

# FTcloud

## Users Manual 2022

v1.5

Investors**FastTrack** 

## Contents

Overview.....	2
Investors FastTrack.....	2
Contact us.....	2
FT Cloud.....	2
Data.....	2
Support.....	2
Getting Started.....	2
Sign In.....	3
Software Layout.....	4
Charting Basics.....	7
Type of Charts.....	7
Layout.....	8
Changing the Chart.....	9
Parameters.....	10
Poles.....	11
Sidebar.....	12
Val Tab.....	12
List.....	12
Charts.....	13
Customize.....	14
Hotkeys.....	15
Date Manipulation.....	15
Change Tickers.....	16
General Hotkeys.....	16
Types of Charts.....	17
Total Return Chart (T).....	19
Price Chart (P).....	20
Moving Average Chart (V).....	21
Adjusted Returns Chart.....	22
AccuTrak Chart (A).....	23
Drawdown Chart (D).....	24
RSI Chart (I).....	26
MACD Chart (M).....	27
Relative Strength Chart (R).....	28

## Overview

### Investors FastTrack

Investors FastTrack is a software and data company owned by its employees. We have a 31 year history of supplying professional grade software and data to investors worldwide.

Since our founding in 1989, FastTrack has been a key to success for thousands of money managers, financial planners, RIAs, plan sponsors and individual investors.

### FT Cloud

FT Cloud has two subscription levels:

#### **FT Cloud**

Used for charting, ranking and analysis of stocks, mutual funds and ETFs.

#### **FT Cloud +**

Includes all features of FT Cloud as well as sophisticated modeling and model optimization tools.

Runs on Windows operating systems.

FT Cloud requires an Internet connection.

### Data

Both FT Cloud subscriptions includes all FastTrack data back to 1988.

Summary data information:

- 17,000 Mutual Funds.
- 1,200+ Market Indexes
- 4,000 Exchange Traded Funds (ETFs).
- 5,000 US Listed Common Stocks and ADRs

All data is end-of-day and [dividend adjusted](#)

### Support

Phone: (866) 295-0166 x3

Web: <http://www.FastTrack.net>

Email: [support@fasttrack.net](mailto:support@fasttrack.net)

## Getting Started

The screenshot shows the FT Cloud login interface. At the top, there is a navigation bar with 'Login', 'Data', 'Spreadsheet/Chart', 'FT Cloud+', and 'Chart - Search - Refresh FNU's'. A 'NEED HELP?' link is in the top right. The main heading is 'FTcloud by Investors FastTrack'. A callout bubble on the left points to the 'Number' and 'Password' input fields, containing the text 'Enter account number password'. Another callout bubble on the right points to the 'Status:' section, which displays 'Success!', containing the text '“Success” indicates you are ready to use FT Cloud'. Below the login form, there are sections for 'Info' (software details), 'Subscription' (with a 'Click to manage subscription' link and an expiration date of 9/18/2020), 'Software Info' (showing 'Current Version: 3.3.0.10b' and a 'Check for Update' button), and 'Advanced Options' (with sub-sections for 'UI Options' and 'Calculation Options').

## Sign In

- Enter your account number and password under “My Account”
- Click the Login button to sign in

**Need an account?**

Get a Free Trial at: <https://ftcloud.fasttrack.net/web/newuser>

## Software Layout

FT Cloud is organized into 4 main “Navigation Tabs” located in the upper left launch screen

- Login
- Data
- Spreadsheet/Chart
- FT Cloud+

The screenshot shows the FT Cloud web application interface. At the top, there are navigation tabs: Login, Data, Spreadsheet/Chart, and FT Cloud+. A 'Quick Links' box is also present. The main content area includes a 'My Account' section with a login form (Account Number: 123456, Password: masked, Save Account and Password checked, Forgot password? link, Login button). A 'Status:' section shows a green 'Success!' message. A 'Subscription:' section has a link to 'Click to manage subscription.' and an 'Expiration: 9/18/2020' date. An 'Info:' section provides contact information for Investors FastTrack. A 'Software Info:' section shows the current version (3.4.0.2) and a 'Check for Update' button. An 'Advanced Options:' section is divided into 'UI Options' (Chart Line Width: 1.7, Compare Options: Show ann on flags checked, Sort detail by value checked, Internet Options: Optimize for slower internet connections unchecked) and 'Calculation Options' (Global Margin Rate: 3.00%, Model Sell Threshold: 3.00%, Correlation Length: 10, Match FT4Web unchecked, Use Simple Moving Averages unchecked). A 'NEED HELP?' link is in the top right.

**Navigation Tabs**

**Quick Links**

**My Account**

Account Number: 123456  
 Password: .....  
 Save Account and Password  
[Forgot password?](#)

**Status:**

**Success!**

**Subscription:**

[Click to manage subscription.](#)  
 Expiration: 9/18/2020

**Info:**

This software was designed by Investors FastTrack. For questions or support contact us at (866) 295-0166 ex 3 or email us at FTcloud@FastTrack.net

**Software Info:**

Current Version: 3.4.0.2   
[Version History](#)

**Advanced Options:**

**UI Options**

Chart Line Width: 1.7  
 Compare Options:  
 Show ann on flags  
 Sort detail by value  
 Internet Options:  
 Optimize for slower internet connections

**Calculation Options**

Global Margin Rate: 3.00% (?)  
 Model Sell Threshold: 3.00% (?)  
 Correlation Length: 10 (?)  
 Match FT4Web (?)  
 Use Simple Moving Averages

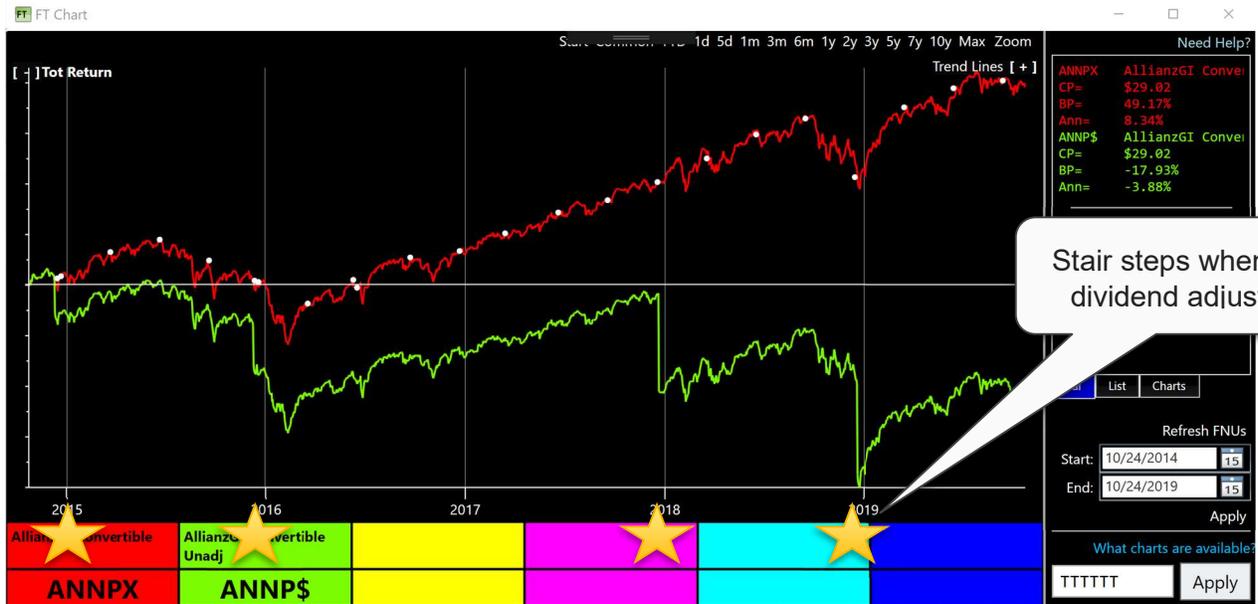
**Launch subscription website to edit subscription details**

**“Software Info” will turn green when new software update is available**

### Dividend Adjusting

All data in FT Cloud is dividend adjusted, that means the data is presented as if the dividends were reinvested they day they were issued.

### Why It's Important



The above chart of ANNPX is a great example of adjusted vs unadjusted data.

The red line is adjusted data. The green line is the unadjusted data.

This fund pays a large dividend at the end of each year. When a dividend is paid, the NAV (closing price) is reduced by that amount.

Without dividend adjustments, large “stair steps” are shown in the chart. See the green line on 12/11/14, 12/10/15, 12/21/17, and 12/20/18 (indicated with yellow stars).

Impact on Statistics



The chart above shows three lines

- 1) ANCMX – ALLIANZGI Convertible Fund
- 2) List Avg of Convertible family
- 3) ANCM\$ – Unadjusted ALLIANZGI Convertible Fund

As a proxy for an index, we’ve put “LIST AVG” in the green color cell. This displays a monthly rebalanced equal weight average of the ticker in the list. In the chart above, the convertible’s family is loaded in the list. [Learn more about chart average here.](#)

So, the zoomed in view of the stats panel shows the importance of dividend adjusted data.

