

Quick Reference Guide

Getting Started in a Visual Workspace Where You Can Excel

For more information on PANARAY®:

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PANARAY.com

Getting Started

Tip
Slide finger from the right or left edge of the screen to navigate between Symbol and your last aggregate view (List or Groups).

1 Datagraph™, Fundamentals Tabs
Toggle between the Datagraph and financial reports.

2 Add to List
Add the current symbol to one of your lists or add an alert.

3 Flag
Flag a symbol in the chart and list views.

4 Symbol Input
Tap to enter a symbol. Search for companies by typing the company name.



Tip
Change between dark and light themes via the Display control in the settings menu. View light theme on pages 4 & 11.

9 Global Navigation
Tap to navigate to Symbols, Lists, Groups, Research, or Settings.

8 Quotes Service Indicator

7 Action
Markup and share chart with contacts outside the app.

6 Large Cap Leader Flag

5 Chart Intervals
Change the chart interval. Refresh the chart and data by tapping the active interval button. Tap and hold to customize the interval.

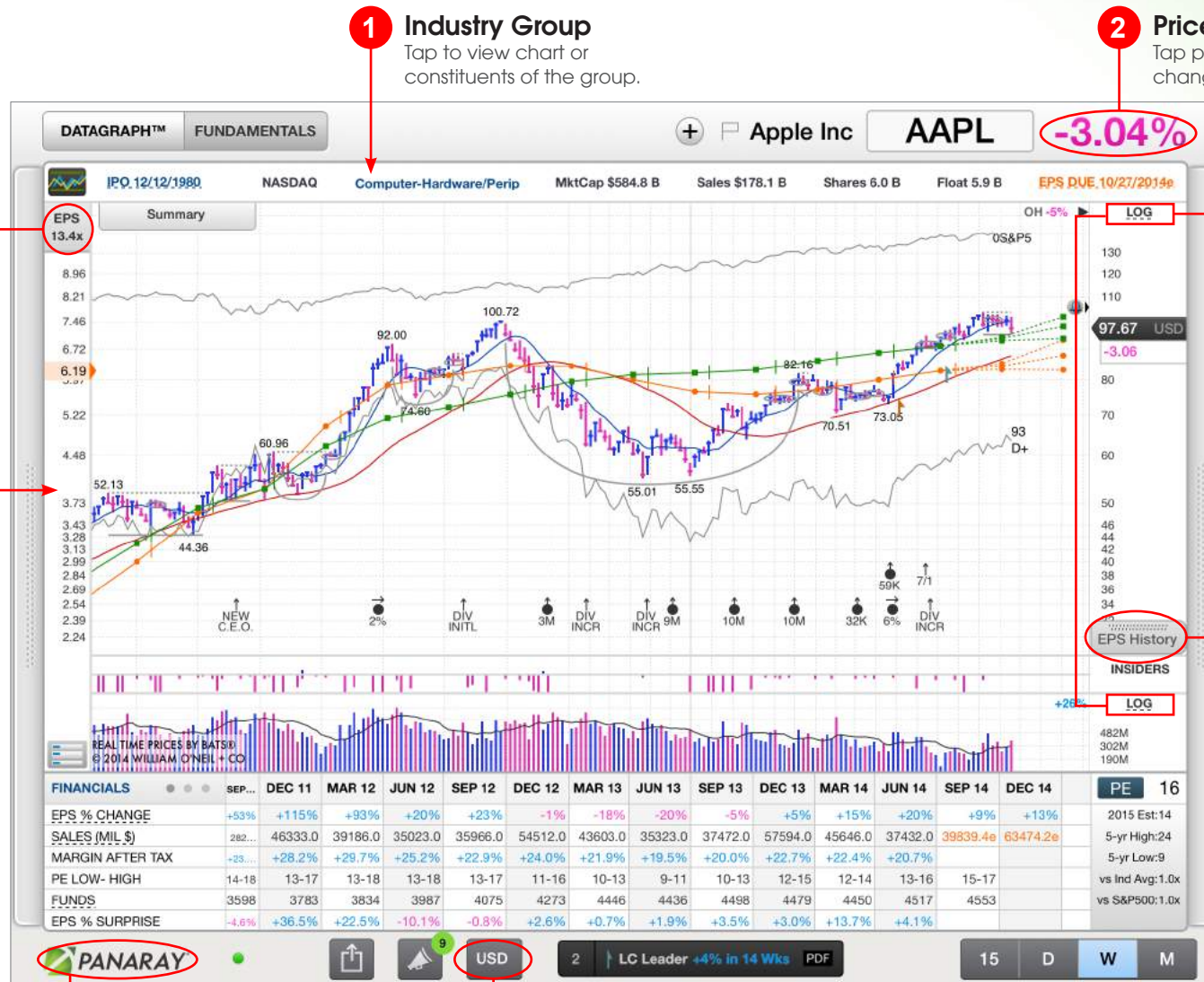
Types of Data

Symbol



Tip
The number of estimate periods displayed on a chart may be adjusted from the EPS and RPS line controls in the Settings menu.

Symbol Configuring Data



1 Industry Group
Tap to view chart or constituents of the group.

2 Price Display
Tap price to toggle price percentage change and absolute change.

8 Scale Configuration

7 Fundamental Data Lines
When multiple lines are visible, you can easily tap anywhere on the scale to toggle among them.

3 Price and Volume Scale
Tap on the scale to toggle among Fixed Logarithmic (Log Fixed), Auto Logarithmic (Log Auto), and Linear (Lin)

4 Animating the Earnings Line
Tap EPS History button and a date box will appear on the chart. Drag the date box to animate the earnings line. Once in position, tap the button to "play" EPS line history.

