StreetSmart Edge® User Guide

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Welcome to StreetSmart Edge®

StreetSmart Edge® is designed to think like a trader to help you take on the market. It is intuitively designed with innovative tools that work together, making it easy to use and flexible to grow with your needs, while retaining the sophistication and power you expect from a Schwab trading platform.

In StreetSmart Edge, you'll find:

- Integrated tools within easy reach, and common workflows to help you go from opportunity to action quickly.
- Greater account and order control to monitor performance easily and better manage market exposure.
- Flexible trading environment that is easy to configure, yet versatile enough to adapt to changing needs.
- Enhanced research and analysis tools that provide information at your fingertips, reducing the fatigue of repeated jumps from a desktop application to the web or Schwab.com.
- Approachable, intuitive design so you spend less time figuring out how tools work and more time making tools work for you.

Get an overview of the software by reviewing the **Quick Reference Guide**, which identifies the more commonly used tools, features, and icons, and provides helpful tips for getting the most out of StreetSmart Edge.

3/18/2019

New Features

This release of StreetSmart Edge® offers features and enhancements designed to improve the trading experience.

Display Implied Volatility (IV) for Underlyings in the Watch List

Currently only displayed for options, the Average IV for the underlying can now be displayed on the Watchlist. The Average IV is the IV value as calculated in the "IV Avg" <u>Chart Studies</u>, which is also the same value used in the <u>Trade and Probability Calculator</u>.

Display Implied Volatility (IV) Rank and Percentile data points in the Watch List

The IV Rank and IV Percentile data is now displayed for all Optionable securities. Just add the following columns to your Watch List:

- IV Rank: The value of the current IV relative to the past year's range.
- IV Percentile: The Percentile value of the current IV relative to the past year's range.

Addition of Probability Columns to the Watch List and Option Chains

The % In the Money, Out of the Money and Touching the Strike Probability, are now available columns to add to the Watch List and Option Chains for Calls, Puts and Calls/Puts.

- % ITM Prob: The probability of the option expiring in the money.
- % OTM Prob: The probability of the option expiring out of the money.
- % Touch Prob: The probability of the stock price touching the strike price on or before expiration.

Display Price Performance data in the Watch Lists

The Price Performance data is now available in the Watch Lists, making it easier to analyze a symbols over various timeframes. Just add any of the following columns to your Watch List.

- 5 Day Change
- % 5 Day Change
- 20 Day Change
- % 20 Day Change
- 1 Mo Change
- % 1 Mo Change

- 6 Mo Change
- % 6 Mo Change
- YTD Change
- % YTD Change

Commissions, taxes, and transaction costs are not included in any of these strategy discussions, but can affect final outcome and should be considered. Please contact a tax advisor to discuss the tax implications of these strategies. Many of the strategies described herein require the use of a margin account. With long options, investors may lose 100% of funds invested. In-the-money long puts need to be closed out prior to expiration, since exercising them could create short stock positions.

Options carry a high level of risk and are not suitable for all investors. Certain requirements must be met to trade options through Schwab. Multiple leg options strategies will involve multiple commissions. Spread trading must be done in a margin account. Please read the options disclosure document titled "Characteristics and Risks of Standardized Options."

FAQs

Getting Started FAQ

Here are some frequently asked questions about getting started with StreetS-mart $\mathsf{Edge} \ \! \ \! \ \, \! \mathbb{R}$:

Why was StreetSmart Edge® created?	StreetSmart Edge is "Inspired Trading, By Design." The platform was created to reduce the learning curve, allowing traders to focus on trading. By focusing on the trader's workflow, StreetSmart Edge® provides a robust trading experience that blends sophistication with ease of use.
How do I access/download StreetSmart Edge®?	To access StreetSmart Edge®, log on to www.schwab.com. Click <i>Trade</i> and then click <i>Trading Tools</i> . You will be automatically directed to the page where you can download Edge by clicking on the <i>Download</i> button under the Edge graphic.
Can I get real-time bal- ance information and <u>streaming</u> quotes on StreetSmart Edge®?	Yes, you can keep track of your gains and losses, and monitor you balances real-time. Additionally, you will have access to streaming quotes and real-time charting.
What types of orders can I place on StreetS-mart Edge®?	StreetSmart Edge® gives you the ability to place the same types of orders that StreetSmart Pro does. You can place Market, Limit, Stop Limit, Trailing Stop and Trailing Stop Limit orders. You also have the ability to add a Bracket to your primary order or filled order. Additionally, you can place various types of Option orders, depending on your Option approval level. For more information about order types, click here.
I trade Options. How does StreetSmart Edge® support Options trading?	StreetSmart Edge® offers Options Participant Top of Book quotes and Options charting. Additionally, you are able to customize the quote function, to include Option Greeks, Midpoint and more. Trade basic and multi-leg Options

	with automatic electronic access to all primary listed Options exchanges. Options carry a high level of risk and are not suitable for all investors. Certain requirements must be met to trade options through Schwab. Multiple leg options strategies will involve multiple commissions. Please read the options disclosure document titled "Characteristics and Risks of Standardized Options." Supporting documentation for any claims or statistical information is available upon request.
What type of charting capabilities does StreetSmart Edge® offer?	With StreetSmart Edge®, you can customize up to 20 real-time charts with up to 20 tabs, to help support your research and strategy needs. You can choose from multiple chart styles, timeframes and technical indicators. For additional information on the technical indicators available in StreetSmart Edge, click here.
What is chart pattern recognition?	Chart pattern recognition in StreetSmart Edge® is provided to users by a third party program from Recognia. The application may help support your decision making by automating pattern recognition of more than 60 chart patterns, indicators and standard oscillators. You are also able to set up custom screens and email alerts, and monitor realtime technical analysis. Recognia, Inc. is not affiliated with Charles Schwab. Schwab does not endorse any of the content or features made available to you in Recognia's tools. Schwab does not recommend the use of technical analysis as a sole means of investment research. Strategy testing past performance data should not be construed as indicative of future results.
How do I set up my layouts?	StreetSmart Edge® gives you the ability to immediately implement trading strategies with a series of three default layouts. These default layouts will be displayed as tabs to help expedite set up time.

How can I customize my layout?

StreetSmart Edge® has many customizable features to help support your trading strategy.

To set up a custom layout, go to **Launch Tools** in the upper right-hand side of your screen. You will see a toolbar containing icons for all of the Tools available to you in the platform. Click the icon corresponding what you want to add. Continue to add to the layout, until you have added the Tools you need to support your Trading Strategy.

If you would like to add additional layouts, click the + next to the Layout tab. The default label on the tabs will be Layout 1, Layout 2, etc. You are able to rename the tabs by right-clicking and selecting **Rename Layout**.

If you are not sure where to start, use one of the StreetSmart Edge default layouts. To view more information, <u>click here</u>.

How do I grab, move and resize tools within a layout?

To resize a window, move your mouse over the edge of a tool until a double-sided arrow appears. Click the left mouse button and hold it to "grab" the edge of the layout. While continuing to hold down the left button, move the mouse until the window is the appropriate size.

To move a tool, left click and hold it at the top of the window. Drag the window to where you would like to see it within the layout.

How do I place additional tools on a layout?

To add tools to an existing layout, first click on the layout tab to select the desired layout. Next, click on *Launch Tools* drop-down button on the right side of the screen near the top. The tool selector will appear to allow you to select a tool.

After a tool has been selected, it will appear in the center of the currently selected layout. Drag the tool by the top bar to the desired location within the layout.

Resize the tool by dragging the edges or corners. (To drag, put your mouse over the top bar or over the edge or corner until arrows appear, hold down the left mouse button, drag

	the pointer to the desired position, then
	release the left mouse button.)
I would like to try StreetSmart Edge®, but don't want to use it to trade yet. Is there a demo version?	Yes, you can start out using the Demo Mode, which is available every time you log into StreetSmart Edge®. Demo Mode will allow you learn how to use StreetSmart Edge®'s trading tools and submit simulated trades using live market data. We recommend you use Demo Mode to familiarize yourself with the features in StreetSmart Edge® or anytime you are trying out a new trading tool or strategy.
What resources are available to me for assistance with StreetS-mart Edge®?	There are many resources available to help you with StreetSmart Edge®. Try going to the Getting Started Guide via the Help menu or, you are able to access the user manual as you are now. Visit the Trading Seminars & Articles page for articles, seminars and more information on the market, technical trading, risk management, and investing strategies.
	Your Trading Services Broker can answer your questions via either <u>Live Help</u> instant message chat, or phone at 1-800-435-9050.
I have questions that aren't answered here.	If you have additional questions that aren't answered here, check the Online Help, or speak with a Trading Services Broker via Live Help chat or by calling 1-800-435-9050.

System Data Collection

In an effort to improve platform stability and connectivity, some information about your computer may be collected.

This information is collected only if you consent to share it. It is anonymous and is used only for improving the platform experience.

You can provide or revoke the consent at the logoff prompt or from the Settings->Global Preferences page.

This consists of the following data about your computer:

- Computer Make and Model
- Computer Name and Domain
- Processor Speed

- RAM Capacity
- Available Disk Drive Space
- Total Drive Letter Assigned
- · Video Card Details
- Network Card Model
- Operating System
- Internet Explorer Version
- DirectX Version
- Windows Media Player Version
- MAC Address and Local IP Address
- Computer System Time and Time Zone
- Audio Adapter Code and Version
- Screen Resolution and Color Settings
- Language Code

Troubleshooting FAQ

Here are some frequently asked questions about troubleshooting StreetSmart Edge®:

Why	is	the	download	so
big?				

For most clients, the download of StreetS-mart Edge® will be approximately 20MB.

To ensure a stable, easily customized platform, StreetSmart Edge® was created within the .NET Framework. In order for StreetSmart Edge® to work on your computer, you must have the .NET Framework installed.

This portion of the download is approximately 197MB, however if you already have .NET Framework, it will not be reinstalled.

I have saved my layouts on the Schwab servers, but they are not coming up when I log in from a different computer. Why can't I see my saved layouts?

You may not always be able to see your complete layout when you logon, depending on the individual computer.

For example: If you saved a layout with the maximum number of Watch Lists while you were working on your primary PC, it may not be accessible on your laptop if the system

	specifications are different. In this example, if your laptop has less memory and speed than your primary PC, you may see a scaled down version of your layout when logging on from your laptop. The full version will remain available, and you can access it when using a computer that meets the minimum system requirements.
Why am I getting administrator upgrade requests when using Windows 7?	The upgrade requests are a security function of the Windows 7 operating system. These requests will appear in a pop up box titled User Account Control . You must click Yes to allow StreetSmart Edge® to run. Windows 7 incorporated this manual approval process to ensure that only applications trusted by the user may be added. We anticipate that in future releases, you will not see as many upgrade requests.
All of my trading but- tons are grayed out. What's going on?	Generally, if your trading buttons are grayed out, there is a restriction that has been placed on your account. The most common restrictions are placed by Margins as a result of trading violations. If you are unable to use the Buy or Sell keys, please contact us at 1-800-435-9050. If there is an urgent trading matter, a broker may be able to place the trade for you. They will also contact Margins on your behalf and make sure that your trading buttons are reenabled if possible.
My orders are getting canceled and I don't know why.	Generally, orders may be canceled if the trades would overspend the account. This issue will most frequently be seen in accounts that have trading restrictions. Since Schwab is not a cash up front firm, you are usually able to place trades in excess of the balance, with the understanding that the trade will be paid for by settlement. However, if your account is restricted due to a trading violation, you may not be able to place orders in excess of your balance. Please make sure that you carefully monitor

	your balances, and do not overspend your account.
I am trying to sell my stock and am getting a message that I do not own the position. I can see the position in my account. Why can't I sell?	This message is most commonly encountered when you already have an order outstanding for the position. Occasionally, clients place GTC orders, or Day orders at the beginning of the day, and forget that there is an open order covering the position.
	If you receive this message, please check Order Status to ensure that you do not already have an order. If you do have an open order, you can change the existing order or cancel and replace it.
Who do I contact for help with StreetSmart Edge installations, upgrades, troubleshoot- ing and technical sup- port questions?	If you have additional questions that aren't answered here, speak with Technical Support Services at 1-800-433-9196.

Layouts & Configuration

Layouts

Layouts in StreetSmart Edge® are like different views you can create to help organize your work space. They display in a tabbed format, with up to 8 layout tabs able to be open at one time.

For example, rather than trying to fit all the research tools you use, plus trading and account information, on one screen, you can create one Research layout and one Trading layout and flip between the two. The possibilities for organizing your work area in StreetSmart Edge® are extensive and designed to meet the needs of a variety of trading styles.

Creating a Basic Layout

Use the layout tab currently open or create a new layout tab by clicking the + to the right of the layout tabs. You can also right-click on a tab and select **New Layout**.

Once you have the layout tab open that you want to work in, you can add, remove, and configure the tab the way you want it to look. Here are some tips for setting up the display:

- Full or Partial Screen: Make StreetSmart Edge® take up the full screen by clicking the maximize in the upper right corner of the window. Click restore to return to a partial screen mode. In this mode, you can change the size of the window by dragging the borders of the window until it's the size you want.
- Add/Remove Tools: Once the window is the size you want, add tools from the Launch Tools menu. Remove tools by clicking the X in the upper right corner of the tool.
- **Resize Tools:** Expand or contract the size of a tool by moving your mouse over the edge or corner of the tool until you get a double arrow, then click and drag until it's the size you want.
- **Moving Tools:** Move tools by clicking in the title bar of the tool and dragging it to another spot in the layout. Edges of the tools are "magnetic" and will snap together when they are placed close to another tool.

Advanced Layout Tips

Multiple Monitors: The primary StreetSmart Edge® window can be stretched across multiple monitors to create a larger layout; however, you can also "undock" layout tabs from the primary window and let them stand alone on different monitors. This allows you to view multiple layouts at once.

• To do this, click on a tab and drag it out of the primary window. You'll see the layout shrink while you move with your cursor to another location. When you let go, it will expand into its own independent window.

More Drag & Drop: Much like individual layout tabs can be dragged out and dropped as independent windows, you can also create a new independent layout tab by clicking and dragging a tool out of the primary StreetSmart Edge® display. When you drop it, a new layout tab will be created. You can have multiple layout tabs in the independent window by clicking the + next to the layout tab.

Streamlining Layouts: Layouts outside the primary display can be streamlined by clicking the located in the upper right of the layout window.

Saving Individual Layouts

Layout tabs can be saved by right-clicking the tab and selecting either **Save Layout as a File...** or **Save Layout as a Template...**

- Saving as a file saves an .xml file to a spot on your computer of your choosing. The benefit of saving as a file is that you can access the file externally for the purposes of backing it up, moving to another computer, sharing with other users, etc.
- Saving as a template saves the layout as part of the software. The benefit of saving as a template is that it is quickly accessible directly from the right-click menu by selecting *Open Layout Template*. You may save up to 30 templates to the software. If you need to save more, see *Saving as a file* above.

TIP: For more on saving/backing up all layouts and settings, see <u>Backup and</u> Restore.

Opening a Saved Layout

- Open a saved layout file by right-clicking on a tab or on the + to the right of the tabs and selecting Open Layout from File.
- Open a saved layout template by right-clicking on a tab or the + and selecting Open Layout Template, and then select the template you want to open.

Close a Layout

Close a layout by clicking on the **x** in the upper right corner of the tab or by right-clicking on the tab and selecting **Close Layout**.

TIP: For layouts opened outside the primary window, you will be given a choice to dock the layout back into the primary window, close the layout completely, or do nothing (cancel).

Rename a Layout

With the layout open, right-click on the tab and select **Rename Layout**, then type a name for the layout and press **Enter**. You can also rename layout templates by opening the **Manage Templates** window via the right-click menu and clicking the pencil icon.

Duplicate a Layout

You can create an exact duplicate of a layout by right-clicking on the tab and selecting **Duplicate Layout**.

Delete Templates

Right-click on the tab and select **Manage Templates**. Click the **X** next to the name of the template you want to delete.

Import Layouts

You can import layouts and save them as a layout template from the Manage Templates window.

- 1. Right-click on a layout tab and select **Manage Templates**
- 2. Click **Import Layout**. Click on the layout file you wish to import and click **Open**.
- 3. Give the layout template a name and click **Save** and then **Done**.
- 4. If you want to then open that layout, right-click on a layout tab. Select **Open Layout Template** and choose the layout you want to open.

Backup and Restore

StreetSmart Edge® enables you to back up your current layout(s) and settings as one file to either the Schwab servers or to your hard drive (or both).

Auto-Save

The Auto-Save feature will automatically save your layouts when you log off. You can control this setting:

- 1. Click **Settings** > **Settings** in the main menu.
- Within the Global tab, and under Automate Behavior, place a check in the box labeled Automatically Save Layouts and Settings and then click Save.

TIP: When using auto-save, the backup is saved to your computer and overwrites the previous backup.

Disabling Auto-Save: You can uncheck this feature to disable auto-save, in which case you will want to manually save a backup each time you make changes to your layouts or settings that you wish to keep.

Manual Backup

If you have Auto-Save turned *off* (as described above), back up your layouts and settings by going to the main menu and clicking *File* > *Save all Layouts and Settings*. As with auto-save, this method will save your backup to your computer and overwrite the previous backup.

Saving Backup to External File or Schwab Server

Another way to back up your files is via the **Save As...** menu item in the main File menu. Using this, you can either save to the Schwab server or save locally to your hard drive or other storage device.

- Schwab Server Save up to 5 layouts to the Schwab Server. When you click Save to Schwab Server, a window displays showing you all your server-saved layouts. Assign your backup a name in the Layout Name field and click Save. Delete saved layouts by clicking the X next to the layout you wish to delete.
- **Local File** To save more than 5 versions of your layouts and settings, save them locally. File names will default to include the date of the backup, or you can give them unique names of your choosing. If you use the same file name, it will overwrite the previously saved version of the same name.

Loading a Saved Backup

Schwab Server: To restore your backup from the Schwab server:

- 1. Go to the main menu and click *File > Load...*
- 2. In the expanding menu, select the backup you wish to load.

Local File: To restore a backup saved locally to your hard drive or other storage device:

- 1. Go to the main menu and click **File > Load...**
- 2. Choose **Load from Local File**. Find and select the backup file (likely in the Saved Data folder of your StreetSmart Edge® directory) and click **Open**.

⚠ The current layout and settings will be backed up to your local drive. You may revert to the previous layouts and settings by choosing **Undo Load** from the **File** menu.

Undo Backup Load

Each time you load a new layout, a backup is saved so that if you change your mind and want to revert to your previous settings, you may do so by select

Undo Load from the **File** menu.

Title Bar

The Title Bar is found at the top of all "symbol-specific" tools in StreetSmart Edge®.

The All in One, Trading, Charts, and News tools, as well as the Symbol Hub and Recognia tools each have the Title Bar at the top, because the information they provide is related to one main symbol.

Compact Title Bar: Right-click on the Title Bar and select **Compact Title Bar** if you want the bar to take up slightly less space on your screen. It will still show most of the information below, minus the Exchange and FSI Codes.

TIP: The feature all windows in the software share, whether they are symbol-specific or not, is the <u>Tool Link Icon</u>, which allows you to specify which other windows update when you load or click on a symbol.

Title Bar Features	Title Bar Features	
Symbol	To load a symbol, click in the field, type the new symbol, and press Enter on your keyboard or click Go .	
	You can also choose from recently loaded symbol bols by clicking the down arrow in the symbol field.	
	Copy & Paste for Symbols: For option symbols, rather than having to type the full symbol in, you can right-click on a symbol in the Option Chains and select <i>Copy</i> . Then right-click in the Symbol field and select <i>Paste</i> to load the symbol. For more on the copy and paste functionality see Copy and Paste Option Symbols.	
Quote	Shows the last trade price.	
Tick	Shows whether the security is up or down for the day.	
Change/Change%	Shows the change in price from previous close.	
Description	Shows the company or index name.	
Exchange	Shows the exchange on which the security trades.	
FSI Codes	A letter after the security name is the Financial Status Indicator (FSI). FSI Codes	

Title Bar Features	
	C Creations and/or Redemptions suspended for Exchange traded product D Deficient: Issuer failed to meet Exchange continued listing requirements E Delinquent: Issuer missed regulatory filing deadline Q Bankrupt: Issuer has filed for bankruptcy G Deficient and Bankrupt H Deficient and Delinquent J Delinquent and Bankrupt K Deficient, Delinquent, and Bankrupt
Hard to Borrow (HTB)	Stocks that may be difficult to borrow for shorting purposes will have a Hard to Borrow indicator under the name of the exchange. If the stock you wish to short has this indicator, consider that it may be difficult to fill your order. For questions on shortable share availability, please contact Securities Lending at 1-800-355-2448.
Regulatory Circuit Breaker (RCB)	Stocks that have triggered the regulatory circuit breaker will be annotated with a "RCB" indicator in the <u>Title Bar</u> of a window. National securities exchanges and FINRA have implemented a new "limit up/limit down" mechanism (FINRA Rule 6190) to combat extraordinary market volatility. The new regulation mandates that firms prevent trades in listed equity securities from occurring outside of a specified price band, which will be set at a percentage level above and below the average price of the security over the immediately preceding five-minute period. More information on what triggers a Regulatory Circuit Breaker can be found at <u>NYSE</u> or <u>NASDAQ</u> .
Tool Link Icon	The Tool Link Icon provides a way for you to link multiple tools so that when a symbol is loaded in one, it changes in all the linked tools. For non-symbol specific tools, double-clicking on a symbol will load that sym-

Title Bar Features

bol in the linked tools.

EXAMPLE

If you set your Chart, Trade and Watch List tools to the green triangle icon, any time you load a symbol in the Chart tool, it will load in the Trade tool. And if you double-click on a symbol in your Watch List, it will load in both the Trade and Chart tools.

Changing the Icon: Change the icon for a tool by clicking on it (default is the red diamond) and selecting a different icon from the list.

Breaking Link: If you want a tool to be completely separate and have no link to other tools, choose the broken link icon at the bottom of the icon drop-down.

Order/Position Status

This area indicates whether your account has an order or a position in the current security, regardless of security type.

Order Status Indicator

- On indicates you have one open order for this symbol in your account.
- Click the indicator to display a list of all option and equity orders in your account for the underlying symbol.
- The list shows the details of each order (price, venue, quantity, etc.), order number, and quantity filled.
- It also gives you quick access links to Cancel, Change, or Add/Edit Brackets for each order.
- Buttons at the top of the list also allow you to Cancel All [symbol] Equity Orders or Cancel All Open Orders. These actions can also be accessed by right-clicking the Order Status Indicator.
- For more on changing, canceling, or editing brackets, see Changing or Canceling Orders.

Position Indicator

Title Bar Features

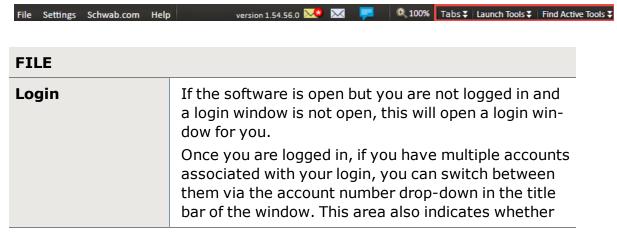
- P₁ L:100 @ 22.31 indicates you have one position for 100 shares Long (position size does not include option positions) with an average cost basis of 22.31 per share.
- Click the indicator to display a list of all option and equity positions in your account for the underlying symbol.
- The list shows each equity position, each option position, unrealized P&L for each, and includes a link to Close Position and Rollout Position (for option positions).
- Clicking the Close Position link will open a trade window with the quantity pre-filled and Close All selected (you can uncheck Close All and reduce the quantity if you wish). Clicking Rollout Position will open the All in One Trade tool with a ticket and option chain set up to place a rollout order.
- Click Review Order to review the order and then Place Order to send the order.

Main Menu

The main menu at the top of your StreetSmart Edge® window provides access to global tasks in the software, such as managing your layout and general settings. It also has easy linking to Schwab.com and both Live Help and software help.

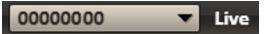
Combining the Menu Row with the Tabs Bar

To save space, the Tab Bar can be consolidated into the Menu Row. Once combined, use the 'Tabs' dropdown to toggle between Layout Tabs.



FILE

you are in **Live** or **Demo** mode.



Demo Mode

You can log in to Live Mode or choose Demo instead and take advantage of using the software with real time data without the risk of making mistakes in your live account.

- Get familiar with all aspects of the software: indicators, chart, confirmation messages, settings, etc.
- Practice entering orders quickly, including changing share size, price, and execution venue.
- Observe the Market Depth information, the movement of Market Makers and ECNs.
- Correlate price movements on a stock with market or sector movements.
- Learn what momentum may look like in the Market Depth screen.
- Observe the different types of stocks and different ways of trading based on spreads, volume, velocity, and momentum.
- Observe chart pattern formation.

NOTE: You should not determine the success rate of a trading strategy based on demo mode or simulator performance. Orders placed in Demo mode are filled randomly, with no regard to price, so the fill rates have no resemblance to those you might experience in Live mode. Only use demo mode for learning the mechanics of the software. Balance and transaction data is not available in Demo mode.

Logout

Use this to log out of your account but keep the software open. Useful if you want to switch between Live and Demo modes. Otherwise, you can choose *Exit* as described below or just click the **X** in the upper right corner of the StreetSmart Edge® window.

FILE	
Save all Layouts and Settings	Once you set up your display and settings customized to your needs, you will want to save those changes. You have a choice of doing this manually by selecting <i>Save all Layouts and Settings</i> , or enabling the auto-save feature in the <i>Settings</i> menu below. This menu item will be grayed out if you have auto-save enabled. If not, you will need to remember to manually save your layout changes by choosing this menu item before you log off. See more on backing up and restoring your settings and layouts
Save As	Back up your layout(s) and settings to either the Schwab server or to a local file. Schwab Server - Save up to 5 layouts to the Schwab Server. When you click Save to Schwab Server, a window displays showing you all your server-saved layouts. Assign your backup a name in the Layout Name field and click Save. Delete saved layouts by clicking the X next to the layout you wish to delete. Local File - To save more than 5 versions of your layouts and settings, save them locally. File names will default to include the date of the backup, or you can give them unique names of your choosing. If you use the same file name, it will overwrite the previously saved version of the same name. See more on backing up and restoring your settings and layouts
Load	Loads a saved backup either from the Schwab server or from a local file. When you load a saved backup, your current layouts and settings will be temporarily backed up so that you can revert to your previous set-up if necessary. See more on backing up and restoring your settings and layouts
Undo Load	Use to revert back to the settings you were using before you loaded a saved layout. See more on backing up and restoring your settings

FILE	
	and layouts
Exit	Logs you out and closes the software.

SETTINGS	
Settings	Application settings may be changed here, including Global Settings, Account Settings, Trading Settings, News Provider Settings, and Option Chains Settings.
Server and Proxy Settings	Adjust Schwab server settings or set up a proxy server from this window. In most cases, you should not need to make any changes in this window unless instructed by a Schwab® Trading Services Representative.

Schwab.com	
Links to Schwab	Links to Schwab.com, including education, account information, and much more.

HELP	
Live Help	Communicate directly with a Schwab Trading Services Representative without having to pick up the phone. Just open the Live Help window, type your question, and the representative will respond in real time.
	It is important that you do not use the Live Help window in the Schwab trading platforms to request, authorize or effect the purchase or sale of any security or commodity, to send fund transfer instructions, or to effect any other transactions. Any such requests, orders, or instructions that you send will not be accepted and will not be processed.
Help Manual	Access online help, which includes links to training materials, as well as a full-text search, glossary, and more.
Getting Started	Take a tour of StreetSmart Edge® and get an over-

HELP	
Guide	view of the features and tasks you can accomplish in the new flagship tool of the Schwab Trading Services software suite.
Learning Center	Get access to the main educational and learning resources available on Schwab.com.
StreetSmart Edge® Dis- closures	View all the disclosures related to your use of StreetS-mart Edge®.
Update Avail- able	When this menu item is active, this indicates an update to your software is available. Open this at your convenience to update your software. A list of new features in the update are available in the Upgrade window.
System Information	This window shows basic information about your computer, such as the operating system, processor speed, memory, and hard drive space.
About StreetS- mart Edge®	See which version of the software you have installed, as well as access the End User License Agreement, Copyright Notice, and Trademark Notice for the software.

Global Settings

Global settings affect the entire application rather than individual tools. Customize a variety of features in the General Settings sub-tab, and use the Display Themes sub-tab (coming soon) to change the overall look of your software.

TIP: You can set up and manage nicknames for your accounts by going to **Schwab.com** in the <u>Main Menu</u> and selecting **Manage Account Nicknames**.

General Settings	
Save layout interval	If checked, auto-save is enabled and your layouts and settings will automatically back up to your computer at a regular frequency. The default is every 5 minutes, but you can change to anything from 1 to 120 minutes. See more on backing up and restoring your settings and layouts

General Settings	
Inactivity logout	Customize the amount of time that you wish to remain online before the software logs you off due to inactivity. The default setting is 1 hour, but you can change to between 1 and 8 hours.
	NOTE: If using Edge in the Cloud environment, there is no Inactivity logout from 8:00 ET to 16:30 ET and a default 1 hour Inactivity logout outside of those hours.
Refresh Rate	Controls the speed of the data to your display. If you have a slower processor, it may be helpful to reduce this rate. Move the pointer between Slow and Fast to control how many times per second your window refreshes. Slowest is every 1 second.
New Message behavior	Decide what you want the software to do when you get a new message:
	 Show a system tray notification: Displays the message or subject of the message for 5 seconds in the lower right corner of your primary monitor. Double-click the message in the notification to open the Messages tool. Bring the Message tool(s) to the front: Makes the Messages tool the active window in your StreetSmart Edge® display. Do both of the above
Header Symbol Fields	Enter the symbols you wish to display a quote for in the header of the StreetSmart Edge® window. Displays the trade price, change from close, and % change from close. Useful for keeping an eye on key stocks or indices.
Symbol Auto-Complete	Keep <i>Use Symbol Auto Complete</i> checked if you want the software to offer suggestions to choose from as you're typing a symbol. For instance, if you type AA, all the symbols that start with AA will display. Arrow down to the one you want and press Enter, or you can click on the symbol with your mouse.

General Settings	
	Unchecking this setting will stop the symbol suggestions from displaying.
Animations	When Change background color of grid cells to show tick direction is checked, the software will display a red or green background behind price values to indicate whether the stock is on the downtick or uptick, respectively.
Quick Launch	Check to improve initial application startup performance.

Display Themes	
Light / Dark	Choose between a light or a dark background theme. You can toggle between the <i>Light</i> and <i>Dark</i> choices and see how the change will affect your layout before adopting the change by clicking <i>Save</i> . Changing your display theme will not override custom colors in individual tools.

Sounds	
Events	Click on the event you want to assign a sound to: Login, Logout, Live Order Entered, Order Filled, Order Cancelled.
	Click Browse to select an audio file to use for the selected event. The software comes with several sounds from which to choose, or you can use .wav files of your own.
	TIP: When choosing a file from the Browse dialog, you can listen to it before choosing it by right-clicking on the file and selecting Play . Otherwise, you can select the file, click Open , and press the button to hear the sound.

Account Settings

Determine settings related to your account from the Account tab in the main Settings menu.

Profit and Loss				
Calculate Position Day Change P&L using:	Select whether to use the Close or Open price to calculate P&L change for the day.			
Calculate Option Prices for P&L using:	Select whether to use the <i>Midpoint</i> or <i>Bid/Ask</i> quote to calculate the P&L change for the day.			
Update Equities P&L during After Hours	When checked, allows you to choose <i>Last Trade Price</i> or <i>Bid/Ask Price</i> to calculate after hours P&L on equities. When unchecked, P&L calculations will use the closing bid/ask to calculate P&L, so the calculation will not update after hours.			

Trading Settings

Access the Trading Settings by going to **File > Settings** in the main menu or by right-clicking in the Trade Ticket area of the <u>Stocks & ETFs tab</u> and selecting **Trade Ticket Settings**.

See more on the <u>Notifications</u>, <u>Equity Hot Keys</u>, <u>Order Quantity</u>, and <u>Conditional Orders/Alerts</u> settings tabs found in the Trading tab.

Here, you can control order verification, commissions on estimates and more.

Trade Settings

Order Verification

Check to enable order verification before placing or canceling an order. This will give you a chance to review the details of your order before you send it, as well as displaying any notifications or errors resulting from the order settings.

You may also choose to add a <u>Bracket</u> to your order by clicking on the "Set Exit Strategy" button.

Please note that there is a 10 minute time limit to place your order once the Order Verification window has been opened. If the Order Verification window has been open for longer than 10 minutes and you wish to place an order, close the window and place a new order.

IMPORTANT: If you turn off **Order Verification**, your orders are immediately submitted without a verification screen, so you will not have the opportunity to review the terms of your order prior to entry and will not see warn-

Trade Settings ing or informational messages related to your orders. By unchecking this feature, you accept the associated risks of trading without an Order Verification window and messaging. Order Action You can specify what the software does to the Action selec-Selection tion after you've placed an order or entered a new symbol. You can choose to **Clear Action**, **Maintain Action**, or **Set Action to "Close"** if the symbol has an open position. × Stock/ETF ▼ Calls/Puts ▼ Conditional Orders ▼ 🖈 + Actions ▼ Action Quantity \$ Venue Order Type Limit Price Timing **‡** Day ▼ Buy 100 Smart Limit ▼ 8.57 Sell ♣ Brackets Special Cond. Review Order Short Or you can choose to view the Action selections as buttons by choosing Use Trade ticket with Order Action buttons. × Stock/ETF ▼ Calls/Puts ▼ Conditional Orders ▼ 🛊 + Actions ▼ Quantity \$ Venue Order Type Limit Price Timing 100 Smart Limit ▼ 8.57 ‡ Day ▼ Special Cond. ♣ Brackets Buv Short **Price Incre-**Controls the increase or decrease in price when using the up/down arrows 129.20 for the price fields in the Trade ment Ticket. **Cancel But-**You can specify whether the Cancel button within all Trade ton Selectools will cancel the last submitted order for the current. symbol or cancel all equity orders for the current symbol. tion Com-Use these fields to set the equity and option commissions missions to use when estimating the cost or proceeds that will result from the trade. You can set commissions per trade or per stock/contract, depending on your commission structure.

Tool Limits in Layouts

Each tool in StreetSmart Edge®can be opened a limited number of instances across *all open layout tabs*. Tools that utilize tabs also have a limit on the number of tabs that can be opened in each instance.

Finally, tools that allow you to save templates also have a limit on the number of templates you can save in the software. You can save an unlimited number of templates by using the *Save As File* feature, but templates saved as file will not display in the *Open...* drop-down menu.

These limits are spelled out below. Click the link for the individual tool or feature to read more about each one.

Tool/Feature	Max # of Tool Instances	Max # of Tabs	Max # of Templates	Notes
Account Details	8	n/a	n/a	
<u>Alert Templates</u>	n/a	n/a	20	
Block Trade Indicator	4	4	20	
<u>Chart</u>	20	20	20	
CNBC TV	1			
Conditional Order Tem- plates	n/a	n/a	20	
ETF Screener	8	n/a	n/a	
Global	1	n/a	n/a	
High/Low	4	4	20	
<u>Layout Tabs</u>	n/a	8	20	Max Server- Saved: 5
Market Edge	8	n/a	n/a	
<u>Messages</u>	8	n/a	n/a	
<u>Momentum</u>	4	4	20	
<u>News</u>	3	n/a	n/a	
<u>Notes</u>	20	n/a	n/a	
Portfolio Per- formance	8	n/a	n/a	
<u>Idea Hub</u>	8	n/a	n/a	
<u>Recognia</u>	8	n/a	n/a	
Research	6	n/a	n/a	
Screener Plus	12	20	20	

Tool/Feature	Max # of Tool Instances	Max # of Tabs	Max # of Templates	Notes
Symbol Hub	8	n/a	n/a	
Symbol Lookup	1	n/a	n/a	Single instance per layout tab.
<u>Trade</u>	8			
Trade - All in One	30	8	n/a	
Watch List	8	20	20	
Web Browser	8	n/a	n/a	

Account Details

Account Details

From the Account Detail tool, you can view pertinent details about your account by clicking one of the following tabs. It is recommended that you integrate the Account Detail tool into your <u>layout</u> (you can have up to 8 open) so that this vital information is at your fingertips:

- Order Status: Shows all order activity, including conditional and bracket orders, as well as the execution details of filled orders. Use the Order Status tab to Cancel or Change open orders, add or edit bracket orders and activate, edit or cancel (deactivate) conditional orders.
- <u>Alerts</u>: Set up alerts based on price, volume, or time criteria that will notify you in the <u>Messages</u> tool when the conditions of the alert are met. Alerts provide notification only and do not place orders. Use the <u>Conditional Orders</u> tab of the Trade tool or Symbol Hub to set up instructions that trigger and place orders only when your criteria are met.
- <u>Balances</u>: Shows account values, margin information, and more detailed balance information for your account. For a quick, constant view of your balances, the Balances Bar is located at the top of your primary layout. Use the <u>Show/Hide Balances</u> button in the upper right corner of your screen to display or hide this information. Learn more about the <u>Balances Bar</u>.
- <u>Positions</u>: Displays all your open positions with market and fundamental data for each. Use the Positions tab to close positions, including closing all shares or contracts.
- Realized Gain/Loss: Shows values pertaining to realized profits and losses for the current day.
- <u>Transactions</u>: Displays up to 90 days worth of order transactions that have taken place in your account. By default, transactions for the past 60 days are displayed.



Rearrange Account Detail Tabs

The tabs in the Account Detail tool can be rearranged to your specifications by simply dragging and dropping them. Click on a tab and drag it to the left or right to change the order of the tabs.

TIP: You can also quickly see whether you have open orders or positions for a security by clicking the O or P \bigcirc_{33} | P in the upper left corner of the Trade tool and the Symbol Hub or the upper right hand corner of the All-In-One Trade tool.

Adjust Font Settings

- 1. From the right-click or **Actions** menu, select **Font...**
- 2. In the Font window, you can adjust the size of the type in the any of the Account Details tabs, as well as make the text bold and/or italicized by clicking the **B** or *I* buttons, respectively.

TIP: By default, changes only apply to the tab in which you are changing the font size. To make the changes to all tabs, check **Apply to All Account Details tabs**.

Adjust Color Settings

Each tab in the Account Details tool has its own customizable color settings.

- 1. From the right-click or **Actions** menu, select **Colors...**
- 2. In the Colors window, you can customize the colors of each element in a particular tab (elements vary from tab to tab), from background and highlight colors to font colors.
- Click **Reset to Default Colors** should you wish to return to the original colors.

TIP: By default, changes only apply to the tab in which you are changing the colors. If you want your changes to apply to that tab in all Account Details tools in your layouts, check **Apply to all [tab name] tabs** at the bottom of the Colors window.

Taking Action on Orders and Positions

StreetSmart Edge® puts order and position management at your fingertips throughout the platform.

In addition to everything you can do in the <u>Order Status</u> and <u>Positions</u> tabs of the Account Details tool, you can also view, change, cancel, edit, and add <u>brackets</u> to orders just about anywhere you see an order or position indicator.

There are two types of order and position indicators that give you quick access to your orders and positions:

O and P tiles

Found at the top of the <u>Chart</u>, <u>Trading</u>, and <u>Symbol Hub</u> tools. They indicate you have either an order or position in the security being viewed in the tool.



Click on the O or P tile to access a variety of actions on those orders or positions without having to switch to your Account Details tool:

• The O tile shows all open order(s) for the sym-

	 bol being viewed, as well as giving you access to Cancel, Change (if available), or Edit/Add Brackets to an order. The P tile shows all your positions in the symbol being viewed, and allows you to Close positions or Add Brackets.
Chart Flags	When viewing a chart for a symbol in which you hold a position or have an open order, these will display on the chart (if enabled in the settings) as small flags B = Order to buy (shows S for sell, Sh for short) 2 = Multiple open orders 5 = Bracket order P = Position Hover over the flag to view the details of the order or position, or click on the flag to access the actions available (same as above for the O and P tiles).
Bid/Ask Quotes	In the Watch List tool and Positions tab, clicking the bid or ask quote will load the symbol in the All in One Trade tool as a limit order pre-filled with the price you clicked. If you click the bid quote, the order action will automatically choose Sell if you hold a position in the stock or Short if you do not. Clicking the ask quote will set up a Buy order on the stock.

Order Status

Order Status

From the Order Status tab, you can:

- View the status of all orders both open and closed placed via any Schwab channel (including Schwab.com, StreetSmart.com, etc.)
- View order execution detail with order number, time, price and more
- Change or cancel individual orders, including multi-leg option orders
- Cancel all open orders for a symbol or all orders in total
- Add, edit, or remove bracket exits

- Activate, cancel (deactivate), or edit conditional orders
- View, submit, edit, or delete Saved orders



(**) Order Status can be found in the Account Detail tool.

TIP: You can also quickly see whether you have open order or positions for a security by clicking the O or P Q in the upper left corner of the <u>Trade</u> tool or Symbol Hub.

Viewing Order Execution Detail

See the details of each order, including order number, venue, time, fill price(s) and more, by clicking on an order and clicking Order Detail to expand the Order Detail display.

You can leave the Order Detail display open and click through your orders to see the details of each one, or you can close it by clicking **Order Detail** again.

Filter Order Status View

Customize and streamline your Order Status display from the Actions drop-down by choosing one of the following:

- Show All Orders (default)
- Show All Live Orders or
- Show All Live Orders and Today's Activity

Canceling an Order

The Order Status window enables you to cancel open orders. Click an order and click **Cancel Order** at the top of the window, or right-click on the order and select *Cancel Order*. The software will ask you to verify the action.

Canceling ALL Orders

You can cancel one order as described above or you can cancel all open orders. Click **Actions** > **Cancel All Open Orders** to initiate the canceling of all orders.

To cancel all orders for one symbol, right-click on the symbol and select *Cancel* All Open [symbol] Orders.

Resubmitting an Order

Previously submitted orders can be resubmitted by clicking on the **Resubmit Order** button, or by highlighting the order and accessing the right-click or **Actions** menus.

To initiate this feature, the order status must be in one of the following states:

- Canceled
- Out
- Filled
- Part Filled, Out
- Part Filled, Canceled
- Expired
- Part Filled, Expired

Changing an Order

For open Smart orders, you may be able to make changes to the order, such as quantity, type, limit price and more. Click the order you wish to change and click **Change Order** at the top of the window, or right-click on the order and select **Change Order...**

A window with the order entry fields will open with your original order settings. Make the desired changes and click **Review Order**. If the settings are correct upon review, click **Place Order**. Otherwise, click **Cancel Changes** if you want to keep the original settings.

Note that you cannot change a Smart order to or from a trailing stop order type after the order has been submitted. You must first cancel the order and then resubmit with a different order type.

Orders with Brackets: You can change the primary order using **Change Order** as described above, but to change the bracket exits themselves, right-click on the contingent bracket in the Order Status tab and select **Edit Bracket**. You cannot change the order AND its associated brackets via the Change Order function.

Multi-Leg Option Orders: You can change the primary order using **Change Order** as described above, but cannot change or remove individual legs. To change or remove individual legs, cancel the entire multi-leg order, then rebuild and submit the new order.

Contingent Orders

All contingent orders display in the Order Status tab. The following types of orders will display as **Contingent** in the Status column:

- Bracket exits associated with primary orders: Click the arrow per next to the primary order to display the exits associated with the order. Bracket exits can also be added to open orders by right-clicking and selecting Add Bracket. Please see the Brackets section for more information.
- **Smart trailing stop orders:** Smart orders with a trailing stop are held up until the trailing stop price is met. Once the price is met, the order status changes to **Open**, and a market order is submitted for execution. Trailing Stop orders can only be entered during the standard session.

• Conditional Orders: Conditional orders display in the Order Status tab as Contingent until the order criteria are met, at which point an order is submitted for execution and the conditional order's status changes to Inactive, while the order it spawns becomes a live order. If there are multiple orders related to one conditional order, click the arrow sto display all orders.

NOTE:Once a conditional order is triggered and an order is submitted for execution, the order will display with the live orders rather than with the conditional order. The conditional order will continue to display but will become Inactive.

Partial Fills

The **Quantity Filled At** column displays quantity and price information for your order's fills. If there are multiple fills at different prices, this column displays the average price with the total number of shares. To view the individual fills, select the order and click **Order Detail** in the upper right corner.

Short Sell Exempt Orders

Short Sell-Exempt orders will display in your Order Status tab. A customer service representative may enter Short Sell-Exempt orders on your behalf in certain limited circumstances. ¹

Export Order Status

- You can *Export* your Order Status data to .xls (for Office XP and later versions), .csv, or .txt formats from the *Actions* menu or by right-clicking within the Order Status display.
- 2. Select the save location and enter a name for the export file, if you wish to change it from the default, and click **Save**.

Order Status Column Descriptions

See <u>Order Status Columns and Settings</u> for directions on setting up your <u>Order Status</u> display.

¹The most common instance when this may occur is when liquidating the underlying security where the position is held as either an equity right, warrant, convertible, or a restricted stock. In these circumstances, the securities are not in an acceptable form for delivery on settlement date. Note that you must file an exercise for the right, warrant, convertible or restricted stock before your order to liquidate the underlying security can be marked as Short Sell-Exempt.

Order Status	
Status	Displays the current status of your order (filled, open, cancelled, etc.). Open orders display a green indicator, filled or canceled orders display a red indicator, and contingent orders are indicated by an orange indicator. The parent row for an open bracket order will display a blue indicator. For orders with brackets and for conditional orders, click the arrow to view the contingent portions of the order.
Symbol	The unique 1-5 characters used to represent the security. Symbols are defined by the different markets or exchanges. Sometimes a security might not have a symbol, in which case, an internal Schwab reference # will be used.
Action	Displays the action type of the order (Buy, Sell, Buy to Open, etc.).
Change Yes/No	Indicates whether the order is still eligible to be changed.
Cost Basis Method	Click View link in column to see the Cost Basis Method being used for each individual closing non-option order. Order-level cost basis method can be viewed in a popup window from StreetSmart Edge® in this column, but you can only change the cost basis method for an individual order from the Order Status tab of Schwab.com. For more, see Cost Basis Method
DRI	Indicates (yes/no) whether the Dividend Reinvestment has been enabled for the position.
Notes	If a symbol in the Order Status tab has a note associated with it in the Notes tool, the Notes icon will display. Click the icon to see the note (s).
Order Number	Displays the unique order reference number
Price	Shows the price at which you want the order

Order Status	
	filled.
Quantity	Shows the number of shares or contracts to be traded.
Quantity Filled At	Displays quantity and price information for your order's fills. If there are multiple fills at different prices, this column displays the average price with the number of shares.
Route	Shows the <u>venue</u> used to route the order.
Security Type	Displays the type of security, such as an equity or option
Submit Date/Time	Shows the date and time the order was submitted.
Timing	Displays the <u>Time In Force</u>
Trade Type	Indicates whether the item is an Order, Primary (for bracket orders), one of the brackets (Profit Exit, Trailing Stop Exit, Stop Loss Exit), or Conditional.
Trigger (current)	During market hours, displays the price at which a trailing stop order will be triggered. The trigger price is calculated by using the point or percentage amount and subtracting it from the bid on sells or adding it to the ask on buys. As the security's price increases (for sells) or decreases (for buys) the trigger price moves up or down, and the Order Status panel displays streaming updates.
Price Improvement	Displays Price Improvement ¹ on eligible orders.

¹Price improvement is the difference between your order execution price and the market price of the security at the time of order routing multiplied by the order size. Improvements are only displayed for marketable orders <10,000 shares in REG NMS equity securities and single-leg, non-adjusted options <50 contracts entered during regular market hours. Price improvements are for informational purposes only and are based upon sources believed to be reliable. However, Schwab does not guarantee their accuracy.

Quote Data

Ask	Current inside Ask price
Bid	Current inside Bid price
Last Trade	Current Last Trade price
Underlying Last	The last trade price of the underlying stock of an option

Order Status Columns and Settings

The StreetSmart Edge® Order Status tab, found in the Account Details tool, is customizable, allowing you to choose which columns of data to display for the status of orders in your account, as well as the order of the columns. Access the Order Status tab Settings window by right-clicking in the Order Status display and selecting **Columns and Settings...**, or access it from the **Actions** dropdown menu.

Sorting Rows

Sort rows by clicking the header of the column on which you want to sort. An arrow next to the column name indicates the sort direction (ascending or descending).

- If Auto-Sort in Real-Time is checked in the Columns and Settings window, changes to data in the sort column will affect the current sort order in real time.
- For example, if you have your Order Status display sorted alphabetically by Symbol, when you open orders in your account, the new orders will be inserted into the Order Status display in the correct alphabetical order.
- Conditional orders stay together as a group at the bottom of the Order Status display. Sort order change will apply to the conditional orders section, but the orders will sort among themselves rather than sorting with the live orders above.

Sorting by multiple rows can be accomplished by holding down the Shift Key while you left click on the headers of the columns which you want to sort.

 For example, if sorting by All 'Open' Orders, all of the 'Open' orders would be grouped together, and within that group the rows would be arranged by the next sorting selection. If there is no second selection, the rows within the group would be arranged by their symbols from least to greatest, alphabetically.

Customizing Columns

There are several ways to rearrange the columns displayed in the Order Status tab:

- You can click the column headers and drag them to another spot in the Order Status display.
- You can also right-click on a column header and choose a different column from the list of all available columns.

TIP: If the column you choose is not currently displayed in the Order Status, it will completely replace the column that was there. If it is already in the Order Status display, the two columns will swap places.

- You can also arrange column order from the Columns and Settings window, available in the right-click menu. Check the columns you want to display in the Order Status tab. All chosen fields display in the Column Order display on the right with the most recently selected column at the bottom of the list. Click a column name and use the *Up/Down* buttons to move the column into a new position.
- For brief descriptions of each column, hover your mouse pointer over the column name in the Columns and Settings window. For more in depth descriptions of each column, see Order Status Column Descriptions.

Applying Settings to One or All Tabs

You can choose to apply the settings changes you make to either just the *current* Order Status tab or to *all* current and future Order Status tabs. The default is to apply the settings only to the current tab, but if you prefer the settings to apply to all, select *Apply to all Order Status tabs* at the bottom of the Columns and Settings window before clicking *OK*.

Messages

Use the Messages tool to stay informed about changes to order status, market status, notifications from Schwab and more. You may have up to 8 Messages tools open at a time.

The tool consists of two tabs:

Order Messages Tab

 Displays the current day's vital, time-sensitive messages related to order status, alerts activity, system or market center outages, and more. Messages that could affect your trading or ability to trade will display in the Order Message tab.

- Displays message time (Eastern), account number, and message text. Messages are sorted by date and time.
- Displays Price Improvement¹ on eligible orders.
- Choose whether to display messages for the current day or only the current login session. See Session Display below for details.

Message Center

- Displays urgent and non-urgent messages from Schwab regarding holiday closures, policy changes, and other matters related to the account. Also, notifies clients about Schwab products and services.
- Messages in this tab display the date they were sent, subject, and the expiration date upon which the message will stop being displayed.
- Messages that do not need to be retained can be removed by clicking the message and then **Dismiss** at the bottom of the Message Center.

New Messages

A highlighted message icon at the top of your screen indicates you have unread messages in the Messages tool. When you have unread messages in the Message Center tab, the number of unread messages displays next to the tab name.

Reading Messages

In the Message Center, open a message by clicking on it to display it in the reading pane. To resize the reading pane, click on the divider bar between the panes and drag it up or down.

Notification Settings (Coming soon)

To change how you are notified of new messages, right-click in the Messages window and select **Settings**. Choose from:

• **Show a system tray notification:** Displays the message or subject of the message for 5 seconds in the lower right corner of your primary monitor.

¹Price improvement is the difference between your order execution price and the market price of the security at the time of order routing multiplied by the order size. Improvements are only displayed for marketable orders <10,000 shares in REG NMS equity securities and single-leg, non-adjusted options <50 contracts entered during regular market hours. Price improvements are for informational purposes only and are based upon sources believed to be reliable. However, Schwab does not guarantee their accuracy.

Double-click the message in the notification to open the Messages tool.

- Bring the Message tool(s) to the front: Makes the Messages tool the active window in your StreetSmart Edge® display.
- Do both of the above

Adjust Color Settings

- 1. From the right-click menu, select **Colors...**
- 2. In the Colors window, you can customize the colors of each element, from background and highlight colors to font colors.
- 3. Click **Match the order status square** to match the color of the order message to the color-coded status listed in the Account Details' <u>Order Status</u> tab.
- 4. Click **Reset to Default Colors** should you wish to return to the original colors.

TIP: Check **Apply to all Order Messages tabs** at the bottom of the Colors window if you want the color settings to apply to all Order Messages tabs.

Session Display

If you log off and back on multiple times during the day, all messages in the Order Messages tab for the previous session(s) will display in italics. You can show messages from the current session *only* by right-clicking in the window and choosing **Show Current Session**.

Message Sorting

Because messages are presented in a fixed order based on date and time, sorting by columns is not available in the Messages tool.

Price improvement is the difference between your order execution price and the market price of the security at the time of order routing multiplied by the order size. Improvements are only displayed for marketable orders <10,000 shares in REG NMS equity securities and single-leg, non-adjusted options <50 contracts entered during regular market hours. Price improvements are for informational purposes only and are based upon sources believed to be reliable. However, Schwab does not guarantee their accuracy.

Alerts

Alerts

Alerts are designed to notify you when certain market conditions occur. They can help you manage risk on open positions or alert you to opportunities as favorable market conditions appear, depending on the type of conditions you include in the alert.

Alerts can also be a good stepping stone to using Conditional Orders, as they can help you learn to set up condition statements without the risk of orders being submitted.



(Real of the Alerts are managed from the Alerts tab of the Account Detail tool.)

TIP: The alerts tab does **not** initiate orders. Use the Conditional Orders tab in the Trade tool or Symbol Hub if you want to send an order when your conditions are met.



For more information on using Alerts, visit the Quick Reference Guide.

Getting Started

- Before setting alerts, please read the Alerts Guidelines topic for important information regarding alert behaviors you should be aware of.
- You can also customize the column display in your Alerts tab. See Alert Columns for more information on column settings.

Create Alerts

- Create an alert by clicking *Create Alert* at the top of the Alerts tab.
- You can also right-click on a symbol almost anywhere in the software and select Create Alert on [symbol] to begin creating an alert on that symbol.
- See Create Alerts for detailed instructions on setting up an Alert.

Edit an Alert

- 1. Click on the alert in the Alerts tab.
- 2. Either from the **Actions** drop-down or by right-clicking on the alert, choose Edit Alert.
- 3. Make changes to your alert and click **Update Alert**.

Activate or Cancel an Alert

You can manually change the activation status of an alert regardless of the Expiration date on the alert.

- 1. Click on the alert in the Alerts tab.
- 2. Either from the *Actions* drop-down or by right-clicking on the alert, choose Activate Alert or Cancel Alert.

Activate or Cancel ALL Alerts

- You can also activate or cancel (deactivate) all alerts at once rather than one at a time.
- From either the Actions drop-down or by right-clicking in the Alerts display, select Activate All or Cancel All.

Remove Alerts

- Delete alerts permanently by clicking on the alert and selecting Remove
 Alert in the Actions drop-down, or by right-clicking on the alert and selecting Remove Alert.
- You can also delete all alerts at once by choosing Remove All Alerts either from Actions or by right-clicking in the Alerts display.

Export Alerts

- You can *Export* your Alerts data to .xls (for Office XP and later versions), .csv, or .txt formats from the *Actions* menu or by right-clicking within the Alerts display.
- 2. Select the save location and enter a name for the export file, if you wish to change it from the default, and click **Save**.

Alert Guidelines

Hours

You can set up and activate alerts or alerts created from templates at any time (including outside of standard market hours) and they will display in the Alerts tab.

However, because alerts require updated Level I quote information to function, they will not initialize until the next trading session.

Wide Spreads

Alerts on symbols with wide spreads may not fire if the spread is too wide.

Quick Triggers

Alerts automatically cancel if triggered within 5 seconds of being set.

StreetSmart Only

Brackets, Conditional Orders, and Alerts created in the StreetSmart platforms can only be viewed and managed from the StreetSmart family of applications and are not currently available from Schwab.com or other Schwab applications.

After Hours

- Alerts set to expire on the current trading day become inactive at the end of the standard session (4:00 p.m. ET), but they remain in the Alerts tab pending further action such as editing, activation, deactivation or removal.
- Alerts set to expire on a future date, and which have not yet expired or triggered, will deactivate at the end of each standard session (4:00 p.m. ET), but will reactivate at the open of the next trading day's standard session, until the alert expires, is triggered, or is canceled (deactivated).

Index Alerts

Alerts for indices should only be set up using the Trade Price variable. Although you can create alerts for indices using other variables such as Bid or Ask, these alerts will never trigger because the variables do not exist for indices.

After an Alert Triggers

- Alerts established with conditions that have already been met or are imminent will not activate and you will be presented with an opportunity to make changes to your alert.
- After any alert has triggered, it will automatically be cancelled (deactivated). The same alert cannot trigger more than once without being reactivated first.
- If you are not logged on when an alert triggers, a message indicating that the alert triggered in your absence will display in the <u>Messages</u> window at login.

Inactive Alerts

Alerts which have been inactive for 4 months will be automatically removed from the system.

Alert Columns and Settings

The StreetSmart Edge® Alerts tab, found in the Account Details tool, is customizable, allowing you to choose which columns of data to display for the alerts in your account, as well as the order of the columns. Access the Alerts tab Settings window by right-clicking in the Alerts display and selecting **Columns and Settings...**, or access it from the **Actions** drop-down menu.

Sorting Rows

Sort rows by clicking the header of the column on which you want to sort. An arrow next to the column name indicates the sort direction (ascending or descending).

- If Auto-Sort in Real-Time is checked in the Columns and Settings window, changes to data in the sort column will affect the current sort order in real time.
- For example, if you have your alerts sorted by Expiration, if you change the expiration date of an alert, the list will automatically adjust its sort order to put that alert in the correct order relative to the other expiration dates.

Customizing Columns

There are several ways to rearrange the columns displayed in your Alerts tab:

- You can click the column headers and drag them to another spot in the Alerts tab.
- You can also right-click on a column header and choose a different column from the list of all available columns.

TIP: If the column you choose is not currently displayed in the Alerts tab, it will completely displace the column that was there. If it is already in the display, the two columns will swap places.

- You can also arrange column order from the Columns and Settings window, which is available when you right-click on the tab name. Check the columns you want to display in the Alerts tab. All chosen fields display in the Column Order display on the right. Click a column name and use the *Up/Down* buttons to move the column into a new position.
- For brief descriptions of each column, hover your mouse pointer over the column name in the Columns and Settings window.

Applying Settings to One or All Tabs

You can choose to apply the settings changes you make to either just the *current* Alerts tab or to *all* current and future Alerts tabs. The default is to apply the settings only to the current tab, but if you prefer the settings to apply to all, select **Apply to all Alert tabs** at the bottom of the Columns and Settings window before clicking **OK**.

Alert Column Descriptions

See <u>Alert Columns and Settings</u> for directions on setting up your <u>Alerts tab</u> display.

Column	Description
Status	Indicates whether the alert is Active, Inactive, or the conditions of the alert have been met. An orange square indicates that the alert is Active and a red square indicates that the alert is Inactive .

Column	Description
Name	Name you assigned to the alert
	TIP : While not required, it is good practice to name your alerts as those names are referenced in right-click menus and other areas of the software.
Description	Shows the "if" condition of the alert. For example, "If ABCD share P&L gains 2%"
Notification	Shows how you will be notified if the condition is met and the alert is triggered.
Trigger Value	If the alert has a trigger price that adjusts, such as one based on profit or loss values, the current trigger value will display here. If the alert uses a trailing stop, the trigger value will dynamically update in the display as a new anchor price is reached.
Expiration	Shows when the alert will expire
Submit Date/Time	Shows the time and date the alert was submitted
Notes	Shows the Notes icon if you have created a note for the primary symbol being used in the alert. Click the icon to see the note(s).

Create Alerts

Create alerts to notify you when certain market conditions occur. They can help you manage risk on open positions or alert you to opportunities as favorable market conditions appear, depending on the type of conditions you include in the alert.

The Alerts tab, where alerts are created and managed, is found in the Account Details tool.

For more information on using Alerts, visit the Quick Reference Guide.

Start creating an alert in one of 3 ways:

- From the Alerts tab of the Account Details tool, click *Create Alert*.
- Right-click on a symbol anywhere in the software and select Create Alert on [symbol].
- Right-click in the Alerts tab and select *Create New Alert*.

Creating an alert

- 1. In the Create Alert window, enter an **Alert Name**. Name cannot include the | (pipe delimiter) symbol.
- 2. Select an **Expiration** date. The default is the current day, but you can set alerts to expire up to 180 days out. Type in a date or click on the calendar to select a date.
- 3. If you want the alert to only last for the current market session, set the expiration date for the current day.

TIP: Active alerts remain active even when you log off. They only deactivate if they expire, or are day orders and the market closes, or are triggered.

- 4. If you wish to use a template to automatically fill in portions of the alert, select it from the **Templates** drop-down and click **Load**. For more on using templates, see Alert Templates.
- Now, set up the **Conditions** for your alert. For more information about each
 of the choices available when setting up your alert conditions, see <u>Alert</u>
 Conditions.
- 6. Choose how the software will alert you when your conditions are met by clicking **View Notifications**. You can either choose the default notification settings or set up one-time-only notification settings. For more information, visit Alert Notifications.
- 7. A summary of your alert displays below the Conditions panel showing what the alert will do and when.
- 8. Once your alert settings are to your liking, you can either choose **Activate Alert**, **Save as Template**, and/or save as a template to a file
- 9. If you want to start over, click *Clear*. Otherwise, to take no action and close the Create Alert window, click *Cancel Alert*.

Alert & Conditional Order Conditions

Following are the conditions you can specify when creating an Alert or Conditional Order on a stock or option symbol. See more on <u>Creating Alerts</u> or <u>Conditional Orders Overview</u>.

For more information on using Alerts or Conditional Orders, visit the Quick Reference Guide.

If	
Stock/ETF, Call, or Put	Click Stock/ETF for conditions using an equity symbol. Select Call or Put when using an option symbol

If	
	for your condition.
Symbol	Enter the symbol you want to monitor. Click the drop-down arrow in the symbol field to select from the symbols in which you hold positions. Avoid placing alerts or conditional orders on any stock that does not have bid/ask quotes, including Pink Sheet securities. Such alerts will not fire.
	TIP: For option symbols, you can copy and paste the symbol from the option chains located in the All in One tool, Trade tool or Symbol Hub by right-clicking on the Option symbol and selecting Copy, then Paste into the desired field, again using right-click.
Variable	Select the type of data you wish to monitor for the symbol. • Bid - Bases your conditions on the inside Bid price. • Ask - Bases your conditions on the inside Ask price. • Volume - Bases your conditions on the daily cumulative volume. • Trade Price - Bases your conditions on the last sale price reported. • It is not uncommon for erroneous trade reports to come through the Time & Sales display with prices away from of the market. You will be responsible for any orders that are executed, even if they are based upon inaccurate information. To minimize possible issues, consider using the Bid or Ask variable when sending conditional orders. This is not a guarantee that orders will not be sent based on 'bad prints' and will not completely remove the risk of alerts firing based on inaccurate data. • Time - You can set your alert or conditional order to trigger at a specific time during regular
Operator	The following operators are available depending on
	<u> </u>

If	
	the variable:
	 Increases to (or above) Decreases to (or below) Gains Loses Increases from open by Decreases from open by Increases from close by Decreases from close by
	For the Time variable, choose from:
	 is (the alert or order will trigger at the specified time or date)
	 is earlier than (alert or order will only trigger prior to this time or date)
	 is later than (alert or order will only trigger after this time or date)
	 is between (alert or order will only trigger between these times)
	Notes about the Gains and Loses operators:
	 The Gains and Loses operators initialize from the moment the alert or conditional order is activated. So if you create an alert or order that triggers when the Bid gains 1 point, the alert or order uses the Bid at the moment you activate the it as the starting point.
	 If you wish to set a percentage Value or use a Trailing Stop, you must use Gains or Loses as your operator.
	• Gains/Loses vs Increases to/Decreases to: If the selected Operator is "Gains" with a 2.00 Value, the alert will then fire when the chosen Variable reaches the Variable + 2.00. For example, if the Variable is Trade Price and the Trade Price is \$10.00, the Alert would fire when the Trade Price = \$12.00 (\$10.00 + \$2.00).

If	
	Alternatively, if "Increases to" is selected as the Operator with a 2.00 Value, the alert will then fire when the chosen Variable reaches 2.00 or above.
Value	The amount by which you want the variable to change.
	 For <i>Time</i>, enter the time you wish to set your alert or order to trigger at, before, or after.
Points, \$, % or Shares	The Variable and Operator you choose will change your available options for these fields.
Trailing Stop	Works only with the Gains and Loses operator, and can be applied to a point value or a percentage.
	Trailing Stop Alert or Conditional Order example:
	You are long 1000 shares of XYZ, which was purchased at \$20 per share. If you have a risk threshold of 10%, you would want to be alerted or send an order if the bid for XYZ decreases to \$18 per share, or \$2 less than the highest price reached after the Trailing Stop was entered.
	You enter an Alert or Conditional Order with the Trailing Stop enabled (when the bid is at \$20) to trigger when the Bid loses \$2. Assuming the bid then increases to \$25 per share, the Trailing Stop will trigger when the Bid decreases to \$23 per share. \$25 - \$2 = \$23 per share.
	If the stock never moves above \$20 per share for the same type of Alert or Conditional Order, it will only trigger if the Bid loses $$2. $20 - $2 = $18.$
And/Or/Then	Click Add Another Condition to add up to 2 additional conditions to your Alert or Conditional Order.
	 When you select <i>And</i>, all conditions must be met at the same time for the alert or order to trigger. When you select <i>Or</i>, any condition can trigger the alert or order independent of the other(s). When you select <i>Then</i>, the previous condition must be met prior to the 'Then' condition being

If	
	 You cannot create an alert or conditional order with a combination of 'And' and 'Or' or 'Then' and 'Or' conditions when you have 3 conditions.
	Remove unwanted additional conditions by clicking the minus icon at the end of the condition row.

Alert & Conditional Order Notifications

The Alert and Conditional Order Notifications tell the software what to do when your alert or conditional order conditions are met. Setting up notifications is a step in creating alerts and creating conditional orders.

Default Notification

The default notification is a System Beep, but you can change this:

1. Go to **Settings** in your main menu, then to the **Trading** tab and choosing the **Notifications** sub-tab.

You can also change the default notification from the Alert or Conditional Order creation window. Click **Set Trigger Action** and click **Edit Default**.

- 2. Choose any or all of **Load All In One Trade Tool with symbol**, **Beep**, or add a **Custom Sound**. To add the custom sound, click **Browse** to find the sound file on your computer (Edge comes with several choices). Click on the file and click **Open** to load the sound.
- 3. Once you've checked all the notification selections you want to apply to all your alerts or conditional orders, click *Save*.

One-Time Notification

If you want to stray from your default notification settings occasionally, you can do that, too.

- 1. When you are setting up the alert, choose **Set Trigger Actions**.
- 2. Chose *One-Time Notification* and select the notifications you want to receive for this particular alert or conditional order.
- 3. Click **OK**

Alert Templates

The Alerts feature, found in the Account Details tool, is where you can tell the software to notify you if certain market conditions you specify are met.

To make it easier to set up alerts, especially if you tend to use the same rules or conditions when placing alerts, StreetSmart Edge $\mathbb{R}^{\mathbb{R}}$ provides Alert Templates.

- The software comes with several standard templates for commonly used trading strategies, all of which can be customized.
- Or you can save your favorite alert settings as a template and save a few steps the next time you use that alert.
- Note that you cannot use <u>Conditional Order</u> templates when setting up Alerts, and vice versa.

For more information on using Alerts, visit the Quick Reference Guide.

Using an Alert Template

When creating an alert, select the built-in or saved template you wish to use from the **Templates** drop-down at the top of the Create Alert window and click **Load**. This will populate several alert fields and then you can fill in the rest and activate the alert.

Creating an Alert Template

To create an alert template, you can either create it from scratch or use one of the built-in templates as a starting point.

From scratch:

- 1. Click **Create Alert** in the Alerts tab.
- 2. Fill in the fields you want to have automatically populate when you load the template. **Variable** is the only required field
- 3. In your template, leave one or more fields blank that will likely change each time you use the alert, like Symbol or Limit Price. To leave a field blank, select <template> from the bottom of the drop-down. For the symbol field, just leave the field blank.
- 4. Click **Save as Template** and your template will save. You can either close the window or create another alert. Click **Clear** if you want to clear out the fields.
- 5. Next time you create an alert, your new template will display in the Templates drop-down.

From built-in template:

- 1. Click *Create Alert* in the Alerts tab.
- 2. Choose the template you want to base your new template on from the **Templates** drop-down and click **Load**.
- 3. Make any changes you want to the template.
- Change the Alert Name (you cannot save over the built-in templates).
- 5. Click **Save as Template**. You may save up to 20 alert templates; if you need to save more, see *Saving a Template to File* below.

6. Next time you create an alert, your new template will display in the **Templates** drop-down.

TIP: In both cases, be sure to give your template a name in the **Alert Name** field that gives an indication of the purpose of the alert. This will make it easier to find the correct template later on when you want to use it again. Otherwise, unnamed alerts are given a system-generated name using the current date and a sequential number.

Saving a Template to File

In addition to saving templates into the software, you can save them to a location other than the default template folder. This enables you to share the file with other StreetSmart Edge® users or save to an external resource, like a CD or USB drive or external hard drive.

If you only save a template to a file instead of using the **Save as Template** button, it will not display the template in your **Templates** drop-down menu. To save as a file AND still see it in your software, do both actions. But remember that they are saved in two separate places, so changes to the template must also be saved to both places if you want to keep them in sync.

To save to as a file, once your template is complete, click the disk icon at the top of the *Create Alert* window. You will be able to select a location to save the file to on your computer, name the template file, and click *Save*.

Open Alert Template from File

If you have saved an alert template to file, you can open it by clicking **Tem- plates** drop-down menu and choosing **Open Template from File...** Find the file on your computer, click it, and select **Open**.

Renaming a Template

- 1. Click the **Templates** drop-down and select **Manage Templates**.
- 2. Click the template you want to rename, and then click the pencil icon.
- 3. The name of the template will become an editable field. Change the name and press Enter to set it.

Deleting a Template

- 1. Click the **Templates** drop-down and select **Manage Templates**.
- 2. Click the template you want to delete, and then click the X next to it.
- 3. Confirm your wish to delete the template by clicking **OK**. If you don't want to be asked to confirm the deletion next time, check **Do Not Show Again**.

Built-in Templates	
Ask Increases	Beeps and loads the Trade tool if the ask increases to the desired value. You specify the symbol and value.
Buy In	Beeps and loads the Trade tool if the ask gains the desired percentage. You specify the symbol and value.
Margin Equity Warning	Beeps and loads the Trade tool when the trade price decreases to 3.05. At \$3.00 and lower, the margin maintenance requirement is 100%.
Stop Loss	Beeps and loads the Trade tool when the Bid decreases to a specified value. You specify the symbol and value.
Straddle	Beeps and loads the Trade tool when the Bid decreases to a specified value or the Bid increases to a specified value. You specify the symbols and top and bottom bid values.
Trailing Stop	Allows you to follow the price movement upward and beeps and loads the Trade tool when the Bid decreases by the amount specified. More on trailing stops
Volume Alert	Beeps and loads the Trade tool when security volume gains the specified amount. You specify the symbol and volume.

Balances

Balances

View vital account information in the Balances tab. All balances are automatically updated every minute or after a transaction, whichever happens first.

View detailed balance information in the <u>Account Detail</u> tool, or for a constant, at-a-glance view, you can display certain balance details across the top of your screen in the <u>Balances Bar</u>.

Margin Accounts: If you have a margin account, the Balances tab includes a Margin Buying Power figure.

Margin Calls: If you receive a margin call, the value of the call will display in red at the top of the StreetSmart Edge® screen on the Balances Bar, below your account number.

Export Balances

- 1. You can *Export* your Balances data to .xls (for Office XP and later versions), .csv, or .txt formats from the *Actions* menu or by right-clicking within the Balances display.
- 2. Select the save location and enter a name for the export file, if you wish to change it from the default, and click *Save*.

Balances Fields	Descriptions
Total Account Value	The sum of your securities, unswept or intra-day cash, money market funds, bank deposit accounts, and net credit or debit balances in your account.
Today's Change	Indicates the change in account value from the previous trading day's close. This includes your trading activity, as well as deposits and withdrawals.
Funds Available	
Available to Trade	Using cash: The maximum amount of money in your account that you can use to trade without creating a request for the deposit of additional funds. Cash + Borrowing: Also known as "Margin Buying Power", this is the amount of money you can use to trade marginable equities using cash and the margin feature of your account. Click Buying Power Details to understand this value for all security types. This value is only shown in accounts with a margin feature. You will be charged interest on any amount you borrow that exceeds the Available Cash in the account.
Available to With- draw	Using cash: The maximum amount of money you can withdraw without accessing margin borrowing. The amount is a combination of credits in the account less any cash on hold. Cash + Borrowing: The maximum amount you can withdraw from your account to by requesting a check or transferring funds to another

n	
Balances Fields	Descriptions
	account. This value includes the cash balance in your account, plus the maximum amount you can borrow against marginable securities held in your margin account. Note that recent deposits earn interest and are available for most types of trading activity, but are not reflected in your authorization limit until they are cleared. This value is only shown in accounts with a margin feature. You will be
	charged interest on any amount you borrow that exceeds the Available Cash in the account.
Settled Cash Avail-	Trading in the Margin Account
able to Trade	Trading on margin does not require settled funds. If 100% of the trading activity occurs on margin, there will be no difference between the settled funds to trade balance and the total available to trade balance. Traders who fit this profile will not be affected by the special requirements that may result from Cash Account trading activity.
	Traders who occasionally trade non-marginable securities in the Cash Account should continue reading.
	Settled funds are:
	 incoming cash (such as a deposit or wire) available Margin Loan Value settled sale proceeds of fully paid for securities.
	Settled funds may be used for purchases of securities. If a security is purchased using settled funds, there are no requirements surrounding the timeframe of when the newly purchased securities can be sold. (Click here for more information on unsettled funds and trade violations.)
	However, if unsettled funds are used to purchase securities and the customer sells the securities prior to making full payment, these newly purchased securities may be subject to

Balances Fields	Descriptions
	special requirements. Securities purchased using unsettled funds, should not be sold prior to the settlement of the funds used to purchase these securities (generally 2 business days after the sale of the security which generated the funds). If these securities are sold prior to settlement of the financing sale then additional funds will be required to be deposited in the account to cover the cost of the newly purchased securities. If no additional funds are deposited within 5 business days of the purchase, the sale of these securities will constitute a "free ride" under Federal Reserve Regulation T. This will result in a 90-day settled cash-up-front restriction.
Cash & Money Market	
Cash Balance	The total dollar value of your unswept or intraday cash, money market funds, bank deposit accounts, and net credit or debit balances you hold in the Schwab account you have selected to view.
Margin Balance	The balance of any credits or debits in your margin account. Note that with a margin account, the balance of unsettled debits or credits for trades will show here until settlement. You do not start paying interest until trades are settled.
Short Balance	The net Open balance in your account arising from short sale transactions.
Total Cash	The net Cash balance in your Schwab account.
Securities	
Market Value Long	The total marked-to-market value of your long positions (broken out by marginable and non-marginable securities) based on the last trade price. If for some technical reason real-time valuations are not available, the values displayed may be based on the prices from the close of the previous business day or on twenty-minute-delayed quotes.

Balances Fields	Descriptions
Market Value Short	The total marked-to-market value of your short positions (broken out by marginable and non-marginable securities) based on the last trade price. Such positions will typically be shown in the margin account column.
Options	Your options are typically held in the margin portion of your account. Option information only displays for accounts that hold option positions.
Market Value Long/Short	The total value of your long and short options positions based on their current, real-time market prices. Options are not marginable securities but are normally shown in the margin account column for accounting purposes.
Total Securities	The total values of all long and short securities positions, including options, in the margin and cash accounts. A combined net value for the margin and cash accounts is also provided.
Margin/Equity Require	ments
Margin Equity	The dollar value of marginable securities in your margin account, less the amount you owe Schwab, plus any cash in your margin account. This is the liquidation value of your margin account, but does not include option positions, segregated money market funds, or cash not held in the margin account. Margin Equity represents the total amount you invested in securities plus any excess cash, minus funds borrowed on margin.
Equity Percent	Your margin equity divided by the market value of your margin account. This amount reflects the percentage of the current market value you would receive if you liquidated the margined securities, paid off any margin debt and withdrew the funds. Options, cash account positions and segregated money market funds are not included when calculating the equity percentage.
Available to Day Trade	Available to Day Trade is the maximum dollar amount of fully marginable securities that can be

Balances Fields	Descriptions
	held intraday including funds swept into interest bearing features of your brokerage account, like the Bank Sweep Feature.
Day Trade Buying Power	Day Trading Buying Power is the maximum dollar amount of fully marginable securities that can be held intraday. It does not include leverage from funds swept into interest bearing features of your brokerage account, like the Bank Sweep Feature.
Month to Date Interest Owed	The amount of margin interest you owe Schwab, accrued from the beginning of the interest period through the date of your inquiry. The interest period begins on the second to last day of each month.
Margin Call	If your margin equity falls below the percentage level required under Schwab or regulatory requirements; if you make a purchase for which you have insufficient equity to meet the Fed's requirements; or if you have insufficient cash to cover your open, uncovered option or spread positions, you will be subject to a margin call. If there is a margin call on your account, it may be displayed in the Balances Bar at the top of your application and immediate action on your part is required. However, Schwab reserves the right to initiate immediate liquidation procedures without notice.
Option Requirements	
Cash Secured Put Assignment	Displays the Cash Secured Requirement, 100% of assignment value of the put position, when a Cash Secured Equity Put is in the account. This balance will only display if there is a cash secured equity put requirement on your account.
Spread Requirement	Amount of Cash set aside to cover the spread margin requirement. This balance will only display if there is a spread requirement on your account.

Unsettled Funds

How do I cover my trades?

If your purchase exceeds the funds available in your account, in most cases, you can cover your trade by making a deposit of funds or marginable securities on or before trade settlement. If you choose to cover the amount due by selling a different security, the sale must occur on or before the purchase date to avoid a liquidation violation. Depositing marginable securities to cover funds due is only possible in a margin account, not a cash account.

NOTE: For most equity transactions, the settlement period is two business days from the day your order executes.

NOTE: Beginning on the trade date of September 5, 2017, T+3 settlement changes to T+2.

What is a liquidation violation?

This trade violation is the result of buying a security which creates a Cash Account debit or Margin Account Fed Call, and then covering the amount due by selling another security the following trade date or later.

Example:

Day 1 \$100 settled credit

Day 1 Buy 100 ABC @ 10

Day 2 Sell 100 XYZ @ 20

The purchase of ABC results in a \$900 debit balance. One day later XYZ is sold but payment was not made for the ABC purchase. The sale of XYZ results in a Liquidation Violation.

If an option or mutual fund is sold the day after a stock is purchased, a liquidation violation will be charged even if the proceeds settle on or before the purchase settlement date.

Subsequent liquidation violations in a rolling twelve month period will result in the account being restricted to Settled Cash-Up-Front for 90 days.

In addition, a permanent, Settled Cash-Up-Front restriction will be placed on the account after five or more trade settlement violations within the life of the account.

To avoid a liquidation violation, see **How do I cover my trades?** above.

What is a cash account?

An account in which the client has to pay for all trades in full by settlement date.

What is a freeride violation?

A freeride violation is the result of buying a security in a Cash Account and then selling the same security without making separate payment on the full purchase

price by settlement date. To avoid a freeride violation, you must settle your buy order independently of selling the same security.

Example:

Day 1 \$100 settled credit

Day 1 Buy 100 ABC @ 10

Day 2 Sell 100 ABC @ 15

The purchase of ABC creates a \$900 debit balance. ABC is sold but full payment was not made for the ABC purchase. The sale of ABC therefore results in a freeride and immediate 90-day settled cash up front restriction.

Example:

Purchasing 300 shares of ABC and selling it 2 days later without paying for it is considered to be freeriding.

After one freeride, a 90-day Settled Cash-Up-Front restriction is placed on the account. A permanent Settled Cash-Up-Front restriction will be placed on the account after five or more trade violations over the life of the account.

What is a Good Faith Violation?

A good faith violation is the purchase of a security with unsettled funds, and subsequent sale of that security before the proceeds funding that purchase have settled.

Example:

Day 1 Sell 100 XYZ @ 20

Day 1 Buy 100 ABC @ 10

Day 2 Sell 100 ABC @ 15

The purchase of ABC is made using unsettled proceeds generated by the sale of XYZ, which will not settle until Day 3. Because the ABC is sold prior to settlement of the XYZ proceeds used to make that purchase, the sale results in a Good Faith Violation.

Settled and Unsettled Funds

Settled funds are incoming cash (such as a deposit or wire), available Margin Loan Value and settled sale proceeds of fully paid for securities.

If the account has sufficient settled funds, there are no restrictions as to what may be purchased. If a security is purchased using settled funds, there are no requirements surrounding the timeframe of when the newly purchased security can be sold.

If the credit balance is a result of an **unsettled sale** of securities, certain restrictions may apply. Unsettled proceeds from existing long positions can be used to purchase additional securities as long as the new purchase is not sold prior to the settlement date of the original sale that generated the proceeds used to finance

the purchase. If it is sold prior to the settlement date of the funding sale without additional funds being deposited, it will be considered a Good Faith Violation.

