



Denver Training Class Notes

Julia Ormond

Helpful [StockFinder](#) Keyboard Shortcuts...

...Keep These in Mind (Page 1 of 1)

Chart Shortcuts

1	1 Day Chart TimeFrame
2	2 Day Chart TimeFrame
3	3 Day Chart TimeFrame
4	4 Day Chart TimeFrame
5	Weekly Chart TimeFrame
6	6 Day Chart TimeFrame
7	7 Day Chart TimeFrame
8	8 Day Chart TimeFrame
9	9 Day Chart TimeFrame
Ctrl+1	1 Minute Chart TimeFrame
Ctrl+2	2 Minute Chart TimeFrame
Ctrl+3	5 Minute Chart TimeFrame
Ctrl+4	15 Minute Chart TimeFrame
Ctrl+5	30 Minute Chart TimeFrame
Ctrl+6	1 Hour Chart TimeFrame
. (period key)	Toggle Crosshair
Click blank Chart Area	Activate Temporary Crosshair
[Shift Chart Back 1 Bar
]	Shift Chart Forward 1 Bar
Ctrl+Shift+Wheel	Shift Chart Back or Forward 1 Bar at a Time
Ctrl + Spin Mouse Wheel	Shift Chart Back or Forward in Time
\	Shift Chart to First Available Plotted Chart Data
Ctrl+D	Draw Trend line
Ctrl+B	Toggle Price Plot Style (bar, candle, line, etc.)
Ctrl+G	Toggle Price Scale
Ctrl+R or /	Add Rule from Library
Ctrl+I or /	Add Indicator from Library
Shift+ 1-9	Zoom Chart In or Out
Spin Mouse Wheel	Zoom Chart In or Out
Shift + Spin Wheel	Slow Zoom Chart In or Out
F1 - F12	View Corresponding Tab within Layout

WatchList Shortcuts

Space	Next Symbol In List
Ctrl+Space	Previous Symbol in List
Shift+Space	Next Symbol Passing Same Rule
Home	First Symbol in List
End	Last Symbol in List

TeleChart Hot Keys (Page 1 of 2)

Adding, editing and removing indicators

- Open Indicator Editor I
- Erase Indicators dialog X
- Delete last indicator plotted Delete
- Comparison symbol CTRL-C
- \$100 Scale CTRL-H
- Flip-flop active and comparison symbols CTRL-F
- Moving average A
- Balance of Power (BOP) B
- Envelope channels E
- Bollinger Bands G
- Rate of change H
- Linear regression L
- MACD M
- On Balance Volume O
- Wilder's RSI R
- Relative strength graph CTRL-R
- Stochastics S
- Time Segmented Volume (TSV) T
- Volume V
- MoneyStream Y

Charting functions

- Move chart backward or forward one bar [or]
- Move chart backward or forward five bars { or }
- Toggle between large chart and regular chart CTRL-L
- Draw trendline D (hold down Shift while drawing for a horizontal trendline or Ctrl for a linear regression trendline)
- Erase last trendline plotted CTRL-D
- Trendline toggle: Show, Show w/ extensions, Don't show CTRL-T
- Pointer mode toggle on/off (.) Period key, then use right and left arrow keys to move pointer backward or forward in time.
- Move pointer to far right of chart End
- Slash chart \
- Price graph toggle: bar, line, candlestick CTRL-B
- Chart scaling CTRL-G
- Spread price data toggle on/off CTRL-Z
- Compress/decompress chart scaling: useful for viewing envelope channels that run off the chart Minus (-) and plus (+) keys
- Zoom level Shift-1 thru Shift-9
- Time Frame (days per bar) Number keys 1 thru 9
- Intraday timeframes CTRL-1 thru CTRL-6 (1 minute, 5 min, 10 min, 15 min, 30 min, hourly)

- Toggle split display between Show Adjusted for Splits and Show Unadjusted for Splits CTRL-\
- View technical and fundamental Data Sheet CTRL-V (toggles between Data Sheet and the price chart)

EasyScan functions

- Open EasyScan dialog CTRL-S
- Edit conditions for active scan result list CTRL-E

WatchList operations

- Select WatchList ALT-L
- Select sort criteria for WatchList ALT-S
- Jump to top of WatchList Home
- Next symbol in list Spacebar
- Previous symbol in list CTRL-Spacebar
- Next flagged symbol Shift-Spacebar
- Next WatchList CTRL-W
- Previous symbol in navigation history Backspace
- Previous WatchList in navigation history CTRL-Backspace
- Add symbols to Active WatchList CTRL-A
- Remove highlighted symbol from WatchList CTRL-Delete
- Active symbol memberships CTRL-M (twice)
- Flag/Unflag active symbol F
- Add note to active symbol N
- Scroll through notes on the active symbol Up and down arrow keys
- Jump to a symbol J
- Custom Date Sort C

Other

- Worden Report W
- Scroll through recently sent chat messages Shift+Up/Dn arrow

Thanks to all of you who attended class this past weekend in Denver!
It was awesome to see so many of you; we look forward to seeing
more of you - either in another class or in our weekly webinars!

These notes cover material from the morning and afternoon sessions
of class. I hope they jog your memory and help you reproduce the
things we did together Friday and Saturday.

Resource information can be found on the last page of this document.
Let us know if you need anything.

Until Next Time,
Julia Ormond

A General Note

We talked a lot this weekend about identifying technical events on our charts. It's important to note that a technical event in and of itself may not present the perfect opportunity. We noted in class that it's always important to know the following before making a final chart diagnosis.

1. Know the News! A chart can look beautiful at the end of day X, but if news hits that evening or early the next morning, hang on to your seat. General news is also very important and influential right now. Economic indicator numbers are contributing heavily to short term direction in the major Indices. Look for Consumer Confidence numbers, Housing numbers, Jobless Claims, etc.
2. Be able to identify all standard Price (and Volume) patterns. These include but are not limited to double tops and bottoms, head and shoulders, rounding tops and bottoms, triangles, wedges, flags and pennants, and ascending, descending, and lateral channels!
3. Be able to identify significant support and resistance levels and know how likely these are to contribute to reversals either to the upside or downside. Always keep these resistance levels in mind when setting Price targets.

Indicators cannot help you in the absence of this knowledge.

There are so many stocks that are performing in today's market. The key is to develop a method to find those stocks. We worked throughout the morning session to discuss components of a routine that are important or that might help you develop your own permanent analysis routine.

We started by noting all the stocks in the database that had notes written on them recently before we delved into any major charting. We did this so that if anything in the list looked interesting on our charts, we knew immediately that we should read the associated note as well. Change the WatchList in Telechart to 'Charts with Notes'. Use the Sort feature to sort by 'Note Dates'. Note that you can change the StockFinder WatchList to 'Telechart - Sorted Active List' so that the stocks displayed there will be those with archived Telechart notes.

Symbol	Company Name	Sort Value
KO	Coca-Cola Co	05/26/2009 4:51...
AVB	Avalonbay Communities	05/26/2009 4:51...
STRA	Strayer Ed	
BLUD	Immucor Ir	
SKF	ProShares	
SPY	SPDRs S&S	
NTRS	Northern T	
IWM	iShares Ru	
BKE	Buckle Inc	
CECO	Career Edu	
AIPC	American I	
SF	Stifel Finar	
QQQQ	PowerSha	
ENR	Energizer I	
RL	Polo Ralph	
WW	Watson W	
FMS	Fresenius I	
UDN	PowerSha	
DBA	PowerSha	
DBC	PowerSha	

Set the WatchList in StockFinder to Telechart Sorted Active List. This brings all the stocks and ETFs with the most recently written notes to the top of the list.

The first twenty items listed have had notes written on them since 5/12. Set these stocks aside into a new WatchList called 'Recent Notes 5/2x'. See next page for details.

StockFinder - MoneyStream Divergers

File Share Research Brokers Settings Windows Help

Main WatchList

Standard and Poors 500 Co...

04:00 Filter: Empty

Symbol Flags

1	AVB	NYSE	🚩
2	RL	NYSE	🚩
3	KO	NYSE	🚩
4	NTRS	Nasdaq	🚩
5	AA	NYSE	
6	AAPL	Nasdaq	
7	ABC	NYSE	

Main Chart [F1] 1D [F2] X

Add Indicator 1 Day

Price History MovAvg 25

StockFinder - MoneyStream Div

File Share Research Bro

New Layout

Open Layout

Recent Layouts

New Chart

Select Chart

Export Data

New WatchList

Create New WatchList

Name Recently Noted

Image

TeleChart - Sorted Act...

00:01 Filter: Empty

Symbol

Main WatchList

Standard and Poors 500 Co...

04:35 Filter: Empty

Symbol

Load Column

New Column

- Symbol
- Text
- Numeric
- Whole Number
- Date
- T/F
- Flag
- Flag for New WatchList

Once you've created the 'Recently Noted' WatchList, you can change the WatchList picker to any list that you like to work with ordinarily. Right-click the column header area, and select New Column, then Flag to flag the ordinary WatchList by whether or not its members are also included in the Recently Noted list.

To select an entire list of stocks to drag, select the first stock in the list, hold the Shift key on your keyboard; then select the last stock in the list. Drag the selected list into the secondary list.

What you'll end up with after performing these four steps is a Flag column that displays an image next to every item in the WatchList (no matter what list you pull up) that indicates there is a recent notes in the Telechart database for the item. Any time you see a flag next to an item from here on, check in Telechart to see what was written about the stock or ETF in question.

