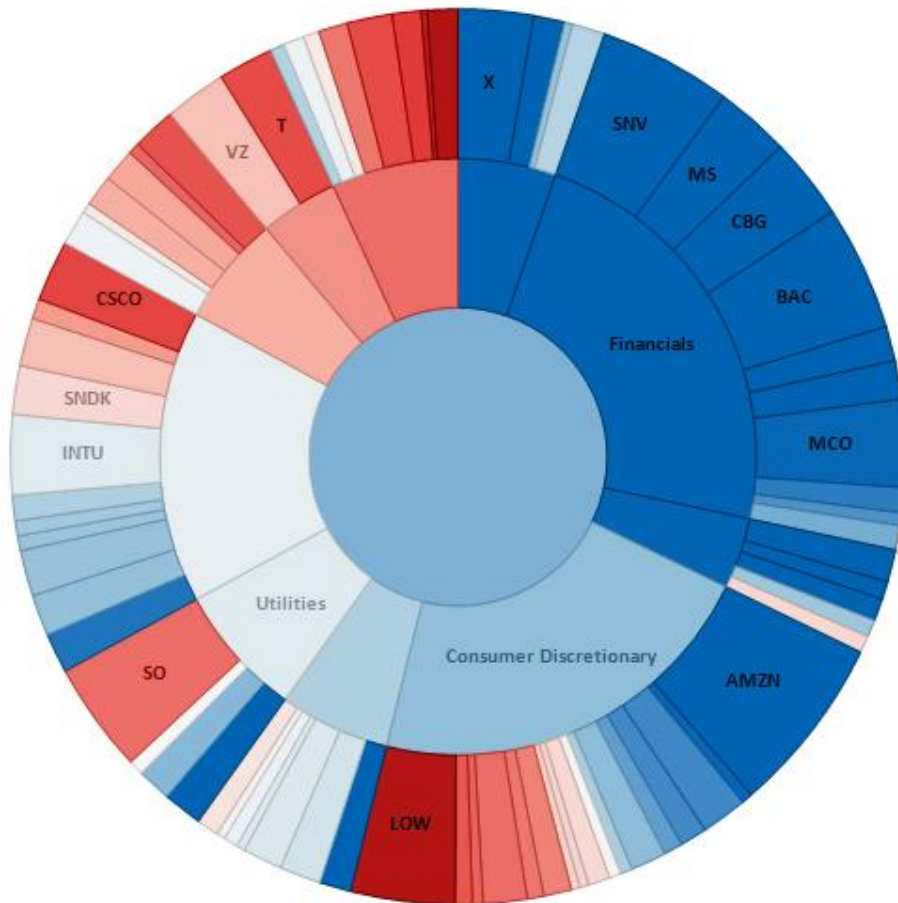
Standard:



Features – Visualizations (cont.)

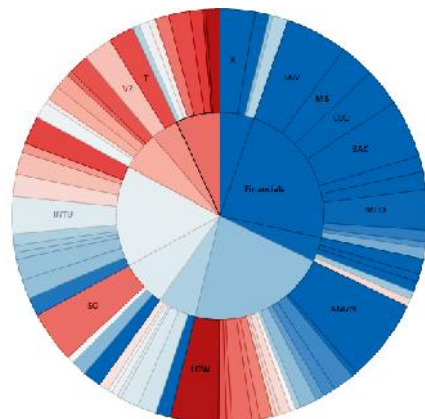
Pie Chart

Dimensions: (3) - Hierarchy, Size, Color
Type: Parts of Whole
Value: Fast proportional analysis
Image: Organizer: GICS Sector > Symbol Size: Vol_Ratio Color: Chg %
Sort: Color



User Options:

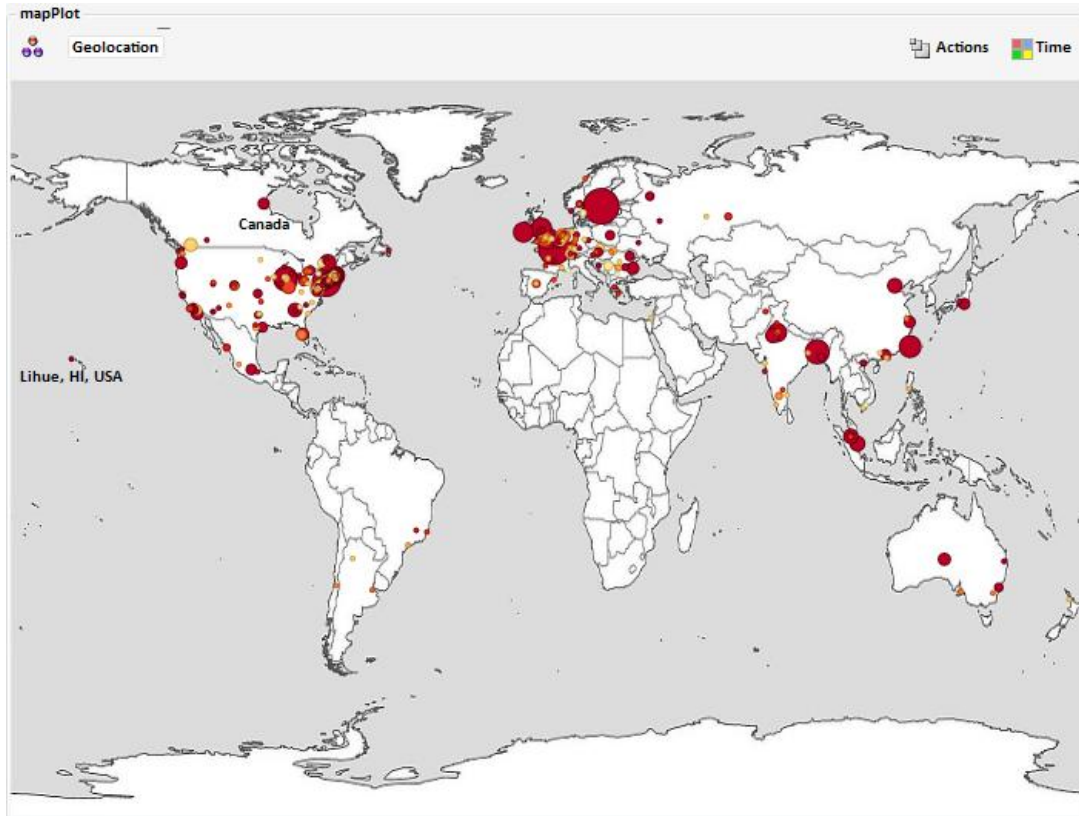
Show Center: unchecked showCenter



Features – Visualizations (cont.)

GeoMap

Dimensions: (3) - Size, Color, Location
 Type: Parts of Whole, Geo map
 Value: Fast proportional analysis
 Image: Not tied to ezVizOffice_sampleData_static.xls



Pick from an array of maps

- World ▾
- US map cont.
- US map w/ inserts
- Americas N/C/S
- Europe (Western)
- Europe
- Europe/Asia
- Asia Pacific
- World
- South America
- Africa
- Australia
- Mass Bay (Nautical)
- Georges Bank (Nautical)
- Brazil (& states)

Features - User Interactivity

Other Features

Filters



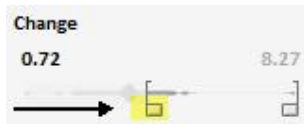
Numeric Filters

Filter out the highest values by sliding the upper limit grab bar

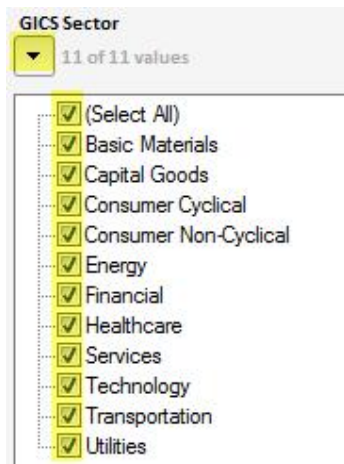


Filter out the lowest values by sliding the lower limit grab bar

Filter out the middle values by crossing the bars



Text Filters



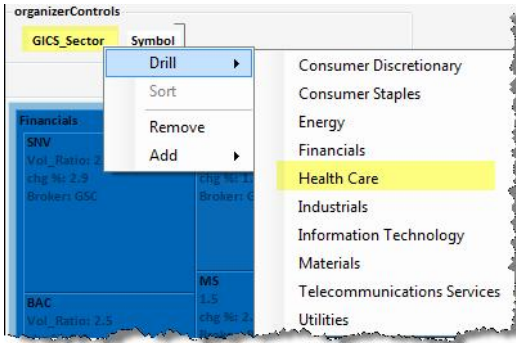
Filter variables out of the visualization by un-checking the box, i.e.