The unadjusted yellow line shows an annualized return of -3.88%, while in fact, the real annualized return including dividends is 8.30%!

That difference applies to all metrics in the stats panel.

Dividend adjusted data is critical to any historical analysis.

## Charting Basics

### Type of Charts

Review the available charts and familiarize yourself with the “code” column.

This is very important to the next steps of the guide.

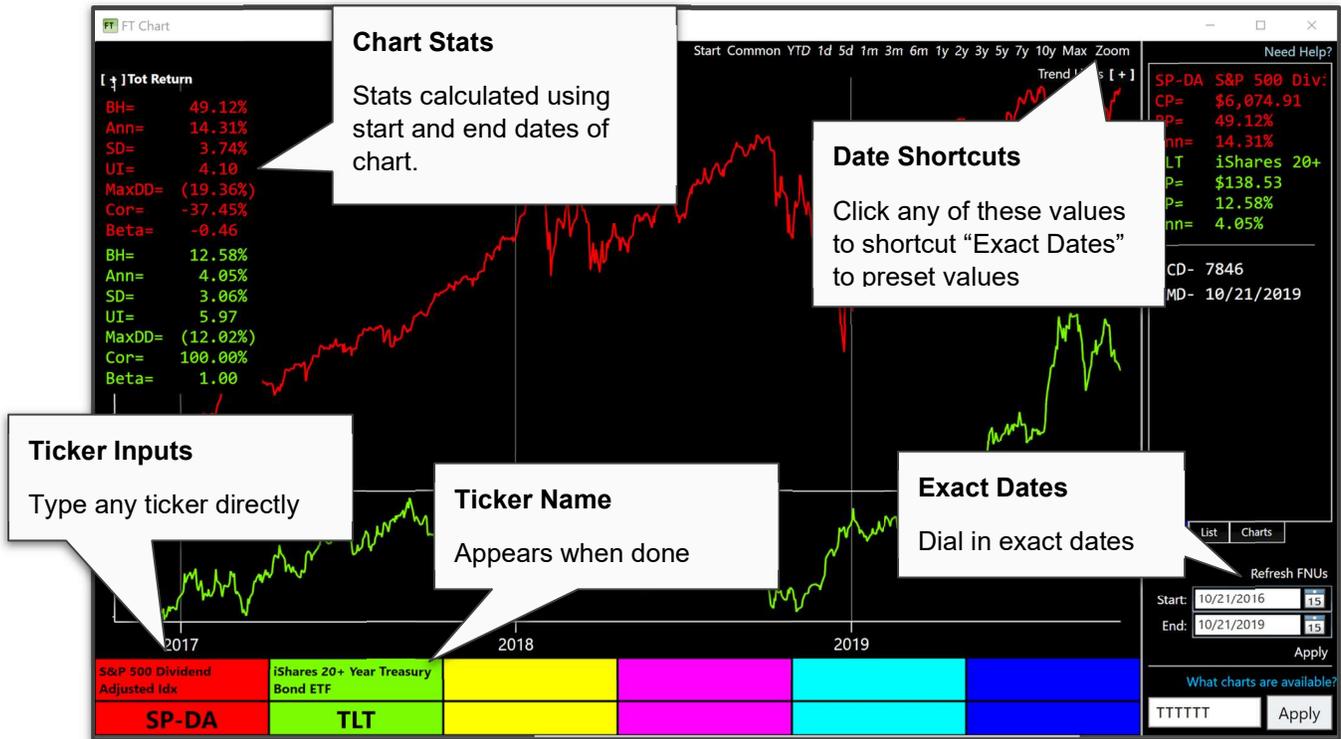
Chart	Code	Description
AccuTrak	A	A momentum indicator based on the relative price performance of the red and green color cells
Bollinger Bands	B	Envelope filter for analyzing trading ranges
DrawDown	D	Displays draw over a time span
RSI	I	Displays Wilder’s Relative Strength Index for the red color cell
Adjusted Return	J	Displays the composite return of switching between the red and green color cells based on signals generated by another chart
MACD	M	Moving Average Convergence/Divergence momentum indicator for the red color cell
Price	P	Displays the total % return of the issue in the red color cell, plus one or two moving averages
Relative Strength	R	Displays the relative strength of the red line vs. the green line
Stochastics	S	Stochastics is a technical indicator developed by George Lane
Total Return	T	Displays the total % return, including dividends, of 2 to 6 equity lines
Moving Average	V	Plots the difference between the price line for the red color cell and its moving average

### Hot Tip

Click the “Chart” quicklink to access the chart from any page of FT Cloud.2



Layout



The above illustration shows only the Total Return chart, TTTTTC.

This is the default chart for FT Cloud and by far the most popular chart.

Learn more about the [T Chart here](#).

**Hot Tip**

Control the thickness of the chart lines on the "Advanced Option" tile on the Login Tab.

Advanced Options:

<p><b>UI Options</b></p> <p>Chart Line Width: 1.7</p> <p>Compare Options</p> <ul style="list-style-type: none"> <li><input checked="" type="checkbox"/> Show ann on flags</li> <li><input checked="" type="checkbox"/> Sort detail by value</li> </ul> <p>Internet Options</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Optimize for slower internet connections</li> </ul> <p>Open executable location</p>	<p><b>Calculation Options</b></p> <p>Global Margin Rate: 3.00% (?)</p> <p>Model Sell Threshold: 3.00% (?)</p> <p>Correlation Length: 10 (?)</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Match FT4Web (?)</li> <li><input type="checkbox"/> Use Simple Moving Averages</li> <li><input type="checkbox"/> Only Month End</li> <li><input type="checkbox"/> White Background</li> </ul> <p>Reset Data Cache</p> <p>10/24/19 16:16:38</p>
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## Changing the Chart

The FT Chart is divided into six horizontal zones. Each zone can show a chart or a single chart can occupy multiple contiguous zones.

Use the “Display Input” in the lower right to apply different layouts to the chart.

The chart below shows

**TTPPJJ**

Which results in:

2 zones of Total Return Charts

2 zones of Price Chart

2 zones of Adjusted Return Chart

**Hot Tip**

Use the hotkey “D” to display the “chart display input” window



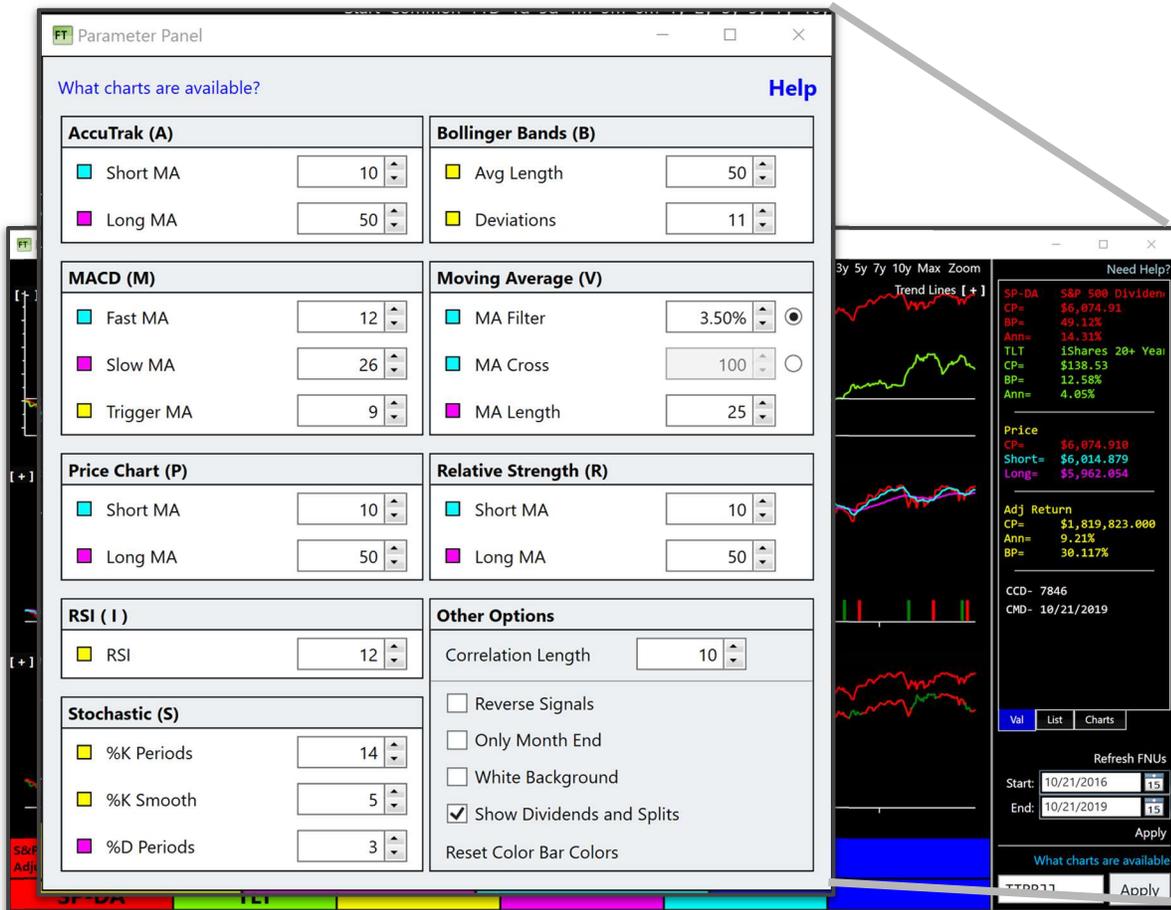
Chart Zones

- 1
- 2
- 3
- 4
- 5
- 6

Right click ticker name to display various features, including changing ticker color

Chart Display Input

Parameters



Each of the technical analysis charts takes a variety of parameters.