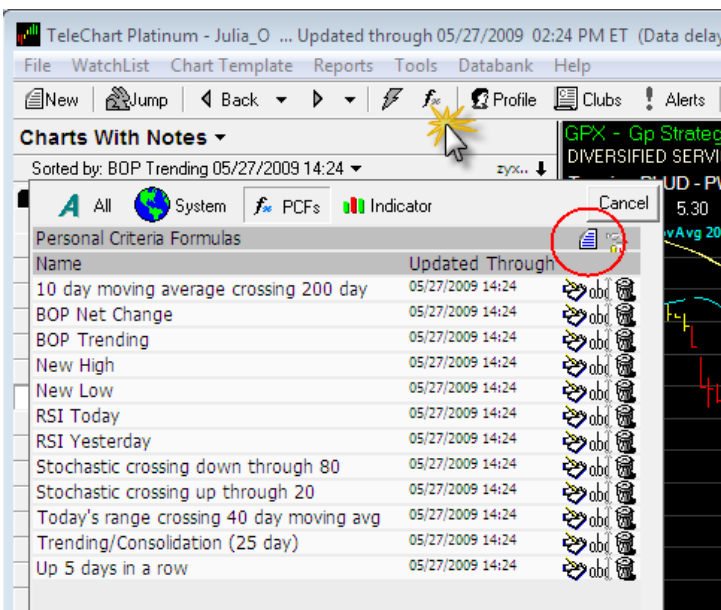
Next, we worked with an indicator only available in [Telechart](#) – BOP (Balance of Power). To do so, we used a chart template developed by Peter Worden that includes Price and several relevant Moving Averages as well as Time Segmented Volume, Balance of Power, and MoneyStream.

If you want to work with this exact template in Telechart, look at the 5/21 note on BLUD written by Peter Worden.

Click the note to view its contents and to view the associated Chart template. Choose the Chart Template option along the bottom of the note window, and when prompted with included indicators, choose Save As. Save under any name you see fit. In my case, I saved it under “BLUD note template – PW”. Now to use the template for this and all other stocks you might choose, select the template list on your chart (just under the company and industry information in the top left corner of the chart). Choose the template name you assigned.

Since BOP isn't included in StockFinder but is included in Telechart, we created a Personal Criteria Formula that required BOP to be strong. We then used that PCF to create an EasyScan, so that the only stocks included in the list as a result of the EasyScan would be those that had strong BOP values. We then used the resulting list inside of StockFinder in order to do even more analysis using TSV and MS as indicators.

Creating a PCF That Requires BOP to be Strong:



Select the fx button from the menu as shown. Next select the Create New PCF button circled in Red.

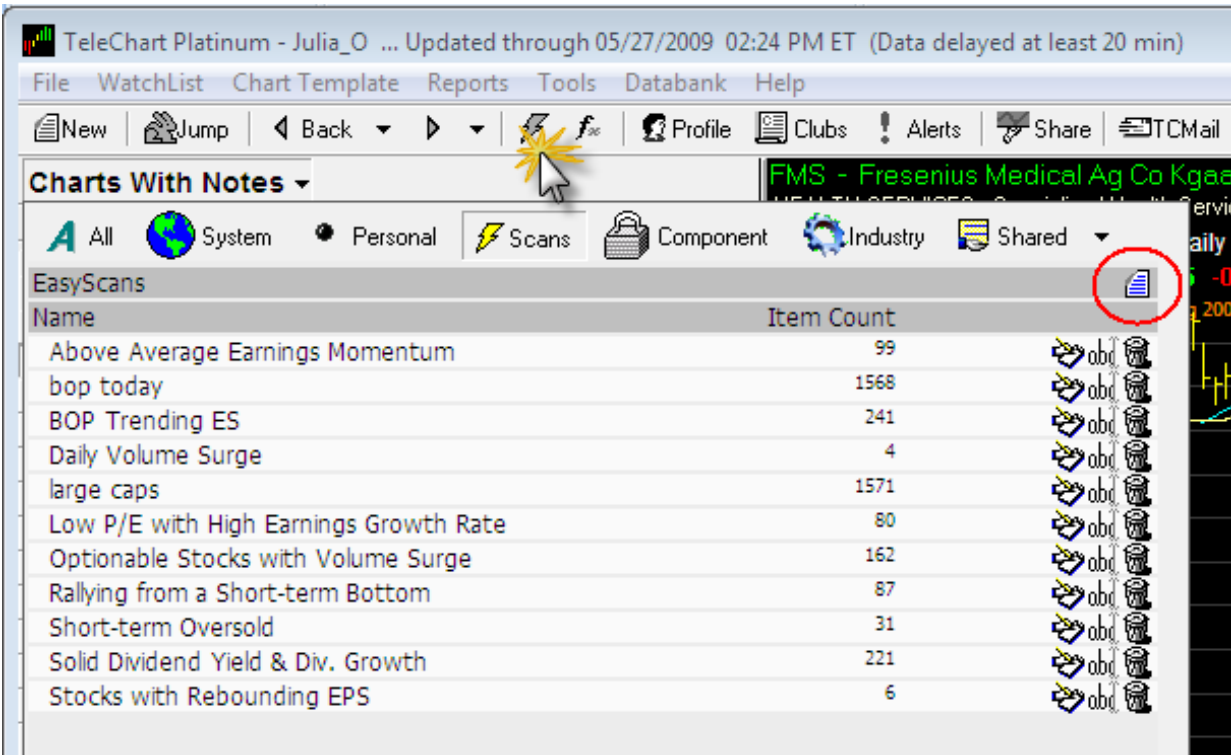
Next enter a name for the criterion as prompted.

Within the field that is displayed, enter the following formula:

BOP > 70 AND BOP1.3 > 65 AND BOP1.5 > 60 AND BOP1.7 > 50 AND BOP1.10 > 40 AND BOP1.12 > 30

Finally, select Save to close the PCF editor and include the criterion in the list of all PCFs you've created.

Creating an EasyScan that uses the described PCF to create a WatchList of stocks exhibiting Strong BOP behavior currently:



Select the lightning button from the menu as shown. Next select the Create New EasyScan button circles in Red.

Next select the Add New Condition option within the EasyScan dialog. Each new condition added using this window reduces the list of all items in the database to only those that pass the condition described.

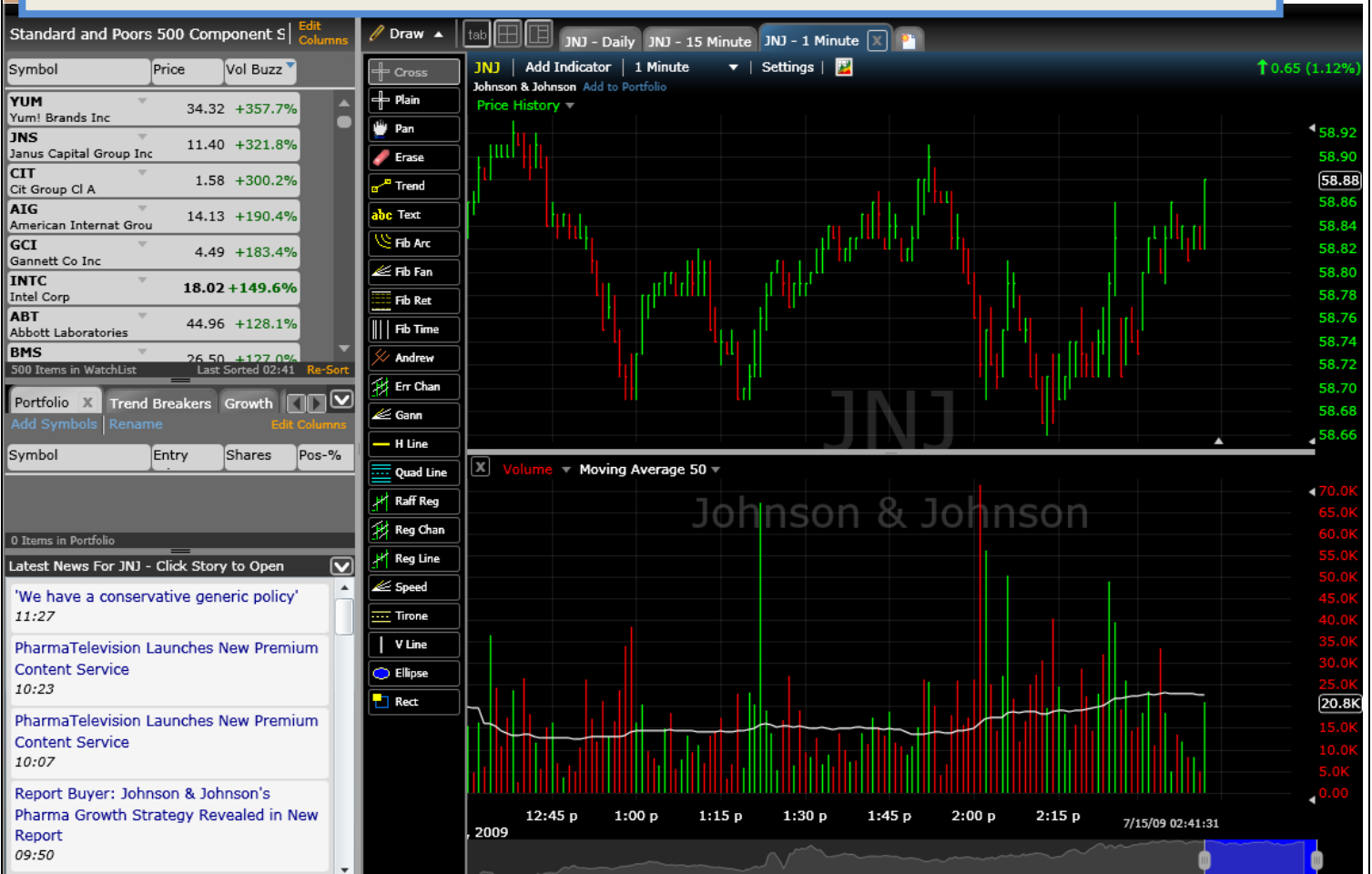
Search for the Strong BOP PCF you just created and double-click it to select it from the list of all items that the EasyScan can use as limiting conditions. If this is the first time you've ever implemented the PCF in Telechart (which is probably will be), you might have to accept a prompt that says "This PCF has not been calculated, would you like to calculate now?".