Organizer

Mouse over and click the filter icon to open menu



Drill down on categorical values in the visualization. i.e. Drill into Health Care stocks only.

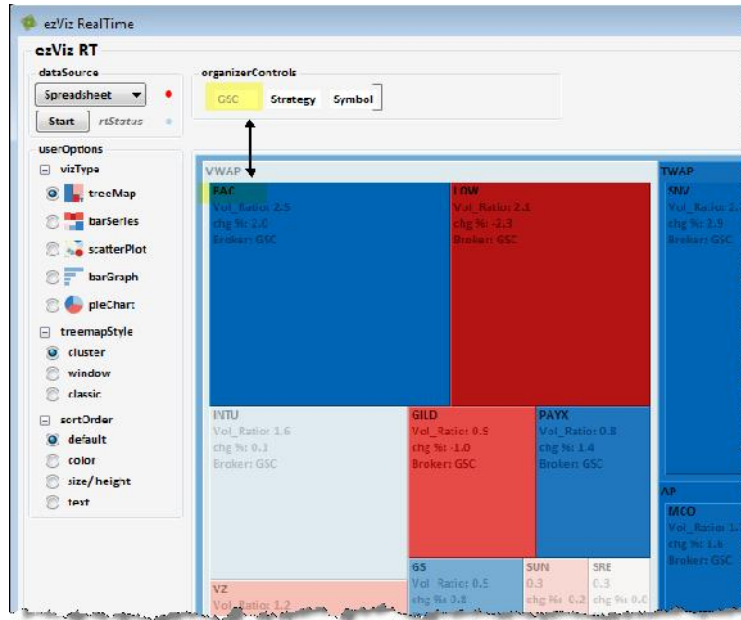


Filters

Context Menu

With the mouse positioned over stock (node), right click and choose Drill Down


This action will display only the stocks (nodes) in same category as stock symbol ' BAC '.



Features - User Interactivity (Cont.)

Visual Alerts

Users can set pre-determined thresholds that when met a visual alert or icon will be displayed in each node that meets or exceeds the criteria.

To set the alert thresholds expand the addAlerts icon.  addAlerts

hideAlerts

alertType		min.	max.		Column
dualAlert1	↑	0	0	↓	[Pick Column]
upTolerance	●	0	and ↑		[Pick Column]
downTolerance	●	0	and ↓		[Pick Column]
textAlert	N				[Pick Column]

Submit reset

Using these settings...


hideAlerts

alertType		min.	max.		Column
dualAlert1	↑	1.8	.2	↓	Vol_Ratio
upTolerance	●	0	and ↑		[Pick Column]
downTolerance	●				[Pick Column]

Up Arrow icons appear in nodes where Vol_Ratio is >= 1.8 and

Down Arrow Icons appear in nodes where Vol_Ratio is <= to .2

DMA			BAC						
MSFT	AMZN		AAPL	GOOG	JWN	SBUX	MS	COH	HD
165.2	127.9		304.1	409.0	111.4	66.6	65.5	48.9	42.2
ORC	X	T	UPS	ADBE	SNDK	CMI	CL	JNY	PEP
9...	2...	-1...	19.0	17.9	12.4	10.9	10.1	9.7	7.8
D...	D...	D...	LULU	RX	RHI	ATI	VLO	SYK	PNC
			6.8	5.9	4.1	3.9	3.8	-3.6	-6.2
GSC			UBS			HSBC			
CSCO	VZ	OXY	CTSH	TJX	LLTC	NUE	HSY		
GS	BBY	NKE	48.4	48.0	33.2	29.8	28.2		
AGN	SRE	EMR	RL	BEN	CME	UTX	SY		
24.9	19.2	18.0	25.7	14.5	11.9	20.4	12.0		
ESRX	CBG	LOW	EOG	W...	SH...	PCAR	TROW		
14.6	14.5	10.8	8.9	5.1	4.5	6.9	6.4		
STR	SNV	SEG	COL	COLM	VAR	AVP	UA		
4.4	3.1	3.0	3.8	1.9	-0.2	5.3	4.8		
SUI	INTU	MCO	B...	CVH	SO	BB...	S	GIL	
0.0	-2.6	-9.1	-0.5	-2.5	-4.6	1.9	1	-0.4	
		BAC	HS...	HS...	HSBC	HS...	HS...	HSBC	
		-11...							

