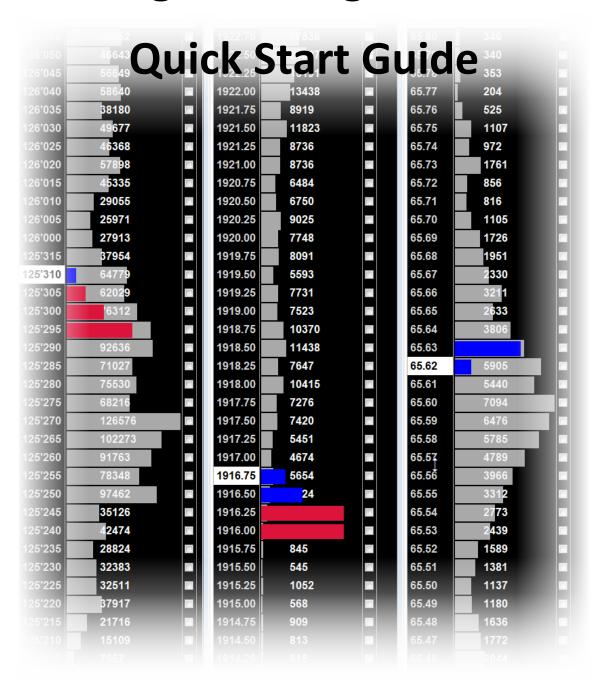


Jigsaw Integration

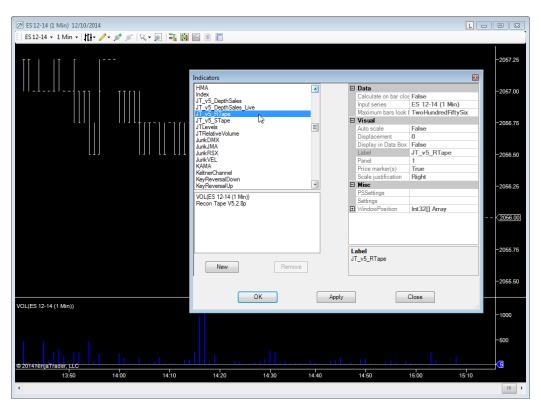


Contents

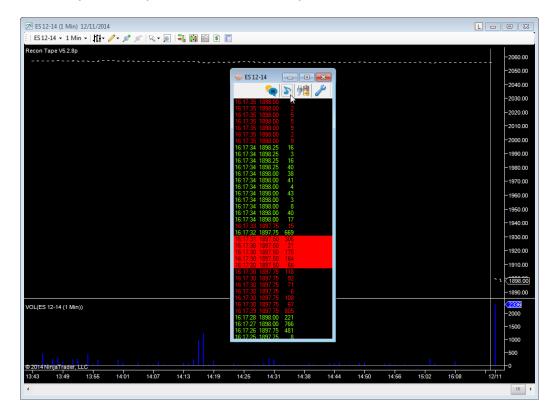
How to Open PriceSquawk	3
Activating your License	4
PriceSquawk Example Settings	6
PriceSquawk Auto Mode	7
Additional Auto Settings	8
Quick Reference	10
Configuration View	10
Sound Mode Selection	11
Volume Control	11
Options Window – Visual Settings	12
Options Window – Visual and User Settings	12
Options Window – Volume Profile Settings	12
Audio Settings	13
Squawk Settings	13
Volume Alert Settings	14
Auto Volume Mode Specific Settings	14
Trade Sound Mede	15

How to Open PriceSquawk

- 1. Add the Jigsaw Recon Tape to a chart in your trading platform
 - a. JT_v5_RTape (for PriceSquawk through Jigsaws recon tape)



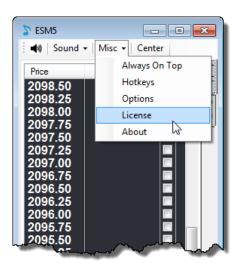
2. Open PriceSquawk from the Recon Tape menu



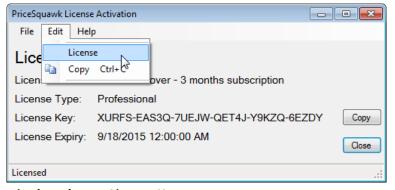
Activating your License

By default PriceSquawk opens with a 2 week trial. When purchasing or subscribing you will need your license to activate your software, or you may need to apply a new license provided by support as follows:

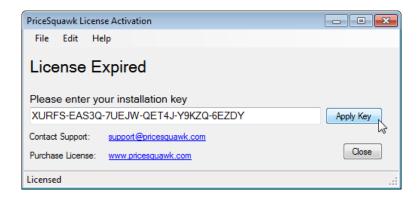
- 1. Open a PriceSquawk window from the Control Center as shown above
- 2. Select License from the Misc Menu



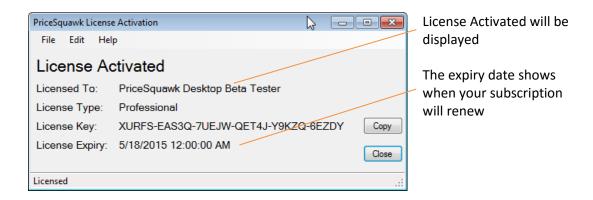
3. Select Edit menu then License



- 4. Copy and Paste in the relevant License Key
 - Click Apply Key

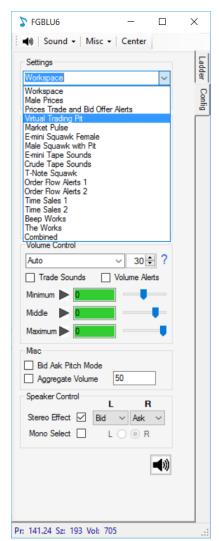


5. Confirm PriceSquawk license is activated.



PriceSquawk Example Settings

PriceSquawk opens with default preconfigured settings to help get you started. You can adjust any of these settings and save them again. The range of settings demonstrates the various ways that PriceSquawk can be utilized to add audio to your trading setup, and for particular markets. Market specific settings (e.g. E-mini Squawk Female) can be applied to any market, though you may need to change any enabled volume settings under the 'Volume Control' area (Minimum, Middle, Maximum) to suit your market conditions.



Male Prices – Male voice price announcement

Prices Trade and Bid Offer Alerts – Female voice price announcement with 1000/2000/4000 size bid offer alerts for inside market

Virtual Trading Pit – Sounds from the Pit that increase and decrease in loudness in line with trading activity

Market Pulse – A market pulse that provides continuous feedback of volume conditions. No Pulse = Little Volume, Soft pulse = Normal Volume, Louder pulse = Elevated Volume, Loudest Pulse = Abnormal Volume

E-mini Squawk Female – The original E-mini squawk using a female voice

E-mini Squawk Female – Full e-mini focused squawk with price action announced, 50+/100+/200+ lot trade sizes called, large volume absorbed at price announced and increased order flow alerts

Male Squawk with Pit – Full male squawk of price, volume, bid offer and large trader alerts with pit sounds enabled

E-mini Tape Sounds - Simple buy/sell trade sounds that are heard only when order flow is increased, with 50, 100 and 200+ lot trade alerts.

Crude Tape Sounds - Simplified trade sounds that increase in loudness with increased volume. 20, 50 and 100+ lot trade alerts.

T-Note Squawk – Full T-Note squawk with price action announced, large volume absorption alerts, 50+ trades hit / lift, 100+ and 500+ lot trade alerts.

Order Flow Alerts 1 - Hear minimalist tick sounds only when volume is elevated with no price information. Requires a few minutes of initial data buffering. 100, 500 and 1000+ lot trade alerts (configure as needed)

Order Flow Alerts 2 - Hear 'Buy' and 'Sell' announcements with price varying pitch when volume is elevated. Faint announcements during low volume. 'Volume Increasing'x` alerts, and 100, 500 and 1000+ lot trade alerts (configure as needed).

Time Sales 1 - Basic digital sounds for each entry in T&S. 20+ and 50+ lot trade alerts.

Time Sales 2 - 50+, 100+ and 200+ lot trade alerts with 5000+ volume absorbed at price alerts. Constant pitch sounds (no price information).