Next, select Save As, and provide a name for the resulting list of stocks – perhaps 'Strong BOP Stocks' or something of the sort. Now you can use the sort function in the WatchList to sort any list of stocks you might be working with such that those items that pass the condition 'Strong BOP' now are pulled to the top of the list.

In class, we used the TeleChart – Sorted Active List option in StockFinder to do further analysis using other indicators, including MoneyStream, and Time Segmented Volume.

www.FreeStockCharts.com

Remember that as a Worden customer, you have a premium membership to FreeStockCharts.com. The charts you'll find there are amazing, and you'll find some nice tools to use either in conjunction with or as a mobile counterpart to either Telechart or StockFinder. Sign in with your Worden username and password, and start charting!



Quick FreeStockCharts Reminders:

Find a Chart - Begin typing the name of the ticker whose chart you'd like to see

Picking a List of Stocks - Use the WatchList selector to search for the desired list

Drawing Tools - Use the Drawing Tools menu to activate a tool. Ctrl+click activates the last tool used.

Scanning - Navigate to the WatchList selector, and choose to Create New Scan

Set an Alert - Navigate to the Alert Menu and select the type of Alert desired, or click a trendline to set an alert

Expand X or Y axis scaling - Use the arrows located at the end, top, and bottom of the chart to narrow or expand scale

Add a Chart - You're not stuck with one chart! Use the New Tab button (next to the default chart title) to add another.

Saving - Remember you can save a Layout for retrieval later. To save, select the File Menu; select Save.

From here, we worked with the default StockFinder layout. The default Layout contains a WatchList of stocks that can be adjusted as well as a Main Chart and Blog Reader. The default Main Chart displays Price in a HLC format and in a daily timeframe.

We used Price and Volume plots to uncover several notable stock behaviors:

1. Stocks with Prices between 10 and 25 dollars who have average volume greater than 1/2 million
2. Stocks with Trending Prices
3. Stocks displaying Gaps

Instructions for reproduction follow.



Our first goal was to limit a large list of stocks based on overarching Price and Volume Criteria.

1

Selecting a Universe of Stocks

Use the WatchList Picker to select a large list of stocks - in class, we selected the Russell 3000 list. Once you've selected the WatchList Picker drop-down, begin to type the name of the desired list and make the needed selection from the limited list.

2

Limit the List based on Price Per Share Value

Hover over the Price plot and select it. Navigate to the Rule tab, and select Create New Rule. Set the parameters of the rule to Price History Greater than Value, using the behavioral drop-down. Set the value to 10 within the value field. Select a color for the rule using the color drop-down.

Now place a checkmark next to Filter WatchList.

- Scan WatchList
- Paint Price when Passing
- Filter WatchList
- Create any of these columns
 - #Bars Since True
 - Last Date True
 - # True in a Row
 - % True in Period
- Show on Chart

The list of stocks selected in Step 1 should now be limited so that it only includes those that have Prices greater than \$10/share. Repeat these steps to create a rule for Price Less than a Value of 100 dollars per share.

Note: For those of you with StockFinder Platinum, you'll find stocks that have Prices within this range so far today; for those of you with StockFinder Gold, you'll be identifying stocks that had Prices within this range as of the last downloaded Prices.

3

Identify Stocks with an Average of at least Half a Million Shares Per Day

Hover over the Moving Average of Volume. Navigate to the Rule tab, and select Create New Rule. Set the parameters of the rule to Volume Bars Greater Than Value, using the behavioral drop-down and the Smart Measure slider. Set the value to 5000 (half a million less two zeroes, since Volume Bars are plotted in hundreds). Select a color for the rule using the color drop-down.

Now place a checkmark next to Filter WatchList in order to begin the process of filtering the active WatchList so that only those items remain that meet this Volume criteria.

The final stocks remaining in the WatchList should be those that pass both the Price and Volume criteria described. By default this Filter will recalculate every 15 Minutes. Click the ticking clock adjacent to the Filter in order to adjust the Update Frequency.

Many stocks since March have contributed to the overall uptrend in the market since the March 6-9 bottom. So, our next goal was to identify stocks that are in an uptrend – that is, those stocks that have contributed to the trending behavior of the market. We did this by identifying stocks that have recently consistently had Prices above their Moving Average values.

1

Create a Rule to Identify Stocks With Prices Above their Moving Averages

Hover over the Price plot and select it. Navigate to the Rule tab, and select Create New Rule. Set the parameters of the rule to Price History Above MovAvg25, using the behavioral drop-down. Move the Smart Select slider to the bottom, so that if Price is above its Moving Average *at all* the rule will pass. Select a color for the rule using the color drop-down. Make sure it's a color that will be easy for you to see on the chart.

Now place a checkmark next to Paint Price when Passing and % True in Period.

- Scan WatchList
- Paint Price when Passing
- Filter WatchList
- Create any of these columns
 - #Bars Since True
 - Last Date True
 - # True in a Row
 - % True in Period
- Show on Chart

Paint Price when Passing ensures that every Price bar that closed above its Moving Average is painted the color of the rule. % True in Period creates a column within the WatchList area that represents the percent of bars (days in this case) that this particular rule has been passed within the last fifty days by default. We were interested in the last three months or so, so we right-clicked the column header for the new column and selected Edit. We then changed the period to 60, so that we could identify those stocks that have spent most of their time above their Moving Averages for the last three months. Stocks with relatively high values within this column represent those that have spent many days above their Moving Averages recently, which indicates that these stocks have Prices that are in uptrends.



1	<input checked="" type="checkbox"/>	GOOG	Nasdaq	100%
		Google		
2	<input type="checkbox"/>	PVX	NYSE	100%
		Provident Energy Tr...		
3	<input type="checkbox"/>	FISV	Nasdaq	100%
		Fiserv Inc		
4	<input type="checkbox"/>	PBG	NYSE	100%
		Pepsi Bottling Grou...		
5	<input type="checkbox"/>	MAR	NYSE	98%
		Marriott InternatIn...		
6	<input type="checkbox"/>	RPM	NYSE	96%
		Rpm International		
7	<input type="checkbox"/>	MET	NYSE	96%
		Metlife Inc		

Our final goal for the default components of the Main Chart was to identify stocks that are gapping. We did this using a rule that is stored in the Rule Library.

Add a Gap Up Rule to Identify Stocks that are Gapping

Select the Add Rule button. Within the sub-menu that appears, choose Select then search for Gap Up within the Rules listed. You can always just hit the '/' key on your keyboard to more easily search for the Gap Up Rule.

Select a color for the rule within the Rule Color drop-down. Then place checkmarks next to Paint Price when Passing and #Bars Since True.

- Scan WatchList
- Paint Price when Passing
- Filter WatchList
- Create any of these columns
 - #Bars Since True
 - Last Date True
 - # True in a Row
 - % True in Period
- Show on Chart

Paint Price when Passing ensures that every historical Price bar that gapped up is painted the color of the rule. This should help visually identify historical examples of this chart behavior. #Bars Since True creates a column that represents the number of bars (days in this case) it has been since this rule passed for any items within the active WatchList. If any of the stocks within the list are now gapping, they are presented with a 0 value within the column.

Sort the column to find those stocks that have most recently gapped.

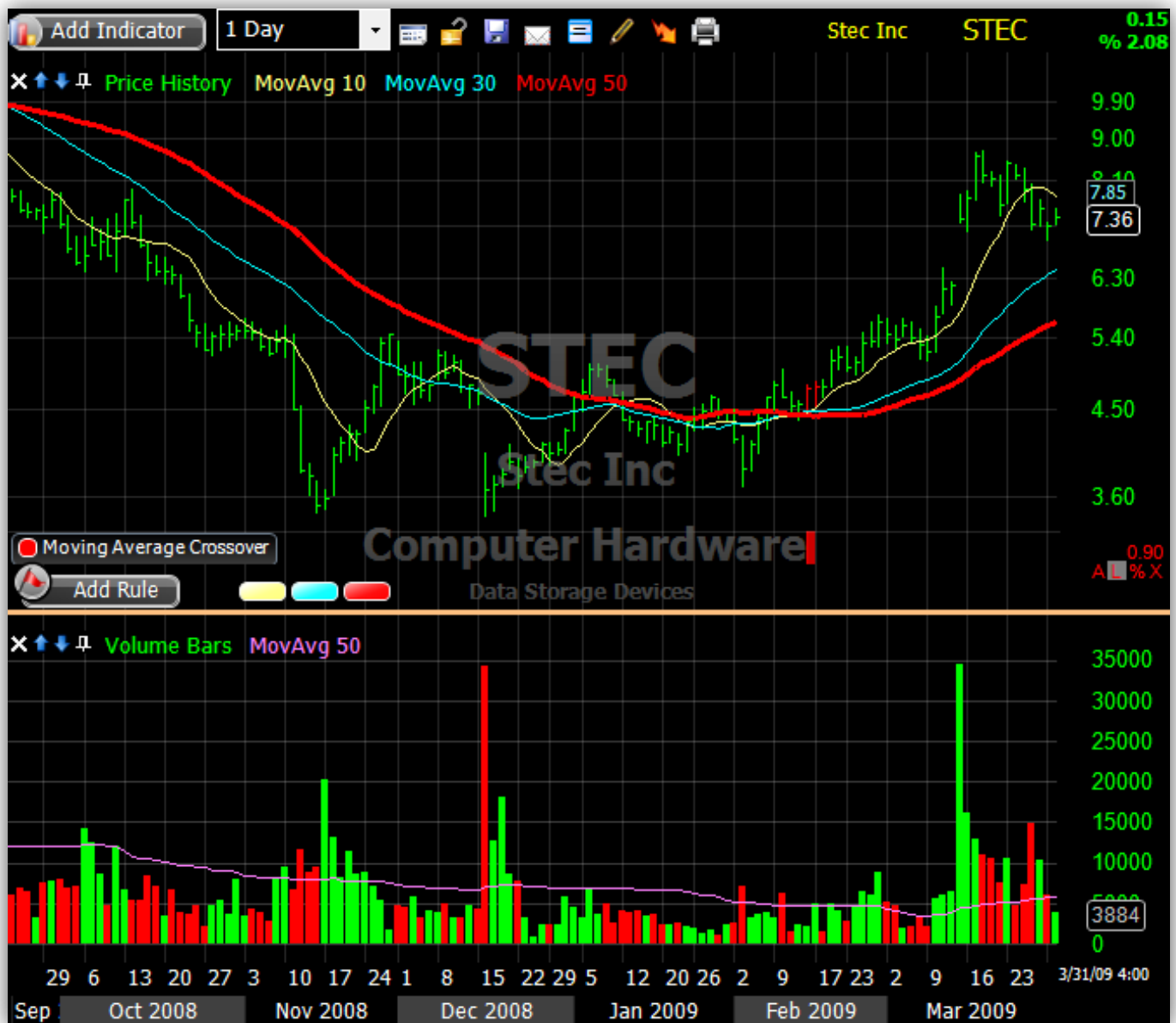
Those of you with StockFinder Platinum will see results on your chart and within the column that represent information relative to what's going on within the market as of now - in RealTime. Those of you with StockFinder Gold will see information relative to the close of the market yesterday.



