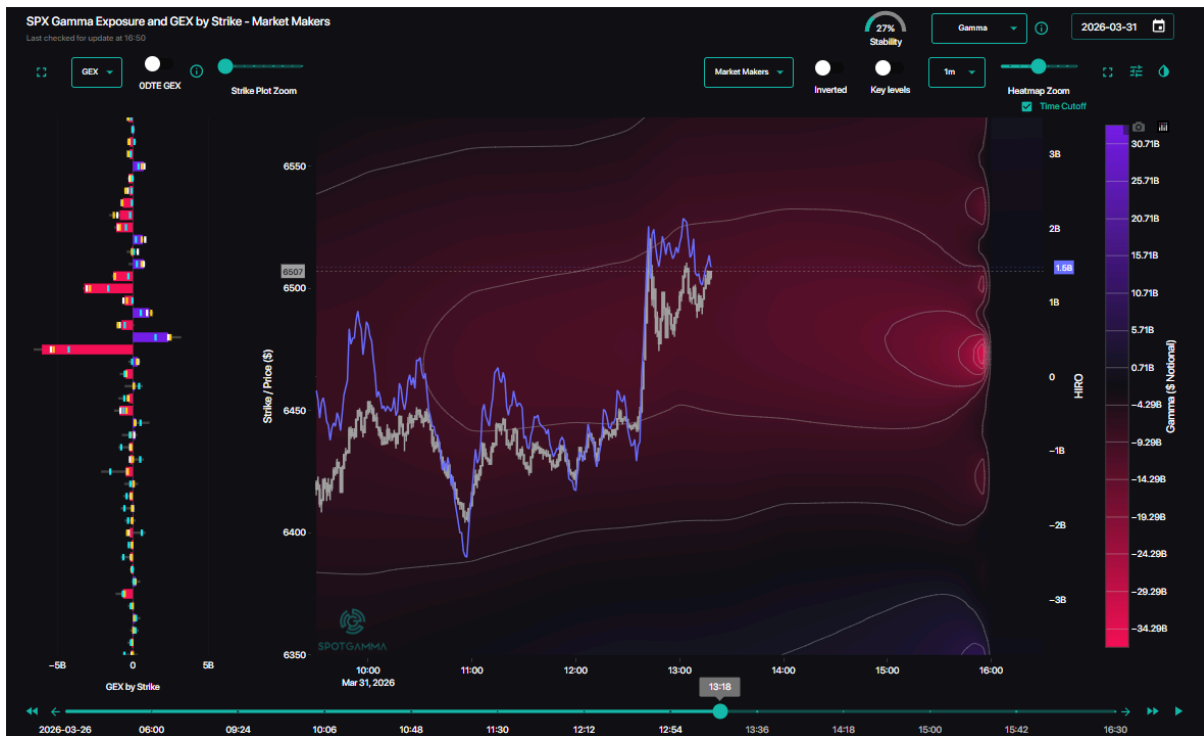


TRACE User Guide

Last Updated: March 30, 2026

"It gives me the confidence to hold my position instead of being shaken out by violent pullbacks." – User AB

"I'm basically leaving TRACE open all day on a screen."
– User WK



TRACE unveils how options flows are driving the S&P 500 intraday.