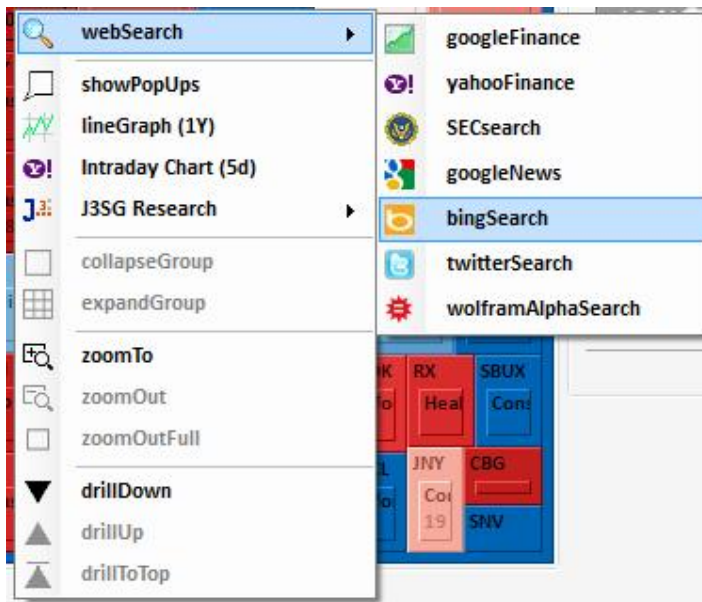
TextAlert searches for an exact match; i.e. if Broker = 'GSC' place a  in the node.

Features - User Interactivity (Cont.)

Zoom – see Scatterplot Visualization ([page 10](#))

Context Menu

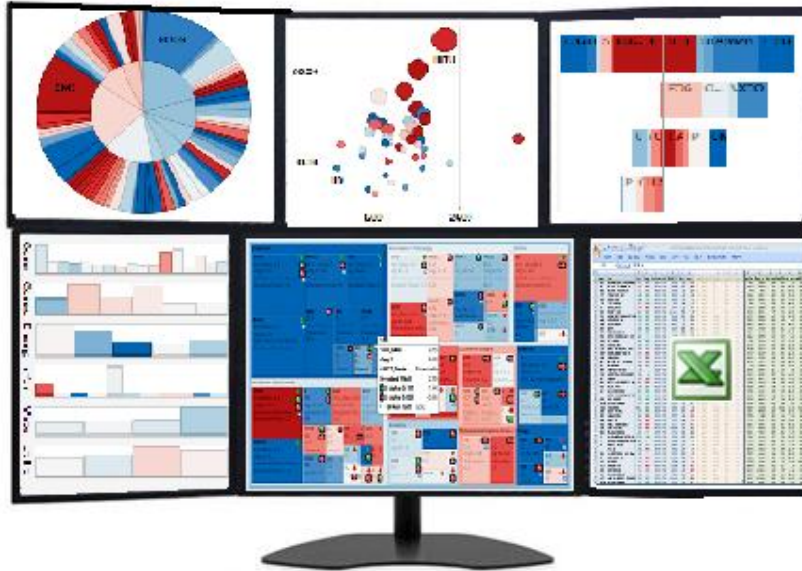
Right click on visualizations to access Context Menu where users can integrate with other applications.



Features - Other

Monitoring

Since multiple instances of ezViz can access a single real-time spreadsheet simultaneously, users can monitor their data with an array of visualizations.