Example:

If you sell a fully paid for security on Monday the 1st, you can use the proceeds to purchase securities prior to the settlement day of Wednesday the 3rd. However, if you purchase securities before Wednesday the 3rd and then sell the new position before the settlement of Monday's sale, you will then be charged with a Good Faith Violation. This is because the security purchased with unsettled cash was sold before payment of settled funds was made. If you purchase on Wednesday the 3rd, you may place a sell at anytime, since the purchase was made with settled funds.

Balances Bar

The Balances Bar is a panel across the top of your StreetSmart Edge®® screen that displays pertinent account balance information at a glance.

You can choose whether to display the Balances Bar by clicking the **Show/Hide Balances** button in the upper right corner of your window.

Add Balances

Add balances to the bar by right-clicking in the bar and selecting the value you want to display. You may display up to 8 balances.

Rearrange Balances

Click on a balance column and drag it to the desired position.

Remove Balances

Mouse over the balance and click the X in the corner to close a Balance column out of the display. You can also right-click and uncheck the column to remove it.

TIP: You can also right-click in the bar and select **Balance Bar Settings** to add, remove, or rearrange the Balances bar columns.

In the Balance Bar Settings window, check the columns you want to display and then arrange them in the **Column Order** panel on the right. Click **Save** when you're finished.

Move the Balances Bar

To save space, the Balance Bar can be docked on the Top Panel (between the index quotes and Market timing) by clicking the icon noted in the image below. Use the Scroll Arrows on each side to view balances which are currently not in the display area or click the eye icon to hide the display altogether.



The following values are available for view in the Balances Bar:

Available Values	Descriptions
Total account value	The Total Account Value is the sum of your securities, unswept or intra-day cash, money market funds, bank deposit accounts, and net credit or debit balances in your account.
Today's change	Indicates the change in account value from the previous trading day's close. This includes your trading activity, as well as deposits and withdrawals.
	NOTE: This may different from the Day Change P&L within the Position columns, which in contrast, simply sums the value changes of all securities currently in the account vs. the value of the securities at the previous close or today's opening prices (dependent on your settings).
Today's % change	Indicates the percentage change in account value from the previous trading day's close. This includes your trading activity, as well as deposits and withdrawals.
Cash balance	The total dollar value of your unswept or intra-day cash, money market funds, bank deposit accounts, and net credit or debit balances you hold in the Schwab account you have selected to view.
Available to trade	The maximum amount of money in your account that you can use to trade without creating a request for the deposit of additional funds.
Settled cash to trade	Trading in the Margin Account

Available Values	Descriptions
	Trading on margin does not require settled funds. If 100% of the trading activity occurs on margin, there will be no difference between the settled funds to trade balance and the total available to trade balance. Traders who fit this profile will not be affected by the special requirements that may result from Cash Account trading activity. Traders who occasionally trade non-marginable securities in the Cash Account should continue reading. Settled funds are:
	 incoming cash (such as a deposit or wire) available Margin Loan Value settled sale proceeds of fully paid for securities.
	Settled funds may be used for purchases of securities. If a security is purchased using settled funds, there are no requirements surrounding the timeframe of when the newly purchased securities can be sold. (Click here for more information on unsettled funds and trade violations.)
	However, if unsettled funds are used to purchase securities and the customer sells the securities prior to making full payment, these newly purchased securities may be subject to special requirements. Securities purchased using unsettled funds, should not be sold prior to the settlement of the funds used to purchase these securities.
	If these securities are sold prior to settlement of the financing sale then additional funds will be required to be deposited in the account to cover the cost of the newly purchased securities. If no additional funds are deposited within 5 business days of the purchase, the sale of these securities will con-

Available Values	Descriptions
	stitute a "free ride" under Federal Reserve Regulation T. This will result in a 90-day settled cash-up-front restriction.
Available to withdraw	Using cash: The maximum amount of money you can withdraw without accessing margin borrowing. The amount is a combination of credits in the account less any cash on hold. Cash + Borrowing: The maximum amount you can withdraw from your account to by requesting a check or transferring funds to another account. This value includes the cash balance in your account, plus the maximum amount you can borrow against marginable securities held in your margin account. Note that recent deposits earn interest and are available for most types of trading activity, but are not reflected in your authorization limit until they are cleared. This value is only shown in accounts with a margin feature. You will be charged interest on any amount you borrow that exceeds the Available Cash in the account.
Margin BP	The amount of money you can use to trade marginable equities using cash and the margin feature of your account. Click Buying Power Details to understand this value for all security types. This value is only shown in accounts with a margin feature. You will be charged interest on any amount you borrow that exceeds the settled cash and sweep money market funds in the account.
Today's Net Realized P&L	The P&L realized by closing positions today, based on the cost of the position. The Sum of P&L for positions closed today. Calculated as (Price sold – Price Purchased). EXAMPLE Position XYZ has \$150 unrealized profit coming into the day. During the day, the profit

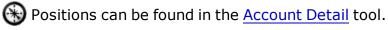
Available Values	Descriptions
	on XYZ increases to \$400, and the position is closed out. Today's Net Realized P&L would reflect \$400 if this were the only position closed for the current day.
Today's Unrealized P&L	The sum of today's change in P&L for all open positions.
Today's Realized P&L	Based on whether Day Change P&L is calculated from open or close in the <u>Account Settings</u> , shows the sum of Day Change P&L for all positions closed today.
	 If calculated from Prev Close, calculated for long positions as (Sold Price – Prev Close), short positions as (Prev Close – Bought Price).
	 If calculated from open, calculated for Long positions as (Sold Price - Open Price), short positions as (Open - Bought Price).
	 If the position was entered today, then the P&L here follows the Today's Net Realized P&L calculation above.
	EXAMPLE
	Position XYZ has \$150 unrealized profit coming into the day. During the day, the profit on XYZ increases to \$400, and the position is closed out. Today's Realized P&L would reflect \$250 if this were the only position closed for the current day. \$400 total profit minus \$150 profit not from today.
Unrealized P&L	The total change, gain, or loss, for all your equity and option positions from the original entry prices, this is the difference between the cost and proceeds.
Bank Sweep	The cash balance of funds that have been moved into the Schwab Bank Sweep feature.
Margin Equity	The dollar value of marginable securities in your margin account, less the amount you

Available Values	Descriptions
	owe Schwab, plus any cash in your margin account. This is the liquidation value of your margin account, but does not include option positions, segregated money market funds, or cash not held in the margin account. Margin Equity represents the total amount you invested in securities plus any excess cash, minus funds borrowed on margin.
Equity Percentage	Your margin equity divided by the market value of your margin account. This amount reflects the percentage of the current margin account value you would receive if you liquidated the margined securities, paid off any margin debt and withdrew the funds. Options, cash account positions and segregated money market funds are not included when calculating the equity percentage.
Available to Day Trade	Available to Day Trade is the maximum dollar amount of fully marginable securities that can be held intraday including funds swept into interest bearing features of your brokerage account, like the Bank Sweep Feature.
Day Trade BP	Day Trading Buying Power is the maximum dollar amount of fully marginable securities that can be held intraday. It does not include leverage from funds swept into interest bearing features of your brokerage account, like the Bank Sweep Feature.

Positions

Positions

Open the Positions tab to view a list of all open positions in your account.



For more information on Positions and Gain/Loss, visit the <u>Quick Reference</u> <u>Guide</u>.

Other ways to access Positions information

- Several tools in the software, such as the <u>Trade tool</u>, <u>Symbol Hub</u>, and <u>Option Chains</u> will display a small position indicator tile if you hold a position in the symbol being displayed. Click the tile to display a pop-up window showing the positions held in the security. You also have the option of closing the position from this pop-up.
- The Watch List can also display your positions. Right-click on a Watch List tab and select *Open Watch List > My Positions*. Columns with positionrelated data are also available in the Watch List. For more, see the <u>Watch</u> <u>List section</u>.

Position Views

There are three ways to view positions. From the top of the Position tab you can select Group by Underlying, Group by Option Strategy, or Ungrouped.

- **Group by Underlying:** The default view, arranges positions by underlying symbols.
- **Option Strategy Grouping:** Ideal for options traders, group your option positions together with their options strategies.
- **Ungrouped:** If you would like all of the position rows to be independent of each other when sorting, navigate to this view.

Select Multiple Positions

Select multiple positions by holding the Ctrl key down and left clicking with your mouse to highlight them. This is most helpful when managing option positions.

Close a Position

To initiate an order to close out a position in the Account Details tool, click on the position and click *Close Position* at the top of the tool, or right-click on the position and select *Close [symbol]...* An order entry screen will open in which you can customize the order before sending it.

- Close All: If you wish to close only part of the order, uncheck Close All and specify the quantity you wish to liquidate.
- Fractional shares: The Smart venue must be selected or Close All must be checked in order to liquidate a position's fractional shares. Orders to sell only the whole share amount, leaving the fractions behind will be rejected. The Close All feature is also available when placing orders to close out a position from the Trade tool or Symbol Hub.

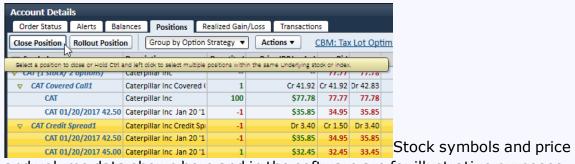
Close a Multi Leg Option Position

From the Group by Option Strategy tab click on the strategy row and it will highlight the entire position. Click on the Close Position button or right click over the strategy row and click **Close [symbol] [strategy]...**

To close only a couple legs of a strategy select them using the Ctrl click method described above.

The Ctrl click method can also be used from the other two position views, Group by Underlying or Ungrouped.

TIP: You can select up to 4 unique option positions within the same underlying to close. If it is not a recognized strategy, the All In One trade tool will load it into the Custom ticket.



and volume data shown here and in the software are for illustrative purposes only. Charles Schwab & Co., Inc., its parent or affiliates, and/or its employees and/or directors may have positions in securities referenced herein, and may, as principal or agent, buy from or sell to clients.

Rollout Position

Quickly open a ticket to roll out an option position to a later expiration date by clicking the **Rollout Position** button (or choosing the **Rollout** selection in the right-click menu). The ticket will open in the All in One trade tool. You can also access the Rollout button from the P tiles throughout the software.

The above method for closing multi leg options, also applies to Rolling out Spreads and Straddles. To do so, either click the strategy row or multi-select the position to rollout.

Start a Trade from Positions

There are multiple ways to initiate a trade ticket loaded with a symbol from your Positions tab:

- For equities or single option positions: Click the bid or ask quote to load the All in One Trade tool order ticket. The symbol will load along with a limit order at the price you clicked. If you click the **bid** quote, the order action will automatically choose **Sell**, likewise, clicking the **ask** quote will set up a **Buy** order.
- For multi leg option positions: (Group by Option Strategy view) Click the strategy row's bid or ask quote to load the All In One trade tool with the

- strategy. The strategy's direction determines whether to load the position to Open (add to position) or the close.
- Double clicking strategy rows: (Group by Option Strategy view) Double click on the strategy row to load the All In One trade tool with the strategy to close.
- Right-click on the symbol row and select Load Trading Tool with [symbol] or Load Symbol Hub with [symbol].

Cost Basis Method

The Cost Basis Method (CBM) at the top of the Positions tab indicates the lot selection method for your account, along with a link to more information on Schwab.com.

View Lot Level Details for a Position

Lot details for positions that have been filled can be viewed by clicking on the arrow next to the position. This will generate a drop-down with details about the lots that compose the position. See more on Lot Level Details

Export Positions

You can export your Positions data to .xls (for Office XP and later versions), .csv, or .txt formats from the **Actions** menu or by right-clicking within the Positions display.

Choose one of the export options explained below. In the Export window that opens, select the save location and enter a name for the export file, if you wish to change it from the default, and click **Save**.

- **Export Positions...:** Exports positions as they display at the top level of your Positions tab. Does not display a break down of lots on positions.
- Export Positions with Lots...: Exports positions, including lot details.

Options carry a high level of risk and are not suitable for all investors. Certain requirements must be met to trade options through Schwab. Multiple leg options strategies will involve multiple commissions. Please read the options disclosure document titled "Characteristics and Risks of Standardized Options." Supporting documentation for any claims or statistical information is available upon request.

Position Columns and Settings

Position Columns and Settings

The StreetSmart Edge® <u>Positions</u> tab, found in the <u>Account Details</u> tool, is customizable, allowing you to choose which columns of data to display for each position in your account, as well as the order of the columns. Access the Positions tab Settings window by right-clicking in the Positions display and selecting **Columns and Settings...**, or access it from the **Actions** drop-down menu. See Column Descriptions for details about each available column.

Option Greek Pricing Models

Greeks indicate how fast an option prices may behave given changes to pricing input models such as time, underlying stock price, volatility, etc.

- Pricing Method: Select from Black-Scholes, Barone-Adesi-Whaley, or Cox-Ross-Rubinstein.
- **Interest Rate:** Defaults to the 3-Month Treasury I-rate Index rate (\$IRX), or you can define the rate as you wish.

Sorting Rows

Sort rows by clicking the header of the column on which you want to sort. An arrow next to the column name indicates the sort direction (ascending or descending).

- If **Auto-Sort in Real-Time** is checked in Columns and Settings, changes to data in the sort column will affect the current sort order in real time.
- For example, if you have your Positions sorted alphabetically by Symbol, if you add positions in your account, the new positions will be inserted into the Positions display in the correct alphabetical order.

Sorting by multiple rows can be accomplished by holding down the Shift Key while you left click on the headers of the columns which you want to sort.

• For example, if sorting by quantity and the account has several positions which have a 100 share quantity, all of the 100's would be grouped together, and within that group the rows would be arranged by the next sorting selection. If there is no second selection, the rows within the group would be arranged by their symbols from least to greatest, alphabetically.

Customizing Columns

There are several ways to rearrange the columns displayed in your Positions tab:

- You can click the column headers and drag them to another spot in the Positions tab.
- You can also right-click on a column header and choose a different column from the list of all available columns.

TIP: If the column you choose is not currently displayed in the Positions tab, it will completely displace the column that was there. If it is already in the display, the two columns will swap places.

- You can also arrange column order from the Columns and Settings window, which is available when you right-click on the tab name. Check the columns you want to display in the Positions tab. All chosen fields display in the Column Order display on the right. Click a column name and use the Up/Down buttons to move the column into a new position.
- For brief descriptions of each column, hover your mouse pointer over the column name in the Columns and Settings window. For more in depth descriptions of each column, see Positions Column Descriptions.

Expand All/Collapse All

By checking the box under Expand All/Collapse All in the Columns and Settings menu, all Positions that include multiple lots will automatically be expanded to show Lot Details.

Applying Settings to One or All Tabs

You can choose to apply the settings changes you make to either just the *current* Positions tab or to *all* current and future Positions tabs. The default is to apply the settings only to the current tab, but if you prefer the settings to apply to all, select *Apply to all Positions tabs* at the bottom of the Columns and Settings window before clicking *OK*.

Positions Column Descriptions

The Positions tab can track more than 70 different data fields for the securities in which you hold positions. See <u>Manage Positions Columns and Settings</u> for directions on setting up your <u>Positions tab</u> display.

General	
Notes	If a symbol in the Positions tab has a note associated with it in the Notes tool, the Notes icon will display. Click the icon to see the note(s).
Symbol	The unique 1-5 characters used to represent the security. Symbols are defined by the different markets or exchanges. Sometimes a security might not have a symbol, in which case, an internal Schwab reference # will be used.
Security Type	Type of security: • Eqty = Equity • MF = Mutual Fund

General	
	• Bnd = Bond
	Call = Call option
	Put = Put option

Company Info	
Description	Company name or description of item
Dividend Amount	Annual taxable payment declared by a company's board of directors and given to its share-holders out of the company's current or retained earnings
Dividend Yield	Dividends paid by company over last 12 months as a % of Previous Close.
Ex-Date	The first day following a dividend declaration when the buyer of a stock is not entitled to the next dividend payment
Ex-Date Amount	Dividend amount to be paid on the Pay Date, displayed in dollars per share
Pay Date	The date in which a declared stock dividend is scheduled to be paid
Stock Split	Date and Ratio of an increase (or decrease in the case of a Reverse Split) in existing shares
EPS (ttm)	Earnings Per Share shows net income divided by the average number of shares outstanding for a company for the last 12 months
Exchange	Exchange on which the security is listed
Industry	GICS (Global Industry Classification Standard) Industry classification. From broad to specific, helps define a company's business focus. Also, helps identify competitors.
Market Cap	Market value of all of a company's outstanding shares (in millions)
Mkt Cap Class	Classifies the size of a company by Small/Medium/Large, -/+ indicates where the company

Company Info	
	falls within the broader classification (i.e. M+ is a larger mid-cap company)
News	Icon shows the availability of news on a symbol. Right-click and select View [symbol] news
P/E (ttm)	Ratio of company's previous close to earnings over the last 12 months. The higher the P/E ratio, the more the market is willing to pay for each dollar of annual earnings.
Sector	GICS (Global Industry Classification Standard) Sector classification. From broad to specific, helps define a company's business focus. Also, helps identify competitors.
Sub-Industry	GICS (Global Industry Classification Standard) Sub-Industry classification. From broad to specific, helps define a company's business focus. Also, helps identify competitors.
SER	Schwab Equity Rating evaluates individual stock and provides a 5 point rating scale (A, B, C, D, F) indicating Schwab's outlook on the potential performance of the stock over the coming 12 months. More on Schwab Equity Ratings
Spread	Difference between the Bid and the Ask

Positions	
Alerts	Displays a bell icon la when an alert is set on a position.
Bracket Quantity	Quantity of brackets for the position. Please see the <u>Brackets</u> section for more information. Notes on closing all or part of a position with brackets:
	 Closing the entire position: When a position is closed, any contingent bracket orders will be cancelled automatically.
	Closing part of a position: Note that if you manually close part of a position with

Positions

an associated bracket order, the Bracket quantity may not match the position Quantity shown in the Positions tab. Do not be concerned by this, because a bracket exit is treated like an order to close rather than an order to sell (or buy, for short positions) and will never put you in an oversold (or overbought) position. It will only act on the number of shares you actually hold.

Cost (Total)

The cost for the position. For more information on Cost and Trade Lots, see Trade Lot Details.

Important Information Regarding Cost Information and P&L Calculations for Your Accounts

Missing cost and P&L information will be represented with an 'N/A'. Incomplete cost and P&L information will be represented with either the word 'Incomplete' or an asterisk (*) in the Cost column and P&L columns.

If lot level data is not available for your account but cost data is displayed, it will exclude commissions and transaction fees, and will not reflect corporate actions including but not limited to: stock splits, stock dividends, spin-offs, mergers, and name changes.

If lot level information is available for your account, the cost and resulting profit and loss data will include commissions and transaction fees but may also be incomplete because it may exclude manual adjustments and corporate actions including but not limited to: stock dividends, spin-offs, mergers, and name changes. Please note that cost and resulting profit and loss data displayed in StreetSmart Edge® is not the official record of your account. Your statements and confirmations serve as your official records.

Quotes for mutual fund positions are based on a quote from the most recent closing price available. For all other positions, during market hours, market value is derived from real-time

Positions	
	quotes. After market hours, market value is derived from the most recent closing price or last trade, unless you have Update Equities Profit & Loss during After Hours checked in your Account Settings.
Cost/Share	Cost per share for the position
Day Chg \$ P&L	Today's gain or loss for your equity and option positions. The calculation is based on the gain or loss for your positions since the previous market close (Marked-to-market) or your cost if purchased today. It includes estimated commissions on positions established today. Please note that the change calculation for your positions established prior to today can also be based on today's open price if you have elected this option via your <a com-"="" href="execution-needed-need</th></tr><tr><th></th><th>NOTE: This may different from the Today's Change within the <u>Balances Bar</u>, which in contrast, indicates the change in account value from the previous trading day's close. This includes your trading activity, as well as deposits and withdrawals.</th></tr><tr><th>Day Chg P&L/Share</th><th>Today's percent gain or loss for your equity and option positions expressed on a per share or per contract basis. The calculation will be based on the gain or loss for your positions since the previous market close (Marked-to-market) or your cost if purchased today. It includes estimated commissions on positions established today. Please note that the per share or per contract change calculation for your positions established prior to today can also be based upon today's open if you have elected this option via your Account Settings.</th></tr><tr><th>Day Chg % P&L</th><th>Today's percent gain or loss for your equity and option positions. The calculation is based on the gain or loss for your positions since the previous market close (Marked-to-market) or your cost if purchased today. It includes estimated com-

Positions	
	missions on positions established today. Please note that the percent change calculation for your positions established prior to today can also be based on today's open if you have elected this option via your Account Settings. The percentage value will be taken out to two decimal places. Rounding the 2nd decimal placeholder up if the third decimal is +5 and rounding down if it is -5.
DRI	Shows if position is enrolled in Dividend Reinvestment. Certain stocks and mutual funds pay a dividend, which may be reinvested into additional shares of the security, or can be paid to you in cash, depending upon your instructions. • Yes indicates that the corresponding security's dividend is being reinvested. • No indicates that no dividends are being reinvested for that security and that dividends will be paid in cash.
Margin Requirements	The Margin Requirements column shows the minimum dollar amount of equity you must maintain in your account (maintenance requirement). For option positions, it shows: • Maintenance Requirement: The requirement is only shown for one leg of each pairing • Quantity: Number of contracts • Strategy: Legs are paired to optimize buying power, even if the positions were opened individually • Strategy sequence number: Legs paired together have the same sequence number Typically, the ongoing maintenance requirement for most stocks is 30%, but Schwab may impose higher maintenance requirements on certain securities that are low priced, thinly traded,

Positions

volatile, or which pose heightened risk.

Special maintenance requirements are set at Schwab's discretion⁴ and are intended to reflect a stock's volatility and to ensure that your account maintains sufficient equity to cover large price movements. Some stocks are so volatile or illiquid that they cannot be margined.

- Securities held in a cash account will display as '- -' or 'Not Marginable'
- 'N/A' will display if margin requirement data is unavailable.
- Maintenance requirements for multi-leg options will display with the short leg(s) that has/have the higher requirement(s).

A list of maintenance requirements across security types can be <u>found here</u>, with maintenance requirements listed on the far right under the heading "Schwab Maintenance Reg."

The Margin Maintenance Requirement Lookup tool can be <u>found here</u> (login may be required).

Maintenance Requirement Disclosure

- 1. Maintenance requirement data updates every 15 minutes or upon an event that changes your balances or positions, such as a trade execution, debit transaction, etc.
- 2. If you have a special maintenance requirement on your account that is greater than the equity-specific requirement, then the account level maintenance requirement will supersede the equity-specific requirement.
- 3. Stocks trading for less than \$3.00 are not marginable.
- 4. Margin requirements may be changed due to concentrated positions, non-diversification, changes in market conditions or at Schwab's discretion.

P&L

Unrealized profit or loss on the position in dollar

Positions	
	format. P&L is calculated based on an average price paid per share.
	NOTE: Lot accounting is not used, so P&L is NOT calculated on a LIFO/FIFO basis. There are limitations on the reporting of transactions/events that make up the P&L amounts.
P&L %	Unrealized profit or loss on the position as a percentage. P&L is calculated based on an average price paid per share.
	NOTE: Lot accounting is not used, so P&L is NOT calculated on a LIFO/FIFO basis. There are limitations on the reporting of transactions/events that make up the P&L amounts.
P&L/Share	Unrealized profit or loss based on the average cost per share
Position Dollar Value	Dollar value for existing position(s) in the account. Calculation uses the bid price for long positions and the ask price for short positions.
Price (P&L Calcs)	Price used as the current price in P&L calculations
Quantity (Position)	Quantity held in selected account. For stocks or mutual funds, this field reflects the number of shares you currently hold. For fixed income securities, this field reflects the face value of the securities. For options, this field reflects the number of option contracts.

Quote Data	
Ask	Current inside Ask price
Ask Size	Number of shares at inside ask
Bid	Current inside Bid price

Quote Data	
Bid Size	Number of shares at inside bid
Change	Change from Previous Close to Last Trade
% Change	Percent change from Previous Close to Last Trade
Chg (Open)	Change from Open to Last Trade
% Chg (Open)	Percentage change from Open to Last Trade
Ending Ask	Ending Ask price of the market session
Ending Bid	Ending Bid price of the market session
Ending Mid	Ending Midpoint price of the market session
High	Highest price the security has traded for the day
Last Size	Size of last trade
Last Time	Time of last trade
Last Trade	Price of last trade
Low	Lowest price the security has traded for the day
Midpoint	Midpoint between Bid and Ask
Open	Opening price for the day
Prev Close	Closing price from previous market session
Volume	Number of shares/contracts the security has traded for the day

Greeks

*In the Positions tab, Greek values are multiplied by the position quantity and multiplier.

Delta*	Estimate of the change in position value per one point change in the underlying price based on the selected option pricing model. For equities, delta will be the same as quantity, because the price will change dollar for dollar with the stock price.
Gamma*	Measures the change in delta for a change in the

Greeks

*In the Positions tab, Greek values are multiplied by the position quantity and multiplier.

	underlying security price
IV	Implied Volatility based on the option midpoint price and underlying price as calculated with selected option pricing model.
	IV is a theoretical value (in %) designed to represent the forecast volatility of the security or index as determined by the prices of multiple call and put options using the Black-Scholes pricing model.
	Other variables usually include security price, strike price, risk-free rate of return, and days to expiration. If all other variables are equal, the security with the highest volatility will generally have the highest option prices.
IV Ask	Implied Volatility based on the option ask price and underlying price as calculated with selected option pricing model.
IV Bid	Implied Volatility based on the option bid price and underlying price as calculated with selected option pricing model.
Rho*	Estimate of the change in option price per a 1% change in interest rates based on selected option pricing model.
Theta*	Estimate of the change in option price per one day passing based on selected option pricing model.
Vega*	Estimate of the change in option price per a 1% change in volatility of the underlying based on selected option pricing model.

Options		
Days until Exp	The number of days until the Expiration Date	
Expiration Date	Date the option expires. All holders of options must indicate their desire to exercise by this	

Options		
	date.	
Intrinsic Value	The value by which the option is in the money, calculated for calls as (underlying price – strike price), or for puts as (strike price-underlying price)	
Open Int	The number of outstanding option contracts per option series	
Strike	Option strike price; the price at which the owner of an option can purchase (call) or sell (put) the underlying security	
Time Value	The value of the option that is not attributed to the intrinsic value, calculated as (Midpoint - Intrinsic Value)	
Underlying Symbol	The symbol of the underlying security or index upon which an option is based	
Underlying Last	The last trade price of the underlying stock of an option	
% ITM Prob	Probability of the option expiring in the money at expiration	
% OTM Prob	Probability of the option expiring out of the money at expiration	
% Touch Prob	Probability of the stock price touching strike on or before expiration	

Performance		
5 Day Chg	Difference between close from 5 days ago and the Last Trade	
% 5 Day Chg	Percentage difference between close from 5 days ago and the Last Trade	
20 Day Chg	Difference between close from 20 days ago and the Last Trade	
% 20 Day Chg	Percentage difference between close from 20 days ago and the Last Trade	

Performance		
1 Mo Chg	Difference between close from 1 month ago and the Last Trade	
% 1 Mo Chg	Percentage difference between close from 1 month ago and the Last Trade	
6 Mo Chg	Difference between close from 6 months ago and the Last Trade	
% 6 Mo Chg	Percentage difference between close from 6 months ago and the Last Trade	
YTD Chg	Difference between close from the beginning of the year and the Last Trade	
% YTD Chg	Percentage difference between close from the beginning of the year and the Last Trade	

Extended Quotes	Extended Quotes		
52 Week High	Highest price at which the security has traded over the last 52 weeks		
52 Week Low	Lowest price at which the security has traded over the last 52 weeks		
After Hours Chg	Change from today's close to last after-hours trade price		
% After Hours Chg	Percent Change from today's close to last after- hours trade price		
Avg Vol - 1 month	Average daily volume over the last month (1 month = 21 days)		
Dollar Volume	The dollar amount of shares/contracts traded for the day on a security or options contract. Cal- culated as VWAP (Volume-Weighted Average Price) multiplied by the day's total volume.		
P/C Ratio OI	Open Interest Put/Call Ratio calculates the Put/Call ratio by dividing the total number of puts by the total number of calls for an underlying stock or index based on open interest.		
P/C Ratio Vol.	Volume Put/Call Ratio calculates the Put/Call		

Extended Quotes		
	ratio by dividing the total number of puts by the total number of calls for an underlying stock or index based on the trading volume of the current or most recent trading session.	
Today's Close	Today's closing price. If before market close, shows the last trade.	
VWAP	Volume Weighted Average Price measures the average price of a stock over a given period of time. VWAP is calculated by adding up the dollars traded for every transaction (price multiplied by number of shares traded) and then dividing by the total shares traded for the day.	

Options carry a high level of risk and are not suitable for all investors. Certain requirements must be met to trade options through Schwab. Multiple leg options strategies will involve multiple commissions. Please read the options disclosure document titled "Characteristics and Risks of Standardized Options." Supporting documentation for any claims or statistical information is available upon request.

Trade Lot Details

Lot Details shows a breakdown of each lot that comprises an open position.

Open this window by right-clicking the period next to a position in the <u>Positions</u> tab of your Account Detail window.

- Cost and P&L totals displayed below the position information are the sum of the lot level detail. If lot details are available but some of the detail is missing, the word **Incomplete** will display in the cost column. Trade Lot details can be viewed for these positions, but all totals are followed by an asterisk to denote that they are incomplete. If **N/A** appears in the Cost column, cost data and lot level detail are not available for the position.
- During market hours, market value is derived from real-time quotes. After market hours, market value is derived from the most recent closing price or last trade, unless you have *Update Equities Profit & Loss during After Hours* checked. This setting can be found under *Settings > Account* in the main menu.
- The information in the Lot Details is to provide you with real time information about the lots that comprise the position. It is for estimating gains and losses only; it is not intended as tax or legal advice and should not be used

for tax purposes. Schwab is not responsible for the accuracy or completeness of the information. Please refer to your statements and tax documents provided by Schwab.

- All profit and loss information provided is unrealized P&L only.
- For positions that have more than 2000 share lots, only position cost will be displayed. To view your trade lot details for these positions please use Schwab.com.
- **Edit** the Trade Lot columns you wish to display by right-clicking on the Lot Details for a position and selecting *Columns & Settings...*

Lot Details (wash sale adjusted data where applicable)		
Open Date	Lot purchase date	
Quantity	Quantity of each individual lot	
Cost/Share	Cost per share or contract for the lot, if available	
Cost (Total)	Cost basis for the lot, if available	
Position Dollar Value	Current market value for the lot. This is the number of shares/contracts multiplied by the current price.	
P&L - Unrealized	Market value less cost basis, if available.	
Hold Period	Indicates whether you've held the position for more or less than 365 days. Long term means you've held the position more than 365 days (one year) and is helpful in understanding the tax impact of closing the position.	
Source	Indicates the source of the cost basis data, whether it's from a trade, advisor, third party, etc.	

Original Transaction Information (non-wash sale adjusted)		
Trans Date	Reflects date of the original opening trans- action that has not been adjusted by wash sale processing	
Trans Cost (Total)	Reflects cost of an entire lot, inclusive of any fees/commissions. This value is adjus-	

Original Transaction Information (non-wash sale adjusted)		
	ted to account for any corporate actions that would currently adjust cost basis. Examples include: forward splits, reverse splits, etc. However, it is NOT adjusted by wash sale processing.	
Trans Cost/Share	Reflects cost, inclusive of any fees/- commissions, of the original opening trans- action on a per share basis. This value is adjusted to account for any corporate actions that would currently adjust cost basis. Examples include: forward splits, reverse splits, etc. However, it is NOT adjusted by wash sale processing.	
Trans P&L	Reflects the profit or loss based on the original opening transaction that had not been adjusted by wash sale processing.	
Disallowed Loss	The total dollar value of a disallowed loss for a lot that has been wash sale processed.	

Cost Basis Method

The Cost Basis Method (CBM) determines how non-option closing transactions choose which of your shares to sell, whether it's First in, First out or you use the Tax Lot Optimizer $^{\text{TM}}$ to have the software figure out the most beneficial cost basis configuration.

Within StreetSmart Edge®, you can set your cost basis method for individual orders from the Cost Basis Method column of the <u>Order Status</u> tab, or from the <u>Special Conditions</u> drop-down when placing an order.

To learn more about the cost basis methods available to you and how cost basis affects your tax circumstances, log on to Schwab.com and go to Guid-ance > Taxes > Cost Basis Reporting.

Cost Basis Methods		
First in First out (FIFO)	Shares you acquired first are sold first. This is Schwab's default Cost Basis Method for equities, ETFs, and DRIPs.	
Last in First out	Shares you acquired last are sold first	

Cost Basis M	lethods	
(LIFO)		
High Cost	Shares with the highest cost	are sold first
Low Cost	Shares with the lowest cost a	re sold first
Tax Lot Optimizer™	Lots are selected and sold w losses (short-term then long term then short term).	5
	Click here to see the order of	sales for this method
	Short-term losses	Lots reflecting short-term losses, from greatest short-term loss to least short-term loss
	Long-term losses	Lots reflecting long-term losses, from greatest long-term loss to least long-term loss
	Short-term, no gains nor losses	Short-term lots reflecting no gain nor loss
	Long-term, no gains nor losses	Long-term lots reflecting no gain nor loss
	Long-term gains	Lots reflecting long-term gains, from least long-term gain to greatest long-term gain
	Short-term gains	Lots reflecting short-terms gains, from least short-term gain to greatest short-term gain
Specified Lots	Manually select from a list of eligible lots which lots are sold at the time of trade up until the settlement date. Note that lots established today are not eligible for assignment. Either check All to assign an entire lot to be closed or enter a quantity. The Open Date and Hold Period columns can help you figure out the potential tax ramifications of closing a particular lot.	

TIP: IRS regulations allow you to change the cost basis method for your order up to midnight ET on settlement date. The change will update the cost basis method for all unsettled portions of your equity orders (including both open and filled transactions).

Account-level Cost Basis Method (CBM)

Set an Account-level CBM via Schwab.com by going to **Service > Account Settings > Cost Basis Method** and click the **Change** link). You can also link to the site by clicking the **CBM:** [method] link at the top of the Positions tab. Changes are effective the following day.

You can change CBM for individual orders on Schwab.com as well, by going to **Trade > Order Status** and clicking the **View/Edit** link of the order you want to change, then click **Change**.

Notice you must log on to your account on Schwab.com to make these changes.

Wash Sales

A Wash Sale occurs when you take a loss upon closing a position within 30 days (before or after the sale date) of opening a position in the same or substantially identical security.

The purpose of this federal regulatory requirement is to disallow a taxpayer from deducting a loss on his tax return when his financial position remains relatively the same after the loss.

Wash sale period

30 days before < DAY YOU SELL > 30 days after

As of January 1st of 2011, the IRS changed the way that brokerage firms must report cost basis for each position and account for any wash sales. Under the new IRS rules, we have to add the disallowed loss on the sale to the cost of the new position. Once the position is closed, and 31 days have passed before opening it again, the loss can be taken.

Schwab identifies wash sales during an overnight process, and during the next trading session, StreetSmart Edge® displays a"W" indicator in Lot Level Details for a position in the Positions tab.

Learn more about Wash Sales by reading <u>A Primer on Wash Sales</u>.

Important Wash Sale Notes

• "The cost on my position seems wrong" - Your actual transaction cost did not increase, only the taxable basis.

 Wash sales do cross over years, so if you close a position in December 2011 and re-establish the position within 30 days, even into January 2012, the loss would be disallowed for 2011.

Wash Sale Example 1

On 9/30, you buy 100 shares of ABCD at \$15.00. You close out your position in ABCD at \$12.50 on 11/15 and take a \$2.50 per share loss. Then you buy back into the position -- 100 shares at \$13.00 on 11/30.

At this point the sale on 11/15 is a wash sale and you would not be able to deduct the loss on your taxes until you sell the new position (and then stay out of the position for at least 30 days). However, the \$2.50 loss is added to the cost basis of the new position, making your new cost basis \$15.50.

Wash Sale Example 2

You own 100 shares of XYZ at \$15.00. Later on, you buy 100 more shares at \$12.00, then 17 days later, you sell 100 shares at \$13.00. If your cost basis accounting method is set to FIFO (first in-first out), the sale would result in a loss, and the proximity of the \$12 purchase to the sell date would make this a wash sale.

The loss would be added to the cost basis of the second position, showing a \$14.00 cost basis (\$12 + \$2).

For more information on Wash Sales, log on to Schwab.com and go to **Guidance > Taxes**. Then click **Cost Basis Reporting > FAQs** and under the **Specific Situations** tab, wash sales are addressed in more detail.

The information and content provided here is general in nature and is for informational purposes only. It is not intended, and should not be construed, as a recommendation; as legal, tax, or investment advice; or as a legal opinion. You should contact your tax advisor to help answer questions about your specific situation or needs prior to taking any action based upon this information.

Understanding P&L Calculations

Following is an example of how P&L is calculated when there are multiple executions for one position:

Executions	Cost Per Share	What the Positions Tab Dis- plays
5/10/10Buy	20	1/15/04
500 XYZ @	Calculation:	500 XYZ
20	(500 * 20) = 10000> 20 per share	Cost

Executions	Cost Per Share	What the Positions Tab Dis- plays
		\$10,000
5/11/10Buy 500 XYZ @ 30	25 Calculation: (500 * 30) + (500 * 20) = 25000> (25000 / 1000)> 25 per share	1/15/04 1000 XYZ Cost \$25,000
5/12/10Sell 200 XYZ @ 35	26.25, assuming a FIFO accounting method (the default for Schwab accounts), so average cost per share is based on holding 300 shares @20 and 500 @ 30 Calculation: (300 * 20) + (500 * 30) = 21000 > (21000 / 800)> 26.25 (note that the sell price is irrelevant)	1/16/04 800 XYZ Cost \$21,000 (26.25 x 800 = 21,000)
5/13/10Sell 400 XYZ @ 32	30, as all the remaining shares are from the 500@ 30 purchase	1/16/04 400 XYZ Cost \$12,000 (30 x 400 = 12,000)
5/14/10Buy 600 XYZ @ 32	31.20 Calculation: (400 * 30) + (600 * 32) = 31200> (31200 / 1000)> 31.20 per share	1/17/04 1000 XYZ Cost \$31,200 (31.20 x 1000 = 31,200)
5/17/04Sell 600 XYZ @ 34	32, as the remaining 400 shares are from the 600@ 32 purchase	1/17/04 400 XYZ Cost \$12,800 (32 x 400

Executions	Cost Per Share	What the Positions Tab Dis- plays
		= 12,800)

Important Information Regarding Cost Information and P&L Calculations for Your Accounts

Missing cost and P&L information will be represented with an 'N/A'. Incomplete cost and P&L information will be represented with either the word 'Incomplete' or an asterisk (*) in the Cost column and P&L columns.

If lot level data is not available for your account but cost data is displayed, it will exclude commissions and transaction fees, and will not reflect corporate actions including but not limited to: stock splits, stock dividends, spin-offs, mergers, and name changes.

If lot level information is available for your account, the cost and resulting profit and loss data will include commissions and transaction fees but may also be incomplete because it may exclude manual adjustments and corporate actions including but not limited to: stock dividends, spin-offs, mergers, and name changes. Please note that cost and resulting profit and loss data displayed in StreetSmart Edge® is not the official record of your account. Your statements and confirmations serve as your official records.

Realized Gains/Losses

Realized Gain Loss

The Realized Gain/Loss tab displays realized profit or loss information for any positions closed during the current day.

TIP: For historical gain/loss data, please log on to your account at Schwab.com. Go to **Accounts > History > Realized Gain/Loss**, under which you can view realized gain/ loss for a custom period of time.



(**) Find the Realized Gain/Loss tab in the Account Details tool.

For more information on Realized Gain/Loss, visit the Quick Reference Guide.

Columns

As with most Account Detail tabs, the Realized Gain/Loss tab is customizable, allowing you to choose which columns of data to display, as well as the order of the columns. Access the Realized Gain/Loss tab Settings window by right-clicking in the Realized Gain/Loss display and selecting **Columns and Settings...** or from the **Actions** drop-down menu.

See Column Descriptions for details about each available column.

Sorting Rows

Sort rows by clicking the header of the column on which you want to sort. An arrow next to the column name indicates the sort direction (ascending or descending).

- If **Auto-Sort in Real-Time** is checked in Columns and Settings, changes to data in the sort column will affect the current sort order in real time.
- For example, if you have your Realized Gain/Loss sorted alphabetically by symbol, when you close a position, it will display in the Realized Gain/Loss tab and the list will automatically adjust its sort order to put that position in the correct alphabetical order.

Customizing Columns

There are several ways to rearrange the columns displayed in your Realized Gain/Loss tab:

- You can click the column headers and drag them to another spot in the Realized Gain/Loss tab.
- You can also right-click on a column header and choose a different column from the list of all available columns.

TIP: If the column you choose is not currently displayed in the Realized Gain/Loss tab, it will completely displace the column that was there. If it is already in the display, the two columns will swap places.

- You can also arrange column order from the Columns and Settings window, which is available when you right-click on the tab name. Check the columns you want to display in the Realized Gain/Loss tab. All chosen fields display in the Column Order display on the right. Click a column name and use the Up/Down buttons to move the column into a new position.
- For brief descriptions of each column, hover your mouse pointer over the column name in the Columns and Settings window. For more in depth descriptions of each column, see Realized Gain/Loss Column Descriptions.

Applying Settings to One or All Tabs

You can choose to apply the settings changes you make to either just the *current* Realized Gain/Loss tab or to *all* current and future Realized Gain/Loss tabs. The default is to apply the settings only to the current tab, but if you prefer the settings to apply to all, select **Apply to all Realized Gain/Loss tabs** at the bottom of the Columns and Settings window before clicking **OK**.

Exporting Realized Gain/Loss

- You can *Export* your Realized Gain/Loss data to .xls (for Office XP and later versions), .csv, or .txt formats from the *Actions* menu or by right-clicking within the Realized Gain/Loss display.
- 2. Select the save location and enter a name for the export file, if you wish to change it from the default, and click *Save*.

Realized Gain Loss Column Descriptions

See Realized Gain/Loss for directions on setting up your tab display.

Columns	Description
Symbol	The unique 1-5 characters used to represent the security. Symbols are defined by the different markets or exchanges. Sometimes a security might not have a symbol, in which case, an internal Schwab reference # will be used.
Acquired/Opened Date	Date/Time position was entered if the position was opened during the current day. Date only will display if the position was opened on a prior day.
Closed Date/Time	Date/Time position was closed.
Cost	The total price paid for the position.
Cost Basis Method	Displays cost basis method for the position.
Day Change \$ P&L	Profit/Loss dollar amount including commissions accrued from the last market close (or open depending on your preference) to the moment that the position was closed which can be positive or negative.
Day Change % P&L	Profit/Loss per share or contract including commissions accrued since the last market close (or open depending on your preference) to the moment that the position was closed. Expressed as a percent of the total realized P&L which can be positive or negative.
Day Change P&L/Share	Profit/Loss per share or contract including commissions accrued since the last market close (or open depending on your pref-

	erence) which can be positive or negative.
Direction	Whether the position was a long or short position.
Hold Period	Indicates whether you've held the position for more or less than 365 days. Long term means you've held the position more than 365 days (one year) and is helpful in understanding the tax impact of closing the position. Example: Long Term if Open Date <= today - 366 days; Short Term if Open Effective Date > today - 366 days
Industry	The GICs industry to which the equity or underlying (if an option) belongs.
Name	The full name of the security
Notes	If a symbol in the Realized Gain/Loss tab has a note associated with it in the Notes tool, the Notes icon will display. Click the icon to see the note(s).
Quantity	For stocks or mutual funds, this field reflects the number of shares you currently hold. For fixed income securities, this field reflects the face value of the securities. For options, this field reflects the number of option contracts.
Realized \$ P&L	Profit/Loss including commissions expressed in dollars which can be positive or negative.
Realized % P&L	Profit/Loss including commissions expressed as a percent which can be positive or negative.
Realized \$ P&L/Share or per contract	Profit/Loss per share or contract including commissions expressed in dollars which can be positive or negative.
Sector	The GICs sector to which the equity or underlying (if an option) belongs.
Today's P&L	The amount that the position has gained or

	lost since either: the current day's market open or the last market close multiplied by the number of shares or contracts. This is calculated by comparing the bid (if long position) or ask (if short position) at the time the position was closed to the last closing price or the current day's open.
Today's P&L %	Same as Today's P&L but expressed as a percent. This is calculated by dividing the Day P&L by the Total P&L.
Total Proceeds	If long, the total dollar sum received for the liquidated shares or contracts including commissions. If short, the total dollar sum debited for the purchased shares or contracts including commissions.
Туре	Describes what type of security the position was. This could be incorporated into the screen design if we follow the lead of Schwab.com do a primary sort on the Type.

Transactions

Transactions

The Transactions tab displays transactions for the current day, as well as transactions made within the last 90 days. The Transactions view page is read-only, so the data cannot be manipulated, but can be exported for use with other programs such as MS Excel.

You can view trade executions, deposits, withdrawals, Trade Away and Prime Broker transactions, and transfers between your brokerage and a bank deposit account.



Transactions can be found in the Account Detail tool.

Note: Transaction History information is not available in Demo mode.

Setting Date Range

You can view up to the last 90 days of data, though the default view shows data up to 60 days. Click the **From** date field to set the start date for the data set you want to retrieve, and then click the **To** date field to choose the ending date. The default is today's date. Click **Go** to retrieve the data.

Exporting Transactions

- You can *Export* your Transactions data to .xls (for Office XP and later versions), .csv, or .txt formats from the *Actions* menu or by right-clicking within the Transactions display.
- 2. Select the save location and enter a name for the export file, if you wish to change it from the default, and click *Save*.

Transactions Column Descriptions

See <u>Transactions Columns and Settings</u> for directions on setting up your <u>Transactions</u> display.

Name	Description
Date	The date the transaction occurred. For trade orders this reflects the date the order was filled.
Action	This indicates whether a action was a Buy, Sell, Sell Short, or is left blank for monetary transactions.
Quantity	The number of stock or mutual fund shares bought, sold or sold short. For fixed income securities, this number reflects the face value of the security you bought or sold. For options, this reflects the number of option contracts you bought or sold. For monetary transactions, this field will display a dash (—).
Symbol	The unique 1-5 characters used to represent the security. Symbols are defined by the different markets or exchanges. Sometimes a security might not have a symbol, in which case, an internal Schwab reference # will be used. For monetary transactions, this field will display a zero.
Description	This field provides a description of the security or an explanation of the transaction.
Price	This indicates the price you paid or received for the purchase or sale of a unit of the security. For example, if you bought 10 shares of ABC at \$90 a share, the price would be \$90. For monetary transactions, this field will display \$0.00.

Amount	This indicates the total amount of the transaction. Numbers inside () indicate money was deducted from your account. Numbers without the brackets mean money was deposited into your account.
Commission	Displays the commission paid for a specific transaction. If no commission applied or if the trade was executed today, you will see an asterisk (*).
Settlement Date	The date by which an executed securities transaction must be settled, either by paying for a purchase or by delivering a sold asset. In a regularway delivery of stocks, the settlement date is usually trade day + 2 business days (T+2).
	NOTE: Beginning on the trade date of September 5, 2017, T+3 settlement changes to T+2.
Notes	If a symbol in the Transactions tab has a note associated with it in the Notes tool, the Notes icon will display. Click the icon to see the note(s).

Transactions Columns and Settings

The StreetSmart Edge® <u>Transactions tab</u>, found in the <u>Account Details</u> tool, is customizable, allowing you to choose which columns of data to display for the transactions in your account, as well as the order of the columns. Access the Transactions tab Settings window by right-clicking in the Transactions display and selecting *Columns and Settings...*, or access it from the *Actions* dropdown menu.

See Column Descriptions for details about each available column.

Sorting Rows

Sort rows by clicking the header of the column on which you want to sort. An arrow next to the column name indicates the sort direction (ascending or descending).

- If **Auto-Sort in Real-Time** is checked in Columns and Settings, changes to data in the sort column will affect the current sort order in real time.
- For example, if you have your transactions sorted alphabetically by Symbol, as transactions take place, the list will automatically adjust its sort order to put transactions in alphabetical order.

Customizing Columns

There are several ways to rearrange the columns displayed in the Transactions tab:

- You can click the column headers and drag them to another spot in the Transactions display.
- You can also right-click on a column header and choose a different column from the list of all available columns.

TIP: If the column you choose is not currently displayed in Transactions, it will completely replace the column that was there. If it is already in the Transactions display, the two columns will swap places.

- You can also arrange column order from the Columns and Settings window, which is available when you right-click on the tab name. Check the columns you want to display in the Transactions tab. All chosen fields display in the Column Order display on the right. Click a column name and use the Up/Down buttons to move the column into a new position.
- For brief descriptions of each column, hover your mouse pointer over the column name in the Columns and Settings window. For more in depth descriptions of each column, see Transactions Column Descriptions.

Applying Settings to One or All Tabs

You can choose to apply the settings changes you make to either just the *current* Transactions tab or to *all* current and future Transactions tabs. The default is to apply the settings only to the current tab, but if you prefer the settings to apply to all, select *Apply to all Transactions tabs* at the bottom of the Columns and Settings window before clicking *OK*.

Portfolio Performance

The Portfolio Performance Reporting tool allows enabled users to create reports around portfolio, account, and asset class performance, risk and return, and more without having to leave StreetSmart Edge®.

If your account is enabled for Portfolio Analysis (all accounts over \$100k are automatically enrolled), you will see a **Portfolio Performance** tool in the **Launch Tools** menu. You may display up to 8 Portfolio Performance tools at a time across all open layouts.

You can find a more fully featured Portfolio Analysis tools under the Accounts tab on <u>Schwab.com</u>, but in StreetSmart Edge®, enabled clients are able to generate a variety of reports for on-the-fly analysis over a customizable period of time.

To generate a report:

- 1. Choose a Portfolio on which to report.
- 2. Select which type of Report to view. To see a breakdown of each account in the portfolio, choose Account Performance.
- 3. Choose the Time Period for the report, anywhere from the last 3 months up to inception, or a custom date range.
- 4. Click **Go** to view the report on your screen only. Click **Printer Friendly** to generate a document ready for printing. Or click **Export** to generate a *.csv file, which can be opened in a spreadsheet.

For more help understanding the reports, log on to <u>Schwab.com</u> and go to Accounts > Portfolio Analysis > Portfolio Performance > Understand Portfolio Performance Reporting.

Trading and Quotes

Trading and Quotes

StreetSmart Edge® offers three unique tools for entering trades, enabling you to choose the tool that works best for your trading needs.

All in One tool

Schwab's most dynamic order entry tool yet, with customizable tabs for quick access to the trading actions you use most frequently. Equity and Conditional order entry stays highly efficient, while option order entry is more intelligent and streamlined.

The <u>All in One Trade Tool</u> (found in **Launch Tools** under **Trade - All in One**) adjusts the order entry fields on the fly in response to your order entry selections, so you can add option legs, change order strategies, and quickly find the contract you want to trade.

You may display up to 28 All in One Trade tools across all open layouts, with up to 8 tabs in each tool.

Trade tool

The original StreetSmart Edge® order routing interface, with tabs for <u>Stocks</u> <u>& ETFs</u>, <u>Options</u>, and <u>Conditional Orders</u>. The Trade tool is designed to put important information at your fingertips to help you act on a security's most relevant, up-to-date data.

You may display up to 8 Trade tools across all open layouts.

Symbol Hub

You can also place trades from the <u>Symbol Hub</u>, a one-stop shop for trading, quotes, charts, news, and research. You may display up to 8 Symbol Hub tools across all open layouts.

For more information on Trading and Quotes, visit the <u>Quick Reference</u> Guide.

TIP: You can also initiate trades by selecting *Trade [symbol]...* in the **right-click menu** or from the *Actions* drop-down in many windows where a symbol is displayed. This includes the Positions and Order Status tabs of the <u>Account Detail</u> tool, <u>Watch Lists</u>, <u>Screener Hub</u>, <u>News</u> tool and more.

Equity Quotes & Trading

The **Stocks & ETFs** tab shows <u>streaming</u> **Level I**, **Market Depth**, and **Time & Sales**, and the Trade tool and Symbol Hub also show **News** updates, if you wish, to aid in decision-making.

- For more information, see Stocks & ETFs Tab Features.
- For more on equity order routing, see <a>Equity Trading Venues.

Option Trading

The All in One trade tool is ideal for option traders, thanks to the seamless stock and option trading workflow. See the <u>All in One Trade Tool</u> to learn more. In the Trade tool and Symbol Hub, the **Options** tab provides you the tools to place both simple and complex/multi-leg option orders.

- Choose an option strategy from the <u>Strategy Selector</u> and the trade ticket and option chain will automatically be set up for trading the selected strategy.
- Within the Call & Puts option chain, click the arrow next to any option symbol to see the contract specifications and Market Depth information for that contract.

For more information on Option trading, see Options Tab Features.

Options carry a high level of risk and are not suitable for all investors. Certain requirements must be met to trade options through Schwab. Multiple leg options strategies will involve multiple commissions. Please read the options disclosure document titled "Characteristics and Risks of Standardized Options." Supporting documentation for any claims or statistical information is available upon request.

Conditional Orders

Conditional Orders are a way to place orders when the market conditions you define are met. You specify up to 3 conditions, as well as up to 3 orders that will be placed when those conditions are met.

The conditions operate just like <u>Alerts</u>, with the added convenience of placing an order on your behalf.

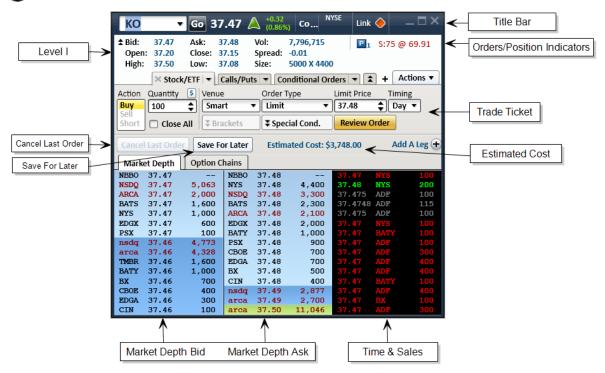
For more information, see Conditional Orders Overview.

TIP: Conditional Orders are a way to manage risk on positions you already hold. Another way to do this is by setting up **Brackets** on your equity and option orders. Brackets are profit, stop loss, and trailing stop exits and can help protect against significant losses, as well as protect profits on a position. For more on how brackets can help your trading and how to apply them, see Brackets Overview.

Equity Trading

Stock & ETFs Tab Features

Trade Stocks and ETFs in the All in One tool, the Trade tool, or Symbol Hub.



Stock symbols and price and volume data shown here and in the software are for illustrative purposes only. Charles Schwab & Co., Inc., its parent or affiliates, and/or its employees and/or directors may have positions in securities referenced herein, and may, as principal or agent, buy from or sell to clients.

Stock & ETFs Tab Features	
Title Bar	Enter the symbol you potentially want to trade and click Go or press Enter .
	The Title Bar is available in several tools, and includes some basic price data as well as the Tool Link Icon. For more on these features see Title Bar .
Order/Position Indicators	This area indicates whether your account has an order or a position in the current security, regardless of security type.
	Order Status Indicator
	$ullet$ $oxedsymbol{\mathbb{Q}}_1$ indicates you have one open order for

Stock & ETFs Tab Features

this symbol in your account.

- Click the indicator to display a list of all option and equity orders in your account for the underlying symbol.
- The list shows the details of each order (price, venue, quantity, etc.), order number, and quantity filled.
- It also gives you quick access links to Cancel, Change, or Add/Edit Brackets for each order.
- Buttons at the top of the list also allow you to Cancel All [symbol] Equity Orders or Cancel All Open Orders. These actions can also be accessed by right-clicking the Order Status Indicator.
- For more on changing, canceling, or editing brackets, see Changing or Canceling Orders.

Position Indicator

- P₁ L:100 @ 22.31 indicates you have one position for 100 shares Long (position size does not include option positions) with an average cost basis of 22.31 per share.
- Click the indicator to display a list of all option and equity positions in your account for the underlying symbol.
- The list shows each equity position, each option position, unrealized P&L for each, and includes a link to *Close Position* and *Rollout Position* (for option positions).
- Clicking the Close Position link will open a trade window with the quantity pre-filled and Close All selected (you can uncheck Close All and reduce the quantity if you wish). Clicking Rollout Position will open the All in One Trade tool with a ticket and option chain set up to place a rollout order.
- Click Review Order to review the order and then Place Order to send the order.

Level I

Shows basic quote data for the equity on display.

Stock & ETFs Tab Features		
	You can specify which data components to display (or none at all) by right-clicking in the Level I area and choosing <i>Level I Settings</i> . Choose the columns to display and their display order. See more on <u>Customizing the Level I Display</u> .	
	TIP: At the bottom of the Level I Settings window, you can also specify whether these settings should apply to all Trade Tools in your layout or just this one.	
Trade Ticket	Click the Stocks & ETFs tab to display the Trade Ticket. This is the primary order routing interface in the software and is also available in the Sym-bol Hub .	
	TIP: You can hide the Trade Ticket by clicking the double arrow tab in the upper right corner. Click again to re-display it.	
	 Calculate Shares: Click to calculate the maximum number of shares you can trade based on the dollar amount you specify. See more on <u>Placing Equity Orders</u> and <u>Equity</u> <u>Trading Venues</u>. 	
	 Trading settings, such as enabling or disabling order verification, default quantities, and commission estimates can be found by right-clicking in the Trade Ticket area and selecting Trade Ticket Settings or under Settings in the main menu. For more information, see Trade Settings. 	
	abling order verification, default quantities, and commission estimates can be found by right-clicking in the Trade Ticket area and selecting Trade Ticket Settings or under Settings in the main menu. For more inform-	
Estimated Cost	 abling order verification, default quantities, and commission estimates can be found by right-clicking in the Trade Ticket area and selecting <i>Trade Ticket Settings</i> or under <i>Settings</i> in the main menu. For more information, see <u>Trade Settings</u>. Action Menu vs. Buttons: You can display your order actions either as a menu (shown above) or as <u>individual buttons</u> that initiate the order instead of a <i>Review Order</i> but- 	

Stock & ETFs Tab Features

tings window. Hover your mouse pointer over the Estimated Cost to open a pop-up with a link to **Edit Fee Calculation**. You can also access the fee calculations under **Settings** in the main menu.

Market Depth Bid/Ask

Shows the depth of all bids and offers in a stock. Each line shows the market center, the price at which they are bidding or offering, and the number of shares they are making available at that price.

Market Depth data is available to you for a fee if you wish to subscribe to the service. However, the fee may be waived if you meet certain eligibility requirements. For additional information, please contact your Schwab Active Trader Team.

NASDAQ quotes and ECN quotes are in uppercase and ECN book quotes (when the book is turned on) are in lower-case. Other non-NASDAQ quotes are noted with an asterisk (*).

Customize: The Market Depth and Time & Sales display is customizable. To learn more, see <u>Customizing the Market Depth Display</u>.

Exchange Codes

BSE - Boston Stock Exchange

CIN - Cincinnati Stock Exchange

CSE - Chicago Stock Exchange

NSDQ - NASDAQ

NYS - New York Stock Exchange

OTC - Over the Counter

OTCBB - Over the Counter Bulletin Board

PHS - Philadelphia Stock Exchange

PSE - Pacific Stock Exchange (ARCA)

CBOE - Chicago Board Options Exchange

BATS -BATS Exchange

BATY - BATY Exchange

EDGA - EDGA Exchange

EDGX - EDGX Exchange

Stock & ETFs Tab Features		
Time & Sales	Shows every trade being reported through NASDAQ and some ECN book trades, as well as the quantity of the trade (parentheses around the quantity indicates an exact amount of shares, usually an odd lot) and the time of the trade. Time & Sales is color-coded:	
	 Green: Prints at the inside Ask Red: Prints at the inside Bid Gray: Prints in between the inside Bid/Ask Yellow: Prints above the inside Ask Purple: Prints below the inside Bid Gray Highlight: Inside quote change 	
	Customize: The Market Depth and Time & Sales display is customizable. To learn more, see <u>Customizing the Market Depth Display</u> .	
News*	If you expand your Trade tool window, you will reveal the Breaking News panel of the Stocks & ETFs tab. Click on a story to display it in the preview pane, or double-click on the story to open it in a separate window. • You can also right-click and select <i>Open Story</i> to open it in a separate window. • To hide the preview pane and see only the Breaking News headlines, right-click and select <i>Hide Preview</i> .	
	TIP: News is also available in its own tool with even more features. Click <i>Open Tools</i> > News to view the News tool.	
Cancel Last Order	Will attempt to cancel the most recent open order for the stock loaded in the Trade tool. Check your Messages or Order Status to confirm success of cancel order.	
Save for Later	If you create an equity order you want to send at a later time, click Save for Later at the bottom of the order entry screen. The order will save to	

Stock 8	ETFs	Tab	Features	;

the <u>Order Status</u> tab of the <u>Account Details</u> tool, where you can right-click on the order and Submit, Edit, or Delete it.

Title Bar

The Title Bar is found at the top of all "symbol-specific" tools in StreetSmart Edge®.

The All in One, Trading, Charts, and News tools, as well as the Symbol Hub and Recognia tools each have the Title Bar at the top, because the information they provide is related to one main symbol.

Compact Title Bar: Right-click on the Title Bar and select **Compact Title Bar** if you want the bar to take up slightly less space on your screen. It will still show most of the information below, minus the Exchange and FSI Codes.

TIP: The feature all windows in the software share, whether they are symbol-specific or not, is the <u>Tool Link Icon</u>, which allows you to specify which other windows update when you load or click on a symbol.

Title Bar Features		
Symbol	To load a symbol, click in the field, type the new symbol, and press Enter on your keyboard or click Go .	
	You can also choose from recently loaded symbol bols by clicking the down arrow in the symbol field.	
	Copy & Paste for Symbols: For option symbols, rather than having to type the full symbol in, you can right-click on a symbol in the Option Chains and select <i>Copy</i> . Then right-click in the Symbol field and select <i>Paste</i> to load the symbol. For more on the copy and paste functionality see Copy and Paste Option Symbols.	
Quote	Shows the last trade price.	
Tick	Shows whether the security is up or down for the day.	
Change/Change%	Shows the change in price from previous close.	

^{*}Available in basic Trade tool only. Not in All in One Trade tool or Symbol Hub.

Title Bar Features		
Description	Shows the company or index name.	
Exchange	Shows the exchange on which the security trades.	
FSI Codes	A letter after the security name is the Financial Status Indicator (FSI). FSI Codes C Creations and/or Redemptions suspended for Exchange traded product D Deficient: Issuer failed to meet Exchange con-	
	tinued listing requirements E Delinquent: Issuer missed regulatory filing deadline Q Bankrupt: Issuer has filed for bankruptcy G Deficient and Bankrupt H Deficient and Delinquent J Delinquent and Bankrupt K Deficient, Delinquent, and Bankrupt	
Hard to Borrow (HTB)	Stocks that may be difficult to borrow for shorting purposes will have a Hard to Borrow indicator under the name of the exchange. If the stock you wish to short has this indicator, consider that it may be difficult to fill your order. For questions on shortable share availability, please contact Securities Lending at 1-800-355-2448.	
Regulatory Circuit Breaker (RCB)	Stocks that have triggered the regulatory circuit breaker will be annotated with a "RCB" indicator in the <u>Title Bar</u> of a window. National securities exchanges and FINRA have implemented a new "limit up/limit down" mechanism (FINRA Rule 6190) to combat extraordinary market volatility. The new regulation mandates that firms prevent trades in listed equity securities from occurring outside of a specified price band, which will be set at a percentage level above and below the average price of the security over the immediately preceding five-minute period. More information on what triggers a Regulatory Circuit Breaker can be found at <u>NYSE</u> or <u>NASDAQ</u> .	

Title Bar Features

Tool Link Icon

The Tool Link Icon provides a way for you to link multiple tools so that when a symbol is loaded in one, it changes in all the linked tools.

Link 🔷

For non-symbol specific tools, doubleclicking on a symbol will load that symbol in the linked tools.

EXAMPLE

If you set your Chart, Trade and Watch List tools to the green triangle icon, any time you load a symbol in the Chart tool, it will load in the Trade tool. And if you double-click on a symbol in your Watch List, it will load in both the Trade and Chart tools.

Changing the Icon: Change the icon for a tool by clicking on it (default is the red diamond) and selecting a different icon from the list.

Breaking Link: If you want a tool to be completely separate and have no link to other tools, choose the broken link icon at the bottom of the icon drop-down.

Order/Position Status

This area indicates whether your account has an order or a position in the current security, regardless of security type.

Order Status Indicator

- On indicates you have one open order for this symbol in your account.
- Click the indicator to display a list of all option and equity orders in your account for the underlying symbol.
- The list shows the details of each order (price, venue, quantity, etc.), order number, and quantity filled.
- It also gives you quick access links to Cancel, Change, or Add/Edit Brackets for each order.
- Buttons at the top of the list also allow you

Title Bar Features

to **Cancel All [symbol] Equity Orders** or **Cancel All Open Orders**. These actions can also be accessed by right-clicking the Order Status Indicator.

 For more on changing, canceling, or editing brackets, see <u>Changing or Canceling Orders</u>.

Position Indicator

- P₁ L:100 @ 22.31 indicates you have one position for 100 shares Long (position size does not include option positions) with an average cost basis of 22.31 per share.
- Click the indicator to display a list of all option and equity positions in your account for the underlying symbol.
- The list shows each equity position, each option position, unrealized P&L for each, and includes a link to *Close Position* and *Rollout Position* (for option positions).
- Clicking the Close Position link will open a trade window with the quantity pre-filled and Close All selected (you can uncheck Close All and reduce the quantity if you wish). Clicking Rollout Position will open the All in One Trade tool with a ticket and option chain set up to place a rollout order.
- Click Review Order to review the order and then Place Order to send the order.

Placing Equity Orders

TIP: If you frequently use the same trade order settings, consider setting up Trading Hot Keys, which allow you to place orders with the touch of a key or combination of keys.

- 1. In the <u>Trade tool</u> or <u>Symbol Hub</u>, click the **Stock/ETF** tab. In the <u>All in One</u> Trade tool, open or click on the **Stock/ETF** tab.
- 2. Enter the symbol in the <u>Title Bar</u> and press **Enter** on the keyboard or click **Go**.
- 3. Choose from the Action field whether you wish to create a **Buy**, **Sell**, or **Short** order. (If you have selected the <u>order action button view</u>, you will

- choose your action at the point of submitting the order in lieu of Step #12 below.)
- 4. Adjust the quantity using the arrow buttons or entering the quantity manually.

Keyboard shortcuts

- *Up/Down* keys increase or decrease in increments of 500
- Left/Right keys increase or decrease in increments of 100
- **Shift + Up/Down** keys increase or decrease by 10
- **Shift + Left/Right** keys increase or decrease by 1

TIP: If you want to base your order quantity on a dollar amount rather than a number of shares, click the \$ button above the Quantity field. Enter the dollar amount and click **OK** to show the number of shares that amount will buy (whole shares only).

- Select a Venue. Most common will be *Smart*, but other choices may include *Pre Market* and *After Hours*. If you are approved to trade via <u>Direct Access</u>, you will also have <u>ARCA</u> and <u>NSDQ</u> venues as choices. See the <u>Equity Trading Venues</u> for more information.
- 6. Choose an Order Type.

Available Order Types

- Limit : An order to buy or sell a security at a specific price or better. As opposed to a market order, limit orders might not be filled quickly or at all if the market moves away from the specified price. A limit order guarantees price, but not execution.
- Market :: An order to buy or sell a security at the prevailing market price. Sometimes referred to as "at the market." Unless trading is halted, a market order guarantees execution, but not price.
- Stop : A request to buy or sell at the market price, but only when the security trades at or past a price specified. Once the stock price moves to or through the stop price, the pending stop order becomes a market order. Stock and ETF stop orders are triggered by a trade at or through the specified stop price. Once the order is activated, you are guaranteed execution, but there is no guarantee of the execution price. Execution may occur either above, at or below your stop price.
- Stop Limit : An order that becomes a limit order once the security trades at or through the designated stop price. A stop limit order instructs a broker to buy or sell at a specific price or

- better, but only after a given stop price has been reached or passed. It is a combination of a stop order and a limit order. Stock and ETF stop limit orders are triggered by a trade at or through the specified stop price.
- Trailing Stop : An order whose trigger price will trail either the current inside ask (if buying) or inside bid (if selling/shorting) at the time the order was submitted by the number of points or the percent you specified in the Trailing Amount field. The Trailing Stop feature should not be confused with the Stop Order (order type), which does not trail the price but has a set stop price. More on Trailing Stops.
- Direct Access users, see the <u>ARCA</u> and <u>NSDQ</u> topics for Order Types available with those venues.
- 7. If you chose an order type requiring a limit and/or stop price, set those values in the specified fields. Either enter them manually, or click on a price in the Market Depth area to use that price.

Keyboard shortcuts

- Up/Down keys increase or decrease by .05
- **Left/Right** keys to increase or decrease by .01
- **Shift + Up/Down** keys to increase or decrease by .005
- **Shift + Left/Right** keys to increase or decrease by .001
- 8. Select the Timing for the order.

Available Timing Choices

- Day: Causes your order to be canceled at the end of the current market session if the order has not been executed. All Market Orders are automatically Day orders. Orders are generally considered to be day orders unless otherwise specified.
- GTC (Good 'Til Canceled): Instructs the broker to keep an order open until it is either executed or expires. At Schwab, GTC orders remain open for 60 calendar days unless filled or you request that they be canceled before that time.
- Market On Close: A Market On Close (MOC) order is submitted for execution as part of an exchange's closing auction or other trade execution process. Furthermore, MOC Orders must be placed or changed before 3:45pm EST (within 15 min of market close). Your ability to cancel MOC orders is governed by the rules of the exchange to which the order was routed. In most cases, cancellation requests will not be accepted after 3:55 pm ET and

- may be subject to restrictions at earlier times depending on exchange rules.
- FOK (Fill or Kill): Instructs the broker to immediately fill an order in its entirety or to cancel it. FOK instructions are only applicable to limit orders.
- IOC (Immediate or Cancel): Requires the broker to immediately fill as much of the order as possible and then cancel any remaining portion. (It may not be available in all market conditions.) Unlike All or None (AON) or Fill or Kill (FOK) instructions, IOC orders may result in a partial execution.
- 9. Depending on your order settings, certain Special Conditions may be available. Choose these from the **Special Conditions** drop-down.

Available Special Conditions

- Min Quantity: Specifies the minimum execution quantity the client will accept (with any amount up to the specified Quantity thereafter). Use only for orders over 200 shares. When checked, the amount field can be changed, but the amount must be at least 200 shares. Designating minimum shares applies to the first fill only.
- AON (All or None): Attempts to fill the entire amount of an order or none of it during the time limit specified. AON orders do not require immediate execution.
- DNR (Do Not Reduce): This instruction only pertains to a regular Cash Dividend event.

Corporate Action Types

- Cash Dividends: This condition is used to keep the order price from being adjusted when a regular cash dividend event occurs. A domestic equity or ADR can be marked DNR to prevent this adjustment. All GTC buy limit and sell stops will have their price adjusted on the ex-date if the order is not marked DNR. Pink sheets and foreign securities with 5 letter symbols ending in F are not adjusted.
- Stock Dividends: All GTC buy limit and sell stop orders will have their price adjusted on exdate, including DNR orders. The share quantity may also be adjusted based on the rules of the specific exchange, but price will always be

adjusted. Pink sheets and foreign securities with 5 letter symbols ending in F are not adjusted.

- Spin-Offs: All GTC buy limit and sell stop orders will have their price adjusted on ex-date, including DNR orders. Pink sheets and foreign securities with 5 letters aren't adjusted.
- Special Dividends: All GTC buy limit and sell stop orders will have their price adjusted on exdate, including DNR orders. Pink sheets and foreign securities with 5 letters aren't adjusted.

NOTE: Adjustments are less well defined for foreign securities. Schwab's policy is to not adjust these orders, but many third parties do. Every effort is made to catch adjustments but there are times when adjustments are made and Schwab is not always notified of the changes.

- Cost Basis Method: Available when closing out of a position, you can specify the method used to calculate cost basis on the order. For more information, see Cost Basis Method.
- Direct Access users, see the <u>ARCA</u> and <u>NSDQ</u> topics for Special Conditions available with those venues.
- 10. Similarly, to enable Brackets for your order, click the **Brackets** drop-down. See <u>Brackets Overview</u> for more information on applying bracket exits to your order. Brackets can also be added from the <u>order verification</u> window by clicking the 'Set Exit Strategy' button prior to placing the order.
- 11. To sell your entire position, check the *Close All* box. The quantity will default to the shares you have available to sell. When checked, the quantity will become shaded. See Close All for more information.

TIP: You must use **Close All** or select the **Smart** venue in order to close out a position with fractional shares.

- 12. Click **Review Order** (if you have not turned off order verification).
- 13. If the order settings are correct, click **Place Order**. To edit the order, click **Edit Order**. To start over completely, click **Do Not Place**.

A Stop Order is an order to Buy or Sell at the Market price once the security is at or has traded through a certain price (the Stop price).

Buy Stops are entered above the current Market price. If the security trades at or above your Stop price, your Stop Order becomes a Market Order and your broker

will buy at the current Market price. A Buy Stop is designed to help protect a profit or limit a loss on a short sale.

Sell Stops are entered below the current Market price. If the security trades at or below your Stop price, your Stop Order becomes a Market Order and it will sell at the current market price. A Sell Stop is designed to help protect a profit or limit a loss on a long position.

The risk of a Stop Order is that it may be triggered by temporary market movements or executed at a price higher or lower than the Stop price. A Stop Order does not guarantee a price.

NOTE: Schwab will not trigger your stop or stop limit orders based upon odd-lot transactions, or any other transactions excluded from the consolidated last sale price calculations.

Trading Hot Keys

If you frequently use the same order settings when placing equity trades, hot keys may help you save time when entering orders. With hot keys, you can assign order settings (everything but the equity symbol) to a key or combination of keys (for example, F5 or Ctrl+B).

In addition to placing orders, you can also use hot keys to:

- Close open positions: You can create a hot key that will Close a specified number of shares in an open position, or one that will Close All your open positions in the security.
- Cancel open orders: For the Action, choose Cancel Oldest to create a
 hot key that will cancel the oldest open order for the security, or Cancel
 Most Recent to cancel the most recent open order. You can also create a
 hot key to cancel all orders, using either Cancel All on Symbol or Cancel
 All, which will cancel all open orders for the account.

Once you set up one or more hot keys, to place an order, go to the <u>Trading tool</u> or <u>Symbol Hub</u> and press the hot key. An order verification window will open and you can place the order.

TIP: If you have **order verification turned off**, the order will be sent immediately upon pressing the hot key. To minimize risk of accidentally placing orders, consider creating hot keys that use a combination of the *Ctrl* key + a letter, number, or Function key. For example, *Ctrl*+*F2*.

Manage Hotkey settings by right-clicking in the Stocks & ETFs tab and selecting **Hot Keys**. You can also access them from the main menu: **Settings > Set-tings...** and choose the **Trading** tab > **Equity Hot Keys** sub-tab.

Create a Hot Key

- 1. Right-click in the Stocks & ETFs tab of either the Trading tool or the Symbol Hub and choose *Hot Keys*.
- 2. Click in the **Keystroke** field and press the hot key(s) you want to use. Many keys and key combinations are available, including the Function keys and symbols, such as open/close brackets, Num Pad, plus/minus, etc., can be used in combination with modifier keys **Ctrl**, **Shift**, or **Alt**. Create a 3-key combination by using two modifier keys and one letter, number, or Function key, such as Ctrl + Alt + S. Use the hot keys to create a system that works best for you.
- 3. Specify the
 - Action Type: Enter Order, Pop up Execution Dialogue, Load Quantity, or Load order parameters (in Trade tool)
 - **Action:** Buy, Sell, Short, Close, Cancel, etc.
 - **Venue:** Order routing venue, such as Smart
 - Quantity: Number of shares
 - Type: Choose Market , Limit or Stop. Some Venues may offer additional order types.
 - Limit Price: Choose from the *Inside Bid* or *Inside Ask*.
 - Delta: Specifies how much above or below the Inside Bid or Ask to price the order
 - **Peg Diff:** Available if order type is Market-Peg or Primary-Peg
 - Max Floor: Can be used with the ARCA or NSDQ venues, if available.
 - Time in Force: Choose from Day (*DAY*), Good Til Canceled (*GTC*),
 Fill or Kill (*FOK*), or , or Market On Close (*On Close*). Some Venues
 may offer additional TIFs.
 - Special Conditions: Any special conditions, such as Do Not Reduce (DNR), All or None (AON), etc., will display as available depending on the Venue you have selected.
- 4. The hot keys you create display at the top of the screen and you can *Enable* or disable them as necessary by checking/unchecking the box next to the hot key description.
- 5. Click **Save** when you are finished creating hot keys and wish to close the Settings window.

Edit a Hot Key

Click the row for the hot key you want to edit. The hot key you are editing will be highlighted yellow, and the fields will populate with the settings for that hot key. Click *Save* when you are finished editing hot keys.

Delete a Hot Key

To permanently delete a hot key, click the **X** at the end of the row in the list of hot keys you've created.

Enable/Disable Hot Keys

To Enable or Disable ALL hot keys, use the **Enable All** or **Disable All** buttons at the top of the Hot Key window. To enable or disable hot keys one at a time, check or uncheck the box for the individual hot key definition.

Note: Please be aware that Windows OS shortcuts will have priority when a Hot Key with the same combination is envoked. For example, when pressing the "Alt" key + the letter "S", the application will open the Settings Menu.

Changing or Canceling Orders

Orders can be changed or canceled from the:

- Order Status tab in the Account Details window
- Trade ticket in the All in One tool, Trade tool or Symbol Hub
- Order Status Indicators

Canceling an Order

- Order Status tab: Click an order and click Cancel Order at the top of the window, or right-click on the order and select Cancel Order. The software will ask you to verify that you want to cancel the order.
- **Trade tool:** Cancel the *last submitted* order for the symbol loaded in the Trade tool by clicking **Cancel Last Order**.
- Order Status Indicator: Click on the indicator and, in the list of open orders that displays, click *Cancel* for the order you wish to cancel.

Canceling ALL Orders

You can cancel one order as described above or you can cancel all open orders.

- Order Status tab: Click Actions and then Cancel All Open Orders to initiate the cancel all. To cancel all orders for one symbol, right click on the symbol and select Cancel All Open [symbol] Orders.
- Order Status Indicator: Click on the indicator and click Cancel All Open
 [symbol] Orders to cancel all orders for the current symbol. Click Cancel
 All Open Orders to cancel ALL orders you have open for any symbol and
 any security type. You can also access these by right-clicking on the Order
 Status Indicator.

Changing an Order

For open Smart orders, you may be able to make changes to the order, such as quantity, type, limit price and more. Click the order you wish to change and click **Change Order** at the top of the window.

A window with the order entry fields will open with your original order settings. Make the desired changes and click **Review Order** (or **Cancel Changes** if you want to keep the original settings). If the settings are correct upon review, click **Place Order**.

Note that you cannot change a Smart order to or from a trailing stop order type after the order has been submitted. You must first cancel the order and then resubmit with a different order type.

Orders with Brackets: You can change the primary order using **Change Order** as described above, but to change the bracket exits themselves, right-click on the contingent bracket in the Order Status tab and select **Edit Bracket**.

Order Status Indicator

You can change and cancel orders from the Order Status Indicator $\boxed{0}_1$ found at the top of either the <u>Trade tool</u> or <u>Symbol Hub</u> or in the <u>Option Chains</u>. Click on the indicator to view your choices for your open orders in the selected position. Read more about the <u>Order Status and Position Indicators</u>.

Equity Trading Venues

Following are the Venues available in the <u>All in One tool</u>, <u>Trade tool</u> and <u>Symbol Hub</u> when placing an order in StreetSmart Edge®. No single order routing venue is best in all situations, so it is important that you familiarize yourself with the routes available and determine which best fits the market conditions.

Routing Venues		
Smart	All StreetSmart Edge® users have access to Smart order routing.	
	 To read more about Smart order routing, see <u>How Smart Orders Route</u>. 	
	 To learn about the choices you have when setting up a Smart order, see <u>Placing Equity</u> <u>Trades</u>. 	
	 Trading is available during standard market hours, 9:30 a.m. to 4 p.m. ET. 	
Direct Access	Users who want more control over the routing of	

Routing Venues		
	their orders may wish to enable Direct Access trading for their accounts. Direct Access allows you to place trades via <u>ARCA</u> and <u>NSDQ</u> venues. See the <u>Direct Access Route Comparison</u> to see how the two venues differ.	
	 Trading is available from 7 a.m. to 8 p.m. ET and does not have separate sessions for pre- or post-market trading. Direct Access trading entails certain risks and responsibilities. As a result, we have established special eligibility requirements for Direct Access trading. 	
Pre Market	Orders can be entered from 8:05 p.m. on the previous trading day to 9:25 a.m. ET, but trades are not eligible for execution until the session officially opens for trading at 7:00 a.m. ET. • For much more on pre-market trading, see Extended Hours Trading.	
After Hours	Orders can be entered from 4:05 p.m. to 8:00 p.m. ET, but trades are not eligible for execution until the session officially opens for trading at 4:15 p.m. ET. • For much more on after-hours trading, see Extended Hours Trading.	

Customizing the Level I Display

You can customize what, if any, Level I displays in the Trade tool, putting the most important information for your trading right at your fingertips.

To customize your Level I display:

- Right-click in the Level I area of the Trade tool and select Level I Settings
 or left-click on the icon within the All in One Trade tool to begin making
 changes.
- 2. Choose from the available columns listed below and arrange them according to your preferred location.
- Choose where to apply the settings changes by selecting Apply to this
 Trade tool/Instance or Apply to all Trade tools/Instances at the bottom of the setting window.
- 4. Click **OK** when you are finished.