TRACE Overview

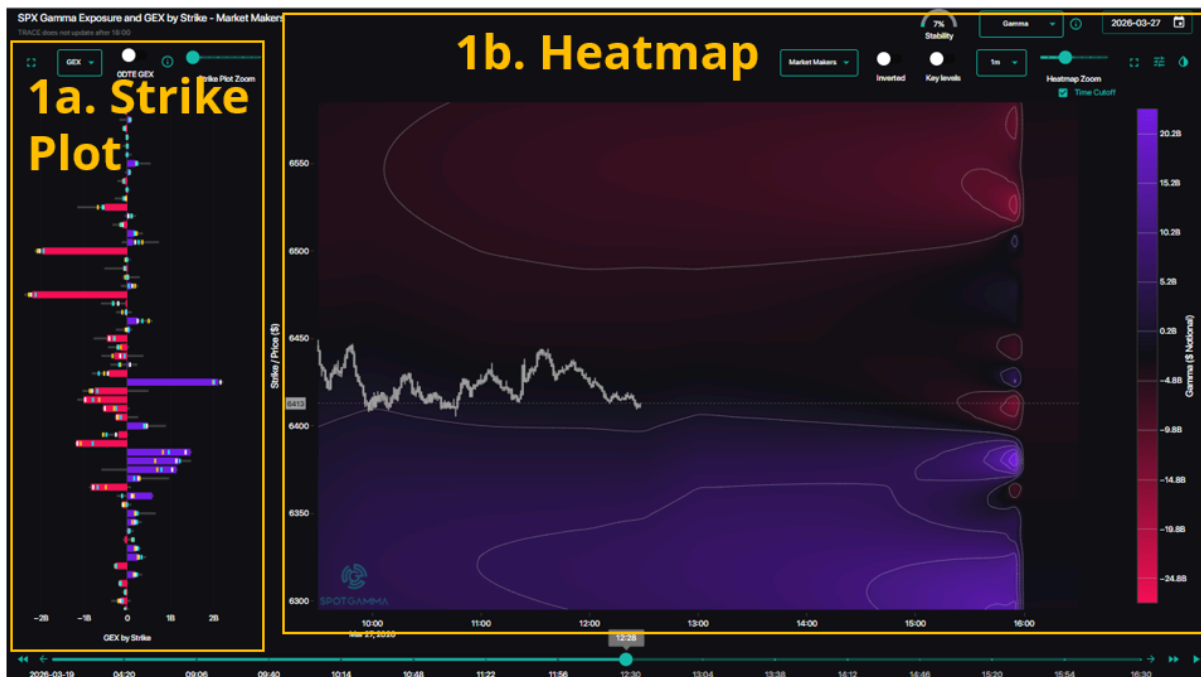
TRACE is a powerful tool that helps visualize how options market activity influences intraday S&P 500 price movement. This influence is captured through a strike plot and heatmap highlighting levels of support & resistance, and zones of heightened volatility.

TRACE is specifically built off of SpotGamma's proprietary Options Inventory Model that determines intraday positioning for SPX options. The data powering TRACE updates every 1-minute throughout the trading day for active day traders, while also providing 5-day forward projections to support swing trading strategies.

This user guide includes descriptions of the TRACE heatmap, strike plot, and practical applications for traders:

1. [TRACE Chart Overview](#)
 - a. [Strike Plot](#)
 - b. [Heatmap](#)
2. [TRACE Applications](#)

1. TRACE Chart Overview



TRACE is found exclusively within the SpotGamma Dashboard, available for Alpha subscribers. TRACE features two different charts, as shown above.

- 1a. The **Strike Plot** on the left side of the page.
- 1b. The **Heatmap** on the right side of the page.

1a. Strike Plot Overview

The Strike Plot reveals the real-time options positioning across SPX strikes for (a) Gamma Exposure (GEX), (b) Open Interest (OI), and (c) Net Open Interest (Net OI). Each of these views can help you visualize which SPX strikes are most active and how positioning changes throughout the trading day.

The underlying data for the Strike Plot changes based on your specified market participant, as outlined in the [Heatmap settings](#) later on in this user guide. Changing the market participant will show how much open interest or gamma-by-strike is held by either market makers, customers, pro customers, firms, or broker dealers.



(a) Gamma Exposure (GEX)

(b) Open Interest (OI)

(c) Net Open Interest (OI)

To tailor your preferred viewing pane, there are four features to consider:

- (1) Full Screen: Maximize the Strike Plot by hiding the heatmap and color scale.
- (2) Available Lenses: Select from three choices for what to display in the Strike Plot.

(a) **Gamma Exposure (GEX)**: This shows the estimated gamma for each individual strike, in dollar notional terms, at the current price.