6 Settings Menu
Chart data and display preferences are accessible in Settings located in the main navigation menu.

5 Currency Control
Tap to toggle between local currency and your preferred currency.

Symbol Panels

Tip

To measure the distance and run between two price nodes, tap and hold with two fingers on the chart.

1 Lists
Tap to view and navigate to recently used lists.

2 Summary Panel
Tap this tab to open and close company information covering five years of financial data, proprietary ratings and rankings, company description, and more.

3 Track Price
Tap and hold along price line to view details for specific nodes.

4 Related Information
This panel contains news, ownership, checklist, tools for setting alerts and annotations, and more.

9 Indicator Panel
Open technical and fundamental indicators in a panel above the Datagraph.

781-464-2000 www.biogenidec.com Cambridge MA Inc 1985 Inv Banker Merrill Lynch

EPS RANK 96
Days Vol short Mar 31=1.8 Apr 15=1.7 Apr 30=1.6

Develops treatments for multiple sclerosis (MS), cancer and autoimmune diseases. Marketed products include treatments for MS, non-Hodgkin's lymphoma, rheumatoid arthritis, Crohn's disease and psoriasis. Developing products for the treatment of leukemia (Phase III) and hemophilia (U.S. BLA submitted). 2013 revenues by product in %: Avonex 54; Tysabri 28; and others 18. Revenue by area in %: U.S. 65; Europe 21; and others 14. Two distributors: 96%

ANNUAL - DEC END	2009	2010	2011	2012	2013	2014 Estimate	2015 Estimate
EPS (\$)	4.12	5.15	5.90	6.53	8.96	11.34	27%
CASH FLOW/SHR (\$)	4.85	6.07	6.60	7.35	9.89	Earnings Growth Rate	Sales Gr Rt.
PRETAX MARGIN %	38.0	38.0	39.0	38.0	41.0	2012-14	19%(5 Stability)
RETURN ON EQUITY %	19.9	22.6	24.3	26.4	27.4	2010-14	19%(4 Stability)
SALES % CHANGE	7	8	7	9	20	COMP RATING 96	SMR RATING A
SALES (MIL \$)	4377	4716	5048	5516	6932	INV T/O 12.5 x 73	

