QSTMARKETS Terminal user manual

Section 1 - Introduction

1. What is QSTMarkets?

QSTMarkets is an professional financial terminal that brings institutional-grade market

analysis tools to retail investors and students. Inspired by the layout and philosophy

of the principal Financial Terminals available in the market, QSTMarkets provides a unified workspace where users can

monitor real-time prices, study company fundamentals, read curated financial news, and

track macroeconomic indicators - all from a single, keyboard-driven interface.

The terminal runs entirely in the browser. Its workspace is built on a panel system that

the user can arrange freely by dragging and resizing each panel. Every panel is activated

by typing a command into the Command Bar at the top of the screen.

Core design principles:

- **Command-first navigation.** Every feature has a short command mnemonic (e.g., GP for a price chart, DES for a company description, FA for financial statements). Users familiar with professional terminals will feel at home immediately; newcomers will find the HELP command a useful starting point.
- **Open data, no subscriptions.** QSTMarkets aggregates data from free and freemium public APIs (yFinance, SEC EDGAR, FRED, Alpaca, Finnhub, Tiingo, and others).
- **Panel workspace.** Each command opens a panel. Multiple panels can be open simultaneously and arranged side by side. Panels are persistent across page reloads; the layout is saved automatically per user account.
- **Real-time and historical.** Price data updates in real time during market hours via WebSocket. Historical charts cover up to ten years of daily OHLCV data plus intraday intervals from 1-minute to 1-hour.

Supported asset classes:

Asset class	Examples	Coverage
US equities	AAPL, MSFT, JPM	Full (price, fundamentals, news, screener)
Crypto (spot)	BTCUSD, ETHUSD	Price chart, description, news

Precious metals	XAUUSD, XAGUSD	Price chart, description, metals news
Energy commodities	WTIUSD, BRENTUSD, NGUSD	Price chart, description, energy news

Navigation basics:

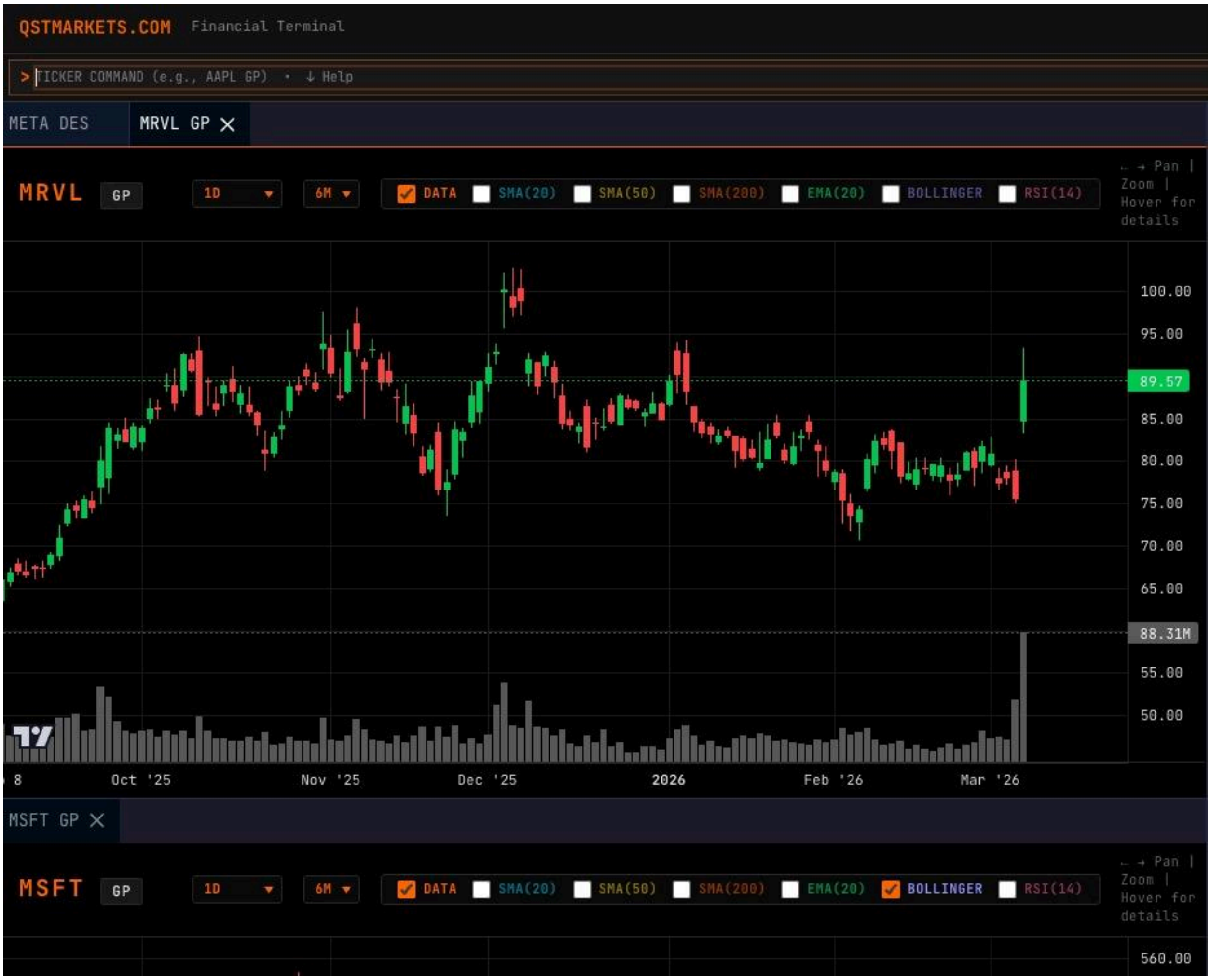
1. Click the **Command Bar** at the top of the screen (or press / as a shortcut).
2. Type a command, optionally followed by a ticker symbol (e.g., AAPL GP or WEI).
3. Press **Enter**. The corresponding panel opens in the workspace.
4. Type HELP at any time to browse all available commands with descriptions and examples.

Panel focus and command routing

When you execute a command from the Command Bar, the resulting data needs a place to display. QSTMarkets uses a "focus" system to determine where new commands are opened.

At any given time, one panel in your workspace is the active or focused panel. You can easily identify this focused panel by its distinct orange top border. By default, the next command you execute from the Command Bar will open directly within this active panel.

If you want to open a command in a different panel, changing the destination is simple. Just click anywhere inside the panel you want to use as your target. Its top border will immediately turn orange to confirm it has focus. Once the desired panel is highlighted, any new command you type into the Command Bar will load in that specific location.



Section 2 - Commands by category

2.1 Charts

Commands in this category open price and comparison charts. They all require a ticker symbol to function properly.

GP - Graph price

Command: GP

Category: Charts

Requires ticker: Yes

Overview

The Graph price command generates an interactive candlestick chart for a specified asset, providing a visual representation of historical and real-time price action. Traders and analysts use this fundamental tool to identify trends, support and resistance levels, and potential entry or exit points using built-in technical overlays.

How to use it

Focus the Command Bar, type a ticker symbol followed by GP (for example, AAPL GP), and press Enter. The terminal will spawn a new chart panel. You can interact with the chart by zooming in and out using your mouse wheel or trackpad, and panning across historical data by clicking and dragging. The timeframe selector at the top of the panel allows you to switch between intraday intervals and longer-term daily views.

Reading the output

The central area displays traditional candlestick bars (green for up days, red for down days) mapped against a price axis on the right. Volume is represented by the bar chart at the bottom of the price graph. By default, the chart automatically overlays several key technical indicators: Simple Moving Averages (20, 50, and 200 periods), an Exponential Moving Average (20 periods), and Bollinger Bands to help visualize volatility.

Data sources and refresh rate

Live price updates are streamed continuously via WebSocket connections during active market hours. Intraday and historical OHLCV (Open, High, Low, Close, Volume) data are fetched on demand when the chart is instantiated or when the timeframe is altered.

Tips and caveats

- The GP command supports a wide variety of assets beyond US equities, including crypto spot pairs (BTCUSD GP), precious metals (XAUUSD GP), and energy commodities (WTIUSD GP).
- For after-hours or weekend viewing, the chart will display the last recorded closing price and halt real-time updates until the market reopens.
- Use this in conjunction with the DES command to view the technical chart alongside fundamental corporate data.

COMPARE - Compare two tickers

Command: COMPARE

Category: Charts

Requires ticker: Yes (Requires two tickers)

Overview

The Compare two tickers command allows users to chart the relative performance of two different assets over a specified timeframe. This is essential for pairs trading analysis, evaluating a stock's performance against a benchmark ETF, or correlating different asset classes to observe market divergence.

How to use it

Type COMPARE followed by the two ticker symbols you wish to analyze (for example, COMPARE AAPL MSFT). Once the panel opens, you can adjust the lookback window using the timeframe toggles (1M, 3M, 6M, 1Y, 3Y, 5Y) located at the top of the chart.

Reading the output

Instead of absolute prices, the Y-axis displays normalized percentage returns. Both asset series are anchored to 0% at the start date of the selected timeframe. As time progresses along the X-axis, the lines diverge, clearly illustrating which asset outperformed the other on a relative basis over that exact period. A legend indicates which color corresponds to which ticker.

Data sources and refresh rate

Data is sourced from historical daily close prices. The chart calculates the percentage change dynamically based on the starting date of the chosen timeframe. This data does not auto-refresh continuously; it calculates once upon execution and upon timeframe changes.

Tips and caveats

- You can cross-compare different asset classes. For instance, comparing a tech stock against a cryptocurrency (COMPARE NVDA BTCUSD) to view risk-on asset correlation.
- Since the chart relies on a common start date, ensure both assets were publicly trading during the selected timeframe. If one asset went public halfway through the requested window, the chart may behave unexpectedly or throw an error.

2.2 Fundamentals

Commands in this category display company-level fundamental data: descriptions, financial statements, earnings, dividends, ownership, and insider activity.

DES - Description

Command: DES

Category: Fundamentals

Requires ticker: Yes

Overview

The Description command serves as the primary tear sheet for any publicly traded company. It aggregates high-level corporate information, current valuation metrics, and institutional ownership into a single, easily digestible view. It is typically the first command an analyst runs when researching a new stock.

How to use it

Type a ticker symbol followed by DES (for example, MSFT DES). The panel will populate with several distinct sections detailing the company's profile. You can scroll through the panel to review different fundamental blocks.

Reading the output

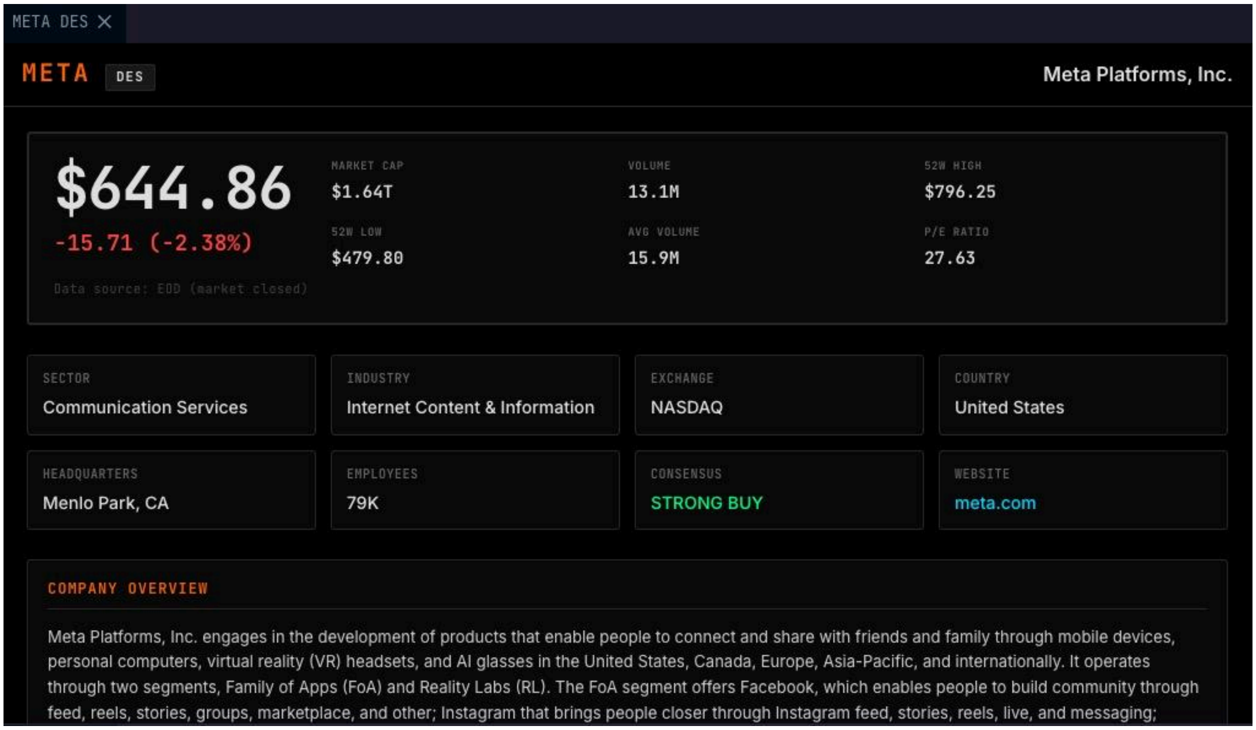
The top section provides the company's sector, industry classification, headquarters location, and employee count. Below this, you will find key valuation metrics like P/E ratio, Earnings Per Share (EPS), and Dividend Yield. A section on management lists key executives alongside their disclosed compensation. Further down, the panel highlights major institutional holders (sourced from 13F filings), analyst consensus (Buy/Hold/Sell ratings), and upcoming catalyst dates for earnings and dividends.

Data sources and refresh rate

Data is aggregated across multiple APIs to provide a comprehensive view. The fundamental profile data is largely static and updated periodically, while pricing multiples and upcoming dates are refreshed daily based on the latest market close and corporate announcements.

Tips and caveats

- This command is highly recommended as a starting point before diving into deep financial statements via the FA command.
- Executive compensation figures reflect the most recently completed fiscal year's disclosures and may not represent real-time salaries.



FA - Financial analysis

Command: FA

Category: Fundamentals

Requires ticker: Yes

Overview

The Financial analysis command provides access to a company's core financial statements. It replaces the need to manually parse through complex SEC 10-K or 10-Q filings by presenting standardized Income Statements, Balance Sheets, and Cash Flow statements.

How to use it

Enter your ticker followed by FA (for example, GOOGL FA). The panel uses a tabbed interface. Click the tabs at the top to navigate between the Income Statement, Balance Sheet, and Cash Flow views. A toggle allows you to switch between Annual and Quarterly reporting periods.

Reading the output

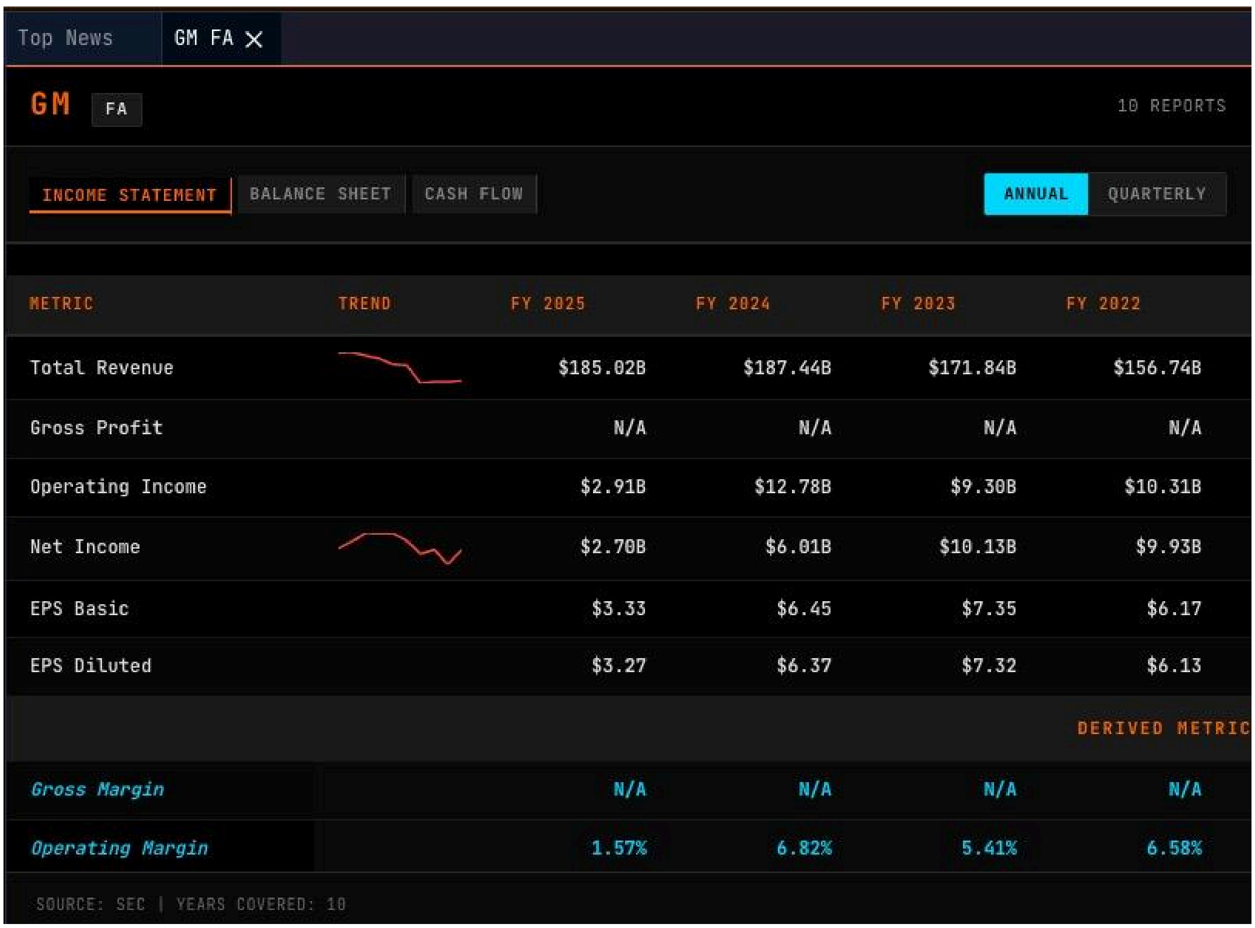
Each statement displays line items organized chronologically. In addition to raw reported figures, the panel calculates derived margins, Compound Annual Growth Rates (CAGR), Return on Equity (ROE), and Return on Assets (ROA). To the right of key line items, you will notice trend sparklines - tiny, inline charts that instantly visualize the directional trend of that specific metric over the displayed periods.

Data sources and refresh rate

Financial data is sourced from standardized public filings. The data is updated quarterly as companies release their earnings reports.

Tips and caveats

- Standardized financial data may occasionally group unique, company-specific line items into broader categories for comparability. Always refer to the raw SEC filings if a highly specific accounting treatment is critical to your thesis.



RV - Relative valuation

Command: RV

Category: Fundamentals

Requires ticker: Yes

Overview

The Relative valuation command automatically builds a peer-comparison matrix. It helps investors determine if a stock is trading at a premium or a discount compared to its closest competitors within the same sector, a crucial step in fundamental equity research.

How to use it

Type a ticker followed by RV (for example, NVDA RV). The panel will generate a data table comparing your target company against peers.

Reading the output

The target company is displayed alongside its 7 closest sector peers. These peers are selected algorithmically based on the log-distance of their market capitalizations to ensure realistic comparisons. The table displays key valuation multiples: Price-to-Earnings (P/E), Price-to-Book (P/B), Enterprise Value-to-EBIT (EV/EBIT), and Price-to-Sales (P/S). Sector medians are calculated and highlighted at the bottom, allowing you to quickly spot if your target stock is overvalued (red/higher than median) or undervalued (green/lower than median) relative to the group.

Data sources and refresh rate

Calculations rely on the latest closing prices and trailing twelve-month (TTM) fundamental data. Multiples are recalculated dynamically upon command execution.

Tips and caveats

- The algorithmic peer selection is strictly sector and market-cap driven. It may occasionally pull in a company with a different core business model if it shares the same broad sector classification.

NVDA DES | ACLX DES | BG DES | DOW RV | IBM RV

IBM RV TECHNOLOGY — 7 PEERS

MEDIAN P/E	MEDIAN P/B	MEDIAN EV/EBIT	MEDIAN P/S
61.8	11.4	54.6	9.3

SYMBOL	COMPANY	PRICE	MKT CAP	REVENUE	P/E	P/B	EV/EBIT	P/S
IBM	International Business Machines…	$245.28	$228.7B	$67.5B	21.6	7.0	N/A	3.39
TXN	Texas Instruments Incorporated …	$202.67	$185.3B	$17.7B	37.0	11.4	32.5	10.48
SHOP	Shopify Inc. - Class A Subordin…	$121.87	$157.9B	$11.6B	128.3	11.7	106.5	13.67
ANET	Arista Networks, Inc. Common St…	$124.60	$156.8B	$9.0B	44.7	12.7	40.2	17.41
QCOM	QUALCOMM Incorporated - Common …	$138.13	$151.6B	$44.3B	27.4	N/A	13.0	3.42
PLTR	Palantir Technologies Inc. - Cl…	$147.22	$346.7B	$4.5B	213.4	46.9	244.2	77.47
ACN	Accenture plc Class A Ordinary …	$209.89	$130.7B	$17.6B	92.5	4.2	58.2	7.43
GLW	Corning Incorporated Common Sto…	$147.57	$126.0B	$15.6B	78.9	10.7	54.6	8.06
Sector median					61.8	11.4	54.6	9.27

EE - Earnings estimates

Command: EE

Category: Fundamentals

Requires ticker: Yes

Overview

The Earnings estimates command tracks a company's historical ability to beat, meet, or miss Wall Street consensus estimates. Analyzing a company's earnings surprise history can provide insight into management's tendency to under-promise and over-deliver.

How to use it

Type a ticker followed by EE (for example, AMZN EE). The panel will display historical performance data and forward-looking estimates.

