

Lesson 5

Analysis Techniques and Drawing Tools

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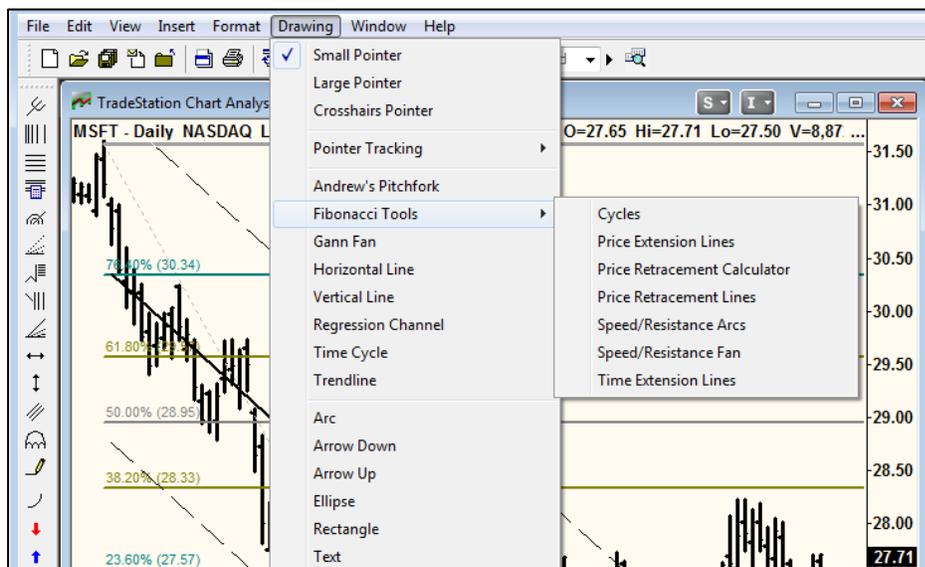
Drawing Tools

The Drawing menu provides access to graphic tools that you may draw on a chart. These include analytical tools such as **Regression Channels**, **Fibonacci Tools** or **Andrew's Pitchfork**. Other Drawing tools are available for making notes and adding markers to a chart, such as **Ellipse**, **Text**, etc.

Some of the drawing objects will require you to click once, twice or even three times on the Chart Analysis window in order to draw. For example, a **Horizontal Line** will require just one click, a **Trendline** requires two clicks (a starting point and an ending point), and **Andrew's Pitchfork** requires three clicks.

All drawing objects can be formatted for color, style and display. The only way to access the **Format** dialog for a drawing object is by right-clicking or double-clicking on it. For example, to change the color

and width of a trendline, right-click on the trendline, click on **Format 'Trendline'...** from the right-click menu, and click on the **Style** tab to change the color and width.