All charting and technical parameters are controlled via the “parameters panel”.

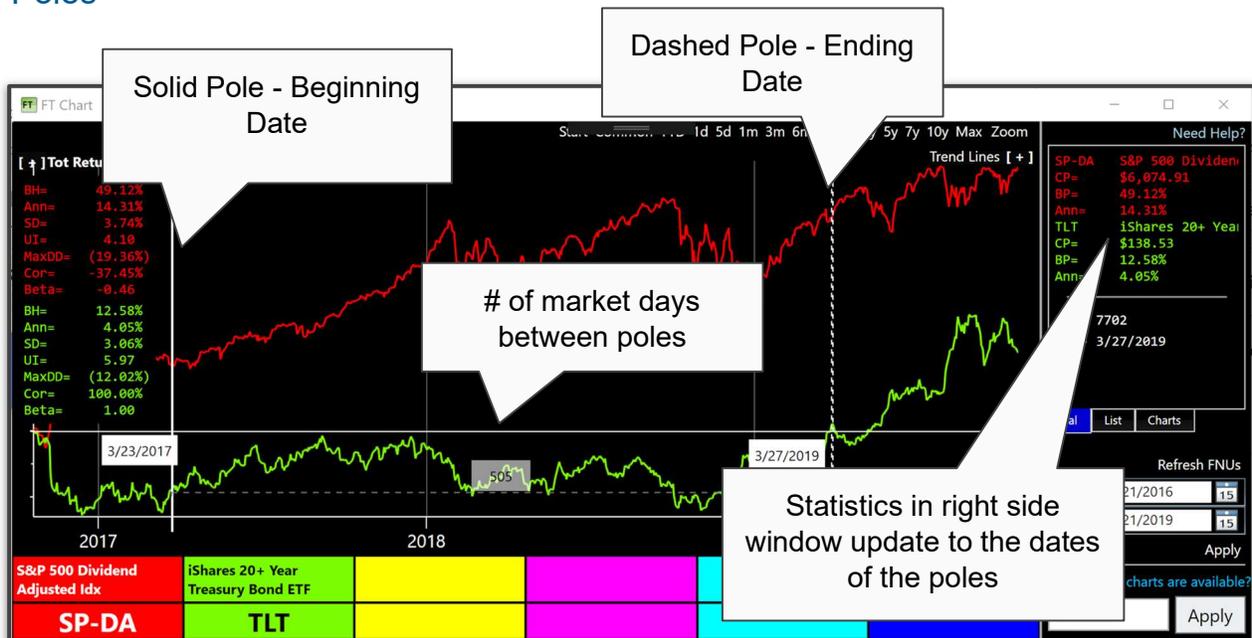
- Right click any chart and select “parameters” to display
- The “U” hotkey will also display the “parameters panel”

Additionally, the “other options” tile shows an assortment of global parameters for the chart.

**Hot Tip**

Check out all the hotkeys on the [hotkeys page](#)

Poles



The FT Cloud Chart has two “statistic poles” to define a custom time period on the chart.

- The solid pole defines the first date of the range
- The dashed pole defines the last date of the range

The stat poles are manipulated with the mouse or keyboard arrow keys.

**Mouse - Click and Drag**

1. Click and hold the left mouse button to create solid pole
2. Continue to hold left mouse button and “drag” or move the mouse
3. Click again to remove the poles

**Keyboard**

1. Use left and right arrow keys to position dashed pole
2. Press down arrow to plant solid pole
3. Move left and right to continue changing dashed pole
4. Press up arrow to remove solid pole

### Sidebar

The chart sidebar shows various statistics about the tickers and charts displayed.

The Chart's side bar has three sub tabs **Val**, **List** and **Chart**.

### Val Tab

The Val Tab, or Value Tab, displays the statistics for the charts and tickers displayed.

All stats are shown for the dates between the poles.

If no poles are planted, the value tab shows stats for entire date range.

If only the dashed pole is shown, then the date range is the first date of the chart to the dashed pole date.

T Chart Stats:

- CP = Current Price
- BP = Total Return Between Poles
- Ann = Ann Return Between Poles

All charts Display:

- CCD = Current Calendar Day
- CMD = Current Market Day

### List Tab

The list displays rows of tickers and names.

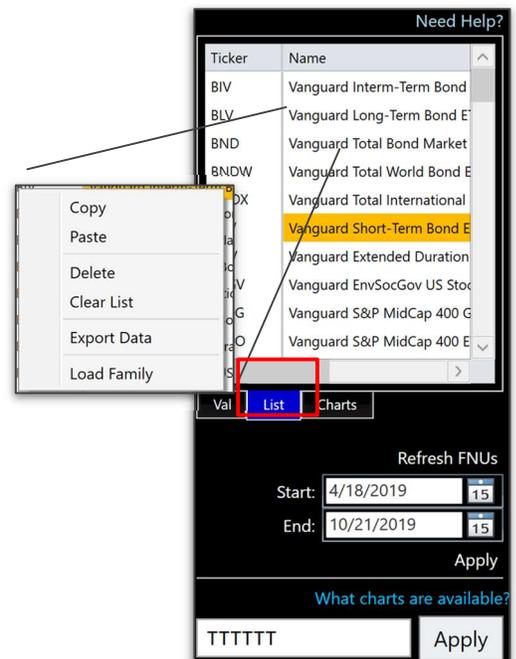
Selecting a row in the list changes the red color cell to the selected row's ticker symbol.

Alternatively, you can use the [hotkey](#) CTRL + Up/Down arrow to navigate the list rows (and change the red color cell) when the list tab is not shown.

Each time you launch the chart by clicking the "chart" button on the spreadsheet, the list is filled with the tickers (in order) that appear on the spreadsheet.

Right click the list. Select "Load Family" to load a specific family in the list.

Alternatively, you can use the [hotkey](#), "M", to display a "Load Family" dialog and load a family to the list.



### Popular Exercise

The list is a great tool for visually working a list of securities.

- 1) Load a junk bond family to the list
- 2) Add the ML High Yield Index (MLHY-) to the green color cell
- 3) Use the hotkeys CTRL + UP/Down arrow to visually compare your list components to the index

### Charts Tab

The Chart Tab displays all previously saved screen layouts.

All chart data is saved:

- Tickers
- Ticker colors
- Background color
- Screen layout
- Parameter values
- Start date (end date defaults to most recent date)

To save a chart:

- Right click any chart and select “Save Chart”
- Right click the “Charts” list and select “Save Chart”

To load a chart:

- Select the chart from the “Charts” list
- Right click any chart and select “Load Chart” and select the chart to load

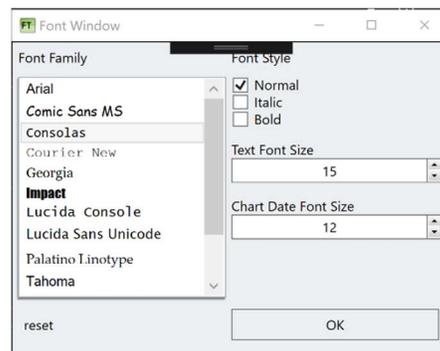


### Font Size

Right click any chart and select “Font” to display the chart’s font options.

All fonts share the same selected font family.

Dates and other text have differing sizes.



## Customize

FT Cloud has a variety of ways to customize the chart.