Blue: Positive gamma position (long calls or long puts)

Red: Negative gamma position (short calls or short puts)

(b) **Open Interest (OI)**: This shows you the open interest by strike in contract terms, which can reflect liquidity. Calls are displayed in orange while puts are shown in blue.

(c) **Net Open Interest**: This shows you the net open interest for each strike by summing the amount of long and short exposure for market makers.

- (3) ODTE Tracking: This allows you to see **exclusively ODTE positions** on the strike plot, which is particularly valuable for intraday analysis.

- (4) Tooltips: Hover over a strike to see the price, dollar notional value (GEX) or contract size (OI & Net OI), percentile indicating the relative size of the position, as well as the daily minimum and maximum positions at that strike. The tooltip also shows the value for 3 toggleable dots that show the position size from 10-minutes prior (white dot), 30-minutes prior (yellow dot), and 60-minutes prior (blue dot).

1b. Heatmap Overview

The Heatmap displays where the SPX Index may find zones of support & resistance, areas of heightened volatility, and price consolidation.



The Heatmap within TRACE has four key characteristics listed below, along with various settings and toggles at the top of the chart:

(A) X-axis: This represents time of day, showing how the heatmap changes throughout a given trading day. Between 9:00am and 4:30pm ET, the heatmap updates in 1-minute increments. From 12:00am to 9:00am ET, the heatmap updates every 10 minutes. The slider at the bottom can be manipulated to display a snapshot of the heatmap from various points in time, with the heatmap showing options influence at each timeframe.

(B) Left Y-axis: This shows the relevant range of SPX strike prices for the selected date.

(C) Right Y-axis: This measures the HIRO signal, quantifying the amount of directional influence from options dealers in real time based on current options flows.

(D) Color Scale: This scale reflects the notional value of delta (for Delta Pressure, Charm Pressure lenses) or gamma (for Gamma lens) based on current heatmap values.

There are 14 core features and toggles within the TRACE heatmap that allow users to personalize settings and see more granular information about the TRACE heatmap:

(1) Market Participant Selection: Select which market participant powers the TRACE heatmap and strike plot using this dropdown.

- **Market Makers (default selection):** These entities provide liquidity by taking the other side of options trades and hedging dynamically. Market maker hedging creates price impact in the underlying instrument.
- **Customers:** Retail traders, hedge funds, and asset managers taking directional or volatility views. Their trades are often on the opposite side of market makers, thus causing dealer hedging.
- **Pro Customers:** High-volume and sophisticated investors, often prop traders.
- **Firms:** Trading desks of brokerages who trade for their own accounts, considered professional participants in options markets.
- **Broker-Dealers:** Registered intermediaries executing trades for clients or themselves (may include firms, internal desks, or structured product desks).

(2) Invert Toggle: Swap the positive and negative values on the heatmap and strike bars to show the “inverted positioning” for the selected market participant. This view is useful to isolate the hedging flows associated with each market participant.

(3) Stability Gauge: This is a proprietary, forward-looking metric measuring the likelihood of large movement over the next 10 minutes, with higher values corresponding to a lower likelihood of significant price movement. The Stability Gauge applies between 9:30am and 3:30pm ET, updating every 1-minute interval.

(4) Key Levels Toggle: Enable this to see SpotGamma key levels, updated daily.

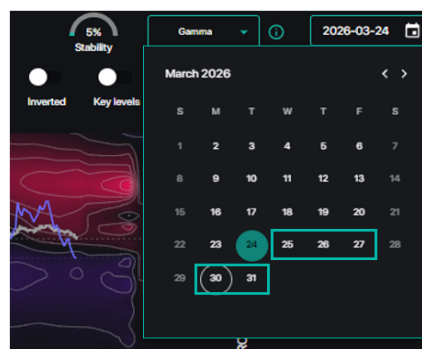
(5) Candle Settings: Customize the price candlestick setting to display intervals of 1 minute, 5 minutes, or 15 minutes.