Level I Columns	
% Change	Percent change from close
\$ Change from Today's Close	Change from close
\$ Change from Today's Open	Change from open
\$ Change from Yesterday's Close	Change from yesterday's close
Ask	Inside ask price
Ask Size	Number of shares at the inside ask
Bid	Inside bid price
Bid Size	Number of shares at the inside bid
Previous Close	Closing price from previous market day's session
High	Highest price at which the security has traded for the day
52 Week High	Highest price at which the security has traded over the last 52 weeks
Last Trade Price	Last trade price for a stock and the last value for an index
Low	Lowest price at which the security has traded for the day
52 Week Low	Lowest price at which the security has traded over the last 52 weeks
Open	Opening price for the day
Put/Call Ratio - Open Interest	Calculates the Put/Call ratio by dividing the total number of puts by the total number of calls for an underlying stock or index based on open interest
Put/Call Ratio - Volume	Calculates the Put/Call ratio by dividing the total number of puts by the total number of calls for an underlying stock or index based

Level I Columns	
	on the trading volume of the current or most recent trading session
Ratio	Total number of shares available at the Inside Bid vs. the Inside Ask
Spread	Difference between the bid and the ask
Tick	Displays the direction of the last trade. An up arrow represents an uptick direction where the last transaction has occurred at a higher price than the previous one. A down arrow represents a downward tick direction in which the last transaction has occurred at a lower price than the previous one.
Volume	Number of shares or contracts traded for the day

Customizing the Market Depth Display

There are several Market Depth display settings you can customize to see exactly the information you need. All can be found in the <u>All in One tool</u>, <u>Trade tool</u>, or <u>Symbol Hub</u> by right-clicking in the Market Depth or Time & Sales area and selecting *Market Depth Settings*.

• **Scroll bars:** To display a scroll bar in the Bid, Ask, or Time & Sales columns, right-click in the column and select **Show Scroll Bars**.

• Colors:

- 1. From the right-click or **Actions** menu, select **Colors...**
- 2. In the Colors window, you can customize the colors of each element, from background and highlight colors to font colors.
- 3. Click **Reset to Default Colors** should you wish to return to the original colors.

Font:

- 1. Adjust font settings by right-clicking in the Market Depth display and selecting **Font...**
- 2. In the Font window, you can adjust the size and font used in the Market Depth display, as well as make the text bold and/or italicized by clicking the **B** or *I* buttons, respectively.

TIP: Check **Apply to All Market Depth instances** if you want the font settings to apply to all Market Depth displays.

Market Depth Settings		
Market Depth Behavior		
Sort quotes by Size or Time	Sort quotes by Size to see the largest quotes first at each price level. If multiple quotes are the same size, the older quotes will get higher priority. Sort quotes by Time to display quotes from oldest to newest regardless of size.	
Display Scrollbars	Displays scrollbars in each column enabling you to see the full depth of the bid or ask, or to see time & sales data from further back.	
Display Aggreg- ated Quotes	Displays an aggregate size at each price levels above the bid and ask columns.	
	 Aggregate quotes show the number of shares being quoted at each price level. The size is the sum of all of the individual market maker/ECN quotes at that level. Increase or decrease the number of aggregate 	
	levels shown by clicking and dragging the divider bar between the aggregate and Market Depth areas.	
Display quote volume in 100's	If unchecked, the full volume for a quote will display. If checked, the quote will display without the last two zeros to save screen space.	
Data Sources		
NBBO (National Best Bid and	Displays the inside bid/ask as "NBBO" at the top of the bid and ask columns.	
Offer)	Update during extended hours: If checked, Level I data will update during extended hours trading. If unchecked, it will freeze at the close price.	
NYSE ArcaBook	If checked, displays the NYSE ArcaBook data in lower case text, so you can distinguish between which quotes are only in the NYSE ArcaBook and which quotes the whole market can see.	

Market Depth Settings		
Nasdaq Market Depth		
Nasdaq Level II/Exchange Best	Only displays a market maker or exchange's best bid and ask quote rather than every quote at every price level in their books.	
Bid/Ask Columns		
Display:	 Venue/Market Center Price Size Quote Change Arrow¹ Bid/Ask Status² Bid/Ask Time³ 	
Display in Time & S	Sales	
Display:	 Time⁴ Bid/Ask Changes⁵ Venue⁶ Time & Sales is color-coded: Green: Prints at the inside Ask Red: Prints at the inside Bid 	

 1 Activates small up / down arrows in the Market Depth area of the Trading window indicating the direction a market participant just moved in relation to the inside price.

• Gray: Prints in between the inside Bid/Ask

Yellow: Prints above the inside AskPurple: Prints below the inside Bid

EXAMPLE If Market Maker ABCD is on the bid at 65.20, but backs off to 65.17, a down arrow will appear at the new price level. If ABCD moves back up to 65.20, an up arrow will appear.

² Shows the current status of the Market Maker. "K"=closed, "O"=open, "L"= open (non-refreshed) in the morning and closed in the evening.

³Displays in Market Depth the time that the price server received the quote.

⁴Displays the time of each print

⁵Highlights bid/ask quote changes in the Time & Sales panel

⁶Displays the venue in which the trade was reported

Market Depth Settings		
	Gray Highlight: Inside quote change	
Watches		
Watch ARCA and NSDQ	Highlights <u>ARCA</u> and <u>NSDQ</u> quotes in the Market Depth.	
Watch Market Par- ticipants	Enter up to 4 market makers or ECNs to highlight in the Market Depth.	
Apply settings to		
this instance or All instances	If you have multiple Market Depth displays and want different settings for each, choose Apply to this instance .	
	To have these settings apply to all Market Depth displays in your layout (and all future Market Depth displays you add), choose Apply to all instances .	

Trading Settings

Access the Trading Settings by going to *File > Settings* in the main menu or by right-clicking in the Trade Ticket area of the <u>Stocks & ETFs tab</u> and selecting *Trade Ticket Settings*.

See more on the <u>Notifications</u>, <u>Equity Hot Keys</u>, <u>Order Quantity</u>, and <u>Conditional Orders/Alerts</u> settings tabs found in the Trading tab.

Here, you can control order verification, commissions on estimates and more.

Trade Settings

Trade Setting	ade Settings		
Order Veri- fication	Check to enable order verification before placing or canceling an order. This will give you a chance to review the details of your order before you send it, as well as displaying any notifications or errors resulting from the order settings.		
	You may also choose to add a <u>Bracket</u> to your order by clicking on the " <u>Set Exit Strategy</u> " button.		
	Please note that there is a 10 minute time limit to place your order once the Order Verification window has been opened. If the Order Verification window has been open for longer than 10 minutes and you wish to place an order, close the window and place a new order.		

Trade Settings IMPORTANT: If you turn off **Order Verification**, your orders are immediately submitted without a verification screen, so you will not have the opportunity to review the terms of your order prior to entry and will not see warning or informational messages related to your orders. By unchecking this feature, you accept the associated risks of trading without an Order Verification window and messaging. Order Action You can specify what the software does to the Action selec-Selection tion after you've placed an order or entered a new symbol. You can choose to **Clear Action**, **Maintain Action**, or **Set Action to "Close"** if the symbol has an open position. × Stock/ETF ▼ Calls/Puts ▼ Conditional Orders ▼ 🛊 + Actions ▼ Action Quantity \$ Venue Order Type Limit Price Timing Buy 100 Smart Limit ▼ 8.57 **⊉** Day ▼ Sell Reinvest Dividends ♣ Brackets Special Cond. Review Order Short Or you can choose to view the Action selections as buttons by choosing Use Trade ticket with Order Action buttons. × Stock/ETF ▼ Calls/Puts ▼ Conditional Orders ▼ 🛊 + Actions ▼ Quantity \$ Venue Order Type Limit Price Timing **♦** Smart Limit ▼ 8.57 ‡ Day ▼ 100 ♣ Brackets Special Cond. Sell Short Buy **Price Incre-**Controls the increase or decrease in price when using the up/down arrows 129.20 for the price fields in the Trade ment Ticket. Cancel But-You can specify whether the Cancel button within all Trade ton Selectools will cancel the last submitted order for the current tion symbol or cancel all equity orders for the current symbol. Com-Use these fields to set the equity and option commissions missions to use when estimating the cost or proceeds that will result from the trade. You can set commissions per trade or per stock/contract, depending on your commission structure.

Order Quantity Settings

Customizing your Order Quantity defaults may help save time and reduce errors when placing orders.

Set up default order quantities in the **Settings** menu under the **Trading** tab and then the **Order Quantity** sub-tab.

NOTE: Default quantities do not apply to orders entered via Hot Keys or when closing a position if you have *Use position quantity with closing action checked*.

Order Quantity

You have a choice to either specify a default quantity or use the last entered quantity (if one is available). You can also assign default quantities to specific symbols.

- Max equity order quantity you can submit a new order for will set the maximum number of shares allowable for a NEW order.
- **Use last entered quantity when available** will set the default quantity to the size that is currently in the quantity field of the Trade tool. So, no matter what stock you are viewing, the order quantity will not change.
- Choose Use the default quantity to use the default Share and Contract values you specify. *Does not apply to orders entered via Hot Keys or when closing a position if you have Use position quantity with closing action checked.
- Override the default quantity with the position quantity when closing a position by checking *Use position quantity with closing action*. If checked, when you load a stock in which you have an open position into the Trade tool, the Quantity field will show the number of shares or contracts you hold.

Symbol Default Quantity

Add default share or contract quantities for up to 100 securities. When you load any of these securities in a trade ticket, the specified default quantity will populate the Quantity field automatically.

- Add or Update a symbol by entering the stock symbol (or underlying symbol for options), number of shares or contracts, and clicking Add/Update.
- Delete a symbol by clicking the X at the end of the row for that security.

Extended Hours Trading

Extended Hours Trading is made possible by market centers that match bids to offers electronically.

Trading Sessions

Schwab's Extended Hours Trading offering has two components: the Pre Market and the After Hours sessions. Both sessions are independent from the Standard Market Session.

- **Pre-Market Session:** Orders can be entered from 8:05 p.m. on the previous trading day until 9:25 a.m. ET. Trades are not eligible for execution until the session officially opens for trading at 7:00 a.m. ET.
- **After-Hours Session:** Orders can be entered from 4:05 p.m. to 8:00 p.m. ET. Trades will be eligible for execution during this time period.
- Separate trading sessions do not apply to Direct Access orders.
- Schwab reserves the right to change its extended hours session and may cancel extended hours sessions without prior notice.
- No matter when you submit a Direct Access Order, you can only request a cancel, you can never change your order.
- · After hours order flow is routed to UBS.

Eligible Securities

Most NASDAQ and listed securities are currently eligible for extended hours trading at Schwab. However, at any time, any number of securities may not be available due to lack of trading interest during the Extended Hours Trading Session.

Order Types

Only limit orders are accepted during extended hours. The maximum order size is 25,000 shares.

Quotes

Quotes for the Extended Hours Trading session reflect the best Bid (buy) and Ask (sell) orders currently available through the participating market centers.

Changing and Canceling Orders

You can attempt to change or cancel an Extended Hours order within the same Extended Hours session, as long as the status of your order is open. Go to the **Order Status** tab of your **Account Details** tool to access the <u>change/cancel</u> features, or access via the <u>Order Status Indicator</u>.

Unexecuted Trades

Unexecuted orders do **not** carry over into the next Standard or Extended Hours Trading Session. Any open orders will be automatically canceled at the end of the current Pre-Market or After Hours session.

Unexecuted <u>Direct Access Routes</u> orders will **not** carry over to the next day. If a Direct Access order is **not** executed, it will automatically be canceled at the time the market center (to which you routed your order) closes.

Direct Access orders that are not auto-canceled will be outed at the time the venue (to which you routed your order) closes.

Risks of Extended Hours Trading

Extended Hours Trading Sessions may not be suitable for all investors since they pose certain risks including, but not limited to: lower liquidity, changing prices, news announcements, higher volatility, and wider spreads.

Extended Hours Trading Sessions do not take place on official Exchange holidays or when the Exchanges close early. Schwab reserves the right to change or modify the hours of operation at any time. A Schwab Extended Hours Trading Session, or any security traded therein, may be temporarily or permanently suspended without prior notice at any time at our discretion.

Risk of Lack of Calculation or Dissemination of Underlying Index Value or Intraday Indicative Value ("IIV")

For certain Derivative Securities Products, an updated underlying index value or IIV may not be calculated or publicly disseminated in extended trading hours. Since the underlying index value and IIV are not calculated or widely disseminated during the pre-market and post-market sessions an investor who is unable to calculate implied values for certain Derivative Securities Products in those sessions may be at a disadvantage to market professionals.

Direct Access Trading During Extended Hours

With Direct Access, you can send orders for NASDAQ equities direct to ECNs. Unlike orders sent to Schwab for execution, direct access orders sent during the extended hours can remain on the ECN's book for all sessions, if you have changed your ECN Auto-Cancel setting to zero. This means they will not be outed, or canceled at the end of the Pre-Market session nor at the end of the standard trading session. ECNs have one trading session, which lasts from the time they open for business until their designated closing time.

NOTE: Listed securities participating in the extended hours sessions and all short sales will continue to be routed using Schwab's Extended Hours offerings.

Risks of Extended Hours Trading

Extended Hours Trading Sessions may not be suitable for all investors since they pose certain risks including, but **not** limited to: lower liquidity, changing prices, news announcements, higher volatility, and wider spreads.

Extended Hours Trading Sessions do not take place on official Exchange holidays or when the Exchanges close early. Schwab reserves the right to change or modify the hours of operation at any time. A Schwab Extended Hours Trading

Session, or any security traded therein, may be temporarily or permanently suspended without prior notice at any time at our discretion.

Standard Market Hours	Extended Hours Trad- ing at Schwab	Extended Hours Trad- ing via Direct Access on StreetSmart Edge®	
 Individual investor orders may be executed from 9:30 a.m. to 4:00 p.m. ET. Orders can be placed at any time. 	 Individual investor orders may be executed from 7:00 a.m. to 9:25 a.m. ET. Orders can be placed as early as 8:05 p.m. the previous trading day, but order execution will not begin until 7:00 a.m. 	Please refer to the table in <u>Direct Access</u> <u>Routes</u> for the hours of operation for each routing channel. These destinations do not in any way differentiate orders based on the time of day the order is submitted.	
	After-Hours Trading		
	 Orders can be placed as early as 4:05 p.m. ET. Individual investor orders may be executed from 4:05 p.m. to 8:00 p.m. ET. Orders cannot be placed after 8:00 p.m. ET. 		
Trading occurs on NASDAQ and the exchanges through a variety of market centers.	Your orders will be processed through UBS.	Orders will be routed to your chosen destination.	
All orders types avail- able via StreetSmart	Only limit orders are accepted, subject to	Limit orders and some market orders are	

Standard Market Hours	Extended Hours Trad- ing at Schwab	Extended Hours Trading via Direct Access on StreetSmart Edge®
Edge® are accepted by Schwab during this Trading Session, sub- ject to account or security specific lim- itations.	account or security specific limitations.	accepted, subject to account or security specific limitations.
All order sizes are accepted (round, odd, and mixed lots).	While odd and mixed lot orders can be accepted, their use may significantly reduce your chance of finding a matching buy or sell. The maximum order size is 25,000 shares.	Maximum order size limitations vary by channel.
You can trade securities or options.	Currently, most NASDAQ and certain listed securities are available for trading during the Extended Hours Session at Schwab.	NASDAQ equities only.
Unexecuted limit orders placed during the day session do not carry over to the Extended Hours Session.	Unexecuted extended hours orders are canceled at the end of the session, and do not carry over to the next standard market or Extended Hours Trading Sessions.	Like orders placed during the Standard Market Session, unexecuted shares are either auto-canceled or remain on the books of the ECN until the end of the day if you have changed your Auto-Timeout setting to zero.
In general, higher trading activity means more liquidity and a greater likelihood of order execution.	Lower trading activity may result in lower like- lihood of order exe- cution, plus wider spreads and greater	Lower trading activity may result in lower like- lihood of order exe- cution, plus wider spreads and greater

Standard Market Hours	Extended Hours Trad- ing at Schwab	Extended Hours Trad- ing via Direct Access on StreetSmart Edge®
	price fluctuation.	price fluctuation.

Direct Access order destinations do not make a distinction between the standard session and the extended hours sessions. Orders can be sent anytime during the ECN's or NASDAQ's hours of operation.

Risk of Lack of Calculation or Dissemination of Underlying Index Value or Intraday Indicative Value ("IIV")

For certain Derivative Securities Products, an updated underlying index value or IIV may not be calculated or publicly disseminated in extended trading hours. Since the underlying index value and IIV are not calculated or widely disseminated during the pre-market and post-market sessions an investor who is unable to calculate implied values for certain Derivative Securities Products in those sessions may be at a disadvantage to market professionals.

OTC Securities

Over-the-counter (OTC) securities make up a wide variety of both domestic and foreign securities. OTC securities have historically been more volatile and less liquid than shares trading on a listed exchange. These securities typically have less publicly available information due to differences in reporting standards. Unlike exchange listed equities, there are no minimum listing standards for companies to be quoted on the OTC markets. OTC Markets Group has created three tiers to provide investors transparency around the amount of information that companies make available.

Many OTC companies are small or micro-cap securities, including penny stocks, which generally should be considered speculative investments. Investors should conduct thorough due diligence and understand the unique attributes of these securities before making an investment decision.

For more information, please visit <u>FINRA</u> and The <u>OTC Markets Group</u>.

What are OTC Securities?

Over-the-counter (OTC) securities are securities that are not listed on a major exchange in the United States. There are approximately 10,000 OTC securities that make up a wide array of different companies, including large cap American Depositary Receipts (ADRs), foreign ordinaries, and small and micro-cap growth companies. While some OTC securities report to the Securities and Exchange Commission (SEC), others may follow a different reporting standard or may not file reports to any regulatory body. Shares that have been delisted from a U.S.

exchange can begin trading OTC. Conversely, shares that once traded OTC can "graduate" to a listed exchange. The OTC Markets Group has organized these securities into three tiered markets – OTCQX, OTCQB and Pink – based on the quality and quantity of information companies make available.

What are the OTC Tiers?

OTC Markets Group has created three tiers based on the quality and quantity of publicly available information. These tiers are designed to give investors insights to the amount of information that companies make available. Securities can move from one tier to another based on the frequency of financial disclosures. The tiers give no indication of the investment merits of the company and shouldn't be construed as a recommendation. For additional information on the eligibility requirements, including corporate governance standards, please visit OTC Markets.

OTCQX -This is considered the highest tier of OTC Markets securities concerning the amount of available information. In order to be eligible for the OTCQX tier, the firms must be current on all regulatory disclosures, maintain audited financials and cannot be a penny stock, a shell corporation or be in bankruptcy.

OTCQX International

- Maintain a listing on a Qualified Foreign Exchange or be an SEC Registered Company
- Be incorporated outside of the U.S.
- Not a Shell Company or a Blank-Check Company
- Follow the International, SEC or Regulation A Reporting Standard

OTCQX U.S.

- Not be a Shell Company, Blank Check Company, Penny Stock or be subject to any Bankruptcy or reorganization proceedings
- Follow the SEC, Regulation A or OTC Markets' Alternative Reporting Standard
- Audited annual financial reports in accordance with U.S. GAAP

OTCQX U.S. Banks

- Must be a U.S. bank, U.S. bank holding company, U.S. thrift, U.S. thrift holding company or U.S. financial institution that is regulated by a U.S. Bank Regulator
- Follow the U.S. Bank or SEC Reporting Standard

OTCQB -This tier is designed for early stage or growth companies. Companies must have a minimum bid price of \$0.01. These companies must be current in their regulatory reporting and have audited annual financials in accordance with

U.S. Generally Accepted Accounting Principles (GAAP). Similar to OTCQX, these companies cannot be in bankruptcy.

OTCQB

- Must have at least 50 Beneficial Shareholders, each owning at least 100 shares
- Have a freely traded Public Float of at least 10% of the total issued and outstanding of that security
- Must follow SEC, Regulation A, U.S. Bank, International or Alternative Reporting Standard

Pink Market -This tier is also known as the Open Market. There are no minimum financial standards and can include a wide variety of companies including foreign companies, penny stocks, shell companies and other firms that choose not to disclose financial information. Within the Pink market, firms are classified as showing Current Information, Limited Information or No Information.

Pink Current Information

 Issues must be current in reporting to the SEC, a U.S. Bank Regulator, Foreign Qualified Exchange or OTC Markets' Alternative Reporting Standard.

Pink Limited Information

 Issuers in this category have been delinquent in filing financial disclosures for less than six months.

Pink No Information

• If the issue is delinquent in filing financial reports for greater than six months, they are categorized as "No Information".

Grey Market - All other securities that are traded over-the-counter are on the Grey Market. Grey Market securities are not quoted by broker dealers due to a lack of investor interest, lack of financial information or lack of regulatory compliance. OTC Markets Group does not maintain a relationship with Grey Market Securities. Securities that become suspended move to the Grey Market after 4 days without published quotes.

NOTE: Current quote and volume information are not available for Grey Market securities. Please use caution when placing orders in these securities.

What are Microcap Securities?

While definitions vary, microcap securities generally consist of companies with a market capitalization of less than \$500 million. Microcaps can be listed on a national exchange but most are traded in the OTC market. These companies tend to have low stock prices but can trade at any price. Microcap companies that are not listed on a national exchange and have a share price of less than \$5

are considered Penny Stocks. Microcap securities can be quoted on any OTC Market Tier. For more information, please read the <u>SEC's Microcap Stock: A Guide for Investors</u>

Microcap equities typically have some attributes that make them different from other equities.

Lack of Public Information

• The biggest difference between a microcap stock and other stocks is the amount of publicly available information about the company. Most large public companies file reports with the SEC that any investor can get for free from the SEC's website. Professional stock analysts regularly research and write about larger public companies, and it's easy to find their stock prices on the Internet or in newspapers and other publications. In contrast, information about microcap companies can be extremely difficult to find, making them more vulnerable to investment fraud schemes and making it less likely that quoted prices in the market will be based on full and complete information about the company.

No Minimum Listing Standards

 Companies that trade their stocks on exchanges must meet minimum listing standards. For example, they must have minimum amounts of net assets and minimum numbers of shareholders. In contrast, companies quoted on OTC Markets generally do not have to meet any minimum standards, although companies quoted in OTC Market's OTCQX and OTCQB marketplace are subject to initial and ongoing requirements.

Risk

 While all investments involve risk, microcap stocks are among the most risky. Many microcap companies are new and have no proven track record. Some of these companies have no assets, operations, or revenues. Others have products and services that are still in development or have yet to be tested in the market. Another risk that pertains to microcap stocks involves the low volumes of trades. Because many microcap stocks trade in low volumes, any size of trade can have a large percentage impact on the price of the stock.

NOTE: Due to the lack of publicly available information and the illiquid nature of these securities, microcap stocks may be the target of fraud or other manipulative schemes. For more detailed information, please visit the SEC's website on Microcap Fraud.

What are ADRs and Foreign Securities?

Investors have the ability to invest in foreign companies in two main ways in the OTC market.

An ADR (American Depositary Receipt) is a receipt for shares of foreign-based companies that entitles the receipt holder to all dividends and capital gains. ADRs allow U.S. investors to buy shares of foreign-based corporations' securities on U.S. exchanges. Many of the ADRs that are quoted on the OTC markets are unsponsored. For unsponsored ADRs, the depositary bank established the ADR with or without the consent of the company. Unsponsored ADR programs may not provide shareholders with all the benefits of direct ownership, including voting rights that are often granted to sponsored ADR shareholders. The ticker symbols consist of five letters and end with the letter "Y".

There are a number of foreign companies whose shares trade in U.S. dollars on the OTC markets. These shares are referred to as F shares. U.S. broker-dealers continuously price F shares in accordance with local market share price movements and available liquidity. While trades are executed in U.S. dollars by U.S. broker-dealers, the shares are settled, cleared and custodied in the local market or, under certain conditions, in the U.S. (Canadian or DTC eligible F Shares). The ticker symbols consist of five letters and end with an "F".

Learn more about <u>Schwab Global Investing Services</u>.

Learn more about ADRs and F Shares at OTC Markets.

What is the Caveat Emptor Designation?

OTC Markets Group designates certain securities as 'Caveat Emptor' and places a skull and crossbones icon next to the stock symbol to inform investors that there may be a reason to exercise additional care and perform thorough due diligence before making an investment in that security.

The Caveat Emptor Designation may be assigned when OTC Markets Group becomes aware of one or more of the following:

- **Promotion** The security is the subject of stock promotion that may be misleading or manipulative. Promotional activities may include news releases, spam email, and newsletters, whether they are published by the issuer or a third party.
- Investigation of Fraud or Other Criminal Activities There is an investigation or other indication of fraudulent or other criminal activity involving the company, its securities or insiders.
- **Suspension/Hal**t A regulatory authority or an exchange has halted or suspended trading for public interest concerns (i.e. not a news or earnings halt).
- **Undisclosed Corporate Actions** The security or company is the subject of a corporate action, such as a reverse merger, stock split, or name change, without adequate current information being publicly available.
- Other Public Interest Concern OTC Markets Group may determine that there is a public interest concern regarding the security. Such concerns may

include but are not limited to promotion, spam or disruptive corporate actions even when adequate current information is available.

Learn more about the Caveat Emptor Designation at OTC Markets.

Trading Experience

Due to the unique nature of OTC securities, there may be differences in the trading experience.

- Most OTC securities are not marginable.
- Due to the manual nature of the marketplace, notice of executions and outs may take longer than expected.
- Certain securities may require cleared cash up-front for purchases.
- Foreign securities may be charged a \$50 foreign transaction fee as well as the standard commission. Please consider contacting Schwab Global Investing Services at 1-800-992-4685 for updated quotes and to review your trade routing options.

How Smart Orders Route

The Smart venue is a Schwab electronic execution route which allows you to buy, sell, and short equities during standard market sessions (9:30 a.m. to 4 p.m. ET).

When an order is placed on the Smart venue, the order is routed to a competitive execution partner.

Additionally:

- Smart orders may be entered outside of the standard session from 4:05 p.m. to 9:30 a.m. ET, however, these orders will be queued for the next standard session open.
- An order routed through Smart may have partial fills. An attempt to continue to fill the order until it is completed will be made.
- For a Day Limit order, there is only one commission charge and generally one order number assigned, unless you change your order, regardless of the number of fills it takes to complete the order.
- Good 'Til Canceled orders have the potential for multiple commissions if the order takes more than one day to complete. One commission will be charged for each day's combined fills, based on execution prices and quantities.

The table below shows a list of available options associated with Smart orders.

Smart Order Routing

Action Types	Order Types	Order Conditions	Special Conditions	Security Types Traded
Buy Sell	Market	Day, On Close (MOC)		NMS, OTC
Short	Limit	Day	All or None or Min Quantity*	
		GTC	All or None or Min Quantity*	
			Do Not Reduce	
		FOK		
		IOC – only avail- able for listed stocks		
	Stop, Stop Limit, Trailing Stop	Day, GTC		

^{*}Available only for Limit Orders of 200 shares or more.

Short selling is an advanced trading strategy involving potentially unlimited risks, and must be done in a margin account. Margin trading increases your level of market risk. For more information please refer to your account agreement and the Margin Risk Disclosure Statement.

Partial Fills

Smart

An order routed through Smart may have partial fills. Schwab will continue attempting to fill the order until it's completed.

- For a **Day Limit** order, there is only one commission charge and generally one order number assigned unless you change your order, regardless of the number of fills it takes to complete the order.
- **Good 'Til Canceled** orders have the potential for multiple commissions if the order takes more than one day to complete. One commission will be

charged for each day's combined fills, based on execution prices and quantities.

Direct Access

If you have Direct Access enabled for your account, it is your responsibility to make sure your order is filled to your satisfaction. Partially filled orders require a decision on your part to either enter an additional order for the remaining shares or not.

For Direct Access orders, there is always the potential that your order will not completely fill. As the default settings have a maximum value of 180 seconds for ECN/NSDQ orders, it is very possible not to complete an order in under three minutes, depending upon the symbol, market, venue, order type and conditions. Commissions will be based upon the price and number of shares filled on each order.

To change the Auto-Cancel timeout setting go to the **Trading** tab under **Settings** in the main menu.

Order Status

All orders and executions can be viewed in the **Order Status** tab of the Account Detail tool. If there was more than one fill, a break down will display when you click the **Order Detail** button.

Close All

When selected in the <u>trade ticket</u>, *Close All* allows you to sell your entire position, including fractional shares, via the Smart, Schwab Pre Market, or Schwab After Hours venues (Direct Access venues do not offer fractional share trading).

When Close All is checked:

- The Quantity field displays the full share amount available for sale, including fractional shares. This quantity takes into account any open orders that you may have and any shares held that are currently non-negotiable. This amount cannot be changed when Close All is checked.
- If you uncheck Close All, you can adjust the quantity. Please note that fractional shares will not be included for Direct Access orders.
- Close All can be turned on and off. If turned off, the quantity will revert to
 the Order Quantity default amount selected in the **Settings** > **Trading** tab
 of the main menu.
- This method is the only way to sell fractional shares on StreetSmart Edge®.
 Otherwise, you may place the order by calling a Schwab broker or place the order on Schwab.com.

Trailing Stops

A Trailing Stop order type is a buy/sell/short order whose stop price will trail either the current inside ask (if buying) or inside bid (if selling/shorting) at the time the order was submitted by the value you specified in the Trailing Amount field.

EXAMPLE

- You have a trailing stop of 5% set.
- If at any point the bid or ask price retraces the specified Trailing Amount, a Smart Market order will be routed for the quantity you specified.
- If you place an order to close a position using a trailing stop set to 5%, if the bid price increases 9% and then drops 5% the order will be sent at that time.

When placing a Trailing Stop order, please note that you cannot change the order to another order type using the Change feature in the <u>Order Status</u> window, nor can you change another order type to a Trailing Stop order. In both cases, you would have to cancel the order and resubmit with a different order type.

Symbol Formats

Retrieving data for certain types of financial instruments requires entering them in a format that is recognizable by StreetSmart Edge®. Below are instructions for entering valid symbols for the types of data that may be available in StreetSmart Edge®:

- **Stock:** Enter the 1 to 5 character stock ticker symbol in uppercase letters. For example, ABCD.
- Option: Enter the Option symbol in uppercase letters using the following format; the underlying security or index symbol, followed by the expiration date, then strike price, then a 'C' or 'P' for Call or Put. For example, XYZ MM/DD/YYYY 00.00 C.
- **Indices:** Enter the index symbol preceded by a '\$'. For example, \$ABC.
- **Mutual Fund:** Enter the Mutual Fund symbol using five uppercase letters or digits, ending in 'X'. For example, ABCDX.
- Preferred Stock: Enter the Preferred Stock symbol by following the regular stock symbol with lower case 'p' and, optionally, a single uppercase letter as a class indicator. For example, ABp or YZpP. To produce a lower case letter, hold the shift key down while typing the character. Alternately, you may follow the symbol with a '/PR' and then the class designator. For examples, ABC/PR or XYZ/PRP.
- Class Shares: Enter the 1 to 7 character symbol in uppercase letters or digits followed by a '/' and then a single uppercase letter. For example, ABC/B.

- **Warrants:** Enter the 1 to 7 character symbol in uppercase letters or digits followed by a '/**WS**', optionally followed by a '/' and then a single uppercase letter. For example, ABC/WS or ABC/WS/A.
- **Futures:** Enter the Futures symbol in uppercase letters using the following format; begin with the root symbol, then month code, and then year code. The year code is displayed as two digits. For example, a March (month code = H) 2018 (year code = 18) contract of AB would be entered as ABH18.

TIP: To make it easier to enter symbols, particularly option symbols, use the copy and paste feature when entering symbols.

Pattern Day Trading

Please be aware that certain trading activity could result in your account being classified as a Pattern Day Trading account. There are two important points to understand with regard to pattern day trading:

- 1. How you might become labeled a PDT
- 2. What it means to be labeled a PDT

Your account will be labeled PDT if you execute 4 (or more) round-trip day trades within 5 business days provided the number of day trades is more than 6% of your total trades in that account for that same five-day period. You need only meet this criteria one time to become designated a PDT.

Once your account is labeled PDT, you are subject to different requirements and restrictions than a non-pattern day trader. The most significant of these requirements is that your account must maintain at least \$25,000 worth of equity.

If you do not meet this minimum, you will receive a margin call to meet the minimum equity requirement, which you must meet. Otherwise, the account's day trading buying power will be frozen until the margin call is met or the account is switched to a cash account.

Direct Access

Direct Access Eligibility

Direct Access order routing is available to eligible clients who want more control over the routing of their orders. Direct Access trading entails certain risks and responsibilities. As a result, we have established the special eligibility requirements for Direct Access Trading. These eligibility requirements will be posted on the StreetSmart Edge® Center of Schwab.com, in the section called "Direct Access."

Direct Access Routes

During the specified trading times for each venue, Direct Access allows you to enter buy and sell orders for NASDAQ, Listed, and OTC stocks. The table below shows a list of all the action types allowed with Direct Access.

Action Types
Buy
Sell
Short
Cancel
Cancel All

The change order function is not accepted when routing orders via Direct Access. Each venue has different order types, hours of operation, and order conditions. The table below shows a quick reference guide for each destination:

Order Destin- ation	Type of Channel	Hours of Oper- ation (Eastern Time)	Order Types	Order Condi- tions	Secur- ity Types Traded
ARCA (NYSE Arca)	ECN	7:00 a.m 8:00 p.m	Limit, Market (Market Hours Only), Market- Peg (Market Hours Only), Primary- Peg (Market Hours Only)	Day, IOC, Max Floor, Peg Diff, Discretion	NNM, Lis- ted, OTC
NSDQ (NASDAQ)	Exchang- e	7:00 a.m. - 8:00 p.m.	Limit, Limit Invis-	Day, IOC	NNM, Lis- ted

Order Destin- ation	Type of Channel	Hours of Oper- ation (Eastern Time)	Order Types	Order Condi- tions	Secur- ity Types Traded
			ible, Mar- ket (Mar- ket Hours Only)		

Placing a Direct Access Order

To place a Direct Access order, follow the steps for placing <u>any other equity</u> <u>order</u>, but include <u>ARCA</u> or <u>NSDQ</u> as available Venues. You must meet <u>Direct Access Eligibility</u> to place Direct Access orders.

Fractional Shares

Direct Access venues **do not** offer fractional share trading. Using the **Close All** checkbox or **Smart** venue is the only way to send orders to sell fractional amounts.

Partial Fills

If you have Direct Access enabled for your account, it is your responsibility to make sure your order is filled to your satisfaction. Partially filled orders require a decision on your part to either enter an additional order for the remaining shares or not.

For Direct Access orders, there is always the potential that your order will not completely fill. As the default settings have a maximum value of 180 seconds for ECN/NSDQ orders, it is very possible not to complete an order in under three minutes, depending upon the symbol, market, venue, order type and conditions. Commissions will be based upon the price and number of shares filled on each order.

To change the Auto-Cancel timeout setting go to the **Trading** tab under **Settings** in the main menu.

NSDQ

General Information

- NSDQ does NOT accept Good 'Til Canceled orders and any open orders will be canceled when trading hours end at 8:00 p.m. ET.
- Day order available if ECN/NSDQ Auto Cancel time is set to 0.
- Default cancellation time: 180 seconds.
- Trading Hours 7:00 a.m. to 8:00 p.m. ET
- To obtain the full depth-of-book for NASDAQ Single Book, you will need to upgrade to NASDAQ Level II data service by going to the main menu and clicking **Schwab.com** > **Add Level II**.

NSDQ Order Routing

Order Types	Description
Limit	Matched against existing orders on the NASDAQ Single Book or routed to other exchanges if a better price is available.
Limit Invisible	These orders are never displayed on the book or in Market Depth.
Market Peg	Pegs the order price to the ask if buying or to the bid if selling, meaning the order price will automatically adjust as the bid or ask moves until the order executes or the stock trades beyond your limit price. Orders may be adjusted a penny up or down to avoid locking the market. EXAMPLE
	 XYZ is currently quoted at 20 bid x 20.05 ask. A Market Peg order to buy XYZ with a limit of 20.10, will be submitted at 20.05. If the quote changes to 20.05 bid x 20.10 ask, the order price would change to 20.10. If the order is not executed, it will not update beyond the limit price and will remain posted at 20.10.
Primary Peg	Pegs the order price to the bid if buying or the ask if selling OTC securities, or the best exchange bid/ask for Listed securities. The order price will automatically adjust as the bid or ask moves until the order executes or the stock is priced beyond your limit price.

Order Types	Description
	EXAMPLE
	 XYZ is currently quoting at 20 bid x 20.05 ask.
	 A Primary Peg order to buy XYZ with a limit of 20.05, will be submitted at 20.
	 If the quote changes to 20.05 bid x 20.10 ask, the order price would change to 20.05.
	 If the order is not executed, it will not update beyond the limit price and will remain posted at 20.05.
Peg Diff	This field will display next to the Limit Price when a pegged order type is selected.
	Added to the bid or offer to produce the actual order price. Allows more flexibility in your order.
	EXAMPLE
	To peg the offer minus .02, Peg Diff must equal -0.02 (the negative sign is required).

Times In Force	Description
Day	Can be entered after 7:00 a.m. ET and expire at the end of the extended trading day (8:00 p.m. ET)
IOC	Portions of the order not filled immediately upon reaching the market are canceled.

Special Conditions	Description
Min Qty	A special condition that specifies the minimum execution quantity the client will accept (with any amount up to the specified Quantity thereafter).
	 Use only for orders over 300 shares. When checked, the amount field can be changed, but the amount must be at least 200 shares.
	 Designating minimum shares applies to the first fill only.

Special Conditions	Description
Max Floor	Specifies the reserve size for the order. Must be a round lot equal to or less than the order quantity. Reserve size has no time priority in Market Depth. Only the displayed portion of the order will have time priority.
	EXAMPLE
	You enter a bid with 5,000 as the total quantity, but 1,000 as the Max Floor value. Your order will display as 1,000 shares, but if yours is the only bid when an offer arrives for 10,000 shares at your price, your entire 5,000 shares will execute.
	However, if 3 other bids for 3,000 shares each were behind you at the same price, only your displayed 1,000 would execute, along with 9,000 shares from the other three bids.

The information provided on this page is subject to change at any time. To get the most current information please go to the NASDAQ web site.

ARCA (NYSE Arca)

General Information

- The order will try to find a match in the NYSE ArcaBook. If a better price is available in the book, then it will target that price.
- If no match is made, the order will post to NYSE ArcaBook. The best bid and ask posting 100 or more shares will post in the Market Depth if it does not cross or lock the market.
- A market order is available by selecting Market in the drop-down menu once ARCA is chosen as the order route. The default is a limit order.
- Minimum decimal increment in order price: .001.
- Day order available if Auto Cancel time is set to 0.
- Default cancellation time: 180 seconds.
- Trading Hours 7:00 a.m. to 8:00 p.m. ET for Limit orders
- Trading Hours 9:30 a.m. to 4:00 p.m. ET for Market orders
- All ARCA limit orders will be canceled after the close at 8:00 p.m. ET.

ARCA Order Routing

Order Types	Description
Limit	 Marketable Limit Orders - Matched with the NYSE ArcaBook or if no match, posted to the NYSE ArcaBook. The order price may be improved if a better price appears. Non-Marketable Limit Orders - The order is posted to the NYSE ArcaBook. ARCA posts the best bid and offer in their book to Market Depth (MMID=ARCA) NOTE: Your price may not cross or lock the market.
Market	These are matched with the NYSE ArcaBook if there is volume at the inside. Any residual will not be routed to the next price level until all quotes at the current best bid or offer are exhausted
	 Criteria for routing orders: % fill history, time, and size shown. Market orders are accepted but not executable
	before 9:30 a.m. or after 3:59 p.m. ET.
Market Peg	Pegs the order price to the ask if buying or to the bid if selling, meaning the order price will automatically adjust as the bid or ask moves until the order executes or the stock trades beyond your limit price. Orders may be adjusted a penny up or down to avoid locking the market.
	EXAMPLE
	 XYZ is currently quoted at 20 bid x 20.05 ask.
	 A Market Peg order to buy XYZ with a limit of 20.10, will be submitted at 20.05.
	 If the quote changes to 20.05 bid x 20.10 ask, the order price would change to 20.10.
	If the order is not executed, it will not update beyond the limit price and will remain posted at 20.10.
Primary Peg	Pegs the order price to the bid if buying or the ask if selling OTC securities, or the best exchange bid/ask for Listed securities. The order price will automatically adjust as the bid or ask moves until the order executes or the stock is priced beyond your limit price.

Order Types	Description
	EXAMPLE
	 XYZ is currently quoting at 20 bid x 20.05 ask.
	 A Primary Peg order to buy XYZ with a limit of 20.05, will be submitted at 20.
	 If the quote changes to 20.05 bid x 20.10 ask, the order price would change to 20.05.
	 If the order is not executed, it will not update bey- ond the limit price and will remain posted at 20.05.
Peg Diff	
	This field will display next to the Limit Price when a pegged order type is selected.
	Added to the bid or offer to produce the actual order price. Allows more flexibility in your order.
	EXAMPLE
	To peg the offer minus .02, Peg Diff must equal -0.02 (the negative sign is required).

Times In Force	Description
Day	Can be entered after 7:00 a.m. ET and expire at the end of the extended trading day (8:00 p.m. ET)
IOC	Portions of the order not filled immediately upon reaching the market are canceled.

Special Conditions	Description
Max Floor	Specifies the reserve size for the order. Must be a round lot equal to or less than the order quantity. Reserve size has no time priority in Market Depth. Only the displayed portion of the order will have time priority. EXAMPLE
	You enter a bid with 5,000 as the total quantity, but 1,000 as the Max Floor value. Your order will display as 1,000 shares, but if yours is the only bid when an offer arrives for 10,000 shares at your price, your entire 5,000

Special Conditions	Description
	shares will execute. However, if 3 other bids for 3,000 shares each were behind you at the same price, only your displayed 1,000 would execute, along with 9,000 shares from the other three bids.

The information provided on this page is subject to change at any time.

Brackets

Brackets Overview

Brackets are profit or loss exits you can attach to your stock or option orders when you place a trade. This can help you integrate your risk management strategy directly into the creation of an equity or option order.

Or, if you choose to add brackets after an order is filled, you can still maintain your risk management strategy by adding brackets to positions.

Using brackets, you can predefine profit and loss targets for trades so that if those targets are met, the software will automatically send an order to exit the position.

They consist of up to three contingent bracket orders, which if triggered, will close out the position opened by the primary order. Brackets can provide automated risk protection for your open positions regardless of whether you are logged on to the software.

To set up brackets:

- **During order entry:** Click the **Brackets** button in the <u>Trade Ticket</u> when entering an order in the <u>All in One tool</u>, <u>Trade tool</u> or <u>Symbol Hub</u>.
- From the Order Verification window: Click the Set Exit Strategy button.
- On an open order: In the Order Status tab, right-click on the order and select *Add Bracket...*
- On a position: In the Positions tab, right-click on the position and select **Add Bracket to [symbol]...** or click on a Position tile 1 anywhere in the software and click the **Add Bracket** link.

TIP: For more information on, and **important differences** between, adding brackets to orders and positions, see <u>Managing Brackets</u>.

You may establish any of three types of exits:

- Profit Exit: Specifies the increase (or decrease for short orders) in value from the average fill price required to trigger the profit exit. The value can be a certain number of points (pts) or a percentage change from the execution price, or the exit price itself.
 EXAMPLE¹
- Trailing Stop Exit: Specifies the amount you are willing to let a stock or option price go against whatever gains it may attain. This exit is valuable in helping you retain portions of your gain in a position before closing it out. The value can be a certain number of points or a percentage of the execution price.
 - If you use a trailing stop exit in conjunction with a profit and/or loss exit, the trailing stop will operate between these two exits. If either of the profit or stop loss exit prices are met, the bracket will trigger regardless of any trailing stop you may have set. EXAMPLE²
- **Stop Loss Exit:** Specifies the decrease in value (or increase for short orders) from the average fill price required to trigger the stop loss exit. The value can be a certain number of points (pts) or a percentage change from the execution price, or the stop loss price itself. EXAMPLE³

¹If you bought a stock at \$10 and wanted to exit the position at \$12, you could enter 2 pts, 20%, or \$12. The Est. Price label will show you what the likely result might be if the Profit Exit is triggered, but that price will be adjusted if the average fill price on your order is different.

²If you bought a stock at \$10 and wanted to protect yourself should the market move against you 5% (or .50) from the execution price, the trailing stop would place an order to close your position only if the stock's bid loses 5% from its highest gain. The worst case scenario is that the exit order would go out at \$9.50 because it simply never gained on the execution price. Conversely, the stock might not hit resistance until \$14 before it drops .70 (5% of \$14) and the order is triggered. If you had also set up a profit exit of 10 % and a loss exit of %3 in conjunction with your trailing stop exit, the bracket would trigger at a bid that is either 3% below the execution price or 10% above that price if met. This would occur regardless of your trailing stop calculation.

³If you bought a stock at \$10 and wanted to try to limit losses to around 10% on the trade, you could enter 1 pt, 10%, or \$9. While there is no guarantee that execution will be at or near the stop price, the Est. Price label will show you what the likely result might be if the Stop Loss Exit is triggered.

Certain aspects of bracket exits may be predefined:

- **Quantity:** The quantity of brackets on orders will always be equal to the quantity filled in the primary order. For brackets on positions, you will need to specify the quantity.
 - Order quantities on brackets will not adjust due to corporate actions, including but limited to stock splits, stock dividends, spinoffs, mergers, and name changes.
 - When placing an order with brackets to sell and close out a long position, if the tradable quantity of your position is less than the quantity you specify in the order, the software will send the order for the lesser amount rather than rejecting the order due to insufficient shares available to trade.
- **Timing:** Brackets remain active with their primary order or primary position (when the primary order fills) indefinitely, unless they are manually removed or are triggered and filled.
- **Primary Venue:** Bracket exits can be set up for any equity or option order that opens or adds to an existing position, regardless of the venue of the primary order.
- **Hours:** Bracket exits are only active during the standard session (9:30 a.m. ET to 4:00 p.m. ET)
- **Bracket Venue:** Bracket exits are always sent as a Smart Market order regardless of the primary order's routing venue.
- **Trigger Value:** Brackets on orders trigger off the bid/ask price for both stocks and options.
 - While the Est. Price for brackets on orders is calculated off the Limit or Inside bid/ask price (for market orders), the actual exit trigger price will be based on the average fill price from the primary order. See the <u>Bracket Examples</u> topic to get a better understanding of brackets in action.
- Boxed Positions: Bracket exits will not function on boxed positions.
- **Missing Quotes:** Bracket exits placed around stocks that do not have bid/ask quotes, including Pink Sheet securities, will not activate.
- **Wide Spreads:** Brackets on symbols with wide spreads may not fire if the spread is too wide.
- **StreetSmart only:** Brackets, Conditional Orders, and Alerts created in the StreetSmart platforms can only be viewed and managed from the StreetSmart family of applications and are not currently available from Schwab.com or other Schwab applications.

Managing Bracket Orders

Once you submit a primary order with a bracket, or add brackets to a position, the bracket portion of the order will display as a contingent order in the <u>Order Status</u> tab of your Account Details tool.

You can also <u>change or cancel</u> brackets (and orders associated with them) via the Order Status tab, just as you can with non-bracketed orders.

Brackets on Orders

- When you first submit a primary order with brackets, you will see that the
 bracket quantity displays as zero '0'. Brackets only become active once a fill
 has been received on the primary order. As fills are received, the bracket's
 quantity will increase and the Current Trigger price will adjust based on the
 price of those fills.
- Canceling the primary order will also cancel the bracket exits associated with it as long as there are no fills against the primary.
- Partially-filled primary orders will already have active bracket(s) on the filled shares or contracts. Canceling the remaining unfilled portion of the primary order will not impact the brackets.

Brackets on Positions

Note some *important differences* between brackets on positions versus brackets on orders.

- **Starting Price:** When you establish a bracket on an order, the starting price of the bracket is based on the average fill price. **However**, when you establish a bracket on a position (e.g., from the Positions tab or a Positions tile), you will need to specify a starting price and quantity. For trailing stop brackets, whether on an order or a position, the starting price is based off the Bid or Ask at the moment the bracket becomes active.
- Quantity: The quantity to be bracketed must be designated for brackets on positions.
- Add brackets to positions from the <u>Positions</u> tab (right-click on the position and select *Add Bracket to [symbol]...*) or click on a Position tile <u>P</u>₁ anywhere in the software and click the *Add Bracket* link. You can have up to 10 brackets per position.
- **Change or cancel** brackets on positions from the <u>Order Status</u> tab, O tiles throughout the software, or from the Order flag displayed on a chart.
- All active brackets on a symbol will be cancelled if the position is completely closed. If a position is partially closed, any additional brackets on the symbol will remain active.

 The total sum of the brackets on positions can exceed the current position quantity, but will not sell more shares than you own at the time the bracket (s) are triggered.

Adding Brackets to a New Primary Order:

- 1. Click **Buy** or **Short** (for option orders, click **Buy to Open** or **Sell to Open**) in Trade tool.
- 2. Set up the details of your primary order, including order type, quantity, limit price, timing, and any special conditions.
- 3. Click **Brackets** button to access the Bracket settings.
- 4. In the Bracket settings, choose which exit(s) you wish to use in your risk management strategy for this position: *Profit*, *Trailing Stop*, and/or *Stop Loss*. See Brackets Overview for descriptions and examples of each.
- 5. Set up the parameters for the selected brackets, while confirming that the **Est. Price** is in line with your expectations. The estimated price is based on either the designated Limit price for a Limit or Stop Limit order, or the Inside bid or ask if your order is a Market or Stop order.
- 6. Once the primary order receives a fill, that fill's price is used to calculate the actual trigger price. If multiple fills are received at different prices, those prices are averaged together and the average fill price is used as a basis for the calculation.

Adding Brackets to Open Orders

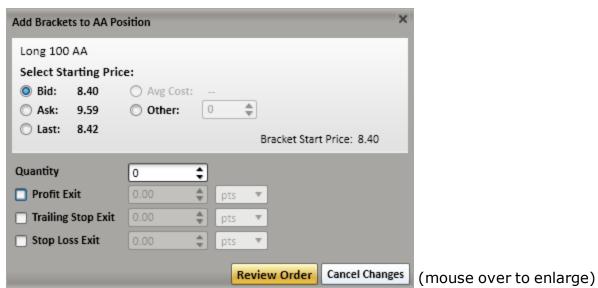
- 1. In the <u>Order Status</u> tab, right-click on the position you are adding brackets to and select **Add Bracket...**
- 2. Check the exits you wish to apply to the order, and specify the values and units for each.
- 3. Click **Review Order**, then if the order is correct, click **Place Order**. The brackets now display as contingent orders in your Order Status tab.

Adding Brackets to Positions

In the Positions tab, right-click on the position and select **Add Bracket to [symbol]...** or click on a Position tile 1 anywhere in the software and click the **Add Bracket** link.

When you establish a bracket from the Order Status tab, the starting price of the bracket is based on the average fill price. For trailing stop brackets, the starting price is based off of the Bid or Ask at the point in time the bracket becomes active.

However, when you establish a bracket AFTER the order fills (from the Positions tab or a Position tile), you will need to specify a starting price and quantity.



1. Select a starting price from the **Bid**, **Ask**, **Last**, or enter a custom price in the **Other** field. If you are adding the bracket to a position with multiple fill prices, the **Avg Cost** will also be an available selection.

Note: Trailing Stop exits use the Bid or Ask at the time the bracket is added as the starting price, and does not use the values specified in this step.

- 2. Enter the portion of your position to which you wish to apply the bracket in the **Quantity** field. Click the arrows to increase or decrease the quantity by 100 share increments, or type a number in the field.
- 3. Choose which exit(s) you wish to use in your risk management strategy for this position: **Profit**, **Trailing Stop** (see note above), and/or **Stop Loss**. See Brackets Overview for descriptions and examples of each.
- 4. Set up the parameters for the selected brackets, while confirming that the **Est. Price** is in line with your expectations. The estimated price is based on the **Starting Price** you selected above.
- 5. Click **Review Order**, and then if the order is satisfactory, click **Place Order**. The brackets will then display in the Order Status tab, where you can view, edit, or delete them as necessary.

Changing a Bracket

Changing a bracket prior to it triggering does not affect the primary order.

- 1. In the Order Status tab, find primary order (or for a bracket on a position, find the bracket) and expand it by clicking the arrow in the first column so the contingent orders associated with the primary order display below it.
- 2. Right-click the Contingent order you wish to change and select **Edit** Bracket.

- 3. Make your edits to the brackets and click **OK**.
- 4. If your primary order has already received fills, you will see the current trigger price adjust based on the change in the bracket's value.

Removing a Bracket

In the Order Status tab, right-click on the bracket you wish to remove and select **Remove [exit type]**. If you wish to remove all bracket orders at once, select **Edit Bracket** and uncheck the Exit checkboxes.

Notes on Changing or Canceling Primary Orders

- **Changing a primary order:** Generally a primary order can be changed without impacting the brackets. Changes to the limit price will impact the fill prices, and those will be taken into account as fills are received and the new trigger prices are calculated for the exits.
- Too late to cancel: Orders can fill quickly, so it's often the case that a command to cancel the primary order is too late and is rejected by the system.
 This simply means the primary and bracket orders will proceed as normal:
 The primary order would be an open position with the bracket order(s) active.
- Changing primary order AND brackets: You can change the primary order in the Order Status tab, but to change the bracket exits themselves, right-click on the bracket sub-order in the Order Status tab and select *Edit Bracket*. You cannot change the order AND its associated brackets via the Change Order function.
- Changing a partially filled primary order: When you change an order, the existing order is canceled and replaced with a new order. When you change an order that has been partially filled, the filled portion of the order remains and the unfilled portion becomes a new order.
 - When brackets are associated with the order, they remain linked to the filled portion of the order, and the quantity and trigger price are based on the executions up to the point the order was changed.
 - The new order created by the change, which consists of the unfilled portion of the original order, and will have a new set of brackets linked to it. Any new fills of this order will be used to increase the bracket quantity and calculate the new trigger price.
- Canceling a partially filled primary order: If an order partially fills, any brackets that were part of the order will become active for the number of filled shares. If you cancel the remainder of the unfilled shares, it will not affect the filled shares or the brackets.

- Voided Executions on the primary order: If the primary order receives one or more voided fills, any brackets against that order will be automatically deactivated (if the full quantity is voided) or adjusted for the remaining valid shares that are still open or have filled.
- Brackets triggering while the primary order is still in open status: When the first fill is received for the primary order, your brackets begin being monitored in the event that one of your target exits is met. If the price touches one of these exits, the bracket will trigger an order and the remaining brackets will be cancelled.
 - When this occurs, a new set of bracket exits will be established automatically and any new executions for the primary order will be applied to the new bracket set. Any single primary order can only have one bracket set in contingent status at a time.
- Bracket Exits triggering before the position is updated: Occasionally, usually due to unusually heavy market volume, StreetSmart Edge® may be slow to receive position updates. This condition coupled with high volatility can result in brackets triggering before the position is received by StreetSmart Edge®. When this occurs, the bracket order fails. When placing trades in these marketplace conditions, setting looser bracket exits may still provide some protection but allow for the system to update properly and may prevent you from being stopped out of your position prematurely.
- **Effects of corporate actions:** Order quantities on brackets will not adjust due to corporate actions, including but not limited to stock splits, stock dividends, spin-offs, mergers, and name changes.

Bracket Examples

Combining a Profit Exit and Stop Loss Exit

- **Buy:** 100 shares Dell @ 25.00
- **Profit Exit:** 10% (2.5 pts) and will trigger the order if the bid reaches 27.50
- Loss Exit: 5% (1.25 pts) and will trigger the order if the bid drops to 23.75

Combining a Profit Exit and a Trailing Stop Exit

- Buy: 100 shares Dell @ 25.00
- **Profit Exit:** 10% (2.5 pts) and will trigger order if the bid reaches 27.50
- **Trailing Stop Exit:** 10% (2.5 pts) and will trigger order if the bid drops 2.5 points from any price below 27.50, or if the bid only drops from 25.00, the exit would trigger at 22.50

Combining a Stop Loss Exit and a Trailing Stop Exit

- Buy: 100 shares Dell @ 25.00
- Loss Exit: 5% (1.25 pts) and will trigger order if the bid drops to 23.75
- **Trailing Stop Exit:** 10% (2.5 pts) and will trigger or if the bid drops 2.5 points from any bid above 26.25 (23.75 + 2.5, the stop loss exit amount that would kick in first if the bid were equal to or below 23.75)

Using All Three: Profit, Trailing Stop, and Stop Loss Exits

- **Buy:** 100 shares Dell @ 25.00
- **Profit Exit:** 10% (2.5 pts) and will trigger order if the bid reaches 27.50
- Loss Exit: 5% (1.25 pts) and will trigger order if bid drops to 23.75
- **Trailing Stop Exit:** 5% (1.25 pts) and will trigger order if the bid drops 1.25 points from any bid above 25.00 (23.75 + 1.25); Loss exit would kick in first if the bid were equal to or below 23.75 or profit exit would kick in if the bid reaches 27.50.

Options

Options Overview

Trade options from the <u>All in One tool</u>, designed with option traders in mind to provide a dynamic, streamlined workflow and customization to your needs. You can also trade options from the <u>Options tab</u> of the <u>Trade tool</u> or <u>Symbol Hub</u>.

Option trading tabs in any of these tools display real-time, <u>streaming</u> options data and, for clients approved for options trading, automatic electronic access to execute trades via all primary listed options exchanges.

Both single and multi-leg options are available in any of the trading tools.

Basic Options

The default view is Calls & Puts, and the <u>Option Chain</u> reflects the underlying symbol loaded in the trading tool. For step-by-step instructions on placing single-leg option orders, see <u>Placing Option Trades (Calls & Puts)</u>.

Multi-Leg Options

- In the All in One tool, you can add legs to equity or single-leg option orders
 to create strategies, and the strategy will adjust as you change the contents
 of the trade ticket. You can also select a strategy from the drop-down menu
 in the tab name, and the trade ticket and option chain will reflect the new
 strategy.
- The Trade tool or Symbol Hub, place multi-leg orders in the Options tab by changing the Strategy Selector from Calls & Puts to one of the multi-leg

strategies provided. Using the defined StreetSmart Edge® Option strategies, orders can be entered more quickly and with potentially less market risk than by "legging in" to the strategy.

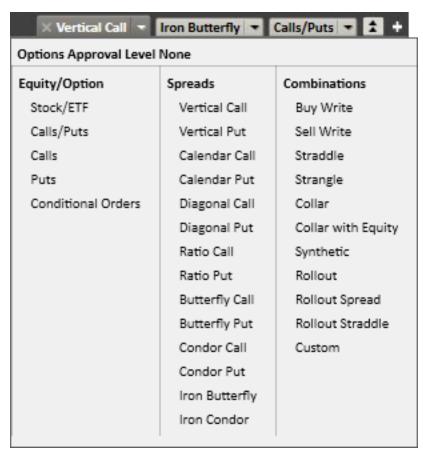
 For step-by-step instructions on placing multi-leg option orders, see Placing Option Trades (Multi-Leg).

TIP: The types of option strategies available to you will depend on your options approval level, which is displayed in the upper right corner of the Options tab. To inquire about raising your options trading level, contact a Client Service Representative.

For more information on Option Trading, visit the Quick Reference Guide.

The basics of option trading in StreetSmart Edge® are as follows (click the links to get more information on each area):

Pick your Strategy



 All in One tool: Click the drop-down arrow in the tab name to select a strategy. Trade tool/Symbol Hub: Use the Strategy Selector in the upper left corner of the Options tab to select the strategy, whether a

straight Call or Put or a multi-leg strategy like a Straddle or Vertical Spread.

- The software will update the option chain to display contracts or contract pairings appropriate for the strategy AND will adjust the Trade Ticket to display the correct order entry fields.
- For a more technical look at each type of option strategy, see <u>Option</u> Strategies Overview.

Select Contract(s) in Option Chain

- The option contracts or contract pairings available for that strategy will display within the option chain area. They are grouped by expiration date and the near date defaults to open with the Mid price highlighted.
- For straight calls or puts, get details on an individual contract by clicking the arrow at the start of the row. This will display the contract specifications, Level I and Level 2 quote data for the contract.
- For multi-leg orders, see the contracts making up the legs of a multi-leg pairing by clicking on the arrow sat the start of the row.
- See more about viewing and working with Option Chains.

Fill out Trade Ticket

- Provide the order routing instructions in the Trade Ticket, such as quantity, order type, limit price, and more.
- Learn more about <u>Placing Single-leg Option Trades</u> or <u>Placing Multi-leg</u> Option Trades.

Option Margin Requirements

See the requirements for buying and borrowing against securities in a Margin account based on Reg T, FINRA, and Schwab rules on Schwab.com.

Commissions, taxes, and transaction costs are not included in any of these strategy discussions, but can affect final outcome and should be considered. Please contact a tax advisor to discuss the tax implications of these strategies. Many of the strategies described herein require the use of a margin account. With long options, investors may lose 100% of funds invested. In-the-money long puts need to be closed out prior to expiration, since exercising them could create short stock positions.

Options carry a high level of risk and are not suitable for all investors. Certain requirements must be met to trade options through Schwab. Multiple leg options strategies will involve multiple commissions. Spread trading must be done in a margin account. Please read the options disclosure document titled "Characteristics and Risks of Standardized Options."

All in One Trade Tool

The All in One trade tool is the most dynamic, advanced trading tool in the StreetSmart® family of software, offering unprecedented flexibility, particularly around option trading workflow. While similar to the <u>Trade</u> tool and the trading interface found in the <u>Symbol Hub</u>, the special features spelled out below help make the All in One tool especially valuable to option traders.

Open the All in One tool by going to **Launch Tools** and selecting **Trade - All in One**.

Tabbed Interface

Like most tools in StreetSmart Edge®, the All in One trade tool has a tabbed interface, where you can customize the contents of each tab. If you often trade, for instance, calendar call spreads, you can create a Calendar Call tab rather than having to set the Options tab up for calendar call spreads each time.

- Add a New Tab: Click the + next to the tabs and select a strategy.
 Strategies available to trade will vary depending on your option trading approval level.
- **Change a Tab:** Click the drop-down arrow next to the tab name and select a different Equity, Option, Spread, or Combo order type, or Conditional

Order.



 Delete a Tab: Click on a tab and click the x next to the strategy name to close it.

Add a Leg

Quickly turn a stock or option order into a multi-leg order using the Add A Leg + button. If you change the characteristics of an individual leg, the tab updates the strategy and the option chain.

- As you make changes to the first leg of the strategy, the other legs will be updated to stay within that strategy (such as changing one leg of a Vertical Call spread to a Put will change the strategy to a Vertical Put).
- As you make changes within the ticket, other strategies are recognized to allow you to quickly select the trade you want and locate that trade in the option chain.
- Remove a Leg: Click the 🕞 button for the leg you want to remove.

Additional Displays

The tabs in the lower portion of the All in One tool include Market Depth (for Equities only), Regional Quotes (for Options only), Options Chains (the default

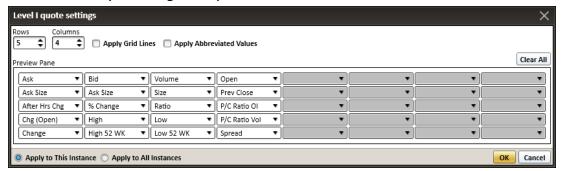
options data display), Trade and Probability Calculator, and Top Movers.

- Market Depth
- Regional Quotes: Switch to the Regional Quotes tab to display the market depth for regional option exchanges and trades that occur in Time and Sales.
- Options Chains
- Trade And Probability Calculator
- **Top Movers**: The Top Movers tab will display the top volume, top gainers, and top decliners for a single underlying symbol.

Title Bar and Level I Data

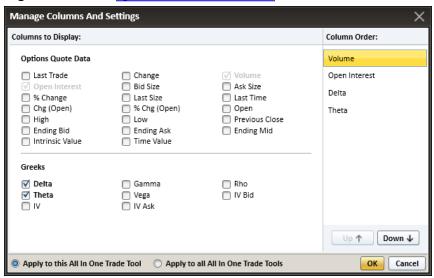
The <u>Title Bar</u> will display the last trade price, change direction, and change from the open, as well as the full name of the company or index and exchange. Below the Title Bar is the Level I data, as well as the <u>Order Status and Position Indicators</u>, which show whether your account has open orders or positions in the selected symbol.

• <u>Customize the Level I</u> display by clicking on the [™] icon or contract/hide the Level I data by clicking the up arrows [™].



• Customize the Options Ticket display by clicking on the display icon and select-

ing the desired Quote Data or Greeks.

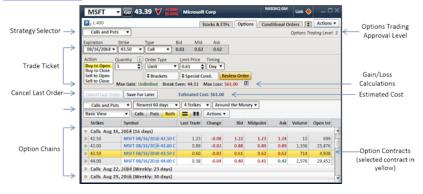


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Options Tab Features

In the <u>Trade tool</u> and <u>Symbol Hub</u>, trade options via the Options tab as shown below.

In the All in One tool, tabs are customizable to any strategy offered in StreetS-mart Edge®, but you will find the same features below in all three tools. See All in One tool for more on this dynamic option trading interface.



Stock symbols and price and volume data shown here and in the software are for illustrative purposes only. Charles Schwab & Co., Inc., its parent or affiliates, and/or its employees and/or directors may have positions in securities referenced herein, and may, as principal or agent, buy from or sell to clients.

Options Tab Features		
Title Bar	Enter the symbol underlying the options you want to potentially trade and click <i>Go</i> or press <i>Enter</i> . The Title Bar is available in several tools, and includes some basic price data as well as the Tool Link Icon. For more on these features see <u>Title Bar</u> .	
Strategy Selector	Click the Strategy Selector to choose a strategy, whether a straight Call or Put or multi-leg. This will adjust the Trade Ticket to display the correct order entry fields, and it will change the Option Chains to display contracts or contract pairings applicable to the strategy. For a more technical look at each type of option strategy, see Option Strategies Overview.	
Trade Ticket	The trade ticket area (available both in the Trade tool and Symbol Hub) is where you set up and place option orders. See more on Placing Option Orders. TIP: You can hide the Trade Ticket by clicking the double arrow tab in the upper right corner. Click again to re-display it.	
	 Calculate Shares: Calculates the maximum number of contracts you can trade based on the dollar amount you specify. Trading settings, such as enabling or disabling order verification, default quantities, and commission estimates can be found by right-clicking in the Trade Ticket area and selecting Trade Ticket Settings or under Settings in the main menu. For more information, see Trading Settings. Action Menu vs. Buttons: You can display your order actions either as a menu (shown above) or as individual buttons that initiate the order instead of a Review Order button. 	

Options Tab Features	
Gain/Break Even/Loss Cal- culation	Helps you assess the potential implications of a particular option order, including the Max Gain, Max Loss, and Break Even point for a particular trade. Adjusts as you change the parameters of your order.
Cancel Last Order	Will attempt to cancel the most recent options open order for the stock loaded in the Trade tool. Check your Messages or Order Status to confirm success of cancel order.
Save For Later	If you create an options order you want to send at a later time, click Save for Later at the bottom of the order entry screen. The order will save to the <u>Order Status</u> tab of the <u>Account Details</u> tool, where you can right-click on the order and Submit, Edit, or Delete it.
Estimated Cost	If applicable to the selected strategy, shows an estimation of the cost or proceeds depending on the number of contracts and limit or market price. The estimation does not include commissions or fees unless you specify them in the Trade Set-tings window. Hover your mouse pointer over the Estimated Cost to open a pop-up with a link to Edit Fee Calculation .
Option Chain Filters	These filters determine which contracts or pairings are available for you to choose from when setting up an option trade. Choose the number of contracts or pairings to display, whether to view calls or puts, strike range, and more. For details on each filter, which vary depending on the strategy you have selected, see the Option Chain Filters topic.
Option Chains	 Single-leg Calls or Puts The option chain displays Calls and Puts grouped by Expiration. Click the arrow at the beginning of the expiration row to expand the strikes for that specific expiration.

Options Tab Features	
	 Click the arrow at the beginning of each row to display the contract specifications and Level 2 quote data.
	Multi-leg Strategies
	The option chain display shows pairings appropriate for the selected multi-leg strategy. Click the arrow at the beginning of each row to display the legs in each pairing. See more on Option Chains
Cancel Last Order	Will attempt to cancel the most recent open order
	for the stock loaded in the Trade tool. Check your Messages or Order Status to confirm success of cancel order.

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Placing Option Orders (Single Leg)

The steps for placing an option order vary depending on the option strategy you are using, but following are the general steps with links to more details.

- If trading from the <u>Trade tool</u> or <u>Symbol Hub</u>, click the <u>Options tab</u>. In the <u>All in One tool</u>, select *Calls/Puts*, *Calls*, or *Puts* from the Strategy Selection drop-down next to the tab name.
- 2. Enter the underlying symbol in the <u>Title Bar</u> and press **Enter** on the keyboard or click **Go**.
- 3. If trading from the Trade tool or Symbol Hub, select the type of option order you wish to place from the <u>Strategy Selector</u>. For more on the types of strategies you can trade from the Options tab, see <u>Option Strategies Overview</u>.
- 4. The Option Chain display at the bottom of the Options tab will display all the call and puts grouped by expiration. If you have chosen a multi-leg strategy, all the eligible pairings based on the strategy you have selected will display.
- 5. You can further filter the types of contracts or pairings displayed using the Option Chain Filters.

- 6. Once you have found the contract or pairing you want to trade, click on it to load it in the Trade Ticket.
- 7. If applicable, in the Action field, choose whether you wish to create a **Buy to Open**, **Buy to Close**, **Sell to Open**, or **Sell to Close** order. (If you have selected the <u>order action button view</u>, you will choose your action at the point of submitting the order in lieu of Step #14 below.)
- 8. Adjust the quantity using the arrow buttons or entering the quantity manually.

Keyboard shortcuts

- Up/Down keys increase or decrease by 5 contracts
- **Left/Right** keys decrease or increase in increments of 1
- Shift + Up/Down keys to increase or decrease by 10
- **Shift + Left/Right** keys to increase or decrease by 1

TIP: If you want to base your order quantity on a dollar amount rather than a number of contracts, click the \$ button above the Quantity field. Enter the dollar amount and click **OK** to show the number of contracts that amount will buy.

9. If applicable, choose an Order Type.

Available Order Types

- Limit: Order is executed at the price you specify. Fill price is guaranteed but execution is not.
- Walk Limit: Order operates by going to the market at the selected Start Price.

Once entered, it will rest for the selected Time Increment and then cancel and replace the order with a new limit, determined by selected Price Increment amount. This process will continue until the order is filled or rests as a limit order at the End Price (never outside of initial NBBO).

Walk Limit orders work on select option strategies and can be customized by specifying Start/End prices, Price Increments, and Time Increments.

- Market: Order is sent at the best price available at the time the order is executed. Execution is quaranteed but fill price is not.
- Stop: A market order that is only activated when there is a print or quote that is at or through the stop price. On sell-stop orders, the order is activated when the offer is at or below the stop price. On buy-stop orders, the order is activated when the bid is at or above the stop price. Once the order is activated, you are

- guaranteed execution, but there is no guarantee of the execution price being at or near your stop price.
- Stop Limit: Similar to a stop order in that a stop price will activate the order. However, once activated, the stop limit order becomes a limit order and can only be executed at the limit price specified by you or at a better price. Thus, you are not guaranteed an execution with a stop limit order.
- Trailing Stop: A stop order request set at a price level that is above (for short positions) or below (for long positions) the current price that adjusts as the price fluctuates. For a long position, a trailing stop would be set below the current price and rise as the price advances. Should the price decline the amount of the trailing stop, then a stop order would be triggered and the position closed. As long as the price doesn't retrace the amount of the trailing stop, the position is held.
- 10. If you chose an order type requiring a limit and/or stop price, set those values in the specified fields.

Keyboard shortcuts

- *Up/Down* keys increase or decrease by .05
- Left/Right keys to increase or decrease by .01
- **Shift + Up/Down** keys to increase or decrease by .005
- **Shift + Left/Right** keys to increase or decrease by .001
- 11. If applicable, select the Timing for the order.

Available Timing Choices

- Day: Causes your order to be canceled at the end of the current day's trading if the order has not been executed. All Market Orders are automatically Day orders. Orders are generally considered to be day orders unless otherwise specified.
- GTC (Good 'Til Canceled): Instructs the broker to keep an order open until it is either executed or expires. At Schwab, GTC orders remain open for 60 calendar days unless filled or you request that it be canceled before that time.
- FOK (Fill or Kill): Instructs the broker to immediately fill an order in its entirety or to cancel it. FOK instructions are only applicable to limit orders.
- IOC (Immediate or Cancel): Requires the broker to immediately fill as much of the order as possible and then cancel any remaining portion. (It may not be available in all market

conditions.) Unlike All or None (AON) or Fill or Kill (FOK) instructions, IOC orders may result in a partial execution.

12. Choose these from the **Special Conditions**:

- Min Quantity: Specifies the minimum execution quantity the client will accept (with any amount up to the specified Quantity thereafter).
- AON (All or None): Attempts to fill the entire amount of an order or none of it during the time limit specified. AON orders do not require immediate execution.
- 13. Similarly, to enable Brackets for your order, click the **Brackets** drop-down. See Brackets Overview for more information on the Brackets feature.
- 14. Click **Review Order** (if you have not turned off order verification).
- 15. If the order settings are correct, click **Place Order**. To edit the order, click **Edit Order**. To start over completely, click **Do Not Place**.

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Placing Option Orders (Multi-Leg)

The steps for placing a multi-leg option order vary depending on the strategy you are using, but following are the general steps with links to more details. When one or more of the strategies requires further explanation on a particular step, it is called out beneath the step. Some steps are different between the All in One tool vs. the Trade tool and Symbol Hub and are called out below.

- If trading in the All in One trade tool, select the tab of the strategy you wish to trade, or use the tab drop-down menu to select a new strategy. See the All in One trade tool help for more information on setting up tabs.
 If trading in the Trade tool or Symbol Hub, click the Options tab.
- 2. Enter the underlying symbol in the Title Bar and press **Enter** on the

keyboard or click **Go**.

Note that within the Account Details Position tab, multiple Option symbols in the same underlying can be loaded into the **All in One Trade tool** at the same time. To do so, double click on the parent row from Positions Strategy or hold down the 'Ctrl' key and select multiple rows from within any Position view, then click the 'Close Position' button.

- If trading in the Trade tool or Symbol Hub, select the type of option order you wish to place from the <u>Strategy Selector</u>. For more on the types of strategies you can trade from the Options tab, see <u>Option Strategies Over-</u> view.
- 4. The Option Chain display at the bottom of the Options tab will display all the eligible pairings based on the strategy you have selected.
- 5. You can further filter the contracts or pairs displayed using the Option Chain Filters.
- 6. Click within the **Bid** column or **Ask** column to select the pair you would like to trade. The Midpoint is the difference between the bid price of the option being sold (bid) and the ask price of the option being bought (ask).

Buy-Write/Sell-Write: When opening a Buy/Write, select the price from the Ask (Buy Stock/Sell Call) side, and when closing (Unwind), select from the Bid (Sell Stock/Buy Call) side. The opposite is true for a Sell-Write. Click in the Bid (Short Stock/Sell Put) column to open a Sell/Write and the Ask (Buy Stock/Buy Put) column to Unwind.

Rollout: Select the option position to sell in the **Position to Close** drop-down, and then click the contract you want to roll forward to.

Straddle: The net is the total of the two bid prices of the options being sold (bid) or the total of the two ask prices of the options being bought (ask).

Custom: You can either enter the legs of the order in the order entry fields at the top of the trade ticket, or you can right-click on a contract in the option chain and select the leg of the order ticket into which it should be loaded.

- 7. Confirm that the **Action** is correct for each leg of the trade.
 - **Buy to open:** opening a long position by buying the option.
 - Buy to close: closing an existing short position by buying back the option.

- **Sell to open:** opening a short position by selling (writing) the option.
- **Sell to close:** closing an existing long position by selling the option.
- 8. Adjust the quantity using the arrow buttons or entering the quantity manually.

Keyboard shortcuts

- **Up/Down** keys increase or decrease by 5 contracts
- Left/Right keys decrease or increase in increments of 1
- Shift + Up/Down keys to increase or decrease by 10
- Shift + Left/Right keys to increase or decrease by 1

Buy-Write/Sell-Write: These strategies have a stock leg and an option leg, so when specifying quantity, stock will have a 100:1 ratio to contracts. Increasing the share quantity will increase contract quantity proportionately.

Ratio Spread: Quantities for the two legs of a ratio spread are required to be in a 2:1 ratio.

9. Set the Limit Price or Walk Limit Price

For **Limit orders**, click the Net Credit, Debit, or Midpoint price in the All in One Trade Tool to use that price. You can also manually enter a different price or use the arrows to select a new price.

Keyboard shortcuts for Limit orders

- Up/Down keys increase or decrease by .05
- **Left/Right** keys to decrease or increase by .01
- **Shift + Up/Down** keys to increase or decrease by .005
- **Shift + Left/Right** keys to increase or decrease by .001

For **Walk Limit** orders, select the Start Price, End Price, Price Increment and Time Increment price within the **All in One Trade Tool**.

You can also manually enter a different price or use the arrows to select a new price.

Keyboard shortcuts for Walk Limit orders

- Up/Down keys for Start Price and End Price increase or decrease by .01 if below \$3.00 (or part of the penny pilot program)
- Up/Down keys for Start Price and End Price increase or decrease by .05 if above \$3.00

- Up/Down keys for Price Increment increase or decrease by if none or one of the Start or End price fields are below 3.00 (or part of the penny pilot program)
- Up/Down keys for Price Increment increase or decrease by .05 if both Start and End price fields are above 3.00

A **Walk Limit** Order operates by going to the market at the selected Start Price. Once entered, it will rest for the selected Time Increment and then cancel and replace the order with a new limit, determined by selected Price Increment amount. This process will continue until the order is filled or rests as a limit order at the End Price (never outside of initial NBBO).

Note that all Multi-leg option orders are sent as Limit or Walk Limit orders.

10. If applicable, select the **Timing** for the order.

Available Timing Choices*

- Day: Causes your order to be canceled at the end of the current day's trading if the order has not been executed. All Market Orders are automatically Day orders. Orders are generally considered to be day orders unless otherwise specified.
- GTC (Good 'Til Canceled): Instructs the broker to keep an order open until it is either executed or expires. At Schwab, GTC orders remain open for 60 calendar days unless filled or you request that it be canceled before that time.
- 11. Check the AON (All or None) if you want your order to fill ONLY if the entire quantity is available. Also, for Buy-Writes, you may choose to Reinvest Dividends on the stock leg of the order.
- 12. Click **Review Order** (if you have not turned off <u>order verification</u>).
- 13. If the order settings are correct, click **Place Order**. To edit the order, click **Edit Order**. To start over completely, click **Do Not Place**.

Commissions, taxes, and transaction costs are not included in any of these strategy discussions, but can affect final outcome and should be considered. Please contact a tax advisor to discuss the tax implications of these strategies. Many of the strategies described herein require the use of a margin account. With long options, investors may lose 100% of funds invested. In-the-money long puts need to be closed out prior to expiration, since exercising them could create short stock positions.

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Option Chains

Option Chains list the strike prices, expiration dates and other option data for the available calls and puts for an underlying security. In StreetSmart Edge®, you choose the call or put you want to trade from the Option Chain display in the All in One tool, Trade tool or Symbol Hub.

Further, if you are placing a multi-leg option trade, the option chain will show the pairings of calls and puts appropriate for the multi-leg strategy you have selected.

For more information on the strategies available for trading in StreetSmart Edge®, see Option Strategies Overview.

Expanded Display

- For simple calls and puts, click the arrow at the beginning of each row to display the available contracts for a particular expiration date.
- For more details about each option, click the arrow next to the contract to display the contract specifications along with options Level I and Participant Top of Book data for the contract.
- When you have selected a multi-leg strategy to trade, click the arrow pathebeginning of each row to display the legs in each set.

Option Chain Filters

At the top of the option chain display, there are several filters, such as strike range or number to show, that can help you further whittle down to the types of options or option pairings you want to view. See the Option Chain Filters topic for more on using these filters.

Weekly, Quarterly, & Adjusted Option Filters

Control the display of options with Weekly or Quarterly expirations, as well as Adjusted options, from the Settings drop-down of the main menu, or from the

Actions drop-down in the Option Chains display. See Option Chains Settings for more on filtering non-standard and adjusted options.

Option Chain Columns

You can customize the columns displayed in the option chain, as well as determine several other settings for the display. To learn about these settings, see the Option Chains Columns and Settings topic.

Adjust Color Settings

- 1. From the right-click or **Actions** menu, select **Colors...**
- 2. In the Colors window, you can customize the colors of each element, from background and highlight colors to font colors.
- Click **Reset to Default Colors** should you wish to return to the original colors.

Order Status Indicator

If you have an open order for the selected option, a small O indicator will display next to the Strike price.

- Click the indicator to display a list of all option and equity orders in your account for the underlying symbol.
- The list shows the details of each order (price, venue, quantity, etc.), order number, and quantity filled.
- It also gives you quick access links to Cancel, Change, or Add/Edit Brackets for each order. For more on changing, canceling, or editing brackets, see Changing or Canceling Orders.

Positions Indicator

If you hold a position in the selected option, a small P indicator will display next to the Strike price.

- Click the indicator to display a list of all option and equity positions in your account for the underlying symbol.
- The list shows each equity position, each option position, unrealized P&L for each, and includes a link to *Close Position*.
- Clicking the Close Position link will open a trade ticket window with the
 quantity pre-filled and *Close All* selected (you can uncheck Close All and
 reduce the quantity if you wish). Click *Review Order* to review the order
 and then *Place Order* to send the order.