1	ERTS	Nasdaq	0
	Electronic Arts Inc		
2	ILMN	Nasdaq	0
	Illumina Inc		
3	LIFE	Nasdaq	0
	Life Technologies C...		
4	ORCL	Nasdaq	0
	Oracle Corporation		
5	RYAAY	Nasdaq	1
	Ryanair Hldgs Plc Adr		
6	ADP	Nasdaq	1
	Automatic Data Pro...		

Next, we identified stocks experiencing Moving Average crossovers. We worked with 10, 30, and 50 period simple moving averages, but you can work with any Moving Averages that suit your style.

We added two extra Moving Averages to the existing Main Chart. Instructions for replication follow.



1

Add two extra Moving Averages to the Main Chart

Use the Add Indicator button or the '/' key on your keyboard to search for the Moving Average plot. Once selected, choose Price History, so that the Moving Average added to the chart is the Moving Average of Price. When finished, there should be three total Moving Averages on the chart.

Click the name of the left-most Moving Average and within its parameter settings, choose 10 Period, Simple. Also change the color to yellow within the Color tab.

Click the name of the second Moving Average, and within its parameter settings, choose 30 Period, Simple. Also change the color to blue within the Color tab.

Click the third Moving Average and within its parameter settings, choose 50 Period, Simple. Also change the color to red within the Color tab.

2

Create the Rules necessary to identify crossovers

Here's how to create a rule that identifies the shortest term Moving Average crossing the longest term average:

Drag the 10 Period MA plot onto the 50 Period MA plot. Once you see the Compare tooltip, release the mouse and select *Create Rule*. Set the parameters of the rule to MA10 Crossing Up Through MA50. Set the ___# of ___ bars field to 1 of 4. This ensures that the cross might happen any time within four bars (days in this case). Change the color of the rule to yellow using the color drop-down, and select OK to close the rule editor.

Drag the 30 Period MA plot onto the 50 Period MA plot. Once you see the Compare tooltip, release the mouse and select *Create Rule*. Set the parameters of the rule to MA30 Crossing Up Through MA50. Set the ___# of ___ bars field to 1 of 4. This ensures that the cross might happen any time within four bars (days in this case). Change the color of the rule to blue using the color drop-down, and select OK to close the rule editor.

3

Combine these Rules so that they must be true simultaneously

Drag the 10 Crossing 50 Rule onto the 30 Crossing Rule and release the mouse. Select *Create New Combo*. Provide a name for the rule (we used MA Cross). You should see both rules listed with an And connecting them. Change the color of the rule to red using the color drop-down.

Now place a checkmark next to the following items.

- Scan WatchList
- Paint Price when Passing
- Filter WatchList
- Create any of these columns
 - #Bars Since True
 - Last Date True
 - # True in a Row
 - % True in Period
- Show on Chart

As a result, any items that are experiencing such a cross now will receive a red scan light, any crosses historically will be marked with a red price bar. There should also be a tick mark along the bottom of the Price pane that shows you every historical example of this type of cross. You should also see a column within the WatchList that represents how long it's been since every item within the list exhibited this cross.

Next, we began to work with other types of indicators. We developed a couple of setups for the standard MACD Histogram. Don't forget that these setups are never intended to be used in a vacuum. We're interested in using indicators to aid our interpretation of the developments in Price.

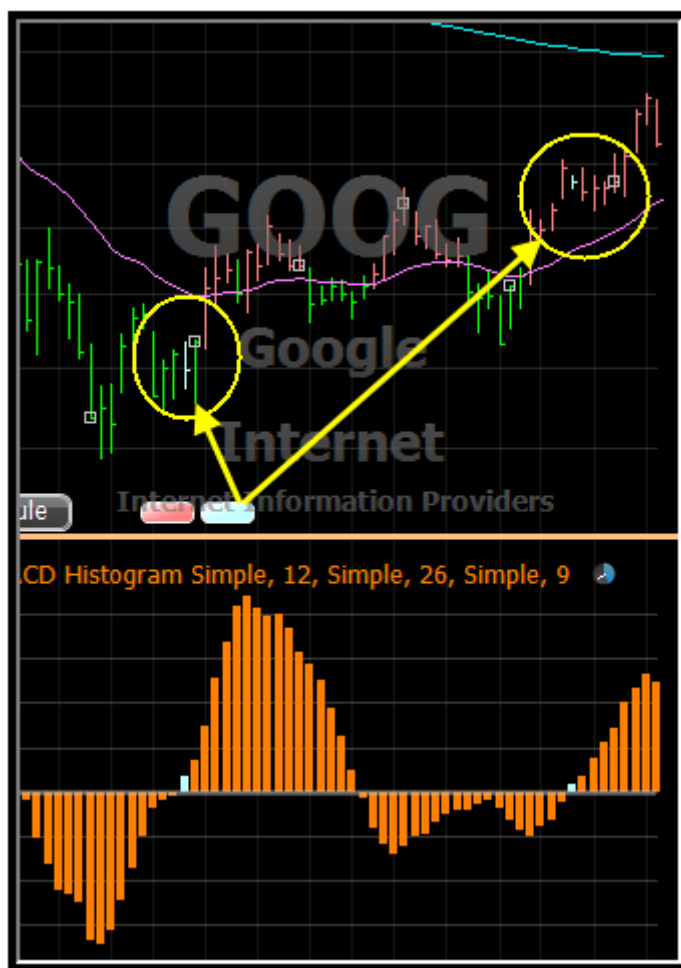
Identify Stocks whose MACD Histogram values are Crossing Zero

To plot a MACD Histogram on the Main Chart, select the Add Indicator button; then choose Select. Type MACD Histogram, and from the limited list, select the appropriate plot name. Remember that you can always hit the '/' key on your keyboard instead of going through the Add Indicator button.

This plot will appear in its own pane. Remember that you can always overlay a plot with another by dragging the plot into the pane of the other plot. You may also choose to leave the MACD Histogram where it is and proceed with setting up this rule.

Hover over the MACD Histogram plot and select it. Navigate to the Rule tab, and select Create New Rule. Set the parameters of the rule to MACD Histogram Crossing Up Through Value. Set the value to 0.00. You can use the X Up Period parameter to determine whether the cross needs to happen on one specific bar or whether the cross could have happened sometimes within the last X bars. Select a color for the rule – in the preceding image, the color for the rule is orange.

Decide how you would like to apply this rule, and make appropriate selections from the right-hand menu. Remember that if you decide to create a #bars since true column, you can sort the WatchList to find the items that most recently met this rule. Click the column header for the #bars column, and the list will sort.



Identify Stocks whose MACD Histogram values are Reversing

Our final goal for this chart was to create a rule to find stocks whose MACD Histogram value was experiencing a reversal toward the zero line. We wanted only to find the reversing stocks that had values below the zero level.