WEEKLY
18-Apr 25-Apr 02-May 09-May 13-May
DATAGRAPH RATING 78 73 70 70 74
AVG DAILY VOL (000) 1789 1835 1875 1854 1843
UP/DOWN VOLUME 0.8 0.7 0.6 0.6 0.6
ACQU/DIST RATING -51 -45 -43 -43 -27
RELATIVE STRENGTH 81 76 69 80 82
GROUP RANK 23 41 41 42 43

Summary

8 Panel Toggle
Tap the Panel Control button to open and close the Volume, Insiders, and Financials Blocks.

7 Financials Toggle
Tap the data rows in the Financials Block to toggle to percentage change figures.

6 Mini List
The list that is active in the List Manager is displayed as a Mini List. Tap the Mini List bar to hide and reveal.

5 Customize View
Tap financials to customize metrics and toggle between fiscal and calendar year end.



Alerts & Annotations

The screenshot shows the PANARAY app interface for Gopro Inc (GPRO). The main chart displays price movement with various annotations: a grey bell icon (1) for an active alert, an orange bell icon (2) for a triggered alert, and a blue trend line (3) with an alert icon. A Message Center overlay (5) is visible, listing triggered alerts and messages. The Message Center table is as follows:

Message Center			
All (29) Alerts (29) Shared Items PANARAY Msg			
29 Unviewed Messages (clear)			
		Date	Status
GPRO	Price Alert: \$67.17 Downward Cross	13 mintues ago	Active
FB	List Alert: Price % Chg exceeds -5% (United States - Long)	5 hours ago	
TSLA	List Alert: Price % Chg exceeds +5% (United States - Long)	10/28/14, 7:15 AM	
GPRO	List Alert: Price % Chg exceeds +5% (United States - Long)	10/28/14, 6:43 AM	

1 Active Alert
A grey bell indicates an active alert.

2 Triggered Alert
An orange bell indicates a recently triggered alert.

The ANNOTATIONS menu includes options for Channel Lines, Fibonacci, Text, and Shapes. It features a Layer selector (Layer 2) and Line Settings (Color, Weight, Stroke, Opacity, Start, End, Arrow, Extend, Alert, Snap, Temporary). A red arrow points to the Alert toggle switch (3).

3 Trend Line Alert
Set alert on a trend line by swiping right to turn on.

5 Messages
View triggered alerts and other messages by tapping the message center icon at the bottom of the app.

4 List-Based Alerts
Schedule an alert for when significant changes occur in your lists, so you're always on top of your game.



Fundamentals Tab

5 Financial Statements
Tap a statement name to load the data.

1 Display Preference
Tap to toggle the data display among Dollars, Common Size, and Year-Over-Year when available.

2 Statement Periods
Tap to toggle the order between most recent and oldest.

3 View Additional Periods
Swipe vertically or horizontally to view additional data rows and columns that are not in view.