Options carry a high level of risk and are not suitable for all investors. Certain requirements must be met to trade options through Schwab. Multiple leg options strategies will involve multiple commissions. Please read the options disclosure

document titled "Characteristics and Risks of Standardized Options." Supporting documentation for any claims or statistical information is available upon request.

Option Chain Filters

These filters determine which contracts or pairings are available for you to choose from in the <u>option chain</u> when setting up an option trade. Choose the number of contracts or pairings to display, whether to view calls or puts, strike range, and more.

TIP: To filter Adjusted options or Weekly and Quarterly expiring options, see Option Chains Settings.

Following are descriptions of each available filter, which will vary depending on the strategy you have selected:

Filter Fields	Description
Option Type/ Strategy	Choose whether to display <i>Calls</i> , <i>Puts</i> , or both, or choose from a variety of Spread and Combination multi-leg option strategies. The option chain will display contracts that match your choice of strategy. See <u>Option Strategies Overview</u> for more on the types of multi-leg option strategies available in StreetSmart Edge®.
Expiration Filter	Choose whether to view options expiring in the Nearest 60 Days , specific expiration dates, or All Expirations .
Show number of contracts/pairings	You can choose how many contracts or pairings display for a particular expiration date. Click the dropdown and select from All to 10 or fewer.
Intrinsic Value	Select whether you want to view options that are At the Money , Around the Money , In the Money , or Out of the Money .
View	Choose between:
	 Basic view, for which you can customize the column display by right-clicking in the option chain and selecting Columns and Settings.
	Theoretical allows you to select a Greek model and make changes to the different parameters that affect option pricing as calculated in that model in order to see how those changes would affect the prices and Greeks of

Filter Fields	Description
	the options in that chain. More on Theoretical View • Covered Calculator view shows calculations for Covered Call (aka buy write) or Covered Put (aka sell write) trades. Commissions and dividends are not included in the calculations, so be mindful of their effect and timing. More on Covered Calculator View
Strike Range	The option chain will show potential trades where the difference between the two contract prices is equivalent to the strike range you specify.
Position to Close	For Rollouts, select the position you want to roll forward to a longer-term expiration date.
Near/Far Months	For Calendar Spreads, choose the near month and far month expiration dates.
Call/Put Display	View calls and puts either stacked or side-by-side.

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Option Chains Columns and Settings

Option chains in StreetSmart Edge®, found in the Trade tool or Symbol Hub, are customizable, allowing you to choose which columns of data to display, as well as the order of the columns. Access the Option Chain settings window by right-clicking in the Option Chain and selecting *Columns and Settings...*.

Option Greek Pricing Models

Greeks indicate how fast an option price is changing relative to parameters such as time, underlying stock price, volatility, etc.

- Pricing Method: Select from *Black-Scholes*, *Barone-Adesi-Whaley*, or *Cox-Ross-Rubinstein*.
- **Interest Rate:** Defaults to the 13-Week Treasury Bill interest rate Index rate (\$IRX), or you can define the rate as you wish.

Order/Position Indicators

Choose whether to display an indicator showing you have either a **Position** or a **Live Order** for a contract in the option chain you are viewing. For more information on using the Order/Position Indicators, see the Option Chains topic.

Customizing Columns

There are several ways to rearrange the columns displayed in Option Chains:

- You can click the column headers and drag them to another spot in the Option Chain columns.
- You can also right-click on a column header and choose a different column from the list of all available columns.

TIP: If the column you choose is not currently displayed in the Option Chain columns, it will completely displace the column that was there. If it is already in the display, the two columns will swap places.

- You can also arrange column order from the Columns and Settings window, which is available by right-clicking in the option chain. Check the columns you want to display. All chosen fields display in the Column Order display on the right. Click a column name and use the *Up/Down* buttons to move the column into a new position.
- For brief descriptions of each column, hover your mouse pointer over the column name in the Columns and Settings window.

Applying Settings to One or All Tabs

You can choose to apply the settings changes you make to either just the *current* option chain display or to *all* current and future option chains. The default is to apply the settings only to the current tab, but if you prefer the settings to apply to all, select *Apply to all Option Chain tabs* at the bottom of the Columns and Settings window before clicking *OK*.

Options carry a high level of risk and are not suitable for all investors. Certain requirements must be met to trade options through Schwab. Multiple leg options strategies will involve multiple commissions. Please read the options disclosure document titled "Characteristics and Risks of Standardized Options." Supporting documentation for any claims or statistical information is available upon request.

Options Chain Column Descriptions

Quote Data	
Strike	Option strike price; the price at which the owner of an option can purchase (call) or sell

Quote Data		
	(put) the underlying security	
Symbol	Stock, option, or index symbol	
Last Trade	Price of last trade	
Change	Change from Previous Close to Last Trade	
Bid	Current inside Bid price	
Ask	Current inside Ask price	
Midpoint	Midpoint between Bid and Ask	
Volume	Number of shares/contracts the security has traded for the day	
Bid Size	The quoted size of the inside bid price	
Ask Size	The quoted size of the inside ask price	
Open Int	Open Interest is the total number of outstanding options contracts that have not yet been closed	
% Change	Percent change from Previous Close to Last Trade	
Last Size	Size of last trade	
Last Time	Time of last trade	
Chg (Open)	Change from Open to Last Trade	
% Chg (Open)	Percentage change from Open to Last Trade	
Open	Opening price for the day	
High	Highest price the security has traded at for the day	
Low	Lowest price the security has traded at for the day	
Prev Close	Closing price from previous market session	
Prev Close Ending Ask	Closing price from previous market session Ending Ask price of the market session	

Quote Data		
Ending Mid	Ending Midpoint price of the market session	
Intrinsic Value	The value by which the option is in the money, calculated for calls as (underlying price – strike price), or for puts as (strike price-underlying price)	
Time Value	The value of the option that is not attributed to the intrinsic value, calculated as (Midpoint - Intrinsic Value)	

Greeks	
IV	Implied Volatility based on the option midpoint price and underlying price as calculated with selected option pricing model. IV is a theoretical value (in %) designed to represent the forecasted volatility of the security or index as determined by the prices of multiple call and put options using the Black-Scholes pricing model. Other variables usually include security price, strike price, risk-free rate of return, and days to expiration. If all other variables are equal, the security with the highest volatility will generally have the highest option prices.
IV Ask	Implied Volatility based on the option ask price and underlying price as calculated with selected option pricing model.
IV Bid	Implied Volatility based on the option bid price and underlying price as calculated with selected option pricing model.
Delta	Estimate of the change in option price per one point change in the underlying price based on the selected option pricing model.
Gamma	Measures the change in delta for a change in the underlying security price
Theta	Estimate of the change in option price per

Greeks		
	one day passing based on selected option pricing model.	
Vega	Estimate of the change in option price per a 1% change in volatility of the underlying based on selected option pricing model.	
Rho	Estimate of the change in option price per a 1% change in interest rates based on selected option pricing model.	
Multi Leg Greeks	For Multi Leg strategies, the sum of each individual leg is used to produce a single Greek value. The value will always be reflective of the Ask side to the strategy.	
	Example: Vertical Call Delta Buy 1 100 Strike Call Delta .7056 Sell 1 105 Strike Call Delta .5678	
	Results in Net Delta of .1378 (0.7056 – 0.5678) Note: Multi Leg Greeks are available for all Options trading strategies except Custom.	

Probability	
% ITM Prob	Probability of the option expiring in the money at expiration
% OTM Prob	Probability of the option expiring out of the money at expiration
% Touch Prob	Probability of the stock price touching strike on or before expiration

Estimates (excludes commissions)	
Max Gain	The maximum amount of profit based on the selected strategy inputs.
Break Even	The price at which the profit or loss is 0 for

Estimates (excludes commissions)		
the selected strategy inputs.		
Max Loss	The maximum amount of loss based on the selected strategy inputs.	
Return % of Risk	Max Gain divided by Max Loss, expressed as a percentage.	

Covered Calculator		
% Max Gain	The % return if the max gain is reached, expressed as a % of the initial investment price, calculated as follows:	
	 Call Calculation: Max Gain / ((stock Ask or input cost - Call Bid)*share quantity) 	
	 Put Calculation: Max Gain/ ((stock Bid or input cost + Put Bid)*share quantity) 	
Static ROI	Static Return on Investment shows in Dollars the return if the stock price did not move from the current price and the option was to expire. Calculations:	
	 If stock would be assigned, uses the Max Gain calculations above If stock would not be assigned, Call Calculation: Call Bid * share quantity Put Calculation: Put Bid * share quantity 	
% Static ROI	 Call Calculation: Static ROI / ((stock Ask or input cost - Call Bid)*share quantity) Put Calculation: Static ROI/ ((Stock Bid or input cost + Put Bid)*share quantity) 	

Covered Calculator		
Target ROI	Target Return on Investment shows in Dollars the return if the target price is reached at expiration. The Target price can be any price the stock could reach, and could be used to see what the profit or loss would be at that target price. Calculations:	
	 If stock would be assigned, uses the Max Gain calculations above 	
	 If stock is unchanged, uses the Static ROI calculation above 	
	 If stock price changes, 	
	 Call Calculation: Call Bid +/- dif- ference in stock Ask or input cost to target price 	
	 Put Calculation: Put Bid +/- dif- ference in stock Bid or input cost to target price 	
% Target ROI	The Target Return on Investment expressed as a %	
	• Call Calculation: Target ROI / ((stock Ask or input cost – Call Bid) * share quantity)	
	 Put Calculation: Target ROI/ ((Stock Bid or input cost + Put Bid) * share quantity) 	
% Protection	Due to the nature of Covered Call and Covered Put strategies, there is a degree of hedging that takes place by selling the option against the stock position.	
	 Call Calculation: Call Bid/stock Ask or input cost * 100 	
	 Put Calculation: Put Bid/Stock bid or input cost * 100 	

Options carry a high level of risk and are not suitable for all investors. Certain requirements must be met to trade options through Schwab. Multiple leg options

strategies will involve multiple commissions. Please read the options disclosure document titled "Characteristics and Risks of Standardized Options." Supporting documentation for any claims or statistical information is available upon request.

Option Chains Settings

Option Chains settings, found in the main menu under **Settings** or from the **Actions** drop-down in the Option Chains display, affect the entire application rather than individual tools.

Filters	
Include Weekly Options	Check to display options that expire weekly in the Option Chains. More on Non-Standard Expiring Options
Include Quarterly Options	Check to display options that expire quarterly in the Option Chains. More on Non-Standard Expiring Options
Include Adjusted Options (Calls & Puts chain only)	Check to display adjusted options in the Calls & Puts Option Chains. More on Adjusted Options

Trade & Probability Calculator

The Trade & Probability Calculator shows a visual representation of the risk/reward of an options strategy to help you quickly assess option trade risk, based on the price of the underlying on certain dates, using the Black-Scholes option pricing model. It also plots the probability of the underlying symbol price at any point in time up to the expiration date.

The Trade & Probability Calculator tab is next to the Market Depth and Option Chains tabs in the All in One trade tool.



Profit and Loss Prediction

Three lines overlay the graph:

- Predicted Profit or Loss based on Today's date
- Predicted Profit or Loss based on halfway to the expiration date
- Predicted Profit or Loss based on expiration date

These dates, along with the expiration date that used for the underlying probability chart, may be changed by clicking the calendar icon in the fields above the chart.

TIP: The Profit value on the Y axis only relates to the P&L lines, not to the underlying probability chart.

Customize colors: Right-click on the color square for each graph element (shown below) to change the color of the element or to hide the element. You can also click the element name to toggle between viewing and hiding the element.

Probability	04/21/2013 🎹	P&L -\$11.57	03/22/2013 🎛
P&L -\$40.41	04/06/2013 🎹	P&L -\$200.00	04/21/2013 🏢

Probability Calculation

The solid curve plots the underlying symbol's price probability at the expiration date for the option strategy selected using a log normal distribution based on the expiration date (or another date of your choosing), current tr ade price, and implied volatility %. Each point along the curve has an associated price (which you can see along the X axis) and probability of expiring at that price.

- The two vertical sliders at the top of the chart are the Lower and Upper Targets that can be adjusted from the default +1/-1 standard deviation (from the current market price) by dragging side to side. The blue **Prob. Expiring** bar at the top of the calculator shows the probability of the option expiring Below the lower slider, Between the sliders, and Above the upper slider.
- The price at the bottom in the center of the chart is the price of the underlying when the calculation was initiated. Update the underlying data by clicking *Refresh* below the chart.
- The **Settings** at the bottom of the tab (click the expansion arrows to view) includes the estimated 30 day at the money Implied Volatility, Dividend Yield, and Interest Rate percentage (Risk Free Interest Rate derived from \$IRX). These values, along with the Upper and Lower Targets mentioned above, are adjustable allowing for multiple configurations or "what if" scenarios. You can also more precisely adjust the slider values by manually entering a number in the settings.
- View the probability for any price point by clicking on the graph. Crosshairs will display, pinpointing the price on the vertical crosshair and estimated profit or loss on the horizontal crosshair. The blue bar at the top of the tab will change to show the probability of the underlying price Touching ¹ or Expiring² at that price point.

The Trade and Probability Calculator provides calculations that are hypothetical in nature and do not reflect the actual investment results or guarantee future results. The calculations do not consider commissions or other costs, and do not consider other positions in your account(s) for which a specific trading scenario is being examined. Rather, these values are based solely on the individual contract or pair of contracts in this specific trade.

In addition, the calculations incorporate annualized dividend yields and do not consider ex-dividend dates, early assignment, and other risks associated with

¹Probabiliy of Touching is the possibility of the stock touching the selected strike price between now and expiration.

²Probability of Expiring shows the probability of an underlying stock's price being above or below the chosen strike price at expiration.

option trading. If an option expires before the estimated date, it is treated as though it expires on the estimated date. Investment decisions should not be made based solely upon values generated by the Trade & Probability Calculator.

Covered Calculator View

Innuts

The Covered Calculator is a view on the Calls and Puts <u>Option Chains</u> which shows calculations for Covered Call (<u>Buy-Write & Unwind</u>) or Covered Put (<u>Sell-Write & Unwind</u>) trades.

Commissions and dividends are not included in the calculations, so be mindful of their effect and timing.

Inputs		
Stock Price	Choose to base the calculations using a stock price from the market: Ask for Covered call calculations and Bid for Covered Put calculations, or input a cost you want to use as the stock price. • The input cost is loaded with an average cost from your account when that is available. • If the Bid/Ask Prices are chosen, the calculations will stay updated based on changes in the stock price. • Calculations will stay updated with quote changes in the option prices.	
Shares	Enter the number of shares you would like to run the calculations with. The calculations will assume 1 option is traded for every 100 shares .	
Target Price	Used to calculate the return on the covered call or covered put strategy if the target price is reached.	
Outputs		
Max Gain	Shows in Dollars the maximum amount you could make from that trade. This would assume that the option expires with an assignment. If assigned on Calls, you would be selling the stock, and if assigned on puts you would be buying the stock back.	
	• Call Calculation: ((Call strike price) - (either Stock Ask or input stock price, depending on stock price chosen) + (call bid))* shares input * option multiplier, usually 100)	
	Put Calculation: ((either Stock Bid or input stock	

Outputs	
	price, depending on stock price chosen) + (put bid) - (Put strike price))* shares input * option mul- tiplier, usually 100)
% Max Gain	The % return if the max gain is reached, expressed as a % of the initial investment price, calculated as follows:
	 Call Calculation: Max Gain / ((stock Ask or input cost - Call Bid)*share quantity)
	 Put Calculation: Max Gain/ ((stock Bid or input cost + Put Bid)*share quantity)
Static ROI	Static Return on Investment shows in Dollars the return if the stock price did not move from the current price and the option was to expire. Calculations:
	 If stock would be assigned, uses the Max Gain cal- culations above
	 If stock would not be assigned,
	 Call Calculation: Call Bid * share quantity
	 Put Calculation: Put Bid * share quantity
% Static ROI	The Static ROI represented as a %.
	 Call Calculation: Static ROI / ((stock Ask or input cost - Call Bid)*share quantity)
	 Put Calculation: Static ROI/ ((Stock Bid or input cost + Put Bid)*share quantity)
Target ROI	Target Return on Investment shows in Dollars the return if the target price is reached at expiration. The Target price can be any price the stock could reach, and could be used to see what the profit or loss would be at that target price. Calculations:
	 If stock would be assigned, uses the Max Gain cal- culations above
	 If stock is unchanged, uses the Static ROI cal- culation above
	If stock price changes,
	∘ Call Calculation: <i>Call Bid +/− difference in</i>

Outputs		
	stock Ask or input cost to target price	
	 Put Calculation: Put Bid +/- difference in stock Bid or input cost to target price 	
% Target ROI	The Target Return on Investment expressed as a %	
	• Call Calculation: Target ROI / ((stock Ask or input cost - Call Bid) * share quantity)	
	 Put Calculation: Target ROI/ ((Stock Bid or input cost + Put Bid) * share quantity) 	
Break Even	The price the stock could reach at expiration where the profit or loss is 0 for the strategy based on the inputs. Assumes a profitable transaction, so when a profit is not possible, shows "—".	
	• Call Calculation: Ask price of stock or input cost – Call Bid Price	
	 Put Calculation: Bid price of stock or input cost + Put Bid Price 	
% Protection	Due to the nature of Covered Call and Covered Put strategies, there is a degree of hedging that takes place by selling the option against the stock position.	
	• Call Calculation: Call Bid/stock Ask or input cost * 100	
	• Put Calculation: Put Bid/Stock bid or input cost * 100	

Quote Data	
Strike	Option strike price; the price at which the owner of an option can purchase (call) or sell (put) the underlying security
Symbol	Stock, option, or index symbol
Last Trade	Price of last trade
Change	Change from Previous Close to Last Trade
Bid	Current inside Bid price
Ask	Current inside Ask price

Quote Data		
Midpoint	Midpoint between Bid and Ask	
Volume	Number of shares/contracts the security has traded for the day	
Bid Size	The quoted size of the inside bid price	
Ask Size	The quoted size of the inside ask price	
Open Int	Open Interest is the total number of outstanding options contracts that have not yet been closed	
% Change	Percent change from Previous Close to Last Trade	
Last Size	Size of last trade	
Last Time	Time of last trade	
Chg (Open)	Change from Open to Last Trade	
% Chg (Open)	Percentage change from Open to Last Trade	
Open	Opening price for the day	
High	Highest price the security has traded at for the day	
Low	Lowest price the security has traded at for the day	
Prev Close	Closing price from previous market session	
Ending Ask	Ending Ask price of the market session	
Ending Bid	Ending Bid price of the market session	
Ending Mid	Ending Midpoint price of the market session	
Intrinsic Value	The value by which the option is in the money, calculated for calls as (underlying price – strike price), or for puts as (strike price-underlying price)	
Time Value	The value of the option that is not attributed to the intrinsic value, calculated as (Midpoint - Intrinsic Value)	

Greeks	
IV	Implied Volatility based on the option midpoint price and underlying price as calculated with selected option pricing model. IV is a theoretical value (in %) designed to
	represent the forecasted volatility of the security or index as determined by the prices of multiple call and put options using the Black-Scholes pricing model.
	Other variables usually include security price, strike price, risk-free rate of return, and days to expiration. If all other variables are equal, the security with the highest volatility will generally have the highest option prices.
IV Ask	Implied Volatility based on the option ask price and underlying price as calculated with selected option pricing model.
IV Bid	Implied Volatility based on the option bid price and underlying price as calculated with selected option pricing model.
Delta	Estimate of the change in option price per one point change in the underlying price based on the selected option pricing model.
Gamma	Measures the change in delta for a change in the underlying security price
Theta	Estimate of the change in option price per one day passing based on selected option pricing model.
Vega	Estimate of the change in option price per a 1% change in volatility of the underlying based on selected option pricing model.
Rho	Estimate of the change in option price per a 1% change in interest rates based on selected option pricing model.

Commissions, taxes, and transaction costs are not included in any of these strategy discussions, but can affect final outcome and should be considered.

Please contact a tax advisor to discuss the tax implications of these strategies. Many of the strategies described herein require the use of a margin account. With long options, investors may lose 100% of funds invested. In-the-money long puts need to be closed out prior to expiration, since exercising them could create short stock positions.

Options carry a high level of risk and are not suitable for all investors. Certain requirements must be met to trade options through Schwab. Multiple leg options strategies will involve multiple commissions. Spread trading must be done in a margin account. Please read the options disclosure document titled "Characteristics and Risks of Standardized Options."

Theoretical View

The Theoretical View is a view of the Calls and Puts <u>Option Chains</u>. It allows you to select a Greek model and make changes to the different parameters that affect option pricing as calculated in that model in order to see how those changes would affect the prices and Greeks of the options in that chain.

To reset the inputs back to their defaults or current values, press the Reset button.

Inputs	Inputs	
Greek Model	The Greek models available in other areas of the application are also available here. Choose between Black-Scholes, Barone-Adesi-Whaley, and Cox-Ross Rubenstein.	
Price Chg	Allows you to enter a change amount for the stock price used in the Greek model, as a positive or negative number. If you would like to see how the model predicts values if the stock is up 5 points, enter 5. If you would like to see how the model reacts if the stock is down 5 points, enter - 5. Prices can be entered to two decimal places.	
Days Past	Enter the number of days to pass. This value will apply to the whole chain, so if you enter 3 days past, the model will predict the value for each option as if 3 days have elapsed.	
IV Chg	Enter the amount of the Implied Volatility change in the stock. If you want to see how the model reacts if the IV changes by 10% or -10%, enter 10 or -10 in the IV Chg input.	
% Int	This represents the risk free interest rate used in the calculations, and defaults to the current \$IRX (CBOE 13 week treasury bill index. The \$IRX value is divided by 10 to be	

Inputs	
	expressed as an interest rate %)
Div Yield	This Input assumes a continuous dividend over the life of the options being priced, so a 5% yield would assume an annual dividend of 5% that would pay daily. It defaults to the actual dividend yield paid over the last year for that stock.
	TIP: If you are not expecting a dividend payment during the life of the option, you can set this to 0.

Output Columns	
Theo Value	Shows the theoretical value of the option as a result of the changes to the inputs. This could be thought of as a theoretical Midpoint price.
Theo Delta	Shows the Delta after the input changes are taken into account. This represents the expected change in value for that option for the next 1 point change in the Underlying price, based on the values calculated.
Theo Gamma	Shows the Gamma after the input changes are taken into account. This represents the expected change in Delta for the next 1 point change in underlying value
Theo Rho	Shows the Rho after the input changes are taken into account. This represents the change in option value for the next 1 point change in interest rates.
Theo Theta	Shows the Theta after the input changes are taken into account. This represents the change in option value for the next day passing.
Theo Vega	Shows the Vega after the input changes are taken into account. This represents the change in option value for the next point increase in Implied Volatility.
Theo IV	This shows the Implied Volatility for each option as it is used in the calculations. It takes the IV Chg amount and adds or subtracts from the current IV value.
Theo Chg	Shows the difference between the Theoretical Value and the current Midpoint.

Quote Data	
Strike	Option strike price; the price at which the owner of an option can purchase (call) or sell (put) the underlying security
Symbol	Stock, option, or index symbol
Last Trade	Price of last trade
Change	Change from Previous Close to Last Trade
Bid	Current inside Bid price
Ask	Current inside Ask price
Midpoint	Midpoint between Bid and Ask
Volume	Number of shares/contracts the security has traded for the day
Bid Size	The quoted size of the inside bid price
Ask Size	The quoted size of the inside ask price
Open Int	Open Interest is the total number of outstanding options contracts that have not yet been closed
% Change	Percent change from Previous Close to Last Trade
Last Size	Size of last trade
Last Time	Time of last trade
Chg (Open)	Change from Open to Last Trade
% Chg (Open)	Percentage change from Open to Last Trade
Open	Opening price for the day
High	Highest price the security has traded at for the day
Low	Lowest price the security has traded at for the day
Prev Close	Closing price from previous market session
Ending Ask	Ending Ask price of the market session

Quote Data	
Ending Bid	Ending Bid price of the market session
Ending Mid	Ending Midpoint price of the market session
Intrinsic Value	The value by which the option is in the money, calculated for calls as (underlying price – strike price), or for puts as (strike price-underlying price)
Time Value	The value of the option that is not attributed to the intrinsic value, calculated as (Midpoint - Intrinsic Value)

Greeks	
IV	Implied Volatility based on the option midpoint price and underlying price as calculated with selected option pricing model. IV is a theoretical value (in %) designed to represent the forecasted volatility of the security or index as determined by the prices of multiple call and put options using the Black-Scholes pricing model. Other variables usually include security price, strike price, risk-free rate of return, and days to expiration. If all other variables are equal, the security with the highest volatility will generally have the highest option prices.
IV Ask	Implied Volatility based on the option ask price and underlying price as calculated with selected option pricing model.
IV Bid	Implied Volatility based on the option bid price and underlying price as calculated with selected option pricing model.
Delta	Estimate of the change in option price per one point change in the underlying price based on the selected option pricing model.
Gamma	Measures the change in delta for a change in the underlying security price

Greeks	
Theta	Estimate of the change in option price per one day passing based on selected option pricing model.
Vega	Estimate of the change in option price per a 1% change in volatility of the underlying based on selected option pricing model.
Rho	Estimate of the change in option price per a 1% change in interest rates based on selected option pricing model.

Options carry a high level of risk and are not suitable for all investors. Certain requirements must be met to trade options through Schwab. Multiple leg options strategies will involve multiple commissions. Please read the options disclosure document titled "Characteristics and Risks of Standardized Options." Supporting documentation for any claims or statistical information is available upon request.

Non-Standard Expiring Options

What are non-standard expiring options?

"Standard" expiring options at Schwab are classified as options that expire on the Saturday following the third Friday of the month, and have a lifespan of months or years. These have been the norm in the industry for many years. However, options on certain stocks, ETFs, ETNs and indices are now available with short term expirations (weekly expiring options) and calendar quarter end expirations (quarterly expiring options.) These are being referred to as "Non-Standard Expiring Options".

What are the types of non-standard expiring options?

Schwab currently has two broad categories of non-standard expiring options available for trading:

- Weekly expiring options
- Quarterly expiring options

Weekly expiring options

Weekly expiring options expire on Fridays, except during the expiration week for regular options (the third Friday of each month), and typically have a lifespan of 7-8 days. They are generally created on Thursdays and cease trading the Friday of the following week (Thursday in the case of AM settled options.)

Weekly expiring options may provide traders with more flexibility when assessing targeted trading opportunities.

Not all stocks, ETFs nor indices trade weekly expiring options – the number is currently limited. You can get the most updated list from the <u>Options Clearing Corporation</u>.

Quarterly expiring options

Quarterly expiring options expire on the last business day of the following calendar quarter ending months: March, June, September, and December. These options are generally created as far as 6 quarters in advance of their expiration, and their last trading day is typically on the day they expire.

Quarterly expiring options may provide traders the ability to align their trading strategies to the calendar or business ending quarters.

How do I find and trade non-standard expiring options?

Schwab.com Page Help: You can search for non-standard expiring options in many ways. From within the Option Chains page, when an underlying security has non-standard expiring options associated with it, a "Show Non-Standard Expirations" checkbox will appear next to the Expiration filters. Checking this checkbox will display any Weekly or Quarterly expiring options for the currently selected months. A similar mechanism exists on the interactive tool provided on the order entry pages, research pages and Quick Quote.

StreetSmart Applications Help: You can search for non-standard expiring options in many ways. From the Options chains, when an underlying security has non-standard expiring options associated with it, then they will be listed along with the standards options. If the expiration day is not the Saturday following the third Friday, then they will be either weeklys or quarterlys. An exception to all nonstandards expiring on days other than the Saturday following the third Friday are the following Volatility based index options (\$VIX, \$GVZ, \$OVZ).

Options carry a high level of risk and are not suitable for all investors. Certain requirements must be met to trade options through Schwab. Please read the options disclosure document titled <u>Characteristics and Risks of Standardized</u> Options.

Adjusted Options

What are adjusted options?

Adjusted options are created as a result of a significant corporate event on the option's underlying stock, such as a stock split, merger, acquisition, special dividend, spin-off, or reverse split. After one of these events, the option is altered to reflect the changes.

Options are adjusted by adjusting the underlying terms so the buyer or seller will see no change in the valuation of the option due to the corporate action.

Options are also adjusted to ensure that the overall equity or obligation of an option contract remains intact after a significant corporate action or activity.

How can I tell if an option has been adjusted?

When an option seems much too cheap or too expensive, it may be adjusted. There are several ways to help identify an adjusted option:

- There are two different option symbols with the same month and strike price.
- The abbreviation "ADJ" appears anywhere within the option description.
- A numeric digit "1", "2", etc. is added as a suffix to the underlying stock symbol. E.g. "XYZ1 01/21/2012 25.00 C"

Frequently Asked Questions

Adjustments made to options are often complex. We encourage you to read the <u>Frequently Asked Questions</u> (PDF) Schwab has created to find out more. If you have additional questions, please contact us at 1-877-594-6324.

Options carry a high level of risk and are not suitable for all investors. Certain requirements must be met to trade options through Schwab. Please read the options disclosure document titled <u>Characteristics and Risks of Standardized</u> Options.

Option Strategies

Option Strategies Overview

In addition to straight calls and puts, below is an overview of the variety of option trading strategies available in the <u>All in One tool</u>, and in the Options tab of the <u>Trade tool</u> and <u>Symbol Hub</u>. Click on the links for descriptions of each type of option order for a deeper explanation:

Strategy	Strateg- w	For use	Financial Ch		
		when view of stock is:	Max Loss	Max Gain	Chang- e in value in tim- e**
Straight Calls	Long	Bullish	Net Premium Paid	Unlimited	Loss
	Short	Bearish	Unlimited	Net Premium Received	Gain
Straight Puts	Long	Bearish	Net Premium Paid	Strike - Net Premium	Loss

Strategy	Sub-	For use when view of stock is:	Financial Characteristics		
	Strateg- y		Max Loss	Max Gain	Chang- e in value in tim- e**
				Paid	
	Short	Bullish	Strike - Net Premium Received	Net Premium Received	Gain
Vertical Call Spreads	Debit Spreads	Bullish	Net Premium Paid	S _{High} -S _{Low} - Net Premium Paid	Gain
	Credit Spreads	Bearish	S _{High} -S _{Low} - Net Premium Received	Net Premium Received	Loss
Vertical Put Spreads	Debit Spreads	Bearish	Net Premium Paid	S _{High} -S _{Low} - Net Premium Paid	Loss
	Credit Spreads	Bullish	S _{High} -S _{Low} - Net Premium Received	Net Premium Received	Gain
Bull Call Ratio Spreads		Slightly Bullish	Unlimited	((S _{High} -S _{Low} x # Long Contracts) ± Net Debit/Credit Paid/Re- ceived	Gain‡
Bear Put Ratio Spreads		Slightly Bear- ish	[S _{Low} x (# Short Con- tracts - # Long Con- tracts) - Dif- ference in Strikes x Long Con- tracts] ± Net	Difference in Strikes x Long Con- tracts ± Net Debit/Credit Paid/Re- ceived	Gain*

Strategy	Sub- Strateg- y	For use when view of stock is:	Financial Characteristics		
			Max Loss	Max Gain	Chang- e in value in tim- e**
			Debit/Credit Paid/Re- ceived		
Call Ratio Ratio Spreads		Extremely Bullish	(S _{High} - S _{Low} x # Short Contracts) ± Net Debt/Credit Paid/Re- ceived	Unlimited	Loss*
Put Ratio Ratio Spreads		Extremely Bearish	(S _{High} - S _{Low} x # Short Contracts) ± Net Debt/Credit Paid/Re- ceived	[(S _{High} x # Long Con- tracts) - S _{Low} x # Short Con- tracts)] ± Net Debt/Credit Paid/Re- ceived	Loss*
Straddle- <u>s</u>	Long	Bullish or bearish, with rising volat- ility	Net Premium Paid	Unlimited	Loss
	Short	Neutral and falling volatility	Unlimited	Net Premium Received	Gain
Strangle- s	Long	Bullish/Bear- ish and rising volatility	Net Premium Paid	Unlimited	Loss
9	Short	Neutral and falling volat-	Unlimited	Net Premium Received	Gain

Strategy	Strateg-	For use when view of stock is:	Financial Characteristics		
			Max Loss	Max Gain	Chang- e in value in tim- e**
		ility			
But- terflies	Long	Neutral and low/falling volatility	Net Premium Paid	(Middle Strike Price - Lowest Strike Price) - Net Premium Paid	Loss
	Short	Bullish/Bear- ish and high/rising volatility	(Middle Strike Price - Lowest Strike Price) - Net Premium Received	Net Premium Received	Gain
Condors	Long	Neutral and low/falling volatility	Net Premium Paid	(Difference between low- est and next lowest strike prices) - Net Premium Paid	Loss
	Short	Bullish/Bear- ish and high/rising volatility	(Difference between low- est and next lowest strike prices) - Net Premium Received	Net Premium Received	Gain
Iron But- terflies	Long	Bullish/Bear- ish and high/rising volatility	Net Premium Paid	(Middle Strike Price - Lowest Strike Price)	Loss

Strategy	Strateg- v	For use when view of stock is:	Financial Characteristics			
			Max Loss	Max Gain	Chang- e in value in tim- e**	
				- Net Premium Paid		
Iron Condors	Long	Bullish/Bear- ish and high/rising volatility	Net Premium Paid	(Difference between low- est and next lowest strike prices) - Net Premium Paid	Loss	
Collars		Bearish/ Pro- tective	Stock Price - S _{Low} +/- Net Premium*	S _{High} - Stock Price +/- Net Premium*	Vari- able	
Calendar Spreads ***	Debit Spreads	Moderate Bullish	Net Premium Paid	Unlimited ⁺	Gain ⁺⁺	
\leq	Credit Spreads	Moderate Bearish	Unlimited ⁺	Net Premium Received	Loss ⁺⁺	
Rollout	The strategic and financial characteristics of Rollouts can vary greatly depending on the specifics of the order.					
Buy- Write and Unwind	Buy- Write	Neutral-to- Bullish	Purchase Price of Stock - Premium Received	Strike - Purchase Price + Premium	Gain ⁺⁺	
	Unwind	N/A	N/A	N/A	N/A	
Sell- Write and Unwind	Sell- Write	Neutral-to- Bearish	Unlimited	Short Sale Price + Premium - Strike	Gain ⁺⁺	

Strategy	Strateg- v	For use when view of stock is:	Financial Characteristics		
			Max Loss	Max Gain	Chang- e in value in tim- e**
	Unwind	N/A	N/A	N/A	N/A
<u>Custom</u>	The strategic and financial characteristics of Custom orders can				

vary greatly depending on the specifics of the order.

S_{High}: High Strike Price in two option strategy S_{Low}: Low Strike Price in two option strategy

- * Collar Max Gain/Loss assumes the collar is put on in conjunction with a long stock position.
- ** This column describes the effect of time decay on the respective strategy holder's position.
- *** The discussion of Calendar Spreads that follows is for the debit spread only.
- + Max. Gain for Debit Spread is unlimited only after the expiration of the short option. Max. Loss for Credit Spread is unlimited when the long calls expire prior to the short calls, in which case, the position would not qualify as a spread.
- ++ The gain or loss with time for calendar spreads applies only during the period when both options in the spread have not yet expired or been assigned. Once the near-term option has expired or been assigned, the situation will reverse (Gain will change to Loss and vice-versa.) Although not common, calendar spreads may be neutral.
- ‡ For Ratio Spreads, since you are short 2 contracts vs. 1, time decay will "generally" be in your favor, but technically it depends on if you establish this position for a credit or debit. For Back Spreads, time will "generally" be working against you, but again this depends on whether you establish this position for a credit or debit.

Commissions, taxes, and transaction costs are not included in any of these strategy discussions, but can affect final outcome and should be considered. Please contact a tax advisor to discuss the tax implications of these strategies. Many of the strategies described herein require the use of a margin account. With long options, investors may lose 100% of funds invested. In-the-money long puts need to be closed out prior to expiration, since exercising them could create short stock positions.

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Straight Calls

Straight Calls refers to the purchasing or selling of call options to open a position. This strategy is also commonly referred to as Long or Short Calls. Generally, these two strategies are speculative in nature.

Long Call

A strategy consisting of the purchase of a Call option. This strategy is generally used to speculate on the upward move of the underlying security or index.

For use when investor anticipates:

• Upward market direction / security appreciation

Financial Characteristics:

Maximum Loss: Debit amount paid for the option*

Maximum Profit: Unlimited

 Break Even: Strike price of the option plus the debit amount paid for the option

Objective:

Speculative gain

* The maximum loss on a straight Call is limited as long as, and only as long as, the investor does not exercise the long call. There is an additional risk associated with the expiration weekend. If the long call is exercised, the investor ends up with a long position in the stock. Bad news during the weekend could force even greater losses on the investor before he can exit the long equity position.

EXAMPLE - Long Straight Call

Currently, XYZ trades at \$25/share. The investor employs the strategy of buying one in-the-money call (strike \$20) for \$6.00/share (1 contract= \$600). Using this strategy, the investor pays a cash debit of \$6.00. This is the maximum loss the investor can incur. If the stock decreases to \$19.00/share the long call will expire worthless and the investor loses the \$6 premium. The maximum gain if the stock price is higher than the strike is the difference between the closing price and the call strike, less the call premium spent. If the stock is trading at \$30, then 30-20-6 = \$4 profit. The break even point for the strategy occurs when the price of XYZ is at \$26.



Short Call

The Short Straight Call may allow an investor to profit from downward movements in the underlying security or index. It uses the exact opposite structure as the Long Call. If the security or index falls in value, the investor can generally profit. The maximum profit is the premium received by selling the option. If the security rises in value, the maximum loss is unlimited.

For use when investor anticipates:

Declining market/security depreciation

Financial Characteristics:

Maximum Loss: Unlimited

Maximum Gain: Credit received by selling the call option

 Break Even: Strike price of the option plus the credit received for the sold option

Objective:

Speculative gain

EXAMPLE - Short Straight Call

Currently, XYZ trades at \$25/share. The investor believes the stock will fall and wants to benefit from the downward movement. The investor shorts a Straight Call option (strike \$20) for \$6.00/share (1 contract= \$600). The maximum loss is unlimited should the stock prices suddenly rise in price. The maximum loss would be calculated by taking the closing price at expiration less the strike price, less the credit received on the sale of the option. If the stock closes at \$32 on expiration, there will be a \$6 loss (\$32-\$20-\$6=\$6 loss). The maximum profit an investor can receive is the credit received when selling the option. For example, if the same XYZ 20 strike option is sold for \$6, and the stock closes under \$20, the option expires worthless, and the investor can pocket the entire \$6. The break even point for the strategy occurs when the price of XYZ is at \$26.



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Straight Puts

Straight Puts refers to the purchasing or selling of put options to open a position. This strategy is also commonly referred to as Long or Short Puts. Generally, these two strategies are speculative in nature.

Long Put

A strategy consisting of the purchase of a Put option. This strategy is designed for a prediction that the underlying stock or index may decline.

For use when investor anticipates:

Downward market direction / security depreciation

Financial Characteristics:

- Maximum Loss: Debit amount paid for the option*
- Maximum Profit: Strike price less debit paid for option**
- Break Even: Strike price of option less the debit amount paid for the option

Objective:

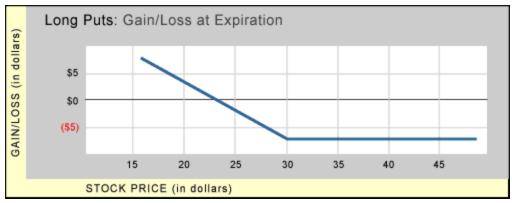
Speculative gain

*The maximum loss on a long put is limited as long as the investor does not exercise it which will result in a short stock position for their account. There is an additional risk associated with the expiration weekend. If the long put is exercised the investor ends up with a short position in the stock. Good news during the weekend could force even greater losses on the investor before he can exit the short equity position.

**The maximum profit or gain is realized if the stock prices goes to zero.

EXAMPLE - Long Put

Currently, XYZ trades at \$25/share. The investor employs the strategy of buying one in-the-money put (strike \$30) for \$6.00/share (1 contract= \$600). Using this strategy, the investor pays a cash debit of \$6.00. This is the maximum loss the investor can incur. If the stock increases to \$31.00/share, the long put will expire worthless, and the investor loses the \$6 premium. The maximum gain, if the stock price is lower than the strike, is the difference between the put strike and the closing price, less the premium debit spent in buying the put. If the stock is trading at \$19, then 30-19-6 = \$5 profit. The break even point for the strategy occurs when the price of XYZ is at \$24.



Short Put

The Short Put generally will allow an investor to profit from upward movements in the underlying security or index. It uses the exact opposite structure as the Long Put. If the security rises in value, the investor can generally profit. The maximum the investor can profit is the premium received by selling the option. If the security declines in value, the maximum the investor can lose is the strike price less the credit received for selling the put.

For use when investor anticipates:

Increasing market/security appreciation

Financial Characteristics:

- Maximum Loss: Strike Price less credit received from sale of option
- Maximum Gain: Credit received by selling the put option
- Break Even: Strike Price of the option less the credit received for the sold option

Objective:

Speculative gain

EXAMPLE - Short Straight Put

Currently, XYZ trades at \$25/share. The investor believes the stock will rise and wants to benefit from the upward movement. The investor shorts a Straight Put option (strike \$30) for \$6.00/share (1 contract= \$100). The maximum loss is the difference between the strike of the option and the premium received through the sale of the put (\$30-\$6=\$24). If the stock closes at \$19 on expiration, there would be a \$5 loss (\$30-\$19-\$6=\$5 loss). The maximum profit an investor can receive is the credit received when selling the option. For example, if the same XYZ 30 strike put option sold for \$6, and the stock closed over \$30, the option would expire worthless, and the investor could pocket the entire \$6. The break even point for the strategy occurs when the price of XYZ is at \$24.



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Options carry a high level of risk and are not suitable for all investors. Certain requirements must be met to trade options through Schwab. Multiple leg options strategies will involve multiple commissions. Spread trading must be done in a margin account. Please read the options disclosure document titled "Characteristics and Risks of Standardized Options."

Buy-Write & Unwind

Of the kinds of multi-legged orders that can be placed 'as a package' using this feature, buy-writes and unwinds are unique in that one leg of the trade is for an option, the other is for an equity. Because one leg trades on an option exchange and the equity leg on a separate, equity exchange, the circumstances in which the 'Net' price indication will be better than the prices for the separate legs combined will be uncommon. (Please note the indicative prices are not firm quotes and may not be available when an order is sent for execution.)

Buy-Write

In a Buy/Write, the individual purchases a stock and simultaneously writes calls against it. If the call expires out of the money, the investor will have collected the premium of the option – he is effectively generating income against his long position. Additionally, the investor will participate in any rise in the security up to the strike price of the option. If the option expires in-the-money, it will be exercised and the investor will have to sell his shares at the given strike price. On the downside, the underlying security has to fall further than the collected premium before money is lost, so the written call also gives a limited amount of downside protection.

This strategy is different from covered call writing only in that the investor does not own the security prior to selling the option contracts.

For use when investor anticipates:

Flat to Slowly rising market

Financial Characteristics:

- Maximum Loss: Stock price premium for written call. In addition, investor has opportunity cost of stock appreciation beyond the strike price of the call
- Maximum Gain: Call premium plus stock appreciation up to the strike price of the call
- Cash credit from call premium

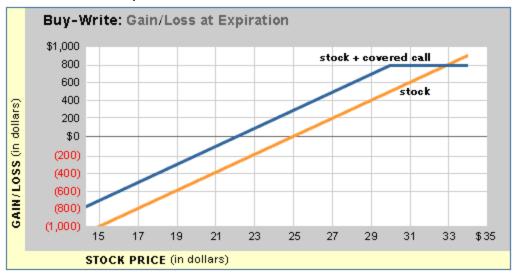
Objectives:

Modest risk mitigation and income generation

EXAMPLE - Buy-Write

Currently, XYZ trades at \$25/share. An investor would like to participate in some of the upward movement in the stock and to generate additional income at the same time. Using the Buy-Write strategy, the investor buys the stock (100 shares) and sells one out-of-the-money call (\$30 strike price) for \$3.00 per share, for a total cash credit of \$300.00. If the stock appreciates past \$30.00/share, the total gain is capped at \$800.00. The stock must fall below \$22

(the breakeven price) before the investor loses money, so the short call provides limited downside protection.



Unwinds

Unwind is the term used to refer to the order that closes out the positions opened in a buy-write strategy. The unwind for the example in buy-writes above would be to sell XYZ and to 'buy to close' the \$30 short call. Unwinds should be viewed more as a closing transaction than as a true option trading strategy.

Commissions, taxes, and transaction costs are not included in any of these strategy discussions, but can affect final outcome and should be considered. Please contact a tax advisor to discuss the tax implications of these strategies. Many of the strategies described herein require the use of a margin account. With long options, investors may lose 100% of funds invested. In-the-money long puts need to be closed out prior to expiration, since exercising them could create short stock positions.

Options carry a high level of risk and are not suitable for all investors. Certain requirements must be met to trade options through Schwab. Multiple leg options strategies will involve multiple commissions. Spread trading must be done in a margin account. Please read the options disclosure document titled "Characteristics and Risks of Standardized Options."

Sell-Write & Unwind

Of the kinds of multi-legged orders that can be placed 'as a package' using this feature, sell-writes and unwinds are unique in that one leg of the trade is for an option, the other is for an equity. Because the option leg trades on an option exchange and the equity leg on a separate, equity exchange, the circumstances in which the 'Net' price indication will be better than the prices for the separate

legs combined will be uncommon. (Please note the indicative prices are not firm quotes and may not be available when an order is sent for execution.)

Sell-Write

In a Sell/Write, an investor sells a stock short, and simultaneously writes puts against it. If the puts expire out of the money, the investor will have collected the premium of the option – he is effectively generating income against his short position. Additionally, the investor will participate in any drop in the security down to the strike price of the option. If the option expires in-the-money, it will be exercised and the investor will have to buy back his shares at the option strike price. On the upside, the underlying security has to rise further than the collected premium before money is lost, so the written put also provides a limited amount of upside protection.

This strategy is different from covered put writing only in that the investor does not have a short position in the security prior to selling the option contracts; rather they are done at the same time.

For use when investor anticipates:

Flat to Slowly dropping market

Financial Characteristics:

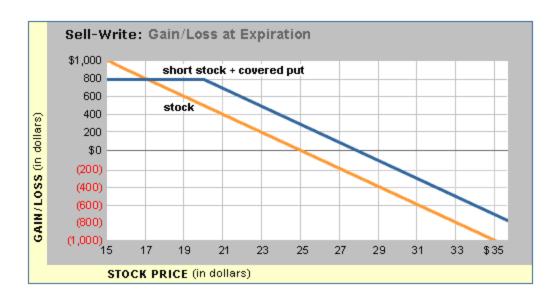
- Maximum Loss: Stock price premium for written put. In addition, investor has opportunity cost of stock dropping below the strike price of the put
- Maximum Gain: Put premium plus stock decline down to the strike price of the put
- Cash credit from put premium

Objectives:

Modest risk mitigation and income generation

EXAMPLE - Sell-Write

Currently, XYZ trades at \$25/share. An investor would like to participate in some of the downside movement in the stock and generate additional income at the same time. Using the Sell-Write strategy, the investor sells the stock (100 shares) and sells one out-of-the-money put (\$20 strike price) for \$3.00 per contract, for a total cash credit of \$300.00. If the stock declines below \$20.00/share, the total gain is capped at \$800.00. The stock must rise above \$28 (the breakeven price) before the investor loses money, so the short put provides limited upside protection.



Unwinds

Unwind is the term used to refer to the order that closes out the positions opened in a buy-write or sell-write strategy. The unwind for the example in sell-writes above would be to buy XYZ and to 'buy to close' the \$20 short put. Unwinds should be viewed more as a closing transaction than as a true option trading strategy.

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Options carry a high level of risk and are not suitable for all investors. Certain requirements must be met to trade options through Schwab. Multiple leg options strategies will involve multiple commissions. Spread trading must be done in a margin account. Please read the options disclosure document titled "Characteristics and Risks of Standardized Options."

Rollouts

A Rollout, also known as a Roll Forward, is comprised of an order to close out of an option position with a near-term expiration date and an order to open a new position in the same type (Call or Put) of option with the same underlying and with the same or *different strike price and a longer-term expiration date.

(*Also known as a Rollup or Rolldown when the strike price is different.)

Commissions, taxes, and transaction costs are not included in any of these strategy discussions, but can affect final outcome and should be considered. Please contact a tax advisor to discuss the tax implications of these strategies. Many of the strategies described herein require the use of a margin account. With long options, investors may lose 100% of funds invested. In-the-money long puts need to be closed out prior to expiration, since exercising them could create short stock positions.

Options carry a high level of risk and are not suitable for all investors. Certain requirements must be met to trade options through Schwab. Multiple leg options strategies will involve multiple commissions. Spread trading must be done in a margin account. Please read the options disclosure document titled "Characteristics and Risks of Standardized Options."

Collars

A collar allows an investor to help hedge a long (short) underlying security position by buying (selling) a put with a strike price beneath the current stock price and selling (buying) a call with a strike above it. Both options have the same expiration date. The user accepts a cap on his upside (downside) gains for a floor on his downside (upside) losses.

For use when investor anticipates:

- Volatile market conditions
- Any missed opportunities are perceived to be worth the risk mitigation

Financial Characteristics:

- Maximum Loss vs. Long Stock: Current Stock Price Strike Price of Put +/-Net Premiums
- Maximum Loss vs. Short Stock: Strike Price of Call +/- Net Cost of Collar -Current Stock Price
- Maximum Gain vs. Long Stock: Strike Price of Call Current Stock Price +/-Net Premiums
- Maximum Gain vs Short Stock: Current Stock Price Strike Price of Put +/-Net Premiums

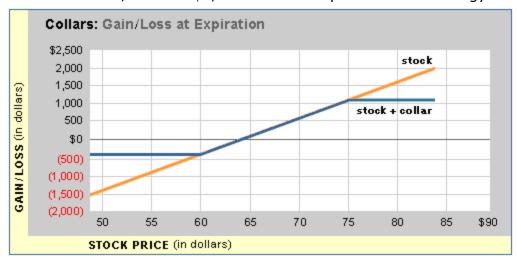
Objectives:

- Hedge an existing position for the short term that customer is willing to sell (buy in) at a set price.
- Risk mitigation in exchange for limited profit potential
- Lower cost protection than purchase of protective put alone

EXAMPLE - Collar on long equity position

An investor is long 100 shares of XYZ at \$64.00, and wants to protect his

downside risk using a protective collar. The important things are the percentage loss the customer is willing to assume, and the point that the investor is willing to lose the stock through assignment of the short call position. Let's assume that the investor is only willing to lose 5 to 10 percent on the downside, and will only sell his stock on a 10 to 20 percent move upwards. Let's assume that the XYZ 60 Puts are trading at .95, and the XYZ 75 Calls are trading at .95. The net effect of establishing a collar (long stock +long put + short call) using these two strikes is a net debit/credit of \$0. The investor is protected after a 6.25% loss, and may participate in an upside move of up to 17.2%. The investor assumes some risk of loss in exchange for retaining some of the upside potential of his XYZ position. With a net debit/credit of \$0, the breakeven price for this strategy remains \$64.



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Straddles

A strategy consisting of the purchase or sale of both a call and put option with the same expiration date and strike price. A long straddle offers an opportunity to make money when a stock or index moves substantially. A short straddle offers an opportunity to make money when a stock or index stays within a narrow range.

Long Straddles

Long straddles may allow an investor to profit from dramatic price movements in a specific security or index. An investor might employ a long straddle when he expects a surprising movement by the security, but is unsure of the direction. Long straddles involve simultaneously buying calls and puts with identical strike prices and expiration dates, typically 'at-the-money'.

The investor may benefit from either a large increase or a large decrease in the price of the stock. However, the stock must move up or down further than the total premium paid for the investor to profit at expiration.

Prior to expiration, if the underlying security moves substantially up or down, the investor may choose to realize a profit by selling the in-the-money option before its expiration date. In this case, while the in-the-money option will have been losing time value since it was purchased, the losses in time premium are offset by the gains in intrinsic value. The investor may continue to hold the out-of-the-money option for the possibility to participate in any further, opposite movement by the underlying security. However, there is no guarantee the out of the money option would retain a high premium even with an increase in volatility.

Rather than selling following a dramatic price move, the investor can continue to hold both options until expiration - anticipating even more dramatic price movements in the future. However, unless such movements do occur, time decay will eventually take its toll on both options' premiums.

For use when investor anticipates:

- Dramatic movements in security price (e.g. due to an earnings announcement), but unclear whether movement will be up or down
- Increased volatility

Financial Characteristics:

Maximum Loss: Total premiums paid

Maximum Gain: Unlimited

Loses value with time

Objective:

Speculative gain

EXAMPLE - Long Straddle

XYZ trades at \$25.00/share. An investor anticipates that the stock will dramatically rise or fall in the near future. The investor purchases one at-the-money put for \$2.00 and one at-the-money call for \$2.00 to participate in large movements in either direction. Since each contract represents 100 shares, the total

cost to the investor for buying both contracts is \$400.00. To break even, the stock must either fall \$4.00/share to \$21.00 or rise \$4.00/share to \$29.00 at or before expiration. The investor will profit if the stock goes up more than \$4.00/share or falls more than \$4.00/share.



Short Straddle

Investors using the short straddle strategy anticipate that the underlying market/security of the options will trade in a narrow range and that large movements in either direction are unlikely. A short straddle will typically therefore involve the sale of at-the-money puts and calls with the same expiration date and strike price. The investor receives the premiums for the calls and puts and hopes that, at expiration, neither the call nor the put will be more in-the-money than the total premium received. The strategy exposes the investor to unlimited losses with the possibility of only limited profits. The investor might also sell a straddle at a strike that he/she expects the underlying security to move to by expiration.

For use when investor anticipates:

- Flat/Neutral market for the security
- Decreased volatility

Financial Characteristics:

Maximum Loss: Unlimited

• Maximum Gain: Premiums received in the transaction

Benefits from time decay

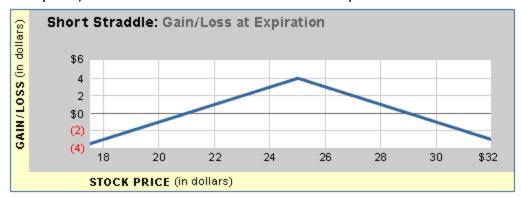
Objective:

Speculative income generation

EXAMPLE - Short Straddle

XYZ trades at \$25.00/share. An investor believes that the stock will remain flat in the near term. He puts on a short straddle, selling one 25 call for \$2.00 and

selling one 25 put for \$2.00. Since each contract represents 100 shares, the investor receives a cash credit of \$400.00. To break even or make a profit, the stock must trade between \$21.00/share and \$29.00/share. If the stock increases or decreases past these prices the investors suffers a loss. The maximum profit the investor can earn (\$4) is if the stock closes at exactly 25 at expiration. At that price, the investor would retain the entire premium.



Commissions, taxes, and transaction costs are not included in any of these strategy discussions, but can affect final outcome and should be considered. Please contact a tax advisor to discuss the tax implications of these strategies. Many of the strategies described herein require the use of a margin account. With long options, investors may lose 100% of funds invested. In-the-money long puts need to be closed out prior to expiration, since exercising them could create short stock positions.

Options carry a high level of risk and are not suitable for all investors. Certain requirements must be met to trade options through Schwab. Multiple leg options strategies will involve multiple commissions. Spread trading must be done in a margin account. Please read the options disclosure document titled "Characteristics and Risks of Standardized Options."

Strangles

A strategy consisting of the purchase or sale of both a call option and a put option with the same expiration date but different strike prices. A long strangle offers an opportunity to make money when a stock or index moves substantially. A short strangle offers an opportunity to make money when a stock or index stays within a range.

Long Strangles

Long strangles may allow an investor to profit from dramatic price movements in a specific security or index. An investor might employ a long strangle when he expects a substantial movement by the security but is unsure of the direction. Long strangles involve the simultaneous purchase of both call options and put

options with the same expiration date but different strike prices, typically 'outof-the-money'.

The investor may benefit from either a large increase or a large decrease in the price of the stock. However, the stock must move further than the total premium paid either: higher than the call strike, or lower than the put strike for the investor to profit at expiration.

Prior to expiration, if the underlying security moves substantially up or down, the investor may choose to realize a profit by selling the in-the-money option before its expiration date. In this case, while the in-the-money option will have been losing time value since it was purchased, the losses in time premium are offset by the gains in intrinsic value.

The investor may continue to hold the out-of-the-money option for the possibility to participate in any further, opposite movement by the security.

However, there is no guarantee the out of the money option would retain a high premium even with an increase in volatility. Rather than selling following a dramatic price move, the investor can continue to hold both options until expiration - anticipating even more dramatic price movements in the future. However, unless such movements do occur, time decay will eventually take its toll on both options' premiums.

For use when investor anticipates:

- Dramatic movements in underlying security price (e.g. due to an earnings announcement), but unclear whether movement will be up or down
- Increased volatility

Financial Characteristics:

Maximum Loss: Total premiums paid

Maximum Gain: Unlimited

Loses value with time

Objective:

Speculative gain

EXAMPLE - Long Strangle

XYZ trades at \$25.00/share. An investor anticipates that the stock will dramatically rise or fall in the near future. The investor purchases one \$20 put for \$1.00 and one \$30 call for \$1.00 for the opportunity to participate in large movements in either direction. Since each contract represents 100 shares, the total cost to the investor for buying both contracts is \$200.00. To break even, the stock must either fall \$7.00/share to \$18.00 or rise \$7.00/share to \$32.00 at or before expiration. (An increase in volatility could produce a profit for the investor prior to expiration in some circumstances.) The investor will profit if the stock goes up more than \$7.00/share or falls more than \$7.00/share.

Short Strangles

Investors using the short strangle strategy anticipate that the underlying security of the options will trade in a range and that larger movements in either direction are unlikely. A short strangle will typically, therefore, involve the simultaneous sale of both call options and put options with the same expiration date but different strike prices, typically 'out-of-the-money'. The investor receives the premiums for the calls and puts and hopes that, at expiration, neither the calls nor the puts will be more in-the-money than the total premium received. The strategy exposes the investor to unlimited losses with the possibility of only limited profits. The investor might also sell a strangle using strikes that he/she expects the underlying security to move between by expiration.

For use when investor anticipates:

- Flat/Neutral market for the underlying security
- Decreased volatility

Financial Characteristics:

Maximum Loss: Unlimited

• Maximum Gain: Premiums received in the transaction

Benefits from time decay

Objective:

Speculative income generation

EXAMPLE - Short Strangle

XYZ trades at \$25.00/share. An investor believes that the stock will remain flat in the near term. He places a short strangle, selling one 30 call for \$1.00 and selling one 20 put for \$1.00. Since each contract represents 100 shares, the investor receives a cash credit of \$200.00. To break even or make a profit, the stock must trade between \$18.00/share and \$32.00/share. If the stock increases or decreases past these prices the investors suffers a loss. The maximum profit the investor can earn (\$2) is if the stock closes between 20 and 30 at expiration. In that price range, the investor would retain the entire premium.

Commissions, taxes, and transaction costs are not included in any of these strategy discussions, but can affect final outcome and should be considered. Please contact a tax advisor to discuss the tax implications of these strategies. Many of the strategies described herein require the use of a margin account. With long options, investors may lose 100% of funds invested. In-the-money long puts need to be closed out prior to expiration, since exercising them could create short stock positions.

Options carry a high level of risk and are not suitable for all investors. Certain requirements must be met to trade options through Schwab. Multiple leg options strategies will involve multiple commissions. Spread trading must be done in a margin account. Please read the options disclosure document titled "Characteristics and Risks of Standardized Options."

Options carry a high level of risk and are not suitable for all investors. Certain requirements must be met to trade options through Schwab. Multiple leg options strategies will involve multiple commissions. Please read the options disclosure document titled "Characteristics and Risks of Standardized Options." Supporting documentation for any claims or statistical information is available upon request.

Butterfly

A butterfly strategy combines two call spreads or two put spreads; it involves four call legs, or four put legs, all with the same expiration date, generally with consistent distances between strike prices. The strategy gets its name from its 3-part structure, involving the two outer strikes (or "wings") and the middle strike (representing the "body").

Long Butterfly (Calls)

A long butterfly is created by purchasing a lower strike Call, selling double the quantity of a consecutively higher strike Call, and purchasing a consecutively higher strike Call. In order to be considered a standard butterfly, the 3 strike prices involved should be equidistant.

Example:

- Buy to Open 1 XYZ 01/17/2015 70.00 Call
- Sell to Open 2 XYZ 01/17/2015 75.00 Call
- Buy to Open 1 XYZ 01/17/2015 80.00 Call

If the strike prices are not equidistant from each other, the butterfly is considered to be a "broken wing" butterfly.

The cost to purchase the outer strikes typically exceeds the premium received from selling the (double quantity) middle strike; therefore, a long butterfly is typically established as a net debit position.

For use when investor anticipates:

- Neutral outlook
- Little to no movement in security price (e.g. sideways channels)

Low volatility

Financial Characteristics:

- Maximum Loss: Initial Net Debit paid
- Maximum Gain: Difference between middle strike price and outer strike price, less net debit
- Loses value with time

Objective:

Gain from correctly predicting price at expiration

EXAMPLE - Long Butterfly

Assume it is June 19th, 2014 and Tom, a trader, has identified XYZ as a stock that he believes will trade relatively flat over the next month. Therefore, he decides that a Long Butterfly is an appropriate strategy given his outlook. XYZ is currently trading at \$64.90 and Tom decides that the 65.00 Call is an appropriate middle strike since it is just above the current price. In addition, he feels that the 62.50 and 67.50 strike prices create an appropriate "wingspan" for this position. Lastly, Tom selects the July expiration, since it is 30 days away which is in-line with his timing forecast.

	Strikes	Symbol	Last Trade	Change	Bid	Ask	Delta	Theta	IV				
⊽	Calls Jul 19, 2014 (30 days)												
>	52.50	07/19/2014 52.50 C	12.24	-1.06	12.30	12.60	0.9839	-0.0045	35.4094				
	55.00	07/19/2014 55.00 C	10.00	-0.70	10.00	10.20	0.9408	-0.0140	38.3496				
>	57.50	07/19/2014 57.50 C	7.68	-0.74	7.70	7.85	0.8913	-0.0207	35.7709				
>	60.00	07/19/2014 60.00 C	5.65	-0.60	5.60	5.70	0.8019	-0.0297	34.3402				
>	62.50	07/19/2014 62.50 C	3.84	-0.49	3.80	3.85	0.6712	-0.0375	33.3933				
>	65.00	07/19/2014 65.00 C	2.42	-0.36	2.41	2.42	0.5132	-0.0410	33.1164				
>	67.50	07/19/2014 67.50 C	1.44	-0.21	1.41	1.42	0.3572	-0.0382	33.0207				
>	70.00	07/19/2014 70.00 C	0.78	-0.13	0.77	0.78	0.2273	-0.0310	33.1067				
>	72.50	07/19/2014 72.50 C	0.39	-0.10	0.40	0.42	0.1354	-0.0226	33.5548				
<u> </u>	75.00	07/19/2014 75.00 C	0.20	-0.06	0.21	0.22	0.0777	-0.0155	34.2835				

Source: StreetSmart Edge

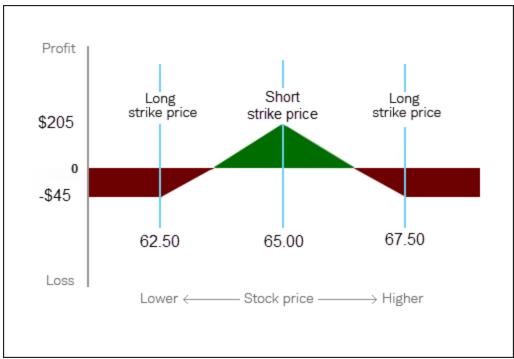
Trade Setup

Here is the breakdown for Tom's setup and trade:

- Current XYZ Price = \$64.90
- Current Ask Price, XYZ 07/19/2014 62.50 Call = \$3.85
- Current Bid Price, XYZ 07/19/2014 65.00 Call = \$2.41

- Current Ask Price, XYZ 07/19/2014 67.50 Call = \$1.42
- Tom's Trade:
 - Buy to Open 1 XYZ 07/19/2014 Call @ \$3.85
 - Sell to Open 2 XYZ 07/19/2014 Calls @ \$4.82 (\$2.41 x2 = \$4.82)
 - Buy to Open 1 XYZ 07/19/2014 Call @ \$1.42
 - Net Debit = \$3.85 \$4.82 + \$1.42 = \$0.45

The Profit/Loss profile for this trade is as follows:



Note: Chart depicts strategy at expiration

- Maximum Gain = \$65.00 \$62.50 \$0.45 = \$2.05
- Maximum Loss = \$0.45
- Lower Break-Even = Lower Strike Price + Net Debit = \$62.50 + \$0.45 = \$62.95
- Upper Break-Even = Higher Strike Price Net Debit = \$67.50 \$0.45 = \$67.05

<u>Note:</u> Commissions have been excluded to simplify the calculations. Short options can be assigned at any time and therefore option sellers assume the risk of assignment at any point up until and including expiration.

Short Butterfly (Calls)

A short butterfly is created by selling a lower strike Call, purchasing double the quantity of a consecutively higher strike Call, and selling a consecutively higher strike Call. In order to be considered a standard butterfly, the 3 strike prices involved should be equidistant.

Example:

- Sell to Open 1 XYZ 01/17/2015 90.00 Call
- Buy to Open 2 XYZ 01/17/2015 95.00 Call
- Sell to Open 1 XYZ 01/17/2015 100.00 Call

If the strike prices are not equidistant from each other, the butterfly is considered to be a "broken wing" butterfly.

The premium received from selling the outer strikes typically exceeds the cost to purchase the (double quantity) middle strike; therefore, a short butterfly is typically established as a net credit position.

For use when investor anticipates:

- Significant movement in security price (in either direction)
- Higher volatility

Financial Characteristics:

- Maximum Loss: Difference between middle strike price and outer strike price, less net credit
- Maximum Gain: Initial net credit received

Objective:

 Gain from significant change in price of the underlying security (either up or down) by expiration

EXAMPLE - Short Butterfly

Assume it is July 15th, 2014, and Lauren, a trader, has identified XYZ as a stock that she believes will make either a sharp move higher or lower over the next month. Therefore, she decides that a Short Butterfly is an appropriate strategy given her outlook and the limited risk that the strategy offers. XYZ is currently

trading at \$32.00 and Lauren decides that the 32.00 Call is an appropriate middle strike since it is right at the money. In addition, she feels that the 30.00 and 34.00 strike prices create an appropriate "wingspan" since she feels that the underlying price will either be below \$30.00 or above \$34.00 at expiration. Lastly, Lauren selects the August expiration since it is 32 days away, which is right inline with her timing forecast.

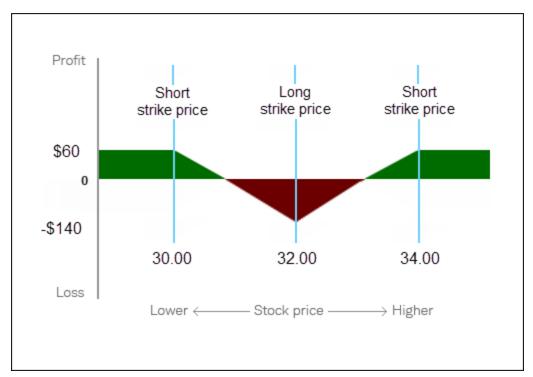
	Strikes	Symbol	Last Trad	Change	Bid	Ask	Delta	Gamma	Theta	
∇	Calls Aug 16,	2014 (32 days)								•
>	30.00	08/16/2014 30.00 C	2.18	+0.13	2.17	2.29	0.8082	0.1120	-0.0094	
>	31.00	08/16/2014 31.00 C	1.50	+0.18	1.48	1.50	0.6735	0.1521	-0.0126	ш
	32.00	08/16/2014 32.00 C	0.90	+0.10	0.88	0.90	0.5076	0.1751	-0.0136	
>	33.00	08/16/2014 33.00 C	0.48	+0.06	0.47	0.49	0.3365	0.1632	-0.0124	13
	34.00	08/16/2014 34.00 C	0.22	0.00	0.23	0.24	0.1965	0.1245	-0.0094	
	35.00	08/16/2014 35.00 C	0.11	+0.01	0.10	0.12	0.1051	0.0807	-0.0063	
										v

Trade Setup

Here is the breakdown for Lauren's setup and trade:

- Current XYZ Price = \$32.00
- Current Bid Price, XYZ 08/16/2014 30.00 Call = \$2.17
- Current Ask Price, XYZ 08/16/2014 32.00 Call = \$0.90
- Current Bid Price, XYZ 08/16/2014 34.00 Call = \$0.23
- Lauren's Trade:
 - Sell to Open 1 XYZ 08/16/2014 Call @ \$2.17
 - Buy to Open 2 XYZ 08/16/2014 Calls @ \$1.80 (\$0.90 x 2 = \$1.80)
 - Sell to Open 1 XYZ 08/16/2014 Call @ \$0.23
 - Net Credit = \$2.17 \$1.80 + \$0.23 = \$0.60

The Profit/Loss profile for this trade is as follows:



Note: Chart depicts strategy at expiration

- Maximum Gain = \$0.60
- Maximum Loss = (\$32.00 \$30.00) \$0.60 = \$1.40
- Lower Break-Even = Lower Strike Price + Net Credit = \$30.00 + \$0.60 = \$30.60
- Upper Break-Even = Higher Strike Price Net Credit = \$34.00 \$0.60 = \$33.40

Note: commissions have been excluded to simplify the calculations.

Commissions, taxes, and transaction costs are not included in any of these strategy discussions, but can affect final outcome and should be considered. Please contact a tax advisor to discuss the tax implications of these strategies. Many of the strategies described herein require the use of a margin account.

Qualified Spreads

With a Qualified Spread, the purchased option is required to expire on the same or later expiration date than the option sold. When there is more than one possible way to pair available options in your Account, Schwab has the discretion to determine the spread pairings. Schwab may pair options in a manner that does not produce the lowest possible margin requirements.

<u>Note:</u> For butterfly and condor spreads, each option leg must have the same expiration date to qualify as those types of spreads.

Options carry a high level of risk and are not suitable for all investors. Certain requirements must be met to trade options through Schwab. Multiple leg options strategies will involve multiple commissions. Please read the options disclosure document titled "Characteristics and Risks of Standardized Options." Member SIPC

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Condor

A condor strategy combines two call spreads or two put spreads; it involves four call legs, or four put legs, all with the same expiration date, generally with consistent distances between strike prices. The strategy gets its name from its 4-part structure, involving the two outer strikes (or "wings") and two inner strikes (representing the "body"). The two inner strikes are typically positioned around the current price of the underlying stock.

Long Condor (Calls)

A long condor using calls can be considered a combination of an in-the-money bull call spread, and an out-of-the-money bear call spread. It is created by purchasing a lower strike Call, selling a lower-middle strike Call, selling a higher-middle strike Call, and purchasing a consecutively higher strike Call, all with the same expiration date. The two middle strikes are typically positioned around the current price of the underlying stock. In order to be considered a standard condor, the 4 strike prices involved should be equidistant.

Example:

- Buy to Open 1 XYZ 01/17/2015 50.00 Call
- Sell to Open 1 XYZ 01/17/2015 55.00 Call
- Sell to Open 1 XYZ 01/17/2015 60.00 Call
- Buy to Open 1 XYZ 01/17/2015 65.00 Call

If the distance between the two middle strikes (the "body") is greater than the distance to the outer strikes (the "wings"), then the position may be considered to be an "albatross" spread.

The cost to purchase the outer strikes typically exceeds the premium received from selling the inner strikes; therefore, a long condor is typically established as a net debit position.

For use when investor anticipates:

- Neutral outlook
- Little to no movement in security price (e.g. sideways channels)
- Low volatility

Financial Characteristics:

- Maximum Loss: Initial Net Debit paid
- Maximum Gain: Difference between middle strike price and outer strike price, less net debit
- Loses value with time

Objective:

• Gain from correctly predicting price range at expiration

EXAMPLE - Long Condor

Assume it is June 26th, 2014, and Rachael, an options trader, has identified XYZ as a stock that she believes will trade within a relatively confined range over the next month. Therefore, Rachael decides that a Long Condor is an appropriate strategy given her neutral outlook. XYZ is currently trading at \$85.41 and she believes, over the next month or so, the stock will trade within a range of approximately \$85.00-\$88.00. Therefore, Rachael decides that the 85.00 and 87.50 Calls are appropriate middle strike prices. In addition, since the distance between these two strikes is \$2.50, she feels that the 82.50 and 90.00 strike prices are appropriate outer strike prices. Lastly, Rachael selects the July expiration since it is 24 days away, which is in-line with her timing forecast.

	Strikes	Symbol	Last Trade	Change	Bid	Ask	Delta	Theta	IV
V	Calls Jul 19, 2	014 (24 days)							
>	80.00	07/19/2014 80.00 C			5.10	5.55	0.8354	-0.0207	24.1549
	82.50	07/19/2014 82.50 C	2.97	+0.14	2.84	2.97	0.7508	-0.0182	16.6483
>	85.00	07/19/2014 85.00 C	1.24	+0.11	1.21	1.25	0.4894	-0.0234	14.9510
>	87.50	07/19/2014 87.50 C	0.50	+0.08	0.42	0.45	0.2263	-0.0195	15.5271
<u> </u>	90.00	07/19/2014 90.00 C	0.19	+0.01	0.18	0.20	0.1039	-0.0139	17.9003
>	92.50	07/19/2014 92.50 C			0.06	0.11	0.0480	-0.0087	19.9088

Source: StreetSmart Edge

Trade Setup

Here is the breakdown for Rachael's setup and trade:

- Current XYZ Price = \$85.41
- Current Ask Price, XYZ 07/19/2014 82.50 Call = \$2.97
- Current Bid Price, XYZ 07/19/2014 85.00 Call = \$1.21
- Current Bid Price, XYZ 07/19/2014 87.50 Call = \$0.42
- Current Ask Price, XYZ 07/19/2014 90.00 Call = \$0.20
- Rachael's Trade:
 - Buy to Open 1 XYZ 07/19/2014 82.50 Call @ \$2.97
 - Sell to Open 1 XYZ 07/19/2014 85.00 Call @ \$1.21
 - Sell to Open 1 XYZ 07/19/2014 87.50 Call @ \$0.42
 - Buy to Open 1 XYZ 07/19/2014 90.00 Call @ \$0.20
 - Net Debit = \$2.97 \$1.21 \$0.42 + \$0.20 = \$1.54

The Profit/Loss profile for this trade is as follows:

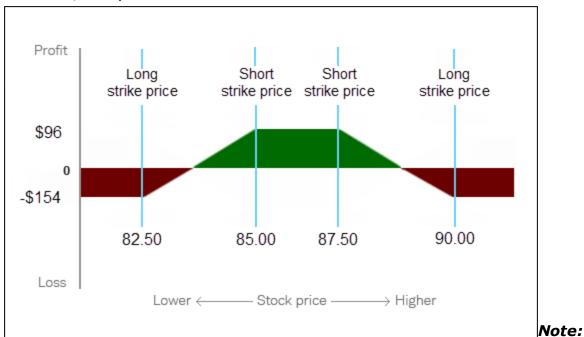


Chart depicts strategy at expiration

- Maximum Gain = (\$85.00 \$82.50) 1.54= \$0.96
- Maximum Loss = \$1.54
- Lower Break-Even = Lowest Strike Price + Net Debit = \$82.50 + \$1.54= \$84.04
- Upper Break-Even = Highest Strike Price Net Debit = \$90.00 \$1.54 = \$88.46

<u>Note:</u> commissions have been excluded to simplify the calculations. Short options can be assigned at any time and therefore option sellers assume the risk of assignment at any point up until and including expiration.

Short Condor (Calls)

A short condor using calls can be considered a combination of an in-the-money bear call spread, and an out-of-the-money bull call spread. It is created by purchasing a lower strike Call, selling a lower-middle strike Call, selling a higher-middle strike Call, and purchasing a consecutively higher strike Call, all with the same expiration date. The two middle strikes are typically positioned around the current price of the underlying stock. In order to be considered a standard condor, the 4 strike prices involved should be equidistant.

Example:

- Sell to Open 1 XYZ 01/17/2015 90.00 Call
- Buy to Open 1 XYZ 01/17/2015 95.00 Call
- Buy to Open 1 XYZ 01/17/2015 100.00 Call
- Sell to Open 1 XYZ 01/17/2015 105.00 Call

If the distance between the two middle strikes (the "body") is greater than the distance to the outer strikes (the "wings"), then the position may be considered to be an "albatross" spread.

The cost to purchase the outer strikes typically exceeds the premium received from selling the inner strikes; therefore, a long condor is typically established as a net debit position.

For use when investor anticipates:

- Significant movement in security price (in either direction)
- Higher volatility

Financial Characteristics:

- Maximum Loss: Difference between lowest strike price and next highest strike price, less net credit
- · Maximum Gain: Initial net credit received

Objective:

 Gain from significant change in price of the underlying security (either up or down) by expiration

EXAMPLE - Short Condor

Assume it is June 4th, 2014, and Steve, an options trader, has identified XYZ as a stock that he believes will make either a sharp move higher or lower over the next month. Therefore, Steve decides that a Short Condor is an appropriate strategy, given his outlook and the limited risk that the strategy offers. XYZ is currently trading at \$65.98, and Steve decides that the 65.00 and 67.50 strike Calls are appropriate middle strike, since he feels the stock price will move away from these levels. In addition, he is comfortable with selecting 62.50 and 70.00 for the outer strike prices, since he feels confident that the price of XYZ will either be below \$62.50 or above \$70.00 over the near-term. Lastly, Steve selects the July expiration; it is 46 days away, which he feels will allow enough time for XYZ to make the anticipated move.

	Strikes	Symbol	Last Trade	Change	Bid	Ask	Delta	Theta	IV	
∇	Calls Jul 19, 2	014 (46 days)								•
>	55.00	07/19/2014 55.00 C	8.70	+0.05	8.35	8.60	0.8629	-0.0195	36.6456	
>	57.50	07/19/2014 57.50 C	6.40	-0.15	6.35	6.50	0.7809	-0.0253	35.3087	Н
>	60.00	07/19/2014 60.00 C	4.71	-0.09	4.60	4.65	0.6723	-0.0300	34.1690	
>	62.50	07/19/2014 62.50 C	3.15	-0.20	3.10	3.20	0.5435	-0.0321	33.3631	
>	65.00	07/19/2014 65.00 C	2.03	-0.11	2.02	2.04	0.4102	-0.0310	32.8605	
>	67.50	07/19/2014 67.50 C	1.23	-0.11	1.22	1.24	0.2880	-0.0269	32.4362	
>	70.00	07/19/2014 70.00 C	0.71	-0.07	0.70	0.72	0.1892	-0.0212	32.2435	
<u> </u>	72.50	07/19/2014 72.50 C	0.42	-0.02	0.38	0.41	0.1176	-0.0154	32.2481	
▽	Calls Aug 16,	2014 (74 days)								v

Source: StreetSmart Edge

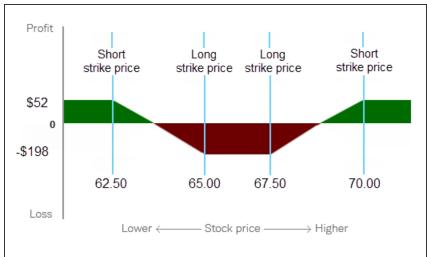
Trade Setup

Here is the breakdown for Steve's setup and trade:

- Current XYZ Price = \$65.98
- Current Bid Price, XYZ 07/19/2014 62.50 Call = \$3.10
- Current Ask Price, XYZ 07/19/2014 65.00 Call = \$2.04
- Current Ask Price, XYZ 07/19/2014 67.50 Call = \$1.24
- Current Bid Price, XYZ 07/19/2014 70.00 Call = \$0.70
- Steve's Trade:
 - Sell to Open 1 XYZ 07/19/2014 62.50 Call @ \$3.10
 - Buy to Open 1 XYZ 07/19/2014 65.00 Call @ \$2.04

- Buy to Open 1 XYZ 07/19/2014 87.50 Call @ \$1.24
- Sell to Open 1 XYZ 07/19/2014 90.00 Call @ \$0.70
- Net Credit = \$3.10 \$2.04 \$1.24 + \$0.70 = \$0.52

The Profit/Loss profile for this trade is as follows:



Note: Chart depicts

strategy at expiration

- Maximum Gain = \$0.52
- Maximum Loss = (\$65.00 \$62.50) \$0.52 = \$1.98
- Lower Break-Even = Lowest Strike Price + Net Credit = \$62.50 + \$0.52= \$63.02
- Upper Break-Even = Highest Strike Price Net Credit = \$70.00 \$0.52 = \$69.48

<u>Note:</u> commissions have been excluded to simplify the calculations. Short options can be assigned at any time and therefore option sellers assume the risk of assignment at any point up until and including expiration.

Commissions, taxes, and transaction costs are not included in any of these strategy discussions, but can affect final outcome and should be considered. Please contact a tax advisor to discuss the tax implications of these strategies. Many of the strategies described herein require the use of a margin account.

Qualified Spreads

With a Qualified Spread, the purchased option is required to expire on the same or later expiration date than the option sold. When there is more than one possible way to pair available options in your Account, Schwab has the discretion to

determine the spread pairings. Schwab may pair options in a manner that does not produce the lowest possible margin requirements.

<u>Note:</u> For butterfly and condor spreads, each option leg must have the same expiration date to qualify as those types of spreads.

Options carry a high level of risk and are not suitable for all investors. Certain requirements must be met to trade options through Schwab. Multiple leg options strategies will involve multiple commissions. Please read the options disclosure document titled "Characteristics and Risks of Standardized Options." Member SIPC

Iron Butterfly

A long iron butterfly strategy combines a call spread and a put spread; it involves two call legs and two put legs, all with the same expiration date, generally with consistent distances between the 3 strike prices. The strategy gets its name from its 3-part structure, involving the two outer strikes (or "wings") and the middle strike (representing the "body").