(6) Model Dropdown: Select from three TRACE lenses: Gamma, Delta Pressure, and Charm Pressure. The *(i) info* icon provides additional context for each lens, with additional info on each model available in the [following section of this guide](#).

(7) Zoom Slider: Zoom in or out on the Y-axis or click and drag the zoom function into targeted ranges. You can double-click the chart or click the magnifier to exit zoom. If viewing TRACE from a historical timeframe, the *Time Cutoff* toggle appears below, which can be toggled off to show price action throughout the entire day.

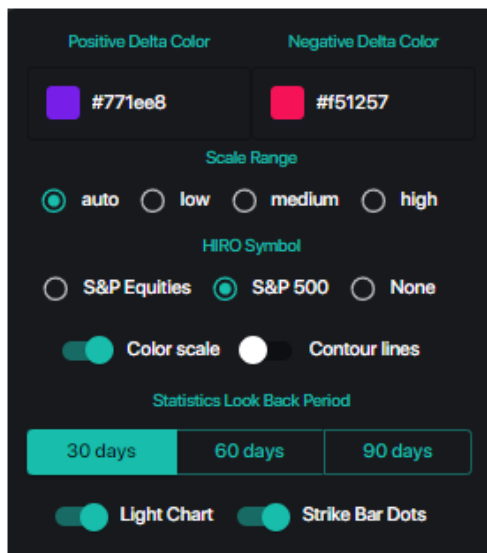
(8) Calendar Settings: View TRACE for historical dates to see how options activity evolved through prior days, or see the projected influence of options for the **next 5 trading days**. The forward-projections show a daily snapshot of the heatmap and strike plot for the selected date. Note that HIRO values are only available for the most recent 5 trading days.

(9) Full Screen Feature: Maximize the heatmap by hiding both the Strike Plot and the color scale.



(10) Settings: Open the settings window to customize your TRACE experience.

- **Color Customization:** Users can modify the default coloration, which applies to all 3 heatmap lenses.
- **Scale Range:** The scale range adjusts the coloration and Strike Plot scale, allowing users to select auto, low, medium, or high scale ranges.



- **HIRO Symbol:** The purple line on the heatmap represents HIRO flow on the chart, with 3 options:
 - **S&P Equities:** Combined HIRO flow for all single stock components of the S&P 500
 - **S&P 500:** Combined HIRO signal for SPX, XSP, SPY & ES=F
 - **None:** Turns off HIRO signal
- **Color Scale Toggle:** This allows users to hide the color scale on the right side.
- **Contour Lines Toggle:** This allows users to turn the contour lines on or off on the heatmap. These lines help you visualize where the heatmap color is changing.

- **Statistics Look Back Period:** Select a 30, 60, or 90-day look back period for for the statistics that power tooltips on both the Strike Plot and the Heatmap.
- **Light Chart Toggle:** This enables the light mode for the TRACE heatmap, disabling this toggle will display the heatmap in dark mode.
- **Strike Bar Dots Toggle:** This enables colored dots on the strike plot showing the GEX, OI, or Net OI reading from previous timeframes of 10, 30, and 60-minutes prior.

(11) Color Preferences: Set your preferred color scheme for the heatmap and strike bars. This allows you to adjust coloration for positive vs. negative values, strike plot bars, HIRO and contour lines, and price candlesticks.

(12) Contour Lines: Examine how the heatmap changes across strikes and time. For Charm Pressure and Delta Pressure, dense contours imply a sizable increase in buying pressure (if blue) or selling pressure (if red). For Gamma, dense contours signal a rapid change in gamma, meaning volatility may change dramatically in that area.

(13) Hover-Over Features: Hover over a specific area on the heatmap to view exact timestamps, SPX index levels, and Greek values for the selected datapoint.

(14) Timeline Slider: This slider allows users to replay how options positioning has changed over the course of a selected day, updating every 1-minute from 9:30am-4:30pm ET, and every 10 minutes during pre-market trading. When the slider is moved, the heatmap and strike plot adjust to reflect the position for the selected time.