4 Statement Intervals
Tap to change the statement interval.

Income Statement (Dollars), in Millions, except per-share amounts. (USD United States Doll	Fiscal 2014			Fiscal 2013		
	Jun (Q2)	Mar (Q1)	Dec (Q4)	Sep (Q3)	Jun (Q2)	Mar
Income						
Total Operating Revenues	2,910.0	2,502.0	2,585.0	2,016.0	1,813.0	1
Total Cost of Revenues	473.0	463.0	490.0	507.0	465.0	
Gross Profit	2,437.0	2,039.0	2,095.0	1,509.0	1,348.0	1
Research and Development	492.0	455.0	409.0	369.0	344.0	
S G & A	555.0	510.0	553.0	404.0	442.0	
OPERATING INCOME	1,390.0	1,074.0	1,133.0	736.0	562.0	
Non-Operating Income / Expense	--	--	(2.0)	11.0	--	
EBIT	1,390.0	1,074.0	1,131.0	747.0	562.0	
Interest Income / Expense	(4.0)	--	(1.0)	(21.0)	(17.0)	
Income Before Income Taxes	1,386.0	1,074.0	1,130.0	726.0	545.0	
Provision for Income Tax	595.0	432.0	607.0	301.0	212.0	
Income After Taxes	791.0	642.0	523.0	425.0	333.0	
Income from Continuing Operations	791.0	642.0	523.0	425.0	333.0	
NET INCOME	791.0	642.0	523.0	425.0	333.0	
Preferred Dividends and Other Adjustments to Net Inc	(3.0)	(3.0)	(2.0)	(3.0)	(2.0)	
Net Income Available to Common Sharehold	788.0	639.0	521.0	422.0	331.0	
Basic EPS From Continuing Operations	0.31	0.25	0.22	0.17	0.14	

List Manager

1 List Names

Navigate to custom lists and PANARAY preset lists. Tap a list name to load the list.

2 Filter

Filter lists by geography or by groups.

3 View Datagraph

Tap a symbol row to view chart.

4 Column Set

Tap to select or create a column set. Columns may be added or edited within the selected column set.

5 Keyword Filter

Easily filter on the name and company description fields.

6 Column Filter

Tap to filter on data within a column.

7 Sort

Tap to sort; tap again to reverse-sort.

8 View Additional Metrics

Swipe vertically or horizontally to view additional data rows and columns.

Tip
List details (names, locations, and content) are synced between the mobile and desktop apps.

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Databases

The O'Neil Database® tracks 70,000 stocks, indices, and mutual funds in over 70 countries. Ownership database has over 650,000 funds, banks, and portfolio manager records.

#	Symbol	Name	Type	Mkt Val (Mil)	EPS Rnk Wkly, Cur	Sls, % Chg List Qtr Vs	Sls, % List
20	FB	Facebook Inc Cl A	S	228,273	99	49.0%	58
42	BABA	Alibaba Group Hldg Ads	S	204,656	96	36.0%	42
5	GILD	Gilead Sciences Inc	S	146,602	97	134.0%	122
8	ALXN	Alexion Pharmaceuticals	S	34,353	99	36.0%	44
10	ILMN	Illumina Inc	S	26,317	99	32.0%	31
7	PCYC	Pharmacyclics Inc	S	19,491	97	135.0%	180
1	SWKS	Skyworks Solutions Inc	S	18,416	98	59.0%	41
22	PANW	Palo Alto Networks	S	11,667	99	54.0%	53
14	JAZZ	Jazz Pharmaceuticals Plc	S	10,243	97	39.0%	34
3	TOL	Toll Brothers Inc	S	7,007	98	33.0%	42
28	DATA	Tableau Software Cl A	S	6,463	87	75.0%	78

11 List Views

Choose between List View, Multi-Chart, List Analytics, or Quote Board.

10 Scheduled Lists

Provides automation of screening and list delivery.

9 Summary Stats

Each column's maximum, average, and minimum values. Tap a data set to view a distribution chart.

Tip
You may delete lists or symbols within your lists by swiping across the item you wish to delete.

1 Flag Column
Tap the Flag icon to tag a symbol in the chart and list views. Tap column header to sort on flagged stocks. The Flagged Symbol list is found in the PANARAY Lists folder.