Reading the output

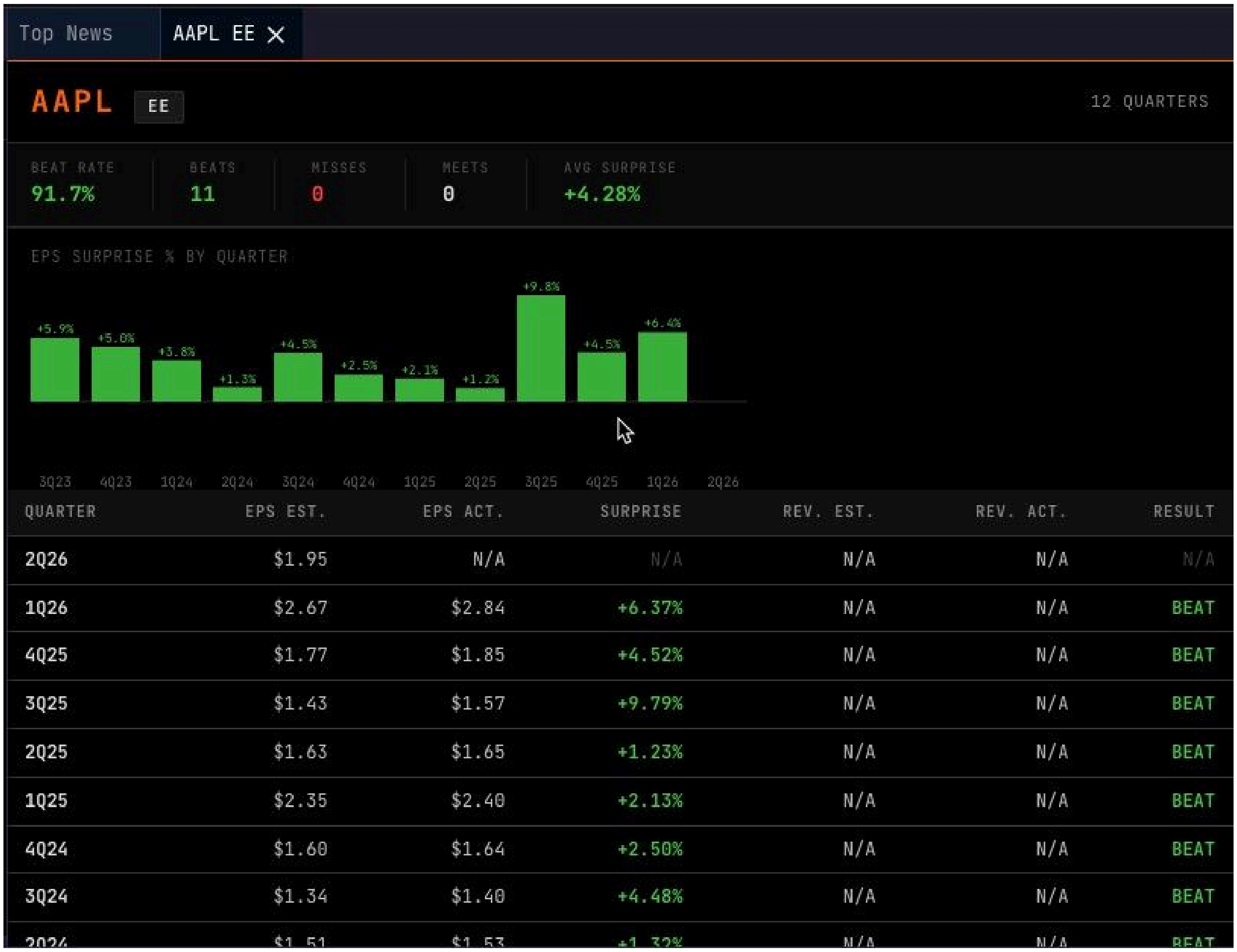
The visual centerpiece is a bar chart displaying the last 12 quarters of Earnings Per Share (EPS), plotting the reported actuals against the analyst estimates. A percentage surprise metric accompanies each quarter. The panel also calculates the aggregate "beat rate" (how often they exceed estimates) and the average surprise magnitude. Below the EPS data, revenue estimates for upcoming quarters are also provided.

Data sources and refresh rate

Consensus estimate data is aggregated from major financial data providers. Actuals are updated immediately following quarterly earnings announcements.

Tips and caveats

- A high historical beat rate does not guarantee future beats. Use this tool to gauge the predictability of a company's earnings rather than as a strict forecasting mechanism.



DVDF - Dividends & yield

Command: DVDF

Category: Fundamentals

Requires ticker: Yes

Overview

Designed for income-focused investors, the Dividends & yield command provides a comprehensive view of a company's dividend payout history, yield trends, and critical upcoming dates required for dividend capture strategies.

How to use it

Type a ticker followed by DVDF (for example, JNJ DVDF).

Reading the output

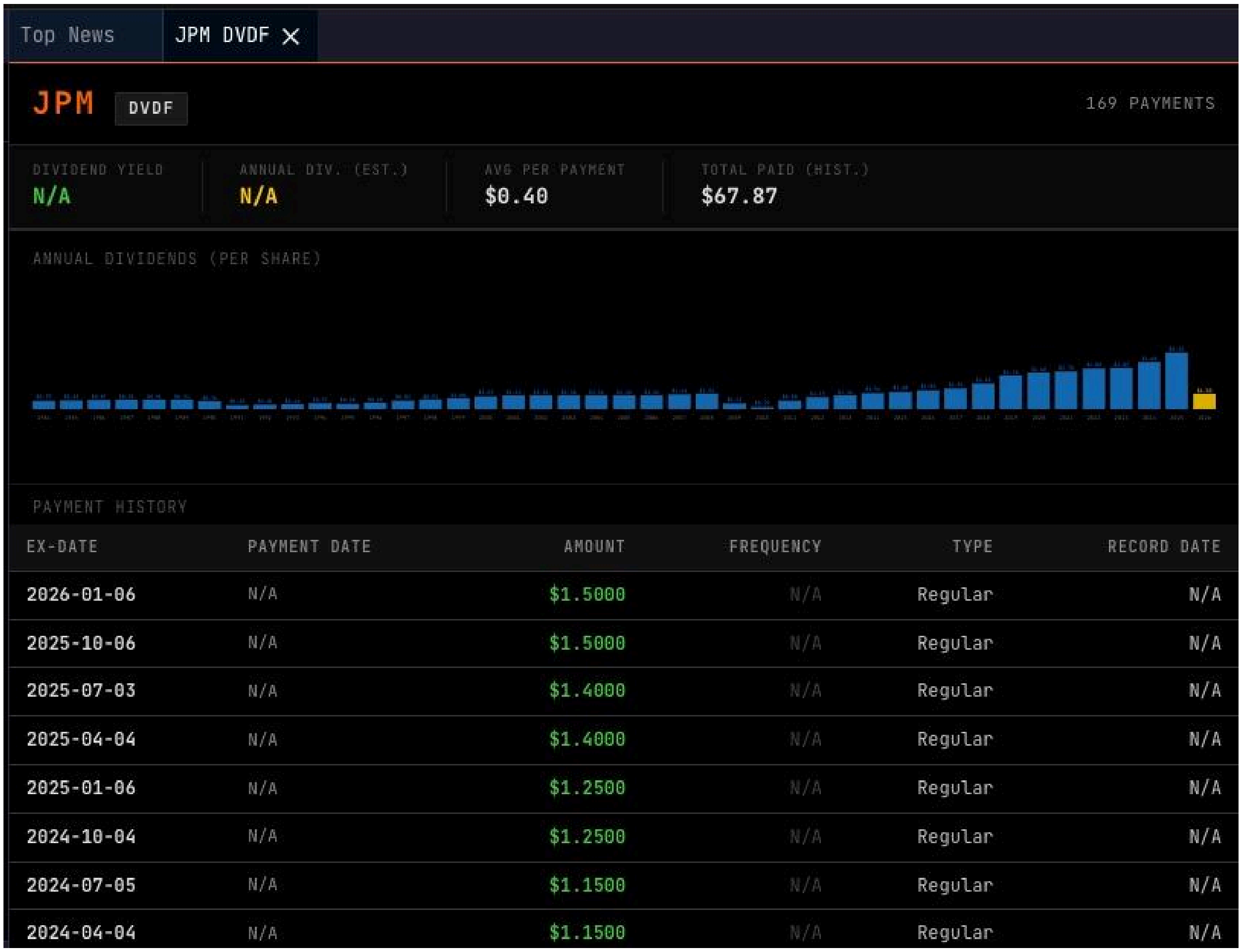
The top of the panel displays the current forward dividend yield, calculated dynamically using the latest traded price. Below this, you will find the critical dates for the current or upcoming payout: the Ex-date (the date you must hold the stock to receive the dividend), Record date, and Payment date, along with the payout frequency (e.g., Quarterly, Annual). The bottom section features a trend chart visualizing the annual dividend growth over the available historical period.

Data sources and refresh rate

Dividend declarations and historical payout records are sourced from corporate actions databases. Yields update continuously based on current market prices.

Tips and caveats

- Be aware that special, one-time dividends might spike the historical trend chart. Focus on the standard recurring payout frequency for long-term income planning.
- If a stock does not pay a dividend, the panel will return a "No dividend history found" message.



INS - Insider trades

Command: INS

Category: Fundamentals

Requires ticker: Yes

Overview

The Insider trades command lists recent transactions made by corporate insiders (directors, officers, and major shareholders). Tracking whether executives are buying or selling their own company's stock is a powerful signal of internal confidence.

How to use it

Type a ticker followed by INS (for example, AAPL INS). The panel presents a chronological ledger of recent insider activity.

Reading the output

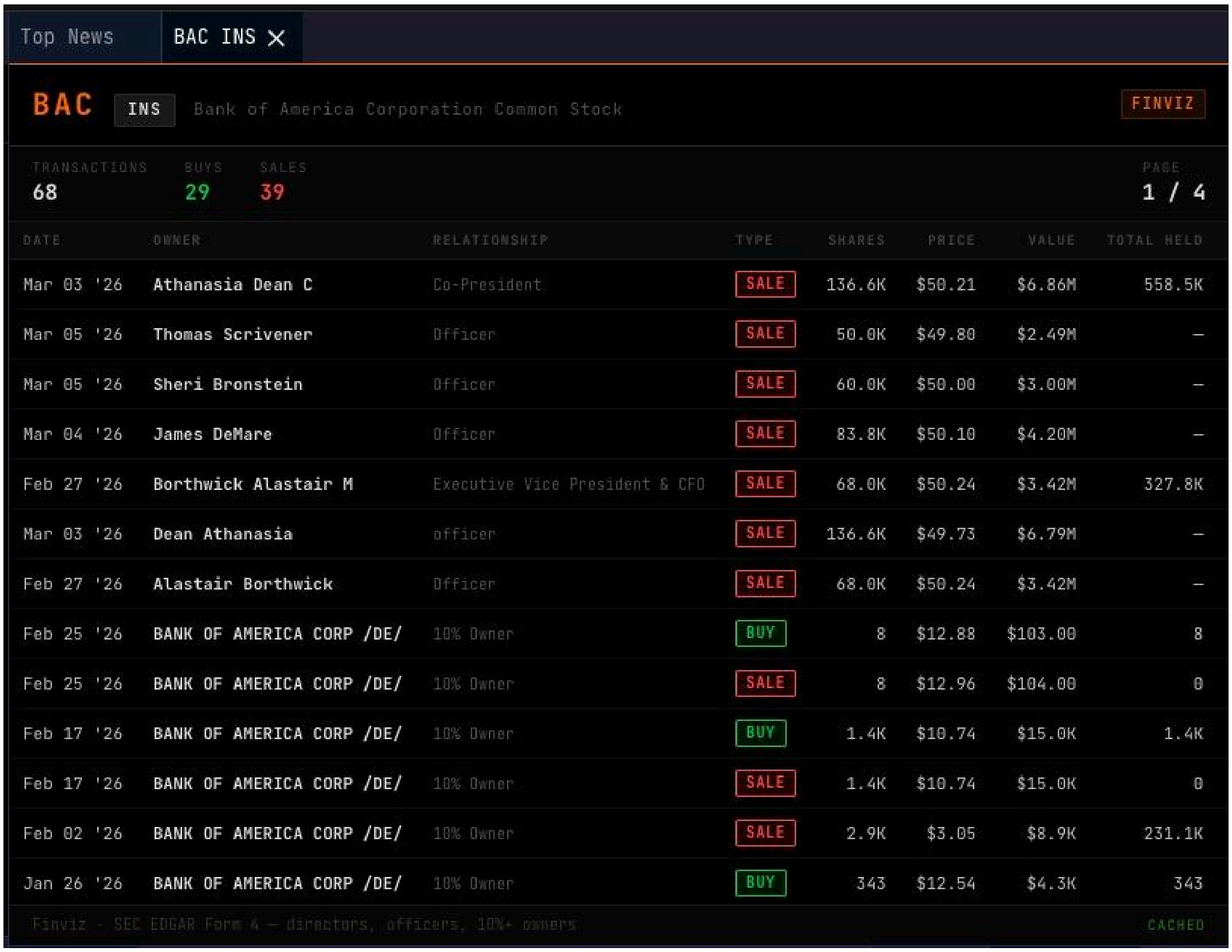
The table details the transaction date, the insider's name and title, the transaction type (Buy, Sell, or Award/Grant), the number of shares transacted, and the execution price. Direct links to the original SEC Form 4 filings are provided for verification.

Data sources and refresh rate

Data is sourced primarily from finvizfinance for rapid delivery, with an automatic fallback mechanism to direct SEC EDGAR database queries to ensure accuracy and completeness.

Tips and caveats

- Not all insider sales are bearish signals; executives often sell shares on pre-scheduled 10b5-1 plans for tax or diversification purposes. However, cluster buying by multiple insiders on the open market is generally considered a strong bullish indicator.



DATE	OWNER	RELATIONSHIP	TYPE	SHARES	PRICE	VALUE	TOTAL HELD
Mar 03 '26	Athanasia Dean C	Co-President	SALE	136.6K	$50.21	$6.86M	558.5K
Mar 05 '26	Thomas Scrivener	Officer	SALE	50.0K	$49.80	$2.49M	–
Mar 05 '26	Sheri Bronstein	Officer	SALE	60.0K	$50.00	$3.00M	–
Mar 04 '26	James DeMare	Officer	SALE	83.8K	$50.10	$4.20M	–
Feb 27 '26	Borthwick Alastair M	Executive Vice President & CFO	SALE	68.0K	$50.24	$3.42M	327.8K
Mar 03 '26	Dean Athanasia	officer	SALE	136.6K	$49.73	$6.79M	–
Feb 27 '26	Alastair Borthwick	Officer	SALE	68.0K	$50.24	$3.42M	–
Feb 25 '26	BANK OF AMERICA CORP /DE/	10% Owner	BUY	8	$12.88	$103.00	8
Feb 25 '26	BANK OF AMERICA CORP /DE/	10% Owner	SALE	8	$12.96	$104.00	0
Feb 17 '26	BANK OF AMERICA CORP /DE/	10% Owner	BUY	1.4K	$10.74	$15.0K	1.4K
Feb 17 '26	BANK OF AMERICA CORP /DE/	10% Owner	SALE	1.4K	$10.74	$15.0K	0
Feb 02 '26	BANK OF AMERICA CORP /DE/	10% Owner	SALE	2.9K	$3.05	$8.9K	231.1K
Jan 26 '26	BANK OF AMERICA CORP /DE/	10% Owner	BUY	343	$12.54	$4.3K	343

INSB - Insider buys feed

Command: INSB

Category: Fundamentals

Requires ticker: No

Overview

The Insider buys feed acts as a market-wide scanner, aggregating the latest open-market purchases by corporate insiders across all publicly traded US equities. It helps users discover new investment ideas backed by management conviction.

How to use it

Simply type INSB in the Command Bar and press Enter.

Reading the output

The panel displays a continuous, sorted feed of up to 200 of the most recent insider purchase transactions. It includes the ticker symbol, company name, insider name, transaction value, and share count.

Data sources and refresh rate

Sourced from market-wide aggregator feeds (Finviz). The feed is automatically cached and refreshed every 10 minutes to balance speed and API rate limits.

Tips and caveats

- Use this command to find tickers to research further. Once you spot an interesting large purchase on INSB, run DES and FA on that specific ticker to understand the underlying business.

TICKER	DATE	OWNER	RELATIONSHIP	TYPE	SHARES	PRICE
LEE	Mar 03 '26	Hoffmann David Henry	Director	BUY	19.0K	$9.16
LEE	Mar 02 '26	Hoffmann David Henry	Director	BUY	19.0K	$8.85
LEE	Feb 27 '26	Hoffmann David Henry	Director	BUY	15.2K	$9.11
TPL	Mar 02 '26	HORIZON KINETICS ASSET …	10% Owner	BUY	1	$524.01
SKWD	Feb 27 '26	McHarg Taryn Leonie	CFO - Apollo	BUY	200	$46.60
GCBC	Mar 02 '26	Cannucciari Christopher	Director	BUY	1.3K	$22.05
SRBK	Mar 03 '26	Viotto Neil C	EVP and COO	BUY	1.0K	$16.83
AVBC	Mar 02 '26	Cozzone Robert D	President & CEO	BUY	1.1K	$18.79
BHB	Mar 02 '26	Colter David M	Director	BUY	500	$32.54
AVBC	Mar 02 '26	Karmelek Nicolas	EVP and CRO	BUY	1.1K	$18.59
LEE	Mar 02 '26	Quint Digital Ltd	10% Owner	BUY	20.5K	$8.87
SKWD	Mar 02 '26	Peirce Christopher Locke	Director	BUY	3.2K	$47.30
IVR	Feb 27 '26	Waldner Robert	Director	BUY	1.0K	$8.45

INSS - Insider sales feed

Command: INSS

Category: Fundamentals

Requires ticker: No

Overview

The counterpart to INSB, the Insider sales feed aggregates the latest insider selling activity across the broader market. It allows users to monitor heavy selling volume by executives, which could highlight overvalued sectors or individual companies.

How to use it

Type INSS and press Enter.

Reading the output

Similar in structure to INSB, this panel shows the most recent 200 insider sales transactions sorted chronologically. It details the ticker, insider role, transaction size, and price.

Data sources and refresh rate

Sourced from Finviz and cached automatically every 10 minutes.

Tips and caveats

- As mentioned in the INS command, insider sales are less predictive than insider buys. Look for unusually large liquidations or coordinated selling by multiple executives rather than routine algorithmic sales.

TICKER	DATE	OWNER	RELATIONSHIP	TYPE	SHARES	PRICE
MATX	Mar 03 '26	Park Kuuhaku T	Officer	SALE	2.0K	$169.38
VZ	Mar 02 '26	Stillwell Mary-Lee	SVP and Controller	SALE	8.6K	$50.00
VST	Mar 03 '26	Kirby Carrie Lee	Officer	SALE	60.0K	$154.68
WM	Mar 02 '26	Watson Michael J.	Sr. VP-Chief Customer …	SALE	17.3K	$241.81
WM	Mar 02 '26	Hemmer Tara J.	SVP & Chief Sustainabi…	SALE	4.8K	$241.83
MATX	Mar 03 '26	Taylor Jason Lee	Officer	SALE	3.0K	$165.70
VICR	Mar 02 '26	Fendelet Quentin A.	Corp. VP - CAO	SALE	2.3K	$204.72
CBLL	Mar 03 '26	Chao Xingjuan	Officer	SALE	39.0K	$17.80
LSCC	Mar 02 '26	Stevens Tonya	CVP, Chief Accounting …	SALE	3.2K	$95.38
FMAO	Mar 02 '26	Faust Eric D	Chief Risk Officer	SALE	275	$25.92
MATX	Mar 03 '26	Rascon Laura L	Officer	SALE	1.0K	$168.88
AVBH	Mar 02 '26	ROSINUS MIKE	Director	SALE	2.5K	$29.01
MEG	Mar 03 '26	Afsari Nasym	Officer	SALE	43.3K	$28.37
ROOT	Mar 03 '26	Allison Jonathan	Officer	SALE	[illegible]	[illegible]

UPDN - Upgrades & downgrades

Command: UPDN

Category: Fundamentals

Requires ticker: Optional

Overview

The Upgrades & downgrades command tracks the shifting sentiment of Wall Street analysts. Changes in analyst ratings often act as short-term price catalysts, making this a valuable tool for swing traders and active investors.

How to use it

This command has two modes. Type UPDN without a ticker to view a market-wide summary of recent rating changes. Alternatively, type a ticker followed by UPDN (for example, AAPL UPDN) to see the specific history of analyst actions for that single company.

Reading the output

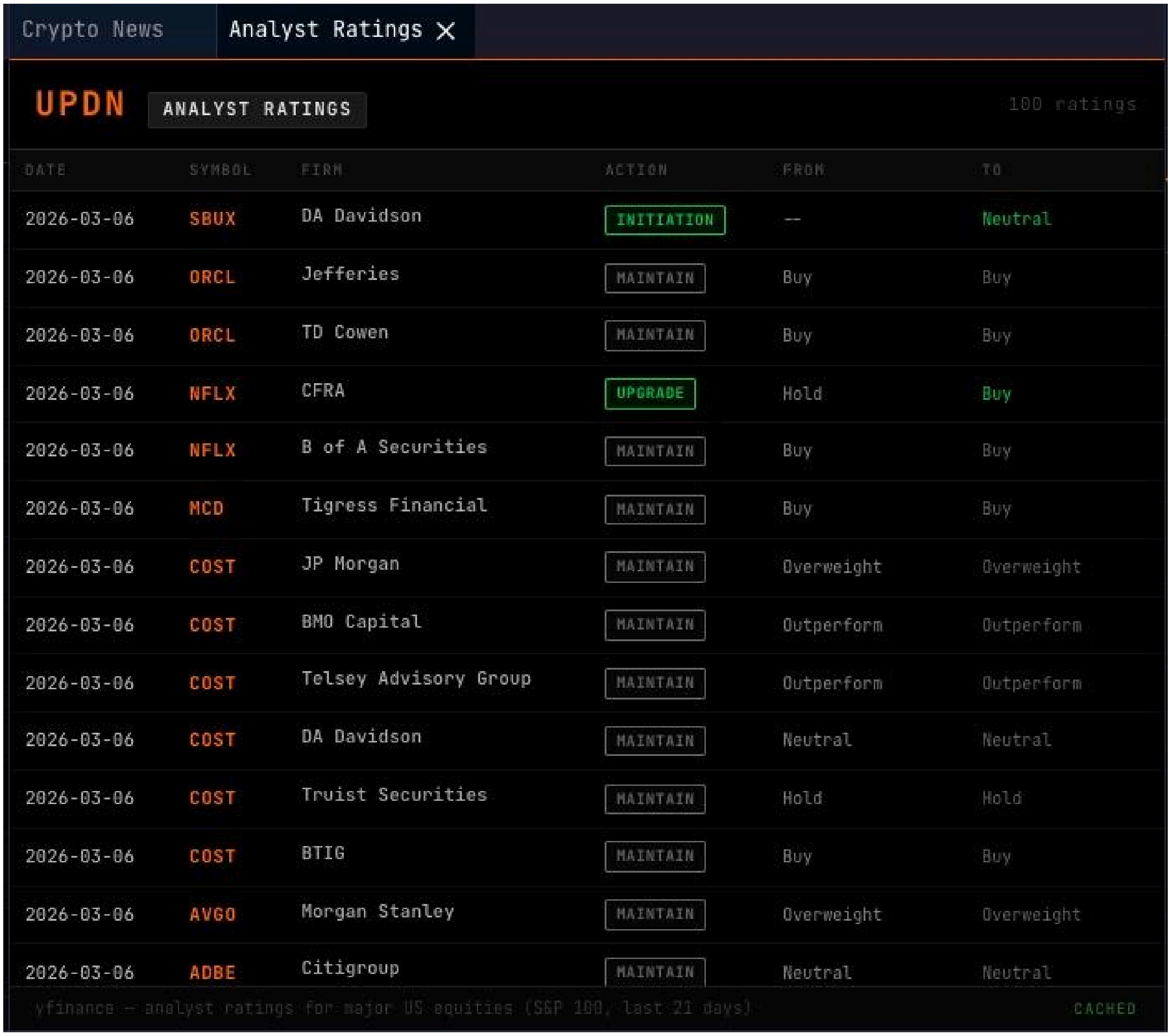
In standalone mode, the panel shows recent actions for roughly 55 major S&P 100 stocks over the last 21 days. Action badges are color-coded for quick scanning: green indicates an Upgrade or Initiation of coverage, red indicates a Downgrade, and gray signifies a Maintain or Reiterate rating. The table includes the firm issuing the rating and the new price target if available.

Data sources and refresh rate

Data is sourced from yfinance. To optimize performance, the data is cached for 2 hours.