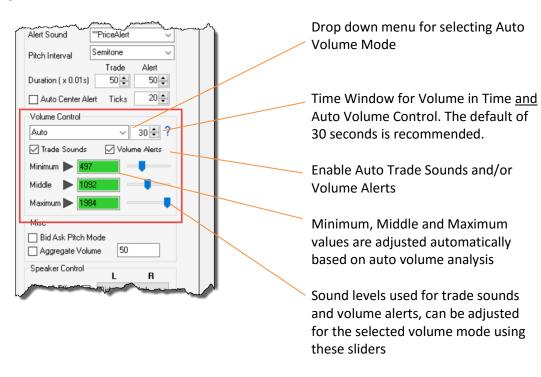
Beep Works – Trade sounds and alerts with price action, all using digital 'beeps' instead of voice. Order flow controls loudness of trade sounds (increased volume = increased loudness).

The Works – 'Buy / Sell' trade sounds, 50+/100+/200+ lot trade alerts with Squawk enabled. Order flow controls loudness of trade sounds (increased volume = increased loudness).

Combined – Trade size filtering combined with order flow filtering, to give you digital trade sounds only when trades occur larger than 5 lots, during elevated order flow.

PriceSquawk Auto Mode

Auto mode automatically adjusts the Minimum, Middle and Maximum values based off the observed real-time volume trading in the market. PriceSquawk trade sounds will automatically be louder when there is increased market activity and softer with decreased market activity. You can use the auto mode to only alert you when increased volume is occurring. There is more information on the product blog here.

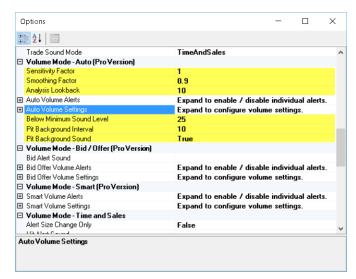


The other volume modes such as Volume in Time, Volume at Price and Smart Volume features are available from the drop down menu, and can be enabled to control trade sounds and raise volume alerts.

PriceSquawk uses the Time Window setting to take samples of how much volume has traded over the last X seconds. It then compares this value to a larger sample set of data to determine if the amount of volume trading now is significant, normal or minimal compared to recent activity.

Additional Auto Settings

Further customization of the Auto Volume Control mode can be found under Volume Control user options. It is recommended to leave these as default initially.



Sensitivity Factor determines the range between the middle volume threshold and maximum calculated threshold. 0 = smaller range (more frequent maximum volume trade sounds) 2.0 = larger range (less frequent maximum volume trade sounds)

Smoothing Factor uses an exponential filter on each volume sample so that one large trade doesn't spike the volume curve used for deriving the volume thresholds (min, middle and max)

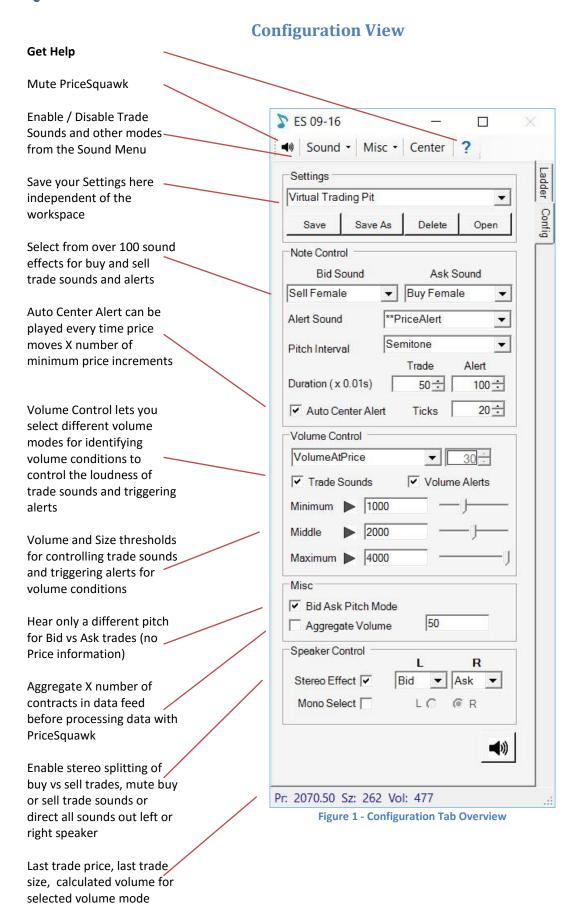
Analysis Lookback sets the number of minutes PriceSquawk holds volume data for analysis. The default 10 minutes means that the volume traded in the current 'Volume in Time' window (default of 30 seconds) is compared to previous values capture over the last 10 minutes. You can extend this out to a full session – though this may affect performance