Feature	Location
White Background	Parameters Panel >> Other Options Tile
Month End Data Only	Parameters Panel >> Other Options Tile
Show/Hide Dividends	Parameters Panel >> Other Options Tile
Reset Chart	Parameters Panel >> Other Options Tile
Correlation Length	Parameters Panel >> Other Options Tile
Hide Sidebar	Chart >> Right Click >> "Hide Sidebar"
Change Font	Chart >> Right Click >> "Font"
Ticker Line Color	Chart >> Right Click Ticker Name >> "Change Color"
Line Weight	Login >> Advanced Option Tile >> "Chart Line Width"
Change Stat Pole Date Position	Plant Poles on Chart, grab date and move up/down
Save FNU	Chart >> Right Click Ticker Name >> "Save as FNU"
Save FNU - No Dividend	Chart >> Right Click Ticker Name >> "Save as FNU - No Div"

## Hotkeys

## Date Manipulation

Key	Action
1	One Month
2	Two Months
3	Three Months
6	Six Months
9	Nine Months
O	One Year
H	Three Years
V	Five Years
E	Seven Years
0	Ten Years
A	Max Date Range
Z	Zoom between poles
SHIFT + [	Back one day
SHIFT + ]	Forward one day
SHIFT + <	Back one month
SHIFT + >	Forward one month
CTRL + <	Back one year
CTRL + >	Forward one year
SHIFT + Home	Move pole to first date
SHIFT + End	Move pole to last date

Change Tickers

Key	Action
R	change RED color bar ticker
G	change GREEN color bar ticker
Y	change YELLOW color bar ticker
M	change MAGENTA color bar ticker
C	change CYAN color bar ticker
B	change BLUE color bar ticker

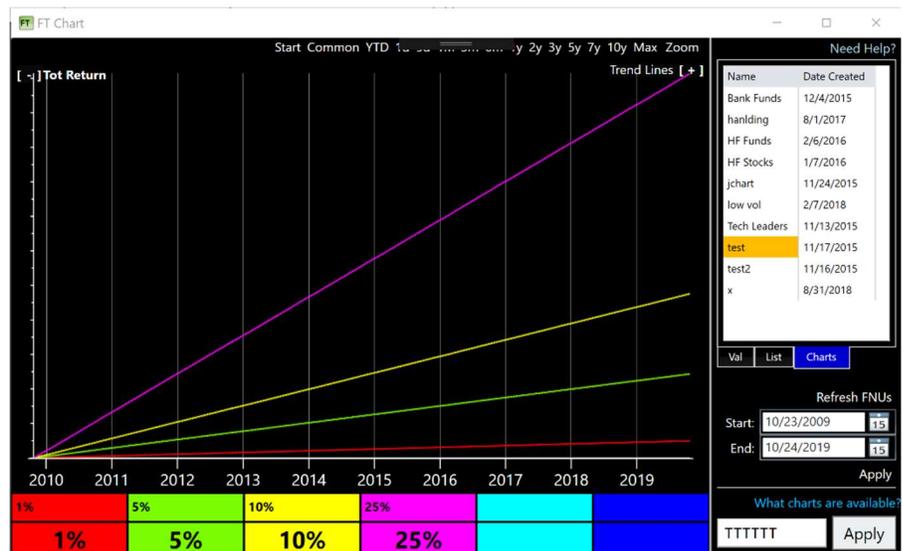
General Hotkeys

Key	Action
D	Open chart display panel (to change chart layout)
U	Open parameters panel
M	Search and Load family to list
W	Bring cursor to start date
Shift + 1	Save J Chart composite line as FNU
CTRL + Up/Down Arrow	Move up and down a row on the "list" sub tab. The red color cell will show ticker of selected row
F5	Refresh entire chart

Constant Rate of Return

Enter any number followed by a "%" and a constant rate of return will show for that ticker.

FT Cloud charts are all semi-logarithmic charts, so constant rates of return appear as a straight line.



### Averages

The chart has two special codes to use in the color bar.

#### LIST AVG



It is often helpful to take an average of like kind securities then compare each component of the average to the average.

Enter “LIST AVG” into any color cell and FT Cloud will create an equal weight static model of all components in the list. [Read more about the list here.](#)

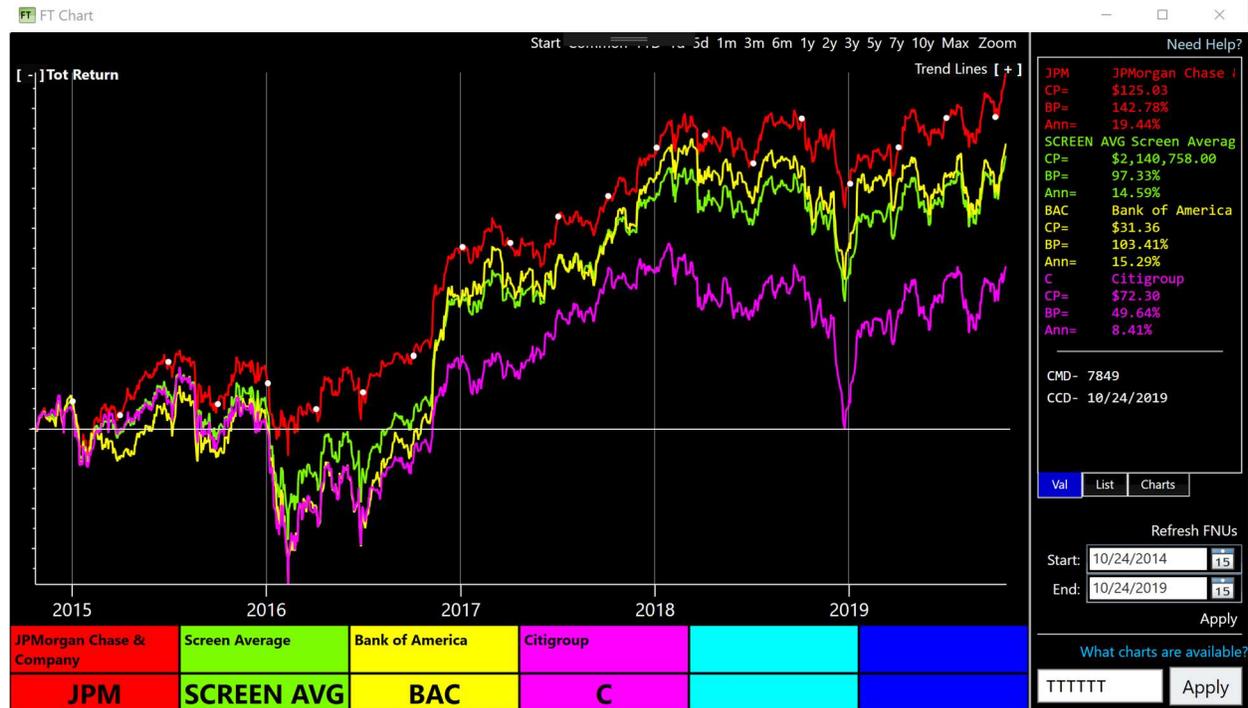
In the picture above, the “CONVERTIBLE” family is loaded in the list. The green color cell is an average of the family in the list (“LIST AVG.”) [Learn how to load a family to the list.](#)

### Hot Tip

A common task among FastTrackers is to:

Create a Family average (“FAM AVG”). then start a relative analysis (by scrolling through the list) of each family component to the average. This is a time tested method to find outperformers in a family.

### SCREEN AVG



Screen average is similar to LIST AVG, but only averages the tickers in the color cells.

In the example above, the green line shows an equal weight average of JPM, BAC, and C.

#### Additional Details

The screen average only includes NON AVERGE tickers in the color cells. In the illustration above, adding "SCREEN AVG" to the blue color well will produce the same result as the green line (the green line will not be averaged into the blue screen average).

If this is desired

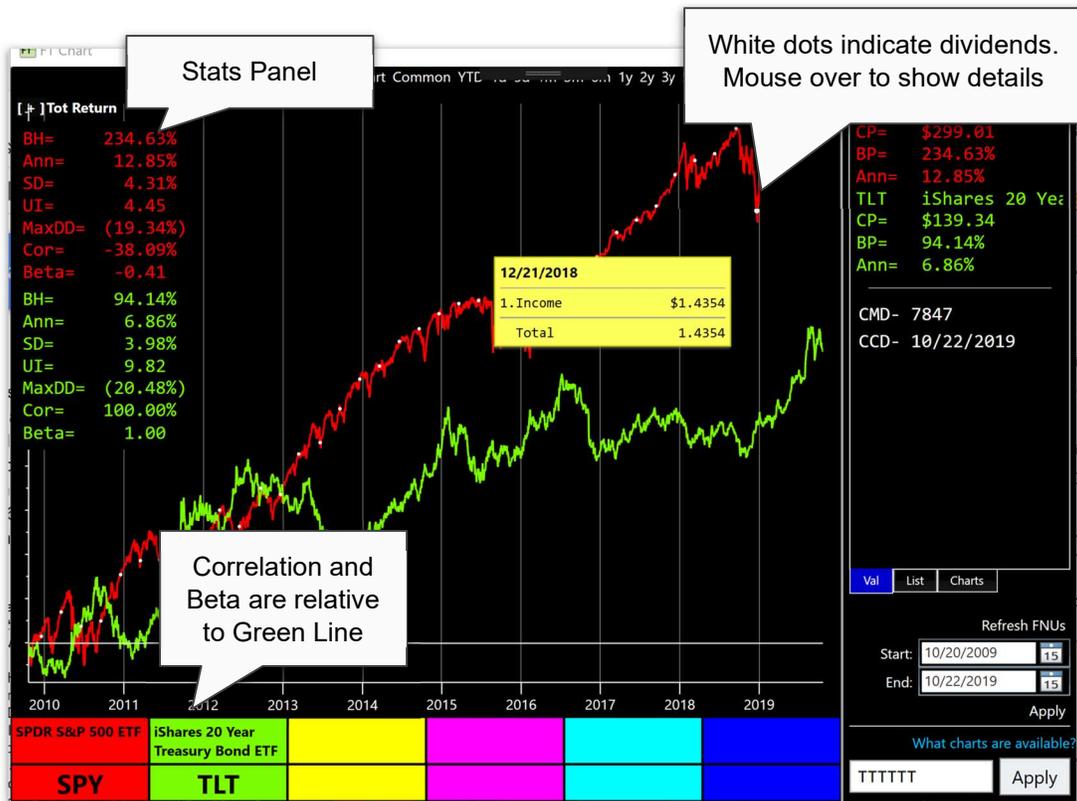
- 1) Right click the green color cell and convert the SCREEN AVG into an FNU
- 2) Recalculate the screen average by selecting the color cell with "SCREEN AVG" and pressing enter

