# **StreetSmart Pro® User Guide**

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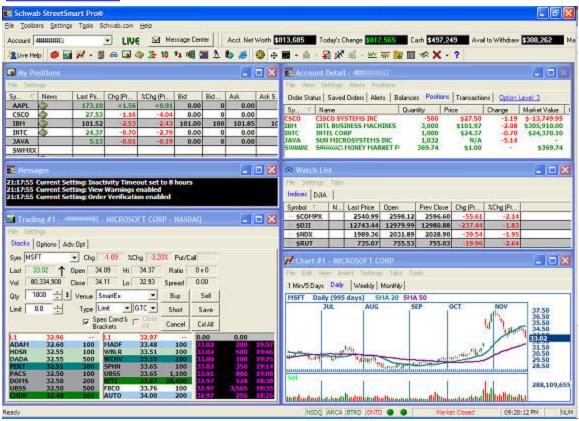
# **Getting Started**

# **Getting Started**

Welcome to StreetSmart Pro®, a customizable trading cockpit that puts advanced market information at your fingertips.

Qualified Schwab Active Trader clients can stay plugged into the fast-changing market with StreetSmart Pro's suite of real-time streaming market data software and advanced trading features for your desktop.

See the **New Features** in this version of StreetSmart Pro!



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.

StreetSmart Pro features a customizable cockpit display that keeps key market information on display without switching applications, including:

#### **Quotes and Trading**

View potential liquidity with a detailed view of market activity that includes quotes from ECNs and market makers. Approved traders get direct access to ECNs, including ARCA and NSDQ.

Approved clients can utilize a wealth of option trading strategies, including multi-leg complex options.

**NOTE:** Access to Level II data requires meeting certain eligibility requirements based on trading frequency. For additional information, please contact your Schwab Active Trader Team. See Trading Overview for more information.

#### **Market Data Tools**

Customize and save a virtually unlimited number of streaming, real-time <u>watch lists</u>. Get real-time streaming <u>headlines</u> providing you with news on the market or companies you want to watch. View streaming updates on the day's <u>top ten</u> leading gainers, decliners and volume movers for the NASDAQ and New York / American Stock Exchanges. Get instant feedback on stocks reaching or approaching their daily and/or 52-week highs and lows.

# **Charting and Strategy Tools**

View, Create, and change real-time streaming intraday, daily, and weekly <u>charts</u> with a wide choice of technical indicators. Compare stocks against each other or against indices, and construct custom technical analysis displays using the <u>Strategy Tools</u>.

#### Sophisticated Risk Management Tools

The StreetSmart Pro Alert Window can automatically notify you of potential opportunities or prompt you to protect your positions, based upon the <u>Alerts</u> you create. The Special Conditional Orders (an Alert Action choice) can automatically place a trade for you if the Alert conditions you specify are met. Alerts can be set up and then saved directly to your desktop, reducing the time spent creating alerts daily.

#### **Stock Screener**

The <u>Stock Screener</u> allows you to quickly find the stocks that meet your trading strategy. The Stock Screener comes with built-in queries, or you can create and save your own queries by choosing from many filter variables.

#### Demo Mode

In <u>Demo Mode</u>, you can test your trading strategies without risking capital using real-time data while simultaneously learning to use your software.

## **One-Click Research**

Access in-depth, independent reports on schwab.com for the latest fundamental research.

#### Thursday, August 21, 2014

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#### **New Features**

The following enhancements are new to the latest version of StreetSmart Pro® software.

#### View/Cancel 3- or 4-Legged Option Orders

You can now view and cancel open 3- or 4-legged option orders via StreetSmart Pro, through the Order Status tab. To cancel one of these orders, right-click on the order in the Order Status tab and select *Cancel*. To place a 3- or 4-legged option order, please use StreetSmart Edge® or StreetSmart Edge® in the cloud.

As with any order, once the original order is filled, it can no longer be canceled. For more information, see Changing or Canceling Orders

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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# **Logging On & Off**

#### Starting the Software and Logging On

- 1. Double-click on the StreetSmart Pro® icon located on the desktop (OR go the Windows task bar, click on **Start > Programs > Schwab > StreetSmart Pro**).
- 2. The main menu will open, and the Logon window will appear. (If you cancel the logon window, you can reopen it from the *File* menu.)
- 3. Type the Logon ID assigned to your account.
  - **NOTE:** To logon to StreetSmart Pro® in either Live or Demo mode, you must have a Schwab Logon ID and Password (the same password you use for trading web site). The ID is either your Social Security number (domestic clients only) or a Customized User ID (applicable to all clients). StreetSmart Pro® will not allow you to logon with your Schwab Account Number and Password. If you need help logging on to StreetSmart Pro® or setting up an User ID, please call your Schwab Active Trader Broker (domestic clients) or your Schwab Investment Specialist (Europe and Hong Kong customers).
- 4. In the Password field, enter the password you selected upon opening your account.
- 5. Click on **Live Logon** or **Demo**. When trading in Live mode you will effect changes to your portfolio using your own capital while Demo mode allows you to become familiar with the

software and practice your trading in a simulated environment. Refer to <u>Demo Mode</u> for more information.

6. If the log on is successful, it will prompt the default layout.

#### **Logging Off and Exiting the Software**

- 1. To exit the system you must go to the main menu
- 2. Click on *File > Exit*
- 3. Click OK to close any subsequent dialog boxes that appear

#### OR

- 1. Click on the close button  $|\mathbf{x}|$  in the right-hand corner of the main menu.
- 2. The system will ask you to confirm the action.

**NOTE:** You will automatically be logged off if you close the Account Detail window.

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#### Main Menu Bar

Use the Menu Bar at the top of your window for quick access to Schwab.com links, Live Help, layouts and other software settings, and more.



#### **Main Menu Options**

FILE	
Logon	Click <b>Logon</b> to connect to your account and begin receiving data.
Logoff	Click <b>Logoff</b> to exit your account and disconnect from the servers.
Load Layout	Click to choose a saved layout.
Save Layout	Click to save changes to the current layout under the same layout name.
Save Layout As	Click to save the layout as a new name.
Recently	The last five layouts used are listed for convenient loading. Click on the

FILE	
Used Lay- outs	name of the layout you want to see.
Exit	Click <b>Exit</b> to logoff and close the software.

# **TOOLBARS**

Click on any of the toolbars (except for the Status Bar) and drag it to move it to another location in your layout. Be sure to Save your layout under the File menu if you make layout changes you wish to keep.

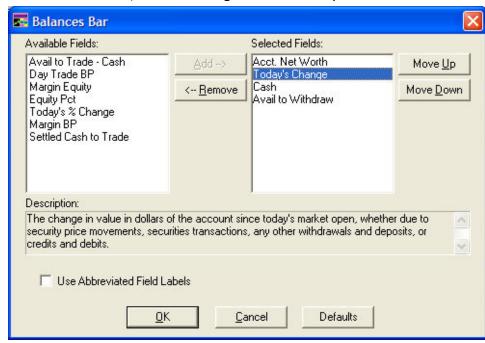
Main Toolbar	Click to hide or display the main toolbar where you can access many of the tools in your software. Hover your mouse over an icon in the toolbar to see what it will open. For more information about the toolbar, visit the <a href="Toolbar">Toolbar</a> topic.
Balances Bar	Select among several account statistics to display in your StreetS-mart Pro® window at all times. For more information on configuring the statistics displayed, visit the <a href="Balances Bar">Balances Bar</a> topic below.
Chart Toolbar	Click to hide or display the Chart toolbar, which gives you quick access to chart features such as trend lines, retracements, and other chart settings. Hover your mouse over an icon in the toolbar to see what it will open. See <a href="Chart Toolbar">Chart Toolbar</a> for more information on this tool.
Status Bar	Click to hide or display the server and order routing status bar at the bottom of the software window. See <u>Status Bar</u> for more information.
Live Help Bar	Click to hide or display the <u>Live Help</u> bar, which you can click to open a chat session with a StreetSmart Pro client support representative.
	<b>NOTE:</b> It is important that you do not use the Live Help panel in StreetSmart Pro 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 by Schwab.
Customize	The Customize menu option provides you with access to customize the information displayed in the Balances Bar, Chart Toolbar, and Status Bar. Click <i>Customize</i> , and then select the toolbar you wish to customize, or you can right-click on the toolbar and select Cus-

#### **TOOLBARS**

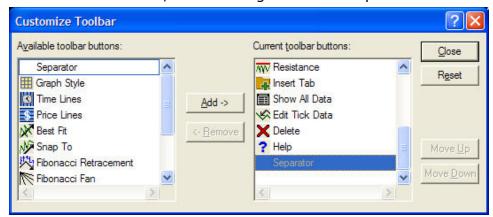
Click on any of the toolbars (except for the Status Bar) and drag it to move it to another location in your layout. Be sure to Save your layout under the File menu if you make layout changes you wish to keep.

#### tomize...

For Balances Bar, the following window will open:



For the Chart Toolbar, the following window will open:



For the Status Bar, the following window will open:

#### **TOOLBARS**

Click on any of the toolbars (except for the Status Bar) and drag it to move it to another location in your layout. Be sure to Save your layout under the File menu if you make layout changes you wish to keep.



Check the routing venues you wish to monitor in the Status Bar at the bottom of your window. If the route is available, it will display in green; if unavailable, red.

You may also indicate whether the Caps Lock and/or Number Lock should be permanently enabled or disabled in the software by checking/unchecking those options.

The checked boxes will then display at the bottom status bar as shown below:



# SETTINGS GENERAL You must log off after making changes to many of these fields for the changes to take effect. Servers These fields for making server adjustments should only be changed after consulting with a Schwab Active Trader Broker or Technical Support Services representative. Free-Float- Check to allow windows to move outside the main application frame ing Windows (to view on multiple monitors, for example). When unchecked, all windows will open within the main application frame. **Auto-Save** Automatically saves the current layout of your screen when you exit. If you do not want to save your layout upon exiting, uncheck this box. Layouts

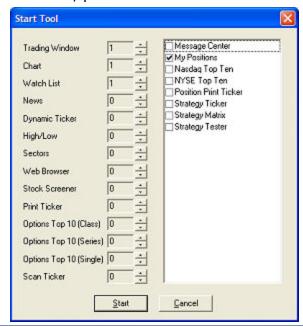
#### **SETTINGS** Inactivity Customize the amount of time that you wish to remain online before **Timeout** the software logs you off due to inactivity. • Select a number between 1 & 8. The default setting is 1. When you change this setting, a confirmation message will appear in the Messages window. • Logging off and then back on is not required for this setting to take effect. Update When checked, allows you to choose **Last Trade Price** or **Bid/Ask Equities P&L** Price to calculate after hours P&L. When unchecked, P&L calculations in Extended will use the closing bid/ask to calculate P&L, so the calculation will not Hours update after hours. **Update Rate** Increase or decrease your Update Rate. This will control the speed of the data that your CPU must process. 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. Choose between **Internal** or **External Browser**. Open Links Using: Controls whether web browsers launch within (internal) the cockpit or as a separate window (external). Applies to the Education Weblink icon, right-click links to Schwab.com Research & Extended Quotes, and News links. • Logging off and then back on is not required for this setting to take effect. **Folders** The Folders settings provide a way to save certain types of files used by the software in a predictable location. Type the location or click **Browse** to find a location in which to save each of the following types of files, then click **OK** when you are finished. **Folders** C:\Program Files\Schwab\SSPro\Layout Layouts Browse C:\Program Files\Schwab\SSPro\Sounds Browse. Sounds Stock Lists C:\Program Files\Schwab\SSPro\StockLists Browse. C:\Program Files\Schwab\SSPro\Queries Queries Browse.. C:\Program Files\Schwab\SSPro\Alerts Alerts Browse. Defaults <u>O</u>K Cancel

SETTINGS	
Proxy	You can change Proxy configurations if you use a Proxy server or are behind a firewall. Contact your Network Administrator for the appropriate settings.
Fonts	Change the font, style and size as well as the Script style of your balances that are displayed at the top of the application.
Account Nickname	You can assign a nickname to the account you're viewing by entering the nickname and clicking <b>OK</b> .

#### **TOOLS**

#### **Start Tool**

This feature allows you to change the windows that are open in the software. Windows listed on the right can only have one open instance; put a check next to the windows you wish to have open.



#### **Symbol Lookup**

Use this tool to look up the name or symbol of a company. For example, 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 main menu, click **Tools** > **Symbol Lookup** or click the icon  $\Delta$  in the toolbar.

 Enter the name or as much partial information as you have and click *Enter*. You may also check the Symbol option and simply enter a ticker symbol to get a company name. This can be done for either *Stock* or *Index*.

TOOLS	
	<ul> <li>The closest matches to what you entered will appear at the top of the list.</li> </ul>
	<ul> <li>You can load the data directly into the Quotes Window by right-clicking the symbol and selecting Load [symbol] into Trading Window.</li> </ul>
	<ul> <li>Clicking on Name and Index will give you a list of all indices.</li> </ul>
Find Active Tool	Restores active windows that may be hidden or minimized. Click <b>Find Active Tool</b> , and then select the window you wish to view.

Schwab.com	
Research	Opens a Schwab.com browser session to the Quotes & Research tab.
ETF Center	Use our single source ETF Center for finding, comparing, and researching exchange-traded funds.
Briefing.com Calendar	Keep tabs on upcoming events in the market, such as earnings releases.
Market Edge Ratings	Access stock ratings, workshops, market commentary, and much more from Market Edge.com.
Market Insight	Get insightful market and investing commentary by Schwab Center for Investment Research.
OptionStree-t®	Access Schwab.com option trading tools, including advanced options, screeners, calculators and more.
Pre-Defined Option Screener	<ul> <li>Select from a list of 24 Schwab-defined screeners to help identify stock and option trading candidates.</li> <li>Screen on open interest, volatility, put/call ratio, volume, and more.</li> <li>Screen for trading candidates in real time.</li> <li>Use quick links to trade, research, and option chains.</li> </ul>
Cus- tomizable Option Screener	<ul> <li>Help identify options contracts based on criteria you specify.</li> <li>Screen on both the underlying stock and option criteria.</li> <li>Screen for price, volume, P/E, volatility, intrinsic value, and more.</li> <li>Screen for trading candidates in real time.</li> <li>Quick links to trade, research, and option chains</li> </ul>

Schwab.com	
Option Trade Assessor	<ul> <li>Find calls, puts, and multi-leg trades easily.</li> <li>Screen for contracts based on your forecasts of an underlying security's volatility, price movement, desired return, and time horizon.</li> <li>Enhanced to include puts and calls.</li> <li>Sophisticated pay-out charts based on option greeks.</li> <li>Max gain and loss calculations, static and expired rate of returns.</li> </ul>
Option Strategy Finder	Screen for options strategies that make sense for your expectations <ul><li>Identify strategies that meet your criteria</li><li>Help find a feasible options strategy.</li></ul>
Lind-Wal- dock (Futures)	If you have a futures trading account, access it here through this link to the Lind-Waldock site.
Account History	Open a Schwab.com browser session to your account history.
Account Performance	View your account performance on Schwab.com.
Account Transfers and Pay- ments	Manage and view any transfers or payments coming in or out of your Schwab.com account.
Gain/Loss	View the Gain/Loss tab on Schwab.com for a more in-depth look at your account.
StreetSmart Pro Courses	Access information and schedules for StreetSmart Pro courses through Schwab.com.
Trading Sem- inars & Web- casts	Register for informative live online workshops on subjects ranging from getting started with your software to stock screening and risk management; hosted by Schwab Investment Professionals.
Trading Community	Connect with other investors in Schwab's active investor community.
Client Ser- vice	Go directly to the Customer Service page of Schwab.com where you can get more information on transfers and payments, account services, managing your profile, and much more.
Add Level II	Click here for instructions and information on subscribing to Level II

Schwab.com	
	data.
Add Direct Access	If you already have a subscription to Level II data service, you may qualify for Direct Access trading, which allows you to target and send orders directly to ECNs and NASDAQ Market Makers. Select this menu item to get more information on Direct Access trading.
Agreements and Dis- closures	View the user agreements that may be associated with your account. If you have questions about which agreements apply to your account, contact your Schwab Active Trader representative.
Accounts Summary	Get an overview of basic balance information for your account(s) on Schwab.com.
Trading Tools	See what services, tools, and products are available to you based on the type of account you hold with Schwab.
StreetSmart Pro Center	Access the StreetSmart Pro Center of Schwab.com where you can learn more about the product, download the latest version, access online seminars, and more.

#### **HELP**

# **Live Help**

The Live Help window allows you to communicate directly with a Schwab Active Trader 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.



**Sending Messages:** 

HELP	
	<ol> <li>In the Main Menu, click Help &gt; Live Help or click the icon in the toolbar</li> <li>Type in the message under Enter Message</li> <li>Click Send</li> <li>To clear previous messages, click Clear.</li> <li>Click Exit to close down the box.</li> <li>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.</li> </ol>
Reconnect to Servers	If the Status Bar indicates you have been disconnected from the server (one of the two indicator lights would be red) and automatic reconnection was not successful, click <b>Reconnect to Servers</b> .  If the problem persists, log off and try logging on again. Contact your Schwab Active Trader team if you are still unable to connect.
Online Help	Click to open the online help files.
Layout Assistant	The Layout Assistant helps you identify the right layout for your style of trading. Click through the tabs at the top of the window and move your mouse around the screen to see a description of each window highlighted on the right.  Once you have found a layout you wish to use (you can continue to customize the layout once you have selected it), click <b>Select This Layout</b> .
New Features	Click to read about the new features of the version you are using.
Update Available	The <b>Update Available</b> feature will be enabled when an update is ready for download and installation. This allows you to download updates at your convenience. Use the <u>Update Details</u> feature to see what changes have been made in the latest update.
Update Details	Opens a page in the Online Help that lists important updates and enhancements made since the last major release.
About StreetSmart Pro	Click for copyright and version information for your software.

#### **Auto Save Layouts**

All layouts have been set to auto-save so that any modifications you make to a layout will be automatically saved when you log out of the software.

To disable this feature, go to **Settings** > **General** and uncheck **Auto Save Layouts**.

#### StreetSmart Pro Timeout Feature

StreetSmart Pro software is designed to automatically log out after a specified period of time of inactivity.

- To change this setting from the default of 1 hour, go to application main menu and click on **Settings** > **General**.
- If your session is timed out or you lose connection, simply **Logon** again.

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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#### **Demo Mode**

Familiarize yourself with all the features in StreetSmart Pro® without risking any capital by logging on in Demo mode.

To access, choose **Demo** instead of Live when logging on.

# Demo mode allows you to:

- 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 Level II 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 Level II 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.

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# **Customizing Your Desktop**

# **Customizing Your Desktop**

#### **Window Layouts**

You can design and modify your window layout as often as you like. The window layout that appears when you log on is a default layout. You can:

- Keep the default layout.
- Change it to one of the alternative built-in layouts.
- Build your own layout by opening, closing, resizing and moving the windows. Remember to save your layout, click File > Save Layout As...

To open a built-in Layout or one of your customized layouts:

- Go to the Main Menu and click File.
- Click **Load Layout**, then click on the layout of your choice.

#### **Window Tabs**

You can further customize the layout by adding Tabs to following windows:

- Watch Lists
- Charts
- Top 10
- High/Low
- Dynamic Ticker

See <u>Adding Tabs to Windows</u> for instructions on inserting, editing, or deleting tabs in the windows that support them.

#### **Toolbars**

In the **Toolbars** menu, select which <u>toolbars</u> you wish to display. You can click and drag each toolbar to relocate it anywhere in your software window. When placed around the edge of the window, it will snap to the perimeter of the window, or it can be free-floating in the layout.

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## **Adding Tabs to Windows**

Tabs allow you to maximize screen space while still having quick access to multiple <u>Chart</u>, <u>Watch List</u>, and other tab-enabled windows. When tabs are enabled, your window will look something like this:



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Windows that have the tab functionality will have a *Tab* menu in their menu bar. To access the menu bar, right-click in the window and select *Show Menu*. The following choices will be available:

Enable	When checked, allows you to maximize screen space while still having quick access to several windows within one window. When unchecked, you must open several independent windows to view multiple Charts/Watch Lists/etc.
Insert	Select to add a new tab to the window.
Edit [tab name]	<ul> <li>Select to edit the current tab's settings, including the name and location.</li> </ul>
	<ul> <li>You can also edit a tab name by double-clicking on the tab and entering the new tab name.</li> </ul>

Remove [tab name]	Select to delete the current tab from the window.
Use same symbol for all tabs	When checked, loading a symbol into one of the chart's tabs will also load the symbol on every tab in that chart window.
	This setting is only available in the Chart Tabs menu.

#### To enable Tabs:

- 1. Click **Tabs** > **Enable** in the window menu.
- 2. To create tabs, click *Insert*. The Insert Tab window will open as shown below.



- 3. Enter a name for the tab and specify its location in relation to existing tabs in the window using the **Insert**, **Before**/**After**, **[tab name]** fields.
- 4. You can use another tab as the basis for your new tab by selecting the other tab from the **Copy settings from** drop-down. Select **<Default settings>** to create your tab with default settings.
- 5. Click **OK**, and the tab will display in the Tab window. To change the name later, you need only right-click on the tab label and select **Edit**. Then, enter a new name. To remove a tab, click on the tab label and select **Remove**.
- 6. **Use same symbol for all tabs** [Chart Window Only]: Select this menu item (so that it is checked) if you want every tab to load the same symbol when you change the symbol in one tab. For instance, if you have this checked and you enter ABCD into one of the tabs in the window and press **Enter**, ALL tabs in that chart window will load ABCD.

**TIP:** You may establish different tabs for each new window you open. The tabs and other changes to your windows are saved when you save your layout.

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# **Adding Windows**

Windows can be added by either:

- Clicking on the appropriate toolbar icon or,
- Using the Start Tool window located in the main menu bar. Go to Tools > Start Tool.

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#### Close Unused Windows

You can hide/delete windows in your layout permanently or temporarily.

#### To Permanently Close a Window:

- Click on | in the window you want to close.
- 2. Save the new layout with the closed window. Go to Saving Layouts for more information.

# To Temporarily Close a Window:

- 1. Click the Minimize button in the top right corner of the window.
- 2. The window will be minimized and put at the bottom of the window above the Task Bar.

#### To Reopen a Window:

 Go to Tools > Find Active Tool in the Main Menu bar and click on the window you want to open.

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#### **Saving Layouts**

StreetSmart Pro® software remembers the last layout you used and displays it when you logon. However, it's best to save your preferred layouts after customizing. There are two simple ways to save your layouts:

#### **Save Layout Under Same Name**

- 1. Go to the Main Menu Bar and click File.
- 2. Click **Save Layout** under the current layout name.

or

#### **Save Layout Under New Name**

- 1. Go to the Main Menu Bar and click File.
- 2. Click Save Layout As.

- 3. Enter a name for the **Layout** at the bottom of the **Save** window, for example, *Layout 4*.
- 4. Click Save.

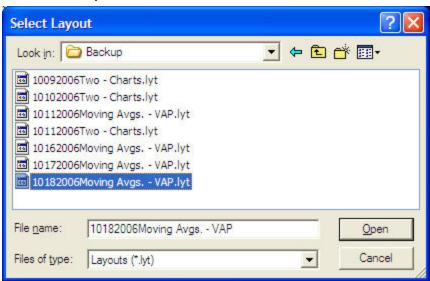
**TIP:** When saving a layout, you cannot save over a built-in layout as they are read-only files. However, you can save your changes to a built-in layout by following the **Save Layout Under New Name** directions above.

#### **Backup Layouts**

Each day when you log on, a backup of your layout is saved on your computer, so that if your layout becomes corrupted or you save changes to it that you wish to reverse, you don't have to start from scratch. The application will store backup files for the last 3 days that you logged into the application. The backup files are saved in a folder called Backup Layout (in your Layout folder) and have the same name as the original layout with the date of the backup appended to the name (for example, "10202006Options.lyt").

If the software detects an irregular or invalid exit from your previous session, it will ask you if you want to open the last good saved layout. Selecting **Yes** will prompt you to save the backup layout to your regular layout folder before proceeding.

You can also restore a layout from a backup by going to **File > Load Layout** and navigating to the Backup folder.



Open the layout you want to restore and you will be prompted to save it to your regular Layouts folder.

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#### **Shrink or Enlarge Windows**

Each window in the software can be resized to allow for additional windows or to accommodate the size of your monitor.

## To Resize the Width/Height of a Window

- 1. Place the mouse pointer on a side of the window until an up/down or left/right arrow appears.
- 2. Click and hold the mouse button while resizing the window, then release the mouse button.

#### To Resize the Entire Window

- 1. Place the mouse pointer on the corner of the window until the diagonal arrow appears.
- 2. Click and hold the mouse button while resizing the window, then release the mouse button.

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#### Move Windows

StreetSmart Pro® windows can be arranged any way you like within the frame of the software.

#### To Move Windows:

- 1. Click and hold your mouse pointer on the top bar of the window and drag to the new location.
- 2. Let go of the button when the window is where you want it.

#### or

- 1. Right-click on the top bar of the window.
- 2. Click **Move** and an expansion arrow (a plus sign with arrows at each end) will appear.
- 3. Use the **Up**, **Down**, **Right**, **Left** arrows on your keyboard to position the window.
- 4. Left-click the mouse button to ground the window.

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#### **Create Free-Floating Windows**

Your StreetSmart Pro® windows can also be dragged anywhere on your desktop outside the frame of the software (when you want spread the data across multiple monitors, for example).

## To Enable/Disable Free-Floating Windows:

- 1. Log off, but do not exit the software (click *File > Logoff* in the Main Menu bar).
- 2. In the Main Menu, click **Settings** > **General**.
- 3. To choose an unframed layout allowing you to move windows outside the frame, check **Free Floating Windows** in the Settings window or,
- 4. To choose a framed layout framing all windows in one large window uncheck **Free- Floating Windows** in the Settings window.

You must restart the software for the changes to take effect.

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# Changing Background & Font Colors

StreetSmart Pro® software allows you to change the background and font colors in most windows.

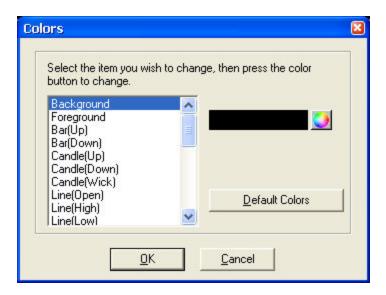
## **Change Colors:**

- 1. Go to the Main Menu of the window you want to change.
- 2. Click **Settings** > **Colors**. One of three Color Selector windows will open:

**Figure 1** - Click on the color wheels to modify colors.



**Figure 2** - Controls Charts. Highlight the area you want to change and click the color wheel to assign a color.



**Figure 3** - Controls the Trading Window. The lower area gives you several color options for Level II, for which you can choose one of the built-in color schemes, or you can choose *Custom* and create your own color for each individual level.



## **Change Fonts**

The software allows you to change the font for each window. The default font is MS Sans Serif, Regular.

## **To Change the Font**

- 1. Click **Settings** > **Fonts** in the Menu Bar of the window you want to change.
- 2. Make your changes and click **OK**.

**TIP:** Using bold fonts may make some of the windows easier to read.

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#### **Built-In Layouts**

StreetSmart Pro® software comes with several built-in layouts. To maximize all available screen space and fit the size and resolution of your computer screen, it may be necessary to select an alternative StreetSmart Pro built-in layout.

The default layout, the layout you see when you first log on, is designed for a screen resolution of 1024x768. If your screen resolution is set lower than 1024x768, the windows in the layout may be too big to fit your screen. To correct the problem, go to *File* and select *Default* (800x600) from the list of layouts located at the bottom of the drop-down menu.

There are other layouts which use different features of the StreetSmart Pro application. All layouts are provided to give you ideas for customizing your own layout. You can start from scratch or use one of the layouts provided as a starting point for your own custom design.

To access all of the available pre-loaded layouts go to  $\it File > Load \ Layout$  in the main menu.

You may also use the **Layout Assistant** tool in the **Help** menu. It will show you the features of each layout and allow you to choose the best starting layout for your style of trading.

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# **Configuration & Troubleshooting**

# **Configuring the System**

## **To Change General Software Settings:**

Go to the Main Menu and choose <u>Settings</u> > <u>General</u>. Change any of the following settings in the General Settings panel:

Make server adjustments. NOTE: Server adjustments should be made only after consulting with a Schwab Active Trader Broker or Technical Support Services

Representative.

- Change to/from a free-floating windows layout.
- Auto-save your layouts.
- Increase your timeout setting from 1 to 8 hours. **NOTE:** If you leave your computer logged on overnight there are some circumstances where you may find that you are still logged on the following morning. If this happens, you must log off and log back on before placing any trades.
- Choose to use an internal or external browser.
- Increase or decrease your Update Rate. This will control the speed of the data that your CPU must process. If you have a slower processor, it may be helpful to reduce this rate.

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# **System Requirements**

#### **SPECIFICATIONS**

The preferred operating system for StreetSmart Pro® is Microsoft® Windows® XP, Windows Vista® and Windows 7®. Because all Operating systems prior to Windows XP are not supported by Microsoft, the user may operate the software at their own risk, however they cannot be supported by the technical support group due to an access limitation.

A connection to the Internet is required to operate the software. It is recommended that you have a high-speed connection such as an ISDN line, DSL line, or a Cable modem in order to attain optimum performance, although the web based platform (without streaming data) should be operable on a 56K dial-up modem.

The software is not compatible with satellite-based internet providers.

The minimum requirements are.

- .NET 2.0 Framework installed (installs with StreetSmart Pro if it is not found on your computer)
- 512MB RAM
- 1.5 GHz Pentium® IV or better
- 70 MB free hard drive space on DRIVE C:
- 64MB Video Memory (Single Port Card) or 128Mb Video Memory (Multi Port Card), and
- 17-inch monitor with a 1280x1024 resolution

The software must have a connection to the Internet that is not restricted by a firewall, whether it is a software firewall or a hardware firewall. This may require configurations to be made by the user.

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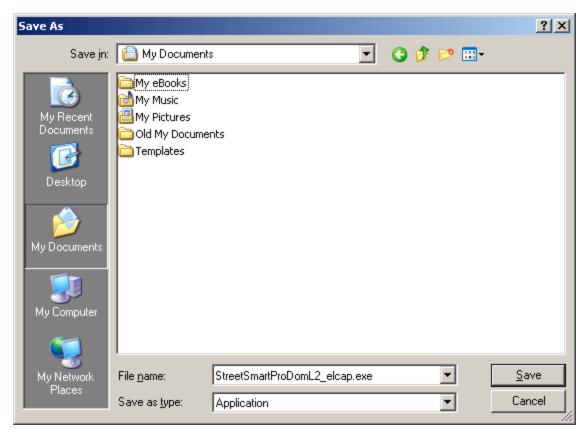
# **Downloading the Software**

Qualified Schwab Active Trader clients can download the StreetSmart Pro® software from the download website. (Check the site for qualifications.)

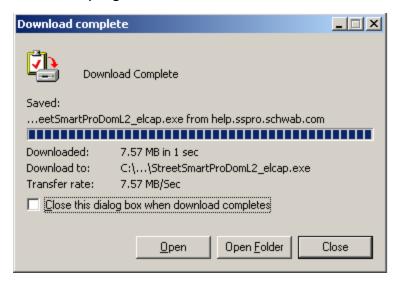
 When you start the download process, you will be prompted to save or open the file. Choose Save.



2. Select the location where you want to save the downloaded file and click **Save**.



3. The status of your download is displayed and when it is finished, click **Open** to run the installation program.



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# **Installing the Software**

Before you install StreetSmart Pro®, be sure you *close all other applications*. The installation process will start as soon as you accept the End User License Agreement and the StreetSmart

Pro Agreement. Click here for more information about your agreements with Schwab.

- The set-up program will automatically install StreetSmart Pro into a new file folder (the default location is *C:/Program Files/Schwab/SSPro*) unless you indicate otherwise.
- **NOTE:** We highly recommend that you install the program on the default location, so that it will replace any previous versions of StreetSmart Pro that may already exist on your hard drive. If you do not over-write previous versions, you may experience problems.
- When installation is complete, you will be prompted to restart your computer to complete the installation process. After restarting, you will see the StreetSmart Pro icon on your desktop.
- Click the icon to launch StreetSmart Pro on your computer.

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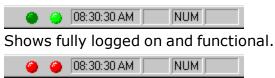
#### **Server Connection Status**

#### **Auto-Reconnect**

The auto-reconnect feature is part of all modules within the software. When a window/module is disconnected from its server, the system immediately recognizes the fault and tries to reconnect. If you find it necessary to manually reconnect, click on **Help > Reconnect to Servers** and wait a moment for the reconnection to transpire.

#### **Connection Status Display**

In the Status Bar at the bottom of your software window, two green lights indicate the flow of data to your computer from the servers. The first one indicates the status of your connection to the Account Server and the second indicates status of the chart, Level II, and other data. They will turn red if you lose your connection to either the data servers or the account servers.



Shows logged off with no data coming in.

**TIP:** To display the Status Bar, click **Toolbars > Status Bar** in the main menu.

#### **Routing Connection Status**

You can also display the connection status of certain routing venues in the <u>Status Bar</u>. Click **Toolbars > Customize > Status Bar** in the main menu and check the routes for which you wish to see connection status.

You may also indicate whether the **Caps Lock** and/or **Number Lock** should be permanently enabled or disabled in the software by checking/unchecking those options.

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## **Proxy Settings**

In the **Settings** > **Proxy** menu, you can change proxy configurations if you're running your software on a proxy server or behind a firewall.

Go to the Main Menu Bar, choose **Settings** > **Proxy** and enter your changes in the Proxy Settings panel.

**NOTE:** StreetSmart Pro® supports logon via an HTTP Proxy only. Be sure to contact your system/network administrator for the appropriate proxy settings.

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## **Software Updates**

As new upgrades and enhancements become available, you will receive an announcement starting the first time you **Logoff** after the upgrade or enhancement is available. You can choose to automatically load the upgrade or postpone loading it. The update announcement window will continue to appear at each **Logoff** until it has been loaded onto your computer.

**NOTE:** It is recommended to accept upgrades and enhancements as they become available to you for the best user experience.

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# **Update Details**

The **Update Available** menu option makes important software updates available to you on a frequent and timely basis. Updates can be downloaded at your convenience and a list of changes is included, so you are in control of the decision to update your software.

This feature does not change how we currently deliver new major software updates. It simply provides another means to get critical changes to you between those major releases.

The Update Available feature has been designed to download the latest software in a seamless fashion:

- 1. When a new update is available, the **Update Available** menu option will become enabled in the **Help** menu.
- 2. To download a new release, click the *Update Available* menu option.
- 3. You will be prompted with a message indicating that a new update will be downloaded and asking if you would like to continue. If you select **Yes**, the update will download in the background, enabling you to continue working in the software without any intrusion by the download.

The list of updates since the last major release is available below.

- Cancel button added to Options and Level II Options tabs in Trading window.
- In the Alerts Settings window, the *Criteria* field has changed to *Operator*.
- **Unrealized P&L** can now be added to the Balances Bar. This figure is not a balance and represents the total profit or loss for all positions in the account. If P&L is not available for every position, an asterisk (\*) will display. Updates to Unrealized P&L are streaming.
- Unsettled positions can now be blocked from displaying in the Positions tab of the Account Detail window from the **Settings** > **General** window.
- Several new columns added to the Positions Tab in the Account Details: P&L/Share, Cost/Share, Expiration, Underlying, Call/Put, and Strike.
- Clicking on the Transactions tab will now cause the tab to refresh.

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# **Troubleshooting Guide**

#### **Start with this ISP (Internet Service Provider) checklist:**

- Is your modem functioning correctly? Check by trying to connect to the Internet with another application.
- Is your telephone/data/cable line connected to your PC?
- Have you dialed into your ISP and established a connection?

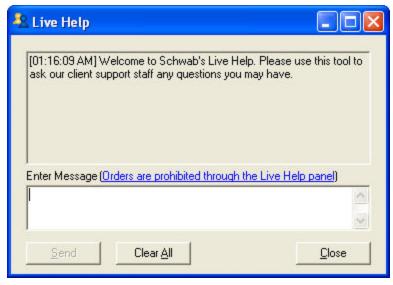
PROBLEM	POSSIBLE SOLUTION
Cannot Con- nect Error Message	<ul> <li>Complete the ISP checklist above.</li> <li>If you're using behind a firewall or proxy server environment (which are common in the workplace), contact your Network Administrator and go to the Menu Bar and choose Settings &gt; General to correctly configure the software.</li> </ul>
Invalid Pass- word or ID	StreetSmart Pro requires a Schwab logon ID (Social Security Number or self-selected User ID) and password not your Schwab account number and password. Contact your Schwab Active Trader Broker if you need assistance setting up your logon ID.
Disconnected from Data Servers Data Is Not Updating	<ul> <li>If you lose your connection, the software will automatically try to reconnect any lost connections.</li> <li>If the automatic reconnection was not successful, go to the Main Menu Bar, click Help &gt; Reconnect to Servers.</li> <li>If the problem persists, log off (File &gt; Logoff) then log back on (File &gt; Logon). Contact your Schwab Active Trader Broker</li> </ul>

PROBLEM	POSSIBLE SOLUTION
	<ul><li>if you are still unable to connect.</li><li>Complete the ISP checklist above.</li></ul>
Charts Not Printing Clearly	Try changing the background color to white for a clearer image.

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#### **Live Help**

The Live Help window allows you to communicate directly with a Schwab Active Trader 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.



# **Sending Messages:**

- 1. In the Main Menu, click Help > Live Help or click the 🙍 icon in the toolbar
- 2. Type in the message under **Enter Message**
- 3. Click **Send**
- 4. To clear previous messages, click Clear.
- 5. Click **Exit** 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.

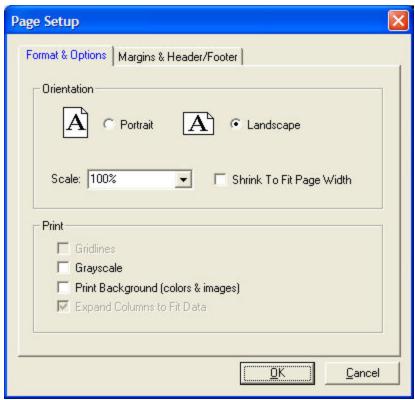
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# **Printing Windows**

Printing is available in most StreetSmart Pro® windows, including the ability to customize your printouts with headers, footers, grid lines, and more.

# **Customizing Window Printing**

In windows with the Print feature, click **File > Page Setup** to begin customizing your print job.

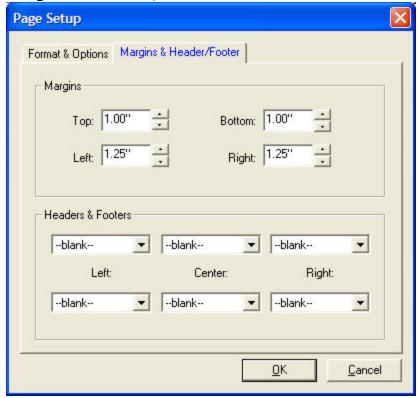


1. Select a **Portrait** or **Landscape** orientation. For wider windows, like charts, Watch Lists, etc., landscape may be the better choice to fit all the content on one page width.

#### TIPS:

- If the window contents still do not fit on the page, you may, in some windows with this feature, be able to choose to **Scale** the printing to a lower percentage or click **Shrink To Fit Page Width** for the printer to automatically scale the page to fit.

- You can also go to **Settings** > **Fonts** for the window you are printing and enlarge or reduce the font size to change how the window prints.
- 2. Next, set up the qualities of your print job (only applicable choices will be available):
  - **Gridlines:** For windows where information is presented in a table format, check this box to keep the lines visible in the printout.
  - Greyscale: Check to print in shades of grey/black/white. Note that for some printers, you will have to change this setting in your printer properties for it to take effect. In the *File > Print* window, select *Properties* and find the setting for *Greyscale* and select it. The location of this setting will vary depending on the printer you use.
  - Print Background (colors & images): If checked, the printout will look exactly
    like what you have on the screen. So if you print a chart with a black background, it
    will print with a black background.
    If unchecked, it would print with a white background and white text would print
    black.
  - **Expand Columns to Fit Data:** If checked, printouts involving columns of data, such as Watch Lists, will print with the full heading of the column showing. If unchecked, the columns will be the same width as they are on the screen and column names may be partially hidden.
- 3. To adjust the Margins and the Header and Footer content of the printed page, click the **Margins & Header/Footer** tab.



- 4. Decreasing the size of the **Margins** may help fit more data onto a page without having to shrink the size of the data, thus keeping it more readable. Use the up/down arrows to adjust the margin size on each edge of the page.
- 5. If you wish to apply Header and/or Footer data to your page, select the data you wish to display from the drop-down lists in the Headers & Footers panel. The items you choose in the top row will be at the top of the page in the Left/Center/Right positions, and the bottom row selections will appear at the bottom of the page.

Choose either the provided fields, such as Tab Name, Date & Time, Account Number, etc. or choose *Custom...* and enter your own header or footer content.

When you are finished customizing your print job, go to **File > Print** and click **OK** when you are ready to send the page(s) to the printer.

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## **Quick Reference**

#### **Quick Start Guide**

Now you can stay plugged into the fast-changing market with StreetSmart Pro® - Schwab's leading-edge suite of real-time streaming market data software and advanced trading features for your desktop.

It's easy to get started:

- Check the system requirements and be sure your system can meet them.
- Since you need an Internet Service Provider (ISP) to run the software, connect to your ISP before you begin.
- If you have trouble installing the software, call your Schwab Active Trader Broker.
- Read through the Quick Reference topics below to learn about each tool in your software.

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#### **Quick Reference: Windows & Layouts**

Minimize StreetSmart Pro® Frame	<ul> <li>Click in the top right corner of the frame to minimize all windows (unless you have chosen <u>Free-Floating Windows</u>).</li> <li>To restore the frame, click the StreetSmart Pro icon on your desktop Task Bar.</li> </ul>
Use the Win- dow Scroll Bars	<ul> <li>Click in the window that contains the data you want to scroll through and the scroll bar will appear.</li> </ul>
	<ul> <li>You can scroll vertically in any active window using the Page Up and Page Down buttons on your keyboard.</li> </ul>
	<ul> <li>To scroll down the Level II quotes or Time &amp; Sales screens, right-click in the frame you want to see and select <b>Show Scroll</b></li> </ul>

	Bar.
Make a Window Active	Click on any window you want to make your active window.
Find the Name of a Window	The name of each window appears on the top bar. Stock names and/or ticker symbols also appear at the top of the Trading, News, and Chart windows.
Maximize, Min- imize or Close Windows	<ul> <li>Each window has three small boxes in the right corner of the top bar:</li> <li>The first box minimizes the window.</li> <li>The middle box expands the window to fit the screen for a better view.</li> <li>The third box closes the window. Closed windows can be reopened with the Toolbar.</li> <li>NOTE: Closing your Account Detail window will log you off the software.</li> </ul>
Resize Win- dows	<ul> <li>Move your cursor to the edge of the window you want to resize.</li> <li>When your cursor changes to an arrow, hold down the left mouse button and drag the edge of the window until the window is the desired size.</li> </ul>
Find Minimized Windows	<ul> <li>Minimized windows can be found at the bottom of the frame above the <u>Status Bar</u>.</li> <li>To re-open a window, either double click on the minimized window or click <i>Tools</i> &gt; <i>Find Active Tool</i>, then click on the window name you want to maximize.</li> </ul>
Open Closed or Additional Win- dows	<ul> <li>Toolbar: Get a quick description of each icon in the Toolbar by moving your mouse over it. When you pause on an icon, a Tool Tip will pop up. The Toolbar topic provides more information on each tool and how many of each window can be open at any one time.</li> <li>Start Tools: Click Tools &gt; Start Tools in the main menu bar to open the Start Tools menu, where you can add or reopen windows in the layout.</li> </ul>
Display or Hide Menu Bars	Each window has a Menu Bar. Display or hide Menu Bars by right-clicking in the window and clicking <i>Hide/Show Menu</i> .
<tool> Help</tool>	Each window has a context sensitive help available from the right- click menu. Access the Online Help for a particular tool by right- clicking in the window and clicking <b><tool> Help</tool></b> .

# **Save Layouts**

Save your layouts by going to the Main Menu Bar and selecting **File** > **Save Layout As**. Then, save each layout by name.

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# **Quick Reference: Trading**

StreetSmart Pro® Trading Window	Enter your order in the Order Entry panel in the Trading window.
Turning on and off Level II and ECN quotes	Click on <b>Settings</b> > <b>General</b> in the Trading Window menu and choose which level of quotes you wish to view in the <b>Display Bid/Ask Quotes</b> section of the L2 Data Tab.
	If you are trying to view Level II information and the checkboxes are grayed out, please contact your Schwab Active Trader Team. Access to Level II data requires meeting certain eligibility requirements based upon trading frequency.

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# **Quick Reference: Charts**

Load a Symbol	Type the symbol in the Chart window and press <i>Enter</i> .
	or
	<ul> <li>Link to the Trading window by going to the Trading window Menu Bar and clicking <b>Settings</b> &gt; <b>Links</b>. Highlight the chart you wish to link to the Trading window.</li> </ul>
Change Chart Type & Range/Interval	Click <b>Settings</b> > <b>General</b> , click on the Chart Type , or Chart Interval , icons on the Chart Toolbar, or right-click the Chart window. From the right-click menu, select a new <b>Chart Type</b> or <b>Chart Range</b> .
Duplicate a Chart	To create another copy of a chart you have open, go to the Chart icon in the main toolbar and click on the drop-down arrow:  New Default Chart Copy of Chart # 1 Copy of Chart # 2  Select the chart you wish to open a copy of.
Copy One	To do this, you will need to create a Chart Template. In the chart

Chart's Settings to Another Chart	with the settings you wish to duplicate, click the <i>File</i> > <i>Save As Template</i> menu item. Select which types of settings you wish to include in the new template, name the template, and save it.  Then in the chart you wish to apply the settings to, click <i>File</i> > <i>Load Template</i> and select the template you created.
Improve Print Quality of Chart	Try changing the background color of the chart to white before printing.

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# **Quick Reference: Watch Lists**

Add or Remove Symbols	<ul> <li>Right-click in the Watch List window and click <i>Insert Symbol</i> or <i>Remove [symbol]</i>.</li> <li>To add or remove symbols, you can also use your <i>Insert</i> or <i>Delete</i> keys.</li> </ul>
Search for News on a Sym- bol	Right-click on the symbol in the Watch List window and click <b>Recent Stories for [symbol]</b> .
Load a Symbol into the Trading Window	Right-click on the symbol in the Watch List window and click <b>Load [Symbol] into Trading Window</b> .
Change Data You Want to Track	<ul> <li>Right-click on the Watch List column heading and select a different set of data for that column.</li> <li>Alternatively, go to Settings &gt; Columns, choose the column number you want to update and the new field name, and click OK.</li> </ul>
Save New Watch Lists / Open Old Watch Lists	Go to the Watch List Menu Bar and click <i>File &gt; Save Watch List</i> **As or File > Load Watch List.
Sort Data	See Sort Watch List Data and Set Up Watch List Columns topics.

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# **Quick Reference: Top Ten**

Open th	е Тор	Ten	Win-
dows			

- Click on the Top Ten icon in the toolbar.
- If neither window is open (NASDAQ or NYSE), clicking

	<ul> <li>on the toolbar icon will launch both windows.</li> <li>If one window is open, clicking on the toolbar icon will launch the window that is not open.</li> </ul>
	Or:
	• Go to <b>Tools &gt; Start Tools</b> .
	<ul> <li>Put a check next to the window, either NASDAQ Top Ten, NYSE Top Ten, or both.</li> </ul>
	• Click <b>Start</b>
	<ul> <li>The Top Ten windows will automatically appear on your cockpit.</li> </ul>
Change Data You Want to Track	Go to the Top Ten Menu Bar and click on <b>Settings</b> > <b>General</b> .
Load a Symbol into the Trading Window	Right-click on the symbol in the Top Ten window and click <b>Load [Symbol] into Trading Window</b> .
Search for News on a Symbol	Right-click on the symbol in the Top Ten window and click <b>Recent Stories for [symbol]</b> .
Research or get an Extended Quote for a symbol in the Top Ten	Right-click on the symbol in the Top Ten window and click <b>Research/Ext. Quote</b> .

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# **Quick Reference: Highs & Lows**

Open the Highs & Lows Windows	<ul> <li>Click on the Highs &amp; Lows icon in the toolbar.</li> <li>The Highs &amp; Lows window will automatically appear on your screen.</li> </ul>
	OR
	• Go to <b>Tools &gt; Start Tools</b> .
	<ul> <li>Increase the number next to High/Low to 1 or more.</li> </ul>
	• Click <b>Start</b>
	<ul> <li>The High/Low window will automatically appear on your screen.</li> </ul>
Change Data You Want to Track	Go to the Highs & Lows Menu Bar and click on <b>Settings</b> > <b>General</b> .

Load a Symbol into the Trading Window	Right-click on the symbol in the Highs & Lows window and click <b>Load [Symbol] into Trading Window</b> .
Search for News on a Symbol	Right-click on the symbol in the Highs & Lows window and click <i>Recent Stories for [symbol]</i> .
Research or get an Extended Quote for a symbol in the Highs & Lows	Right-click on the symbol in the Highs & Lows window and click <i>Research/Ext. Quote</i> .

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# **Quick Reference: Print Ticker**

Open the Print Ticker Window	<ul> <li>Go to <i>Tools</i> &gt; <i>Start Tools</i></li> <li>Click on <i>Print Ticker</i></li> <li>Click <i>Start</i></li> <li>The Print Ticker will open within your software.</li> </ul>
Load a Stock List	<ul> <li>Go to <i>File &gt; Load Stock List</i> and select a list of stocks to load.</li> <li>Or go to <i>Settings &gt; Symbol List</i> to create a new list.</li> </ul>

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# **Quick Reference: Sectors**

Open the Sectors Window	<ul> <li>Go to <i>Tools &gt; Start Tools</i></li> <li>Click on <i>Sectors</i></li> <li>Click <i>Start</i></li> <li>The Sectors window will open within your software.</li> </ul>
	<ul> <li>Click on the Sectors icon in the Toolbar</li> </ul>
<b>Change Indices</b>	• Go to <b>Settings &gt; Indices</b>
	<ul> <li>Check the index fields you wish to display at the top of the Sect- ors window. See the Index Symbol List topic for a list of avail- able indices.</li> </ul>

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#### **Quick Reference: News**

#### Search for 1. In the Recent Stories tab, enter a symbol into the **Sym-**News on a **bol/Code** field. Stock or Index 2. Press Enter. News #1 - AMAT Breaking News Recent Stories: AMAT News Watch ▼ News Code Symbol/Code: AMAT Rating reiterations for Nov. 8 from Briefing.com: Brokerage Firm Reiterations Anadarko Petro APC Lehman Brothers Equal-Weight Applied Materials AMAT Friedman Billings Outperform Audiocodes AUDC Cantor Fitzgerald Buy Audiocodes AUDC Lehman Brothers Overweight Audiocodes AUDC Nollenberger Capital Buy Brightpoint CELL Kaufman Brother: Buy Cablevision CVC Janco Partners Accumulate CapitalSource CSE Friedman Billings Outperform Cedar Shopping Centers CDR Cantor Fitzgerald Buy Stock symbols and price and volume data shown here and in the software are for illustrative purposes only. Charles Schwab & Co., 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. **Open News** Right-click on the News window headlines and click Open **Article in a New** Story. Window OR Double-click on story headline. **Hide the News** Right-click on the News window headlines and click **Hide Menu**. Window Menu Read the News From the menu, select View > Preview. Article in the Right-click and select Show Preview Window **Preview Panel** Left-click on the News headline to display the news article you want to read in the Preview panel. Search the Right-click in an article and click **Search**. **Article for Spe**cific Topics **Print a News** Right-click in an article and click **Print Story** or **File > Print** from Story the News window. Load a Stock Every stock symbol in a news article is hyperlinked to the Trading into the Trading Window. Simply click the symbol you want, and it will auto-Window from a matically load into the Trading Window. **News Article Get More News** Right-click on the symbol to guery for other news articles on that

About a Stock in a News Article	stock/Index.
Automatically Query for News on a Stock or Index	You can link the News window to the Trading window by going to the Trading window menu and choosing <b>Settings</b> > <b>Links</b> .

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# **Quick Reference: Messages**

Messages Win- dow	StreetSmart Pro® displays streaming order status in the Messages window for the current day only (messages from sessions earlier in the day are differentiated by their dark grey color). Check Mes-
	sages for the status of your orders and their execution, as well as information about alerts and the market in general.

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# **Quick Reference: Stock Screener**

Quick Reference. Stock Serecher		
Open the Stock Screener Window	• Click the Stock Screener icon in the toolbar or <b>Tools</b> > <b>Start Tool</b> and change quantity from 0 to 1.	
	<ul> <li>The Stock Screener query window will automatically appear on your screen defaulting to a built-in query.</li> </ul>	
View What Fil- ters Make up the Query	Go to the Stock Screener Menu Bar and click <b>View &gt; Query Description</b> .	
View a Different Query	Go to the Stock Screener Menu Bar and click <b>Built-In Queries</b> to view the list.	
Create Your Own Query	Go to the Stock Screener Menu Bar and click <b>User Queries</b> . Clicking <b>Edit</b> will allow you to edit User Queries, while clicking <b>New</b> will allow you to create a new query.	
Save Your Quer- ies	<ol> <li>Go to the Stock Screener Menu Bar and click File &gt; Save         Query File As. A pop up box will appear allowing you to save         the query to your computer's hard drive.     </li> </ol>	
	<ol> <li>Select the location where you wish to save the query. Saving your query in the same place as the built-in query will make it easier to find all of the queries in one location.</li> </ol>	

	<ol> <li>Type the name you wish to save it as and click <i>OK</i>.</li> <li>You will see the file you just saved appear under File. The 5 most recent files that you viewed will be displayed, with the most recent one 'checked'.</li> <li>The title bar will show a new line with File: (name of your file), example shows <i>Technology.qry</i></li> </ol>
Load a Symbol into the Trading Window	Right-click on the symbol in the Stock Screener window and click <b>Load [Symbol] into Trading Window</b> .
Search for News on a Symbol	Right-click on the symbol in the Stock Screener window and click <b>Recent Stories for [symbol]</b> .
Research or get an Extended Quote for a sym- bol in the Stock Screener	Right-click on the symbol in the Stock Screener window and click <b>Research/Ext. Quote for [symbol]</b> .

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# **Quick Reference: Level II**

Obtain Level II Access	<ul> <li>If you are unable to see Level II quotes, check to see if you are eligible. Go to the Trading window, Settings &gt; General &gt; L2         Data. If you are qualified for Level II access, you should be able to click the Display Bid/Ask Quotes checkboxes. If those checkboxes are grayed out, please contact your Schwab Active Trader Team.     </li> </ul>
	<ul> <li>Access to Level II data requires meeting certain eligibility requirements based on trading frequency. Please contact your Schwab Active Trader Team to determine if you qualify for Level II access.</li> </ul>

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#### **Toolbars**

#### Main Tool bar

The Main Tool Bar allows quick access to individual windows in the software. Click anywhere in the main menu, and then hover your mouse over a button to see a ToolTip indicating which window it will open.

To enable, click **Toolbars** > **Main Tool Bar** in the main menu.

The Main Tool Bar can be displayed vertically on the left/right hand side, or the top or bottom of the frame, or it can be removed to be a free-floating window.

#### To move the Main Tool Bar:

- 1. Move your mouse pointer to the thin bar on the top of the Main Tool Bar.
- 2. Click and drag the window to the location of your choosing.
- 3. Let go of the mouse button.

Values in parentheses indicate the maximum number of windows that can be open at any one time.

Toolbar Icons		
•	Start Tool	Opens the Start Tool window, which allows you to add new or additional tools to your layout.
<b>E</b>	Trading Window (20)	Opens a Trading window, which is where you can see Level I and II data and place all Stock, Options, Advanced Options trades (Options and Advanced Options trading is available to approved clients).
<b>72</b> •	Charts (20)	Opens a Chart window, where you can see a graphical depiction of a symbol's price movements for the last minute up to the last few years. If you use technical analysis in your trading, you can also view a variety of Studies in the chart window and draw several different types of trend lines.  Create a Duplicate Chart by clicking the drop-down arrow and selecting the chart you wish to clone.  New Default Chart Copy of Chart # 1 Copy of Chart # 2
	Strategy Tester (1)	Opens the Strategy Tester window where you can search through historical performance results of back-tested tech-

Toolbar Icons		
		nical strategies.
68	Watch List (6)	Opens the Watch List, which allows you to create or view built-in watch lists of stocks and select what data you wish to see for each list, including options data, news, level I data, price change, volume, daily high/low, and much more.
<b>S</b>	My Positions (1)	Works like the Watch List window, but only displays symbols in which you have an open position.
	News (3)	The News window lets you query for news on a specific stock, list of stocks, or keyword. Or you can have it alert you to breaking news across the market.
=	Dynamic Ticker (3)	Opens the Dynamic Ticker window, which provides instant "signals" for a customizable list of stocks based on the activity of every Market Maker, ECN or Exchange. <i>Available to Level II subscribers only.</i>
10	Top Ten (2)	Opens the Top Ten window, which you can customize to show NASDAQ and/or NYSE stocks that are the biggest gainers or decliners, as well as the stocks with the highest volume. There is also an Options Top Ten window available from the <b>Tools</b> > <b>Start Tool</b> menu.
14	High/Low (4)	The High/Low window shows you stocks and indices that are approaching or have broken through a daily or 52 week high or low price.
<b>0</b>	Sectors Tool (5)	Opens the Sectors window, which displays basic values, such as price change and volume, for stocks organized by Sector, Industry, and Sub-industry.
<b>III</b>	Stock Screener List (10)	Opens a Stock Screener window in which you can run a stock screener query and get a customizable list of the results.
<u> </u>	Symbol Lookup (1)	Open the Symbol Lookup window to search for the company name of a symbol or vice versa.
<b>b</b>	Education Web Link (10)	Click on the Education Web Link icon in the toolbar to access Schwab and StreetSmart Pro's educational material including:
		<ul><li>Interactive Live Online Workshops</li><li>Archived Online Seminars</li></ul>

Toolbar Icons		
		<ul><li>Live Local Workshops</li><li>Option trading education series</li><li>Webcasts</li></ul>
<b>(</b>	Web Browser (10)	Opens an internet browser within your software.
2	Live Help (1)	The Live Help window allows you get live help from a Schwab Active Trader Representative. Though you may not place trades through this tool, you may ask questions about the software, check on shortable shares available for a particular stock, ask questions about your account, etc.  The Live Help button is on a separate toolbar from the main
		toolbar and can be toggled on and off from the <b>Toolbars</b> drop-down in the Main Menu.

**NOTE:** The Account Detail window cannot be accessed using the Main Toolbar. When you logon, the Account Detail window will populate with information from the primary account associated with your logon ID or Social Security number.

The Messages window is tied to the Account Detail window. To reopen this window, go to **View** > **Messages** in the Account Detail menu, or go to the software main menu and select **Tools** > **Find Active Tool** and select **Account Detail**.

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#### **Balances Bar**

The Balances Bar keeps important account data at your fingertips. You may customize the types of data shown based on the information that's most important to you.

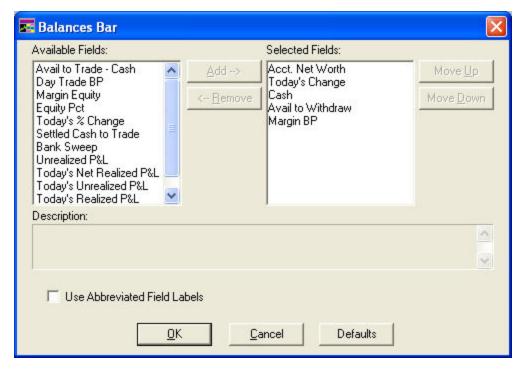
To enable, click **Toolbar > Balances Bar** in the main menu.

To customize, right-click in the Balances Bar and select *Customize*.



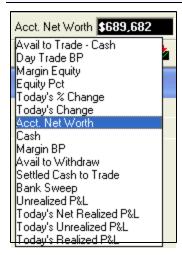
**TIP:** Hide individual stats in your Balances Bar by clicking on the name. **Today's Change** is hidden in the image below.

Select the statistics to display by clicking on **Toolbars > Customize > Balances Bar** in the main menu or by right-clicking on the Balances Bar and selecting **Customize...** The following settings window opens:



- Click on an item in the Available Column to view a description of it, then click **Add** to select the item for display in the Balances Bar.
- Change the order in which the fields are displayed in your Balances Bar by clicking on the field in the Selected Fields column and then click **Move Up** or **Move Down**.
- To minimize the screen space used by the labels, click *Use Abbreviated Field Labels*.

**TIP:** Change any of the fields on the fly by right-clicking on the name of the field and selecting a different one from the drop-down list.



# BALANCES BAR FIELDS Avail to The maximum amount of money in your account that you can use to

BALANCES BAR FIELDS		
Trade - Cash	trade without accessing margin borrowing.	
Day Trade BP	Total market value of new securities into which you may enter and subsequently exit without incurring a margin call.	
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 Pct	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.	
Today's % Change	Indicates the percent change in account value from the previous trading day's close. This includes your trading activity, as well as deposits and withdrawals.	
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.	
Acct. Net Worth	The 'liquidation value' of your account (excluding fees, commissions, pending interest credits and debits, etc.), which is the combined value of all your cash, money market funds, margin balances, securities and any miscellaneous debits/credits in your account.	
Cash	The total dollar value of your unswept or intra-day cash, money market funds, bank deposit accounts, and net credit or debit balances.	
Bank Sweep	Displays the cash balance of funds that have been moved into the Schwab-affiliated, FDIC-insured bank, as referenced in your account statements and disclosed in your account documents, into which free credit balances may be automatically deposited pursuant to your Account Agreement.	
Margin BP	The maximum value of marginable securities in which you can invest without depositing more equity in your margin account; this includes	

BALANCES BAR FIELDS		
	funds you can borrow from Schwab, but does not include balances in your Cash Account or Money Market Funds.	
Avail to Withdraw	The maximum amount you can withdraw from your account 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.	
Settled Cash to Trade	Trading in a Cash account requires using Settled funds. If a security is purchased using settled funds, there are no requirements surrounding the time frame of when the newly purchased securities can be sold. Settled funds are comprised of: incoming cash (such as a deposit or wire transfer), any available Margin Loan Value, or settled proceeds from the sale of securities that have been fully paid.	
Unrealized P&L	This figure is not a balance and represents the total profit or loss for all positions in the account. If P&L is not available for every position, an asterisk (*) will display. Updates to Unrealized P&L are streaming.	
Today's Net Realized P&L	For the current day, the sum of P&L realized from all closed or partially closed positions in the account, as compared to the cost basis for those positions. <b>Example:</b> 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 Net Realized P&L would reflect \$400 if this were the only position closed for the current day.	
Today's Unrealized P&L	The total of the Day Change \$ P&L for open positions.	

#### **BALANCES BAR FIELDS**

# Today's Realized P&L

The portion of Today's Net Realized P&L that was a result of today's price activity. Equivalent to the sum of the Day Change \$ P&L for each position closed, at the time each position was closed.

**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.

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#### **Chart Tool Bar**

The Chart Toolbar allows quick access to the most commonly used chart features.

To enable, click **Toolbars** > **Chart Toolbar** in the main menu.

• Most buttons clicked in the Chart Toolbar will affect the *most recently accessed* Chart window.

**EXAMPLE** You have 3 chart windows open, and you most recently clicked on Chart #2. When you click the Add/Edit Studies button, it will open for Chart #2. If you want the button you press to affect another chart, click that chart first and then click the button in the toolbar.

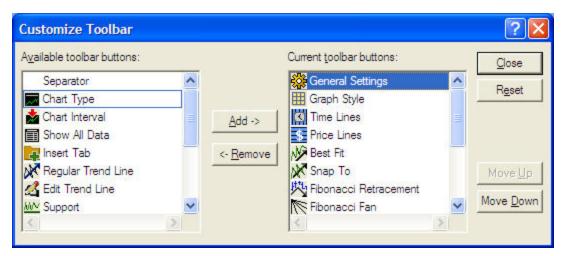
- The Regular, Snap to, and Best Fit trend lines are the exceptions and can be clicked in the toolbar and applied to any chart in your layout.
- Click anywhere in the main menu, and then hover your mouse over a button to see a
   Tool Tip that says what the button will do.
- All the buttons in the Chart Toolbar correspond to a feature also found in the menu of each Chart window.

#### **Customizing the Chart Toolbar**

Customize which icons are displayed on your chart toolbar. Select **Toolbars > Customize > Chart Tool Bar** from the main menu or right-click on the Chart Tool Bar and select **Customize...** The Chart Tool Bar customization window will open. You can then select which tools you want displayed on your toolbar.

 Use the Add/Remove buttons to move buttons between the Available and Current columns.

- Use the **Move Up/Move Down** buttons to put the buttons in the Current toolbar in the order you prefer.
- Click *Close* when you are finished customizing your Chart Toolbar.



# **Moving the Chart Toolbar**

The Chart Toolbar can be displayed vertically on the left/right hand side, or the top or bottom of the frame, or it can be removed to be a free-floating window.

- 1. Move your mouse pointer to the thin bar on the left side of the Chart Tool Bar.
- 2. Click on that bar and then drag the window to the location of your choosing.
- 3. Let go of the mouse button.

Not	Toolbar Features  Not all buttons are displayed by default. To add a button, click Toolbars > Customize > Chart Tool Bar in the main menu.		
*	Chart General Set- tings	Open the <u>General Settings</u> for the most recently accessed Chart window.	
<b></b>	Crosshairs	Select to change your cursor to display a crosshair when you click on the chart. The Crosshair pointer can help you pinpoint prices on a chart more easily than when using the regular cursor.  Select again to turn off Crosshairs.	
<b>~</b>	Chart Type	Choose Monthly, Weekly, Daily, Intraday, or Tick	
<b>å</b> •	Chart Interval	Choose from 5 to 120 minutes or select <b>Other</b> to open the Chart Settings window where you can enter a different interval.	

# **Toolbar Features**

Not all buttons are displayed by default. To add a button, click **Toolbars > Customize** > **Chart Tool Bar** in the main menu.