Tips and caveats

- Market-wide UPDN is best checked pre-market to gauge the morning's narrative. Ticker-specific UPDN is useful when trying to understand why a specific stock might be experiencing unusual volume.



DATE	SYMBOL	FIRM	ACTION	FROM	TO
2026-03-06	SBUX	DA Davidson	INITIATION	—	Neutral
2026-03-06	ORCL	Jefferies	MAINTAIN	Buy	Buy
2026-03-06	ORCL	TD Cowen	MAINTAIN	Buy	Buy
2026-03-06	NFLX	CFRA	UPGRADE	Hold	Buy
2026-03-06	NFLX	B of A Securities	MAINTAIN	Buy	Buy
2026-03-06	MCD	Tigress Financial	MAINTAIN	Buy	Buy
2026-03-06	COST	JP Morgan	MAINTAIN	Overweight	Overweight
2026-03-06	COST	BMO Capital	MAINTAIN	Outperform	Outperform
2026-03-06	COST	Telsey Advisory Group	MAINTAIN	Outperform	Outperform
2026-03-06	COST	DA Davidson	MAINTAIN	Neutral	Neutral
2026-03-06	COST	Truist Securities	MAINTAIN	Hold	Hold
2026-03-06	COST	BTIG	MAINTAIN	Buy	Buy
2026-03-06	AVGO	Morgan Stanley	MAINTAIN	Overweight	Overweight
2026-03-06	ADBE	Citigroup	MAINTAIN	Neutral	Neutral

yfinance — analyst ratings for major US equities (S&P 100, last 21 days) CACHED

2.3 News

Commands in this category surface curated news feeds segmented by topic or asset class.

CN - Company news

Command: CN

Category: News

Requires ticker: Yes

Overview

The Company news command streams the latest headlines and press releases specifically related to your targeted ticker. Staying updated on company-specific news is vital for understanding sudden price movements and tracking corporate developments.

How to use it

Type a ticker followed by CN (for example, TSLA CN). The panel provides a scrolling list of news articles. Use the interactive filters at the top to narrow results by publication source, date range, and analyzed sentiment.

Reading the output

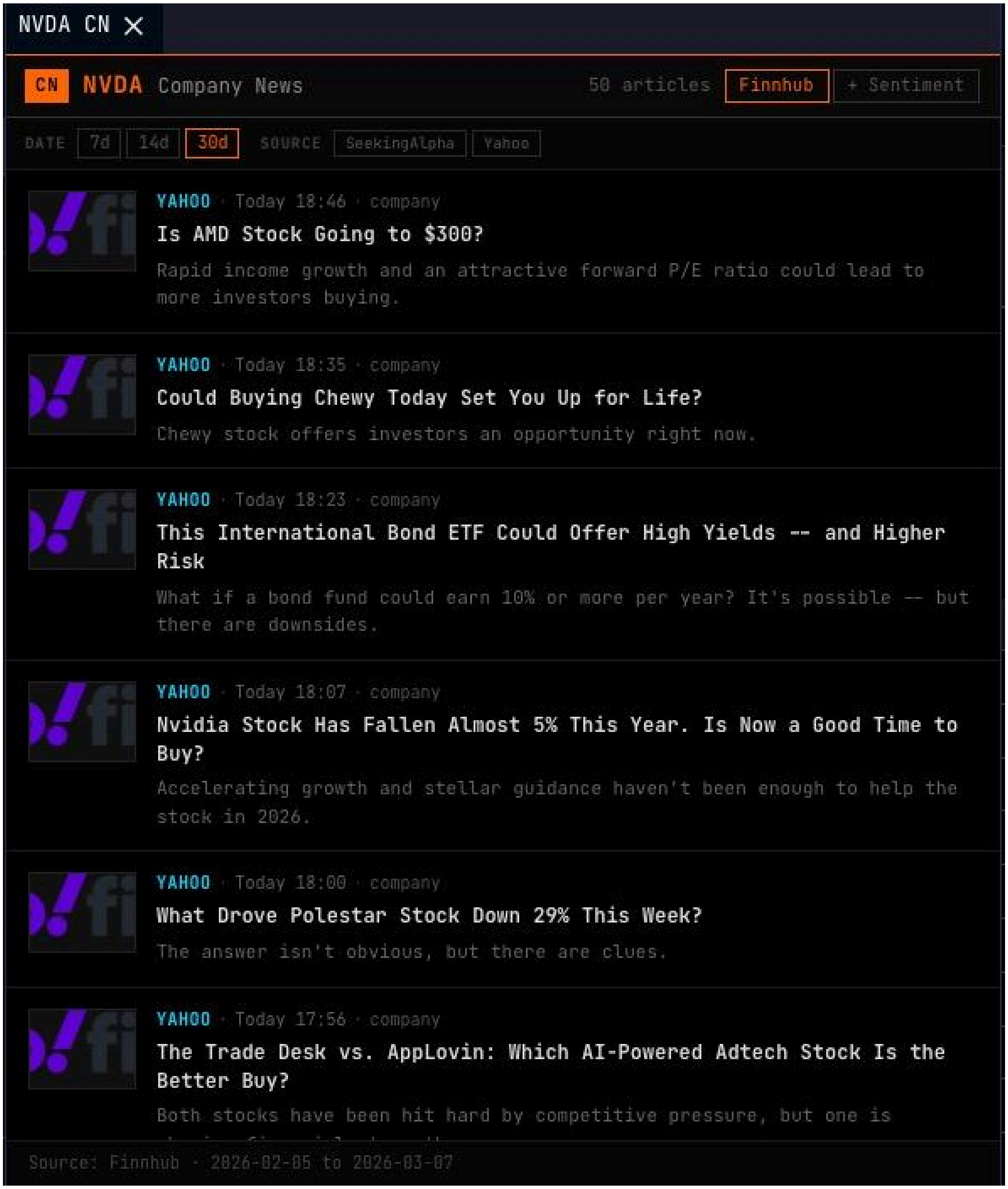
Each news item displays a headline, timestamp, source publication, and a brief snippet. When available (via MarketAux), an automated sentiment score is attached, giving a quick indication of whether the news is generally perceived as positive, negative, or neutral. Clicking an article headline opens the full story in a new browser tab.

Data sources and refresh rate

News is primarily sourced from Finnhub, with MarketAux serving as a secondary provider that includes sentiment scoring capabilities.

Tips and caveats

- The sentiment score is generated by natural language processing algorithms and is not foolproof. Always read the actual article context, especially for highly technical or regulatory news.



TOP - Top news

Command: TOP

Category: News

Requires ticker: No

Overview

The Top news command provides a persistent, always-on feed of the most important macroeconomic and general market headlines. It acts as the terminal's global news ticker, keeping you aware of breaking developments that could impact the broader market.

How to use it

Type TOP and press Enter. Leave this panel open on the side of your workspace to act as a live ticker.

Reading the output

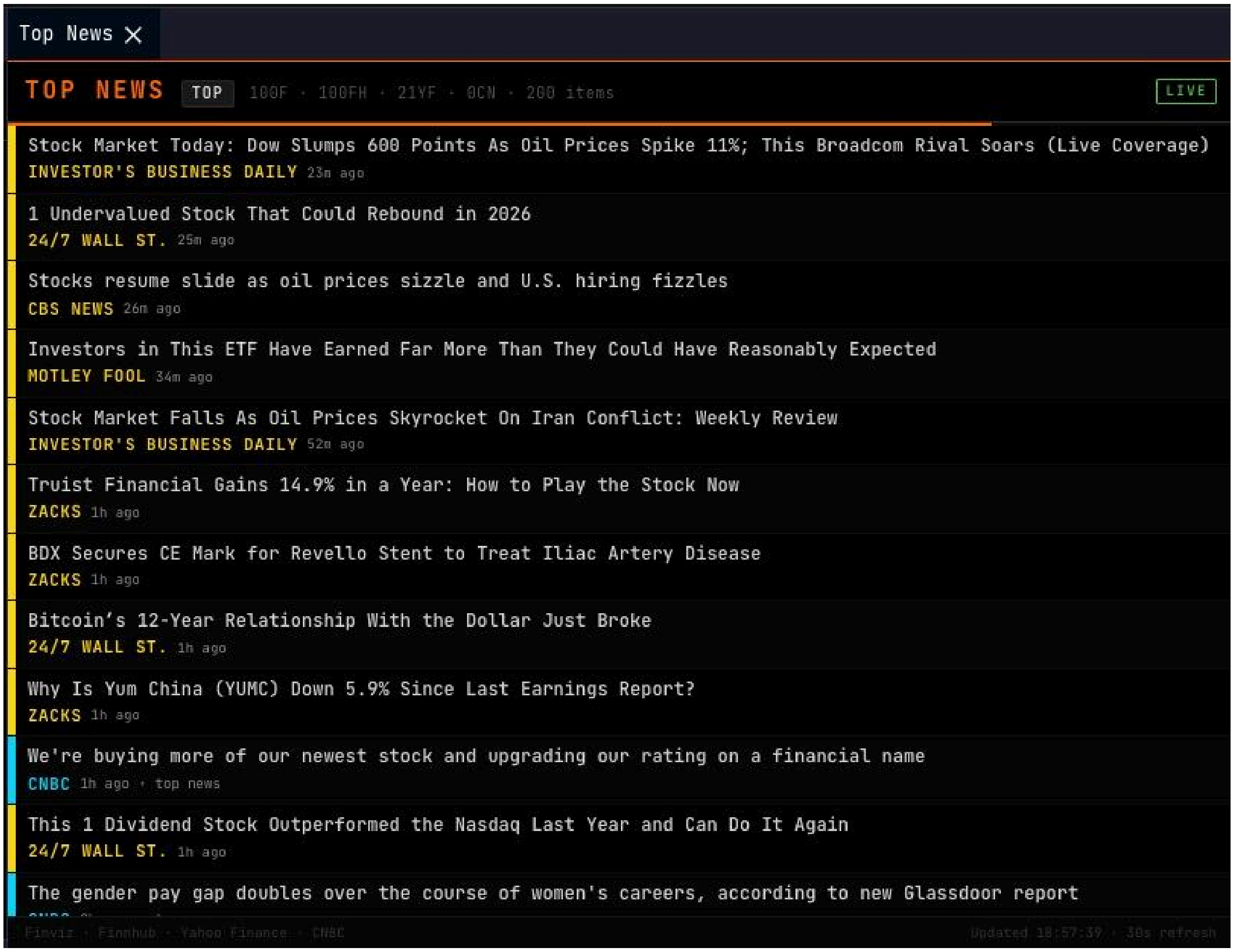
The panel displays a continuous, chronological list of headlines. The feed interleaves articles on a 1-for-1 basis from different aggregator sources to ensure a diverse perspective without being dominated by a single publisher.

Data sources and refresh rate

Headlines are aggregated from Finviz and Finnhub. The panel automatically refreshes every 30 seconds to ensure you see breaking news almost instantly.

Tips and caveats

- Due to the high refresh rate, this panel is ideal for day traders who need to react instantly to macroeconomic headlines, central bank announcements, or geopolitical events.



TOPCRYP - Top crypto news

Command: TOPCRYP

Category: News

Requires ticker: No

Overview

Top crypto news filters the noise of the broader market to focus specifically on the cryptocurrency sector. It tracks regulatory developments, protocol updates, and major movements in the digital asset space.

How to use it

Type TOPCRYP in the Command Bar.

Reading the output

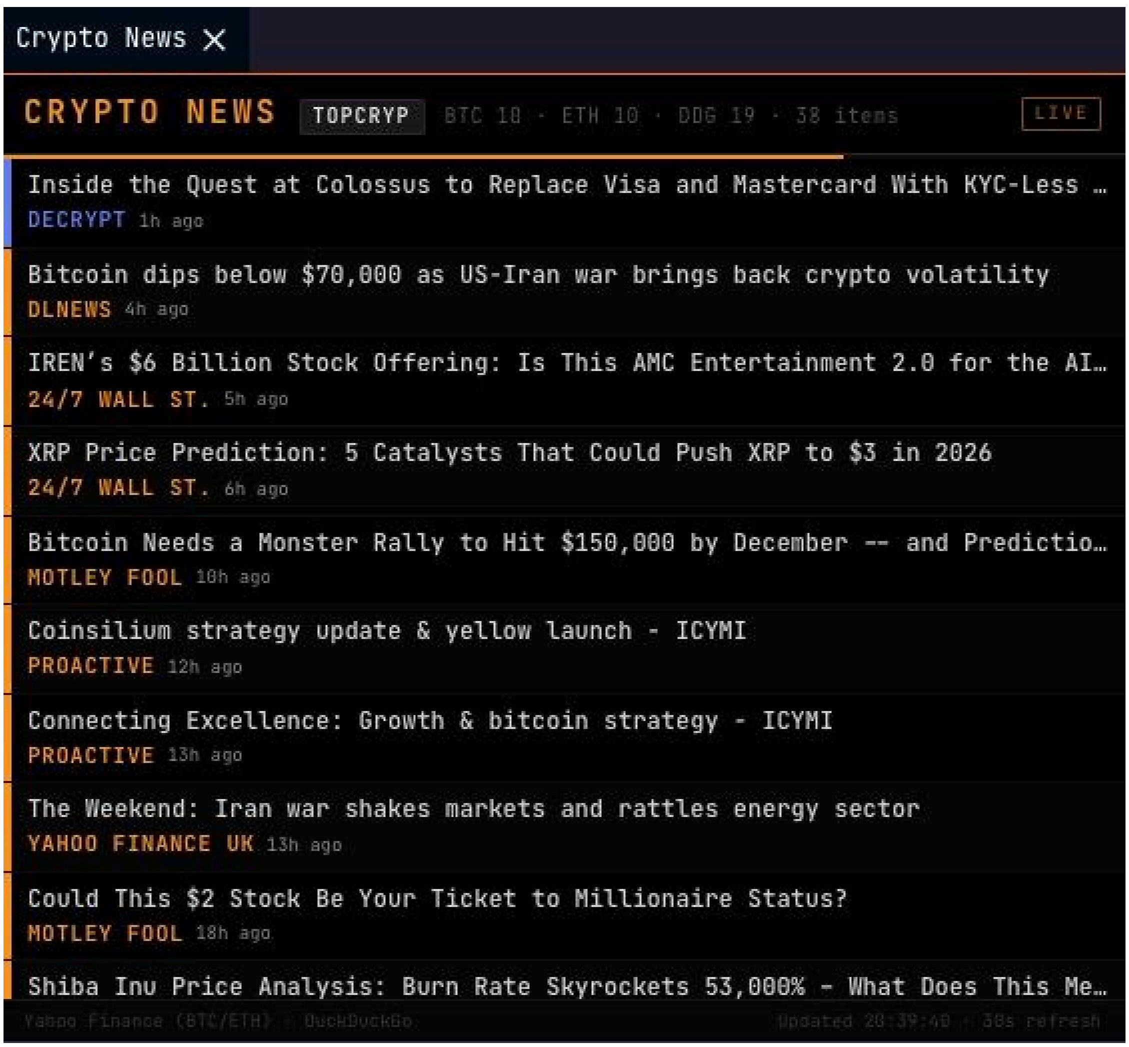
The panel provides a clean list of recent headlines focused on major cryptocurrencies and the blockchain industry. Timestamps and publisher names accompany each link.

Data sources and refresh rate

News is aggregated using Yahoo Finance (tracking BTC-USD and ETH-USD specifically) combined with DuckDuckGo News search algorithms. A background pre-fetch mechanism refreshes the Redis cache approximately every 4 minutes.

Tips and caveats

- Because the crypto market operates 24/7, this feed is highly active during weekends and evenings when traditional equity news feeds are quiet.



TOPMET - Top metals news

Command: TOPMET

Category: News

Requires ticker: No

Overview

This command curates news impacting the precious metals markets, primarily gold and silver. It is essential for commodities traders and investors using metals as inflation hedges.

How to use it

Execute the TOPMET command.

Reading the output

The feed highlights geopolitical events, central bank gold purchasing data, and mining industry news.

Data sources and refresh rate

Data is sourced from Yahoo Finance and DuckDuckGo News. To maintain terminal performance, the endpoint reads from a Redis cache that is refreshed in the background every 4 minutes.

Tips and caveats

- Use this command alongside the GP command for gold (XAUUSD) to correlate price action with breaking geopolitical headlines.

TOPENE - Top energy news

Command: TOPENE

Category: News

Requires ticker: No

Overview

Top energy news tracks the highly volatile energy sector, focusing on crude oil, natural gas, OPEC decisions, and global supply chain disruptions.

How to use it

Type TOPENE and press Enter.

Reading the output

Headlines cover inventory reports, international energy policy, and corporate news from major oil and gas explorers.

Data sources and refresh rate

Aggregated from DuckDuckGo News and Yahoo Finance (utilizing proxies like USO and UNG ETFs to guide the news fetching). Background pre-fetching updates the cache every 4 minutes.

Tips and caveats

- Pay special attention to this feed on Wednesdays (when US crude inventory data is typically released) and during scheduled OPEC meetings.

2.4 Markets

Commands in this category provide macro and market-wide views: indices, economic indicators, sector performance, screeners, and AI-generated analysis.

WEI - World indices

Command: WEI

Category: Markets

Requires ticker: No

Overview

The World indices command provides a bird's-eye view of global equity market performance. By tracking major international benchmarks, users can gauge the overall health of the global economy and observe how overnight trading in Asia and Europe might impact the upcoming US session.

How to use it

Type WEI in the Command Bar.

Reading the output

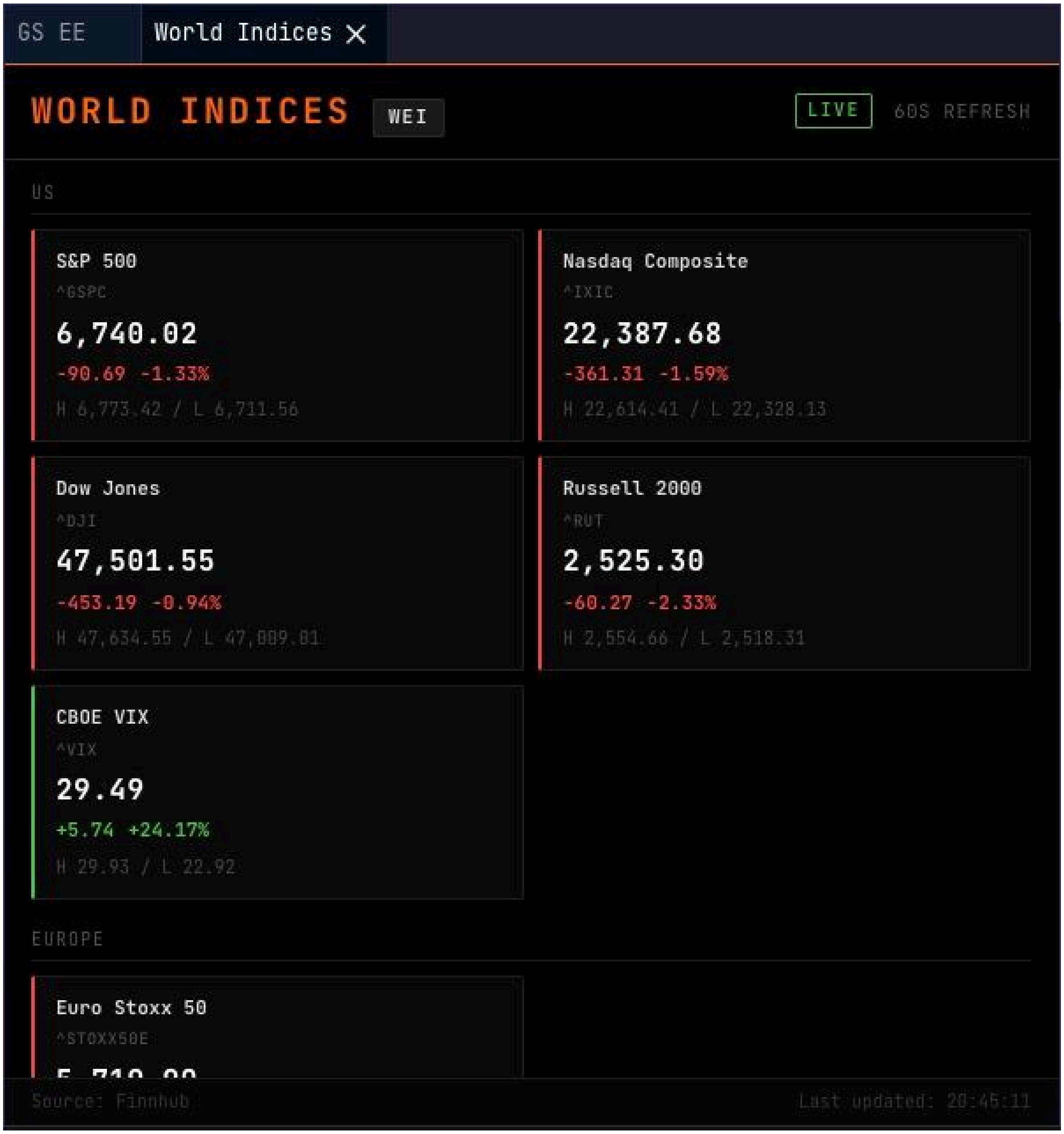
The panel displays a comprehensive table of roughly 15 major global indices (such as the S&P 500, FTSE 100, Nikkei 225, and DAX). The indices are logically grouped by geographical region: US, Europe, Asia-Pacific, and Americas. Each row shows the current index value, the absolute and percentage change for the day, and the intraday High/Low range. Color coding (green/red) makes it easy to assess regional market sentiment at a glance.

Data sources and refresh rate

Index pricing is fetched from standard market data providers and automatically refreshes every 60 seconds to provide near real-time global monitoring.

Tips and caveats

- Because global markets operate in different time zones, some indices will be actively updating while others display the final closing value from their local session. Keep time zones in mind when interpreting the data.



ECO - Economic indicators

Command: ECO

Category: Markets

Requires ticker: No

Overview

The Economic indicators command serves as a consolidated macro dashboard. It aggregates the most critical data points used by the Federal Reserve and institutional economists to assess the health of the US economy.

How to use it

Type ECO and press Enter.