#### Hot Tip

FNU's are custom tickers available only to your account. You can supplement the FastTrack database with your own data or create average, models, etc and view them in FT Cloud. [Read more about FNU's here](#)

## Types of Charts

### Total Return Chart (T)



- Displays the daily percentage price change of a securities
- All data is dividend adjusted, ie, includes the reinvestment of dividends and other distributions
- 1-6 symbols can be displayed at a time
- There are no parameters

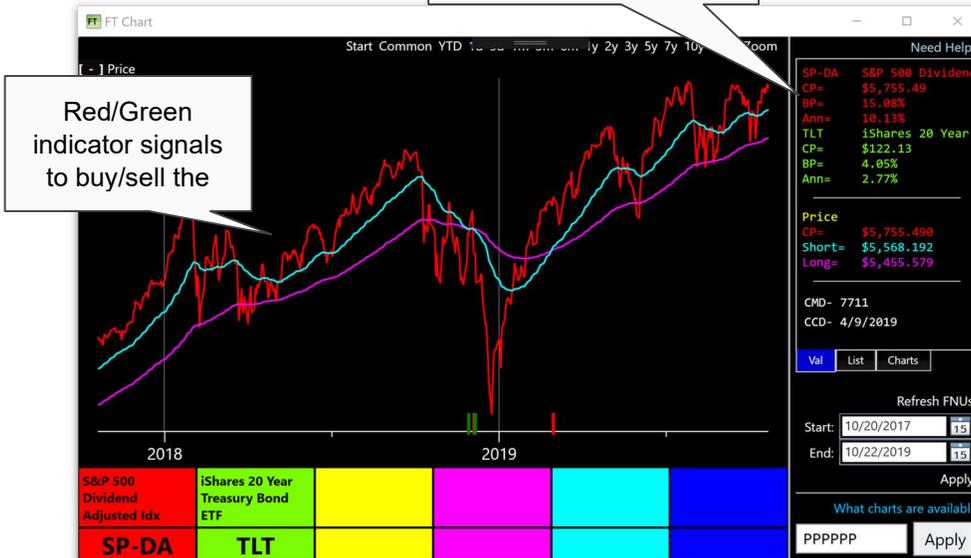
#### Stats Panel

All values calculated from the start date of the chart to the end date. (poles do not impact calculations)

- BH = Buy and hold total return
- Ann = Buy and hold return - Annualized
- SD= Monthly standard deviation
- UI = Ulcer Index (measure of downside volatility)
- MaxDD = Maximum Drawdown
- Cor = Correlation to the green line
- Beta = Volatility, relative to the green line

Price Chart (P)

The sidebar displays the value of each line on the dashed pole date



**Commentary**

When the short-average is above the long average, the issue is in an uptrend and should continue to be held.

When the short-average, is below the long average, the issue is in a downtrend and should be avoided.

The P Chart is a moving average chart used to analyze long and short term momentum/trends.

Three lines are displayed:

- Red - total return line of the red Color Cell
- Cyan - short moving average of red line
- Purple - long moving average of red line

The short moving average represents a smoothed price line.

The long moving average is an indicator of overall trend.

Crossovers of two moving averages indicates a change in trend and produces a trade signal.

All moving averages in FT Cloud are exponential moving averages, by default.

Simple moving averages are available by checking the checkbox on the “use simple moving averages” on the “advanced options” tile on the “Login” Tab.

**Stats Panel Definitions**

- Cyan number - length of short moving average/filter
- Purple number - length of long moving average
- Ra = Total return when trading on the indicators
- Rsk = percentage of days signals are in a buy signal
- S/Y= annualized number of trades
- SD = Standard deviation of the red line

**Hot Tip**

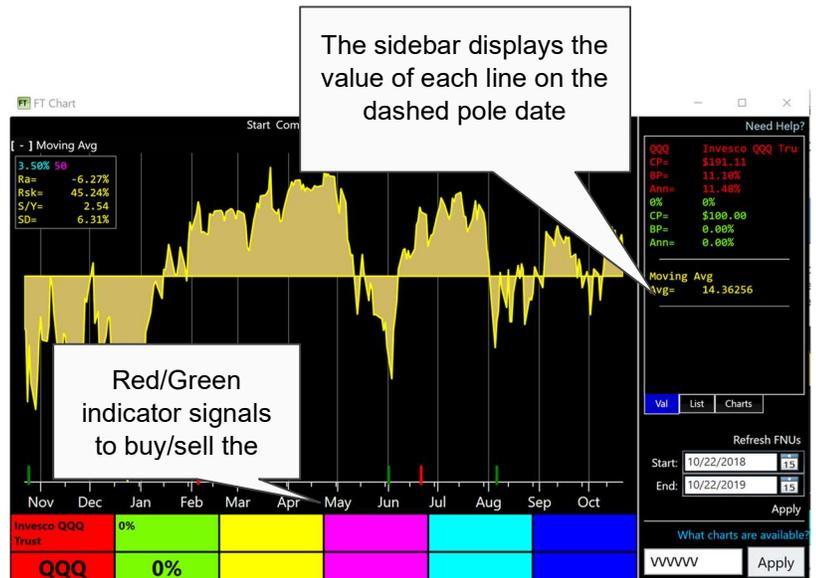
Enter a 1 for the short MA to display a single moving average on the chart.

This generates a signals when the red line closing price crosses the moving average.

### Moving Average Chart (V)

This chart is very similar to the P chart.

- The V chart histogram plots the difference between the red symbol's price and its moving average
- A positive value indicates the price is above the moving average. A negative value indicates that price is below the moving average
- The histogram crosses the center line when the price line and the moving average cross
- Filter - The filter setting requires the moving average to cross over the price line by a specified percentage before generating a signal. As a result, a filter reduces the number of signals especially during trendless periods



#### Parameters

- MA smooth length – This is the master MA which we will apply a crossing MA or a filter
- MA Cross length – when checked, a signal occurs where the MA Smooth crosses the MA Cross
- MA filter percentage – when checked, a signal occurs where the red line moves above or below the average by the specified percentage

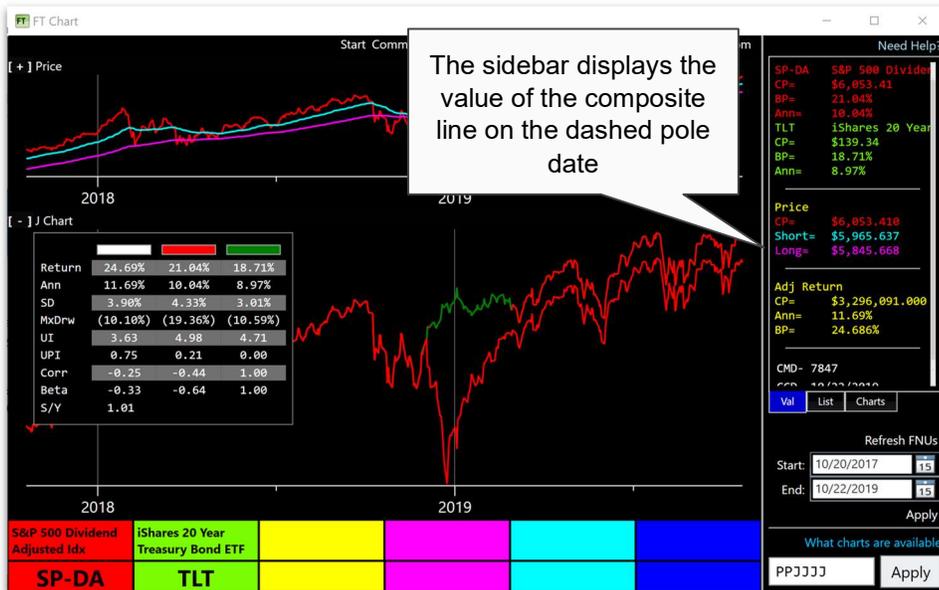
#### Stats Panel

- Cyan number - length of short moving average/filter
- Purple number - length of long moving average
- Ra = Total return when trading on the indicators
- Rsk = percentage of days signals are in a buy signal
- S/Y= annualized number of trades
- SD = Standard deviation of the red line

#### Hot Tip

- Filter values between .01% – 1% are useful. Filter values between 10% – 100% have no practical value and may produce strange results.
- A filter value of .5% means that the V chart does NOT give a signal until the difference between the moving average and the red line is more than 0.5%. This frequently happens and is useful in removing whipsaws during trendless periods.