Long Iron Butterfly

A long iron butterfly is created by selling a lower strike Put, purchasing both a higher strike Put and Call (middle Put and Call have matching strikes), and selling a consecutively higher strike Call. In order to be considered a standard iron butterfly, the 3 strike prices involved should be equidistant.

Example:

- Sell to Open 1 XYZ 01/17/2015 25.00 Put
- Buy to Open 1 XYZ 01/17/2015 27.50 Put
- Buy to Open 1 XYZ 01/17/2015 27.50 Call
- Sell to Open 1 XYZ 01/17/2015 30.00 Call

If the strike prices are not equidistant from each other, the butterfly is considered to be a "broken wing" butterfly.

The cost to purchase the middle strike Call and Put typically exceeds the premium received from selling the outer strike Call and Put; therefore, a long iron butterfly is typically established as a net debit position.

For use when investor anticipates:

- Significant movement in security price (in either direction)
- Higher volatility

Financial Characteristics:

 Maximum Loss: Difference between middle strike price and outer strike price, less net credit

Maximum Gain: Initial net credit received

Objective:

 Gain from significant change in price of the underlying security (either up or down) by expiration

EXAMPLE - Long Iron Butterfly

Assume it is July 17th, 2014, and John, an options trader, has identified XYZ as a stock he believes will make a sharp move, either higher or lower, over the next month. Therefore, he decides that a Long Iron Butterfly is an appropriate strategy, given his outlook and the limited risk that the strategy offers. XYZ is currently trading at \$34.43, and John decides that 34.00 is an appropriate middle strike; it is around the money and John's outlook is slightly more bearish than bullish. In addition, John feels that the 32.00 and 36.00 strike prices create an appropriate "wingspan," since he feels that the underlying price will either be below \$32.00 or above \$36.00 at expiration. Lastly, John selects the August expiration, as it is 30 days away, which is right in line with his timing forecast.

	Strikes	Symbol	Last Trade	Change	Bid	Ask	Delta	Gamma	Theta					
V	Calls Aug 1	Calls Aug 16, 2014 (30 days)												
>	32.00	08/16/2014 32.00 C	2.65	-0.24	2.46	2.66	0.8548	0.0943	-0.0076					
<u></u>	33.00	08/16/2014 33.00 C	1.70	-0.41	1.70	1.78	0.7420	0.1417	-0.0109					
>	34.00	08/16/2014 34.00 C	1.05	-0.24	1.04	1.07	0.5814	0.1810	-0.0130					
>	35.00	08/16/2014 35.00 C	0.53	-0.18	0.55	0.57	0.3940	0.1851	-0.0126					
>	36.00	08/16/2014 36.00 C	0.27	-0.07	0.26	0.28	0.2305	0.1466	-0.0101					
>	37.00	08/16/2014 37.00 C	0.14	-0.03	0.11	0.14	0.1224	0.0956	-0.0070					
V	Puts Aug 1	6, 2014 (30 days)												
>	32.00	08/16/2014 32.00 P	0.12	+0.02	0.11	0.14	-0.1168	0.0922	-0.0072					
>	33.00	08/16/2014 33.00 P	0.30	+0.09	0.28	0.30	-0.2355	0.1507	-0.0109					
<u>></u>	34.00	08/16/2014 34.00 P	0.60	+0.14	0.58	0.60	-0.4103	0.2013	-0.0132					
<u>></u>	35.00	08/16/2014 35.00 P	1.13	+0.25	1.08	1.14	-0.6169	0.2018	-0.0131					
>	36.00	08/16/2014 36.00 P	1.79	+0.34	1.76	1.90	-0.7945	0.1522	-0.0102					
<u> </u>	37.00	08/16/2014 37.00 P			2.47	2.79	-0.9806	0.0368	-0.0026					

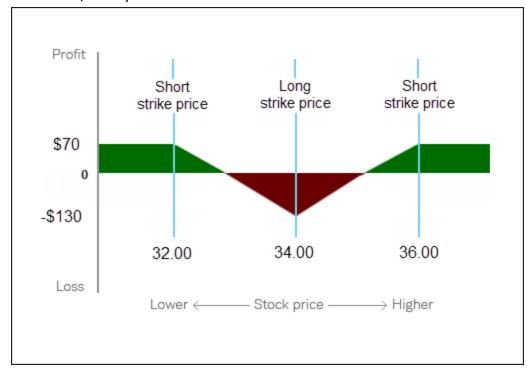
Source: StreetSmart Edge

Trade Setup

Here is the breakdown for John's setup and trade:

- Current XYZ Price = \$34.43
- Current Bid Price, XYZ 08/16/2014 32.00 Put = \$0.11
- Current Ask Price, XYZ 08/16/2014 34.00 Put = \$0.60
- Current Ask Price, XYZ 08/16/2014 34.00 Call = \$1.07
- Current Bid Price, XYZ 08/16/2014 36.00 Call = \$0.26
- John's Trade:
 - Sell to Open 1 XYZ 08/16/2014 32.00 Put @ \$0.11
 - Buy to Open 1 XYZ 08/16/2014 34.00 Put @ \$0.60
 - Buy to Open 1 XYZ 08/16/2014 34.00 Call @ \$1.07
 - Sell to Open 1 XYZ 08/16/2014 36.00 Call @ \$0.26
 - Net Debit = -\$0.11 + \$0.60 + \$1.07 \$0.26 = \$1.30

The Profit/Loss profile for this trade is as follows:



Note: Chart depicts strategy at expiration

- Maximum Gain = (\$34.00 \$32.00) \$1.30 = \$0.70
- Maximum Loss = \$1.30

- Lower Break-Even = Middle Strike Price Net Debit = \$34.00 \$1.30 = \$32.70
- Upper Break-Even = Middle Strike Price + Net Debit = \$34.00 + \$1.30 = \$35.30

<u>Note:</u> Commissions have been excluded to simplify the calculations. Short options can be assigned at any time and therefore option sellers assume the risk of assignment at any point up until and including expiration.

Commissions, taxes, and transaction costs are not included in any of these strategy discussions, but can affect final outcome and should be considered. Please contact a tax advisor to discuss the tax implications of these strategies. Many of the strategies described herein require the use of a margin account.

Qualified Spreads

With a Qualified Spread, the purchased option is required to expire on the same or later expiration date than the option sold. When there is more than one possible way to pair available options in your Account, Schwab has the discretion to determine the spread pairings. Schwab may pair options in a manner that does not produce the lowest possible margin requirements.

<u>Note:</u> For butterfly and condor spreads, each option leg must have the same expiration date to qualify as those types of spreads.

Options carry a high level of risk and are not suitable for all investors. Certain requirements must be met to trade options through Schwab. Multiple leg options strategies will involve multiple commissions. Please read the options disclosure document titled "Characteristics and Risks of Standardized Options." Member <u>SIPC</u>

Iron Condor

An iron condor strategy combines a call spread and a put spread; it involves two call legs and two put legs, all with the same expiration date, generally with consistent distances between strike prices. The strategy gets its name from its 4-part structure, involving the two outer strikes (or "wings") and two inner strikes (representing the "body"). The two inner strikes are typically positioned around the current price of the underlying stock.

Long Iron Condor

A long iron condor is created by selling a lower strike Put, purchasing a higher strike Put, purchasing an even higher strike Call, and selling a consecutively higher strike Call, all with the same expiration date. The two middle strikes are typically positioned around the current price of the underlying stock. In order to

be considered a standard condor, the four strike prices involved should be equidistant.

Example:

- Sell to Open 1 XYZ 01/17/2015 40.00 Put
- Buy to Open 1 XYZ 01/17/2015 42.50 Put
- Buy to Open 1 XYZ 01/17/2015 45.00 Call
- Sell to Open 1 XYZ 01/17/2015 47.50 Call

If the distance between the two middle strikes (the "body") is greater than the distance to the outer strikes (the "wings"), then the position may be considered to be an "albatross" spread.

The cost to purchase the inner strikes typically exceeds the premium received from selling the outer strikes; therefore, a long iron condor is typically established as a net debit position.

For use when investor anticipates:

- Significant movement in security price (in either direction)
- Higher volatility

Financial Characteristics:

- Maximum Loss: Initial net debit paid
- Maximum Gain: Difference between the long put strike price and short put strike price, less the net debit paid

Objective:

 Gain from significant change in price of the underlying security (either up or down) by expiration

EXAMPLE - Long Iron Condor

Assume it is August 1st, 2014, and Michelle, an options trader, has identified XYZ as a stock she believes will make a sharp move, either higher or lower, over the next month and a half. Therefore, she decides a Long Iron Condor is an appropriate strategy, given her outlook and the limited risk that the strategy offers. XYZ is currently trading at \$27.98, and Michelle decides that the 27.50 strike Put and 30.00 strike Call are appropriate middle strikes. In addition, she feels that the 32.50 strike Call and 25.00 strike Put are acceptable strikes, as she believes the underlying price will either be below \$25.00 or above \$32.50 at expiration.

Lastly, Michelle selects the September expiration; it is 50 days away which is in line with her timing forecast.

	Strikes	Symbol	Last Trade	Change	Bid	Ask	Delta	Theta	IV					
▽	Calls Sep 20, 2014 (50 days)													
>	22.50	09/20/2014 22.50 C			5.30	5.70	0.8704	-0.0116	53.7416					
>	25.00	09/20/2014 25.00 C	4.70		3.30	3.50	0.7464	-0.0152	46.4854					
>	27.50	09/20/2014 27.50 C	1.85		1.70	1.85	0.5414	-0.0172	42.2962					
>	30.00	09/20/2014 30.00 C	0.85	-1.55	0.75	0.85	0.3186	-0.0149	40.9703					
>	32.50	09/20/2014 32.50 C	0.40	-0.50	0.30	0.45	0.1715	-0.0112	42.8733					
>	35.00	09/20/2014 35.00 C	0.25	-0.30	0.10	0.25	0.0885	-0.0073	44.7178					
▽	Puts Sep 20, 2	2014 (50 days)												
>	22.50	09/20/2014 22.50 P			0.20	0.35	-0.1077	-0.0091	48.1020					
>	25.00	09/20/2014 25.00 P	0.70	+0.45	0.65	0.80	-0.2440	-0.0140	43.6487					
>	27.50	09/20/2014 27.50 P	1.60	+0.80	1.55	1.70	-0.4601	-0.0167	41.2128					
>	30.00	09/20/2014 30.00 P	2.93	+1.23	3.00	3.30	-0.6893	-0.0143	39.6997					
>	32.50	09/20/2014 32.50 P	4.90	+1.70	5.10	5.30	-0.8486	-0.0096	39.9716					
>	35.00	09/20/2014 35.00 P			7.40	7.60	-0.9390	-0.0049	39.6164					
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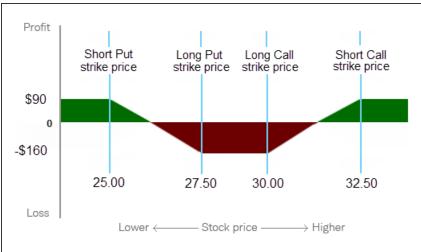
Source: StreetSmart Edge

Trade Setup

Here is the breakdown for Michelle's setup and trade:

- Current XYZ Price = \$27.98
- Current Bid Price, XYZ 09/20/2014 25.00 Put = \$0.65
- Current Ask Price, XYZ 09/20/2014 27.50 Put = \$1.70
- Current Ask Price, XYZ 09/20/2014 30.00 Call = \$0.85
- Current Bid Price, XYZ 09/20/2014 32.50 Call = \$0.30
- Michelle's Trade:
 - Sell to Open 1 XYZ 09/20/2014 25.00 Put @ \$0.65
 - Buy to Open 1 XYZ 09/20/2014 27.50 Put @ \$1.70
 - Buy to Open 1 XYZ 09/20/2014 30.00 Call @ \$0.85
 - Sell to Open 1 XYZ 09/20/2014 32.50 Call @ \$0.30
 - Net Debit = -\$0.65 + \$1.70 + \$0.85 \$0.30 = \$1.60

The Profit/Loss profile for this trade is as follows:



Note: Chart depicts

strategy at expiration

- Maximum Gain = (\$27.50 \$25.00) 1.60= \$0.90
- Maximum Loss = \$1.60
- Lower Break-Even = Long Put Strike Price Net Debit = \$27.50 \$1.60= \$25.90
- Upper Break-Even = Long Call Strike Price + Net Debit = \$30.00 + \$1.60 = \$31.60

<u>Note:</u> commissions have been excluded to simplify the calculations. Short options can be assigned at any time and therefore option sellers assume the risk of assignment at any point up until and including expiration.

Commissions, taxes, and transaction costs are not included in any of these strategy discussions, but can affect final outcome and should be considered. Please contact a tax advisor to discuss the tax implications of these strategies. Many of the strategies described herein require the use of a margin account.

Qualified Spreads

With a Qualified Spread, the purchased option is required to expire on the same or later expiration date than the option sold. When there is more than one possible way to pair available options in your Account, Schwab has the discretion to determine the spread pairings. Schwab may pair options in a manner that does not produce the lowest possible margin requirements.

<u>Note:</u> For butterfly and condor spreads, each option leg must have the same expiration date to qualify as those types of spreads.

Options carry a high level of risk and are not suitable for all investors. Certain requirements must be met to trade options through Schwab. Multiple leg options strategies will involve multiple commissions. Please read the options disclosure document titled "Characteristics and Risks of Standardized Options." Member SIPC

Ratio Spreads

A strategy consisting of simultaneously buying and selling an unequal number of option contracts with different Strike prices but with the same underlying security, type (long and short call options, or long and short put options), and expiration date. When a ratio spread has more short options than long options, simply called a "ratio spread", it has substantial or unlimited risk of losses. In a "ratio back spread", the long side has the higher number of contracts and the risk is limited. Ratio spreads may be opened at a credit or debit, and may have a bullish, bearish, neutral, or dual nature.

Bull Call Ratio Spread

This strategy requires the investor to purchase call options at a particular strike price and sell a greater number of higher strike calls, with the same underlying and expiration date. Thanks to the extra short calls it is often opened at a small debit to slight credit. This strategy is often used when one is slightly bullish. A bull call ratio spread delivers maximum profit when the stock trades at the higher strike price at expiration.

For use when investor anticipates:

- Moderately rising price of underlying security (if short calls out-of-themoney at open)
- Decreasing volatility

Financial Characteristics:

- Maximum Loss: Unlimited
- Maximum Gain: (S_{High} S_{Low}) * number of long contracts, net against cost / credit of establishing spread

Objective:

Speculative gain

EXAMPLE (Call Ratio Spread)

Currently, XYZ trades at \$23/share. The investor believes the stock will mildly appreciate and wants to participate in the upward movement but at a discount to the cost of simply buying calls. Instead, the investor employs a call ratio spread strategy of buying one in-the-money call (strike \$20) for \$4.00 and selling two same expiration month, out-of-the-money calls (strike \$25) at \$1.00 per, for a

net debit of \$2.00. Using this strategy, the maximum loss is unlimited if the stock price is above \$25 (or, the maximum loss is \$2, if the stock price is at or below \$20). The investor will profit if the stock is between \$22 and \$28 at expiration. The maximum profit an investor can receive is the difference of the strike prices less the cost of the position, or \$3 in this example.

Bear Put Ratio Spread

This strategy requires the investor to purchase put options at a particular strike price and sell a greater number of lower strike puts, with the same underlying and expiration date. Thanks to the extra short puts it is often opened at a small debit to slight credit. This strategy is often used when one is slightly bearish. A bear put ratio spread delivers maximum profit when the stock trades at the lower strike price at expiration.

For use when investor anticipates:

- Moderately falling price of underlying security (if short puts out-of-themoney at open)
- Decreasing volatility

Financial Characteristics:

- Maximum Loss: (S_{Low} * (number of short contracts number of long contracts) difference in strikes * long contracts) net against cost / credit of establishing spread*
- Maximum Gain: Difference of the strike prices net against cost / credit of establishing spread
- * The maximum loss on a put ratio spread position remains limited as long as, and only as long as, the integrity of the spread is maintained. If the investor trades out of or exercises the long put, the maximum loss may be substantially larger.

Objective:

Speculative gain

EXAMPLE (Put Ratio Spread)

Currently, XYZ trades at \$23/share. The investor believes the stock will mildly depreciate and wants to participate in the downward movement but at a discount to the cost of simply buying puts. Instead, the investor employs a put ratio spread strategy of buying one in-the-money put (strike \$25) for \$3.00 and selling two same expiration month, out-of-the-money puts (strike \$20) at \$1.00 per, for a net debit of \$1.00. Using this strategy, the maximum loss is \$16.00 (or, if the stock price is at or above \$25, the maximum loss is \$1). The investor will profit if the stock is between \$16 and \$24 at expiration. The maximum profit an

investor can receive is the difference of the strike prices less the cost of the position, or \$4 in this example.

Call Ratio Back Spread

This strategy requires the investor to purchase call options at a particular strike price and sell a fewer number of lower strike calls, with the same underlying and expiration date. Thanks to the extra number of long contracts it is possible to make greater profits than with a traditional vertical bull spread. It is often opened at a small debit to slight credit. This strategy is often used when one is very bullish. And if the call ratio back spread is opened at a credit, in addition to potential profits in a very bullish market, a small profit may result if the market is bearish enough. A call ratio back spread delivers a theoretical maximum profit when the stock appreciates to infinity, and risk is limited. This strategy often performs most poorly in a moderately appreciating market.

For use when investor anticipates:

- Dramatically rising price of underlying security
- Bearish market for price of underlying security (if opened at a net credit)
- Increasing volatility

Financial Characteristics:

- Maximum Loss: (S_{High} S_{Low}) * number of short contracts, net against cost / credit of establishing spread*
- Maximum Gain: Unlimited

Objective:

· Speculative gain

EXAMPLE (Call Ratio Back Spread)

Currently, XYZ trades at \$23/share. The investor believes the stock will either appreciate dramatically or depreciate and wants to profit. Limiting risk is also a goal. So the investor employs a call ratio back spread strategy of buying two out-of-the-money calls (strike \$25) for \$1.50 per (= \$3.00), and selling one same expiration month, in-the-money call (strike \$20) at \$4.00 for a net credit of \$1.00. Using this strategy, the maximum loss is \$4.00. The investor will profit if the stock is either above \$29.00 or below \$21 at expiration. The maximum profit an investor can receive in this example is unlimited (XYZ at infinity) or \$1 (XYZ at or below \$20.00), the maximum loss is \$4 (XYZ at \$25.00).

^{*} The maximum loss on a call ratio back spread position remains as long as, and only as long as, the integrity of the spread is maintained. If the investor trades out of or exercises the low-strike call, the maximum loss may be larger or unlimited.

Put Ratio Back Spread

This strategy requires the investor to purchase put options at a particular strike price and sell a fewer number of higher strike puts, with the same underlying and expiration date. Thanks to the extra number of long contracts it is possible to make greater profits than with a traditional vertical bear spread. It is often opened at a small debit to slight credit. This strategy is often used when one is very bearish. And if the put ratio back spread is opened at a credit, in addition to potential profits in a very bearish market, a small profit may result if the underlying security rises enough. A put ratio back spread delivers maximum profit when the stock declines to zero and risk is limited. This strategy often performs most poorly in a moderately declining market in the underlying security.

For use when investor anticipates:

- Dramatically falling market in the underlying security
- Bullish market in the underlying security (if opened at a net credit)
- Increasing volatility

Financial Characteristics:

- Maximum Loss: (S_{High} S_{Low}) * number of short contracts, net against cost / credit of establishing spread*
- Maximum Gain: (S_{High} * # of long contracts) (S_{Low} * # of short contracts), net against cost / credit of establishing spread
- * The maximum loss on a put ratio back spread position remains limited as long as, and only as long as, the integrity of the spread is maintained. If the investor trades out of or exercises the long put, the maximum loss may be significantly larger.

Objective:

Speculative gain

EXAMPLE (Put Ratio Back Spread)

Currently, XYZ trades at \$23/share. The investor believes the stock will either depreciate dramatically or appreciate and wants to profit. Limiting risk is also a goal. So the investor employs a put ratio back spread strategy of buying two out-of-the-money puts (strike \$20) for \$1.00 per (= \$2.00), and selling one same expiration month, in-the-money put (strike \$25) at \$3.00 for a net credit of \$1.00. Using this strategy, the maximum loss is \$4.00 (XYZ at \$20.00). The investor will profit if the stock is either below \$16.00 or above \$24 at expiration. The maximum profit an investor can receive in this example is \$16 (XYZ at zero). If XYZ is at or above \$25.00, the profit is limited to the \$1.00 credit received from establishing the spread.

Commissions, taxes, and transaction costs are not included in any of these strategy discussions, but can affect final outcome and should be considered. Please contact a tax advisor to discuss the tax implications of these strategies. Many of the strategies described herein require the use of a margin account. With long options, investors may lose 100% of funds invested. In-the-money long puts need to be closed out prior to expiration, since exercising them could create short stock positions.

Options carry a high level of risk and are not suitable for all investors. Certain requirements must be met to trade options through Schwab. Multiple leg options strategies will involve multiple commissions. Spread trading must be done in a margin account. Please read the options disclosure document titled "Characteristics and Risks of Standardized Options."

Vertical Call Spreads

A strategy consisting of the purchase of a call option with one expiration date and strike price and the simultaneous sale of another call with the same expiration date, but a different strike price. Depending on whether the purchased call has a higher or lower strike than the sold call, a vertical call spread can generally be profitable if the underlying stock or index rises (a bull vertical call spread) or falls (a bear vertical call spread) sufficiently.

Bull Vertical Call Spread

A Bull Spread strategy may allow an investor to profit from upward movements in the underlying security. The technique requires the investor to purchase atthe-money or in-the-money calls at a particular strike price and sell out-of-the-money calls at a higher strike price with the same expiration date. The cost of purchasing the call option will be partly offset by the premium received for the sale of the out-of-the-money call. This strategy is often termed a debit spread because of the net capital outlay that is required. A Bull Spread delivers maximum profit when the stock trades at or above the higher strike price at expiration.

For use when investor anticipates:

Rising market/Security appreciation

Financial Characteristics:

- Maximum Loss: Net premium outlay*
- Maximum Gain: The difference of the strike prices less the cost of establishing the spread

Objective*:

Speculative gain

*The maximum loss on a spread position remains limited to premium outlay as long as, and only as long as, the integrity of the spread is maintained. If the investor trades out of or exercises the low-strike call, the maximum loss is no longer limited to the premium outlay.

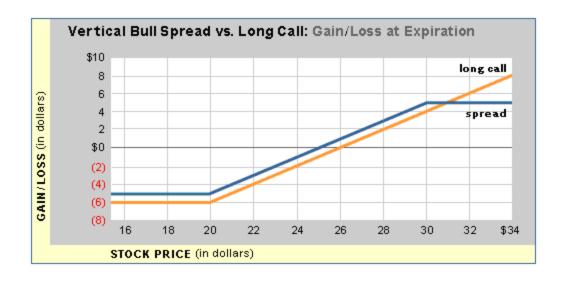
EXAMPLE - Bull Vertical Call Spread

Currently, XYZ trades at \$25/share. The investor believes the stock will appreciate and wants to participate in the upward movement, but does not want to simply buy calls because of the expense/risk involved. Instead, the investor employs the spread strategy buying an in-the-money call (strike \$20) for \$6.00/share and selling an out-of-the-money call (strike \$30) for \$1.00/share. Using this strategy, the maximum loss is the difference between the premiums paid and the premiums received (\$5 or \$500). The maximum profit an investor can receive is the difference of the strike prices less the cost of the position. The breakeven price of 25 is calculated by adding the net debit of the spread to the strike price of the long option.



As can be seen from the following chart and table, the investor who buys the spread rather than simply investing in the call reduces his maximum loss by 1/6th, breaks even at \$25 instead of \$26, and only loses out to the call buyer if the stock price rises above 31 (at which point he would have a 100% return on his investment).

Spread vs. Long Call



Stock Price		% Change of Stock	Point (+/-)		Long Call Gain/Loss		Short Call Gain/Loss		Spread Gain/Loss at Expiration		Spread Gain/Loss		Long Call Total Gain/Loss	
\$	16	-36%	\$	(9.00)	\$	(6.00)	\$	1.00	\$	(5.00)	\$	(500.00)	\$	(600.00)
\$	17	-32%	\$	(8.00)	\$	(6.00)	\$	1.00	\$	(5.00)	\$	(500.00)	\$	(600.00)
\$	18	-28%	\$	(7.00)	\$	(6.00)	\$	1.00	\$	(5.00)	\$	(500.00)	\$	(600.00)
\$	19	-24%	\$	(6.00)	\$	(6.00)	\$	1.00	\$	(5.00)	\$	(500.00)	\$	(600.00)
\$	20	-20%	\$	(5.00)	\$	(6.00)	\$	1.00	\$	(5.00)	\$	(500.00)	\$	(600.00)
\$	21	-16%	\$	(4.00)	\$	(5.00)	\$	1.00	\$	(4.00)	\$	(400.00)	\$	(500.00)
\$	22	-12%	\$	(3.00)	\$	(4.00)	\$	1.00	\$	(3.00)	\$	(300.00)	\$	(400.00)
\$	23	-8%	\$	(2.00)	\$	(3.00)	\$	1.00	\$	(2.00)	\$	(200.00)	\$	(300.00)
\$	24	-4%	\$	(1.00)	\$	(2.00)	\$	1.00	\$	(1.00)	\$	(100.00)	\$	(200.00)
\$	25	0%	\$	-	\$	(1.00)	\$	1.00	\$	-	\$	-	\$	(100.00)
\$	26	4%	\$	1.00	\$	-	\$	1.00	\$	1.00	\$	100.00	\$	-
\$	27	8%	\$	2.00	\$	1.00	\$	1.00	\$	2.00	\$	200.00	\$	100.00
\$	28	12%	\$	3.00	\$	2.00	\$	1.00	\$	3.00	\$	300.00	\$	200.00
\$	29	16%	\$	4.00	\$	3.00	\$	1.00	\$	4.00	\$	400.00	\$	300.00
\$	30	20%	\$	5.00	\$	4.00	\$	1.00	\$	5.00	\$	500.00	\$	400.00
\$	31	24%	\$	6.00	\$	5.00	\$	-	\$	5.00	\$	500.00	\$	500.00
\$	32	28%	\$	7.00	\$	6.00	\$	(1.00)	\$	5.00	\$	500.00	\$	600.00
\$	33	32%	\$	8.00	\$	7.00	\$	(2.00)	\$	5.00	\$	500.00	\$	700.00
\$	34	36%	\$	9.00	\$	8.00	\$	(3.00)	\$	5.00	\$	500.00	\$	800.00

Bear Vertical Call Spread

In a Bear Call Spread, an investor performs the exact opposite transactions as those used in the Bull Call Spread. Because the investor maintains a negative outlook on the underlying security, he sells in-the-money calls and buys out-of-the-money calls at a higher strike price but sharing the same expiration. This strategy is often termed a credit spread because of the net inflow of capital received when the investor establishes the position. As a result, if the value of the security falls below the strike price of the written call at expiration, the investor will retain the initial amount received to establish the spread. However, if the security increases in value, the investor may suffer a loss. The spread

strategy caps the maximum value of this loss at the difference between the two option strike prices involved in the transaction, less the net premium received when putting on the spread*.

For use when investor anticipates:

Declining market/security depreciation

Financial Characteristics**:

- Maximum Loss: The difference between the strike prices less amount received when establishing the spread*
- Maximum Gain: The net premium received
- Cash credit

Objective*:

Speculative income generation

*The maximum loss on a bear call spread is limited as long as, and only as long as, the integrity of the spread is maintained. If the investor trades out of or exercises the high-strike call, the maximum loss is no longer limited. There is an additional risk associated with the expiration weekend. If the short call is assigned, while the long is not (exercised, for example, the stock finishes between the two strikes) the investor ends up with a short position in the stock. Good news during the weekend could force even greater losses on the investor before he can exit the short equity position.

** A margin account is required

EXAMPLE - Bear Vertical Call Spread

Currently, XYZ trades at \$25/share. The investor believes the stock will fall and wants to earn income but does not want to simply sell calls because of the risk involved. Instead, the investor employs the Bear Spread strategy selling an inthe-money (strike \$20) call for \$6.00/share and buying an out-of-the-money (strike \$30) call for \$1.00/share. Using this strategy, the maximum loss is the difference between the option strikes, less the call premium received (30-20-5=\$5 or \$500)* (see * above). The maximum profit an investor can receive is the premium received from selling the call less the premium paid for the out-of-themoney call (6-1=\$5 or \$500). The breakeven price of 25 is calculated by adding the net credit of the spread, to the strike price of the short option.



Commissions, taxes, and transaction costs are not included in any of these strategy discussions, but can affect final outcome and should be considered. Please contact a tax advisor to discuss the tax implications of these strategies. Many of the strategies described herein require the use of a margin account. With long options, investors may lose 100% of funds invested. In-the-money long puts need to be closed out prior to expiration, since exercising them could create short stock positions.

Options carry a high level of risk and are not suitable for all investors. Certain requirements must be met to trade options through Schwab. Multiple leg options strategies will involve multiple commissions. Spread trading must be done in a margin account. Please read the options disclosure document titled "Characteristics and Risks of Standardized Options."

Vertical Put Spreads

A strategy consisting of the purchase of a put option with one expiration date and strike price and the simultaneous sale of another put with the same expiration date, but a different strike price. Depending on whether the purchased put has a higher or lower strike than the sold put, a vertical put spread can generally be profitable if the underlying stock or index rises (a bull vertical put spread) or falls (a bear vertical put spread) sufficiently.

Bull Vertical Put Spread

Similar to the Bull Call Spread, the Bull Put Spread strategy may allow the investor to profit from an upward movement in the underlying security. To utilize this technique, the investor sells puts at one strike and buys puts at a lower strike that share the same expiration date. The high-strike puts have higher premiums than the low-strike puts. As a result, the investor will receive a net inflow of capital since the price of the options sold exceeds the price of the options purchased. Consequently, bull put spreads are often referred to as 'credit' spreads. To achieve maximum profit, the underlying security price must rise above the strike price of the short (written) put at expiration, rendering both puts worthless.

For use when investor anticipates:

Upward market direction / security appreciation

Financial Characteristics:

- Maximum Loss: The difference between the strike prices less the amount received to establish the spread*
- Maximum Profit: Net premium received

Objective*:

Speculative gain

*The maximum loss on a bull put spread is limited as long as, and only as long as, the integrity of the spread is maintained. If the investor trades out of or exercises the low-strike put, the maximum loss is no longer limited to the premium outlay. There is an additional risk associated with the expiration weekend. If the short put is assigned, while the long is not auto-exercised (because, for example, the stock closes between the two strikes) the investor ends up with a long position in the stock. Bad news during the weekend could force even greater losses on the investor before he can exit the long equity position.

EXAMPLE - Bull Vertical Put Spread

Currently, XYZ trades at \$25/share. The investor employs the spread strategy selling one in-the-money put (Strike \$30) for \$6.00/share and buying one out-of-the-money put (Strike \$20.00) for \$1.00/share. Using this strategy, the investor receives a cash credit of the difference between the premiums received and the premiums paid (6-1=\$5 or \$500) and this is the maximum profit the investor can earn. If the stock rises to \$30.00/share, the long and short put positions expire worthless and the investor keeps the net premium received. The maximum loss is the difference between the option strikes, less the call premium received (30-20-5 = \$5 or \$500) (see * above). The breakeven price of 25 is calculated by subtracting the net credit of the spread from the strike price of the short option.



Bear Vertical Put Spreads

The Bear Put Spread may allow an investor to profit from downward movements in the underlying security. It uses exactly the opposite structure of the Bull Vertical Put Spread and requires the investor to buy a high-strike put and sell a low-strike put (with a lower premium). The sale of the less expensive, out-of-themoney put will partly offset the cost of purchasing the in-the-money put. The maximum the investor can profit is the difference between the strike prices used to create the spread less the cost of establishing the spread. If the security rises in value, the maximum the investor can lose is the difference between the premium paid for the long put and the premium received from the short put.

For use when investor anticipates:

Declining market/security depreciation

Financial Characteristics:

- Maximum Loss: Net premium outlay (Premium Received Premium Paid)*
- Maximum Gain: The difference between the strike prices less the cost of establishing the spread

Objective*:

Speculative gain

*The maximum loss on a spread position remains limited as long as, and only as long as, the integrity of the spread is maintained. [If the investor trades out of or exercises the long put, the maximum loss is no longer limited].

EXAMPLE - Bear Vertical Put Spread

Currently, XYZ trades at \$25/share. The investor believes the stock will fall and wants to participate in the downward movement but does not want to simply buy puts because of the expense/risk involved. Instead, the investor employs a spread strategy buying an in-the-money put (strike \$30) for \$6.00/contract and selling an out-of-the-money put (strike \$20) for \$1.00/contract. Using this strategy, the maximum loss is the difference between the premiums paid and the premium received* (6-1=\$5 or \$500). The maximum profit an investor can receive is the difference between the strike prices of the options used to create the position less the cost to establish the spread (30-20-5=\$5 or \$500). In this example, the strategy breaks even at \$25.00/share. The breakeven price of 25 is calculated by subtracting the net debit of the spread from the strike price of the long option.



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Options carry a high level of risk and are not suitable for all investors. Certain requirements must be met to trade options through Schwab. Multiple leg options strategies will involve multiple commissions. Spread trading must be done in a margin account. Please read the options disclosure document titled "Characteristics and Risks of Standardized Options."

Calendar Spreads

The most common form of calendar spread involves the purchase of a longer-term option and the sale of an equal number of shorter-term options of the same type and strike. Most spreads, (with the exception of spreads on underlying securities with very high carrying costs) will initially be placed for a debit because of the greater time value of the longer-term options. This strategy can potentially be used to generate income and/or to reduce/increase the cost basis of an eventual stock purchase/sale. Using calls, this strategy has similarities with covered call writing / buy-writes.

For use when investor anticipates:

- Slowly rising or flat market
- Price of the underlying security to be slightly below the strike at short option's expiration

Financial Characteristics:

• Maximum Loss: Net Premium Paid. In addition, client may have to exit the long early (via sale or exercise) to cover an assignment on the short, losing

the opportunity for further gains

- Maximum Gain: Unlimited, once the short option expires. If the short call is assigned on or before expiration, the client will have a short position whose losses, should the stock price rise, will outweigh any gains made on the long option
- Ideally, the cost basis of the long call is eventually reduced to zero, and the investor begins to get paid to hold his long position

Objectives:

- Generate income from the short positions
- Benefit from the greater rate of time decay of short-term options vs. longerterm options
- Potentially realize any gains from a movement in the underlying security after the near-term option expires

EXAMPLE - Calendar Spread

An investor feels that stock XYZ, which is trading at 60, will trade at this price for at least the next 3 weeks, and then might rally. The investor could sell the June 65 Calls (trading at 2.10), and buy the July 65 Calls (trading at 4.10). The net debit to the account would be 2, or \$200. If XYZ is below 65 at June expiration, the short expires worthless, leaving the investor with a simple long position in the July 65 Calls that he can maintain, simply sell, or spread off with other July options. The short-term breakeven price cannot be calculated exactly. The long-term breakeven price (after the June expiration) is calculated by adding the net debit of the spread to the strike price of the long option.

Commissions, taxes, and transaction costs are not included in any of these strategy discussions, but can affect final outcome and should be considered. Please contact a tax advisor to discuss the tax implications of these strategies. Many of the strategies described herein require the use of a margin account. With long options, investors may lose 100% of funds invested. In-the-money long puts need to be closed out prior to expiration, since exercising them could create short stock positions.

Options carry a high level of risk and are not suitable for all investors. Certain requirements must be met to trade options through Schwab. Multiple leg options strategies will involve multiple commissions. Spread trading must be done in a margin account. Please read the options disclosure document titled "Characteristics and Risks of Standardized Options."

Custom Multi-Leg Option Orders

Custom multi-leg option orders allow you to manually input up to four-legged options strategies not specifically supported in any of the other Options

strategies.

Conditional Orders

Conditional Orders

Conditional Orders enable you to set up equity and option orders that will only fire if the conditions you specify are met. They can be used to help you manage risk on open positions or be opportunistic in getting into positions when market conditions are favorable.

Get more information by visiting <u>StreetSmart Edge™ Quick References</u> in the Quick Reference Guide.

⚠ The conditions portion of a Conditional Order is set up the same way as Alerts, and it's critical to have a strong understanding of setting up conditions. Setting a Conditional Order incorrectly can have monetary implications if your order triggers incorrectly. It is recommended that if you are new to StreetSmart alerts, you learn about setting up conditions using the Alerts feature in the Account Details tool.

Getting Started

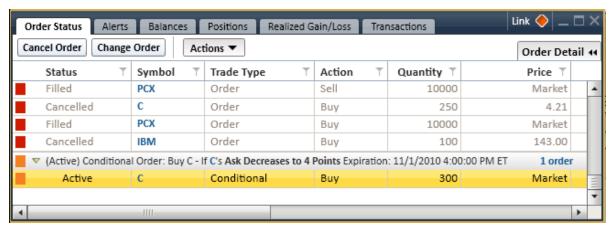
Before setting Conditional Orders, please read the <u>Conditional Order Guidelines</u> for important information regarding conditional order behaviors you should be aware of.

Placing Conditional Orders

- Set up Conditional Orders either from the <u>Trade tool</u> or from the <u>Symbol Hub</u> by clicking the **Conditional Orders** tab at the top of either window, or from the <u>All in One tool</u> by either clicking the Conditional Orders tab or creating a Conditional Orders tab.
- See <u>Placing Conditional Orders</u> for instructions on setting up conditional orders.
- See <u>Conditional Order Templates</u> to learn how to save conditional order settings you use frequently for quick re-use.
- Conditional Orders display in the <u>Order Status tab</u> of the Account Details tool once you activate them. This differs from Alerts, which display in the Alerts tab because they do not have an order routing component.

Editing Conditional Orders

1. Make changes to conditional orders from the <u>Order Status tab</u> of the Account Details tool.



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- 2. Find the order and right-click on it or any of its associated contingent orders to select *Edit Conditional Order*.
- 3. In the window that opens, make edits and click **Review Order** to verify your changes before confirming the order.

Cancelling Conditional Orders

- 1. Cancel conditional orders from the <u>Order Status tab</u> of the Account Details tool.
- 2. Find the order and right-click on it to select *Cancel Conditional Order*. The order will remain in the Order Status tab and can be activated from the right-click menu at a later time.

Removing Conditional Orders

- 1. Deactivate and delete conditional orders from the <u>Order Status tab</u> of the Account Details tool.
- Find the order and right-click on it to select Remove Conditional Order.
 This will deactivate the order and all associated contingent orders and delete it from your Order Status tab.

TIP: You can remove individual contingent orders one at a time by right-clicking on those orders instead of the primary order.

Conditional Order Guidelines

Hours

You can set up and activate conditional orders at any time (including outside of standard market hours) and they will display in the Order Status tab.

However, because conditional orders require updated Level I quote information to function, they will not initialize until the next trading session.

After Hours

Conditional Orders become inactive at the end of the standard session (4:00 p.m. ET), but they remain in the Order Status tab pending further action such as editing, activation, deactivation or removal.

Indices

Conditional orders based on indices should only be set up using the Trade Price variable. Although you can create conditional orders that use indices using other variables such as Bid or Ask, these alerts will never fire because that data does not exist for indices.

Wide Spreads

Conditional orders on symbols with wide spreads may not fire if the spread is too wide.

Quick Triggers

Conditional orders automatically cancel if triggered within 5 seconds of being set.

StreetSmart Only

Brackets, Conditional Orders, and Alerts created in the StreetSmart platforms can only be viewed and managed from the StreetSmart family of applications and are not currently available from Schwab.com or other Schwab applications.

Position Quantities

When placing a conditional order where you are trading a securities in your account, if the tradable quantity of your position is less than the order quantity, the software will send the order for the lesser amount (as opposed to rejecting the order due to insufficient shares available to trade).

EXAMPLE

You have a conditional order to sell your 1000 shares of ABCD. At some point between when you established the conditional order and when it triggers, you sell 300 shares. When the condition is met, the software will adjust to the new quantity and send a Smart market order for 700 shares will be sent. The same would hold true if you were short 1000 shares of ABCD and you tried to buy 1500 shares using a conditional order.

After a Conditional Order Triggers

 Conditional orders established with conditions that have already been met or are imminent will not activate and you will be presented with an opportunity to make changes to your order.

- After a conditional order is triggered and the order is sent, the conditions are cancelled (deactivated). The same conditional order cannot trigger more than once without being reactivated first.
- If you are not logged on when a conditional order fires, a message indicating
 that the order triggered in your absence will display in the <u>Messages</u> and as
 a pop-up message at the bottom of your screen at login.

Inactive Conditional Orders

Conditional Orders which have been inactive for 4 months will be automatically removed from the system.

Placing Conditional Orders

Place Conditional Orders to send orders to the market only when certain market conditions occur. They can help you manage risk on open positions or help you take advantage of opportunities as favorable market conditions appear, depending on the type of conditions you use to trigger the order.

Conditional orders can be placed from the Conditional Orders tab of the <u>Tradetool</u> or <u>Symbol Hub</u>. In the <u>All in One tool</u>, if a Conditional Orders tab isn't already open, you'll need to create one. See the <u>All in One help topic</u> for more information. Check the status of or edit your conditional orders from the <u>Order Status</u> tab in the Account Details tool.

- 1. In the Conditional Orders tab either in the All in One tool, Trade tool, or Symbol Hub, enter a Conditional Order Name.
- 2. Select an **Expiration** date. The default is the current day, but you can set alerts to expire up to 180 days out. Type in a date or click on the calendar to select a date.
- 3. If you want the conditional order to only last for the current market session, set the date to the current date.

TIP: Active conditional orders remain active even when you log off. They only deactivate if they expire, are triggered, or when the standard market session is not open for trading.

- 4. If you wish to use a template to automatically fill in portions of the conditional order, select one from the **Templates** drop-down and click **Load**. For more on using templates, see <u>Conditional Order Templates</u>.
- 5. Now, set up the **Conditions** that will trigger your order. For more information about each of the choices available when setting up your conditions, see <u>Alert & Conditional Order Conditions</u>.

- 6. Set up the **Orders** you want to place when/if your condition is met. You may set up as many as 3 orders on 3 different symbols, if desired, to send to the market when your condition(s) are triggered.
 - Click Stock/ETF to send an equity order and follow the instructions for placing an equity order.
 - For options, click *Call* or *Put* to send an option order, and follow the instructions for placing a Call or Put order.
 - Note that the Special Conditions settings available with regular stock and option orders are not available with Conditional Orders.
- 7. If you choose the *Limit* order type and select *Bid* or *Ask* in the price field, you may add a *Delta* to the bid or ask price when the order is sent. You may type a *Delta* value in the field, or use the up/down arrows to select a *Delta* in increments of .01.

Price Delta Examples:

Combining a Buy Limit with a Price Delta

- **Buy** 100 shares of MSFT at **Bid -.10** (Current Bid at time of trigger = 40.00)
- When triggered, order will attempt to Buy 100 shares at 39.90 Limit for the Day only.

Combining a Sell Limit with a Price Delta

- Sell 100 shares of CSCO at Ask +.07 (Current Ask at time of trigger = 23.00)
- When triggered, order will attempt to Sell 100 shares at 23.07 Limit for the Day only.

For all other order types, please view <u>Placing Equity Orders</u>.

- 8. If you would like to reinvest dividends on the possible fill, place a check in the **Reinvest Dividend** box.
- 9. Choose how the software will alert you when your conditions are met by clicking **View Notifications**. You can either choose the default notification settings or set up one-time-only notification settings. For more information, visit Alert & Conditional Order Notifications.
- 10. A summary of your conditional order displays below the Orders panel showing what the conditional order will do and when.
- 11. Once your conditional order settings are to your liking, you can either choose **Review Order**, **Save as Template**, and/or save as a template to a file.

TIP: Due to the complexity of Conditional Orders, turning off **Order**

Verification in the <u>Trade Settings</u> will not apply to conditional orders. You must confirm conditional orders before placing them.

You will have an opportunity to make changes to your order after reviewing it by clicking the *Edit Order* button in the review window.

- 12. If you want to start over, click *Clear*.
- 13. Once the conditional order is submitted, it will display in the <u>Order Status</u> tab of Account Details. There you can edit the order until its conditions are met, or once the order is triggered, **orders are displayed like any regular order** with the potential to cancel or change the order before it is filled.

Alert & Conditional Order Conditions

Following are the conditions you can specify when creating an Alert or Conditional Order on a stock or option symbol. See more on <u>Creating Alerts</u> or <u>Conditional Orders Overview</u>.

For more information on using Alerts or Conditional Orders, visit the <u>Quick</u> Reference Guide.

If	
Stock/ETF, Call, or Put	Click Stock/ETF for conditions using an equity symbol. Select Call or Put when using an option symbol for your condition.
Symbol	Enter the symbol you want to monitor. Click the drop-down arrow in the symbol field to select from the symbols in which you hold positions. Avoid placing alerts or conditional orders on any stock that does not have bid/ask quotes, including Pink Sheet securities. Such alerts will not fire.
	TIP: For option symbols, you can copy and paste the symbol from the option chains located in the All in One tool, Trade tool or Symbol Hub by right-clicking on the Option symbol and selecting Copy, then Paste into the desired field, again using right-click.
Variable	Select the type of data you wish to monitor for the symbol.
	 Bid - Bases your conditions on the inside Bid price.

If	
	Ask - Bases your conditions on the inside Ask price. Notice - Bases your conditions on the daily.
	 Volume - Bases your conditions on the daily cumulative volume.
	 Trade Price - Bases your conditions on the last sale price reported.
	It is not uncommon for erroneous trade reports to come through the Time & Sales display with prices away from of the market. You will be responsible for any orders that are executed, even if they are based upon inaccurate information. To minimize possible issues, consider using the Bid or Ask variable when sending conditional orders. This is not a guarantee that orders will not be sent based on 'bad prints' and will not completely remove the risk of alerts firing based on inaccurate data.
	 Time - You can set your alert or conditional order to trigger at a specific time during regular market hours or before or after a set time.
Operator	The following operators are available depending on the variable:
	 Increases to (or above)
	 Decreases to (or below)
	• Gains
	• Loses
	Increases from open by
	Decreases from open by Income and formula to the control of
	Increases from close by Decreases from close by
	Decreases from close by
	For the Time variable, choose from:
	 is (the alert or order will trigger at the specified time or date)
	 is earlier than (alert or order will only trigger prior to this time or date)
	 is later than (alert or order will only trigger after this time or date)

If		
	 is between (alert or order will only trigger between these times) 	
	Notes about the Gains and Loses operators:	
	 The Gains and Loses operators initialize from the moment the alert or conditional order is activated. So if you create an alert or order that triggers when the Bid gains 1 point, the alert or order uses the Bid at the moment you activate the it as the starting point. If you wish to set a percentage Value or use a 	
	Trailing Stop, you must use Gains or Loses as your operator.	
	Gains/Loses vs Increases to/Decreases to:	
	If the selected Operator is "Gains" with a 2.00 Value, the alert will then fire when the chosen Variable reaches the Variable + 2.00. For example, if the Variable is Trade Price and the Trade Price is \$10.00, the Alert would fire when the Trade Price = \$12.00 (\$10.00 + \$2.00). Alternatively, if "Increases to" is selected as the Operator with a 2.00 Value, the alert will then fire when the chosen Variable reaches 2.00 or above.	
Value	The amount by which you want the variable to change.	
	 For <i>Time</i>, enter the time you wish to set your alert or order to trigger at, before, or after. 	
Points, \$, % or Shares	The Variable and Operator you choose will change your available options for these fields.	
Trailing Stop	Works only with the Gains and Loses operator, and can be applied to a point value or a percentage. Trailing Stop Alert or Conditional Order example: You are long 1000 shares of XYZ, which was pur-	
	chased at \$20 per share. If you have a risk threshold of 10%, you would want to be alerted or send an	

If	
	order if the bid for XYZ decreases to \$18 per share, or \$2 less than the highest price reached after the Trailing Stop was entered. You enter an Alert or Conditional Order with the Trail-
	ing Stop enabled (when the bid is at \$20) to trigger when the Bid loses \$2. Assuming the bid then increases to \$25 per share, the Trailing Stop will trigger when the Bid decreases to \$23 per share. \$25 - \$2 = \$23 per share.
	If the stock never moves above \$20 per share for the same type of Alert or Conditional Order, it will only trigger if the Bid loses \$2. \$20 - \$2 = \$18.
And/Or/Then	Click Add Another Condition to add up to 2 additional conditions to your Alert or Conditional Order.
	 When you select And, all conditions must be met at the same time for the alert or order to trigger.
	 When you select Or, any condition can trigger the alert or order independent of the other(s).
	 When you select Then, the previous condition must be met prior to the 'Then' condition being met.
	 You cannot create an alert or conditional order with a combination of 'And' and 'Or' or 'Then' and 'Or' conditions when you have 3 conditions.
	Remove unwanted additional conditions by clicking the minus icon at the end of the condition row.

Alert & Conditional Order Notifications

The Alert and Conditional Order Notifications tell the software what to do when your alert or conditional order conditions are met. Setting up notifications is a step in creating alerts and creating conditional orders.

Default Notification

The default notification is a System Beep, but you can change this:

1. Go to **Settings** in your main menu, then to the **Trading** tab and choosing the **Notifications** sub-tab.

You can also change the default notification from the Alert or Conditional Order creation window. Click **Set Trigger Action** and click **Edit Default**.

- Choose any or all of Load All In One Trade Tool with symbol, Beep, or add a Custom Sound. To add the custom sound, click Browse to find the sound file on your computer (Edge comes with several choices). Click on the file and click Open to load the sound.
- 3. Once you've checked all the notification selections you want to apply to all your alerts or conditional orders, click **Save**.

One-Time Notification

If you want to stray from your default notification settings occasionally, you can do that, too.

- 1. When you are setting up the alert, choose **Set Trigger Actions**.
- 2. Chose *One-Time Notification* and select the notifications you want to receive for this particular alert or conditional order.
- 3. Click **OK**

Conditional Orders and Alerts Settings

Global settings for Conditional Orders and Alerts can be found in the main menu under **Settings** > **Settings**. In the **Trading** tab, choose from

- <u>Notifications</u>, which control how you are notified of Conditional Orders or Alerts triggering, and
- Conditional Orders/Alerts with the settings described below.

Expiration Range

Set a default number of days (up to 180) after which conditional orders and alerts will expire.

Conditional Order Templates

The Conditional Orders tab of the <u>All in One</u> tool, <u>Trade</u> tool, or <u>Symbol Hub</u>, is where you can tell the software to automatically send an order if certain market conditions you specify are met.

To make it easier to set up conditional orders, especially if you tend to use the same rules or conditions when placing orders, StreetSmart Edge® provides Conditional Order Templates.

- The software comes with several standard templates for commonly used trading strategies, all of which can be customized.
- Or you can save your favorite conditional order settings as a template and save a few steps the next time you use that order.

 Note that you cannot use <u>Alert templates</u> when setting up Conditional Orders, and vice versa.

Using a Conditional Order Template

When creating a conditional order, select the built-in or saved template you wish to use from the **Templates** drop-down at the top of the Trade tool or Symbol Hub and click **Load**. This will populate several fields in the Conditions and Order panels and then you can fill in the rest and activate the conditional order.

Creating a Conditional Order Template

To create a conditional order template, you can either create it from scratch or use one of the built-in templates as a starting point. Note that you cannot use <u>Alert templates</u> when setting up Conditional Orders, and vice versa.

From scratch:

- 1. Click the **Conditional Orders** tab in the Trade tool or Symbol Hub. <u>Click or create</u> a Conditional Orders tab if using the All in One tool.
- 2. Fill in the fields of the Conditions and Order panels with the values you want to automatically populate when you load the template.
- 3. In your template, leave one or more fields blank that will likely change each time you use the conditional order, like Symbol or Limit Price. To leave a field blank, select **<template>** from the bottom of the drop-down.
- 4. Click **Save as Template**. You may save up to 20 conditional order templates; if you need to save more, see *Saving a Template to File* below.
- 5. Next time you create a conditional order, your new template will display in the Templates drop-down.

From built-in template:

- 1. Click the **Conditional Orders** tab in the Trade tool or Symbol Hub. <u>Click or create</u> a Conditional Orders tab if using the All in One tool.
- Choose the template you want to base your new template on from the **Tem**plates drop-down and click *Load*.
- 3. Make any changes you want to the template, including entering the Order instructions, as only conditions are included in the built-in templates.
- 4. Change the **Conditional Order Name** (you cannot save over the built-in templates).
- 5. Click **Save as Template**. You may save up to 20 conditional order templates; if you need to save more, see *Saving a Template to File* below.
- 6. Next time you create a conditional order, your new template will display in the **Templates** drop-down.

TIP: In both cases, be sure to give your template a name in the **Conditional Order Name** field that gives an indication of the purpose of the behavior of the conditional order. This will make it easier to find the correct template later on when you want to use it again. Otherwise, unnamed conditional orders are given a system-generated name using the current date and a sequential number.

Saving a Template to File

In addition to saving templates into the software, you can save them to a location other than the default template folder. This enables you to share the file with other StreetSmart Edge® users or save to an external resource, like a CD or USB drive or external hard drive.

A If you only save a template to a file instead of using the **Save as Template** button, it will not display the template in your **Templates** drop-down menu. To save as a file AND still see it in your software, do both actions. But remember that they are saved in two separate places, so changes to the template must also be saved to both places if you want to keep them in sync.

To save as a file, once your template is complete, click the disk icon at the top of the Conditional Orders tab. You will be able to select a location to save the file on your computer, name the template file, and click **Save**.

Open Conditional Order Template from File

If you have saved a conditional order template to file, you can open it by clicking **Templates** drop-down menu and choosing **Open Template from File...** Find the file on your computer, click it, and select **Open**.

Renaming a Template

- 1. Click the **Templates** drop-down and select **Manage Templates**.
- 2. Click the template you want to rename, and then click the pencil icon.
- 3. The name of the template will become an editable field. Change the name and press Enter to set it.

Deleting a Template

- 1. Click the **Templates** drop-down and select **Manage Templates**.
- 2. Click the template you want to delete, and then click the **X** next to it.
- 3. Confirm your wish to delete the template by clicking **OK**. If you don't want to be asked to confirm the deletion next time, check **Do Not Show Again**.

Built-in Templates	
Ask Increases	Beeps and loads the Trade tool if the ask increases to the desired value. You specify the symbol and value.
Buy In	Beeps and loads the Trade tool if the ask gains the desired percentage. You specify the symbol and value.
Day Alert	Beeps and loads the Trade tool if the Change from Open increases or decreases to one of the desired values. You specify the symbols and values.
Margin Equity Warning	Beeps and loads the Trade tool when the trade price decreases to 3.05. At \$3.00, marginability increases to 100%.
Stop Loss	Beeps and loads the Trade tool when the Bid decreases to a specified value. You specify the symbol and value.
Straddle	Beeps and loads the Trade tool when the Bid decreases to a specified value or the Bid increases to a specified value. You specify the symbols and top and bottom bid values.
Trailing Stop	Allows you to follow the price movement upward and beeps and loads the Trade tool when the Bid decreases by the amount specified. More on <u>trailing stops</u>
Volume Alert	Beeps and loads the Trade tool when security volume gains the specified amount. You specify the symbol and volume.

Global Investing

Clients with a Global Investing account with Schwab.com can access trading and account information via the Global tool of StreetSmart Edge®.

Click **Global** in the **Launch Tools** menu to open the Global Investing site in the StreetSmart Edge® window. If you have an account, it will automatically log you in. You may have one Global tool open at a time.

If you do not have a Global account, the tool will take you to the International Investing section of Schwab.com where you can learn more about international investing through Schwab.

Charts

Charts Overview

Charts provide a quick way to absorb data and understand a security's performance. They provide vast amounts of data in an efficient, user-friendly, customizable format, making it easy to analyze price and volume movements in real time.

Full-featured charting is available in both the stand-alone Chart tool accessed through the **Launch Tools** menu and in the <u>Symbol Hub</u>.

StreetSmart Edge® has advanced charting features that give you the freedom to customize your charting experience to your precise specifications. Features available include more than 30 customizable studies; the ability to draw trend, support, and resistance lines and symbol overlays; chart types, including mountain, bar, line, and candlestick; and much more.

You may display up to 20 charts across with up to 20 tabs in each. You can also save up to 20 tabs to the software (but save as many as you wish to a local hard drive using the **Save as File** feature).

For more information on using Charts, visit the Quick Reference Guide.

Getting Around the Chart Tool

Each important area of the Chart tool is displayed in the image below.



Stock symbols and price and volume data shown here and in the software are for illustrative purposes only. Charles Schwab & Co., Inc., its parent or affiliates, and/or its employees and/or directors may have positions in securities referenced herein, and may, as principal or agent, buy from or sell to clients.

TIP: For more information on getting the most out of your chart display, see Chart Display Tips.

The following table explains each major element of the Chart display:

Chart Features

Price Chart

The heart of the Chart window is the price chart itself. It displays the main symbol's chart with your Type and Style specifications (see <u>Chart Settings</u>).

- The right side of the chart shows the price ranges.
- **Price Scale Adjustment:** You can adjust a chart price scale to optimize the visual results of the chart. Move the mouse over the price scale, and then click and drag the scale up or down to adjust the display scale.
- The bottom shows the **time** or **dates** the chart spans
- The left side can show the **percent change** from the lowest point to the highest point when displayed.

Across the top of the chart are Chart Keys which represent the symbol overlays, studies, or drawn objects you have added to the chart from the Chart Settings panel.

To Hide/Show ALL overlays, drawn objects, and studies, click *Hide* in the upper left corner of the chart. Click *Show* to display them again.

For more on overlays, drawn objects, and studies, see Chart Settings.

Trade Button

The Chart Trade Ticket is available for Stock/ETFs and allows the same actions, venues, order types, timings, special conditions and brackets as found in the All In One Trade Tool.

Study Panes

Studies and overlays can display in a separate pane below the price chart if you wish.

1. Right-click on a study or overlay and select *Edit*.

- 2. In the Edit window, change the **Show In** setting to **New Pane** to separate it out from the price chart.
- 3. If you want to add another study or symbol overlay to an existing pane, choose the name of that pane instead.

TIP: You can move study panes around the chart. While pressing *CTRL* on your keyboard, click on the study pane. Drag the pane up or down, either to place it above the price chart, or if you have multiple panes, to place it above or below other panes. Release the mouse when the pane is positioned where you want it.

Order, Position, and Note Indicators: The chart can display Order, B, Bracket, and Position indicators, as well as any Notes related to the symbol being viewed. For more on these features, see Activity Display Options in the Chart Settings.

Title Bar

Enter the symbol you want to view a chart for and click **Go** or press **Enter**.

The Title Bar is available in several tools, and includes some basic price data as well as the Tool Link Icon. For more on these features see Title Bar.

You can also Duplicate an entire Chart window by right-clicking in the title bar and selecting **Duplicate Chart Window**.

Tab Bar

Shows the tabs open in this Chart tool.

- **Tab Names:** Charts are named by their SYMBOL:DURATION:TIMEFRAME by default, but you can double-click on the tab and it will change to a field that you can edit and supply a name of your choice.
- Add a new tab: Click the + symbol next to the tabs. It
 will open a duplicate of the last tab in the window, which
 you can then edit.
- Right-click menu: Right-click on the tab label to see a menu of actions you can take on the tab, including creating a chart template, saving, deleting, duplicating, and more. More on Chart Tasks...
- Tab Sync On/Off: If Sync is On, all tabs in that Chart tool will display a chart for the same symbol. If Sync is Off, each tab can display a different symbol and when you enter a new symbol in the Title Bar, only the top tab

will display that symbol.

If you switch to *Tab Sync is On* from *Tab Sync is Off* and have different symbols in each tab, the symbol in the *active tab* will populate all the tabs in that Chart Tool.

- **Zoom:** Click the magnifying glass and then click and drag across a portion of the chart to zoom in on that portion. You can achieve a similar result using the **History Control** feature described below.
- Save: Click the disk icon to save the active chart. You can also right-click on a tab to select a save option. You have a choice of saving your chart as a **Template** or as a **File**.

Choose to save as a File if you will want to access the chart outside of the software. For instance, you can back up your chart files or even share the file with someone. Charts saved as Templates essentially become part of the software and are accessible by selecting *Open Chart from Template* in the right-click menu. This is useful when you want to use the settings of this chart as a template for other charts.

Level I Data Bar

Shows the Date/Time, Open, High, Low, Close, and Volume for the point your mouse is aligned with. You can also do this by holding down the **Alt** key as you hover your mouse pointer over points within the chart.

If your mouse is not over the chart area, the data bar displays the last (most recent) value for those fields.

TIP: You can turn off the Level I Data bar via the <u>Chart Settings</u> panel. Under **Settings**, uncheck **Show Level I Data Bar**.

Chart Settings

The chart settings panel is accessible by either clicking one

of the icons or by clicking the arrow to open the "drawer" and view all the settings choices.

Set the type and style of chart, add overlays, draw trend lines and other objects, change the colors, and more from the Settings panel.

For detailed information on each feature in the Settings panel, visit <u>Chart Settings</u>.

History Control

The bottom panel under the chart shows the full range of historic chart data for the Type of chart you've selected.

There are several ways to specify which portion of that data you want to display:

• **Sliders:** On the timeline, you can see left and right slider handles, which you can drag to the date or time to which you want to isolate the chart data shown.

The starting point in the large chart view will begin at the point of your left slider, and the end point will be the location of your right slider.

You can also click between the sliders and drag the active area left and right across the timeline to change the dates but keep the same overall length of time displayed.



 Quick Jumps: Above the History Control are time frames in a range of unit sizes. The choices depend on the Type of chart you are displaying. Click any of those time periods to display only that period on the chart. This will also adjust the Sliders along the timeline to your selected time frame.

Max 3y 2y 1y YTD 6m 3m 1m

- Date Selection: You may also just type or choose from the calendar the start and end dates for which you want to isolate chart data shown. Click Go or press Enter to apply the date selection.
- Number of Days: Enter the number of days/years/minutes you wish to view and click Go or press Enter. Additions or subtractions to this number either by typing a number or using the up/down arrows will be added to or taken from the start date. The end date will not change.

TIP: You can hide the History Control via the <u>Chart Set</u>-tings panel. Under **Settings**, uncheck **Show History Con-**

trol. The Year Spans, Date Selection, and Number of Days remain visible.

Chart Tasks

The Chart window has two right-click menus that give you access to most tasks you might want to perform around your charts, including access to the same features found in the Chart Settings.

Access the Chart Tab menu by right-clicking the name tab at the top of the chart. The following features are available from this menu:

Chart Tab Right-Click Menu	
Close [tab name]	Closes the tab. You can also close a tab by clicking the X that displays in the tab when you move your mouse over it.
Rename [tab name]	Makes the tab name editable, so that you can type a new name for the tab. You can also double-click the tab name to edit it.
Duplicate [tab name]	Creates an identical tab with the same name, settings, studies, overlays, etc. This can save you the time and effort of recreating your customizations in another chart window.
Save [tab name] as template	Charts saved as Templates essentially become part of the software and are accessible by selecting <i>Open Chart from Template</i> in the right-click menu. This is useful when you want to use the settings of this chart as a template for other charts.
Save [tab name] as file	Choose to save a chart as a File if you will want to access the chart outside of the software. For instance, you can back up your chart files or even share the file with someone.
New Chart	Opens a new chart tab in the current chart tool.
Open Chart from Template	Select from the list of saved chart tem-

Chart Tab Right-Click Menu	
	plates (Edge comes with several built-in), or choose Other to open a chart template file saved elsewhere.
Open Chart from File	If you have saved a chart as a file, but not as a template, you can use this menu item to find the file on your computer and open it.
Manage Chart Templates	Opens the Manage Chart Templates window, where you can rename or delete your saved templates. You can also import charts saved as files to make them templates in your software.
Help	Opens the online help to the Charts information.

Right-clicking within the chart itself gives you access to the last 6 functions above (save, open, new, manage), all the Chart Settings features, as well as the following additional features:

Chart Display Right-Click Menu	
Load Trading Tool with [symbol]	Loads the current chart symbol into the Trading tool. Useful if you want to see additional price data for the symbol or place a trade. More on <u>Trading and Quotes</u>
Load Symbol Hub with [symbol]	Loads the current chart symbol into the Symbol Hub .
Create an Alert for [symbol]	Loads the <u>Create Alerts</u> window, so you can create an alert for the symbol.
Create a Conditional Order for [symbol]	Load the <u>Conditional Orders</u> tab of the Trading tool, so you can create a conditional order for the symbol.
View News for [symbol]	Opens the <u>News Overview</u> tool and displays today's headlines for the symbol.
View Fundamental Data for [symbol]	Opens the <u>Research Fundamental Data</u> tool and displays fundamentals for the symbol, including earnings, ratings and other metrics.

Chart Display Right-Click Menu	
Link to Schwab.com Research for [symbol]	Takes you to the research portion of Schwab.com so you can do further research into the stock.
Edit Tick Data	Allows you to correct bad ticks that may skew the chart display. Choose the Period you wish to edit and then change the Open, High, Low, or Close fields to meet your needs. Click Save to display your changes in the chart.
	Click Reset to revert to the original price data for the period you are currently displaying. Click Reset All to revert all periods back to their original price data.
Settings	Control chart display settings, such as price scale, line widths, and other elements from this settings pop-up. More information on Settings
Zoom	Turns your mouse pointer into a magnifying glass which you can click and drag across a portion of the chart to zoom in on that portion. You can also click the at the top of the chart to turn Zoom on.
Help	Opens the online help to the Charts information.

Chart Settings

Use the Chart Settings panel to customize your chart. Select the type and style of chart, add overlays, draw trend lines and other objects, change the colors, and more from the Settings panel.

The Chart Settings panel is accessible in the Chart tool or the Symbol Hub by clicking the arrow to open the "drawer" and view all the settings choices.

For more information on using Charts, visit the Quick Reference Guide.



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Chart Settings

Type

Choose the time interval each point on the chart will represent. For instance, on a monthly candlestick chart, each candlestick will show the open, close, high, and low values for an entire month. Choices are:

- Monthly
- Weekly
- Daily
- Custom Day: Enter your own period length, between 2-4 days
- Minute increments of: 60, 30, 15, 10, 5, 1
- **Custom Minute:** Enter your own period length, up to 480 minutes
- Tick: You can choose how many executions make up a "tick."
 This capability enables you to get a view of a symbol's activity where time is not a factor. Each tick is simply a certain number of executions, which you specify in the number field. Studies are not available on Tick charts.

Style Candlestick

- You can choose between solid candlesticks. Each candle represents one time interval chosen in the Type setting above.
- A **green** candlestick indicates that the closing price for the interval was higher than the opening price, thus a positive movement for the interval. The top of the candle is the close price, while the bottom is the open price.
- A red candlestick indicates a downward movement in the price for the interval and the closing price is indicated by the bottom of the candle, while the opening price is indicated by the top of the candle.
- The thin line, or "wick," shows the high and low for the interval.

Bar

- On Bar charts, the left rung indicates the opening price of the stock, and the right rung indicates the closing/last price of the stock for the day or interval.
- The top and bottom of the bar represent the high and low for that day or interval.
- **Green** indicates the security's closing price for the interval was higher than the opening price.
- **Red** indicates the security's closing price for the interval was less than or equal to the opening price.

Line

Shows a simple line chart based on the Close price.

Mountain

Shows a line chart with the space beneath the line shaded in.
 Also based on the Close price.

Point & Figure

 This unique style of chart provides you with an alternative to time-oriented charts by giving a view of the symbol based purely on price movement.

- When selected, you can choose how to display the following items for Point & Figure:
 - Box size: The price range for each box. Enter a price increment between .01 and 1000, or choose ATR (average true range) or a pre-set interval.
 - Using either *High/Low* or *Close* method, which determines the price point used as the basis.
 - Reversal amount from 1 to 5, which determines how many boxes the stock price has to move in the opposite direction to warrant a column reversal. When a reversal happens, a new column starts next to the current one and moves in the opposite direction until it hits another reversal.
 - You can also turn the grid on or off by checking or unchecking **Display Grid**.
- Within the rising and falling columns of daily Point & Figure charts there are letters and numbers. Since Point & Figure charts technically don't include 'time,' these designations are used for reference. January through September correspond with 1- 9 and A, B, C are assigned to October through December respectively. For monthly Point & Figure charts, the numbers represent years.
- Within the rising and falling columns of intraday Point & Figure charts there are colored squares. These markings designate the beginning of a new trading session.

Overlays

If you wish to compare the current chart to another symbol, you can add the symbol as an overlay on the current chart, using a Line, Bar, or Candlestick display.

Add a symbol overlay

- Enter the symbol in the symbol field of the Overlays section of Chart Settings, and click Add, or
- Right-click on the chart and select Add overlay

Edit the overlay

- 1. Right-click on the line so it becomes bold
- 2. In the menu that displays, choose *Edit*. You can also right-click on the chart key for the overlay and select *Edit*.
- 3. In the edit window, you can change the following attributes:
 - Color: Click on a color to replace the color assigned by the software.

	 Line pattern: Choose from solid, dotted, dashed and other line patterns. 	
	 Weight: Choose from varying line widths. 	
	 Location: In the Show In drop-down, choose whether to show the overlay on the price chart, in an existing pane, or in a New Pane below the chart. 	
	 Average: Choose what price the line should show for the symbol - Close¹, Open¹, High¹, Low¹, Typical¹, Weighted¹, or Middle¹. 	
	 Graph Style: Select between a Line, Bar, or Candlestick display. 	
	4. When you are finished editing, click OK .	
	Hide an overlay (without deleting it)	
	 Right-click on the overlay symbol at the top of the chart and select <i>Hide</i>. 	
	Or you can click on the chart key for the overlay at the top of the chart window. Click again to show the overlay again.	
	Remove an overlay	
	 Right-click either on the overlay line or the overlay symbol at the top of the chart and select Remove. You can also mouse over the overlay symbol and click the X next to it. 	
Extra Periods (0-500)	Extend your chart into the future by adding extra periods. Extending your chart allow you to project trendlines into the future, add notes and reminders to future points in the chart, and more. Use the arrows to increase or decrease the value, or type a value in the field.	
Draw	Use the Draw panel to add trend, support, and resistance lines, text annotations, and other shapes to your chart to facilitate your technical analysis.	

¹Study is calculated off the close price for each period.

¹Study is calculated off the open price for each period.

 $^{^{1}\}mathrm{Study}$ is calculated off the high price for each period.

¹Study is calculated off the low price for each period.

 $^{^{1}}$ Study calculates the average as ((High + Low + Close)/3)

 $^{^{1}}$ Study calculates the average as ((High + Low + Close + Close)/4)

 $^{^{1}\}mathrm{Study}$ calculates the average as the midpoint between the high and low prices for each period.

For a description of each of the objects you can draw on your chart, see Chart Lines and Objects.

Draw a line or object

- 1. In the Draw panel, click the type of item you wish to draw. The options available (line style, width, and color, etc.) will display.
- 2. If you wish, enter a name in the **Label** field to help you identify it on the chart.
- 3. Make any adjustments you wish to the available settings.
- 4. Draw your line or object on the chart.
- 5. Click **Exit Draw Mode** or collapse the Chart Settings panel by

clicking the "handle" when you're finished.

Edit a drawn line or object

- 1. Right-click on the line so it becomes bold.
- 2. In the menu that displays, choose *Edit*.
- 3. In the edit window, you can change the line color, style, weight, and any other settings associated with that object.

Move or resize an object

- To move an object to a new position in the chart, click on it to make it bold. Then click and drag the object to a new location on the chart.
- For objects that are re-sizeable, like shapes and trend lines, you will see square "anchors" that you can click on and drag to resize the object.

Hide an object (without deleting it)

- Right-click on the name of the object at the top of the chart and select *Hide*.
- If there are multiple instances of an object, selecting *Hide* means all objects of the same type will be hidden. So, if you have 2 Segment Lines drawn and you chose *Hide: Segment line (2)*, both lines will be hidden.

Remove an object

- Right-click either on the object or the chart key for the object and select **Remove**.
- You can also remove an object by clicking on it so it becomes bold, and press **Delete** on your keyboard.

 If you want to remove all instances of the same type of object, such as all Segment Lines, right-click on the name of the object at the top of the chart and select *Remove* or mouse over the name of the object and click the X next to it.

Studies

Studies use a stock's price movements, volume, and other historical information to attempt to find patterns that may indicate shifting price trends.

For details about each of the studies available in StreetSmart Edge®, see Chart Studies.

Add a study

- To choose from a list of all available studies, click View All Studies in the Studies panel of the Chart Settings.
- 2. In the window that opens, click on any study to add it to the chart.
- 3. Then, if necessary, change the study settings, such as line color, pattern, and weight, at the bottom of the window.
- 4. Depending on whether a study works in conjunction with the price chart, some studies will automatically display on the price chart, while others will display in a separate pane below the chart. You can manually change this in the **Show In** field of the study settings.
- 5. Enable **Show Value** to display a value label along with the study line, as well as in the Level 1 Data Bar.

Quick Add a study

- 1. If you know what study you want to use, type the name of it in the **Quick Add** field of the Chart Settings panel.
- 2. Matching choices will display and you can select the study you want to use.
- 3. Click **Add** to add the study to the chart and open the study settings, where you can edit the study settings.

Edit a study

- 1. Right-click on the line so it becomes bold
- 2. In the menu that displays, choose *Edit*. You can also right click on the name of the study at the top of the chart or pane to access the *Edit* window.
- 3. In the edit window, you can change the following attributes:
 - Color: Click on a color to replace the color assigned by the software.

- Line pattern: Choose from solid, dotted, dashed and other line patterns.
- Weight: Choose from varying line widths.
- Location: In the Show In drop-down, choose whether to show the overlay on the price chart or in a New Pane below the chart.
- Period: Many studies have one or more period setting.
 Refer to the <u>Chart Studies</u> topic for each study's unique settings.
- 4. When you are finished editing, click **OK**.

TIP: You can also click the gear symbol in the Studies panel to edit a study.

Hide a study (without deleting it)

- Right-click on the study name at the top of the chart or pane and select *Hide*, or
- In the Studies panel of Chart Settings, remove the check next to the name of the study. You can always check it later if you want to display it again.

Remove a study

 Right-click either on the study line or the study name at the top of the chart or pane and select *Remove*. You can also mouse over the overlay symbol and click the X next to it.

Colors

Built-in Colorsets

 The software comes with Light and Dark colorsets, which you can choose from the **Load Colorset** drop-down and click **Load** to apply the change to your chart.

Custom Colorsets

- You can also customize the colors yourself. Each object for which you can change the color is listed. Click the colored square next to the object name to view your choices. Select a different color if you wish.
- Save your custom colorset by typing a name in the Save Colorset field and clicking Save.
- Load your custom colorset from the **Load Colorset** drop-down when you want to use it again.

Study Colors

- 1. To change the colors of any (or several) of the studies you have open, click **Study Colors**.
- 2. The **View All Studies** window will open and in the Selected Studies panel, you will see all your studies and symbol overlays listed. You can click on each one and change their colors (and any other settings).

TIP: You can also change a study's colors by right-clicking on the study's chart key and selecting a color from the color palette.

Apply Colors to All Charts

- If you create a colorset you like and want to apply it to every chart in the application, click the Apply Colors to All Charts button.
- The software will ask you to confirm this decision, as clicking
 OK will overwrite all other custom chart color settings you
 may have established.
- All new charts opened will have these color settings applied by default.

Settings

Market Hours

Enter the hours you want chart data for in military time (for example, 1600 for 4:00 p.m. ET).

NOTE: Beginning time can be no earlier than 0600 and no later than 0930 ET. Closing time can be no earlier than 1600 and no later than 2000 ET.

Default times are for the standard session only (09:30 to 16:00 ET).

As extended hours quotes are only available <u>streaming</u>, it is possible to have gaps in you chart if you ask for all session times (i.e., 0600 to 2000 ET). The only way to view this data consistently on a chart is to leave that chart open during Pre Market or After Hours Sessions. If you switch stocks within the same chart, this will generate gaps as the data is not presented to the chart while open. Charts will not populate data for times prior to when the chart was opened, regardless of the settings of the chart.

Price Scale

Values: Select *Linear* or *Logarithmic* price chart scaling.

- **Linear** scaling shows the price scale with fixed distance between each price increment.
- **Logarithmic**, or percentage, scaling will change the price

scale's appearance by making the vertical spacing between two points correspond to the percentage change between those numbers. So, for instance, the vertical distance between 10 and 20 and the vertical distance between 50 and 100 will be the same. This helps provide a visual picture of charts with large vertical ranges.

Location: Choose whether to display the price scale on the left or right side of the chart.

Adjust Scale to Display Studies: When unchecked (default), the price scale of a chart is based entirely on the security price range. If checked, the range of any studies overlaid on the chart will impact the chart price range and can skew the display.

Use Price Scale with Overlay:

- If checked, the price chart and overly will display in the same space without scaling to show the relationship between the symbols.
- If unchecked, a percentage scale will display to the left of the price chart and the chart and overlay will scale to display how they relate in terms of percentages rather than in terms of a raw price scale. This helps you more fairly compare the performance of symbols trading in different price ranges.

Line Widths

Choose the line width for the price chart. Applies to price chart regardless of chart style.

Element Display Options

- **Show Time Lines:** Displays the vertical grid lines corresponding to the time scale at the bottom of the chart.
- **Show Price Lines:** Displays the horizontal grid lines corresponding to the price scale.
- **Show Chart Keys:** Displays the name or symbol of any overlays, studies, or drawn objects on your chart. Chart keys display across the top of the chart and are a quick way to edit, hide, or delete the enhancements you make to your charts.
- Show Level 1 Data Bar: Displays the Date/Time, Open, High, Low, Close, and Volume for the point on the chart your mouse is pointing to.
- **Show Last Trade Label:** Displays last trade in the price scale in a highlighted tag.
- **Show History Control:** Displays the historical price timeline below the chart.

Streamlined View: If selected, all features except the basic chart are hidden and the Settings drawer is pushed all the way closed, offering the maximum chart viewing area possible. If Custom View is selected within the Settings, you may select chart features a la carte, customizing your streamlined chart display to show you everything you want to see and nothing you don't.

TIP: You can also toggle between regular and streamlined view by clicking the icon in the upper right corner of the Chart tool.

Activity Display Options

- **Notes:** If enabled, any <u>Notes</u> about the symbol being viewed in the Chart tool will display on the chart. You can move the note around to a specific location on the chart, as well as taking a snapshot of the chart to include in the note when you create or edit the note. To edit your notes, click the Note icon at the top of the chart.
- Orders: If enabled, when viewing the chart for a stock with an open order, the order will be indicated next to the price scale of the chart at the relevant price level. Hover your mouse over the indicator(s) to see details of the open order, or click the indicator to make *Change* or *Cancel* your order. You can also *Add Brackets* to the order from the chart.
- Positions: If enabled, when viewing the chart for a stock in which you hold a position, the position will be indicated on the left side of the chart at the relevant price level. Hover your mouse over the indicator(s) to see details of the position, or click the indicator to access the ability to Close Position right from your chart.
 - If your position does not have Cost Basis information available, it will not display on the chart. You can add missing Cost Basis data from the Unrealized Gains/Losses tab on <u>Schwab.com</u> if you want to see such positions within your chart.
 - If the value of the Cost Basis is outside the price scale being displayed on the chart, the position will not display.

Corporate Events

 Choose which types of corporate events to display on charts: Dividends D, Earnings E, and/or Splits Sp. Periods with multiple, different corporate events will be displayed as 🖲.

- Hover your mouse over the corporate event flags to see a popup with more details on the event(s).
- Earnings Announcements and Earnings Restatements will display on the dates they were made public, so you can see the effect of each individual event on the price action. Announcements and Restatements are differentiated in the pop-up that displays when you hover your mouse over the Earnings flag

NOTE: Announcements from the current day will not appear on the chart until the following day.

Apply Settings to All Charts

- Applies the current chart's settings to all existing charts in your application. All new charts will use these settings by default as well.
- The software will ask you to confirm this decision, as clicking
 OK will overwrite all other chart settings you may have established.

Chart Studies

Chart Studies use a stock's price movements, volume, and other historical information to attempt to find patterns that may indicate shifting price trends.

By learning what a particular study may be indicating and then applying that study to your charts, you may be able to identify trading opportunities, points of support or resistance at certain price thresholds, price trends, and more.



Stock symbols and price and volume data shown here and in the software are for illustrative purposes only. Charles Schwab & Co., Inc., its parent or affiliates, and/or its employees and/or directors may have positions in securities referenced herein, and may, as principal or agent, buy from or sell to clients.

Add studies to a chart from the <u>Chart Settings panel</u> on the right side of the Chart tool. You can also right-click in the chart and select **Add Study**. Or for more on using studies in charts, see <u>Chart Settings Studies</u>.