A single realtime Spreadsheet can stream data to multiple ezViz screens

Tool Bar Items



and to return to normal size

Expand visualizations to full screen view for monitoring



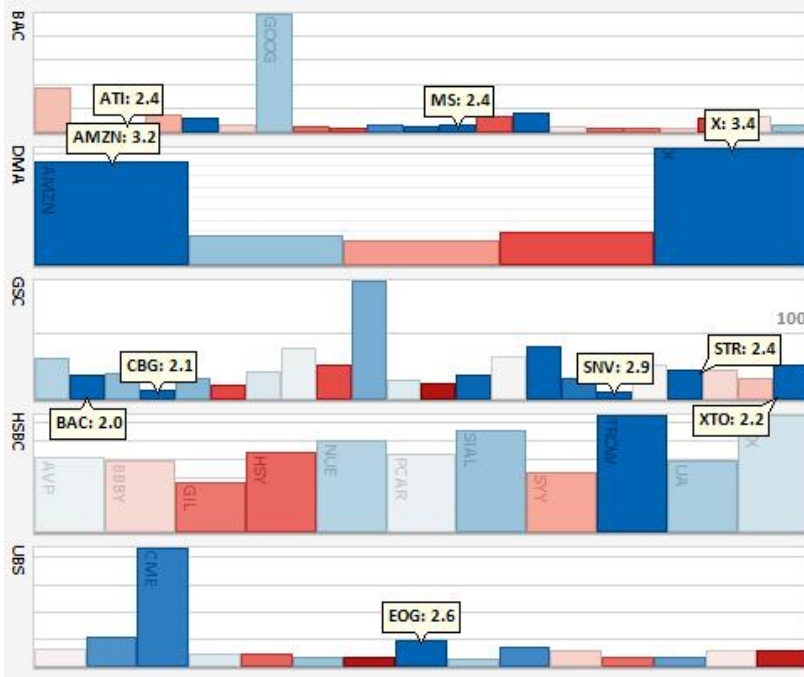
Features - Other

Tool Bar Items (cont.)

Highlights Abc ▾



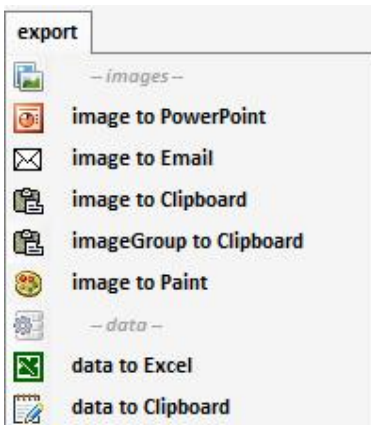
Add pop-ups for Top 10 or Bottom 10 items in the color variable.



Export Images or Data Tool



Capture screen images and visualization images and export them to other applications like PowerPoint, Outlook, Paint or to your Clipboard.

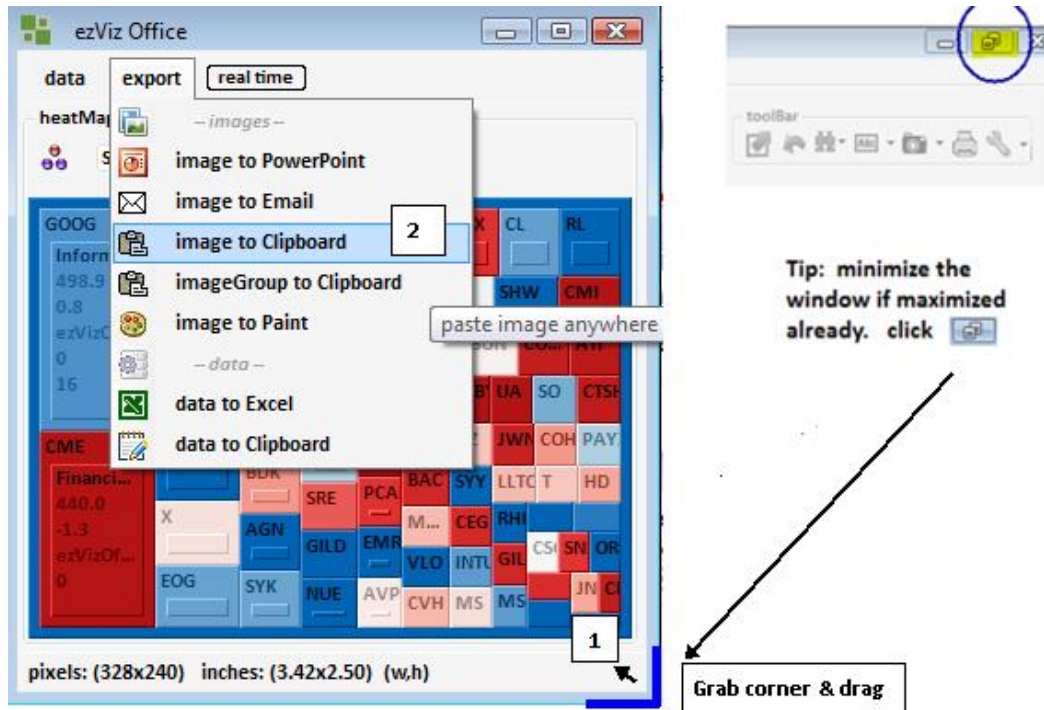


Features - Other

Image Tool (cont.)