Reading the output

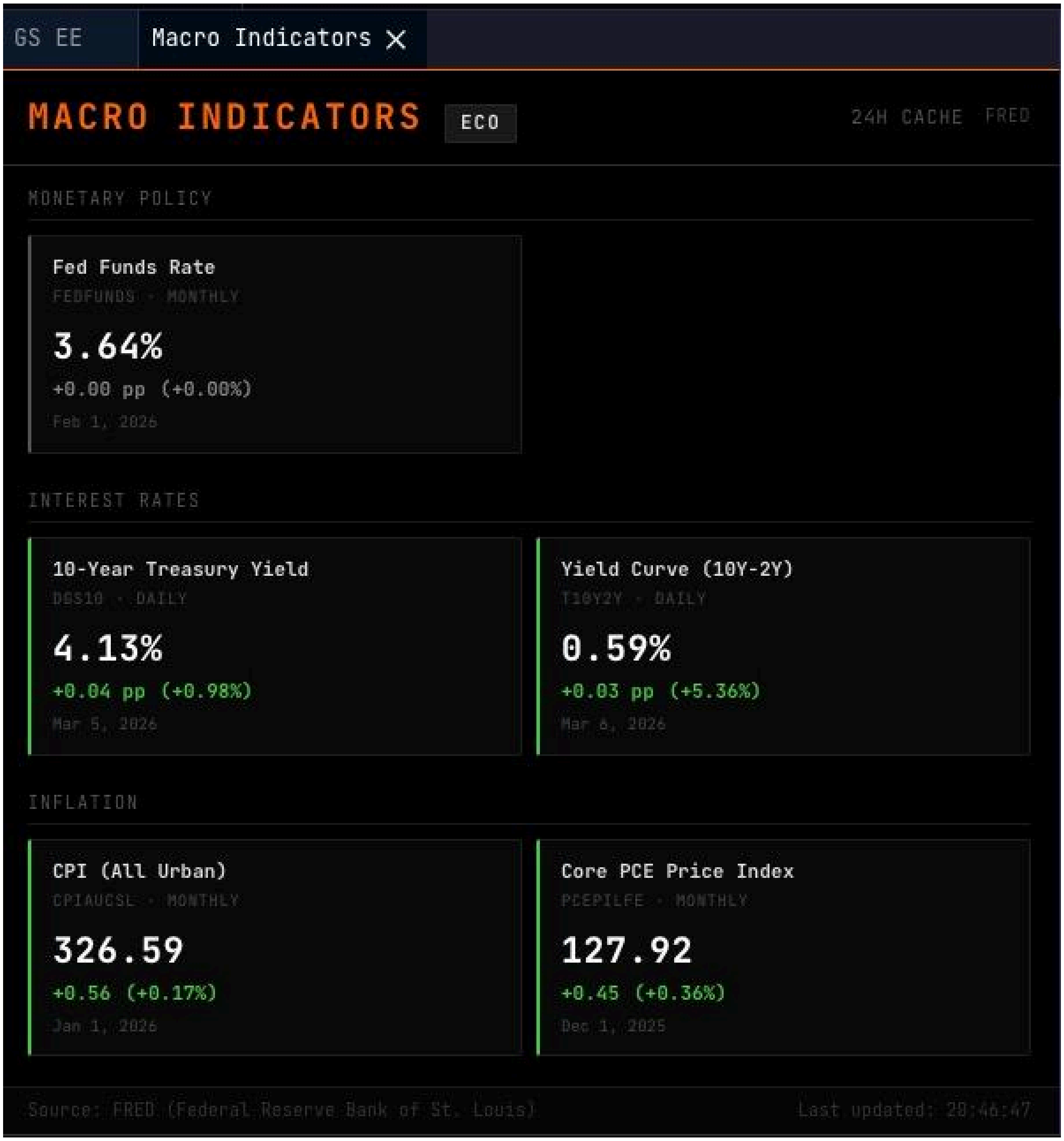
The panel displays a grid of key macro metrics, including the effective Fed Funds Rate, the 10-Year Treasury yield, the yield curve status, CPI (inflation), Core PCE, Unemployment rate, Nonfarm Payrolls, GDP growth, housing starts, and Consumer Sentiment indices. Each metric displays its latest value and the date it was recorded.

Data sources and refresh rate

All data is pulled directly from FRED (Federal Reserve Economic Data). The panel fetches the most recent observations available in the FRED database.

Tips and caveats

- Economic data is released on specific schedules (e.g., jobs data on the first Friday of the month). The ECO panel reflects the latest available data, not live market reactions. Use ECOCAL to anticipate when these numbers will change.



SPER - Sector performance

Command: SPER

Category: Markets

Requires ticker: No

Overview

Understanding which sectors are leading or lagging the market is crucial for portfolio allocation and momentum trading. The Sector performance command visualizes the daily return of major NASDAQ market sectors, allowing users to instantly spot capital rotation.

How to use it

Type SPER in the Command Bar.

Reading the output

The panel utilizes a diverging bar chart to visualize performance. Sectors are sorted from best-performing at the top to worst-performing at the bottom. Green bars extend to the right for positive performance, while red bars extend to the left for negative performance. This visual structure allows for immediate identification of the day's market drivers.

Data sources and refresh rate

Sector aggregate data is provided by Financial Modeling Prep (FMP) and is refreshed daily.

Tips and caveats

- Sector rotation often signals broader macroeconomic shifts. For example, a sudden rotation out of Technology and into Utilities and Consumer Staples might indicate that the market is adopting a defensive posture.

ECOCAL - Economic calendar

Command: ECOCAL

Category: Markets

Requires ticker: No

Overview

The Economic calendar is an essential planning tool for active traders. It lists scheduled releases of economic data, central bank meetings, and government reports that are likely to cause market volatility.

How to use it

Type ECOCAL and press Enter.

Reading the output

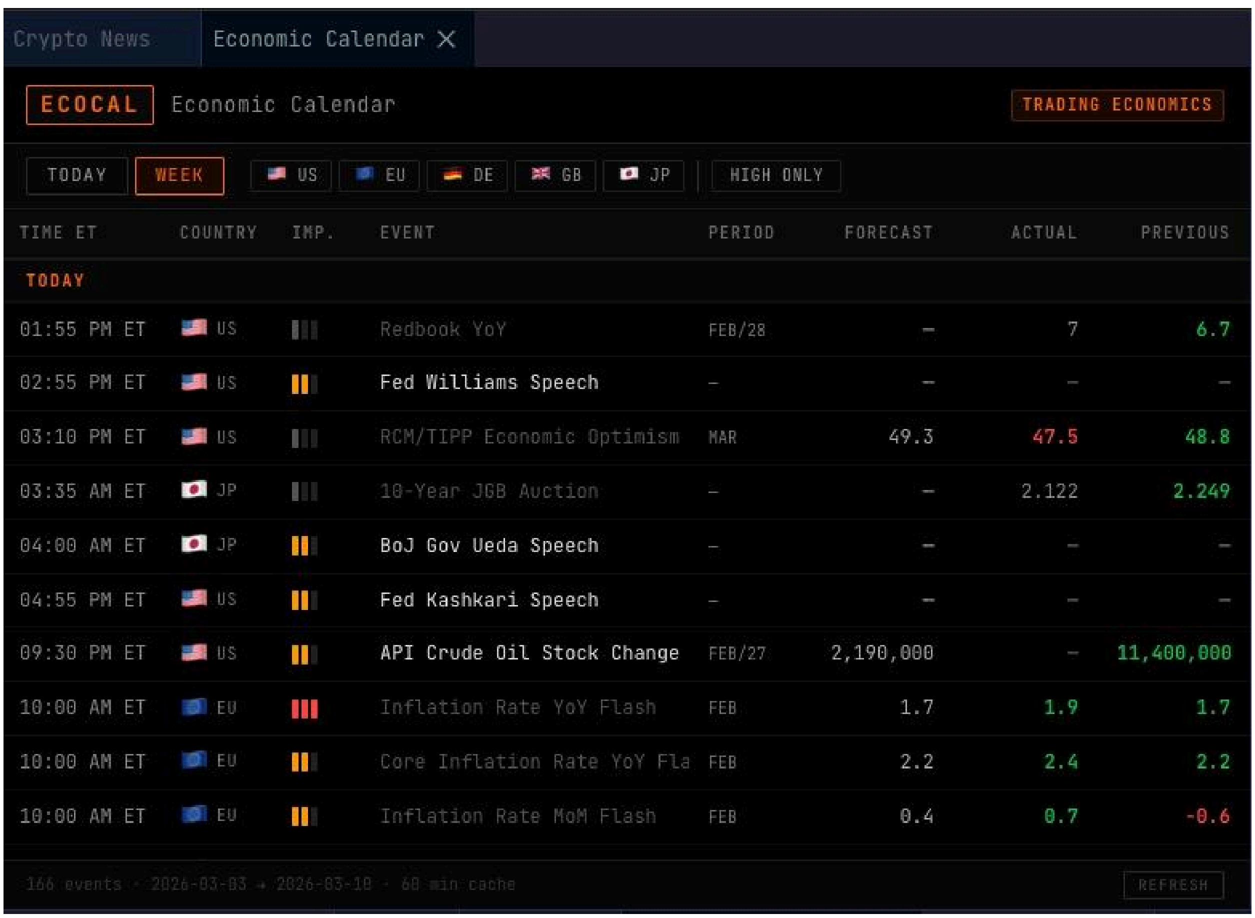
The table lists upcoming events chronologically. Key columns include the date/time (in ET), the country of origin (US, Euro Area, Germany, UK, Japan), the name of the event, and the importance level (Low/Medium/High). Crucially, the table also displays the previous period's value, the consensus forecast, and the actual printed value once the event occurs. Users can filter the calendar by specific country or choose to only display high-importance events.

Data sources and refresh rate

The primary data source is Trading Economics, with an automatic fallback to FMP if the primary API is unavailable. The calendar data is cached and updated every 60 minutes.

Tips and caveats

- High-importance events (like US CPI or FOMC rate decisions) frequently cause extreme short-term volatility. Many day traders use the ECOCAL to know exactly when to flatten their positions to avoid slippage during these releases.



LEO - Latest equity offerings

Command: LEO

Category: Markets

Requires ticker: No

Overview

The Latest equity offerings command tracks the private placement and exempt offering market. By monitoring SEC Form D filings, investors can see where private capital is flowing and identify public companies raising capital outside of traditional secondary public offerings.

How to use it

Execute the LEO command in the Command Bar.

Reading the output

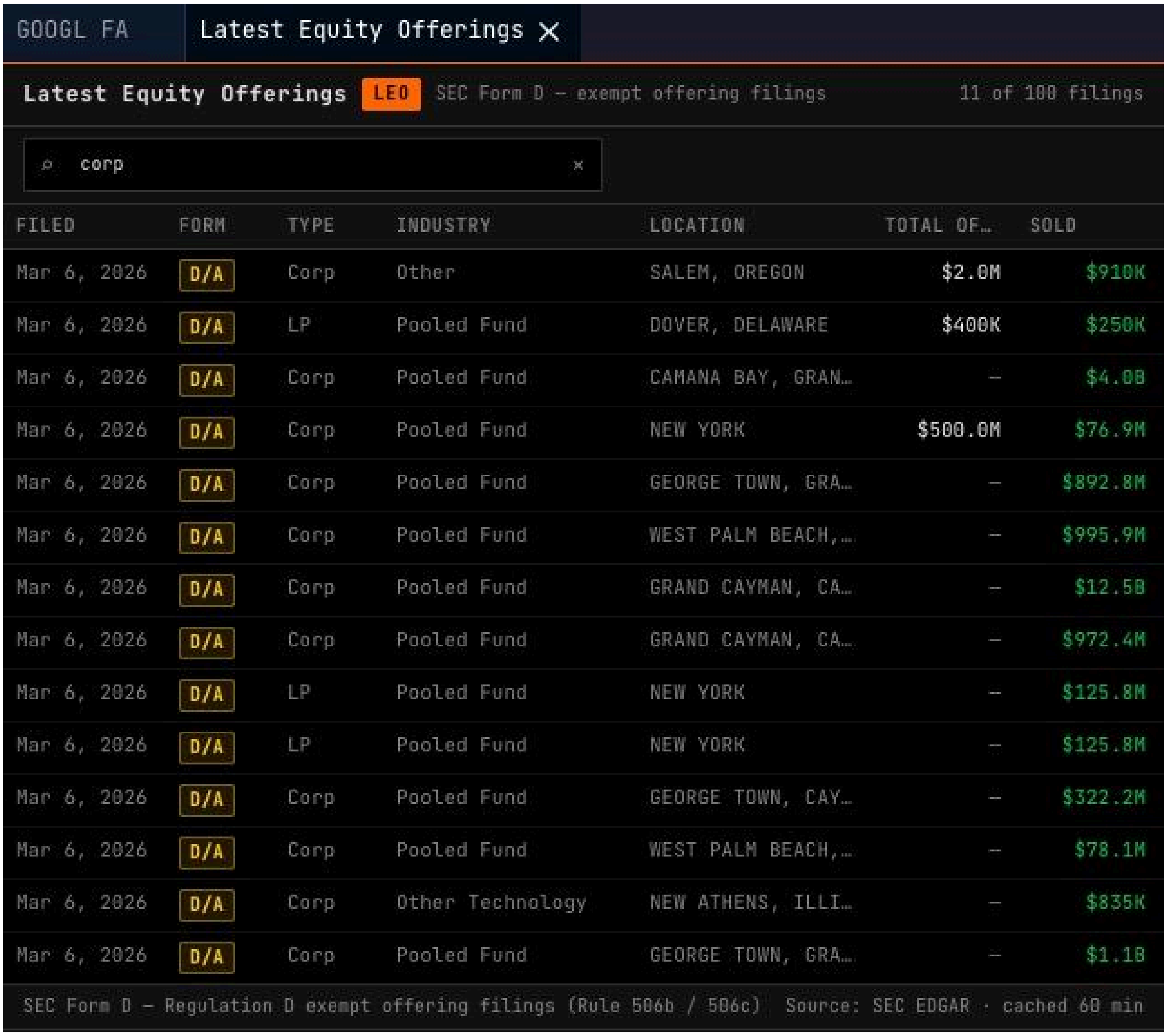
The panel displays a feed of recent Regulation D exempt offering filings. The table includes details such as the offering amounts (total offering amount, amount sold, and amount remaining), the entity type, the industry group, and the specific exemption codes claimed.

Data sources and refresh rate

Data is sourced from raw SEC EDGAR filings. The data is cached for 60 minutes.

Tips and caveats

- Public companies occasionally use Reg D filings. A sudden large private placement can cause significant dilution and impact the publicly traded share price, making this a useful peripheral monitoring tool.



RCRO - Recent crowdfunding

Command: RCRO

Category: Markets

Requires ticker: No

Overview

For users interested in early-stage investments and startup capital formation, the Recent crowdfunding command tracks filings related to Regulation Crowdfunding (Reg CF).

How to use it

Type RCRO and press Enter. A client-side search filter is available within the panel to quickly find specific companies or sectors.

Reading the output

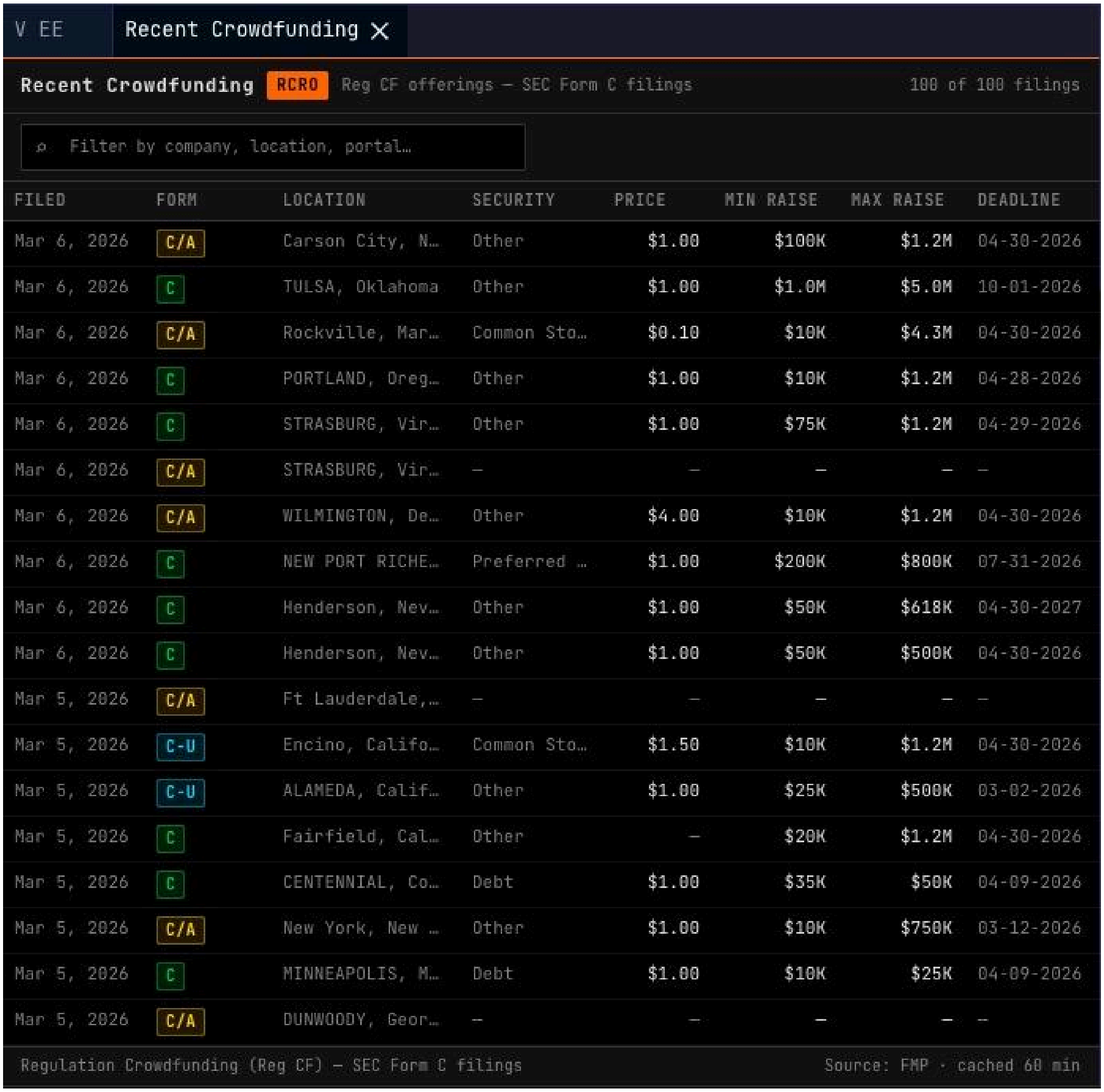
The table details the latest Reg CF SEC filings (Forms C, C/A, C-U). It displays the terms of the offering, including minimum and maximum target raises, the offering deadline, and the security type being offered. It also provides basic company details and the most recent fiscal-year financials submitted with the filing.

Data sources and refresh rate

Sourced from FMP and cached for 60 minutes.

Tips and caveats

- Reg CF investments are highly illiquid and carry significant risk. This data is provided for informational tracking of the startup ecosystem rather than actionable public market trading.



V EE | Recent Crowdfunding ×

Recent Crowdfunding RCRO Reg CF offerings — SEC Form C filings 100 of 100 filings

Filter by company, location, portal…

FILED	FORM	LOCATION	SECURITY	PRICE	MIN RAISE	MAX RAISE	DEADLINE
Mar 6, 2026	C/A	Carson City, N…	Other	$1.00	$100K	$1.2M	04-30-2026
Mar 6, 2026	C	TULSA, Oklahoma	Other	$1.00	$1.0M	$5.0M	10-01-2026
Mar 6, 2026	C/A	Rockville, Mar…	Common Sto…	$0.10	$10K	$4.3M	04-30-2026
Mar 6, 2026	C	PORTLAND, Oreg…	Other	$1.00	$10K	$1.2M	04-28-2026
Mar 6, 2026	C	STRASBURG, Vir…	Other	$1.00	$75K	$1.2M	04-29-2026
Mar 6, 2026	C/A	STRASBURG, Vir…	—	—	—	—	—
Mar 6, 2026	C/A	WILMINGTON, De…	Other	$4.00	$10K	$1.2M	04-30-2026
Mar 6, 2026	C	NEW PORT RICHE…	Preferred …	$1.00	$200K	$800K	07-31-2026
Mar 6, 2026	C	Henderson, Nev…	Other	$1.00	$50K	$618K	04-30-2027
Mar 6, 2026	C	Henderson, Nev…	Other	$1.00	$50K	$500K	04-30-2026
Mar 5, 2026	C/A	Ft Lauderdale,…	—	—	—	—	—
Mar 5, 2026	C-U	Encino, Califo…	Common Sto…	$1.50	$10K	$1.2M	04-30-2026
Mar 5, 2026	C-U	ALAMEDA, Calif…	Other	$1.00	$25K	$500K	03-02-2026
Mar 5, 2026	C	Fairfield, Cal…	Other	—	$20K	$1.2M	04-30-2026
Mar 5, 2026	C	CENTENNIAL, Co…	Debt	$1.00	$35K	$50K	04-09-2026
Mar 5, 2026	C/A	New York, New …	Other	$1.00	$10K	$750K	03-12-2026
Mar 5, 2026	C	MINNEAPOLIS, M…	Debt	$1.00	$10K	$25K	04-09-2026
Mar 5, 2026	C/A	DUNWOODY, Geor…	—	—	—	—	—

Regulation Crowdfunding (Reg CF) — SEC Form C filings Source: FMP · cached 60 min

TOPGL - Top movers

Command: TOPGL

Category: Markets

Requires ticker: No

Overview

Top movers is a classic market terminal function that identifies the most active and volatile stocks of the current session. Day traders rely heavily on this data to find stocks "in play" with high liquidity and large price swings.

How to use it

Type TOPGL and press Enter. The panel features three distinct tabs that you can click to toggle views: Gainers, Losers, and Most Active.

Reading the output

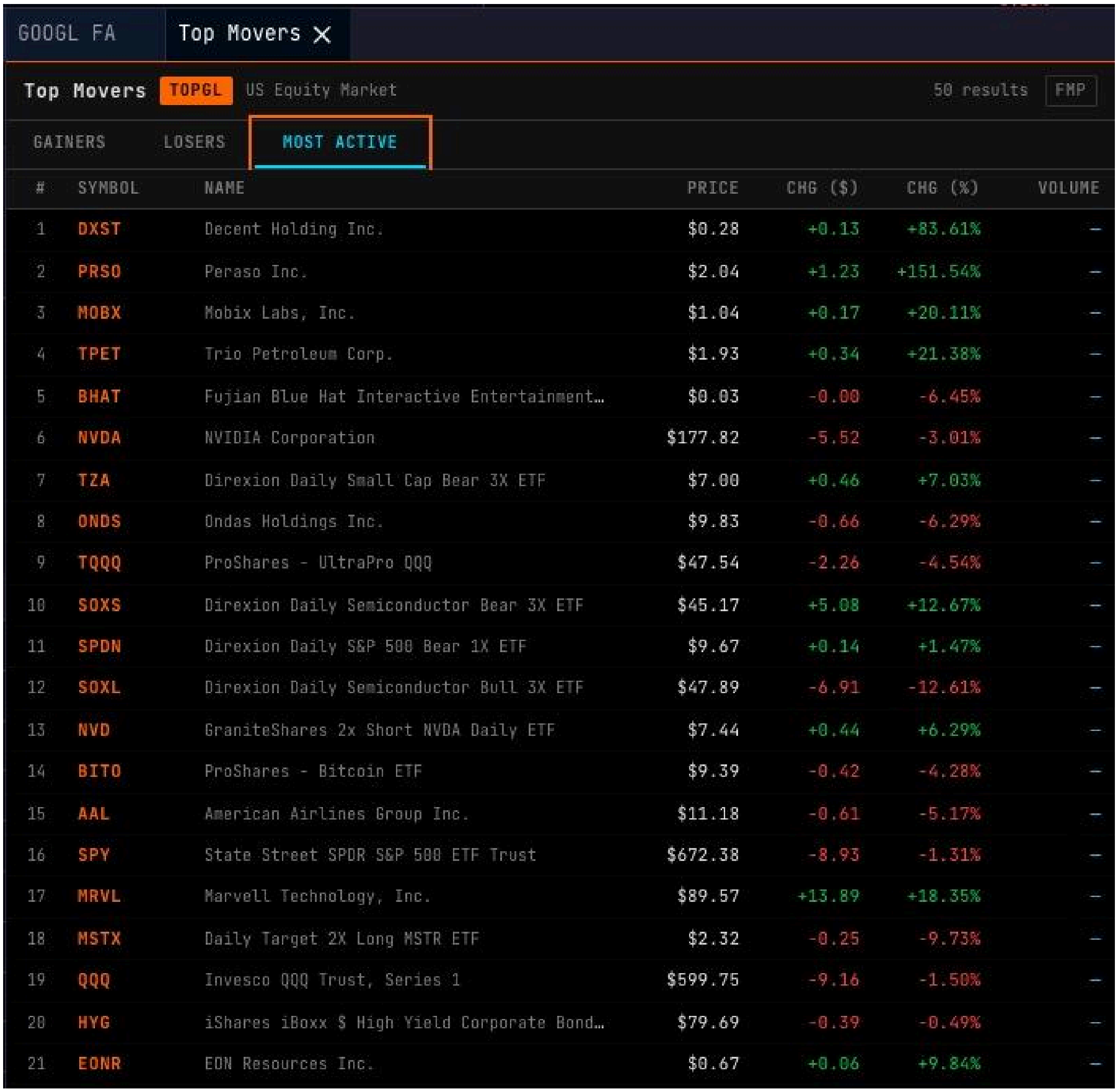
Depending on the active tab, you will see a list of US equities experiencing the largest percentage gains (green text), largest percentage losses (red text), or the highest trading volume (cyan text). Each row shows the ticker symbol, company name, current price, absolute change, percentage change, and cumulative daily volume.