2 Column Divider
Slide to reposition the divider.

The screenshot shows the PANARAY Watchlist interface. At the top, it displays '9 items in Watchlist', 'Column Set: Default', 'Add Columns', and 'Keyword Filter'. The left sidebar shows 'DATABASES' with 'O'NEIL' and 'OWNERSHIP' options, and a 'Watchlists' section with 'Mutual Funds', 'Stock', and 'Watchlist' (selected). The main area shows a table of stocks under the heading 'United States'. The table has columns for '#', 'Symbol', 'Name', 'Type', 'Closing Range', 'Price, Intraday Price Chg', '% to High Street Price Target', and 'Cur Price'. A red arrow points to the flag icon in the first row (AAPL). Another red arrow points to the vertical line between the 'Closing Range' and 'Price, Intraday Price Chg' columns. At the bottom, there are several icons: a plus sign (+), a document with a plus sign, a bell (alerts), and a person icon (info). A red box highlights these four icons. Below the table, there is a 'Summary Statistics' section with a dropdown arrow and data for Maximum, Average, and Minimum values across several columns.

#	Symbol	Name	Type	Closing Range	Price, Intraday Price Chg	% to High Street Price Target	Cur Price
7	AAPL	Apple Inc	S	[Bar]	2.03	9.1%	127.35
5	ACHC	Acadia...	S	[Bar]	0.81	-13.9%	71.02
2	EXR	Extra S...	S	[Bar]	0.53	-1.7%	68.40
3	BEE	Strategi...	S	[Bar]	0.14	10.8%	12.68
9	SBUX	Starbuc...	S	[Bar]	0.13	4.7%	94.52
1	SFS	Smart &...	S	[Bar]	-0.05		18.15
6	PANW	Palo Alt...	S	[Bar]	-0.17	-22.3%	141.64
4	DPZ	Domino...	S	[Bar]	-0.18	-1.9%	100.81
8	LUV	Southw...	S	[Bar]	-1.77	-0.6%	41.09

7 Create List
Tap to create a list or a folder.

6 Duplicate List
Tap to duplicate a list.

5 List Alerts

4 List Info
Tap for List Properties.

3 Edit User List
Add, remove, or reorder symbols in your lists.

1 Rotation Graph

Visualize sector rotation on a grid that plots long-term performance against short-term momentum.



2 Comparison Graph

Compare the performance of multiple stocks over a selected time period.