It was necessary to create four total rules to accomplish this:

1. MACD Histogram Moving Down 10 of 10 bars
2. MACD Histogram less than 0 10 of 10 bars
3. MACD Histogram Moving Up 2 of 2 bars
4. Rule 1 AND Rule 2
5. Rule 4 AND THEN Rule 3

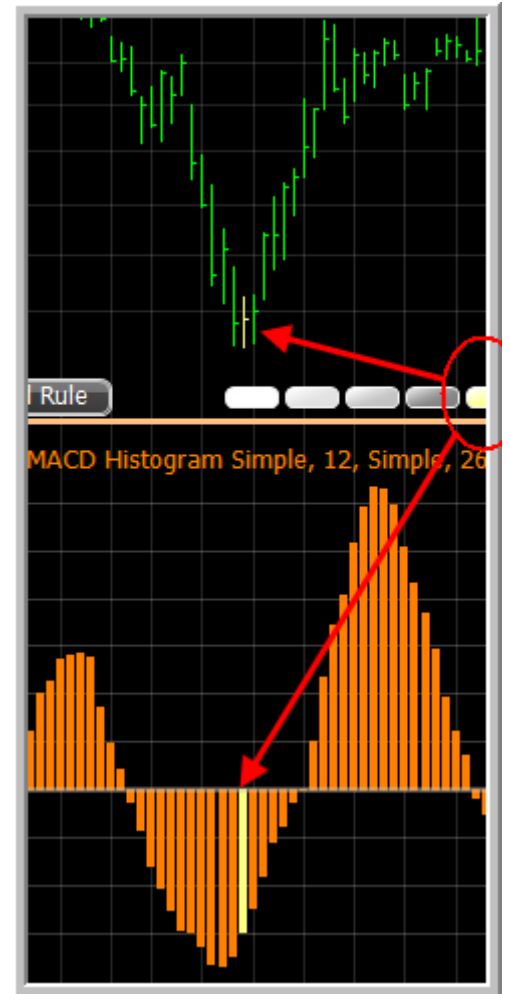
Here's how to create the rules:

1. Click the MACD Histogram plot. Within the Rule tab, select Create New Rule. Set the behavioral criteria drop-down to Moving Down; change the slider position to the bottom so that if MACD is moving down AT ALL, the rule passes; then use the fields below to assign that this must be true 10 out of 10 bars for the rule to pass. Select OK.
2. We want the Histogram to be moving down WHILE its value is less than zero, so create a new rule that requires the value of the Histogram plot to be 'less than a value', and set the value it must be less than to zero. Also make sure that the True ___ of ___ bars fields are filled in such that all 10 of the last 10 bars must have had values less than zero. Select OK.
3. Select Create New Rule again. Set the behavioral criteria drop-down to Moving Up; change the slider position to the bottom so that if MACD is moving up AT ALL, the rule passes; then use the fields below to assign that this must be true 2 of 2 bars for the rule to pass. Select OK.

We have all three of the major criteria defined. We now need to combine these to ensure that the movement down happens while the value of the Histogram is less than zero – AND – that the movement up happens directly after the movement down.

4. In order to force the Moving Down rule and the Less than Zero rule to happen simultaneously, drag the Moving Down Rule (Rule 1) onto the Less than Zero Rule (Rule 2). Select Create New Combo when prompted. Provide a name for the combo, and select OK.
5. Since we looked for MACD H to be moving down AND THEN moving up, grab the newly created Rule 4 from the chart and drag it onto the Moving Up Rule (Rule 3). From the menu, select Create New Sequence. Provide a name for the sequence and set the Span in Bars to 3. **Remember StockFinder needs to identify the first bar that passes the rule and then has to allow two more bars in order to find those that had the MACD H move up two out of the two bars that followed the move down.** Select OK.

The rule that results is the final rule that can be implemented in any way you choose. Try choosing the Paint Price when Passing option within the Rule dialog. Also try the Scan option, and the # bars since true options. You can also drag the final rule onto the MACD Histogram plot to paint every historical MACD Histogram bar that displayed this behavior. This will make it easier to compare to Price movement above.



We also used a chart with two rules designed to identify stocks whose Price and MACD behavior are divergent. You can download the chart from Julia.blocks.com, and can edit either the Positive MACD Divergence rule or the Negative MACD Divergence rule to view or alter its makeup.

Here's what the chart looks like:



To view the code for either rule, right click, and select Edit RealCode. To write your own divergence rule, choose Add Rule, then Create in RealCode. Provide a name for the rule and within the editor that appears, enter the following code:

```

RealCode™ Editor : MACD Positive Divergence
Indicators/Rules Password Auto-Compile Rule color
1 '# MACD = indicator.MACD
2 '*****
3 '* if Price.Close > Price.Close(1) then Pass *
4 '*****
5 '# Period = userinput.integer = 50
6 If price.Close = price.MinClose(period) And price.Close < price.MinClose(period, period) * 1.01 AndAlso
7   macd.value = macd.minlow(period) and macd.minlow(period) > macd.MinLow(period, period) + .5 Then pass
8
  
```

Remember that for any indicator you're going to refer to in your code, you'll need to create a variable for it using the Indicators/Rules button outlined above. Choose the indicator you'd like to create a variable for, and it will be generated for you. You can make changes to the variable name if you choose to. For instance, the generated name above is 'MACD'. You could change that to a label that makes more sense for you or the application.

Click New Tab and from the list of tabbed items across the top of the charting area in StockFinder; then select Chart. The new chart is tabbed behind the Main Chart. Its shortcut is F2 (or some other Fx key depending on how many other charts you're working with at this point). You can toggle back and forth between the Main Chart and this new chart by hitting F1 or F2. I changed the name of the new tab to Bollinger Setup. Right-click the tab's title and select Rename to do so yourself.

Uptrend, Bottoming Bollinger Example

Within the Bollinger Setup tab, we worked with a few more indicators. In the top pane you see daily Prices, Bollinger Bands, and an overlaid Stochastics plot.

The next pane depicts a Bollinger %b plot, which measures where Price is relative to the distance between the top and bottom Bollinger Bands.

The final pane shows a Linear Regression Slope plot that measures the slope of a 50 day regression line on Price. When the value is greater than zero, Price is in a 50 day uptrend. When the value is less than zero, Price is in a 50 day downtrend.

We created several Rules based on these plots with the goal of creating a BackScan to test our implementation of the Rules. See the following page for description and reproduction instructions.



This was our strategy: What kinds of trades would we have placed if every time Price was in an uptrend and came within ten percent of the bottom Bollinger Band, while Stochastics was oversold we purchased stock and held that stock until its Price climbed half way up the Bollinger Bands?

Here were our Rules:

1. Price close to Bottom Bollinger Band

- Click the %b plot to create this rule. Within the Rule tab of the Edit window, use the drop-down to select Less Than Value. Set the value to 10.
- Select the Paint Price when True box so that you can see on the Chart every time Price was within ten percent of the bottom Bollinger Band. Select OK to close the window.

2. Stochastics is Over-Sold

- Click the Stochastics plot. Select the Rule tab; then select Create New Rule. Set the behavioral drop-down to Less Than Value. Set the value to 20.

3. Linear Regression Slope plot has a value Greater than Zero

- Click the Linear Regression Slope plot to create this rule. Within the Rule tab of the Edit window, use the drop-down to select Greater than Value. Set the Value to 0 within the appropriate field. Select OK to close the window.

4. We created a Combo of Rules 1 and 2 and 3 for use in our BackScan so that all three rules: Rule 1 AND Rule 2 AND Rule 3 had to have been true simultaneously in order for the Rule to be passed. We decided to use this as the basis of our Buy triggers in our BackScan.

- Drag the Price Close to Bottom Bollinger Band rule (from the Chart) and drag it onto the Linear Regression Slope Rule. Select Create New Combo. Use the plus sign to add the Stochastics Over-Sold rule as the final rule for the combination. Provide a name for the Combo in the appropriate field of the Edit window. Select a color for the Rule that is easy for you to see, and select the Scan WatchList, Paint Price when Passing, and Show on Chart boxes. Any items in the current WatchList meeting the combination of the two above Rules receives a Scan Light. Any historical bars of Price History when this combo was met is painted the color of the Rule. Any time historically this combo was met, a small vertical tick mark appears along the bottom of the Price pane. These markings will allow you to easily identify historical examples of when your Rule pattern was relevant.

5. Bollinger %b plot crossing up through a value of 50, indicating that Price is half-way up its Bollinger Band expanse.

- Click the Bollinger %b plot to create this Rule. Within the Rule tab of the Edit window, use the drop-down to select Crossing Up through Value. Set the value to 50 within the appropriate field. A value for this plot that is crossing up through 50 indicates that Price is within ten percent of the top Bollinger Band. Select OK to close the window. We chose to use this as the Exit Rule for our eventual BackScan.

Next, we used these Rules in a BackScan. Click the BackScanner button – located on the Main Menu. Dock the BackScanner window to the right of the Bollinger Setup chart as shown. (Either click and drag the gray Title Bar of the BackScanner window to dock it or right-click the gray Title Bar of the window and select the docking location from the menu that appears.)

To use the rules we created in the BackScan, first drag the Bottoming Bollinger Rule (Combo of Rule 1, 2, and 3) into the BackScanner window and select Buy from the menu that appears. Click the Buy Rule that appears to select when we you want the Buy triggers to be implemented (Open of next bar, Close of trigger bar, etc.).

Do the same for the Bollinger %b Crossing Up Through 50 Rule. This time select Sell when asked how you would like to implement the Rule in BackScanner.

Now you have some choices: You can look at Results for individual stocks under this strategy by choosing the Results selection under the current Stock Symbol name within the left panel of BackScanner. Keep in mind you can spacebar through your list to instantly see what the Results were for the individual stocks.

If you want to see Results on average across the entire WatchList, select Results under the Active WatchList section along the left panel of BackScanner. Any time you make a change to the parameters of your Rules or tweak the BackScan in any way, make sure you select Update within the Active WatchList Results section. This will generate results that reflect the changes you've made.



***Note that there is also a Stochastics plot overlaid with the Price History plot. We did this by adding Stochastics as a plot first. Use the Add Indicator button, then search for the plot if you like. Your other option is to hit the / key on your keyboard then start typing Stochastics to search for the Indicator. Once the selection is made, the Indicator is added in its own pane. We dragged the Stochastics plot (white plot) into the Price pane and selected Overlay from the menu that appeared. We adjusted the opacity of the Stochastics plot by clicking it, and within the Color tab of the edit window, we used the percentage number listed by the color of the plot to adjust opacity.**

We also worked with the pre-built candle patterns within StockFinder during the morning session. We added a new chart in a 10 Minute TimeFrame. Remember, you can use the New Tab option to create a new chart. This image shows our third set of exercises. Discussion and instructions for reproduction follow.