Data sources and refresh rate

The primary data feed is provided by FMP, with yfinance acting as a robust fallback. The underlying data is cached for 15 minutes, but the panel auto-refreshes every 5 minutes to keep the list relatively current during active trading.

Tips and caveats

- Small-cap stocks frequently dominate the Gainers and Losers tabs due to their higher volatility. The Most Active tab is usually dominated by large-cap tech and popular ETFs.



GOOGL FA | Top Movers

Top Movers TOPGL US Equity Market 50 results FMP

GAINERS LOSERS MOST ACTIVE

#	SYMBOL	NAME	PRICE	CHG ($)	CHG (%)	VOLUME
1	DXST	Decent Holding Inc.	$0.28	+0.13	+83.61%	–
2	PRSO	Peraso Inc.	$2.04	+1.23	+151.54%	–
3	MOBX	Mobix Labs, Inc.	$1.04	+0.17	+20.11%	–
4	TPET	Trio Petroleum Corp.	$1.93	+0.34	+21.38%	–
5	BHAT	Fujian Blue Hat Interactive Entertainment…	$0.03	-0.00	-6.45%	–
6	NVDA	NVIDIA Corporation	$177.82	-5.52	-3.01%	–
7	TZA	Direxion Daily Small Cap Bear 3X ETF	$7.00	+0.46	+7.03%	–
8	ONDS	Ondas Holdings Inc.	$9.83	-0.66	-6.29%	–
9	TQQQ	ProShares - UltraPro QQQ	$47.54	-2.26	-4.54%	–
10	SOXS	Direxion Daily Semiconductor Bear 3X ETF	$45.17	+5.08	+12.67%	–
11	SPDN	Direxion Daily S&P 500 Bear 1X ETF	$9.67	+0.14	+1.47%	–
12	SOXL	Direxion Daily Semiconductor Bull 3X ETF	$47.89	-6.91	-12.61%	–
13	NVD	GraniteShares 2x Short NVDA Daily ETF	$7.44	+0.44	+6.29%	–
14	BITO	ProShares - Bitcoin ETF	$9.39	-0.42	-4.28%	–
15	AAL	American Airlines Group Inc.	$11.18	-0.61	-5.17%	–
16	SPY	State Street SPDR S&P 500 ETF Trust	$672.38	-8.93	-1.31%	–
17	MRVL	Marvell Technology, Inc.	$89.57	+13.89	+18.35%	–
18	MSTX	Daily Target 2X Long MSTR ETF	$2.32	-0.25	-9.73%	–
19	QQQ	Invesco QQQ Trust, Series 1	$599.75	-9.16	-1.50%	–
20	HYG	iShares iBoxx $ High Yield Corporate Bond…	$79.69	-0.39	-0.49%	–
21	EONR	EON Resources Inc.	$0.67	+0.06	+9.84%	–

INFL - Inflation dashboard

Command: INFL

Category: Markets

Requires ticker: No

Overview

Inflation has a profound impact on monetary policy and asset valuation. The Inflation dashboard provides a dedicated, highly visual breakdown of various inflation metrics in the

United States, allowing users to track the trajectory of consumer and producer prices.

How to use it

Execute the INFL command in the workspace.

Reading the output

The panel displays a comprehensive year-over-year (YoY) percentage chart covering the last 24 months of data. The chart plots multiple data series: Headline CPI, Core CPI (which strips out volatile food and energy costs), CPI-W, PPI Final Demand, Core PPI, and Import Prices. The data points are color-coded to provide immediate context regarding the Federal Reserve's target mandate: green indicates inflation is at or below the 2% target, yellow denotes levels between 2-4%, and red warns of inflation running above 4%.

Data sources and refresh rate

Data is sourced directly from the Bureau of Labor Statistics (BLS). Because inflation reports are released monthly, the dashboard is cached for 24 hours to reduce unnecessary API calls.

Tips and caveats

- Pay close attention to the divergence between Headline and Core CPI. A spike in Headline CPI driven solely by temporary energy prices might be ignored by the market, whereas persistent Core CPI inflation is viewed more seriously.

JOBS - Labor market dashboard

Command: JOBS

Category: Markets

Requires ticker: No

Overview

The Labor market dashboard provides a deep dive into US employment statistics. Employment strength dictates consumer spending and influences the Federal Reserve's dual mandate, making this panel essential for macro analysis.

How to use it

Type JOBS in the Command Bar.

Reading the output

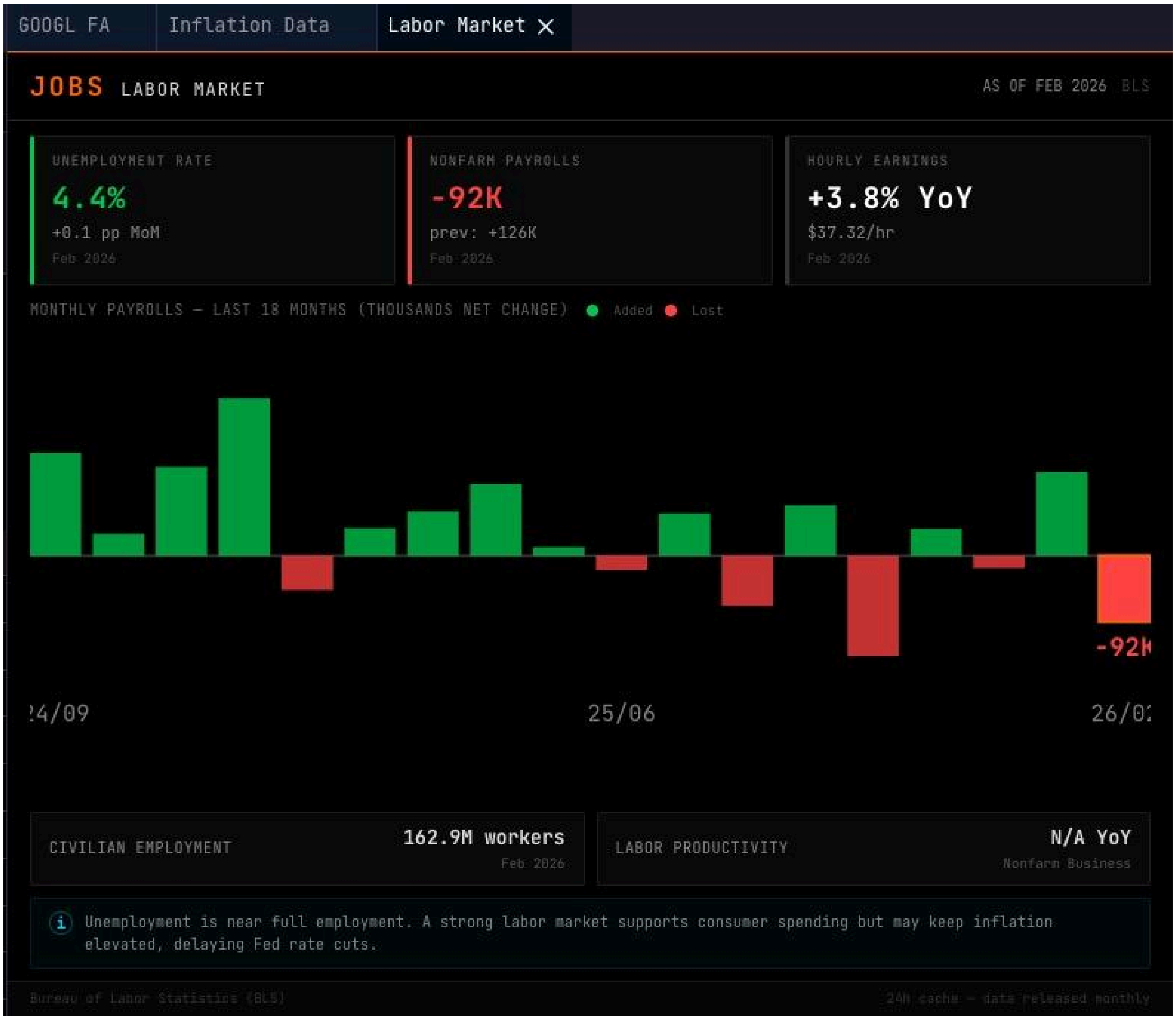
The dashboard highlights the current Unemployment Rate, Nonfarm Payrolls (the net change in jobs created for the month), Civilian Employment levels, Average Hourly Earnings (YoY%), and Nonfarm Labor Productivity. The panel features tabs to filter views between TODAY and WEEK. A visual bar chart illustrates the monthly payroll changes, utilizing green bars for jobs added and red bars for jobs lost. A unique contextual callout at the bottom of the panel explains in plain English what the current employment level implies for Federal Reserve policy decisions.

Data sources and refresh rate

Data is acquired from the BLS. Cached for 24 hours.

Tips and caveats

- The Nonfarm Payrolls number is often subject to significant revisions in subsequent months. Always look at the trend over 3-6 months rather than a single isolated print.



HURG - Unemployment rate history

Command: HURG

Category: Markets

Requires ticker: No

Overview

While the JOBS command focuses on recent prints, the Unemployment rate history command provides a long-term historical perspective. Observing the historical peaks and troughs of unemployment helps users contextualize where the economy sits within the broader macroeconomic cycle.

How to use it

Type HURG and press Enter.

Reading the output

The panel generates an SVG area/line chart spanning 15 years, plotting approximately 180 monthly observations of the seasonally adjusted unemployment rate. The chart visually highlights historical extremes, noting the peak during the COVID-19 pandemic (April 2020: 14.7%) and the peak of the Great Financial Crisis (October 2009: 10.0%), alongside the current cyclical low. Gray shaded bands indicate official recessionary periods. A contextual callout explains what the current rate means for broad job security and the economy.

Data sources and refresh rate

Driven by BLS series LNS14000000. Cached for 24 hours.

Tips and caveats

- Unemployment is generally considered a lagging indicator. By the time unemployment spikes significantly, the stock market has typically already priced in an economic contraction.

SCAN - Stock screener

Command: SCAN

Category: Markets

Requires ticker: No

Overview

The Stock screener is a powerful discovery tool that allows users to filter the entire universe of US equities based on specific fundamental and technical criteria. It is the primary method for finding new investment ideas that match a particular trading strategy.

How to use it

Type SCAN to open the panel. Use the dropdown menus and input fields at the top of the panel to set your parameters. You can filter by Sector, Market cap tier (Large, Mid, Small, Micro), Price range, Average trading volume, Daily percentage change, and fundamental metrics like P/E ratio. Click the search/submit button to generate results.

Reading the output

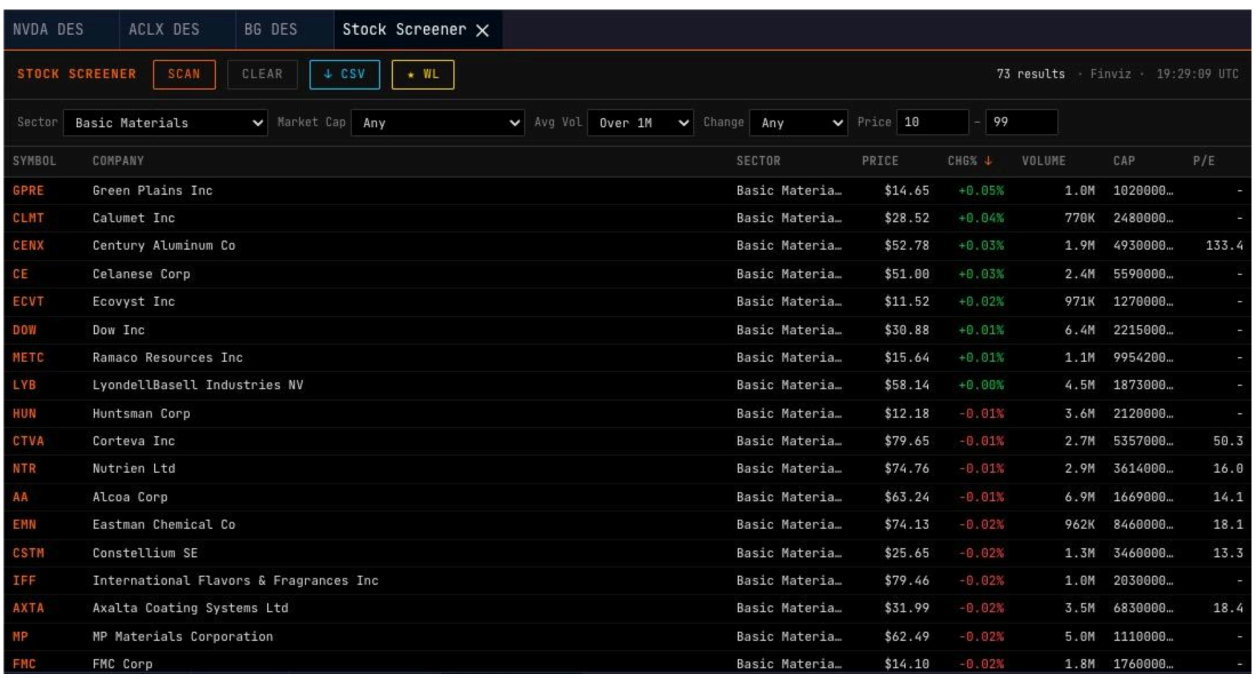
The results are presented in a sortable table containing the matching tickers. Each row displays the current price, market capitalization, P/E ratio, sector, and daily performance.

Data sources and refresh rate

The screening engine is powered by Finviz data routing. Due to the dynamic nature of custom queries, this data is fetched on-demand and is not cached.

Tips and caveats

- Start with broad filters and gradually narrow them down. If your criteria are too restrictive (e.g., looking for a micro-cap stock with massive volume and a single-digit P/E), the screener may return zero results.



SYMBOL	COMPANY	SECTOR	PRICE	CHG%	VOLUME	CAP	P/E
GPRE	Green Plains Inc	Basic Materia…	$14.65	+0.05%	1.0M	1020000…	-
CLMT	Calumet Inc	Basic Materia…	$28.52	+0.04%	770K	2480000…	-
CENX	Century Aluminum Co	Basic Materia…	$52.78	+0.03%	1.9M	4930000…	133.4
CE	Celanese Corp	Basic Materia…	$51.00	+0.03%	2.4M	5590000…	-
ECVT	Ecovyst Inc	Basic Materia…	$11.52	+0.02%	971K	1270000…	-
DOW	Dow Inc	Basic Materia…	$30.88	+0.01%	6.4M	2215000…	-
METC	Ramaco Resources Inc	Basic Materia…	$15.64	+0.01%	1.1M	9954200…	-
LYB	LyondellBasell Industries NV	Basic Materia…	$58.14	+0.00%	4.5M	1873000…	-
HUN	Huntsman Corp	Basic Materia…	$12.18	-0.01%	3.6M	2120000…	-
CTVA	Corteva Inc	Basic Materia…	$79.65	-0.01%	2.7M	5357000…	50.3
NTR	Nutrien Ltd	Basic Materia…	$74.76	-0.01%	2.9M	3614000…	16.0
AA	Alcoa Corp	Basic Materia…	$63.24	-0.01%	6.9M	1669000…	14.1
EMN	Eastman Chemical Co	Basic Materia…	$74.13	-0.02%	962K	8460000…	18.1
CSTM	Constellium SE	Basic Materia…	$25.65	-0.02%	1.3M	3460000…	13.3
IFF	International Flavors & Fragrances Inc	Basic Materia…	$79.46	-0.02%	1.0M	2030000…	-
AXTA	Axalta Coating Systems Ltd	Basic Materia…	$31.99	-0.02%	3.5M	6830000…	18.4
MP	MP Materials Corporation	Basic Materia…	$62.49	-0.02%	5.0M	1110000…	-
FMC	FMC Corp	Basic Materia…	$14.10	-0.02%	1.8M	1760000…	-

QSTA - AI market analysis

Command: QSTA

Category: Markets

Requires ticker: No

Overview

The AI market analysis command leverages advanced language models to synthesize a massive amount of intraday data into a cohesive, institutional-style market briefing. It saves time by reading and interpreting the tape for you.

How to use it

Type QSTA in the Command Bar. Use the three tabs at the top to select the briefing relevant to the current time of day: Pre-Open (available around 08:30 ET), Mid-Session (available around 12:00 ET), or Recap (available after the close at 16:30 ET).

Reading the output

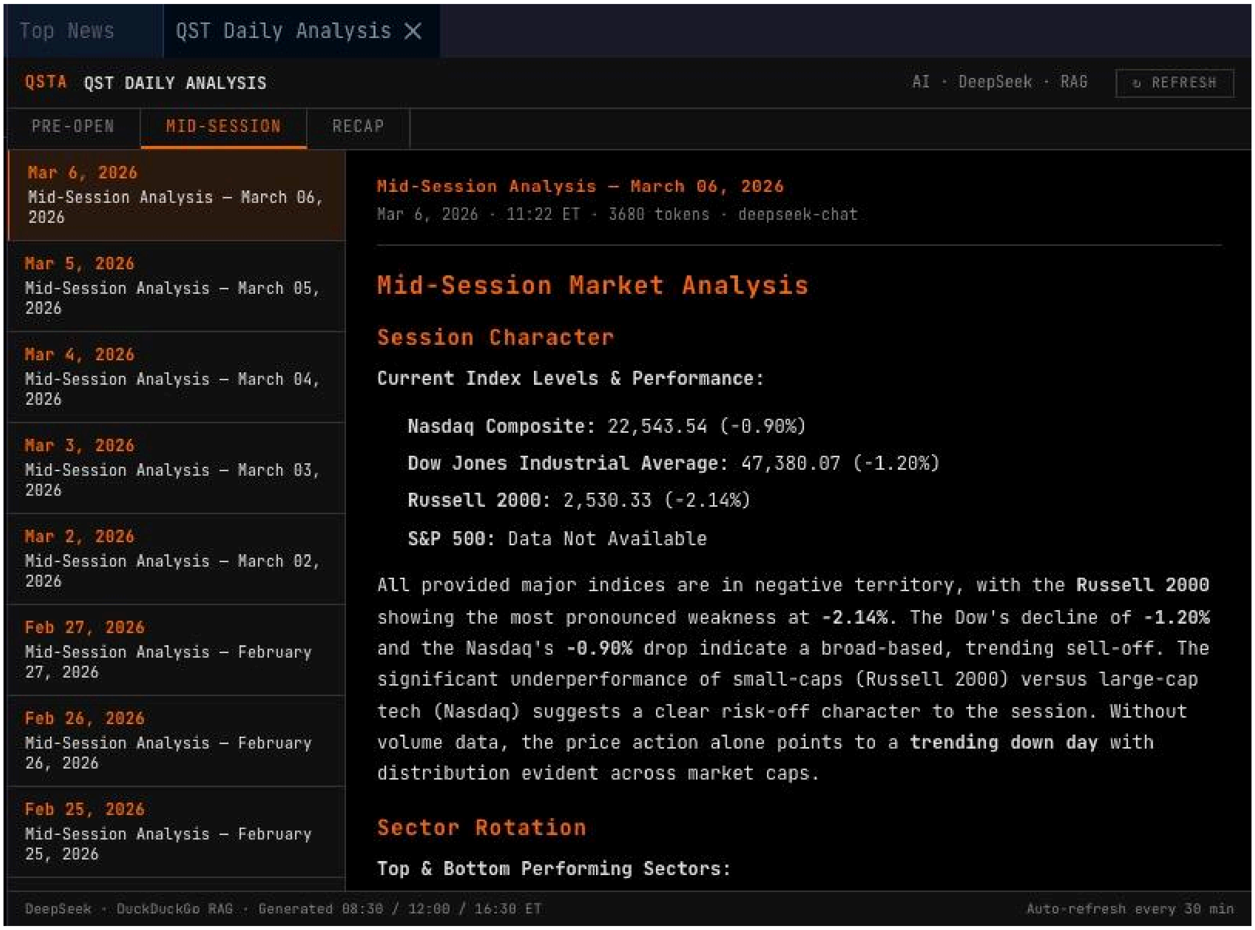
The output is a text-based, multi-paragraph report formatted similar to notes produced by Wall Street strategy desks. The AI breaks down the macroeconomic narrative, highlights sector rotation, points out key technical levels on major indices, and summarizes the fundamental drivers behind the day's biggest movers.

Data sources and refresh rate

The analysis is generated dynamically by the DeepSeek AI model, which uses DuckDuckGo RAG (Retrieval-Augmented Generation) to pull in live, current market data prior to generating the text.

Tips and caveats

- AI analysis is a synthesis of current narratives, not a crystal ball. Use it to understand *why* the market is moving, not necessarily *where* it will go next. Generation may take a few seconds as the AI reads and processes the live data.



2.5 Portfolio

Commands in this category manage personal watchlists.

WL - Watchlists

Command: WL

Category: Portfolio

Requires ticker: No

Overview

The Watchlists command allows users to create personalized groups of tickers for quick monitoring. Instead of remembering dozens of symbols, you can group them logically (e.g., "Tech Growth", "Dividend Payers", "EV Sector") and track their performance in a consolidated view.

How to use it

Type WL and press Enter. The panel interface allows you to create a new watchlist, rename existing ones, and add or remove ticker symbols using a simple text input field. Clicking on a ticker within your watchlist can optionally pipe that symbol into other commands (like GP or DES).

Reading the output

The selected watchlist displays a clean table of your saved symbols, showing the latest price and daily percentage change, allowing for quick scanning of your portfolio's general health.

Data sources and refresh rate

Pricing data for the symbols in your watchlist updates continuously during market hours. The watchlist structures themselves (the lists of symbols) are saved locally, or synced to the cloud if you are signed into a multi-device account.

Tips and caveats

- Keep watchlists focused. A watchlist with 50 stocks becomes difficult to monitor effectively. Break them down into specific themes or sectors.

WL - Watchlists

Command: WL

Category: Portfolio

Requires ticker: No

Overview

The Watchlists command allows users to create personalized groups of tickers for quick monitoring. Instead of remembering dozens of symbols, you can group them logically (e.g., "Tech Growth", "Dividend Payers", "EV Sector") and track their performance in a consolidated view. **Furthermore, watchlists now support the creation of Price Alerts, providing proactive, email-based notifications when a stock hits a specific price target.**

How to use it

Type WL and press Enter. The panel interface allows you to create a new watchlist, rename existing ones, and add or remove ticker symbols using a simple text input field. Clicking on a

ticker within your watchlist can optionally pipe that symbol into other commands (like GP or DES).