> C	> Chart Tool Bar in the main menu.		
		Only applies to Intraday chart types.	
	Add/Edit Studies	Click to open the Add/Edit Studies window, which lets you add technical analysis studies to your chart.  Go to Chart Studies for information on each available study.	
Ŋ <b>ĸ</b>	Regular Trend Line	Click to draw <u>Trend Lines</u> on the chart. The pointer will change to a pencil icon. Click and drag to draw the trend line.  Click the Trend Line button again to stop drawing trend lines (or select another button).	
<b>4</b> -	Edit Trend Lines	Click and select from the drop-down list which <u>Trend Line</u> you wish to edit. The button is only available when the most recently selected chart has trend lines drawn on it. The Edit Trend Line window lets you select the type of trend line (regular, Fibonacci, best fit (regression), etc.), as well as the color and label (name) for the line.	
<u>₩</u>	Support	Adds a horizontal <b>GREEN</b> line wherever you click on the chart to indicate the Support levels you want to identify in the chart you are viewing.	
₩v	Resistance	Adds a horizontal <b>RED</b> line wherever you click on the chart to indicate the Resistance levels you want to identify in the chart you are viewing.	
i i	Insert Tab	Click to add a new tab to the most recently accessed chart window.  You must have <a href="Tabbing">Tabbing</a> enabled for the chart in order to click the New Tab icon.	
<b>=</b>	Show All Data	If checked, shows chart for the time frame specified in the Range (days).  If unchecked, this will display what is indicated in the Data to show field. A scroll bar will appear at the bottom of the chart allowing you to move back and/or forth through Range (days) selected.	
≪	Edit Tick Data	Allows you to change bad chart price data, which may - 54 -	

# **Toolbar Features**

Not all buttons are displayed by default. To add a button, click **Toolbars > Customize** > **Chart Tool Bar** in the main menu.

<i>- Cl</i>	> Chart 1001 Bar in the main menu.			
		impact the technical studies enabled on the chart.  Click the Edit Tick Data button in the toolbar and then click the price point you need to edit on the chart. A window will open that allows you to change all four price points for that period (open, close, high, low).		
<b>X</b> -	Delete	Click the Delete icon to see a list of studies and trend lines in the most recently accessed chart so that you may delete one or more of them. You can also chose <b>Delete All Studies</b> to clear all studies from the chart.  Delete will not clear support and resistance lines. You must right-click on the line and select <b>Delete</b> to remove it.		
<b></b>	Graph Style	Switch between Bar, Candlestick, Line or Point & Figure chart types.  Read more about each of these graph styles in the Chart Menu Bar topic.		
Ø	Time Lines	Click to hide or show the vertical time lines on the chart.		
\$	Price Lines	Click to hide or show the horizontal price lines on the chart.		
NS.	Best Fit	Click the button and then click on the chart to apply a Best Fit Regression trend line to the chart.  Read more about Best Fit in the <u>Trend Lines</u> topic.		
<i>≫</i>	Snap To	Click the button and then click and drag a line on the chart to apply a trend line that "snaps to" the open, high, low, or close of the trend being studied.  To change which price the trend line snaps to (the default setting is Close), click the <i>Edit Trend Lines</i> button in the toolbar and choose the Snap To line you wish to edit.  Read more about Snap To in the <u>Trend Lines</u> topic.		
典,	Fibonacci Retrace- ment	Click the button and then click on the chart to draw a Fibonacci Retracement line.  Read more about Fibonacci lines in the <u>Trend Lines</u> topic.		
	Fibonacci Fan	Click the button and then click on the chart to draw a Fibonacci Fan line.  Read more about Fibonacci lines in the <u>Trend Lines</u> topic.		

#### **Toolbar Features**

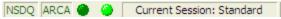
Not all buttons are displayed by default. To add a button, click **Toolbars > Customize** > **Chart Tool Bar** in the main menu.

<b>⋒</b> →	Fibonacci Arc	Click the button and then click on the chart to draw a Fibonacci Arc line.  Read more about Fibonacci lines in the <u>Trend Lines</u> topic.
	VAP	Click to show lines bars on the chart where the highest Volume Average Prices have occurred.
<b>\P</b>	Alert	Click to add a <u>Conditional Order or Alert</u> on the security in the most recently accessed Chart window.
	Load Template	Click to load a saved template into the current chart.
?	Help	Open the Online Help directly to information on using Charts in StreetSmart Pro.

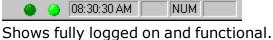
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#### Status Bar

The Status Bar displays at the bottom of your window and indicates server and routing venue status, trading session, and whether you have Caps Lock and Num Lock enabled.



The two lights indicate the flow of data to your computer from the servers. The first one indicates the status of your connection to the Account Server and the second indicates status of the chart, Level II, and other data. They will turn red if you lose your connection to either the data servers or the account servers.



Shows logged off with no data coming in.

If your account is enabled for Direct Access, you can edit the amount of information displayed in the Status Bar by clicking **Toolbars** > **Customize** > **Status Bar** in the main menu. The following window will open:



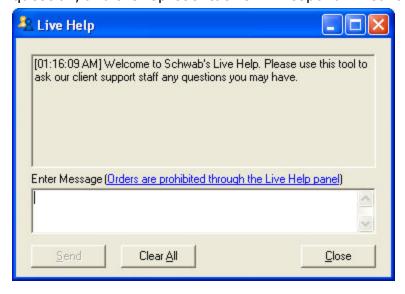
Check the routing venues you wish to monitor in the Status Bar at the bottom of your window. If the route is available, it will display in green; if unavailable, red.

You may also indicate whether the Caps Lock and/or Number Lock should be permanently enabled or disabled in the software by checking/unchecking those options.

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# **Live Help**

The Live Help window allows you to communicate directly with a Schwab Active Trader 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.



#### **Sending Messages:**

- 1. In the Main Menu, click Help > Live Help or click the 🙍 icon in the toolbar
- 2. Type in the message under **Enter Message**
- 3. Click **Send**
- 4. To clear previous messages, click Clear.
- 5. Click **Exit** 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.

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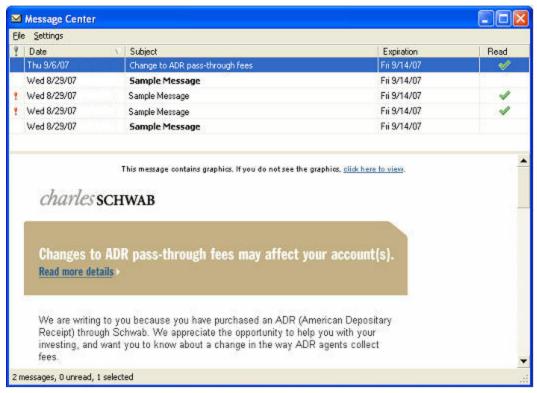
# Message Center

The new Message Center is accessed from the Account Toolbar:



It allows Schwab to impart important, but not urgent, information to your desktop immediately. These notifications may include regulatory or service changes, as well as product updates that may be available for download.

- Click the **Message Center** button to open the panel where you can read new and old messages, as well as delete messages you no longer need to retain.
- When you have new mail, the  $_{\mbox{\scriptsize \sc icon}}$  icon will flash on the Message Center button.



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# **Trading**

# **Trading Overview**

## **About the Trading Window**

The Trading Window is the hub of the software, where you can place trades and get Level I and II quotes.

In the **Settings** menu of the Trading Window, you can set up Hot Keys for rapid-fire trading, as well as general data display settings and much more.

You can have up to 20 Trading Windows open at once allowing you to follow several symbols at one time.

The Trading Window features four tabs: Stocks, Options, Level II Options, and Advanced Options.

#### The Stocks Tab:

The Stocks Tab has 3 segments:



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.

**NOTE:** Level II 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.

#### **The Options Tab:**

The Options Tab allows you to view options chains and, if approved for options trading, place options trades.



#### The Level II Options Tab:

You will need to turn on the Level II Options tab by clicking **Settings** > **General** > **L2 Data** and checking the **Show L2 Option Data** selection. The Level II Options Tab has 4 segments:



#### **The Advanced Options Tab:**

The Advanced Options tab allows approved traders to place multi-leg option orders, including buy/writes, rollouts, collars, straddles, as well as vertical spreads, calendar spreads, and 2:1 ratio spreads. The available tabs depend on your individual level of options approval.



Commissions, taxes, and transaction costs are not included in any of the following strategy discussions, but can affect final outcome and should be considered. Please contact a tax advisor to discuss the tax implications of these strategies. All strategies described herein require the use of a margin account. 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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#### **Placing Stock Trades**

Place stock trades and get Level I and II data in the Stocks tab of the <u>Trading Window</u>.

Enter a symbol, select the variables for the order such as Quantity, Limit/Stop prices, and more. Then click the button for the action you wish to take (Buy, Sell, etc.) to send the order.

You may route an order from the Trading Window using the following steps. For more detailed information about each feature of the Order Entry panel, go to the <u>Stock Tab Features</u> topic.



- 1. Enter the symbol in the symbol field and press *Enter* on the keyboard
- 2. Change the quantity using the arrow buttons  $\rightleftharpoons$  or the following keyboard keys:
  - *Up/Down* keys to increase or decrease in increments of 500
  - Left/Right keys to increase or decrease in increments of 100
  - **Shift** + **Up/Down** keys to increase or decrease by 10
  - **Shift + Left/Right** keys to increase or decrease by 1
  - Or click in the quantity field and type the number of shares or contracts.

**TIP:** You can also click the \$ button and enter a dollar value to see how many shares you could trade for that amount.

- 3. Choose whether to place a *Limit*, *Market*, or *Trailing Stop* Order Type.
- 4. If placing a *Limit* order type, click on a price level in the Level II area of the Trading window to set the price.
- 5. If placing a **Stop**, **Stop Limit**, or **Trailing Stop** order, enter the stop or trailing stop value.

- 6. If necessary, change the **Price** using the arrow buttons or click in the Price field and use the following keyboard commands:
  - *Up/Down* keys to increase or decrease by .05
  - Left/Right keys to increase or decrease by .01
  - **Shift** + **Up/Down** keys to increase or decrease by .005
- 7. Choose the Order Route and Time in Force you wish to use from the drop-down lists, if not already done.
- 8. Click **Buy**, **Sell**, **Short**, or **Save** from the Action Buttons. If **HTB** displays at the top of the Trading window, this is the "Hard to Borrow" indicator. Stocks with this indicator may be difficult to borrow for shorting purposes. If the stock you wish to short has this symbol, consider that it may be difficult to fill your order. Further, if **RCB** (Regulatory Circuit Breaker) is indicated at the top of the Trading window, the Reg SHO regulatory circuit breaker is in force and short sale orders will be accepted, however the exchange will only allow them to fill if the price is above the bid price. For more information see RCB.
- 9. If **Order Verification** is enabled in the Trading window **Settings** > **General** window, you will be asked to verify the details of your order before it is sent.

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#### Stock Tab Features



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.

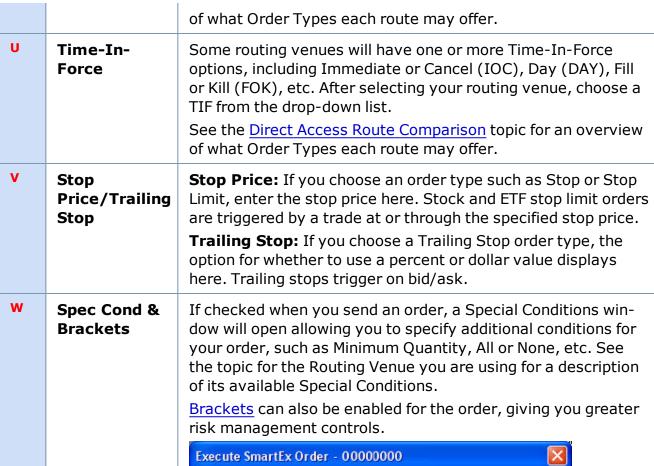
A	Company Name/ Mar- ket	Shows the company name and the market on which the stock trades.
		A letter after the security name is the Financial Status Indicator (FSI).
		FSI Codes
		<b>D</b> Deficient: Failed to meet NASDAQ continued listing requirements
		<b>E</b> Delinquent: Missed regulatory filing deadline
		<b>Q</b> Bankrupt: Issuer has filed for bankruptcy
		<b>N</b> Normal (Default): Not currently deficient, delinquent, or bankruptWill not be displayed
		<b>G</b> Deficient and Bankrupt
		<b>H</b> Deficient and Delinquent
		<b>J</b> Delinquent and Bankrupt
		<b>K</b> Deficient, Delinquent, and Bankrupt
		<b>TIP:</b> To view the current quote for an index, Level 1 needs to be enabled. Enable Level 1 in the Trading Window menu by clicking <b>Settings</b> > <b>General</b> > <b>L2 Data</b> tab and then checking <b>Level 1</b> .
Leve	Level I Data	
С	Symbol	To enter a new symbol, click in the field, type the new symbol, and press <i>Enter</i> on your keyboard.

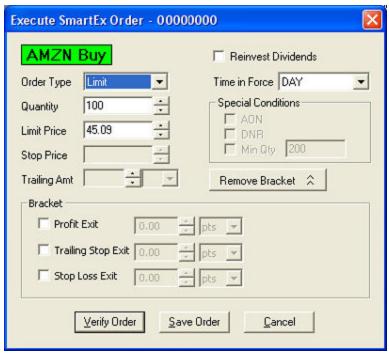
Leve	Level 1 Data		
С	Symbol	To enter a new symbol, click in the field, type the new symbol, and press <i>Enter</i> on your keyboard.  Click on the down arrow to show recently loaded symbols.  Select a symbol from this list for rapid reloading.	
D	Change (\$)	Shows the change in price from close.  This can be changed to reflect the change from the opening price by checking <i>Calculate Change from Open</i> in the <i>Settings</i> > <i>General</i> menu of the Trading window.	
E	Change (%)	Shows the percent change from close.  This can be changed to reflect the change from the opening price by checking <i>Calculate Change from Open</i> in the <i>Settings</i> > <i>General</i> menu of the Trading window.	
F	Put/Call	Shows the Put/Call ratio for Open Interest in the stock or index. You may choose to show the Volume Put/Call ratio	

		instead by going to <b>Settings</b> > <b>General</b> > <b>L1 Data</b> .  Put/Call Ratio shows the number of puts divided by the number of calls based on open interest or daily trading volume 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 and a low ratio is often interpreted as a bearish indicator.  Open Interest updates once a day early in the morning, where as Volume updates every 15 seconds during market hours only. For both Open Interest and Volume, Schwab calculates the values using all option contracts currently trading for the underlying security/index/ETF.	
G	Last	Shows the last price at which the stock traded. Red indicates the price was down from the previous sale, and green means the price was up from the previous sale.	
н	Tick Direction	Shows whether the stock is on a downtick or uptick.	
I	Open	Shows the price at which the stock opened today.	
J	Hi	Shows the highest price the stock has reached today.	
К	Ratio	Shows the number of participants posting at the inside bid price "x" the number of participants posting at the inside ask price.  This can be set to show instead the number of shares available at the inside bid and ask by checking <i>Compute Ratio by Quantities</i> in the <i>Settings</i> > <i>General</i> menu of the Trading window.	
L	Volume	Shows cumulative volume for the day.	
М	Close	Shows yesterday's close price.	
N	Lo	Shows the lowest price the stock has reached today.	
0	Spread	Spread shows the difference between the inside bid and ask prices.	
Orde	Order Entry		
P	Order Quant- ity	<ul> <li>There are several ways to change the order quantity.</li> <li>Press the <i>Up/Down</i> arrow keys to increase or decrease in increments of 500.</li> <li>Press the <i>Left/Right</i> arrow keys to increase or decrease in increments of 100.</li> </ul>	

		<ul> <li>Press the <i>Shift + Up/Down</i> keys on the keyboard to increase or decrease in increments of 10.</li> <li>Press the <i>Shift + Left/Right</i> keys on the keyboard to increase or decrease in increments of 1.</li> <li>In the Quantity field and type in a new share or contract size.</li> <li>Tab to or click in the quantity field and press a number on the keypad to enter that quantity times 100 (for instance, pressing <i>5</i> on your keypad will enter 500).</li> <li>You can manually enter a fractional share quantity when using the <u>SmartEx</u> routing venue to sell a position with a fractional quantity. When entering a position, the quantity must be a whole number with a fraction. Stand-alone fraction quantities are not allowed. When closing a position, the fractional part of the quantity must match the position held.</li> </ul>
Q	\$ (Compute Shares from Quantity)	Calculates the number of shares for your order from the dollar amount you enter.  For instance, if you have \$10,000 to spend on a stock that is trading at \$5 on the inside ask, you would click the \$ button, type "10000", click <b>OK</b> and the share size field will fill in with <b>2000</b> . <b>NOTE:</b> Commissions are not included in this calculation.
R	Venue	<ul> <li>Enter the limit price you want</li> <li>Routes 24/7 to Schwab for submission in current/next Standard session.</li> <li>Pre-Market</li> <li>Can be sent to Schwab from 8:05 p.m. to 9:15 a.m. EST for trading session beginning at 7:30 a.m. ET.</li> <li>Cannot be sent to Schwab from 9:15 a.m. to 8:05 p.m. EST and menu selection will be grayed-out.</li> <li>After Hours</li> <li>Can be sent from 4:05 p.m. to 8:00 p.m. ET for trading session beginning at 4:15 p.m. ET.</li> <li>Cannot be sent from 8:00 p.m. to 4:05 p.m. ET and menu selection will be grayed-out.</li> </ul>

		Direct Access:
		Double-click on the participant in Level II that you wish to send your order to and it will fill in this field with either the <a href="ECN">ECN</a> , or if a Market Maker, <a href="NSDQ">NSDQ</a> . Or click the arrow to see a drop-down list of all routing choices available to you.  If you have a stock loaded that is on a listed exchange, you will see the Listed Order routing options.  See the individual Order Route topics for information on how each routing venue works.
		<b>NOTE:</b> The default venue that loads for a security is the last venue used to trade a security on that same exchange. For instance, if you pull up a NASDAQ listed security, the venue loaded would be the last venue previously loaded for a NASDAQ security.
		OTCBB and NASDAQ will load the same venue unless it is not available. So if for example you have NASDAQ using NSDQ and switch over to an OTCBB symbol, because NSDQ is not supported for OTCBB, the venue loaded will be <a href="SmartEx">SmartEx</a> . However, if you go back to a NASDAQ security it will load NSDQ.
S	Limit Price	This is where you should enter the price at which you wish to place an order if you have selected a Limit order type. There are multiple methods for entering or adjusting your price.
		<ul> <li>Click on the arrows next to the price field to scroll the price up and down. To adjust the increments by which the arrows increase or decrease go to <b>Settings</b> &gt; <b>Gen-</b> <b>eral</b>, then change the <b>Price Increment</b>.</li> </ul>
		<ul> <li>Click or tab to the price window and use the:</li> </ul>
		<ul> <li>Up/Down arrow keys on your keyboard to increase or decrease the price by .05</li> </ul>
		<ul> <li>Left/Right arrow keys on your keyboard to increase or decrease the price by .01</li> </ul>
		<ul> <li>Shift + Up/Down arrow keys on your keyboard to increase or decrease the price by .005</li> </ul>
		You may also click on a price in Level II to load it into the price field. Double-click an ECN to route directly to that ECN at their posted price.
Т	Order Type	Some order routes will have multiple order types, such as Limit, Market, Stop Limit, etc. After selecting your routing venue, choose an Order Type from the drop-down list.
		See the <u>Direct Access Route Comparison</u> topic for an overview





**NOTE:** If you do not change your order type to Market or use the Spec Cond & Brackets checkbox, StreetSmart Pro will automatically make your order type a Day Limit order.

X	Close All	If you are selling a long position, you can check the <b>Close All</b> checkbox to sell the entire position, including fractional shares. Read the <u>Close All Checkbox</u> topic for more information.
Y	Action But-	Once the order fields are set up to reflect the type of order.

# Y Action But-

Once the order fields are set up to reflect the type of order, price and share size, click on the **Buy**, **Sell**, or **Short** button to route the order. The **Cancel** button will attempt to cancel the most recent pending order for the stock. Click on **Cancel All** to cancel all pending orders. If there are no shortable shares, the **Sell** button will be grayed out. The **Save** button appears when any SmartEx order route is selected, allowing you to save the order to the saved order window.

## Hard-to-Borrow (HTB) Indicator

Stocks that may be difficult to borrow for shorting purposes will have a "Hard to Borrow" indicator next to the tabs at the top of the Trading Window as shown below. 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.

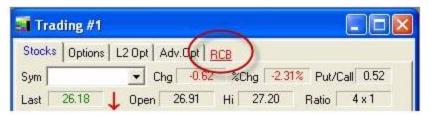


# Regulatory Circuit Breaker (RCB) Indicator

The Securities and Exchange Commission (SEC) has adopted amendments to Regulation SHO (Reg SHO). Under Rule 201, the SEC has established a short sale-related circuit breaker that, if triggered, will impose a restriction on when and/or at what price a security may be sold short.

The short sale-related circuit breaker will be triggered for a security when its price declines by 10% or more from the prior day's closing value within normal market hours. The regulatory circuit breaker will then remain in effect for the remainder of the day, and at a minimum, throughout the next day's trading session. The circuit breaker will be triggered during the regular session only. Once triggered, the price test will apply at all times when the national best bid is disseminated through the end of the next trading day.

Stocks that have triggered the short sell circuit breaker rule will be annotated with a "RCB" indicator in the Trading Window.



When the regulatory circuit breaker rule is in force, short sale orders will continue to be accepted. However, marketable limit orders and market orders to sell short may be delayed and executed at a significantly lower price than the bid at the time the order was placed.

#### Level II Aggregate

# Z Aggregate Quotes

- Aggregate quotes show the number of shares being quoted at each price level.
- You can view/hide the aggregation by checking *Display* Aggregate Quotes in the Trading window menu Settings
   L2 Data > Display Settings.
- Increase or decrease the number of aggregate levels shown by clicking on the divider bar between the aggregate and regular Level II area and dragging it up or down.

#### Level II

#### a Level II

Shows the depth of all bids and offers in a stock. Each line shows the four-letter Market Maker, ECN ID, or listed stock Exchange, the price at which they are bidding or offering, and the number of shares they are making available at that price.

**NOTE:** Level II 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.

Note that NASDAQ quotes and Level II ECN quotes are in upper-case and ECN book quotes (when the book is turned on) are in lower-case. Other non-NASDAQ quotes are noted with an asterisk (\*).

# **Level II Tips**

Check Show Equity Quote Volume in 100s in the Settings > General > L2 Data window of your Trading window to display available shares at 1/100th of their real value (e.g. 10 means the participant has 1000 shares available). If there are parentheses () around the number, it is

for fewer than 100 shares and is the "actual" number of shares they are making available (For example: If you see (75), the participant has exactly 75 shares to buy or sell.)

- If you have *Directional Quote Change Arrow* checked in your Trading window settings, you may see some small up and down arrows in the Level II area of the Trading window. What these arrows indicate is the direction that market participant just moved in relation to the inside price. For instance, if Market Maker GSCO is on the bid at 65.25 but backs off to 65.125, a down arrow will appear at the new price level. If GSCO moves back up to 65.25, an up arrow will appear. Similarly, if GSCO is on the ask at 65.25 and moves up to 65.35, an up arrow will appear.
- You can also view the Status of the bids and offers. Check Show Status of Bid/Ask in the Trading window Set-tings > General window to display:

**O** = open, meaning this is a current, valid quote for the participant;

**L** = open for trading, but the quote has not been refreshed;

 $\mathbf{K}$  = closed for trading.

#### **Time & Sales**

#### b 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

White/Gray: Prints in between the inside Bid/Ask

Yellow: Prints above the inside Ask
Purple: Prints below the inside Bid
Grey Highlight: Inside quote change

**TIP:** Set the number of trades back to view through the **Settings** > **General** menu. To expand this view up to the last 1000 trades, right-click in the T&S window and select **Request Expanded T&S**.

**TIP:** You can save screen space in the Trading window by hiding the Order Entry portion of the Stocks Tab. This is especially useful if you keep multiple Trading windows open and only use one to place trades. Right-click in the Trading window and select **Hide Order Entry Detail** to show only Level I data in the top of the Stocks Tab.

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### **Getting Quotes in the Trading Window**

There are several ways to load a symbol into the Trading window:

- Enter the symbol of the security in the Symbol box and press *Enter*.
- Click on the arrow in the **Symbol** field to show recently entered stocks, then click on the one you want to load into the Symbol box for a quote.



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- Right-click on the symbol from most any window and click **Load [Symbol] into the Trading window**.
- Double-click on the symbol in the Watch List.
- To view the current quote for an index, Level 1 needs to be enabled. Enable Level 1 in the
  Trading Window menu by clicking Settings > General > L2 Data tab and then checking
  Level 1.

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### Symbol Lookup

Use this tool  $\Delta$  to look up the name or symbol of a company. For example, 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 main menu, click **Tools** > **Symbol Lookup** or click the icon  $\Delta$  in the toolbar.

Enter the name or as much partial information as you have and click *Enter*. You may also check the Symbol option and simply enter a ticker symbol to get a company name. This can be done for either *Stock* or *Index*.

- The closest matches to what you entered will appear at the top of the list.
- You can load the data directly into the Quotes Window by right-clicking the symbol and selecting Load [symbol] into Trading Window.
- Clicking on Name and Index will give you a list of all indices.

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### **Level II Quotes and Time & Sales**

The lower portion of the Stock Tab displays Level II information (as shown in the following figure):



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**NOTE:** Level II 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.

- The left column shows the Market Maker, Exchange and ECN best Bid quotes with the number of shares available at a particular bid.
- The middle column shows the Market Maker, Exchange and ECN best Ask quotes with number of shares available at a particular ask.

- The right column (Time and Sales) shows the most recently reported trades, the quantities of shares traded, and the time.
- The top line of both the Bid and Ask can display the Level I quotes if you go to Settings >
  General > L2 Data tab and check the Level 1 box.
- For Level II users, each line shows the Market Maker or ECN ID with their Bid/Ask price.
- For Listed equities each line shows the Exchange with its Bid/Ask price and the number of actual shares available on the specialist order book or ECN book.

### Aggregate Quotes

- 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.
- You can view/hide the aggregation by checking Display Aggregate Quotes in the Trading window menu Settings > L2 Data > Display Settings.
- Increase or decrease the number of aggregate levels shown by clicking and dragging the divider bar between the aggregate and Level II areas.

### Level II

Shows the depth of all bids and asks in a symbol. The left column shows the Bids; the middle column displays the Asks. Each line shows:

- The four-letter Market Maker, ECN, or Exchange ID,
- Their best Bid or Ask price (while this is their best price, it may not reflect their entire book),
- The Market Maker will always be displayed in capital letters, while the ECNs will only display in capital letters if only their best Bid/Ask quote is displayed. Other non-NASDAQ quotes are noted with an asterisk (\*).
- To change the display, go to Settings > General > L2 Data and click all available ECN books or exchanges.

**NOTE:** The availability of book quotes from some ECNs is sporadic. If checked, the software will display these quotes when available.

- Number of shares they are making available at that price.
- Shares available are shown in actual amounts.

### **Level II Tips**

Check Show Equity Quote Volume in 100s in the Settings >
General > L2 Data window of your Trading window to display
available shares at 1/100th of their real value (e.g. 10 means the
participant has 1000 shares available). If there are parentheses (
) around the number, it is for fewer than 100 shares and is the

"actual" number of shares they are making available (For example: If you see (75), the participant has exactly 75 shares to buy or sell.)

 Direction Quote Change Arrow: Activates small up / down arrows in the Level II area of the Trading window indicating the direction a market participant just moved in relation to the inside price.

**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.

To add this to your display, go to **Settings General > L2 Data** tab and click **Show Directional Quote Change Arrow**.

 Show Status of Bid/Ask: You can view the Status of the bids and offers. Check Show Status of Bid/Ask in the Trading window Settings > General window to display:

**O** = open, displays a current, valid quote for the participant;

**L** = open for trading, but the quote has not been refreshed;

 $\mathbf{K}$  = closed for trading.

## Time & Sales

Shows every trade being reported through NASDAQ and NYSE plus some ECN book trades, as well as the share size and time the trade was reported.

Time & Sales is color-coded. These colors may be changed by going to **Settings** > **Colors** in the Trading window menu.

The default colors are::

• **Green:** Trades at the inside Ask

Red: Trades at the inside Bid

• White/Gray: Trades in between the inside Bid/Ask

Yellow: Trades above the inside Ask

• Purple: Trades below the inside Bid

• Grey Highlight: Inside quote change. Not a transaction.

Set the number of trades back to view through the **Settings > General** menu. To expand this view up to the last 1000 trades, right-click in the T&S window and select **Request Expanded T&S**.

### Viewing More Level II Quotes

To view more quotes, right-click in the Bids, Asks, or Time & Sales area of Level II and select **Show Scroll Bar**. This will allow you to scroll down and see the quotes that do not fit in the screen.

### **View Entire ECN Books**

Go to **Settings** > **General** > **L2 Data tab** and check those boxes under **Display Bid/Ask Quotes**. When the entire book is displayed, the ECN ID and quote data will appear in red lower case text.

### **Exchange Codes**

BSE - Boston Stock Exchange

CIN - Cincinnati Stock Exchange

CSE - Chicago Stock Exchange

C2 - C2 Options Exchange

NAS - 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)

WCB - Chicago Board Options Exchange

BATS -BATS Exchange

BATY - BATY Exchange

EDGA - EDGA Exchange

EDGX - EDGX Exchange

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### **About the Action Buttons**

- Once the Order Entry fields are set up to reflect the attributes you want, choose your action: **Sell**, **Short**, **Buy** or **Save**.
- If the Spec Cond & Brackets box has been checked, when you click on an Action button, an additional Order Entry window will pop-up allowing you to specify further details about your order.
- If the **Spec Cond & Brackets** box has not been checked, when you click on an Action button the order verification window will display unless you have elected to turn it off. See the <u>Order Verification</u> topic for more information.
- **Cancel** will attempt to cancel the most recent open order for the stock loaded in the Trading Window. **Cancel All** will attempt to cancel all open orders for the account.
- The **Save** button is actionable only when SmartEx, Schwab Pre Market or Schwab After Hours is selected in the order route drop-down. This feature allows you to save the order to the Saved Order tab for later submission.
- If the account is restricted to liquidations only, the action buttons will be grayed-out.

• To liquidate equities and options in a restricted account, go to the Account Detail **Positions** tab and select **Close** from either the right-click or the Positions drop-down menu.

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### **Order Routing with Hot Keys**

With Hot Keys, you can assign the key combinations to order routing venues, including order routing attributes such as price, delta, type, and quantity. Once defined, use the key combination to quickly submit your order.

Set up by going to **Settings** > **Hot Keys** > **Orders** in the Trading Window menu.

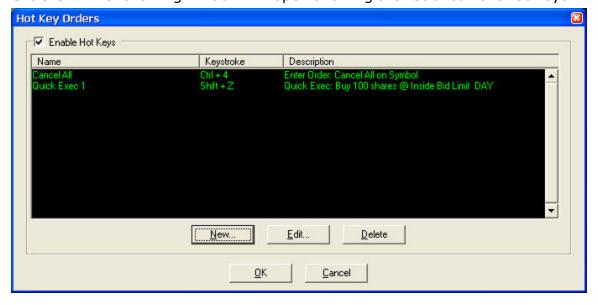
StreetSmart Pro® software allows you to create a fully customized Hot Key order entry system. By assigning order routing attributes such as price, delta, type, venue, and quantity to specific keystrokes, you can minimize the amount of time spent setting up an order for the stock currently loaded in your Trading window and get your bid or offer to the market in a flash.

### **Using Hot Keys to Place Orders**

To use a Hot Key, make sure the stock that is loaded is the one you want to place an order for. Then press your Hot Key keystroke and, depending on the Action Type you selected, it will place an order, open the pop-up execution window, or load your order parameters in the Trading window fields.

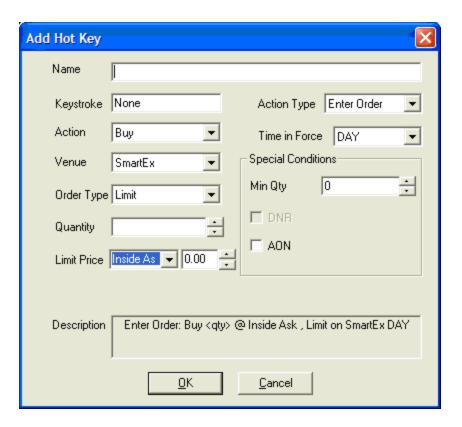
\*Hot keys will not work from the Web Browser/Online Help window.

Access the Hot Key Orders tool from the Trading window menu: **Settings > Hot Keys > Orders...** The following window will open showing the list of current hot keys:



### To set up a **new** Hot Key:

1. Click **New...** The window to the right will open allowing you to fill in the order routing details.

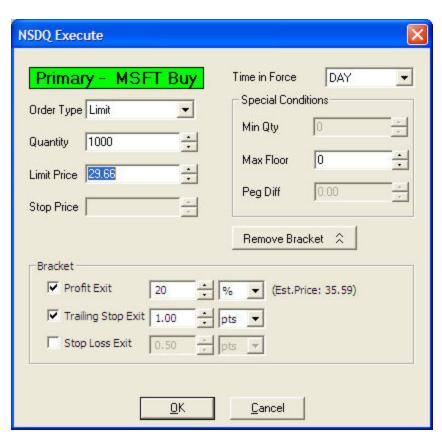


- 2. Enter a **Name** for the hot key.
- 3. Click in or tab to the **Keystroke** field and press the keystroke you wish to use for the hot key.

**TIP:** Consider avoiding common hot key functions such as *Ctrl+C* or *Ctrl+S* (common Copy and Save shortcuts in many software programs) so that you do not accidentally place an order.

- 4. Select the **Action**:
  - Buy
  - Sell
  - Short
  - Close: Closes an open position
  - Cancel All on Symbol: Cancels all pending orders for the symbol in the Trading window
  - Cancel All: Cancels ALL pending equity orders
  - Cancel Oldest: Cancel oldest pending order the symbol in the Trading window
  - Cancel Most Recent: Cancels most recent pending order for the symbol in the Trading window

- 5. Select the **Venue**. If the venue has any special conditions or Time in Force settings, those will display in the **Special Conditions** panel and **Time in Force** field. Refer to the help topic for the individual venue for information about these choices.
- 6. Select the **Order Type**. The available order types are determined by the Venue selected. Refer to the help topic for the individual venue for information about order types.
- 7. Select a **Quantity** for the order. Use the up/down arrows or type in a value or leave it blank.
- 8. Select *Inside Bid* or *Inside Ask* for the **Price**, or leave it blank. If you want to send the order a fraction above or below the inside, enter that value in the **Price Delta** field to the right of the limit price box.
- 9. The **Action Type** allows you to select what happens when you press the hot key.
  - **Enter Order** will send an order for the stock currently loaded in the Trading window. Enter Order will use the Quantity in the Trading window quantity field if you do not specify a quantity when you set up the Hot Key. **NOTE:** You must fill in all fields except Quantity when selecting this Action Type.
  - **Pop-up Exec. Dialog** will open a pop-up window (shown below) with all the variables filled in that you specified in the Hot Key set-up. This will allow you to make adjustments or fill in blanks before sending the order. **NOTE:** You must fill in the Key Stroke, Action, Venue, Time in Force, and Special Conditions (if desired) fields when selecting this Action Type.

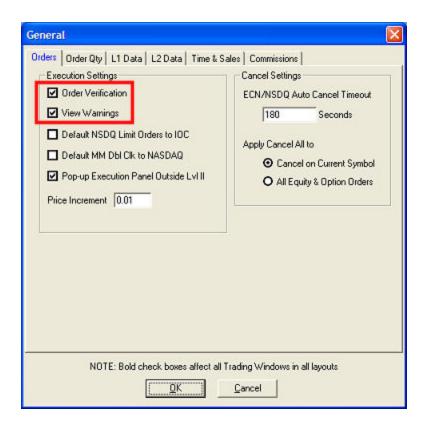


- **Load Order Parameters** will populate the Trading window with the order parameters you specify in the Hot Key. **NOTE:** You must fill in the Key Stroke, Venue, and TIF fields when selecting this Action Type.
- 10. Finally, check the description field to make sure the order is going to do what you want and click **OK** to save the Hot Key setting.

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### Order Verification

StreetSmart Pro® software provides you with Order Verification and Warning & Informational Messages related to your order. These two settings are found in the Trading window menu under **Settings** > **General** and the default settings are checked to activate these important features.

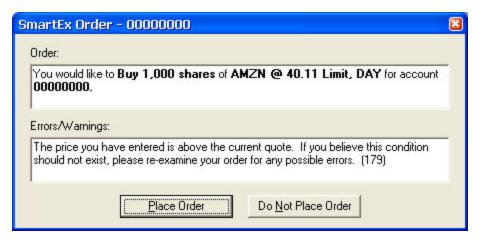


**NOTE:** The **Settings** > **General** window includes additional features for Direct Access and other display settings. See <u>Configuring the System</u> for information about updates to the General Settings dialog box.

Order Verification applies to all orders regardless of whether you route your order to SmartEx or one of the Direct Access destinations. After you click one of the action buttons (when routing an order using a Direct Access channel), a pop-up window automatically displays your

order so you can verify its accuracy before submitting it. The Order Verification window gives you:

- Details of your order and estimated cost if you have set this up (See Settings > General > Commissions)
- Warning and informational messages
- Error messages related to the order



You have the option of deactivating these settings in the **Settings** > **General** window. You can:

- Turn off both *Order Verification* and *Warnings*, or
- Keep Order Verification on and turn off only Warnings.

However, it is important that you understand the risks involved in deactivating either of these 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 as described in the StreetSmart Pro Agreement and Disclosures.

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### **Order Warning Messages**

The Order Warnings feature of StreetSmart Pro® automatically opens a pop-up window with warnings and important information about your order to review before you submit it. The default setting is checked to activate this feature. Here are some samples of the warnings and messages that may be generated.

Warning Messages include:	Triggered by:
You have an open order for this security.	Duplicate order
The security you are buying is not marginable.	Security cannot be bought on margin or sold short
Please Note: The margin requirement for (your symbol) is XX%.	Maintenance margin of the security is something other than the standard 30%.
The price you have entered is below the last available quote. If you believe this condition should not exist, please re-examine your order for any possible errors.	Limit price is away from cur- rent price
The price you have entered is above the last available quote. If you believe this condition should not exist, please re-examine your order for any possible errors.	Limit price is away from cur- rent price
The order you have requested "Buy at a Limit of \$LIMIT_PRICE" is significantly above this security's closing price. If you believe this condition should not exist, please re-examine your order for any possible errors.	<ul><li>Limit price is away from current price</li><li>Extended hours session</li></ul>
The order you have requested "Sell or Sell Short at a Limit of \$LIMIT_PRICE" is significantly below this security's closing price. If you believe this condition should not exist, please re-examine your order for any possible errors.	<ul><li>Limit price is away from current price</li><li>Extended hours session</li></ul>
Please note: A special maintenance requirement of 100% is required for this purchase because	Stock prices below \$3.00 require 100% maintenance

Warning Messages include:	Triggered by:
the price per share of (your symbol) is below \$3.00.	
Please note: You are placing a cash secured put. Your available cash will be reduced by the assignment value of the put.	Entering into an equity put position in a Level 1 IRA or Cash account creates a CSEP position.

**IMPORTANT:** If you turn off *Warnings* (Trading window *Settings* > *General* > *Orders*), your orders are automatically submitted without displaying Warning & Informational Messages related to your orders. By unchecking this feature, you accept the associated risks of trading without Order Verification as described in the software Agreement and Disclosures.

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### **Changing or Canceling Orders**

### **Changing Stock Orders**

To change a SmartEx order, go to the Account Detail window, Order Status tab and either right-click on the open order then select **Change** or click once on the order to highlight it, then click **Orders > Change**. A pop-up box will appear prompting you to modify your order.

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

Direct Access orders can never be changed.

### **Changing Multi-Leg Option Orders**

Changing **2-legged option orders** is similar to changing any other kind of order and takes place from the Order Status tab of the Account Details window. You can change the quantities, limit price (if applicable), special conditions, etc. Any fields unavailable to change are grayed out.

For **3- or 4-legged option orders**, you cannot change the order via StreetSmart Pro; instead, you must cancel and resubmit the entire order. While StreetSmart Pro only allows for the cancellation of existing 3- or 4-legged option orders, the replacement 3- or 4-legged option order can be entered electronically using Schwab's StreetSmart Edge® or StreetSmart Edge® in the Cloud.

The most significant difference is the Order Types available when changing a multi-leg order. You can choose between *Limit Debit* and *Limit Credit*, as well as *Even* (neither debit nor credit), and of course, *Market*.

Click **Verify Order** to confirm and submit the changed order.

### **Canceling Orders**

You can request to cancel open orders via the Order Status Tab. All Open orders have a green box in the left-most column, and you can either click on the order and press *Ctrl+C* or right-click on the order and select *Cancel*.

Because of the speed of execution and the short life span of market and marketable limit orders, canceling these orders may not always be possible.

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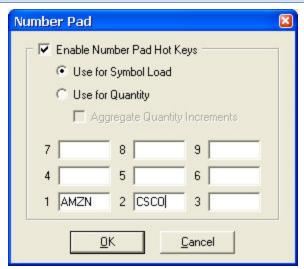
### **Trading Window Menu**

The menu bar is accessible by right-clicking in the Trading window and selecting **Show Menu Bar**.

FILE	
Close	Will close the Trading window. To reopen, click the Trading window icon in the Main Tool Bar or go to <b>Tools</b> > <b>Start Tool</b> and change the number of Trading Windows.

SETTINGS	
General	Allows you to change general settings for Orders, Level I and II data, and Time & Sales. Refer to the <u>Trading Window Settings</u> topic for details about this important feature.
Hot Keys > Orders	Hot Key Orders allow you to create a fully customized Hot Key order entry system. By assigning order entry attributes such as price, delta, type, venue, and quantity to specific keystrokes, you can minimize the amount of time spent setting up an order for the stock currently loaded in your Trading window and get your bid or offer to the market in a flash.  For more information, visit the Order Routing with Hot Keys topic.
Hot Keys > Number Pad	Number Pad allows you to assign either Symbols or Quantities to the keys on your keyboard number pad.

### **SETTINGS**



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.

- 1. Check Enable Number Pad Hot Keys
- 2. Decide whether to use the number pad keys for Symbols or Quantities.
- If you select *Use for Symbol Load*, enter the full stock symbol in the fields at the bottom of the window. EXAMPLE If you enter WXYZ in the 7 field, when you are in the Trading window and press 7 in your number pad, WXYZ will load in the Trading window.
- 4. If you select **Use for Quantity**, you can set up different quantities depending on whether you're in the **Stock** or **Options** tab. Select the type of security from the drop-down list and enter the quantity you wish to assign to each key in the fields at the bottom of the window.
- 5. Another alternative when using the number pad keys for quantities is to **Aggregate Quantity Increments**.

**EXAMPLE** If you have Number Pad Key **1** set to **100** and Number Pad Key **2** set to **500**, you could set the share size to **700** by pressing **1** and then **2**.

- To reduce by the quantity assigned, press *Ctrl* + the Number Pad Key assignment by which you wish to reduce your quantity.
- Press the divide symbol (/) on the number pad to set the quantity back to zero.

SETTINGS	
	6. Click <b>OK</b> to save your changes.
Hot Keys >	Symbol Aliases can be used to assign letters (or a combination of
	- 87 -

### **SETTINGS**

## Symbol Aliases

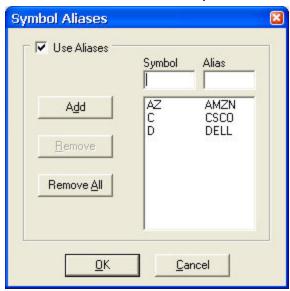
letters) to certain stocks to load them into the Trading window more quickly. For example, in the figure to the right, AMZN's alias is AZ. You would type in **AZ** into the Trading window and press **Enter** to load AMZN into the Trading window. You can insert any combination of letters or use single letters.

If you choose to use the aliases, this will take precedence over New York stocks. For example, if W has been assigned as the alias for WXYZ, when **W** is typed into the Trading window, WXYZ will load instead of the stock whose actual symbol is "W."

### Setting Up an Alias

- 1. Click in the **Use Aliases** box to activate
- 2. Type in a Symbol and Alias
- 3. Press the **Add** key or **Enter** to add it to the list
- 4. To delete one alias, click on it in the list and click **Remove**
- 5. To delete ALL aliases, click on **Remove All**

**NOTE:** Symbol Alias Hot Keys can only be set for one Trading window and will be the same for any other Trading windows open. You cannot set different Hot Keys for each Trading window.



### Links

Links allow you to automatically load stocks into other windows when they are loaded into the Trading window. *Note that only the linkable windows open in your layout will be displayed in the Links list.* 

1. Click on an item to link to the Trading window.

News

### **SETTINGS**

If linked to the Trading window, any stock loaded here will also load the most recent news on the stock in the News window.

Strategy Matrix<sup>™</sup> tool

### Charts

When a stock is entered into the Trading window, the chart for that stock will also appear in the charts you select from this list. The settings for the chart will stay the same, but the stock it represents will change.

TIP: You may link one chart to multiple Trading windows.

Other Trading windows

- 2. Click on **OK**.
- 3. Every time a stock is entered into the Trading window, the items linked will display that stock's information.

### Clear Symbol List

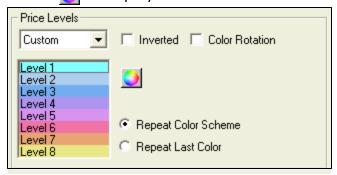
Clears all symbols from the Trading window **Symbol** field and drop-down.

### **Fonts**

Click to change fonts.

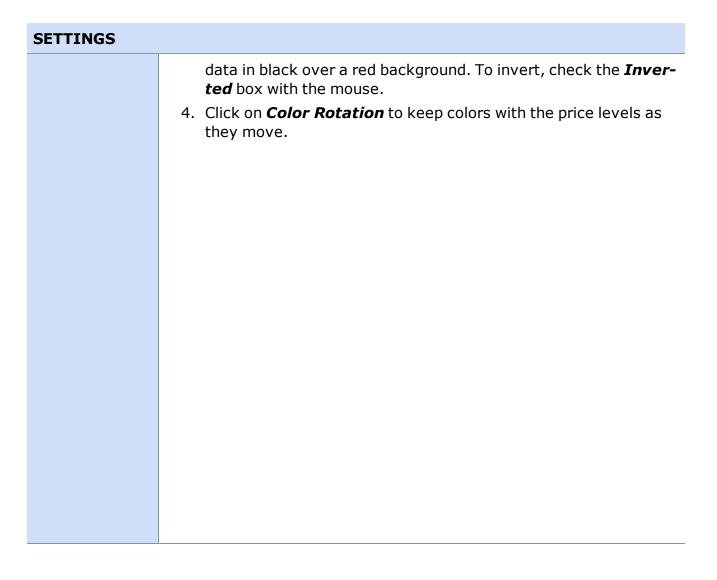
### **Colors**

Through the Color option you can change the background, ECNs, watches (Market Makers you specified in the Trading window General Settings to Watch) and Time & Sales colors. Click on the color wheel button to display all the color choices.



### **Change the Price Level Color Scheme**

- Select from the drop-down list whether to use the *Custom*, *Traditional*, *Earth*, etc. color scheme. An example of the colors will display at the bottom of the window.
- 2. For Custom, click on a level and then click the color wheel button to select a new color for that level.
- 3. The Price Level scheme can also be inverted to view the Level II



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### **Trading Window Settings**

By clicking on **Settings** > **General**, the Trading Window Settings will open and changes can be made.

### **NOTES**

**Global Settings:** Bold check boxes are global changes (for all open Trading windows). Changing a setting marked with a bold check box affects all Trading windows simultaneously. **Non-Global Settings:** Non-bold check boxes are local and only affect the Trading window in

which you are working.

ORDERS	
<b>EXECUTION SETT</b>	INGS
Order Veri- fication	If checked, requires you to verify orders before they are sent, allowing you to reduce the risk of sending an incorrect order.  NOTE: For important information about this subject, go to Order Verification.
View Warnings	StreetSmart Pro® automatically provides Order Verification and Warning & Informational Messages related to your order.  The default setting is active.  NOTE: For important information about this subject, go to Order Warning Messages.
Default NSDQ Limit Orders to IOC	If checked, every NSDQ Limit order you send will automatically be sent as an Immediate or Cancel order, which requests an immediate fill for any number of shares that may be available with the possibility of a partial fill. Any remaining shares that are unfilled will be cancelled.  This option will be grayed out if you do not have Direct Access capability.
Default MM Double-Click to NASDAQ	If checked and you double-click on a Market Maker ID in the Level II screen, your order entry fields will automatically set up a NASDAQ (NSDQ) order.  If unchecked and you double click on a Market Maker ID, the system will automatically set up to send an order at that limit price.
Pop-up Exe- cution Panel Outside Level II	Will position any order routing pop-up windows so that they do not pop-up on top of the Level II display.
Display Cancel All instead of Save action	<ul> <li>If checked, the <i>CxI All</i> button will display instead of the Save button in your Stocks Tab. You have two choices for how the <i>CxI All</i> button will work:         <ul> <li>Cancel All on Symbol - Will cancel all open orders for the loaded symbol.</li> <li>Cancel All (Equity &amp; Option Orders) - Will cancel ALL open orders, including both equity and option orders.</li> </ul> </li> </ul>
Price Incre- ment	You can change the increments by which the arrows next to the price field change the price. For example, if it were set to 0.125, a stock at 20.50 would change to 20.625 when you click the up

### **ORDERS**

### **EXECUTION SETTINGS**

arrow.

### **AUTO CANCEL TIMEOUTS**

Note that changes to these settings are isolated to the computer on which you make them. If you access your software from another computer, you will need to change your timeout settings there as well.

### **ECN/NSDQ**

The number of seconds that direct ECN & NSDQ orders are live before the system auto-cancels them. A value of 0 disables auto-cancel. The default is 0 seconds. To find out which ECNs post orders to their books, go to that ECNs section in this manual or visit their website. As ECN information changes on a regular basis the most reliable information will be found on their website.

## Apply Cancel All to

Select which behavior the *Cancel All* action button does when clicked:

**Cancel on current symbol:** If you have multiple open orders for the symbol currently loaded in the Trading window, it will cancel all of those orders. If you only have one open order, it will behave like the *Cancel* button.

**All Equity & Option Orders:** Will cancel ALL OPEN ORDERS, both equity and option, regardless of symbol.

### **ORDER QUANTITY**

### **SETTINGS**

### **Advanced**

Choosing this quantity setting will set the quantity to the default and allow you to choose the **Round Out Order Quantity** setting and/or **Close Entire Position**.

### **Round Out Order Qty**

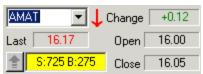
This setting can help you maintain a round quantity size in multiples of your preferred default quantity size. One way this is useful is if you want to round out partial fills by either buying up to the nearest multiple or selling down to the nearest multiple of your default quantity.

**EXAMPLE** If you prefer to trade in multiples of 1,000 shares, but you are in a position where you have 1,725 shares of a particular stock, if you have *Round Out Order Qty* checked, the quantity

### **ORDER QUANTITY**

### **SETTINGS**

field of your Trading window will display:



If you click **Sell**, an order to sell 725 shares will go out to reduce your position to an even 1000 shares of the stock. Or if you click **Buy**, an order for 275 shares will go out, which will increase your position to an even 2000 shares.

- If you already hold a position that is a multiple of your default quantity, the Trading window quantity field will simply display your default quantity.
- If you choose to override the quantity specified by the
   Round Out Order Qty setting, simply click on the quantity field of the Trading window and it will return to a normal white field in which you may type a different quantity.

**NOTE:** When closing out a position, the *Close Entire Position* setting will take precedence over the *Round out Order Qty* setting if both settings are selected.

### Save Current Quantity Always

Clicking on this option will set the default share size to the share size that is currently in the Share Size field of the Trading window. So, when you pull up a new stock, the share size will remain the same.

# **Set Quantity to Open Position**

If you have an open position in a stock and this box is checked, the next time you load that stock into the Trading window, the Share Size field will show the number of shares you hold.

### Set Quantity to Default

If select, the software will default the quantity field to the specified **Default Share Size** or **Default Contract Size**.

### **DEFAULT**

### **Shares/Contracts**

Enter the default number of shares and contracts to use in the Trading window.

# Symbol-specific Defaults

If you wish to have specific default settings for individual symbols, you may set that up here.

Enter the **Symbol** and **Quantity** into the fields provided and click **Add**. In the future, you load that symbol into the Trading window, the quantity specified here will display.

### L1 DATA

### **DISPLAY SETTINGS**

# Compute Ratio from Quantities

If checked, the ratio display in the Trading window will display number of shares available at the inside Bid vs. the inside Ask. If unchecked, the ratio shows the number of participants at the inside Bid vs. the inside Ask.

# Calculate Change from:

Choose whether change is calculated based on one of the following:

- **Open**: Calculates change from the Open price.
- Close: Calculates change from the current day's close. The change will recalculate when the exchange close price is received.
- **Previous Close**: Calculates change from the previous day's close received from the exchange.

# Calculate Put/Call Ratio from:

Select either **Open Interest** or **Volume**.

**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.

**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.

### L2 DATA

### DISDLAY SETTINGS

DISPLAT SETTING	
Display Aggreg- ate Quotes	When checked, displays an aggregate of the top 20 price levels above your Level II montage.
Hide Primary if Book is Dis- played	If checked, for any ECN Book data that is displayed (see Displayed Bid/Ask Quotes below), the primary quote for that ECN will NOT display in Level II. This eliminates the display of duplicate quotes during the standard session.
Remove Stale Quotes	Filters out stuck quotes during market hours.
Show Dir- ectional Quote	If enabled in your Trading window settings, you may see some

### L2 DATA

### **DISPLAY SETTINGS**

DISPLAY SETTING	
Change Arrow	small up and down arrows in the Level II area of the Trading window. What these arrows indicate is the direction that market participant just moved in relation to the inside price. For instance, if Market Maker GSCO is on the bid at 65.25 but backs off to 65.125, a down arrow will appear at the new price level. If GSCO moves back up to 65.25, an up arrow will appear. Similarly, if GSCO is on the ask at 65.25 and moves up to 65.35, an up arrow will appear. If GSCO merely refreshes his quote, no arrow will display. This option will be grayed out if you are not enabled for Level II.
Show Equity Quote Volume in 100's	If unchecked, the full volume for a quote will display. If it is checked, the quote will display without the last two zeros to save screen space.
Show L2 Options Data	Check to display the Level 2 Options tab in the Trading window. For more information on Level 2 options, review the <a href="Level 2 Options">Level 2 Options</a> <a href="Tab">Tab</a> topic.
Show Status of Bid/Ask	This information will appear in Level II. Status of Bid/Ask shows the current status of the Market Maker. "K"=closed, "O"=open, "L"=open (non-refreshed) in the morning and closed in the evening.  This option will be grayed out if you are not enabled for Level II.
Show Time of Bid/Ask	Displays in Level II the time that the price server received the quote.  This option will be grayed out if you are not enabled for Level II.
Sort Quotes by Size	Sorts all the posted quotes at each Tier in Level II by Size and then Time, where the largest size quote would be at the top of the tier. If multiple quotes have the same size, then sort by order of oldest first.
Watch ECNs	Will highlight all ECNs on Level II. Set the color of the highlight by going to <b>Settings</b> > <b>Colors</b> and clicking on the color wheel next to <b>Watches</b> . <b>Red</b> is the default color.  This option will be grayed out if you are not enabled for Level II.
Watches	You may choose to highlight four Market Makers/ECNs in Level II.  The colors can be changed by going to <b>Settings</b> > <b>Colors</b> and clicking on the color wheel next to <b>Watches</b> . <b>Red</b> is the default color. <b>Color Watches at Inside Only:</b> If checked, highlights the
	Color Watches at Inside Only: If checked, highlights the watched Market Makers/ECNs only when they are at the inside bid

### L2 DATA

### **DISPLAY SETTINGS**

or ask.

DISPLAY	BID/AS	K QUOTES
---------	--------	----------

DISPERT BID/AS	N QUUILU
Level 1	Check to display the best bid and ask as L1 at the top of the bid and ask columns.
	<b>Update in Extended Hours:</b> If checked, Level 1 data will update during extended hours trading. If unchecked, it will freeze at the close price.
MM/Exchange Best	Enable to see NASDAQ TotalView® on NASDAQ-listed securities. All other securities will display Level II data. If disabled, you will only see the best bid/offer for each market participant. Only available to clients with Level II data enabled for their accounts.
NSDQ Book ARCA Book	Check the NSDQ or ARCA Book to display quotes and time & sales from the NASDAQ or ARCA book. These will display as 'nsdq' and 'arca' respectively.

### **TIME & SALES**

DISPLAY SETTING	GS
New Time & Sales Info at Top	This makes all new time & sales to appear from the top vs. the bottom.
Color Time & Sales Info	Will color-code the Time and Sales for regular and ECN prints. The following are the default colors, but you can change these by going to <b>Settings</b> > <b>Colors</b> in the Trading window menu. <b>Green:</b> Trades at the inside Ask <b>Red:</b> Trades at the inside Bid
	White/Gray: Trades in between the inside Bid/Ask Yellow: Trades above the inside Ask Purple: Trades below the inside Bid Gray Highlight: Quote change; not a transaction
Show Time on Sales	This option will display the time of each print.

### **TIME & SALES**

### **DISPLAY SETTINGS**

Print Quote
Changes in
<b>Time &amp; Sales</b>

Will highlight in grey and print quote changes in the Time & Sales panel.

### Show Equity Print Volume in 100's

If unchecked, the full volume for a print will display. If it is checked, the print will display without the last two zeros to save screen space.

### Show Option Condition Codes

When enabled, the Time and Sales window of your L2 Options tab displays a "condition code" that indicates one of several conditions for Time & Sales prints. This is available to help you identify why trades may have executed ahead of your own, or to show the strategy used in the trade.

If you choose to leave the feature enabled, T&S prints with the following conditions will be indicated:

- OSEQ Trade reported late & out of sequence
- CNCL Last reported trade was canceled
- AUTO Trade was electronically executed
- **SPRD** Trade was part of a spread order
- **STDL** Trade was part of a straddle order
- **BWRT** Trade was part of a buy/write order

### T&S Trades Back

Shows a certain number of trades backward when loading a new stock. For instance, if you want to see the last 20 prints for the stock each time you load a new one, set this to 20. The maximum is 40 trades back.

To expand this view up to the last 1000 trades, right-click in the T&S window and select **Request Expanded T&S**.

### **DISPLAY EXCHANGE LABELS ON PRINTS**

If an exchange is checked, each time a print comes through Time & Sales from that exchange, the ID for the exchange will display next to the print. Prints from unchecked exchanges will display without an exchange tag.

### **Exchange Codes**

BSE - Boston Stock Exchange

CIN - National Stock Exchange

CSE - Chicago Stock Exchange

NAS - NASDAQ

### **TIME & SALES**

### **DISPLAY SETTINGS**

NYS - New York Stock Exchange

OTC - Over the Counter

OTCBB - Over the Counter Bulletin Board

PHS - Philadelphia Stock Exchange

PSE - NYSE Arca

WCB - Chicago Board Options Exchange

BATY - BATY Exchange

EDGA - EDGA Exchange

EDGX - EDGX Exchange

### COMMISSIONS

### **DISPLAY SETTINGS**

# Display Estimated Order Cost Including Commissions

If checked, the estimated order amount displayed in the <u>Order Verification</u> window will include the estimated commissions specified in the fields below.



# Equities/Options Commissions

Enter the estimated commissions to use in calculating the estimated order cost.

**NOTE:** Only enter a commission value for the type of commission structure currently assigned to your account. Do not enter a value in both the 'per trade' and 'per share' fields. Leave one of the fields blank.

### **Option Chains**

### **FILTERS**

# Include Weekly Options

Check to include the display of options that expire weekly in the Option Chains. Non-Standard Expiring Options...

Option Chains					
Include Quarterly Options	Check to include the display of options that expire quarterly in the Option Chains. Non-Standard Expiring Options				
Include Adjusted Options	Check to include the display of adjusted options in the Calls & Puts Option Chains. Adjusted Options				
(Calls and Puts chain only)					

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### **Schwab Equity Ratings**

Get more information on Schwab Equity Ratings on Schwab.com

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### 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 within 5 business days. Otherwise, the account's day trading buying power will be frozen for 90 days or until the margin call is met.

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### **SmartEx Trading**

### **How SmartEx Orders Route**

SmartEx is a trade execution technology that combines the best of intelligent order routing (IOR) with market maker liquidity enhancements. SmartEx is designed to deliver trade executions that are as good as, if not better than, what you would expect to receive using IOR alone.

SmartEx is an electronic execution technology designed to "hunt and seek" the best available price for your retail sized marketable orders. SmartEx automatically seeks the liquidity from the best price displayed in the market whether it is from an ECN or a market maker, and provides an execution based on the liquidity available. If there is insufficient size at the best price in the marketplace, SmartEx will automatically continue to route the remainder of your order at each subsequent price until your entire order has been filled or your limit order price (if any) has been reached. In addition, your order may receive enhanced liquidity in excess of the current liquidity displayed in the market. SmartEx order routing is available during the standard session only. It is not available during the extended hours sessions.

With SmartEx, there is only one commission charge and one order number (unless you change or cancel the order) regardless of the number of executions it takes to fill your order.

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### Placing a SmartEx Order

- 1. Enter the symbol in the symbol field and press *Enter* on the keyboard
- 2. The symbol field background should be white. (If it's blue, the window has not been updated with the quote information for the new symbol. To make the symbol field background white, press *Enter* on your keyboard.)
- 3. If necessary, change the quantity using the arrow buttons or the following keyboard keys:
  - *Up/Down* keys to increase or decrease in increments of 500
  - **Left/Right** keys to increase or decrease in increments of 100
  - **Shift** + **Up/Down** keys to increase or decrease by 10
  - Or click in the quantity field and type the number of shares or contracts.

### TIPS:

- You can also click the \$ button and enter a dollar value to see how many shares you could trade for that amount.
- To set the default quantity to a different amount go to Settings > General >
   Orders > Quantity in the Trading window menu.
- **Fractional shares:** When exiting a position, the sell order quantity must include a whole number with the fraction. Stand-alone fractions are not allowed. Also, the

fractional part of the quantity must match the position fractional quantity held so as to not leave a fractional position.

- 4. Choose whether to place a *Limit*, *Market*, or *Trailing Stop* Order Type.
- 5. If placing a *Limit* order type, click on a price level in the Level II area of the Trading window to set the price.
- 6. If placing a **Trailing Stop** order, enter the number of points or the percentage for the trailing stop.
- 7. If necessary, change the **Price** using the arrow buttons or click in the Price field and use the following keyboard commands:
  - *Up/Down* keys to increase or decrease by .05
  - Left/Right keys to increase or decrease by .01
  - **Shift + Up/Down** keys to increase or decrease by .005
- 8. Select the session in which you wish to trade from the order routing field: **SmartEx**.
- 9. For SmartEx and extended hours orders the **Time in Force** (TIF) will always default to **Day**. If you wish to use a different TIF check the **Spec Cond & Brackets** checkbox.
- 10. You can check the **Spec Cond & Brackets** box to set any additional order qualifiers. This will require one more window to be reviewed prior to the Order Verification window where you can set up special conditions or add Brackets to 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 the <u>Close All</u> topic for more information.
- 12. Once the Order Entry fields are set up to reflect the attributes you want, choose your action: **Buy**, **Sell**, **Short**, or **Save**.
- 13. If **Order Verification** is enabled in the Trading window **Settings** > **General** window, you will be asked to verify the details of your order before it is sent.
- 14. Click **Place Order** to submit the order or **Do Not Place Order** to cancel your action.

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### **Partial Fills**

### **SmartEx**

An order routed through SmartEx 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 'Till Cancelled** 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 orders, it is very possible not to complete an order in under three minutes, depending upon the symbol, market, and routing method. 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 Orders tab in the **Settings** > **General** window.

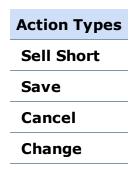
All orders and executions can be viewed in the **Order Status** tab of the Account Detail window or, if there was more than one fill, in the Order Detail window. This window can be accessed by double clicking on the order or by clicking on the order and going to **Orders > Detail** in the menu.

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### **SmartEx Order Types**

StreetSmart Pro® allows you to select any of these SmartEx order and action types:

Order Types		
Market		
Limit		
Stop		
Stop Limit		
Trailing Stop		
<b>Action Types</b>		
Buy		
Sell		



### **Trailing Stops**

- A SmartEx Trailing Stop Buy/Sell/Short order is an 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 number of points or the percent you specified in the Trailing
  Amount field.
- **EXAMPLE** In the image below, we have a trailing stop of 5% set.



If at any point the bid or ask price retraces the specified Trailing Amount, a SmartEx 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. The change from the time that the trailing stop was placed would effectively be 4% above where you placed the order.

- Trailing Stop can have a Time in Force (TIF) of **Day** or **GTC** (Good 'til Canceled).
- When placing a Trailing Stop order, please note that you cannot change the order to
  another order type using the *Change* feature, 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.
- Trailing Stop orders on symbols with wide spreads may not fire if the spread is too wide.

For some NASDAQ equity orders, you may not be able to change the order. When this occurs you will notice that your order cannot be changed because, in most cases, it will fill immediately. You can always request to cancel a limit order that has not completely filled. Market orders can not be cancelled during Standard Market Session.

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### Close All Checkbox

The **Close All** Checkbox is located in three places:

- the Trading window
- the Execute SmartEx Order window accessed when you check Spec Cond & Brackets, and
- when selling from the Positions tab of your Account Details.



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When checked, **Close All** allows you to sell your entire position, including fractional shares, via the SmartEx, Schwab Pre Market, or Schwab After Hours venues (<u>Direct Access</u> venues do not offer fractional share trading). You may also manually enter fractional shares when closing a position via SmartEx, but the fractional portions of the quantity held must match the closing order fractional quantity. In other words, you cannot place a fractional share order that would leave a fractional position behind.

### 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.
- The Close All checkbox can be turned on and off. If turned off the quantity will revert to the default amount designated in the Trading window **Settings** > **General** window.
- This method is the only way to sell fractional shares on StreetSmart Pro. Otherwise, you may place the order by calling a Schwab broker or place the order on Schwab.com.