Working with Pre-built Candle Patterns:

We continued working within the same Layout for our next exercise. We created a new Chart within the Layout by selecting the 'New Tab' tab located adjacent to the Main Chart tab. From the menu that appeared, we selected Chart. This created a new Chart tab next to the Main Chart.

Hit Ctrl + 3 to change the timeframe to 10 Minutes. Each bar of Price now displays with 10 Minutes of trading information.

Hit Ctrl + B to toggle the plot style from HLC Bar to Candlesticks.

Add several Candlestick Pattern conditions from the Rule library. Here are the Candlestick Pattern Rules shown on the graphic above (from left to right):

1. Bearish Belt Hold (red)
2. Bullish Harami (yellow)
3. Bullish Kicking (blue)
4. Bullish Doji Star (purple)
5. Bullish Advance Block (pink)
6. Bullish Abandon Baby (orange)

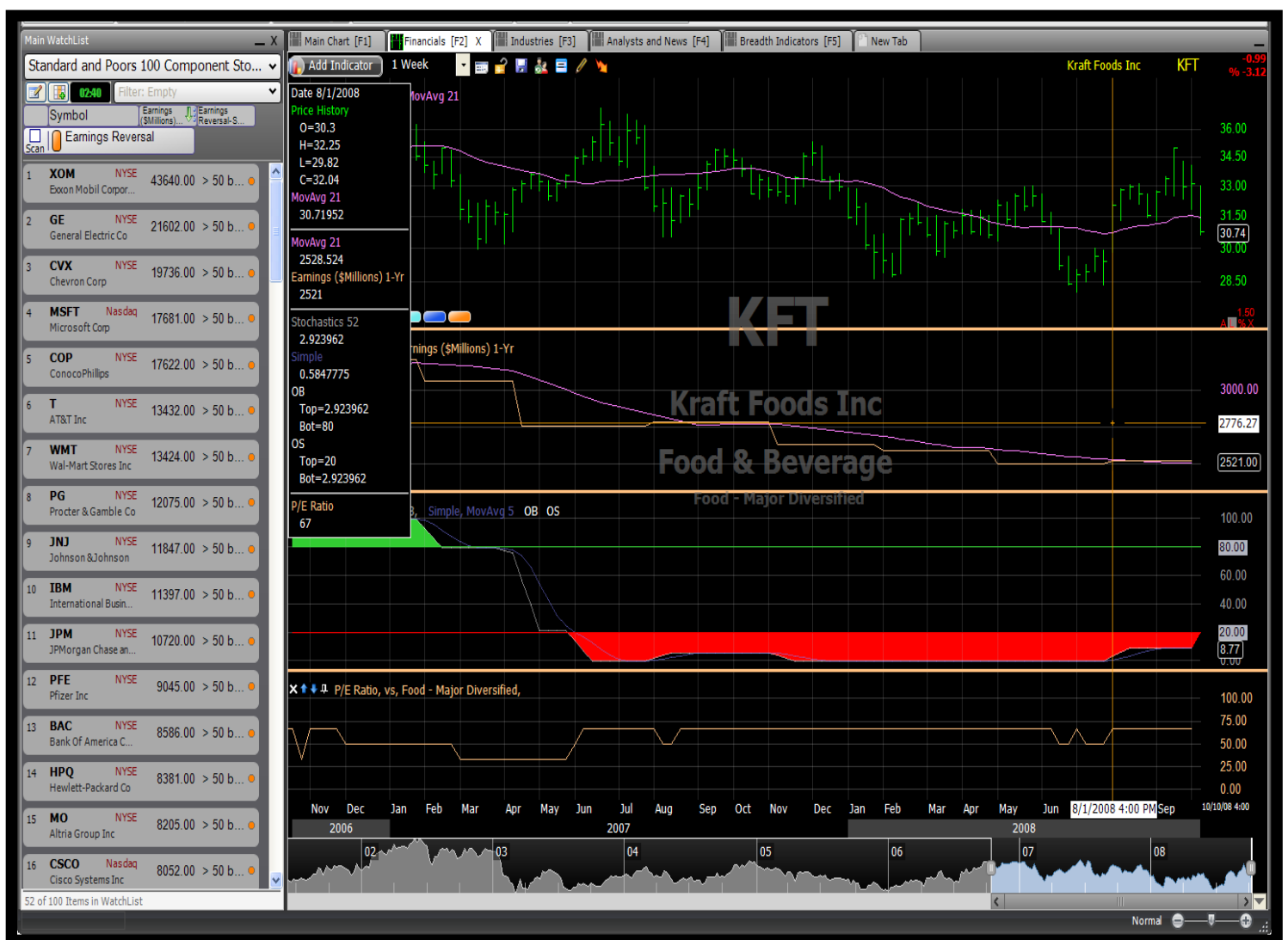
You can add these Rules to your new Chart in one of two ways. First, try using the Add Rule button in the bottom left corner of the Chart. Choose Select from the menu that appears. Then search through the Rule library for the Rule of your choice. Alternatively, hit the / key on your keyboard and begin to type the name of the Rule Candlestick Pattern you're looking for.

Once you've added a Rule, you can do any of the following with it (just like with any other Rule you create):

- Scan WatchList – mark items within a WatchList that are currently finishing this pattern
- Paint Price When Passing – change every Price bar when this pattern has been met to the color of the Rule
- Filter – kick out all of the items in the selected WatchList that are not passing the Rule
- Create a column representing either how recently or how frequently the Rule has been passed historically
- Show on Chart – add markings to the Chart so that you can easily see historical times when the pattern has been met.
- Use alone or in combination with other Rules to create a strategy to be BackScanned – open the BackScanner and implement Rules as Buys and Sells or Shorts and Covers by dragging Rules into the BackScanner

All of the Candle Patterns were added to the Rule library using RealCode. You can select any of the Candle Pattern rules from the Rule library and click it once it's added to the chart. You'll then be able to view or edit the RealCode used to create the pattern's rule. This can be a valuable educational tool or can provide a good starting point for writing a rule of your own.

Next we worked with Morningstar Fundamental Criteria. To create this Chart in StockFinder, select the New tab adjacent to the Main Chart. From the menu that appears, select Chart. To rename the Chart, right-click its tab name and select Rename.



We looked at three specific ways to put Fundamentals to work in StockFinder:

1. Contextualize a company's fundamentals by comparing them to other companies within the same industry group
2. Look for patterns in a company's fundamental reportings
3. Contextualize a company's financials based on their own historically reported values

1. We ranked stocks in our list by their Earnings values and limited our list of stocks based on how their P/E Ratios ranked relative to the other stocks in their Industries. These both took advantage of the ability to work with current values for (any of the) Morningstar Fundamental Criteria

Add an Earnings plot to your chart by hitting the / key on your keyboard and searching for Earnings. Drag the Earnings plot into the WatchList area and select Raw Value from the menu that appears. Now sort by this column value in order to find those stocks with the highest Earnings values.

As an alternative, you could easily create a Rule that asks Earnings to rank in the top of its WatchList. Then you could use that Rule as a Filter so that only those with the highest Earnings values remain in the list.

Now plot Morningstar Criteria Rank vs. Industry. This Indicator is added in its own pane. The default Criteria used is not P/E Ratio, so click the name of the Indicator in the pane and change its Criteria from Sales to P/E Ratio. Remember that this plot shows how the selected stock's P/E Ratio ranks relative to all the other stocks in its sector. Create a Rule using this plot. Click the P/E Ratio plot and within the Rule tab of the edit window, add a Rule. Within the drop-down, select Less than Value and set the value to 25 within the appropriate field. This Rule will require that the P/E Ratio for any stock passing the Rule is within the bottom quarter of its sector for P/E Ratio value. Check the Filter box. The only stocks remaining in the WatchList will be those that have relatively low P/E Ratios within their sectors.

2. We looked for patterns in Fundamental Criteria like an Earnings Reversal

To create a Rule that will identify an Earnings reversal, first create two individual Rules. Then you will use those Rules as the basis of a Sequence of events. The first behavior you are looking for is for Earnings to drop. The second behavior is for Earnings to rise. Our final sequence Rule

will have four events in it. Earnings decreases, then decreases again, then decrease again, and finally increases.

To create the Earnings Moving Down Rule, click the Earnings plot and within the Rule tab of the edit window, select Create Rule. Within the drop-down select Moving Down, and leave the slider set to Quickly. Select OK to close the window.

Do the same for the Earnings Moving Up Rule, but this time select Moving Up Quickly as the parameters of the Rule. Select OK to close the window when finished.

Now create a sequence Rule by dragging the Earnings Moving Down Rule onto the Earnings Moving Up Rule and selecting Create New Sequence from the menu that appears. Within the Sequence edit window, provide a name for the Rule – perhaps Earnings Reversal. Set the Span in Bars to 40, since it would take approximately 40 weeks in order for this series of events to unfold on the Chart. Now drag the Earnings Moving Down Rule into the Sequence edit window twice more so that the events are numbered 1 – 4 and include 1-3 Moving Down and 4 Moving Up. Finally, select a color that is easy for you to see, and check Scan WatchList, Paint Price when Passing, and Show in Chart.

Now use the crosshair (click anywhere in the background of the Chart to activate it) to identify historical examples of Earnings Reversals.

3. Finally, we applied a technical Indicator to Fundamental data to find out more about how current values relate to what those values have been historically

Add a Stochastics plot to the Chart. Begin with the / key on your keyboard. Search for Stochastics. Instead of choosing a general Stochastics plot, choose Stochastics of Indicator. Then select Earnings from the list of Indicators. If you're happy with the Stochastics plot overlaid with Earnings, leave it as is. If you'd like Stochastics in its own pane, right-click the Stochastics plot and select Move to New Pane. Change the parameters of the plot from 12,3,5 to 52, 3, 5. These parameters ensure that the Stochastics will measure where Earnings levels are currently relative to where they've been over the past one year period. When the value is high, Earnings is relatively high. When the value is low, Earnings values are relatively low.