To set a Price Alert, locate the **bell icon** next to the price for any ticker in your watchlist. An outline bell signifies no alert is set, while a filled/colored bell indicates an active alert. Clicking this icon opens an **inline modal** where you can select the condition (`>=` or `<=`), enter the target price, and click "Create Alert." The panel header also features an **Alerts tab** with a badge displaying the total number of active alerts. Clicking this tab switches the panel view to the dedicated alert management dashboard.

Reading the output

The selected watchlist displays a clean table of your saved symbols, showing the latest price and daily percentage change, allowing for quick scanning of your portfolio's general health.

When viewing the dedicated Alerts tab, a table lists all your active and triggered alerts (maximum 50). Each row shows the symbol, the condition (e.g., `<= $43.99`), and a status badge (Green **Active** or Gray **Triggered**). Action buttons (Edit, Delete, Re-activate) are available for management. Clicking on a symbol in this view automatically fills the Command Bar. To return to your watchlist view, simply click on any of the watchlist tabs at the top of the panel.

Data sources and refresh rates for Symbol prices and Alerts

Pricing data for the symbols in your watchlist updates continuously during market hours. The watchlist structures themselves (the lists of symbols) are saved locally, or synced to the cloud if you are signed into a multi-device account. **Price Alerts are checked every 5 minutes during standard NYSE market hours (Mon-Fri, 9:30 AM - 4:00 PM ET) using bulk backend pricing data. The WL panel polls the server every 60 seconds to update the status of active and triggered alerts.**

Tips and caveats

- Keep watchlists focused. A watchlist with 50 stocks becomes difficult to monitor effectively. Break them down into specific themes or sectors.
- **Alerts are one-shot**: once triggered, they deactivate automatically. You must manually re-activate a triggered alert from the Alerts tab or create a new one.
- **Maximum 50 active alerts per user.**
- **Alerts only work during NYSE market hours (9:30 AM - 4:00 PM ET, Monday**

through Friday). Price movements outside these hours will not trigger alerts until the next market session.

- Only US equities are supported for alerts in this version. Crypto, metals, and energy alerts will be added in a future update.
- If you remove a ticker from all your watchlists, any active alert for that ticker remains active. Use the **Alerts tab** to manage these "orphaned" alerts.

2.6 System

Commands in this category control the terminal itself and assist with navigation and discovery.

LF - Look for

Command: LF

Category: System

Requires ticker: No (Takes a search query)

Overview

The Look for command is the primary ticker search tool. If you know a company's name but not its ticker symbol, LF bridges that gap instantly.

How to use it

Type LF followed by the company name (for example, LF palantir). The system opens an overlay modal window containing a results table.

Reading the output

The modal lists potential matches, displaying the company name alongside its official ticker symbol and exchange. You can click a row, or use the arrow keys and press Enter, to automatically fill the Command Bar with the selected ticker, priming it for your next command (e.g., GP, FA, DES).

Data sources and refresh rate

Searches the internal equities database. Results are returned instantly.

Tips and caveats

- The search is highly forgiving and handles partial matches well.

LFD - Look for description

Command: LFD

Category: System

Requires ticker: No (Takes a search keyword)

Overview

A more advanced search tool, Look for description scans the actual business summaries of public companies. It is exceptionally useful for finding thematic plays or discovering niche companies operating in a specific industry.

How to use it

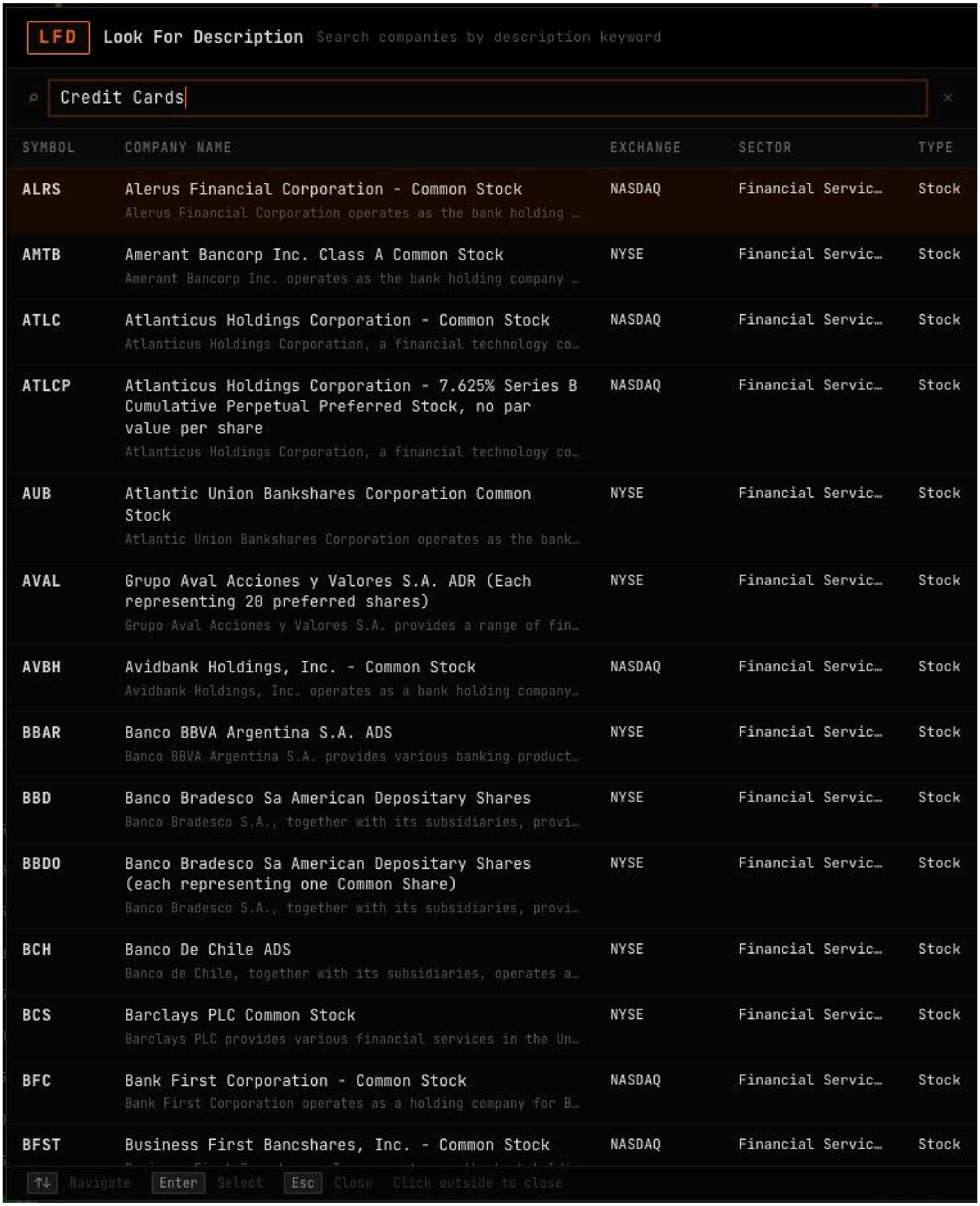
Type LFD followed by a keyword (minimum 3 characters). For example, LFD water treatment or LFD credit cards.

Reading the output

The modal returns up to 50 companies whose corporate descriptions contain your exact keyword. It displays the ticker and a text snippet of the description with the keyword highlighted. Select a row to fill the Command Bar with the relevant ticker.

Tips and caveats

- Use this for thematic investing. If a new technology becomes a market trend, LFD can help you build a basket of exposed stocks.



LFE - Look for executive

Command: LFE

Category: System

Requires ticker: No (Takes a name query)

Overview

The Look for executive command searches the management databases. It is useful for tracking high-profile CEOs or CFOs who may manage multiple entities, sit on various boards, or have recently changed companies.

How to use it

Type LFE followed by an executive's name (minimum 3 characters). For example, LFE jensen.

Reading the output

Returns up to 50 results showing the executive's name and official title alongside the company they are associated with.

Tips and caveats

- Ensure correct spelling of the executive's name for best results.

ANA - Investment analysis

Command: ANA

Category: Fundamentals

Requires ticker: Yes

Overview

The Investment analysis command (ANA) executes a comprehensive, automated investment research pipeline inspired by the principles of value investing, notably Benjamin Graham's "The Intelligent Investor." This function runs a 6-phase evaluation to quickly assess the quality, valuation, and market sentiment of a stock. The phases include a detailed fundamental quality check, competitor mapping, relative valuation comparison, momentum and sentiment analysis, AI synthesis via the DeepSeek model, and a computed entry price range. The goal of ANA is to consolidate a full, multi-faceted investment picture into a single, vertical scroll view, eliminating the need for the user to manually execute and cross-reference multiple terminal commands (FA, RV, INS, CN).

How to use it

To run the analysis, type a US equity ticker symbol followed by ANA (for example, `AAPL ANA`). The resulting panel presents the complete 6-phase report in a single, continuous vertical scroll view, with all analytical components displayed immediately upon generation. The process may take a moment on the first execution.

Reading the output

The ANA output is divided into seven sequential sections:

- **Quality Assessment**: A display of key fundamental metrics using color-coded cards for quick interpretation: Debt/Equity ratio, Return on Equity (ROE), Gross Margin, Earnings Per Share (EPS) Growth (3-year CAGR), and Dividend Yield. A prominent red **HIGH RISK** banner is generated at the top of the section if the Debt/Equity ratio exceeds 3.0 and the Return on Equity is below 5%.
- **Top Competitors**: A simple table listing the five largest peers by market capitalization. The table displays the peer's ticker, current price, daily percentage change, and total market capitalization.
- **Relative Valuation**: Compares the target stock's trailing 12-month Price-to-Earnings (P/E) ratio against the calculated sector median P/E. It shows the resulting percentage discount or premium and applies a corresponding evaluation badge (UNDERVALUED, SLIGHT DISCOUNT, FAIR VALUE, SLIGHT PREMIUM, OVERVALUED). A similar comparison is provided for the Price-to-Book (P/B) multiple.
- **Momentum & Sentiment**: A visual bar representing the stock's 52-week price range, marked with a white vertical line to show the current price's position (0% being the 52-week low, 100% being the 52-week high). This section also details the technical potential percentage move required to reach the 52-week high, and summarizes insider buying activity (any open market buy transactions over $100,000 in the last three months).
- **Headlines**: A curated feed of recent news, with each headline tagged to indicate the source relevance: `[MACRO]` for general economic news impacting the broader market, `[TICKER]` for specific news articles related to the analyzed company from Finnhub, and `[PEER]` for news on the main identified competitor.
- **AI Investment Analysis**: A comprehensive, multi-paragraph report generated in Markdown by the DeepSeek AI model. The report includes an Executive Summary, a detailed Quality Assessment, a Valuation Verdict, an analysis of Momentum &

Sentiment, a list of Key Risk Factors, and a final **Investment Conclusion** (rated as BUY / HOLD / AVOID) paired with a suggested entry price range.

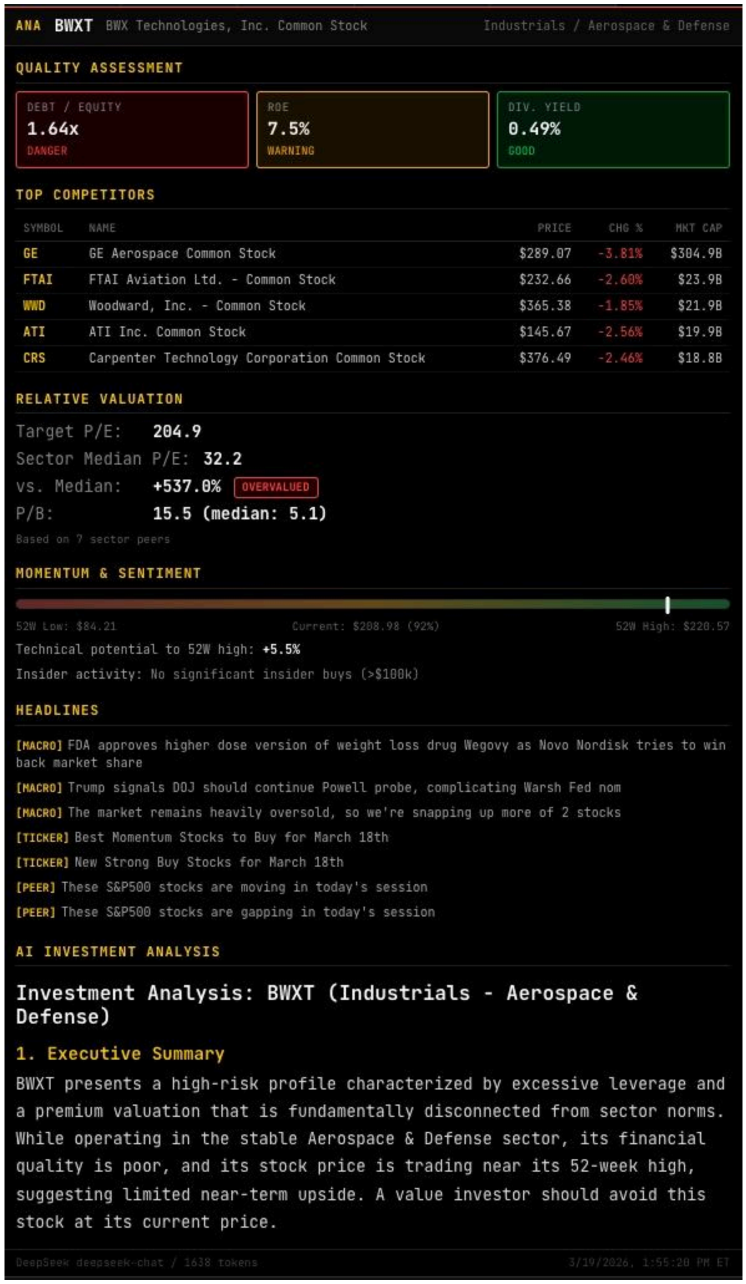
- **Entry Price Range**: A mechanical calculation of suggested short-term support and resistance levels. Support is calculated as the latest price multiplied by 0.95 (if the stock is undervalued) or 0.90 (if overvalued). Resistance is calculated as the 52-week high multiplied by 1.05 (if the stock exhibits strong positive momentum) or simply the 52-week high otherwise.

Data sources and refresh rate

The ANA command draws data from multiple integrated services: Core fundamental metrics are sourced from standardized SEC filings stored in QSTMarkets' internal MariaDB. Peer and competitor data is primarily pulled from the Finnhub API with a Financial Modeling Prep (FMP) fallback. Relative valuation data comes from the internal RV calculation service. Current price and 52-week range market data are sourced from the internal database (latest closing prices). Insider trades are fetched via `finvizfinance`. News headlines are aggregated from the Finnhub API and the pre-cached **TOP** news feed. The final text-based synthesis is generated by the DeepSeek AI model (`deepseek-chat` with a low temperature of 0.3 for deterministic results). The entire report is computationally intensive. Results are aggressively cached in Redis for 1 hour; therefore, the first request for any ticker will take 1-2 minutes for complete generation, while subsequent requests for the same ticker within the hour will be instant.

Tips and caveats

- The ANA analysis is strictly designed for **US equities** (stocks) and does not support analysis for Crypto, Precious Metals, or Energy Commodities due to the lack of required financial statements.
- The AI conclusion (BUY/HOLD/AVOID) and all generated text are based strictly on the current market data and narrative synthesis. This output does **not constitute financial advice** and should be used only as a starting point for independent research.
- The Quality Assessment metrics rely entirely on the availability of recent annual financial reports. Companies with missing, incomplete, or very new filings may display fewer color-coded cards.
- The accuracy of the competitor and peer data is contingent upon the stock's sector. For highly specialized or obscure small-cap stocks, the algorithmically selected peer list may be less relevant to the company's core business model.
- The Entry Price Range is a mechanical, rule-based calculation. It is provided solely as a reference point to aid in trading decisions, not as a guaranteed price prediction or target.



MACRO - Global Macro Dashboard

Command: MACRO

Category: Markets

Requires ticker: No

Overview

The Global Macro Dashboard (MACRO) is a powerful, single-panel solution for monitoring global cross-asset performance and obtaining synthesized, high-level strategic analysis. It combines a live-updating price grid for major indices, commodities, crypto, and rates with an institutional-style AI-generated macro report. This tool is designed to provide traders and analysts with a concise, top-down view of the global financial ecosystem at a glance, allowing for quick assessment of market sentiment and key directional themes.

How to use it

To open the panel, simply type MACRO in the Command Bar and press Enter. The price grid will load quickly with the latest market data. The AI report section will populate shortly thereafter. Because the report is computationally intensive on its initial load, subsequent executions within the 6-hour cache window will be nearly instant, providing a seamless user experience.

Reading the output

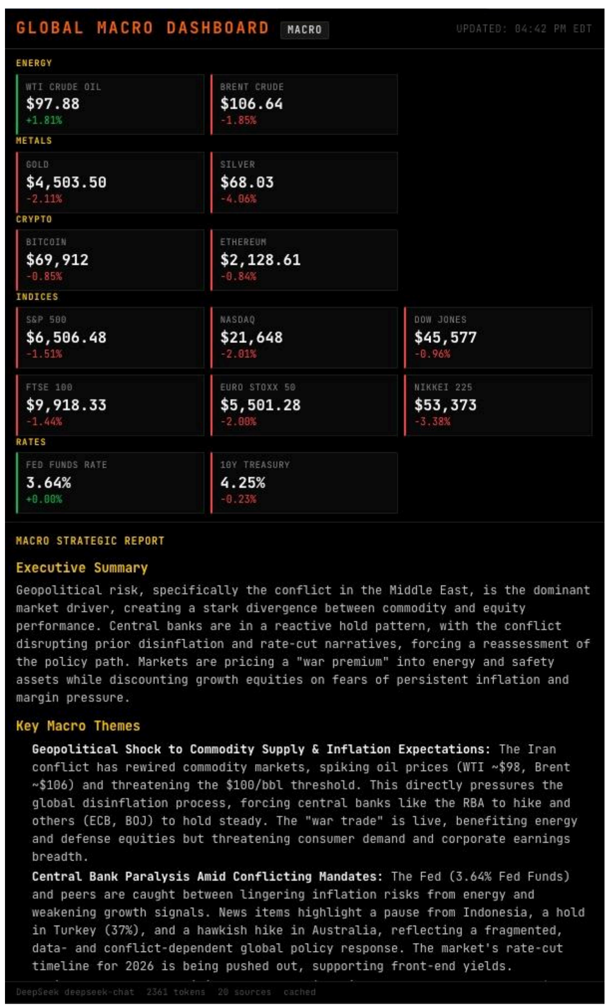
The panel is structured into two main, vertically-scrolling sections. The **Price Grid** at the top displays 14 tiles organized by asset class (Energy, Metals, Crypto, Indices, Rates). Each tile provides the asset name, its current price, and the daily percentage change, with a color-coded border (green for positive change, red for negative) for immediate visual confirmation of performance. Below the price grid is the **Macro Strategic Report**. This is a detailed, multi-paragraph analysis acting as an executive briefing. It is structured into clear headings such as Executive Summary, Key Macro Themes, Cross-Asset View, and Risk Radar. The report synthesizes live price movements and global news to articulate the prevailing market narrative. Sources for the news articles used by the AI are provided at the bottom with clickable links, along with a footer detailing the model, token count, and cache status for transparency.

Data sources and refresh rate

The price grid aggregates data from multiple sources: yfinance for Equities, Indices, Metals, and Energy; CCXT Binance for Cryptocurrencies; and the FRED API for key US rates. These prices are polled and auto-refresh every 60 seconds. The Macro Strategic Report is generated by the DeepSeek AI model using a Retrieval-Augmented Generation (RAG) pipeline fed by DuckDuckGo news queries and the live price context. To manage system load, the report is aggressively cached for 6 hours, meaning the text analysis reflects the macro conditions at the time of its generation. The system is engineered with graceful degradation: price data remains active even if the AI model fails, and vice versa.

Tips and caveats

- The AI report is generated only every 6 hours. While the price grid updates every 60 seconds, significant intraday news or data releases will not be reflected in the report's textual analysis until the next generation cycle.
- Price data refreshes every 60 seconds but is based on periodic polling, not real-time streaming via WebSocket.
- International indices (FTSE, Euro Stoxx, Nikkei) will display their final closing price outside of their respective market hours.
- Use the MACRO command in conjunction with **ECO** (for a dedicated US macro dashboard) and **ECOCAL** (for upcoming scheduled data releases) to build a complete picture of the global economic landscape.



CAL - Earnings & Dividends Calendar

Command: CAL

Category: Markets

Requires ticker: No

Overview

The Earnings & Dividends Calendar command (CAL) is a crucial pre-trading tool that provides a market-wide overview of all major corporate actions. It consolidates upcoming earnings releases and ex-dividend dates into a single panel, allowing traders and investors to proactively identify catalysts for single-stock volatility and plan for dividend capture strategies. The panel is a singleton view that efficiently tracks hundreds of relevant events across US-listed equities.

How to use it

Type CAL in the command bar and press Enter. The panel opens immediately with the **Earnings tab** selected and the **WEEK** range active by default. Use the **TODAY/WEEK** toggle in the header to switch between viewing only today's scheduled events or the full trading week ahead. You can switch to the **Dividends tab** using the tab selector in the panel header. To initiate deeper research, click on any ticker symbol in the table; this action automatically fills the CommandBar, priming it for a follow-up command such as GP for a price chart, DES for the company profile, or EE for historical earnings.

Reading the output

The **Earnings tab** is designed to provide immediate clarity on a high volume of events. Events are sorted chronologically, first by date (ascending), then by reporting timing (Before Market Open, then After Market Close), and finally alphabetically by symbol. The **BMO badge** (blue) indicates the company reports before the market opens (typically 7:00-9:00 AM ET), while the **AMC badge** (orange) indicates reporting after the close (typically 4:00-5:00 PM ET). The EPS Actual column initially displays "--"; this field is automatically populated with the actual figure once the company officially reports, allowing for a quick comparison against the EPS Estimated consensus.

The **Dividends tab** focuses on key dates for income investors. The table is sorted primarily by Ex-Date (ascending), followed by the Symbol. The **Ex-Date** is the critical cutoff date: investors must own the stock before this date to qualify for the declared dividend payout. The **Payment date** is the date on which the cash dividend is actually deposited into shareholder accounts. The panel header dynamically updates to display the total event count (e.g., "374 events") for the currently active tab and selected time range.

Data sources and refresh rate

Earnings calendar data is sourced from Finnhub, which provides real-time updates for calendar events. Dividend data is populated from the internal MariaDB database, which utilizes an Extract, Transform, Load (ETL) pipeline powered by Financial Modeling Prep (FMP). To ensure API compliance and manage system load, both datasets are aggressively cached server-side for 2 hours. On weekends, the WEEK range toggle is intelligently adjusted to display the following Monday-Friday, ensuring the calendar always shows relevant upcoming events.

Tips and caveats

- Use CAL at the start of each trading week to identify which major companies report earnings. Earnings reports are the single largest source of single-stock volatility.
- The BMO/AMC timing badge helps plan trades: BMO reporters may gap at the open, while AMC reporters affect the next day's open.
- Click any symbol to quickly open its chart (GP), description (DES), or historical earnings (EE) for context before the report.
- The Dividends tab depends on ETL-populated data. Very recently announced dividends may not appear until the next ETL cycle runs.
- On weekends and holidays, TODAY will show zero events (no market activity). Use WEEK to see the upcoming week's calendar.
- Some micro-cap or OTC tickers in the earnings calendar may not have full data available in other QSTMarkets commands (GP, DES) due to limited coverage from data providers.
- CAL complements the ECOCAL command (which covers macroeconomic events like FOMC, CPI, Jobs reports). Together they provide a complete view of all market-moving events for the week.