### Adjusted Returns Chart (J)



#### Why use this Chart?

The J Chart makes it easy to review the success of a trading strategy. When used with the funds and a single day delay, the charts show exactly what a real investor would make.

The J Chart is used in selection strategies in which the assets stay fully invested in the lines visible on the T Chart.

This chart displays the results of switching between the red and green symbols with a one day trading delay. The results are shown as a composite red and green line.

The signals generated by the chart directly above the J Chart are used as buy and sell signals in the J Chart.

J Chart is NOT a technical indicator chart.

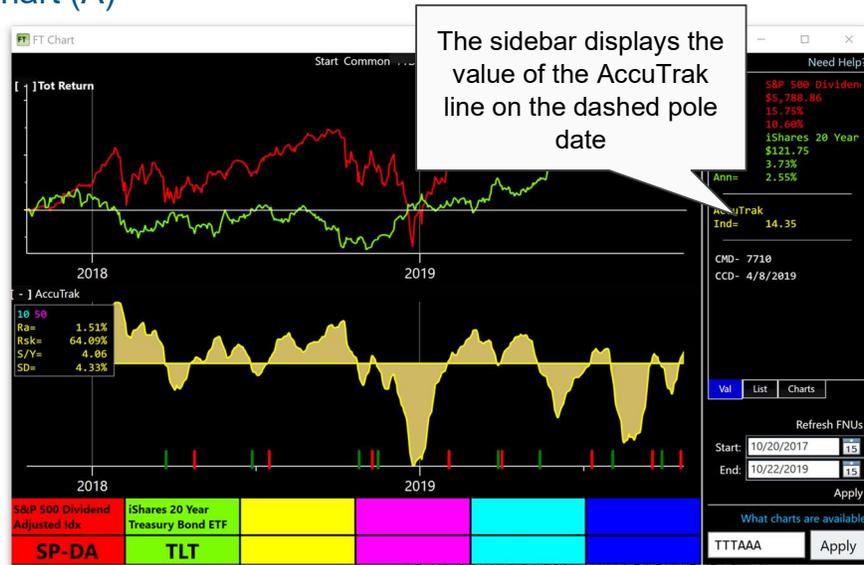
The J Chart does not create buy/sell signals and there are no parameters to set.

Reverse the signals via the “Reverse Signals” checkbox on the “parameters window”.

#### Stats Panel

- Displays comparison stats of Composite line (white), red, and green
- S/Y= annualized number of trades

### AccuTrak Chart (A)



- Accutrak is a trend following indicator based on the price momentum of two funds
- As the price momentum of the red line changes relative to the green line, signals are generated
- When AccuTrack is positive and rising (bars increasing in height above zero with time), the red line is showing more strength than the green line and is likely to continue to do so for some time
- The converse applies when AccuTrack is negative and falling
- There are times when AccuTrack is neutral. These periods have no bars. Generally, you neither buy nor sell in neutral periods

#### Hot Tip

AccuTrack, like all trend-following indicators, is useless when the market moves sideways trendlessly. AccuTrack is especially unsuitable when both the red and green lines are in downtrends.

Specifically, Accutrak was designed for pairs trading between funds that are not highly correlated: US vs. International, Oil vs. Transportation, Consumer Discretionary vs. Consumer Staples, etc.

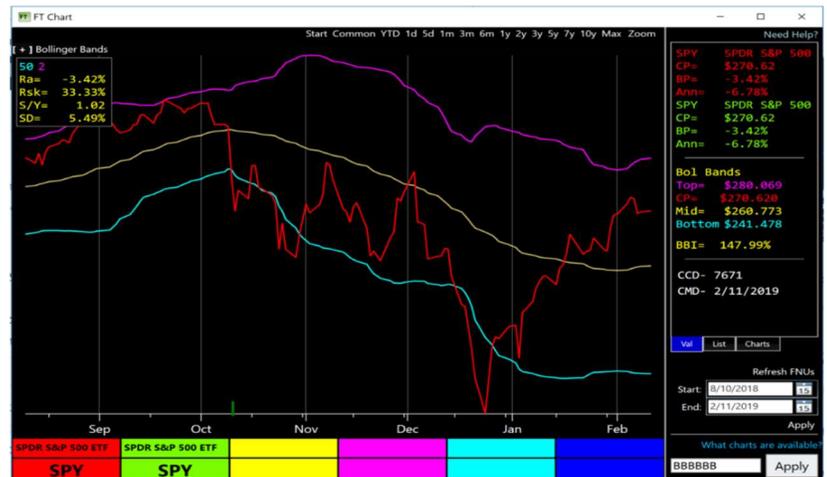
## Bollinger Bands (B)

Bollinger Bands are upper and lower “envelope” lines plotted at standard deviation levels above and below a moving average. They predict the trading range of the red line.

### Parameters

Bollinger Bands have two adjustable parameters

- P (period of the Exponential Moving Average)
- D (the number of Standard Deviations to shift the upper and lower bands)
- P governs the smoothing of the center line. D controls the width of the upper and lower bands. Narrower bands produce more signals



Bollinger recommends using 20 for the number of periods in the moving average and using 2 standard deviations.

Bollinger also notes that moving averages of less than 10 do not work very well.

### Application

Since standard deviation is a measure of volatility, the bands are self-adjusting, widening during volatile markets and contracting during calmer periods.

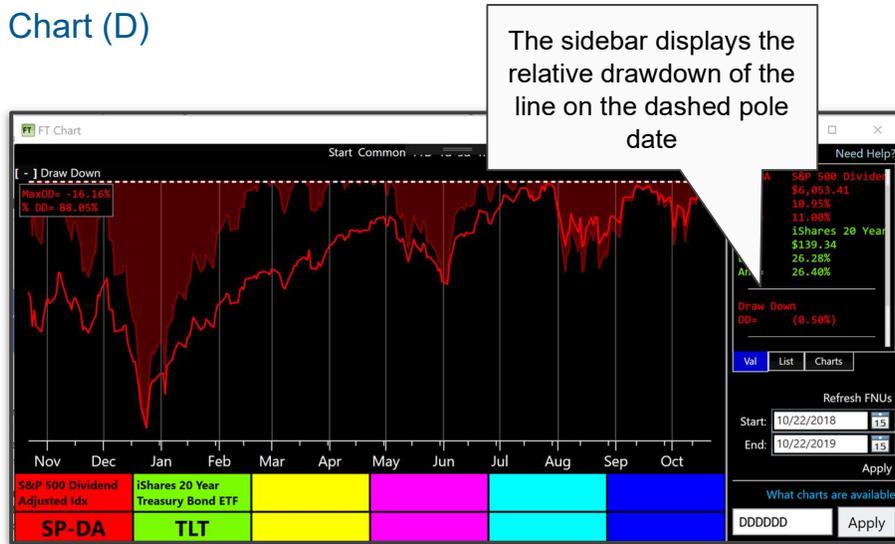
The purple line is the upper band and cyan line is the lower band. These provide a trading range for the red line price. The spacing between the bands is based on the volatility of the prices.

During periods of extreme price changes (high volatility), the bands widen to envelope strong price moves. During the periods of stagnant pricing (low volatility), the bands narrow.