Remember that Telechart includes current values for fundamental data, which makes it super simple to do screen a list of stocks based on its current fundamentals. Try creating EasyScans (using the lightening icon on the main menu) for all of your favorite fundamental criteria. You can screen based on actual values of the fundamental data or rankings as compared to the other stocks in the database in Telechart. This is a great way to limit a list of stocks before you implement your technical analysis routine!

Next we worked with industry analysis. We added a new chart in a Daily TimeFrame. This image shows our industry exercises. Discussion and instructions for reproduction follow.



Identifying Industry Performers in StockFinder

Next we worked with Industries to add a level of context to the stocks we were working with. Begin by creating a new Chart for Industry analysis. Use the New tab to the far right of the tabs across the top of already created Charts.

We began with a top down approach by changing the WatchList from a list of stocks to a list of Sectors. Use the WatchList Picker to search for Morningstar, and select the list titled Morningstar Sub Industry Groups. Now click in the empty space next to the Symbol column in the WatchList area. Select Load Column, then Percent Change. Right-click the column header and select Edit to change the period of the Percent Change value represented. Load three of these columns. Create a 1M, 6M, and 1Y Percent Change column. Each of these can be sorted to find the best performing industries on a short term, intermediate, or longer term basis.

You can then change the WatchList to reflect those stocks that make up the components of some of the best performing sectors in the market.

The other approach we took was bottom-up, which began by choosing a WatchList of stocks. Use the WatchList Picker to choose a list of stocks you'd like to work with as a base.

Plot both Symbol Rank vs. Industry and Industry Rank vs. All Industries on the Chart. Remember that the Symbol Rank vs. Industry plot measures where the selected stock ranks among its sector stocks. It answers the question "How has this stock performed relative to its other sector members over the last month (or two months or six months, etc)?"

To identify the stocks in your list that are among the best in their sectors, create a Rule based on the Symbol Rank vs. Industry plot. Click the plot, and within the Rule tab of the edit window, create a new Rule. Use the drop-down to choose Greater Than Value, and set the value to 80 where appropriate. This will ensure that anything passing the Rule has outperformed at least 80% of the other stocks in its sector over the last 50 days (this assumes that you left the period of your plot set to 50). In the Chart pictured, the settings are 20; therefore a ranking of at least 80 shows that these highlighted stocks have outperformed at least 80% of other sector stocks over the previous 20 days. Select Scan WatchList. Then select OK to close the window.

The Industry Rank vs. All Industries plot measures where the selected stock's sector ranks among all other sectors in the Market. It answers the question "How has this stock's sector performed relative to all the other sectors in the Market over the last month (or two months, or any other time-frame)."

Create a similar Rule here. Click the plot and within the Rule tab, select Create New Rule. Within the drop-down, select Greater Than Value and set the value to 80 where appropriate. Now select Scan WatchList and OK to close the window.

Anything highlighted with both Scan Lights in the WatchList is one of the best performing stocks in its sector and belongs to one of the best performing sectors in the Market.

There are several other Industry related plots available, just use the Add Indicator | Select OR the / method to search for the keyword Industry to find them.



Industry analysis in Telechart is very convenient – remember all of the options pictured here when considering the best way to go about performing industry analysis on a routine basis. Select the Industry information pulldown in the top-right corner of any chart to access its industry options. You can jump directly to a symbol's industry plot, view a list of all of the stocks that share a symbol's grouping, or even take a look at a relative strength plot – minimal clicking required!



We created a new chart to begin working with breadth indicators. We used breadth indicators to analyze the movement of Indices and Exchange Traded Funds. These indicators are awesome, because they rely on information provided by the stocks that make up a basket – which is altogether different than the analysis of the basket asset itself. Discussion and instructions for reproduction follow.

1. First, we used the average behavior of a technical Indicator across a list of stocks in order to extract information about an ETF's component behavior in order to analyze the ETF itself.

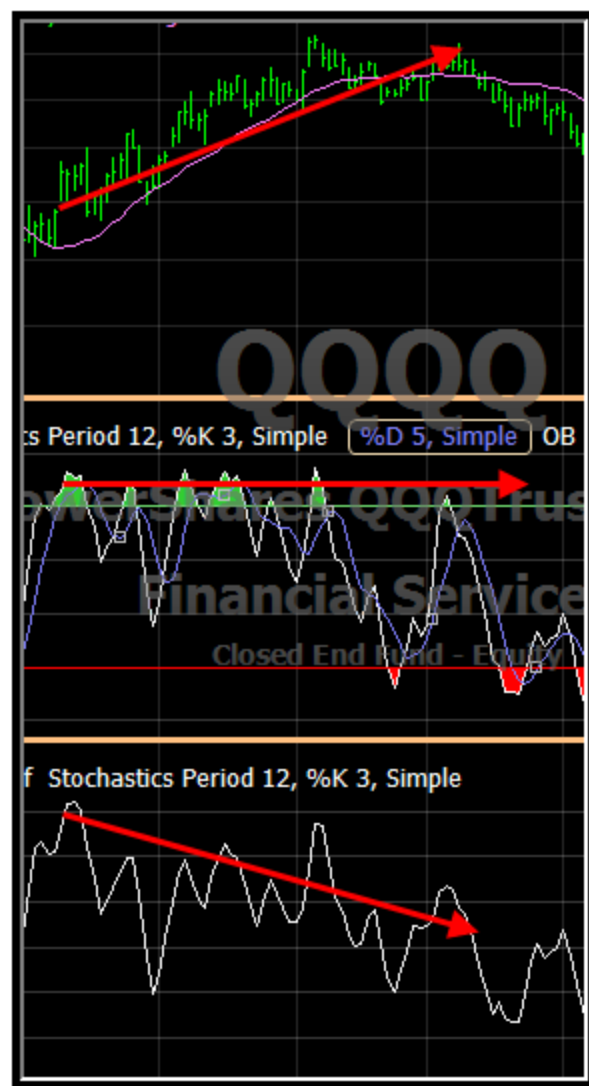
Change the symbol for the chart shown to QQQQ. Just type QQQQ and select it from the list in order to do so.

Next, plot Stochastics on the Chart. Now use the Add Indicator button to select Create Custom Index. Use the Custom Index wizard to create the desired result. Use the Nasdaq 100 stocks as the component list. Choose Average Indicator when prompted. Make sure you calculate for the entire list and for the entire history of the symbol. When finished, note times when Price and the Average Stochastics value across the Nasdaq 100 stocks experienced a divergence.

If you choose to, you can pin the individual Stochastics plot using the pushpin icon in the upper left corner of its pane.

Take a look at the major divergences at market tops and bottoms... pretty cool, right?!

Check out the current chart – what does that say about the recent activity of the stocks that belong to the Nasdaq 100 as compared to the strength we've seen in the QQQQ ETF?



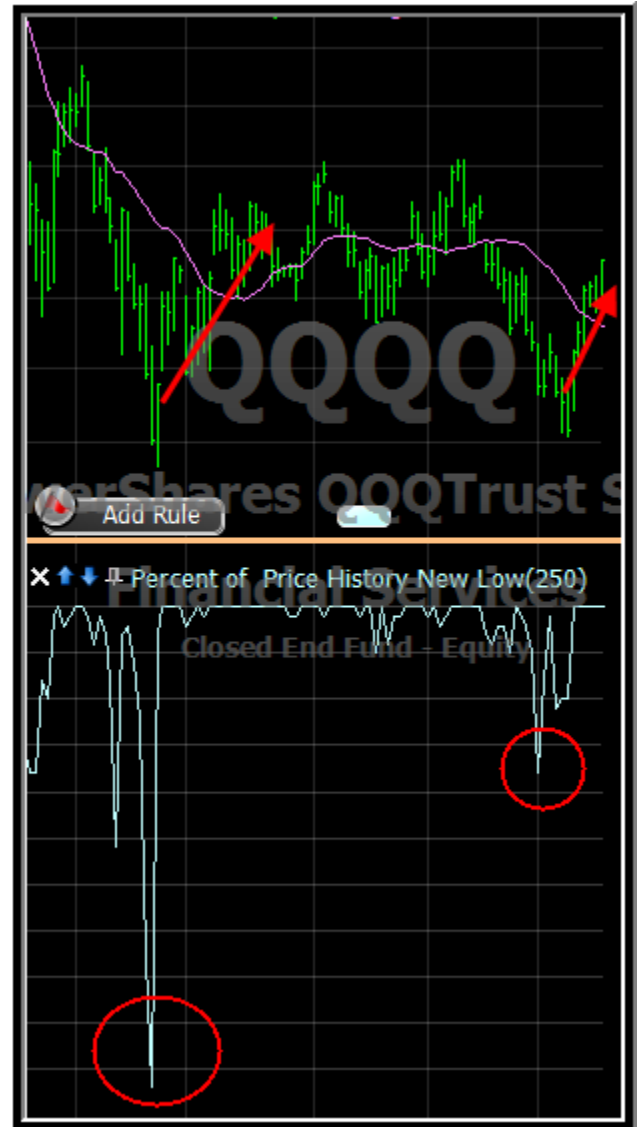
2. Second, we created indicators representing the participation in an activity across the list of stocks making up the ETF being analyzed.

First, create a Rule that requires Price to make a new 250 Day low. Click the Price History plot and select its Rules tab in order to set this rule up. "Making New Low" is one of the behaviors you'll see available in the dropdown for a Price History rule.

Once you've done this, select Add Indicator and then Create Custom Index. This time, when prompted, select Number of Stocks Passing a Rule. Then select the Price Making a New Low Rule. Finally, select Percent Passing the Rule and finish the calculation. The resulting plot can be inverted by left-clicking the scale and selecting Invert Scale.