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### **Special Conditions Settings**

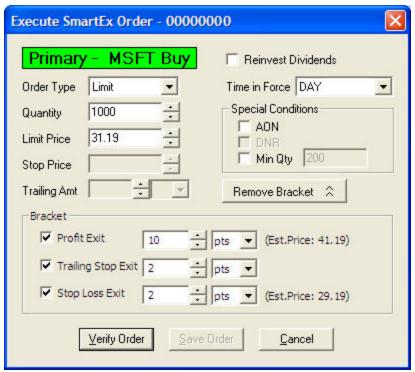
SmartEx orders can be qualified with the **Spec Cond & Brackets** checkbox.

The **Spec Cond & Brackets** box is already checked as the default and opens the **Execute SmartEx Order** window allowing you to customize your order with special conditions when you submit or save an order.

**NOTE:** Using order qualifiers can delay the execution of your order or reduce the likelihood of it being filled.

**TIP:** For faster submission of Day Market and Day Limit Orders, you can uncheck the **Spec Cond & Brackets** box and submit those orders directly from the Trading window.

StreetSmart Pro® has been designed to prevent you from sending variables that will not be accepted in the marketplace.



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Special Conditions Checkbox Fields	Status/Action				
Account Number	Displayed in the title bar				
Security and Action	Displayed and cannot be edited				
Order Type	Use this drop-down menu to select your order type:				
	• Limit				
	Market				
	• Stop				
	• Stop Limit				

Special Conditions Checkbox Fields	Status/Action				
	• Trailing Stop: A SmartEx Trailing Stop Buy/Sell/Short order is an order whose stop price will trail either the 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.  EXAMPLE In the image below, we have a trailing stop of 5% set.  If at any point the price retraces the specified Trailing Amount, a SmartEx 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.				
	Defaults to the order type you selected in the Trading window either Market, Limit, or Trailing Stop.				
Quantity	Can be changed using the up/down arrows, however, only whole share amounts can be accepted in the quantity field.				
Limit Price	Can be changed via manual input or by using the arrows - can be up to four decimal places only.				
Stop Price	<ul> <li>Can only be entered if <i>Stop</i> or <i>Stop Limit</i> order is chosen.</li> <li>Can be up to four decimal places only.</li> </ul>				
Trailing Amount	A SmartEx Trailing Stop Buy/Sell/Short order is a stop order whose stop price will trail either the 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.				
	EXAMPLE In the image below, we have a trailing stop of 5% set.  T 5 SmartEx  C pts % Trailing S DAY  If at any point the price retraces the specified Trailing Amount, a SmartEx Market order will be routed for the quantity you specified.  If you place an order to close a position using a trailing stop				

Special Conditions Checkbox Fields	Status/Action					
	set to 5%, if the bid price increases 9% and then drops 5% th order will be sent at that time.					
Reinvest Dividends	Check to reinvest dividends for this security.					
Time in Force	The duration of the order until it is canceled, if it does not fill immediately:					
	<ul> <li>Day: Order is canceled at market close</li> <li>GTC: Good 'til Canceled; order is open until you cancel it</li> <li>FOK: Fill or Kill; order is filled in full and immediately or it is canceled</li> </ul>					
Special Conditions	Designate special conditions, including:					
	<ul> <li>AON (All or None)</li> <li>DNR (Do Not Reduce) for GTC orders only</li> <li>Min Qty (Minimum Quantity)</li> <li>Use only for orders over 300 shares.</li> <li>When checked, the amount field can be changed, but the amount must be at least 200 shares.</li> <li>Designating minimum shares applies to the first fill only.</li> </ul>					
Brackets	For more information on adding this powerful risk management tool to your order, visit the <u>About Brackets</u> topic.					
Order Verification is Selected	The action button at the bottom of the window should read <b>Verify Order</b> .  Click it to open the Verification window.  See <u>Trading Window Menu</u> topic for details.					
Save Order Button displayed at bottom of window	<ul> <li>Click to post the order to the Saved Orders tab in the Account Detail window.</li> <li>No further validation/editing will be done until the order is submitted.</li> </ul>					
Order Verification is Not Selected	The action button at the bottom of the window will read <b>Place Order</b> .  Click to submit the order.  See <u>Trading Window Menu</u> topic for details.					

### **Direct Access Trading**

### **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 are posted on the StreetSmart Pro® Center of Schwab.com, in the section called "Direct Access."

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### **Direct Access Route Comparison**

During the specified trading times for each routing channel, 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 routing channel has different order types, hours of operation, and order conditions. The table below shows a quick reference guide for each destination including the following information: hours of operation, maximum number of shares, order types, and order conditions. For more information about each destination, view the individual topic for each.

Order Destination	Type of Channel	Hours of Oper- ation (Eastern Time)	Order Types	Order Condi- tions	Security Types Traded
ARCA (NYSE Arca)	ECN	7:00 a.m. - 8:00 p.m.	Limit, Market, Market-Peg, Primary-Peg	Day, IOC, Max Floor, Peg Diff, Discretion	NNM, Listed, OTC

Order Destination	Type of Channel	Hours of Oper- ation (Eastern Time)	Order Types	Order Condi- tions	Security Types Traded
NSDQ (NASDAQ)	Exchang- e	7:00 a.m. - 8:00 p.m.	Limit, Limit Invis- ible, Market	Day, IOC	NNM, Listed

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#### **Placing a Direct Access Order**

Placing a Direct Access order is similar to placing a SmartEx order, except you may use ARCA or NSDQ.

- 1. Enter the symbol in the symbol field and press *Enter* on the keyboard
- 2. The symbol field background should be white. (If it's blue, the window has not been updated with the quote information for the new symbol. To make the symbol field background white, press *Enter* on your keyboard.)
- 3. If necessary, change the quantity using the arrow buttons or the following keyboard keys:
  - *Up/Down* keys to increase or decrease in increments of 500
  - **Left/Right** keys to increase or decrease in increments of 100
  - **Shift** + **Up/Down** keys to increase or decrease by 10
  - **Shift + Left/Right** keys to increase or decrease by 1
  - Or click in the quantity field and type the number of shares or contracts.

#### TIPS:

- You can also click the \$ button and enter a dollar value to see how many shares you could trade for that amount.
- To set the default quantity to a different amount go to Settings > General >
   Orders > Quantity in the Trading window menu.
- Fractional Shares: Direct Access venues do not offer fractional share trading. As
  the quantity field does not allow the input of fractional shares, using the Close All
  checkbox in combination with the SmartEx or Schwab Pre Market/ After Hours
  venue is the only way to send orders to sell fractional amounts.
- 4. Choose whether to place a *Limit* or *Market* Order Type.
- 5. If placing a *Limit* order type, click on a price level in the Level II area of the Trading window to set the price

- 6. If necessary, change the **Price** using the arrow buttons or click in the Price field and use the following keyboard commands:
  - *Up/Down* keys to increase or decrease by .05
  - Left/Right keys to increase or decrease by .01
  - **Shift** + **Up/Down** keys to increase or decrease by .005
- 7. Select the Direct Access order route you wish to use, or you may use <u>SmartEx</u>. For a comparison of each Direct Access route, view the <u>Direct Access Route Comparison topic</u>.
- 8. The default **Time in Force** (TIF) will always be **Day**. Select a different TIF if available for the order route you have chosen.
- 9. You can check the <u>Spec Cond & Brackets</u> box to set any additional order qualifiers such as pegging or Max Floor, or to add <u>Brackets</u> to the order. This will require one more window to be reviewed prior to the Order Verification window.
- 10. 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 the Close All topic for more information.
- 11. Once the Order Entry fields are set up to reflect the attributes you want, choose your action: **Buy**, **Sell**, or **Short**.
- 12. If **Order Verification** is enabled in the Trading window **Settings** > **General** window, you will be asked to verify the details of your order before it is sent.
- 13. Click **Place Order** to submit the order or **Do Not Place Order** to cancel your action.

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## NSDQ (NASDAQ)

#### **NASDAQ Single Book Integration**

Recently, NASDAQ completed a system integration that is expected to improve execution quality through enhanced speed, efficiency, and deeper liquidity. The integration including the creation of a single pool of liquidity by combining:

- NASDAQ Market Center (SuperMontage)
- BRUT ECN
- INET ECN

This new combined pool of liquidity is called NASDAQ Single Book, and non-attributed quotes from the Single Book will display as NSDQ in your Trading Window. To obtain the full depth-of-book for Single Book, you will need to upgrade to Level II data service by going to the main menu and clicking **Schwab.com** > **Subscribe to Level II**.

#### **General Information**

- NSDQ does NOT accept Good 'Till 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 <u>Auto Cancel</u> time is set to 0.
- Default cancellation time: 180 seconds.
- Trading Hours 7:00 a.m. to 8:00 p.m. ET

## **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 Level II.
*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
	<ul> <li>XYZ is currently quoted at 20 bid x 20.05 ask.</li> </ul>
	<ul> <li>A Market Peg order to buy XYZ with a limit of 20.10, will be submitted at 20.05.</li> </ul>
	<ul> <li>If the quote changes to 20.05 bid x 20.10 ask, the order price would change to 20.10.</li> </ul>
	<ul> <li>If the order is not executed, it will not update beyond the limit price and will remain posted at 20.10.</li> </ul>
*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.  EXAMPLE
	<ul> <li>XYZ is currently quoting at 20 bid x 20.05 ask.</li> </ul>
	<ul> <li>A Primary Peg order to buy XYZ with a limit of 20.05, will be submitted at 20.</li> </ul>
	• If the quote changes to 20.05 bid x 20.10 ask, the order price

Order Types	Description
	would change to 20.05.
	<ul> <li>If the order is not executed, it will not update beyond the limit price and will remain posted at 20.05.</li> </ul>

Times in Force	Description
Day	Can be entered after 7:00 AM 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). Available for limit IOC orders only.
*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 Level II. Only the displayed portion of the order will have time priority.
	<b>EXAMPLE</b> 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.
*Peg Diff	Added to the bid or offer to produce the actual order price. Allows more flexibility in your order. <b>EXAMPLE</b> To peg the offer minus .02, Peg Diff must equal -0.02 (the negative sign is required).

<sup>\*</sup> Features only available when **Spec Cond & Brackets** is checked in the Trading window.

The information provided on this page is subject to change at any time. To get the most current information please go to the <a href="NASDAQ">NASDAQ</a> web site.

#### **ARCA ECN**

#### **General Information**

- The order will try to find a match in the ARCA (NYSE Arca) Book. 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 the ARCA Book. The best bid and ask posting 100 or more shares will post on Level II 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	<ul> <li>Marketable Limit Orders - Matched with the ARCA book or if no match, posted to the ARCA book. The order price may be improved if a better price appears.</li> </ul>
	<ul> <li>Non-Marketable Limit Orders - The order is posted to the ARCA book. ARCA posts the best bid and offer in their book to Level II (MMID=ARCA)</li> <li>NOTE: Your price may not cross or lock the market.</li> </ul>
Market	These are matched with the ARCA book 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
	<ul> <li>Criteria for routing orders: % fill history, time, and size shown.</li> </ul>
	<ul> <li>Market orders are accepted but not executable before 9:30 a.m. or after 3:59 p.m. ET.</li> </ul>
*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

Order Types	Description
	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
	<ul> <li>XYZ is currently quoted at 20 bid x 20.05 ask.</li> </ul>
	<ul> <li>A Market Peg order to buy XYZ with a limit of 20.10, will be submitted at 20.05.</li> </ul>
	<ul> <li>If the quote changes to 20.05 bid x 20.10 ask, the order price would change to 20.10.</li> </ul>
	<ul> <li>If the order is not executed, it will not update beyond the limit price and will remain posted at 20.10.</li> </ul>
*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.  EXAMPLE
	<ul> <li>XYZ is currently quoting at 20 bid x 20.05 ask.</li> </ul>
	<ul> <li>A Primary Peg order to buy XYZ with a limit of 20.05, will be submitted at 20.</li> </ul>
	<ul> <li>If the quote changes to 20.05 bid x 20.10 ask, the order price would change to 20.05.</li> </ul>
	<ul> <li>If the order is not executed, it will not update beyond the limit price and will remain posted at 20.05.</li> </ul>

Times in Force	Description
Day	Can be entered after 7:00 AM 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
*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 dis-

Special Conditions	Description
	cretion amount for the maximum/minimum amount you're willing to pay. Available for limit orders only. <b>EXAMPLE</b> 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
*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 Level II. 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.
*Peg Diff	Added to the bid or offer to produce the actual order price. Allows more flexibility in your order executions. <b>EXAMPLE</b> To peg the bid minus .02, Peg Diff must equal -0.02 (the negative sign is required).

<sup>\*</sup> Features only available when **Spec Cond & Brackets** is checked in the Trading window.

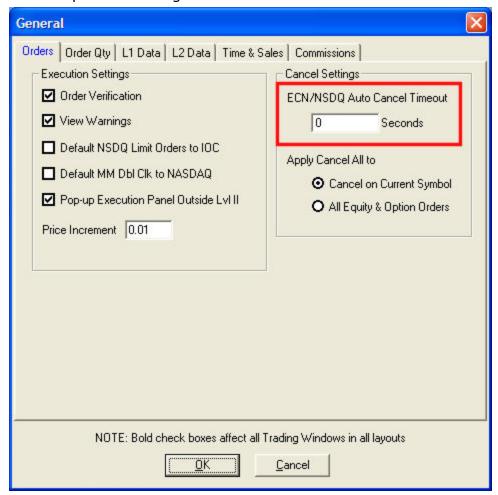
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#### **Auto Cancel Settings**

While each order routing venue has its own rules regarding how long an order remains active until it is canceled for going unfilled, the StreetSmart Pro® software provides an automatic order cancel feature for your Direct Access orders. This cancel feature may protect you in a fast market and will also provide you with protection in the event of a network or system outage.

Auto cancel settings for Direct Access can be changed by going to the Trading window menu and clicking **Settings** > **General**. See the <u>Trading Window Menu</u> topic for more details about these important settings.



#### **AUTO CANCEL TIMEOUTS**

Note that changes to these settings are isolated to the computer on which you make them. If you access your software from another computer, you will need to change your timeout settings there as well.

#### **ECN/NSDQ**

The number of seconds that direct ECN & NSDQ orders are live before the system auto-cancels them. A value of 0 disables auto-cancel.

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### **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." Member SIPC

### **Options Trading Tab**

View the calls and puts being traded for a stock and place trades on individual contracts in the Options tab of the Trading Window.

Enter the underlying symbol, select the option you wish to trade, select the variables for the order such as Quantity, Limit/Stop prices, and more. Then click the button for the action you wish to take (Buy to Open, Sell to Close, etc.) to send the order.

The Options Trading tab includes real-time, streaming options data and, for clients approved for options trading, automatic electronic access to all primary listed options exchanges. You may also trade index options such as \$OEX. Use the <a href="Adv. Options">Adv. Options</a> tab to if you wish to place multi-leg option trades.



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The following table describes some of the features of the Options tab:

Symbol Field	<ul> <li>Enter a stock symbol in the symbol field and press <i>Enter</i>. The option chain will be loaded into the Option tab.</li> <li>If you know an option symbol, you can enter the symbol (XYZ MM/DD/YYYY 00.00 C) into the symbol field. The underlying stock symbol will load into the symbol field (whether you are on the Stocks or Options tab within the Trading window).</li> <li>Sometimes an option is adjusted due to a merger or other event. For more information on <i>Adjusted Options</i>, click <a href="here">here</a>.</li> </ul>
Calls/Puts	Click the check boxes to specify whether you want to view calls, puts or both.
Expiration Month	Click the down arrow next to the call/put display buttons to select a month in which the options will expire. For information on <b>Non-Standard Expiring Options</b> , click <a href="here">here</a> .
Action But- tons	Allow you to determine what type of trade you want to place, or click <b>Cancel</b> to cancel the most recent order on the selected option symbol.

- The red and green boxes you may see around the bid and ask prices indicate changing quotes, and the color indicates the direction of the change.
- To see the details and cash requirements of option positions you have entered, go to the
  Account Detail window and click on the Positions tab. See the <u>Positions Tab</u> topic to find
  out which types of option strategies are available at each approval level. Note that
  approval for one level includes approval for all lower levels. For instance, if you have
  Level 3 approval, you may also enter Long, Covered, and Protective positions.
- For more information about equity options and advanced option trading strategies, visit Schwab.com and click on My Benefits located in the At a Glance tab.
- You can filter out options with Weekly and Quarterly expirations, along with Adjusted Options, by clicking Settings > Option Chains in the Trading window menu.

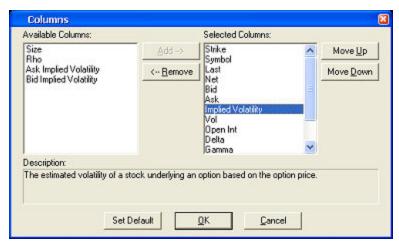
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### **Options Tab Columns**

The Options Tab allows you to view up to 19 types of information about each option in a chain.

#### **Configuring Options Tab Columns**

Click Settings > Option Page Columns in the Trading window. The following window opens:



- 2. To add a column, click on a column name in the Available Columns list and click **Add** to add it to the Selected Columns (which are the columns that will display).
- 3. To remove a column, click on a name in the Selected Columns list and click **Remove**.
- 4. To sort the Selected Columns list, click on a name and use the Move Up/Move Down buttons to change its location in the list.

**TIP:** If you only want to rearrange the columns but not add new ones, you can right-click on the column header and select a different column for that position or you can use drag-and-drop.

<b>Available Columns</b>	
Strike	Option strike price; price at which the option may be exercised
Symbol	Option symbol, showing (in order) underlying symbol (root symbol), expiration date, strike price, and Call or Put
Last	Price at which the option last traded
Time of Last	Time at which this option last traded
Exchange of Last	Exchange on which this option last traded
Net	Net change from yesterday's close price
Bid	Current inside bid price
Ask	Current inside ask price
Size	The available number of contracts for the bid and ask, displayed as [bid quantity] $x$ [ask quantity].
Volume	Cumulative volume for the day
Open Interest	Total number of outstanding option contracts in a particular

<b>Available Columns</b>	
	series
Implied Volatility	The theoretical value (in %) designed to represent the fore-casted volatility of the security or index as determined by the prices of multiple call and put options using the Black-Scholes pricing model.
Delta	Indicates how much the price of a call option moves for every one-point move in the price of the underlying security.
Gamma	Measures the change in delta for a change in the underlying stock price.
Theta	The change in option price in relation to the time left before the option expires.
Vega	The change in option price in relation to a 1% change in volatility.
Rho	The change in the price of an option resulting from a 1% change in interest rates.
Ask Implied Volatility	Implied Volatility based on ask price.
Bid Implied Volatility	Implied Volatility based on bid price.

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# Placing an Options Order

The following figure shows the Trading window open to the Options tab.



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## To Buy or Sell an Option:

- 1. Access Options trading by clicking the Options tab in the Trading window.
- 2. Check either *Calls*, *Puts* or both and select an expiration month.
- 3. Click on the option of choice in the Options Window.
- 4. Click one of the following options (NOTE: These buttons are only actionable if you have been approved to trade options):

Sell to Close	Click to sell any long option positions that are currently in your account.
Buy to Open	Click to buy new long option positions for your account.
Sell to Open	Click to create new short option position in your account.
Buy to Close	Click to buy back any short option positions that are currently in your account.

5. The Options Execution window will open as in the following image:



6. Select the appropriate options (described below) and click **OK** to send the order.

#### **Options Execution Settings**

#### **Order Type**

**Limit:** Order is sent at the price you specify. Fill price is guaranteed but execution is not.

**Market:** Order is sent at the best price available at the time the order is executed. Execution is guaranteed 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 buystop 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.

**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

<b>Options Execut</b>	ion Settings
	doesn't retrace the amount of the trailing stop, the position is held.
Quantity	Click on the up and down arrows to change the number of contracts.
Limit Price	The bid/ask price of the selected option is automatically entered here, though it may be adjusted in .01 increments by clicking on the arrow buttons next to the field.
Stop Price	The price a symbol must trade through for a stop or stop limit order to be activated.
Time in Force	<b>PAY:</b> Day Order; Will cancel at the end of the day <b>FOK:</b> Fill or Kill; Requests an immediate fill for the entire number of contracts similar to an All Or None. If the entire number of contracts is not available, the order will be immediately cancelled. <b>IOC:</b> Immediate or Cancel; Requests an immediate fill for any number of contracts that may be available with the possibility of a partial fill. Any remaining contracts that are unfilled will be cancelled. <b>GTC:</b> Good 'Til Cancel; Order will remain live until it fills, is rejected, or is canceled.
Trailing Amt	When placing an order using the Trailing Stop order type, specify the trailing amount, either as a percentage or points value.
Gain/Loss Calculations	Helps you assess the potential implications of a particular option order, including the Max Gain, Max Loss, and Break Even. Adjusts as you change the parameters of your order.
Special Condi- tions	AON: All or None; All contracts must be filled or the order will be canceled.  Min Qty: You may specify a minimum quantity for the order to fill if your order quantity is 2 or greater.
Brackets	For more information on adding this powerful risk management tool to your order, visit the <u>About Brackets</u> topic.

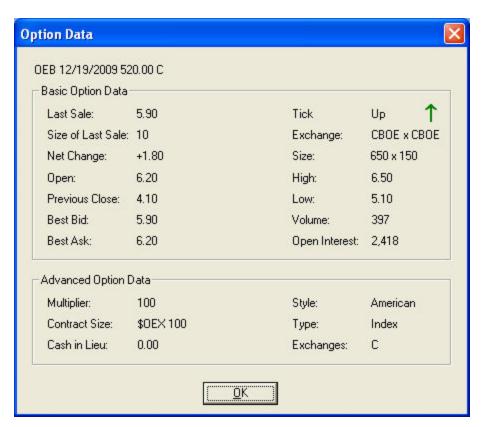
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## **Option Tab Settings**

Options tab settings can be accessed through the **Settings** menu of the Trading window or by right-clicking on an option symbol. In both cases, you must **have the Options tab open** to access these settings.

## **RIGHT-CLICK MENU SETTINGS**

• **Option Data** - Displays the option multiplier, exchanges on which the contract is trading, and other advanced data.

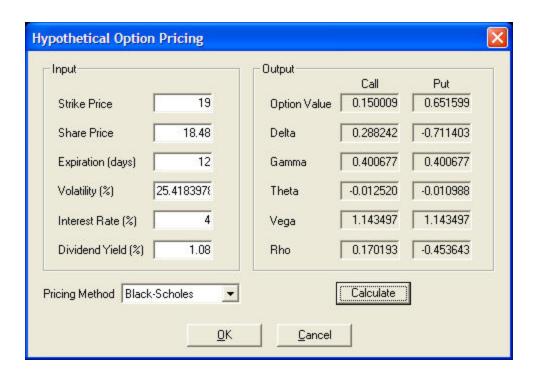


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• **Hypothetical Pricing** - Allows you to manually adjust variables involved in option pricing to see how changes affect the option values.

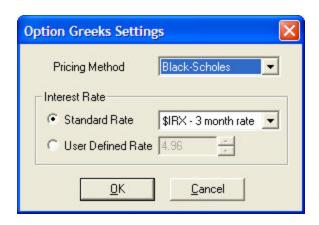
**EXAMPLE 1** You are bullish on a stock, but decide to purchase calls instead of the stock, so you can get more leverage. You anticipate the stock will go up about 2 points in the next week. You use the hypothetical model to add 2 points to the underlying price, and take away 7 days from the days to expiration. This gives you an indication that the call option you are considering might gain about 1.54, if the stock goes up 2 points over a the next 7 days.

**EXAMPLE 2** You can also see how the greeks change as the variables change. For example, since a Delta will increase as an option gets farther in the money, in the example above, you would see the Delta change from its current level of about .68 up to .90. This tells you that while it only earned .77 for every dollar so far, additional moves to the upside will yield about .90 for every dollar if it continues to go up.



### **SETTINGS MENU OPTIONS**

- Option Page Columns You can rearrange Options tab columns by either right-clicking on the column and selecting a different column or by adding columns. See the <u>Options</u> <u>Tab Columns</u> topic for directions.
- **Option Greeks Settings** 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, but you can select **User Defined Rate** and change the interest rate to any you wish.



• **Stack Options** - When checked, Calls will be "stacked" above Puts in the Options tab. Scroll down to view Puts. Otherwise, Puts will be listed to the right of the Calls. Scroll to the right to view Puts.

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## Option Equity Requirements\*

Underlying Securities	Long Purchase	Uncovered	Spread†	Short Straddle
Equities & Nar- row-Based Indexes	100% of cost, cash up-front	25% of the underlying security's market value, minus any out-of-the-money amount, plus the current option premium (marked to the market). Minimum: The greater of \$25,000 equity, or the option premium plus 10% of the underlying security's market value, or \$500 per contract.	100% of the long contract premium, plus: Call Spread— The value of the difference between the strike prices, if the exercise price of the long contract is greater than the exercise of the short contract. Minimum: \$5,000. Put Spread— The value of the difference between the strike prices, if the exercise price of the short contract is greater than the exercise price of the short contract is greater than the exercise of the long contract. Minimum: \$5,000.	The greater of the two uncovered contract requirements, plus the current option premium of the other contract (marked to the market). Minimum: \$25,000.
Broad-Based Indexes	100% of cost, cash up-front	20% of the underlying index, minus	100% of the long contract premium, plus:	The greater of the two uncovered con- tract require-

any out-of- the-money amount, plus the current option premium (marked to the market). Minimum: The greater of \$25,000 equity, or the option premium plus 10% of the underlying security's mar- ket value, or \$500 per con- tract.	Call Spread— The value of the difference between the strike prices, if the exercise price of the long contract is greater than the exercise of the short contract. Minimum: \$5,000.  Put Spread— The value of the difference between the strike prices, if the exercise price of the short contract is greater than the exercise of the long contract. Minimum: \$5,000.	ments, plus the current option premium of the other con- tract (marked to the mar- ket). Min- imum: \$25,000.
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<sup>\*</sup>Subject to change at any time by Schwab. To protect itself, Schwab may, at its discretion and without prior notice to you, revalue securities, reset requirements or adjust the inflated SMA (Special Memorandum Account) at any time.

†Schwab retains complete discretion to determine how to pair options that may constitute a qualified spread. See "Qualified Spreads."

### **Qualified Spreads**

With a Qualified Spread, the purchased option is required to expire in the same or later month 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 spread pairings. Schwab may pair options in a manner that does not produce the lowest possible margin requirements.

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#### **Options Level II Tab**

Options Level II tab displays the prices and size that each exchange is posting, as well as alerting you to exchanges where the contract may be available for automatic execution. Options

Level II provides you with a greater depth of information regarding the option contract being viewed.

You will need to turn on the Level II Options tab by clicking **Settings > General > L2 Data** and checking the **Show L2 Option Data** selection.



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A	Last Trade Price	Shows the last price at which the underlying stock/index traded. Red indicates a trade below the prior trade, and green indicates a trade above the prior trade.
В	Shows the underlying stock symbol. To enter a new stoc click in the field, type the new stock symbol, and press <i>E</i> on your keyboard.	
		Click on the down arrow to show recently loaded stocks. Select a stock from this list for rapid reloading.
С	Change (\$)	Shows the change in price from close for the option.
D	Change (%)	Shows the percent change in price from close for the option.
E	Volume	Shows the option's cumulative volume for the day.
F	Open	Shows the price of the option upon market open.
G	Hi	Shows the highest price the option has reached today.
Н	Open Interest	Shows the number of contracts still open, meaning they have

		not been exercised, closed out, or allowed to expire as of the close from the previous day.			
I	Arrow	Clicking on this button will open and close the execution portion of the Options Level II tab.			
J	Contract Size	There are several ways to change the share size.			
		<ul> <li>Press the <i>Up/Down</i> arrow keys to increase or decrease by 1 contract.</li> </ul>			
		<ul> <li>Press the Shift + Up/Down keys on the keyboard to increase or decrease in 10 contract increments.</li> </ul>			
		Tab to or click in the contract size field and type in a new contract size.			
K	\$ (Dollar sign)	This button allows you to base the number of contracts you place your order for on the amount of money you want to spend on the trade.			
		<b>EXAMPLE</b> You have \$10,000 to spend on a option that is trading at \$5 on the inside ask, so you click on the \$ button, type <b>10000</b> , click <b>OK</b> and the contract size field will fill in with 2000.			
		<b>NOTE:</b> Commissions are not included in this calculation.			
L	Close	Shows yesterday's close price for the option.			
M	Lo	Shows the lowest price the option reached today.			
N	Spread	Spread shows the difference between the inside bid and ask prices.			
0	Expiration Date	Shows the month, day, and year that the selected option will expire.			
P	Strike Price	The available strike prices for the selected Expiration Month are listed here. Click on the arrow to scroll through the list and select the strike price you desire. The Level II display will change to show the details of the option at that strike price.			
Q	Call/Put	Select whether to view the Call or Put for the current option.			
R	Action Buttons	<b>Sell to Close:</b> Click this button to sell long call or put options.			
		<b>Buy to Open:</b> Click this button to establish call or put options.			
		<b>Sell to Open:</b> Click this button to write covered calls or puts.			
		<b>Buy to Close:</b> Click this button to close a covered call or put position.			
		Cancel: Click this button to cancel any pending orders for			

		the option that is currently loaded.			
S	Days Left 'til Expiration	Shows the number of days left until the option expires.			
Т	Option Symbol Volume	Shows the volume for the current option on each exchange.			
U	Level II	Shows the depth of all bids and offers in an option. Each line shows the exchange ID, the price at which they are bidding or offering, and the number of contracts they are making available at that price.			
		<b>TIP:</b> By going to <b>Settings</b> > <b>Colors</b> , you can specify unique colors for the different types of quotes displayed in Level II, such as <b>Non-Firm Quotes</b> and <b>Auto Executing Exchanges</b> .			
V	Time & Sales	Shows every trade being reported, as well as the share size of the trade and the time of the trade. Time & Sales is colorcoded:			
		Green: Prints at the inside Ask			
		Red: Prints at the inside Bid			
		White/Gray: Prints in between the inside Bid/Ask			
		Yellow: Prints above the inside Ask			
		Purple: Prints below the inside Bid			
		Grey Highlight: Inside quote change			

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## **Option Approval Levels**

The Option approval level dictates what types of strategies you can employ in your Schwab account. In order to see the trading level your account is approved for look in the header of the Account Details window.

Option Trading Approval Levels			
Level	Allows you to place:		
O	<ul><li>Covered Calls</li><li>Covered Puts</li><li>Buy-Writes</li><li>Unwinds</li><li>Covered Rollouts</li></ul>		

Option Trading Approval Levels			
1	All of Level 0 plus:		
	<ul> <li>Long Calls</li> <li>Long Puts</li> <li>Long Straddles</li> <li>Long Combinations</li> <li>Long Strangles</li> <li>Cash Secured Equity</li> </ul>		
2	Puts (CSEP)  All of Level 1 Plus:		
	<ul> <li>Spreads</li> <li>Diagonal Call Spreads</li> <li>Diagonal Put Spreads</li> <li>Ratio Spreads (long side heavy)</li> </ul>		
3	<ul> <li>All of Level 2 Plus:</li> <li>Uncovered Calls</li> <li>Uncovered Puts</li> <li>Uncovered Roll-outs</li> <li>Short Straddles</li> <li>Short Combinations</li> <li>Short Strangles</li> <li>Uncovered Ratio Spreads</li> </ul>		

If you decide that you would like to apply to upgrade your option trading level, please complete a new Option Trading Application. Schwab will evaluate your application and send a confirmation of the option trading strategy approved for your account.

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#### **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 Options Clearing Corporation.

#### **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 Characteristics and Risks of Standardized Options.

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### **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 Characteristics and Risks of Standardized Options.

### **Advanced Options**

## **Advanced Options Overview**

The Advanced Options tab simplifies the process of entering Complex Option orders. By displaying potential pairings based on your spread ranges, expiration months, or by amounts "in, at, out and near the money" all entered at one net credit or debit price, Complex Option strategies can be entered more quickly and with potentially less market risk than by "legging in." In addition to saving time creating the order, having direct access to an exchange (if available) may improve the quality and speed of the execution by routing both legs of the order immediately and electronically.

StreetSmart Pro® offers the following Complex Option strategies from the **Adv. Opt** tab in the Trading window depending on your options approval level. Click on the links for descriptions of each type of complex option order:

	Sub-Strategy		Financial Characteristics		
Strategy		For use when view of stock is:	Max Loss	Max Gain	Change 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 Paid	Loss
	Short	Bullish	Strike - Net Premium Received	Net Premium Received	Gain
Vertical Call Spreads	Debit Spreads	Bullish	Net Premium Paid	S <sub>High</sub> - S <sub>Low</sub> -Net Premium Paid	Gain

	Sub-Strategy		<b>Financial Characteristics</b>		cs
Strategy		For use when view of stock is:	Max Loss	Max Gain	Chan- ge in value in tim- e**
	Credit Spreads	Bearish	S <sub>High</sub> - S <sub>Low</sub> -Net Premium Received	Net Premium Received	Loss
Vertical Put Spreads	Debit Spreads	Bearish	Net Premium Paid	S <sub>High</sub> - S <sub>Low</sub> - Net Premium Paid	Loss
	Credit Spreads	Bullish	S <sub>High</sub> - S <sub>Low</sub> - Net Premium Received	Net Premium Received	Gain
Bull Call Ratio Spreads		Slightly Bullish	Unlimited	((S <sub>High</sub> - S <sub>Low</sub> x # Long Con- tracts) ± Net Debit/Credi- t Paid/Re- ceived	Gain‡
Bear Put Ratio Spreads		Slightly Bearish	[S <sub>Low</sub> x (# Short Con- tracts - # Long Con- tracts) - Dif- ference in Strikes x Long Con- tracts] ± Net Debit/Credi- t Paid/Re- ceived	Difference in Strikes x Long Con- tracts ± Net Debit/Credi- t Paid/Re- ceived	Gain*

	Sub-Strategy		Financial Characteristics		
Strategy		For use when view of stock is:	Max Loss	Max Gain	Chan- ge in value in tim- e**
Call Ratio Back Spreads		Extremely Bullish	(S <sub>High</sub> - S <sub>Low</sub> x # Short Con- tracts) ± Net Debt/Credi- t Paid/Re- ceived	Unlimited	Loss*
Put Ratio Back Spread		Extremely Bearish	(S <sub>High</sub> - S <sub>Low</sub> x # Short Con- tracts) ± Net Debt/Credi- t Paid/Re- ceived	[(S <sub>High</sub> x # Long Con- tracts) - S <sub>Low</sub> x # Short Con- tracts)] ± Net Debt/Credi- t Paid/Re- ceived	Loss*
<u>Straddles</u>	Long	Bullish or bear- ish, with rising volatility	Net Premium Paid	Unlimited	Loss
	Short	Neutral and fall- ing volatility	Unlimited	Net Premium Received	Gain
Collars		Bearish/ Pro- tective	Stock Price - S <sub>Low</sub> +/- Net Premium*	S <sub>High</sub> - Stock Price +/- Net Premium*	Vari- able
Calendar Spreads***	Debit Spreads	Moderate Bullish	Net Premium Paid	Unlimited <sup>+</sup>	Gain ++
	Credit Spreads	Moderate Bear-	Unlimited <sup>+</sup>	Net	Loss ++

	Sub-Strategy		Financial C	Characteristics			
Strategy		For use when view of stock is:	Max Loss	Max Gain	Chan- ge in value in tim- e**		
		ish		Premium Received			
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-Bear- ish	Unlimited	Short Sale Price + Premium - Strike	Gain ++		
	Unwind	N/A	N/A	N/A	N/A		
Strangles	Long	Bullish/Bearish and rising volat- ility	Net Premium Paid	Unlimited	Loss		
	Short	Neutral and fall- ing volatility	Unlimited	Net Premium Received	Gain		
Combos	The strategic and financial characteristics of Combination orders can vary greatly depending on the specifics of the order.						

S<sub>High</sub>: High Strike Price in two option strategy S<sub>Low</sub>: Low Strike Price in two option strategy

<sup>\*</sup> Collar Max Gain/Loss assumes the collar is put on in conjunction with a long stock position.

<sup>\*\*</sup> This column describes the effect of time decay on the respective strategy holder's position.

<sup>\*\*\*</sup> The discussion of Calendar Spreads that follows is for the debit spread only.

<sup>&</sup>lt;sup>+</sup> 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.

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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-themoney 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:**

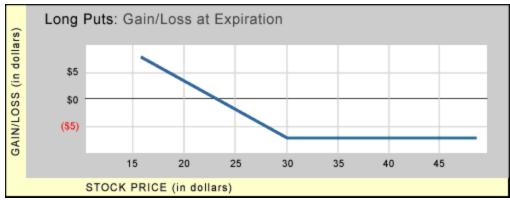
· Speculative gain

\*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-themoney 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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### **Buy-Writes & Unwinds**

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 inthe-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:**

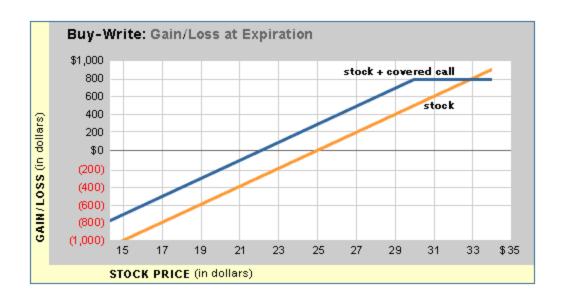
- Maximum Loss: Stock price premium for written call. In addition, investor has opportunity cost of stock appreciation beyond the strike price of the call
- Maximum Gain: Call premium plus stock appreciation up to the strike price of the call
- Cash credit from call premium

### **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.

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#### **Sell-Writes & Unwinds**

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#### 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:**

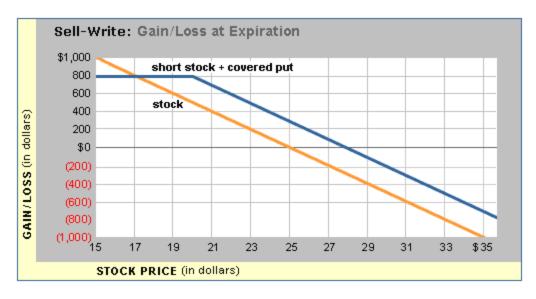
- Maximum Loss: Stock price premium for written put. In addition, investor has opportunity cost of stock dropping below the strike price of the put
- Maximum Gain: Put premium plus stock decline down to the strike price of the put
- Cash credit from put premium

#### **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 down-side 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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#### **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.)

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#### **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

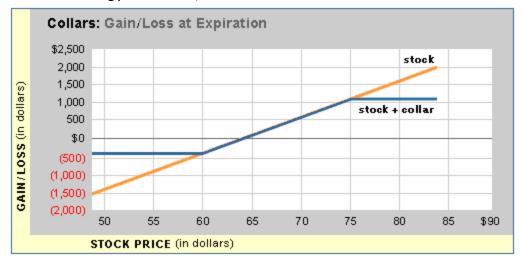
#### **Objectives:**

- 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. Lets 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 inthe-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

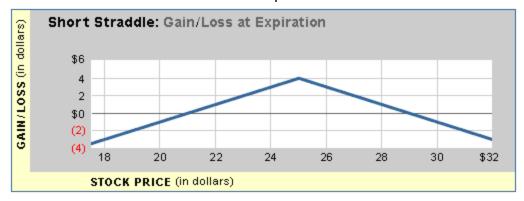
Benefits from time decay

# **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.



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# **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 at-the-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



Sto	ck Price	% Change of Stock	Poi	int (+/-)	ong Call ain/Loss	hort Call ain/Loss	Gai	Spread n/Loss at piration	Spread ain/Loss	ong Call Total ain/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 in-the-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-the-money 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.



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#### **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 inthe-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-the-money 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\*:

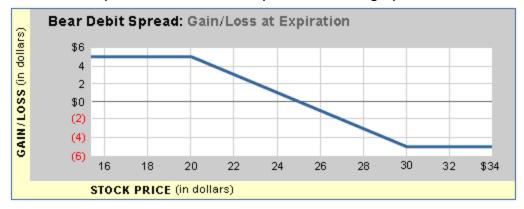
Speculative gain

\*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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## **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.

Ratio spreads are traded in the <u>Combos</u> sub-tab of the Advanced Options tab in the Trading window.

#### **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-the-money 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-the-money 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

## **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

<sup>\*</sup> 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.

\* 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.

# **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).

#### **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 $_{\rm High}$  S $_{\rm Low}$  ) \* 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

#### **Objective:**

<sup>\*</sup> 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.

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.

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## **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. longer-term options
- Potentially realize any gains from a movement in the underlying security after the nearterm 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.

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#### Combos

The Combo tab allows you to manually input two legged spreads and other two legged options strategies not specifically supported in any of the other Advanced Options tabs.

Also, use the Combos tab to enter 2:1 Ratio Spreads.

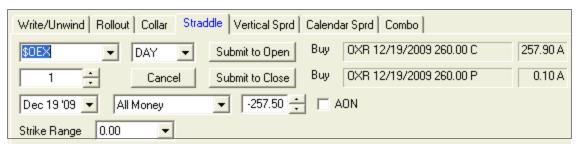
Note that because Schwab currently only accepts two legged orders, if you complete a stock leg (Leg 1), you will not be able to complete Leg 3, and vice versa. Also, the StreetSmart Pro® Combination order is **not** the same as the Combo strategy on Schwab.com.

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# **Placing an Advanced Options Order**

1. Enter the underlying stock symbol and press **Enter**.



Stock and/or option symbols and price and volume data shown here 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.

- 2. Select the **Time in Force**: *GTC* (Good 'til Canceled: Order will remain live until it fills, is rejected, or is canceled) or *Day* (order will remain live during the current trading session only).
- 3. Enter the number of contracts you wish to trade. You may also check the **AON** (All or None), which will ensure that your order will only fill if the entire quantity is available.

Write- Unwind	Remember each contract in a Buy/Write represents 100 shares of the underlying stock.
Ratio Spread	Quantities for the two legs of a ratio spread should be in a 2:1 ratio.

4. Select the expiration date or **Near** for the nearest expiration date.

Rollout	Select the expiration date for the option position you wish to
	<b>Close</b> and the date for the position you wish to Open. Setting
	the <b>Open</b> to <b>Near</b> will automatically select the next nearest
	date beyond the current one.
Calendar	Select the <b>Near</b> and <b>Far</b> expiration dates.
Spread	

5. Select whether you want to view combinations that are **At the Money**, **In the Money**, **Out of the Money**, or to see all at once, leave the default **All Money**.

Collar /	Select whether you want to view combinations that are <b>Around</b>
Straddle	the Money, Above the Money, Below the Money, or to see
	all at once, leave the default <b>All Money</b> .

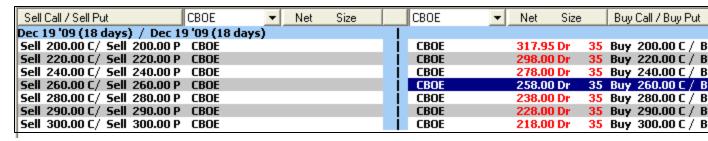
- 6. Select whether to display **Calls** or **Puts** (applies to Rollout, Vertical Spread, Calendar Spread, and Combination orders only).
- 7. Select the **Strike Range**, which will show you potential trades where the difference between the two contract prices is equivalent to the strike range you specify. (Applies to Rollout, Collar, and Calendar Spread orders.)

Vertical	Select the <b>Spread Range</b> , which will show you potential spread
Spread	trades where the range between the two contract strike prices
	is equivalent to the spread range you specify.

- 8. Select the Exchange you wish to view price indications for from the drop-down list.
- 9. Now, decide whether you want a net **credit** or **debit** for the order.

**TIP:** The debit is the ask price of the option being bought. The credit is the bid price of the option being sold. The net 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 - Unwind	When opening a Buy/Write you will need to select the price from the Debit side, and when closing (Unwind), select from the Credit side.
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).

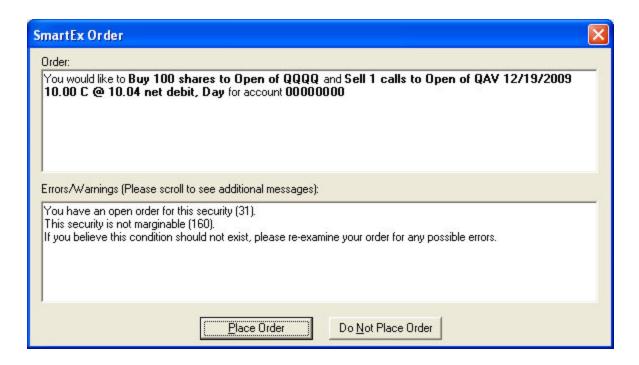


9. Click on the combination you want to trade. In the image above, you can see the selected strategy highlighted in blue.

Combination	For each leg, click on the desired contract, then right-click and
	select which leg you want to apply that contract to (i.e., <b>Load</b>
	[symbol] to Leg2), or manually select the Expiration
	month and <b>Strike</b> price.

- 11. Finally, ensure that the **Price** is correct. It will default to the Net value of the quote you selected, but you may enter a different price or use the arrows to select a new price. Note that all Advanced Options orders are sent as **Limit** orders.
- 12. To send the order:

Write/Unwind, Collar, Vertical Spread, Calendar Spread	Click <b>Submit to Open</b> or <b>Submit to Close</b> and then verify that the order is correct.
Rollout	Click <b>Submit Order</b> and then verify that the order is correct.
Straddle	If you are placing a sell order, click <b>Sell to Close</b> or <b>Sell to Open</b> . If you are placing a buy order, click <b>Buy to Open</b> or <b>Buy to Close</b> and then verify that the order is correct.
Combination	Select the <b>Leg Action</b> for each individual leg (only two legs per order). To send the order, click <b>Submit Order</b> and then verify that the order is correct.



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# **Extended Hours Trading**

# **Extended Hours Trading**

Extended Hours Trading is made possible by computerized order matching systems known as ECNs or Electronic Communications Networks.

# **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 to 9:25 a.m. ET, but trades are not eligible for execution until the session officially opens for trading at 8:00 a.m. ET.
- **After-Hours Session:** 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.
- 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 ECNs.

## **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.

#### **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 Direct Access 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 ECN (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.

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

#### **Conditional Orders**

Conditional orders are triggered by Alerts with pre-defined variables you choose and are only available during the Standard Market Session Alerts are not available for use during Extended Hours.

# **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. For more information, see the <u>StreetSmart Pro Dis</u>closures and Agreement.

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-Timeout 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.

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## **Risks of Extended Hours Trading**

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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.

<ul> <li>Individual investor orders may be executed from 9:30 a.m. to 4:00 p.m. ET.</li> <li>Orders can be placed at any time.</li> <li>Individual investor orders may be executed from 8:00 a.m. to 9:25 a.m. ET.</li> <li>Orders can be placed at early as 8:05 p.m. the previous trading day, but order execution will not begin until 8:00 a.m.</li> <li>Orders cannot be placed until after 8:00 p.m. ET for next day's session.</li> </ul> Please refer to the table in Direct Access Route Comparison 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. Orders cannot be placed until after 8:00 p.m. ET for next day's session. After-Hours Trading

Standard Market Hours	Extended Hours Trading at Schwab	Extended Hours Trading via Direct Access
	<ul> <li>Individual investor orders may be executed from 4:15 p.m. to 8:00 p.m. ET.</li> <li>Orders can be placed as early as 4:05 p.m. ET, but order execution will not begin until 4:15 p.m.</li> <li>Orders cannot be placed after 8:00 p.m. ET.</li> </ul>	
Trading occurs on NASDAQ and the exchanges through a variety of Market Makers and ECNs.	Your orders will be processed through UBS.	Orders will be routed to your chosen destination.
All orders types available via StreetSmart Pro® are accepted by Schwab during this Trading Session, subject to account or security specific limitations.	Only limit orders are accepted, subject to account or security specific limitations.	Limit orders and some mar- ket orders are accepted, subject to account or secur- ity 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	Like orders placed during the Standard Market Ses- sion, unexecuted shares are either auto-canceled or remain on the books of the ECN until the end of the day

Standard Market Hours	Extended Hours Trading at Schwab	Extended Hours Trading via Direct Access
	Sessions.	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 likelihood of order execution, plus wider spreads and greater price fluctuation.	Lower trading activity may result in lower likelihood of order execution, plus wider spreads and greater price fluctuation.

**NOTE:** 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. Also, be aware that while some ECNs accept market orders this is usually only during the standard session between 9:30am and 4:00pm ET.

# 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.

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#### **Order Status**

#### Order Status

The Order Status tab in the Account Detail window displays all orders - both open and closed - placed via any Schwab channel, including Schwab.com, TeleBroker $^{\text{\tiny TM}}$ , StreetSmart.com and StreetSmart Edge $^{\text{\tiny R}}$ .

The Order Status tab displays:

- Open orders, closed orders that have been filled, and canceled orders: You can sort on any column in the Order Status window by clicking on the column header you want as your sort key.
- **Contingent Orders:** This applies to SmartEx trailing stop orders and Bracket orders. Trailing stop orders 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. Please see the Brackets section for more information about those orders.



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- Partial fills: The Quantity Filled At column displays information 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. To view the individual fills, doubleclick on the order and an Order Details window will open displaying all of the fill events at
  the bottom.
- Sorting by Column: Click on a column name to sort by that column (click again to
  reverse the sort order). Press Shift and click on a second column to perform a secondary,
  more detailed sort within the primary sort. For instance, if you wanted to see all the Open
  Buy orders, you could do a primary sort on Status and a secondary sort on Action and
  the Open Buy orders would be grouped together.

Order Status automatically updates when orders are executed either via StreetSmart Pro or other Schwab channels.



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**NOTE:** 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. 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.

Tab Columns	Descriptions
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.
Trade Type	Type of trade, for bracket orders (Primary, Profit Exit, Trailing Stop, or Stop Loss).
Action	Order action (Buy, Sell, Short, etc)
Quantity	For stocks or mutual funds, this field reflects the number of shares the order is for. For fixed income securities, this field reflects the face value of the securities. For options, this field reflects the number of option contracts.
Last Trade	The price at which the stock last traded. For options, price is updated based on the inside market (bid for long positions, ask for short positions).
Price	Shows the amount you intend to pay or receive for the purchase or sale of a unit of the security.
Current Trig- ger Price	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 market moves up (for sells) or down (for buys) the trigger price moves up or down, and the Order Status panel displays streaming updates.
Cost Basis Method	Click the <b>View</b> 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 Pro 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.
Qty Filled At	Information for the first fill. If there are additional fills, displays the average price with the number of shares. To view the individual fills, double-click on the order and an Order Details window will open displaying the fill events at the bottom.

Tab Columns	Descriptions
Method	Method of filling the order (SmartEx, ARCA, etc.).
TIF	Order time in force (Day, Good-Till-Canceled etc.).
Change	Specifies whether the order can be changed, <b>Yes</b> or <b>No</b> .
Sec Type	Security type (Equity, Option, etc)
Date & Time	Date and time at which the order was entered.
Order Number	A unique order number given to each order for identification and tracking purposes.

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# **Messages Window**

#### Messages

By clicking **View > Messages** in the Account Detail menu, you can view streaming order status in the Messages window for the current day only. If you log off and back on multiple times during the day, all messages for the previous session(s) will display in gray.

The Messages Window provides useful information about your software settings, order status information, alert messages, and market session information. If you make any changes to your software settings, these changes will also be noted in the Messages Window.

The streaming data displayed includes:

- New Order Accepted
- Orders Filled
- Nothing Done / Out
- Alerts & Conditional Order Events
- Change Order
- Cancel Accepted



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As the Messages Window provides you with real-time information not always available in other parts of the application, we recommend leaving your Messages Window open while logged on.

## Printing Data From the Messages Window

A copy of your log files is maintained in the SSPro folder on your C: drive for each day you log in to the software. These files can printed in text format. Please note that Schwab retains the official copy of these logs.

To print data directly from the Messages window before logging off, go to *File > Print*.

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#### **Changing or Canceling Orders**

#### **Changing Stock Orders**

To change a SmartEx order, go to the Account Detail window, Order Status tab and either right-click on the open order then select **Change** or click once on the order to highlight it, then click **Orders > Change**. A pop-up box will appear prompting you to modify your order.

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

Direct Access orders can never be changed.

# **Changing Multi-Leg Option Orders**

Changing **2-legged option orders** is similar to changing any other kind of order and takes place from the Order Status tab of the Account Details window. You can change the quantities, limit price (if applicable), special conditions, etc. Any fields unavailable to change are grayed out.

For **3- or 4-legged option orders**, you cannot change the order via StreetSmart Pro; instead, you must cancel and resubmit the entire order. While StreetSmart Pro only allows for the cancellation of existing 3- or 4-legged option orders, the replacement 3- or 4-legged option order can be entered electronically using Schwab's StreetSmart Edge® or StreetSmart Edge® in the Cloud.

The most significant difference is the Order Types available when changing a multi-leg order. You can choose between *Limit Debit* and *Limit Credit*, as well as *Even* (neither debit nor credit), and of course, *Market*.

Click **Verify Order** to confirm and submit the changed order.

# **Canceling Orders**

You can request to cancel open orders via the Order Status Tab. All Open orders have a green box in the left-most column, and you can either click on the order and press *Ctrl+C* or right-click on the order and select *Cancel*.

Because of the speed of execution and the short life span of market and marketable limit orders, canceling these orders may not always be possible.

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#### **Brackets**

#### **About Brackets**

Brackets allow you to integrate your risk management strategy directly into the creation of an equity or option order. Using brackets you can predefine profit and loss targets for trades where, if those targets are met, the software will automatically send an order to exit the position.

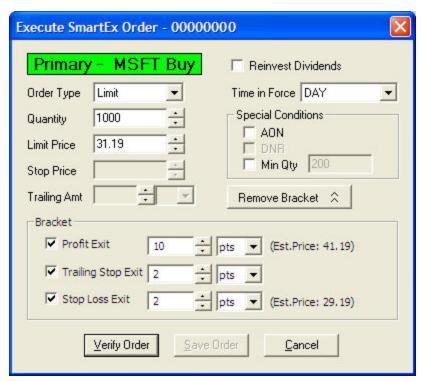
To use brackets, check **Spec Cond & Brackets** in the Trading Window when entering an order.

See examples of Bracket orders in the Bracket Order Examples topic below.

Bracket orders are conditional orders you can attach to your stock or option orders. They consist of a primary order and up to three contingent 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.

When you check **Spec Cond & Brackets** and click **Buy** or **Short** (or for options, **Buy to Open** or **Sell to Open**), a second window opens, where you can specify the terms of the bracket order(s).

**TIP:** Brackets can also be added to orders initially opened without brackets. See <u>Managing</u> <u>Bracket Orders</u> for instructions.



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## Certain aspects of the bracket orders are predefined:

- The quantity of the bracket order(s) will always be equal to the quantity filled in the primary order.
- 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.
- Bracket orders 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.
- Brackets on symbols with wide spreads may not fire if the spread is too wide.
- Bracket orders are only active during the standard session (9:30 a.m. ET to 4:00 p.m. ET)
- Bracket orders are always sent as a <u>SmartEx</u> Market order regardless of the primary order's routing venue.
- Bracket orders trigger off the bid/ask price for both stocks and options.
- While the Est. Price 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 Order Examples</u> topic to get a better understanding of brackets in action.

- Note: Brackets will not adjust price or quantity of shares due to corporate
  actions, including but NOT limited to stock splits, stock dividends, spin-offs, mergers,
  and name changes.
- Bracket orders will not function on boxed positions.
- Brackets placed on stocks that do not have bid/ask quotes, including Pink Sheet securities will not activate.
- When placing a bracket order 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.

You may establish up to 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.
  - For example, if 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.
- **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 as much of your gain in a position as possible 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.

For example, if you bought a stock at \$10 and wanted to protect yourself should the market move against you 5% (or .5 points per share) from the execution price, the trailing stop would place an order to close your position only if the stock price 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 .5 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 either 3% below the execution price or 10% above that price if met. This would occur regardless of your trailing stop calculation.

• **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.

For example, if you bought a stock at \$10 and wanted to ensure that you won't lose more than 10% on the trade, you could enter 1 pt, 10%, or \$9. The **Est. Price** label will show you what the likely result might be if the Stop Loss Exit is triggered.

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# **Managing Bracket Orders**

Once you submit the primary order, the bracket portion of the order will display as a contingent order in the Order Status tab of your Account Details.

You can also add, change, or remove bracket orders from the Order Status tab, just as you can with non-bracketed orders.

- When you first submit a primary order with brackets you will see that the bracket quantity will display 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 orders 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. Cancelling the remaining unfilled portion of the order will not impact the brackets.



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# Adding Brackets to a New Primary Order:

- 1. Check **Spec Cond & Brackets** in the Trading Window
- 2. Click **Buy** or **Short** (for option orders, click **Buy to Open** or **Sell to Open**).
- 3. Set up the details of your primary order, including order type, quantity, limit price, time in force, and any special conditions.

- 4. In the Bracket panel, choose which type(s) of bracket you wish to use in your risk management strategy for this position: **Profit**, **Trailing Stop**, and/or **Stop Loss**. See <u>About Brackets</u> 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 last Trade price if your order is a Market or Stop order.

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**

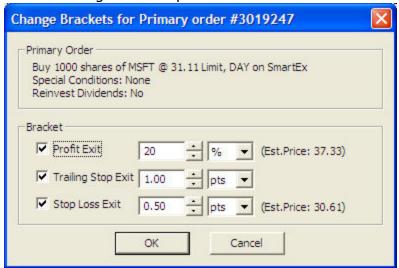
- 1. In the Order Status tab, right-click on the position you are adding brackets to and select **Apply Bracket to [symbol]**.
- 2. Check the bracket parameters you wish to add, and specify the values and units for each.
- 3. Click **OK**. The brackets now display as contingent orders in your Order Status tab.

# **Changing a Bracket**

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

1. In the Order Status tab, right-click the Contingent order you wish to change and select **Change Bracket**.

The following window opens:



2. Make your edits to the brackets and click **OK**.

3. 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 you remove and select **Remove** [**Bracket**]. If you wish to remove all bracket orders at once, select the **Change bracket** menu item 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 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 active.
- Changing a partially filled primary order: When you change an order, what actually happens is a cancellation of the existing order and a replacement 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 canceled.
  - 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 Pro is slow to receive position updates.
  This condition coupled with high volatility can result in brackets triggering before the position is received by StreetSmart Pro. When this occurs, the bracket order fails. When placing trades in these marketplace conditions, setting looser bracket exits will still provide
  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 limited to stock splits, stock dividends, spin-offs, mergers, and name changes.

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#### **Bracket Order 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 price reaches 27.50
- Loss Exit: 5% (1.25 pts) and will trigger the order if price 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 price reaches 27.50
- **Trailing Stop Exit:** 10% (2.5 pts) and will trigger order if price drops 2.5 points from any price below 27.50, or if the price 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: 10% (2.5 pts) and will trigger order if price drops to 22.50
- Trailing Stop Exit: 5% (1.25 pts) and will trigger order if price drops 1.25 points from any price above 23.75 (22.50 + 1.25); Loss exit would kick in first if price were equal to or below 22.50

#### 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 price reaches 27.50
- Loss Exit: 5% (1.25 pts) and will trigger order if price drops to 23.75
- **Trailing Stop Exit:** 5% (1.25 pts) and will trigger order if price drops 1.25 points from any price above 25.00 (23.75 + 1.25); Loss exit would kick in first if price were equal to or below 23.75 or profit exit would kick in if price reaches 27.50.

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#### **Charts**

# **Charting Overview**

#### **Charting 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.

Add <u>Studies</u>, <u>Trend Lines</u>, and even technical analysis <u>Strategies</u> to charts to enhance your ability to spot trends and buy/sell opportunities.

To open, click win the Toolbar.

StreetSmart Pro® software has advanced charting tools that give you the freedom to customize your charting experience to your precise specifications. Features available include more than 25 customizable studies (or indicators); trend lines and studies including SMA, EMA, Bollinger Bands® and Envelopes; chart types, including point and figure, bar, line, and candlestick; and much more.

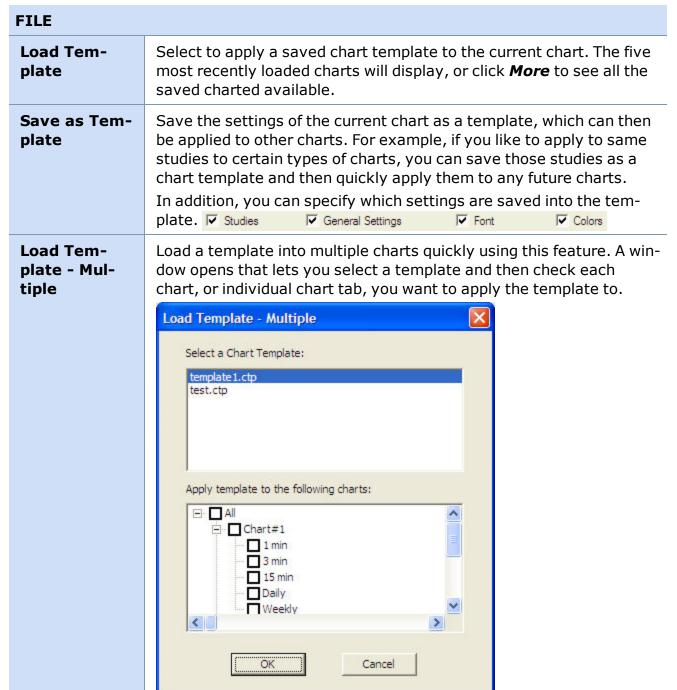
You may display up to 20 chart windows in a single layout with up to 20 tabs (each with unique chart settings) in each window, effectively allowing you to display up to 400 charts in one layout. Each tab can be setup to copy the setting from another tab or be unique to the tab itself.



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## **Charting Menu Bar**



FILE	
Page Setup	Enables you to customize the current page for printing. Read the <a href="Printing Windows">Printing Windows</a> topic in the Getting Started section for more information.
Print	Click to print the chart currently displayed.
Close	Click to close the chart currently displayed.
<b>Printing Charts</b> color to white.	Tip: If charts are not printing clearly, try changing the background

EDIT				
Symbol	Changes the symbol current being displayed in the Chart.			
	<b>TIP:</b> This can also be done by right clicking on the chart or by just typing a new symbol when the Chart window is active.			
Tick Data	Allows you to change specific bad data displayed in a chart that may impact the technical studies you are using. To edit tick data:  1. Click on the bar, line, or candle that has bad data.  2. Click on <i>Edit</i> > <i>Edit Tick Data</i> 3. The date at the top should be for the date you last clicked, if it is not, you can select the date or time from the pull-down menu.  4. Make the appropriate changes to <i>Open</i> , <i>High</i> , <i>Low</i> , or <i>Close</i> .  5. Click <i>OK</i> .			
Delete Selected Item	<ol> <li>Select the item to remove by clicking on the label for any study or trend line, or for support and resistance lines, click on the line itself.</li> <li>Select <i>Delete Selected Item</i> to remove it from the chart.</li> <li>You can also delete the selected line or label by pressing <i>Delete</i> on your keyboard or right-clicking on the label or line and selecting <i>Delete</i>.</li> </ol>			
Delete All	Deletes all of the available items for a group. The groups are Studies, Trend Lines, Support Lines and Resistance Lines.			

VIEW	
Time Lines	If checked, lines marking the time frame the chart spans (i.e., hours, days, months, etc.) are visible.

# VIEW

#### **Price Lines**

If checked, lines marking various price levels are visible.

#### VAP

If checked, lines marking where the highest Volume Average Prices have occurred.



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#### **Info Window**

The Info Window provides the statistical data for the point on the chart you have clicked on. When you first open the window from the pull-down, today's data will be displayed. To change the displayed data, either left-click on a specific point on the chart or hold down the left mouse button and move the mouse to find the date you want.

If you haven't made any changes to the chart, the data in the window will include that day's Open, High, Low, Close, Volume, and BOL (Bollinger Bands®). When you add more studies to the chart, they will also appear in the window. As you increase the number of viewed studies, you may not be able to see all of the statistical data in the window. To view all of the data available, you may need to resize the window by dragging the corner with the cursor until the all data is displayed.

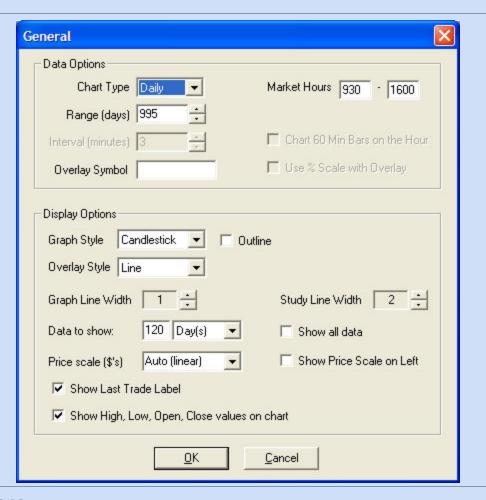
**NOTE:** You can access Settings, Views, Tools, and Trend lines by either using the respective pull-downs or right-clicking on the chart.

INSERT			
Study	The software allows you to add a vast number of studies to your chart for technical analysis.		
	<ol> <li>Highlight the study you wish to add in the left column.</li> <li>Make any period or color modifications.</li> <li>Choose the <i>Show In</i> option and place the study in any of the options in the drop down menu.</li> <li>Click <i>OK</i>.</li> </ol>		
	Go to Chart Studies for information on each available study.		
Trend line	<ul> <li>Select the <i>Type</i> of trend line to display. Go to <u>Trend Lines</u> for more information on which Trend lines are available.</li> <li>Type a label for the trend line so that you can identify it on the chart. In the chart below, we have identified an upward trend.</li> </ul> In the chart below, we have identified an upward trend.            In the chart below, we have identified an upward trend.            In the chart below, we have identified an upward trend.            In the chart below, we have identified an upward trend.            In the chart below, we have identified an upward trend.            In the chart below, we have identified an upward trend.            In the chart below, we have identified an upward trend.           In the chart below, we have identified an upward trend.            In the chart below, we have identified an upward trend.            In the chart below, we have identified an upward trend.            In the chart below, we have identified an upward trend.            In the chart below, we have identified an upward trend.            In the chart below, we have identified an upward trend.            In the chart below, we have identified an upward trend.            In the chart below, we have identified an upward trend.            In the chart below, we have identified an upward trend.            In the chart below, we have identified an upward trend.            In the chart below, we have identified an upward trend.            In the chart below, we have identified an upward trend.            In the chart below, we have identified an upward trend.            In the chart below, we have identified an upward trend.            In the chart below, we have identified an upward trend.            In the chart below, we have ide		
Support	Adds a horizontal <b>GREEN</b> line wherever you click on the chart to		
	indicate the Support levels you want to identify in the chart you are viewing.		
Resistance	Adds a horizontal <b>RED</b> line wherever you click on the chart to indicate the Resistance levels you want to identify in the chart you are viewing.		