Below Minimum Sound Level – Sound level used for trades below the minimum auto volume threshold, and for below the minimum volume alert

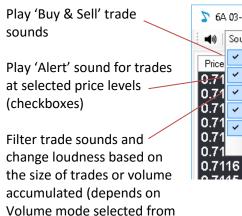
Pit Background Sound – Play the selected Volume Alert setting continuously while in the current volume state. E.g. when above the maximum threshold, the auto volume alert sound will play continuously at the maximum auto sound level

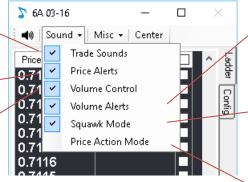
Pit Background Interval — The interval used for looping the pit background audio. 10 seconds default for Virtual Trading Pit — a smaller value can be used to strobe a sound effect for constant volume feedback for a market

Quick Reference



Sound Mode Selection





Play an alert when certain volume is traded based on Volume Control settings and Min, Middle, Max settings

Enable squawk mode for inside market commentary and bid/offer price announcement

Only play trade sounds on first trade at new price

Volume Control

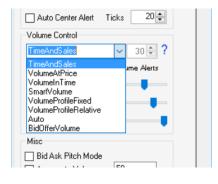
Select which volume modes contribute for filtering trade sounds and raising volume alerts.

TimeAndSales – Individual trade size thresholds used for trade sound filtering and buy / sell alerts.
Minimum threshold is used for filtering out sounds in TimeAndSales Trade Sound mode

Config tab)

VolumeAtPrice – Volume is accumulated at current price. Resets for new price. Volume – Volume accumulates over a short term time window.

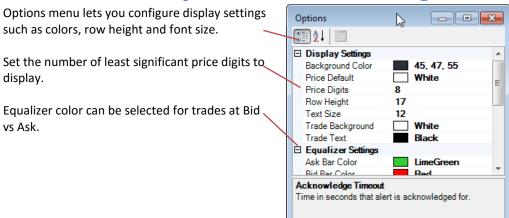
SmartVolume – Volume accumulates at current bid and ask price and continues accumulating when ask becomes bid and vice versa.



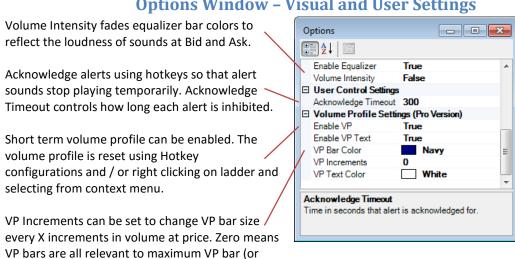
Auto – Volume in time snapshots taken and compared to previous volume in time values to establish if volume throughput has increased BidOfferVolume - Inside market bid and offer volume is used for alerts and trade sounds VolumeProfileFixed -Volume accumulates at all prices until reset. VolumeProfileRelative -Volume at price accumulates relative to maximum volume at price. User Options control Min, Middle and Maximum ratios.

short VPOC).

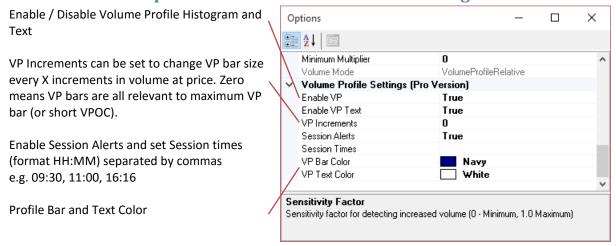
Options Window - Visual Settings



Options Window - Visual and User Settings



Options Window - Volume Profile Settings



Audio Settings

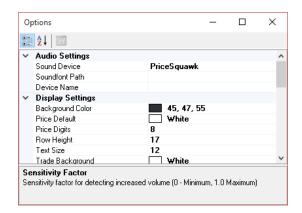
PriceSquawk – Use PriceSquawk sounds or a user soundfont specified in Soundfont Path

Default – Use PriceSquawk V4 sounds

Custom – Use third party audio driver

User soundfont path used in PriceSquawk mode

Enter third party audio driver to use in Custom mode e.g. VirtualMidiSynth, rtpMIDI



Squawk Settings

Enable 'Bid/Ask' Alert – Enable the "BidAsk" alert in Squawk mode, which tells us that the inside market flickered back and forth without net change.