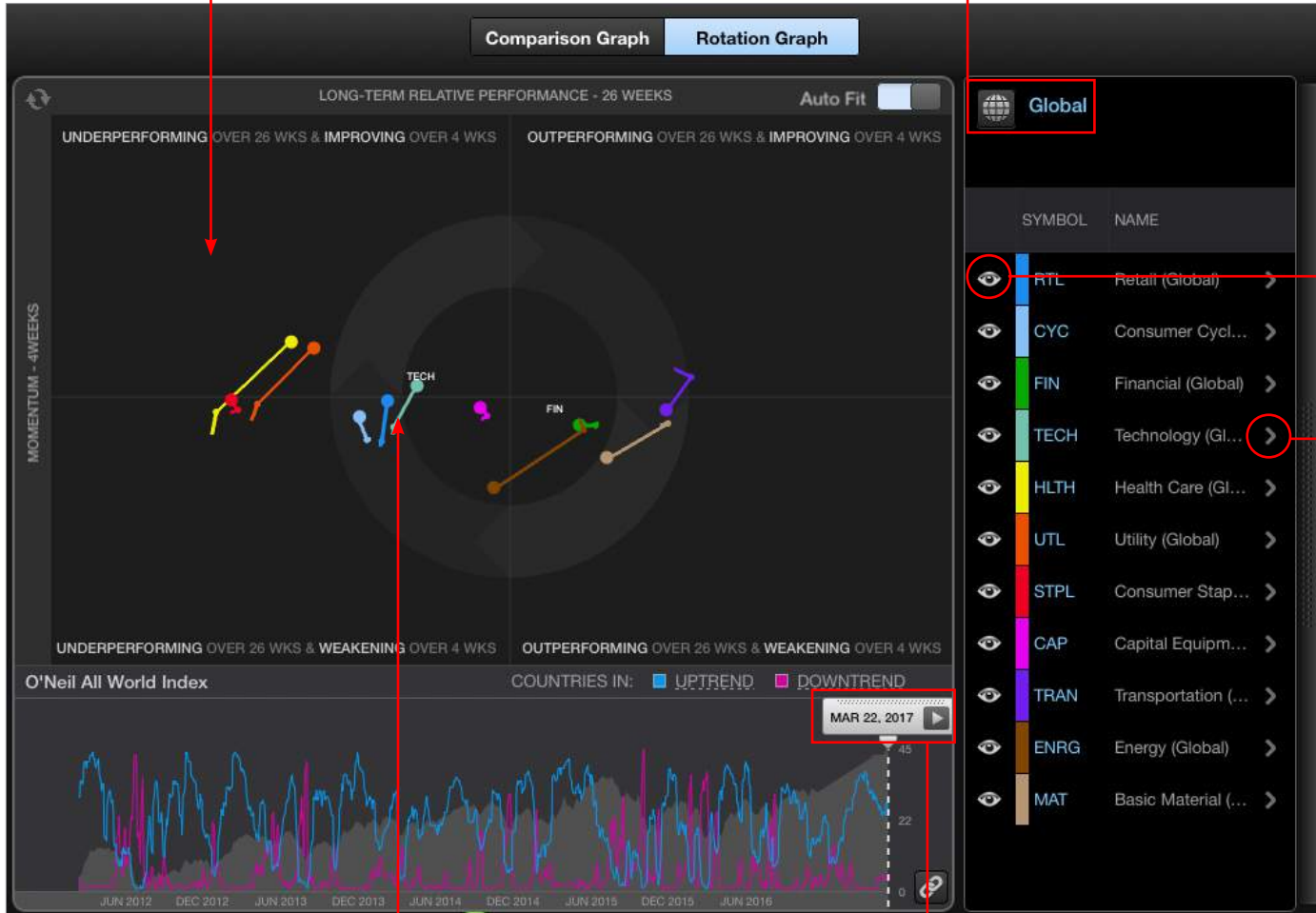


Compare Rotation Graph

Tip
Tap and hold Group Movement Indicators (#10) to view symbol in Datagraph

1 Magnification
Pinch and zoom to reveal levels of detail.

2 Geography Selector
Click to select among Global, Region, and Country views.



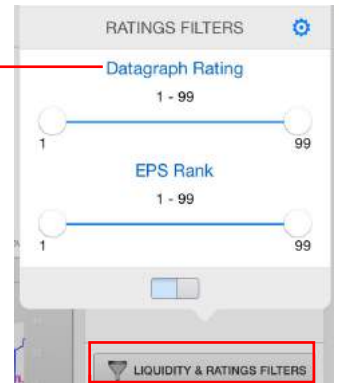
3 Legend Row
Tap to add/remove highlight.

4 Arrow
Tap to drill down to constituents.

5 Flag
Tap to flag a symbol and monitor it in other views.

ANN	Ann Inc	
ASNA	Ascena Re...	
BKRSQ	Bakers Fo...	
BABA	Baba Star	

Change Metrics
Tap to adjust filter metrics.