FACTOR - Factor Exposure

Command: FACTOR

Category: Portfolio

Requires ticker: No (Takes an optional watchlist name)

Overview

The Factor Exposure command (FACTOR) provides a quantitative analysis of your portfolio's sensitivity to five dominant market risk factors, a critical step in advanced portfolio management. Using a methodology inspired by classic investment theory, it measures how much of your portfolio's returns can be explained by movements in **Market**, **Value**, **Growth**, **Small Cap**, and **Momentum** styles. By identifying your actual factor biases, you can better understand your portfolio's risk profile and the drivers of its performance, regardless of individual stock performance.

How to use it

You can invoke the command in two ways:

1. Type **FACTOR** in the Command Bar and press Enter. The panel will open, displaying a dropdown menu where you can select one of your saved watchlists. After selection, click the **Analyze** button to execute the calculation.
2. Type **FACTOR** followed by the name of your saved watchlist (e.g., `FACTOR NUCLEAR`). The panel will open and automatically run the analysis on the specified watchlist.

Note: You must be logged into your account to access your saved watchlists. The selected watchlist must contain at least two equity tickers with sufficient historical data for a meaningful calculation.

Reading the output

The output is segmented into three primary sections:

1. **Horizontal Bar Chart**: A visual summary displaying the calculated **Beta** for the five factors, sorted from highest to lowest. A larger bar indicates a higher sensitivity (beta) to that particular factor. The name of the analyzed watchlist is prominently displayed above the chart, along with the lookback window used for the calculation.
2. **Factor Data Table**: A detailed table providing the precise quantitative metrics for each factor:
    - **FACTOR**: The name and ETF proxy used for the factor (e.g., Market (SPY)).
    - **BETA**: The regression coefficient, representing the portfolio's sensitivity to the factor. A Beta of 1.0 means the portfolio moves in sync with the factor; a Beta > 1.0 means it is more sensitive/volatile; and a Beta < 0 indicates an inverse relationship.
    - **R-squared**: The coefficient of determination (range 0.00 to 1.00). This indicates the percentage of your portfolio's variance that is explained by the factor.

    - **P-VALUE**: The statistical significance of the Beta coefficient. A value below 0.05 is generally considered statistically significant.
    - **SIG.**: A quick visual indicator of statistical significance: `***` ($p < 0.001$), `**` ($p < 0.01$), `*` ($p < 0.05$), and `-` (not significant).
3. **Interpretation**: An auto-generated text block (with an orange left border) that summarizes the findings. It identifies the two most dominant factors (those with the highest Beta), comments on the portfolio's style bias (e.g., Growth-oriented or Value-tilted), assesses the portfolio's market sensitivity compared to the S&P 500, and flags any factors that are not statistically significant.
4. **Footer**: Provides transparency by showing the number of symbols analyzed, the weighting methodology (**Equal-Weighted**), and the date and time of the calculation.

Data sources and refresh rate

The calculation uses daily historical closing prices for the past 252 trading days (approximately one year) for both the watchlist symbols and the five factor ETFs (SPY, IVE, IWF, IWM, MTUM). Historical price data is sourced from QSTMarkets' internal MariaDB database, with an automatic fallback to `yfinance` for any missing data. Since factor exposure changes slowly, the computationally intensive report is cached using Redis for **6 hours**.

Tips and caveats

- The command performs best with watchlists containing between 5 and 50 diversified tickers. Results from very small portfolios (2-3 tickers) may lack statistical significance.
- The analysis uses **equal-weighting**, meaning every ticker in the watchlist contributes equally to the portfolio return, regardless of its actual market capitalization or your invested dollar amount.
- The factors are calculated independently using simple (univariate) linear regression. This avoids complex multicollinearity issues but means that the individual Betas are not directly comparable to those derived from a full multi-factor model (like Fama-French).
- A Market Beta (SPY) greater than 1.0 suggests the portfolio is more volatile than the general market, while a Beta less than 1.0 suggests lower volatility.
- Use this command in conjunction with the **SCAN** (Stock Screener) command to build targeted watchlists and then quantitatively verify your intended factor exposure with FACTOR.

CORR - Correlation Matrix & Rolling

Command: CORR

Category: Portfolio

Requires ticker: No (accepts an optional watchlist name as argument)

Overview

The **Correlation Matrix** command (**CORR**) calculates and visualizes the pairwise Pearson correlation between all assets contained in a selected *watchlist*, using daily returns over a configurable period. This tool is essential for advanced portfolio management, allowing users to identify assets that move together (high positive correlation), in opposite directions (negative correlation), or independently (low correlation). It is the essential step for evaluating and improving portfolio diversification.

The panel now features two tabs: **MATRIX** (the classic heatmap view showing the correlation over the full period) and **ROLLING** (a new temporal view showing how correlations evolve over time using a sliding window, useful for detecting market stress periods when diversification breaks down).

How to use it

The command can be invoked in two ways:

1. Type **CORR** in the Command Bar and press Enter. The panel will open, displaying a dropdown menu to select one of your saved *watchlists*, a period selector (default 6 months), and an **Analyze** button. The user must choose the *watchlist* and the desired period before clicking **Analyze**.
2. Type **CORR** followed by the name of your saved *watchlist* (e.g., CORR NUCLEAR). The panel will open and automatically run the analysis on that *watchlist* with the default period of 6 months.

Note: You must be authenticated (logged in) to access your saved watchlists. The selected watchlist must contain at least two equity tickers with sufficient historical data to perform a meaningful calculation.

Available Periods: 1M (1 month), 3M (3 months), 6M (6 months, default), 1Y (1 year). You can change the period in the panel selector and press **Analyze** again without re-entering the command.

The panel header contains two tabs: **MATRIX** (default, classic heatmap) and **ROLLING** (temporal correlation chart).

For the ROLLING tab: Click the **ROLLING** tab, select a **Window size** (30, 60, 90, or 120 trading days), choose the **Period** (1Y recommended for meaningful results with a 60-day window), and click **Analyze**.**Reading the output**

The output panel is divided into four key sections, presented under two separate tabs.

Reading the output - MATRIX tab:

1. **Heatmap (Correlation Matrix)**: An NxN visual grid of cells (where N is the number of *tickers*). Each cell represents the correlation coefficient between two assets. The color scale facilitates immediate interpretation: **deep red** indicates a strong negative correlation (close to -1), **yellow** indicates a correlation close to zero (independent movement), and **deep green** indicates a strong positive correlation (close to +1). For *watchlists* up to 15 *tickers*, the numerical correlation value is shown directly in each cell. For larger lists, the values are shown on hover (tooltip). The diagonal always shows 1.00. The name of the analyzed *watchlist* appears in yellow above the matrix.
2. **Most Correlated Pairs**: A table on the left side listing the 5 pairs of assets with the highest positive correlation, ordered from highest to lowest. These pairs, shown in green, indicate assets that offer limited diversification benefit, suggesting overlap or concentration in the portfolio.
3. **Least Correlated Pairs**: A table on the right side showing the 5 pairs with the lowest correlation, ordered from lowest to highest. Values are shown in red (negative) or yellow (low positive). These pairs represent the best opportunities for diversification or hedging strategies.
4. **Interpretation**: An auto-generated text block with an orange left border summarizing the findings. It identifies the most and least correlated pair, counts how many pairs have an extremely high correlation ($|r| \> 0.8$), and evaluates the overall portfolio diversification level. If too many highly correlated pairs are detected, a warning about concentration risk is issued.

Reading the output - ROLLING tab:

1. **SVG Line Chart**: A time-series chart with the Y-axis ranging from -1.0 to +1.0, and the X-axis showing dates across the selected period. Each colored line represents the rolling correlation of an asset pair computed over the selected window. The system automatically selects the 5 most volatile pairs (highest standard deviation of their rolling correlation), as these are the pairs whose diversification benefit is least stable. Two semi-transparent red bands mark the danger zones where $|r| \> 0.80$, indicating diversification breakdown.
2. **Legend**: Below the chart, a color-coded legend identifies each pair (e.g., orange = DVN & VST, cyan = DVN & TLN).
3. **How to read this chart (Educational guide)**: An explanatory section describing key correlation values: +1.0 = assets move in perfect lockstep (no diversification benefit), 0.0 = no relationship (ideal for diversification), -1.0 = opposite directions (natural hedge). It explains that the red bands mark the danger zone and that during market stress, correlations tend to spike toward +1, reducing the protection the investor thought their portfolio had.
4. **Interpretation**: Auto-generated text identifying the most unstable pair (highest standard

deviation) and warning if any pair recently exceeded the 0.80 threshold.

Data sources and refresh rate

The calculation uses historical daily closing prices for the selected period, obtained from QSTMarkets' internal MariaDB database (which maintains up to 10 years of history). An automatic *fallback* mechanism to **yfinance** exists for any symbol whose data is not available in the main database. Symbols without sufficient data for the selected period are automatically excluded from the analysis.

The Rolling view requires extra historical data before the period start to compute the rolling window from day one; the backend automatically fetches additional days.

Since the calculation is intensive, the complete report is aggressively cached in Redis for **6 hours** to optimize performance and manage system load.

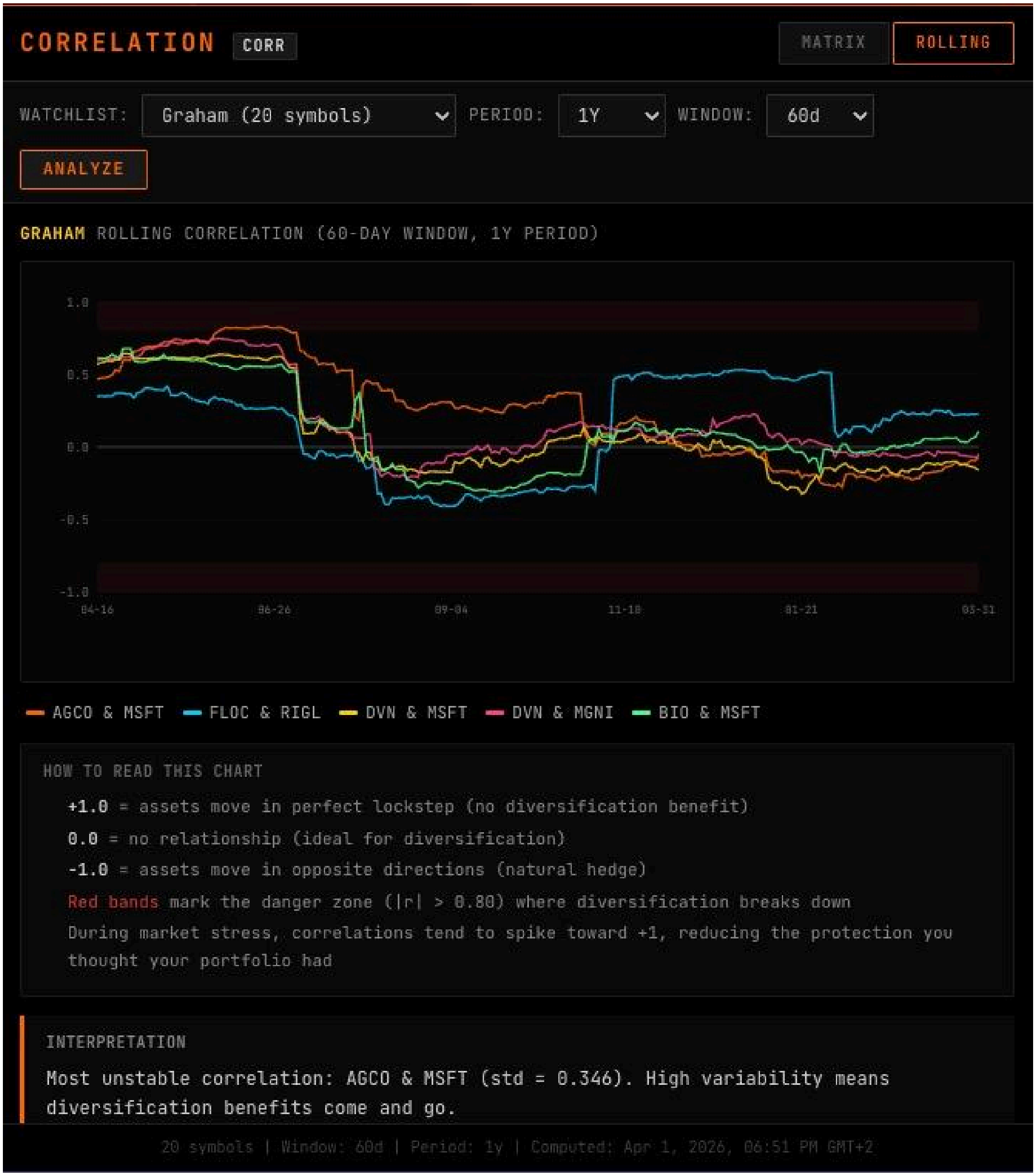
Symbol Limit: The analysis is limited to a maximum of 30 *tickers* per *watchlist* to maintain *heatmap* readability. If the *watchlist* contains more than 30 symbols, only the first 30 will be analyzed, and a warning will be displayed in the Interpretation section.

Tips and caveats

- Correlation is a measure of **historical** co-movement, not causation. Two assets highly correlated in the past may diverge in the future.
- A high correlation (> 0.8) between two assets suggests that holding both in a portfolio provides limited diversification benefit.
- Negative correlation is highly desirable for **hedging**: it indicates that when one asset falls, the other tends to rise, smoothing the overall portfolio volatility.
- For very short periods (such as 1 month), the correlation matrix may have lower statistical significance and reflect temporary noise. It is recommended to use the **6 month** or **1 year** periods for more robust and representative results.
- Use **CORR** together with the **FACTOR** (Factor Exposure) command for a more complete portfolio analysis: FACTOR reveals exposure to investment styles, while CORR focuses on the interdependence between the individual assets in the *watchlist*.
- Use **CORR** and **SCAN** (Stock Screener) to improve diversification: use SCAN to find assets that have low correlation relative to your existing holdings, and then add them to a *watchlist* to quantitatively verify the effect on the correlation matrix.
- The **ROLLING** tab is especially valuable for detecting when diversification "breaks down". During market crises (such as March 2020 or the SVB collapse in 2023), correlations between assets tend to converge toward +1, eliminating the diversification benefit exactly when it is needed most.
- A 30-day window captures short-term shifts but is noisier. A 90 or 120-day window produces smoother lines and is better for identifying structural trends in asset

relationships.

- If the 5 pairs shown in the Rolling chart consistently stay below 0.50, your portfolio has robust and stable diversification. If any line frequently enters the red zone (>0.80), consider reducing exposure to one of the two assets in that pair.



NOTES - Investment notes per ticker

Command: NOTES

Category: Portfolio

Requires ticker: No (Supports both `NOTES` alone and `TICKER NOTES`)

Overview

The Investment notes per ticker command (**NOTES**) provides a centralized, private repository for users to save personal investment research, thesis statements, links, and quick observations about any supported asset. Notes are securely stored in the cloud, specific to your user account, and synced across all your terminal sessions, centralizing the qualitative research often scattered across notebooks and documents. Furthermore, **NOTES** integrates deeply across the terminal, placing a visible indicator next to tickers with saved notes in multiple other commands (e.g., WL, SCAN, RV), allowing for research retrieval at the point of action.

How to use it

You can access the notes editor in two primary ways:

1. **Type NOTES** in the Command Bar and press Enter. This opens the panel in browse mode, displaying a list of all your saved notes in the left sidebar.
2. **Type a ticker symbol followed by NOTES** (for example, `AAPL NOTES`). This opens the panel and automatically loads the note for that specific ticker into the editor pane, or prepares a new note for creation if none exists.

The panel is a *singleton*: if you open a note for one ticker and then immediately open a note for another, the existing **NOTES** panel will simply switch the content, preventing duplicate panels. Use the text input at the top of the left sidebar to start a new note for any symbol not yet listed.

Reading the output

The panel is divided into two parts:

- **Left Sidebar (30%)**: Displays a scrollable list of all tickers for which you have saved a note. Each entry shows the ticker symbol, the last updated date, and a 100-character preview of the note's content. Double-clicking any ticker in this list will automatically load its content and also populate the Command Bar with the ticker symbol, ready for a follow-up command (e.g., `FA`).
- **Right Pane (70%)**: Contains a plain text editor where you write and edit your note (up to 10,000 characters). Below the editor are the **Save** and **Delete** buttons. A character counter tracks your progress. An asterisk (*) will appear in the panel header if you have unsaved changes (a "dirty state"). If you attempt to switch tickers or close the panel with unsaved changes, a confirmation dialog will appear.

Integration across the Terminal

Once a note is saved for a ticker, a small **note icon** (memo emoji) appears next to that ticker symbol in the following key panels, providing immediate access to your research:

- **WL** (Watchlists)
- **TOPGL** (Top Movers)
- **SCAN** (Stock Screener results)
- **RV** (Relative Valuation peer table)
- **INSB/INSS** (Insider Feeds)
- **UPDN** (Analyst Ratings)

Clicking this note icon in any of the above panels will instantly open the **NOTES** panel with the associated ticker pre-selected.

Furthermore, when viewing the **DES** (Description) panel for a ticker with a saved note, a **NOTE** badge appears in the header, and the full note content is displayed in a dedicated card at the bottom of the **DES** panel with an "Edit in NOTES panel" button.

Data sources and refresh rate

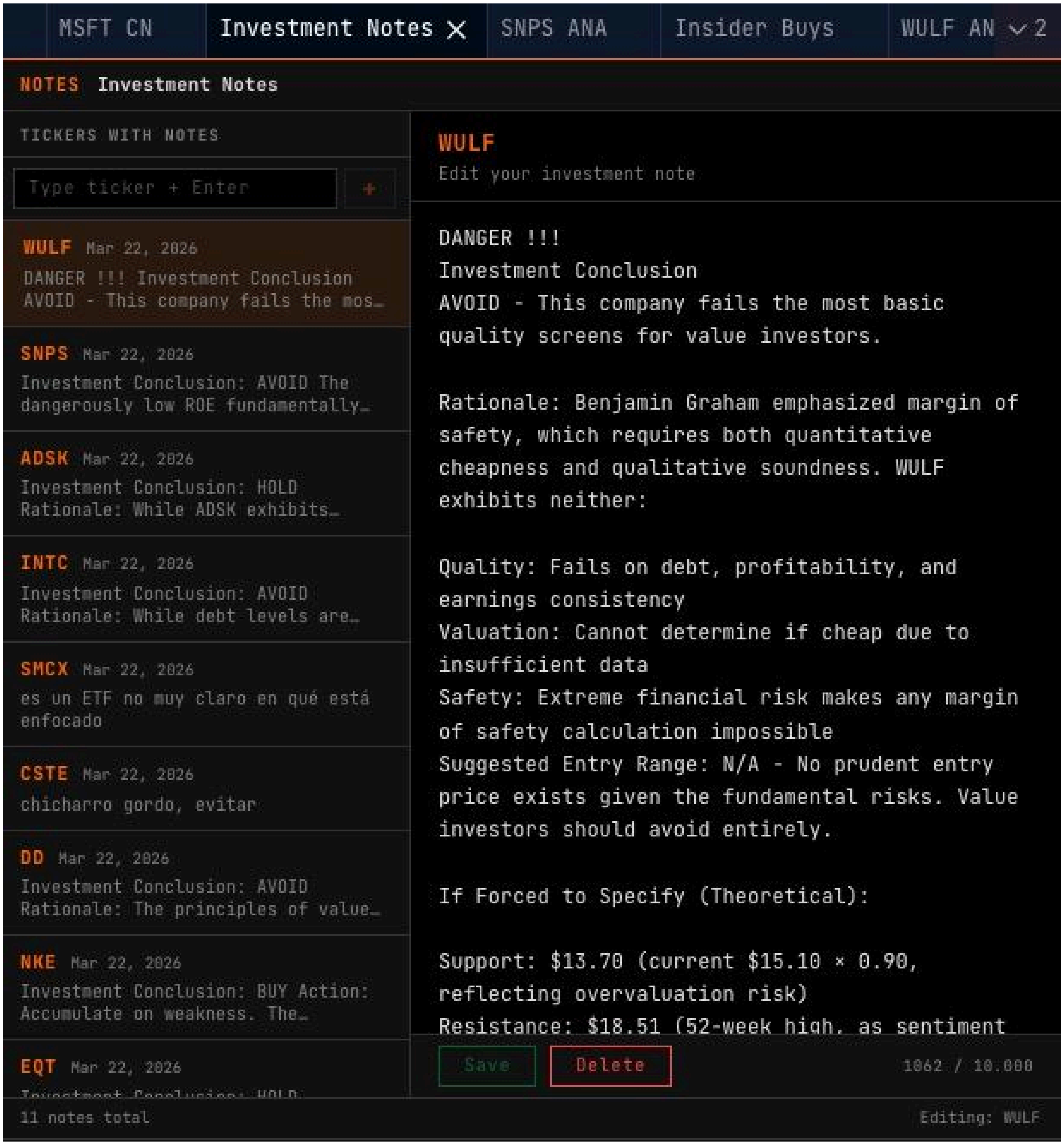
The data source for the **NOTES** command is entirely **user-generated content** stored privately in the QSTMarkets internal MariaDB database. **No external API** is involved.

Notes are loaded on-demand when the panel opens or when a ticker is selected. The system that tracks which tickers have notes (and displays the icons across other commands) is updated immediately via a custom event every time a note is saved or deleted, ensuring the visual indicators are always current.

Tips and caveats

- **Authentication is required.** You must be logged into your QSTMarkets account to create, read, update, or delete notes, as they are a user-specific private feature.
- The note indicator icons (memo emoji) only appear when you are logged in.
- Notes are restricted to **plain text**. The editor does not support rich text, Markdown, or HTML formatting.
- A firm **10,000 character limit** is enforced.
- Only valid ticker symbols that exist in the QSTMarkets database (active US equities, supported crypto, metals, and energy symbols) can have notes associated with them.
- The **NOTES** panel is a singleton; it reuses the same window instead of spawning duplicates. This is intentional to keep the workspace clean.
- Double-clicking a ticker in the sidebar is the fastest way to pipe that ticker into the

CommandBar for follow-up research (e.g., GP, FA).



PERF - Portfolio Performance & Attribution

Command: PERF

Category: Portfolio

Requires ticker: No (accepts optional watchlist name, e.g. PERF NUCLEAR)

Overview

The Portfolio Performance & Attribution command (PERF) provides a rigorous, quantitative evaluation of a user's actively managed watchlist, measuring its performance and risk characteristics against a selected market benchmark (default: S&P 500 ETF, SPY). It assesses whether active stock selection has generated *alpha* (outperformance) relative to a passive strategy. The panel synthesizes key risk/return metrics, visualizes cumulative returns, and breaks down the total performance by individual ticker and by sector, helping the user understand the underlying drivers of their portfolio's results.

How to use it

The command can be invoked in two primary ways:

1. **Type PERF** in the Command Bar and press Enter. This opens the panel with a dropdown selector for your watchlists, allowing you to select a period and benchmark before clicking the **Analyze** button.
2. **Type PERF followed by a watchlist name** (e.g. PERF NUCLEAR). This opens the panel with the specified watchlist pre-selected and automatically triggers the analysis using the default settings (1-year period, SPY benchmark).