Enable Male Voice – Use male instead of female for inside market and price speech announcements when in Squawk mode

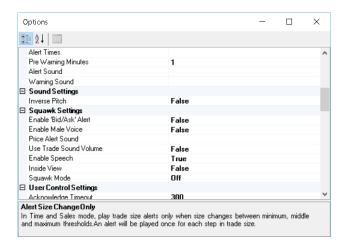
Price Alert Sound – Price Alerts are preceded by this sound effect e.g. 'Price Alert, Handle 28, Evens'

Use Trade Sound Volume – The active trade sound loudness is applied to the Squawk voice. Useful for announcing Price Action louder when trading activity increases

Enable Speech – By default speech is used for inside market movement e.g. 'Offer Lifted'. When disabled an alert sequence of Bid and Ask sounds is used instead.

Inside View – Display the inside market on the ladder view instead of the equalizer.

Squawk Mode - Off, InsideMarket (no price), Price (no inside market), Both



Volume Alert Settings

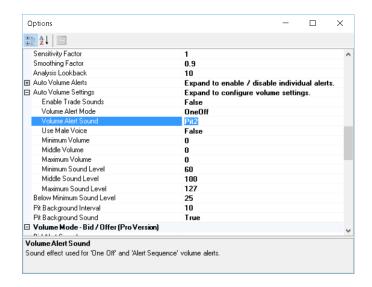
Each volume mode lets you individually enable volume alerts e.g. Minimum increasing, and provides a number of options for customizing alerts and trade sounds for that particular volume mode. Auto Volume alerts are used in the following settings example:

Auto Volume Alerts

Enable each alert triggered when increasing above, or decreasing below, the relevant volume threshold

Auto Volume Settings

Enable Trade Sounds – Enable this volume mode to contribute to the loudness and filtering of trade sounds



Volume Alert Mode – Different formats for volume alerts e.g. '100 Traded' or 'Maximum Volume' or a OneOff sound. Reference User Manual for specifics

Volume Alert Sound – The sound effect used to describe 'Full Speech' alerts or for 'One Off' and 'Alert Sequence' alerts

Use Male Voice – A male voice is used for 'Full Speech' and 'General Speech' volume alert modes

Minimum/Middle/Maximum Volume

Volume thresholds used for controlling trade sounds and raising volume alerts

Sound Levels – 'Loudness' of trade sounds and volume alerts at the Minimum, Middle and Maximum levels

Auto Volume Mode Specific Settings

Below Minimum Sound Level – The sound level used for 'Below minimum' threshold volume alerts and trade sounds

Pit Background Interval – With 'Pit Background Sound' enabled <u>and</u> in 'One Off' alert mode, the 'Volume Alert Sound' is played at this interval

Pit Background Sound – Used for the 'Virtual Trading Pit', or for playing an audible strobe for representing the current auto volume state

Trade Sound Mode

With multiple volume modes controlling trade sounds at any one time, PriceSquawk provides different options for how volume modes work together. E.g. How 'Auto' volume mode filters and controls trade sounds if 'Volume at Price' is also controlling trade sounds.

Time And Sales – Time and Sales settings are used for loudness of trade sounds and all other enabled volume modes are combined as per 'Layered' mode. The minimum time and sales setting filters all trade sounds

Layered – All volume modes combined. For trade sounds to increase in volume, each enabled volume mode must be at the elevated volume threshold. The minimum possible sound level is always used. 'AND' logic.

Any – Any enabled volume mode can elevate the loudness of trade sounds at any time. The maximum possible sound level is always used. 'OR' logic.



For support please email: support@pricesquawk.com