Spikes in this plot represents multiple stocks in the list making a new one year low on a given day. Note with the crosshair the relationship between spikes in the Custom Index and Price.

Try this for multiple Exchange Traded Funds. Even try it for the major Indices. Branch out from the typical SPY, DIA, and QQQQ lists. For any ETF or Index with lots of components, spikes like this do a great job of spotting SHORT TERM bottoms!



3. We also created an indicator representing the portion of a list of stocks that have Price above their Moving Averages. Jump to SPY for this example.

To create this rule and ultimately a custom index based on it, make sure the Moving Average you see on your Chart is set to a period of 40. Do that by using the edit for the Moving Average plot by clicking it. Then create this Rule. Drag Price onto its Moving Average and from the menu that appears, select Create Rule. Set the parameters to Price Above its Moving Average 40. Select OK to close the window.

Now use the Create Custom Index option within the Add Indicator button. Use the wizard as described above. Use the S&P 500 as the base list, ask for the Number of Stocks Passing a Rule. Select the Price/ Moving Average Rule, and finally select the “Percent Passing the Rule” option. When finished, this plot shows the percent of stocks out of the S&P 500 each day that had Prices above their Moving Averages. Check out divergences at market tops and bottoms. When the SPY is making new highs while the percent of stocks that make up its basket are falling below their Moving Averages, check out what typical Price action for the SPY does as a result.

Apply this same concept to any behavior you’d like to count or any Indicator you’d like to get a feel for across a list of stocks – whether that list is an ETF component list or an Index. We tried creating similar plots using a popular candle pattern. In class, we created a plot that counts the percent of items within a list that all form a Bullish Engulfing pattern on the same day. You’ll be surprised by the results if you create a similar plot!

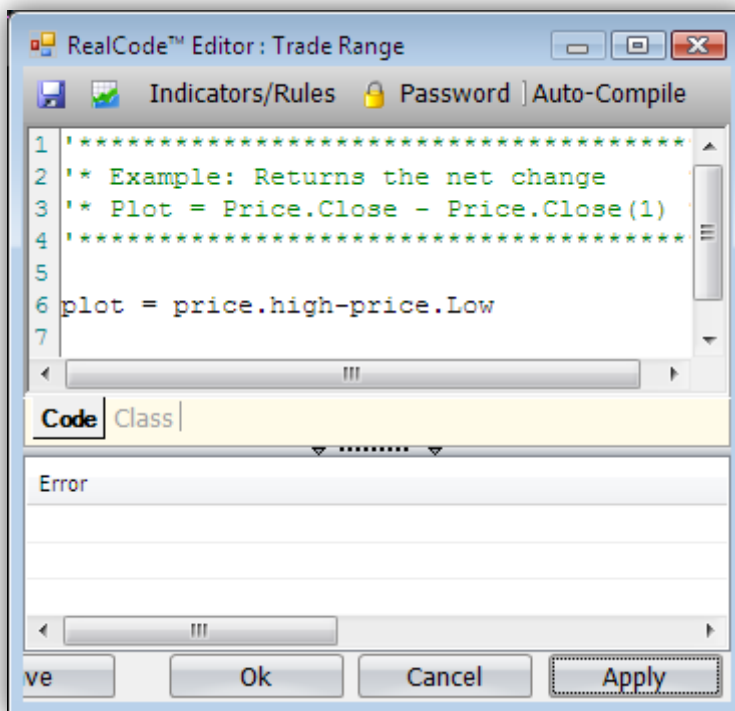


RealCode for Indicators and Rules:

We finished out the day by using RealCode to create an indicator and a rule.

Basic RealCode Indicator:

The RealCode Indicator we created plotted the daily trade range for the active symbol. Select Add Indicator. Then choose Create in RealCode. Provide a name for the indicator when prompted. Within the RealCode editor, type the following:

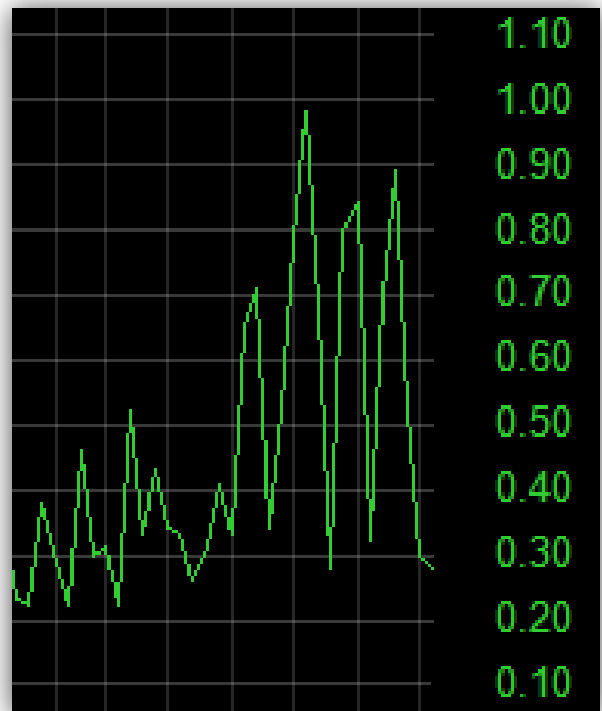


```
1 *****
2 /* Example: Returns the net change
3 /* Plot = Price.Close - Price.Close(1)
4 *****
5
6 plot = price.high-price.Low
7
```

The screenshot shows the RealCode Editor window titled "RealCode™ Editor : Trade Range". The code editor contains the following code:

```
1 *****
2 /* Example: Returns the net change
3 /* Plot = Price.Close - Price.Close(1)
4 *****
5
6 plot = price.high-price.Low
7
```

Below the code editor, there is a "Code" field with "Class" selected, an "Error" field, and buttons for "ve", "Ok", "Cancel", and "Apply".



Select OK. The plot that appears on the chart is a plot of the size of the trade range of the active symbol each day.

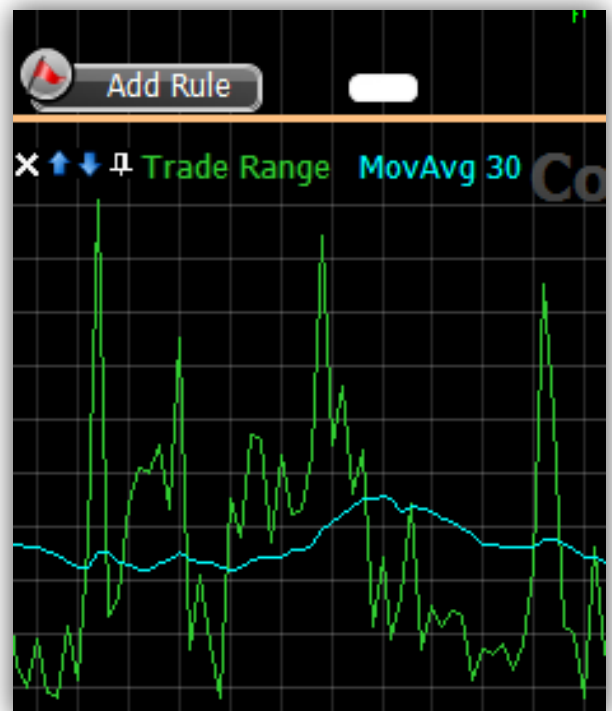
Basic RealCode Rule:

The RealCode rule we created identified stocks that have trade ranges that are at least three times greater than they typically are. In order to create this rule, first add a Moving Average of the Trade Range rule. Hit the '/' key on your keyboard to search for Moving Average. Now select Trade Range so that the Moving Average added to the chart will be the Moving Average of the Trade Range plot.

Select Add Rule. Then choose Create in RealCode. Provide a name for the rule when prompted. You'll need to create variables within the RealCode editor that appears, so that you'll be able to easily identify the Trade Range and Moving Average plots within the code you'll write. Click the Indicators/Rules button to create variables.

Within the RealCode editor, write the following:

```
1 '# MA = indicator.MovingAverage
2 '# TR = indicator.TradeRange
3 '*****
4 '* if Price.Close > Price.Close(1) then Pass
5 '*****
6
7 If tr.value >= ma.value * 3 Then pass
8
9
```



Select OK. The rule should now be on your chart and can be implemented however you choose. In class, since we wanted to find stocks who most frequently fit this profile, we clicked the rule from the chart to open its edit window and marked the option to create a column for the %True in Period. We sorted the WatchList to find those stocks that traded within these parameters most frequently. If you want to change the period of time tested for the column, right-click the column header and select Edit. You can change the period tested there.

There is a ton of useful RealCode information available in the RealCode Reference, which is a pdf doc you can download at www.StockFinder.com within the Essentials section!

We're Here If you Need Us!

Resources:

If you have any questions about these outtakes, please feel free to email me at julia.ormond@worden.com.

Many of you submitted requests for customized setups in class. We worked through many of those together. I've uploaded those Layouts to my blog. Navigate your web browser to Julia.blocks.com to download and begin using them!

If you have general questions about StockFinder or Telechart going forward and need help setting something up, please navigate your web browser to www.Worden.com. Within the **Discussion** tab in its top right corner, select the **Ask a Trainer – StockFinder** or **Ask a Trainer - Telechart** forum (as the case may be). Make sure you are signed in and post your question. We'll get back to you as quickly as possible.

If you have any technical issues with StockFinder, please contact Technical Support. Hours of operation:

Mon - Fri: 9:00 am - 9:00 pm ET
Sat: 9:00 am - 3:00 pm ET
Phone: 919-408-0542
Fax: 919-408-0545

Worden is holding weekly webinars this year. Join us every Tuesday at 8:00ET for half an hour as we discuss the Market and general technical analysis techniques.