The creator, John Bollinger, notes:

- Sharp price changes often occur after the bands tighten, as volatility lessens
- When prices move outside the bands, a continuation of the current trend is implied
- Bottoms and tops made outside the bands followed by bottoms and tops in the red price line made inside the bands call for reversals in the trend
- A move that originates at one band tends to go all the way to the other band. This observation is useful when projecting price targets

### Drawdown Chart (D)



- The Drawdown chart displays all draw downs of the red line, as well as the total return line for the red symbol
- Draw down is defined as a % price decline from a peak to a trough before exceeding the previous peak
- There are no parameters for the Max Drawdown chart

### Stats Panel

- MaxDD - Max drawdown of the over full chart date range
- % DD - percent of time security was in drawdown over the time period

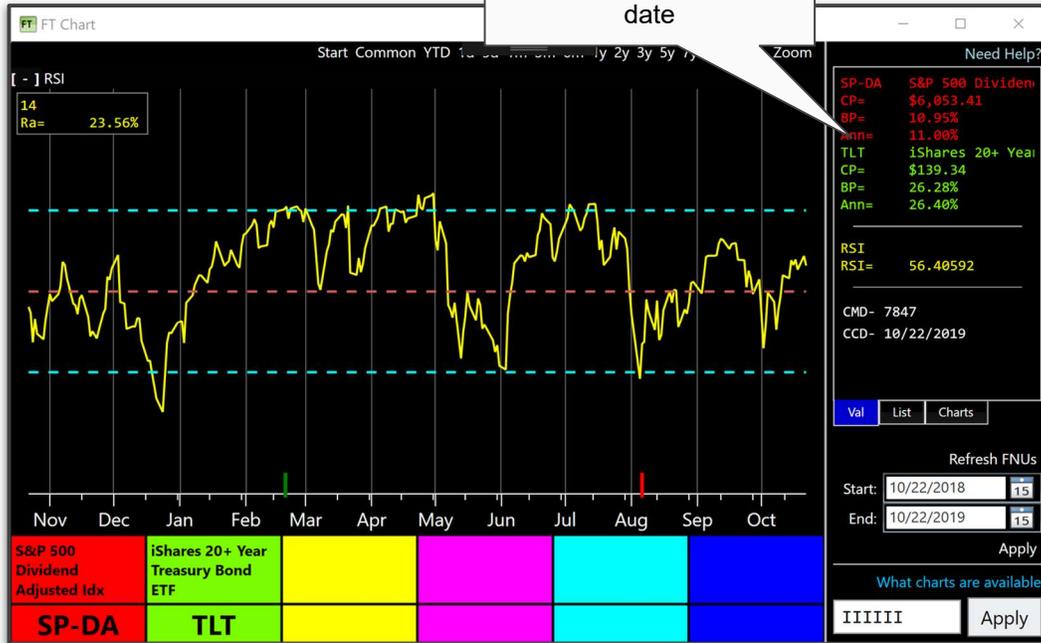
*All values calculated from the start date of the chart to the end date (poles do not impact calculations).*

**Hot Tip**

This chart provides a good visual indication of a draw down relative to previous draw downs.

RSI Chart (I)

The sidebar displays the relative drawdown of the line on the dashed pole date



RSI is a trading-range momentum indicator developed by Wells Wilder.

It measures the red line's price momentum.

RSI oscillates in a range of 1 to 100.

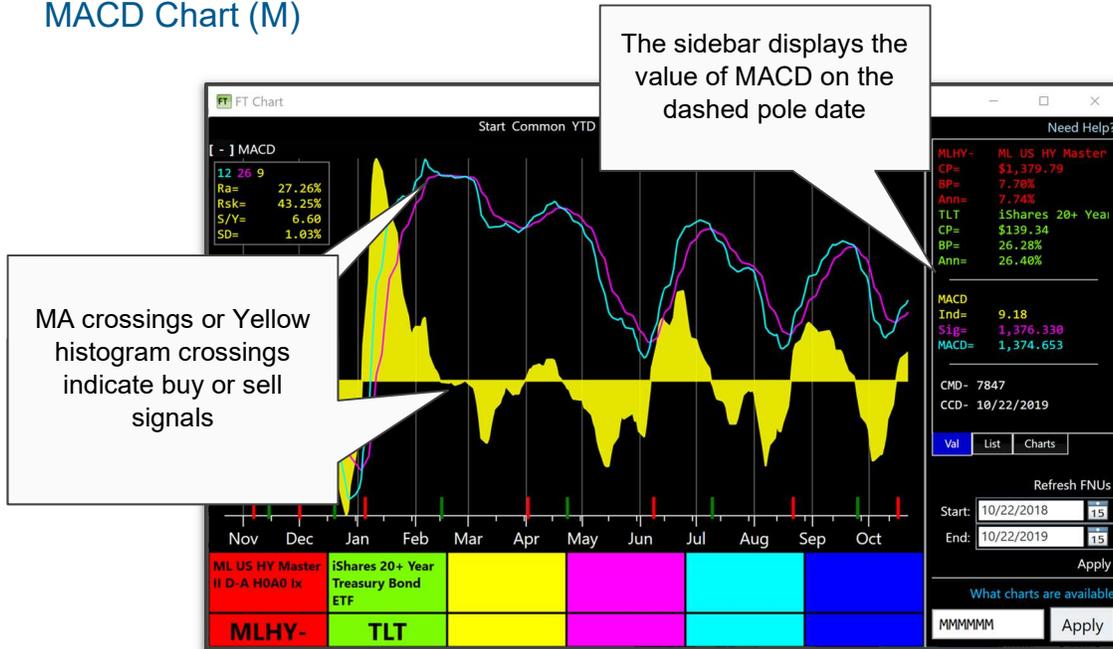
The overbought line is drawn at 70 and the oversold line is drawn at 30.

\* RSI is also popularly known as Relative Strength Index. FT Cloud does not use that term to avoid confusion with Relative Strength Chart (R).

**Hot Tip**

- Like all trading-range indicators, RSI gives premature signals when the market is trending.
- RSI signals should be confirmed using trend lines and trend-following indicators.

### MACD Chart (M)



Moving Average Convergence/Divergence (MACD) is a momentum indicator developed by Gerald Appel.

There are three parameters to MACD.

- Fast moving average (typical value 12)
- Slow moving average (typical value 26)
- Trigger - moving average of MACD line (typical value 9)

The MACD line is calculated on the red symbol by subtracting the long moving average from the short moving average.

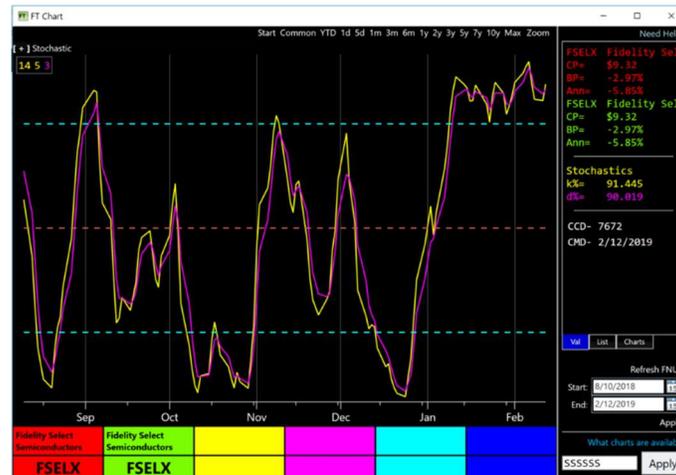
A moving average of the MACD line is used as a trigger or signal.

The histogram plotted represents the difference between the MACD and trigger line.

#### Hot Tip

- When the red line's momentum trend changes, MACD changes
- MACD works well at finding tops and bottoms of issues that spurt then stall

## Stochastics (S)



Stochastics measures current prices compared to recent prices.

FastTrack Stochastics has three parameters. The first is the range of days over which %K is computed. The second parameter is set to 1 unless using Slow Stochastics. The third parameter is used to smooth %K to reduce the data's point-to-point differences. The Stochastics Chart lines are named:

%K – The solid yellow line

%D – The solid purple line

The abbreviations are sometimes preceded by a number. The abbreviation 14%K stands for %K computed over a 14-day period. The % sign notation is somewhat obnoxious since it denotes a percentage computation. Suffice to say that 14%K has NOTHING to do with multiplication by 0.14.

The yellow %K line oscillates between 0 and 100 as the price of the fund moves from the bottom to the top of its range. A purple %D trails %K.

The white dotted lines divide the chart at 20, 50, and 80%. When the yellow %K line is below 20%, the indicator is in the “oversold” condition. When the yellow line is above 80%, the indicator is in the “overbought” condition.