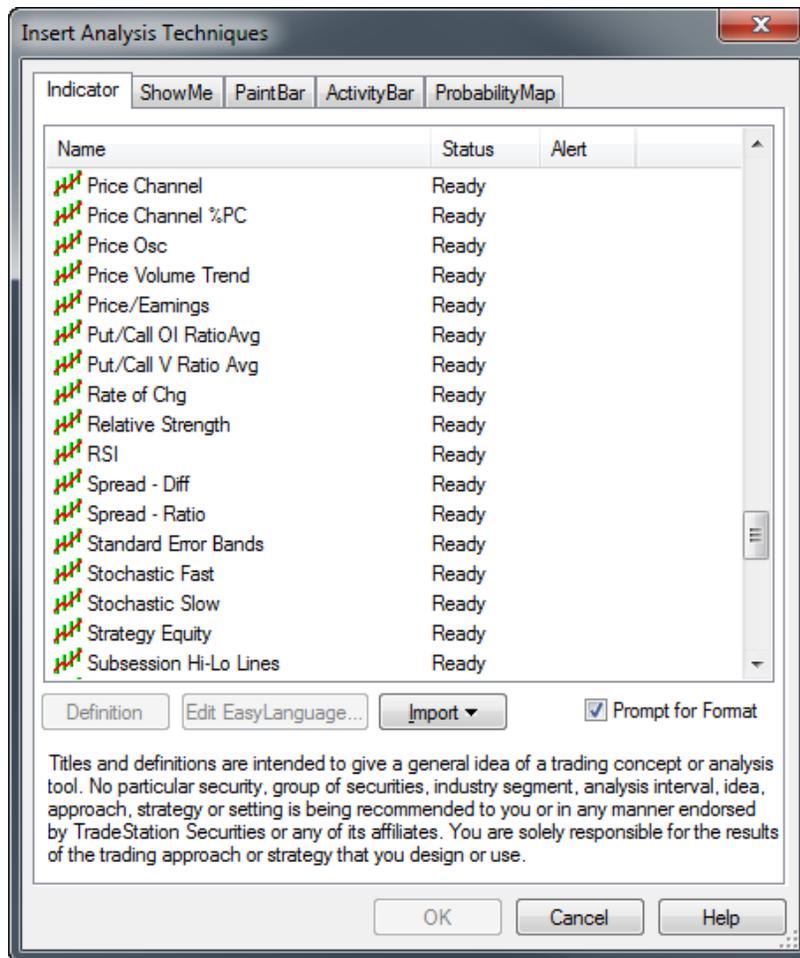


You may also turn on Alerts for most analytical drawing tools. From the **Format** dialog, click on the **Alerts** tab and put a check in the **Enable Alert** checkbox.

Note: If you use Drawing tools frequently, you may find it convenient to add the Drawing toolbar to your desktop. Use the **View – Toolbars – Drawing** menu sequence to do this.

Analysis Techniques

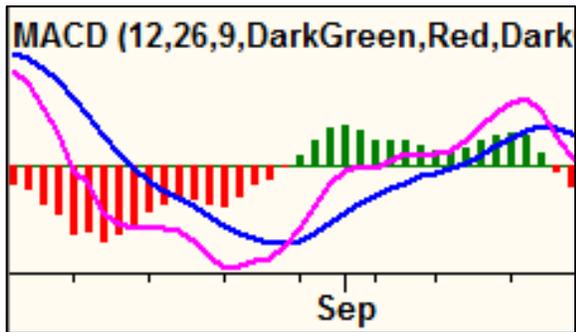
Analysis techniques is the term we use to refer to a variety of market analysis tools in TradeStation. To access the TradeStation-supplied analysis techniques, click on the **Insert – Indicator** menu sequence. This will display the **Insert Analysis Techniques** dialog, which contains market analysis tools listed on five different tabs. You may also right-click on the background of a Chart Analysis window and click on **Insert Analysis Techniques...** from the right-click menu to access the same dialog.



All supplied Analysis Techniques for charting are written in EasyLanguage and the formulas may be viewed, copied or modified. From the **Insert Analysis Techniques** dialog, select the analysis technique and click on the **Edit EasyLanguage...** button. This will open the EasyLanguage document for that specific analysis technique.

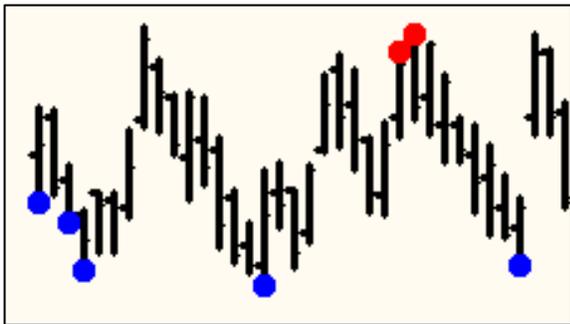
To view a synopsis of the technique, click the **Definition** button to open the **TradeStation Help** on that specific topic; this will provide additional information on how to format and interpret the analysis technique.

There are five different types of analysis techniques supplied in TradeStation: Indicators, ShowMe studies, PaintBar studies, ActivityBar studies and ProbabilityMap studies.



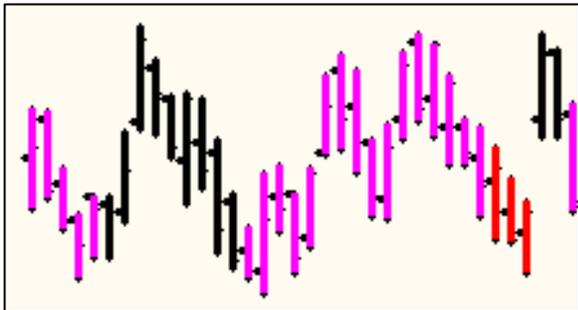
Indicators

Generally, indicators are analysis techniques that graphically represent mathematical formulas. In a Chart Analysis window, an indicator is usually displayed using lines or histograms. TradeStation comes with a large selection of built-in indicators ready for you to use. These include moving averages, stochastic and ADX, to name just a few.