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# **GENERAL**

#### **SETTINGS**



## **Data Options**

# Chart Type Choose the period the chart will be based on: *Monthly*, *Weekly*, *Daily*, *Intraday*, or *Ticks*.

#### Range (days)

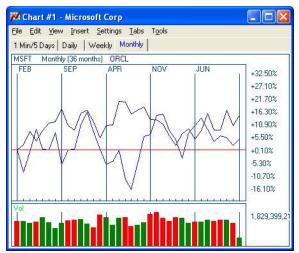
Enter number of periods up to 240 months for Monthly charts, 3,000 days for Daily charts, 250 weeks for Weekly charts, 30 days for an Intraday chart.

**NOTE:** The number of days available on an Intraday chart decreases along with your Interval setting. For instance, if you choose 1 minute intervals, you will only see 4 days of data; however, as you increase your interval, you can increase the number of days back available to view. 60 days of Intraday charts are only available when the interval is 10 or higher in intervals of 5. For example you can get 10 days for Intervals of 10, 15, 20, 30, 60. You can only get 5 days for Intervals of 1-5 minutes or any other number that is not devis-

SETTINGS	
	able by 5.
Interval (minutes)	Applicable to Intraday charts only.
Overlay Symbol	Enter a symbol to overlay on your chart.
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 streaming, 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.
Chart 60 Min Bars on the Hour	If checked, starting at 10:00 a.m. ET, a chart using 60 minute bars will be based on the hour (10-11, 11-12, etc.) rather than the half-hour (9:30-10:30, 10:30-11:30, etc.)
Use % Scale with Overlay	When overlaying another symbol on the chart, checking this box will change the display to a percent scale. Percentages are based off the performance over the time period (intraday, daily, monthly, etc.)  TIPS:  1. For the classic look, a line chart can be selected with a line overlay. Go to Settings > Colors to
	configure the colors of these lines for best display.  2. The current price will display in the right-hand scale that defines the percentages. To remove that display go to <b>Settings</b> > <b>General</b> and uncheck the <b>Show last trade label</b> box located at the bottom of that window.

#### **SETTINGS**

- 3. Use a support or resistance line and place it at the zero percent level. This level can be easily located as the starting point on the left when the symbol and overlay begin plotting.
- 4. Use the crosshairs to see the exact percentage numbers.



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#### **Display Options**

#### **Graph Style**

#### Bar

- On a daily chart, each bar is one day. On an intraday chart, each bar represents one interval.
- 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/last price for the day or interval was higher than today's opening price.
- **Red** indicates the security's closing/last price for

#### **SETTINGS**

the day or interval was less than or equal to today's opening price.

#### **Calculate Change From Open/Close**

Allows you to select the basis for the calculation of bars. By default this setting is Change from Open, which calculates a bar as up or down based on the difference between the open and closing price. When set to Change from Close, the color (or change) of each bar is determined by the difference between the previous bars closing price and the current bars last (or closing) price.

#### Candlestick

- On a daily chart, each stick is one day. On an intraday chart, each stick represents between 1 and 120 minutes.
- Green indicates the security's closing/last price for the day or interval was higher than today's opening price.
- Red indicates the security's closing/last price for the day or interval was less than today's opening price.
- Gray indicates the security's closing/last price for the day or interval was equal to today's opening price.
- The top and bottom of the line behind it represent the high and low for the day/period.

#### **Outline Candlesticks**

 Check or uncheck your preference to have the Candlesticks outlined or not. This is only available when candlestick is selected as graph style.

#### Line

- Yellow Opening price for that day or interval.
- **Green** High price for that day or interval.
- Red Low price for that day or interval.
- **Blue** Closing/last price for that day or interval.

#### **Line Graph**

SETTINGS	
	<ul> <li>When selected, you can choose which lines to view: Open, High, Low or Close.</li> </ul>
	Point & Figure Charts
	When selected, you can choose how to display the following items for Point & Figure:
	<ul> <li>Box size from 0.05 to 500</li> </ul>
	<ul> <li>Using either High/Low or Close</li> </ul>
	<ul> <li>Reversal from 1 to 5.</li> </ul>
Overlay Style	If applying an overlay of a second symbol, the style is set here.
Graph Line Width	This gray field is adjustable with the up or down arrows to the right of the field. The higher the number, the bolder the line in the chart.  NOTE: A higher setting may cause distortion to the graph.  Point and Figure charts have several designations the
	user should be familiar with.
	<ol> <li>Within the rising and falling columns of daily Point &amp; Figure charts there are letters and numbers. Since Point &amp; 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. See below:</li> </ol>

SETTINGS		
	2. 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. See below:  SPY Intraday (5 minute-10 day)	
Study Line Width	This gray field is adjustable with the up or down arrows to the right of the field. The higher the number, the bolder the line in the chart.  NOTE: A higher setting may cause distortion to the graph.	
Data to show	Specify the number of days to display in the chart at any one time.  NOTE: This is only applicable when the Show all data field is unchecked.	
Show all data	If checked, shows chart for the time frame specified in the Range (days).  If unchecked, this will display what is indicated in the Data to show field. A scroll bar will appear at the bottom of the chart allowing you to move back and/or forth through Range (days) selected.	
Price scale (\$'s)	Specify the increments for the price scale, from .05 to	

SETTINGS	
	Auto or Logarithmic. Once a price interval is selected (not Auto or Logarithmic), you can manually input an interval. You should select an interval that is appropriate to the price range of the security you are charting for the selected Range (days).  • Default is <i>Auto</i> , which allows the software to
	<ul> <li>select the optimal scale based on the size of the chart.</li> <li>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 truer picture of charts with large vertical ranges.</li> </ul>
Show Last Trade Label	Highlights the last trade price in the Price Scale.
Show Price Scale on Left	The Default will display the Price Scale on the right. By checking this field, the Price Scale will display on the left.
Show High, Low, Open, Close Values on Chart	When enabled, clicking a point on the chart will display the High, Low, Open and Close values for that point directly over the chart.  When disabled, clicking a point on the chart will display the values in a small separate window which can be moved around the screen.
Chart Type	Allows you to quickly change between Monthly, Weekly, Daily, and Intraday charts. The <b>Settings</b> > <b>General</b> window determines how many days or intervals are displayed.
Back Test	You can change the Back Test settings when applying a Strategy to the chart to see how having a different starting equity or trade quantity, or adding commissions to the cost of the trades, will affect the outcome of the test.
Fonts	Click to change the font style in the chart.
	1. When the Font box opens, select the type, style

SETTINGS	
	and size. 2. Click <b>OK</b> .
	<b>NOTE:</b> Large font sizes may not allow for a clean view of the text displayed in the chart.
Colors	To change the colors in a chart, select the item you wish to change, then press the color button to change, and click <b>OK</b> .

TABS (for more on tabs visit the Adding Tabs to Windows topic)		
Enable	Clicking <b>Enable</b> will create 2 tabs in the Chart Window, your current chart, plus an additional chart which you can customize separately using the <b>Tabs</b> > <b>Edit</b> menu item.	
Insert	Add more tabs than the 2 added when enabled.	
Edit	Edit the selected tab.	
Remove	Remove the selected tab	
Use same symbol for all tabs	When checked, all of the tabs within the Chart window will use the same symbol. When unchecked, all of the tabs can have specific symbols saved within the tabs.	

TOOLS			
Studies	The software allows you to add a vast number of studies to your chart for technical analysis.		
	<ol> <li>Highlight the study you wish to add in the left column.</li> <li>Click the &gt;&gt; to move it to the box on the right.</li> </ol>		
	<ul> <li>3. Choose the <i>Show In</i> option and place the study in any of the five options in the drop down menu.</li> <li>4. Click <b>OK</b></li> </ul>		
	Go to Chart Studies for information on each available study.		
Strategy	Open the <u>Strategy Center</u> to apply a strategy to the chart. You can		

TOOLS		
Center	also edit or create a new strategy from the Strategy Center.  To add a strategy to the chart, click on the strategy in the <b>Available Strategies</b> list and check. Show selected strategy on chart.	
Edit Strategy	Opens the <u>Edit Strategy</u> window for the strategy currently applied to the chart and will allow you to make changes to both the Strategy details and the chart display.	
Show Strategy	Once an initial strategy has been applied to the chart, you can use Show Strategy to hide or show the strategy on the chart.	
Strategy Per- formance Details	The Strategy Performance Details window breaks down the details and statistics of the strategy being tested in the Chart window.	
Crosshairs	Select to change your cursor to display a crosshair when you click on the chart. The Crosshair pointer can help you pinpoint prices on a chart more easily than when using the regular cursor.  Select again to turn off Crosshairs.	
Zoom In	Allows you to zoom in on a smaller area of a chart without having to change your Chart settings.	
	<ol> <li>Click Zoom In</li> <li>Click and hold the mouse button on the point within the chart where you wish to start to zoom in</li> <li>Drag your mouse across to the point where you wish to end the zoom in and release the mouse button.</li> </ol>	

# **Right-Click Charts Shortcut**

Right-clicking on a chart opens a menu allowing you to:

- Recent Stories for [Symbol]
- Research/Ext. Quote for [Symbol]
- Apply an Alert to [Symbol]
- Change Symbol...
- View: Time Lines, Price Lines, VAP (Volume At Price), and Info Window
- Chart Type (Monthly, Weekly, Daily or Intraday)
- Show all Data
- Trend, Support, and Resistance lines

- Tools: Studies, Strategies, Crosshairs, Edit Tick Data, Zoom-in
- Hide/Show Menu

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#### **Chart Tool Bar**

The Chart Toolbar allows quick access to the most commonly used chart features.

To enable, click **Toolbars** > **Chart Toolbar** in the main menu.

• Most buttons clicked in the Chart Toolbar will affect the *most recently accessed* Chart window.

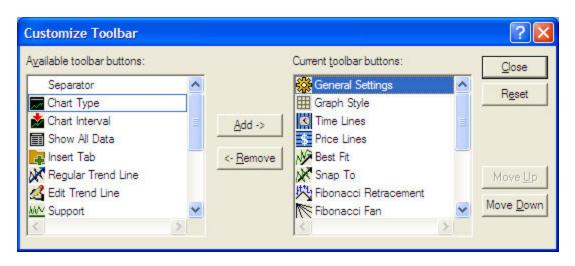
**EXAMPLE** You have 3 chart windows open, and you most recently clicked on Chart #2. When you click the Add/Edit Studies button, it will open for Chart #2. If you want the button you press to affect another chart, click that chart first and then click the button in the toolbar.

- The Regular, Snap to, and Best Fit trend lines are the exceptions and can be clicked in the toolbar and applied to any chart in your layout.
- Click anywhere in the main menu, and then hover your mouse over a button to see a **Tool Tip** that says what the button will do.
- All the buttons in the Chart Toolbar correspond to a feature also found in the menu of each Chart window.

#### **Customizing the Chart Toolbar**

Customize which icons are displayed on your chart toolbar. Select **Toolbars** > **Customize** > **Chart Tool Bar** from the main menu or right-click on the Chart Tool Bar and select **Customize...** The Chart Tool Bar customization window will open. You can then select which tools you want displayed on your toolbar.

- Use the Add/Remove buttons to move buttons between the Available and Current columns.
- Use the **Move Up/Move Down** buttons to put the buttons in the Current toolbar in the order you prefer.
- Click *Close* when you are finished customizing your Chart Toolbar.



## **Moving the Chart Toolbar**

The Chart Toolbar can be displayed vertically on the left/right hand side, or the top or bottom of the frame, or it can be removed to be a free-floating window.

- 1. Move your mouse pointer to the thin bar on the left side of the Chart Tool Bar.
- 2. Click on that bar and then drag the window to the location of your choosing.
- 3. Let go of the mouse button.

	Toolbar Features		
	Not all buttons are displayed by default. To add a button, click <b>Toolbars &gt; Customize</b> > <b>Chart Tool Bar</b> in the main menu.		
**	Chart General Set- tings	Open the <u>General Settings</u> for the most recently accessed Chart window.	
<b>+</b>	Crosshairs	Select to change your cursor to display a crosshair when you click on the chart. The Crosshair pointer can help you pinpoint prices on a chart more easily than when using the regular cursor.  Select again to turn off Crosshairs.	
-	Chart Type	Choose Monthly, Weekly, Daily, Intraday, or Tick	
*	Chart Interval	Choose from 5 to 120 minutes or select <b>Other</b> to open the <a href="Chart Settings">Chart Settings</a> window where you can enter a different interval.  Only applies to Intraday chart types.	
F	Add/Edit Studies	Click to open the Add/Edit Studies window, which lets you add technical analysis studies to your chart.	

# **Toolbar Features**

Not all buttons are displayed by default. To add a button, click **Toolbars > Customize** > **Chart Tool Bar** in the main menu.

<i>-</i> C	> Chart 1001 Bar in the main menu.		
		Go to Chart Studies for information on each available study.	
<b>W</b>	Regular Trend Line	Click to draw <u>Trend Lines</u> on the chart. The pointer will change to a pencil icon. Click and drag to draw the trend line.  Click the Trend Line button again to stop drawing trend lines (or select another button).	
<b>4</b> •	Edit Trend Lines	Click and select from the drop-down list which <u>Trend Line</u> you wish to edit. The button is only available when the most recently selected chart has trend lines drawn on it. The Edit Trend Line window lets you select the type of trend line (regular, Fibonacci, best fit (regression), etc.), as well as the color and label (name) for the line.	
<u>₩</u>	Support	Adds a horizontal <b>GREEN</b> line wherever you click on the chart to indicate the Support levels you want to identify in the chart you are viewing.	
₩V	Resistance	Adds a horizontal <b>RED</b> line wherever you click on the chart to indicate the Resistance levels you want to identify in the chart you are viewing.	
<b>F</b>	Insert Tab	Click to add a new tab to the most recently accessed chart window.  You must have <u>Tabbing</u> enabled for the chart in order to click the New Tab icon.	
■	Show All Data	If checked, shows chart for the time frame specified in the Range (days).  If unchecked, this will display what is indicated in the Data to show field. A scroll bar will appear at the bottom of the chart allowing you to move back and/or forth through Range (days) selected.	
≪	Edit Tick Data	Allows you to change bad chart price data, which may impact the technical studies enabled on the chart.  Click the Edit Tick Data button in the toolbar and then click the price point you need to edit on the chart. A window will open that allows you to change all four price points for that	

# **Toolbar Features**

Not all buttons are displayed by default. To add a button, click **Toolbars > Customize** > **Chart Tool Bar** in the main menu.

<i>-</i> C	> Chart 1001 Bar in the main menu.		
		period (open, close, high, low).	
X ·	Delete	Click the Delete icon to see a list of studies and trend lines in the most recently accessed chart so that you may delete one or more of them. You can also chose <b>Delete All Studies</b> to clear all studies from the chart.  Delete will not clear support and resistance lines. You must right-click on the line and select <b>Delete</b> to remove it.	
•	Graph Style	Switch between Bar, Candlestick, Line or Point & Figure chart types.  Read more about each of these graph styles in the Chart Menu Bar topic.	
	Time Lines	Click to hide or show the vertical time lines on the chart.	
\$	Price Lines	Click to hide or show the horizontal price lines on the chart.	
NS.	Best Fit	Click the button and then click on the chart to apply a Best Fit Regression trend line to the chart.  Read more about Best Fit in the <u>Trend Lines</u> topic.	
<b>₩</b>	Snap To	Click the button and then click and drag a line on the chart to apply a trend line that "snaps to" the open, high, low, or close of the trend being studied.  To change which price the trend line snaps to (the default setting is Close), click the <i>Edit Trend Lines</i> button in the toolbar and choose the Snap To line you wish to edit.  Read more about Snap To in the <u>Trend Lines</u> topic.	
典,	Fibonacci Retrace- ment	Click the button and then click on the chart to draw a Fibonacci Retracement line.  Read more about Fibonacci lines in the <u>Trend Lines</u> topic.	
	Fibonacci Fan	Click the button and then click on the chart to draw a Fibonacci Fan line.  Read more about Fibonacci lines in the <u>Trend Lines</u> topic.	

#### **Toolbar Features**

Not all buttons are displayed by default. To add a button, click **Toolbars > Customize** > **Chart Tool Bar** in the main menu.

<b>⋒</b> •	Fibonacci Arc	Click the button and then click on the chart to draw a Fibonacci Arc line.  Read more about Fibonacci lines in the <u>Trend Lines</u> topic.
	VAP	Click to show lines bars on the chart where the highest Volume Average Prices have occurred.
<u> </u>	Alert	Click to add a <u>Conditional Order or Alert</u> on the security in the most recently accessed Chart window.
	Load Template	Click to load a saved template into the current chart.
?	Help	Open the Online Help directly to information on using Charts in StreetSmart Pro.

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#### **Chart Window Settings**

## **Chart Settings**

StreetSmart Pro® software gives you real-time interactive charting capability with a wide range of customizable features. You can:

#### **Open a New Chart**

Open as many as six charts at one time.

- 1. Go to the Toolbar.
- 2. Click the chart icon **W**.

#### **Link Charts to the Trading Window**

A chart, or multiple charts, will automatically load the symbol of the stock in the Trading window if they are linked.

To link charts to the Trading window:

- 1. From the Trading Window, select **Settings** > **Links**.
- This allows you to link from a Trading Window to any chart or combination of charts. To link to multiple charts, such as Chart 2, Chart 2 must be open prior to going to **Settings** > **Links**.

#### Open Charts That Are Not Linked to the Trading Window

- 1. Highlight the chart by clicking it.
- 2. Type the symbol you want and press *Enter*.

#### **Get Chart Statistics**

While in the chart, click the left mouse button and the following information window will appear:

#1 - 15:27	12/02/09
Open	44.08
High	44.09
Low	44.07
Close	44.08
Volume	33,103
SMA 20	44.08

The contents of this window will vary depending on the studies that you have selected in your chart.

#### To Move the Window to Another Location on the Chart:

- 1. Click the mouse button and keep it pressed.
- 2. Place the mouse cursor on the top blue title bar of the window and release the mouse button.
- 3. Click the mouse button again and keep it pressed while you drag the window where you want it.
- 4. The window will only be visible while the left mouse button is down or while the cursor is on the information window.

**TIP:** To make the Info Window easier to move or always open, click **View > Info Window**.

#### To Expand the Detail of the Info Window:

- 1. Left-click the mouse button and keep it pressed.
- 2. Place the mouse cursor on the Info Window and then let go of the mouse button.
- 3. Drag your mouse cursor to the bottom edge of the info window until the arrow changes to a small black arrow pointing in two directions.
- 4. Keep it pressed while you drag the window down to increase the size.

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#### **Strategy Testing in Charts**

See a graphical representation of your Strategy Tester results in a chart. View the entry and exit points the strategy identifies and instantly see if the stock really did move up or down.

To set up, click **Tools** > **Strategy Center** in the Chart menu.

The image below shows long entry and exit points based on the Bollinger Band® strategy, which was applied to the chart.



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The strategy testing tools available in the Strategy Tester window are also available here in the Chart window:

• From the **Settings** > **Back Test...** menu, you can change the settings for the back test, such as commissions, quantity per trade, and initial equity. Refer to Back Test Settings to learn about each of those settings.

**TIP:** When establishing Back Test settings for a strategy being used in a Chart the "Bar Size" and "Number of Bars for Test" is effectively the same thing as the Interval and the Range in the chart **Settings** > **General**.

• From the **Tools** menu, you have access to:

Strategy Center	Open the <u>Strategy Center</u> to apply a strategy to the chart. You can also edit or create a new strategy from the Strategy Center.  To add a strategy to the chart, click on the strategy in the <b>Available Strategies</b> list and check <b>Show selected strategy on chart</b> .
Edit Strategy	Opens the <u>Edit Strategy</u> window for the strategy currently applied to the chart.
Show Strategy	Once an initial strategy has been applied to the chart, you can use <b>Show Strategy</b> to hide or show the strategy on the chart.
Strategy Per- formance Details	The Strategy Performance Details window breaks down the details and statistics of the strategy being tested in the Chart window.

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#### **Studies and Trends**

#### **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.

Add Studies to a chart from the **Tools > Studies** menu.

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

StreetSmart Pro® software allows you to incorporate studies into your charts for technical analysis. Studies can:

- Overlay on the price chart
- Display below the price chart (use the **Show In** drop-down located in the <u>Studies</u> window to put additional studies in separate panels in the Chart Window.)

**NOTE:** The same study can be displayed in both places.

Choose from the following default study parameters:

Study Name	Description
Adaptive RSI	Adapts the standard RSI to a smoothing constant. Default of 14 periods (minutes, hours, days, etc.) can be changed. 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. The formula is $ARSI_t = Close_t \text{ for } t < n$ $ARSI_t = ARSI_{t-1} + sc * (Close - ARSI_{t-1}) \text{ for } t >= n$ where $sc = 2 * \left  \frac{RSI_t}{100}5 \right $ and n is the RSI period (i.e. an n-period RSI).
Average DM (ADX)	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.*
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:
	<ul> <li>The current high minus the current low.</li> </ul>
	The absolute value of the current high less the previous close.
	<ul> <li>The absolute value of the current low less the previous close.</li> </ul>
	Default of 14 periods can be changed.
	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  .

Study Name	Description
Bollinger Bands®	The top and bottom lines are placed n-standard deviations above and below the center line*. Since standard deviations are a measure of volatility, the bands widen during volatile price action and contract when the trading range tightens. You can change the variables used in the calculation from the defaults of period=20 and n=2 standard deviations above and below.  *The center line is not included when applying a Bollinger Bands study. To get a center line, add a <b>Moving Average - Simple</b> study for the same number of periods (default=20) to the chart. Rather than two bands that are always an equal percentage away from the central average, Bollinger Bands expand and contract based on the standard deviation of the historical volatility of the price action. The formulas for the upper and lower bands are $UpperBand = SMA_t + m*F_t$ $LowerBand = SMA_t - m*F_t$ where m is the number of standard deviations and the formula for $F_t$ is $\sum_{i=t-n+1}^{t} (Price_i - SMA_t)^2$
CCI	The Commodity Channel Index ("CCI") measures 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. The formula is $CCI_t = \frac{Typ_t - \sum\limits_{i=-n+1}^n Typ_i}{0.015*\frac{1}{n}\sum\limits_{i=-n+1}^n Typ_i - \frac{1}{n}\sum\limits_{i=-n+1}^n Typ_i}$ where $Typ_t = \frac{High_t + Low_t + Close_t}{3}$
Directional	The Directional Movement study indicates the strength of a trend,
	- 205 -

Study Name	Description
Movement (DX)	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.*
DM(+DI) Positive	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.*
DM(-DI) - Neg- ative	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.*
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. Default of 20 periods with Upper and Lower % default of 6 can be changed. The formulas for the upper and lower envelopes are
	$UpperEnvelope = SMA_{i}*(1+F)$ $LowerEnvelope = SMA_{i}*(1-F)$
	where F is a factor such as 6% (i.e. 0.06 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. Default of 20 periods can be changed.
	$Vol_t = \sqrt{\frac{\displaystyle\sum_{i=t-n+1}^t \left[ \ln \left( \frac{P_i}{P_{i-1}} \right) - \frac{1}{n} \sum_{i=t-n+1}^t \ln \left( \frac{P_i}{P_{i-1}} \right) \right]^2}}$

Study Name	Description
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. Choose to view the Average of Puts & Calls ( <i>Avg</i> ), Average of Puts ( <i>Puts</i> ), or Average of Calls ( <i>Calls</i> ). Also, choose whether to view actual implied volatility ( <i>IV Actual</i> ) or a simple moving average of implied volatility ( <i>IV SMA</i> ). 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: The formula used in calculating this value is:
	2 in-the-money calls (nearest to the current underlying price) + 2 in-the-money puts (nearest to the current underlying price) for the two nearest expirations + 2 out-of-the-money calls (nearest to the current underlying price) + 2 out-of-the-money puts (nearest to the current underlying price) for the 2 nearest expirations /16
	Calls or Puts: The formula used in calculating this value is:
	2 in-the-money calls/puts (nearest to the current underlying price) for the two nearest expirations + 2 out of the money calls/puts (nearest to the current underlying price) for the two nearest expirations /8
Keltner Chan- nels	Keltner Channels consist of two bands that are not equidistant from the SMA.
lieis	Rather than two bands that are always an equal percentage away from the SMA, Keltner Channels expand and contract based on a moving average of the True Range (TR). The formulas for the upper and lower bands are
	$UpperBand = SMA_t + F * SMATR_t$
	$LowerBand = SMA_t - F * SMATR_t$
	- 207 -

# Last Close (Intraday)

When selected with an intraday chart, a line will display indicating the prior day's close price.



Stock symbols and price and volume data shown here and in the software are for illustrative purposes only. Charles Schwab & Co., 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.

# 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. Used with Signal Line below.

Study Name	Description
MACD His- togram	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.
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. The formula for an n-period Momentum is
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.    The formula for an n-period Money Flow is $MoneyFlow_i = \sum_{i=t-n+1}^t \left(\frac{(Close_i - Low_i) - (High_i - Close_i)}{High_i - Low_i}\right) *Vol_i$
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.   The formula for an n-period Money Flow Percent is $MoneyFlow\%_t = \left(\frac{1}{\sum\limits_{i=t-n+1}^t Vol_i}\right)^* \sum\limits_{i=t-n+1}^t \left(\frac{(Close_i-Low_i)-(High_i-Close_i)}{High_i-Low_i}\right)^* Vol_i$
Moving Average Exponential (EMA)	While similar to the SMA, 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. The default of 20 periods can be changed.  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  - 209 -

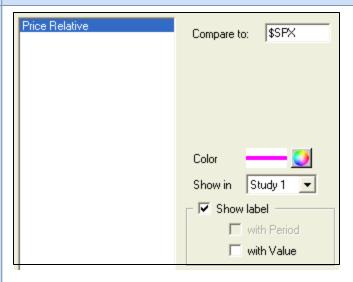
Study Name	Description
	is $EMA_t = F*\Price_t + (1-F)*EMA_{t-i} \text{ where Price is set to the } \textbf{Average} $ variable you select when you set up the study. F (Factor) can theoretically be any value between 0 and 1 but is generally related to an n-period SMA by the formula $F = \frac{2}{n+1}$
Moving Average Simple (SMA)	The average of the last 8-periods close values including current day. If current trading session hasn't closed yet, the last sale price is used. The default of 8 periods can be changed.  The formula for an n-period SMA is $SMA_i = \frac{\sum_{i=t-n+1}^{t} Price_i}{n}$ A moving average weighted on the price movement relative to the
	The formula for an n-period SMA is $\frac{SMA_{i}}{n} = \frac{1-m}{n}$
Moving Average - Geometric (GMA)	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. $GMA_t = \exp\left(\frac{\sum_{i=t-n+1}^t \ln(\operatorname{Price}_i)}{n}\right)$ The formula for an n-period GMA is Price is set to the <b>Average</b> variable you select when you set up the study.
Moving Average - Smoothed (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. The formula for the initial value of OMA is $OMA_i = \frac{\sum_{i=2-n+1}^{t} \Pr{ice_i}}{n}$
	<del>- 210 -</del>

Study Name	Description
	The formula for subsequent values is $OMA_{t} = \frac{n*OMA_{t-1} - OMA_{t-1} + Price_{t}}{n}$
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.    The formula is $OBV_t = \sum_{i=1}^t \left(S_i * Vol_i\right)_{\text{where } S_i = 1 \text{ if } \left(Close_i - Close_{i-1}\right) > 0}$ and $S_i = -1 \text{ if } \left(Close_i - Close_{i-1}\right) < 0$
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.   The formula is $SAR_{Tomorrow} = SAR_{Today} + AF\left(EP_{Trade} - SAR_{Today}\right)$ 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

Study Name	Description
	the <b>Minimum Step</b> and <b>Maximum Step</b> fields when setting up the study on your chart.  And $EP_{Trade}$ = Extreme Price Point of the trade made so far. If you choose <b>Long</b> from the Position drop-down, EP is the extreme high price for the trade; if <b>Short</b> , EP is the extreme low price for the trade.
Pivot Points (Intraday)	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 window, you may check the lines you wish to view: <b>R2, R1, Pivot, S1, S2 NOTE:</b> Pivot Point lines may not be visible depending on the price scale you have set in <b>Settings</b> > <b>General</b> , and the price discrepancy between the previous and the current trading day.  Pivot Points are calculated:  Pivot = (YesterdaysHigh + YesterdaysLow + YesterdaysClose) / 3.0;  S1 = 2.0 * Pivot - YesterdaysHigh;  R1 = 2.0 * Pivot - YesterdaysLow;  S2 = Pivot - (R1 - S1);  R2 = Pivot + (R1 - S1);
Price Relative (to Symbol)	Compares the performance of the symbol currently loaded in the chart to the symbol specified in the studies settings window.

# **Study Name**

## Description



# 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 and a low ratio is often interpreted as a bearish indicator.

The put/call ratio study can display the **Actual** value, where each individual data point represents the raw put/call data, or the **SMA** (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.

# Rate of Change

Change in price between the current price and the close 5 periods ago, divided by the price 5 periods ago. You can change the number of periods used in the calculation, and you can overlay the study on or underneath the price chart.

The formula for an n-period Rate of Change is

$$100*(\frac{RateOfChange_{t} = \frac{Price_{t} - Price_{t-n}}{Price_{t-n}}}{Price_{t-n}})$$

# 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

Study Name	Description
Study Name	in the calculation from the default of 15, and you can overlay the study on or underneath the price chart.  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.  The formula for the initial value of RSI is $RSI = 100 * \frac{U}{U+D}$ where $U = \frac{1}{n} \sum_{t=1}^{n} (Close_t - Close_{t-1})$ for all $(Close_t - Close_{t-1}) > 0$
	and $D = -\frac{1}{n} \sum_{t=1}^{n} (Close_t - Close_{t-1})$ 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 $\mathit{UP}_t = (\mathit{Close}_t - \mathit{Close}_{t-1})$ if $(\mathit{Close}_t - \mathit{Close}_{t-1}) > 0$ and 0 otherwise, and $\mathit{DOWN}_t = -(\mathit{Close}_t - \mathit{Close}_{t-1})$ if $(\mathit{Close}_t - \mathit{Close}_{t-1}) < 0$ , 0 otherwise
Signal Line	Used with MACD. You can change the periods used in the calculation from the defaults of 12, 26 and 9.
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.

Study Name	Description
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.
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. The formula for an n-period %K is $ \%K = 100* \frac{(Close-LowestLowlnLastnPeriods)}{(HighestHighInLastnPeriods-LowestLowlnLastnPeriods)} $
Stochastic RSI	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. The formula for an m-period stochastic of an n-period RSI is $SRSI = 100 * \frac{(LatestRSI - LowestRSI:nLastmPeriods)}{(HighestRSI:nLastmPeriods - LowestRSI:nLastmPeriods)}$
Volume/ Volume SMA	Simply the number of shares (or contracts) traded during a specified time frame (e.g., hour, day, week, month, etc).  You may also choose the <b>Show SMA</b> feature, which will show a simple moving average line in the Volume study. The image below shows the Volume study with a 20 period SMA overlayed.  **Chart #2 - Applied Materials**    MMAT   Daily (280 days)   MOV   DEC   JAN   FEB   MAR   APR   MAY   JUN   JUL   AUG   SEP   OCT   NOV   18.60   18.17   17.31



Study Name	Description
	Stock symbols and price and volume data shown here and in the software are for illustrative purposes only. Charles Schwab & Co., 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.
Williams % R	A momentum indicator that measures overbought and oversold levels. The interpretation of Williams %R is very similar to that of the %K stochastic indicator. 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 12.  For calculation purposes, %R is simply %K - 100.

\*Directional Movement is a trend-following system that consists of +DI, - DI, DX, and ADX. These values are interrelated as shown below.

$$\begin{split} ADX_t &= F*DX_t + (1-F)*ADX_{t-1} \\ DX_t &= 100*\frac{\left| (+DI_t) - (-DI_t) \right|}{(+DI_t) + (-DI_t)} & \text{if the denominator} > 0; \ 0 \ \text{otherwise} \\ &+ DI_t = 100*\frac{APDM_t}{AR_t} & \text{and} & -DI_t = 100*\frac{AMDM_t}{AR_t} \end{split}$$

where 
$$AR_{t} = F * R_{t} + (1 - F) * AR_{t-i}$$
,

$$\text{ where } \ R_t = \max(\left| \textit{High}_t - \textit{Low}_t \right|, \left| \textit{High}_t - \textit{Close}_{t-1} \right|, \left| \textit{Close}_{t-1} - \textit{Low}_t \right|)$$

$$\begin{split} APDM_t &= F*PDM_t + (1-F)*APDM_{t-i} \\ AMDM_t &= F*MDM_t + (1-F)*AMDM_{t-i} \end{split}$$

 $PDM_t$  is  $(High_t - High_{t-1})$  if > 0; 0 otherwise.  $MDM_t$  is  $(Low_t - Low_{t-1})$  if > 0; 0 otherwise. If both are > 0, the smaller is set to 0.

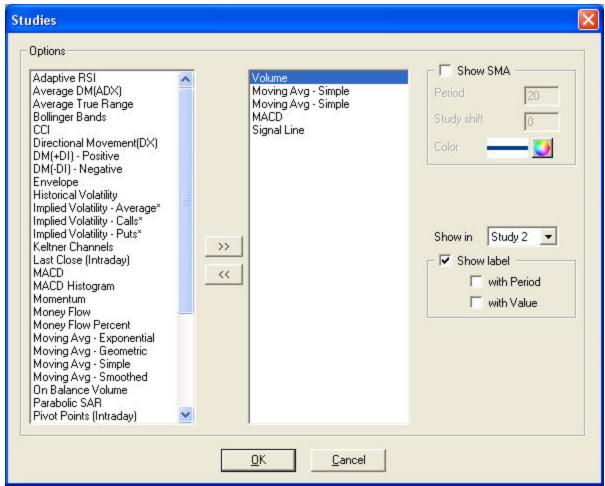
F (Factor) is related to an n-day SMA by the formula  $F = \frac{2}{n+1}$ .

# Right-Click Shortcut to Add a Study or Trend Line

- 1. Right-click in the chart.
- 2. Go to **Tools** and select **Studies** or **Trend lines** and select **New** or **Delete**.

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# Add or Delete a Study



# To Add a Study:

- 1. Click **Tools > Studies** and the Studies Set-up panel will appear.
- 2. Click on a study in the left column.
- 3. Click the >> button to activate the study.

#### **To Customize the Study:**

- 1. When it appears in the right column, click on the study to change its **Period(s)**, **Color**, **Show in**, and **Label** properties.
- 2. To change the default period, click in the window and add the new variable for your period.
- 3. Use the **Show In** drop-down to overlay the study in the main chart window or place the study in a separate pane below the chart.

- 4. **Study Data Points:** Certain studies may be more precise when using a larger set of data to calculate the study results, but occasionally, a chart will not have enough data to maximize the precision of the results. What StreetSmart Pro® charts do for studies where this applies is extend the period used to calculate the study up to 4x the study period to achieve the most accurate study results. Checking **Auto Optimize** will automatically try to achieve the most precise results given the amount of data available. By unchecking Auto Optimize, you have a choice about how much data to use in the study calculation. **Max Display** will use data only from the number of periods you specify. Max Precision will use data from the specified number of periods multiplied by 4.
- 5. Make the changes and click **OK**.

## To Delete a Study:

Click on the study, then click the << button.

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#### **Trend Lines**

Trend Lines are a technical indicator where a straight line is drawn connecting a series of prices with either a clear downward or upward trend.

Traders incorporating trend lines into their strategy may look for prices breaking through a trend line to potentially identify changing trends.

Set up Trend Lines from the *Insert* > *Trend Line* menu or click on one of the trend line icons from the Chart Tool Bar.

Up trends are defined by a trend line that is drawn between two or more troughs (low points) to identify price support within the trend. Down trends are defined by trend lines that are drawn between two or more peaks (high points) to identify price resistance within the trend.

Regular	A regular trend line will allow you to draw a line anywhere on the chart.
Snap To	Using a Snap to trend line, will place the trend line on the open, high, low, or close of the trend being studied.
Fibonacci Stud- ies	There are four popular Fibonacci studies: arcs, fans, retracements, and time zones. The interpretation of these studies involves anticipating changes in trends as prices near the lines created by the Fibonacci studies. StreetSmart Pro includes fan, arc, and retracement studies.
Fibonacci Fan	Lines are displayed by drawing a trend line between two extreme points, for example, a trough and opposing peak. Then an "invis-

	ible" 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 38.2%, 50.0%, and 61.8%
Fibonacci Retracement	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%, and 261.8%. (Some of the lines may not be visible because they will be off the scale.)
Fibonacci Arcs	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 <b>Show Levels</b> .
Best Fit Regres- sion	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.
<b>Delete Selected</b>	Click on the Trend line you wish to delete, then choose <b>Delete Selected</b> .
Clear All Trend Lines	Click to erase all trend lines.

## **Draw the Trend Line:**

- Once you have selected which Trend line to draw, left click at the spot on the chart where the line should start.
- Hold the mouse button down and move it across the chart to the end point for the line.
- Release the mouse button.

#### **Label the Trend Line:**

- From the New trend line box, go to the *Label* field.
- Type the name or description as you want it to appear on the chart.
- Click OK.

#### **Color of the Trend Line:**

- From the New trend line box, click on the Color palette.
- Select the color you would like to have displayed.

• Click **OK** once to get back to the New trend line box, then click **OK** again to apply the color.

**TIP:** Once a Trend line has been drawn, it can be moved. Moving the trend line is done by clicking on the line to modify and then either end of the line can be adjusted to fit the slope of the line to the chart.

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# **Strategy Testing Tools**

# **Strategy Overview**

Find out how you would have done in the market if you had used a particular technical strategy. The Strategy Tester is our backtesting tool that combines technical analysis strategies with historical market data to help you make future trading decisions.

You can load results from the Strategy Tester into the <a href="Chart">Chart</a> tool and the <a href="Strategy Ticker">Strategy Ticker</a>® tool to help you find buy or sell opportunities in real-time.

To open the Strategy Tester, click **\*\*** in the Toolbar.

StreetSmart Pro® offers a comprehensive suite of tools that work in concert to assist in providing a more user-friendly approach to technical analysis than is often found in institutional trading software. If you use trading strategies based on technical analysis principles or if you are interested in using back testing as part of your stock selection process, the following tools aim to facilitate your efforts:

<u>Strategy Center</u> - At the heart of the Strategy tools is the Strategy Center, where you create, save, and manage all the strategies you use in the Strategy tools. A strategy consists of one or more indicators (such as a price crossover on Bollinger Bands®, Moving Average, Envelope, etc.) with an associated trade action (such as Long Entry, Short Exit, etc).

The information you get from each strategy depends on what tool you apply it in. For example, applying a strategy in the Strategy Tester tool or in a Chart will apply the strategy for a certain period of time going backwards to see how well the selected strategy would have performed historically for a stock or list of stocks. Whereas in the Strategy Ticker and Strategy Matrix, the strategies are applied to real-time data in order to flag occurrences of the selected strategy crossing whatever threshold is set by the strategy.

The Strategy Center is accessible from any of the Strategy tools or from your Charts.

Strategy Tester - Provides the ability to search through historical performance results of back-tested technical strategies. It can help you identify the following:

- Best performing Securities for a given Technical Strategy and Bar Size
- Best performing combination of multiple Securities, Technical Strategies, and Bar Sizes
- Best 50 performing Technical Strategies for a Security and Bar Size



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<u>Charts</u> - Visualize your back testing entry and exit points for individual positions in your charts. The Charts tool has the same strategies available to it as the Strategy tools, and many of the studies in the Charts can be viewed in concert with the corresponding Strategy to help you identify what triggered each trade.

**EXAMPLE** In the image below, we have a Bollinger Band® study along with a strategy utilizing a Bollinger Band indicator. You can see where the closing price of any 15 minute bar crosses over the lower line, an entry is triggered, and where it crosses above the top line, the position is exited.



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<u>Strategy Performance Details</u> - For the historical testing tools like the Strategy Tester and Charts, Performance Details provide a wealth of data for each stock and strategy combination being tested. It not only summarizes all the data collected in the process of the test, such as performance percentages, buy & hold performance stats, winning/losing trade stats, hold times, etc., but it also breaks down each execution, each round trip trade, and tracks equity history.

You can even change your Strategy Tester settings (i.e. changing the estimated commission per trade, quantity per trade, initial equity, period for the test, etc.) to see immediately how they affect the bottom line in the test.



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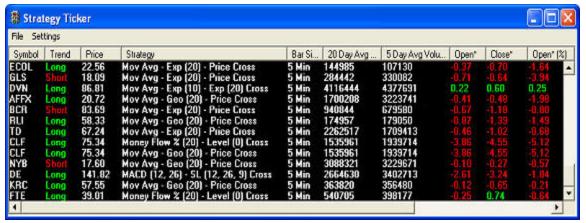
<u>Strategy Matrix</u><sup>™</sup> - The Strategy Matrix tool lets you monitor technical strategies for individual securities or indexes crossing thresholds specified by the strategies being monitored.



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<u>Strategy Ticker</u>® - The Strategy Ticker tool monitors the entire market and/or a defined set of equity or index symbols in real-time for triggers against specific technical strategies.

Once you have established one or more strategies to use in your trading, the Strategy Ticker and Matrix tools will help identify opportunities based on those strategies using real-time data.



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# **Strategy Center**

#### **Strategy Center Overview**

The Strategy Center, which is accessible from any of the Strategy tools and the Charts, is the heart of the Strategy suite of tools. It is the window in which you can create, save, and manage all the strategies you use in the Strategy tools.

#### What is a Strategy?

A strategy consists of one or more indicators (such as a price crossover on Bollinger Bands®, SMA, Envelope, etc.) with an associated trade action (such as Long Entry, Short Exit, etc).

The information you get from each strategy depends on what tool you apply it in. For example, applying a strategy in the <u>Strategy Tester</u> or in a Chart will apply the strategy for a certain period of time going backwards to see how well the selected strategy would have performed historically for a stock or list of stocks.

Alternately, in the Strategy Ticker® and Strategy Matrix<sup>™</sup>, the strategies are applied to realtime data in order to flag occurrences of the selected strategy crossing whatever threshold is set by the strategy.

## **Using Strategies**

You can apply strategies in several ways. Follow the links below to learn about each approach:

- Apply a built-in strategy
- Create a new strategy, either based on a built-in strategy or from scratch
- Edit a built-in or saved strategy and then apply it

To learn how to understand the results of running your strategies in any of the Strategy Tools, click on the specific tool name below:

- Strategy Tester
- Charts
- Strategy Matrix™
- Strategy Ticker™

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## **Applying Built-in or Saved Strategies**

Several common strategies are provided with your software to get you started. Using these at first can help you learn the tools as well as learn to create your own strategies.

**TIP:** The following steps apply to any of the Strategy Tools. The only difference is that the Chart window only allows one Strategy to be applied at a time, whereas the other tools allow multiple strategies at once. Exceptions for this difference are noted below.

- In the strategy tool of choice, click Settings > Strategy Center... in the menu (for Charts, click Tools > Strategy Center...)
- The Strategy Center opens showing a list of Available Strategies, Selected
   Strategies (the strategies that are currently being used in that tool), and buttons allowing you to manage these two lists.
- 3. To see what an individual strategy does, click on it and a description of the strategy will display at the bottom of the window.
- 4. To apply the strategy, click the strategy in the **Available Strategies** list and then click **Add**. The strategy will be added to the **Selected Strategies** list (for Charts, click the strategy and check **Show selected strategy on chart**).
- 5. Click **OK** to apply the changes to the tool.
- 6. Refer to the topics for each individual Strategy Tool to learn about the information the strategy is returning:
  - Strategy Tester
  - Charts

- Strategy Matrix
- Strategy Ticker

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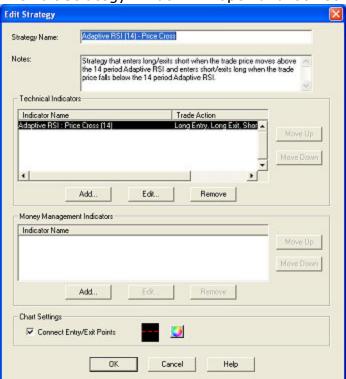
## **Editing Built-in or Saved Strategies**

A good way to learn how strategies work and how to create your own is to start by editing some of the built-in strategies. Follow the steps below to edit a built-in or saved strategy:

- 1. Open the Strategy Center from the **Settings** menu of your Strategy tool or the **Tools** menu of your Chart.
- 2. Click on a Strategy either in the **Available Strategies** or **Selected Strategies** list.
- 3. Click the **Edit** button.

**TIP:** If you want to preserve the original built-in or saved strategy but still build a new strategy based on the original, click *Copy* instead of *Edit* and a copy of the original strategy will open with a new name (you may want to change the name and Notes so they reflect the changes you are making to the strategy).

4. The Edit Strategy window will open and look something like this:



5. When you are finished editing the strategy, click **OK**. This will return you to the Strategy Center window.

EDIT STRATEGY	FIELDS
Strategy Name	Edit or enter the strategy name
Notes	An optional field. What you type here will be what displays in the Notes field when you click on a strategy in the Strategy Center. This field can be used to document the description of the strategy.
Indicators	<ul> <li>Lists the name(s) of the indicator(s) being used in the strategy and the Trade Action they are indicating.</li> <li>Click Add to apply another indicator to the strategy.</li> <li>You can edit the period, deviation and other indicator settings by clicking on the indicator and then clicking Edit.  This is also where you can change how the trade indicators display in a chart.</li> <li>Refer to Editing an Indicator to learn about the fields in the Add/Edit Indicator window.</li> <li>Multiple Indicators</li> <li>While it may simplify analysis to use one indicator at a time (and then apply multiple strategies to the tool), you can have more than one indicator per strategy.</li> <li>When using multiple indicators, the indicator at the top of the list takes precedence over each one below it, the second highest takes precedence over the indicators below it and so forth.</li> <li>Change the order of the indicators by clicking on the indicator you wish to move and then clicking Move Up or Move</li> </ul>
Money Man- agement	Money Management tells the strategy to trigger a trade exit based on a pre-determined Profit Exit, Stop Loss and/or Trailing Stop percentage. If the Money Management criteria are met, a Long Exit or Short Exit will trigger and the strategy will start over by looking for Entry opportunities.  1. Click Add 2. Select Profit Exit, Stop Loss, or Trailing Stop 3. Set the %Gain or %Loss, and 4. Click OK.  To add two or more Money Management indicators, repeat the

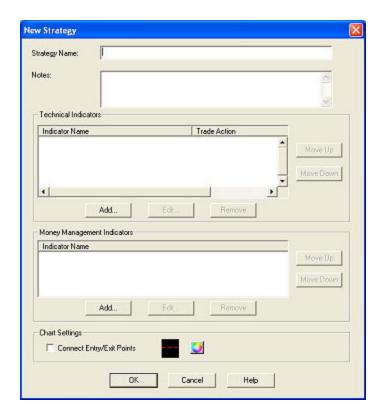
EDIT STRATEGY FIELDS	
	steps above and select the remaining indicator.
	On Back Test Assume: This option is only available with the Trailing Stop Money Management indicator and allows you to determine whether the test is based on more conservative (Worst) or aggressive/positive (Best) back test results.
	More about <i>On Back Test Assume</i>
	Because only bar data is used in back testing (i.e. high/low/open/close) rather than tick data, the software doesn't know in what order the high and low occurred. So, to use the Trailing Stop Money Management function, the software looks at two price action scenarios:
	<ol> <li>The Low occurs before the High</li> <li>The High occurs before the Low</li> </ol>
	The software then labels the scenario that gives the most profitable result as "Best" and the other one "Worst".
Chart Settings	Connect Entry/Exit Points - A dashed line from the entry to the exit point of each trade is displayed when this is checked and the strategy is applied to a chart.  Click to change the color of the dashed line.

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# **Creating New Strategies**

While several built-in strategies are available with your software and can be <u>edited</u> to suit your needs, you may also create your own custom strategies.

- 1. Open the Strategy Center from the **Settings** menu of your Strategy tool or the **Tools** menu of your Chart.
- 2. Click the New... button.
- 3. The New Strategy window will open and look something like this:



NEW STRATEGY FIELDS	
Strategy Name	Enter the strategy name
Notes	An optional field. What you type here will be what displays when you click on the strategy in the Strategy Center. This field can be used to document the description of the strategy.
Indicators	Lists the name(s) of the <a href="indicator(s)">indicator(s)</a> being used in the strategy and the Trade Action they are indicating.
	<ul> <li>Click Add to apply an indicator to the strategy.</li> </ul>
	<ul> <li>You can edit the period, deviation and other indicator settings by clicking on the indicator and then clicking <i>Edit</i>.     This is also where you can change how the trade indicators display in a chart.</li> </ul>
	<ul> <li>Refer to <u>Editing an Indicator</u> below to learn about the fields in the Add/Edit Indicator window.</li> </ul>
	Multiple Indicators
	<ul> <li>While it may simplify analysis to use one indicator at a time (and then apply multiple strategies to the tool), you can have more than one indicator per strategy.</li> </ul>

#### **NEW STRATEGY FIELDS**

- When using multiple indicators, the indicator at the top of the list takes precedence over each one below it, the second highest takes precedence over the indicators below it and so forth.
- Change the order of the indicators by clicking on the indicator you wish to move and then clicking Move Up or Move Down to change its position in the list.

# Money Management

Money Management tells the strategy to trigger a trade exit based on a pre-determined Trailing Stop, Profit Exit, and/or Stop Loss percentage. If the Money Management criteria are met, a Long Exit or Short Exit will trigger and the strategy will start over by looking for Entry opportunities.

- 1. Click **Add**
- 2. Select **Profit Exit**, **Stop Loss**, and/or **Trailing Stop**.
- 3. Set the **%Gain** or **%Loss**, and
- 4. Click **OK**.

To add two or more Money Management indicators, repeat the steps above and select the remaining indicator.

**On Back Test Assume:** This option is only available with the Trailing Stop Money Management indicator and allows you to determine whether the test is based on more conservative (**Worst**) or aggressive/positive (**Best**) back test results.

#### More about On Back Test Assume

Because only bar data is used in back testing (i.e. high/low/open/close) rather than tick data, the software doesn't know in what order the high and low occurred. So, to use the Trailing Stop Money Management function, the software looks at two price action scenarios:

- 1. The Low occurs before the High
- 2. The High occurs before the Low

The software then labels the scenario that gives the most profitable result as "Best" and the other one "Worst".

#### **Chart Settings**

**Connect Entry/Exit Points** - A dashed line from the entry to the exit point of each trade is displayed when this is checked and the strategy is applied to a chart.

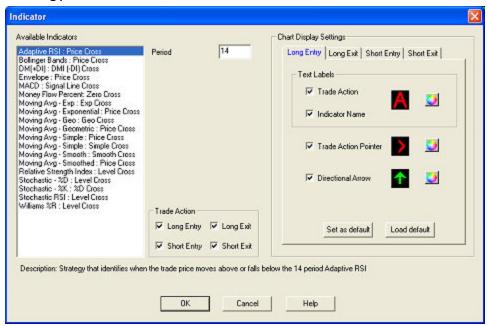
o - Click to change the color of the dashed line.

4. When you are finished creating the strategy, click **OK**. This will return you to the Strategy Center window.

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## **Editing an Indicator**

From the <u>Edit Strategy</u> window, you can edit the individual indicators that comprise a strategy.



A number of important settings are found here, each of which is described below:

EDIT INDICATOR FIELDS	
Available Indic- ators	Select an indicator from this set list of <b>Available Indicators</b> and set the <b>Period</b> , <b>Deviation</b> , or any other variables that may exist for the indicator.
	<b>TIP:</b> A <u>description</u> of each indicator displays near the bottom of the window when you click on it.
Trade	Select which trade action types you want the indicator to flag.
Action	<ul> <li>Long Entry and Short Exit - If checked, will trigger when a price or level cross takes place that, based on the parameters of the selected indicator, may mean the stock price is about to go up.</li> </ul>
	<ul> <li>Long Exit and Short Entry - If checked, will trigger when a price or level cross takes place that, based on the parameters of the selected indicator, may mean the stock price is about to go down.</li> </ul>

#### **EDIT INDICATOR FIELDS**

# Chart Display Settings

**Text Labels:** Check the boxes to display labels showing the **Trade Action** and/or **Indicator Name** when the Strategy is applied to a chart.

**Trade Action Pointer**: Check to display an arrow pointing to the exact price point at which the action takes place along the bar or candlestick.

**Directional Arrow**: Check to display an **up** arrow when the indicator parameters suggest an upturn in the stock price and a **down** arrow when the parameters suggest a downturn.

Click the color wheel buttons to change the color of the Text Labels, Trade Action Pointer, and Directional Arrow.

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# **Indicator Descriptions**

Adaptive RSI (14) - Price Cross	Strategy that enters long/exits short when the trade price moves above the 14 period Adaptive RSI and enters short/exits long when the trade price falls below the 14 period Adaptive RSI.
Bollinger Bands® (20, 2, 2) - Price Cross	Strategy that enters long/exits short when the trade price moves above the lower band and enters short/exits long when the price falls below upper band on a 20 period BB with a deviation of 2.
DM(+DI) - DMI (-DI) Cross	Strategy that enters long/exits short when the DM(+DI) moves above the DM (-DI) and enters short/exits long when the DM(+DI) falls below the DM (-DI).
Envelope (21, 3%) - Price Cross	Strategy that enters long/exits short when the trade price moves above the lower band on a 21 period 3% Moving Average Envelope and enters short/exits long when the price falls below upper band.
MACD (12, 26) - SL (12, 26, 9) Cross	Strategy that enters long/exits short when the (12, 26) period MACD moves above the 9 period Signal Line and enters short/exits long when the (12, 26) period MACD falls below the 9 period Signal Line.
Money Flow % (20) - Level (0) Cross	Strategy that enters long/exits short when the 20 Period Money Flow % moves above and enters short/exits long when the 20 Period Money Flow % falls below the zero (0) line.
Mov Avg - Exp (10) - Exp (20) Cross	Strategy that enters long/exits short when the 10 period EMA moves above and enters short/exits long when 10 period EMA falls below the 20 period EMA.
Mov Avg - Exp (20) -	Strategy that enters long/ exits short when the trade price

Price Cross	moves above the 20 period EMA and enters short/exits long when the trade price falls below the 20 period EMA.
Mov Avg - Exp (200) - Price Cross	Strategy that enters long/ exits short when the trade price moves above the 200 period EMA and enters short/exits long when the trade price falls below the 200 period EMA.
Mov Avg - Exp (50) - Exp (200) Cross	Strategy that enters long/exits short when the 50 period EMA moves above and enters short/exits long when 50 period EMA falls below the 200 period EMA.
Mov Avg - Exp (50) - Price Cross	Strategy that enters long/ exits short when the trade price moves above the 50 period EMA and enters short/exits long when the trade price falls below the 50 period EMA.
Mov Avg - Geo (10) - Geo (20) Cross	Strategy that enters long/exits short when the 10 period GMA moves above and enters short/exits long when 10 period GMA falls below the 20 period GMA.
Mov Avg - Geo (20) - Price Cross	Strategy that enters long/ exits short when the trade price moves above the 20 period GMA and enters short/exits long when the trade price falls below the 20 period GMA.
Mov Avg - Geo (200) - Price Cross	Strategy that enters long/ exits short when the trade price moves above the 200 period GMA and enters short/exits long when the trade price falls below the 200 period GMA.
Mov Avg - Geo (50) - Geo (200) Cross	Strategy that enters long/exits short when the 50 period GMA moves above and enters short/exits long when 50 period GMA falls below the 200 period GMA.
Mov Avg - Geo (50) - Price Cross	Strategy that enters long/ exits short when the trade price moves above the 50 period GMA and enters short/exits long when the trade price falls below the 50 period GMA.
Mov Avg - Sim (10) - Sim (20) Cross	Strategy that enters long/exits short when the 10 period SMA moves above and enters short/exits long when 10 period SMA falls below the 20 period SMA.
Mov Avg - Sim (20) - Price Cross	Strategy that enters long/ exits short when the trade price moves above the 20 period SMA and enters short/exits long when the trade price falls below the 20 period SMA.
Mov Avg - Sim (200) - Price Cross	Strategy that enters long/ exits short when the trade price moves above the 200 period SMA and enters short/exits long when the trade price falls below the 200 period SMA.
Mov Avg - Sim (50) - Price Cross	Strategy that enters long/ exits short when the trade price moves above the 50 period SMA and enters short/exits long when the trade price falls below the 50 period SMA.
Mov Avg - Sim (50) - Sim (200) Cross	Strategy that enters long/exits short when the 50 period SMA moves above and enters short/exits long when 50 period SMA falls below the 200 period SMA.

Mov Avg - Smo (10) - Smo (20) Cross	Strategy that enters long/exits short when the 10 period SmMA moves above and enters short/exits long when 10 period SmMA falls below the 20 period SmMA.
Mov Avg - Smo (20) - Price Cross	Strategy that enters long/ exits short when the trade price moves above the 20 period SmMA and enters short/exits long when the trade price falls below the 20 period SmMA.
Mov Avg - Smo (200) - Price Cross	Strategy that enters long/ exits short when the trade price moves above the 200 period SmMA and enters short/exits long when the trade price falls below the 200 period SmMA.
Mov Avg - Smo (50) - Price Cross	Strategy that enters long/ exits short when the trade price moves above the 50 period SmMA and enters short/exits long when the trade price falls below the 50 period SmMA.
Mov Avg - Smo (50) - Smo (200) Cross	Strategy that enters long/exits short when the 50 period SMA moves above and enters short/exits long when 50 period SmMA falls below the 200 period SmMA.
RSI(14) - Level (70, 30) Cross	Strategy that enters long/exits short when the 14 period Relative Strength Index moves above 30 and enters short/exits long when the 14 period Relative Strength Index falls below 70.
Stoch %D (14, 3) - Level (75, 25) Cross	Strategy that enters long/exits short when the (14, 3) period %D moves above 25 and enters short/exits long when the (14, 3) period %D falls below 75.
Stoch %K (14) - %D (14, 3) Cross	Strategy that enters long/exits short when the (14) period %K moves above and enters short/exits long when the (14) period %K falls below the (14, 3) period %D.
Stoch RSI (14) - Level (.75, .25) Cross	Strategy that enters long/exits short when the 14 period Stoch RSI moves below .75 and enters short/exits long when the 14 period Stoch RSI moves above .25.
Williams %R (14) - Level (-25, -75) Cross	Strategy that enters long/exits short when the 14 period Williams %R moves below -25 and enters short/exits long when 14 period Williams %R moves above -75.

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# **Strategy Tester**

## **Strategy Tester**

Find out how you would have done in the market if you had used a particular technical strategy. The Strategy Tester is our backtesting tool that combines technical analysis strategies with historical market data to help you make future trading decisions.

You can load results from the Strategy Tester into the **Chart** tool and the

<u>Strategy Ticker</u>® tool to help you find buy or sell opportunities in real-time. To open the Strategy Tester, click in the Toolbar. *Only available during market hours.* 

The Strategy Tester provides the ability to search through historical performance results of back-tested technical strategies. It can help you identify the following:

- Best performing Securities for a given Technical Strategy and Bar Size
- Best performing combination of multiple Securities, Technical Strategies and Bar Sizes
- Best 50 performing Technical Strategies for a Security and Bar Size.



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## **Testing a Strategy**

To test a strategy against one or more symbols:

- 1. Click **Settings** > **Strategy Center** to open the **Strategy Center** window.
- 2. Click on a strategy (notes with a description of each will appear at the bottom of the window when clicked) and click **Add**. Repeat to add multiple strategies.
- 3. If you wish to edit the strategy, you may also do this from the Strategy Center.
- 4. Click **OK** to apply the strategy(ies).

Next, you will need to add the symbol(s) to test against.

- 1. Click **Settings > Symbol List**.
- 2. Add the symbol(s) to the list by typing the symbol and clicking **Add**, or by loading a saved stock list by clicking **Load List**.
- 3. Click **OK** when you are satisfied with you Symbol List.

Now, you need to set up the parameters for the test:

- Click Settings > Bar Sizes. The Bar Size, combined with the Number of Bars to Test
  in the Back Test Settings (see below) determine the period for which the test is
  executed.
- 2. Check one or more bar sizes. For scalping and other fast turnaround techniques, a **5 Min** bar size would be more appropriate, whereas a **Daily** bar size would be better for someone with a longer term focus in their trading. A separate test will be run for each bar size selected.
- 3. Click **OK**, and you should begin to see some data in your Strategy Tester if you haven't already.
- 4. Finally, click **Settings** > **Back Test**.
- 5. Choose the desired Back Test Settings for the test:

BACK TEST SETTINGS	
Number of Bars for Test	This is used along with the <b>Bar Size</b> to determine how far back to test and how frequently the price is updated over that period. <b>EXAMPLE</b> If <b>Bar Size = 5 Min</b> and <b>Number of Bars to Test = 100</b> , the test will cover the last 500 minutes and base the test on the last trade price at the end of each 5 minute interval.
Initial Equity	Choose from <b>\$10,000</b> , <b>\$50,000</b> , or <b>\$100,000</b> as the "play money" being used in the test.  When the first trade is placed in the test, it will start with the initial equity amount. Then, as trading continues, your equity will increase or decrease depending on the success of the trades.
Best Per- formance Determination	Your selection here will determine the initial sort order of the list upon running the test.  **APR% - Annual Percentage Rate. This value is reached by multiplying a year (365 days) by the Performance % and then dividing by the number of days in the simulation. Simple interest used.

BACK TEST SETTINGS	
	<b>Sharpe Ratio</b> - Risk adjusted profitability for the test time period. \$IRX will be used for the Risk Free Rate of Return in the Sharpe formula.
	<b>Total Profit</b> - Total Profit or Loss (includes open positions)
Quantity per Trade	Select how many shares or contracts to trade each time a trade is triggered.
	Equities - Choose from 100 Shares, 1000 Shares, 10% of Available Equity, or \$5,000.
Commission per	Enter an approximate commission amount if you want to factor that into your P&L.

#### TIPS:

- Keep strategy/symbol/bar size combinations simple while you are learning to use the tool so that you avoid getting frustrated by information overload. Start by testing one symbol against a few strategies (or vice versa) and selecting only one or two bar sizes at a time.
- When establishing Back Test settings for a strategy being used in a Chart, this setting will not be available. The "Bar Size" and "Number of Bars for Test" is effectively the same thing as the Interval and the Range in the Chart settings.

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#### **Strategy Tester Column Descriptions**

The following columns are available in the Strategy Tester window. To learn how to configure columns, refer to Configuring Strategy Tester Columns.

STRATEGY TESTER COLUMNS	
Symbol	Symbol for security
Strategy	Name of Technical Strategy
Bar Size	Time length of bar (e.g., 5 Min, 60 Min, Daily, etc.)
Closed P&L	Total profit or loss for closed positions
Open P&L	P&L from positions still open at the end of the test
Performance %	A percentage measure of how much profit or loss the system generated based on its initial equity

STRATEGY TESTER COLUMNS	
	Performance % = ( Profit \$ + Open P&L \$) / Initial Equity(\$) * 100%
APR %	Annual Percentage Rate. This value is reached by multiplying a year (365 days) by the Performance % and then dividing by the number of days in the simulation. Simple interest used.  APR $\% = (365 * Performance \%) / Days in test$
Buy & Hold P&L	Profit from a buy and hold strategy. Buy at beginning of test and hold.
Buy & Hold Performance %	A percentage measure of how much profit or loss the a buy and hold strategy would of generated based on its initial equity.  (Buy & Hold P&L/Initial Equity) * 100
Buy & Hold APR %	Annual Percentage Rate for buy and hold strategy. This value is reached by multiplying a year (365 days) by the Buy & Hold Performance % and then dividing by the number of days in the simulation. Simple interest used.  Buy & Hold APR % = (365 * Buy & Hold Performance %) / Days in test
Sharpe Ratio	Risk adjusted profitability for the test time period. \$IRX will be used for the Risk Free Rate of Return in the Sharpe formula.
Winning Trades	The total number of trades that made money, excluding open positions.
Losing Trades	The total number of trades that lost money, excluding open positions.
Trade Profit \$	Total profit from all profitable trades, excluding open positions.
Trade Loss \$	Total loss from all losing trades, excluding open positions.
Final Equity \$	Ending equity from test (includes equity in open positions).
Highest equity balance	Highest amount of cash + position(s) value  Note: Calculation is based on closing price of each bar and includes open positions.
Lowest equity balance	Lowest amount of cash + position(s) value

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## **Strategy Testing in Charts**

See a graphical representation of your Strategy Tester results in a chart. View the entry and exit points the strategy identifies and instantly see if the stock really did move up or down.

To set up, click **Tools** > **Strategy Center** in the Chart menu.

The image below shows long entry and exit points based on the Bollinger Band® strategy, which was applied to the chart.



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The strategy testing tools available in the Strategy Tester window are also available here in the Chart window:

• From the **Settings** > **Back Test...** menu, you can change the settings for the back test, such as commissions, quantity per trade, and initial equity. Refer to Back Test Settings to learn about each of those settings.

**TIP:** When establishing Back Test settings for a strategy being used in a Chart the "Bar Size" and "Number of Bars for Test" is effectively the same thing as the Interval and the Range in the chart **Settings** > **General**.

• From the **Tools** menu, you have access to:

Strategy Center	Open the <u>Strategy Center</u> to apply a strategy to the chart. You can also edit or create a new strategy from the Strategy Center.  To add a strategy to the chart, click on the strategy in the <b>Available Strategies</b> list and check <b>Show selected strategy on chart</b> .
Edit Strategy	Opens the <u>Edit Strategy</u> window for the strategy currently applied to the chart.
Show Strategy	Once an initial strategy has been applied to the chart, you can use <b>Show Strategy</b> to hide or show the strategy on the chart.
Strategy Per- formance Details	The Strategy Performance Details window breaks down the details and statistics of the strategy being tested in the Chart window.