← Get <u>StreetSmart Edge™ Quick References</u> <u>StreetSmart Edge™ Quick References</u> ences

Study Name	Description
Intraday	
Last Close	When selected with an intraday chart, a line will display indicating the prior day's close price.
Pivot Point	Uses the previous day high, low, and close price to generate a pivot line, two support levels (S1 & S2), and two resistance levels (R1 & R2). This study is only displayed on Intraday charts. In the studies settings (right-click on the study and select <i>Edit</i>), you may check the lines you wish to view: R2, R1, Pivot, S1, S2
	A Pivot Point lines may not be visible depending on the price scale you have set in the chart settings and the price discrepancy between the previous and the current trading day. Formula
	Pivot Points are calculated:
	Pivot = (YesterdaysHigh + YesterdaysLow + YesterdaysClose) / 3.0;
	S1 = 2.0 * Pivot - YesterdaysHigh;
	RI = 2.0 * Pivot - YesterdaysLow;
	S2 = Pivot - (RI - SI); $R2 = Pivot + (RI - SI);$
	R2 = Pivot + (RI - SI);
Market Strength	
Adaptive RSI (Relative	Adapts the standard RSI to a smoothing con-

Strength Index)	stant. Customizable default of 14 periods. For calculation purposes, Adaptive RSI is somewhat similar to an exponential moving average, but instead of averaging prior values using a fixed percentage, it uses a variable percentage based on the RSI. Formula $ARSI_t = Close_t \text{ for t} < n$ $ARSI_t = ARSI_{t-1} + sc * (Close - ARSI_{t-1}) \text{ for t}$ >= n where $sc = 2* \left \frac{RSI_t}{100}5 \right \text{ and n is the RSI}$ period (i.e. an n-period RSI).
Chaikin Money Flow	An oscillator indicating the volume of money flowing in and out of a security over a specified period. The indicator line moving above and below the zero line indicates buying or selling pressure, respectively. For instance, a security whose price is trending up but whose Chaikin Money Flow is negative might be on the verge of a trend reversal.
Money Flow	Money Flow keeps a running total of the money flowing into and out of a security. The direction of the Money Flow line is the important component to watch, not the actual dollar amount. This indicator can be used to confirm underlying strength or weakness of a price trend. Formula $ \text{The formula for an n-period Money Flow is} $
Money Flow Percent	Money Flow Percent normalizes the Money Flow calculation above by dividing by the cumulative volume for the period. You can change the periods used in the calculation from the default of 14. Formula

	The formula for an n-period Money Flow Percent is
Put/Call Ratio - Open Interest	Shows the number of puts divided by the number of calls based on open interest for individual stocks or indices. The ratio is often used as a contrary market indicator, which means that a high ratio may be a bullish indicator while a low ratio is often interpreted as a bearish indicator. The put/call ratio study can display the <i>P/C Actual</i> value, where each individual data point represents the raw put/call data, or the <i>P/C SMA</i> (simple moving average – the average of the raw data over the selected time period) of the study. Available for daily, weekly and monthly charts for optionable securities.
Relative Strength Index	Indicates the degree of positive and negative movement by the stock on a scale of 0 (weakest) to 100 (strongest). Determined by figuring the ratio of the average up closes for the last 14 days (using today's current price for the 15th day) divided by the sum of the average up closes and the average down closes for the same period. This ratio is multiplied by 100. You can change the number of periods used in the calculation from the default of 14, and you can chose which Average price to base the study on (Close, Open, etc.) from the study settings. The initial value of an n-period RSI is based on the price action for the first n periods. Subsequent values are determined using an inductive formula, analogous to the EMA formula described earlier. Formula The formula for the initial value of RSI is

Stochastic RSI	$RSI = 100* \frac{U}{U+D}$ where $U = \frac{1}{n} \sum_{t=1}^{n} (Close_t - Close_{t-1}) \text{ for all } (Close_t - Close_{t-1}) > 0$ $and D = -\frac{1}{n} \sum_{t=1}^{n} (Close_t - Close_{t-1}) \text{ for all } (Close_t - Close_{t-1}) < 0$ Subsequent values of RSI are determined using the formula $RSI_t = 100* \frac{U_t}{U_t + D_t}$ $where U_t = \frac{1}{n} ((n-1)U_{t-1} + UP_t)$ $and D_t = \frac{1}{n} ((n-1)D_{t-1} + DOWN_t)$ where $UP_t = (Close_t - Close_{t-1}) \text{ if } (Close_t - Close_{t-1}) > 0 \text{ and } 0 \text{ otherwise,}$ and $DOWN_t = -(Close_t - Close_{t-1}) \text{ if } (Close_t - Close_{t-1}) < 0, 0 \text{ otherwise}$ Plots the Stochastic %D line of the RSI (Relative Strength Index) to represent the level of the RSI indicator relative to its range over the number of periods you specify. Default of 14 Stochastic and RSI periods, as well as the default Slowing Factor of 1 can be changed. You can also check the Ten Grid Lines box to display lines from 0.1 to 0.9 instead of two lines at .25 and .75. Formula The formula for an m-period stochastic of an n-period RSI is $(LatestRSI - LowestRSInLastmPeriods)$
Momentum CCI	(HighestRSIinLastmPeriods – LowestRSIinLastmPeriods) The Commodity Channel Index (CCI) meas-
	ures the variation of a security's price from

	its statistical mean. High values show that prices are unusually high compared to average prices whereas low values indicate that prices are unusually low. Contrary to its name, the CCI can be used effectively on any type of security, not just commodities. Formula The formula is $CCI_t = \frac{Typ_t - \sum\limits_{i=t-n+1}^n Typ_i}{0.015*\frac{1}{n}\sum\limits_{i=t-n+1}^n Typ_i - \frac{1}{n}\sum\limits_{i=t-n+1}^n Typ_i}$ where $Typ_t = \frac{High_t + Low_t + Close_t}{3}$
Momentum	Measures the amount the price of a security has changed over the last 14 days. If the current trading session today hasn't closed yet, it uses the last sale price. You can change the periods used in the calculation from the default of 14. Formula The formula for an n-period Momentum is Momentum = Price, - Price,-*
Rate of Change	Change in price between the current price and the close 12 periods ago, divided by the price 12 periods ago. You can change the number of periods used in the calculation. Formula The formula for an n-period Rate of Change is $RateOfChange_t = \frac{Price_t - Price_{t-n}}{Price_{t-n}}$
Stochastic Oscillator	Stochastic - %K: Part of the stochastic indicator along with %D. Shows the price level of a stock in relation to its price range over a given period. You can change the

	period used in the calculation from the default of 14 periods.
	Formula
	The formula for an n-period %K is
	$\%K = 100* \frac{(Close - LowestLowlnLastnPeriods)}{(HighestHighInLastnPeriods - LowestLowlnLastnPeriods)}$
	Stochastic - %D: Part of the stochastic indicator along with %K. Shows the degree of smoothing, or moving average period, of %K. You can change the periods used in the calculation from the default of 14 periods and 3 periods. For calculation purposes, %D is an SMA of
	%K below.
	Stochastic - %D Slow: Similar in principle to %D, %D Slow represents a slower, less volatile indicator that simply adds an additional degree of smoothing, or moving average period, to the original %D. You can change the period used in the calculation from the default of 14 periods, 3 periods, and 3 periods. For calculation purposes, %D Slow is an SMA of %D above.
	SMA 01 %D above.
Williams % R	A momentum indicator that measures overbought and oversold levels. The oversold indications are in the range of -80 to -100, while the overbought indications are in the range of -20 to 0. You can change the periods used in the calculation from the default of 14.
	For calculation purposes, %R is simply %K - 100.
Trend	
Directional Mov Index	The Directional Movement study indicates the strength of a trend, independent of whether that trend is up or down. The study combines several components: +DI measures upward moves, -DI measures downward moves, DX combines +DI and -DI, and ADX is a smoothed version of DX.

In the Study settings (right-click on the study and choose **Edit**), you can remove or add any of the four lines that make up the DMI:

Average DM (ADX)¹

DM(+DI) Positive²

DM(-DI) - Negative³

Directional Movement (DX)⁴

Formulas

Directional Movement is a trend-following system that consists of +DI, - DI, DX, and ADX. These values are interrelated as shown below.

$$ADX_{t} = F * DX_{t} + (1 - F) * ADX_{t-1}$$

 $|(+ DI_{t}) - (- DI_{t})|$

$$DX_t = 100 * \frac{|(+DI_t) - (-DI_t)|}{(+DI_t) + (-DI_t)}$$
 if the denom-

inator > 0; 0 otherwise

$$+DI_t = 100 * \frac{APDM_t}{AR_t}$$
 and
$$-DI_t = 100 * \frac{AMDM_t}{AR_t}$$

where $AR_t = F * R_t + (1 - F) * AR_{t-i}$, where

 $^{^{1}}$ Average Directional Movement is an oscillator that fluctuates between 0 and 100, readings above 60 are relatively rare. Its values are interrelated with +DI, -DI and DX.

² The basic Directional Movement trading system involves comparing the 14-day +DI ("Directional Indicator") and the 14-day -DI. This can be done by plotting the two indicators on top of each other or by subtracting the +DI from the -DI. The study indicates buying when the +DI rises above the -DI and selling when the +DI falls below the -DI. You can change the periods used in the calculation from the default of 14.

³ The basic Directional Movement trading system involves comparing the 14-day +DI ("Directional Indicator") and the 14-day -DI. This can be done by plotting the two indicators on top of each other or by subtracting the +DI from the -DI. The study indicates buying when the +DI rises above the -DI and selling when the +DI falls below the -DI. You can change the periods used in the calculation from the default of 14.

⁴ DX combines +DI and -DI.

$R_{t} = \max(\mathit{High}_{t} - \mathit{Low}_{t} , \mathit{High}_{t} - \mathit{Close}_{t-1} , \mathit{Close}_{t-1} - \mathit{Low}_{t})$ $APDM_{t} = F * PDM_{t} + (1 - F) * APDM_{t-1}$ $AMDM_{t} = F * MDM_{t} + (1 - F) * AMDM_{t-1}$ $PDM_{t} \text{ is } (\mathit{High}_{t} - \mathit{High}_{t-1}) \text{ if } > 0; \text{ 0 otherwise.}$ $MDM_{t} \text{ is } (\mathit{Low}_{t} - \mathit{Low}_{t-1}) \text{ if } > 0; \text{ 0 otherwise.}$ If both are > 0 , the smaller is set to 0. $F \text{ (Factor) is related to an n-day SMA by the formula } F = \frac{2}{n+1}.$
While similar to the SMA (simple moving average), the exponential moving average uses a "smoothing factor" to give more weight to recent prices, while allowing all prices in the window to influence the average. Customizable default of 20 periods. Default study shift is 0. Changing the Study Shift will move the entire study forward or backwards on the chart, in relation to the underlying price data. A negative number would move the study backwards while a positive number would move it forward. Formula The EMA formula is an inductive formula; that is, the value at time t is based on the value at time t-1 and a current amount. The formula is $EMA_i = F * Price_i + (1 - F) * EMA_{i-i}$ where Price is set to the Average price variable you select when you set up the study. F (Factor) can theoretically be any value between 0 and 1 but is generally related to
an n-period SMA by the formula $F = \frac{2}{n+1}$
A moving average weighted on the price movement relative to the stock price, so that a \$1 increase in a \$5 stock is represented on the chart as a much greater move than a \$1 increase in a \$75 stock. Formula

	The formula for an n-period GMA is $GMA_{i} = \exp\left(\frac{\sum_{i=t-n+1}^{t} \ln(\operatorname{Price}_{i})}{n}\right) \text{ where Price is set to the } Average \text{ price variable you select when you set up the study.}$
Ichimoku Cloud	An indicator that uses multiple components to help identify trend, support, resistance, momentum and trade signals. Basic analysis will compare the price's location to the cloud in order to look for potential signals within a trend. Formula Tenkan-sen (Conversion Line): (X-Period High + X-Period Low)/2 Senkou Span A (Leading Span A): (Conversion Line + Base Line)/2 Senkou Span B (Leading Span B): (52-Period High + 52-Period Low)/2 Chikou Span (Lagging Span): Close Plotted 26 Days in the Past
Moving Average Conv/Divergence (MACD)	A trend-following momentum indicator using 3 exponential moving averages: a short or fast average, a long or slow average, and an exponential average of their difference (the last used as a signal or trigger line). You can change the periods used in the calculation from the defaults of 12 and 26. The default signal line has 9 periods. You can also change the average price on which the study is based.
MACD Histogram	A variation of the MACD that plots the difference between the Signal Line and MACD. Changes in the spread between these two lines may be spotted faster, potentially leading to earlier trading signals. You can change the periods used in the calculation from the defaults of 12, 26, and 9.

Parabolic SAR	The Parabolic SAR (stop and reverse) is a trend-following indicator that may help establish stop loss parameters, as well as signaling opportune times to buy or sell a stock. Because it's a trend-following indicator, it tends to be less useful in a sideways market and more useful in a strongly trending market. A line above the price may indicate a bearish trend, and a line below the price may point to a bullish stock. Formula The formula is \$\SAR_{Tomorrow} = \SAR_{Today} + AF (\textit{EP}_{Trade} - \SAR_{Today})\$ where \$AF\$ (Acceleration Factor) is one of a progression of numbers beginning at .02 and ending at .20. The AF is increased by .02 each day that a new high is made. You can change these values by editing the Minimum Step and Maximum Step fields when setting up the study on your chart. And \$\textit{EP}_{Trade} = Extreme Price Point of the trade made so far. If you choose Long from the Position drop-down, EP is the extreme high price for the trade; if Short , EP is the extreme low price for the trade.
Price Channels	The Channel consists for an upper trend line drawn on pivot highs, a lower trend line drawn on pivot lows, and a center line. The Period variables will operate exactly like the traditional studies in terms of range and defaults. The default period is 20, which has a customizable range from 2-100. Formula Price UpperBand = X - Days High Price LowerBand = X - Days Low Centerline = [(X - Days High + X - Days Low)] / 2
Price Lines	View one or all of the Open, High, Low, and/or Close for the symbol as individual

	price lines.
Price Relative	Compare the performance of one security to another with a ratio chart. This makes it possible to determine if a stock is leading or lagging its peers. Enter the symbol in the Compare To: field when setting up the study.
Simple Moving Average (SMA)	The average of the last 20 periods' closing values including current day. If current trading session hasn't closed yet, the last sale price is used. The default of 20 periods can be changed. Formula The formula for an n-period SMA is $SMA_i = \frac{\sum_{i=t-x+1}^{t} \Pr{ice_i}}{n}$
Smoothed Moving Average (OMA)	An exponential moving average with a longer period used to determine the average, as older prices are never removed from the calculation but are given less weight. Best used in trending markets. The initial value of an n-day OMA is the same as the initial value of an n-period SMA indicator. Subsequent values are determined using an inductive formula, in the manner of the EMA described above. Formula The formula for the initial value of OMA is $ \sum_{i=1,n+1}^{t} \Pr{ice_i} \\ OMA_t = \frac{i-t-n+1}{n} $ The formula for subsequent values is $OMA_t = \frac{n*OMA_{t-1} - OMA_{t-1} + \Pr{ice_t}}{n}$
Volume Weighted Average Price (VWAP)	Measures the average price of a stock over a given period of time. VWAP is calculated by adding up the dollars traded for every transaction (price multiplied by number of shares traded) and then dividing by the

	total shares traded for the day. Note that intraday charts will calculate the VWAP across the entire chart, whereas other charts will only display the current VWAP value.
Volatility	
Average True Range	Measures a security's volatility by averaging the True Range over a period of time you specify when setting up the study. True Range is the greatest of the following:
	The current high minus the current low.
	 The absolute value of the current high less the previous close.
	 The absolute value of the current low less the previous close.
	Customizable default of 14 periods.
	Formula The ATR formula is an exponential average of the true range. True range takes into account any gap up or down from the previous day as well as the high and low for the current day. The formula is
	$ATR_{t} = F *TR_{t} + (1 - F) *ATR_{t-i}$
	where TR is the largest of the absolute values of High-Low , High-Yesterdays Close , and Yesterdays Close-Low .
Bollinger Bands®	The Upper and Lower lines are placed n- standard deviations above and below the Mid line (simple moving average). Since standard deviations are a measure of volat- ility, the bands widen during volatile price action and contract when volatility drops. You can change the variables used in the cal- culation from the defaults of period=20 and n=2 standard deviations above and below. Rather than two bands that are always an equal percentage away from the central average, Bollinger Bands expand and con-

	tract based on the standard deviation of the historical volatility of the price action. Formula $ \begin{array}{l} \text{The formulas for the upper and lower bands are} \\ UpperBand = SMA_t + m*F_t \\ LowerBand = SMA_t - m*F_t \\ \text{where m is the number of standard deviations and the formula for } F_t \text{ is} \\ F_t = \sqrt{\frac{\sum_{i=t-n+1}^t \left(\Pr{ice_i} - SMA_t\right)^2}{n}} \\ \end{array} $
Envelope	Employing an Envelope is similar to Bollinger Bands®, except equidistant from the center average, in that the Envelope helps define the upper and lower boundaries of a security's normal trading range. When the security reaches the upper band, this may indicate a sell opportunity, whereas the security reaching the lower band may indicate a buy opportunity. Customizable default of 21 periods with Upper and Lower % default of 2.5. Formula The formulas for the upper and lower envelopes are $UpperEnvelope = SMA_t * (1 + F)$ $LowerEnvelope = SMA_t * (1 - F)$ where F is a factor such as 2.5% (i.e. 0.025 for the formulas above).
Historical Volatility	Reflects how far an equity's price has deviated from its average price over the number of periods you specify. This study only applies to Daily, Weekly, and Monthly charts. Customizable default of 20 periods, and you can choose the Average price the study is based on (Close, Open, etc.) from the study

settings.

Formula

Historical volatility is calculated:

$$Vol_t = \sqrt{\frac{\displaystyle\sum_{i=t-n+1}^t \left[\ln \left(\frac{P_i}{P_{i-1}} \right) - \frac{1}{n} \sum_{i=t-n+1}^t \ln \left(\frac{P_i}{P_{i-1}} \right) \right]^2}$$

Implied Volatility Avg/Calls/Puts

The theoretical value (in %) designed to represent the forecasted volatility of the security or index as determined by the prices of multiple call and put options using the Black-Scholes pricing model.

Choose to view the Average of Puts & Calls (*Avg*), Average of Puts (*Puts*), or Average of Calls (*Calls*). Also, choose whether to view actual implied volatility (*IV Actual*) or a simple moving average of implied volatility (*IV SMA*). Customizable default period for the IV SMA is 20.

Implied Volatility studies are only available on daily, weekly, and monthly charts for optionable securities. Implied Volatility values are computed using the Black-Scholes model and may not be available on all underlying securities. The Schwab Avg – Implied Volatility, Call - Implied Volatility, and Put - Implied Volatility, while based on the Robert E. Whaley calculation, are derived using methods that may differ from those used by other data providers.

AVG formula

The formula used in calculating this value is:

Using the two nearest expirations:

2 in-the-money calls (nearest to the current underlying price) +

2 in-the-money puts (nearest to the current underlying price) +

2 out-of-the-money calls (nearest to the current underlying price) +

	2 out-of-the-money puts (nearest to the current underlying price)
	Divided by 16
	Calls or Puts formula
	The formula used in calculating this value is:
	Using the two nearest expirations:
	2 in-the-money calls or puts (nearest to the current underlying price) +
	2 out-of-the-money calls or puts (nearest to the current underlying price) Divided by 8
Keltner Channels	Keltner Channels consist of two bands that are not equidistant from the EMA.
	Rather than two bands that are always an equal percentage away from the EMA, Keltner Channels expand and contract based on a moving average of the True Range (TR).
	Customizable default of 20 periods, 10 ATR (Average True Range) Periods, and an ATR factor of 2.
	Formula
	The formulas for the upper and lower bands are
	$UpperBand = EMA_t + F * SMATR_t$
	$LowerBand = EMA_t - F * SMATR_t$
	where F is a factor,
	and $SMATR_{t} = \frac{\sum\limits_{i=t-n+1}^{t} (TR)_{i}}{n},$ and
	$(TR)_i = \max(\left High_i - Low_i\right , \left High_i - Close_{i-1}\right , \left Close_{i-1} - Low_i\right)$
	Use SSPro4 calculation: StreetSmart Edge® uses the modern calculation for Keltner Channels, which uses EMA rather than SMA as the signal line. However, if you want Keltner Channels to continue using SMA as the signal line, check this box.
True Range	True Range is the greatest of the following:

- The current high minus the current low.
- The absolute value of the current high less the previous close.
- The absolute value of the current low less the previous close.

Volume

Average Volume Over Time (AVOT)

This study is plotted in two parts. The **first plot** represents the cumulative day's volume at each time point on an intra-day chart—e.g., the cumulative day's volume up to 9:35am ET, then the cumulative day's volume up to 9:40am ET, etc. Each time's volume includes the volumes of all the times that precede it. Since it's a cumulative measure, this plot will never fall.

The **second plot** shows the *average* of the cumulative day's volumes at each time on an intra-day chart over an n-day period—e.g., the 10-day average of the cumulative volume up to 9:35am ET on each day, then the 10-day average of the cumulative volume up to 9:40am ET on each day, etc. Since it's cumulative, this plot will never fall.

Where the cumulative day's volume rises above the average cumulative day's volume, activity is greater than the average cumulative activity of the previous n days' activity. Where the cumulative day's volume falls below the average cumulative day's volume, activity is lighter than the average cumulative activity of the previous n days' activity.

On Balance Volume (OBV)

This indicator relates volume to price changes by adding volume to a running total when the price closes up for a period, then subtracts the volume if the stock closes down for a period. You can overlay

	the study on or underneath the price chart. Formula $OBV_t = \sum_{i=1}^t \left(S_i * Vol_i\right)$ The formula is $OBV_t = \sum_{i=1}^t \left(S_i * Vol_i\right)$ where $S_i = 1$ if $(Close_i - Close_{i-1}) > 0$ and $S_i = -1$ if $(Close_i - Close_{i-1}) < 0$
Volume	Simply the number of shares (or contracts) traded during a specified time frame (e.g., hour, day, week, month, etc).
Volume at Price	Breaks volume down by price range, and further by positive or negative movement within that price range. Volume at Price may help identify areas of support or resistance indicated by high volume price points. The Number of Bars setting controls how many price range segments the chart is divided into. The default is 12. The VAP study only includes data for the current chart time frame in its calculations, so a one year chart would be based on one year of data. Calculations are based on the closing price for each period within the chart. Volume is negative for a period when the closing price moves down from one period to the next and is positive when closing price moves up from one period to the next.

Chart Lines and Objects

The highly customizable StreetSmart Edge® Chart tool enables you to draw a variety of objects, including trend lines, Fibonacci lines, annotations, and other shape objects.

The chart below describes each drawing tool available in the software. For instructions on using the Draw feature, see Chart Settings: Draw.

Get more information by visiting <u>StreetSmart Edge™ Quick References</u> in the Quick Reference Guide.

Click on the chart to draw a green horizontal line where you identify a support level.	Draw type	Description
Where you identify a resistance level. Horizontal line Click on the chart to draw a simple horizontal line. Vertical line Click on the chart to draw a simple vertical line. Trend line Draws a line with two anchor points and the line extends to infinity. With your mouse pointer on the spot where you want to start the trend line, click and drag the other end of the line to the angle you want. To adjust the line, click on it so it becomes bold and grab the square anchor and drag it to a new position. You can also change the location of the anchor at the beginning of the line. Trend line (snap) Draws a Trend line that "snaps to" the price point you specify: Open, Close, High, or Low. A Linear Regression Trend line uses the least squares method to plot a straight line through prices so as to minimize the distances between the prices and the resulting trend line. Right-click on the line and select Edit to configure how many standard deviations away from the center trend line the upper and lower channel lines will be. Segment line Similar to a Trend line but does not extend to infinity. With your mouse pointer on the spot where you want to start the trend line, click and drag the other end of the line to the angle you want. To adjust the line, click on it so it becomes bold and grab one of the square anchors and drag it to a new position. Annotation Add notes to your chart with this tool. Click on the chart and drag the rectangle to the size you need.	Support line	_
Trend line Click on the chart to draw a simple vertical line. Draws a line with two anchor points and the line extends to infinity. With your mouse pointer on the spot where you want to start the trend line, click and drag the other end of the line to the angle you want. To adjust the line, click on it so it becomes bold and grab the square anchor and drag it to a new position. You can also change the location of the anchor at the beginning of the line. Trend line (snap) Draws a Trend line that "snaps to" the price point you specify: Open, Close, High, or Low. Linear Regression Trend line A Linear Regression trend line uses the least squares method to plot a straight line through prices so as to minimize the distances between the prices and the resulting trend line. Right-click on the line and select Edit to configure how many standard deviations away from the center trend line the upper and lower channel lines will be. Segment line Similar to a Trend line but does not extend to infinity. With your mouse pointer on the spot where you want to start the trend line, click and drag the other end of the line to the angle you want. To adjust the line, click on it so it becomes bold and grab one of the square anchors and drag it to a new position. Annotation Add notes to your chart with this tool. Click on the chart and drag the rectangle to the size you need.	Resistance line	
Trend line Draws a line with two anchor points and the line extends to infinity. With your mouse pointer on the spot where you want to start the trend line, click and drag the other end of the line to the angle you want. To adjust the line, click on it so it becomes bold and grab the square anchor and drag it to a new position. You can also change the location of the anchor at the beginning of the line. Trend line (snap) Draws a Trend line that "snaps to" the price point you specify: Open, Close, High, or Low. Linear Regression Trend line A Linear Regression trend line uses the least squares method to plot a straight line through prices so as to minimize the distances between the prices and the resulting trend line. Right-click on the line and select *Edit** to configure how many standard deviations away from the center trend line the upper and lower channel lines will be. Segment line Similar to a Trend line but does *not** extend to infinity. With your mouse pointer on the spot where you want to start the trend line, click and drag the other end of the line to the angle you want. To adjust the line, click on it so it becomes bold and grab one of the square anchors and drag it to a new position. Annotation Annotation Annotation the ine to the size you need.	Horizontal line	Click on the chart to draw a simple horizontal line.
extends to infinity. With your mouse pointer on the spot where you want to start the trend line, click and drag the other end of the line to the angle you want. To adjust the line, click on it so it becomes bold and grab the square anchor and drag it to a new position. You can also change the location of the anchor at the beginning of the line. Trend line (snap) Draws a Trend line that "snaps to" the price point you specify: Open, Close, High, or Low. A Linear Regression trend line uses the least squares method to plot a straight line through prices so as to minimize the distances between the prices and the resulting trend line. Right-click on the line and select Edit to configure how many standard deviations away from the center trend line the upper and lower channel lines will be. Segment line Similar to a Trend line but does not extend to infinity. With your mouse pointer on the spot where you want to start the trend line, click and drag the other end of the line to the angle you want. To adjust the line, click on it so it becomes bold and grab one of the square anchors and drag it to a new position. Annotation Annotation Annotation the interest with this tool. Click on the chart and drag the rectangle to the size you need.	Vertical line	Click on the chart to draw a simple vertical line.
Linear Regression Trend line A Linear Regression trend line uses the least squares method to plot a straight line through prices so as to minimize the distances between the prices and the resulting trend line. Right-click on the line and select <i>Edit</i> to configure how many standard deviations away from the center trend line the upper and lower channel lines will be. Segment line Similar to a Trend line but does not extend to infinity. With your mouse pointer on the spot where you want to start the trend line, click and drag the other end of the line to the angle you want. To adjust the line, click on it so it becomes bold and grab one of the square anchors and drag it to a new position. Annotation Add notes to your chart with this tool. Click on the chart and drag the rectangle to the size you need.	Trend line	extends to infinity. With your mouse pointer on the spot where you want to start the trend line, click and drag the other end of the line to the angle you want. To adjust the line, click on it so it becomes bold and grab the square anchor and drag it to a new position. You can also change the location of the
Trend line squares method to plot a straight line through prices so as to minimize the distances between the prices and the resulting trend line. Right-click on the line and select <i>Edit</i> to configure how many standard deviations away from the center trend line the upper and lower channel lines will be. Segment line Similar to a Trend line but does not extend to infinity. With your mouse pointer on the spot where you want to start the trend line, click and drag the other end of the line to the angle you want. To adjust the line, click on it so it becomes bold and grab one of the square anchors and drag it to a new position. Annotation Add notes to your chart with this tool. Click on the chart and drag the rectangle to the size you need.	Trend line (snap)	i · · · · ·
ity. With your mouse pointer on the spot where you want to start the trend line, click and drag the other end of the line to the angle you want. To adjust the line, click on it so it becomes bold and grab one of the square anchors and drag it to a new position. Annotation Add notes to your chart with this tool. Click on the chart and drag the rectangle to the size you need.	_	squares method to plot a straight line through prices so as to minimize the distances between the prices and the resulting trend line. Right-click on the line and select <i>Edit</i> to configure how many standard deviations away from the center trend line the upper and lower channel lines will
chart and drag the rectangle to the size you need.	Segment line	ity. With your mouse pointer on the spot where you want to start the trend line, click and drag the other end of the line to the angle you want. To adjust the line, click on it so it becomes bold and grab one of the square anchors and drag it to a new
·	Annotation	chart and drag the rectangle to the size you need.

Draw type	Description
	 You can also adjust the line pattern, weight and color, as well as selecting a Fill color. The Fill can be a gradient of two different colors, or select the same color in both boxes to give it a solid background. To have no color in the background, move the Opacity setting all the way to the left.
Fibonacci arc	This trend line separates the Fibonacci Arcs into a separate view. The three arcs, which center on the last point of the trend line you draw, help you identify where support and resistance may affect the price as a stock trends up or down. You can choose to show the percentage labels by clicking Show Levels.
Fibonacci retrace	Lines are displayed by first drawing a trend line between two extreme points, for example, a trough and opposing peak. A series of nine horizontal lines are drawn intersecting the trend line at the Fibonacci levels of 0.0%, 23.6%, 38.2%, 50%, 61.8%, 100%, 161.8%, 261.8%, and 423.6%. (Some of the lines may not be visible because they will be off the scale.)
Fibonacci fan	Lines are displayed by drawing a trend line between two extreme points, for example, a trough and opposing peak. Then an "invisible" vertical line is drawn through the second extreme point. Three trend lines are then drawn from the first extreme point so they pass through the invisible vertical line at the Fibonacci levels of 0.0%, 23.6%, 38.2%, 50%, 61.8%, 100%, 161.8%, 261.8%, and 423.6%. (Some of the lines may not be visible because they will be off the scale.)
Rectangle/Oval	 Highlight areas of your chart using the rectangle or oval shapes. Click on the chart where you want to put the object and drag it to the size you need. Right-click and select <i>Edit</i> to make changes to the object. You can adjust the line pattern, weight and color, as well as selecting a <i>Fill</i> color. The Fill

Draw type	Description
	can be a gradient of two different colors, or select the same color in both boxes to give it a solid background.
	 To have no color in the background, move the Opacity setting all the way to the left.
	 To adjust the shape of the object, click it so it becomes bold and grab one of the square anchors and drag it to reshape the rectangle or oval shape.
Arrow	To point to a specific spot on your chart, use the Arrow figure.
	 Click on the chart to add the arrow. If you want to change the position, click on it so a gray square appears in the middle of it. At this point you can drag it to a new position.
	 You may also right-click on the arrow to open the Edit window and change the Label or color of the arrow.

Chart Display Tips

StreetSmart Edge® charts offer a multitude of features in a relatively small space, so knowing your way around the chart display features can help you get the most out of your Chart tool and your screen real estate.

Chart Settings Drawer

The Chart Settings Drawer on the right side of your Chart display has 3 views (mouse over each thumbnail to see full size):

Fully Open	Icons-Only	Closed
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To change the view from Icons-Only to the more compact Closed view:

- 1. Hover your mouse over the drawer tab until your cursor changes to a sideways arrow as shown circled in the Icons-Only image above.
- 2. Click and drag the drawer to the right to close it all the way. (Do the same and drag to the left to re-open to the Icons-Only view.)
- 3. Click the drawer tab to fully open the Settings drawer from either the Closed or Icons-Only view.

Streamlined View

The icon in the toolbar of the Chart allows you to switch between the regular and streamlined views of the Chart with a single click. The streamlined chart view removes extra features to give you the largest price chart possible for the size of your Chart window.

Hiding Chart Elements

In order to increase real estate within the Charts tool, you can hide certain features you may not require. From the **Settings** drawer, open the **Settings** menu. Under Element Display Options, you can hide Chart Keys, the Level 1 Data Bar, and/or the History Control.

Below, you can see the difference in the chart size when you have all of those elements off versus when you have them on (mouse over each image to enlarge). Each element can be turned off individually, so you can display as much or as little as you wish.

Elements Off

Elements On





Moving Study Panes

Study panes generally display below the price chart, but they can be moved to the top of the chart: Press and hold *Ctrl* on your keyboard, then click and drag the study above the price chart. It will snap into place when you release the mouse button.

Hiding Study Panes

Study panes can also be hidden by clicking the yellow arrow in the upper left corner of the study pane. **Note:** Clicking the X next to the study name will remove the study from the chart completely.

Below, see a chart with the study open, and then with it closed (mouse over image to enlarge). Just click the yellow arrow again to re-open the pane.

Study Open



Study Hidden



Hiding Study Lines

While hiding study lines won't create more screen real estate, it can help reduce visual clutter if you have multiple studies open in one study pane or price chart.

To hide a study line, simply click the name of the study at the top of the study pane. Click again to redisplay it. **Note:** Clicking the X next to the study name will remove the study from the chart completely.

Viewing Notes, Positions, & Orders

Display Notes, Positions and/or Open orders in your chart to quickly visualize your activity in a stock without leaving the chart. To turn this feature on (or off), open the Settings drawer, then click **Settings** and scroll down to **Activity Display Options**. Here, you can check **Orders** or **Positions** to turn either on, or uncheck to turn them off.

- Positions and Orders tiles are displayed in the Tab Bar.
- Positions display a red or green line across the chart as shown below, depending on whether your position is long (green) or short (red). Boxed positions are displayed in blue.
- Orders display as a flag next to the order price on the price scale. You can see in the image below, there is a Buy order at Market for this stock.
- If the limit price of your order is outside the displayed price scale, the flag will display at the top or bottom of the price scale accordingly.
- A Notes tile is available in the Tab Bar to open and start a new Note. Once a Note is established, it will be displayed (and customizable) on the chart.



Place a Trade

The Chart Trade Ticket is available for Stock/ETFs and allows the same actions, venues, order types, timings, special conditions and brackets as found in the <u>All</u> In One Trade Tool.



Research Tools

Symbol Hub

The Symbol Hub is a "one-stop-shop" for information on a specific symbol, where you can get quotes, charts, fundamental data, and news in addition to placing trades.

It combines many of the tools you can open individually in StreetSmart Edge® into one tool so that when you identify a security that interests you, you can do all your research and place your trade from one tool if you wish.

TIP: You may display up to 12 Symbol Hub windows across all open layouts at one time.

Below is a look at each panel of the Symbol Hub from top to bottom. Many of the panels in the Symbol Hub have identical features to their stand-alone tools, such as charts or news. For those panels, there is a link for you to jump to that individual tool's section of the help.

Title Bar and Level I

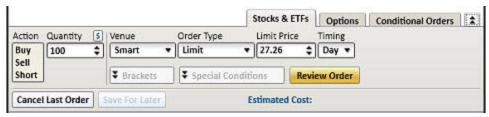


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- Enter the symbol in the upper left corner and press *Enter* or click *Go* to load the symbol. Click the arrow in the symbol field to choose from a drop-down list of the most recently entered symbols. You can also click one of the symbols in the Minichart Carousel at the bottom of the window to load that symbol.
- 2. Now you'll see the last trade price, change direction, and change from the open, as well as the full name of the company or index and exchange. The Title Bar is found in several tools, so to read more about it, see the <u>Title Bar</u> topic.
- 3. Below the Title Bar is the Level I data, as well as the <u>Order Status and Position Indicators</u>, which show whether your account has open orders or positions in the selected symbol.

TIP: To make the Title Bar a little smaller, right-click on it and select *Compact Title Bar*.

Trade Ticket



Place trades from the Symbol Hub exactly as you would from the <u>Trade tool</u>. Just like in the Trade tool, choose the appropriate tab for the action you wish to take.

- Choose the <u>Stocks & ETFs tab</u> to trade equity shares.
- Choose the <u>Options tab</u> to trade single or multi-leg options (depending on the permission levels associated with your account) and view <u>Option</u> <u>Chains</u>.
- Or, to set up an order that triggers based on a set of criteria you specify, choose the Conditional Orders tab.

TIP: You can **hide** the Trade Ticket fields by clicking the double arrow button next to the Conditional Orders tab. If you have the Trade tool open separately in your layout and prefer to place trades there, contracting these fields allows you to preserve some screen real estate.

Live Data & Research



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Toggle between the Live Data and Research panels by clicking the Research Q Live Data **Q**. buttons.

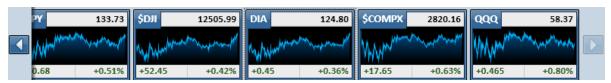
The **Live Data** panel consists of 5 tabs with streaming quote and news data:

- Summary: Gives a one-glance view of the symbol's Market Depth, chart, and latest headlines.
- Charts: Opens the full-featured Chart tool with the symbol loaded.
- Option Chains: Option chains display automatically if you select the Options tab, though you can switch to other Live Data or Research views if you have the Options tab open.
- News: Opens the full-featured News tool with the latest headlines for the symbol loaded. Click a headline to open in the article in the reading pane.
- Market Depth: Shows streaming Market Depth and Time & Sales data for the symbol. Right-click in the Market Depth or click **Actions** > **Summary Market Depth > Market Depth Settings...** to customize your Market Depth display.

TIP: For both the Summary and Charts tab, click on the down arrow in the tab name to select the layout for the tab. For instance, you can choose to display two charts side-by-side or one on top of the other. (Click the X in the top right corner of a chart if you wish to close it and just display one.)

The **Research** panel displays Fundamental data for the symbol, such as company profile, earnings, ratings, and metrics.

Minichart Carousel



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When you load a new symbol, the previous symbol will display in the carousel. Scroll through the charts using the arrow buttons to the left and right of the carousel. The carousel displays up to 30 minicharts at a time.

There are three display options for the carousel, which can be accessed by rightclicking either in the Symbol Hub title bar or in the Minichart Carousel itself and selecting *Minichart Carousel*.

Display options

• Large: Shown above, displays a 1-minute, 1-day chart with the current

quote and the dollar and % change fields.

- **Small:** Displays a 1-minute, 1-hour chart and Change from Close. Takes up a quarter of the space of the large format.
- **None:** Hides the carousel completely from the Symbol Hub display. The software will still keep track of the symbols you've viewed, so if you want to reopen the carousel later, you can.

TIP: To remove a symbol from the carousel, hover your mouse pointer over the minichart and a red **X** will display. Click the X to remove that symbol. Note that this will also remove the symbol from the symbol drop-down list in the <u>Title Bar</u> at the top of the Symbol Hub, as well as from any other symbol drop-downs in any linked tools. For more on linking tools, see <u>Tool Link Icon</u>.

Screener Plus and Sectors

The Screener Plus and Sectors tool can help you identify securities meeting certain criteria by setting up Custom Screens, as well as providing a variety of Predefined Screens. This tool integrates the following 3 tools that were previously separate within StreetSmart Pro:

- Stock Screener
- **Sectors** See more on the <u>Sectors screener tab</u>, which has different columns and settings than other tabs.
- Top 10

Get more information by visiting <u>StreetSmart Edge™ Quick References</u> in the Quick Reference Guide.

Each screener has two sub-tabs showing the **Criteria** used to generate the screen (select **View Description** from the Actions or right-click menus to quickly read the screener description) and the **Results** of the screen.

TIP: You may display up to 12 Screener Plus and Sectors tools with up to 20 tabs in each. You can also save up to 20 tabs to the software (but save as many as you wish to a local hard drive using the **Save as File** feature).

- Creating a New, Custom Screen: Start a new screen by clicking the + to
 the right of the screener tabs, or by selecting New Screen from the
 Actions or right-click menus. For step-by-step instructions on creating a
 new screen, see Creating Custom Screens.
- **Open a Predefined Screen:** There are several different ways to open a predefined screen:
 - ∘ In the left-side panel, click the arrows to drill down through the

- pre-defined screener categories. Double-click the name of a screen to open it in a new tab.
- Click the Actions button and select Open Predefined Screen, then select the screen you want to open.
- Right-click any tab and select *Open Predefined Screen*.
- Customize a Predefined Screen: You can edit predefined screens by going to the Criteria tab and making changes to the screen. Click Save Screen at the bottom to save your changes.
- Close Screens: Hover your mouse over the tab label and click the X to close the tab. Or you can right-click on the tab and select Close [screen]. You can also close tabs from the Actions drop-down.
- Rename a Screen: Right-click on the tab label and select *Rename* [screen] or double-click on the tab label. The label will change to a field you can edit. Type the new name for the tab and press *Enter*. You can also rename tabs from the *Actions* drop-down.
- Save to Watch List: Save the results of screener to a watch list by clicking the Save to Watch List button at the bottom of the list. Open in the Watch List tool by right-clicking on a new Watch List tab and selecting Open Watch List.
- **Update Period:** You can adjust how frequently most of the screens update by clicking on the **Update** drop-down and selecting a different period. Each one can have its own Update setting except Performance by Sector.

Customizing the Display

- **Rearrange Tabs:** To change the order of the Screener tabs in your tool, click on a tab label and drag it to where you want the tab to be.
- **Streamline View:** To conserve space, click the **streamlined view** icon, which collapses the tab row, and hides the Actions menu. While in streamlined view, access hidden tabs through the **Tabs** dropdown. To switch back to standard view, click the view icon again.
- **Sorting Rows:** Sort rows by clicking the header of the column on which you want to sort. An arrow next to the column name indicates the sort direction (ascending or descending).
- **Customize Color Scheme:** Choose from 162 different colors, accessible through the **Action** or right-click menu, under the **Colors...** setting.
- Customize Font: Choose the font type, size, and bold or italic characteristics by going to the *Action* or right-click menu, and selecting *Font...*
- **Rearrange Columns:** There are several ways to rearrange the columns displayed in the Screen Plus tabs:

- You can click the column headers and drag them to another spot in the tab.
- You can also right-click on a column header and choose a different column from the list of all available columns.

TIP: If the column you choose is not currently displayed in the tab, it will completely displace the column that was there. If it is already in the display, the two columns will swap places.

Screen Name	Pre-Defined Criteria
Top 10 Option Volume	Search Volume List for:
	Top 10 options whose
	• Current Price is greater than 0
	Volume is greater than 0
Top 10 Option Gainers	Search Chg (Close) List for:
	Top 10 options whose
	• Current Price is greater than 0
	• Volume is greater than 0
Top 10 Option Decliners	Search Chg (Close) List for:
	Bottom 10 options whose
	• Current Price is greater than 0.
	Volume is greater than 0
Top 10 Volume by	Search Volume List for:
Underlying	Top 10 Underlying Securities whose
	• Volume is greater than 0
Top 10 Call Volume by	Search Volume List for:
Underlying	Top 10 Underlying Securities whose
	Call Volume is greater than 0
Top 10 Put Volume by	Search Volume List for:
Underlying	Top 10 Underlying Securities whose
	• Put Volume is greater than 0
Top 10 Volume	Search Volume List for:
	Top 10 stocks whose

Screen Name	Pre-Defined Criteria
	 Current Price is greater than 5.00 Volume is greater than 250,000
Top 10 Gainers	Search Chg (Close) List for: Top 10 stocks whose • Current Price is greater than 5.00
Top 10 Decliners	• Volume is greater than 250,000 Search Chg (Close) List for: Bottom 10 stocks whose
	Current Price is greater than 5.00Volume is greater than 250,000
Top 25 Gain AMEX	Search Chg (Close) List for: Top 25 stocks whose
	 Stock Exchange is AMEX Current Price is greater than 5.00 Volume is greater than 250,000
Top 25 Gain NYSE	Search Chg (Close) List for: Top 25 stocks whose
	 Stock Exchange is NGM/NGS Current Price is greater than 5.00 Volume is greater than 250,000
Top 25 Gain NASDAQ	Search Chg (Close) List for: Top 25 stocks whose
	 Stock Exchange is NASDAQ Current Price is greater than 5.00 Volume is greater than 250,000
Top 25 Gain % AMEX	Search % Chg (Close) List for: Top 25 stocks whose
	 Stock Exchange is AMEX Current Price is greater than 5.00 Volume is greater than 250,000
Top 25 Gain % NYSE	Search % Chg (Close) List for:

Screen Name	Pre-Defined Criteria
	Top 25 stocks whose
	 Stock Exchange is NGM/NGS Current Price is greater than 5.00 Volume is greater than 250,000
Top 25 Gain % NASDAQ	Search % Chg (Close) List for: Top 25 stocks whose
	 Stock Exchange is NASDAQ Current Price is greater than 5.00 Volume is greater than 250,000
Daily High Count	Search Daily High Count List for: Top 25 stocks whose
	Current Price is greater than 5.00Volume is greater than 250,000
Daily Low Count	Search Daily Low Count List for: Top 25 stocks whose
	Current Price is greater than 5.00Volume is greater than 250,000
Hitting Highs	Search Daily High Count List for: Top 25 stocks whose
	 Difference between High and Current Price is equal to or less than 0.13 Current Price is greater than 5.00 Volume is greater than 250,000
Yearly High, Near	Search 52 Wk high – Daily High List for: Bottom 25 stocks whose
	 Current Price is greater than 5.00 Volume is greater than 250,000
Performance by Sector	Shows performance data for each Sector, Industry, and Sub-Industry. Click the arrow to expand each row.
Change from Open	Search Chg (Open) List for:

Screen Name	Pre-Defined Criteria
	Top 25 stocks whose
	Current Price is greater than 5.00
	• Volume is greater than 250,000
Increased Volume	Search % Volume Over 5 Day Avg Vol List for:
	Top 25 stocks whose
	 Average Vol - 5 Day is greater than 250,000
	Current Price is greater than 5.00
Gap Up, Stay Up	Search Gap List for:
	Top 25 stocks whose
	Current Price is greater than Open
	• Gap is greater than 0.00
	 Current Price is greater than 5.00 Volume is greater than 250,000
Lange D / E Callana	
Low P/E Gainers	Search Chg (Close) List for: Top 30 stocks whose
	• P/E Ratio is less than 15.00
	• Current Price is greater than 10.00
	• Volume is greater than 250,000
High P/E Top Losers	Search Chg (Close) List for:
	Bottom 20 stocks whose
	• P/E Ratio is greater than 50.00
	Current Price is greater than 10.00
	• Volume is greater than 250,000
Small Cap Movers over	Search Current Price List for:
\$10	Top 30 stocks whose
	Current Price is greater than 10.00
	• Market Cap is less than 1000.00
	Volume is greater than 250,000
Uptrend Breakout with Increasing Volume	Search % Volume Over 1 Month Avg Vol List for:

Screen Name	Pre-Defined Criteria
	Top 30 stocks whose
	 Current Price is greater than 10.00
	 Avg Vol - 6 Month is greater than 2500,000
	 High is greater than 20 Day High
	 15 Day SMA is greater than 50 Day SMA
	 10 Day RSI is greater than 30 Day RSI
	 % Return on Equity is greater than 15.00
	 Avg Vol - 5 Day is greater than Avg Vol - 1 Month
Downtrend Breakout with Increasing Volume	Search % Volume Over 1 Month Avg Vol List for:
	Top 30 stocks whose
	 Current Price is greater than 20.00
	 Current Price is greater than 5 Day Low
	 Avg Vol - 6 Month is greater than 250,000
	 15 Day SMA is greater than 50 Day SMA
	• P/E Ratio is greater than 50.00
	 Avg Vol - 5 Day is greater than Avg Vol - 1 Month
Strong Stocks with 20%	Search Relative Strength List for
Retracement	Top 30 stocks whose
	• Current Price is greater than 10.00
	 Avg Vol - 6 Month is greater than 250,000
	 15 Day SMA is greater than 50 Day SMA
	 50 Day SMA is greater than 120 Day SMA

Screen Name	Pre-Defined Criteria
	• 50 Day SMA is greater than 200 Day SMA
	 Difference between 52 Wk High and Current Price (%) is less than 0.5
	 Current Price is greater than 50 Day SMA
15 Day SMA Crossing Above 50 Day SMA	Search Relative Strength List for Top 30 stocks whose
·	• Current Price is greater than 25.00
	 Avg Vol - 6 Month is greater than 250,000
	• 15 Day SMA is less than 50 Day SMA
	 50 Day SMA is greater than 120 Day SMA
	 50 Day SMA is greater than 200 Day SMA
	 Difference between 15 Day SMA and 50 Day SMA (%) is less than 0.5
	 Current Price is greater than 50 Day SMA
15 Day SMA Crossing Below 50 Day SMA	Search Relative Strength List for Bottom 30 stocks whose
	Current Price is greater than 10.00
	 Avg Vol - 6 Month is greater than 250,000
	 15 Day SMA is greater than 50 Day SMA
	 50 Day SMA is less than 120 Day SMA
	 50 Day SMA is less than 200 Day SMA
	 Difference between 15 Day SMA and 50 Day SMA(%) is less than 0.5
	 Current Price is less than 50 Day SMA
Strong Fundamentals	Search Relative Strength List for:

Screen Name	Pre-Defined Criteria
with Bottoming Price	Top 30 stocks whose
	 Avg Vol - 6 Month is greater than 250,000
	• % Margin is greater than 17.00
	 % Return on Equity is greater than 15.00
	 % Return on Asset is greater than 10.00
	 % Dividend Payout Ratio is greater than 0.00
	 50 Day SMA is less than 200 day SMA
	Current Price is greater than 5.00
Climax Sell-off	Search % Volume Over 6 Month Avg List for:
	Top 30 stocks whose
	• Current Price is greater than 5.00
	 Low is less than 20 Day Low
	 Avg Vol - 6 Month is greater than 250,000
	• 15 Day SMA is less than 50 Day SMA
	• Relative Strength is less than 20.00
	 % Held by Institutions is greater than 40.00
Uptrend and Currently Oversold	Search Relative Strength List for: Top 30 stocks whose
	 Current Price is greater than 20.00 Avg Vol - 6 Month is greater than 250,000
	 15 Day SMA is greater than 50 Day SMA
	 50 Day SMA is greater than 200 Day SMA
	• %D is less than 35.00
	• %D Slow is less than 35.00

Screen Name	Pre-Defined Criteria
Downtrend and Currently Overbought	Search Relative Strength List for: Bottom 30 stocks whose
	 Current Price is greater than 20.00 Avg Vol - 6 Month is greater than 250,000 15 Day SMA is less than 50 Day SMA 50 Day SMA is less than 200 Day SMA %D is greater than 75.00
	• %D Slow is greater than 75.00
Oversold and Gaining Momentum	Search % Volume Over 6 Month Avg List for: Top 30 stocks whose
	 Current Price is greater than 10.00 Avg Vol - 6 Month is greater than 250,000
	 50 Day SMA is greater than 120 Day SMA
	 120 Day SMA is greater than 200 Day SMA
	 10 Day RSI is greater than 30 Day RSI
	 20 Day Momentum is greater than 40 Day Momentum
	 Rate of Change is greater than 0.00 %D is less than 40.00
	• %D Slow is less than 40.00

Schwab does not recommend the use of technical analysis as a sole means of investment research.

Options carry a high level of risk and are not suitable for all investors. Certain requirements must be met to trade options through Schwab. Multiple leg options strategies will involve multiple commissions. Please read the options disclosure document titled "Characteristics and Risks of Standardized Options." Supporting documentation for any claims or statistical information is available upon request.

Creating Custom Screens

Create stock screeners to help you identify stocks that meet certain criteria, from price to volume to fundamentals and analyst ratings. StreetSmart Edge® provides several Predefined Screens, which you can customize to your needs, or you can create new custom screen.

Custom and predefined screens can both be found in the Screener Plus and Sectors tool. Read more about managing screens in the <u>Screener Plus and Sectors</u> tool.

Create a New Screen:

- Open a new screen by clicking **New Screen** in the **Actions** or right-click menu of the Screener Plus and Sectors tool, or by clicking the + next to the row of tabs at the top of the tool.
- 2. The tab of the new screen becomes editable so you can give it a name. You can rename a screen later by right-clicking on the tab and selecting **Rename**.
- 3. Each screener tab has a **Criteria** and **Results** sub-tab. Click the Criteria tab to choose the parameters for your screen.
- 4. Six types of data are available for use in your screen:
 - **Basic:** Price and volume data
 - Analyst Ratings: Schwab Equity Ratings, as well as aggregated ratings
 - **Company Performance:** Revenue, earnings, and growth data
 - Price Performance: Price changes and returns over varying periods of time
 - Metrics: Dividends and P/E ratios
 - **Technicals:** SMA, EMA, RSI, and other technical indicators
 - For descriptions of all the screener criteria, see <u>Screener Plus and Sect</u>ors Column Descriptions.
- 5. Check a criterion to add it to the screen. When checked, several options will appear, depending on the type of data, to further customize the screen. Two links, Range and Buttons, display.
 - Range: Choose Range for the most flexibility, as you can completely customize the filters used on the criteria, as well as add multiple filters where applicable.
 - Buttons: A simpler approach, the Buttons view offers a pre-set choice of ranges from which to choose.
- 6. Specify either the Range (or multiple ranges by clicking **Add Another Filter**) or select one of the Buttons with pre-set ranges.

7. Add the desired criteria, then add any data columns you wish to see in the Results, but aren't part of the filtering by checking them in the **Display** column ONLY. For example, if you are doing a Volume-based filter, but want to see the Last Trade price in the results, just check next to Last Trade in the Display column.

TIP: You can also display entire groups of data, such as all Analyst Ratings, by checking **Display** next to the group name. If Display is checked next to the group name, it means all criteria in that group will display in the results. If the Display box is filled in, it means only certain criteria in that group will display. Expand the group by clicking the yellow arrow to see which criteria will display.

- As you adjust the criteria for your screen, the Criteria Matches column will show how many stocks overall meet that individual criteria. The Screen Matches column will show how many matches meet ALL the criteria selected so far.
- 9. Additional settings you may wish to adjust on your screen:
 - Update Rate: You can set your screen to update its data anywhere from Never to every hour to every 15 seconds.
 - Display settings: At the bottom of the Criteria tab, select how you want the results to display. You can view the top or bottom results, with as low as 10 results, and up to 50 results. Then choose which criteria you want the results sorted by, keeping in mind that the sort order does not have to be a column in the display.
- 10. When you are finished, click Save Screen in the bottom right corner. This will save it to the software for later retrieval. If you want to save the screen to your computer, right-click on the screen and select Save [screen name] as File.

Edit a Custom Screen

To edit a screen you created, simply go to the screen's Criteria tab, make the necessary changes per the steps above, and save the screen.

Sectors Screener

The **Performance by Sector** tab of the <u>Screener Plus and Sectors</u> tool can show the following data fields for your screener results. Columns available in the other Screener Plus tabs are described in <u>Screener Plus and Sectors Column Descriptions</u>. See <u>Screener Plus and Sectors Columns and Settings</u> for directions on setting up the columns in any <u>Screener Plus and Sectors tab.</u>

Customizing Columns

There are several ways to rearrange the columns displayed in the Sectors screener tabs:

- You can click the column headers and drag them to another spot in the tab.
- You can also right-click on a column header and choose a different column from the list of all available columns.

TIP: If the column you choose is not currently displayed in the tab, it will completely displace the column that was there. If it is already in the display, the two columns will swap places.

- You can also arrange column order from the Columns and Settings window, which is available when you right-click in the tab. Check the columns you want to display in the tab. All chosen fields display in the Column Order display on the right. Click a column name and use the *Up/Down* buttons to move the column into a new position.
- For brief descriptions of each column, hover your mouse pointer over the column name in the Columns and Settings window.

Save as Watch List

Only Sub-Industry categories can be saved as watch lists. Drill all the way down through the Sector and Industry and to the Sub-Industry and click **Save as**Watch List.

Quote Data	
% Chg (Open)	Percentage of change from open price to current price.
% Change	Percentage of change from close price to current price.
Change	Total amount the stock has gained/declined since yesterday's close.
Chg (Open)	Total amount the stock has gained/declined since market open.

Performance	
5-Day Close Perf (%)	Difference between the Close from 5 days ago and the Current Price expressed as a percentage.

Performance	
20-Day Close Perf (%)	Difference between the Close from 20 days ago and the Current Price expressed as a percentage.
1-Mo Close Perf (%)	Difference between the Close from 1 month ago and the Current Price expressed as a percentage.
6-Mo Close Perf (%)	Difference between the Close from 6 months ago and the Current Price expressed as a percentage.
YTD Close Perf (%)	Difference between the close from the beginning of the year and the Current Price expressed as a percentage.
Volume	Total cumulative volume for the day.
Market Cap	The total market value of all of a company's outstanding securities.

Screener Plus and Sectors Column Descriptions

The Screener Plus and Sectors tool can show the following data fields for your screener results. The Sectors screener has its own set of columns, which you can see in the <u>Sectors topic</u>.

Basic	
Symbol	The identifying symbol for the item in the Watch List. This column cannot be removed or moved within the Watch List.
Description	Company name or description of item
Sector	GICS (Global Industry Classification Standard) sector classification
Industry	GICS (Global Industry Classification Standard) industry classification
Sub-Industry	GICS (Global Industry Classification Standard) sub-industry classification
Market Cap	Market value of all of a company's outstanding shares

Basic	
	TIP: Enter Market Cap value in millions. For instance, to screen for stocks with a market cap of greater than a billion, set the filter to "Market Cap" is "greater than" "1000".
Exchange	Exchange on which the security is listed
Dividend	Dividends paid by company over last 12 months in dollars per share
Dividend Yield	Dividends paid by company over last 12 months as a % of Previous Close
Last Trade	Last trade price as of the screen's last update
Open	Opening price for the day
Prev Close	Closing price from previous market session
Reported Close	Close price reported by exchange
High	Highest price the security has reached that day as of the screen's last update
Low	Lowest price the security has reached that day as of the screen's last update
Bid	Current inside bid price as of the screen's last update
Ask	Current inside ask price as of the screen's last update
Bid Size	The quoted size of the inside bid price as of the screen's last update
Ask Size	The quoted size of the inside ask price as of the screen's last update
% Held by Institutions	Percentage of outstanding shares held by institutional investors
Volume	Number of shares/contracts the security has traded for the day
Avg Vol 5 Day	Average volume for the stock over the last 5 days
Avg Vol 20 Day	Average volume for the stock over the last 20

Basic	
	days
Avg Vol 1 Month	Average volume for the stock over the last month
Avg Vol 6 Months	Average volume for the stock over the last 6 months
Avg Vol YTD	Average volume for the stock since the begin- ning of the calendar year
% Vol Over Yes- terday's Vol	Difference between current Volume and yesterday's volume, expressed as a percentage
% Vol Over 5 Day Avg Vol	Difference between current Volume and the average volume for the last 5 days, expressed as a percentage
% Vol Over 20 Day Avg Vol	Difference between current Volume and the average volume for the last 20 days, expressed as a percentage
% Vol Over 1 Mo Avg Vol	Percentage of the average 1 month volume represented by current volume. For example: If current volume = 100,924 and the average 1 month volume = 78,718 % Vol Over 1 Mo Avg Vol = (100,932/78,718) x 100 = 128.22%
% Vol Over 6 Mo Avg Vol	Percentage of average 6 month volume represented by current volume. For example: If current volume = 100,924 and the average 6 month volume = 78,718 % Vol Over 1 Mo Avg Vol = (100,932/78,718) x 100 = 128.22%
% Vol Over YTD Avg Vol	Percentage of average year to yate volume represented by current volume. For example: If current volume = 100,924 and the average year to yate volume = 78,718 % Vol Over YTD Avg Vol = (100,932/78,718) x

Basic	
	100 = 128.22%
Avg \$ Vol 5 Day	The 5 day average volume in dollars (not including today)
In S&P 500	Indicates whether the stock is part of the Standard and Poor's 500 Index
In S&P Mid Cap 400	Indicates whether the stock is part of the Standard and Poor's Mid Cap 400 Index
In S&P Small Cap 600	Indicates whether the stock is part of the Standard and Poor's Small Cap 600 Index

Analyst Ratings	Analyst Ratings	
SER	Schwab Equity Rating evaluates individual stock and provides a 5 point rating scale (A, B, C, D, F) indicating Schwab's outlook on the potential performance of the stock over the coming 12 months. More on Schwab Equity Ratings	
S&P Stars	S&P's fundamental analysis and evaluation of the short-term (6-12 month) appreciation of potential stocks.	
	 5: BUY - Expected to be among the best performers over the next 12 months and rise in price. 	
	 4: ACCUMULATE - Expected to be an above-average performer. 	
	 3: HOLD - Expected to be an average per- former. 	
	 2: AVOID - Likely to be a below-average performer. 	
	 1: SELL - Expected to be a well-below average performer and fall in price. 	
S&P Earning & Dividend Ranking	Measures the historical growth and stability of a company's earnings and dividends for the past 10 years. The ranking system has various grades:	
	• A+: Highest	

Analyst Ratings	
	 A: High A-: Above Average B+: Average B: Below Average B-: Lower C: Lowest D: In Reorganization, and NR: No Ranking. NOTE: An NR designation (no ranking) is given to common stocks with insufficient historical data or because the stock is not amenable to the ranking process. As a matter of policy, Standard & Poor's does not rank the stock of foreign companies, investment companies, and certain finance-oriented companies. So as not to be biased by future expectations, the rankings are based on past events only. The S&P Ranking System does not use earnings and dividend estimates. An S&P ranking is not a recommendation to buy or sell the stock of a company. S&P common stock rankings should not be confused with debt quality ratings.
% Recommend Buy	Percentage of Buy recommendations from analysts covering the issue
% Recommend Buy - Hold	Percentage of Buy-Hold recommendations from analysts covering the issue
% Recommend Hold	Percentage of Hold recommendations from analysts covering the issue
% Recommend Hold - Sell	Percentage of Hold-Sell recommendations from analysts covering the issue
% Recommend Sell	Percentage of Sell recommendations from analysts covering the issue
Recommend Num	Total number of recommendations from analysts covering the issue
Recommendation Avg	Average recommendations from analysts covering the issue $(1.0 = Buy, 5.0 = Sell)$

Company Performance	
Net Income	Gross sales minus taxes, interest, depreciation, and other expenses
Revenue	Total dollar amount collected for goods and services provided
Earnings	Revenues minus cost of sales, operating expenses, and taxes over a given period of time
Shares Outstanding	Number of shares of a corporation that have been issued
EPS (ttm)	Earnings Per Share (trailing twelve month) shows net income divided by the average number of shares outstanding for a company for the last 12 months
EPS (Latest)	Earnings Per Share shows net income divided by the average number of shares outstanding for a company for the current fiscal year
% 5 Yr Projected Growth Rate	Compounded earnings growth rate projected for the next five years based on the last actual reported annual earnings and estimated consensus growth rates as provided by I/B/E/S
% Margin	Net income for the latest reported full fiscal year (including discontinued operations, but before adjustments for dividends or extraordinary items) divided by net sales and other operating revenues for the latest full fiscal year.
Sales Per Employee	Sales for the latest fiscal year divided by the number of employees, expressed as dollars per employee.

Price Performance	
Change	Change in the price from the previous day's Close expressed as a point value (updated at 6 a.m. Eastern Time)
% Change	Change in the price from the previous day's Close expressed as a percentage (i.e. difference

Price Performance	
	between Close and Current Price, divided by Close) (updated at 6 a.m. Eastern Time)
Chg (Open)	Change in the price from the Open expressed as a point value
% Chg (Open)	Change in the price from the Open expressed as a percentage (i.e. difference between Open and Current Price, divided by Open)
Gap	Difference between most recent open and close prices expressed as a point value (Open - Close)
% Gap	Difference between most recent Open and Close prices expressed as a percentage (100*(Open-Close)/Close)
Chg from Beg of Mo Open	Difference between the beginning of the month open price and the Last Trade as of the screen's last update
Chg from Beg of Yr Open	Difference between the beginning of the year open price and the Last Trade as of the screen's last update
Chg from 5 day Avg Close	Difference between the average close for the last five days and the Current Price expressed as a point value
% Chg from 5 day Avg Close	Difference between the average close for the last five days and the Current Price expressed as a percentage (i.e. difference between 5 Day Avg Close and Current Price divided by 5 Day Avg Close)
% Chg from 6 Day Close	Change from the close price 6 days ago to the Last Trade as of the screen's last update, expressed as a percentage
Chg from 20 day Avg Close	Difference between the average close for the last 20 days and the Current Price expressed as a point value
% Chg from 20 day Avg Close	Difference between the average close for the last 20 days and the Current Price expressed as a percentage (i.e. difference between 20 Day

Price Performance	
	Avg Close and Current Price divided by 20 Day Avg Close)
Chg from 1 Mo Avg Close	Difference between the average close for the last month and the Current Price expressed as a point value
% Chg from 1 Mo Avg Close	Difference between the average close for the last month and the Current Price expressed as a percentage (i.e. difference between 1 Month Avg Close and Current Price divided by 1 Month Avg Close)
Chg from 6 Mo Avg Close	Difference between the average close for the last 6 months and the Current Price expressed as a point value
% Chg from 6 Mo Avg Close	Difference between the average close for the last 6 months and the Current Price expressed as a percentage (i.e. difference between 6 Month Avg Close and Current Price divided by 6 Month Avg Close)
Chg from YTD Avg Close	Difference between the average close for the last year and the Current Price expressed as a point value
% Chg from YTD Avg Close	Difference between the average close for the last year and the Current Price expressed as a percentage (i.e. difference between YTD Avg Close and Current Price divided by YTD Avg Close)
% Total Return (YTD0)	Rate of return representing the price appreciation of a stock with cash dividends reinvested on the pay date from the beginning of the current fiscal year to the most recent full week of the fiscal year
% Total Return (YTD1)	Rate of return representing the price appreciation of a stock with cash dividends reinvested on the pay date from the period covering the most recent fiscal year
% Total Return (YTD2)	Rate of return representing the price appreciation of a stock with cash dividends reinvested

Price Performance	Price Performance	
	on the pay date from the period covering the most recent 2 fiscal years	
% Total Return (YTD3)	Rate of return representing the price appreciation of a stock with cash dividends reinvested on the pay date from the period covering the most recent 3 fiscal years	
% Total Return (YTD4)	Rate of return representing the price appreciation of a stock with cash dividends reinvested on the pay date from the period covering the most recent 4 fiscal years	
% Total Return (YTD5)	Rate of return representing the price appreciation of a stock with cash dividends reinvested on the pay date from the period covering the most recent 5 fiscal years	
% Total Return (3 Mo)	Rate of return representing the price appreciation of a stock with cash dividends reinvested on the pay date from the period covering the most recent fiscal quarter	
% Total Return (6 Mo)	Rate of return representing the price appreciation of a stock with cash dividends reinvested on the pay date from the period covering the 2 most recent fiscal quarters	
% Total Return (9 Mo)	Rate of return representing the price appreciation of a stock with cash dividends reinvested on the pay date from the period covering the 3 most recent fiscal quarters	
% Return on Equity	Net income including discontinued operations but before extraordinary items, expressed as a % of common shareholders' equity for the most recent fiscal year. Generally used as a measure of management effectiveness.	
% Return on Assets	Net income including discontinued operations but before extraordinary items, expressed as a % of total assets for the most recent fiscal year. Used in industry analysis as a measure of assetuse efficiency.	
Beta Value	Indicates the volatility of a stock's price, with	

Price Performance	Price Performance	
	dividends reinvested, relative to the overall mar- ket. The S&P 500 stock price index is used as a benchmark for the "overall market." A beta greater than 1.0 indicates higher volatility rel- ative to the overall market.	
Daily High Count	Number of times a new High has been reached today	
Daily Low Count	Number of times a new Low has been reached today	
High Prev Day	Highest price the stock has traded in the previous trading day	
High 5 Day	Highest price the stock has reached over the last five days (not including today)	
High 20 Day	Highest price the stock has reached over the last 20 days (not including today)	
High 1 Mo	Highest price the stock has reached over the last month (not including today)	
High YTD	Highest price the stock has reached over the last year (not including today)	
High 52 Week	Highest price a stock as reached in the past 52 weeks (not including today)	
High 52 Wk - Daily High	Shows the distance between the 52 Week High and the Daily High (i.e., if the stock's 52 week high is 45 and the daily high is 42, this column will show a 3)	
Low Prev Day	Lowest price the stock has traded in the previous trading day	
Low 5 Day	Lowest price the stock has reached over the last five days (not including today)	
Low 20 Day	Lowest price the stock has reached over the last 20 days (not including today)	
Low 1 Mo	Lowest price the stock has reached over the last month (not including today)	
Low YTD	Lowest price the stock has reached over the last	

Price Performance	
	year (not including today)
Low 52 Week	Lowest price a stock as reached in the past 52 weeks (not including today)
Low 52 Wk - Daily Low	Shows the difference between the 52 Week Low and the Daily Low (i.e., if the stock's 52 week low is 7 and the daily low is 8, this column will show a 1)
Trading Range	The trading range for the current day, i.e. the difference between High and Low
% Chg of Range from High	Difference between the daily High and the Last Trade as a percentage of the Trading Range for the day
% Chg of Range from Low	Difference between the daily Low and the Last Trade as a percentage of the Trading Range for the day
Relative Strength	Measures each stock's price performance compared to all other companies in the S&P universe on a rolling 13-week basis
[SMA 15 Day - Last Trade] (%)	The difference between the 15 day Simple Moving Average value and the Last Trade, expressed as a percentage
High - Last Trade	The difference between High and Last Trade
Low - Last Trade	The difference between Low and Last Trade

Metrics	
P/E (ttm)	Ratio of a company's previous close to earnings over the last 12 months
P/E Ratio (Latest Actual)	Ratio derived by dividing closing stock price by most recent actual fiscal year earnings per share. Negative P/E ratios are not considered meaningful and are therefore not displayed
P/E Ratio (Estimated)	Ratio derived by dividing closing stock price by latest consensus estimate. Negative P/E ratios are not considered meaningful and are therefore

Metrics	
	not displayed
Relative P/E Ratio	Company's Trailing Twelve Month (TTM) P/E ratio relative to (divided by) the TTM P/E ratio of the S&P 500
Price/Book Ratio	Most recent price per share divided by most recent equity per share
P/S Ratio	Price-to-Sales ratio shows a stock's capitalization divided by its sales over the previous 12 months
Dividend Payout Ratio	The percentage of annual earnings paid out in dividends. Calculated by dividing the Dividend by EPS (ttm)
Long Term D/E	Total long term debt for the most recent fiscal year divided by total equity for the same period

Technicals	
SMA 10 Day	Average of the last 10 days' close values (including today). If the market hasn't closed yet, it uses the current price for today's close.
SMA 15 Day	Average of the last 15 days' close values (including today). If the market hasn't closed yet, it uses the current price for today's close.
SMA 20 Day	Average of the last 20 days' close values (including today). If the market hasn't closed yet, it uses the current price for today's close.
SMA 50 Day	Average of the last 50 days' close values (including today). If the market hasn't closed yet, it uses the current price for today's close.
SMA 60 Day	Average of the last 60 days' close values (including today). If the market hasn't closed yet, it uses the current price for today's close.
SMA 100 Day	Average of the last 100 days' close values (including today). If the market hasn't closed yet, it uses the current price for today's close.

Technicals	
SMA 120 Day	Average of the last 120 days' close values (including today). If the market hasn't closed yet, it uses the current price for today's close.
SMA 200 Day	Average of the last 200 days' close values (including today). If the market hasn't closed yet, it uses the current price for today's close.
EMA 15 Day	While similar to the SMA above, the exponential moving average uses a "smoothing factor" to give more weight to recent prices, while still allowing all data in the 15-day window to influence the average.
EMA 20 Day	While similar to the SMA above, the exponential moving average uses a "smoothing factor" to give more weight to recent prices, while still allowing all data in the 20-day window to influence the average.
EMA 50 Day	While similar to the SMA above, the exponential moving average uses a "smoothing factor" to give more weight to recent prices, while still allowing all data in the 50-day window to influence the average.
EMA 60 Day	While similar to the SMA above, the exponential moving average uses a "smoothing factor" to give more weight to recent prices, while still allowing all data in the 60-day window to influence the average.
EMA 100 Day	While similar to the SMA above, the exponential moving average uses a "smoothing factor" to give more weight to recent prices, while still allowing all data in the 100-day window to influence the average.
EMA 120 Day	While similar to the SMA above, the exponential moving average uses a "smoothing factor" to give more weight to recent prices, while still allowing all data in the 120-day window to influence the average.
RSI 10 Day	Relative Strength Index indicates the degree of

Technicals	
	positive and negative movements by the stock on a scale of 0 (weakest) to 100 (strongest). Determined by figuring the ratio of the average up closes for the last 9 days (using today's Current Price for the 10th day) divided by the sum of the average up closes and the average down closes for the same period. This ratio is multiplied by 100.
RSI from Close 10 Day	Relative Strength Index indicates the degree of positive and negative movements by the stock on a scale of 0 (weakest) to 100 (strongest). Determined by figuring the ratio of the average up closes for the last 10 days (not including today if prior to close) divided by the sum of the average up closes and the average down closes for the same period. This ratio is multiplied by 100.
RSI 30 Day	Relative Strength Index indicates the degree of positive and negative movements by the stock on a scale of 0 (weakest) to 100 (strongest). Determined by figuring the ratio of the average up closes for the last 29 days (using today's Current Price for the 30th day) divided by the sum of the average up closes and the average down closes for the same period. This ratio is multiplied by 100.
RSI from Close 30 Day	Relative Strength Index indicates the degree of positive and negative movements by the stock on a scale of 0 (weakest) to 100 (strongest). Determined by figuring the ratio of the average up closes for the last 30 days (not including today if prior to close) divided by the sum of the average up closes and the average down closes for the same period. This ratio is multiplied by 100.
RSI 50 Day	Relative Strength Index indicates the degree of positive and negative movements by the stock on a scale of 0 (weakest) to 100 (strongest). Determined by figuring the ratio of the average up closes for the last 49 days (using today's Cur-

Technicals	
	rent Price for the 50th day) divided by the sum of the average up closes and the average down closes for the same period. This ratio is multiplied by 100.
RSI from Close 50 Day	Relative Strength Index indicates the degree of positive and negative movements by the stock on a scale of 0 (weakest) to 100 (strongest). Determined by figuring the ratio of the average up closes for the last 50 days (not including today if prior to close) divided by the sum of the average up closes and the average down closes for the same period. This ratio is multiplied by 100.
DM (DI+) Positive 14 Day	The basic Directional Movement trading system involves comparing the 14-day +DX ("Directional Indicator") and the 14-day -DX. This can be done by plotting the two indicators on top of each other or by subtracting the +DX from the -DX. The study indicates buying when the +DX rises above the -DX and selling when the +DX falls below the -DX.
DM (DI-) Negative 14 Day	The basic Directional Movement trading system involves comparing the 14-day +DX ("Directional Indicator") and the 14-day -DX. This can be done by plotting the two indicators on top of each other or by subtracting the +DX from the -DX. The study indicates buying when the +DX rises above the -DX and selling when the +DX falls below the -DX.
DM (DX) 14 Day	The Directional Movement study indicates the strength of a trend, independent of whether that trend is up or down. The study combines several components: +DX measures upward moves, -DI measures downward moves, DX combines +DX and -DX, and ADX is a smoothed version of DX.
DM Average (ADX) 14 Day	Assesses the strength of the current trends in a stock's movement, as well as helping point out when a market may be changing from trending

Technicals	Technicals	
	to non-trending and vice versa. ADX is calculated by taking a modified moving average of DX.	
%K	Along with %D, is part of a stochastic indicator. Shows the price level of a stock in relation to its price range over a given period.	
%D	Along with %K, is part of a stochastic indicator. Shows the degree of smoothing, or moving average period, of %K.	
%D Slow	Similar in principle to %D above, except tends to show less market "noise" due to increasing the number of periods used in the calculation.	
Bollinger Band® (Top)	The Middle line of a Bollinger Band is a simple moving average. The Top and Bottom lines are placed n-standard deviations above and below the centerline. Since standard deviations are a measure of volatility, the bands widen during volatile price action and contract when the trading range tightens.	
Bollinger Band® (Middle)	The Middle line of a Bollinger Band is a simple moving average. The Top and Bottom lines are placed n-standard deviations above and below the centerline. Since standard deviations are a measure of volatility, the bands widen during volatile price action and contract when the trading range tightens.	
Bollinger Band® (Bottom)	The Middle line of a Bollinger Band is a simple moving average. The Top and Bottom lines are placed n-standard deviations above and below the centerline. Since standard deviations are a measure of volatility, the bands widen during volatile price action and contract when the trading range tightens.	
MACD	Trend-following momentum indicator that uses three exponential moving averages: a short or fast average, a long or slow average, and an exponential average of their difference, the last being used as a signal or trigger line.	

Technicals	
MACD Signal	Typically used in conjunction with the MACD indicator above.
Momentum 20 Day	Measure the amount that a security's price has changed over the last 20 days. If today hasn't closed yet, it uses current price for today's close.
Momentum from Close 20 Day	Measured the amount a security's price has changed over the last 20 closes.
Momentum 40 Day	Measure the amount that a security's price has changed over the last 40 days. If today hasn't closed yet, it uses current price for today's close.
Momentum from Close 40 Day	Measured the amount a security's price has changed over the last 40 closes.
Momentum 60 Day	Measure the amount that a security's price has changed over the last 60 days. If today hasn't closed yet, it uses current price for today's close.
Momentum from Close 60 Day	Measured the amount a security's price has changed over the last 60 closes.
Money Flow	Money Flow keeps a running total of the money flowing into and out of a security. The direction of the Money Flow line is an important component to watch, not the actual dollar amount. This unit can be used to confirm underlying strength or weakness of a price trend.
Money Flow Percent	Money Flow Percent is also called Chaikin Money Flow. It normalizes the Money Flow calculation above by dividing the cumulative volume for the period.
Williams %R	Measures the percentage to which a stock is overbought or oversold based on the position of the current period's close to the range of prices over a period of time.
General	

General	
	If a symbol in the Screener tab has a note associated with it in the <u>Notes</u> tool, the Notes icon

General will display. Click the icon to see the note(s).

Schwab does not recommend the use of technical analysis as a sole means of investment research.

Options carry a high level of risk and are not suitable for all investors. Certain requirements must be met to trade options through Schwab. Multiple leg options strategies will involve multiple commissions. Please read the options disclosure document titled "Characteristics and Risks of Standardized Options." Supporting documentation for any claims or statistical information is available upon request.

High/Low

The High/Low tool shows stocks breaking through daily or 52-week highs and lows. Breaking through a high or low may indicate a stock has moved through resistance or support levels, possibly indicating a changing trend.

You can customize the types of stocks to track in a High/Low tab to display any combination of the following:

- All NASDAQ stocks
- All NYSE stocks
- Indices
- Custom symbol list
- Any of your Watch Lists
- Current Positions
- See High/Low Settings for more on customizing your High/Low tabs

You can also set up "proximity alerts" to notify you when a stock is trading near a high or low, as well as setting volume and price boundaries to further tailor the data stream and reduce unwanted data.

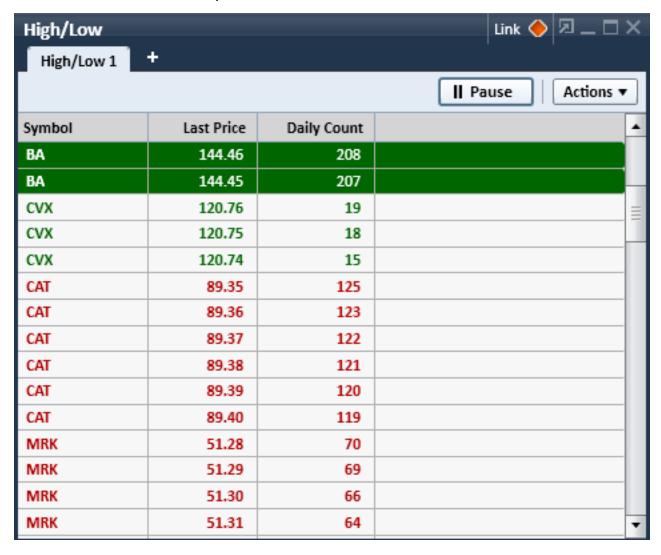
TIP: 52-week highs and lows are indicated by a shaded **green** or **red** background, respectively.

NASDAQ and NYSE information are both updated during Pre Market, Standard, and After Hours sessions.

Using the High/Low Tool

- Double-click on a symbol to load the symbol into any tools linked to the High/Low tool. See more on the Tool Link Icon...
- For fast-moving feeds, you may need to pause the feed to review the data or click on a symbol. To pause the live feed, click the **Pause** button. Using

- the scroll bar to scroll down to older data will also pause the feed. Data does not accumulate while the feed is paused.
- To conserve space, click the **streamlined view** icon, which collapses the
 tab row, and hides the Pause button and Actions menu. While in streamlined
 view, access hidden tabs through the **Tabs** dropdown; access the pause feature by clicking on the pause icon in the Header. To switch back to standard
 view, click the view icon again.
- The Track bar at the bottom of the tool allows you to keep a constant eye
 on one symbol. Click on a symbol to load it in the Track bar. The drop-down
 menu button in the Track bar gives you quick access to trading, alerts, news
 and research for that symbol.



Create a new High/Low Tab

- Right-click on a High/Low tab and select **New High/Low tab** or click the + next to the tabs.
- The default new tab tracks the entire NASDAQ and NYSE, as well as Indices, and shows both Daily and 52-week highs and lows for all. To customize your new tab, select *Tab Settings* from the right-click or *Actions* menus. See more on <u>High/Low Settings</u>...

TIP: You may display up to 4 High/Low tools with up to 4 tabs in each. You can also save up to 20 tabs to the software (but save as many as you wish to a local hard drive using the **Save as File** feature).

Save a High/Low Tab

- Right-click on the tab and select Save [tab name] or choose Save [tab name] from the Actions menu.
- Auto Save: If you don't have <u>Auto Save</u> enabled, be sure to manually save your layout if you want your new tabs to display next time you open StreetSmart Edge®.
- You can save an unlimited number of High/Low tabs to a location outside the software using Save [tab name] to file....

Open a saved High/Low Tab

To open a High/Low tab in a new tab, right-click the + next to the tabs, and then take one of the steps below.

- Open tabs created in or provided with StreetSmart Edge® by selecting one of the choices in the **Open High/Low tab from** menu item.
- Open a High/Low tab that has been saved to a file by selecting Open
 High/Low tab from File..., then find the file where it is saved on your computer. Select the file and click Open.