2. TRACE Applications: Lenses & Use Cases

TRACE features three proprietary models: Gamma, Delta Pressure, and Charm Pressure. Below are descriptions and use cases for each model.

Note that each of the below applications assumes Market Maker is selected as the market participant shown within TRACE.

2a. Gamma

Description

The gamma lens is most useful in helping you anticipate local areas of higher or lower realized volatility, based on market maker hedging. The relative strength of a gamma zone is shown by the depth of color with the strongest levels showing as dark blue or dark red.

Key Features

You can use the heatmap colors to infer potential zones where price action may change.

- **Blue Zones:** Lower expected volatility (positive market maker gamma)
- **Red Zones:** Higher expected volatility (negative market maker gamma)
- **White Zones:** Transition zone (more neutral, little hedging [light mode])
- **Black Zones:** Transition zone (more neutral, little hedging [dark mode])

The TRACE gamma heatmap is highly informative for **day traders** to anticipate volatility or stability. For **swing traders**, the 5-day forward projection accessible via the calendar dropdown can help anticipate the range of price movement over multiple days.

Trading with the Gamma Heatmap

The gamma lens is the best way to start evaluating areas of intraday stability vs. volatility. Price tends to move swiftly through areas of neutral to negative gamma and find support or resistance at areas of strong positive gamma.

- **Pinning:** More likely in a blue zone (highest impact at the EOD)
- **Volatility:** More likely in a red zone (highest impact at the EOD)

2b. Delta Pressure

Description

The Delta Pressure lens displays the net change in options positioning across all prices and time frames.

Key Features

Traders can use the colors on the heatmap to gauge where market maker hedging may create upward or downward pressure for SPX. It is important to know the type of environment we are in to optimize your trading approach.

For a positive gamma environment, the zones offer stability and cap movement:

- **Blue Zones:** Reflect buying support (need to buy futures or stock to hedge)
- **Red Zones:** Reflect selling resistance (need to sell futures or stock to hedge)
- **Contours:** Lines reflect zone borders (can guide toward closing levels)

For a negative gamma environment, the zones offer areas of acceleration:

- **Blue Zones:** Reflect buying pressure (need to buy futures or stock to hedge)
- **Red Zones:** Reflect selling pressure (need to sell futures or stock to hedge)
- **Contours:** Lines reflecting large shifts (can guide toward closing levels)

Trading with the Delta Pressure Heatmap

Traders can use the heatmap to anticipate where market makers' buying or selling pressure will "kick in" to act as support / resistance (positive gamma environment) or exaggerate price movements (negative gamma environment).

Positive gamma environment: Overhead red zones indicate areas where market makers are expected to be selling as price moves higher whereas underneath blue zones provide support as price rejects lower. This infers that breaking these levels will take considerable volume.

Negative gamma environment: Overhead blue zones reflect where buying can extend or accelerate an upward move and underneath red zones reflect where selling can extend or accelerate a downward move.

- **Strength:** More likely in a blue zone (consider the gamma environment)
- **Weakness:** More likely in a red zone (consider the gamma environment)

2c. Charm Pressure

Description

Charm Pressure depicts how options positioning changes with respect to time, which can be heavily influenced by large ODTE volumes. Charm Pressure can be thought of as a key element in the pinning process that can be seen near positive gamma nodes.

Key Features

SpotGamma often finds that spot price tends to move towards zones where positive and negative market maker charm meet at EOD. SpotGamma also sees that spot price moves strongly through blue zones at EOD in that process. The Charm Pressure chart shows the following market maker positioning:

- **Red Zones:** Options are passively gaining value (sell more futures, less support)
- **Blue Zones:** Options are passively losing value (buy more futures, more support)

Trading with the Charm Pressure Heatmap

Towards the close of the trading day, monitor areas between blue and red pockets. Charm Pressure can have a considerable effect towards dampening hedging flows from areas of strong positive market gamma. This dampening action can lead to the end-of-day pinning effect.

- **Pinning:** Strong gamma interaction EOD (white/black, between red & blue)