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# **Strategy Performance Details**

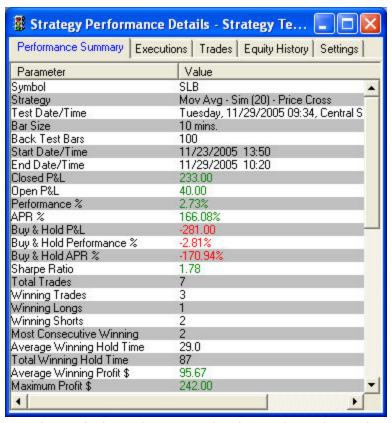
#### **Strategy Performance Details**

The Strategy Performance Details window breaks down the details and statistics of a strategy test. It is available in both the <u>Strategy Tester</u> and <u>Chart</u> windows.

To view, click **Settings** > **Back Test** in the Strategy Tester.

The Strategy Performance Details window has 5 tabs, each described below. Click on the tab names to view a description of the fields in each tab window.

**Performance Summary** - A total breakdown of the details of the test as a whole.



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**Executions** - A list of each execution sorted chronologically, including information about the type of trade and which strategy triggered the trade.



<u>Trades</u> - Shows each round trip trade, entry/exit time and price, gross and net P&L, etc.



**Equity History** - Tracks your starting equity chronologically, as well as indicating where commissions were applied.



**Settings** - Shows a summary of the settings used in the test.



You can also change the <u>Back Test settings</u> from the Performance Details window to see how having a different starting equity or trade quantity, or adding commissions to the cost of the trades, will affect the outcome of the test. Click **Settings** > **Back Test** in the Performance Details menu to configure those settings.

Strategy testing past performance data should not be construed as indicative of future results.

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## **Performance Detail Descriptions**

Following are descriptions of the fields in the Strategy Performance Detail tabs:

PERFORMANCE SUMMARY	
Symbol	Symbol for security
Strategy	Name of Strategy
Test Date/Time	When the test was run
Bar Size	Time length of bar (e.g., 5 Min, 60 Min, Daily, etc.)
Back Test Bars	Maximum number of bars for which the test was run
Start Date/Time	Date and time of the first bar of the test
End Date/Time	Date and time of the last bar of the test
Closed P&L	Total profit or loss from closed positions
Open P&L	Profit or loss on open positions at the end of the test
Performance %	A percentage measure of how much profit or loss the system generated based on its initial equity  Performance % = ( Profit \$ + Open P&L \$) / Initial Equity(\$) *  100%
APR %	Annual Percentage Rate. This value is reached by multiplying a year (365 days) by the Performance % and then dividing by the number of days in the simulation. Simple interest used.  APR $\% = (365 * Performance \%) / Days in test$
Buy & Hold P&L	Profit from a buy and hold strategy. Buy at beginning of test and hold.

PERFORMANCE S	PERFORMANCE SUMMARY	
Buy & Hold Per- formance %	A percentage measure of how much profit or loss the a buy and hold strategy would of generated based on its initial equity.  (Buy & Hold P&L/Initial Equity) * 100	
Buy & Hold APR %	Annual Percentage Rate for buy and hold strategy. This value is reached by multiplying a year (365 days) by the Buy & Hold Performance % and then dividing by the number of days in the simulation. Simple interest used.  Buy & Hold APR $\% = (365 * Buy & Hold Performance \%) / Days in test$	
Sharpe Ratio	Risk adjusted profitability for the test time period. \$IRX will be used for the Risk Free Rate of Return in the Sharpe formula.	
Total Trades	Total number of trades entered and exited. Does not include a trade entered at the end and not yet exited.	
Winning Trades	The total number of trades which made money, excluding open positions.	
Winning Longs	Number of winning long trades, excluding open positions.	
Winning Shorts	Number of winning short trades, excluding open positions.	
Most Con- secutive Win- ning	Most consecutive winning trades, excluding open positions.	
Average Win- ning Hold Time	Average number of bars for which a winning position was held (Total Winning Hold Time/Winning Trades)	
Total Winning Hold time	Total number of bars in a winning position	
Average Win- ning Profit \$	Average profit from winning trades	
Maximum Profit \$	Maximum profit from a winning trade	
Lowest Winning Profit \$	Lowest profit from a winning trade	
Losing Trades	The total number of trades which lost money, excluding open positions.	
Losing Longs	Number of losing long trades, excluding open positions.	

PERFORMANCE SUMMARY	
Losing Shorts	Number of losing short trades, excluding open positions.
Average Loss \$	Average loss from losing trades
Maximum Loss \$	Maximum loss from a losing trade
Lowest Loss \$	Lowest \$ loss from a losing trade
Average Losing Hold Time	Average number of bars for which a losing position was held
Most Con- secutive Losing	Most consecutive losing trades, excluding open positions.
Average Profit\$/Average Loss\$	Ratio of average \$ profit from winning trades divided by average \$ loss from losing trades.
Total Losing Hold Time	Total number of bars in a losing position
Out of Market Average	Average number of bars out of the market
Out of Market Maximum	Maximum number of bars out of the market
Out of Market Total	Total number of bars out of the market
Initial Equity	Initial equity used in test
Trade Profit \$	Total profit from all profitable trades
Trade Loss \$	Total loss from all losing trades
Commissions \$	Total commissions paid in test
Final Equity \$	Ending equity from test (includes equity in open positions)
Open Position \$	The dollar value for any position still open at the end of the test
Highest Cash Balance \$	Highest amount "cash" in account.
Lowest Cash Balance \$	Lowest amount "cash" in account
Highest Pos-	The most your open positions were worth simultaneously during

PERFORMANCE SUMMARY	
ition Value \$	the test
Highest Open Drawdown \$	The largest equity dip (relative to the initial investment) based on open position
Highest Closed Drawdown \$	The largest equity dip (relative to the initial investment) based on closed out position.
Highest Equity Balance \$	Highest amount of cash + position(s) value
Lowest Equity Balance \$	Lowest amount of cash + position(s) value

<b>EXECUTIONS</b>	
Number	Shows when this order happened, consecutively. If this number is 4, this order was the fourth order to happen in the test.
Bar	Indicates on what bar the activity occurred, based on the first date of the date range used when the simulation was run. <b>EXAMPLE</b> If this number is 6, the corresponding activity happened on the sixth bar of the tested data.
Date and Time	Tells you the date and time when the activity occurred.
Туре	Lists the type of order executed. Types include <b>Buy</b> , <b>Short</b> , <b>Indicator Exit</b> , <b>Profit Exit</b> , and <b>Stop Loss</b> .
Trade Size	Indicates how many shares/contracts were executed.
Price	Shows the execution price of any order type if the order is being executed.
Order Trigger	What initiated the order. Possible sources are Strategies, Profit Exits, or Stop Losses.

TRADES	
Position #	Tells you when the position was established, consecutively.
Entry Bar	This number indicates on what bar the position was established.
Entry Date and Time	Tells you the date and time when the position was established.

TRADES	
Entry Price	Price at which position was established.
Exit Bar	This number indicates on what bar the position was exited.
Exit Date and time	Tells you the date and time when the position was exited.
Exit Price	Price at which position was exited.
Bars	Number of bars between trade entry and exit
Trade Size	Number of shares/contracts of the position
Gross Profit / Loss \$	Profit or loss before commissions
Net Profit / Loss \$	Net profit or loss after commissions
Commission \$	Commission paid on position

EQUITY HISTORY	
Bar	The bar in the test that corresponds to the rest of the information on that row.
Date/Time	The date and time on which the bar and its equity account information occurred.
Cash	The cash balance
Overdraft	If the account is overdrawn, the amount below zero appears here.
Position	The value of any position. (will be calculated using the close price of each bar.)
Commissions	How much money was paid in commissions for this bar.
Total Equity	The value of the entire equity (cash+position) account at the end of this bar.

SETTINGS	
Initial Equity	The initial amount of equity at the start of the test
Trade Size	How position sizes where calculated. Can be as % of equity, # of shares, or total transaction cost.

SETTINGS	
Strategy	Name of Strategy used for test
Strategy Description	Detailed description of the strategy
Indicator #1	Name - Name of the indicator(s) used for the test
	<b>Trade Action</b> - Actions selected for the test, such as Long Entry, Long Exit, Short Entry, etc.
Trade Exit	<b>Profit Exit</b> - Percent value gain at which the whole position is closed for profit
	<b>Stop Loss</b> - Percent value at which a stop loss is triggered to close the position.
Bar Size	Time length of bar (e.g., 5 Min, 60 Min, Daily, etc.)
Back Test Bars	Number of bars for which the test was run (e.g., 100 bars)
Commissions (Equities)	Per trade commission value (based on the <u>Back Test Settings</u> )
Sharpe Ratio Risk Free Interest Rate	% used in Sharpe Ratio calculation. \$IRX value at the beginning of the back test period will be used in this calculation.

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# **Strategy Ticker**

## **Strategy Ticker®**

The Strategy Ticker tool can continuously scans the entire market for securities and indexes that meet pre-defined technical analysis parameters.

Instead of watching only a few charts with a few studies, the Strategy Ticker tool can monitor large quantities of data for all NASDAQ and NYSE stocks, indexes, and/or a user defined symbol list.

To open the Strategy Ticker, click **Tools** > **Start Tool** in the main menu and select **Strategy Ticker**.

You select the strategy and time period the Strategy Ticker tool bases its scans on, and it returns a real-time, streaming list of securities and indexes as predefined strategy signals are generated.

The technical strategies available are similar to studies or combinations of studies in Charts but are programmed to display a notification in the Strategy Ticker window of a possible upward trend or downward trend based on selected strategies.



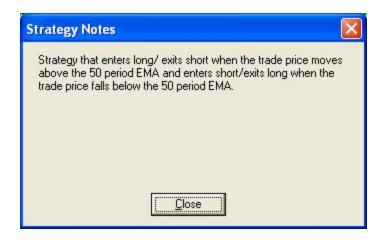
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There are several ways you can customize the window to monitor for what best fits your trading strategy:

- You select whether to monitor some or all of NASDAQ, NYSE, and/or Index symbols
- You can define your own or select from the 30+ pre-built strategies that you wish to monitor.
- You can choose what bar sizes you want considered.
- You can filter out securities and indexes above or below a certain price, as well as securities and indexes whose five day average volume is below a certain amount.
- Finally, you can select from up to 15 columns of data to display in your Strategy Ticker window.

### **Strategy Notes**

To view the Notes/description of the strategy signal generated, right-click on a row and select **Strategy Notes**.



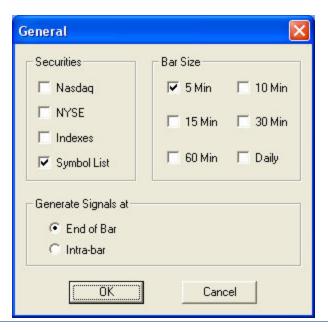
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# Strategy Ticker® Menu Bar

FILE	
Load Stock List	Selecting this feature will allow you to load a previously saved Stock List into your Strategy Ticker.
Save Stock List As	Selecting this feature will allow you to save your current stock list to a file on your computer, which you can load later.
Clear Stock List	Unloads the current Stock List leaving you with a blank Strategy Ticker window. This enables you to start a new Stock List from scratch (see Symbol List below for more info on adding and deleting symbols).
Page Setup	Enables you to customize the current page for printing. Read the <a href="Printing Windows">Printing Windows</a> topic in the Getting Started section for more information.
Print	Prints the current stock list.
Export	Saves the current stock list to a text (.txt) file in your <i>SSPro</i> folder, which can then be opened in Excel or other third-party software.
0, 1, 2, 3	Strategy Ticker will remember the last 9 files that have been opened. To toggle between files, click on any of them. This will be faster than going into the Symbol List option.
Close	Closes the Strategy Ticker window.

#### General

- Securities: Select one or all security types to monitor: NASDAQ, NYSE, Indexes, or a Symbol List.
- Bar Size: Select the bar size you want used (i.e., 5 Minutes, 15 Minute, Daily, etc.
- Generate Signals at: To generate signals at the closing price of the bar, select *End of Bar*. Otherwise, select *Intra-bar* to generate signals within the timeframe of the bar.



### Symbol List

# **Adding Symbols:**

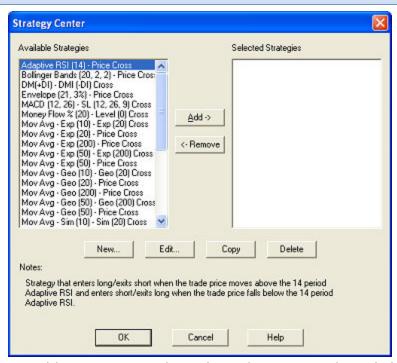
- 1. Click **Settings** > **Symbol List**.
- 2. In the Symbol List window type in the stock or index
- 3. After typing each, press **Enter** on your keyboard or click the **Add** button
- 4. After all the stocks and indices have been entered, click **OK**.

### Saving a Symbol List:

- 1. Click File > Save Stock List As...
- 2. In the Save window that appears, type in the file name you would like to save the list as, then click **Save**.

# Strategy Center

Select the Strategies you wish to monitor. Click on any strategy to view its description at the bottom of the window.



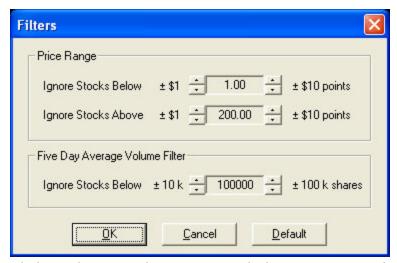
To add a strategy to the Selected Strategies list, click on it in the Available Strategies list and click the **Add** button.

To remove a strategy from the Selected list, click on it and then click the **Remove** button.

#### **Filters**

### **Price Range**

The Price Range filter allows you to set the price level below which, and above which, a security or index will be ignored.



Click on the arrow buttons provided to increase or decrease the prices within the Ignore Below and Ignore Above settings. Prices are based on

yesterday's close. The minimum "below" setting is \$1 and the maximum "above" setting is \$1000.

# **Five Day Avg Volume Filter**

To ignore securities or indexes with a five day average volume below a certain value, use the up and down arrows to specify that value.

### Columns

### **Visible Columns:**

- Trend Long for possible uptrend, Short arrow for possible downtrend
- Price Price at which the signal was generated
- Technical Strategy Name of the strategy that generated the notification
- **Bar Size** Size of each bar used for which the signal was generated (i.e. 5 Minute, 10 Minute, 15 Minute, 30 Minute, 60 Minute, or Daily)
- Time Date and time the signal was generated
- 20 Day Avg Volume Average volume for the security over the last 20 days
- **5 Day Avg Volume** Average volume for the security over the last 5 days
- **Open\*** Point change in the security's price since the Open
- Close\* Point change in the security's price since the previous Close

SETTINGS	
SEITINGS	<ul> <li>Open* (%) - Percentage in price change in the security's price since the Open</li> <li>Close* (%) - Percentage in price change in the security's price since the Close price</li> <li>Profit Exit - When the strategy has a Money Management Profit Exit % indicator defined, a hypothetical Profit Exit is calculated based on the price at the time of the signal. If the trend is Up, the percentage will be added to the price. If Down, it will be subtracted.</li> <li>Stop Loss - When the strategy has a Money Management Stop Loss % indicator defined, a hypothetical Stop Loss is calculated based on the price at the time of the signal. If the trend is Up, the percentage will subtracted from the price. If Down, it will be added.</li> <li>Hide Column Header: Check the box to hide the column names.</li> </ul>
Colors	Change color settings with this option
Colors	Change color settings with this option.
Fonts	Change font settings with this option.

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# **Strategy Matrix**

# **Strategy Matrix**

The Strategy Matrix™ tool lets you monitor technical strategies for individual securities or indexes.

It monitors the specified security or index for each period to see where that security or index may meet the pre-defined parameters for each technical strategy.

To open the Strategy Matrix, click **Tools > Start Tool** in the main menu and select **Strategy Matrix**.

Rather than being limited to monitoring only a few studies for a single period length as you would if you watch the chart, the Strategy Matrix tool can sift through large quantities of data to provide immediate feedback across a broad range of periods and strategies.

You select the technical strategy and time periods the Strategy Matrix tool displays, and it displays in real-time whether each strategy over each period length meets the pre-defined technical analysis parameters. The technical strategies available are similar to studies or combinations of studies in Charts but are programmed to display a possible upward or downward trend based on selected strategies.

**Long** means a possible upward trend and **Short** means a possible downward trend.



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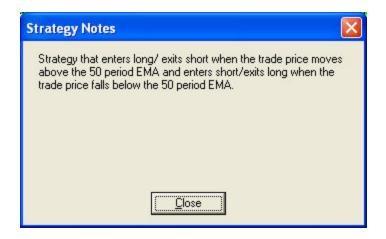
There are several ways you can customize the window to monitor for what best fits your trading strategy:

- You select which security or index to monitor.
- You can define your own or select from the 30+ pre-built strategies that you wish to monitor.
- You can choose what bar sizes you want considered.
- You select the earliest date from which you wish to get technical analysis for the security, and any data older than that date will be changed to **N** (None).

### TIPS:

# Strategy Notes

To view the notes/description of the strategy, right-click on the **Long** or **Short** flag and select **Strategy Notes**.



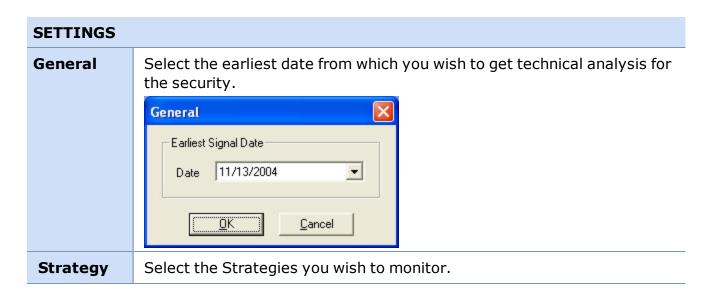
# Info

Click on a trend flag (Long or Short) to open a window showing information about the last time that signal was triggered.

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# Strategy Matrix Menu Bar

FILE	
Page Setup	Enables you to customize the current page for printing. Read the <a href="Printing Windows">Printing</a> . Windows topic in the Getting Started section for more information.
Print	Select to print the Strategy and Bar data displayed in the window
Export	Select to export to a tab-delimited text file
Close	Closes the Strategy Matrix window



SETTINGS	
Center	Click on any strategy to view its description at the bottom of the window.  To add a strategy to the Selected Strategies list, click on it in the Available Strategies list and click the <b>Add</b> button.  To remove a strategy from the Selected list, click on it and then click the <b>Remove</b> button.
Columns	Check the period length (bar size) columns that you wish to view in the Strategy Matrix window.
Colors	Change color settings with this option.
Fonts	Change font settings with this option.

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# **Account Detail & Alerts**

### **Account Detail Overview**

The Account Detail window puts all your account-specific information in one convenient location. This window gives you 7 tabs with streaming, real-time market data:

- Order Status
- Saved Orders
- Alerts
- Balances
- Realized Gain/Loss
- Positions
- Transactions



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The Account Detail window automatically opens when you log on to the software and closes when you log off.

If you minimized this window and want to re-open it:

- 1. Click on **Tools** in the Main menu.
- 2. Select Find Active Tool > Account Detail.

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## **Account Detail Menu**

Right-click in the Account Detail window and select **Show Menu Bar** to access the following options.

FILE	
Page Setup	Enables you to customize the current page for printing. Read the <a href="Printing Windows">Printing Windows</a> topic in the Getting Started section for more information.
Print	Prints the current page of the Account Detail
Export	To save the data on a particular page into a text (.txt) file for use in Excel or other programs, click on the tab whose data you wish to export and select <i>Export</i> from the <i>File</i> menu

#### **VIEW**

#### **Positions**

When selected, a new window will pop up that is populated with your account positions.

- The Symbol column displays the security symbols of the positions in your account.
- The Price column displays the last trade or closing price of the security.
- The Cost column displays the cost of the position.
- The Quantity column displays the quantity of shares held of each position.
- The Change column displays the net change of the security from either yesterday's closing price or today's opening price.
   The default is Change from Close, but can be switched to Change from Open by going to the Account Detail window Settings > General.

Within this window, there are three pull-down menu options:

**File:** Allows you to either print or close the window.

**Settings:** Allows you to change the following General Settings of the window:

- Display the Change column in either *Text* or *Graphical* format. Text displays the numerical change from open or close. Graphical displays the Change column as a horizontal graph bar, with negative change displayed on the left in red, no change as a magenta dash on the middle dividing line, and a positive change on the right in green.
- When *Graphical Display* format has been selected, you can change the Graph Settings fields. Unit Increment determines

VIEW	
	the point change that the vertical lines represent. Unit Width determines the number of pixels between each vertical line.
	<ul> <li>When checked, the Auto Sorting checkbox will automatically sort the column based upon the column you have clicked on.</li> </ul>
	<ul> <li>The <b>Data</b> option allows you to display the change column in either Point Gain or % Point Gain.</li> </ul>
	<b>Position:</b> Allows you to place a closing trade for the selected security.
Messages	Check Messages for the status of your orders and their execution, as well as information about alerts and the market in general.
	<b>NOTE:</b> Because error messages are displayed in this window, it's important to keep it open at all times.
	You can:
	- Scroll up or down to review all activity that has occurred during the current trading session.
	- Check the status of an order placed during your current logon session.
	- See why an order might have been rejected.
	- Get color-coded order status:
	• White - Current session settings and added Alert details.
	Black - Market session opening and closing information.
	Blue - Any messages related to orders.
	<ul> <li>Black with yellow highlight - When an alert is triggered.</li> </ul>
	<ul> <li>Red - Alert deactivated. Fired too quickly.</li> </ul>

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#### General

**Calculate Change from Open:** Allows you to view your positions as either a change from open or change from close. The default setting for account positions is a change from the previous day's close.

**Order Cancel Confirmation:** If checked, the software will ask for confirmation before canceling an order.

**Remove Closed Positions:** If checked, does not display closed, unsettled positions in the Positions tab. If unchecked, positions that are closed but not yet settled will display until the trade settles.

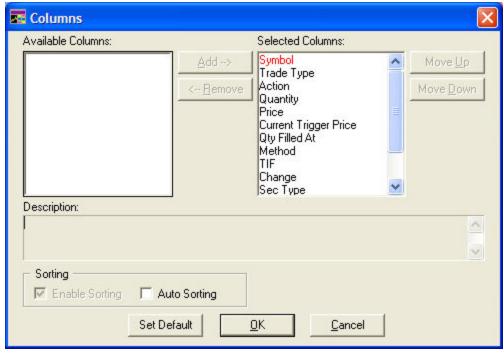
Order Status Filter: Choose how much information you want to

see in the Order Status tab.

- **Show All Available:** Shows all live orders, today's activity, and available activity from previous days.
- **Show All Live Only:** Shows only live orders. Does not show orders that have been filled, canceled, etc.
- Show All Live and Today's Activity: Shows all live orders and any activity from today but clears out activity from previous days.

#### Columns

- Click on the tab for which you wish to change your column settings.
- Click Settings > Columns to change the data fields displayed in the Account Detail columns.
- Move Columns you want to see in the current Account Detail tab over to the Selected Columns
- Column data can also be changed by right-clicking the column heading.
- You can change the order of the column data by dragging the column heading to the desired column location.



**Enable Sorting:** Is selected by default. You can simply click on any column header to sort by that column.

**Auto Sorting:** When checked, the sort order will change in real

SETTINGS	
	time as new data comes through. For example, if you were sorting by the Price column and Auto Sorting was checked, the sort order of the watch list would change as prices changed.
Fonts	Use this option to change the Account Detail font settings.
Colors	Use this option to change the Account Detail colors.
Sounds	To activate the Sound Alert option you must have a sound card and speakers. The system will alert at the following instances: <b>Log On</b> , <b>Log Off</b> , <b>Live order entered</b> , <b>Order filled</b> , and <b>Order Canceled</b> . Click <b>Browse</b> to find .wav files to use. Windows comes with several .wav files, and you may also download audio files from the internet or other sources. This software does not come with any .wav files.
	Conditional Orders that are triggered and eventually filled will sound both the <b>Live order entered</b> and <b>Order filled</b> Sound Alerts (if you have selected sounds for these actions), as well as any sound alerts included as part of the action of the conditional order.

<b>ALERTS</b> (Refer to the <u>Alerts</u> topic for more detailed information about Alerts)	
Load	Allows you to load saved Alert (*.alr) files
Save All As	Allows you to save the alerts in your Alert tab to a file
New	Click to begin creating a new alert.
Edit	Click on the alert you wish to edit and then click <b>Edit</b> . The Edit Alert window will open allowing you to make changes. Click <b>OK</b> when you are finished.
Remove Selected	Click on the alert you wish to remove and click <b>Remove Selected</b> . The alert will be removed from your Alerts tab. Removing an alert will delete it from the system.
Remove All	Removes all alerts in the Alerts tab and permanently deletes them.
Activate/ Deactivate Selected	Alerts that you want readily available but not necessarily active (live) all the time can be set to Inactive when they are not in use. Click on an alert and select <b>Activate Selected</b> or <b>Deactivate Selected</b> depending on the status you want for that alert.
Activate All	Makes all alerts in the Alerts tab active enabling them to fire if their conditions are met.
Deactivate All	Makes all alerts in the Alerts tab inactive so that none of them will

<b>ALERTS</b> (Refer to the <u>Alerts</u> topic for more detailed information about Alerts)	
	fire regardless of whether the condition is met (until they are made Active again).
Templates	The Alert Templates feature allows you to create alert "shells" containing the variables that you use all the time. Once established these can be quickly completed to fit a specific situation and activated from windows such as the Watch Lists, Charts, etc. See <a href="Applying Alert Templates">Applying Alert Templates</a> for detailed information

ORDER STATUS (only visible when Order Status tab is selected)	
Cancel	Cancels a live order from the Account Detail. (Only appears if an order is currently Live.)
Change	Allows you to change the order you highlighted. Not all orders can be changed, see <a href="Changing or Canceling Orders">Changing or Canceling Orders</a> for more information.
Details	Allows you to view full details of the order you have highlighted, including executions for your order.

Positions (only visible when Positions tab is selected)	
Close	Allows you to place an order to close the position you highlighted.
Adjust Cost	Click on a Position in the Account Detail and select <b>Adjust Cost</b> to change the dollar amount paid or received for that position. That adjusted number will be used as a basis for calculating the average share cost for any additional purchases and sales.
View Trade	Click an equity or option position and select <b>View Trade Lots</b> to see lot information.

TRANSACTIONS (only visible when Transactions tab is selected)	
Update	Allows you to view specific account transactions up to 90 days old. See <u>Transactions</u> for more information.

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# **Messages Window**

# Messages

By clicking **View > Messages** in the Account Detail menu, you can view streaming order status in the Messages window for the current day only. If you log off and back on multiple times during the day, all messages for the previous session(s) will display in gray.

The Messages Window provides useful information about your software settings, order status information, alert messages, and market session information. If you make any changes to your software settings, these changes will also be noted in the Messages Window.

The streaming data displayed includes:

- New Order Accepted
- Orders Filled
- Nothing Done / Out
- Alerts & Conditional Order Events
- Change Order
- · Cancel Accepted



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As the Messages Window provides you with real-time information not always available in other parts of the application, we recommend leaving your Messages Window open while logged on.

# Printing Data From the Messages Window

A copy of your log files is maintained in the SSPro folder on your C: drive for each day you log in to the software. These files can printed in text format. Please note that Schwab retains the official copy of these logs.

To print data directly from the Messages window before logging off, go to *File > Print*.

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### **Order Status**

#### Order Status

The Order Status tab in the Account Detail window displays all orders - both open and closed - placed via any Schwab channel, including Schwab.com, TeleBroker $^{\text{\tiny TM}}$ , StreetSmart.com and StreetSmart Edge $^{\text{\tiny R}}$ .

The Order Status tab displays:

- Open orders, closed orders that have been filled, and canceled orders: You can sort on any column in the Order Status window by clicking on the column header you want as your sort key.
- **Contingent Orders:** This applies to SmartEx trailing stop orders and Bracket orders. Trailing stop orders 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. Please see the Brackets section for more information about those orders.



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- Partial fills: The Quantity Filled At column displays information 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. To view the individual fills, double-click on the order and an Order Details window will open displaying all of the fill events at the bottom.
- Sorting by Column: Click on a column name to sort by that column (click again to
  reverse the sort order). Press Shift and click on a second column to perform a secondary,
  more detailed sort within the primary sort. For instance, if you wanted to see all the Open
  Buy orders, you could do a primary sort on Status and a secondary sort on Action and
  the Open Buy orders would be grouped together.

Order Status automatically updates when orders are executed either via StreetSmart Pro or other Schwab channels.



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**NOTE:** 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. 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.

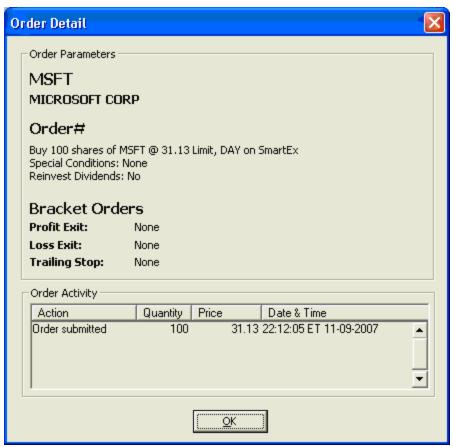
Tab Columns	Descriptions
Symbol	The unique 1-5 characters used to represent the security. Symbols are defined by the different markets or exchanges. Sometimes a security might not have a symbol, in which case, an internal Schwab reference # will be used.
Trade Type	Type of trade, for bracket orders (Primary, Profit Exit, Trailing Stop, or Stop Loss).
Action	Order action (Buy, Sell, Short, etc)
Quantity	For stocks or mutual funds, this field reflects the number of shares the order is for. For fixed income securities, this field reflects the face value of the securities. For options, this field reflects the number of option contracts.
Last Trade	The price at which the stock last traded. For options, price is updated based on the inside market (bid for long positions, ask for short positions).
Price	Shows the amount you intend to pay or receive for the purchase or sale of a unit of the security.

Tab Columns	Descriptions
Current Trig- ger Price	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 market moves up (for sells) or down (for buys) the trigger price moves up or down, and the Order Status panel displays streaming updates.
Cost Basis Method	Click the <b>View</b> 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 Pro 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.
Qty Filled At	Information for the first fill. If there are additional fills, displays the average price with the number of shares. To view the individual fills, double-click on the order and an Order Details window will open displaying the fill events at the bottom.
Method	Method of filling the order (SmartEx, ARCA, etc.).
TIF	Order time in force (Day, Good-Till-Canceled etc.).
Change	Specifies whether the order can be changed, <b>Yes</b> or <b>No</b> .
Sec Type	Security type (Equity, Option, etc)
Date & Time	Date and time at which the order was entered.
Order Number	A unique order number given to each order for identification and tracking purposes.

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# **Viewing Order Details**

You can see additional details about your order not displayed in the Order Status tab - like detail for individual fills- in the Order Detail pop-up window.



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# To Open the Order Detail Window:

There are three ways to access the details of your orders:

- Highlight the order and double-click on it.
- Highlight the order, right-click on it, then select **Details**.
- Highlight the order and select **Details** from the **Orders** drop-down menu

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#### **Cost Basis Method**

The Cost Basis Method (CBM) for all non-option orders that are closing transactions can be determined by enabling the Cost Basis Method column in the Order Status tab and then clicking the View link associated with the closing transaction.

- To change Account level CBM: On Schwab.com, go to Service > Account Settings
   Cost Basis Method and click the Change link). Changes are effective the following day.
- To change Order level CBM: On Schwab.com, go to *Trade > Order Status* and click the *View/Edit* link of the order you want to change, then click *Change*. 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).

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

To view your Cost Basis Method in StreetSmart Pro, enable the Cost Basis Method column in your Account Details Order Status tab (**Settings** > **Columns** and check the **Cost Basis Method** column), and click the **View** link. This will display the cost basis method for that order.

To learn more about the cost basis methods available to you and how cost basis affects your tax circumstances, log on to <a href="Schwab.com">Schwab.com</a> and go to <a href="Guidance">Guidance</a> > <a href="Taxes">Taxes</a> > <a href="Cost Basis">Cost Basis</a> <a href="Reporting">Reporting</a>.

# **Changing or Canceling Orders**

# **Changing Stock Orders**

To change a SmartEx order, go to the Account Detail window, Order Status tab and either right-click on the open order then select **Change** or click once on the order to highlight it, then click **Orders > Change**. A pop-up box will appear prompting you to modify your order.

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

Direct Access orders can never be changed.

# **Changing Multi-Leg Option Orders**

Changing **2-legged option orders** is similar to changing any other kind of order and takes place from the Order Status tab of the Account Details window. You can change the quantities, limit price (if applicable), special conditions, etc. Any fields unavailable to change are grayed out.

For **3- or 4-legged option orders**, you cannot change the order via StreetSmart Pro; instead, you must cancel and resubmit the entire order. While StreetSmart Pro only allows for the cancellation of existing 3- or 4-legged option orders, the replacement 3- or 4-legged option order can be entered electronically using Schwab's StreetSmart Edge® or StreetSmart Edge® in the Cloud.

The most significant difference is the Order Types available when changing a multi-leg order. You can choose between *Limit Debit* and *Limit Credit*, as well as *Even* (neither debit nor credit), and of course, *Market*.

Click **Verify Order** to confirm and submit the changed order.

# **Canceling Orders**

You can request to cancel open orders via the Order Status Tab. All Open orders have a green box in the left-most column, and you can either click on the order and press *Ctrl+C* or right-click on the order and select *Cancel*.

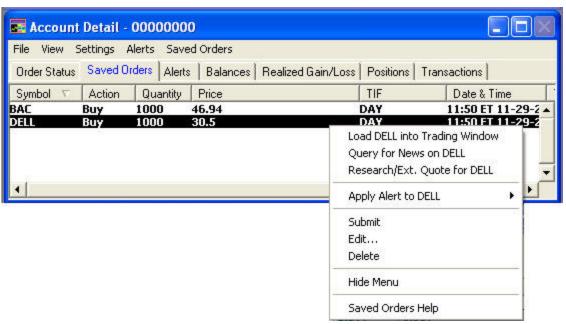
Because of the speed of execution and the short life span of market and marketable limit orders, canceling these orders may not always be possible.

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#### **Saved Orders**

#### Saved Orders Tab

Saved orders, made by clicking the **Save** button when entering a SmartEx order in the Trading window, are listed under this tab.



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### To Submit an Order From the Saved Orders Tab:

- 1. Right-click on the order you want to send.
- 2. The order will highlight.
- 3. Choose *Submit* to send the order.

You can also use the Saved Orders drop-down menu to access the **Submit**, **Edit** or **Delete** functions.

# **To Submit Multiple Saved Orders:**

- Press and hold *Ctrl* on your keyboard and click on the orders you want to submit (up to 10 at a time). To select several orders in a row, click the first order, hold the *Shift* key down, and then click the last order.
- 2. Right-click on the orders or click on the **Saved Orders** menu and choose **Submit Selected**.
- 3. If you have order verification turned on, you will have to verify each order individually.

Tab Columns	Descriptions
Symbol	Displays the unique characters used to represent the security
Action	Displays the action type of the order (Buy, Sell, Buy to Open, etc.)
Quantity	Shows the number of shares or contracts to be traded
Price	Shows the price at which you want the order placed
TIF	Displays the Time In Force: Day, GTC (Good 'Til Cancelled), etc.
Last Sub- mitted	Date and time saved order was last submitted
Last Modified	Date and time saved order was last modified
Туре	Displays the type of security, such as an equity or option

Right-Click Selections	Descriptions
Load [Symbol] into Trading Window	<ul> <li>Loads the symbol into the Trading window</li> <li>The quantity field is set to the Trading window default size – this default may be changed or you may set the default to match your position size. Go to the Trading window and select Settings &gt;</li> </ul>

Right-Click Selections	Descriptions
	General > Orders tab to change the default quantity.
Recent Stories for [Symbol] Stock	Loads the symbol into the Recent Stories tab of the <u>News</u> window
Research/Ext Quote for [Symbol]	Launches a web browser that automatically opens the Schwab.com Quotes and Research tab and provides information for your symbol.
Apply Alert to [symbol]	Opens sub-menu allowing you to use an alert template or create a new alert
Submit/ Submit Selected	<ul> <li>If the Order Verification preference is selected, clicking here will open the Verification window before submitting the order.</li> </ul>
	<ul> <li>If the Order Verification preference has been disabled, the order will be automatically validated and sent to Schwab for execution. If there are errors, you will receive an error notice in the Messages window. After editing you order, you can resubmit it in the Order Entry panel of the Trading window.</li> </ul>
Edit	Opens the Edit Saved SmartEx Order pop-up window
Delete	Removes the saved order from the window
Show/Hide Menu	Shows/removes the Account Detail menu

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### **Alerts**

## **Alerts Overview**

Alerts and Conditional Orders are designed to help you protect profits and limit your loss potential by monitoring for the market conditions you specify – even when you're not online.

When logged in, you can have the software alert you when certain price conditions you specify are met. Even if you are not logged in, you can have orders placed automatically on your behalf when your Alert conditions are met.

Set up alerts using the **Alerts** menu displayed in the Account Detail window when the Alerts tab is selected.

#### Overview

StreetSmart Pro® software offers a variety of ways to keep you informed of specific quote and volume changes for specific equities, options, and indices that you select. Alerts range in degrees of complexity from basic to advanced. Examples of each Alert type and how they function are included in this section of the manual.

### Basic Alerts:

Basic alerts use a single "absolute" criterion to set off (trigger) the alert. Once the alert condition is met, no additional calculations are required before the alert is fired. There are two absolute operators:

- · Increases to
- Decreases to

### **Intermediate Alerts:**

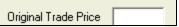
Intermediate alerts use a single "variable" criterion to trigger the alert. The variable criterion is based upon a change from a value that is determined at the time that the alert is created. There are two variable operators:

- Gains
- Loses

#### **Advanced Alerts:**

Profit and Loss alerts (Share P&L and Trade P&L) and change from open/change from close are advanced alerts that are always based upon two separate calculations involving the operators you select. The sequence of calculations in a P&L alert is as follows:

• First, your current P&L is calculated using the Original Trade Price you enter in the field shown below. *Trade P&L* and *Share P&L* are calculated differently although the end result is much the same. Your choice depends on which you feel more comfortable using.



The application takes the Original Trade Price that you enter and compares it to the current Bid or Ask at the moment the alert was created to determine your unrealized profit or loss. The Bid is used if you are long the security and the Ask is used if you are short the security.

 Second, a calculation is made based upon the criteria you select. Note that when using the *gains* or *loses* operators, the system is using the current P&L amount as a basis. If you have \$100 profit already and you input 'gains \$50' the alert will trigger when your profit reaches \$150. You can also set up alerts and conditional order commands for using different symbols for the condition and the conditional order. Useful combinations include an index coupled with an individual stock or an order for an option using its underlying equity for the condition.

# **Alert Persistence**

StreetSmart Pro® Alerts support server-held alerts and conditional orders to better customize your platform to your risk management needs. There are two ways to manage the time-frame of an alert:

#### **Persistent Alerts:**

This type of alert remains active, unless triggered, until the expiration date you specify. To make your alert persistent, check **Keep alert active after logoff** when setting up the alert and set an expiration date up to 60 days out. This alert can be set up at any time, but will be active only during the standard session.

**NOTE:** If you create an alert to fire when the Bid for a particular security gains 1 point, the software will initialize using the current inside Bid at the moment the alert was created. Alerts created outside of market hours on NYSE listed securities will initialize off the first Level II quote from the securities primary exchange. The alert will subsequently use the consolidated Level I quote to trigger off of during market hours.

**Alerts will reinitialize or reset each day** based on the inside bid/ask at opening. For example: *New Enhanced Alert 9 (Alert 9): If GE's bid loses 5 percent then sell 2,000 shares of GE at market on SmartEx and beep.* If the alert does not fire on the first day it is active it will reinitialize the next day at the opening bid/ask and reset the trigger price.

### **Logon Session Only:**

This type of alert (initiated by **not** checking *Keep alert active after logoff*) remains active only while logged on to the system. If you lose your connection to the StreetSmart Pro servers, Session Only alerts will remain on the system for 10 minutes. This allows you to log back in without losing the alerts. You must reestablish your connection within 10 minutes to ensure that any outstanding alerts are not lost. If you do not log off or get disconnected and your alert has not triggered, it will be deactivated at the end of the current standard session (4:00 p.m. ET).

Tab Columns	Descriptions
ID	Identification number assigned to the alert
Status	Shows whether the alert is Active or Inactive (right-click on the alert to change to status)
Name	Name of the alert

Tab Columns	Descriptions
Last Modified	Date and time the alert was last modified
Expiry	Date and time the alert is set to expire
Description	Alert description based on conditions, actions, and settings
Trigger Value	Value at which the alert will trigger. After hours, shows the last alert value upon market close. Does not update after hours.

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#### **Basic Guidelines about Alerts**

- You can establish alerts outside of standard market hours, but because alerts require
  updated Level 1 quote information to function, they will not be activated or become live
  (actionable) until the market opens. You can set up new alerts or alerts created from templates at any time and they will display in the Alerts tab.
  - Persistent alerts and conditional orders will automatically activate at the next market open.
  - Session Only alerts do not activate until the open of the standard session (9:30 a.m. ET) if set up during the pre-market.
  - Session Only alerts are deactivated when you log off the software. If you lose your connection to the StreetSmart Pro servers, Session Only alerts will remain on the system for 10 minutes. This allows you to log back in without losing the alerts. You must reestablish your connection within 10 minutes to ensure that any outstanding alerts are not lost. If you do not log off or get disconnected and your alert has not triggered, it will be deactivated at the end of the current standard session (4:00 p.m. ET)
  - All alerts will remain in the Alerts tab pending further action such as editing, activation, deactivation or removal.
- You can only use P&L alerts for securities in which you hold a position.
- Alerts with Conditional Orders for Boxed Positions can only be routed via SmartEx.
- Alerts established with conditions that have already been met will instantly fire when the alert is set.
- You can enter either positive or negative values with the *Increase to* and *Decrease to* criteria, depending upon your goal.
- The *Trailing Stop* feature is only available with *Gains* and *Loses* alerts.
- The Trailing Stop feature should not be confused with the Stop Order (order type). All alerts with Trailing Stops will be entered as a Market or Limit order types.

- Alerts with conditional orders can execute trades based on bad or out of range time and sales prints. You will be responsible for any orders that are executed, even if they are based upon inaccurate information. To minimize possible issues, the Bid or Ask variable should be considered when sending conditional orders for NASDAQ stocks and the (last) Trade Price variable should be considered when sending conditional orders for Listed securities. NOTE: 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.
- P&L Alerts are triggered off of the Bid price if you are long the security or Ask price if you are short the security.
- Alerts for indices should only be set up using the variables *Trade Price*, *Change from Open*, and *Change from Close*. Although you can create alerts for indices using other variables such as Bid or Ask, these alerts will never fire because the variables do not exist for indices.
- Avoid placing alerts on any stock that does not have bid/ask quotes, including Pink Sheet securities. Such alerts will not fire.
- When using the **Time** operator, alerts with a trigger time of later than 3:59 will not fire. Time alerts are monitored in full minute increments, so a time later than 3:59 would be 4:00, and the market is closed.

### **Critical Alert Information**

- Logging off, exiting the system, or being timed out from your session will deactivate any alerts that do not have Keep alert active after logoff checked. Saved alert files and Templates are still inactive, but can be easily loaded when you logon again.
- You may choose to confirm orders before sending. You must be logged on to your software for a triggered alert to send an order if confirmation is required.

Confirm order before sending

If you do not have this setting checked, your active alert will trigger an order without your confirmation whether you are logged in or not.

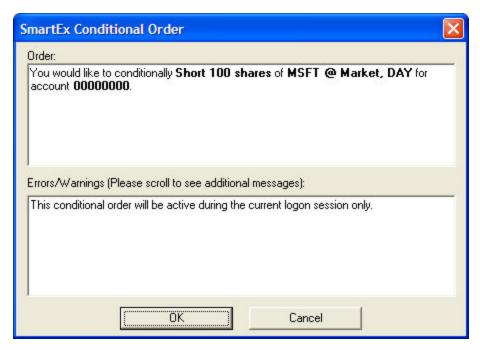
- Alerts established with conditions that have already been met will fire immediately after the alert is set.
- Alerts on symbols with wide spreads may not fire if the spread is too wide.
- Alerts and conditional orders automatically cancel if triggered within 10 seconds of being set.
- When placing a Conditional order where you specify a certain number of shares to trade,
  if the tradable quantity of your position is less than the specified number, the software
  will send the order for the lesser amount instead of not sending the order due to insufficient shares available to trade.

**EXAMPLE** You have 1000 shares of AAPL with a trailing stop active that will close 1000 shares if the bid loses .05 points. At some point between when you established the conditional order and when it triggers, you sell 300 shares. When the bid drops .05, a

SmartEx market order for 700 shares will be sent, as opposed to the software trying to send 1000 shares and rejecting the order because you don't have sufficient shares to cover the trade. The same will hold true if you are short 1000 shares of AAPL and you try to buy 1500 shares using a conditional order.

- After any alert has triggered, it will automatically be deactivated. The same alert cannot trigger more than once without being reactivated first.
- Alerts with conditional orders to close (sell if long or buy if short) will not fire if you do not hold the underlying security; however, if you hold a position, liquidate it, and then reenter the position, the alert established for the original position will apply to any new positions. For example, if you hold ABCD and have an Alert with a conditional order to sell ABCD that is based on a prior entry point, once the Alert conditions have been met, the Alert will fire and the order will be sent. While there are mechanisms in place to try to prevent an oversell, if you manually exit a position you should ensure that you do not have open Alerts with conditional orders to sell that position.
- It is important to review your conditional orders carefully. If you do not select *Confirm order before sending*, which allows you to review your order at the time your alert conditions are met, you will not have an opportunity to review or verify your Stop Loss or Conditional order once the Alert you have set is triggered. You may change or cancel this order while in its conditional state (prior to the alert being triggered). This can be done by going to the Alerts tab of your Account Detail window, selecting the alert and then selecting Edit from either the Alerts drop-down or right click menus. For more details, see <a href="Edit or Delete Alerts">Edit or Delete Alerts</a> on the next page. Note that once the order is submitted it becomes a live order. If your conditional order is a market order it may fill before you would have a chance to cancel or change it. If you specified that the conditional order be sent as a limit order, it can be changed or cancelled just like any other Open order assuming it does not execute.

After completing the Alert window and specifying a Conditional Order, you will see a disclaimer and then the following verification of your order to review (unless you have disabled this function). Click **OK** to activate the order, at which point it will display in the Alerts tab.



• Foreign OTC Alerts and Conditional Orders: Liquidity and volatility can vary widely when attempting to place an Alert/Conditional Order for a security in the Over the Counter (OTC) market, which means prices may fluctuate greatly. Appropriate share quantities might not always be available for these securities. Investments in foreign securities involve special investment risks, which include foreign currency, political, economic and social events that may affect the prices of foreign securities. Please be aware that certain foreign markets operate differently than US markets, which may result in different settlement cycles, round lot requirements and additional fees, taxes and levies.

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# **Using Alerts**

Alerts can be set up directly through the Alerts tab in the Account Detail window. If you typically use the same criteria for all your trades, you can also use one of the standard templates or create your own Alert Template.

Alerts displayed in the Alerts tab can be in one of two states: Active or Inactive. Alerts in active status will fire when the conditions are met. Once an alert fires it will automatically become Inactive. You can reactivate or deactivate an alert at any time during your session.

### **Retrieve a Saved Alert**

You can access previously saved alerts by:

- 1. With the Alerts tab selected in the Account Detail window, click **Alerts > Load** from the menu.
- 2. Click on the previously saved alert file and select from the following:

- **Yes:** Adds the alerts to your existing alerts
- **No:** Replaces the contents of the Alerts tab with the alerts in the selected file
- **Cancel:** Makes no changes and allows you to exit the process
- 3. The alerts appear in the Alert tab and will be inactive. If you wish to activate all your alerts at once, select **Activate All** from the right-click menu.

#### Save All Alerts to a File

You can add all of your alerts to one file by clicking **Save All As** in the Alerts tab.

To retrieve these alerts at a future time select **Load...**, a window will appear containing all of your alert files. Select the file you wish to load. All of the alerts contained in the file will then be displayed in the Alert tab in an Inactive status. You can then choose to activate each alert manually or **Activate All** at once. Either way you choose you should review the details of each alert to ensure that you want to activate each as it is currently set-up.

# Save a Single Alert to a File

Select the alert you wish to save by clicking on it. Either right-click or click **Alerts > Edit** in the menu. From this window click **Save As** at the bottom. You will then be able to create a new file for the alert or add it to the existing file by selecting the Append to file checkbox.

#### Add an Alert

When a standard template doesn't meet your needs, you can use this feature to create your own alert:

- 1. Click **Alerts > New**.
- 2. Complete the fields in the Condition panel. For more information on how to complete this window, go to Alert Settings.
  - To add more than one condition, click the **and** or **or** radio buttons.
  - Note that changes expressed as a percent must be used in conjunction with the gains or loses variable.
- 3. Then specify the actions the alert should take in the Action panel.
- 4. Click **OK** to add the alert to the Alerts tab.
- 5. When added to the tab during the standard session the alert is activated, and a confirmation will appear in the Messages window.
- 6. To save your alert(s) in a file, follow the process outlined in the previous sections.

#### **Edit or Remove an Open Alert**

You can edit or delete an open alert by:

- 1. Click on the Alerts tab.
- 2. Click on the alert you want to edit or delete to highlight it.
- 3. From either the Alerts or the right-click menu select *Edit* to make changes or *Remove* to delete the alert from the tab. **NOTE:** You can also double-click on the Alert to open the Edit window.
- 4. If editing, click **OK** to review your changes and activate the settings.
- 5. When the alert is either deleted or edited, a confirmation will appear in the <u>Messages</u> window.
- 6. To save your settings in a file, go to the Alerts or the right-click menu and select **Save All As** or **Edit** if saving a single alert. In the Save Alert window, you can name it as a new file or add it to an existing file by selecting the **Append to file** checkbox.

#### Remove an Alert

- 1. Click on the alert you wish to delete.
- 2. In the Alerts menu select **Remove Selected**.
- 3. The alert will be permanently deleted.

#### **Remove All Alerts**

Used when you wish to permanently delete all alerts in the tab.

In the Alerts menu select Remove All.

#### **Activate an Alert**

When an alert fires it will be automatically placed in inactive status. When an alert is not active it will remain in the Alerts tab but will be dormant. Alerts can be activated using the Activate Selected or Activate All menu items. There is no limit on how many times an alert can be made active.

### **Activate Selected**

- 1. Click on the alert that you wish to activate. **NOTE:** The alert must be in inactive status or this menu selection will be grayed out.
- 2. In the Alerts menu select *Activate Selected*.
- When the alert is activated you will be presented with the order verification and Alert warning windows. You will also receive confirmation of this action in the <u>Messages</u> window.

### **Activate All**

- 1. In the Alerts menu select Activate All.
- 2. When the alerts are activated you will be presented with a series of order verification and Alert warning windows. Once you have clicked through these windows you will receive confirmation of these actions in the Messages window.

# **Activation at Market Open**

At market open, a window will pop up asking you whether you want to activate your inactive alerts.

**NOTE:** If you activate your alerts at this time, all inactive alerts regardless of their prior history (whether triggered by the software or deactivated manually) will become active.

#### **Deactivate All**

- 1. In the Alerts menu select **Deactivate All**.
- 2. All of the alerts previously in Active status will be changed to inactive status. In this state they will be dormant until you choose to reactivate them. You will also receive confirmation of this action in the Messages window.

# **Templates**

Alert templates allow you to quickly set-up alerts. You can select from the sample templates included with the software or choose to edit these, or create custom templates that satisfy your specific needs. For more information about this feature please go to the Templates topic.

- 1. In the Alerts menu, select **Templates**.
- 2. The Templates window will open allowing you to select from the available alert templates.

**TIP:** You can either edit an existing template or create your own from scratch. While you can create templates by completing any of the available fields, the most useful templates typically have the symbol and the value fields blank so you can apply your strategy to any symbol and adjust the trigger points as appropriate.

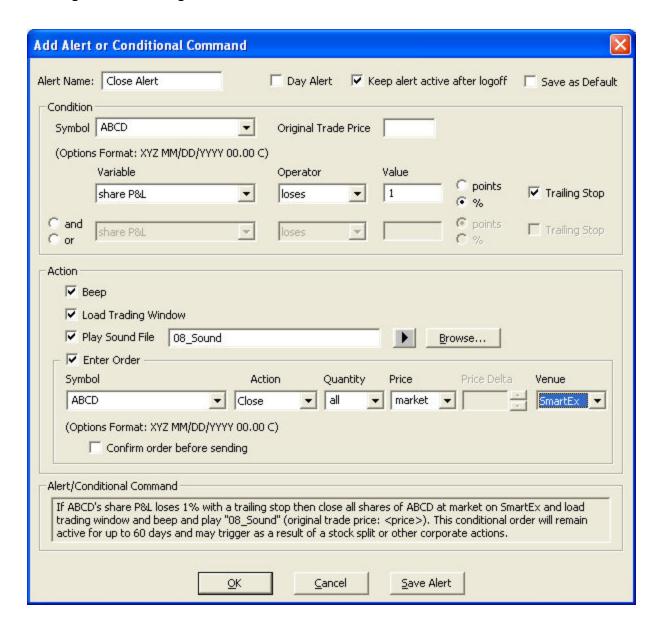
**NOTE:** Once created, alerts can be activated and deactivated repeatedly during the logon session.

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# **Alerts & Risk Management**

StreetSmart Pro® provides Alerts with the option to trigger an order when the alert criteria you set are met. Conditional orders can be incorporated to accommodate specific investment

strategies and manage risk.



StreetSmart Pro can help you achieve risk management using Alerts with Conditional orders or by placing Stop or Stop Limit orders. Below are examples of how risk can be managed once a position is established.

#### Alert with a Conditional Order

An alternative to submitting a Stop or Stop Limit order is setting up an Alert with a Conditional Order. Using this type of Alert will also allow you not to show your order to the marketplace until your risk threshold has been reached. It also allows you to set both a Profit exit and a Loss exit that would trigger an order to close your position if either are

reached.

- To create a loss exit, if you are long a position, create a condition using *Bid decreases* to as the criterion. You may also choose to use a *Bid loses* \_ *Points* or \_% providing
   more flexibility than what is available using a Stop order. If you are short a position, you
   can do the same using an Ask variable.
- To create a profit exit, if you are long a position, create a condition using the Ask increases to as the criterion. You may also choose to use Ask increases \_\_\_ Points or \_\_\_% providing more flexibility than is available using a Stop order. If you are short a position, you can do the same thing using the Bid variable.
- Be sure to select the Or radio button at the top of the second condition if you are including both a loss exit and profit exit in you conditional order.
- NOTE: While you can use this type of Alert to help with risk management, it is only similar to a Stop order if you select *Enter Order* as one of the Actions. If you choose not to *Enter Order*, the Alert will still let you know when your risk management threshold has been reached, but you would have to enter a new order from the Trading window to minimize your risk exposure.

# **Alert With Conditional Order using Trailing Stop**

- The functionality is very similar to the Alert with a Conditional order. The difference is that you now have a variable trigger (Trailing Stop) which will become effective only after the price of the security has had an up tick.
- **NOTE:** If no up tick occurs when using a Trailing Stop, the Conditional order acts like a Stop order, as there is no price increase to 'Trail' back from.
- To add a Trailing Stop to your Alert, check the *Trailing Stop* box. This box only becomes available when the criterion is either gains or loses.
- **EXAMPLE** You are long 1000 XYZ, which was purchased at \$20 per share. If you have a risk threshold of 10%, you would want to get out of the position if the bid for XYZ decreases to \$18 per share at the time you purchased it, or 10% less than highest price reached after that.

You enter a Trailing Stop Alert at \$20 to fire when the Bid loses 10%. Assuming the stock price then increases to \$25 per share, the Trailing Stop will trigger if the Bid then decreases to \$22.50 per share.  $$25 \times 10\% = $2.50$  per share. \$25 - \$2.50 = \$22.50 per share.

If the stock never moves above \$20 per share and you set up the same type of Alert, it will only fire if the Bid loses 10% (\$18).  $$20 \times 10\% = $2$ . per share. \$20 - \$2 = \$18.

• You may also enter Trailing Stop orders from the Trading window by sending a SmartEx Trailing Stop order type. This will display the conditional order in the Order Status tab until the trailing stop condition is met and the order is sent and becomes an Open order.

Alerts with Conditional Orders using a Trailing Stop will display in the Alerts tab. Use either method of setting a trailing stop depending on your needs and preferences.

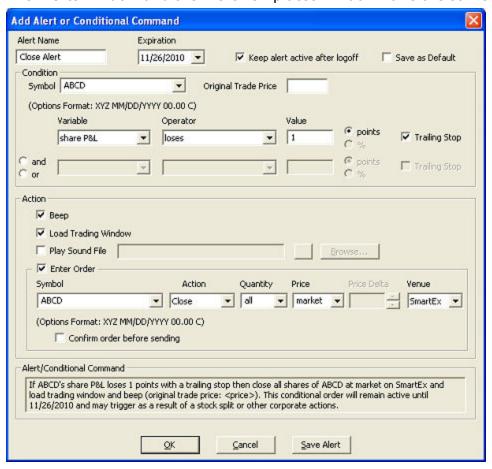
**NOTE:** When placing a Conditional order where the order action is **Close** and where you specify a certain number of shares to trade, if the tradable quantity of your position is less than the specified number, the software will send the order for the lesser amount instead of not sending the order due to insufficient shares available to trade.

**EXAMPLE** You have 700 shares of AAPL with a trailing stop active that will close 1000 shares if the bid loses .05 points. When the bid drops .05, a SmartEx market order for 700 shares will be sent, as opposed to the software trying to send 1000 shares and erroring out because you do not have sufficient shares to cover the trade.

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# **Alert Settings**

The Alerts window and the Alert Templates window have the same settings.



Alert Settings Window Fields	Description
<b>Condition Panel</b>	Sets up the conditions that will trigger your Alert or Alert with Conditional order.
Symbol	Enter the symbol of the stock or option, or click the down arrow at the right of the box to choose from the current positions you hold. This symbol can be different than the symbol in the conditional order command.
Option Check Box	<ul> <li>Automatically checked if you select an option symbol from the pull-down Symbol box.</li> <li>You can manually check this box if you are creating an alert and/or a conditional order for an option, but it is not required if using entering an options symbol.</li> </ul>
Original Trade Price	<ul> <li>Enter the original trade price for the equity or option here.</li> <li>Only available for <i>Share P&amp;L</i> and <i>Trade P&amp;L</i> alerts.</li> </ul>
Keep alert act- ive after logoff	<ul> <li>If checked and you log off the software, the alert will remain active until it triggers or reaches the expiration date. Note that the alert can fire even if you are logged off.</li> <li>The expiration date for this alert can be up to 60 days out.</li> <li>If you check <i>Confirm order before sending</i>, this selection will be disabled and the order will revert to Session Only.</li> </ul>
Expiration/ Session Only	Enter an expiration date up to 60 days out if <i>Keep alert active after logoff</i> is checked. Otherwise, the alert will be Session Only. A Session Only alert is good for the current logon session only and will become inactive when you log off. Session Only alerts that do not trigger will automatically deactivate and cancel the order at the end of that day's standard session (4:00 p.m. ET).
Save as Default	When checked, this alert will save drop-down menu positions and checkbox settings, but will not save settings in the <b>Value</b> field or the order entry fields.
Conditions Panel	Sets up the conditions that will trigger your Alert or Alert with Conditional order.
Variable	The variable determines which data will trigger your order. <b>Change From Open, Change From Close, Share P&amp;L</b> , and <b>Trade P&amp;L</b> are all change/delta variables, that is, they are the result of a calculation.

# Alert Settings Description Window Fields The P&L variables are the difference between the cost and the current price. • The Change From Open or Change From Close are the difference between the price of the security at the open or the close and the current price. Bid Bases your alert on the inside Bid price. **Ask** Bases your alert on the inside Ask price. Volume Bases your alert on the daily cumulative volume. Trade Price Bases your alert on the last sale price reported. **CAUTION:** It is not uncommon for erroneous trade reports to come through the Time & Sales display with prices away from the market. If an "erroneous price" triggers your order, it is your responsibility and a subsequent execution cannot be reversed. Exercise caution when basing Conditional orders on Trade Price. Alternatively the current Bid or Ask can be used to achieve result that closely matches the Trade Price variable. **Change from Open** You can set up an alert to trigger based on the difference between the current price of a stock and the price at the open. Note that the change amount itself is used as a basis for the calculation, so that if the current Change from Open is .10 and you want an alert to trigger when the Change from Open is .30, we would need to set an alert that triggers when it **Increases to** .30. **Change from Close** You can set up an alert to trigger based on the difference between the current price of a stock and the previous closing price. Note that the change amount itself is used as a basis for the calculation so that if the Change from Close is 10 cents, for example, and you want an alert to trigger when the Change from Close is 30 cents, it would need to set an alert that triggers when the Change from Close Increases to .30 points. Time You can set your alert to trigger at a specific time during regular

Alert Settings Window Fields	Description
	market hours or before or after a set time.
	Share P&L
	When you set a Share P&L alert, this P&L amount is based on the difference between your Original Trade Price and the current bid price if you are long the stock or the ask price if you are short.
	For example, if you purchased 100 shares of DELL at 30 and it's currently trading at 33, your share P&L in this case is 3 points. If you want to exit your position with a 6 point profit, the Share P&L would need to Increase to 6 points.
	Trade P&L
	When you set the alert, this P&L amount is based on the difference between your Original Trade Price and the current bid price times the number of shares you own if you are long on the stock or the ask price if you are short.
	Referencing the example in Share P&L above, your Trade P&L would be \$300.00. If you want to exit your position with a \$600.00 profit, the Trade P&L would need to Increase to \$600.00.

Alert Settings Window Fields	Description
Operator	The following operators are available depending on the variable chosen:
	<ul> <li>Increases to/above</li> <li>Decreases to/below</li> <li>Gains</li> <li>Loses</li> <li>Increases from Open by</li> <li>Increases from Close by</li> <li>Decreases from Open by</li> <li>Decreases from Close by</li> <li>For the <i>Time</i> variable, choose from:</li> <li>is (the alert will trigger at the specified time)</li> <li>is earlier than (alert will only trigger prior to this time)</li> <li>is later than (alert will only trigger after this time)</li> </ul>
	When using the <b>Earlier than</b> or <b>Later than</b> settings, you may want to add one or more additional conditions so the alert will have something to trigger on during the specified time period. Click the <b>and</b> radio button to add another condition to the alert.
	<b>Note:</b> When using the <b>Time</b> operator, alerts with a trigger time of later than 3:59 will not fire. Time alerts are monitored in full minute increments, so a time later than 3:59 would be 4:00, and the market is closed.
	<b>Note:</b> If you create an alert to fire when the Bid for a particular security gains 1 point, the software will initialize using the current inside Bid at the moment the alert was created.
	Alerts using the Gains or Loses operator will reinitialize or reset each day based on the inside bid/ask at opening. For example: New Enhanced Alert 9 (Alert 9): If GE's bid loses 5 percent then sell 2,000 shares of GE at market on SmartEx and beep. If the alert does not fire on the first day it is active it will reinitialize the next day at the opening bid/ask and reset the trigger price.
Value	The amount by which you want the variable to change. For Time, enter the time you wish to set your alert to trigger at, before, or after.  For <i>Gains</i> and <i>Loses</i> operators, if a negative value is entered, the

Alert Settings Window Fields	Description
	value will revert to 0. <b>NOTE:</b> Choose <i>Loses</i> in the operator window and enter a positive value rather than trying to trigger an alert based on negative gains. <i>Increases To</i> and <i>Decreases To</i> operator will accept either a positive or negative value depending on your goal.
Points, \$, % or Shares	Work in conjunction with the Variable and Operator.  The Variable and Operator you choose will change your available options for these fields. Note that if you wish to set a percentage value or set up a Trailing Stop you must use the <i>Gains</i> or <i>Loses</i> operator.
Trailing Stop	Works only with the <i>Gains</i> and <i>Loses</i> operator. It's important to note the difference between a Trailing Stop Alert and a Stop or Stop Limit order. See <u>Alerts &amp; Risk Management</u> topic for more information
	Trailing Stop Alert example:
	You are long 1000 XYZ, which is currently at \$20 per share. If you have a risk threshold of \$2, you would want to get out of the position if the bid for XYZ decreases to \$18 per share, or \$2 less than the highest price reached after that the Trailing Stop has been entered.
	You enter a Trailing Stop Alert (when the bid is at \$20) to fire when the bid loses \$2. Assuming the bid price then increases to \$25 per share, the Trailing Stop will trigger if the bid then decreases to \$23 per share. \$25 - \$2 = \$23 per share.
	If the stock's bid never moves above \$20 per share and you set up the same type of Alert, it will only fire if the bid loses \$2. \$20 - \$2 = \$18.
And/Or	Allows you to add an additional condition to your Alert.
	<ul> <li>When you select And, both conditions must be met at the same time for the alert to trigger.</li> </ul>
	<ul> <li>When you select Or, either condition can trigger the Alert independent from the other.</li> </ul>
Action Panel	<b>Beep</b> If the system reaches all preset criteria, the machine will beep once.
	Pop-Up Messages Window
	- 291 -

Alert Settings Window Fields	Description
	The Messages window will display a notification if the Alert is triggered. If the Messages Window is not currently viewable, it will pop-up displaying your triggered Alert notification.  NOTE: Whether or not you select this option, a notification is always displayed in the Messages window.  Load Trading Window  Choose to have the stock or option load into the Trading Window as soon as the Alert is triggered.  Play Sound File  The system can be set to play an audio file when an Alert is triggered, if you have a sound card and speakers.  The software has two sound (.wav) files included with the application. Additional sound files can be downloaded from the Web and are also included in the Microsoft Windows operating system software. To add a new sound file to your pull-down options:
	<ol> <li>Check the <i>Play Sound File</i> box.</li> <li>Click <i>Add</i>. Select the folder where your .wav files are saved.</li> <li>Select the file you want to add, then click <i>Open</i>.</li> <li>To hear the sound file, click the 'play arrow' to the right of the pull-down box.</li> <li>You may remove any added sound file by selecting it in the pull-down box and click <i>Remove</i>.</li> </ol>
	Enter Order  Check this option if you want the system to send out an order once all criteria are met. Be sure that the following four fields are completed first: Order Type, Shares, Price and Method. These are known as Conditional orders.  NOTE: Unless you check the Confirm order before sending checkbox, you will not receive an Order Verification message when the Conditional Order is triggered. Be sure you carefully review the terms of the Conditional Order before submitting it.  If you check Confirm order before sending on an order with an expiration date, it will revert to a Session Only order and will only remain live until you log off.
Symbol	The condition symbol will automatically populate but can be changed.