Name (or Rename) a High/Low Tab

- Double click on the tab name. You can also right-click on the tab name and select **Rename [tab name]**
- 2. The name field becomes highlighted and editable and you can type a new name.
- 3. Press **Enter** to finalize the new name.

Adjust Color Settings

- 1. From the right-click or **Actions** menu, select **Colors...**
- 2. In the Colors window, you can customize the colors of each element, from background and highlight colors to font colors.
- 3. Click **Reset to Default Colors** should you wish to return to the original colors.

TIP: Check **Apply to all High/Low tabs** at the bottom of the Colors window if you want the color settings to apply to all High/Low tabs.

Adjust Font Settings

- 1. From the right-click or **Actions** menu, select **Font...**
- 2. In the Font window, you can customize the font of each element, including type, size, bold, and italics.
- 3. Check **Apply to all High/Low tabs** at the bottom of the Font window if you want the font settings to apply to all High/Low tabs.

Duplicate a High/Low Tab

If you want to open another tab identical to an existing High/Low tab, right-click on the tab at the top of the High/Low tool and select **Duplicate [tab name]**.

Close a High/Low Tab

Click the X in the tab to close it, or right-click on the tab name select **Close [tab** name]. Closing a tab removes it from your High/Low tool but does not permanently delete it, unless you haven't saved it.

High/Low Settings

StreetSmart Edge® High/Low tabs are customizable, allowing you to choose the types of stocks and/or indices for which you want to see highs and lows.

Access the High/Low Settings window by right-clicking in a tab or clicking the **Actions** menu and selecting **Tab Settings...**

Applying Settings to Individual or All Lists

You can choose to apply the settings changes you make to either just the *current* High/Low tab or to *all* High/Low tabs. The default is to apply the settings only to the current tab, but if you prefer the settings to apply to all, be sure to make that selection at the bottom of the Settings window before clicking **OK**.

Tab Contents

You can customize the types of stocks to track in a High/Low tab to display any combination of the following:

- All NASDAQ stocks Check NASDAQ
- All NYSE stocks Check NYSE
- Indices Check *Indices* to see highs and lows for all indices for which Schwab receives data
- Custom symbol list Check Custom Symbol List and enter symbols into the Input Symbol(s). Enter multiple symbols separated by a comma, or enter them one at a time, and press Enter or click Add.
- Any of your Watch Lists To watch highs and lows for one or more Watch Lists, select the list from the **Select Watch List** drop-down and click **Add**. The symbols in the list will be added to the list of custom symbols.
- Current Positions Check Include Current Positions to see breaking high/low data for positions you hold.

Save Custom Symbol List: If you create a custom symbol list you want to keep for future use, click **Save as Watch List**.

Remove symbols from Custom Symbol List: Find the symbol you wish to remove from you list (may need to use the scroll bar to move through the list if it's long), and click the **X** next to the symbol to delete it.

Settings

Conditions	• Show Daily High/Low for last # days: Check High and/or Low to view daily highs and lows for your symbol list. You can adjust how many days back to compare for determining the daily high or low (essentially changing how a "day" is defined) from the default of 1 (up to 20).
	 Show 52-Week High/Low: Check High and/or Low to view 52-Week highs and lows for your symbol list.
	 Show Daily Count Column: Displays how many times a symbol has broken through a new high or low.
	 New High/Low must differ by at least \$: A symbol is considered to have broken a high or low if it differs from the previous high/low by \$0.01. You can change this default setting by entering a new value here.
Signal Approach- ing High/Low	The High/Low tool can also alert you to when symbols you are tracking are approaching a daily or 52-week high or low.

	 Check Daily and/or 52-Week to enable these proximity alerts.
	 Use the Signal within \$ fields to adjust how close the price should be to the high/low before it triggers a proximity alert.
Filter Stock Res- ults	Exclude prices Higher than \$: High/Low tool will not display high/low alerts for symbols trading higher than the price specified here.
	 Exclude prices Lower than \$: High/Low tool will not display high/low alerts for symbols trad- ing lower than the price specified here.
	 Exclude 5-Day Average Volume lower than: High/Low tool will not display high/low alerts for symbols with a 5-day average volume lower than the number of shares spe- cified here.
	Exclude 5-Day Average Dollar Volume lower than: High/Low tool will not display high/low alerts for symbols with a 5-day average dollar volume lower than the value spe-

Idea Hub™

Idea Hub is an options idea exploration center that provides preset screens generated by trading idea search logic. For convenience, each individual result is integrated with the Trade and Probability Calculator and All In One Trade Tool which are accessible by hovering over the tile. Data is refreshed every 15 minutes. The Idea Hub can be accessed through the Launch Tools drawer within StreetSmart Edge®.

cified here.

Using the Idea Hub Home Page:

The Idea Hub Home Page provides an overview of all the Idea Hub screens:

- Big Movers
- Earnings
- Premium Harvesting
- Covered Calls

Each Idea Hub Screen is represented by a pod with the following:

- · Name of the Idea Hub Screen.
- Number of screen ideas generated.

- Number of ideas broken down by Bullish, Neutral, and Bearish.
- Description of each screen.

When clicking a specific Idea Hub Screen, a new page is loaded with specific ideas. The **View Type** can be set to see the screen ideas in Gallery or List view.

- **Gallery** view displays the trade ideas using individual pods.
- **List** view displays the trade ideas in a table where each column is sortable.

Using the "What's Trending" Screens:

What's Trending is an Idea Hub grouping which screens for optionable ideas based on changes in Open Interest, Volume or Implied Volatility. What's Trending has the following screens:

Big Movers: Uses predefined screens to generate optionable ideas where a company's stock or options have moved significantly, as measured by open interest in options, volume traded of stock or options, or implied volatility.

The Big Movers Screen also provides additional variables which allow you to further customize your results, limited to a maximum of 45 ideas. Further customizations include:

- Large Daily Change in Open Interest, while filtering for:
 - Average stocks volume greater than 500,000 shares
 - Open Interest greater than 1,000 shares
 - Stock Price greater than \$5
- Increase in Stock Volume, while filtering for:
 - Average daily stock volume greater than 100,000 shares
 - Stock Price which is greater than \$5
- Increase in Implied Volatility, while filtering for:
 - Average daily stock volume greater than 100,000 shares
 - Stock Price which is greater than \$5
- Large Option Volume Change (Equities Only or, Indices, & ETFs), while filtering for:
 - Option Price which is greater than \$0.05
 - Stock Price which is greater than \$5
 - Today's option volume greater than the average 30 Day option volume
 - Average Daily Option Volume greater than 1,000 contracts
- **Money Flows**, while filtering for:
 - Option Volume greater than 2,000 contracts

- Average Daily Option Volume greater than 250 contracts
- Stock Price which is greater than \$5
- **High Put/Call Ratio**, while filtering for:
 - Average Daily Option Volume greater than 5,000 contracts
 - Put/Call Ratio greater than 5
- Low Put/Call Ratio, while filtering for:
 - Average Daily Option Volume greater than 5,000 contracts
 - Put/Call Ratio less than 0.5
- Large Increase/Decrease in Put/Call Ratio, while filtering for:
 - Average Daily Option Volume greater than 5,000 contracts
- High IV/HV (Implied/Historical Volatility) Ratio, while filtering for:
 - IV/HV Ratio greater than or equal to 2
 - Average Daily Option Volume greater than 2,000 contracts
- Low IV/HV (Implied/Historical Volatility) Ratio, while filtering for:
 - IV/HV Ratio less than 0.5
 - Average Daily Option Volume greater than 2,000 contracts
- Best/Worst Performing Stocks, while filtering for:
 - Average Daily Option Volume greater than 5,000 contracts
 - Average Daily Underlying Volume greater than 1 million shares
 - Underlying Price which is greater than \$10

Change the **Trade Type** to see the opposite of the screen ideas generated.

- Setting Trade Type to **Trade** displays ideas corresponding to the chosen strategy: (Bullish, Bearish, Neutral)
- Setting the Trade Type to **Fade** displays ideas based on the opposing strategy (User chose Bullish, tool displays Bearish).

Earnings: Uses the Earnings Calendar to find the top 15 optionable stocks by largest average daily volume with earnings in the next 7 calendar days.

Using the "Income" Screens:

Income is an Idea Hub Screen grouping in which screens related to generating additional income are located. The Income is broken into the following groups:

Premium Harvesting: Provides a variety of market neutral, slightly bearish, and slightly bullish credit spread ideas using a combination of iron condor strategies and credit call and put spread strategies. Ideas consist of broad-based indices, popular ETFs, and high volume stocks using strike prices that are

generally one standard deviation or more (using the 30 day At-The-Money IV Average) from the current underlying price within the expiration timeframe within a minimum of a \$0.25 credit per spread.

The following methodology is used to identify volatility across stock indices, ETFs, and individual stocks

- Implied volatility is measured by using a weighted average of the At-The-Money (ATM) call and put options for each underlying security
- Ideas are generally one standard deviation or more (using the 30 day At-The-Money IV Average) from the current underlying price
- Only ideas with a minimum credit of \$0.25 are displayed
- In addition, we filter the underlying symbols for the following criteria:
 - Minimum average daily option volume of 5,000 contracts
 - Minimum average daily stock volume of 1,000,000 shares
 - Underlying price greater than or equal to \$10
- The ideas displayed are then sorted based on the highest return on risk percentage (calculated as the credit received divided by the maximum risk of the trade)

In addition to the above criteria, certain leveraged and inverse ETF/ETN products are filtered from display, including VXX, UVXY, and SVXY.

The results can be further refined by selecting one of the following filters:

- Show only index products
- Show only non-index products
- Show all products

Covered Calls**: Looks for optionable ideas using the following criteria:

- Stock Price between \$10 and \$200
- Average Daily Stock Volume between 1,000,000 and 100,000,000 shares
- Implied Volatility between 10 and 60
- Open Interest between 250 and 2,000,000
- Static Return % between 2% and 8%
- Covered Call Return % (if assigned) between 8% and 30%

The Covered Calls Screen can also be sorted by:

- Static Return
- Break Even
- Covered Call Return (if assigned)

Idea Hub Definitions	
Implied Volatility	The amount of movement expected in the stock (either higher or lower) given the current price of the options.
Open Interest	The number of contracts, either long or short, traded on particular options that have not been offset by a closing transaction. A closing transaction lowers open interest while an opening transaction increases open interest.
Static Return	The return an investor would make on a particular position if the underlying were unchanged in price at the expiration of the options in the position.
Break Even	The stock price (or prices) at which an option position will neither make nor lose money.
Covered Call Return	A combination of the premium received from selling the call + the appreciation that arises from the difference between the strike price and the purchase price of the stock.

^{**}Covered calls provide downside protection only to the extent of the premium received and limit upside potential to the strike price plus premium received.

Options carry a high level of risk and are not suitable for all investors. Certain requirements must be met to trade options through Schwab. Multiple leg options strategies will involve multiple commissions. Please read the options disclosure document titled "Characteristics and Risks of Standardized Options." Supporting documentation for any claims or statistical information is available upon request. NBBO (National Best Bid/Offer) Spread Quote reflects the best quotes printed from participating exchanges on each leg of the spread combined. For a long leg, the NBBO single leg "ask" quote is used, while short leg quotes use the NBBO "bid" quote to combine for a synthetic NBBO combination trade quote. Please note that there are no spread markets in securities that are subject to benchmarks such as "time and sales" or "NBBO" and therefore the "market" cannot be "held" to a price.

Momentum

The Momentum tool can be used to observe the aggregate recent activity (uptick, downtick, refreshed quotes, etc.) of a security. Rather than trying to watch a symbol's market depth activity to "get a feel" for the security's momentum, the Momentum tool summarizes that data for you.

These data can be viewed in a graphical and/or numerical format:

- The graphical **Momentum** display provides bar graph-style representations of information on market participant activity, allowing you to determine the recent momentum of a security at a glance.
- The **Score** is the actual value the bar graph is representing and is determined by the Activity Rate (amount of total market participant activity) and Net Value (the sum of increasing to decreasing quote prices from market participants) over a period of time.
- For a more detailed look at how StreetSmart Edge® represents momentum, see Understanding the Momentum Tool.

Create a new Momentum tab

- Right-click on the tab at the top of any Momentum tab and select **New Momentum List** or click the + next to the tabs.
- 2. Enter symbols in the **Add Symbol(s)** field. Add multiple symbols at once by adding a comma between each symbol.
- 3. Click **Add** or press **Enter** to populate the list with the symbols you've entered.

TIP: You may display up to 4 Momentum tools with up to 4 tabs in each. You can also save up to 20 tabs to the software (but save as many as you wish to a local hard drive using the **Save as File** feature).

Streamlining the Momentum tool

To conserve space, click the **streamlined view** icon, which collapses the tab row, and hides the Actions menu. While in streamlined view, access hidden tabs through the **Tabs** dropdown. To switch back to standard view, click the view icon again.

Name (or Rename) a Momentum List

- Double click on the tab name. You can also right-click on the tab name and select **Rename [tab name]**
- 2. The name field becomes highlighted and editable and you can type a new name.
- 3. Press **Enter** to finalize the new name.

TIP: You can also rename one or more saved Momentum lists by right-clicking on the tab name and selecting **Manage Saved Momentum Lists**. Click the pencil icon pencil icon next to the list you wish to rename.

Adjust Color Settings

- 1. From the right-click or **Actions** menu, select **Colors...**
- 2. In the Colors window, you can customize the colors of each element, from background and highlight colors to font colors.
- 3. Click **Reset to Default Colors** should you wish to return to the original colors.

TIP: Check **Apply to all Momentum tabs** at the bottom of the Colors window if you want the color settings to apply to all Momentum tabs.

Adjust Font Settings

- 1. From the right-click or **Actions** menu, select **Font...**
- 2. In the Font window, you can customize the font of each element, including type, size, bold, and italics.
- 3. Check **Apply to all Momentum tabs** at the bottom of the Font window if you want the font settings to apply to all Momentum tabs.

Save a Momentum List

- Right-click on the tab at the top of the Momentum list and select Save [tab name]
- Auto Save: If you don't have <u>Auto Save</u> enabled, be sure to manually save your layout if you want your new tabs to display next time you open StreetSmart Edge®.
- You can save up to 20 Momentum lists in the software, and you can save an unlimited number of Momentum lists to a location outside the software using Save [tab name] to file....

Open a saved Momentum List

To open a Momentum list in a new tab, right-click the + next to the tabs in the Momentum list window, then take one of the steps below.

- Open Momentum lists created in or provided with StreetSmart Edge® by selecting one of the choices in the *Open Momentum List* menu item.
- Open a Momentum list that has been saved to a file by selecting *Open Momentum List from File...*, then find the file where it is saved on your computer. Select the file and click *Open*.

Creating a Fixed Symbol Order

 Manually organize the symbols in a list by right-clicking on the tab you want to reorder and selecting **Reorder Symbols...** Then, click on a symbol in the list and use the **Up/Down** buttons to move the symbol around in the list. You can also **add** symbols from the Reorder Symbols window.

• The symbol order you set in the **Reorder Symbols** window will affect the Custom Number column, which determines the default list order.

Duplicate a Momentum List

If you want to open another tab identical to an existing Momentum list, rightclick on the tab at the top of the Momentum list and select **Duplicate [tab name]**.

Close a Momentum List Tab

Click the X in the tab to close it, or right-click on the tab name select **Close [tab name]**. Closing a tab removes it from your Momentum window but does not permanently delete it.

Delete (permanently) a Momentum List

Delete one or more saved Momentum lists by selecting **Manage Saved Momentum Lists** from the right-click menu and clicking the x next to the list you wish to delete.

Clear ALL symbols from a Momentum List:

- 1. Right-click on the tab of the Momentum list you want to clear and select *Clear All Symbols*.
- 2. Confirm that you wish to *permanently* delete all symbols from this list.

Understanding the Momentum Tool

Overview

The Momentum tool gives a summary of the market participants' recent activity in a stock (i.e. uptick, downtick, refreshed quotes, etc.) In the past, one had to watch for a large number of red or green messages scrolling through a ticker to get a feel for the momentum of a stock. The Momentum tool can help remove this burden by counting the messages, separating them by stock, and displaying the overall "redness" or "greenness" of the data for each stock. As with any other tool or technical indicator, it the Momentum Tool should not be used as a sole means of investment research.

Background

Reading the ticker tape is an old trading method. However this skill has traditionally been made difficult by three complexities. The first complexity is determining the movement potential of a signal (types of signals used in the Momentum tool are described at the bottom of this page). In other words, quickly deciding if a particular signal represents buy or sell pressure. The second complexity is separating intermingled signals of different stocks from one

another. The third complexity involves the difficulty of accurately remembering the flow and direction of signals for extended periods of time, especially when multiple stocks are being tracked.

Basic price tickers were originally designed to simplify the first problem by color-coding the ticker data green or red to indicate buy or sell pressure. However, the separation problem and the memory problem still remained. The graphical tickers are designed to address these remaining two complexities. The tool tracks the incoming quote signals for a configurable period of time, separates the incoming signals by stock, and then displays the accumulated data.

It is important to understand what the momentum signals show. It is tempting to interpret these signals as showing price velocity or in other words, the speed and direction the price change of a particular stock. But that's inaccurate. The tool only shows the amount of price increasing (green) or price decreasing (red) activity that the market participants have been engaged in.

Score

The Score combines a symbol's Activity Rate and Net Value (explained below) into a single strength value. Combining these values compensates for the unfavorable behavior of the Net Value on low activity stocks and allows the Score to give a much more reliable movement indication.

- The Activity Rate is the amount of market participant activity that has occurred for a particular symbol over the last time frame by counting the number of momentum signals for that stock.
- The Net Value is the sum of all the signal weights for a particular symbol over the last time frame by summing the green (+1) and red (-1) messages that have been received for each stock.

NOTE: Because the Score is a dynamic calculation, the score values in StreetSmart Edge® will likely not match the values shown in the Dynamic Ticker in StreetSmart Pro®.

Signals that affect momentum

- Inside Upticks- The inside price increases.
- Inside Downticks- The inside price decreases.
- Joins Inside- A market participant changes its quote price to the inside price.
- Leaves Inside- A market participant moves away from the inside price.
- Upticks- A market participant not at the inside increases its quote price.
- Downticks- A market participant not at the inside decreases its quote price.
- Increases Share Size- A market participant retains its quote price but increases its share size.

- Decreases Share Size- A market participant retains its quote price but decreases its share size.
- Refreshes Quote A market participant refreshes its quote price and size.
- Leaves Market- A market participant leaves the bid or ask completely.

Momentum Settings

The StreetSmart Edge® Momentum tool is customizable, allowing you to choose which columns of data to display, as well as the order of the columns. Access the Momentum tool Settings by right-clicking in the Momentum display and selecting **Settings...**, or access it from the **Actions** drop-down menu.

See Column Descriptions for details about each available column.

Momentum Parameters

Time Frame	Adjust the Time Frame slider to determine how far back in time you want the Momentum tool to gather data. Setting this value too low may result in very volatile, "spiky" graphs. Increasing the time frame tends to smooth out these spikes and may help spot possible longer trends. Set the time frame according to your particular trading style.
Market Speed	Adjust the Market Speed slider to help the tool compensate for how fast or slow the market is moving. The default setting is geared toward tracking higher volume, more active stocks. To track less active stocks, move the slider toward the slower end of the Market Speed setting.

Sorting Rows

Sort rows by clicking the header of the column on which you want to sort. An arrow next to the column name indicates the sort direction (ascending or descending).

- If **Auto-Sort in Real-Time** is checked in Settings, changes to data in the sort column will affect the current sort order in real time.
- For example, if you have your Momentum list sorted by Activity Rate, as the Activity Rates change for each symbol, the list will re-sort itself to stay in order of Activity Rate.

Customizing Columns

There are several ways to rearrange the columns displayed in your Momentum tool:

- You can click the column headers and drag them to another spot in the Momentum tool.
- You can also right-click on a column header and choose a different column from the list of all available columns.

TIP: If the column you choose is not currently displayed in the tool, it will completely displace the column that was there. If it is already in the display, the two columns will swap places.

- You can also arrange column order from the Settings window, which is available when you right-click in the tool or from the Actions drop-down menu. Check the columns you want to display. All chosen fields display in the Column Order display on the right. Click a column name and use the Up/Down buttons to move the column into a new position.
- For brief descriptions of each column, hover your mouse pointer over the column name in the 'Columns to Display' section of your Settings window.

Applying Settings to One or All Tabs

You can choose to apply the settings changes you make to either just the *current* Momentum tool tab or to *all* current and future Momentum tabs. The default is to apply the settings only to the current tab, but if you prefer the settings to apply to all, select *Apply Setting to all Momentum tabs* at the bottom of the Settings window before clicking *OK*.

TIP: Because of the way momentum is calculated, it may be valuable to have slower moving stocks in a separate tab from faster moving stocks, so you can set your Market Speed setting accordingly and get more accurate feedback.

Momentum Column Descriptions

Adjust the settings of your <u>Momentum</u> tool to make it work better for you by clicking the **Settings** menu option in either the Actions drop-down or in the right-click menu. For more on adjusting settings and managing columns in the Momentum too, see <u>Momentum Settings</u>.

Momentum Columns	
#	Adds numbers to each row which enable you to create a customizable symbol order for the lists you create
Numerical Columns	
Activity Rate (Signal)	Displays the numerical value for the activity rate signals
Net Value	Displays the actual sum computed for net value

Momentum Columns	
(Sum)	
Score (%)	The single strength value from the Score calculation
Graphical Columns	
Activity Rate	Shows the amount of market participant activity (signals) that has occurred over the time frame selected. It is always a positive number, so the graph will always be green.
Net Value	Graphically displays the sum of signals, both positive and negative, printed for the time frame selected.
Score	Shows a single strength value of price increasing (green) or price decreasing (red) activity derived from a formula of Activity Rate and Net Value.

ETF Screener

The Exchange-Traded Fund (ETF) Screener is a powerful tool found on Schwab.-com, but now integrated into StreetSmart Edge®, which you can use to filter a universe of over 600 ETFs down to just a handful based on a multitude of criteria. The ETF Screener has three main components:

- **Predefined screens:** These basic screens offer a starting point for those who want some pre-defined ideas. Each screen can be modified or run exactly as it is. Each predefined screen is based on a different investment and stock selection philosophy.
- **Screen for ETFs:** Choose from a variety of criteria to build a new ETF screen from scratch.
- **My Saved Screens:** Lets you retrieve your previously saved screens, as well as edit them once you've opened them.

TIP: You may open up to 8 ETF Screener windows across all open layouts at a time.

Using Predefined Screens

• To simply view the results of a predefined screen, click the **View Matches** button under the name of the screen you want to see results for.

OR

1. To see the criteria and/or edit the criteria of a predefined screen, click on the screen name in the left-hand column. The criteria used in creating the

screen will display on the right. Make any adjustments to the criteria as desired.

TIP: Click **Add Custom Criteria** to add new criteria to the screen. Choose from the list of criteria selections in the left-hand column.

 When you are finished editing the predefined screen, you can either click the *View Matches* button to see the results or click the *Save Screen* button to save your changes.

Creating a New Screen

- 1. Click the **New Screen** button.
- 2. To add screening criteria, select criteria from the **Choose Criteria** menu on the left side.
- 3. Each criterion you select is then added to the panel on the right, and can then be refined by clicking range buttons or entering text/symbols. Some criteria allow you to enter an exact value rather than using the predefined choices to perform advanced screening.

TIP: To include a criterion without filtering: Select all the values by clicking them individually or click the **Select All** button.

- 4. As you choose each criterion your list is filtered and the number of stocks that match all the current criteria is shown. When you've applied all the criteria you wish you include in your screen, click the **View Matches** button to view the results.
- 5. The results will always show the symbol and name in addition to all the criteria used in the screen. Some columns may require you to scroll to the right to view. All result columns can be sorted by clicking the column header.

Viewing Results: The **View by** drop-down lets you choose the data you want to see for your screen results. The default is to see the columns you chose when setting up the screen, but you can also see columns just for Risk Analysis or Valuation or any of the other criteria groups.

Sorting Results: Click the column header to sort by an individual column. Click **Advanced Sort** to sort by multiple columns at once.

Start over: Click the **New Screen** or **Reset Screen** button.

Save a screen: Click the **Save Screen** button, give the screen a name, and click **Save**.

Modify a screen: Click the **Modify Criteria** button, or select new criteria from the menu on the left.

Delete Results from Screen: If you want to delete some ETFs from the results of your screen, put a check next to their name, then go to **Next Steps > Delete** to remove them.

Delete a Screen: Click My Saved Screens and click the X next to the name of the screen you want to delete.

Recognia®

Recognia is a third-party web site that opens within StreetSmart Edge® and provides chart pattern recognition and customizable event screeners. You can have up to 8 Recognia windows open across all open layouts at once.

Get more information by visiting Recognia in the Quick Reference Guide.

In the Recognia window, you can choose between three tabs:

- Technical Insight™ is a chart pattern recognition tool that identifies both bullish and bearish technical patterns with corresponding target price ranges and pattern duration. Users can also search for technical events on specific securities in which they are interested.
 - Featured Ideas™ is a component of Technical Insight™ that displays trade ideas based on strategies that incorporate technical and fundamental analysis, and are backtested to demonstrate the historical performance.
 - The **backtesting** feature displays the criteria which make up the underlying strategy of the Featured Idea. You can also test how that strategy would have performed over the past five years, with or without the use of trailing stops.
 - Click through **event lookup** for a visual green/red summary of all the bullish and bearish Technical Events that are still active on the instrument of interest.
 - Anticipated Events[™] is designed to help traders identify and alert traders to possible technical events. It provides trading alerts from over 40 different technical events and helps identify patterns that may be in the process of forming via classic patterns, indicators, and oscillators.
 - If there are Anticipated Events identified for a symbol, an **anti**cipated events link will display in a yellow box under the Technical Events section of the Summary tab within the Technical Insight tab in Recognia. Click the **anticipated events** for a

detailed list of events including opportunity type, price threshold, and target price range, if identified.

- Learn more about **Technical Insight™** by visiting <u>Recognia</u>.
- **Strategy Builder™** is an advanced stock screener that enables you to search for stocks that fit a broad range of parameters.
- **Intraday Trader™** helps you find stocks with multiple technical signals that you select based on chart patterns and other technical criteria occurring throughout the day.

A 'Trade' button is also available within Recognia tabs. This allows you to directly open a linked Trade tool from the Recognia tool.

For assistance with the Recognia tools, use the Getting Started, Video Tutorials, and other help links in the upper right corner of the Recognia window. You can also click on the red ? icons for help with specific features of the tool.

Recognia, Inc. is not affiliated with Charles Schwab. Schwab does not endorse any of the content or features made available to you in Recognia's tools. Schwab does not recommend the use of technical analysis as a sole means of investment research. Strategy testing past performance data should not be construed as indicative of future results.

Idea Hub™

Idea Hub is an options idea exploration center that provides preset screens generated by trading idea search logic. For convenience, each individual result is integrated with the Trade and Probability Calculator and All In One Trade Tool which are accessible by hovering over the tile. Data is refreshed every 15 minutes. The Idea Hub can be accessed through the Launch Tools drawer within StreetSmart Edge®.

Using the Idea Hub Home Page:

The Idea Hub Home Page provides an overview of all the Idea Hub screens:

- Big Movers
- Earnings
- Premium Harvesting
- Covered Calls

Each Idea Hub Screen is represented by a pod with the following:

- · Name of the Idea Hub Screen.
- Number of screen ideas generated.

- Number of ideas broken down by Bullish, Neutral, and Bearish.
- Description of each screen.

When clicking a specific Idea Hub Screen, a new page is loaded with specific ideas. The **View Type** can be set to see the screen ideas in Gallery or List view.

- **Gallery** view displays the trade ideas using individual pods.
- **List** view displays the trade ideas in a table where each column is sortable.

Using the "What's Trending" Screens:

What's Trending is an Idea Hub grouping which screens for optionable ideas based on changes in Open Interest, Volume or Implied Volatility. What's Trending has the following screens:

Big Movers: Uses predefined screens to generate optionable ideas where a company's stock or options have moved significantly, as measured by open interest in options, volume traded of stock or options, or implied volatility.

The Big Movers Screen also provides additional variables which allow you to further customize your results, limited to a maximum of 45 ideas. Further customizations include:

- Large Daily Change in Open Interest, while filtering for:
 - Average stocks volume greater than 500,000 shares
 - Open Interest greater than 1,000 shares
 - Stock Price greater than \$5
- Increase in Stock Volume, while filtering for:
 - Average daily stock volume greater than 100,000 shares
 - Stock Price which is greater than \$5
- Increase in Implied Volatility, while filtering for:
 - Average daily stock volume greater than 100,000 shares
 - Stock Price which is greater than \$5
- Large Option Volume Change (Equities Only or, Indices, & ETFs), while filtering for:
 - Option Price which is greater than \$0.05
 - Stock Price which is greater than \$5
 - Today's option volume greater than the average 30 Day option volume
 - Average Daily Option Volume greater than 1,000 contracts
- **Money Flows**, while filtering for:
 - Option Volume greater than 2,000 contracts

- Average Daily Option Volume greater than 250 contracts
- Stock Price which is greater than \$5
- **High Put/Call Ratio**, while filtering for:
 - Average Daily Option Volume greater than 5,000 contracts
 - Put/Call Ratio greater than 5
- Low Put/Call Ratio, while filtering for:
 - Average Daily Option Volume greater than 5,000 contracts
 - Put/Call Ratio less than 0.5
- Large Increase/Decrease in Put/Call Ratio, while filtering for:
 - Average Daily Option Volume greater than 5,000 contracts
- High IV/HV (Implied/Historical Volatility) Ratio, while filtering for:
 - IV/HV Ratio greater than or equal to 2
 - Average Daily Option Volume greater than 2,000 contracts
- Low IV/HV (Implied/Historical Volatility) Ratio, while filtering for:
 - IV/HV Ratio less than 0.5
 - Average Daily Option Volume greater than 2,000 contracts
- Best/Worst Performing Stocks, while filtering for:
 - Average Daily Option Volume greater than 5,000 contracts
 - Average Daily Underlying Volume greater than 1 million shares
 - Underlying Price which is greater than \$10

Change the **Trade Type** to see the opposite of the screen ideas generated.

- Setting Trade Type to **Trade** displays ideas corresponding to the chosen strategy: (Bullish, Bearish, Neutral)
- Setting the Trade Type to **Fade** displays ideas based on the opposing strategy (User chose Bullish, tool displays Bearish).

Earnings: Uses the Earnings Calendar to find the top 15 optionable stocks by largest average daily volume with earnings in the next 7 calendar days.

Using the "Income" Screens:

Income is an Idea Hub Screen grouping in which screens related to generating additional income are located. The Income is broken into the following groups:

Premium Harvesting: Provides a variety of market neutral, slightly bearish, and slightly bullish credit spread ideas using a combination of iron condor strategies and credit call and put spread strategies. Ideas consist of broad-based indices, popular ETFs, and high volume stocks using strike prices that are

generally one standard deviation or more (using the 30 day At-The-Money IV Average) from the current underlying price within the expiration timeframe within a minimum of a \$0.25 credit per spread.

The following methodology is used to identify volatility across stock indices, ETFs, and individual stocks

- Implied volatility is measured by using a weighted average of the At-The-Money (ATM) call and put options for each underlying security
- Ideas are generally one standard deviation or more (using the 30 day At-The-Money IV Average) from the current underlying price
- Only ideas with a minimum credit of \$0.25 are displayed
- In addition, we filter the underlying symbols for the following criteria:
 - Minimum average daily option volume of 5,000 contracts
 - Minimum average daily stock volume of 1,000,000 shares
 - Underlying price greater than or equal to \$10
- The ideas displayed are then sorted based on the highest return on risk percentage (calculated as the credit received divided by the maximum risk of the trade)

In addition to the above criteria, certain leveraged and inverse ETF/ETN products are filtered from display, including VXX, UVXY, and SVXY.

The results can be further refined by selecting one of the following filters:

- Show only index products
- Show only non-index products
- Show all products

Covered Calls**: Looks for optionable ideas using the following criteria:

- Stock Price between \$10 and \$200
- Average Daily Stock Volume between 1,000,000 and 100,000,000 shares
- Implied Volatility between 10 and 60
- Open Interest between 250 and 2,000,000
- Static Return % between 2% and 8%
- Covered Call Return % (if assigned) between 8% and 30%

The Covered Calls Screen can also be sorted by:

- Static Return
- Break Even
- Covered Call Return (if assigned)

Idea Hub Definitions	
Implied Volatility	The amount of movement expected in the stock (either higher or lower) given the current price of the options.
Open Interest	The number of contracts, either long or short, traded on particular options that have not been offset by a closing transaction. A closing transaction lowers open interest while an opening transaction increases open interest.
Static Return	The return an investor would make on a particular position if the underlying were unchanged in price at the expiration of the options in the position.
Break Even	The stock price (or prices) at which an option position will neither make nor lose money.
Covered Call Return	A combination of the premium received from selling the call + the appreciation that arises from the difference between the strike price and the purchase price of the stock.

^{**}Covered calls provide downside protection only to the extent of the premium received and limit upside potential to the strike price plus premium received.

Options carry a high level of risk and are not suitable for all investors. Certain requirements must be met to trade options through Schwab. Multiple leg options strategies will involve multiple commissions. Please read the options disclosure document titled "Characteristics and Risks of Standardized Options." Supporting documentation for any claims or statistical information is available upon request. NBBO (National Best Bid/Offer) Spread Quote reflects the best quotes printed from participating exchanges on each leg of the spread combined. For a long leg, the NBBO single leg "ask" quote is used, while short leg quotes use the NBBO "bid" quote to combine for a synthetic NBBO combination trade quote. Please note that there are no spread markets in securities that are subject to bench-

marks such as "time and sales" or "NBBO" and therefore the "market" cannot be

"held" to a price.

Market Edge®

Market Edge® is a third-party web site that opens within StreetSmart Edge® and provides users with the Second Opinion® Weekly report.

The report contains analysis and opinions on individual stocks, including price and volume analysis, moving average and technical analysis, as well as a recommendation for action.

To view a symbol: Enter a symbol in the <u>Title Bar</u> and press *Enter* or click *Go* to load the report for that symbol. You can have up to 8 Market Edge windows open across all open layouts at once.

Tool linking: Even though Market Edge contains third-party information, you can still link the tool to other tools in your software using the <u>Tool Link Icon</u>. Linking the Market Edge tool to your Trading tool, for instance, would automatically load any symbol you open in the Trading tool into your Market Edge tool as well.

For more assistance with Market Edge, use the **Technical Terms Explained** and/or the **Second Opinion Weekly Quick Start** links at the top of the Market Edge tool.

Schwab does not endorse technical analysis as the sole means of investment research.

Market Edge and Second Opinion are registered trademarks of Computrade Systems, Inc., which is not affiliated with Charles Schwab & Co., Inc.

CNBC TV

The CNBC TV tool in StreetSmart Edge® offers 24-hour a day, 5-day a week, commercial-free live stream of the CNBC broadcast right on your desktop. The U.S., Europe, and Asia feeds are each available. Choose between them by clicking the appropriate button at the top of the CNBC tool.

Video On Demand

The **Videos** tab also lets you watch clips from CNBC on demand. Click **Search** to watch the **Top Videos** or change the **Category** to search by Keyword, Symbol, etc. You can also specify a time frame to search and sort the results by Length, Time, or Title.

Audio and video controls are at the bottom of the tool:

- Buttons to **Play** and **Stop** the stream are on the left.
- Control the **Volume** on the right by hovering over the volume icon using the volume slider that appears to adjust the volume up and down. You can also click on the volume icon to quickly mute or unmute the audio.
- To make the video full screen, click the **Full Screen** icon . Press the **Esc** key on your keyboard or click the Normal Screen icon to reduce the tool to its original size.
- Click on one of the icons U.S. (EUROPE) (ASIA) at the top of the tool to change the news feed.

• Right-click in the tab area (to the right of CNBC and Videos tabs) and select **refresh** in order to restart the current news feed.

CNBC HD

To access CNBC in HD, click the "HD Player" button inside the CNBC tool and you will be provided with the CNBC HD feed within an external browser.

Layout Tip: If you want to watch CNBC on a separate monitor, drag the CNBC tool from your main screen to another monitor hooked up to your computer, and it will open a new layout on that monitor with just the CNBC tool in it. This can be done with any tool in StreetSmart Edge®. You may have one CNBC tool open at a time.

CNBC TV material is prepared by an independent third party that is not affiliated with Schwab. Schwab does not edit or endorse any of this material and is not responsible for its content.

Fundamentals

Research Fundamental Data

Fundamental data for a company gives you a look beyond the price, volume and other streaming indicators and may provide a more well-rounded view of a company. Fundamentals include earnings data, analyst ratings, and metrics around valuation, growth, financial strength and more.

StreetSmart Edge® offers several ways to access research and fundamental data:

- In the <u>Symbol Hub</u> (found in the Launch Tools menu), click the Research \(\Omega\) button to flip from live data to research,
- Open the stand-alone Research tool via the Launch Tools menu,
- Right-click on a symbol in a screener or watch list and select View Fundamental Data for [symbol]...

The Research display has four tabs. Click the links below for descriptions of the data in each tab.

Summary

The Summary tab shows general company and security information, like market cap, basic earnings data, price and volume data, Schwab rating, business summary and executives, and more.

TIP: Simple information like a high "Held By Institutions" percentage may provide insight into stocks that are particularly attractive at the moment to larger-scale investors.

Earnings

Quarterly and annual earnings data helps you drill down into the profitability of a company. Or, if your investment needs require dividend income or you're looking for growth stocks, the Earnings tab may help you identify suitable investments.

For instance, dividend history can help you assess whether a stock has provided consistent dividend returns, while growth metrics like EPS (year-over-year, five-year, and projected) can provide a sense of the security's historic growth.

Ratings

Get rating from a variety of analysts, from Standard & Poor's, Reuters, and Schwab Equity Rating®. For covered securities, a break-down by number of analysts, rating, and change in rating from Reuters can help you see changes in sentiment over time.

Metrics

Many investors evaluate a company's underlying financial strength and management effectiveness based on valuation, growth, financial metrics, financial strength, management effectiveness, and margins.

The metrics tab also displays earnings before interest, tax, depreciation and amortization (EBITDA), which can be helpful in identifying the core profitability of the company and in comparing the operating income between companies.

TIPS: You can click the button in the upper right corner of the Symbol Hub to shrink the Trade Ticket display and enlarge the Research display. Also, you may display up to 6 Research tools across all open layouts at a time.

All data updates periodically, and may not exactly match Schwab.com due to differences in timing and data providers. Past performance is no indication (or "guarantee") of future results.

Research Summary

Research fundamentals on a symbol by opening the **Research** tool under **Launch Tools**, or by clicking the Research button Research Ω in the Symbol Hub.

Adjust Color Settings

- 1. From the right-click or **Actions** menu, select **Colors...**
- 2. In the Colors window, you can customize the colors of each element, from background and highlight colors to font colors.

3. Click **Reset to Default Colors** should you wish to return to the original colors.

TIP: Check **Apply to all Research tabs** at the bottom of the Colors window if you want the color settings to apply to all Research tabs.

Below is the data found in the Summary tab of the Research tool, in addition to the Business Summary and Executives.

Get more information by visiting <u>StreetSmart Edge™ Quick References</u> in the Quick Reference Guide.

OVERVIEW	
Market Cap	Market value of all of a company's outstanding shares. For ETFs, the calculation uses the long position holdings of the underlying stocks to calculate market cap, as opposed to the more traditional "shares outstanding x current price" calculation.
Market Cap Class	Classifies the size of a company by Small/Medium/Large, -/+ indicates where the company falls within the broader classification (i.e. M+ is a larger mid-cap company)
Enterprise Value	Measure of the market value of a company that takes into consideration all security holders, rather than just common equity
Beta	Stock price volatility relative to the S&P 500
Shares Outstanding	Number of shares of stock currently held by investors
Total Float	Total number of share available for public trading
Held by Institutions	Percent of shares held by institutional investors
Employee Count	Number of employees

SECTOR/INDUSTRY	
Sector	GICS® (Global Industry Classification Standard) Sector classification. Sector is the most broad category used. Sectors are composed of Industries, which are composed of Sub-Industries.
Industry	GICS (Global Industry Classification Standard) Industry classification. Industry is the middle category used. Sectors are composed of Indus- tries, which are composed of Sub-Industries.
Sub-Industry	GICS (Global Industry Classification Standard) Sub-Industry classification. Sub-Industry is the most specific category used. Sectors are composed of Industries, which are composed of Sub-Industries.

EARNINGS	
Earnings Per Share	Net income divided by the average number of shares outstanding for a company for the last 12 months
Price/Earnings Ratio	Ratio of company's previous close to earnings over the last 12 months. The higher the P/E ratio, the more the market is willing to pay for each dollar of annual earnings.
Forward P/E	Estimated P/E Ratio using forecasted earnings

DETAILS	
Today's Open	Opening price of the current market session
Previous Close	Closing price of the previous market session
Day's Range	Difference between high and low for the day
52 Week Range	Difference between 52-week high and 52-week low
VWAP	Volume Weighted Average Price measures the average price of a stock over a given period of time. VWAP is calculated by adding up the dol-

DETAILS	
	lars traded for every transaction (price multiplied by number of shares traded) and then dividing by the total shares traded for the day.
Avg. Volume (1 month)	Average volume for the stock over the last month
Put/Call Open Int.	Open Interest Put/Call Ratio calculates the Put/Call ratio by dividing the total number of puts by the total number of calls for an underlying stock or index based on open interest
Put/Call Volume*	Volume Put/Call Ratio calculates the Put/Call ratio by dividing the total number of puts by the total number of calls for an underlying stock or index based on the trading volume of the current or most recent trading session.

^{*}Updates intra-day

DIVIDENDS	
Dividend Yield	Dividends paid by company over last 12 months as a % of Previous Close
Annual Dividend	Dividends paid by company over last 12 months in dollars per share
Quarterly Dividend	Amount of latest declared dividend

Research Earnings

Research fundamentals on a symbol by opening the **Research** tool under **Launch Tools**, or by clicking the Research button Research Ω in the Symbol Hub. Below is the data found in the Earnings tab of the Research tool.

QUARTERLY EARNINGS	
Estimates for Quarter	Estimated Earnings Per Share and Sales for the indicated quarter. Shows the high and low estimates, as well as the average of all estimates. The number of estimates used in the calculation is displayed in the # Est column.

QUARTERLY EARNINGS	
Actual Quarter EPS	Actual Earnings Per Share for the quarter
Previous Quarter EPS	Earnings Per Share for the previous quarter
Surprise	Difference between estimated and actual earnings for the previous quarter

ANNUAL EARNINGS	
Estimates for Fiscal year	Estimated annual Earnings Per Share and Sales for the year indicated. Shows the high and low estimates, as well as the average of all estimates. The number of estimates used in the calculation is displayed in the # Est column.
Actual Annual EPS	Actual annual Earnings Per Share
Previous Annual EPS	Earnings Per Share for the previous year
Surprise	Difference between estimated and actual earnings for the previous year

DIVIDENDS	
Latest Quarterly Div	Amount of latest declared dividend
Payable	Payment date of latest declared dividend
Annual Dividend Yield	Dividends paid by company over last 12 months as a % of Previous Close
Consecutive Dividends Since	Year since cash dividends have been continuously paid
Recent Dividends	Shows up to the last 4 dividend payments in dollars per share

MOST RECENT SPLIT	
Most Recent Split	Date and rate of latest stock split

GROWTH METRICS	
EPS Growth (yoy)	Growth in annual Earnings Per Share year over year
EPS Growth (5 yrs)	Compounded EPS growth over 5 years
Projected EPS Growth (5 yrs)	Compounded earnings growth rate projected for the next 5 years
Projected P/E Growth (5 yrs)	Trailing 12-month Price-to-Earnings ratio divided by 5-year projected growth rate
Dividend Growth (yoy)	Growth in dividend payouts year over year
Quarterly Sales Growth (yoy)	Growth in quarterly sales year over year
Annual Sales Growth (yoy)	Growth in annual sales year over year
Sales Growth (5 yrs)	Growth in annual sales compounded over 5 years

Research Ratings

Research fundamentals on a symbol by opening the **Research** tool under **Launch Tools**, or by clicking the Research button Research Ω in the Symbol Hub. Below is the data found in the Ratings tab of the Research tool.

ANALYST RATINGS	
Schwab Equity Rating®	Get more information on Schwab Equity Ratings on Schwab.com
Reuters Analyst Opinion	Shows the number of analysts covering the company and their ratings at various points in time, including red and green arrows to show where recommendations have changed.
Standard & Poor's Opinion	Six-to-twelve month appreciation potential. • 5=Buy • 4=Accumulate • 3=Hold • 2=Avoid • 1=Sell

ANALYST RATINGS	
Standard & Poor's Earnings & Dividends Rank	Measures the historical growth and stability of a company's earnings and dividends for the past 10 years
Other Ratings	Shows an accumulation of where other analysts rate the company

INSIDER ACTIVITY (Prev 3 Mo)	
Buy Transactions	Number of insider buys over the past 3 months updated on a weekly basis
Shares Bought	Number of shares related to insider buys
Sell Transactions	Number of insider sells over the past 3 months updated on a weekly basis
Shares Sold	Number of shares related to insider sells

Research Metrics

Research fundamentals on a symbol by opening the **Research** tool under **Launch Tools**, or by clicking the Research button Research Ω in the Symbol Hub. Below is the data found in the Metrics tab of the Research tool.

VALUATION	
P/E excl extraordinary items	Price-to-Earnings ratio excluding extraordinary items. Extraordinary items are infrequent and unusual in nature, often one time charges.
P/E Normalized	Price-to-Earnings ratio normalized, or smoothed, over a period of time
Forward P/E	Estimated P/E Ratio using forecasted earnings
Price/Sales (ttm)	Ratio comparing the price of a security to its revenue figures, trailing 12 months
Price/Projected Sales	Ratio comparing the price of a security to its projected revenue
Price/Book Value	Ratio comparing the price of a security

VALUATION	
	to its book value
Price/Tangible Book Value	Ratio comparing the price of a security to the value of its tangible assets
Price/Cash Flow	Share Price divided by Cash Flow per Share; may be useful in comparing com- petitors within the same industry

GROWTH METRICS	
EPS Growth (yoy)	Growth in annual Earnings Per Share year over year
EPS Growth (5 yrs)	Compounded EPS growth over 5 years
Projected EPS Growth (5 yrs)	Compounded earnings growth rate projected for the next 5 years
Projected P/E Growth (5 yrs)	Trailing 12-month Price-to-Earnings ratio divided by 5-year projected growth rate
Dividend Growth (yoy)	Growth in dividend payouts year over year
Quarterly Sales Growth (yoy)	Growth in quarterly sales year over year
Annual Sales Growth (yoy)	Growth in annual sales year over year
Sales Growth (5 yrs)	Growth in annual sales compounded over 5 years

FINANCIAL METRICS	
Revenue (ttm)	Trailing 12 month total sales for a security
Sales/Share	Sales per weighted average share outstanding for either the previous fiscal year or trailing 12 months
EBITDA (ttm)	Earnings before interest, taxes, depreciation and amortization (revenue - expenses excluding interest, taxes, depreciation and amortization)

FINANCIAL METRICS	
Earnings Before Taxes	Earnings before taxes (revenue - expenses excluding taxes)
Net Income	Total company earnings after all expenses are subtracted from revenue
Normalized Earnings Before Taxes	Earnings before taxes normalized, or smoothed, over a period of time
Normalized Net Income	Net income normalized, or smoothed, over a period of time
EPS excl extraordinary items	Earnings per Share excluding extraordinary items
EPS Normalized	Earnings per Share normalized, or smoothed, over a period of time
Cash Flow/Share (ttm)	Calculated as cash flow (less preferred dividends) divided by the number of common shares outstanding
Cash/Share	Free cash flow divided by the number of common shares outstanding
Book Value/Share	Value of the company per share after all debts are paid
Tangible Book Value/Share	Total tangible assets per number of outstanding shares

FINANCIAL STRENGTH	
Current Ratio	Assets divided by liabilities
Quick Ratio	Current ratio minus inventory, as inventory is considered a less liquid asset
Long Term Debt/Equity	Long term, interest-bearing debt divided by stockholder equity
Total Debt/Equity	Total liabilities divided by stockholder equity
Payout Ratio	Dividends per share divided by earnings per share; shows how much of the company's earnings are going toward

FINANCIAL STRENGTH	
	dividends.

MANAGEMENT EFFECTIVENESS	
Return on Assets	Net income divided by total assets
Return on Equity	Indicates profit generated from share- holder investments by dividing net income by shareholder equity
Return on Investment	Net return on an investment (gain from investment - cost of investment) divided by cost of investment
Sales/Employee	Sales divided by number of employees

MARGINS	
Gross Margin	Percent of revenue retained after taking out costs of producing goods or services
Net Profit Margin	Measures earnings retained per every dollar of sales
Operating Margin	Measures the portion of a company's revenue remaining after paying variable operating costs
Pretax Margin	Pre-tax profit expressed as a percentage of sales

Third Party Offers

Third Party Offers, located within the Launch Tools button in the upper right corner of the StreetSmart Edge® window, offers you a way to access discounted third-party resources right in your software.

Signing up for news, analysis, and other services through the Third Party Offers will put a link to that service right into the Launch Tools drawer, so you can integrate that service right into the workflow of your StreetSmart Edge® display.

For more on these offerings, click **Launch Tools > Third Party Offers** and view the list of available third party products. Each includes more information about the service, as well as a way to sign up and integrate it into your StreetSmart Edge® display.

As part of the Third Party Offers, Schwab may make available various offers for products and services of third party providers. Schwab has established these referral relationships as a convenience to you. Please understand that these providers are not Schwab agents or personnel. They are third parties over whom Schwab has no control. If you choose to receive services and/or products from these providers, you do so at your own risk and you are solely responsible for evaluating whether these providers and their services and/or products are appropriate for your use.

Watch Lists

Watch Lists

The Watch List tool allows you to monitor a wide range of streaming market data (Last Trade, Volume, etc.) about securities of interest to you.

You can also take a variety of actions from your Watch List, such as initiating a trade, getting news and quotes, and setting an alert. Right-click on any symbol in your Watch List to access these features.

For more information on the Watchlist, visit the Quick Reference Guide.

Note: Use the **Actions** menu button to access many of the features listed below.

You may have up to 8 Watch List tools open across all your open layouts. Individual Watch List tools can have up to 20 tabs each, with 150 symbols. You can also save up to 20 tabs to the software (but save as many as you wish to a local hard drive using the **Save as File** feature).

Create a new Watch List tab

- 1. Right-click on the tab at the top of any Watch List and select **New Watch List** or click the + next to the tabs.
- 2. Enter symbols in the **Add Symbol(s)** field. Add multiple symbols at once by adding a comma between each symbol.
- 3. Click **Add** or press **Enter** to populate the list with the symbols you've entered.

TIP: To make entering option symbols easier, use the copy and paste feature.

Start a trade from a Watch List

Watch lists offer two ways to load a trade ticket with a Watch List symbol:

- Click the **bid** or **ask** quote to load the All in One Trade tool order ticket. The symbol will load along with a limit order at the price you clicked. If you click the **bid** quote, the order action will automatically choose **Sell** if you hold a position in the stock or **Short** if you do not. Clicking the **ask** quote will set up a **Buy** order if you don't hold a position in the stock.
- Right-click on the symbol row and select Load Trading Tool with [symbol] or Load Symbol Hub with [symbol].

Name (or Rename) a Watch List

1. Double click on the tab name. You can also right-click on the tab name and select **Rename [tab name]**

- 2. The name field becomes highlighted and editable and you can type a new name.
- 3. Press **Enter** to finalize the new name.

TIP: You can also rename one or more saved Watch Lists by right-clicking on the tab name and selecting **Manage Saved Watch Lists**. Click the pencil icon pext to the list you wish to rename.

Grouping Symbols in a Watch List

Organize your Watch List symbols by grouping them together. There are two primary ways to group symbols in your Watch List

- 1. Add a new group by clicking **Add Group**. Give the group a name, and then enter symbols, each separated by a comma, and click **Add**. The new group will display at the bottom of the list, but you can drag it to a new position in the list as you wish.
- You can also add a new group by right-clicking in the Watch List and selecting *Insert Group*. The group will be added in the row above the highlighted symbol and you will be prompted to enter a name for the group. From there, you can either drag symbols into the group or right-click on the group and select *Insert Symbol*.
- 3. Right-click on a group or symbols within a group to edit or delete them. You can also move symbols in and out of groups by drag-and-drop.

TIP: Groups can be expanded or contracted by clicking the yellow arrow p next to the group name.

Save a Watch List

- Right-click on the tab at the top of the Watch List and select Save [tab name]
- Auto Save: If you don't have <u>Auto Save</u> enabled, be sure to manually save your layout if you want your new tabs to display next time you open StreetSmart Edge®.
- You can save up to 20 Watch Lists in the software, and you can save an unlimited number of Watch Lists to a location outside the software using Save [tab name] to file....

Open a saved Watch List

To open a Watch List in a new tab, right-click the + next to the tabs in the Watch List window, then take one of the steps below.

- Open watch lists created in or provided with StreetSmart Edge® by selecting one of the choices in the **Open Watch List** menu item.
- Open a watch list that has been saved to a file by selecting *Open Watch List from File...*, then find the file where it is saved on your computer.
 Select the file and click *Open*.

Reordering Symbol Lists

Manually organize the symbols in a list by dragging and dropping symbols within a list. Click a symbol and drag it to a new position in the list. A black bar indicates where the symbol will be located when you release the mouse button.

Duplicate a Watch List

If you want to open another tab identical to an existing Watch List, right-click on the tab at the top of the Watch List and select **Duplicate [tab name]**.

Close a Watch List Tab

Click the X in the tab to close it, or right-click on the tab name select **Close [tab name]**. Closing a tab removes it from your Watch List window but does not permanently delete it.

Delete (permanently) a Watch List

Delete one or more saved Watch Lists by selecting **Manage Saved Watch Lists** from the right-click menu and clicking the x next to the list you wish to delete.

Clear ALL symbols from a Watch List:

- 1. Right-click on the tab of the Watch List you want to clear and select **Clear All Symbols**.
- 2. Confirm that you wish to *permanently* delete all symbols from this list.

Export a Watch List

- 1. Right-click in the Watch List or on the tab name, or click the **Actions** button, and select **Export**.
- 2. Select the save location and enter a name for the export file, if you wish to change it from the default, and click **Save**.

Sync a Watch List

By left clicking on the 'Sync' button, the current Watch List will be made available on Schwab.com as well as the Schwab Mobile App. Changes to Symbols and Title become a saved event, overriding the current template and thus replicated across StreetSmart Edge, Schwab.com, and the Schwab Mobile App.

Also, watch lists that have been created on Schwab.com and the Schwab Mobile App will be available on StreetSmart Edge via the Open Watch List menu identified with a green cloud sync icon.

- 1. Make the desired changes to a Watch List without exceeding 40 symbols.
- 2. Un-syncing (Sync Off) the Watch List will remove it from the other applications.

NOTE: Syncing does not support 'Groups', therefore, when a Watch List with a Group is present syncing will not be available.

Adjust Font Settings

- 1. From the right-click or **Actions** menu, select **Font...**
- 2. In the Font window, you can adjust the size of the type in the Watch List tool, as well as make the text bold and/or italicized by clicking the **B** or *I* buttons, respectively.

TIP: Check **Apply to All Watch List tabs** if you want the font settings to apply to all Watch List tabs.

Adjust Color Settings

- 1. From the right-click or **Actions** menu, select **Colors...**
- 2. In the Colors window, you can customize the colors of each element, from background and highlight colors to font colors.
- 3. Click **Reset to Default Colors** should you wish to return to the original colors.

TIP: Check **Apply to all Watch List tabs** at the bottom of the Colors window if you want the color settings to apply to all Watch List tabs.

Import a Watch List

To import an external Watch List into StreetSmart Edge, complete the following steps:

- 1. Open Notepad in your computer. Copy your list of ticker symbols in into the Notepad file.
- 2. Save the file as a .STK while Type is set to "All Files".
- 3. Go to StreetSmart Edge and open the Watch List window.
- 4. Click on Actions and select "Open StreetSmart Pro Stocklist".
- 5. Navigate to your .STK file and open.

Watch List Column Descriptions

Watch Lists can track more than 70 different data fields for stocks, indices, and options. See <u>Manage Watch List Columns and Settings</u> for directions on setting up your Watch List display.

Options carry a high level of risk and are not suitable for all investors. Certain requirements must be met to trade options through Schwab. Multiple leg options strategies will involve multiple commissions. Please read the options disclosure document titled "Characteristics and Risks of Standardized Options." Supporting documentation for any claims or statistical information is available upon request.

General	
Custom Number (#)	This column gives each row a unique number that stays with that row regardless of how you sort the list. If you wish to return to the Custom sort order, click this column. New symbols added to the Watch List are given the next available number. To change the Custom Number order, right-click on the tab name and select Reorder Symbols .
Security Type	Type of security: • Eqty = Equity • MF = Mutual Fund • MMF = Money Market Fund • Indx = Index • Bnd = Bond • Call = Call option • Put = Put option

Quote Data	
Symbol	The unique 1-5 characters used to represent the security. Symbols are defined by the different markets or exchanges. Sometimes a security might not have a symbol, in which case, an internal Schwab reference # will be used.

Quote Data	
Change	Shows the change for the day. Change from Previous Close to Last Trade. Updates until Market Close.
Bid	Current inside Bid price
Ask	Current inside Ask price
High	Highest price the security has traded at for the day
Low	Lowest price the security has traded at for the day
Volume	Number of shares/contracts the security has traded for the day
Last Trade	Price of last trade
% Change	Percent change from Previous Close to Last Trade. Updates until Market Close.
Open	Opening price for the day
Last Time	Time of last trade
Last Size	Size of last trade
Prev Close	Closing price from previous market session
Chg (Open)	Change from Open to Last Trade
% Chg (Open)	Percentage change from Open to Last Trade
Ask Size	The quoted size of the inside ask price
Bid Size	The quoted size of the inside bid price
Ending Ask	Ending Ask price of the market session
Ending Bid	Ending Bid price of the market session
Ending Mid	Ending Midpoint price of the market session
Midpoint	Midpoint between Bid and Ask

Company Info	
News Icon	Icon shows the availability of news on a symbol.

Company Info	
	Click on the icon to open the news, or right-click and select View [symbol] news
	 [icon] indicates there is new news for the symbol
	[icon] indicates read/old newsNo icon indicates no news.
	Hovering over the News Icon will show a preview of the available news stories.
Description	Company name or description of item
Sector	GICS (Global Industry Classification Standard) Sector classification. Sector is the most broad category used. Sectors are composed of Indus- tries, which are composed of Sub-Industries.
Industry	GICS (Global Industry Classification Standard) Industry classification. Industry is the middle category used. Sectors are composed of Industries, which are composed of Sub-Industries.
Sub-Industry	GICS (Global Industry Classification Standard) Sub-Industry classification. Sub-Industry is the most specific category used. Sectors are com- posed of Industries, which are composed of Sub- Industries.
Market Cap	Market value of all of a company's outstanding shares in millions (M) or billions (B).
Mkt Cap Class	Classifies the size of a company by Small/Medium/Large, -/+ indicates where the company falls within the broader classification (i.e. M+ is a larger mid-cap company).
Dividend Amount	Dividend amount to be paid on the Pay Date, displayed in dollars per share
Dividend Yield	Dividends paid by company over last 12 months as a % of Last Trade
Ex-Date	The first day following a dividend declaration when the buyer of a stock is not entitled to the next dividend payment

Company Info	
Pay Date	The date in which a declared stock dividend is scheduled to be paid
Ex-Date Amount	Dividends to be paid by company on the Pay Date in dollars per share
Stock Split	Date and Ratio of an increase (or decrease in the case of a Reverse Split) in existing shares
P/E (ttm)	Ratio of company's previous close to earnings over the last 12 months. The higher the P/E ratio, the more the market is willing to pay for each dollar of annual earnings.
EPS (ttm)	Earnings Per Share shows net income divided by the average number of shares outstanding for a company for the last 12 months.
SER	Schwab Equity Rating evaluates individual stock and provides a 5 point rating scale (A, B, C, D, F) indicating Schwab's outlook on the potential performance of the stock over the coming 12 months. More on Schwab Equity Ratings
Spread	Difference between the Bid and the Ask
Exchange	Exchange on which the security is listed

Greeks	
IV	Implied Volatility (IV) based on the option midpoint price and underlying price as calculated with selected option pricing model.
	IV is a theoretical value (in %) designed to represent the forecasted volatility of the security or index as determined by the prices of multiple call and put options using the Black-Scholes pricing model.
	Other variables usually include security price, strike price, risk-free rate of return, and days to expiration. If all other variables are equal, the security with the highest volatility will generally have the highest option prices.

Greeks	
IV Ask	Implied Volatility based on the option ask price and underlying price as calculated with selected option pricing model
IV Bid	Implied Volatility based on the option bid price and underlying price as calculated with selected option pricing model
IV Rank	Implied Volatility value of the current IV relative to the past year's IV range
IV Percentile	Implied Volatility percentile value of current IV relative to the past year's IV range
Delta	Estimate of the change in option price per one point change in the underlying price based on the selected option pricing model
Gamma	Measures the change in delta for a change in the underlying security price based on the selected option pricing model.
Theta	Estimate of the change in option price per one day passing based on selected option pricing model
Vega	Estimate of the change in option price per a 1% change in volatility of the underlying based on selected option pricing model
Rho	Estimate of the change in option price per a 1% change in interest rates based on selected option pricing model

Options	
Strike	Option strike price; the price at which the owner of an option can purchase (call) or sell (put) the underlying security
Expiration Date	Actual date the option expires. As most options expire on a Saturday, the previous trading day is the last trading day.
Days until Exp	The number of days until the contract expires

Options	
Intrinsic Value	The value by which the option is in the money, calculated for calls as (underlying price – strike price), or for puts as (strike price-underlying price)
Time Value	The value of the option that is not attributed to the intrinsic value, calculated as (Midpoint - Intrinsic Value)
Open Int	The Open Interest for the option contract. Open Interest is the total number of outstanding options contracts that have not yet been closed.
Underlying Symbol	The symbol upon which an option is based
Underlying Last	The last trade price of the underlying stock of an option
% ITM Prob	Probability of the option expiring in the money at expiration
% OTM Prob	Probability of the option expiring out of the money at expiration
% Touch Prob	Probability of the stock price touching the strike price on or before expiration

Performance	
5 Day Chg	Difference between close from 5 days ago and the Last Trade
% 5 Day Chg	Percentage difference between close from 5 days ago and the Last Trade
20 Day Chg	Difference between close from 20 days ago and the Last Trade
% 20 Day Chg	Percentage difference between close from 20 days ago and the Last Trade
1 Mo Chg	Difference between close from 1 month ago and the Last Trade
% 1 Mo Chg	Percentage difference between close from 1 month ago and the Last Trade

Performance	
6 Mo Chg	Difference between close from 6 months ago and the Last Trade
% 6 Mo Chg	Percentage difference between close from 6 months ago and the Last Trade
YTD Chg	Difference between close from the beginning of the year and the Last Trade
% YTD Chg	Percentage difference between close from the beginning of the year and the Last Trade

Extended Quotes	
52 Week High	Highest price at which the security has traded over the last 52 weeks
52 Week Low	Lowest price at which the security has traded over the last 52 weeks
% Chg from 52 Week High	% change from the highest price at which the security has traded over the last 52 weeks
% Chg from 52 Week Low	% change from the lowest price at which the security has traded over the last 52 weeks
High/Low Signal	Visually represents the last trade price of a stock with respect to the Day's High and Low, as well as the 52wk's High and Low.
Avg Vol - 1 month	Average daily volume over the last month (1 month = 21 days)
Avg Vol - 6 month	Average daily volume over the last 6 months
Avg Vol - YTD	Average daily volume over the Year to Date
P/C Ratio OI	Calculated by dividing the total number of puts by the total number of calls for an underlying stock or index based on open interest
P/C Ratio Vol.	Calculated by dividing the total number of puts by the total number of calls for an underlying stock or index based on the trading volume of the current or most recent trading session
After Hours Chg	Change from today's close to last after hours

Extended Quotes	
	trade price
% After Hours Chg	Percent Change from today's close to last after hours trade price
Today's Close	Today's closing price. If before market close, shows
VWAP	Volume Weighted Average Price measures the average price of a stock's trades for the day over a given period of time. VWAP is calculated by adding up the dollars traded for every transaction (price multiplied by number of shares traded) and then dividing by the total shares traded for the day.
Dollar Volume	The dollar amount of shares/contracts traded for the day on a security or options contract. Cal- culated as VWAP (Volume-Weighted Average Price) multiplied by the day's total volume.

Technical Indicators	
20 SMA % change	The percent change of the average of the last 20 periods' closing values including current day.
50 SMA % change	The percent change of the average of the last 50 periods' closing values including current day.
100 SMA % change	The percent change of the average of the last 100 periods' closing values including current day.
200 SMA % change	The percent change of the average of the last 200 periods' closing values including current day.
RSI(14)	Indicates the degree of positive and negative movement by the stock on a scale of 0 (weakest) to 100 (strongest) using 14 periods.
ARSI(14)	Adapts the standard RSI to a smoothing constant using 14 periods.

Imbalance Information - (NASDAQ Only)		
Open Imbalance	Number of opening shares that would remain unexecuted at the current reference price and the side of the imbalance (buy, sell, or none if there is no imbalance)	
Open Far \$	Open Crossing price at which orders in the opening book would clear against each other	
Open Near \$	Open Crossing price at which orders in the opening book and continuous book would clear against each other	
Open Ref \$	Open price within the inside at which paired shares are maximized, the imbalance is minimized and the distance for the bid/ask/midpoint is minimized	
Open Paired	Number of opening shares that are able to be paired off at the current reference price	
Closing Imbalance	Number of closing shares that would remain unexecuted at the current reference price and the side of the imbalance (buy, sell, or none if there is no imbalance)	
Closing Far \$	Closing Crossing price at which orders in the closing book would clear against each other	
Closing Near \$	Closing Crossing price at which orders in the closing book and continuous book would clear against each other	
Closing Ref \$	Closing price within the inside at which paired shares are maximized, the imbalance is minimized and the distance from the bid/ask/midpoint is minimized	
Closing Paired	Number of closing shares that are able to be paired off at the current reference price	
Positions		
Bracket Quantity	Quantity of brackets for the position. Please see the <u>Brackets</u> section for more information.	

Notes on closing all or part of a position

Positions

with brackets:

- Closing the entire position: When a position is closed, any contingent bracket orders will be cancelled automatically.
- Closing part of a position: Note that if you manually close part of a position with an associated bracket order, the Bracket quantity may not match the position Quantity shown in the Positions tab. Because bracket exits are designed to reduce the closing order to the net tradable position, your bracket order quantity should reduce in size upon the bracket order triggering.

Margin Requirements

The Margin Requirements column represents the minimum dollar amount of equity you must maintain in your account (maintenance requirement).

For option positions, it shows:

- Maintenance Requirement: The requirement is only shown for one leg of each pairing
- Quantity: Number of contracts
- Strategy: Legs are paired to optimize buying power, even if the positions were opened individually
- **Strategy sequence number:** Legs paired together have the same sequence number

Typically, the ongoing maintenance requirement for most stocks is 30%, but Schwab may impose higher maintenance requirements on certain securities that are low priced, thinly traded, volatile, or which pose heightened risk.

Special maintenance requirements are set at Schwab's discretion⁴ and are intended to reflect a stock's volatility and to ensure that your account maintains sufficient equity to cover large price movements. Some stocks are so volatile or illiquid that they cannot be margined.

Positions

- Securities held in a cash account will display as '- -' or 'Not Marginable'
- 'N/A' will display if margin requirement data is unavailable.
- Maintenance requirements for multi-leg options will display with the short leg(s) that has/have the higher requirement(s).

A list of maintenance requirements across security types can be <u>found here</u>, with maintenance requirements listed on the far right under the heading "Schwab Maintenance Req."

The Margin Maintenance Requirement Lookup tool can be found here (login may be required).

Maintenance Requirement Disclosure

- Maintenance requirement data updates every 15 minutes or upon an event that changes your balances or positions, such as a trade execution, debit transaction, etc.
- 2. If you have a special maintenance requirement on your account that is greater than the equity-specific requirement, then the account level maintenance requirement will supersede the equity-specific requirement.
- 3. Stocks trading for less than \$3.00 are not marginable.
- 4. Margin requirements may be changed due to concentrated positions, non-diversification, changes in market conditions or at Schwab's discretion.

Cost (Total)

The cost for the position. For more information on Cost and Trade Lots, see Trade Lot Details.

Important Information Regarding Cost Information and P&L Calculations for Your Accounts

Missing cost and P&L information will be represented with an '--'. Incomplete cost and P&L information will be represented with either the word 'Incomplete' or an asterisk (*) in the Cost

Positions	
	column and P&L columns. If lot level data is not available for your account but cost data is displayed, it will exclude commissions and transaction fees, and will not reflect corporate actions including but not limited to: stock splits, stock dividends, spin-offs, mergers, and name changes. If lot level information is available for your account, the cost and resulting profit and loss data will include commissions and transaction fees but may also be incomplete because it may exclude manual adjustments and corporate actions including but not limited to: stock dividends, spin-offs, mergers, and name changes. Please note that cost and resulting profit and loss data displayed in StreetSmart Edge® is not the official record of your account. Your statements and confirmations serve as your official records. Quotes for mutual fund positions are based on a quote from the most recent closing price available. For all other positions, during market hours, market value is derived from real-time quotes. After market hours, market value is derived from the most recent closing price or last trade, unless you have <i>Update Equities Profit & Loss during After Hours</i> checked in your Account Settings.
Cost/Share	Cost per share for the position
DRI	Shows if position is enrolled in Dividend Reinvestment. Certain stocks and mutual funds pay a dividend, which may be reinvested into additional shares of the security, or can be paid to you in cash, depending upon your instructions. • Yes indicates that the corresponding security's dividend is being reinvested. • No indicates that no dividends are being reinvested for that security and that dividends will be paid in cash.

Positions		
Quantity	Quantity held in selected account. For stocks or mutual funds, this field reflects the number of shares you currently hold. For fixed income securities, this field reflects the face value of the securities. For options, this field reflects the number of option contracts.	
Day Chg \$ P&L	Today's gain or loss for your equity and option positions. The calculation is based on the gain or loss for your positions since the previous market close (Marked-to-market) or your cost if purchased today. It includes estimated commissions on positions established today. Please note that the change calculation for your positions established prior to today can also be based on today's open price if you have elected this option via your <a com-missions"="" estimated="" href="execution-needed-need</th></tr><tr><th>Day Chg P&L/Share</th><th>Today's gain or loss for your equity and option positions expressed on a per share or per contract basis. The calculation will be based on the gain or loss for your positions since the previous market close (Marked-to-market) or your cost if purchased today. It includes estimated com-missions on positions established today. Please note that the per share or per contract change calculation for your positions established prior to today can also be based upon today's open if you have elected this option via your Account Settings .	
Day Chg % P&L	Today's percent gain or loss for your equity and option positions. The calculation is based on the gain or loss for your positions since the previous market close (Marked-to-market) or your cost if purchased today. It includes estimated commissions on positions established today. Please note that the percent change calculation for your positions established prior to today can also be based on today's open if you have elected this option via your Account Settings. The percentage value will be taken out to two decimal places. Rounding the 2nd decimal place-	

Positions	
	holder up if the third decimal is equal to or greater than 5 and rounding down if it is less than 5.
P&L	Unrealized profit or loss on the position in dollar format. P&L is calculated based on an average price paid per share.
	NOTE: P&L is NOT calculated on a LIFO/FIFO basis. There are limitations on the reporting of transactions/events that make up the P&L amounts.
P&L %	Unrealized profit or loss on the position as a percentage. P&L is calculated based on an average price paid per share.
	NOTE: P&L is NOT calculated on a LIFO/FIFO basis. There are limitations on the reporting of transactions/events that make up the P&L amounts.
P&L/Share	Unrealized profit or loss based on the average cost per share
Position Dollar Value	Dollar value for existing position(s) in the account. Calculation uses the bid price for long positions and the ask price for short positions.

Watch List Columns and Settings

StreetSmart Edge® Watch Lists are customizable, allowing you to choose which columns of data to display for each symbol in your list, as well as the order of the columns.

Access the Watch List Settings window by right-clicking in the list and selecting **Columns and Settings...**.

See Column Descriptions for details about each available column.

Applying Settings to Individual or All Lists

You can choose to apply the settings changes you make to either just the *current* Watch List or to *all* Watch Lists. The default is to apply the settings only to the current list, but if you prefer the settings to apply to all, be sure to make that selection at the bottom of the Settings window before clicking **OK**.

Jump Start Watch List Column Customization

Selecting one of the following from the **Apply Template** drop-down will automatically check the fields relevant to that template. You can further customize by adding or subtracting fields to your specifications.

Choose from:	
Positions	Displays fields you might be most interested in if you have a Watch List composed primary of positions you hold.
Option Greeks	Displays Bid, Ask, Open Interest, Volume, and all option Greek fields.
Basic Options	Displays basic quote data relevant to options, as well as basic option data (excluding Greeks).
Company Profile	Displays basic company information like P/E, Sector, and Schwab Equity Rating.
Price Range	Displays fields related to current pricing and volume for your list of symbols.

Option Greek Pricing Models

Greeks indicate how fast an option price is changing relative to parameters such as time, underlying stock price, volatility, etc.

- Pricing Method: Select from *Black-Scholes*, *Barone-Adesi-Whaley*, or *Cox-Ross-Rubinstein*.
- **Interest Rate:** Defaults to the 3-Month Treasury I-rate Index rate (\$IRX), or you can define the rate as you wish.

Excluding Options

Display only the underlying for the options by checking the **exclude option positions** box within the "My Positions" settings in the watch list.

Choosing Columns

From the Settings window, check the columns you want to display in the Watch List. For brief descriptions of each column, hover your mouse pointer over the column name. For more in depth descriptions of each column, see Watch List Column Descriptions.

Sorting Rows

Sort rows by clicking the header of the column by which you want to sort. An arrow next to the column name indicates the sort direction (ascending or

descending).

- If **Auto-Sort in Real-Time** is checked in **Columns and Settings** (found in the right-click menu), changes to data in the sort column will affect the current sort order in real time.
- For example, if you have your Watch List display sorted alphabetically by Symbol, when you add new symbols to the list, the new symbols will be inserted into the Watch List in the correct alphabetical order.
- To return the list to its default order, click the # (Custom Number) column header.

Sorting by **multiple rows** can be accomplished by holding down the Shift Key while you left click on the headers of the columns which you want to sort.

Arranging Column Order

There are several ways to rearrange the columns displayed in a Watch List tab:

- You can click the column headers and drag them to another spot in the Watch List display.
- You can also right-click on a column header and choose from the list of all available columns.

TIP: If the column you choose is not currently displayed in the Watch List, it will completely replace the column that was there. If it is already in the Watch List display, the two columns will swap places.

 You can also arrange column order from the Columns & Settings window, available by right-clicking on the tab name. All chosen fields display in the Column Order display on the right with the most recently selected column at the bottom of the list. Click a column name and use the Up/Down buttons to move the column into a new position.

TIP: To save space if you have Sector, Industry, and/or Sub-industry displayed in your Watch Lists, you can abbreviate those columns by selecting *Abbreviations* at the top of the Settings window. Otherwise, to view full names in those fields, select *Long Names*.

Commissions, taxes, and transaction costs are not included in any of these strategy discussions, but can affect final outcome and should be considered. Please contact a tax advisor to discuss the tax implications of these strategies. Many of the strategies described herein require the use of a margin account. With long options, investors may lose 100% of funds invested. In-the-money long puts need to be closed out prior to expiration, since exercising them could create short stock positions.

Options carry a high level of risk and are not suitable for all investors. Certain requirements must be met to trade options through Schwab. Multiple leg options strategies will involve multiple commissions. Spread trading must be done in a margin account. Please read the options disclosure document titled "Characteristics and Risks of Standardized Options."

Copy and Paste Option Symbols

The easiest way to add an option symbol to a Watch List or symbol field is to use the copy and paste feature:

Copy

- 1. Right-click on an option symbol in the <u>Option Chains</u> display or in the <u>Positions</u> tab.
- 2. Select *Copy [symbol]* from the right-click menu.

Paste

- To paste in a Watch List, right-click on the +add symbol field and choose
 Paste [symbol] from the menu.
- To paste in a symbol field, such as in the Trade tool or Symbol Hub, rightclick in the field and select **Paste [symbol]**.

News

News Overview

The News tool streams real-time, breaking news from Thomson Reuters* and Acquire Media right to your desktop. Scan the headlines, read the full story, and set up personal news watches. You may have up to 3 News tools open across all open layouts at one time.

Get the news you want, the way you want it:

- **Breaking News:** Get all breaking news or apply a keyword filter to get breaking news on selected subjects or companies.
- **Symbol News:** See all news on a symbol or news code for the period of time you specify.
- <u>News Watch</u>: Create a list of stocks and/or news codes to display news for, or have the News tool display news for one of your <u>Watch Lists</u> or your positions.
- <u>Briefing.com</u>: Access a variety of commentary from Briefing.com. Choose from a drop-down menu that includes hourly updates on stocks in play, daily and intraday news briefs, and sector analysis.

Preview Pane

Headlines display in the upper portion of the News tool, and clicking on a headline will open the story in the Preview pane at the bottom.

- You can *Hide* or *Show Preview* by right-clicking in the tool or clicking on the *Actions* drop-down and selecting your preference. Clicking the **X** in the upper right corner of the preview pane will close it as well.
- You can also **resize** the Preview pane by dragging the dividing bar between the two panes up or down.
- You can **search** within the article using the search field at the top of the story window. Type a search term and press **Enter** or click the search icon.

Full Story Display

- To open the full story in a separate window, right-click on the headline and select *Open Story* or you can double-click on a headline to open it.
- When viewing the full story, you can choose between three display modes. At the bottom of the screen, choose between:
 - Page Mode: View the story by clicking through the pages using the page number arrows [image]
 - **Two Page Mode:** View the story in two columns and click through the pages using the page number arrows.

Scroll Mode: View the story in one page with a scroll bar on the right side allowing you to scroll down the whole story.

You can adjust the font size of the story using the **Zoom** function at the bottom right of the news story window. Drag the zoom tool left or right, or click the - or + buttons to increase or decrease the text size.

Adjust Color Settings

- 1. From the right-click or **Actions** menu, select **Colors...**
- 2. In the Colors window, you can customize the colors of each element, from background and highlight colors to font colors.
- 3. Click **Reset to Default Colors** should you wish to return to the original colors.

TIP: Check **Apply to all News tabs** at the bottom of the Colors window if you want the color settings to apply to all News tabs.

Tool Link Icon

Link the News tool to other windows in StreetSmart Edge® using the <u>Tool Link</u> <u>Icon</u> in the upper right corner. For example, by linking the News tool to the Trade tool, any time you load a symbol in the Symbol News tab, the symbol will also load in the Trade tool, and vice versa.

TIP: Another way to accomplish this is to use the <u>Symbol Hub</u> tool, which lets you see news, charts, and quotes all in one tool.

Streamlining the News tool

To conserve space, click the **streamlined view** icon, which collapses the tab row, and hides the Actions menu. While in streamlined view, access hidden tabs through the **Tabs** dropdown. To switch back to standard view, click the view icon again.

Adjust Font Settings

- 1. From the right-click or **Actions** menu, select **Font...**
- 2. In the Font window, you can adjust the font type and size, as well as make the text bold and/or italicized by clicking the **B** or *I* buttons, respectively.

TIP: Check **Apply to all News instances** if you want the font settings to apply to all News tools and tabs.

News Provider Settings

You may enable or disable specific news providers from streaming news to your News tool. To make changes to these settings, right-click in any of the news tabs

or click the **Actions** drop-down and select **News Provider Settings**. (This is a global setting, so it is also available from the main **Settings** menu at the top of the software.)

Check or uncheck news providers as you wish and click **Save** to enable the changes and close the window.



^{*}Professional users do not have access to Thomson Reuters news.

Breaking News Tab

The Breaking News tab gives you streaming, real-time general market news headlines. Click a headline to display the article in the preview pane. Double-click on a headline or right-click and select **Open Story** to open the article in its own window.

News Provider Settings

You may enable or disable specific news providers from streaming news to your News tool. To make changes to these settings, right-click in any of the news tabs or click the *Actions* drop-down and select *News Provider Settings*. (This is a global setting, so it is also available from the main *Settings* menu at the top of the software.)

Check or uncheck news providers as you wish and click **Save** to enable the changes and close the window

Keyword Filters

Filters allow you to narrow your breaking news display to subjects or companies of particular interest to you. A green check on the Keyword Filters button indicates there are filters applied to the Breaking News tab.

- 1. Click **Keyword Filters** at the top of the Breaking News tab.
- 2. Check **Look for Keywords** and then specify where you want to look for them: In headlines only, in stories only, or both.
- 3. Enter the keywords you wish to search for, putting commas between each word or phrase. The search keywords are treated as though they have an 'or' between them, so if any one of your keywords turns up in a breaking news article, it will display in your Breaking News tab.
- 4. Click **OK** when you're finished.

Symbol News

The Symbol News tab displays news for a single symbol over a specific time frame. Click a headline to display the article in the preview pane. Double-click on a headline or right-click and select **Open Story** to open the article in its own window.

To search for news by Symbol

• Enter the symbol or select a previously-entered symbol from the symbol drop-down and press *Enter* or click *Go*.

To search for news by News Code

- Enter the news code or select a previously-entered news code from the symbol drop-down, then press *Enter* or click *Go*.
- If you need to search for a news code, click the **News Code** button to view the available news codes and descriptions. Choose a code and click **OK**.
- To narrow the list of news codes down, you can use the Filter news codes by keyword or Filter news codes by Category feature.