Resize the screen to capture custom sized images.

In 2 easy steps, a custom sized image is placed on the clipboard, sent to Email or sent to Paint.



Details

Mouse-over a node on any visualization and a pop-up will appear with details to all the variables used in that visualization, i.e color, size, hierarchy, x-axis, y-axis, Icons and a custom detail.

The following example shows all possible details for a node.

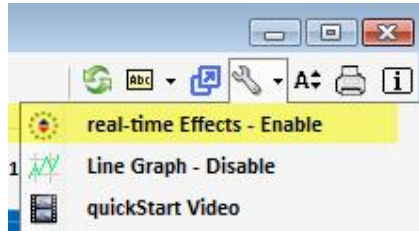


Features - Other

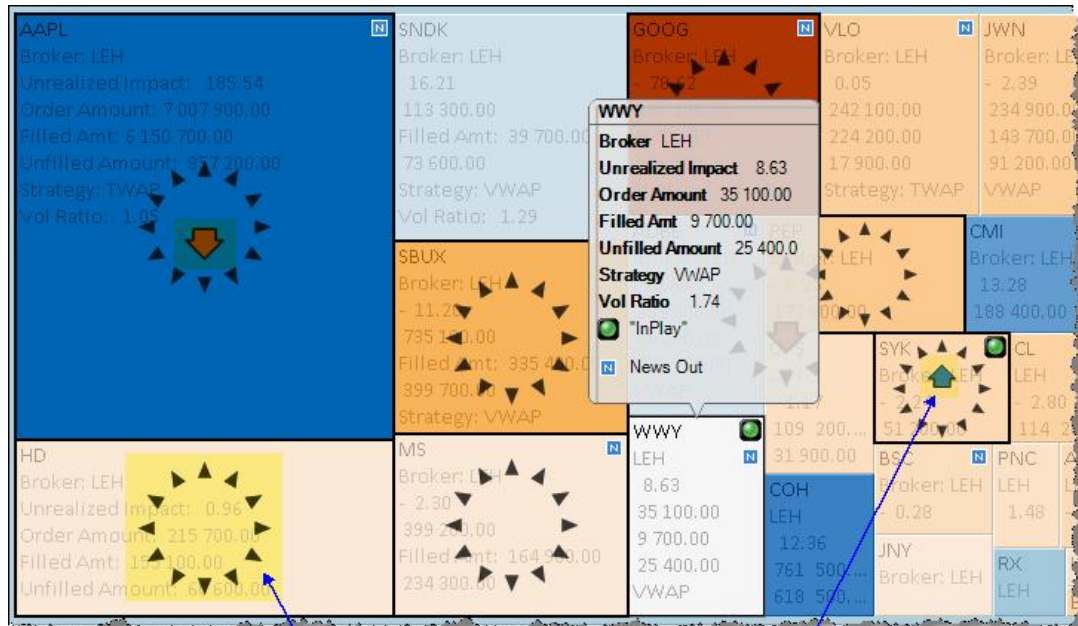
Effects

When real-time data is streaming into the application, users can choose to see real-time effects (visual alerts) for monitoring. When the size or color variables change a visual alert appears for a brief period of time (1-2 seconds).

This feature is enabled or disabled by the user from the toolbar.



Example: Treemap with real-time effects turned on...



Outward or Inward bursts appear when the size variable for a node increases or decreases, respectively.

Up Arrows or Down Arrows appear when the color variable increases or decreases, respectively.

Customization

As you can see, ezViz is very extensible. Simply put, it is flexible, highly customizable and can integrate with other applications. Call us, if you'd like to customize ezViz in any way. Maybe you want to connect to a proprietary data source; integrate with a market data or analytics platform; or simply add features that you currently use in other applications.

Additional Support

ezViz Resources

Web: please click [here](#) for videos, datasheets and examples

E-Mail: questions and feature requests can be sent to info@ezViz.biz

Training: Webinar and On-Site training is available on a contract basis. Please e-mail for details.