Alert Settings Window Fields	Description
Order Type	<ul> <li>Choose from Buy, Sell, Short and Close.</li> <li>Close will either submit a Buy or Sell depending on whether you are long or short. If you input a share quantity and your tradable position is less than this amount when the alert fires, the software will send the order for that lesser net tradable amount.</li> <li>If you checked the Options box, you can choose from: Buy to Open, Buy to Close, Sell to Open, Sell to Close or Close.</li> </ul>
Quantity	Enter the quantity you want to submit in this box. If you are using <i>Close</i> as the order type, you can use <i>All</i> in this field or manually input a quantity.  Fractional Shares: When using the SmartEx venue, anytime there is a situation where a fractional share would be left behind, it will be included in the order automatically. Direct Access venues do not offer fractional share trading and thus should not be used to sell fractional amounts.
Price	You can select <i>Market</i> , <i>Bid</i> , or <i>Ask</i> from the drop-down choices or enter a limit price.  Note that since conditional orders are not submitted until the conditions that you specified are met, a Market order will ensure fills at the current price of the security at the time the order is received by the market.
Price Delta	If you choose <b>Bid</b> or <b>Ask</b> 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.
Method	Conditional orders will be sent via SmartEx or via select Direct Access routes (for those qualified for Direct Access trading).
Confirm Order Before Sending	Choose to have an order verification window pop-up when the order conditions are met and the order is sent. Applies to <b>Session Only</b> alerts and conditional orders only. Enabling confirmation on a persistent order will change the order to Session Only.
Command Description Panel	Displays a full description of the Alert you have set up.
NOTE:	When conditional orders are set up, an Order Verification window

Alert Settings Window Fields	Description
	<ul> <li>will be displayed if you have <i>Order Verification</i> enabled.</li> <li>Click <i>OK</i> to prepare the Alert and Conditional order for activation or click <i>Save</i> to save your alert to a file. To load your alerts at a later time select <i>Load</i> in the Alerts menu and then select your saved file.</li> </ul>

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# **Alert Templates**

StreetSmart Pro® provides you with:

- Sample standard templates for commonly used trading strategies. They can be customized or deleted.
- An Alert Templates feature that allows you to add your own templates with specific preset Alert, Trailing Stop or other Conditional order criteria.
- Standard or customized template that can be activated by right-clicking on any open position from the Account Detail window and selecting the Template name.



With StreetSmart Pro, you can use the following Alert Templates or create your own:

Straddle	<ul> <li>Can help protect you against large swings in the market by alerting you to both increases and decreases in a security's Bid price.</li> <li>This Alert includes the Conditional order action.</li> </ul>
Trailing Stop	<ul> <li>Allows you to follow the price movement upward and only trigger the Alert when the Bid decreases by the amount specified.</li> </ul>

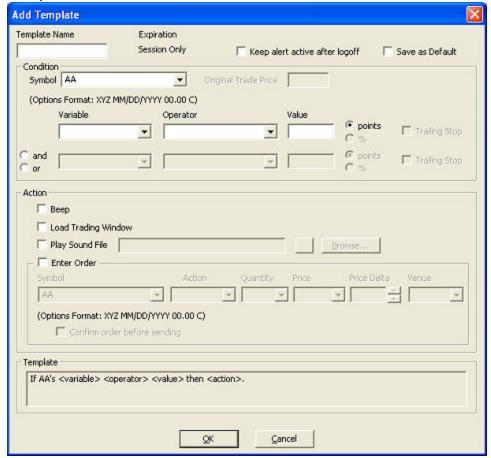
	This Alert includes the Conditional order action.
Stop Loss	<ul> <li>Alerts you when the Bid decreases to a specified Value.</li> <li>This Alert includes the Conditional order action.</li> </ul>
Ask Increases	Alerts you when the Ask increases to a specified Value.
Buy In	<ul> <li>Alert you when the Ask of a specific security increases by the specified % Value.</li> </ul>
Volume Alert	Alerts you when security volume gains the specified Value.
Margin Equity Warn- ing	<ul> <li>Alerts you when the trade price decreases to 3.05. At \$3.00, marginability increases to 100%.</li> </ul>
Day Alert	<ul> <li>Alerts you when the Change from Open either Increases to or Decreases to the specified Values.</li> </ul>

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# **Setting Alert Templates**

1. You can either create a new template from scratch or go to the Account Detail window Alerts tab and select **Alerts > Templates** from the menu.

2. To set up a template from scratch, in Alert Templates click **Add** to open the following Add Template window:



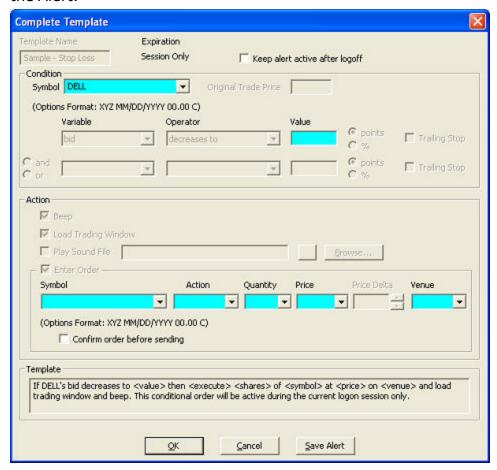
- 3. Alternatively select one of the Sample templates that is similar to your strategy, and select *Edit* to rename it and modify its parameters.
- 4. Set up the fields in the template the way you would an alert, except for the fields you want to fill in at the time the order is placed, such as the **Symbol**.
- 5. Click **OK** when you're finished and it will save to the list of Alert Templates. All new templates must be named or they cannot be used or saved.

# To apply a template to a position:

- Right-click on an open position in the Account Detail window or go to Alerts > Templates and select Apply Alert to [symbol].
- 2. A sub-menu will open and you will be able to choose from the templates listed there.
- 3. The symbol will pre-fill based on the position you selected and the template window will pop up with only the blank fields highlighted for you to fill in before the alert is set.

**NOTE:** Unless you wish to set-up templates for specific positions, the symbol and the value fields are left blank until you set the specific alert. If your alert template includes a conditional order, the shares and price fields can also be left blank and entered when you set the alert.

In this example, **Value** is the variable in the template to be filled in when you're ready to set the Alert.



# To set up the template as a persistent alert:

Check **Keep alert active after logoff** at the top of the template window, select an expiration date up to 60 days out, then fill in the rest of the blue fields and click **OK** to activate the alert. If left as a Session Only alert, it will deactivate when you log off.

# To Apply an Alert Template to an Alert or Conditional Order For a Security You Do Not Own:

- 1. Set up your template the same way you would a regular alert, leaving the **Symbol** and **Value** fields blank.
- 2. In the Account Detail, click **Alerts > Templates** in the menu bar. If the Menu Bar is not visible, right-click in the window and select **Show Menu**.
- 3. Click on the template for the alert you set up.
- 4. Click **Complete** or double-click the Alert Template name.

- 5. The template set-up window will appear and prompt you to complete the remaining fields.
- 6. Click **OK**.
- 7. Verify your conditional order and confirm that you have read the Alerts Warning, if applicable, and the Alert set will appear in the Alerts and Conditional Order Entry window.

**TIP:** Remove Saved Templates You can remove Templates by highlighting the Template you want to remove and either click *Remove* or right-click to *Remove*. You can also edit an existing template to meet your changing needs.

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#### **Alert Scenarios**

The following four topics present different scenarios and show you different ways that you can accomplish the same goal. You will notice that you can accomplish the same thing with a Basic Alert as you can with an Advanced Alert.

Scenario 1: Gain

Scenario 2: Preserving a Gain

Scenario 3: Loss

Scenario 4: Minimizing a Loss

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#### **Alert Scenarios**

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Scenario 2: Preserving a Gain

Scenario 3: Loss

Scenario 4: Minimizing a Loss

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#### Scenario 1: Gain

You bought 1000 shares of XYZ at 45.

- Current Bid=50.
- Share P&L is +5 (50-45).
- Current Ask=55.
- Last Trade=50.
- Open=49. Change from Open=+1.
- Previous Close=48. Change from Close=+2.

**Goal:** You already have an unrealized profit of \$5 per share and you want to enter an order to sell when you have a profit of \$10 per share on XYZ.

Variables	Increases to \$	Decreases to \$	Gains \$	Gains %	Loses \$	Loses %
Trade P&L	10,000	N/A	5,000	N/A	N/A	N/A
Share P&L	10	N/A	5	N/A	N/A	N/A
Bid	55	N/A	5	10% (Gains \$/Bid)	N/A	N/A
Ask	N/A	N/A	N/A	N/A	N/A	N/A
Volume	N/A	N/A	N/A	N/A	N/A	N/A
Trade Price**	55	N/A	5	10% (Gains \$/Bid)	N/A	N/A
Change from Open**	6	N/A	5	N/A	N/A	N/A
Change from Close**	7	N/A	5	N/A	N/A	N/A

<sup>\*\*</sup>Alerts using "Trade Price", "Change from Open" and "Change from Close" are triggered based upon Last Trade. Last Trade can be based upon either Bid or Ask, so be careful when setting up these types of alerts.

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# Scenario 2: Preserving a Gain

You bought 1000 shares of XYZ at 45.

- Current Bid=55.
- Share P&L is +10 (55-45).

- Current Ask=60.
- Last Trade=55.
- Open=52. Change from Open=+3.
- Previous Close=51. Change from Close=+4.

**Goal:** You have an unrealized profit of \$10,000 and you want to enter an order to sell if your profit decreases to \$5000.

Variables	Increases to \$	Decreases to \$	Gains \$	Gains %	Loses \$	Loses %
Trade P&L	NR	\$5,000	N/A	N/A	5,000	N/A
Share P&L	NR	5	N/A	N/A	5	N/A
Bid	NR	50	N/A	N/A	5	9.09% (Loses \$/Bid)
Ask	N/A	N/A	N/A	N/A	N/A	N/A
Volume	N/A	N/A	N/A	N/A	N/A	N/A
Trade Price**	NR	50	N/A	N/A	5	9.09% (Loses \$/Bid)
Change from Open**	NR	-2	N/A	N/A	N/A	N/A
Change from Close**	NR	-1	N/A	N/A	N/A	N/A

<sup>\*\*</sup>Alerts using "Trade Price", "Change from Open" and "Change from Close" are triggered based upon Last Trade. Last Trade can be based upon either Bid or Ask, so be careful when setting up these types of alerts.

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#### Scenario 3: Loss

You bought 1000 shares of XYZ at 55.

- Current Bid=50.
- Share P&L is -5 (50-55).
- Current Ask=55.
- Last Trade=50.

- Open=49. Change from Open=+1.
- Previous Close=48. Change from Close=+2.

**Goal:** You have an unrealized loss of \$5 per share and you want to enter an order to sell if your loss increases to \$10 per share.

Variables	Increases to \$	Decreases to \$	Gains \$	Gains %	Loses \$	Loses %
Trade P&L	N/A	-10,000	N/A	N/A	5,000	N/A
Share P&L	N/A	-10	N/A	N/A	5	N/A
Bid	N/A	45	N/A	N/A	5	10% (Loses \$/Bid)
Ask	N/A	N/A	N/A	N/A	N/A	N/A
Volume	N/A	N/A	N/A	N/A	N/A	N/A
Trade Price**	N/A	45	N/A	N/A	5	10% (Loses \$/Bid)
Change from Open**	N/A	-4	N/A	N/A	N/A	N/A
Change from Close**	N/A	-3	N/A	N/A	N/A	N/A

<sup>\*\*</sup>Alerts using "Trade Price", "Change from Open" and "Change from Close" are triggered based upon Last Trade. Last Trade can be based upon either Bid or Ask, so be careful when setting up these types of alerts.

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# **Scenario 4: Minimizing a Loss**

You bought 1000 shares of XYZ at 60.

- Current Bid=50.
- Share P&L is -10 (50-60).
- Current Ask=55.
- Last Trade=50.
- Open=51. Change from Open=-1.
- Previous Close=52. Change from Close=-2.

**Goal:** You have an unrealized loss of \$10,000 and you want to enter an order to sell if your loss is only \$5000.

Variables	Increases to \$	Decreases to \$	Gains \$	Gains %	Loses \$	Loses %
Trade P&L	-5,000	N/A	5,000	N/A	N/A	N/A
Share P&L	-5	N/A	5	N/A	N/A	N/A
Bid	55	N/A	5	10% (Gains \$/Bid)	N/A	N/A
Ask	N/A	N/A	N/A	N/A	N/A	N/A
Volume	N/A	N/A	N/A	N/A	N/A	N/A
Trade Price**	55	N/A	5	50% (Gains \$/Bid)	N/A	N/A
Change from Open**	4	N/A	5	N/A	N/A	N/A
Change from Close**	3	N/A	5	N/A	N/A	N/A

<sup>\*\*</sup>Alerts using "Trade Price", "Change from Open" and "Change from Close" are triggered based upon Last Trade. Last Trade can be based upon either Bid or Ask, so be careful when setting up these types of alerts.

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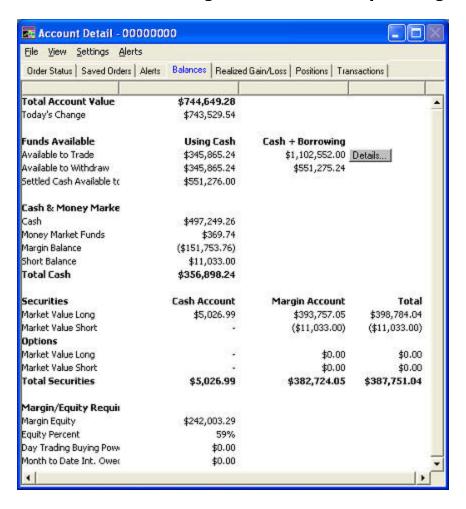
#### Balances

#### **Balances Tab**

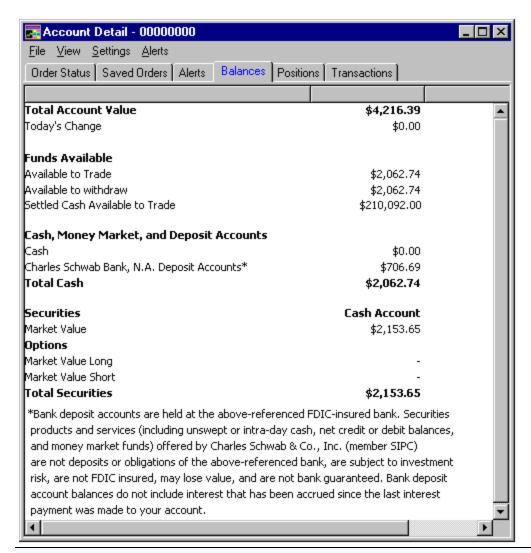
The Balances tab gives you vital account information, including updated Day Trade Buying Power for certain accounts, margin buying power on margin accounts, and bank balances for Bank Sweep IRA accounts. If your accounts are in a margin call, the amount will be shown on the last line of the Balances screen.

All balances are automatically updated every minute, or after your orders are executed, whichever happens first. The Balances tab on margin accounts includes a Margin Buying Power figure. Click on the **Details** button to get more details about your Margin Buying Power.

# **Balances Tab For a Margin Account with Day Trading Buying Power:**



#### **Balances Tab for a Cash account:**



**NOTE:** You must be in Live mode to see balances on the Balances tab. When you are in Demo mode, balances will not display.

Tab Columns	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.
Available to	The maximum amount of money in your account that you can use to

Tab Columns	Descriptions
Trade (Using cash)	trade without accessing margin borrowing.
Available to Trade (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. View 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.
<b>Details Button</b>	Click on this button to open up the Buying Power Details window, which displays the maximum amount of any given security type that you can purchase using margin borrowing. This value is only shown in accounts with a margin feature
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.
Available to Withdraw (Cash + Bor- rowing)	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.
Settled Cash Available to Trade	Trading in the Margin Account  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 that fit this profile will not be affected by the special requirements that may result from Cash Account trading activity.  Traders that 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

Tab Columns	Descriptions
	purchased using settled funds, there are no requirements surrounding the timeframe of when the newly purchased securities can be sold. 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 (generally 3 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.
	<b>EXAMPLE</b> If you sold a fully paid for security on Monday the 1st, you could use the proceeds to purchase new a security prior to the settlement day of Thursday the 4th (3 day settlement). However, if you sold the newly purchased security prior to the settlement date (Thursday the 4th), you would then be required to deposit funds to pay for the purchase.  If you sold the new position on Thursday the 4th, or anytime there
	after, no additional funds would be required.

# Cash & Money Market Trading in the Cash Account Settled funds are:

- incoming cash (such as a deposit or wire)
- 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.

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 (generally 3 business days after the sale of the security which generated the funds).

# **Tab Columns** Descriptions

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.

**EXAMPLE** If you sold a fully paid for security on Monday the 1st, you could use the proceeds to purchase new a security prior to the settlement day of Thursday the 4th (3 day settlement). However, if you sold the newly purchased security prior to the settlement date (Thursday the 4th), you would then be required to deposit funds to pay for the purchase. If you sold the new position on Thursday the 4th, or anytime there after, no additional funds would be required.

Cash	This represents 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.
Bank Sweep	The cash balance of funds that have been moved into the Schwab's bank via the Schwab Bank Sweep feature.
Money Market Funds	The value of the cash you have invested in the money market sweep fund(s) you selected for your account. (For Schwab Investment Accounts, interest is earned on any credit balances in the account and is not reflected in the Money Market Fund balance).
Bank Deposit Accounts	Schwab acts as your agent and custodian in establishing and maintaining your Bank Deposit Accounts. Bank Deposit Accounts constitute direct obligations of the Sweep Bank (as defined below) and are not an obligation of Schwab. Free Credit Balances will be deposited into Bank Deposit Accounts without limit even if the amount in the Bank Deposit Accounts exceeds the \$100,000 FDIC insurance limits. For deposit insurance purposes, deposits you may establish in one capacity directly with a Sweep Bank or through an intermediary, such as Schwab, will be aggregated with the Bank Deposit Accounts. You are responsible for monitoring the total amount of deposits you have with the Sweep Bank in order to determine the extent of deposit insurance coverage available to you. Sweep Bank means the Schwab-affiliated, FDIC-insured bank, as referenced in your account statements and disclosed in your account documents into which free credit balances may be automatically deposited pursuant to your Account Agreement.
Margin Bal- ance	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

Tab Columns	Descriptions	
	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.	
account.	s displays the value of securities you hold long and short in your	
	: Marginable securities are always held in your margin account; non- inable securities are always held in your non-margin account.	
Cash Account 8	Margin Account	
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.	
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: This displays the value of options you hold long and short in your account.  Note: Your options are typically held in the margin portion of your account.  Option information only displays for accounts that hold option positions.		
Market Value	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 Secur- ities	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	Margin/Equity Requirements	
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	

Tab Columns	Descriptions	
	you invested in securities plus any excess cash, minus funds borrowed on margin.	
Equity Per- cent	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.	
Day Trade Buying Power	This field will only be displayed if we identify you as a pattern day trader (there are rules governing this designation). For information about Day Trading Buying Power (DTBP), please consult your Schwab Active Trader Broker.	
Month to Date Int. 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 at the bottom of the screen and immediate action on your part is required. However, Schwab reserves the right to initiate immediate liquidation procedures without notice.	
Option Require	Option Requirements	
Cash Secured Put Assign- ment (CSEP)	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.	

**Showing/Hiding the Balance Status Bar:** To hide your Net Worth or any other Balance Status Bar field from being displayed on your screen, simply click on the label **Net Worth** next to the numerical field. The Net Worth field will disappear.

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#### **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 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 three business days from the day your order executes.

#### 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 3** Sell 100 XYZ @ 20

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

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 3** Sell 100 ABC @ 15

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

#### **Example:**

Purchasing 300 shares of ABC and selling it 3 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 4. 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 Thursday the 4th. However, if you purchase securities before Thursday the 4th 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 Thursday the 4th, you may place a sell at anytime, since the purchase was made with settled funds.

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#### **Balances Bar**

The Balances Bar keeps important account data at your fingertips. You may customize the types of data shown based on the information that's most important to you.

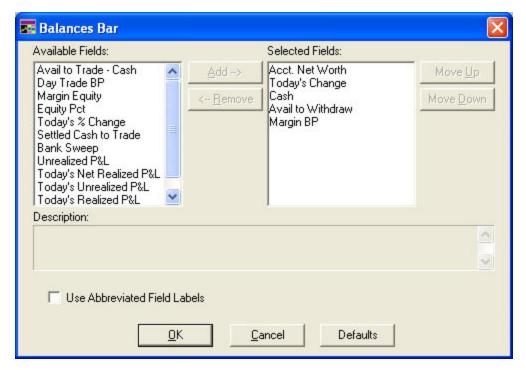
To enable, click **Toolbar > Balances Bar** in the main menu.

To customize, right-click in the Balances Bar and select *Customize*.



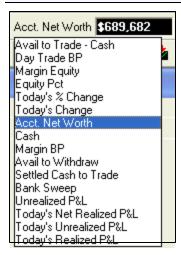
**TIP:** Hide individual stats in your Balances Bar by clicking on the name. **Today's Change** is hidden in the image below.

Select the statistics to display by clicking on **Toolbars > Customize > Balances Bar** in the main menu or by right-clicking on the Balances Bar and selecting **Customize...** The following settings window opens:



- Click on an item in the Available Column to view a description of it, then click Add to select the item for display in the Balances Bar.
- Change the order in which the fields are displayed in your Balances Bar by clicking on the field in the Selected Fields column and then click *Move Up* or *Move Down*.
- To minimize the screen space used by the labels, click *Use Abbreviated Field Labels*.

**TIP:** Change any of the fields on the fly by right-clicking on the name of the field and selecting a different one from the drop-down list.



# BALANCES BAR FIELDS Avail to The maximum amount of money in your account that you can use to

BALANCES BA	BALANCES BAR FIELDS	
Trade - Cash	trade without accessing margin borrowing.	
Day Trade BP	Total market value of new securities into which you may enter and subsequently exit without incurring a margin call.	
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 Pct	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.	
Today's % Change	Indicates the percent change in account value from the previous trading day's close. This includes your trading activity, as well as deposits and withdrawals.	
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.	
Acct. Net Worth	The 'liquidation value' of your account (excluding fees, commissions, pending interest credits and debits, etc.), which is the combined value of all your cash, money market funds, margin balances, securities and any miscellaneous debits/credits in your account.	
Cash	The total dollar value of your unswept or intra-day cash, money market funds, bank deposit accounts, and net credit or debit balances.	
Bank Sweep	Displays the cash balance of funds that have been moved into the Schwab-affiliated, FDIC-insured bank, as referenced in your account statements and disclosed in your account documents, into which free credit balances may be automatically deposited pursuant to your Account Agreement.	
Margin BP	The maximum value of marginable securities in which you can invest without depositing more equity in your margin account; this includes	

BALANCES BAR FIELDS	
	funds you can borrow from Schwab, but does not include balances in your Cash Account or Money Market Funds.
Avail to Withdraw	The maximum amount you can withdraw from your account 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.
Settled Cash to Trade	Trading in a Cash account requires using Settled funds. If a security is purchased using settled funds, there are no requirements surrounding the time frame of when the newly purchased securities can be sold. Settled funds are comprised of: incoming cash (such as a deposit or wire transfer), any available Margin Loan Value, or settled proceeds from the sale of securities that have been fully paid.
Unrealized P&L	This figure is not a balance and represents the total profit or loss for all positions in the account. If P&L is not available for every position, an asterisk (*) will display. Updates to Unrealized P&L are streaming.
Today's Net Realized P&L	For the current day, the sum of P&L realized from all closed or partially closed positions in the account, as compared to the cost basis for those positions. <b>Example:</b> 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 Net Realized P&L would reflect \$400 if this were the only position closed for the current day.
Today's Unrealized P&L	The total of the Day Change \$ P&L for open positions.

#### **BALANCES BAR FIELDS**

# Today's Realized P&L

The portion of Today's Net Realized P&L that was a result of today's price activity. Equivalent to the sum of the Day Change \$ P&L for each position closed, at the time each position was closed.

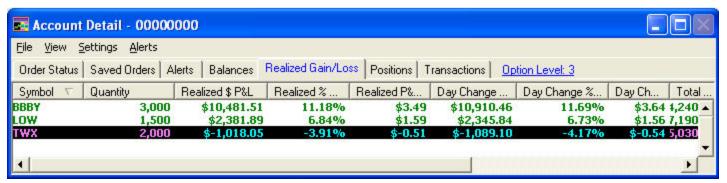
**Example:** Position XYZ has \$150 unrealized profit coming into the day. During the day, the profit on XYZ increases to \$400, and the position is closed out. Today's Realized P&L would reflect \$250 if this were the only position closed for the current day. \$400 total profit minus \$150 profit not from today.

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# Realized Gain/Loss

# Realized Gain/Loss Tab

The Realized Gain/Loss tab displays realized gain/loss information for equity and option positions closed out in the **present day only**. Historical gain/loss information is available from Schwab.com.



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.

Tab Columns	Descriptions
Symbol	The unique 1-5 characters used to represent the security. Symbols are defined by the different markets or exchanges.
Quantity	The number of shares or contracts liquidated. <b>Note:</b> If the same position is liquidated via multiple orders or if multiple positions were held in the same security, then the symbol will be listed more than once.
Realized \$ P&L	Profit or loss on positions that have been closed, including estimated

Tab Columns	Descriptions
	commissions. These positions might have been opened today or on a previous day and were closed intraday.
Realized % P&L	Profit or loss on positions that have been closed, including estimated commissions, expressed as a percentage. These positions might have been opened today or on a previous day and were closed intraday.
Realized P&L/Share	Profit or loss on positions that have been closed, including estimated commissions, expressed on a per share basis. These positions might have been opened today or on a previous day and were closed intraday.
Day Change \$ P&L	For closed, intraday positions, this is today's net realized P&L. For closed positions established prior to today, the calculation is based on yesterday's close, <i>excluding</i> commissions.
Day Change % P&L	For closed, intraday positions, this is today's net realized P&L expressed as a percentage. For closed positions established prior to today, the calculation is based on yesterday's close, <i>excluding</i> commissions, and is expressed as a percentage.
Day Change P&L/Share	For closed, intraday positions, this is today's net realized P&L expressed on a per share basis. For closed positions established prior to today the calculation is based on yesterday's close, <i>excluding</i> commissions, and is expressed on a per share basis.
Acquired/Open Date	Date/Time position was entered. The time will display only on intraday opening transactions. For positions established prior to the current day, the time will display as "N/A".
Closed Date/Time	Date and Time at which the position was closed.
Description	The full name of the equity or option.
Cost Basis	This is the cost of the liquidated lot(s). If multiple lots are liquidated via one order, then it is the weighted average cost of the lots.
<b>Total Proceeds</b>	Price at which the position was sold.
Direction	Direction of the opening transaction (Buy or Short).
Hold Period	Time period in which a position was held from acquired/open date until closing date.

Right-Click Selections	Descriptions
Load [Sym- bol] into Trad- ing Window	<ul> <li>Loads the symbol into the Trading window.</li> <li>The quantity field is set to the Trading window default size - may not match your position size. Go to Settings &gt; General to change the default quantity to Set Quantity to Open Position.</li> </ul>
Recent Stor- ies for [Sym- bol]	Loads the symbol into the News window.
Adjust Cost for [Symbol]	Allows you to add and edit cost information for your position.
View Trade Lots	Allows you to view trade lot details, cost and unrealized P&L information, when available.
Research/Ext Quote for [Symbol]	Launches a web browser that automatically opens at schwab.com for quotes and research.
Apply Alert to [symbol]	Opens sub-menu allowing you to use an alert template or create a new alert.
Show/Hide Menu	Shows/removes the Account Detail menu.

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# **Positions**

# **Positions Tab**

The Positions tab displays all open positions for a given account. The positions are displayed with real-time quotes - regardless of which Schwab venue you used to enter or exit the position.

The Market Value is calculated based on the number of shares and the current price. The Price is the current last trade price (streaming). The Change value is the Change from Close. If you prefer to view the Change from Open go to **Settings** > **General**.



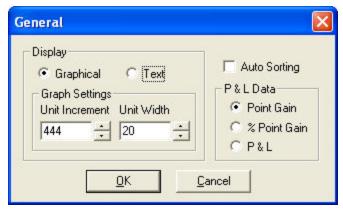
Stock symbols and price and volume data shown here and in the software are for illustrative purposes only. Charles Schwab & Co., Inc., its parent or affiliates, and/or its employees and/or directors may have positions in securities referenced herein, and may, as principal or agent, buy from or sell to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

# **Open Positions Window**

The Open Positions window (**View > Positions**) in the Account Detail window allows you to execute the same functions as right-clicking on a position in the Positions tab of the Account Detail window. With a the stand-alone Open Positions window visible in your layout, you never have to tab back and forth between Order Status and Positions to see your Positions.

The Open Positions window can be set to graphically display data. To change the display from Text to Graphical:

- Open the Open Positions window by going to Account Detail and selecting View > Positions.
- 2. When the pop-up window opens, select **Settings** > **General**.
- 3. When the following pop-up box opens, select *Graphical*.



The Open Positions window will display the gain or loss of your positions in a horizontal bar chart.

# **Auto Sorting**

If Auto Sorting is checked, any changes to information in the Positions window will be sorted into the existing information according to the current sort order.

For example, if you have your Positions Tab sorted by P&L, as the price changes for symbols in your window, the list will automatically adjust its sort order to accommodate those changes.

Each position in your account is displayed in this window, including those in money market funds. You can sort the table by clicking on any column heading. A second click will reverse the sort order. Double-click on a position to load it in the Trading Window.

# **Account Lot Selection Method**

At the top of the Account Detail window is indicated the lot selection method for your account, along with a link to more information on Schwab.com.

Tab Columns	Descriptions
Symbol	The unique 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.
Description	The full name of the security.
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.
Price	The price at which the stock last traded. For options, price is updated based on the inside market (bid for long positions, ask for short positions).
Day Change \$ 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 the <b>Settings</b> > <b>General</b> menu of the Positions tab.
Day Change P&L/Share	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

Tab Columns	Descriptions
	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 the <b>Settings</b> > <b>General</b> menu of the Positions tab.
Day Change % 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 the <b>Settings</b> > <b>General</b> menu of the Positions tab.
Change	Change in the price of the security. Default is Change from Close, but you can change this to Change from Open by going to <b>Settings &gt; General</b> in the Account Details menu.
Market Value	This figure reflects the current value of your position, normally calculated using real-time quotes, where possible. This value is updated as the quote changes.
Cost	The total price paid for the position the position. For more information on Cost and Trade Lots, see <u>Trade Lot Details</u> .
	Important Information Regarding Cost Information and P&L Calculations for Your Accounts
	<ul> <li>Missing cost and P&amp;L information will be represented with an 'N/A'.         Incomplete cost and P&amp;L information will be represented with either the word 'Incomplete' or an asterisk (*) in the Cost column and P&amp;L columns.     </li> </ul>
	<ul> <li>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.</li> </ul>
	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 certain manual adjustments and corporate actions including but not

Tab Columns	Descriptions
	<ul> <li>limited to: stock dividends, spin-offs, mergers, and name changes. Please note that the Account Detail tool is not the official record of your account. Your statements and confirmations serve as your official records.</li> <li>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 in Extended Hours</i> checked. This setting can be found in the application <i>Settings</i> &gt; <i>General</i> window located in the main menu of StreetSmart Pro.</li> </ul>
P&L	Displays the unrealized profit or loss on the position in dollar 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. (See example in P&L Calculations topic.) There are limitations on the reporting of transactions/events that make up the P&L amounts.
P&L%	Displays the 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. (See example in P&L Calculations topic.) There are limitations on the reporting of transactions/events that make up the P&L amounts.
DRI	This stands for Dividend Reinvestment Instructions. Certain stocks and mutual funds pay a dividend. These dividends 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.
Bracket	<ul> <li>The total share or contract quantity of the brackets for the position. Please see the <u>Brackets</u> section for more information.</li> <li>Notes on closing all or part of a position with brackets:</li> <li>Closing the entire position: When a position is closed, any contingent bracket orders will be cancelled automatically.</li> <li>Closing part of a position: Note that if you manually close part of a position with an associated bracket order, the Bracket quant-</li> </ul>

Tab Columns	Descriptions
	ity 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.
SER (Schwab Equity Rat- ings)	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
Туре	Describes what type of security the position is
P&L/Share	Unrealized profit or loss based on the average cost per share, expressed in dollars per share
Cost/Share	Cost of a position based on the average cost per share, expressed in dollars per share
Expiration	Expiration date for the position if it is an option position
Underlying	Underlying stock symbol for an option position
Call/Put	Indicates whether the position is a call or put
Strike	Strike price for an option position

Right-click Options	Descriptions
Load [Sym- bol] into Trad- ing Window	<ul> <li>Loads the symbol into the Trading window.</li> <li>The quantity field is set to the Trading window default size - may not match your position size. Go to Settings &gt; General to change the default quantity to Set Quantity to Open Position.</li> </ul>
Recent Stor- ies for [Sym- bol]	Loads the symbol into the News window.
Adjust Cost for [Symbol]	Allows you to add and edit cost information for your position.
View Trade Lots	Allows you to view trade lot details, cost and unrealized P&L information, when available.
Research/Ext	Launches a web browser that automatically opens at schwab.com for

Right-click Options	Descriptions
Quote for [Symbol]	quotes and research.
Apply Alert to [symbol]	Opens sub-menu allowing you to use an alert template or create a new alert.
Close [Sym- bol]	Closes out the position and sends a SmartEx order.
Show/Hide Menu	Shows/removes the Account Detail menu.

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#### **Trade Lot Details**

Trade Lot Details shows a breakdown of each lot an open position is comprised of. Open this window by right-clicking on a position in the Positions tab of your Account Detail window and selecting **View Trade Lots**.

To get the latest calculations due to trades or price changes, click **Refresh**.

- 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. Generally, when lot level detail is not available for your equity or option position, you can update the cost using the Adjust Cost function, but these changes will not be reflected in any Schwab channel besides StreetSmart.com.
- 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 in Extended Hours* checked. This setting can be found in the application *Settings* > *General* window located in the main menu of StreetSmart Pro.
- The information in the Trade Lot Details window 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 700 share lots, only position cost will be displayed. To view your trade lot details for these positions please use Schwab.com.

• **Account Lot Selection Method:** At the top of the Trade Lot Details and the Account Detail window is indicated the lot selection method for your account, along with a link to more information on Schwab.com.



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Trade Lot Detail Columns	
Open Date	Lot purchase date.
Quantity	Quantity of each individual lot.
Share/Contract Cost	Cost per share or contract for the lot, if available.
Cost	Cost basis for the lot, if available.
Market 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.

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## **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 Pro displays a "W" next to the Cost and Cost Per Share values in the Trade Lot Details window. To view Lot Details, right-click on a position in the Positions of the Account Detail window and select **View Trade Lots**.

## **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.

## **P&L Calculations**

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

Executions	Average Cost Per Share	What the Positions Tab Displays
1/15/04Buy 500 DELL @ 20	20 Calculation: (500 * 20) = 10000> 20 per share	1/15/04 500 DELL Cost \$10,000
1/15/04Buy 500 DELL @ 30	25 Calculation: (500 * 30) + (500 * 20) = 25000> (25000 / 1000)> 25 per share	1/15/04 1000 DELL Cost \$25,000
1/16/04Sell 200 DELL @ 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 DELL Cost \$21,000 (26.25 x 800 = 21,000)
1/16/04Sell 400 DELL @ 32	30, as all the remaining shares are from the 500@ 30 purchase	1/16/04 400 DELL Cost \$12,000 (30 x 400 = 12,000)
1/17/04Buy 600 DELL @ 32	31.20 Calculation:	1/17/04 1000 DELL Cost \$31,200

	(400 * 30) + (600 * 32) = 31200> (31200 / 1000) > 31.20 per share	(31.20 x 1000 = 31,200)
1/17/04Sell 600 DELL @ 34	32, as the remaining 400 shares are from the 600@ 32 purchase	1/17/04 400 DELL Cost \$12,800 (32 x 400 = 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 certain manual adjustments and corporate actions including but not limited to: stock dividends, spin-offs, mergers, and name changes. Please note that the Account Detail tool is not the official record of your account. Your statements and confirmations serve as your official records.

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#### **Transactions**

## **Transactions Tab**

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 can not be manipulated, but can be exported for use with other programs such as MS Excel.

Click on the **Transactions** tab to refresh the window.

#### You can view:

- Trade executions
- Deposits
- Withdrawals
- Trade Away and Prime Broker transactions
- Transfers between your brokerage and a bank deposit account

**NOTE:** Transaction History information is not available in Demo mode.

## **To View Your Transaction History:**

- 1. Go to the Account Detail window and click on the Transactions tab.
- 2. Click **Transactions > Update** in the menu.
- 3. Enter the number of days you want to view transactions for, up to 90 days.
- 4. Click **OK**.



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**NOTE:** If your account includes transfers made to or received from a bank deposit account, a footnote shown in the Transactions tab.

Tab Columns	Descriptions
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.
	<ul> <li>For fixed income securities, this number reflects the face value of the security you bought or sold.</li> </ul>
	For options, this reflects the number of option contracts you bought

Tab Columns	Descriptions
	or sold. • For monetary transactions, this field will display a zero.
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 regular-way delivery of stocks, the settlement date is usually trade day + 3 business days (T+3).
Symbol	The abbreviation used to represent the security. 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 (*).

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## **Market Data Tools**

#### **Watch Lists**

#### **Watch Lists**

The Watch List allows you to monitor a wide range of streaming market data (Last, Volume, etc.) about securities of interest to you.

Customize the data you display in your Watch List and save as many different lists as you want.

To open, click in the Toolbar.

StreetSmart Pro® software allows you to create as many customized watch lists as you like - with up to 100 symbols per watch list. And you can have as many as six watch lists open at a time. Choose the built-in watch list format or customize the stock data any way you want it to appear on your desktop. In addition to having six watch lists, you can also have up to 20 tabs per window, allowing up to 120 Watch Lists running at the same time. Each tab can be setup to copy the setting from another tab or be unique to the tab itself.



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#### My Positions

StreetSmart Pro software also has a My Positions watch list that displays and dynamically updates the equity and option positions you currently hold. Unlike the customized Watch Lists, the My Positions Watch List will contain symbols for each position you hold in your account. Symbols are added to or deleted from this watch list as positions are bought or sold.

Open My Positions from the **Tools** > **Start Tool** window or by clicking the icon in the toolbar.



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## **Watch List Menu**

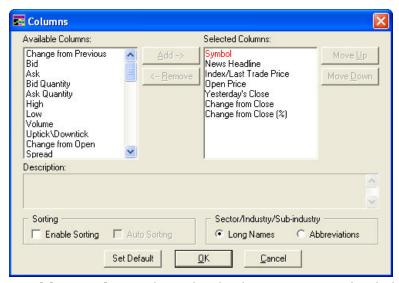
The following menu items will help you set up preferences and perform certain tasks in the Watch List window:

FILE	
Load Watch List	Selecting this feature will allow you to load built-in or personalized Watch Lists into your Watch List window.
Save Watch List As	Selecting this feature will allow you to save your current stock list to a file on your computer, which you can load later.
Clear Stock List	Removes the symbols currently in your Watch List window.
Page Setup	Enables you to customize the current page for printing. Read the <a href="Print-ing Windows">Print-ing Windows</a> topic in the Getting Started section for more information.
Print	Prints the information in your Watch List window.
Export	Saves the current stock list to a text (.txt) file in your SSPro folder, which can then be opened in Excel or other third-party software.
0, 1, 2, 3	Watch List will remember the last 10 files that have been opened. To toggle between files, click on any of them.
Close	Closes the Watch List window.

#### **SETTINGS**

#### Columns

- Click Settings > Columns to change the data fields displayed in the Watch List columns.
- Move Columns you want to see in the Watch List over to the Selected Columns
- Column data can also be changed by right-clicking the Watch List column heading.
- You can change the order of the column data by dragging the column heading box to the desired column location.



**Enable Sorting:** When checked, you can simply click on any column header to sort by that column.

**Auto Sorting:** When checked, the sort order will change in real time as new data comes through. For example, if you were sorting by the Price column and Auto Sorting was checked, the sort order of the watch list would change as prices changed.

**Long Names/Abbreviations:** Select which format you would like for displaying the Sector, Industry, and Sub-Industry columns.

## **Symbol List**

#### **Adding Symbols:**

- 1. Click **Settings > Symbol List**.
- 2. In the Symbol List window type in the stock or index
- After typing each, press *Enter* on your keyboard or click the *Add* button
- 4. After all the stocks and indices have been entered, click **OK**.

(Another way of adding/deleting stocks to the Watch List is by pressing the *Insert/Delete* key on the keyboard. Type in the stock to add/de-

#### **SETTINGS**

lete in the Insert/Delete box that appears.)

## Saving a Symbol List:

- 1. Click File > Save Stock List As...
- 2. In the Save window that appears, type in the file name you would like to save the list as, then click **Save**.

## Option Greeks Settings

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, but you can select **User Defined Rate** and change the interest rate to any you wish.



#### **Fonts**

Click on Fonts to change these settings.

## Colors

Click on Colors to change background and font colors.

#### **Color Row**

Colors each row red or green depending on the positive or negative value of any of the following values (corresponding column name in *italics*):

- Change from Close *Close*\* *Chg (Prev Close)*
- Change from Previous **Prev\*** Chg (Prev)
- Change from Open Percent **Open\*(%)** %Chg (Open)
- Percent Change from Close Close\*(%) %Chg (Prev Close)

**EXAMPLE** If you wish to use Change from Close as the field that determines the color, click **Settings** > **Color Row** > **by Close\***. Upon doing so, each row of data will be colored green or red to reflect whether the Change from Close is positive or negative. If any of these

SETTINGS	
	fields are not being used in your Watch List, they will be grayed out.

TABS For more on tabs visit the Adding Tabs to Windows topic	
Enable	When checked, allows you to maximize screen space while still having quick access to several windows within one window. When unchecked, you must open several independent windows to view multiple Watch Lists. See the <a href="Adding Tabs to Windows">Adding Tabs to Windows</a> topic for directions.
Insert	Select to add a new tab to the window. See the Adding Tabs to Windows topic for directions.
Edit [tab name]	Select to edit the current tab's settings, including the name and location.
Delete [tab name]	Select to delete the current tab from the window.

- Quick Clear Clear all symbols from a Watch List by clicking on File > Clear Watch List or by clicking Settings > Symbol List then click Remove All.
- Auto Sorting To have your Watch List display the symbols in your preferred order:
  - 1. Uncheck both the *Enable Sorting* and *Auto-Sorting* check boxes using *Settings* > *Columns*.
  - 2. Clear the Watch List via File > Clear Watch List.
  - 3. Insert the symbols, one at a time, in the order you wish to view them using either the *Insert* key or by right-clicking in the Watch List and selecting *Add Symbol*.

## Right-Click Shortcuts for Watch Lists

- Load [Symbol] into the Trading window
- Recent Stories for [Symbol], which opens recent news for the symbol in the News window
- Link to Research/Ext. Quote for [Symbol]
- Add or remove symbols from the watch list or remove the symbol you're on
- Copy symbols to clipboard, which you can paste into other Watch Lists or symbol fields
- Paste symbols into list
- Hide/Show Menu

- When using an Option Symbol, the Hypothetical Option Pricing model is available
- Access help for the Watch List window

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## **Watch List Column Descriptions**

Watch Lists can track more than 70 different criteria for stocks, indices, and options. Each criterion is displayed in separate columns.

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

Column Name	Description
Symbol	Stock, option, or index symbol. This column cannot be removed or moved within the Watch List.
%Change	Percentage of change from the previous day's close price to current price or close price if after hours.
%Chg (Close)	Percentage change from last close price to current price.
%Chg (Open)	Percentage change from open price to current price.
%Chg (Prev Close)	Percentage change from the previous day's close to the current price.
52 Wk High	Highest price reached in the past 52 weeks (not including today).
52 Wk Low	Lowest price reached in the past 52 weeks (not including today).
Alerts	Displays the name of any alerts you have activated for the stock.
Ask	Current ask price.
Ask Size	Number of shares at the inside ask.
Avg Volume - 1 month	Average of the security's volume for the past month.
Avg Volume - 5 day	Average of the security's volume for the past five days.
Avg Volume - 20 day	Average of the security's volume for the past 20 days.

Column Name	Description
Avg Volume - 6 months	Average of the security's volume for the past six months.
Avg Volume - YTD	Average of the security's volume for the year to date.
Bid	Current bid price.
Bid Size	Number of shares at the inside bid.
Brackets	The total share or contract quantity of the brackets for the position. Please see the <u>Brackets</u> section for more information.
Change	Change from the previous day's close price to current price or close price if after hours.
Chg (Close)	Change from the last close price to current price.
Chg (Open)	Change from open price to current price.
Chg (Prev Close)	Change from the previous day's close price to current price.
Chg (Prev)	Total change for the security between the last and second to the last trade.
Close	Closing price from the previous market session.
Close Far \$**	Close Crossing price at which orders in the closing book would clear against each other. NASDAQ stocks only.
Close Imbal- ance**	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). Applies to NASDAQ and NYSE stocks.
Close Near \$**	Close Crossing price at which orders in the closing book and continuous book would clear against each other. NASDAQ stocks only.
Close Paired**	Number of closing shares that are able to be paired off at the current reference price. Applies to NASDAQ and NYSE stocks.
Close Ref \$**	A Close price within the NASDAQ inside at which paired shares are maximized, the imbalance is minimized and the distance from the bid-ask midpoint is minimized. Applies to NASDAQ and NYSE stocks.
Delta	Indicates how much the price of an option moves for every one-

Column Name	Description
	point move in the price of the underlying security.
Description	Full name of the company, security, or index.
Div Amount	Annual taxable payment declared by a company's board of directors and given to its shareholders out of the company's current or retained earnings.
Dividend Yield	Amount a company pays its shareholders in dividends each year relative to its stock price.
Dollar Value	The dollar amount of shares/contracts traded for the day on a security or options contract. Calculated as VWAP (Volume Weighted Average Price) multiplied by the day's total volume.
Ending Ask	Ending ask price of the market session.
Ending Bid	Ending bid price of the market session.
EPS (12 Mo)	Earnings Per Share shows net income divided by the number of shares outstanding for a company for the last 12 months.
Exchange	Exchange (NYSE, NASDAQ, etc.) on which the security is listed.
Expiration	Shows the expiration date of an option in your Watch List.
Gamma	Measures the change in delta for a change in the underlying security price.
GICS Code	Global Industry Classification Standard code. A two- to eight-digit ordered code that indicates a company's sector, industry, and sub-industry.
High	Highest price at which the security has traded for the day.
Impl Vol	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.
Impl Vol (Ask)	Implied Volatility based on ask price.
Impl Vol (Bid)	Implied Volatility based on bid price.
Industry	GICS (Global Industry Classification Standard) Industry classification. From broad to specific, helps define a company's business focus. Also, helps identify competitors.

Column Name	Description
Last Price	Last trade price for a stock or the last value for an index.
Last Size	Last trade size.
Low	Lowest price at which the security has traded for the day.
Mkt 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 (the -/+ indicates where the company falls within the broader classification, i.e. M+ is a larger mid-cap company).
News	Shows the availability of news on a stock. Double-click the icon to launch News window with the latest headlines on that stock. The news icon will change from yellow to white once you have accessed the article.  Symbol V News Last 50.91  LOW 66.00  MSFT 27.36  NOK 17.34  NXTL 34.09  PFE 22.40  Stock symbols and price and volume data shown here and in the software are for illustrative purposes only. Charles Schwab & Co., Inc., its affiliates, and/or its employees and/or directors may have positions in securities referenced herein.
NYSE Ask	Current NYSE ask price.
NYSE Ask Size	Highest number of shares posted by a particular market participant within the inside NYSE Ask.
NYSE Bid	Current NYSE Bid price.
NYSE Bid Size	Highest number of shares posted by a particular market participant within the inside NYSE Bid.
Open	Opening price for the day.
Open Far \$**	Open Crossing price at which orders in the opening book would clear against each other. NASDAQ stocks only.
Open Imbal- ance**	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). NASDAQ stocks only.

Column Name	Description
Open Int	Total number of outstanding options contracts that have not yet been offset or fulfilled for delivery.
Open Near \$**	Open Crossing price at which orders in the opening book would clear against each other. NASDAQ stocks only.
Open Paired**	Number of opening shares that are able to be paired off at the current reference price. NASDAQ stocks only.
Open Ref \$**	An Open price within the inside at which paired shares are maximized, the imbalance is minimized and the distance from the bidask midpoint is minimized. NASDAQ stocks only.
P/E (12 Mo)	Ratio of company's current share price compared to its earnings per share. The higher the P/E ratio, the more the market is willing to pay for each dollar of annual earnings.
Pos 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.
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 on the trading volume of the current or most recent trading session.
Prev Close	Closing price from previous market day's session.
Quantity (Long)	For stocks in which you have an open position, the number of shares in all long positions displays.
Quantity (Short)	For stocks in which you have an open position, the number of shares in all short positions displays.
Rho	Change in the price of an option resulting from a 1% change in interest rates.
Schwab Equity Rating (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 <a href="Schwab Equity Ratings">Schwab Equity Ratings</a>
Sector	GICS (Global Industry Classification Standard) Sector clas-

Column Name	Description
	sification. From broad to specific, helps define a company's business focus. Also, helps identify competitors.
Spread	Difference between the Bid and the Ask.
Strike	Option Strike Price.
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.
Theta	Change in option price in relation to the time left before the option expires.
Tick	Arrow indicating direction of last tick.
Vega	Change in option price in relation to a 1% change in volatility.
Volume	Volume for the day.
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.

<sup>\*\*</sup>These columns display market data for Opening and Closing Cross orders. NASDAQ and NYSE accept and store on-close order types that are executable only at market close. Leading up to the close, the exchanges disseminate information about order imbalances in the closing book, along with an indicated closing price.

At 4:00 p.m., Eastern Time (ET), the closing book and the continuous book are brought together to create a single Closing Cross.

#### **NOTES:**

- Uptick arrow is green, downtick arrow is red.
- The last trade is **green** when it is above the Ask and **red** when it's below the Bid.
- The Tick indicator is determined by the Chg (Prev) field.
- While you can create an unlimited number of Watch Lists each with separate symbols, fields, and columns -- you are limited to six open Watch List windows at a time and each window can have up to 20 tabs containing separate watch lists.
- Watch Lists update during all trading sessions.

When entering an option symbol, use the following symbol format: XYZ MM/DD/YYYY
00.00 C where XYZ is the underlying symbol (root symbol), followed by the expiration
date, strike price, and C or P for Call or Put.

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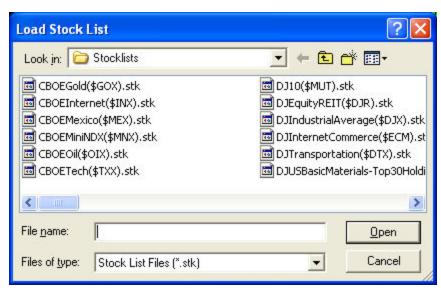
#### Load a Watch List

Customized and built-in Watch Lists are easy to launch:

- 1. Go to the Watch List Menu Bar and click **File**.
- 2. The last 10 viewed or built-in Watch Lists will appear in the drop-down menu.
- 3. Click the Watch List you want to see.

or

- 1. Click File > Load Watch List.
- 2. Select the Watch List file name you want.
- 3. Click Open.



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## **Adding/Removing Symbols**

Symbols can be easily added or removed from the Watch Lists, but not from the My Positions Watch List, as that list is automatically comprised of your open positions.

Here are three ways to change the contents of a Watch List:

#### 1. Quick Add or Remove

- 1. Click in the Watch List window where you want to add or delete a symbol.
- 2. Press the **Delete** (Quick Remove) to remove the selected symbol.
- 3. Press *Insert* (Quick Add) key on your keyboard to add a symbol.
- If you're entering an option, use the correct option symbol format: XYZ MM/DD/YYYY 00.00 C
  - Symbol Copy & Paste To streamline entering option symbols into Watch Lists, you can right-click on an option symbol in the Trading window and choose Copy [symbol]. Then right click in a Watch List and select Paste symbol... to add it to the list.
- 5. If you're entering an index, be sure you precede the symbol with a dollar sign (\$), for example, \$SPX.
- 6. Press *Enter* or click *OK*.
- 7. **NOTE:** This will not permanently change the stocks in your Watch List. To save your changes, see <u>Save Watch Lists</u>.

## 2. Right-Click Add / Remove

- Right-click in the Watch List window to be updated.
- Click Add Symbol or Remove Symbol.
- Right-click on a group name and select Add symbol to group to add a new symbol to an existing group.

## 3. Add or Delete Using the Symbol List

#### **To Add Symbols:**

- Click on **Settings** > **Symbol List** in the Watch List Menu.
- Enter the new symbol in the Add Symbol window.
- To add to a group, click the group name and then **Add Symbol to Group**. To add the symbol independently, click **Insert Symbol**.
- When you're finished entering, click OK.

## **To Remove Symbols:**

- Highlight the symbol to be deleted from your list and click Remove.
- When you're finished, click OK.
- NOTE: This will not permanently change the stocks in the Watch List. To save your changes, see Save Watch Lists.

**TIP: Copying Symbols -** To make it easier to move symbols between lists or even other tools, you can right-click on a symbol in the Watch List and select **Copy [symbol]**. Then

you can right-click again to paste the symbol in another list, the Trading window, or other tools with symbol entry fields.

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#### **Sort Watch List Data**

It's easy to sort data in your Watch Lists to extract information like:

- The day's best performers
- The stock in your Watch List with the highest trading volume

To activate this feature, go to **Settings** > **Columns**, and check the **Enable Sorting** box.

• With *Enable Sorting* checked, you can sort the data by clicking the column header for the criteria you want sorted. If you want to reverse the sorting order of the column, click the column header again.

You can then select **Auto Sorting**. Auto Sorting allows you to select one column to determine the order in which your symbols are displayed.

For example, when you have **Enable Sorting** and **Auto Sorting** selected, click on the **Volume** column. The securities with the highest volume for the day will now be displayed first and as the data changes through the day, it will continue to sort so that the stock with the highest volume stays at the top. To reverse the order that they are displayed, click the Volume column header again.

**TIP:** If you want your symbol list to be in the same order as when you set up the list, 'uncheck' *Enable Sorting*.

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#### **Watch List Groups**

Not only may you add individual symbols to your Watch Lists, you may also add Symbol Groups, which can help you organize your symbol lists and manage screen space more effectively.



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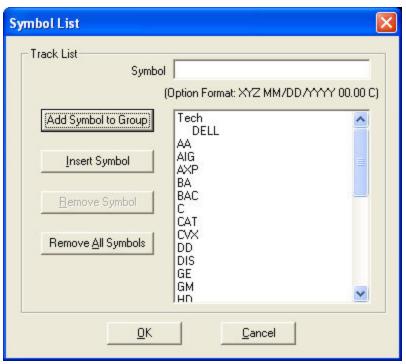
In the image above, you see that we have set up a **Tech** group. We can close this group by clicking the minus (-) and reopen it by clicking the plus (+).

## Creating a Group

- 1. Right-click in the Watch List and select *Insert Group*.
- 2. In the white box that appears in the Symbol column, type the name of the group and press *Enter*.
- 3. Edit the group name, if necessary, by right-clicking on the group and selecting **Edit Group Name**.

## Adding/Removing Symbols in a Group

- You can add symbols either directly in the Watch List by right-clicking on the name of the group and selecting **Add Symbol to Group**. Enter the symbol and click **OK**.
- You can add several symbols at once by clicking Settings > Symbol List in the Watch List menu. Fill in the Symbol field, click on the name of the group you wish to add it to, and click Add Symbol to Group.
- To remove a symbol, right-click on it and select **Remove [symbol]**.



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#### Save Watch Lists

You can save as many different Watch Lists as you like.

## To Save a Watch List:

- 1. Go to the Watch List Menu Bar and click on *File > Save Watch List As*.
- 2. Type in the file name and click **Save**.
- 3. The .stk file will save to your Stocklists folder (unless you specify another location).

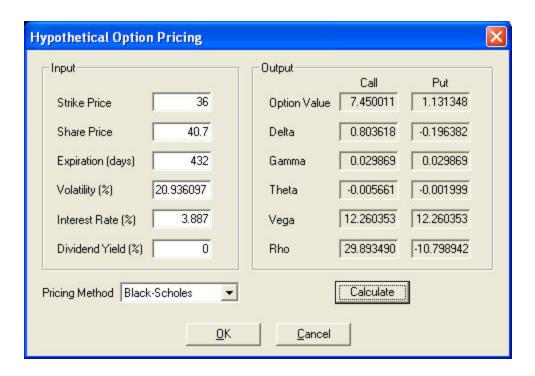
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## **Hypothetical Option Pricing**

Hypothetical Option Pricing, available by right-clicking on any option symbol in a <u>Watch List</u> and selecting *Hypothetical Parameters for [symbol]*, allows you to manually adjust variables involved in option pricing to see how changes affect the option values. This is one way to test your assumptions to see what the price of the option would be if your assumptions hold true. Below are a couple of examples on how this function can be used:

**EXAMPLE 1** You are bullish on a stock, but decide to purchase calls instead of the stock, so you can get more leverage. You anticipate the stock will go up about 2 points in the next week. You use the hypothetical model to add 2 points to the underlying price, and take away 7 days from the days to expiration. This gives you an indication that the call option you are considering might gain about 1.54, if the stock goes up 2 points over the next 7 days.

**EXAMPLE 2** You can also see how the greeks change as the variable change. For example, since a Delta will increase as an option gets farther in the money, in the example above, you would see the Delta change from its current level of about .68 up to .90. This tells you that while it only earned .77 for every dollar so far, additional moves to the upside will yield about .90 for every dollar if it continues to go up.



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#### **Tickers**

#### **Dynamic Ticker**

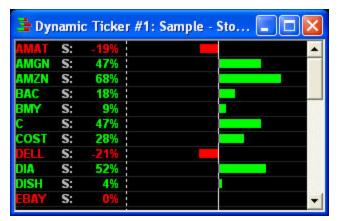
The Dynamic Ticker is a powerful and fast way to get instant "signals" based on the activities of every market maker, ECN, or exchange. You can see changes to participants' quotes, quote refreshes, participants leaving or joining the bid/ask, and more.

To open, click in the Toolbar.

Dynamic Ticker signals can be viewed in either a scrolling text and/or graphical format. The graphical ticker provides bar graph-style representations of information on market participant activity, allowing you to determine the momentum of a security at a glance.

**Note:** Level II data subscription is required to view the Dynamic Ticker. Click **Schwab.com** > **Subscribe to Level II** in the main menu for more information.

Since StreetSmart Pro depends on third-party data feeds, lines, and systems, the accuracy and timeliness of market data cannot be guaranteed. The Dynamic Ticker may provide limited signals during periods of high volume.



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The Ticker window can be scrolled vertically using the **Page Up** and **Page Down** buttons of the keyboard or by using the scroll bars on the right side of the window.

## Adding/Removing Stocks in the Dynamic Ticker

There are several ways to add or remove stocks from tickers:

- While the ticker is the active window, press the *Insert* key on your keyboard and enter a stock symbol in the window that appears. To remove, use the *Delete* key.
- If Enhanced User Interface is activated, right-click in the window and select Add Symbol/Remove Symbol.
- While the Trading window is the active window, press Alt + Spacebar and the stock in the Trading window will load into the ticker. Pressing it again will remove the symbol from the ticker.

FILE	
Load Stock List	Selecting this feature will allow you to load a previously saved Stock List into your Dynamic Ticker. Display up to 50 symbols in each Dynamic Ticker window.

FILE	
Save Stock List As	Selecting this feature will allow you to save your current stock list to a file on your computer, which you can load later.
Clear Stock List	Unloads the current Stock List leaving you with a blank Dynamic Ticker window. This enables you to start a new Stock List from scratch by Adding Symbols (see Symbol List below for more info on adding and deleting symbols).
0,1,2,3	Dynamic Ticker will remember the last ten (10) stock list files you have opened. To toggle between files, click on any of them.
Close	Closes the Dynamic Ticker window.

SETTINGS	
General	You have the ability to change the display of the Dynamic Ticker information:
	Data Display
	<b>Text:</b> To view the information displayed in text form, click on Text. To change the format click one of the available Data Formats:
	<ul> <li>Old Style Ticker: This style will display the stock, Market Maker/ECN, and the market participant's quote, all on one line. Or choose 2-Line Display, Color Hilite, and/or Hilite Hi/Lo Prints from the Old Style Options panel.</li> </ul>
	<ul> <li>New Style Ticker: This ticker will display one line with text, which describes each counterparty's change, i.e. Joins the Bid, Refreshes Ask, Lifts Bid, etc. It displays inside bids and asks as opposed to the market participants' quotes. The information is automatically highlighted, though the colors may be changed in the Colors setting.</li> </ul>
	<b>Graphical:</b> Check Graphical Display to view the window's information in a graph style. To make changes in the display, click the <b>Settings &gt; Graphical Ticker</b> in the menu bar. (See <u>About Graphical Ticker Displays</u> for more information)
	Filters: Here you can select whether to show <i>ECN Refreshes</i> , <i>Market Maker Refreshes</i> , <i>Quote Changes</i> , and <i>Hi/Lo Prints</i> by checking or unchecking each filter.
	Old Style Ticker must be selected for Hi/Lo Prints to be visible.
Symbol List	Click on Symbol List to add symbols or save a list of symbols

# **SETTINGS** under a file name. To add symbols in a permanent file 1. Type the symbol in the Symbol box then click **Add**, or press **Enter** on your keyboard. 2. Once all the symbols have been entered, click on **OK**. 3. Go to **Save File As** in the File menu and save the file with a new name. The Market Maker Selector allows individual Market Makers and Market Maker Selector ECNs to be excluded from the data. The file "markmake.txt" holds the master list of all known Market Makers. Listed exchanges can also be ignored in much the same way as Market Makers and ECNs. **Ignoring Market Makers, ECNs, or Exchanges** 1. Select either the **NASDAQ** or **NYSE** radio buttons. The NASDAQ list will provide all the Market Makers and ECNs and the NYSE will provide the list of exchanges that could appear on Level II. 2. Type in the **Ignore List** box any Market Makers, ECNs or exchanges to be ignored. 3. Press **Enter**. This will add them to the list. 4. Or, highlight the Market Maker, ECN, or exchange. 5. Click the **Add** button to add the Market Maker, ECN or exchange to the **Ignore** list and vice versa to re-add to the Source List. **Graphical Ticker** Use this feature to make changes in the graphical display. (See About Graphical Ticker Displays for more information) You can see, in a color-coded graphical display, the cumulative effect of the Market Makers' activity in the stocks you are holding. To Change Settings in the Graphical Display 1. You have the option of setting the graph type to apply: Activity Rate Net Value Rate Adjusted Value (Score) Time Frame Market Speed 2. Click **Defaults** to set the original default settings.

SETTINGS	
	<ol> <li>Click <i>Help</i> to get detailed information about the Graphical Ticker.</li> </ol>
	4. Click <b>Advanced</b> for more advanced settings.
	<b>NOTE:</b> The Graphical Display default settings are based on average to high volume stocks.
Tabs	Allows you to maximize screen space while still having quick access to up to 3 Dynamic Ticker screens in one window. See the <a href="Adding Tabs to Windows">Adding Tabs to Windows</a> topic for directions.
Fonts	Click to adjust font settings.
Colors	Click to adjust color settings.

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## **About the Dynamic Ticker Display**

#### Overview

The Dynamic Ticker gives a summary of the market participants' (Market Makers, ECNs and exchanges) recent activity in a stock (i.e. uptick, downtick, refreshed quotes, etc.) by summarizing what has scrolled through the <a href="Dynamic Ticker">Dynamic Ticker</a> window. In the past, one had to watch for a large number of red or green messages scrolling through the window to get a feel for the momentum of a stock. The Dynamic Ticker takes this burden away from you by counting the messages, separating them by stock, and displaying the overall "redness" or "greenness" of the data for each stock.

There are three types of graphs available depicting Activity Rate, Net Value, and Score. Each of these graphs appears in the window with a Symbol name followed by a numerical value and a bar graph representation of that value. It is important to understand that some of the configurable parameters only affect the aesthetic look of the graphs and not the actual value of these graphs. You can also adjust how far back you want these graphs to watch. More on this follows.

#### Background

Reading the ticker tape is one of the oldest and most useful trading methods. However, this skill has traditionally been made difficult by three complexities. The first complexity is determining the movement potential of a signal (tick). 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.

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 graph window tracks the incoming signals for a configurable period of time, separates the incoming signals by stock, and then displays the accumulated data alongside the symbol name. In addition to the digital data display, the window offers a graphical display in the form of a bar graph which makes it easy for you to determine the past activity and momentum of a stock at a glance.

It is important to understand what the ticker signals show. It is tempting to interpret these signals as showing price velocity or in other words, the speed and direction of the price change of a particular stock. However, this is not accurate. The tickers and the graphical tickers only show the amount of price increasing (green) or price decreasing (red) activity that the market participants have been engaged in. Returning to the physics analogy, if price movement is the velocity of a stock, then the market participants' activity is the potential energy of a stock. Another way of looking at the graphical tickers is like the instruments on a car dashboard. If the speedometer measured the price movement of stock then the graphical tickers act like a tachometer.

Correct configuration of the graphs is crucial for getting clear, reliable signals. The following paragraphs attempt to explain the purpose of each graph parameter and give advice on the proper way to set these parameters in order to achieve clear signals.

## **Graph Types**

There are three types of graphs that can be displayed in the Dynamic Ticker: the Activity Rate, the Net Value, and the Rate Adjusted Value (or Score). Each of these graphs appear as a number followed by a horizontal bar graph either to the right of or just beneath the symbol name in the graph window. The number shows the actual value computed by the particular graph function, while the bar displays a normalized interpretation of the actual value. The actual value is normalized using expected maximums provided by you. It is crucial that you carefully consider the type of filtering and market behavior when setting these maximums in order to achieve visibly pleasing and useful graph displays.