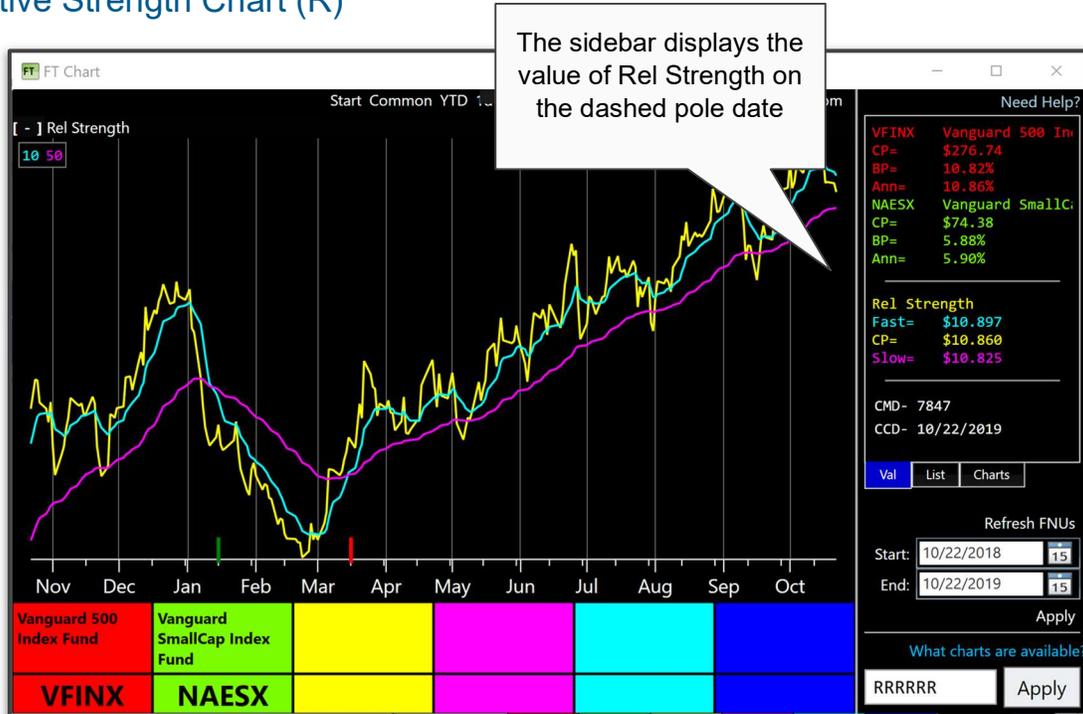
### Parameters

Stochastics %K – Number of days over which %K is computed

Stochastics Slow – Number of days over which the Slow parameter is computed

Stochastics %D – Number of days over which %D is computed

### Relative Strength Chart (R)



This chart compares the performance of the red and green lines.

The yellow line is the raw relative strength line, calculated as the ratio between the percent return of the red line and the percent return of the green line.

When the yellow line is rising, the red line is outperforming the green line. When the yellow line is falling, the red line is underperforming the green line.

#### Hot Tip

- Relative Strength is best used to see the swings in sentiment between major market segments
- The R Chart on the right shows swings between large caps in red represented and small caps in green
- It clearly shows there are major turning points in large-cap/small cap sentiment
- You would shift the weighting of your portfolio to small-caps as the yellow line of the R Chart falls, and shift to large-caps when the yellow line rises

## FNU - FastTrack Native Units

You can import your own data or save various output of FT Cloud as a FNU file.

### File Format

An FNU is a comma delimited text file with the following format:

```
Line 1: Ticker
Line 2: Name
Line 3: Date, closing price, 0
Line 4: Date, closing price, 0
Line 5: Date, closing price, 0
Line 6: Date, closing price, 0
etc...
```

### Distributions/Adjustments

The third value (the 0 in the above example) denotes a distribution/adjustments. This value corrects for any distributions, withdraws, additions, etc of the data set.

For example, if you're modeling your own portfolio, lets say you start March 2018 with \$1,000, on March 15th you add \$2,000, and there is a 0% return on the account for the month.

Without making an adjustment, the raw data would show a 200% gain for the month.

$$(3000-1000)/1000 = 200\%$$

To correct, the FNU line for the 15th should appear: with a -2000 in the last position. See the example data below:

```
MY$
My Data Source
3/29/2018,3000,0
3/28/2018,3000,0
3/27/2018,3000,0
3/26/2018,3000,0
3/23/2018,3000,0
3/22/2018,3000,0
3/21/2018,3000,0
3/20/2018,3000,0
3/19/2018,3000,0
3/16/2018,3000,0
3/15/2018,3000,-2000
3/14/2018,1000,0
3/13/2018,1000,0
3/12/2018,1000,0
3/9/2018,1000,0
3/8/2018,1000,0
3/7/2018,1000,0
3/6/2018,1000,0
3/5/2018,1000,0
3/2/2018,1000,0
3/1/2018,1000,0
```

### Missing Dates

Your FNU does not need to be perfect. Any dates missing from your file will show a repeat of the day before.

Commonly, users will import monthly data from hedge fund, MLPs, private equity, or other assets. Monthly data is 100% compatible.

### Creating in Excel

Creating an FNU in Excel is fine. Just save the Excel file as a CSV file, then change the file extension from CSV to FNU. Also, make sure the date is in a MM/dd/yyyy format.

## FT Spreadsheet

The FastTrack Spreadsheet is one of the most powerful tools included in FastTrack products. Released in our original product in 1989, FT Cloud takes this time-tested tool to the next level.

### The Basics

Use the spreadsheet for relative analysis of groups of funds, ETFs, stocks or indexes. The spreadsheet can answer questions like:

- Which security had the best risk adjusted return over the past year?
- What securities have a low correlation to my portfolio?
- What is the oldest share class (start date) of a fund and or fund company's offering?
- What fund has the lowest expense ratio?

### Layout

The screenshot displays the FT Cloud spreadsheet interface. At the top, there are navigation tabs: Login, Data, Reports, Spreadsheet/Chart, FT Cloud+, Chart - Search - Refresh FNUs, and NEED HELP?. Below these are buttons for Compute, Chart, New, Options, Load Family: List, Tree, and Save Family. A search bar and a 'Search Sheet' button are also present.

Ticker	Name	Beta	Corr	FTAlpha	Max Draw	Sharpe	SD	UI	UPI	
1	NAESX	Vanguard SmallCap Index Fund	-0.55	-36.53%	-754.31	-7.48%	2.53	6.36%	2.89	19.28
2	VBMFX	Vanguard Total Bond Market Index Ft	0.30	98.09%	-25.91	-3.08%	4.56	1.28%	2.02	10.00
3	VEIPX	Vanguard Equity-Income	-0.32	-39.98%	-2,127.52	-2.94%	8.07	3.34%	0.77	121.33
4	VEXMX	Vanguard Extended Market Index Fur	-0.21	-12.42%	-483.68	-8.65%	1.50	7.03%	4.23	8.62
5	VEXPX	Vanguard Explorer	-0.09	-5.45%	-590.30	-8.22%	1.89	6.72%	3.71	11.90
6	VFIIX	Vanguard GNMA	0.12	80.24%	-25.42	-0.95%	12.30	0.64%	0.57	47.82
7	VFINX	Vanguard 500 Index Fund	0.19	19.85%	-1,179.29	-4.14%	5.32	4.07%	1.27	59.28
8	VFSTX	Vanguard Short-Term-Grade	0.09	86.05%	-26.06	-0.77%	17.88	0.43%	0.52	51.79
9	VGENX	Vanguard Energy	-0.59	-57.02%	-1,545.68	-4.51%	5.16	4.38%	1.94	40.30
10	VGHGX	Vanguard Health Care	0.40	47.36%	-390.53	-6.91%	2.61	3.59%	3.50	9.26
11	VGPMX	Vanguard Global Capital Cycles	-0.52	-45.73%	-1,541.10	-4.24%	5.36	4.80%	1.84	48.49
12	VGSTX	Vanguard STAR	0.17	23.18%	-468.94	-4.23%	3.89	3.12%	2.01	20.92
13	VMLTX	Vanguard Limited-Term Tax-Exempt	0.06	81.94%	-64.91	-0.70%	27.75	0.30%	0.39	73.75
14	VMMXX	Vanguard Prime Money Market	0.00	-999.99%	-999.99	0.00%	-999.99	0.00%	0.00	-999.99
15	VPMCX	Vanguard PRIMECAP	-0.08	-7.06%	-972.62	-5.37%	3.89	4.92%	1.81	36.71
16	VQNPX	Vanguard Growth & Income	0.17	17.74%	-1,235.20	-4.32%	5.39	4.14%	1.32	58.63
17	VTRIX	Vanguard International Value	-0.36	-45.19%	-1,020.54	-2.97%	5.90	3.33%	1.00	67.90
18	VUSTX	Vanguard Long-Term Treasury	1.00	100.00%	0.00	-9.98%	0.00	4.23%	6.70	0.00
19	VWAHX	Vanguard High-Yield Tax-Exempt	0.14	74.57%	-165.64	-2.30%	10.58	0.81%	1.30	22.76
20	VWPHYX	Vanguard High-Yield Corporate	0.11	62.06%	-120.45	-1.66%	11.51	0.75%	0.81	26.00

Current Family: ALL - Fixed Income \*      Start/End: 2/4/2021 - 4/19/2021      Apply

The sidebar on the right contains a 'Stats' section with checkboxes for Name, StartDate, Alpha, Annual Return, Category, ExpenseRatio, Beta, Correlation, and FTAlpha. Below this are 'Basis' and 'Benchmark' sections, both set to VUSTX. At the bottom of the sidebar are links for 'Export Spreadsheet' and 'Export Ticker Prices'.

The FT Cloud spreadsheet is a grid of columns and rows. Each row