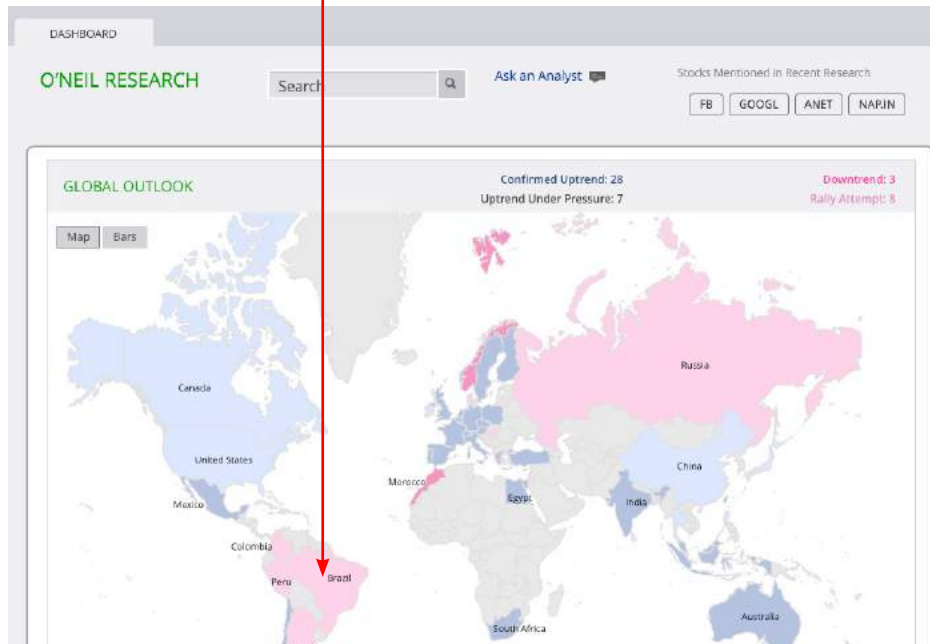


9 Group Movement Indicators
Tap the individual "indicators" to highlight. Select again to remove.

8 Animate Rotation Graph
To animate the Rotation Graph over time, tap and hold then move, or hit Play.

7 Liquidity Filter
When viewing constituents, tap to adjust for market cap, avg dollar volume US\$, or O'Neil Ratings.

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Easily monitor the condition of markets around the globe.



2 Analyst Commentary
View commentary written by William O'Neil + Co. equity analysts.

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Romeo Alvarez, Oct 13, 2016
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Mainland Chinese markets fell for the week, but remain in Confirmed Uptrend. The Shanghai and Shenzhen pulled back 0.55% and 2.1%, respectively, but both remain above moving averages with uptrend still well intact. Market direction going forward could be directed by the strength in the Shanghai. Since October, the market has outperformed the Shenzhen, up 8...

Global Focus Frontier Long
Dec 02, 2016

US Focus Long Dec 02, 2016
The U.S. market remains in a Confirmed Uptrend, despite significant divergence between the S&P 500 and Nasdaq. Accumulation across value has supported the S&P 500, which remains less than 1% off highs. Conversely, continued weakness across growth, specifically Technology, has led to an intraweek 50-day moving average break by the Nasdaq. Ideas that have led since...

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Global Markets Still Without Direction, U.S. Sector Spreads Widen
Dec 02, 2016
Twenty-three developed markets lost 0.5% on average this week. Fifteen markets fell, including 11 (the U.S., the U.K., Germany, Australia, Sweden, Switzerland, Finland, Belgium, the Netherlands, Ireland, Portugal) by 1.0-1.9%. Seven ...
Most Markets Trade Higher, U.S. Small Caps at All-Time Highs
Nov 25, 2016

Broadridge Solidifies as Proxy Services Leader
Dean Kim, Sep 19, 2016
Broadridge Financial Solutions (BR), the platform of choice in North America for proxy services, also provides clearing and settlement services for banks, broker dealers, global corporate issuers, mutual funds, and institutional investors. The Company serves North America and 70 other countries, but 96% of its revenue is derived from the U.S. and Canada. Broadridge generates stable...

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Select from more than 50 news sources from around the world.

2 Filters
Filter news items by stock symbol or keyword.

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1. Missing data or slow refresh on PANARAY Mobile?

Verify internet connectivity by browsing to www.williamoneil.com on Safari.

Disable PANARAY Mobile from sending and receiving data through an encrypted connection.

Go to Settings > PANARAY > Turn off Data Encryption

*Sign-on credentials are always transmitted via encrypted connection

2. Unable to sign on to PANARAY Mobile on your corporate or enterprise wifi network?

Verify connectivity and disable data encryption as stated above.

For further assistance, contact William O'Neil + Company Institutional Client Services at:

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