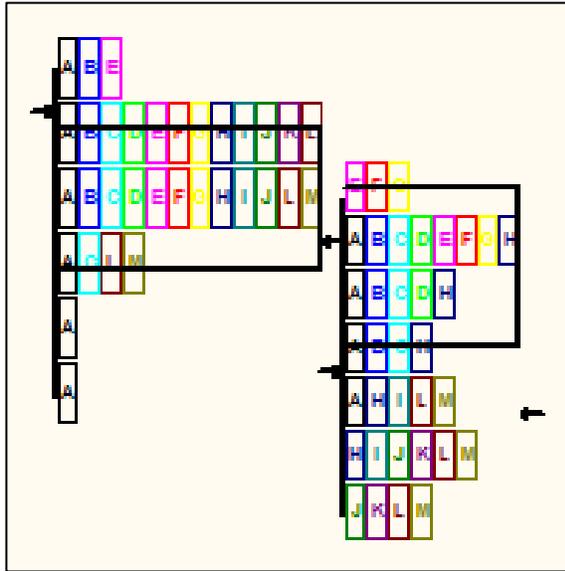
ShowMe Studies

A ShowMe study is an analysis technique that places a marker on each bar that meets a specified condition. The condition might be notably high volume or an unusually large range. TradeStation's selection of analysis techniques includes many ShowMe studies for your convenience.



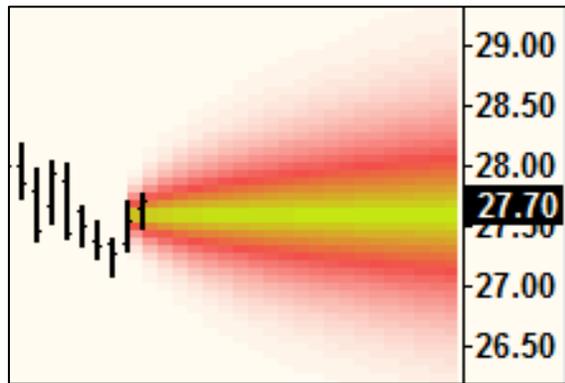
PaintBar Studies

Like a ShowMe study, a PaintBar study marks each bar that meets a specified condition. However, a PaintBar changes the color of the bar, whereas a ShowMe places a marker on the bar.



ActivityBar Studies

ActivityBar studies allow you display and analyze transactions that occurred within each bar on a chart analysis window. Trading activity is represented using blocks and letters that are stacked against the bar to enable you to pinpoint the most heavily traded price point within a bar.

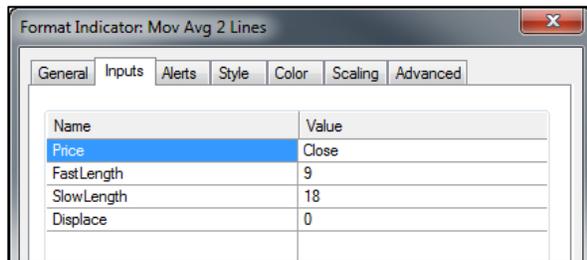


ProbabilityMap Studies

A ProbabilityMap study is plotted to the right of the last bar on the chart. It allows you to view potential price changes using probability calculations derived from the symbol's recent trading history.

Formatting Inputs in Analysis Techniques

Inputs are user-editable values (parameters) used by TradeStation to perform the calculations in its set of instructions or rules. For example, inputs could be Price, FastLength, and SlowLength values used to calculate two moving averages (see picture below). Inputs are designed to be edited by the user while working in the Chart Analysis window and without knowing or editing the underlying EasyLanguage.



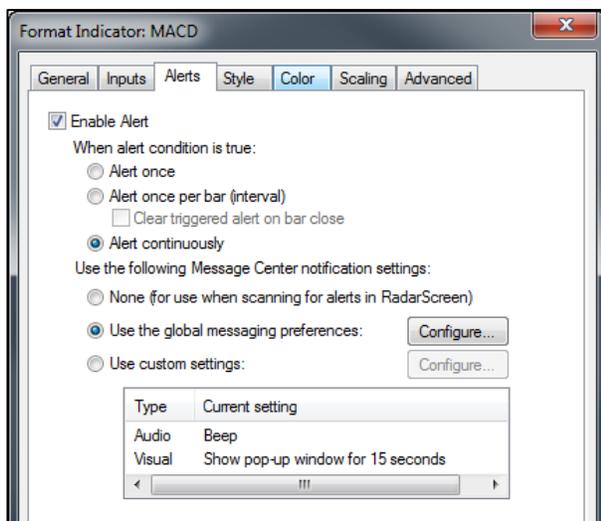
To access the inputs of any analysis technique, click on **Format – Analysis Techniques...** menu sequence, select the analysis technique to format and click the **Format...** button on the dialog. This will display the **Format** dialog for that specific analysis technique. Click on the **Inputs** tab to view all editable inputs.