Select a Timeframe

Choose from: **Today**, **Last 24 Hrs**, or a **Custom** search where you can enter a start and end date for the news search. The Custom search can look for news up to 60 days back.

News Watch

The News Watch tab allows you to watch for news on a list of symbols and/or news codes. Click a headline to display the article in the preview pane. Double-click on a headline or right-click and select **Open Story** to open the article in its own window.

Adding Symbols to News Watch

To get started adding symbols to the News Watch tab:

- 1. Click **Edit News Watch** at the top of the News Watch tab.
- 2. Edit the news watch in any of the following ways:
 - Manually enter symbol: Type symbols in the Enter symbol field and click Add. To add multiple symbols at a time, add a comma between the symbols.
 - Watch List: Add all the symbols in a saved <u>watch list</u> by selecting it from the Select Watch List drop-down. Click Add to add the symbols to the list.
 - Current positions: To add all your current positions to the news watch list, check *Current Positions*. Your positions won't actually be listed in the News Watch Items display, but they will be tracked by the News Watch tab.
 - Breaking News: If you want the results from your <u>Breaking</u>
 <u>News tab</u> query to also display in your News Watch tab, check
 Breaking News. The query won't actually display in the News
 Watch Items, but results will still appear in the News Watch tab.
- As you add symbols/news codes by the first three means listed above, they
 will display in the **News Watch Items** column on the right side of the edit
 window.
- 4. When you are finished with your list, click **OK**.

News Provider Settings

You may enable or disable specific news providers from streaming news to your News tool. To make changes to these settings, right-click in any of the news tabs or click the *Actions* drop-down and select *News Provider Settings*. (This is a global setting, so it is also available from the main *Settings* menu at the top of the software.)

Check or uncheck news providers as you wish and click **Save** to enable the changes and close the window.

Briefing.com

The Briefing.com tab in the News tool provides access to commentary from Briefing.com, including live analysis of market and economic events, news, earnings, broker ratings changes, and rumors.

At the top of the Briefing.com tab, select the type of information you want to see using the drop-down menu. Click a headline to display the article in the preview pane. Double-click on a headline or right-click and select **Open Story** to open the article in its own window.

InPlay	Features live analysis, news, earnings coverage, and analyst upgrades/downgrades, including Briefing.com's economic coverage and commentary.
Short Stories	Brief synopses of key analyst upgrades, downgrades, and new ratings published live before market open each trading day.
Story Stocks	Live updates to news and earnings analysis on individual companies and stocks during current trading session.
Tech Stocks	More in-depth news and analysis around technology stocks published daily.
Stock Market Update	U.S. and international market updates approximately every half-hour starting at 6 a.m. ET with foreign market and U.S. futures summaries.
Daily Sector Wrap	Daily, post-market reporting and analysis of sector performance across the U.S. markets.

Resources

Notes

The Notes tool is a trading journal that can help you keep track of information you need to refer to while you trade. Think of it as moving your sticky notes into your computer. Whether you keep notes about the market, corporate events, trading opportunities, positions, ideas for later, or anything else, the information you want is at your fingertips in StreetSmart Edge®.

Manage and create notes from the Notes tool, found in the **Launch Tools** menu. You can also add and view notes throughout the software, anywhere you see the Notes icon . You may display up to 20 Notes tools across all open layouts.

Adding Notes

In tools such as Charts, Watch Lists, Screener Plus, and Account Details, you can find the option to **Add Note** in the **Actions** or right-click menu.

TIP: If you right-click on a specific symbol and select **Add Note**, for instance in the Watch List, it will pre-fill the symbol in the **Symbol** field of the **Create New Note** window.

- 1. Click **Add Note** and fill out the **Symbol** and **Title** fields as desired.
- 2. Adding a Symbol to your note is optional, and may not be needed for more general notes. However, using the symbol where applicable can help you organize your notes and view all notes for one symbol together.
- 3. Enter your note with up to 1,500 characters. You can adjust the font size for the entire note, as well as formatting all or portions of the text by selecting the text and clicking the formatting buttons (Bold, Italics, Underline, and Color).
- 4. Click **Save** when you are finished.

Viewing Notes in Notes tool

The Notes tool has two tabs: **All Notes**, which shows notes regardless of symbol, and **[Symbol] Notes**, which shows only notes for the symbol you enter in the symbol field.

- **Timeframe:** View **All Notes** or you can see fewer notes by limiting the time frame between the **Last 3 months** and **This week**.
- Delete: To delete a note, put a check next to it and click Delete or to delete a note you're already viewing, click Delete Note. To delete all notes displayed, check the box next to Title and select All (this checks all notes on display), and click Delete.

- **Export:** To export a note, put a check next to it and click **Export**. A window will open asking you to give the saved file a name. The file is saved in the Saved Data folder as an .html file. To export all notes displayed, check the box next to **Title** and select **All** (this checks all notes on display), and follow the Export instructions above.
- Edit a Note: Select the note and click Edit. Make changes to the note and click Save.
- Search for Notes: Enter a search term in the upper right corner Search field and press *Enter* or click the picon. Search results will display in the All Notes tab.

Usage Limits

The Notes tool can hold up to 500 notes. The **Current Usage** bar at the bottom of the Notes tool shows how much capacity you have remaining. If you hover your mouse over the Current Usage bar, a tip will display telling you the percentage of Notes space being used.

Adjust Color Settings

- 1. From the right-click menu, select **Colors...**
- 2. In the Colors window, you can customize the colors of each element, from background and highlight colors to font colors.
- 3. Click **Reset to Default Colors** should you wish to return to the original colors.

TIP: Check **Apply to all Notes tools** at the bottom of the Colors window if you want the color settings to apply to all Notes tools.

Notes in Charts

- When adding a note to a chart, the note is added at the point you right-click on the chart and select *Add Note*. But after the note is created, you can move it around the chart. Additionally, a small, yellow icon is added to the history control at the bottom of the chart on the date you create the note. This icon cannot be moved.
- When adding a note while in a chart, you can also **Take a Snapshot** of the chart to view later. To view the chart within the note, open the note and there will be a second tab to the note with the name of the chart and the date the snapshot was taken.
- To see all notes on a chart you are viewing, click the Note icon at the top of the chart next to the **Tab Sync** button.
- Read or edit an individual note on a chart by moving your mouse over the note, and then over the name of the note when it appears. Click the *Read* or *Edit* links to choose your action.

Notes Columns

Tools such as Watch Lists, Screener Plus, and most tabs in the Account Detail tool, allow you to display a **Notes** column, which will show the Notes icon if there are notes related to a symbol in the list. Go to the *Columns and Settings* for the tool to add the **Notes** column.

Web Browser

StreetSmart Edge® offers a built-in web browser, where you can quickly access Schwab.com account management and research resources without leaving the software.

Open the Web Browser from the Launch Tools button. The browser will also open if you choose a link from the Schwab.com drop-down in the Main Menu. You may display up to 8 instances of the Web Browser tool across all open layouts.

Schwab sites: Click the **Charles Schwab** logo to open a menu of links to Schwab.com (same as the one in the Main Menu). These will take you directly to the education, account management, research and more on Schwab.com without having to log in.

Favorites

Keep a list of other frequently-used web sites, which you can access and manage from the **Favorites** menu.

• Add Favorites: Go to the site you want to add by entering the web address at the top of the Browser window and clicking **Go**. Click the icon to add the site to your Favorites. Give the link a name and click **Save**.

In the Favorites menu, each link has the following choices in an expanding menu:

- Open Favorites: Click the Favorites menu, where each saved favorite will have an expanding menu. In the menu for the site you want to open, choose whether to *Open in Current Window* or *Open in new window*. Opening the site in a new window will open another Web Browser tool in your layout.
- **Edit Favorites:** To change the name or web address of a link you've saved to your Favorites, click the Favorites menu. For the link you want to change, click **Edit Favorite** from the link's expanding menu.
- **Copy Favorite link:** To copy a favorite link into your clipboard, click the Favorites menu and choose Copy link for the link you want to copy.
- **Delete Favorite:** To remove a favorite from your list, click the Favorites menu and choose Delete Favorite for the

Glossary

Options carry a high level of risk and are not suitable for all investors. Certain requirements must be met to trade options through Schwab. Multiple leg options strategies will involve multiple commissions. Please read the options disclosure document titled "Characteristics and Risks of Standardized Options." Supporting documentation for any claims or statistical information is available upon request.

Please contact a tax advisor for the tax implications involved in the options strategies referenced.

Above the Market

A limit order to buy or sell a security for a specified price that is higher than the current market price. A sell order may be placed above the market in an attempt to sell at higher prices. However, if the market does not reach these prices, the order will go unfilled.

Above the Money

For straddles and collars, strike prices of the call and the put are above the current price of the underlying security.

Advance-Decline (AD) Line

The Advance-Decline (AD) line is the cumulative total for the difference between the number of advancing stocks and the number of declining stocks in a given market. The AD line for the New York Stock Exchange (NYSE) is the most widely used measure of market breadth. If there are more advances than declines, the AD is a positive number; if there are more declines, the AD number is negative. That daily number is added to the cumulative AD line. The AD line gives us information on whether the majority of stocks are following the trend of the commonly followed stock indices.

All Money

In reference to Advanced Options, all pairings for the specified strike range, excluding leaps.

All or None (AON)

An All or None (AON) order directs the broker to attempt to fill the entire amount of an order or none of it during the time limit specified. AON orders do not require immediate execution, and are only applicable to limit orders.

American Depository Receipt

ADRs are securities issued by commercial banks that represent the shares of a foreign company. Generally speaking, a foreign company will deposit a certain amount of shares with a US commercial bank. The bank will then issue a security

based on a specific number of shares. ADRs trade just like domestic stocks on various US stock exchanges, however investors are subject to additional risks, including but not limited to currency fluctuation. Their performance usually parallels that of the parent company on its domestic exchange. ADRs offer international companies greater exposure and investors the chance to invest in well-known foreign companies.

Arbitrage

The simultaneous buying and selling of the same or closely related securities, in different markets to take advantage of price disparities. Arbitrage attempts to realize a profit with minimal to no risk, but generally transaction fees and market inefficiencies will substantially minimize profitability for the retail investor.

Around the Money

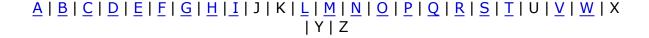
For strangles and collars, strike prices of the call and put lie on opposite sides of the current price of the underlying security.

Ask

The ask price is the displayed price at which a market maker or specialist offers to sell a stock.

At the Money

An option is at-the-money if the strike price of the option equals the market price of the underlying security.



Bar Chart

In a bar chart, each time period is represented by a vertical bar that represents the range between the high and low prices. A bar chart displays more information than a line chart, which only shows the closing price for each period. Some variations on the standard bar chart are the following: HL (only the high and low price for each time period), HLC (the high, low, and close), and OHLC (open, high, low, and close).

Bear Trap

A bear trap occurs when prices break below a significant level and generate a sell signal (q.v.), but then reverse course and negate the sell signal, thus trapping the bears that acted on the signal with losses.

Below the Market

A limit order to buy or sell a security for a specific price that is lower than the current market price. Buy orders may be placed below the bid in an attempt to purchase at lower prices. However, if the market does not reach these prices, the order will go unfilled.

Below the Money

For straddles and collars, strike prices of the call and the put are below the current price of the underlying security.

Beta

Beta is a measure of the security's systematic or market risk. The level of the beta indicates the degree of correlation between a security and a market benchmark, usually the S&P 500. The market is the benchmark and has a beta of 1. A beta greater than 1 is more volatile than the overall market, while a beta less than 1 indicates that the security's price is more stable than the market (in general and over a long time period).

Bid

The bid price is the displayed price at which a market maker or specialist offers to buy a stock.

Black Scholes Option Pricing Model

A model used to forecast the price of an option.

Blue Chip

A common stock of an established company that has a long record of earnings, dividends, stability and high credit quality.

Bollinger Bands®

Developed by John Bollinger, Bollinger Bands are indicators that allow for a comparison of volatility and relative price levels over a period time. This indicator consists of three bands designed to encompass the majority of a security's price action:

- 1. An upper band
- 2. A lower band
- 3. A moving average

The time period used for the moving average can vary, but John Bollinger recommends 10 days for short term trading, 20 days for intermediate trading, and 50 days for long term trading. The upper and lower bands are plotted as standard deviation levels -- typically two standard deviations-- above and below the moving average. Since standard deviation is a measure of volatility, the bands are self-adjusting. They typically widen during volatile markets and contract during calmer markets.

The basic interpretation of Bollinger Bands suggests that prices tend to stay within the upper- and lower-bands. The distinctive characteristic of Bollinger Bands is that the spacing between the bands varies based on the volatility of the prices. During periods of extreme price changes (or high volatility), the bands tend to widen to become more forgiving. During periods of stagnant pricing (or low volatility), the bands tend to narrow to contain prices. When prices break through a band, this may indicate that the move is strong enough to continue further.

Boxed Position

Where the security is held in the account both as a long and a short position. These positions can be of equal or unequal quantities (i.e. full or partial box).

Bull Trap

A bull trap occurs when prices break above a significant level and generate a buy signal, but suddenly reverse course and negate the buy signal, thus trapping the bulls that acted on the signal with losses.

Butterfly

A butterfly is a four-legged options strategy, which combines either two call spreads or two put spreads. All four call (or put) legs have the same expiration date, and generally also maintain consistent distances between the three strike prices involved. The strategy gets its name from its 3-part structure, involving the two outer strikes (or "wings") and the middle strike (representing the "body"). Click here to read more about butterfly spreads.

Buy

Purchase of a security.

Buy Signal

A buy signal is a condition that suggests a time to buy a stock. The signal will vary depending on the type of technical indicator used, or it may be based on a non-technical event, such as a change in an analyst recommendations or the release of positive news. Note: It's unwise to base buy or sell decisions on just one indicator.

Buy Stop

A buy stop is a buy order usually placed above the current price, requiring that a security would have to trade at or above a set level before the buy order would be activated. For example, an order could be entered at 35.5 for a security trading just below resistance at 35. By placing a buy stop order just above resistance, the trader prefers to wait for that security to break resistance before going long. This type of order can also be used as a stop loss for a short position. Please note that there is no guarantee that execution will be at or near your stop price.

Buy to Close

You "close" a short option position when you buy it back.

Buy to Open

You "open" a long position when you buy a new option.

Buying Power

This is the maximum dollar value of marginable securities that you can buy in your margin account without depositing additional equity. Buying power is calculated at the close of business each day and may fluctuate throughout the day.

Call Option

An option contract that gives the holder the right, but not the obligation, to buy 100 shares of the underlying security at a fixed price before a specified expiration date. Call buyers hope the price of the underlying security will rise. Call sellers hope the price will stay the same or go down.

Candlestick Chart

A candlestick chart is similar to a bar chart. The major difference is the graphical depiction of each period in a "candlestick." Each candlestick is formed using the open, high, low, and close of a specific time period. The period can be anything from a minute to a month. The color of the candlestick is determined by the relationship between the open and close. If the close is higher than the open, a white (or green) real body is formed. If the close is lower than the open, a black (or red) real body is formed. If the close and open are the same, it will be a cross. The thin lines above and below the real bodies represent the high and the low for the period and are referred to as shadows. The high for the period is the upper shadow and the low is the lower shadow. It is these shadows, which look like wicks on a candle, that give rise to the term "candlestick."

Capital Gain

The difference in value between what you originally paid for an investment and the price at which you sold, assuming the investment gained in value.

Cash Account

This type of brokerage account requires that you pay for trades in full by the settlement date.

Cash Secured Equity Put (CSEP)

A CSEP consists of any number of short uncovered put options written at a strike price lower than the stock's price, and where the investor must maintain cash or cash equivalents in his account equal to the total amount of the potential assignment in the event the put expires in the money, or is exercised by the owner of the put.

Channel

A channel refers to the area on a price chart between two parallel trend lines that connect the highs and the lows of a prevailing trend.

Charting

The set of techniques used in technical analysis in which charts are used to plot price movements, volume, and other indicators.

Close

The price at which a security closed for trading on a given day.

Common Stock

Common stock is "ownership" of a corporation. An owner of a company's common stock is considered to have an equity position in the corporate structure of that company.

Condor

A condor is a four-legged options strategy, which combines two call spreads or two put spreads. All four call legs (or put legs) have the same expiration date, and generally maintain consistent distances between strike prices. The strategy gets its name from its 4-part structure, involving the two outer strikes (or "wings") and two inner strikes (representing the "body"). The two inner strikes are typically positioned around the current price of the underlying stock. Click here to read more about condors.

Confirmation

Confirmation is a subsequent signal that validates a position stance. Traders and investors sometimes look for more than one signal or require validation before acting. For example: confirmation of a trend change may entail an advance past the previous reaction high. For an indicator such as MACD, confirmation of a divergence may be a subsequent moving average crossover. (Not to be confused with a trade confirmation, which verifies that a trade order has been executed.)

Congestion Area

At a minimum, a series of trading days in which there is no or little progress in price.

Correction

After an advance, a decline that does not penetrate the low from which the advance began is known as a correction. A correction, also referred to as a retracement, usually retraces 1/3 to 2/3 of the previous advance.

Crossed Market

When the bid is higher than the lowest current offer or vice versa.

Crossover

A crossover is a place on a graph where two lines intersect. Depending on what each line represents, a crossover may indicate a buy or sell signal. One common method of interpreting a moving average is to compare its relationship to the price itself. Changes in a market's price trend are not necessarily identified by a reversal in the direction of the moving average line, but by the price line crossing through the moving average line. It may be considered bearish when price crosses below a moving average, and bullish when price crosses above it. Multiple moving average crossovers (or "double crossovers") can also be employed through the use of two moving average lines -- one of a shorter time span and the other of a longer time span. It may be considered bearish when the shorter moving average crosses below the longer moving average, and bullish when the shorter crosses above the longer. This technique of using two moving averages together typically lags the market a bit more than a single moving average.

Cup and Handle

A pattern on a bar chart. The pattern can be as short as several weeks and as long as a year. The cup is in the shape of a 'U', and the handle has a slight downward drift.

Cyclical Stocks

Cyclical stocks are shares of companies with businesses that are highly sensitive to economic performance. Cyclical stocks tend to perform well under certain economic conditions and suffer during others.

Daily Range

The difference between the high and low during one trading day.

Day Order

An order condition that causes your order to be canceled at the end of the current day's trading if the order has not been executed. All Market Orders are automatically Day orders. Orders are generally considered to be day orders unless otherwise specified.

Day Trading

Day trading is a style of trading where positions are both initiated and closed before the end of the trading day. Compare this to position trading, where stocks or securities may be held for longer periods.

Derivative Instrument

A financial instrument or security whose value is based in part upon another security. For example, a stock option is a derivative instrument because its market value is based in part upon the market value of the underlying stock.

Dilution

Effect on earnings per share and book value per share from any increase in shares outstanding.

Direct Access

Schwab's integrated set of trading tools designed to support direct access trading. StreetSmart Edge Direct Access provides Market Depth information into a trading interface that gives you control over the routing, targeting, and timing of your order. This platform is for experienced traders who are comfortable learning to use advanced trading technology to trade NASDAQ securities.

Direct Access Trading

A trading method in which traders have control over the routing and targeting of their orders. Direct access enables eligible clients to route orders for execution to the market centers of their choice. Depending on the brokerage firm, clients may be allowed to direct orders to a variety of ECNs, market makers, and exchanges. In direct access trading, there are no intermediaries who can

safeguard against poor trading decisions or serve as buffers between traders and sudden changes in market conditions.

Discretion

Allows you to have a displayed price and a discretionary price. You can place the order at the price you'd like to receive with a discretion amount for the maximum/minimum amount you're willing to pay. Available for limit orders only.

EXAMPLE A limit order to buy with a displayed price of 50 and a discretionary price of 50.25 is presented as:

Price = 50

Discretion = 0.25

Divergence

Divergence means that different technical indicators or indices are failing to confirm each other. This can be viewed as a warning signal that the prevailing trend may be about to reverse.

Dividend Amount

Value of last quarterly cash dividend or the number of shares an investor receives for each share owned in a stock dividend.

Dividend Reinvestment

The application of cash dividends from an equity security to purchase more shares of the security.

Do Not Reduce (DNR)

Instructs the broker not to reduce the limit price by the amount of the cash dividend when a stock goes ex-dividend and the market price is reduced by the amount of the dividend. You can specify DNR on **Buy limit GTC orders** or **Sell Stop GTC orders**.

Double Tops and Bottoms

Generally considered to be reversal patterns, double tops or bottoms show as two prominent peaks or troughs on the price chart. The first peak or valley is typically formed on relatively high trade volume, and the second on relatively low volume. The reversal is considered complete when the middle peak (in the case of a double bottom) or trough (in the case of a double peak) is broken.

Dow Jones Industrial Average (DJIA)

Published by Dow Jones & Co, the Dow Jones Industrial Average (DJIA) is a price-weighted average of 30 blue-chip stocks. Because it is price weighted, stocks with the highest prices will have the most influence and those with the lowest, the least influence. The DJIA is calculated by adding the closing prices of the 30 stocks, and then dividing by a number that takes into account splits, large dividends, substitutions and mergers. The component stocks of the DJIA have changed over the years to reflect the composition of the U.S. economy.

Dual Listed Stocks

Stocks listed on the New York Stock Exchange that are eligible for trading via NASDAQ, in addition to the NYSE and some ECNs.

Earnings Announcement

Official public announcement of a company's earnings statement for a particular period of time, such as annual or quarterly.

Earnings Per Share Date

Date of the last earnings announcement.

Earnings Restatement

If a material inaccuracy is found in a company's previously released earnings statement, a restatement is issued.

Electronic Communication Network (ECN)

An Electronic Communication Network (ECN) is a computerized trading system that facilitates trading between two parties without a market maker or specialist as an intermediary. If an ECN cannot match an order, it usually either sends the order to another ECN or market maker or posts the order to the order book until a matching order is found. ECNs are identified in the software as follows: [ARCA] NYSE ArcaBook and [NSDQ] NASDAQ single book

Electronic Funds Transfer

Transferring funds between accounts and firms electronically.

Elliot Wave Theory

Originally published by Ralph Nelson Elliot in 1939, Elliot Wave Theory is a pattern recognition theory that is based on repetitive wave patterns and the Fibonacci number sequence. An ideal Elliott wave pattern holds that a five wave advance is followed by a three wave decline to form a complete cycle.

Ex-Dividend Date

Date a stock or cash dividend is reflected in the price of the security (if you buy a stock on the ex-dividend date, you are not entitled to the dividend); for stock dividends, this is the trading day after the distribution is made.

Exercise Price (or Strike Price)

See Strike Price.

Expiration

The date an option contract becomes void. All holders of options must indicate their desire to exercise by this date.

Fed Call

Also known as Regulation T or Reg T Call. This type of call occurs when establishing a margin position. Investors must deposit initial margin (typically 50%) of the cost of the trade per current Federal Reserve requirements.

Fibonacci Fan Lines

Fibonacci Fan lines are based on the Fibonacci number series and combine two additional analytical concepts--trend line and percentage retracement. Fibonacci Fan lines are typically drawn at 38%, 50%, and 62% angles from prominent price peak and troughs. Theoretically, these fan lines may then provide support during subsequent downward corrections, and resistance during subsequent upward advances.

Fibonacci Retracements

Fibonacci Retracements are based on the Fibonacci number series and represent price movements in the opposite direction of the previous trend. Retracements can be calculated by drawing a trend line between a prominent price peak and trough, then forming horizontal lines at the 38%, 50%, and 62% levels of retracement from the prior price move. Theoretically, as prices retrace, the retracement levels may act as support or resistance.

Fill or Kill (FOK)

A Fill or Kill (FOK) order instructs the broker to immediately fill an order in its entirety or to cancel it. FOK instructions are only applicable to limit orders.

Freeriding

This trading violation is the result of buying a security in your Cash Account and then selling the same security without making separate payment on the full purchase price by Settlement Date. This situation is called freeriding because basically it is unauthorized borrowing to pay for a trade.

Fundamental Analysis

Fundamental analysis is the study of economic, industry, and company conditions in an effort to determine the value of a company's stock. Fundamental analysis typically focuses on key statistics in a company's financial statements to determine if the stock price is correctly valued.

Gaps

Gaps form when opening price movements create a blank spot on the chart. Gaps may be especially significant when accompanied by an increase in volume. An up gap forms when a security opens above the previous period's high, remains above the previous high for the entire period and closes above it. Up gaps can form on daily, weekly or monthly charts and are generally considered bullish. A down gap forms when a security opens below the previous period's low,

remains below the previous low for the entire period and closes below it. Down gaps can form on daily, weekly or monthly charts and are generally considered bearish.

Good Til Canceled (GTC)

Instructs the broker to keep an order open until it is either executed or expires. At Schwab, GTC orders remain open for 60 calendar days unless filled or you request that it be canceled before that time.

Halted Securities

Occasionally, trading on a given security may be suspended due to a variety of conditions, including news and corporate actions. If the security you are attempting to trade has been halted, you can place an order but it will not be eligible for execution or in force until the trading halt is lifted. If you have an open order for a security that subsequently is halted, your order will be eligible for execution after the halt is has been lifted. Please be aware that when the security resumes trading it may be at a price significantly above or below the most recent trade price.

Head and Shoulders

The Head and Shoulders pattern is one of the best known of the reversal patterns. At a market top, three prominent peaks are formed with the middle peak (or head) slightly higher than the two other peaks (shoulders). When the trend line (neckline) connecting the two intervening troughs is broken, the pattern is complete. A bottom pattern is a mirror image of a top and is called an Inverse Head and Shoulders.

Historical Volatility

Reflects how far an equity's price has deviated from its average price over a period of time.

Immediate or Cancel (IOC)

Requires the broker to immediately fill as much of the order as possible and then cancel any remaining portion. (It may not be available in all market conditions.) Unlike All or None (AON) or Fill or Kill (FOK) instructions, IOC orders may result in a partial execution. Immediate or Cancel can be entered with either market or limit orders.

Implied Volatility

The theoretical value (in %) designed to represent the forecasted volatility of the security or index as determined by the prices of multiple call and put options using the Black-Scholes pricing model. Other variables usually include security price, strike price, risk-free rate of return, and days to expiration. If all other variables are equal, the security with the highest volatility will generally have the highest option prices.

In the Money

For a call option to be in-the-money, an option's strike price must be below the market price of the underlying security. For a put option, in-the-money is when the strike price is above the market price of the underlying security.

Indicator

An indicator is a value, usually derived from a stock's price or volume, that an investor can use to try to anticipate future price movements. Indicators are divided into two groups: trend following (or lagging) and momentum (or leading). Lagging indicators tell you what prices are doing now, or in the recent past, so are useful when stocks are trending. A moving average is an example of a lagging indicator. Leading indicators are designed to anticipate future price action and many come in the form of oscillators. RSI is an example of a momentum indicator.

Iron Butterfly

An iron butterfly is an options strategy, which combines a call spread and a put spread; it involves two call legs and two put legs, all with the same expiration date, and generally with consistent distances between the three strike prices involved. The strategy gets its name from its 3-part structure, involving the two outer strikes (or "wings") and the middle strike (representing the "body"). Click here to read more about iron butterflies.

Iron Condor

An iron condor is an options strategy, which combines a call spread and a put spread; it involves two call legs and two put legs, all with the same expiration date, and generally with consistent distances between the four strike prices involved. The strategy gets its name from its 4-part structure, involving the two outer strikes (or "wings") and two inner strikes (representing the "body"). The two inner strikes are typically positioned around the current price of the underlying stock. Click here to read more about iron condors.

Inside Dav

An Inside Day represents a day in which the total range of price is within the previous day's price range.

Inside Market

The highest bid and lowest ask prices among all competing market makers in a NASDAQ security.

Invisible (INV)

An order that is deemed "Invisible" or "Subscriber only" will not display on the NSDQ order book. These orders will be matched, if possible, but an invisible order has less priority than other orders. If an order with a restriction is entered before an unrestricted order at the same price; the unrestricted order will execute first. Invisible and Subscriber Only orders do not comply with the Display Alternative as described in the SEC Order Handling Rules. They are bad for price discovery.

Last Split Date

The last date on which the shares of a security were increased or decreased by splitting.

Last Trade

The price at which the last trade was executed; after market close, this is the closing price.

Last Trade Date and Time

The date and time the security was last traded.

Level I

A quote for a security that displays the current best Bid and Ask prices, volume, close price from the previous trading day, open price, high and low price for the day, and perhaps the ratio of shares or market participants at the inside Bid and Ask.

Level II/Market Depth

Market Depth is a display of both Level I quotes and bid and ask quotes from all quoting market participants (market makers and ECNs) at lower and higher prices than the best bid and ask.

Level III

Consists of Market Depth Service plus the ability to enter quotations, direct/execute orders, and send information; this service is restricted to FINRA member firms that function as registered Market Makers in either NASDAQ, exchange-listed, or OTC Bulletin Board securities.

Limit Order

An order to buy or sell a security at a specific price or better. As opposed to a market order, limit orders might not be filled quickly or at all if the market moves away from the specified price. A limit order guarantees price, but not execution.

Line Chart

The line chart is a price chart that simply connects the closing prices for a given market over a specified period of time, resulting in a curving line on the chart.

Liquidity

The ability of a stock to be readily bought or sold without causing significant price fluctuations. Generally, the greater the number of buyers and sellers of a particular stock, the more liquid the stock.

Locking the Market

Market condition in which there are identical bid and ask prices for a stock.

Look-back Period

The look-back period is the number of periods (minutes, days, weeks, months) used to calculate an indicator. For example, a 14-day RSI would have a look-back period of 14 days.

Maintenance Call

A "call" for additional funds or acceptable collateral to be immediately deposited into your margin account. This type of margin call is generated when the equity in a margin account does not meet an established minimum requirement. This can be caused by fluctuations in market prices or your additional use of margin.

Margin Account

This type of brokerage account allows you to borrow funds, using your own marginable securities as collateral. The borrowed funds may be used for the purchase of more securities.

Margin Balance

The net open balance in your margin account. If negative, this is the amount owed to the brokerage firm. If positive, the balance is available to earn interest.

Margin Call

This term refers to both maintenance calls and "Regulation T" calls (also called Reg T or Fed calls). An investor who receives a margin call is required to deposit additional funds or securities in a margin account either because the equity in the account does not meet an established minimum equity requirement (maintenance call) or because additional securities have been purchased or sold short.

Margin Interest

Margin interest is charged daily based on your margin balance.

Marginable

A security that may be used as collateral in a margin account. Most listed securities trading at over \$5 per share are marginable, as are most fixed income securities, OTC stocks, and open ended mutual funds (30-days after they have been fully paid for). To find out if a specific stock is marginable, please contact a Schwab representative.

Market Capitalization

Market Capitalization, or market cap, is the total market value of a company (number of shares outstanding multiplied by the price of the stock). For example, a company with 1 million shares outstanding and a stock price of \$10 would have a market capitalization of \$10 million.

Market Depth/Level II

Market Depth is a display of both Level I quotes and bid and ask quotes from all quoting market participants (market makers and ECNs) at lower and higher prices than the best bid and ask.

Market Indicators

A variety of indices and other data that indicates the overall direction and strength of the market.

Market Maker

Market makers are the dealers in the NASDAQ market. They provide liquidity to the market by trading for their customers or for their own accounts, and are committed to buy and sell shares in the stock in which they make a market. Market makers display their buying and selling interest in the Market Depth quotes.

Market Order

An order to buy or sell a security at the prevailing market price. Sometimes referred to as "at the market." A market order guarantees execution, but not price.

Market Peg

Pegs the order price to the ask if buying or to the bid if selling, meaning the order price will automatically adjust as the bid or ask moves until the order executes or the stock trades beyond your limit price. Orders may be adjusted a penny up or down to avoid locking the market.

EXAMPLE

XYZ is currently quoted at 20 bid x 20.05 ask.

A Market Peg order to buy XYZ with a limit of 20.10, will be submitted at 20.05.

If the quote changes to 20.05 bid x 20.10 ask, the order price would change to 20.10.

If the order is not executed, it will not update beyond the limit price and will remain posted at 20.10.

Max Floor

Specifies the reserve size for the order. Must be a round lot equal to or less than the order quantity. Reserve size has no time priority in Market Depth. Only the displayed portion of the order will have time priority.

EXAMPLE You enter a bid with 5,000 as the total quantity, but 1,000 as the Max Floor value. Your order will display as 1,000 shares, but if yours is the only bid when an offer arrives for 10,000 shares at your price, your entire 5,000 shares will execute.

However, if 3 other bids for 3,000 shares each were behind you at the same price, only your displayed 1,000 would execute, along with 9,000 shares from the other three bids.

Minimum Acceptable Quantity (MAQ)

Instructs the broker to fill a minimum share amount of an order.

Minimum Quantity

Instructions to buy or sell a specified number of shares at a limit price, with the condition that the first fill must be for a minimum number of shares.

Momentum

Momentum is an overbought/oversold indicator that measures the velocity of price changes for a set period of time. Momentum is measured by continually calculating price differences between the most recent price and the price n-periods ago, then plotting these differences around a centerline. If the latest price is greater than the first price, a positive value is plotted above the centerline. If the latest price is below the first price, a negative value is plotted below the centerline. The greater the change in prices, the greater the change in Momentum.

If prices are rising and the momentum line is above the centerline and rising, an up trend may be accelerating. When the Momentum line drops below the centerline, a near-term downtrend may be in effect. One popular time period used for Momentum is the 10-day, however any time period can be employed. A shorter time period produces a more sensitive line with more pronounced oscillations (extremes), while a longer period results in a smoother line with less volatile swings.

Money Flow & Money Flow Percentage

Developed by Marc Chaikin, Money Flow is one of several indicators available to measure the flow of money in and out of a particular security. The Money Flow indicator is derived from the daily read of the Accumulation/Distribution Line. The basic premise behind the Accumulation Distribution Line is that the degree of buying or selling pressure can be determined by the location of the close relative to the high and low for the corresponding period ("closing location value").

The closing location value multiplied by volume forms the Accumulation/Distribution Value for each period. Money Flow Percent is calculated by dividing the sum of the daily Accumulation/Distribution values over a specified time period by the sum of the Volume over the corresponding period.

Generally, accumulation or buying pressure is present when prices close in the upper half of the day's range, and distribution or selling pressure is evident when prices close in the lower half of the day's range. If prices consistently close in the upper half of their daily high/low range on increased volume, then the indicator will be positive and display above the zero line; this indicates that the market may be strong.

Conversely, if prices consistently close in the lower half of their daily high/low range on increased volume, the indicator will be negative and display below the zero line; this indicates that the market may be weak.

It should be noted that because the change from close to close is not considered in the calculation, a security can close lower and still exhibit signs of accumulation, or close higher and still exhibit signs of distribution.

Moving Averages

Moving averages are one of the more versatile and widely used of all technical indicators. A moving average shows the average value of a security's price over a specified period of time.

To get the average to "move," a new item of price data is added while at the same time the oldest item is removed. By using an average of prices, moving averages are able to smooth a data series and make it easier to identify any underlying trend.

Essentially a trend-following indicator, the moving average works best in markets that are trending -- as opposed to markets in trading ranges. They are used to identify and confirm trends, as well as identify support and resistance areas. It's also important to note that shorter-term averages are typically more sensitive to individual price fluctuations, while longer-term averages are less sensitive.

Moving Averages include: Simple Moving Average (SMA) - The simple moving average is the most widely used moving average and is constructed by simply totaling a set of price data and dividing the sum by the number of observations. SMAs give equal weight to each price data input. Exponential Moving Average (EMA) - The exponential moving average is similar to the SMA, only it uses a "smoothing factor" to give more weight to recent prices while at the same time allowing all price data to influence the average. By putting more weight on recent price data, the EMA reduces the time lag and reacts more quickly to recent price changes.

Moving Average Convergence/Divergence (MACD)

The Moving Average Convergence/Divergence is a trend following momentum indicator that shows the relationship between two moving averages. The MACD line is calculated by taking the difference between a longer-period and shorter-period moving average (typically 26-day and 12-day respectively). It is the interaction of these two moving averages that gives the indicator its name, as over time the two are constantly converging and diverging. A signal line is also used, which is typically the 9-period moving average of the MACD line. Exponential moving averages are typically used for both the MACD and Signal calculations because they tend to respond more quickly to changes in price.

Moving Average Convergence/Divergence Histogram (MACD Histogram)

A variation of the MACD that plots the difference between the signal line and MACD line. Changes in the spread between these two lines may be spotted faster using the histogram display, potentially leading to earlier trading signals.

Multiplier

The premium is multiplied by the multiplier multiplied by the number of contracts to determine the actual cost of an option purchase. The multiplier is 100 in the case of standardized options for both equity and index options; however, stock splits can change the multiplier. The multiplier is the number of shares that an equity option will convert to if exercised.

NASDAQ

Formerly known as the National Association of Securities Dealers Automated Quotations system, designed to facilitate over-the-counter stock trading. The NASDAQ is now an exchange and is no longer an acronym.

NASDAQ Composite Index

The NASDAQ Composite Index is a market capitalization-weighted index of over 5000 stocks. Because it is weighted by market capitalization, large companies such as Microsoft, Intel, WorldCom, Sun Microsystems, Dell Computer and Oracle dominate the index. With such large portion of the index dominated by technology stocks, the NASDAQ Composite is more a barometer for the technology sector than the broader market.

NASDAQ Exchange

Consists of More than 3,900 companies that are the larger and generally more actively-traded NASDAQ securities.

National Best Bid or Offer (NBBO)

NBBO represents the bid and ask price that will display in Level I.

Negative Divergence

When two or more indicators, indexes, or averages, fail to show confirming trends.

Net Change

The amount and direction of a security's price change since its previous close.

NSDQ

In the context of bid or offer quotes in Level I or Market Depth, NSDQ represents the NASDAQ Single Book liquidity.

NSDQ is also an order routing venue available in StreetSmart Edge which routes orders to the NASDAQ Single Book.

Odd Lot

An amount of stock consisting of less than 100 shares.

Offer

See 'Ask'

On Balance Volume (OBV)

Introduced by Joe Granville in 1963, On Balance Volume (OBV) is a momentum indicator that relates volume to price change. On Balance Volume shows if volume is flowing into or out of a security. When the security closes higher than the previous close, all of the day's volume is considered "up" volume. When the

security closes lower than the previous close, all of the day's volume is considered "down" volume.

Open

The price at which a security opened for trading on a given day.

Option

A contract that gives the buyer the right, but not the obligation, to buy or sell a particular asset (the underlying security) at a fixed price for a specific period of time. This contract also obligates the seller to meet the delivery terms if the buyer exercises the contract right. The owner of call option has the right to purchase the underlying asset at a specific price, and this right lasts until a specific date. The owner of a put option has the right to sell the underlying asset at a specific price, and this right lasts until a specific date. Clients may also take specialized positions, such as spreads, straddles, and/or combinations, depending on the level of trading for which they are approved.

Out of the Money

A call is out of the money when an option's strike price is higher than the market price of the underlying security. A put is out of the money when the strike price is below the market price of the underlying security.

Outed

A term used by traders to confirm that an order was canceled by the Market Maker or Exchange.

Over-the-Counter (OTC)

Over-the-Counter refers to stocks not traded on registered exchanges. Many OTC Securities are traded through NASDAQ, OTCBB (Bulletin Board), or the Pink Sheets.

Overbought

Overbought is a technical condition described as such by various technical indicators that occurs when prices are considered too high and may be susceptible to a decline. Overbought conditions can be classified by analyzing the chart pattern or with indicators such as the Stochastic Oscillator and Relative Strength Index (RSI). A security is sometimes considered overbought when the Stochastic Oscillator exceeds 80 and when the Relative Strength Index (RSI) exceeds 70. It is important to keep in mind that overbought is not necessarily the same as being bearish. It merely infers that the stock may have risen too far too fast and might be due for a pullback.

Oversold

Oversold is a technical condition described as such by various indicators when prices are considered too low and may be ripe for a rally. Oversold conditions can be classified by analyzing the chart pattern or with indicators such as the Stochastic Oscillator and Relative Strength Index (RSI). A security is sometimes considered oversold when the Stochastic dips below 20 and when the Relative Strength Index (RSI) declines below 30. It is important to keep in mind that

oversold is not necessarily the same as being bullish. It merely infers that the security may have fallen too far too fast and may be due for a reaction rally.

Pay Date

The date the shares from a split or dividend are paid to the shareholders.

Percent Retracement

The amount that price retreats following a high can be measured using a technique referred to as Percent Retracement. This measures the percentage that prices "retrace" from the high to the low. For example, if a stock moves from a low of 50 to a high of 100 and then retraces to 75, the move from 100 to 75 (25 points) retraced 50% of the original move from 50 to 100. Measuring the percent retracement can be helpful when determining the price levels at which prices will reverse and continue upward.

Position

Holdings in an account or portfolio.

Position Trading

Position trading means holding open positions for an extended period of time. Contrast this with day trading, where a trader buys, then sells before the market closes that day.

Preferred Stocks

A class of stock that pays dividends at a specified rate and has preference over common stock in the payment of dividends and the liquidation of assets. Preferred stockholders may have different or no voting rights.

Premium

The total price of an option's intrinsic value plus time value. Often (erroneously), this word is used to mean the same as time value.

Price

See ask price, bid price, and last trade.

Price/Earnings Ratio

The price/earnings ratio (P/E ratio) is figured by dividing the price of a stock by the company's earnings per share.

Primary Peg

Pegs the order price to the bid if buying or the ask if selling OTC securities, or the best exchange bid/ask for Listed securities. The order price will automatically adjust as the bid or ask moves until the order executes or the stock trades beyond your limit price.

EXAMPLE

XYZ is currently quoting at 20 bid x 20.05 ask.

A Primary Peg order to buy XYZ with a limit of 20.05, will be submitted at 20.

If the quote changes to 20.05 bid x 20.10 ask, the order price would change to 20.05.

If the order is not executed, it will not update beyond the limit price and will remain posted at 20.05.

Proxv

A proxy is a security or index whose correlation with another security or index is so strong that it is used as a substitute for the other.

Put Option

An option contract that gives the holder the right but not the obligation to sell a number of shares of the underlying security at a specified price until the option's expiration date. Put buyers hope the price of the underlying security will fall. Puts may also be purchased to protect an investment in case the price of the underlying security goes down. Put sellers hope the price will stay the same or go up.

Put/Call Ratio

Based on CBOE (Chicago Board Options Exchange) statistics, the Put/Call Ratio equals the total number of puts divided by the total number of calls. All stock and index options traded on the CBOE are included in the calculation. Typically, there are more calls traded than puts, so the ratio is usually below 1. When more puts are traded than calls, the ratio will exceed 1. As an indicator, the Put/Call Ratio may be used to measure market sentiment.

Quantity

The number of shares you want to buy, sell, or sell short.

Rate of Change

The Rate of Change (percent) is a momentum oscillator that measures the percent change in price from one period to the next. The Rate of Change is plotted as an oscillator that fluctuates above and below a zero line.

Ratio Spread

A strategy consisting of simultaneously buying and selling an unequal number of option contracts with different Strike prices but with the same underlying security, type (long and short call options, or long and short put options), and expiration date. When a ratio spread has more short options than long options, simply called a "ratio spread", it has substantial or unlimited risk of losses. In a "ratio back spread", the long side has the higher number of contracts and the risk is

limited. Ratio spreads may be opened at a credit or debit, and may have a bullish, bearish, neutral, or dual nature.

RCB (Regulatory Circuit Breaker Indicator)

Stocks that have triggered the regulatory circuit breaker will be annotated with a "RCB" indicator in the Title Bar of a window.

National securities exchanges and FINRA have implemented a new "limit up/limit down" mechanism (FINRA Rule 6190) to combat extraordinary market volatility. The new regulation mandates that firms prevent trades in listed equity securities from occurring outside of a specified price band, which will be set at a percentage level above and below the average price of the security over the immediately preceding five-minute period.

More information on what triggers a Regulatory Circuit Breaker can be found at NYSE or NASDAQ.

Reaction

A temporary price reversal within the prevailing trend.

Regulation T Call

Also called a Fed Call, this is the amount an investor must deposit if buying on margin or selling short, as required by the Federal Reserve Board's Regulation T. Current Federal Reserve requirements are 50% of the cost of the trade.

Relative Strength

A comparison of an individual stock's performance to that of a market index. Most times the S&P 500 or the Dow Jones Industrial Average are used for comparison purposes. A rising line indicates that the stock is doing better than the market. A declining line indicates that the stock is not doing as well as the market.

Relative Strength Index (RSI)

Developed by J. Welles Wilder in 1978, the Relative Strength Index is one of the more popular momentum indicators. Its name, Relative Strength Index, is slightly misleading, as it does not compare the relative strength of two securities, but rather the internal strength of a single security.

The RSI is a price-following oscillator that ranges between 0 and 100. Wilder argues that the RSI usually tops above 70 and bottoms below 30, and that these tops and bottoms usually form before the underlying price changes direction. When Wilder introduced the RSI, he recommended using a 14-day RSI.

Since then, the 9-day and 25-day RSIs have also gained popularity. The fewer days used to calculate the RSI, the more volatile the indicator. One popular method of analyzing the RSI is to look for a divergence in which the security's price is making a new high, but the RSI is failing to surpass its previous high. This divergence may be interpreted as an impending reversal. If the RSI then turns down and falls below its most recent trough, it is said to have completed a "failure swing." The failure swing is considered a confirmation of an impending reversal.

Resistance and Support

Support is defined as an area on the price chart below the market where buying interest appears sufficiently strong to overcome selling pressure.

Resistance is the opposite of support and represents an area on the price chart above the market where selling pressure appears sufficiently strong to overcome buying pressure. Generally, support levels are suggested by previous lows, while resistance levels are suggested by previous highs.

Support and resistance areas may be viewed as areas in price movements where buying and selling interest is equal. The longer the time span that prices trade in these areas, the more significant these areas may become.

Two other possible indications of significance include:

- -Heavy volume within a support or resistance area.
- -Recent trade activity within a support or resistance area.

Whenever a support or resistance level is penetrated by a significant amount, the two can reverse roles and become the opposite. In other words, if price trades significantly through a prior resistance level, this level can become a future support level. If price trades significantly through a prior support level, this level can become future a resistance level.

Reversal Pattern

A reversal pattern implies that the previous trend will be reversed when the pattern is complete. For example, after an advance, a reversal pattern marks a change in trend from up trend to down trend.

Rights

Rights allow existing shareholders of a corporation to subscribe to shares of a new issue of common stock before that stock is offered to the public. A right usually has a life of 2 to 4 weeks, is transferable, and entitles the holder to buy the new common stock below the Public Offering Price. Rights are often granted to protect existing shareholders from the effects of dilution.

Rounding Tops and Bottoms

Generally considered to be reversal patterns, rounding tops and bottoms are areas on the price chart that indicate smooth curvature of prices, rather than distinct peaks or troughs. A rounding top displays as a convex shape, sometimes called an "inverted bowl," that can precede a new down trend. A rounding bottom displays as a concave shape, often called a "bowl" or "saucer," that can precede a new up trend. There are currently no measuring formulas associated with these patterns.



Sector

A sector is a group of companies that generate revenue in similar ways, and tend to rise and fall at the same time of the economic cycle. Sector investors watch for strength or weakness in the various sectors, before making investment decisions. The relationship between sector strength or weakness, and the business cycle, is called Sector Rotation.

Security Type

The type of security such as stock, bond or mutual fund.

Sell

Indicates you already own a security and wish to transfer ownership in exchange for cash.

Sell Signal

A sell signal is a condition that indicates a good time to sell a stock. The exact circumstances of the signal will be determined by the indicator that an analyst is using. Note: It's unwise to base buy or sell decisions on just one indicator.

Sell to Close

A long option position is closed when it is sold. See Option.

Sell to Open

A short position opened when a new option is sold. See Option.

Settlement Date

The business day by which you must pay for securities purchased or deliver securities sold.

Short Interest

The number of shares that have been sold short and not yet repurchased.

Short Sell

Selling a stock not owned in the hope that the price will go down. The seller must indicate that the sale is a short sale when the order is entered. This can only be done in a margin account. If available, the stock may be borrowed from a brokerage firm for delivery to the buyer and must be bought back at a future date. The firm reserves the right to call the security back at any time. Short sales require the equity be deposited in a margin account. Short selling is an advanced trading strategy involving potentially unlimited risks, and must be done in a margin account. Margin trading increases your level of market risk. For more information please refer to your account agreement and the Margin Risk Disclosure Statement.

Short Sell-Exempt

A customer service representative may enter Short Sell-Exempt orders on your behalf in certain limited circumstances. The most common instance when this may occur is when liquidating the underlying security where the position is held as either an equity right, warrant, convertible or restricted stock. In these circumstances, the securities are not in an acceptable form for delivery on settlement date. Note that you must file an exercise for the right, warrant,

convertible or restricted stock before your order to liquidate the underlying security can be marked as Short Sell-Exempt.

Size

Size represents the number of shares immediately available to buy (bid) or sell (ask). For example, a bid of 54 with a size of 500 would indicate an order to buy 500 shares at 54. By the same token, an ask of 55 with a size of 1000 would indicate an order to sell 1000 shares at 55.

Smart

Smart is a trade execution technology that is designed to route to a competitive execution venue.

Special Conditions

Special conditions may be applied to an order, such as All or None (AON) or Do Not Reduce (DNR).

Specialist

An individual, corporation, partnership, or group of firms on a listed exchange floor that is responsible for a given exchange-traded security. The specialist stands ready to buy and sell shares to maintain an orderly market. A Market Maker serves a similar purpose for an OTC security.

Spread

The difference between the bid and the ask. Generally speaking, the more liquid (trading volume) a stock is, the smaller its bid/ask spread will be. Less liquid stocks (those with very light volume) usually have larger spreads.

Standard and Poors 500 Index (S & P 500)

The Standard and Poors 500 Index (or S & P 500) lists the 500 largest large-cap stocks, that is, stocks from large companies in various industries.

Stochastic Oscillator

Stochastics compare where a security's price closed relative to its price range over a given time period. The indicator consists of two lines representing the position of the market on a percentile basis, with zero at the bottom of the n-day range and 100 at the top of the range. The main, faster line is called %K, while the second line, called %D, is simply a moving average of %K. A stochastic value of 50 indicates that the last closing price is at the midpoint of the trading range for the specified period. Readings above 75% may indicate that the security is overbought, while readings below 25% could suggest it is oversold. It is important to note that it is not unusual for Stochastics to remain in an overbought/oversold condition for a long time period as the security's price continues to climb/fall.

Generally, a bullish interpretation may be suggested when the %K line crosses above the %D line while in oversold territory, and a bearish interpretation may be suggested when the %K line crosses below the %D line while in overbought territory.

Stock Dividends

A dividend paid in stock rather than cash.

Stop Limit Order

An order that becomes a limit order once the security trades at or through the designated stop price. A stop limit order instructs a broker to buy or sell at a specific price or better, but only after a given stop price has been reached or passed. It is a combination of a stop order and a limit order. Stock and ETF stop limit orders are triggered by a trade at or through the specified stop price.

Stop Order

A request to buy or sell at the market price, but only when the security trades at or past a price specified. Once the stock price moves to or through the stop price, the pending stop order becomes a market order. Stock and ETF stop orders are triggered by a trade at or through the specified stop price.

NOTE: Schwab will <u>not</u> trigger your **stop** <u>or</u> **stop limit** orders based upon odd-lot transactions, or any other transactions excluded from the consolidated last sale price calculations.

Streaming Data

Prices, quotes, market values, and volumes in StreetSmart Edge are streaming, real-time consolidated market quotes. For Mutual Funds, the NAV is a daily calculation occurring after market close. This process may take 2-to-4 hours before a final NAV is made available to the public.

Strike Price (or Exercise Price)

The price at which the owner of an option can purchase (call) or sell (put) the underlying security.

Subscriber

Subscriber Only orders are identical to normal orders, except that they are not included for display in the ISLD quote on NASDAQ. They are visible to anyone with access to the Island book and have the same execution priority as unrestricted orders. Invisible and Subscriber Only orders do not comply with the Display Alternative as described in the SEC Order Handling Rules.

Support

See "Resistance".

Technical Analysis

The study of market action. It is the representation, usually in graphic form, of the actual history of trading (price changes, volume of transactions, etc.) in a cer-

tain stock or index and then deducing from that pictured history the present position and possible future trend.

Tick

The tick refers to each individual move from one trade to another in a stock. An up tick means the price moved up from the last trade execution, while a down tick means it moved down. If there is no change from the last trade, the tick is considered neutral.

Time and Sales

Time and Sales reflect the trades occurring in the market by displaying each trade's price, size (number of shares), venue, and time that the trade was reported.

Time Conditions

The following time limits may be applied to Stop, Limit, or Stop Limit orders: Day Only, Good Until Canceled, Fill or Kill, Immediate or Cancel.

Trailing Stop

Trailing Stop is an order request set at a price level that is above (for short positions) or below (for long positions) the current price that adjusts as the price fluctuates. For a long position, a trailing stop would be set below the current price and rise as the price advances. Should the price decline and reach the trailing stop, then an order would be triggered and the position closed. As long as the price remains above the trailing stop, the position is held.

Trend

Trend refers to the direction of prices over time. Rising peaks and troughs constitute an up trend, while falling peaks and troughs constitute a down trend. Trends are generally classified as major (longer than a year), intermediate (one to six months), or minor (less than a month).

Trend Line

Trend lines are created by joining significant highs and lows on a price chart. An up trend line connects a series of higher lows, while a down trend line connects a series of lower highs. An internal trend line can also be drawn to best approximate the majority of relative highs or relative lows without any special considerations given to extreme price points.

Triangles

Triangle patterns are sideways patterns in which price fluctuates within converging trend lines. The three types of triangles are the symmetrical, the ascending, and the descending. A symmetrical triangle occurs when prices are making both lower-highs and higher-lows. An ascending triangle occurs when there are higher-lows (as with a symmetrical triangle), but the highs are occurring at the same price level due to resistance. The odds favor an upside breakout from an ascending triangle. A descending triangle occurs when there are lower-highs (as with a symmetrical triangle), but the lows are occurring at the same price level due to support. The odds favor a downside breakout from a descending triangle.

Prices often breakout rapidly from a triangle, and the breakout can be confirmed when accompanied by an increase in volume.

Volatility

Volatility is a measurement of change in price over a given period. It is usually expressed as a percentage and computed as the annualized standard deviation of the percentage change in daily price.

Volume

Volume is the number of shares traded in a security over a period of time. On a chart, volume is usually represented as a histogram (vertical bars) below the price chart.

Warrants

A type of security usually issued together with a bond or preferred stock that allows the holder to buy a proportionate amount of common stock at a fixed price (usually above the market price at the time of issuance) for a period of years or to perpetuity. Warrants are transferable and trade on the major exchanges. They are also known as Subscription Warrants.

Whipsaw

A whipsaw occurs when a buy or sell signal is reversed in a short time. Volatile markets and sensitive indicators can cause whipsaws. For example, a whipsaw would occur if a position trader initiates a long position on a bullish MACD crossover and has to close it the next day because of a bearish moving average crossover.

Williams %R

The Williams' %R is a momentum indicator that measures overbought/oversold levels. The interpretation of Williams' %R is very similar to that of the %K Stochastic Oscillator. Readings in the 80-100 range indicate that a security is overbought, while readings in the 0-20 range indicate oversold.

Symbol Formats

Retrieving data for certain types of financial instruments requires entering them in a format that is recognizable by StreetSmart Edge®. Below are instructions for entering valid symbols for the types of data that may be available in StreetSmart Edge®:

- **Stock:** Enter the 1 to 5 character stock ticker symbol in uppercase letters. For example, ABCD.
- Option: Enter the Option symbol in uppercase letters using the following format; the underlying security or index symbol, followed by the expiration date, then strike price, then a 'C' or 'P' for Call or Put. For example, XYZ MM/DD/YYYY 00.00 C.
- **Indices:** Enter the index symbol preceded by a '\$'. For example, \$ABC.
- **Mutual Fund:** Enter the Mutual Fund symbol using five uppercase letters or digits, ending in 'X'. For example, ABCDX.
- **Preferred Stock:** Enter the Preferred Stock symbol by following the regular stock symbol with lower case 'p' and, optionally, a single uppercase letter as a class indicator. For example, ABp or YZpP. To produce a lower case letter, hold the shift key down while typing the character. Alternately, you may follow the symbol with a '**/PR**' and then the class designator. For examples, ABC/PR or XYZ/PRP.
- Class Shares: Enter the 1 to 7 character symbol in uppercase letters or digits followed by a '/' and then a single uppercase letter. For example, ABC/B.
- Warrants: Enter the 1 to 7 character symbol in uppercase letters or digits followed by a '/WS', optionally followed by a '/' and then a single uppercase letter. For example, ABC/WS or ABC/WS/A.
- **Futures:** Enter the Futures symbol in uppercase letters using the following format; begin with the root symbol, then month code, and then year code. The year code is displayed as two digits. For example, a March (month code = H) 2018 (year code = 18) contract of AB would be entered as ABH18.

TIP: To make it easier to enter symbols, particularly option symbols, use the copy and paste feature when entering symbols.

Symbol Lookup

In any symbol field in StreetSmart Edge®, if you do not know the symbol for a company, you can type in the full or partial name of the company and get back a list of companies with similar names, along with their symbols.

In the Symbol Lookup tool, you can further narrow your search to just certain types of symbols, such as Preferred Stocks, ETFs, and Indices. You can even search the company descriptions.

The Symbol Lookup tool is available from the Launch Tools menu. You may display one instance of the Symbol Lookup tool per layout tab.

To look up a symbol:

- 1. Enter the name or part of a name of the symbol you are searching.
- Choose how to search: *Contains* will find any instance of your search term anywhere in the name or symbol (or description, if you check *Search Description*). *Starts with* will only find instances of your search term at the start of a name or symbol.
- 3. Select the types if securities to include in the search results: **Stocks**, **Preferred Stocks**, **ETFs**, and/or **Indices**.
- 4. Click **Go** to display a list of potential matches.
- 5. Click the before the name of a company to view the full company description.

Once you find the symbol you're looking for, click on it and then use the **Actions** or right-click menu to make your next move. From there, you can load the symbol into the Trading or Symbol Hub tools, create an alert or conditional order, access news or fundamental data, or link out to do more research at Schwab.-com.

TIP: Double-clicking on a symbol in the results will broadcast the symbol to all linked tools.

Index Symbols

The following table lists some of the indices available in StreetSmart Edge:

NOTE: Chart not available for all indices.

StreetSmart Edge Index List	Symbol
AMEX International Market Index Adr	\$ADR
Mkt Con Cyc Amer	\$ADVA
Advancers AMEX Options	\$ADVAO
Advancers Boston	\$ADVB
Advancers CBOE	\$ADVCO
Advancers Midwest	\$ADVM
Advancers NYSE	\$ADVN
Advancers Pacific Options	\$ADVPO
Advancers NASDAQ NMS	\$ADVQE
Advances NASDAQ Listed Stocks	\$ADVT
Advancers NASDAQ OTC Bulletin Board	\$ADVUE

Advancers Philadelphia	\$ADVX
Advancers Philadelphia Options	\$ADVXO
ISE Spot AUD USD	\$AUM
ISE FX Australian	\$AUX
NASDAQ Bank Index	\$BANK
Bloomberg WTI Crude Oil Subindex	\$BCOMCL
Bloomberg Gold Subindex 3 Month Forw	\$BCOMGC3
Bloomberg Copper Subindex	\$BCOMHG
Bloomberg Silver Subindex	\$BCOMSI
S&P Bank Index Bix	\$BIX
KBW Bank Index USD KBX	\$BKX
Block Trades - AMEX)	\$BLKA
Block Trades - NYSE	\$BLOK
PHLX Computer Box Maker Index	\$BMX
ISE FX British Pound	\$BPX
ISE FX Brazilian Real	\$BRB
AMEX Biotechnology Index 15 Stocks	\$BTK
ISE FX Canadian Dollar	\$CDD
S&P Chemical Index CEX	\$CEX
Morgan Stanley Consumer Index CMR	\$CMR
NASDAQ Composite Index	\$COMPX
Decliners - AMEX	\$DECA
Decliners - AMEX Options	\$DECAO
Decliners - Boston Stock Exchange	\$DECB
Decliners - CBOE	\$DECCO
Decliners - Midwest	\$DECM
Decliners - NYSE	\$DECN
Decliners - Pacific Stock Exchange	\$DECP
Decliners - Pacific Stock Exchange Options	\$DECPO
Decliners - NASDAQ NMS	\$DECQE
Decliners - NASDAQ Listed Stocks	\$DECT
Decliners - NASDAQ OTC Bulletin Board	\$DECUE
Decliners - Philadelphia	\$DECX
Decliners - Philadelphia Options	\$DECXO
AMEX Drug Index 1/10 Value	\$DGL
Dow Jones Composite Average™ – Actual Value	\$DJC
Dow Jones 30 Industrial Index - Actual Value	\$DJI
Dow Jones Transportation Index - Actual Value	\$DJT
Dow Jones Utility Index -Actual Value	\$DJU
Dow Jones Industrial Average®	\$DJX
Pharmaceutical Index	\$DRG
Dow Jones Transportation Average	\$DTX

Dow Jones Utility Average	\$DUX
Down Volume - AMEX	\$DVOA
Down Volume - Boston Stock Exchange	\$DVOB
Down Volume - CBOE	\$DVOCO
Down Volume - NYSE Decliners	\$DVOL
Down Volume - Midwest	\$DVOM
Down Volume - Pacific Stock Exchange	\$DVOP
Down Volume - Pacific Stock Exchange Options	\$DVOPO
Down Volume - NASDAQ NMS Equities	\$DVOQE
Down Volume - NASDAQ Listed Stocks Decliners	\$DVOT
Down Volume - NASDAQ OTC Bulletin Board	\$DVOUE
Down Volume - Philadelphia Stock Exchange	\$DVOX
Down Volume - Philadelphia Options	\$DVOXO
Dow Jones U.S. Banks Total Stock Market®	\$DWCBNK
Dow Jones U.S. Biotechnology Total Stock Market	\$DWCBTC
Dow Jones U.S. Financials Total Stock Market	\$DWCFIN
Dow Jones U.S. Health Care Total Stock Market	\$DWCHCR
Dow Jones U.S. Real Estate Investment Trusts Total	\$DWCREI
Stock Market	
Dow Jones U.S. Technology Total Stock Market	\$DWCTEC
SIG Oil Exploration Index	\$EPX
ISE FX Euro Index	\$EUI
ISE Spot EUR USD)	\$EUU
CBOE Interest Rate 5-Year Index	\$FVX
ISE Spot GBP USD)	\$GBP
CBOE Gold Volatility Index	\$GVZ
S&P Health Care Index	\$HCX
PHLX Housing Index	\$HGX
AMEX Hong Kong Option Float Rate Index	\$HKO
AMEX Hong Kong 30 Index	\$HKX
NASDAQ OTC Index - Industrials	\$INDS
NASDAQ OTC Index - Insurance	\$INSR
CBOE Short Term Interest Rate Comp Index	\$IRX
Issues Traded - AMEX	\$ISSA
Issues Traded - AMEX Options	\$ISSAO
Issues Traded- Boston Stock Exchange	\$ISSB
Issues Traded - CBOE	\$ISSCO
Issues Traded - Midwest	\$ISSM
Issues Traded - Pacific Stock Exchange	\$ISSP
Issues Traded - Pacific Stock Exchange Options	\$ISSPO
Issues Traded - NASDAQ NMS Equities	\$ISSQE
Issues Traded - NASDAQ Listed Stocks	\$ISST

Issues Traded - NYSE Listed Stocks	\$ISSU
Issues Traded - NASDAQ OTC Bulletin Board	\$ISSUE
Issues Traded - Philadelphia Stock Exchange	\$ISSX
Issues Traded - Philadelphia Options	\$ISSXO
S&P Insurance Index	\$IUX
NASDAQ Computer Index	\$IXCO
NASDAQ Financial 100 Index	\$IXF
NASDAQ Telecommunications Index	\$IXTC
AMEX Japan Index	\$JPN
S&P Midcap 400 FLEX OC Settle	\$MDO
S&P Midcap 400 FLEX OCHL Settle	\$MIA
S&P Midcap 400® Index	\$MID
S&P Midcap 400 FLEX HL Settle	\$MIH
Mini-NASDAQ 100 Index	\$MNX
AMEX Morgan Stanley High Tech 35 Index	\$MSH
AMEX Mexico Index	\$MXY
ISE Spot NZD USD	\$NDO
CBOE NASDAQ 100 Index	\$NDX
NYSE Composite Index	\$NYA
ISE FX New Zealand	\$NZD
S&P 100 FLEX Opening Exercise Settle Value	\$OET
S&P 100 Index	\$OEX
NADAQ OTC Index - Other Financial	\$OFIN
PHLX Euro Style Oil Service Sector Index	\$OSX
CBOE Crude Oil Vol	\$OVX
NYSE ARCA Technology 100 Index	\$PSE
ISE FX Mexican Peso	\$PZO
Russell 2000 Opening Ex. Settle Value	\$RLS
S&P Retail Index	\$RLX
CBOE Russell 3000® Index	\$RUA
CBOE Russell 1000® Index	\$RUI
CBOE Russell 2000® Index	\$RUT
Russell 2000 Vol Index	\$RVX
ISE Swiss Franc Index	\$SFC
S&P 500 Citigroup Growth Index	\$SGX
ISE FX Swedish Krona Index	\$SKA
PHLX Semiconductor Sector Index	\$SOX
S&P Smallcap 600® Index	\$SML
S&P 500 Spread - Difference between the near month	\$SPS
and the index of the S&P 500.	
S&P 500® Index	\$SPX
S&P 500 PM-Settled	\$SPXPM

	± C) () (
S&P Barra Value Index	\$SVX
TICK - AMEX Up/Down Ratio	\$TICA
TICK - Cincinnati Stock Exchange up/down Ratio	\$TICC
TICK - CBOE up/down Ratio	\$TICCO
TICK - NYSE Tick Index	\$TICK
TICK - PSE Options up/down Ratio	\$TICPO
TICK - NASDAQ NMS Equities up/down Ratio	\$TICQE
TICK - NASDAQ Listed Stocks up/down Ratio	\$TICT
TICK - NASDAQ OTC Bulletin Board up/down Ratio	\$TICUE
TICK - Philadelphia Stock Exchange up/down Ratio	\$TICX
TICK - Philadelphia Options up/down Ratio	\$TICXO
TICK - Dow Jones Composite up/down Ratio	\$TIKC
TICK - Dow Jones Industrial up/down ratio	\$TIKI
TICK - Dow Jones Transportation up/down Ratio	\$TIKT
TICK - Dow Jones Utility up/down Ratio	\$TIKU
CBOE Interest Rate 10-Year Index	\$TNX
NASDAQ OTC Transportation Index	\$TRANX
TRIN - AMEX Short Term Trading Index	\$TRIA
TRIN - AMEX Options Short Term Trading Index	\$TRIAO
TRIN - Boston Short Term Trading Index	\$TRIB
TRIN - CBOE Short Term Trading Index	\$TRICO
TRIN - Midwest Short Term Trading Index	\$TRIM
TRIN - NYSE Short Term Trading Index	\$TRIN
TRIN - PSE Short Term Trading Index	\$TRIP
TRIN - NASDAQ NMS Short Term Trading Index	\$TRIQE
TRIN - NASDAQ Listed Short Term Trading Index	\$TRIT
TRIN - NASDAQ OTC Bulletin Board Short Term Trad-	\$TRIUE
ing Index	
TRIN - Philadelphia Short Term Trading Index	\$TRIX
TRIN - Philadelphia Options Short Term Trading Index	\$TRIXO
CBOE Interest Rate 30-Year	\$TYX
Unchanged Issues - AMEX	\$UNCA
Unchanged Issues - AMEX Options	\$UNCAO
Unchanged Issues - Boston Stock Exchange	\$UNCB
Unchanged Issues - CBOE	\$UNCCO
Unchanged Issues - Midwest	\$UNCM
Unchanged Issues - NYSE	\$UNCN
Unchanged Issues - Pacific Stock Exchange	\$UNCP
Unchanged Issues - PSE Options	\$UNCPO
Unchanged Issues - NASDAQ NMS Equities	\$UNCQE
Unchanged Issues - NASDAQ Listed Intermarket	\$UNCT
Unchanged Issues - NASDAQ OTC Bulletin Board	\$UNCUE

Unchanged Issues - Philadelphia Stock Exchange	\$UNCX
Unchanged Issues - Philadelphia Options	\$UNCXO
Deutsche Bank U.S. Dollar Index Bull	\$USDUPX
Philadelphia Utility Index Capital-Weight	\$UTY
Up Volume - AMEX	\$UVOA
Up Volume - AMEX Options	\$UVOAO
Up Volume - Boston Stock Exchange	\$UVOB
Up Volume - CBOE	\$UVOCO
Up Volume - NYSE	\$UVOL
Up Volume - Midwest	\$UVOM
Up Volume - Pacific Stock Exchange	\$UVOP
Up Volume - PSE Options	\$UVOPO
Up Volume - NASDAQ NMS Equities	\$UVOQE
Up Volume - NASDAQ Listed Stocks	\$UVOT
Up Volume - NASDAQ OTC Bulletin Board	\$UVOUE
Up Volume - Philadelphia Stock Exchange	\$UVOX
Up Volume - Philadelphia Options	\$UVOXO
CBOE Volatility Index®	\$VIX
Volume - AMEX	\$VOLA
Volume - AMEX Options	\$VOLAO
Volume - Boston Stock Exchange	\$VOLB
Volume - CBOE	\$VOLCO
Volume - Midwest Stock Exchange	\$VOLM
Volume - Pacific Stock Exchange	\$VOLP
Volume - Pacific Stock Exchange Options	\$VOLPO
Volume - NASDAQ NMS Equities	\$VOLQE
Volume - NASDAQ Listed Stocks Third Market	\$VOLT
Volume - NYSE Stock Exchange	\$VOLU
Volume - NASDAQ OTC Bulletin Board	\$VOLUE
Volume - Philadelphia Stock Exchange	\$VOLX
Volume - Philadelphia Stock Exchange Options	\$VOLXO
CBOE Emerging Market Volatility Index	\$VXEEM
Brazil ETF Volatility Index	\$VXEWZ
CBOE NASDAQ 100 Volatility Index	\$VXN
AMEX Airline Index	\$XAL
PHLX American Gold and Silver Index	\$XAU
AMEX Securities Broker/Dealer Index	\$XBD
AMEX Computer Technology Index	\$XCI
PHLX Australian Dollar	\$XDA
PHLX British Pound	\$XDB
PHLX Canadian Dollar	\$XDC
PHLX Euro Index	\$XDE

PHLX Japanese Yen	\$XDN
PHLX Swiss Franc	\$XDS
PHLX New Zealand Dollar	\$XEO
Euro S&P 100 Index	\$XDZ
AMEX Institutional Index	\$XII
AMEX Major Market 1/10 Value	\$XLT
AMEX Major Market Index	\$XMI
AMEX Natural Gas Index	\$XNG
AMEX Oil and Gas Index	\$XOI
Mini-S&P 500 PM-Settle	\$XSP
Mini-S&P 500	\$XSPAM
North American Telecommunications Index	\$XTC
ISE FX Yen Index	\$YUK

Futures Symbols

The following tables list the Monthly Code and Root Symbols for Futures contracts available in StreetSmart Edge:

NOTE: Futures symbols in StreetSmart are created in four parts: 'root symbol' + 'month code' + 'year code'. The year code is displayed as two digits. For Example, a March (month code = H) 2018 (year code = 18) contract of AB would be entered as ABH18.

Monthly Futures Symbol List	Code
January	F
February	G
March	Н
April	J
May	K
June	M
July	N
August	Q
September	U
October	V
November	X
December	Z

Indices Symbol

E-mini Mid-Cap 400	EMD
DJ Bloomberg Commodity Index	ER
E-mini S&P 500	ES
GSCI Index	GI
Nikkei 225 (CME)	NK
E-Mini NASDAQ 100	NQ
E-mini Russell 2000	RTY
Volatility Index	VX
Dow Jones (Mini)	YM

Energy Futures	Symbol
Ethanol	AC
Brent Crude Oil (NYMEX)	BZ1
Crude Oil (NYMEX)	CL
Heating Oil	НО
Natural Gas	NG
Natural Gas (E-mini)	QG
Crude Oil (E-mini)	QM
Gasoline (RBOB-E-mini)	QU
Gasoline (RBOB)	RB

Interest Rate Futures	Symbol
Eurodollars	ED
1-Month Libor	EM
Fed Funds (30-Day)	FF
U.S. 5-Yr Notes	FV
U.S. 2-Yr. Notes	TU
U.S. 10-Yr. Notes	TY
Ultra Bond	UL
U.S. Treasury Bond	US

Currency Futures	Symbol
Australian Dollar	AD
British Pound	BP
Brazilian Real	BR
Canadian Dollar	CD
Euro FX (E-mini)	E7
Euro FX	EC
Japanese Yen (E-mini)	J7

Japanese Yen	JY
Korean Won	KRW
Australian Dlr. (E-micro)	M6A
British Pound (E-micro)	M6B
Euro FX (E-micro)	M6E
Canadian Dollar (E-micro)	MCD1
E-micro INR/USD	MIR
Mexican Peso	MP
Swiss Franc (E-Micro)	MSF
New Zealand Dollar	NE
South African Rand	RA
Euro FX/Swiss	RF
Swedish Krona	SEK
Swiss Franc	SF

Metal Futures	Symbol
Gold (Comex)	GC
Copper (Comex)	HG
HRC Steel Index	HRC
Gold (E-Micro)	MGC
Palladium	PA
Platinum	PL
Copper (E-mini)	QC
Silver-Mini (Comex)	QI
Gold (mini-Comex)	QO
Silver (Comex)	SI

Housing Futures	Symbol
Boston Housing Idx	BOS
Chicago Housing Idx	CHI
Composite Housing Idx	CUS
Denver Housing Idx	DEN
Las Vegas Housing Idx	LAV
Los Angeles Housing Idx	LAX
Miami Housing Idx	MIA
NY Commuter Housing Idx	NYM
San Diego Housing Idx	SDG
San Francisco Housing Idx	SFR
Washington DC Housing Idx	WDC

Livestock Futures	Symbol
Feeder Cattle	FC
Live Cattle	LC
Lean Hog	LH

Grain Futures	Symbol
Soybean Oil	ВО
Corn	С
Wheat (K.C.)	KW
Wheat (Minneapolis)	MW
Oats	O
Rough Rice	RR
Soybeans	S
Soybean Meal	SM
Wheat (Chicago)	W

Mini Grain Futures	Symbol
Corn (Mini)	YC
Soybeans (Mini)	YK
Wheat (Mini)	YW

Food & Fiber Futures	Symbol
Butter	СВ
Cheese	CSC1
Milk	DA
Lumber	LB

Futures trading carries a high level of risk and is not suitable for all investors. Certain requirements must be met to trade futures. Please read the <u>Risk Disclosure</u> <u>Statement for Futures and Options</u> before considering any futures transactions.

Third Party Offers

Third Party Offers, located within the Launch Tools button in the upper right corner of the StreetSmart Edge® window, offers you a way to access discounted third-party resources right in your software.

Signing up for news, analysis, and other services through the Third Party Offers will put a link to that service right into the Launch Tools drawer, so you can integrate that service right into the workflow of your StreetSmart Edge® display.

For more on these offerings, click **Launch Tools** > **Third Party Offers** and view the list of available third party products. Each includes more information about the service, as well as a way to sign up and integrate it into your StreetSmart Edge® display.

As part of the Third Party Offers, Schwab may make available various offers for products and services of third party providers. Schwab has established these referral relationships as a convenience to you. Please understand that these providers are not Schwab agents or personnel. They are third parties over whom Schwab has no control. If you choose to receive services and/or products from these providers, you do so at your own risk and you are solely responsible for evaluating whether these providers and their services and/or products are appropriate for your use.

Live Help

The Live Help window allows you to communicate directly with a Schwab Trading Services Representative without having to pick up the phone. Just open the Live Help window, type your question, and the representative will respond in real time.

Note: Live Help Hours are Monday - Friday 8am-6pm ET (closed market holidays)

Sending Messages:

- 1. In the Main Menu, click **Help > Live Help** or click the icon
- 2. Type in the message under Enter Message
- 3. Click Send
- 4. To clear previous messages, click *Clear Conversation*.
- 5. Click **Close** to close down the box.

NOTE: It is important that you do not use the Live Help window in the Schwab® trading platforms to request, authorize or effect the purchase or sale of any security or commodity, to send fund transfer instructions, or to effect any other transactions. Any such requests, orders, or instructions that you send will not be accepted and will not be processed.

StreetSmart Edge™ Quick References

The <u>Quick Reference Guide</u> identifies the more commonly used tools, features, and icons, and provides helpful tips for getting the most out of StreetSmart

Edge®. For more education opportunities outside of the StreetSmart Edge® platform please review everything that the <u>Schwab Learning Center</u> has to offer.

Account Details Training

Account Balances and Order Status

Positions and Gain/Loss

Realized Gain/Loss and Transactions

Messages

Notes

Equity & Option Trading

Layouts and Settings

All In One Trade Tool

Trade and Probability Calculator

Option Quotes & Trade - All in One

Conditional Orders

Global Trading

Charts Training

Creating Charts

Chart Studies and Drawing Tools

Positions and Orders on Charts

Options Charting

Market Data & Research

Recognia

News and CNBC

Watch List

Momentum Tool

Idea Hub

Screener Plus

ETF Screener

Option Screener

Block Trade Indicator

High/Low

Alerts

Symbol Hub

Research

Traders Marketplace

Commissions, taxes, and transaction costs are not included in any of these strategy discussions, but can affect final outcome and should be considered. Please contact a tax advisor to discuss the tax implications of these strategies. Many of the strategies described herein require the use of a margin account. With long options, investors may lose 100% of funds invested. In-the-money long puts need to be closed out prior to expiration, since exercising them could create short stock positions.

Options carry a high level of risk and are not suitable for all investors. Certain requirements must be met to trade options through Schwab. Multiple leg options strategies will involve multiple commissions. Spread trading must be done in a margin account. Please read the options disclosure document titled "Characteristics and Risks of Standardized Options."

System Requirements

Recommended Configuration

Operating System: Windows 10 or later. (Touch screens and tablets not cer-

tified)

CPU: Intel Core i7 / AMD FX 8150 or faster

Memory: 4 GB RAM or higher

Disk Space: 200 MB hard drive space

Graphics: 1 GB Video card or higher (External USB video devices are not sup-

ported)

Internet Connection / Download Speed: 15+ Mbps (Wireless not recom-

mended)

Minimum Configuration

Operating System: Windows 8.1 or later (Touch screens and tablets not cer-

tified)

CPU: Intel Core i5 or higher **Memory:** 2 GB RAM or higher

Disk Space: 200 MB hard drive space

Graphics: 512 MB Video card or higher (External USB video devices are not sup-

ported)

Internet Connection / Download Speed: 10+ Mbps (Wireless not recom-

mended)

Please note that Microsoft has ended support for Windows 8 and the use of this operating system is not recommended. Additional information can be found on the Microsoft site.

Can I run StreetSmart Edge on my Mac computer?

StreetSmart Edge can be used on a Mac computer with either a Windows® emulator or a cloud-based solution. The cloud-based solution uses the Internet to access StreetSmart Edge, so the program can be used with non-Windows-based computers. Call a Schwab Client Services Specialist at 800-435-4000 to inquire about accessing the cloud-based version of StreetSmart Edge.

Printing

Printing is available in certain StreetSmart Edge® tools. Currently, the Chart, News, Screener Plus, Messages, Web Browser, Account Details, and Watch List tools.

Access the **Print** feature via the right-click menu of the screen you wish to print. The Print menu has the following choices:

Page Setup

Page Setup	
Format & Options	
Orientation	 Choose Portrait (vertical) or Landscape (horizontal) orientation for the page.
	 Scale large images down or small images up (to 200%) for optimal printing.
	 Choose Shrink to Fit Page Width to automatically make the print area fit the size of the page being printed.
Print Options	Gridlines are enabled by default and will be included in your print jobs. The rest of the Print Options may be available in a future release.
	Gridlines: Check to show gridlines on table- based data, like your Account Details tabs.
	 Grayscale: For best results with black and white printers, check Greyscale.
	 Print Background (colors & images): Check to print background colors and/or images. Be aware that if a chart has a black background and this option is checked, the

	chart will print exactly as it shows on the screen and may take more time to print and use a lot of ink.
Margin & Header/Foo	oter
Margins	Adjust the margins for each edge of the printed page.
	TIP: Reduce the margins to create more printable space on the page, though reducing the margins too much can result in part of the image being cut off.
Headers & Footers	Headers and footers help you identify the origin of your print-outs by adding data such as Tab name, Account Number, Date & Time, etc. You can create custom headers and footers, as well.
	Select header and footer data from the drop-down menus. The top row will display at the top of each printed page and the bottom row will display at the bottom.

Print Preview	
Print	Click Print to send the displayed page(s) to your default printer. To select a different printer, use the main Print option in the table below.
Page Setup	Click Page Setup to open the page setup dialog, as described in the table above.
Close	Click Close to shut down the Print Preview window.
View Options	
Zoom	Click the icons or press Ctrl+Plus or Ctrl+Minus on your keyboard to zoom in and out on the page.
Full Size	Click the icon or press Ctrl+1 to view the page at 100%, the scale the page will print.
Page Width	Click the icon or press Ctrl+2 to display the full printable page to fill the width of the Print Preview window.

Whole Page	Click the li icon or press Ctrl+3 to display the bird's eye view of the full page.
Two Pages	Click the iii icon or press Ctrl+4 to display two pages at a time in the print preview.

Print	
Select Printer	Choose the printer you wish to print to and edit any preferences from the Preferences button.
Page Range	Choose to print All pages (default) or a specified range of pages.
Number of copies	Specify how many copies of the document you want to print.
Collate	If you are printing multiple copies of a multi-page document, you can specify whether you want the pages to be collated.