The **Activity Rate** (represented by **R**: in the window) graph displays the amount of market participant activity that has occurred for a particular symbol over the last time frame by counting the number of messages that have scrolled through the Dynamic Ticker for that stock. The numerical portion of the graphs displays the actual number of signals that have been printed in the data window. The bar graph displays this same value normalized by some maximum value defined by you with the Max Rate Per Second slide control. For instance, if the graph is set to watch only a minute back and the chart read "ABCD R: 60," it would mean that 60 ABCD messages had scrolled through the window in the last minute (an average of 1 per second). The bar graph color will always be green as this is a simple cumulative statistic. The Activity Rate alone does not show the potential direction of movement of a stock, it only indicates the amount of market interest in a particular stock. Since filtering (via the Market Maker Selector ) tends to decrease the amount of displayed activity in the data window, it is important to set the Max Rate Per Second, to accommodate any filtering.

The **Net Value** (represented by **V**: in the window) graph shows 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 scrolled through the window for each stock. The numerical portion of the graph displays the actual sum computed, while the bar graph displays the same value normalized by some maximum value defined by you with the Max Value Per Signal slide control. For instance, if the graph read "ABCD V: 40," it would mean that there were 40 more green messages for ABCD than red messages for ABCD in the last minute (or whatever length of time you set). The bar graph normalization is dependent on the actual number of recorded signals and not on the potential number of signals. If the Net Value is not evaluated in context with the Activity Rate, the bar graph can easily give misleading movement indications. As an example, consider that a symbol has had only one signal in the current time frame. If the value of that one signal exceeds the Maximum Value Per Signal, the bar graph will show 100% even though this is probably not a strong movement indicator. Net Value tends to be misleading in this way for low activity stocks and inconsistent activity rates. Although Net Value can be used as a movement indicator for high activity, constant rate stocks, it is not acceptable as a movement indicator in all situations.

The **Rate Adjusted Value**, also called the Score, (represented by **S:** in the window) combines a symbol's Activity Rate and Net Value into a single strength value. This 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 Score is computed using the formula  $score = value * rate_{\infty}$ 

where *value* is the Net Value, rate is the Activity Rate, and  $_{\infty}$  is the rate biasing factor. The Rate Biasing Factor allows a trader to emphasize or de-emphasize a stock's rate in the computation of its score. This is a handy feature when high and low volume stocks are being tracked in the same ticker window. Setting the bias to less than 1 de-emphasizes the rate difference between high and low volume stocks and tends to equalize their scores. Likewise, setting the bias to values greater than 1 emphasizes the rate and increases the score difference between high and low activity stocks. Of the three graph types, the score is probably the most accurate indicator of a stock's movement potential.

#### **Time Frame**

The Time Frame specifies how far back the Dynamic Ticker watches. Traders with a short outlook concerned with catching short jumps and turns in the market might want to set this value below 3 minutes. Traders concerned with longer trends can set the time frame up to an hour. The length of time can be set anywhere from 1 second to 1 hour. However, setting this value too low may result in very volatile, "spiky" graphs. Increasing the time frame tends to smooth out these spikes and may reveal longer trends. Set the time frame according to your particular trading style.

## Market Speed

Moving Market Speed between Slow and Fast changes the Max Rate Per Second variable in the Advanced window. See **Graph Parameters** below to see how changing this variable affects

the Graphical Display. The default settings for the Dynamic Ticker are geared toward tracking higher volume, more active stocks. To track less active or a mixture of stocks (with different volume and activity), it's important to thoroughly understand how the Dynamic Ticker works.

## Signal Weights

The Net Value is calculated by summing the weights of each of the following signals over the specified time frame. The Signal Weights panel is where it is determined *how much* individual weight the signals have. Here is a list and description of each of these signals.

- *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.

It may not be necessary to change these weight values unless you wish to place more emphasis on a certain type of event. These events can each be weighted independently for the bid and the ask side. Weights should be chosen to reflect the degree to which each event will influence the market price to increase. It is suggested that these values be set somewhere between -4.0 and 4.0 with a value of -4 signifying an extremely price decreasing signal and a 4 being an extremely price increasing signal.

## **Graph Parameters**

Market activity is not a constant. Some days and even certain times throughout the day have very different rates of activity, and of course, different stocks have different rates as well. These rate changes will affect the look of the bar graphs so adjustments may need to be made to compensate for this. The following controls, found in the **Advanced** section of the Graph Settings window.

The **Maximum Rate Per Second** is a discrete value set by using a slider control that can range from 0 to 4 and controls the look of the Activity Rate bar and the value of the Score. This value specifies the expected maximum number of signals for a single stock in 1 second. This value is used to compute the maximum number of signals in the given time frame, which is then used to normalize the Activity Rate. Any type of filtering (via the Market Maker Selector) affects the rate of signals counted. The Max Rate Per Second should be set to compensate for this filtering. The more filtering that is used, the lower the Max Rate Per Second should be set. Market behavior also affects the rate. If a set of slow moving stocks is loaded into the ticker,

the Max Rate Per Second can be expected to be low. Moving the slider to the left will stretch the Rate graph and the Score graph toward the dotted lines. Conversely, moving the slider to the right will shrink the Rate and Score closer to the origin line.

The **Maximum Value Per Signal** is a discrete value set using a slider control that can range from 0 to 4 and controls the look of the Net Value bar and the value of the Score. The net value is calculated by summing the weights specified for each signal that occurs. The Max Value slider allows you to adjust this range to an acceptable value to produce visually pleasing bar graphs. Moving the slider to the left will stretch the Value graph and the Score graph toward the dotted lines. Conversely, moving the slider to the right will shrink the Value and Score closer to the origin line.

The **Rate Biasing Factor** allows a trader to balance the emphasis of a stock's rate in the computation of its score when lower and higher activity stocks are shown in the same Ticker. This value is set using the Rate Biasing Factor slider bar, which ranges exponentially from 0 to 4 with 1 being at the center of the slide range. Setting this value to 1 disables the biasing factor because the score function simplifies to Value \* Rate. When this value is set lower than 1 and as the value approaches 0, the score of slower moving stocks is amplified until the rate is no longer a factor and the scores of slow and fast stocks are the same. As the value is increased greater than 1, the score difference between slow and fast stocks is exaggerated. If the ticker is loaded with a set of equally paced stocks, then the Rate Biasing Factor is not necessary and could be set to 1. However, if slow and fast stocks are being watched simultaneously, the Rate Biasing Factor can be moved closer to 0 to emphasize the slow movers and balance the scores. This parameter can be set up to 4, but in most cases it should never be set higher than 1.

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#### **Print Ticker**

The Print Ticker filters through large volumes of market data on stocks and indices to help you identify incremental real-time price changes.

To open, click **Tools** > **Start Tools** in the main menu and select **Print Ticker**.

The Print Ticker helps you monitor trades being executed for several securities at once. You can set it to show all trades for the securities in your list of symbols, or you can filter out excess data by adjusting the increments at which a trade is posted.

Each trade, or print, can also display the trade price, quantity, and change from open or close for the trade. You may watch up to 250 symbols in the Print Ticker, which can be loaded:

- individually by pressing *Insert* on your keyboard and entering a symbol,
- from a Stock List created in the Watch List or other windows by going to File > Load Stock List, or
- from the menu under **Settings** > **Symbol List**.

**NOTE:** When using Stock Lists, you can only load one list into the window. If you load a second list, it will replace the first list you had already loaded.



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**TIP:** Also available is the <u>Position Print Ticker</u>, which automatically loads any securities in which you hold a position. The features are the same as the regular Print Ticker, with the exception of the Symbol List option in the menu. You cannot add stocks you do not own to the Position Print Ticker.

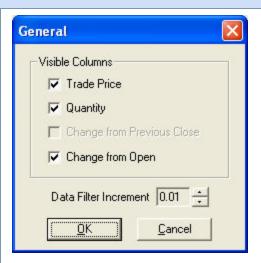
The Print Ticker window can be scrolled vertically using the **Page Up** and **Page Down** buttons of the keyboard or by using the scroll bars at the right and bottom of the window.

FILE	
Load Stock List	Selecting this feature will allow you to load a previously saved Stock List into your Print Ticker.
Save Stock List As	Selecting this feature will allow you to save your current stock list to a file on your computer, which you can load later.
Clear Stock List	Unloads the current Stock List leaving you with a blank Print Ticker window. This enables you to start a new Stock List from scratch by Adding Symbols (see Symbol List below for more info on adding

FILE	
	and deleting symbols).
0,1,2,3	Print Ticker will remember the last ten (10) stock list files you have opened. To toggle between files, click on any of them.
Close	Closes the Print Ticker window.

#### **SETTINGS**

#### General



- Put a check next to the columns you wish to display.
- If you want to check *Change from Open*, you should first uncheck *Change from Previous Close*, and vice versa.

**Data Filter Increment:** This feature allows you to filter prints based on the increment value change you specify here, from .01 to 1.00.

**EXAMPLE** If you only want new prints to display every time the trade price changes by .10, set this to .10 using the arrow buttons. Then when any of the stocks in your symbol list prints a trade .10 higher or lower than the last trade it printed, the symbol, quantity, etc. will display in the Print Ticker window. The color will correspond to whether it's a **negative** or a **positive** change.

Note, however, that the increment value trails the trade price, so if the price reverses down a few cents but not the full amount of the increment, the trade price will be reset to the lower price.

### **Symbol List**

Manage the list of symbols in your Print Ticker window from here. To add a symbol, enter it in the **Symbol** field and click **Add** (or press **Enter**). To remove, click on a symbol and click **Remove**. Click **Remove All** to clear all symbols from the list.

SETTINGS	
Fonts	Click to adjust font settings.
Colors	Click to adjust color settings.

TABS	
Enable	When checked, allows you to maximize screen space while still having quick access to several windows within one window. When unchecked, you must open several independent windows to view multiple Print Tickers. See the <a href="Adding Tabs to Windows">Adding Tabs to Windows</a> topic for directions.
Insert	Select to add a new tab to the window. See the <u>Adding Tabs to Windows</u> topic for directions.
Edit [tab name]	Select to edit the current tab's settings, including the name and location.
Delete [tab name]	Select to delete the current tab from the window.

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## **Position Print Ticker**

The Position Print Ticker automatically displays prints for any securities in which you hold a position. The features are the same as the <u>Print Ticker</u>, except you cannot add stocks you do not own.

To open, click **Tools** > **Start Tools** in the main menu and select **Position Print Ticker**.

The Position Print Ticker window can be scrolled vertically using the **Page Up** and **Page Down** buttons of the keyboard or by using the scroll bars at the right and bottom of the window.



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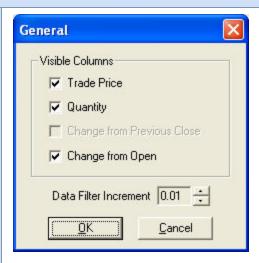
# FILE

Close

Closes the Position Print Ticker window.

#### **SETTINGS**

## **General**



- Put a check next to the columns you wish to display.
- If you want to check *Change from Open*, you should first uncheck *Change from Previous Close*, and vice versa.

**Data Filter Increment:** This feature allows you to filter prints based on the increment value change you specify here, from .01 to 1.00.

**EXAMPLE** If you only want new prints to display every time the trade price changes by .10, set this to .10 using the arrow buttons.

SETTINGS	
	Then when any of the stocks in your symbol list prints a trade .10 higher or lower than the last trade it printed, the symbol, quantity, etc. will display in the Position Print Ticker window. The color will correspond to whether it's a <b>negative</b> or a <b>positive</b> change.
	Note, however, that the increment value trails the trade price, so if the price reverses down a few cents but not the full amount of the increment, the trade price will be reset to the lower price.
Fonts	Click to adjust font settings.
Colors	Click to adjust color settings.

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#### **Scan Ticker**

The Scan Ticker alerts you on block trades and print quote changes on stocks and index symbols in real-time.

Streaming, real-time visual cues show when large trades execute, possibly affecting market liquidity.

To open, from the main menu, click **Tools > Start Tool...** and use the arrow keys next to the **Scan Ticker** to activate the tool. You can have up to four instances of this tool open at any time.

The Scan Ticker window consolidates four different types of trade alerts into one customizable window:



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- **Print Signals** Alerts you to trades taking place at the inside bid/ask, as well as trades below or above the inside bid/ask by a specified amount, for the securities in your symbol list. You can also specify the minimum quantity a trade must have before its print signal is sent to the Scan Ticker.
- **Block Signals** Alerts you to large quantity trades on NYSE, NASDAQ, or both. You can specify the minimum block size you wish to be notified about as well as whether to receive signals about all available securities or just those in your symbol list.
- **Quote Signals** Alerts you to changes at the inside bid/ask for the securities in your symbol list, and identifies whether the change was positive or negative by coloring the quote in green or red respectively.
- **Spread Signals** Alerts you to stock whose inside bid/ask prices are crossed and/or locked. You can also specify that spread signals where the spread is greater than a specified amount are not displayed.

### To add symbols to the Scan Ticker:

- Click File > Load Stock List and select a stock list to load, or
- Right-click in the window and select **Add Symbol**. Enter the symbol, click **OK**, and the Scan Ticker will start scanning for activity in that stock.

### To delete symbols from the Scan Ticker:

- Click File > Clear Stock List to delete all symbols from the ticker, or
- Right-click in the window and select **Remove Symbol**. Enter the symbol, click **OK**, and the Scan Ticker will quit scanning for activity in that stock.

FILE	
Load Stock List	Selecting this feature will allow you to load a previously saved Stock List into your Scan Ticker.
Save Stock List As	Selecting this feature will allow you to save your current stock list to a file on your computer, which you can load later.
Clear Stock List	Clears the current stock list so that you no longer receive data on those stocks.
0,1,2,3	Scan Ticker will remember the last ten (10) stock list files you have opened. To toggle between files, click on any of them.

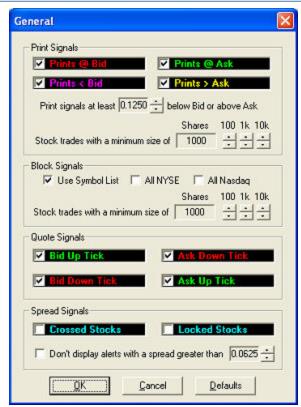
### FILE

Close

Closes the Scan Ticker window.

### SETTINGS

### General



**Print Signals:** Check the boxes to view prints (trades) at the inside Bid or Ask or prints less than the bid and greater than the ask.

- If you check *Prints < Bid* or *Prints > Ask*, specify how much above or below the bid/ask you want the print before it displays the signal.
- Also, specify the minimum number of shares a stock trade should have before the print displays.

**Block Signals:** Specify the minimum block size you wish to be notified about using the **100**, **1k** and **10k** arrow buttons.

- You can elect to receive signals about all available securities or just those in your symbol list by checking or unchecking Use Symbol List.
- Also, select whether to include All NYSE, All NASDAQ or both types of stocks.

### **SETTINGS**

**Quote Signals:** Check the boxes to view quote changes at the inside bid and ask.

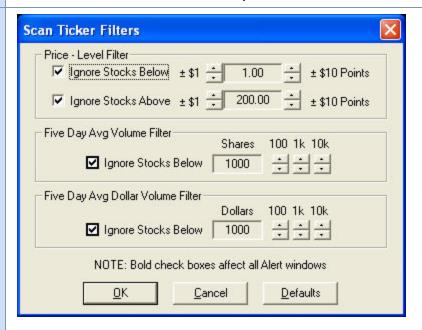
**Spread Signals:** To view crossed and/or locked stocks, check the appropriate boxes.

 To hide or display signals where the spread is greater than a specified amount, check **Don't display alerts...** and use the up and down arrow buttons to adjust the spread amount.

# **Symbol List**

Manage the list of symbols in your Print Ticker window from here. To add a symbol, enter it in the **Symbol** field and click **Add** (or press **Enter**). To remove, click on a symbol and click **Remove**. Click **Remove All** to clear all symbols from the list.

### **Filters**



### **Price-Level Filter**

The Price-Level Filter allows you to set the price level below which, and above which, a stock will be ignored.

- 1. Check the boxes to the left of the options to enable that filter.
- Clicking on the "buttons" provided to increase or decrease the prices within the **Ignore Stocks Below** and **Ignore Stocks Above** settings.

These can be adjusted in \$1 and \$10 intervals such that the minimum price below which a stock will be ignored based on yesterday's close is \$1 and maximum price above which a

SETTINGS	
	stock will be ignored is \$1000.
	The <b>Default</b> settings are \$1 and \$200 respectively.
	3. Click on <b>OK</b> after the filters have been set.
	Five Day Avg Volume Filter
	To ignore symbols with a five day average volume below a certain value, use the up and down arrows to specify that value and check <b>Ignore Stocks Below</b>
	Five Day Avg. Dollar Volume Filter
	To ignore symbols with a five day average dollar volume below a certain value, use the up and down arrows to specify that value, and check <b>Ignore Stocks Below</b>
Fonts	Click to adjust font settings.
Colors	Click to adjust color settings.

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# **Top Ten**

### **Top Ten**

Quickly identify highly active securities based on volume or price changes using the Top Ten window.

To open, click 10 in the Toolbar.

Traders can react to active securities by quickly consulting the Top Ten window. View Top Volume, Top Gainers, and/or Top Decliners for NASDAQ® and/or NYSE Data. Also available for the options markets.

Top Volume, Gainers and Decliners shows the "Top 10" stocks in terms of volume and largest advance and decline by either points or percentage. Up to two Top Ten windows may be opened at a time and up to 2 tabs can be added to each window.

<sup>&</sup>lt;sup>1</sup>The dollar amount of shares/contracts traded for the day on a security or options/futures contract. Calculated as VWAP (Volume Weighted Average Price) multiplied by the day's total volume.



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- The Top Ten can display the symbol, total volume, change from close (points up or down from yesterday's close) in each window.
- You have the option of displaying either the NASDAQ and NYSE Top Ten window or both.
- As new stocks enter the Top Ten lists they are highlighted in baby blue.
- This window is active only during the standard session. During the pre-market session it will remain empty, and during the after hours session will display information based on the close of the standard session.
- **NOTE:** For a security to be displayed on the "Top Ten" list, it must be above \$2 per share.

# To open the Top Ten windows:

- 1. Go to **Tools > Start Tools**.
- 2. Put a check next to **NASDAQ Top Ten**, **NYSE Top Ten**, or both.
- 3. Click **Start**

or

- 1. Click on the Top Ten icon in the toolbar.
- 2. If neither window is open (NASDAQ or NYSE), clicking on the toolbar icon will launch both windows.
- 3. If one window is open, clicking on the toolbar icon will launch the window that is not open.

FILE	
Close	Closes the Top Ten window.

SETTINGS	
General	Visible Boxes: Check <i>Top Volume/Gainers/Decliners</i> to see that data in your Top Ten window. Uncheck to hide that box.
	<ul> <li>Visible Columns: Each box above can show up to three columns of data, the viewing or hiding of these is controlled here. Check next to Volume, Change from Close, or % Change from Close to view; uncheck to hide.</li> </ul>
	<ul> <li>Layout: Vertical layout will align boxes above each other. Horizontal layout will align them side-by-side.</li> </ul>
	<ul> <li>Sort Gainers/Decliners by: You may choose whether to sort your Top Ten windows by the securities' Change from Close or % Change from Close.</li> </ul>
	<ul> <li>Data Type: Defaulted and protected to the exchange (NASDAQ or NYSE) for which the data is displayed.</li> </ul>
	<ul> <li>Filter out zero prices, volumes &amp; percentages: When checked, this eliminates potentially erroneous data from the dis- play.</li> </ul>
Fonts	Click to adjust font settings.
Colors	Click to adjust color settings.

TABS	
Enable	Clicking <b>Enable</b> will add 2 tabs to the Top 10 Window.
Insert	Select to add a new tab to the window. See the <u>Adding Tabs to Windows</u> topic for directions.
Edit [tab name]	Select to edit the current tab's settings, including the name and location.
Delete [tab name]	Select to delete the current tab from the window.

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# **Options Top Ten**

# **Options Top Ten**

Quickly identify highly active option Series, Classes, and Contracts based on volume or price changes using the Option Top Ten windows.

To open, click **Tools** > **Start Tools** in the main menu and select the Option Top Ten window you wish to view.

The Option Top Ten window allows you to view the top ten **Series**, **Classes**, or **Contracts** for a particular class by volume, gains, declines, put/call volume, percent gains, and percent declines.

In the **Settings** > **General** menu, you may customize your Option Top Ten window(s) to your specific needs, including filtering by whether they are in or out-of-the-money and by particular expiration month.

# Opening an Option Top Ten Window

- 1. Go to **Tools** > **Start Tool** in the Main menu.
- 2. Next to Options Top 10 (Class, Series, and/or Single), increase the number of windows by clicking on the up and down arrow buttons.
- 3. Click **Start**.

FILE	
Close	Closes the Options Top Ten window.

### SETTINGS

### General

The General Settings window is a little different for each type of Option Top Ten window, but following are all the options available among the three.

- **Visible Boxes:** Check **Top Volume/Gainers/Decliners** to see that data in your Top Ten window. Uncheck to hide that box.
- Visible Columns: Each box above can show up to three columns of data, the viewing or hiding of these is controlled here. Check next to Volume, Change from Close, or % Change from Close to view; uncheck to hide.
- **Layout:** Vertical layout will align boxes one on top of the other. Horizontal layout will align them side-by-side.

SETTINGS	
	<ul> <li>Sort Gainers/Decliners by: You may choose whether to sort your Top Ten windows by the securities' Change from Close or % Change from Close.</li> <li>Filters:</li> </ul>
	• Filters:
	<ul> <li>In the Single Top Ten window, enter the underlying symbol for which you wish to see the top contracts in the <b>Symbol</b> field.</li> </ul>
	<ul> <li>In Class Top Ten, you may enter up to 5 symbols to exclude from your top ten window.</li> </ul>
	<ul> <li>Select from the remaining options the type of information you wish you see in your Option Top Ten window: Show Stocks, Show Indices, Show Calls, Show Puts, Show Option Name, Show Zero Volume.</li> </ul>
	<ul> <li>Also, select whether to view items that are only <i>In-the-money</i>, or both (<i>All money</i>).</li> </ul>
	<ul> <li>Finally, select an expiration month or leave the default All months.</li> </ul>
Fonts	Click to adjust font settings.
Colors	Click to adjust color settings.

TABS	
Enable	Clicking <b>Enable</b> will add 2 tabs to the Options Top Ten Window.
Insert	Select to add a new tab to the window. See the <u>Adding Tabs to Windows</u> topic for directions.
Edit [tab name]	Select to edit the current tab's settings, including the name and location.
Delete [tab name]	Select to delete the current tab from the window.

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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# **Highs & Lows**

### **Highs and Lows**

Stocks breaking new highs or lows may be breaking through resistance or support levels, possibly indicating a changing trend.

Find stocks and indices trading at new highs and lows on an intraday and/or 52-week basis. Take advantage of the proximity alerts to recognize when stocks are trading near their intraday and 52-week highs and lows.

To open, click 🚹 in the Toolbar.

The Highs and Lows window displays the stocks on either the NYSE or NASDAQ exchanges that are breaking daily highs and lows, plus 52-week breaks and proximity alerts. The NYSE window will display all listed equities, not only those traded on the NYSE. You may open up to four High/Low windows at a time.

The NYSE information is active during the standard session and after hours. During the premarket session it will remain empty. The NASDAQ information is updated during Pre Market, Standard, and After Hours sessions.



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This figure shows a typical NASDAQ/NYSE High-Low window, with a brief description of the colors and highlights. Colors used are the default colors.

- CFFN has hit a daily high for the fourth time today.
- SFUN and CREE have hit a Daily Low 11 and 37 times, respectively.
- ICFI is hitting a 52 week high for the 11th time today and MICG is hitting a 52 week low for the 8th time today.

# To open the Highs & Lows window:

- 1. Go to **Tools > Start Tool**.
- 2. Change the High/Low setting to either 2 or 1.
- 3. Click **Start**.

or

• Click on the High/Low  $\uparrow \downarrow$  icon in the toolbar.

FILE	
Load Stock List	Selecting this feature will allow you to load a previously saved Stock List into your High/Low window.
Save Stock List As	Selecting this feature will allow you to save your current stock list to a file on your computer, which you can load later.
Clear Stock List	Clears the Symbol List in the <b>Settings</b> > <b>Symbol List</b> dialog and enables you to start a new list from scratch by Adding Symbols (see Symbol List below for more info on adding and deleting symbols). This will not clear the High/Low history.
0,1,2,3	Window will remember the last ten (10) stock list files you have opened. To toggle between files, click on any of them.
Close	Closes the High/Low window.

SETTINGS	
General	Data Display
	<ul> <li>Days: Select the number of days across which you wish to see High/Low data, from 1 to 20 days. For example, if you select 3 days, you will see high and low data for today plus the last two trading days.</li> </ul>
	<ul> <li>High: Check this option to view highs for the number of days selected.</li> </ul>
	<ul> <li>Low: Check this option to view lows for the number of days selected.</li> </ul>
	<ul> <li>NASDAQ: Check this option to display NASDAQ data.</li> </ul>
	NYSE: Check this option to display NYSE data.
	Indices: Check this option to monitor Index highs and lows.

### **SETTINGS**

- **52 Week High:** Check this option to display 52-week highs.
- **52 Week Low:** Check this option to display 52 week lows.
- Mix Proximity Alerts & Hi/Lows: Proximity Alerts inform you
  of stocks that are close to a daily high or low or 52-week high or
  low. Checking this option will combine the two in a single window.
- Daily Hi/Lo Count: The Daily Hi/Lo Count is a number to the right of the price that represents the number of times the stock has broken a new high or low on the day. Even when the stock is highlighted (meaning it is at a 52-week high), the Daily Hi/Low Count still only represents the number of daily high or low breaks.
- **Signal 52-week approach:** Will indicate when a stock is close to its 52-week high.
- **Signal daily approach:** Will indicate when a stock is approaching its daily high.
- **Upper Threshold:** The window will display a stock in yellow (unless otherwise changed) any stock that is 0.063 away from the daily or 52-week high. You can choose to change this amount.
- **Lower Threshold:** The window will display in purple (unless otherwise changed) any stock that is 0.063 away from the daily or 52-week low. You can choose to change this amount.
- **Data Filter Increment:** This feature allows you to filter prints based on the increment value change you specify here, from .01 to 1.00.

**EXAMPLE** If you only want new prints to display every time the trade price changes by .10, set this to .10 using the arrow buttons. Then when any of the stocks in your symbol list prints a trade .10 higher or lower than the last trade it printed, the symbol, quantity, etc. will display in the Print Ticker window. The color will correspond to whether it's a negative or a positive change.

**NOTE:** The Data Filter Increment will not apply to proximity alerts in the High-Low window, such as Signal 52-week approach and Upper/Lower Threshold.

### **Symbol List**

### **Adding Symbols:**

- 1. Click **Settings > Symbol List**.
- 2. In the Symbol List window type in the stock or index.

SETTINGS	
	3. After typing each, press <b>Enter</b> on your keyboard or click the <b>Add</b> button.
	4. After all the stocks and indices have been entered, click <b>OK</b> .
	(Another way of adding/deleting stocks to the High/Low window is by pressing the <i>Insert/Delete</i> keys on the keyboard. Type in the stock to add/delete in the Quick Add/Quick Remove box that appears.)  Saving a Symbol List:
	1. Click <b>File &gt; Save Stock List As</b>
	<ol> <li>In the Save window that appears, type in the file name you would like to save the list as, then click <b>Save</b>.</li> </ol>
Filters	The filter allows you to ignore stocks above or below the set prices as well as below a user-defined Five Day Average Volume. Filters do not apply to indices.
	<ul> <li>Price-Level Filter allows you to set the price level below which, and above which, a stock will be ignored. Click on the arrow but- tons provided to increase or decrease the prices within the Ignore Stocks Below and Ignore Stocks Above settings indicates these levels.</li> </ul>
	<ul> <li>Five Day Average Volume Filter allows you to set the five day average volume below which a stock will be ignored.</li> </ul>
	<ul> <li>Five Day Avg. Dollar Volume Filter allows you to ignore symbols with a five day average dollar volume<sup>1</sup> below a certain value, use the up and down arrows to specify that value, and check Ignore Stocks Below</li> </ul>
Fonts	Click to adjust font settings.
Colors	Click to adjust color settings.

TABS	
Enable	When checked, allows you to maximize screen space while still having quick access to several windows within one window. When unchecked, you must open several independent windows to view multiple High/Low window. See the <a href="Adding Tabs to Windows">Adding Tabs to Windows</a> topic for directions.

 $<sup>^{1}</sup>$ The dollar amount of shares/contracts traded for the day on a security or options/futures contract. Calculated as VWAP (Volume Weighted Average Price) multiplied by the day's total volume.

TABS	
Insert	Select to add a new tab to the window. See the <u>Adding Tabs to Windows</u> topic for directions.
Edit [tab name]	Select to edit the current tab's settings, including the name and location.
Delete [tab name]	Select to delete the current tab from the window.

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### **Sectors**

### **Sectors**

View information about companies grouped by sectors, industries, or by sub-industries. Classifications are based on Morgan Stanley Capital International and Standard & Poor GICS (Global Industry Classification Standard).

The Sectors tool can assist traders using a Top-Down investing strategy by identifying the top performing Sector, Industry, or Sub-Industry over any one of many time periods, or in Bottom-Up Analysis to compare an individual equity to its peers in its Sub-industry, Industry, and Sector

To open, click in the Toolbar.

**TIP:** You can add the stocks in a Sub-industry to the Watch List window by clicking on the Sub-industry and dragging it to the Watch List window. However, the Watch List limit is 100 stocks. If your Sub-industry list is greater than 100, it will only pull over the first 100 securities in the Sub-industry based upon the column that is being used for sorting. If no column has been selected for sorting, it will load in the first 100 securities in alphabetical order.

Click the plus (+) symbol to expand the Sector, Industry, or Sub-industry. Click the minus (-) to contract a category.



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FILE	
Page Setup	Enables you to customize the current page for printing. Read the <a href="Print-ing Windows">Print-ing Windows</a> topic in the Getting Started section for more information.
Print	Prints the Sector rows currently displayed.
Export	Exports the Sector rows currently displayed into a tab-delimited text (.txt) file.  Select <b>Export</b> , enter a name for the text file and select the location where it should be saved, and click <b>Save</b> .
Close	Closes the Sectors window.

SETTINGS	
Indices	Checking <b>Enable Indices</b> will keep a list of up to 5 indices at the top of your Sectors window at all times.

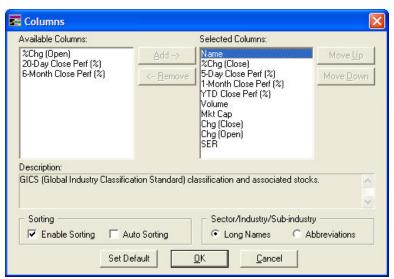
### **SETTINGS**

- 1. Enter the index symbols in the fields.
- 2. Put a check next to the ones you wish to view.
- 3. Click **OK** when you are finished.

**NOTE:** Indices must start with a symbol using \$.You cannot use QQQ, SPY, DIA, etc, as these symbols do not start with a \$.

### Columns

- Click Settings > Columns to change the data fields displayed in the Sectors window.
- Move Columns you want to see in the Sectors window over to the Selected Columns.
- Column data can also be changed by right-clicking the Sector window column heading.
- You can change the order of the column data by dragging the column heading box to the desired column location.



**Enable Sorting:** When checked, you can simply click on any column header to sort by that column.

**Auto Sorting:** When checked, the sort order will change in real time as new data comes through. For example, if you were sorting by the Total Volume column and Auto Sorting was checked, the sort order of the watch list would change as volumes changed.

**Long Names/Abbreviations:** Select which format you would like for displaying the Sector, Industry, and Sub-Industry columns.

# **Sector Column Descriptions**

• Name: Shows Sectors, Industries, Sub-industries, and finally, all

SETTINGS	
	stocks within each sub-industry.
	<ul> <li>Open*: Total amount the stock has gained/declined since mar- ket open.</li> </ul>
	<ul> <li>Close*: Total amount the stock has gained/declined since yes- terday's close.</li> </ul>
	<ul> <li>Open*(%): Percentage of change from open price to current price.</li> </ul>
	<ul> <li>Close*(%): Percentage of change from close price to current price.</li> </ul>
	<ul> <li>Total Volume: Total cumulative volume for the day.</li> </ul>
	<ul> <li>Total Market Capitalization: The total market value of all of a company's outstanding securities.</li> </ul>
	<ul> <li>5-Day Close Perf (%): Difference between the Close from 5 days ago and the Current Price expressed as a percentage.</li> </ul>
	<ul> <li>20-Day Close Perf (%): Difference between the Close from 20 days ago and the Current Price expressed as a percentage.</li> </ul>
	• 1 Month Close Perf (%): Difference between the Close from 1 month ago and the Current Price expressed as a percentage.
	<ul> <li>6 Month Close Perf (%): Difference between the Close from 6 months ago and the Current Price expressed as a percentage.</li> </ul>
	<ul> <li>YTD Close Perf (%): Difference between the close from the beginning of the year and the Current Price expressed as a per- centage.</li> </ul>
	<ul> <li>SER (Schwab Equity Ratings): 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</li> </ul>
Fonts	Click on this option to change this window's font settings.
Colors	Click on this option to change this window's color settings.

<sup>\*</sup> The Global Industry Classification Standard (GICS) was developed by and is the exclusive property of Morgan Stanley Capital International Inc. and Standard and Poor's. GICS is a service trademark of MSCI and S&P and has been licensed for use by Charles Schwab & Co., Inc.

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### News

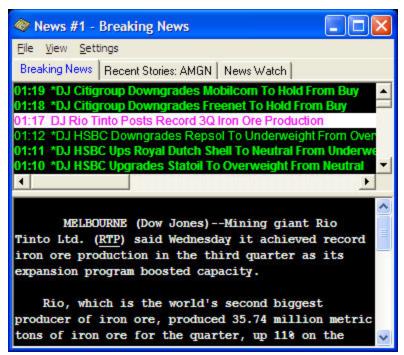
### **News Overview**

The News tool streams real-time breaking news right to your platform. Scan the headlines, read the full story, and set up personal news watches integrated with alerts.

To open, click 🔈 in the Toolbar.

The News window delivers the latest Thomson Reuters\* and Acquire Media news directly to your desktop. You may open up to 3 News windows at a time. Using the news window, you can:

- Get breaking market news as it comes out throughout the day,
- Query for news by keyword or symbol, or
- Set <u>watch lists</u> to see only news on specific symbols.



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FILE	
Page Setup	Enables you to customize the current page for printing. Read the Print-

FILE	
	ing Windows topic in the Getting Started section for more information.
Print	<ul> <li>Click to send the news to your printer for a hard copy.</li> <li>For a shortcut, right-click in the Preview window and click <b>Print Story</b>.</li> </ul>
Close	Click to close the News window.

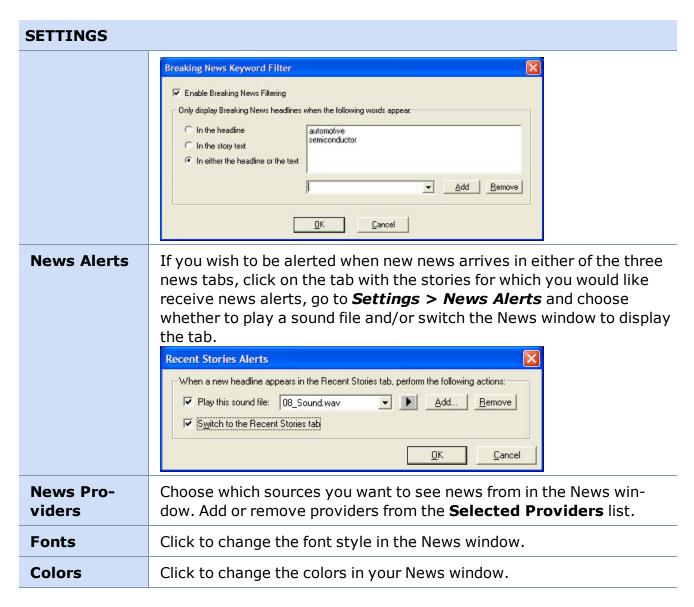
# Preview Open or close the Preview panel by clicking View > Preview or right-clicking at the bottom of the News window and selecting Show Preview Window. To read an article when the Preview panel is closed, right-click on the headline and choose either Open Story (to display the news story in a pop-up window) or Show Preview Window (to re-open the Preview panel for viewing).

# **SETTINGS**

# **Keyword Filter**

Filters allow you to limit the volume and type of news that appears in your Breaking News tab by only displaying stories that have the key words or phrases you specify here.

- 1. To start, click **Settings** > **Keyword Filter** while viewing the Breaking News Tab.
- 2. check Enable Breaking News Filtering.
- 3. Select whether you want the keyword to appear in the headline, story text, or either.
- 4. Type the keyword or phrase and click **Add** to add it to the list.
- 5. To remove any of the words, click on the word and click **Remove**.
- 6. Click **OK** when you are finished setting up your filters.



### **Right-Click Shortcuts for News**

Several of the menu selections above are also available by right-clicking in the News window. If a security symbol is in the headline of an article you right-click on, you will also see options to set an alert, load into Trading Window, access Research and more.

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# **Breaking News Tab**

The Breaking News tab gives you streaming, real-time general market news headlines.

<sup>\*</sup> Professional clients do not have access to Thomson Reuters news.



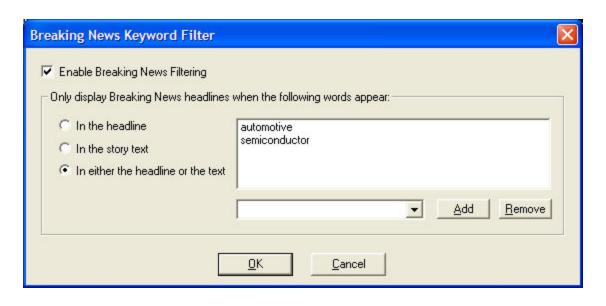
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Click a headline in the Breaking News tab to retrieve the complete article. Use the scroll bar on the right side of the window to move through the article or use the **Page Up** and **Page Down** keys on your keyboard.

### Filtering Breaking News:

You can limit the volume and type of news headlines that appear in your Breaking News tab by only displaying stories that have the keywords you specify.

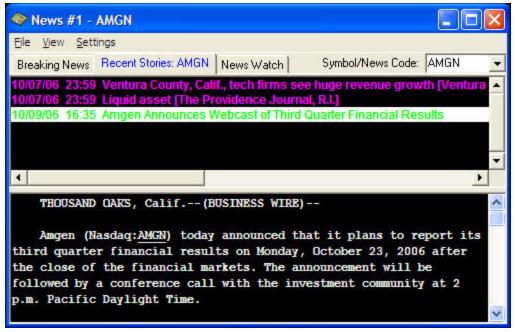
- 1. Click **Settings** > **Keyword Filter** in the News menu to open the Filters window.
- 2. To start, check *Enable Breaking News Filtering*.
- 3. Select whether you want the keyword to appear in the headline, story text, or either.
- 4. Type the keyword or phrase and click **Add** to add it to the list.
- 5. To remove any of the words, click on the word and click **Remove**.
- 6. Click **OK** when you are finished setting up your filters.



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### **Recent Stories Tab**

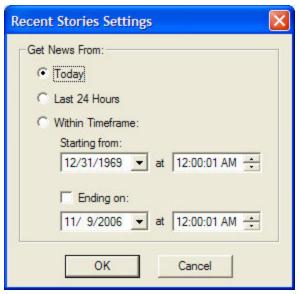
The Recent Stories tab allows you to watch for news on a particular symbol for the current day or for up to 5 days in the past.



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### **Time Frame**

You can specify the time frame for the Recent News tab by going to **Settings** > **General** in the News menu:



Select whether to display news for Today, the Last 24 Hours, or select a starting and ending date.

# **Recent News Alert Settings**

If you wish to be alerted when new news arrives for your watched symbol, go to **Settings** > **News Alerts** and choose whether to play a sound file and/or switch the News window to display the Recent Stories tab.



# Get Recent News on a Stock in the Trading window

- 1. In the Trading window, click **Settings > Links.**
- 2. In the Links window, click on **News**, then **OK**.
- 3. Next time you load a symbol into the Trading window, the news headlines for that security will automatically appear in the Recent Stories tab of the News window.

or

1. To run an impromptu query, if you have **Enhanced User Interface** selected, you may right-click a symbol in any window and select **Recent News for [stock]**.

### **Watch List News**

- Set up your <u>Watch List</u> window so that News is one of the columns. When news about a symbol in your symbol list becomes available, an icon will appear in the News column (
   ).
- 2. Double-click on the icon to display the headlines waiting for you in the Recent News tab of your News window.

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### **News Watch Tab**

The News Watch tab displays news for the symbols or news codes you specify.

Go to **Settings** > **General** to select individual symbols, watch lists, or news codes to watch for new news.



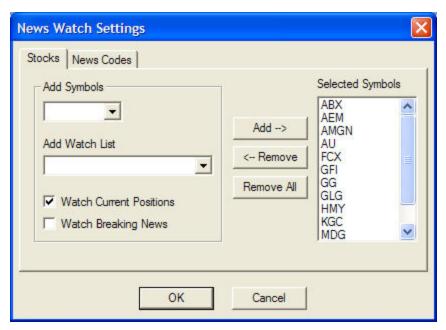
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### To Add Stocks to the News Watch:

Go to **Settings** > **General** and,

• Enter a **Symbol** or click **Add Watch Lists** and select one of the built-in watch lists or scroll to the bottom of the list to Browse for your own list.

- Click Add to append the list of Selected Symbols with the symbol you entered or the watch list you've selected.
- **Watch current positions** will automatically watch for news on stocks in which you have an open position if this feature is checked.
- Watch breaking news will display breaking news in the News Watch window in addition to, if you choose (see <u>News Watch Alerts</u> below), alerting you to breaking news on the stocks you are watching.



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### To Remove Stocks from the News Watch:

- Click to highlight one or more symbols and click Remove, or
- Click **Remove All** to clear the symbol list.

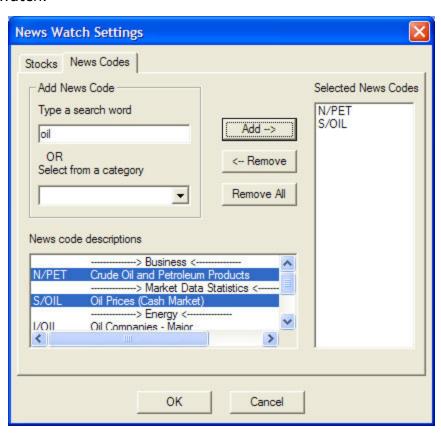
**TIP:** If you are watching for news on a certain industry or a particular analyst, watching for news based on News Codes may be helpful to you.

# To take advantage of News Codes:

- 1. Go to **Settings** > **General** and click the **News Code** tab.
- 2. A full list of codes and descriptions is available at the bottom of the window, so you can scroll through and click on the ones you want and click Add to watch those codes, or
  - **Type a search word** and the list will automatically filter down, such as in the image

with the term 'oil' all codes that have oil in the description are displayed. Click on any (or all) of them and click **Add**.

- **Select from a category** to view only codes in that category, such as Business, Publications, Analyst Ratings, and many more.
- 3. Click **OK** when you have selected the news codes you wish to monitor for news. News on these categories will display along with news on any stocks or watch lists you selected to watch.



### **News Watch Alerts**

To be alerted when news breaks on one of your selected stocks, go to **Settings > News Alert** in the News menu.

- Check Play this sound file and click Add to select the sound file to play and/or
- Check **Switch to the News Watch tab** to have the news window display the News Watch tab when news you are watching for arrives.



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# **Stock Screener**

### **Stock Screener Overview**

Find possible trading opportunities with the Stock Screener, a powerful platform-based screening and signal generating tool. Match the screening criteria to your strategies with over 140 available filtering query choices. Select from a text and/or graphical view with the List Display.

To open, click min the Toolbar.

The key to creating useful queries is understanding which quantities and values to include in the query to get the desired results. For instance, if you look for stocks that are trending upward, you must understand which quantities are considered trend indicators and what characteristics of these quantities determine the direction of the trend. In other words, it's not enough to just know that On Balance Volume is a trend indicator, you must also know that positive OBV indicates that the trend may continue.

There are many resources, outside of the scope of this online help, from which to learn about these indicators. Using the Education Weblink icon located on the toolbar you can access the Introduction to the Stock Screener & Stock Selection module located the Education page within the StreetSmart Pro® Center.

If after reading this section of the manual and experimenting with the Stock Screener you still are unable to create a query to suit your needs, consider using our built in queries to use as a guideline or call your Schwab Active Trader Broker for assistance.

With the Stock Screener, you have the ability to construct queries based on hundreds of variable combinations. These variables can be compared against each other or compared against a value set by you. Then, stocks meeting these criteria can be displayed in a list.

Each list view can contain up to 50 stocks and show up to 48 columns of data about each stock retrieved by the query, all of which can be moved, removed, added, subtracted and resized.

StreetSmart Pro® allows you to open up to 10 separate lists at once. The stock screener results are based on current quote information for the standard as well as the extended hours sessions.

# **Open the Stock Screener**

- 1. Go to the **Tools** menu and select **Start Tool**.
- 2. Next to **Stock Screener List** and increase the field from 0 to 1 by using the up arrow located to the right of the field.
- 3. Click **Start**.
- 4. The Stock Screener Query window will automatically be displayed.

or

Click on the Stock Screener icon III in the toolbar.

The Stock Screener query window will automatically be displayed, allowing you to view Built-In or User queries. Once you have opened the maximum number of Stock Screeners (10) the icon will become grayed out.

# **Built-In Queries**

The Stock Screener feature provides many Built-In Queries that you might find useful. They may not be deleted, but can be edited for use as a starting point for your own User Queries. Go to **Settings** > **Queries** and click on the Built-In query you wish to use. Then click on **View** to edit and save your query with a new name.

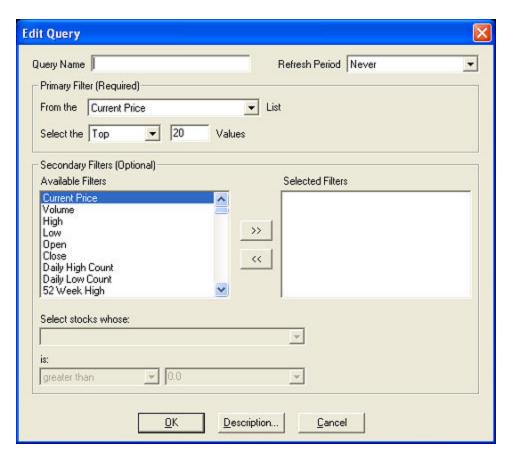
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# **Creating Stock Screener Queries**

To create a new query, click **User Queries > New Query**.

To edit an existing query, clicking on *User Queries* > *Edit Query*.

- Going to User Queries > Edit Query, when you are currently viewing a Built-In query, you can see how the query is constructed. This is an excellent method of learning to use the Stock Screener.
- When editing a Built-In query, you must rename it in the **Query Name** field.



# **Primary Filter**

In the Primary Filter, you will query the broadest or most fundamental parameter in your list of criteria, such as 'Current Price between 10 and 20', 'Volume greater than 1,000,000', etc. The pool of data this creates will be narrowed when or if you add Secondary Filters.

- 1. Choose the variable to query from the pull-down menu next to **From the** (Criteria) **List**
- 2. Choose to query the:
  - 1. **Top**: Gives you the top N stocks (N is the number you enter in the Values field) sorted by the query variable that meets the query and filter requirements. For example, if you query Volume for the top 20 stocks, your base query will consist of the 20 highest volume stocks.
  - 1. **Bottom**: Gives you the bottom N stocks (N is the number you enter in the Bottom field) sorted by the query variable that meet the query and filter requirements. For example, if you query Change from Open for the bottom 20 stocks, your base query will consist of the 20 stocks with the lowest number when subtracting Current Price from Open price (usually negative numbers).
  - 1. **Values**: To use this option, you must also select a "relation" from the pull-down menu on the right (i.e. greater than, between, etc.) and enter a number in the neigh-

boring value field. Two value fields will be used when **Between** is the selected relationship.

3. Click on **OK** to run the query using the Primary Filter only and view the results in the List window

### **Refresh Period**

Will recalculate and display your query as often as every 15 seconds or Never, if you want the query output to remain constant. Keep in mind that the more frequently your computer asks for a refresh, the more bandwidth your software will use.

# Secondary Filters

Secondary Filters enable you to further refine the query output. In the left column is the list of **Available Filters**. These will be used in conjunction with the fields at the bottom of the window to create the **Selected Filters** in the right column. For instance, if you created a filter based on Volume, the **Selected Filter** will be called Volume and will include the filtering settings applied to it by you in the fields at the bottom of the window.

- Click on the desired Available Filter.
- 2. Click the >> to add the filter to the **Selected Filters** list on the right.
- 3. Under **Select stocks whose:**, choose whether to filter by just the variable, the difference between the variable and another variable, or the percent difference between the variable and another variable.

### • EXAMPLE #1

To set a filter that will only list stocks with a greater than 15% change from open, choose *Change from Open (%)* in the **Available Filters** list and click the >> button to move it to **Selected Filters**. The rest of the query should read:

Select stocks whose: **Change from Open (%)** is: **greater than 15**.

### • EXAMPLE #2

To set a filter that will only list stocks with a current Volume greater than their one month average volume, choose **Volume** in the **Available Filters** list and click the >> button to move it to **Selected Filters**. The rest of the query should read:

Select stocks whose: Volume is: greater than 1 Month Avg. Volume.

### • EXAMPLE #3

To set a filter that will only list stocks that are 0.165 or less off their 52-week high, choose *Current Price* in the **Available Filters** list and click the >> button to move it to **Selected Filters**. The rest of the query should read:

Select stocks whose: **difference between Current Price** and **52 Week High** is: **less than or equal to 0.165**.

### • EXAMPLE #4

To set a filter that will only list stocks within 2% above their 60 Day Simple Moving Average (SMA), choose *Current Price* in the **Available Filters** list and click the >> button to move it to **Selected Filters**. The rest of the query should read:

Select stocks whose: **% difference between Current Price** and **60 Day SMA** is: **greater than or equal to 2**.

- 4. To edit a Selected Filter, click on the filter you wish to change from the **Selected Filters** list.
- 5. Repeat steps 1-3 to add as many as 10 filters per individual query.
- 6. When you are finished building your query, click **OK**.
- 7. You may also view the description of the selected query by clicking on **Description**.

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### **Screener List View**

Lists start with a group of default columns, which you can adjust to view any of the variables available, including any compound quantities (such as [High - Current Price]) you created while building your query.



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Columns can be customized in three ways:

- 1. **Width**: Change the width of the columns by placing your cursor over the line between the column headers until the cursor changes to a double-headed arrow. Click and drag to compact or expand the column width.
- Number of Columns: You can change the number of columns to view by clicking on Settings > Columns in the menu bar (right-click within the window and choose Show Menu if it is hidden). Use the up and down arrows to adjust the number of columns. Click OK.
- 3. **Column Name**: You can change the order of the columns by right clicking on the column header. A list will pop up with all the column choices. Click on a different column name to replace the one currently in that position. For example, if **Volume** is in column two but you want **High** there, right-click on the **Volume** column heading and scroll until you find **High**.

**NOTE:** If *High* is already a column in the list, it will simply switch places with *Volume*. If *High* is not in the list already, *Volume* will be replaced.

Selecting **Settings** > **Reset Columns** you will reset all columns of the currently viewed list for both Built-In Queries as well as User Queries. The first column will be reset to the Symbol Name. The second column will be reset to match the Primary Filter of the query. The remaining columns will change to a pre-determined order up to the number of columns in the stock list.

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### **Stock Screener List Menu**

FILE	
Load Query File	<ul> <li>Click to load previously saved Query files.</li> <li>Once loaded, the list of queries in your file will appear in the <i>File</i> menu as a <i>Recently Viewed Query File</i> (see below).</li> </ul>
Save Query File As	<ul> <li>Saves queries you have created.</li> <li>You may save files either independently or as groups. Once a query file has been saved, you may save additional queries to the same file or under a different file name.</li> <li>See <u>Saving Screener Queries</u> for more information.</li> </ul>
Page Setup	Enables you to customize the current page for printing. Read the <a href="Printing">Printing</a> <a href="Windows">Windows</a> topic in the Getting Started section for more information.
Print	Print query results here.
Export	Save query results to a text file $(*.stk)$ , which can be imported into the Watch List window and various tickers within the software. It can also be imported into Excel or opened in Notepad.

FILE	
Recently Viewed Query Files	Shows a list of the most recently accessed User Query files. Click on a query file to re-load it.
Exit	Closes the List Window.

VIEW	
Query Descrip- tion	When enabled, will open a separate window showing the text description of the current query.
New Item List	Opens a separate panel at the bottom of the Screener window that displays new stocks as they are added to the list.  Note that if the refresh rate of the query is set to <b>Never</b> , new stocks will not be added to the results and this panel will remain empty.
Result Count	When enabled, will display in the bottom bar of the window the number of stocks meeting the criteria of the query.

SETTINGS	
Queries	The Queries window gives you access to all Built-In queries and User Queries that have been loaded (see <b>Load Query File</b> above for more information on loading User Queries). This window will allow you to add a New query, View a Built-In query, Edit a User query, Remove a User query or get the Description of the highlighted query.
	To create a query based on a Built-In query
	1. Click on a Built-In query in the list.
	2. Click on the <b>View</b> button.
	<ol> <li>The query construction window will open allowing you to make changes to the query; however you must change the name of the query to save it, because Built-In queries cannot be edited or deleted.</li> </ol>
	<ol> <li>See <u>Creating Screener Queries</u> for instructions on cre- ating/editing queries.</li> </ol>
Columns	Move Columns you want to see in the List over to the Selected Columns.

SETTINGS	
	<ul> <li>Column data can also be changed by right-clicking the Watch List column heading.</li> </ul>
	<ul> <li>You can change the order of the column data by dragging the column heading box to the desired column location.</li> </ul>
	<ul> <li>Long Names/Abbreviations: Select which format you would like for displaying the Sector, Industry, and Sub-Industry columns.</li> </ul>
Reset Columns	Returns columns to their original layout and will reset the first two columns of the list for both Built-In Queries as well as User Queries.
	Choosing <b>Reset Columns</b> will always reset the first column to the Symbol Name. The second column will be set to match the Primary Filter of the query you are currently viewing.
Fonts	Allows you to select the font, weight, and size for text used in the Graph window.
Colors	Allows you to choose the foreground and background text colors to suit your preferences.

# **BUILT-IN QUERIES**

Included with your software are several pre-designed queries that you may find useful. They may not be edited or deleted, but they can be used as a starting point for your own User Queries:

- 1. Click **Settings** > **Queries** in the Stock Screener menu
- 2. Click on the Built-In query you wish to start with
- 3. Click **View**
- 4. Make any desired edits to the query
- 5. Change the **Query Name** at the top of the window, and click **OK** to save the query

USER QUERIES	
New Query	Click on this feature to create your own Stock Screener queries.  See <u>Creating Screener Queries</u> for instructions on creating queries of your own.

USER QUERIES	
Edit Query	Allows you to edit the current query, or if you are viewing a Built-In Query, you can edit it and save under a new name with this feature. See <a href="Creating Screener Queries">Creating Screener Queries</a> for instructions on creating/editing queries.
Loaded Queries	This list shows all the User Queries in the current file. Click on the one you wish to view.  To load a query file, go to <i>File &gt; Load Query File</i> and select the file you wish to open.

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# **Saving Screener Queries**

There are two ways to save and view queries that you create. Follow the steps under <u>Creating Stock Screener Queries</u> to set up your own queries if you are not familiar with this process.

# Creating queries without saving:

- After creating your query and clicking the **OK** button, your query will automatically be saved under the User Queries option in the menu bar. It does not save it as a separate file to your computer.
- 2. Your new query(s) will appear at the top of the list under **Settings** > **Queries** because the software automatically saves your query for later viewing into the same file as the built-in queries. However, you will not see your new queries in the Built-In drop-down list under **Built-In Queries**.

### Creating Queries and saving them to a file:

- 1. Create your new query and click **OK**.
- 2. Then, go to **File > Save Query File As**. A pop up box will appear allowing you to save the query to your computer's hard drive.
- 3. Select the location where you wish to save the query. Saving your query in the same place as the built-in query will make it easier to find all of the queries in one location.
- 4. Select the name you wish to attach to your newly created query list or you can add to a previously saved query list to add the new query to an existing list of queries. You will be prompted whether or not to overwrite the file.
- Click **OK**.
- 6. If you saved the file as a new name, then the file you just saved will be displayed under **File > Recently Viewed Query Files** (where Recently Viewed Query Files shows the name of your new file with a check mark to the left of it). If you saved the file as an

existing file name, the file name will be displayed under *File* > *Recently Viewed Query Files*, but the new query added to the list will be located under *User Queries*.

7. The title bar will show a new line with **File:** (name of your file), example shows *Technology.qry* 



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# **Query Filter Descriptions**

Current Price	Last trade price at the time the Stock Screener window last retrieved data (every 15 seconds maximum)
Volume	Number of shares traded in the stock that market day
High	Highest price the stock has reached that day
Low	Lowest price the stock has reached that day
Open	Price at the most recent open
Close	Price at the most recent close (updated at 6 a.m. Eastern Time)
Daily High Count	Number of times a new High has been reached that day
Daily Low Count	Number of times a new Low has been reached that day
52 Wk High	Highest price a stock has reached in the past 52 weeks (not including today)

52 Wk Low	Lowest price a stock has reached in the past 52 weeks (not including today)
52 Wk High- 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)
52 Wk Low-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)
Previous Day's High	Highest price a stock reached the previous trading day
5 Day High	Highest price the stock has reached over the last five days (not including today)
20 Day High	Highest price the stock has reached over the last 20 days (not including today)
1 Month High	Highest price the stock has reached over the last month (not including today)
YTD High	Highest price the stock has reached over the last year (not including today)
Previous Day's Low	Lowest price a stock reached the previous trading day
5-Day Low	Lowest price the stock has reached over the last five days (not including today)
20-Day Low	Lowest price the stock has reached over the last 20 days (not including today)
1 Month Low	Lowest price the stock has reached over the last month (not including today)
YTD Low	Lowest price the stock has reached over the last year (not including today)
Gap	Difference between most recent open and close prices expressed as a point value ( <i>Open - Close</i> )
% Gap	Difference between most recent Open and Close prices expressed as a percentage (100*(Open-Close)/Close)
Change (Close)	Change in the price from the previous day's Close expressed as a point value (updated at 6 a.m. Eastern Time)

% Change (Close)	Change in the price from the previous day's Close expressed as a percentage (i.e. difference between Close and Current Price, divided by Close) (updated at 6 a.m. Eastern Time)
Change (Open)	Change in the price from the Open expressed as a point value
% Change (Open)	Change in the price from the Open expressed as a percentage (i.e. difference between Open and Current Price, divided by Open)
Trading Range	Shows the trading range for the current day, i.e. intraday high - intraday low
% Change of Range from High	Percentage difference between the daily High and the Current Price as a percentage of the trading range for the day
% Change of Range from Low	Percentage difference between the daily Low and the Current Price as a percentage of the trading range for the day
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 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 Avg Close and Current Price divided by 20 Day Avg Close)
Chg from 1 Month Avg Close	Difference between the average close for the last month and the Current Price expressed as a point value
% Chg from 1 Month 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 Month Avg Close	Difference between the average close for the last 6 months and the Current Price expressed as a point value
% Chg from 6 Month 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)
Chg from Beg of Month Open	Difference between the beginning of the month open price and the Current Price expressed as a point value
Chg from Beg of Year Open	Difference between the beginning of the year open price and the Current Price expressed as a point value
Avg Volume - 5 Day	Average of the volume over the last five days
Avg Volume - 20 Day	Average of the volume over the last 20 days
Avg Volume - 1 Month	Average of the volume over the last month
Avg Volume - 6 Month	Average of the volume over the last six months
Avg Volume - YTD	Average of the volume over the last year
% Volume Over Yesterday's Vol	Difference between current Volume and yesterday's volume expressed as a percentage (i.e. difference between Volume and Yesterday's Volume, divided by Yesterday's Volume)
% Volume Over 5 Day Avg Vol	Difference between current Volume and the average volume for the last five days, expressed as a percentage (i.e. difference between Volume and 5 Day Avg Vol, divided by Yesterday's Volume)
% Volume over 20 Day Avg Vol	Difference between current Volume and the average volume for the last 20 days, expressed as a percentage (i.e. difference between Volume and 20 Day Avg Vol, divided by Yesterday's Volume)
% Volume over 1 Month Avg Vol	Difference between current Volume and the average volume for the last month, expressed as a percentage (i.e. difference between Volume and 1 Month Avg Vol, divided by Yesterday's Volume)

% Volume over 6 Month Avg Vol	Difference between current Volume and the average volume for the last 6 months, expressed as a percentage (i.e. difference between Volume and 6 Month Avg Vol, divided by Yesterday's Volume)
% Volume over YTD Avg Vol	Difference between current Volume and the average volume for the last year, expressed as a percentage (i.e. difference between Volume and YTD Avg Vol, divided by Yesterday's Volume)
10 Day SMA (Simple Moving Average)	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.
15 Day SMA	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.
20 Day SMA	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.
50 Day SMA	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.
60 Day SMA	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.
100 Day SMA	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.
120 Day SMA	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.
200 Day SMA	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.
15 Day EMA (Exponential Moving Average)	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 window to influence the average.
20 Day EMA	While similar to the SMA above, the exponential moving aver-

	age uses a "smoothing factor" to give more weight to recent prices, while still allowing all data in the window to influence the average.
50 Day EMA	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 window to influence the average.
60 Day EMA	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 window to influence the average.
100 Day EMA	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 window to influence the average.
120 Day EMA	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 window to influence the average.
Rate of Chg	Change in price between the current price and the close 6 days ago, divided by the price 6 days ago
10 Day RSI	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 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.
10 Day RSI from Close	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 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.
30 Day RSI	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 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.
30 Day RSI from Close	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 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.
50 Day RSI	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 49 days (using today's Current 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.
50 Day RSI from Close	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 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.
% K	Along with %D, is part of the 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 the 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 mar- ket "noise" due by increasing the number of periods used in the calculation
Bollinger Bands® (Top/Middle/ Bottom)	The center 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.

MACD Signal	Typically used in conjunction with the MACD indicator above
20 Day Momentum	Measures the amount that a security's price has changed over the last 20 days. If today hasn't closed yet, it uses the current price for today's close.
20 Day Momentum from Close	Measures the amount that a security's price has changed over the last 20 closes
40 Day Momentum	Measures the amount that a security's price has changed over the last 40 days. If today hasn't closed yet, it uses the current price for today's close.
40 Day Momentum from Close	Measures the amount that a security's price has changed over the last 40 closes
60 Day Momentum	Measures the amount that a security's price has changed over the last 60 days. If today hasn't closed yet, it uses the current price for today's close.
60 Day Momentum from Close	Measures the amount that 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 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.
Money Flow Per- cent	Money Flow Percent is also called Chaikin Money Flow. It normalizes the Money Flow calculation above by dividing by the cumulative volume for the period.
Williams %R	Measures the percentage to which a stock is overbought or over- sold based on the position of the current period's close to the range of prices over a time period
14 Day DM(+DI) Positive	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 +DI falls below the -DX.
14 Day DM(-DI)	The basic Directional Movement trading system involves com-

Negative	paring 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 +DI rises above the -DX and selling when the +DI falls below the -DX.
14 Day Directional Movement (DX)	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.
14 Day Average DM(ADX)	Assesses the strength of current trends in a stocks movement, as well as helping point out when a market may be changing from trending to non-trending and vice versa. ADX is calculated by taking a modified moving average of DX.
PE Ratio	Price/Earnings Ratio measures how expensive a stock is (i.e., the cost an investor in a stock must pay per point of current annual earnings)
EPS Ratio	Earnings per Share shows net income divided by the number of shares of a company participating in the profits. This gives a good indication of the earnings ability of a company.
Dividend	Taxable payment declared by a company's board of directors and given to its shareholders out of the company's current or retained earnings
Market Cap	Market value of all of a company's outstanding shares
PS Ratio	Price-to-Sales Ratio shows a stock's capitalization divided by its sales over the previous 12 months
Earnings	Revenues minus cost of sales, operating expenses, and taxes, over a given period of time
Net Income	Gross sales minus taxes, interest, depreciation, and other expenses
Revenue	Total dollar amount collected for goods and services provided
DPS Ratio	Dividends per Share shows how much shareholders were paid in dividends per the number of shares issued.
Shares Out- standing	Shows number of shares of a corporation which have been issued
% Recommend	Percentage of Buy recommendations from analysts covering the

Buy	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
Num of Recom- mendations	Total number of recommendations from analysts covering the issue
Recommendation Avg (1.0=Buy, 5.0- 0=Sell)	Average of recommendations from analysts covering the issue
Beta Value	Indicates the volatility of a stock's price, with dividends reinvested, relative to the overall market. 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 relative to the overall market.
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, or those greater than 99, are not considered meaningful and are not displayed.
P/E Ratio (Estimated)	Ratio derived by dividing closing stock price by latest consensus estimate. Negative P/E ratios, or those greater than 99, are not considered meaningful, and are 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
% 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	Sales for the latest fiscal year divided by the number of employ-

Employee	ees, expressed as dollars per employee. Employees is defined as the number of full time or full time equivalent employees.
Long Term Debt/Equity	Total long term debt for the most recent fiscal year divided by total equity for the same period
% 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 Asset	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 and as a measure of asset-use efficiency.
% Yield	Indicated annual dividend rate per common share divided by the latest stock price, expressed in percentage terms.
% 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 for 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 on the pay date for 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 for 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 for 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 for the period covering the most recent 5 fiscal years.
% Total Return (3 Mon)	Rate of return representing the price appreciation of a stock with cash dividends reinvested on the pay date for the period covering the most recent fiscal quarter.