Depending on the analysis technique and the inputs you are editing, you can also use formulas, numeric expressions, true/false expressions or functions as the input value. For example, in the **Format Indicator: Mov Avg 2 Line** dialog shown in the picture above, instead of just using **Close** for the **Price** input, you could enter a formula such as **(High + Low + Close)/3**. This formula is the average of the high, low and close prices of each bar and the indicator will plot the averages of this value over the period of bars specified in the two Length inputs.

Enabling Alerts for Analysis Techniques

All TradeStation built-in analysis techniques have alert criteria. The alerts are turned off by default and must be enabled by the user. To enable alerts, click on the **Format – Analysis Techniques...** menu sequence, select the analysis technique to enable, click the **Format...** button on the dialog and select the

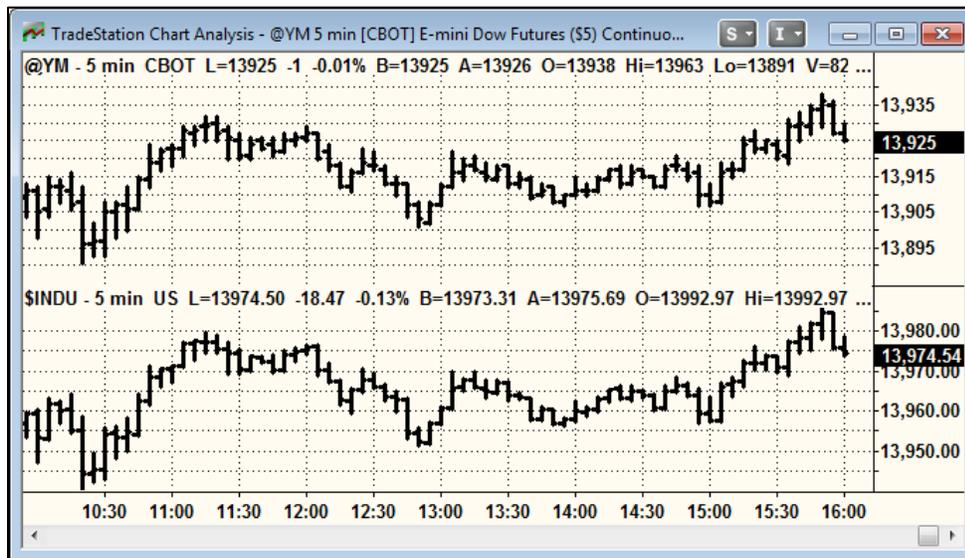
Alerts tab. Here, check the **Enable Alert** checkbox. **Alert once** disables the alert after the first one occurs. **Alert once per bar (interval)** disables the alert for the remainder of the bar after the first one occurs, and re-enables the alert once a new bar opens. **Alert continuously** will trigger an alert for every tick that meets the alert criteria. These alert options are also available by right-clicking on the background of the chart and selecting **Alerts** from the shortcut menu.



By default, alerts will **Use the global messaging preferences**, which generate an audible beep and a 15-second pop-up alert window. To change these messaging preferences, click the **Configure** button. All alerts are logged in the Message Center. Click on the **View – Message Center** menu sequence and select the **Alerts** tab at the bottom of the window to see past triggered alerts.

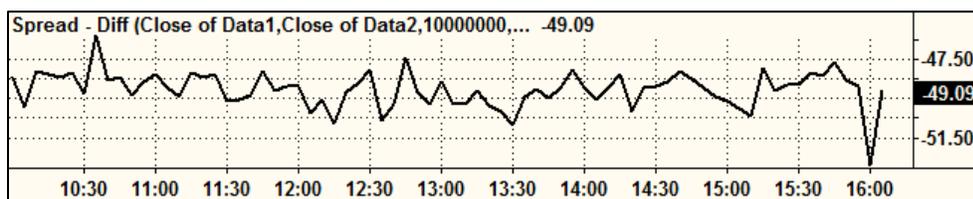
Multi-Data Analysis

TradeStation allows you to plot more than one data set or symbol in a single Chart Analysis window. In fact, for detailed comparative analysis, you may include as many as 50 different data sets or symbols in a single Chart Analysis window. By default, each additional symbol is plotted beneath the other in a separate sub-graph and is assigned its own data-stream number. For example, you might combine a futures symbol with a cash market symbol to view their relationship, or an option symbol with the underlying asset's symbol to view correlation.



To insert a second symbol or data stream into a Chart Analysis window, click on the **Insert – Symbol...** menu sequence, type the symbol in the **Symbol** box and click on **Plot**. You may also access the **Insert Symbol** dialog by right-clicking on the Chart Analysis window and clicking **Insert Symbol...** from the right-click menu.

There are several analysis techniques in TradeStation that utilize multiple symbols. For example, the **Spread – Diff** indicator calculates the difference between the first and the second symbols in a Chart Analysis window. Using the Chart Analysis window in the picture above the **Spread – Diff** indicator would plot as follows:



Notice that the Inputs for the **Spread – Diff** indicator are **Close of data1** and **Close of data2**, using two data streams for the calculation; these inputs can also be modified.

Percent Change Charts

A Percent Change Chart provides a convenient way of comparing market performance. These charts may display a single data set or be created from multi-data charts. In this example, the percent changes of three symbols are compared.



To create a Percent Change Chart, right-click on the background of a chart and from the right-click menu select **Percent Change Chart – Enable**. For multi-data analysis, insert additional symbols by using the **Insert – Symbol** menu sequence from the menu bar.

By default, the Percent Change Chart starts calculating percent change from the first bar on the chart. To begin the calculation from a different starting point, right-click anywhere on the Chart Analysis window, select **Percent Change Chart** from the right-click menu and you can choose from three different options: **Calculate from first bar**, **Calculate from last bar**, or **Calculate from this bar**.

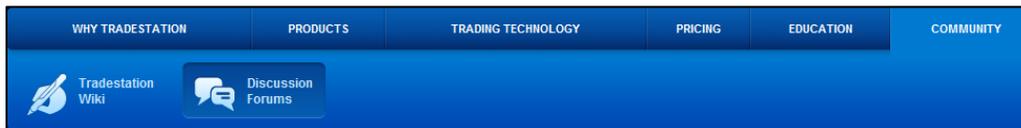
To disable Percent Change Chart, right-click on the Chart Analysis window, select **Percent Change Chart** from the right-click menu and click **Enable**.

Importing Analysis Techniques and Strategies

All TradeStation analysis techniques and strategies are written using EasyLanguage. EasyLanguage is a programming language that allows you to modify existing techniques or create new ones from scratch. You may also complement the TradeStation built-in library by importing custom and third-party analysis techniques and strategies from the TradeStation EasyLanguage File Library and/or the Strategy Network.

Importing from the EasyLanguage File Library

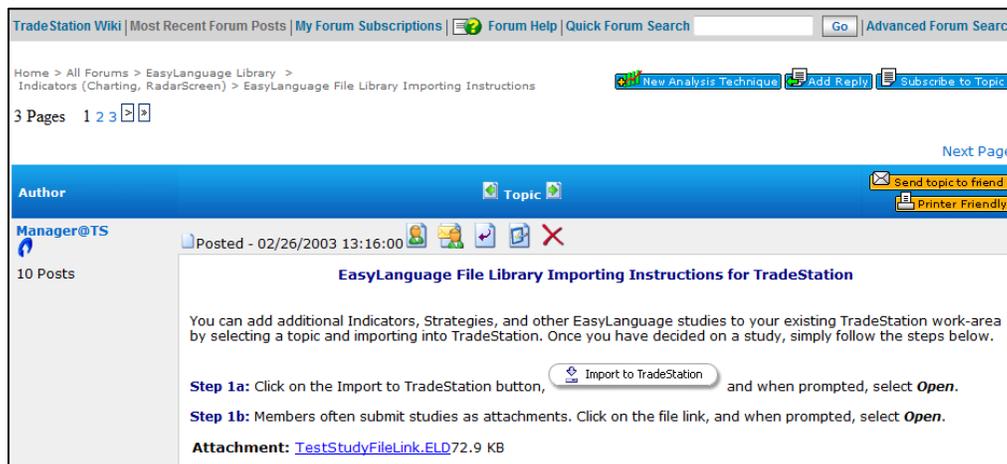
This EasyLanguage File Library is built using contributions from TradeStation users and you may rate, review and download different types of analysis techniques and strategies. Posts in this forum usually include a synopsis, screenshots to visualize the concept and links to download the EasyLanguage document, workspaces and all related content. To import from the EasyLanguage File Library, go to www.TradeStation.com, click the **Community** tab and the **EasyLanguage File Library** will be listed under **Discussion Forums**.