% Total Return (6 Mon)	Rate of return representing the price appreciation of a stock with cash dividends reinvested on the pay date for the period covering the most recent 2 fiscal quarters.
% Total Return (9 Mon)	Rate of return representing the price appreciation of a stock with cash dividends reinvested on the pay date for the period covering the most recent 3 fiscal quarters.
% Dividend Pay- out Ratio	Indicates the percentage of annual earnings paid out in dividends. Calculated by dividing the indicated annual dividend rate by per-share earnings. (Indicated dividend divided by 12mo EPS)
% Held by Insti- tutions	Percentage of outstanding shares held by institutional investors
Relative Strength	Measures each stock's price performance compared to all other companies in the S&P universe on a rolling 13-week basis.
Price/Book Ratio	Most recent Price Per Share divided by most recent Equity Per Share (which is the Tangible Book Value per common share after intangibles (such as goodwill, debt discount, or preferred shares at liquidating value) have been deducted)
Stock Exchange	Shows the exchange (NYSE, NASDAQ, etc.) on which the stock trades
S&P Stars	S&P's fundamental analysis and evaluation of the short-term (six- to 12-month) appreciation potential of stocks. Based on a ranking system of one to five stars, S&P Star Rankings are available for about 1,000 select stocks. A definition of the rankings are as follows:
	<ul> <li>5: BUY Expected to be among the best performers over the next 12 months and rise in price</li> </ul>
	<ul> <li>4: ACCUMULATE Expected to be an above-average per- former</li> </ul>
	<ul> <li>3: HOLD Expected to be an average performer</li> </ul>
	<ul> <li>2: AVOID Likely to be a below-average performer</li> </ul>
	<ul> <li>1: SELL Expected to be a well-below average performer and fall in price</li> </ul>
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;

	• <b>A</b> : High;
	• <b>A-</b> : Above Average;
	• <b>B+</b> : Average;
	• <b>B</b> : Below Average;
	• <b>B-</b> : Lower;
	• C: Lowest;
	• <b>D</b> : In Reorganization; and,
	<ul> <li>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 &amp; Poor's does not rank the stock of foreign companies, investment companies, and cer- tain finance-oriented companies.</li> </ul>
	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.
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 Midcap 400 Index
In S&P Small Cap 600	Indicates whether the stock is part of the Standard and Poor's SmallCap 600 Index
Schwab Equity Rat- ings (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 <a href="Schwab Equity Ratings">Schwab Equity Ratings</a>
GICS Sector	Shows the general industry classification of the company (Healthcare, Financial, Technology, Transportation, etc.)
GICS Industry	A specific category describing the company's business activity (Computer Peripherals, Chemical Manufacturing, Broadcasting, Hotels & Motels, etc.)
GICS Subindustry	A subcategory within the company's Industry classification that further specifies the company's primary business activity

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# Reference

# **Navigating Online Help**

Answers to your questions about StreetSmart Pro® are at your fingertips. Here's a brief guide to navigating Online Help before you Get Started:

# **New Features**

The most recent changes to the software.

### **Contents Tab**

If your question relates to a specific window or function of the software:

- 1. Click on the corresponding chapter in the left-hand navigation panel.
- 2. Doing so will display another tier of chapters or topics directly below them. Click the one that best describes the type of information you're looking for.

#### **Full-Text Search**

If you are looking for information on a specific subject, you may perform a search of the help contents by entering the search word or phrase in the upper left corner Search field. StreetSmart Pro help uses a natural language search engine to help you find the information you need more quickly.

### Glossary, Index, Etc.

These features are located in the Reference tab on the right side of the Help window. There, you'll find:

- Glossary
- IDs includes Market Participant IDs.
- Comprehensive FAQ's (Frequently Asked Questions)
- Printable User Manuals
- User Agreements

### **About This User Manual**

This Educational Guide and its content (including price and volume data, screen samples, and queries) are for informational and educational purposes only. Although it may provide general information relating to trading or investment approaches, you should not construe anything in the guide as legal, tax, and investment, financial or other advice. Nothing contained in the guide constitutes a solicitation, recommendation, promotion, endorsement, or offer by Schwab of any particular security, transaction, or investment strategy.

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# Glossary

This glossary contains definitions specifically related to listed 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." Member SIPC

Please contact a tax advisor for the tax implications involved in the options strategies referenced.

<u>A|B|C|D|E|F|G|H|I|J|K|L|M|N|O|P|Q|R|S|T|U|V|W</u>|X|Y|Z

### **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.

# $\underline{A} | \underline{B} | \underline{C} | \underline{D} | \underline{E} | \underline{F} | \underline{G} | \underline{H} | \underline{I} | \underline{J} | \underline{K} | \underline{L} | \underline{M} | \underline{N} | \underline{O} | \underline{P} | \underline{Q} | \underline{R} | \underline{S} | \underline{T} | \underline{U} | \underline{V} | \underline{W} | \underline{X} | \underline{Y} | \underline{Z}$

## **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 upperand 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").

### 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.

A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z

## **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.

#### 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. StreetS-mart Pro Direct Access provides Level II 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 only**.

# **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.

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### **Earnings Per Share Date**

Date of the last earnings announcement.

## **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] ARCA [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.

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### 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.

# **Inside Day**

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.

### **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").

### **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.

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## **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

Level II 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 Level II 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.

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### **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 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 Level II 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 quarantees 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 Level II. 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.

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## **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.

#### **NSDO**

In the context of bid or offer quotes in Level I or II, NSDQ represents the NASDAQ Single Book liquidity.

NSDQ is also an order routing venue available in StreetSmart Pro 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 stocks 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.

## A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z

# **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.

### **Proxy**

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.

# <u>A|B|C|D|E|F|G|H|I|J|K|L|M|N|O|P|Q|R|S|T|U|V|W</u>|X|Y|Z

### 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)

The Securities and Exchange Commission (SEC) has adopted amendments to Regulation SHO (Reg SHO). Under Rule 201, the SEC has established a short sale-related circuit breaker that, if triggered, will impose a restriction on when and/or at what price a security may be sold short.

The short sale-related circuit breaker will be triggered for a security when its price declines by 10% or more from the prior day's closing value within normal market hours. The regulatory circuit breaker will then remain in effect for the remainder of the day, and at a minimum, throughout the next day's trading session. The circuit breaker will be triggered during the regular session only. Once triggered, the price test will apply at all times when the national best bid is disseminated through the end of the next trading day.

Stocks that have triggered the short sell circuit breaker rule will be annotated with a "RCB" indicator in the Trading Window.

When the regulatory circuit breaker rule is in force, short sale orders will continue to be accepted. However, marketable limit orders and market orders to sell short may be delayed and executed at a significantly lower price than the bid at the time the order was placed.

### 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.

A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z

#### **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.

#### **SmartEx**

SmartEx is a trade execution technology that combines the best of intelligent order routing (IOR) with market maker liquidity enhancements. SmartEx is designed to deliver trade executions that are as good as, if not better than, what you would expect to receive using IOR alone.

## **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.

# **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.

# SuperMontage<sup>SM</sup>

SuperMontage was integrated with the BRUT and INET books to create the NASDAQ Single Book. See NSDQ for more information.

#### **Support**

See "Resistance".

### A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z

#### **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 certain 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), 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.

# $\underline{A} \mid \underline{B} \mid \underline{C} \mid \underline{D} \mid \underline{E} \mid \underline{F} \mid \underline{G} \mid \underline{H} \mid \underline{I} \mid \underline{J} \mid \underline{K} \mid \underline{L} \mid \underline{M} \mid \underline{N} \mid \underline{O} \mid \underline{P} \mid \underline{Q} \mid \underline{R} \mid \underline{S} \mid \underline{T} \mid \underline{U} \mid \underline{V} \mid \underline{W} \mid \underline{X} \mid \underline{Y} \mid \underline{Z}$

## 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.

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#### **Identifiers**

#### **Index Symbols**

The following table lists some of the indices available in StreetSmart Pro:

StreetSmart Pro Index List	Symbol	Chart Avail- able?
International Market Index	\$ADR	
AMEX Advancing Issues	\$ADVA	
American Stock Exchange Options Advancing Issues	\$ADVAO	
Boston Stock Exchange Advancing Issues	\$ADVB	
Cincinnati Stock Exchange Advancing Issues	\$ADVC	
Chicago Board Options Exchange Advancing Issues	\$ADVCO	
Chicago (Midwest) Stock Exchange Advancing Issues	\$ADVM	
NYSE Advancing Issues	\$ADVN	
Pacific Stock Exchange Advancing	\$ADVP	
Issues		
Pacific Stock Exchange Options Advancing Issues	\$ADVPO	

NACDAO NMC Equition Advancing	¢ΛD\/ΩΕ	
NASDAQ NMS Equities Advancing	\$ADVQE	
Issues	+ 4 D) /T	
NASDAQ Listed Stocks Advancing	\$ADVT	
Issues	1.55.015	
NASDAQ Bulletin Board Advancing	\$ADVUE	
Issues (U.S.)		
Philadelphia Stock Exchange Advan-	\$ADVX	
cing Issues		
Philadelphia Stock Exchange Options	\$ADVXO	
Advancing Issues		
NASDAQ Banking Index	\$BANK	Yes
S&P Banking Index	\$BIX	
BTK LEAPS Index	\$BKL	
PHIL Bank Index	\$BKX	Yes
American Stock Exchange: Block	\$BLKA	
Trades (500 shares and greater)		
New York Stock Exchange: Block	\$BLOK	
Trades (500 shares and greater)	•	
Computer Box Maker Index	\$BMX	
Biotechnology Index	\$BTK	Yes
S&P Chemical Index	\$CEX	
Morgan Stanley Consumer Index	\$CMR	Yes
NASDAQ Composite Index	\$COMPX	Yes
Odd Lot Sales at NYSE: Other Sales	\$COSN	
Odd Lot Sales at NYSE: Short Sales	\$CSSN	
Morgan Stanley Cyclical Index	\$CYC	Yes
AMEX Declining Issues	\$DECA	Yes
American Stock Exchange Options	\$DECAO	Yes
Declining Issues	\$DLCAU	163
Boston Stock Exchange Declining	\$DECB	
Issues	<b>Ф</b> DLCD	
Cincinnati Stock Exchange Declining	\$DECC	Yes
Issues	\$DLCC	163
Chicago Board Options Exchange	\$DECCO	Yes
Declining Issues	\$DLCCO	163
Chicago (Midwest) Stock Exchange	\$DECM	Yes
Declining Issues	<b>JULCI</b>	163
NYSE Declining Issues	\$DECN	Yes
Pacific Stock Exchange Declining	\$DECN \$DECP	Yes
Issues	φDLCF	162
Pacific Stock Exchange Options	\$DECPO	Yes
Declining Issues	φDLCFU	162
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NASDAQ NMS Equities Declining	\$DECQE	Yes

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Dow Jones Composite Index – Actual \$DJC Yes Value  Dow Jones Composite Index – The- oretical Value  Dow Jones 30 Industrial Index- Actual Value  Dow Jones 30 Industrials- Theortical \$DJIT Yes  Actual Value  Dow Jones Transportation index – \$DJT Yes  Actual Value  Dow Jones Transportation Index – \$DJT Yes  Actual Value  Dow Utility Index – Actual Value \$DJU Yes  Dow Utility Index – Theoretical Value \$DJUT  Dow Jones Industrial Average \$DJX Yes  \$DOT Internet Index (Philadelphia \$DOT Yes  Stock Exchange)  Pharmaceutical Index \$DRG Yes  Dow Jones Transportation Average \$DTX Yes  Dow Jones Utility Average \$DUX Yes  AMEX Down Volume \$DVOA Yes  American Stock Exchange Options \$DVOAO Yes  Down Volume  Boston Stock Exchange Down \$DVOB Yes  Volume  Cincinnati Stock Exchange Down \$DVOC Yes  Down Volume  Chicago Board Options Exchange \$DVOCO Yes  Chicago (Midwest) Stock Exchange \$DVOM Yes  Chicago (Midwest) Stock Exchange \$DVOM Yes  Chicago (Midwest) Stock Exchange \$DVOM Yes  Down Volume	Declining Issues		
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Dow Jones Composite Index – Theoretical Value Dow Jones 30 Industrial Index- Actual Value Dow Jones 30 Industrials- Theortical \$DJIT Value Dow Jones Transportation index – \$DJT Yes Actual Value Dow Jones Transportation Index – \$DJT Theoretical Value Dow Utility Index – Actual Value \$DJU Yes Dow Utility Index – Theoretical Value \$DJUT Dow Jones Industrial Average \$DJX Yes \$DOT Internet Index (Philadelphia \$DOT Yes Stock Exchange) Pharmaceutical Index \$DRG Yes Dow Jones Transportation Average \$DTX Yes Dow Jones Utility Average \$DUX Yes AMEX Down Volume \$DVOA Yes American Stock Exchange Options \$DVOAO Yes Down Volume Boston Stock Exchange Down \$DVOB Yes Volume Cincinnati Stock Exchange Down \$DVOC Yes Down Volume NYSE Down Volume \$DVOL Yes Chicago (Midwest) Stock Exchange \$DVOM Yes Down Volume RYSE Down Volume \$DVOL Yes Chicago (Midwest) Stock Exchange \$DVOM Yes Down Volume	· ·	\$DJC	Yes
oretical Value Dow Jones 30 Industrial Index- Actual Value Dow Jones 30 Industrials- Theortical \$DJIT Value Dow Jones Transportation index - \$DJT Yes Actual Value Dow Jones Transportation Index - \$DJTT Theoretical Value Dow Utility Index - Actual Value \$DJU Yes Dow Utility Index - Theoretical Value \$DJUT Dow Jones Industrial Average \$DJX Yes \$DOT Internet Index (Philadelphia \$DOT Yes Stock Exchange) Pharmaceutical Index \$DRG Yes Dow Jones Transportation Average \$DTX Yes Dow Jones Utility Average \$DUX Yes AMEX Down Volume \$DVOA Yes American Stock Exchange Options \$DVOAO Yes Down Volume Boston Stock Exchange Down \$DVOB Yes Volume Cincinnati Stock Exchange Down \$DVOC Yes Down Volume Chicago Board Options Exchange \$DVOC Yes Down Volume NYSE Down Volume \$DVOL Yes Chicago (Midwest) Stock Exchange \$DVOM Yes Down Volume SDVOL Yes Chicago (Midwest) Stock Exchange \$DVOM Yes Down Volume		+D1CT	
Dow Jones 30 Industrial Index- Actual Value Dow Jones 30 Industrials- Theortical \$DJIT Value Dow Jones Transportation index - \$DJT Yes Actual Value Dow Jones Transportation Index - \$DJTT Theoretical Value Dow Utility Index - Actual Value \$DJU Yes Dow Utility Index - Theoretical Value \$DJUT Dow Jones Industrial Average \$DJX Yes \$DOT Internet Index (Philadelphia \$DOT Yes Stock Exchange) Pharmaceutical Index \$DRG Yes Dow Jones Transportation Average \$DTX Yes Dow Jones Transportation Average \$DUX Yes AMEX Down Volume \$DVOA Yes American Stock Exchange Options \$DVOAO Yes Down Volume Boston Stock Exchange Down \$DVOB Yes Volume Cincinnati Stock Exchange Down \$DVOC Yes Volume Chicago Board Options Exchange \$DVOCO Yes Down Volume NYSE Down Volume \$DVOL Yes Chicago (Midwest) Stock Exchange \$DVOM Yes Down Volume Spown Volume	·	\$DJC1	
Actual Value Dow Jones 30 Industrials- Theortical \$DJIT Value Dow Jones Transportation index - \$DJT Yes Actual Value Dow Jones Transportation Index - \$DJTT Theoretical Value Dow Utility Index - Actual Value \$DJU Yes Dow Utility Index - Theoretical Value \$DJUT Dow Jones Industrial Average \$DJX Yes \$DOT Internet Index (Philadelphia \$DOT Yes Stock Exchange) Pharmaceutical Index \$DRG Yes Dow Jones Transportation Average \$DTX Yes Dow Jones Utility Average \$DUX Yes AMEX Down Volume \$DVOA Yes American Stock Exchange Options \$DVOAO Yes Down Volume Boston Stock Exchange Down \$DVOB Yes Volume Cincinnati Stock Exchange Down \$DVOC Yes Volume Chicago Board Options Exchange \$DVOCO Yes Down Volume NYSE Down Volume \$DVOL Yes Chicago (Midwest) Stock Exchange \$DVOM Yes Down Volume SDVOL Yes Chicago (Midwest) Stock Exchange \$DVOM Yes Down Volume		¢DII	Voc
Dow Jones 30 Industrials- Theortical \$DJIT Value Dow Jones Transportation index - \$DJT Yes Actual Value Dow Jones Transportation Index - \$DJTT Theoretical Value Dow Utility Index - Actual Value \$DJU Yes Dow Utility Index - Theoretical Value \$DJUT Dow Jones Industrial Average \$DJX Yes \$DOT Internet Index (Philadelphia \$DOT Yes Stock Exchange) Pharmaceutical Index \$DRG Yes Dow Jones Transportation Average \$DTX Yes Dow Jones Utility Average \$DUX Yes AMEX Down Volume \$DVOA Yes American Stock Exchange Options \$DVOAO Yes Down Volume Boston Stock Exchange Down \$DVOB Yes Volume Cincinnati Stock Exchange Down \$DVOC Yes Volume Chicago Board Options Exchange \$DVOCO Yes Down Volume NYSE Down Volume \$DVOL Yes Chicago (Midwest) Stock Exchange \$DVOM Yes Down Volume		ונטק	162
Value Dow Jones Transportation index - \$DJT Yes Actual Value Dow Jones Transportation Index - \$DJTT Theoretical Value Dow Utility Index - Actual Value \$DJU Yes Dow Utility Index - Theoretical Value \$DJUT Dow Jones Industrial Average \$DJX Yes \$DOT Internet Index (Philadelphia \$DOT Yes Stock Exchange) Pharmaceutical Index \$DRG Yes Dow Jones Transportation Average \$DTX Yes Dow Jones Utility Average \$DUX Yes AMEX Down Volume \$DVOA Yes American Stock Exchange Options \$DVOAO Yes Down Volume Boston Stock Exchange Down \$DVOB Yes Volume Cincinnati Stock Exchange Down \$DVOC Yes Volume Chicago Board Options Exchange \$DVOCO Yes Down Volume NYSE Down Volume \$DVOL Yes Chicago (Midwest) Stock Exchange \$DVOM Yes Down Volume SDVOL Yes Chicago (Midwest) Stock Exchange \$DVOM Yes Down Volume		\$DJIT	
Actual Value Dow Jones Transportation Index - \$DJTT Theoretical Value Dow Utility Index - Actual Value \$DJU Yes Dow Utility Index - Theoretical Value \$DJUT Dow Jones Industrial Average \$DJX Yes \$DOT Internet Index (Philadelphia \$DOT Yes Stock Exchange) Pharmaceutical Index \$DRG Yes Dow Jones Transportation Average \$DTX Yes Dow Jones Utility Average \$DUX Yes AMEX Down Volume \$DVOA Yes American Stock Exchange Options \$DVOAO Yes Down Volume Boston Stock Exchange Down \$DVOB Yes Volume Cincinnati Stock Exchange Down \$DVOC Yes Volume Chicago Board Options Exchange \$DVOCO Yes Down Volume NYSE Down Volume \$DVOL Yes Chicago (Midwest) Stock Exchange \$DVOM Yes Down Volume SDVOL Yes Chicago (Midwest) Stock Exchange \$DVOM Yes Down Volume		7	
Dow Jones Transportation Index - \$DJTT Theoretical Value Dow Utility Index - Actual Value \$DJU Yes Dow Utility Index - Theoretical Value \$DJUT Dow Jones Industrial Average \$DJX Yes \$DOT Internet Index (Philadelphia \$DOT Yes Stock Exchange) Pharmaceutical Index \$DRG Yes Dow Jones Transportation Average \$DTX Yes Dow Jones Utility Average \$DUX Yes AMEX Down Volume \$DVOA Yes American Stock Exchange Options \$DVOAO Yes Down Volume Boston Stock Exchange Down \$DVOB Yes Volume Cincinnati Stock Exchange Down \$DVOC Yes Volume Chicago Board Options Exchange \$DVOC Yes Down Volume NYSE Down Volume \$DVOL Yes Chicago (Midwest) Stock Exchange \$DVOM Yes Down Volume	Dow Jones Transportation index –	\$DJT	Yes
Theoretical Value Dow Utility Index – Actual Value \$DJU Yes Dow Utility Index – Theoretical Value \$DJUT Dow Jones Industrial Average \$DJX Yes \$DOT Internet Index (Philadelphia \$DOT Yes Stock Exchange) Pharmaceutical Index \$DRG Yes Dow Jones Transportation Average \$DTX Yes Dow Jones Utility Average \$DUX Yes AMEX Down Volume \$DVOA Yes American Stock Exchange Options \$DVOAO Yes Down Volume Boston Stock Exchange Down \$DVOB Yes Volume Cincinnati Stock Exchange Down \$DVOC Yes Volume Chicago Board Options Exchange \$DVOCO Yes Down Volume NYSE Down Volume \$DVOL Yes Chicago (Midwest) Stock Exchange \$DVOM Yes Down Volume	Actual Value		
Dow Utility Index – Actual Value \$DJU Yes Dow Utility Index – Theoretical Value \$DJUT Dow Jones Industrial Average \$DJX Yes \$DOT Internet Index (Philadelphia \$DOT Yes Stock Exchange) Pharmaceutical Index \$DRG Yes Dow Jones Transportation Average \$DTX Yes Dow Jones Utility Average \$DUX Yes AMEX Down Volume \$DVOA Yes American Stock Exchange Options \$DVOAO Yes Down Volume Boston Stock Exchange Down \$DVOB Yes Volume Cincinnati Stock Exchange Down \$DVOC Yes Volume Chicago Board Options Exchange \$DVOCO Yes Down Volume NYSE Down Volume \$DVOL Yes Chicago (Midwest) Stock Exchange \$DVOM Yes Down Volume	I	\$DJTT	
Dow Utility Index – Theoretical Value \$DJUT  Dow Jones Industrial Average \$DJX Yes  \$DOT Internet Index (Philadelphia \$DOT Yes  Stock Exchange)  Pharmaceutical Index \$DRG Yes  Dow Jones Transportation Average \$DTX Yes  Dow Jones Utility Average \$DUX Yes  AMEX Down Volume \$DVOA Yes  American Stock Exchange Options \$DVOAO Yes  Down Volume  Boston Stock Exchange Down \$DVOB Yes  Volume  Cincinnati Stock Exchange Down \$DVOC Yes  Volume  Chicago Board Options Exchange \$DVOCO Yes  Down Volume  NYSE Down Volume \$DVOL Yes  Chicago (Midwest) Stock Exchange \$DVOM Yes  Down Volume			
Dow Jones Industrial Average \$DJX Yes \$DOT Internet Index (Philadelphia \$DOT Yes Stock Exchange) Pharmaceutical Index \$DRG Yes Dow Jones Transportation Average \$DTX Yes Dow Jones Utility Average \$DUX Yes AMEX Down Volume \$DVOA Yes American Stock Exchange Options \$DVOAO Yes Down Volume Boston Stock Exchange Down \$DVOB Yes Volume Cincinnati Stock Exchange Down \$DVOC Yes Volume Chicago Board Options Exchange \$DVOCO Yes Down Volume NYSE Down Volume \$DVOL Yes Chicago (Midwest) Stock Exchange \$DVOM Yes Down Volume	•	•	Yes
\$DOT Internet Index (Philadelphia \$DOT Yes Stock Exchange) Pharmaceutical Index \$DRG Yes Dow Jones Transportation Average \$DTX Yes Dow Jones Utility Average \$DUX Yes AMEX Down Volume \$DVOA Yes American Stock Exchange Options \$DVOAO Yes Down Volume Boston Stock Exchange Down \$DVOB Yes Volume Cincinnati Stock Exchange Down \$DVOC Yes Volume Chicago Board Options Exchange \$DVOCO Yes Down Volume NYSE Down Volume \$DVOL Yes Chicago (Midwest) Stock Exchange \$DVOM Yes Down Volume	•	•	V
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Pharmaceutical Index \$DRG Yes Dow Jones Transportation Average \$DTX Yes Dow Jones Utility Average \$DUX Yes AMEX Down Volume \$DVOA Yes American Stock Exchange Options \$DVOAO Yes Down Volume Boston Stock Exchange Down \$DVOB Yes Volume Cincinnati Stock Exchange Down \$DVOC Yes Volume Chicago Board Options Exchange \$DVOC Yes Down Volume NYSE Down Volume \$DVOL Yes Chicago (Midwest) Stock Exchange \$DVOM Yes Down Volume	1 '	\$DO1	res
Dow Jones Transportation Average \$DTX Yes Dow Jones Utility Average \$DUX Yes AMEX Down Volume \$DVOA Yes American Stock Exchange Options \$DVOAO Yes Down Volume Boston Stock Exchange Down \$DVOB Yes Volume Cincinnati Stock Exchange Down \$DVOC Yes Volume Chicago Board Options Exchange \$DVOCO Yes Down Volume NYSE Down Volume \$DVOL Yes Chicago (Midwest) Stock Exchange \$DVOM Yes Down Volume	j ,	\$DRG	Yes
Dow Jones Utility Average \$DUX Yes AMEX Down Volume \$DVOA Yes American Stock Exchange Options \$DVOAO Yes Down Volume Boston Stock Exchange Down \$DVOB Yes Volume Cincinnati Stock Exchange Down \$DVOC Yes Volume Chicago Board Options Exchange \$DVOCO Yes Down Volume NYSE Down Volume \$DVOL Yes Chicago (Midwest) Stock Exchange \$DVOM Yes Down Volume		•	
American Stock Exchange Options \$DVOAO Yes  Down Volume  Boston Stock Exchange Down \$DVOB Yes  Volume  Cincinnati Stock Exchange Down \$DVOC Yes  Volume  Chicago Board Options Exchange \$DVOCO Yes  Down Volume  NYSE Down Volume \$DVOL Yes  Chicago (Midwest) Stock Exchange \$DVOM Yes  Down Volume	·	•	
Down Volume Boston Stock Exchange Down \$DVOB Yes Volume Cincinnati Stock Exchange Down \$DVOC Yes Volume Chicago Board Options Exchange \$DVOCO Yes Down Volume NYSE Down Volume \$DVOL Yes Chicago (Midwest) Stock Exchange \$DVOM Yes Down Volume	AMEX Down Volume	\$DVOA	Yes
Boston Stock Exchange Down \$DVOB Yes Volume Cincinnati Stock Exchange Down \$DVOC Yes Volume Chicago Board Options Exchange \$DVOCO Yes Down Volume NYSE Down Volume \$DVOL Yes Chicago (Midwest) Stock Exchange \$DVOM Yes Down Volume	American Stock Exchange Options	\$DVOAO	Yes
Volume Cincinnati Stock Exchange Down \$DVOC Yes Volume Chicago Board Options Exchange \$DVOCO Yes Down Volume NYSE Down Volume \$DVOL Yes Chicago (Midwest) Stock Exchange \$DVOM Yes Down Volume			
Cincinnati Stock Exchange Down \$DVOC Yes Volume Chicago Board Options Exchange \$DVOCO Yes Down Volume NYSE Down Volume \$DVOL Yes Chicago (Midwest) Stock Exchange \$DVOM Yes Down Volume	_	\$DVOB	Yes
Volume Chicago Board Options Exchange \$DVOCO Yes Down Volume NYSE Down Volume \$DVOL Yes Chicago (Midwest) Stock Exchange \$DVOM Yes Down Volume		+D\/OC	W
Chicago Board Options Exchange \$DVOCO Yes Down Volume NYSE Down Volume \$DVOL Yes Chicago (Midwest) Stock Exchange \$DVOM Yes Down Volume	_	\$DVUC	res
Down Volume  NYSE Down Volume  Chicago (Midwest) Stock Exchange \$DVOM  Yes  Down Volume		\$DV0C0	Vec
NYSE Down Volume \$DVOL Yes Chicago (Midwest) Stock Exchange \$DVOM Yes Down Volume		ΨDVOCO	103
Chicago (Midwest) Stock Exchange \$DVOM Yes Down Volume		\$DVOL	Yes
Down Volume		•	
Pacific Stock Exchange Down Volume \$DVOP Yes	, ,	•	
	Pacific Stock Exchange Down Volume	\$DVOP	Yes

Pacific Stock Exchange Options Down	\$DVOPO	Yes
Volume		
NASDAQ NMS Equities Down Volume	\$DVOQE	Yes
NASDAQ Listed Stocks Down Volume	•	Yes
NASDAQ Bulletin Board (U.S.) Down	\$DVOUE	Yes
Volume		
Philadelphia Stock Exchange Down	\$DVOX	Yes
Volume		
Philadelphia Stock Exchange Options	\$DVOXO	Yes
Eurotop 100 Index (Reduced Value)	\$EUR	Yes
5-year Treasury Note Index	\$FVX	Yes
S&P Health Care Index	\$HCX	Yes
Hong Kong Index (4% value)	\$HKL	
Hong Kong Index (40% value)	\$HKO	Yes
AMEX Hong Kong 30 Index	\$HKX	Yes
Interactive Week Internet Index	\$IIX	Yes
NASDAQ Industrial Index	\$INDS	Yes
NASDAQ Insurance Index	\$INSR	Yes
13-week Treasury Bill Index	\$IRX	Yes
American Stock Exchange Issues	\$ISSA	Yes
Traded		
American Stock Exchange Options	\$ISSAO	Yes
Issues Traded		
Boston Stock Exchange Issues	\$ISSB	Yes
Traded		
Cincinnati Stock Exchange Issues	\$ISSC	Yes
Traded		
Chicago Board Options Exchange	\$ISSCO	Yes
Issues Traded		
Chicago (Midwest) Stock Exchange	\$ISSM	Yes
Issues Traded		
Pacific Stock Exchange Issues Traded	\$ISSP	Yes
Pacific Stock Exchange Options	\$ISSPO	Yes
Issues Traded		
NASDAQ NMS Equities Issues Traded	\$ISSQE	Yes
NASDAQ Listed Stocks Issues Traded	\$ISST	Yes
New York Stock Exchange Issues	\$ISSU	Yes
Traded	·	
NASDAQ Bulletin Board (U.S.) Issues	\$ISSUE	Yes
Traded	•	
Philadelphia Stock Exchange Issues	\$ISSX	Yes
Traded	•	
Philadelphia Stock Exchange Options	\$ISSXO	Yes

Issues Traded		
S&P Insurance Index	\$IUX	Yes
NASDAQ Computer Index	\$IXCO	Yes
NASDAQ Financial Index	\$IXF	Yes
NASDAQ Telecommunication Index	\$IXTC	Yes
Japan Index	\$JPN	Yes
\$SPX Index Dec 95 LEAPS	\$LSX	
\$SPX Index Dec 94 LEAPS	\$LSY	Yes
S&P MidCap 400 FLEX Option Set.	\$MDO	Yes
Val. (o,c)		
Mexican ADR Index	\$MEX	
S&P MidCap 400 FLEX Option Set.	\$MIA	Yes
Val. (o,c,h,l)		
S&P MidCap 400 Index	\$MID	Yes
S&P MidCap 400 FLEX Option Set.	\$MIH	Yes
Val. (h,l)		
Morgan Stanley High Tech 35 Index	\$MSH	Yes
Mexico Reduces Value	\$MXL	
S&P MidCap 400 Trading Value, S&P	\$MXV	Yes
Depository Receipts (SPDR)		
AMEX Mexico Index	\$MXY	Yes
NASDAQ NMS Composite Index	\$NCMP	
NYSE Industrial Index	\$ND	Yes
NASDAQ 100 Index	\$NDX	Yes
NYSE Financial Index	\$NF	
NYSE Beta Index	\$NHB	
NASDAQ NMS Industrial Index	\$NIND	
NYSE Utility Index	\$NNA	
NYSE Transportation Index	\$NV	
NYSE Composite Index	\$NYA	Yes
\$OEX FLEX Average Set. and	\$OAV	
High/Low Value	•	
\$OEX FLEX Average Exercise Set.	\$OCO	
Val.	,	
\$SPX FLEX Average Exercise Set. Val.	\$OCS	
\$OEX FLEX Opening Exercise Set.	\$OET	Yes
Val.	1 -	
S&P 100 Index	\$OEX	Yes
NADAQ Finance Index	\$OFIN	Yes
\$OEX FLEX Average High/Low Value	\$OHL	
\$RUT FLEX Avg. Exercise Set. Val.	\$ORC	
Oil Service Sector Index	\$OSX	Yes

OTC Prime Index	\$OTX	
PSE High Technology Index	\$PSE	Yes
\$RUT FLEX Avg. High/Low Value	\$RHL	
\$RUT FLEX Opening Ex. Set. Value	\$RLS	Yes
S&P Retail Index	\$RLX	Yes
Russell 3000 Index	\$RUA	Yes
Russell 1000 Index	\$RUI	Yes
Russell 2000 Index	\$RUT	Yes
\$RUT FLEX Avg. Set. and High/Low	\$RUV	
Value		
Morgan Stanley Healthcare Providers	\$RXH	Yes
Index		
Morgan Stanley Healthcare Products	\$RXP	Yes
Index		
\$SPX FLEX Avg. Set. and High/Low	\$SAV	
Value		
S&P Barra Growth Index	\$SGX	Yes
\$SPX FLEX Average High/Low Value	\$SHL	
Semiconductor Sector Index	\$SOX	Yes
S&P 500 Index - Long Term	\$SPL	Yes
S&P 500 End-of-Quarter	\$SPQ	Yes
Difference between the near month	\$SPS	Yes
and the index of the S&P 500.		
S&P 500 Index	\$SPX	Yes
S&P 500 Index strike price overflow	\$SPZ	
S&P Barra Value Index	\$SVX	Yes
SPDRs Underlying Trading Value	\$SXV	Yes
American Stock Exchange up/down	\$TICA	Yes
Ratio		
Boston Stock Exchange up/down	\$TICB	
Ratio	\	.,
Cincinnati Stock Exchange up/down	\$TICC	Yes
Ratio	<b>+TICCO</b>	
Chicago Board Options Exchange up/-	\$11CCO	
down Ratio	+TICN4	
Chicago (Midwest) Stock Exchange	\$TICM	
up/down Ratio	¢TICD	
Pacific Stock Exchange up/down Ratio	\$TICP	
	¢TICDO	Yes
Pacific Stock Exchange Options up/- down Ratio	\$TICPO	162
NASDAQ NMS Equities up/down Ratio	¢TICOF	Yes
NASDAQ NMS Equities up/down Ratio	•	1 53
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Ratio		
NASDAQ Listed Stocks up/down	\$TICT	Yes
Ratio		
NASDAQ Bulletin Board (U.S.) up/-	\$TICUE	Yes
down Ratio	\$TICY	Vas
Philadelphia Stock Exchange up/- down Ratio	\$TICX	Yes
Philadelphia Stock Exchange Options	\$TICXO	Yes
up/down Ratio	\$11CXO	165
Dow Composite Index up/down Ratio	\$TIKC	Yes
DJIA Issues up/down ratio	\$TIKI	Yes
Dow Transportation Index up/down	\$TIKT	Yes
Ratio	•	
Dow Utility Index up/down Ratio	\$TIKU	Yes
10-year Treasury Note Index	\$TNX	Yes
Eurotop 100 Index	\$TOP	Yes
Odd Lot Sales at NYSE: Total Sales	\$TOSN	
NASDAQ Transportation Index	\$TRANX	Yes
American Stock Exchange Short	\$TRIA	Yes
Term Trading Index		
American Stock Exchange Options	\$TRIAO	Yes
Short Term Trading Index		
Boston Stock Exchange Short Term	\$TRIB	Yes
Trading Index	¢TDIC	Vaa
Cincinnati Stock Exchange Short Term Trading Index	\$TRIC	Yes
Chicago Board Options Exchange	\$TRICO	Yes
Short Term Trading Index	FINICO	163
Chicago (Midwest) Stock Exchange	\$TRIM	Yes
Short Term Trading Index	T	. 66
NYSE Short Term Trading Index	\$TRIN	Yes
Pacific Stock Exchange Short Term	\$TRIP	Yes
Trading Index		
NASDAQ NMS Equities Short Term	\$TRIQE	Yes
Trading Index		
NASDAQ Listed Stocks Short Term	\$TRIT	Yes
Trading Index		
NASDAQ Bulletin Board (U.S.) Short	\$TRIUE	Yes
Term Trading Index	#TDIV	Vaa
Philadelphia Stock Exchange Short	\$TRIX	Yes
Term Trading Index Philadelphia Stock Exchange Options	\$TRIXO	Yes
Short Term Trading Index	φικιλΟ	163
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Technology Index	\$TXX	Yes
30-year Treasury Bond Index	\$TYX	Yes
AMEX Unchanged Issues	\$UNCA	Yes
American Stock Exchange Options	\$UNCAO	Yes
Unchanged Issues		
Boston Stock Exchange Unchanged	\$UNCB	Yes
Issues	•	
Cincinnati Stock Exchange	\$UNCC	Yes
Unchanged Issues	•	
Chicago Board Options Exchange	\$UNCCO	Yes
Unchanged Issues	,	
Chicago (Midwest) Stock Exchange	\$UNCM	Yes
Unchanged Issues	7	
NYSE Unchanged Issues	\$UNCN	Yes
Pacific Stock Exchange Unchanged	\$UNCP	Yes
Issues	401101	100
Pacific Stock Exchange Options	\$UNCPO	Yes
Unchanged Issues	40.10.0	. 55
NASDAQ NMS Equities Unchanged	\$UNCQE	Yes
Issues	Ψοοξ=	
NASDAQ Listed Stocks Unchanged	\$UNCT	Yes
Issues	7	
NASDAQ Bulletin Board (U.S.)	\$UNCUE	Yes
Unchanged Issues	•	
Philadelphia Stock Exchange	\$UNCX	Yes
Unchanged Issues	•	
Philadelphia Stock Exchange Options	\$UNCXO	Yes
Unchanged Issues		
PHIL Utility Index	\$UTY	Yes
AMEX Up Volume	\$UVOA	Yes
American Stock Exchange Options Up	•	Yes
Volume	40.0	
Boston Stock Exchange Up Volume	\$UVOB	Yes
Cincinnati Stock Exchange Up	\$UVOC	Yes
Volume	40.00	. 55
Chicago Board Options Exchange Up	\$UVOCO	Yes
Volume	70.000	. 55
NYSE Up Volume	\$UVOL	Yes
Chicago (Midwest) Stock Exchange	\$UVOM	Yes
Up Volume	40 (011	. 33
Pacific Stock Exchange Up Volume	\$UVOP	Yes
Pacific Stock Exchange Options Up	\$UVOPO	Yes
Volume	ΨΟ ΦΟΙ Ο	
Totallie		

		.,
NASDAQ NMS Equities Up Volume	\$UVOQE	Yes
NASDAQ Listed Stocks Up Volume	\$UVOT	Yes
NASDAQ Bulletin Board (U.S.) Up	\$UVOUE	Yes
Volume		
Philadelphia Stock Exchange Up	\$UVOX	Yes
Volume		
Philadelphia Stock Exchange Options	\$UVOXO	Yes
Up Volume		
Market Volatility Index	\$VIX	Yes
American Stock Exchange Volume	\$VOLA	Yes
American Stock Exchange Options	\$VOLAO	Yes
Volume		
Boston Stock Exchange Volume	\$VOLB	Yes
Cincinnati Stock Exchange Volume	\$VOLC	Yes
Chicago Board Options Exchange	\$VOLCO	Yes
Volume		
Chicago (Midwest) Stock Exchange	\$VOLM	Yes
Volume	•	
Pacific Stock Exchange Volume	\$VOLP	Yes
Pacific Stock Exchange Options	\$VOLPO	Yes
Volume		
NASDAQ NMS Equities Volume	\$VOLQE	Yes
NASDAQ Listed Stocks Volume	\$VOLT	Yes
New York Stock Exchange Volume	\$VOLU	Yes
NASDAQ Bulletin Board (U.S.)	\$VOLUE	Yes
Volume	•	
Philadelphia Stock Exchange Volume	\$VOLX	Yes
Philadelphia Stock Exchange Options	\$VOLXO	Yes
Volume	'	
CBOE NDX Volatility Index	\$VXN	Yes
AMEX Airline Index	\$XAL	Yes
PHIL American Gold and Silver Index	\$XAU	Yes
AMEX Broker Dealer Index	\$XBD	Yes
AMEX Computer Technology Index	\$XCI	Yes
AMEX Institutional Index	\$XII	Yes
XMI LEAPS Options	\$XLT	. 55
Major Market Index	\$XMI	Yes
AMEX Natural Gas Index	\$XNG	Yes
AMEX Natural Gas Index AMEX Oil and Gas Index	\$XOI	Yes
North American Telecommunications	\$XTC	Yes
Index	ΨΛΙΟ	103
THUCA		

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# Market Maker, ECN, and Exchange IDs

Refer to The <u>NASDAQ Trader Symbol Directory</u>, which provides access to All Issues (NASDAQ and Other Exchanges), Mutual Funds, and Market Participants. All information is as of the current trading day.

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# **Supported Futures Symbols**

StreetSmart Pro supports data for certain futures symbols as listed below.

Futures symbols are constructed using the following formula:

/ + TICKER + EXPIRATION MONTH CODE + YEAR'S LAST DIGIT

## Expiration month codes:

January = F	July = N
February = G	August = Q
March = H	September = U
April = J	October = V
May = K	November = X
June = M	December = Z

	Tick- er	Mont- hs Trade- d	Example Symbol (using June 2009)
Equity (C	ME)		
NASDA- Q 100	ND	H, M, U, Z	/NDM9
NASDA- Q 100 E- Mini	NQ	H, M, U, Z	/NQM9
Nikkei 225 (Dol- lar)	NK	H, M, U, Z	/NKM9
S&P 500/Bar- ra Growth	SG	H, M, U, Z	/SGM9

S&P 500/Bar- ra Value	SU	H, M, U, Z	/SUM9
S&P 500	SP	H, M, U, Z	/SPM9
S&P 500 E-Mini	ES	H, M, U, Z	/ESM9
S&P Mid- cap 400	MD	H, M, U, Z	/MDM9
S&P Smallca- p 600	SMC	H, M, U, Z	/SMCM9
Equity (C	ВОТ)		
Mini- sized Dow	YM	H, M, U, Z	/YMM9
Mini- sized Gold	YG	All	/YGM9
Mini- sized Sil- ver	ΥI	All	/YIM9
Foreign E	xchange	e (CME)	
Aus- tralian Dollar	AD	H, M, U, Z	/ADM9
Brazilian Real	BR	All	/BRM9
British Pound	BP	H, M, U, Z	/BPM9
Cana- dian Dol- lar	CD	H, M, U, Z	/CDM9
Euro FX	EC	H, M, U, Z	/ECM9
Japan- ese Yen	JY	H, M, U, Z	/JYM9
Mexican Peso	MP	All	/MPM9
New Zealand Dollar	NE	H, M, U, Z	/NEM9
Russian	RU	Н, М,	/RUM9

Ruble		U, Z	
South	RA	All	/RAM9
African			
Rand			
Swiss	SF	Н, М,	/SFM9
Franc		U, Z	
Interest Rates (CME)			
Eurodol-	ED	All	/EDM9
lar			
LIBOR	EM	All	/EMM9
Euroyen	EY	Н, М,	/EYM9
		U, Z	
Commodity Symbols (CME)			
Feeder	FC	F, H, J,	/FCK9
Cattle		K, Q,	(May
		U, V, X	2009)
Lumber	LB	F, H,	/LBK9
		K, N,	(May
		U, X	2009)
Milk	DK	All	/DKM9

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# **FAQs**

## **Getting Started FAQs**

#### What are the minimum system requirements to run StreetSmart Pro®?

See System Requirements in the Configuration & Troubleshooting section.

To check your RAM:

- 1. Click the **Start** button, then **Settings** > **Control Panel**.
- 2. In this window, double-click **System**. This will launch a dialog box displaying your installed RAM.

StreetSmart Pro also requires a connection to the Internet with at least a 56K modem. Cable or DSL connection is recommended.

# When I try to connect to StreetSmart Pro with Microsoft Internet Explorer, I get the error message "Cannot connect to StreetSmart Pro." What should I do?

Check to be sure your version of Internet Explorer is equipped with 128-bit encryption.
 You can verify this by opening your browser and clicking on Help > About Internet

## Explorer.

- 2. Under the version number, you will see **Cipher Strength**. If it does not read **128-bit**, click the link **Update Information**. This will take you to the Microsoft website where you can download the latest version.
- 3. Once you have 128-bit encryption, try connecting to StreetSmart Pro again.

If you continue to get the same error message after you have confirmed that your version of Internet Explorer has 128-bit encryption, repeat the process and reboot your computer. If that still does not work, contact your Schwab Active Trader team and ask to be connected to Technical Support.

# Sometimes I see trade restrictions in effect and trade restrictions lifted. What is that and why does it hinder my ability to place orders in my account?

You may see a note in your Messages Window stating the following, "trade restrictions in effect" and then later a Message Window note stating, "trade restrictions lifted". Trade restrictions occur when the balances, positions, and transactions (B,P,&T) that are sent from Schwab do not reach and post to StreetSmart Pro. As such, the program cannot verify what the BP&T for the account currently is, so trading gets restricted. This message has nothing to do with restrictions or issues at the account level.

As this does inhibit trading, you can always logoff and then logon again. This normally will correct the problem and allow for you to be able to do trading. If this is not successful, contact your Schwab Active Trader team.

## I got my StreetSmart Pro software from a friend. How do I get set up?

StreetSmart Pro is offered at no charge to a select group of non-professional Schwab Active Trader clients, based upon trading frequency. If you did not receive an email or phone invitation to use StreetSmart Pro, please contact your Schwab Active Trader team for assistance.

#### I qualify for StreetSmart Pro but don't have the link to download it.

Access to the StreetSmart Pro download link is located in the Active Trader tab, which is a sub-tab located within the Trading tab on Schwab.com. If you cannot find the link, contact your Schwab Active Trader team for help.

## **How do I trade with StreetSmart Pro?**

Simply open the Trading window and use the Order Entry Panel to place your order. For more information about placing an order in the Trading Window, see <u>About the Trading Window</u>. You may also link to schwab.com for trading: Open a web browser to connect to schwab.com for trading other security types, such as fixed income and mutual funds.

#### I have a Macintosh. Can I use StreetSmart Pro?

No. Currently, there are no plans to create a Macintosh version of StreetSmart Pro. However, Mac users can access streaming quotes and news with Schwab's StreetSmart.com web-based platform.

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# StreetSmart Pro® Windows FAQ

# I do not see any articles in the News window. What's wrong?

If you cannot see any news in the News window, it's possible that there isn't any news for the symbol you are currently viewing since you logged on. To see if any news is out for today, you can right-click in the display window and select Query. Input the symbol you want to query and select the **Last 24 Hours** radio button, and click **OK**.

It may also be possible that you are using the same color for your background and font. To adjust your colors:

- 1. Click on the News window **Settings** > **Colors**.
- 2. Choose the colors for the background and fonts.
- 3. To change the colors, click on the color wheels on the right side of the page and select contrasting font and background colors.
- 4. If this does not resolve the problem, please contact your Schwab Active Trader team.

## How can I move the windows around individually and customize the layout?

You can move the windows within StreetSmart Pro by clicking on the window you want to move. Place the cursor on the highlighted title bar, left-click and hold the mouse down, then drag the window to the new location and release the mouse. You can also then resize the window by placing your cursor on any corner of the window, left-click and hold the mouse down, then move your mouse until the window fits where you want it to be displayed and release the mouse.

# I use several monitors. How can I move the StreetSmart Pro windows to display on different monitors?

Follow the instructions for enabling free-floating windows.

Once this feature is enabled, you can move different components of StreetSmart Pro onto different monitors.

# I minimized one of the StreetSmart Pro windows and now I can't see it. How do I get it back?

From the Main Menu, select **Tools** > **Find Active Tool**.

This will show all the active windows.

Click on the window you are looking for and it will be displayed on top of the window that it was hidden behind.

## I cannot see the Tabs on my windows, how do I add them?

From the menu of Charts, Watch Lists, Top 10 or High/Low, **Tabs > Enable**.

This will show two or more tabs in the active windows.

From the *Tabs* menu you can also *Insert* new tabs or *Edit* existing tabs.

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# **Level II Quotes FAQ**

#### How do I get Level II data?

You will have to subscribe to Level II data as an addition to your Schwab.com account. For information, in your StreetSmart Pro menu bar, click **Schwab.com** > **Subscribe to Level II**.

## Why don't I have any streaming data in the Level II panel?

Market Makers and ECNs are only shown when you are viewing a NASDAQ security. These will not be shown when you are viewing a Listed security unless you are using the Direct ECN quotes. All StreetSmart Pro® users can use the Direct ECN quotes, but not all StreetSmart Pro users are eligible for Level II quotes. For more information on eligibility for Level II, please contact your Schwab Active Trader team.

To access the Direct ECN quotes, go to **Settings > General > L2 Data** tab and select from the available ECNs. Direct NSDQ and ARCA quotes are normally available for any NASDAQ or Listed security.

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#### Charts FAQ

#### How many charts can I see at once?

StreetSmart Pro® allows 20 charts to be viewed at once.

## How do I compare a stock chart against another symbol or Index?

In the Chart window menu bar:

- 1. Go to **Settings > General**.
- 2. The General window provides an Overlay Symbol option, which allows one stock or Index symbol to be entered.
- 3. Enter the symbol and click **OK**.
- 4. The chart will now compare your original stock to the symbol you just entered.

5. This symbol will continue to be reflected on all stock charts generated in this Chart window until you manually remove the symbol by going to **Settings** > **General**, deleting the symbol in the Overlay Symbol field, and clicking **OK**.

## How do I change the symbol in the Chart window?

- 1. Click on the chart and type a new symbol.
- 2. Then press **Enter** to display the new chart.

Or you can link the Chart window to the Trading window by going to **Settings > Links** in the Trading window. See the <u>Trading window</u> section for more information.

#### How do I change the Chart variables?

Go to the Chart window Menu and choose **Settings** > **General**.

This will allow the chart to be set with the different types of charting styles and time frames.

### How can I see all of the information regarding my studies in the Info window?

- 1. Go to the Chart window Menu and choose **View > Info Window** to have the window displayed on your screen.
- 2. Drag your mouse to the Info window until you get to the bottom edge of the window and your mouse cursor changes to a double-headed arrow.
- 3. Drag the bottom edge of the Info window down to enlarge it. This will enlarge the window and allow you to see all of the indications of the studies that you are following.

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## **Account Detail FAQ**

## **COLUMN FORMATTING**

#### How do I customize what I want to see in the tabs?

All of the tabs in the window can be customized with the exception of the Balances tab. Columns can be selected and their location can be changed by going to **Settings > Columns**. The column set-up window will display available columns and allow you to select and change locations for the active tab. To change only the position of a column, you can move it to the desired location by clicking and dragging the column heading to the preferred location.

#### **BALANCES**

How do I view the latest marked-to-market balances in my account?

Balances will update when you first logon and then every 1 minute, or after a transaction, whichever comes first. If you have a Margin account, you can find the time of your last update by going to the Balances tab and clicking on the Detail button located near your Margin Buying Power.

#### How accurate are the Balances displayed on the Balances tab?

Balances are updated in real-time to reflect both security and cash transactions and intra-day price movements. Consequently, the cash and security balances and the derived figures (such as buying power and margin equity) should all be an accurate snapshot of your account at the time that the data is refreshed.

Your positions are updated on a tick-by-tick basis during market hours. It is very possible that the current values in your Balances tab may not match the Positions tab, as the Balances tab is static and the Positions tab is dynamic.

# Why are my Balances different on StreetSmart Pro® software than on other Schwab electronic channels?

All Schwab electronic channels are in the process of being converted to using marked to market balances and positions. Before this conversion process is complete, it is possible that StreetSmart Pro software will be using this real-time valuation method while other channels are using methods based on security prices from the close of the previous business day. Additionally, the StreetSmart Pro quote feed is different than feeds used by other electronic channels such as Velocity therefore you may see slight variances based on both the quotes themselves as well as the timing of the balance update.

#### **POSITIONS**

### What is meant by "open positions"?

Securities that hold in your account are "open positions." Once you sell a position that you are long or buy back a position that you are short, that position is considered closed. This page only displays your open positions.

#### How are "Market Value" and "Prices" determined?

Market Values and Prices displayed are real-time and derived from the real-time quotes for the securities in your account.

#### How is the Cost determined?

For most accounts cost data will be updated nightly with the same information used in Schwab.com and other channels. Unlike those channels however, StreetSmart Pro will update to your cost figures for equities and options as fills are received. The cost is calculated by multiplying the number of shares or contracts and the execution price for each fill. Commissions, Fees and other events such as dividend payments and other corporate actions may not be included in this calculation.

As shares/contracts are added to a position the new cost is calculated in most cases using FIFO.

# What does the asterisk (\*) next to the cost figure mean?

An asterisk indicates that the cost displayed is based on incomplete data and is therefore incorrect. When summing the executions for your position if the ending position amount differs from the position received from the position database it will be marked with an asterisk. In the Lot Details window you will see that any cost and related P&L figures that have an asterisk also have one or more lots that have N/A displayed instead of the correct value.

#### How is the P&L calculated?

The Cost amount is compared to the Market Value and the difference is the profit or loss on your position.

#### **TRANSACTIONS**

## Can I Control the Volume of Transactions sent to me when I Update?

Yes. The 60-day setting is a default value. Simply click in the Days field and change the number to the number of days to want to see. You can set the value anywhere in the range of 1 to 60 days. The higher the value, the more days of transaction data you will receive and the longer it takes for that information to be transmitted.

## Can I build up transaction history over a period of time in Streetsmart Pro?

No. Unlike transaction data found on other Schwab channels, data is not stored on your Streetsmart Pro desktop. If you want to retain transaction data spanning periods greater that the last 30 days, you must export this data for use with an external application, such as MS Excel.

Alternatively, if you need to look further back than the 90-day maximum limit of the StreetS-mart Pro software, the quickest way is to go to schwab.com or contact your Schwab Active Trader Broker.

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#### **Stock Screener FAQ**

#### How can I save my personal Queries?

Streetsmart Pro® software will automatically save any personal queries that you create. To return to a query that you have created go to User Queries and you will see your queries listed in the drop-down. This query will automatically be saved when you logoff, but not to a file. As a result, *File* > *Clear the Query File* will cause the personal query to be lost, if not saved to a file. .

To save a Query to a file, see Creating and Saving Queries.

# The queries that I am creating are not producing the results that I am expecting. What am I doing wrong?

In addition to knowing what the filter variables mean, you must also understand how to use them properly to get the output you desire. One way of doing this is to screen for a stock that meets your criteria, find the values of the filters you are using and then use that information to refine your query.

For more information about creating user queries, use the Education Weblink from the StreetS-mart Pro toolbar to access the Stock Screener Platform Course.

## Where can I find out what filter variables comprise a built-in query?

Whether the query you are interested in is Built-In or one of you created, you can view the filter variables by selecting the query and then going to **View > Query Description**.

## Can I use an existing query as a starting point for a new user query?

Yes, select the query that you would like to use as your starting point. Then go to **User Queries > Edit Query.NOTE:** You must rename your new query to save it.

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### Watch List FAQ

#### How do I create a watch list?

Click on the Watch List icon  $_{\ensuremath{\ensuremath{\alpha}}}$  in the Toolbar. If you want to delete a current watch list and create a new one:

- 1. From the Watch List window, Click the *File > Clear Watch List*.
- 2. This will empty the current list.
- 3. Now you can add symbols one at a time by right-clicking in the Watch List window and selecting **Add Symbol**.
- 4. You can set up the entire list at once by clicking on **Settings** > **Symbol List**. This allows you to add or remove symbols from the list.
- 5. You can also use the Insert key on your keyboard to open a pop-up box and add symbols or the **Delete** key for removing symbols.
- 6. When you have finished, click **OK**.
- 7. You can save your Watch List by clicking *File* > *Save Watch List As*, then selecting a **Watch List Name**.

### **How do I customize my Watch Lists?**

To customize the column headings in your Watch Lists:

- 1. Right-click on the column you want to change.
- 2. From the pull-down menu, select the new value of the by clicking on the name.

To adjust the number of columns and headings all at once, click on **Settings** > **Columns**.

For a detailed description of each column, see Watch Lists.

## How do I add a symbol to my Watch List?

To add a symbol:

- Right-click in the Watch List window and select Add Symbol,
- Press the *Insert* key on your keyboard, OR
- From the Watch List window click on Settings > Symbol List.

**TIP: Copying Symbols -** To make it easier to move symbols between lists or even other tools, you can right-click on a symbol in the Watch List and select **Copy [symbol]**. Then you can right-click again to paste the symbol in another list, the Trading window, or other tools with symbol entry fields.

# How do I look up symbols for my Watch List?

To perform a symbol lookup:

- From the Main Menu, click Tools > Symbol Lookup.
- Or click the Symbol Lookup icon 
   <u>↑</u> in the Toolbar.

### How many symbols can I put in a Watch List?

Each Watch List can display up to 100 symbols, and you can create as many Watch Lists as you like. You are only limited to the amount of disk space on your computer.

#### How do I retrieve a Watch List?

- 1. Go to the menu bar in the Watch List window and choose *File > Load Watch List*.
- 2. Double-click on your preferred Watch List or choose the **Open** button to display the Watch List.

#### How do I enter options in a Watch List?

- 1. Go to the Watch List window.
- 2. Click **Settings** > **Symbols List**.
- 3. Symbols should follow the format: XYZ MM/DD/YYYY 00.00 C where XYZ is the underlying symbol (root symbol), followed by the expiration date, strike price and C or P for Call or

Put.

4. Click **OK**.

#### How do I enter an Index in a Watch List?

- 1. Go to the Watch List window.
- 2. Click **Settings** > **Symbols List**.
- 3. Enter a \$ followed by the Index symbol. See Index Symbols.
- 4. Click **OK**.
- 5. The option symbol will appear in the Watch List window.

## How can I tell if I entered a bad symbol?

If the text in the window reads "Requesting Information for [stock/Index/option symbol]" and does not update or you see "Symbol - ?" in the title bar of the window, you have entered a bad symbol.

To find the correct symbol:

- 1. Go to the StreetSmart Pro Toolbar and click the Symbol Lookup icon 1.
- 2. Enter the symbol or as much company information as you have.
- 3. Click **OK**.

# How do I enter a Preferred or a Stock Class symbol using StreetSmart Pro?

When you are entering a symbol into Trading window, the text will always display in uppercase. For Preferred stocks, you use a **Shift+P** when entering in the symbol will denote that you are requesting a quote for a Preferred stock. For example: PCGpA

For a Stock Class quote, you use a (/) to indicate you are requesting a specific class of stock. For example: TAP/A is for Travelers Class A stock and TAP/B is for Travelers Class B stock. NOTE: Not all Stock Class stocks use the (/) indicator. For example: VIA is Viacom Class A, but VIA/B is Viacom Class B.

For best results, use the Symbol Lookup from the StreetSmart Pro Toolbar 1.

## **How do I set up Watch List Groups?**

To establish a new group highlight the line in the watch list where you would like the group to be. Using the right click menu select **Insert Group**. A line will be inserted in the watch list and the cursor will appear allowing you to type in the name for your Group.

Adding symbols to a group can be done via two methods.

- Inserting a symbol to a Group one at a time: Highlight the Group name and using the right-click menu select **Add Symbol to Group**.
- Inserting several symbols to a Group at one time: Go to Settings > Symbol List. Fill in the Symbol field, click on the name of the group you wish to add it to, and click Add Symbol to Group.

To add symbols into the main Watch List use the *Insert Symbol* menu choice.

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## **Top Ten FAQ**

## How can I see Top Ten information for NASDAQ equities too?

Clicking on the Top Ten icon in the toolbar will launch information for NYSE stocks. Clicking a second time will launch information for NASDAQ stocks.

## Why is the Top Ten window empty?

This could be happening for the following reasons:

The connection to the server could be down. You can try to reconnect using the **Reconnect To Servers** function located in the main StreetSmart Pro® toolbar under **Help**. If that is not successful, logoff and back on.

If you are logged in during the Extended Hours Trading sessions, the window could be empty.

# How can I reduce the amount of space that the Top Ten windows occupy in the display window?

The Top Ten windows can be formatted in a variety of different ways using data you select. These settings are located in the **Settings** > **General window**.

- Determine if you need to see information for both the NASDAQ and NYSE markets.
- Determine if you are really interested in gainers, decliners and volume or if a subset of this information is what you find most useful.
- Determine if you need to see all three data columns.
- See if formatting horizontally works better in you existing layout.

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# Highs & Lows FAQ

#### Why is the window always empty when I first login or open the window?

This could be happening for the following reasons:

- This window populates in a similar manner to the Time & Sales panel in the Level II montage and does not display any historic data. As new highs and lows are reached the window begin to populate.
- Because this data stream does not include historic data, if you log in outside of market hours it could remain empty.
- Go to Settings > General to make sure that you have selected the data you are interested in viewing.

Why do I hear about stocks hitting new High-Lows but do not see them display? Check the filter settings in **Settings** > **Filters** and change if necessary.

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#### **Printable User Manuals**

#### **Printable User Manuals**

Download a printable version of the Online Help by clicking the link below. You will need the latest version of Adobe Acrobat Reader to view this PDF formatted document.

### **Printable User Manual**

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#### About the User Manual

This Educational Guide and its content (including price and volume data, screen samples, and queries) are for informational and educational purposes only. Although it may provide general information relating to trading or investment approaches, you should not construe anything in the guide as legal, tax, and investment, financial or other advice. Nothing contained in the guide constitutes a solicitation, recommendation, promotion, endorsement, or offer by Schwab of any particular security, transaction, or investment strategy.

Schwab makes no recommendations or endorsements with respect to any of the strategies, chart patterns, or indicators referenced; nor does Schwab recommend the use of technical analysis as a sole means of investment research.

At Schwab, we recommend that investors define their goals, risk tolerance, time horizon, and investment objectives in addition to researching possible investment choices through multiple channels. Use of technical analysis may result in increased frequency of trading and, therefore, significantly higher transaction costs than a fundamental approach.

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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. Please read the options disclosure document titled "Characteristics and Risks of Standardized Options." Member SIPC

Access to Electronic Services and your account may be limited or unavailable during periods of peak demand, market volatility, systems upgrades or maintenance, or for other reasons.

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# **Agreements**

# **Your Agreements With Schwab & Other Useful Information**

- Charles Schwab & Co., Inc. (Member <u>SIPC</u>) is a subsidiary of The Charles Schwab Corporation.
- StreetSmart Pro® is offered at no charge to a select group of non-professional Schwab
  Active Trader\* clients who meet certain eligibility requirements based on trading frequency. This offer may be subject to additional restrictions and may be changed at any
  time.
- The speed and performance of streaming functionality may vary depending on your modem speed, ISP connection and the number of securities you maintain on your Watch Lists. You need a Pentium 266 MHz or better processor, 128 MB RAM or more and a 56k or better modem, DSL or cable modem to receive the best possible experience of streaming quotes and news on StreetSmart Pro.

StreetSmart Pro provides advanced market information for your desktop and allows you to place orders. It also allows you to connect and place trades through schwab.com. This User Manual explains how to use StreetSmart Pro's trading capabilities and provides instructions on how StreetSmart Pro can be used with schwab.com. This manual is designed to give you easy-to-use, step-by-step instructions for using StreetSmart Pro.

- Access to Level II data requires a subscription. For additional information, please contact your Schwab Active Trader Team.
- The market data used in this manual is for illustrative and educational purposes only, and is not intended to reflect actual trading behavior or other characteristics of any securities or company.
- This manual was developed for use with StreetSmart Pro and should not be used for other trading software or channels.
- When an update is available, you may download it using the *Update Available* link in your Help menu. You may also receive update notifications through other methods, including Message Center or emails.
- Please remember that the real-time market data available through StreetSmart Pro may come from different sources than the real-time market data sources for Velocity, Schwab.com, or other Schwab channels. This may result in slight differences in quotes and other information, especially in fast-moving markets.

Your use of each version of StreetSmart Pro is governed by your agreements with Schwab, including:

- The End User License Agreement for StreetSmart Pro software that you must agree to as part of the software download process
- Your account agreements, including the Electronic Services Agreement
- Any disclosures associated with the market data and trade order routing and functionality incorporated in or related to the use of the software, including the Direct Access Disclosure and Agreement

# The following information is not intended to replace your careful review and acceptance of the agreements and disclosures outlined above:

- Before using StreetSmart Pro, you should carefully read all disclosures and instructions that Schwab provides for a complete understanding of StreetSmart Pro's capabilities.
- If you have a question about the StreetSmart Pro software that cannot be answered by the Help file or User Manual, contact your Schwab Active Trader Broker before taking any action.
- Since StreetSmart Pro depends on third-party data feeds, lines, and systems, the accuracy and timeliness of market data cannot be guaranteed.
- If data feeds, servers, and communication lines fail, Schwab is not responsible for these third-party components.
- Alert your Schwab Active Trader Broker about any problems you encounter in using StreetSmart Pro, so we can help resolve them.
- Schwab will continue to upgrade the StreetSmart Pro software and User Manual periodically. It is your responsibility to stay up-to-date with the most recent versions by downloading upgrades and enhancements when notified by Schwab.
- In using this software, you are acknowledging that you understand and accept the risks involved in online trading.
- By making StreetSmart Pro available to you, Schwab is not recommending, promoting or endorsing any particular investment, market data, or trading strategies.

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### **Charles Schwab UK Customers**

## Eligibility for and Use of StreetSmart Pro® Software and Other Related Products

- Charles Schwab & Co., Inc. (member <u>SIPC</u>) is a subsidiary of The Charles Schwab Corporation.
- StreetSmart Pro is offered at no charge to a select group of non-professional customers referred by Charles Schwab UK who meet certain eligibility requirements based on trading frequency. This offer may be subject to additional restrictions and may be changed at any time.

- To learn more about specific eligibility standards for use of StreetSmart Pro by customers referred by Charles Schwab UK, please contact your customer service representative.
- For customers in Asia, UK, and Switzerland accessing StreetSmart Pro via DSL, ISDN or cable modem is strongly recommended in order to receive optimal speed and performance of streaming market data functionality
- Certain products and services described in this Online Help guide may not be available to customers referred by Charles Schwab UK, including but not limited to:
  - Access to schwab.com
  - Velocity Trading software
  - Schwab Platinum service and Schwab Platinum representatives
  - Direct Access trading via StreetSmart Pro
  - E-Mail Alerts and Trade Confirmations

# Your use of each version of StreetSmart Pro is governed by your agreements with Schwab, including:

- The "End User License Agreement" and "StreetSmart Pro Disclosure and Agreement" that you must agree to as part of the software download process
- Your account agreements, including the "Electronic Services Agreement"
- Any disclosures associated with the market data and trade order routing and functionality incorporated in or related to the use of the software
- Any laws or regulations in force in your country of residence pertaining to the download and use of encrypted software.

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