A search bar allows you to filter the content based on your criteria. Click on the dropdowns, make your selections and click the **Submit** button.



For your convenience, the first post in this library includes instructions on how to import indicators and strategies from the EasyLanguage File Library into TradeStation.

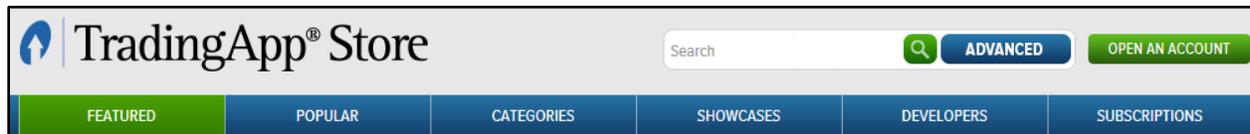


Once the import is complete, your new EasyLanguage study is now available from the Insert Menu in TradeStation. Add your new analysis technique or strategy to a chart, RadarScreen or OptionStation from the Insert menu.

Importing from TradeStation TradingApp Store

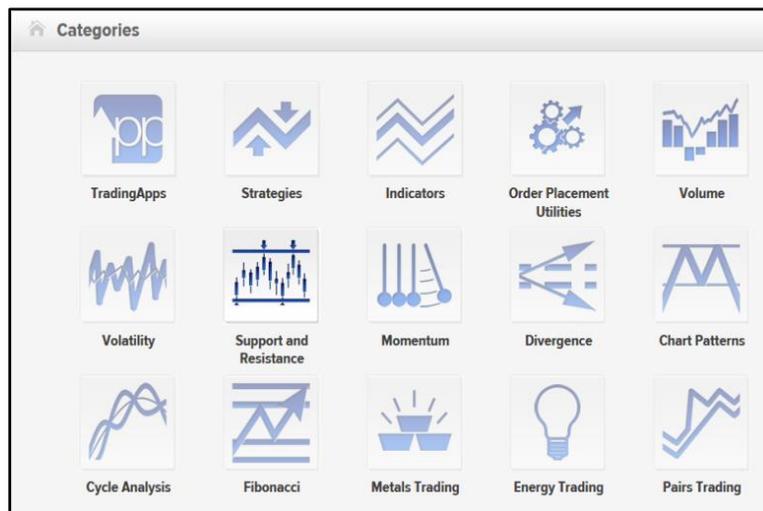
The TradeStation TradingApp Store is an online marketplace where traders can search and evaluate all types of analysis techniques and strategies. Some products are free, others have a free trial and others can be leased on a monthly subscription basis.

To import from the TradeStation TradingApp Store, click on the **TradingApp Store** tab at the top of the TradeStation website or you may go to <https://TradeStation.TradingAppStore.com>.



The **Featured** and **Popular** tabs will display products that are new and have become recent trending subscriptions. Click on the **Categories** tab in order to search based on personal preferences. Free

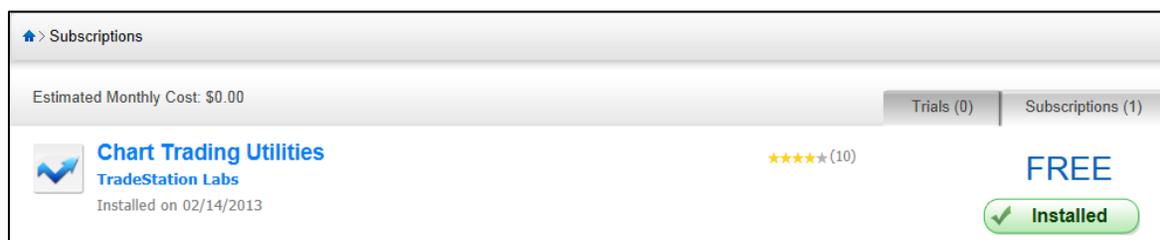
products will display an **Install** button; others will display a **Free Trial** or **Subscribe** button.



The installation of any product will be handled by the TradingApp Store; once processed, the strategy or analysis technique should be downloaded and installed to your TradeStation platform automatically.

All selected products will be associated with your TradeStation username and password. During logon, TradeStation checks for any TradingApp Store subscriptions and makes them available in the platform.

Click on the **Developers** tab to access a directory of Open Platform Developers and EasyLanguage Specialists. Click on the **Subscriptions** tab to view a list of all your subscriptions and free trials. You may cancel any subscription by hovering over the **Installed** button and clicking **Uninstall**.



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