The controls bar at the top of the panel is interactive and includes: a watchlist dropdown selector, period buttons (**1M, 3M, 6M, 1Y, 2Y, 5Y**), an editable benchmark ticker field (default: **SPY**, which can be changed to any valid ticker like **QQQ** or **IWM**), the **Analyze** button, and an **Export CSV** button for offline data analysis. Changing the selected period or benchmark requires clicking **Analyze** again to recompute the data. The computation may take 5-10 seconds on the initial load for large watchlists (20+ tickers) or long periods (5Y). Subsequent requests for the same parameters within the 6-hour cache window will be instant.

Reading the output

The PERF output is logically divided into four vertically-scrolling sections:

1. **Cumulative Return Chart**: An interactive line chart displaying two series: the portfolio (orange line) and the benchmark (cyan line). Both series are normalized to a base value of 100 at the start of the selected period. If the portfolio line is consistently above the benchmark, it indicates outperformance; if below, it signals underperformance. A tooltip appears on hover, displaying the exact price index value at that point in time.
2. **Key Statistics**: A comparison table featuring six key risk/return metrics for both the Portfolio and the Benchmark columns. Metrics include **Total Return** (percentage gain/loss over the period), **Annualized Return** (return scaled to a yearly rate), **Volatility** (annualized standard deviation of daily returns, representing risk), **Sharpe Ratio** (risk-adjusted return, where a higher value is better, calculated using a 0% risk-free rate), **Max Drawdown** (the largest peak-to-trough decline over the period, measuring worst-case risk), and **Beta** (the portfolio's sensitivity to the benchmark, shown only for

the portfolio). Values are color-coded (green for positive metrics, red for negative).

3. **Return Attribution by Ticker**: A table sorted by the magnitude of contribution (highest to lowest). It shows each ticker's symbol, sector classification, and its **Contribution** in percentage points to the total portfolio return. A horizontal bar chart visually represents the magnitude of the contribution (green for positive, red for negative). The contribution is calculated by equally weighting the ticker's total return over the period.
4. **Return Attribution by Sector**: An aggregated view where the ticker contributions are grouped by their respective sector. This table shows the sector name, the total cumulative contribution from all tickers within that sector, and the number of holdings in that sector. This helps distinguish whether performance is being driven by successful sector allocation or strong individual stock selection.

A yellow warning banner appears at the top if any tickers were excluded from the analysis due to insufficient historical price data for the selected period. The footer confirms the number of symbols analyzed, the weighting methodology (equal-weighted), the benchmark ticker, and the selected period.

Data sources and refresh rate

The core calculation relies on daily historical adjusted close prices fetched from QSTMarkets' internal `market_data_daily` database (which maintains up to 10 years of OHLCV data). An automatic fallback mechanism to the **yfinance** API is implemented for any missing ticker data. Sector information is sourced from the `ref_tickers` table, which is maintained by the NASDAQ FTP ETL pipeline and is used for the sector attribution breakdown. The Beta calculation is performed using ordinary least squares (OLS) linear regression of the portfolio's daily returns against the benchmark's daily returns (utilizing the *scipy* library). To ensure performance and manage computational load, the results are aggressively cached in Redis for **6 hours** for every unique combination of watchlist, period, and benchmark. The cache automatically invalidates if the contents of the underlying watchlist change. The analysis is limited to a maximum of 50 tickers per watchlist; any symbols beyond this limit are automatically truncated with a warning in the panel.

PORTFOLIO PERFORMANCE PERF

Nuclear (9) | 1M | 3M | 6M | 1Y | 2Y | 5Y | SPY | ANALYZE | EXPORT CSV

CUMULATIVE RETURN (BASE 100)

Portfolio: 184.89 SPY: 120.11

KEY STATISTICS

METRIC	PORTFOLIO	BENCHMARK
Total return	+71.88%	+14.16%
Annualized return	+72.62%	+14.28%
Volatility	48.49%	18.90%
Sharpe ratio	1.50	0.76
Max drawdown	-26.56%	-13.72%
Beta	1.62	-

RETURN ATTRIBUTION BY TICKER

TICKER	SECTOR	CONTRIBUTION
GEV	Industrials	+17.43%
LEU	Energy	+16.87%
BWXT	Industrials	+10.21%
OKLO	Utilities	+9.11%
TLN	Utilities	+4.67%
DVN	Energy	+3.47%
CEG	Utilities	+2.97%
VST	Utilities	+1.35%
NNE	Industrials	-3.68%

9 symbols Equal-weighted Benchmark: SPY Period: 1Y

REFINE - Refine investment candidates

Command: REFINE

Category: Fundamentals

Requires ticker: Yes (requires 2 to 5 tickers)

Overview

The REFINE command takes 2 to 5 US equity tickers (typically candidates that have already been evaluated with the ANA command) and ranks them using a composite scoring model inspired by Benjamin Graham's value investing principles. The goal is to help the investor decide which of several studied candidates represents the best investment opportunity, ordered from strongest to weakest.

The scoring model evaluates each candidate across four dimensions with the following weights: Quality (40%), Valuation (30%), Momentum (20%), and Sentiment (10%), producing a composite score from 0 to 100. After scoring, the DeepSeek AI model generates a qualitative ranking analysis with justifications and entry price suggestions.

How to use it

Type REFINE followed by the ticker symbols separated by spaces. For example: REFINE AAPL MSFT GOOGL. Minimum 2 tickers, maximum 5. The command can also be typed alone (REFINE) to open an empty panel where tickers can be entered manually and submitted with the **RANK** button. Each ticker's ANA report is fetched from cache (if available from a previous ANA execution within the last hour) or computed on demand, which may take 1 to 4 minutes if all reports need to be generated from scratch.

Reading the output

The panel is divided into four sections:

1. **Comparative Analysis Table**: A table with one row per ticker showing key metrics used in the ranking. Columns include Rank, Ticker (with company name), Score (composite 0-100), Debt/Equity ratio, ROE, Gross Margin, EPS Growth, P/E vs Sector (discount or

premium percentage, negative means undervalued), Margin of Safety, 52-week position percentage, and Insider buying activity. Values are color-coded: green for good flags, yellow for warning, red for danger. High-risk candidates (Debt/Equity greater than 3 and ROE below 5%) have their row highlighted with a red background.

2. **Score Breakdown**: A grid of cards (one per candidate) showing four horizontal bars representing the sub-scores: Quality (0-40, green), Valuation (0-30, blue), Momentum (0-20, orange), and Sentiment (0-10, yellow). This allows quick visual comparison of where each candidate is strong or weak.
3. **AI Ranking Analysis**: A text block generated by the DeepSeek AI model formatted in Markdown. It includes: a numbered ranking with brief justification for each position, a detailed top pick analysis covering strengths and risks, tiebreak criteria if candidates are close in score, and an entry price suggestion based on the margin of safety and support/resistance levels.
4. **Footer**: Shows the AI model used (deepseek-chat), token count, timestamp in Eastern Time, and a **CACHED** label if the result was served from cache.

The panel also includes an **Export CSV** button in the header that downloads the complete ranking data including all metrics and scores.

Data sources and refresh rate

The REFINE command relies entirely on ANA reports for its input data. Each ticker's ANA report is fetched from Redis cache (1-hour TTL) or computed on demand. The ANA pipeline sources data from: SEC EDGAR filings stored in the internal MariaDB for fundamental quality metrics (Debt/Equity, ROE, Gross Margin from the `financial_reports` table, with yfinance as fallback for Gross Margin when SEC XBRL data is incomplete), the internal RV calculation service for relative valuation (P/E vs sector median), `market_data_daily` for momentum (52-week range, current price), finvizfinance for insider buying activity, and Finnhub for news headlines. The composite scoring is computed server-side. The DeepSeek AI synthesis uses the `deepseek-chat` model with temperature 0.3. The complete REFINE result is cached in Redis for 1 hour. The first request for a given set of tickers may take 1 to 4 minutes if ANA reports need to be generated; subsequent requests within the hour are instant.

Tips and caveats

- REFINE is designed for **US equities only**. Crypto, Precious Metals, and Energy Commodities are not supported.
- Minimum 2 tickers, maximum 5. If more than 5 are entered, only the first 5 are used.
- For best results, run **ANA** on each candidate first so the reports are cached. Otherwise, REFINE will trigger ANA computations on demand, which adds significant wait time.
- The scoring model is mechanical and rule-based. The AI analysis provides qualitative context but does not override the quantitative score.

- Companies with missing financial data (pre-revenue startups, recently IPO'd companies without full SEC filings) will receive lower Quality scores (potentially 0) and show dashes in the table for unavailable metrics. This is expected behavior, not an error.
- The ranking output does **not constitute financial advice**. It is a decision-support tool based on publicly available data and should be used as a starting point for independent research.
- Results can be exported to CSV using the **Export CSV** button for further analysis in spreadsheet applications.
- REFINE requires authentication (sign-in).

REGIME - Market regime analysis

Command: REGIME

Category: Markets

Requires ticker: No

Overview

The REGIME command classifies the current market environment across five key dimensions to help investors align their strategy with prevailing macro conditions. It combines quantitative rules (based on live market data and economic indicators) with a qualitative analysis generated by the DeepSeek AI model. The five dimensions are: market trend direction, volatility level, risk appetite, inflation trend, and interest rate trend. This contextual information is especially valuable when used alongside stock-specific commands like ANA (Investment Analysis) and QSTA (Daily Market Analysis), as it frames individual recommendations within the broader macro picture.

How to use it

Type REGIME in the Command Bar and press Enter. The panel opens as a singleton (only one instance at a time). No ticker is required. The data refreshes automatically every 60 minutes. The first load may take 10 to 15 seconds as it gathers data from multiple sources and calls DeepSeek for the AI analysis. Subsequent loads within the hour are instant (served from cache).

Reading the output

The panel is divided into three sections:

1. **Current Regime**: Five color-coded badges showing the classification for each dimension. Green indicates favorable conditions (bullish trend, low volatility, risk-on, falling inflation, falling rates). Red indicates unfavorable or elevated conditions (bearish trend, high volatility, risk-off, rising inflation, rising rates). Yellow indicates neutral or transitional states (sideways trend, moderate volatility, stable inflation, stable rates). The classifications are determined by these rules:

    - Trend: Bullish if SPY is above both its 50-day and 200-day moving averages. Bearish if below both. Sideways if between.
    - Volatility: Low if VIX is below 15. Moderate if between 15 and 20. High if 20 or above.
    - Risk Appetite: Risk-On if the trend is bullish and VIX is below 20. Risk-Off otherwise.
    - Inflation: Increasing if the latest CPI year-over-year rate exceeds the average of the previous three months by more than 0.1 percentage points. Decreasing if it is lower by more than 0.1 points. Stable otherwise.
    - Rates: Rising if the 10-year Treasury yield is above its 20-day moving average. Falling if below. Stable if within a narrow band.
2. **Key Indicators**: Eight numeric cards displaying the raw data used for classification. SPY current price, SPY 50-day moving average (MA50), SPY 200-day moving average (MA200), VIX level (color-coded: green below 15, yellow 15-20, red above 20), CPI year-over-year percentage, CPI previous 3-month average, 10-year Treasury yield, and 10-year yield 20-day moving average. Each card has a tooltip explaining the metric when you hover over its label.
3. **AI Regime Analysis**: A text block generated by the DeepSeek AI model formatted in Markdown. It includes four sections: a one-sentence Regime Summary synthesizing all five dimensions, Investment Implications explaining how the current environment affects asset allocation across equities (growth vs value), bonds, commodities, and sectors, Adjustments for Stock Analysis recommending which criteria to prioritize when evaluating individual stocks in this regime (for example, in bearish markets prioritize quality and low beta; in high inflation environments seek companies with pricing power and low debt), and Key Risks identifying the top 2 to 3 factors that could shift the current regime.

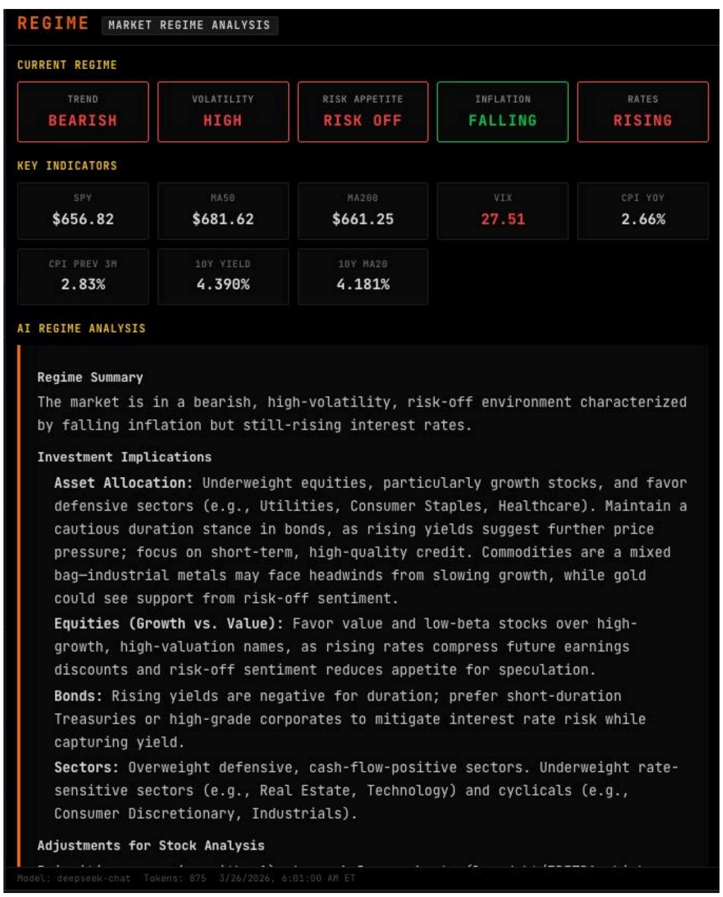
The footer shows the AI model used (deepseek-chat), token count, timestamp in Eastern Time, and a CACHED label if the result was served from Redis cache.

Data sources and refresh rate

All data sources are already integrated in the terminal, no additional API keys are needed. SPY price and moving averages are computed from the `market_data_daily` database table (10 years of daily OHLCV data ingested by the nightly ETL). VIX is fetched from yfinance in real time. CPI year-over-year data comes from the BLS API (same source as the INFL command), with FRED series CPIAUCSL as automatic fallback when BLS is unavailable. The 10-year Treasury yield comes from the FRED API series DGS10 (same source as the MACRO yield curve). The AI analysis is generated by the DeepSeek model (deepseek-chat) with temperature 0.3. The complete REGIME result is cached in Redis for 1 hour. Additionally, the REGIME computation runs automatically 5 minutes before each scheduled QSTA analysis (at 08:25, 11:55, and 16:25 ET) to ensure that QSTA reports include fresh regime context in their AI analysis.

Tips and caveats

- The regime is a classification based on current and recent data, not a prediction. It describes the present state of the market, not where it is heading.
- The classification thresholds (VIX 15/20, moving average crossovers) are industry-standard values used by institutional analysts. They are not configurable by the user.
- In highly volatile markets, the regime badges may shift between sessions. The panel shows the state at the time of the last computation.
- REGIME works best as a contextual lens rather than a standalone trading signal. Use it to frame and contextualize the recommendations from ANA and QSTA.
- When REGIME data is cached in Redis, the ANA and QSTA commands automatically include the current regime context in their DeepSeek AI prompts. This means that investment analyses and daily market reports are regime-aware without any extra steps from the user.
- The CPI data updates monthly (when the Bureau of Labor Statistics publishes new figures). Between releases, the inflation dimension remains stable.
- REGIME does not require authentication and is available to all users.



PAIR - Cointegration pairs analysis

Command: PAIR

Category: Markets

Requires ticker: Yes

Overview

The PAIR command identifies stocks that maintain a long-term equilibrium relationship with a given ticker through cointegration analysis. Unlike correlation (CORR), which measures linear co-movement at a point in time, cointegration detects whether two price series move together in a stable way over the long term. This enables pairs trading strategies based on mean reversion: when the spread between two cointegrated assets deviates significantly from its historical average, it tends to revert back. The command uses the Engle-Granger two-step methodology (OLS regression followed by an Augmented Dickey-Fuller test on the residuals) to find statistically significant pairs.

How to use it

Type the ticker symbol followed by PAIR (for example, AAPL PAIR). The panel opens showing cointegrated pairs found among same-sector peers by default. Use the dropdown selectors at the top to change the universe (Sector peers or All liquid stocks) and the lookback period (1Y with 252 trading days, 2Y with 504 days, or 3Y with 756 days). Click any row in the results table to display an interactive spread chart below with standard deviation bands. Click a ticker name (shown in orange) to fill it into the command bar for quick navigation. Use the Export CSV button to download the results.

Reading the output

The results table shows the following columns for each cointegrated pair found:

- Candidate: the ticker and company name of the cointegrated stock. Clicking the ticker fills it into the command bar.
- Beta: the hedge ratio from the OLS regression. It indicates how many units of the candidate you need to trade per unit of the target ticker to construct the spread.
- P-value: the statistical significance of the cointegration (ADF test). Values below 0.05

(green) indicate strong cointegration. Values between 0.05 and 0.10 (yellow) are marginally significant.
- Half-life: the estimated number of trading days for the spread to revert halfway to its mean. Lower values (5 to 30 days) are more practical for active trading. Very high values suggest slow reversion.
- Z-score: how many standard deviations the current spread is from its historical mean. Values beyond plus or minus 2 (shown in red) suggest potential trading opportunities.
- Signal: "Long Spread" appears when the z-score is below minus 2 (buy the target, sell the candidate). "Short Spread" appears when the z-score is above 2 (sell the target, buy the candidate). No signal appears when the spread is within normal range.

When you click a pair in the table, a spread chart appears below showing the historical spread with horizontal lines for the mean, plus and minus 1 standard deviation (yellow), and plus and minus 2 standard deviations (red). This visualization helps assess whether the current spread level represents a genuine opportunity or a structural break.

At the bottom of the panel, a brief explanation summarizes the pairs trading logic: Long Spread means buy the target and sell the candidate when the spread is below its mean, Short Spread means the opposite.

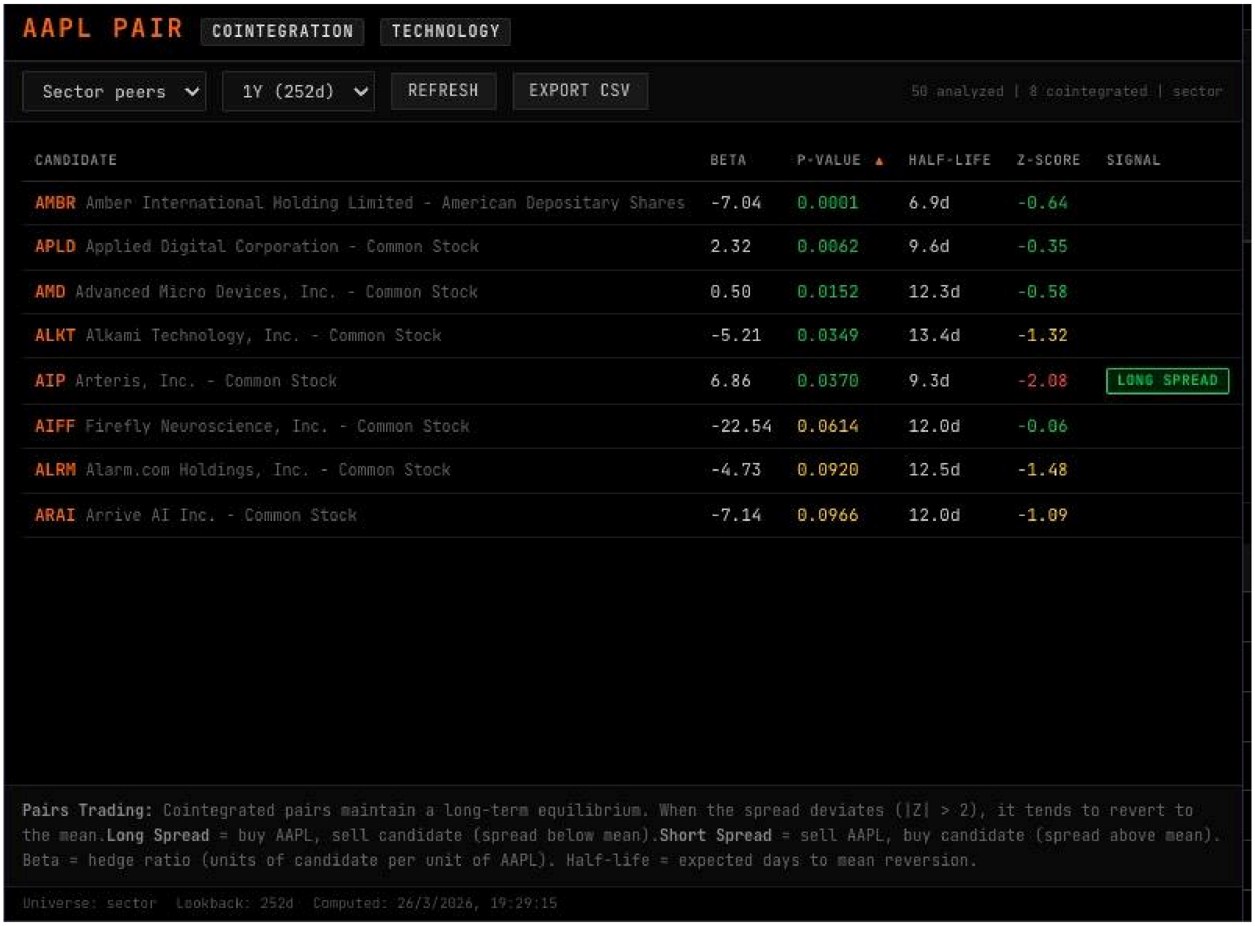
Data sources and refresh rate

Price data is sourced from the internal market_data_daily database table using adjusted close prices (which account for stock splits and dividends). The analysis covers US equities only. When "Sector peers" is selected, the system analyzes up to 30 stocks in the same sector. When "All liquid" is selected, it picks the 30 most actively traded stocks. Results are cached for 6 hours. Use the Refresh button to force a recalculation.

Tips and caveats

- Cointegration is a statistical relationship, not a guarantee. It can break down due to fundamental changes in either company (mergers, sector shifts, regulatory changes).
- A half-life under 2 days may indicate noise rather than a tradable signal. A half-life over 100 days may be impractical for active strategies.
- The z-score helps time entries, but combine it with fundamental analysis and the REGIME command to assess whether the current market environment favors mean-reversion strategies.
- Pairs trading requires capital for both long and short positions. Consider transaction costs, borrowing fees, and slippage.
- If a ticker has no sector assigned (such as crypto or commodities), the system automatically switches to the "All liquid" universe.
- PAIR complements the CORR command. High correlation does not imply cointegration, and cointegrated pairs may have moderate correlation. Use both for a complete picture.
- Try different lookback periods. A pair cointegrated over 3 years is generally more robust

than one detected only over 1 year.



RECO - Graham Value Analysis (AI Recommendations)

Command: RECO

Category: Fundamentals

Requires ticker: No

Overview

The RECO command displays pre-computed AI investment recommendations generated nightly by an automated batch analysis system. The system filters approximately 12,000 active US equities down to around 970 quality candidates using Benjamin Graham's value investing criteria (profitability, low debt, reasonable ROE, positive cash flow), then runs each candidate through a 6-phase analysis pipeline powered by DeepSeek AI. The analysis covers: (1) Quality metrics (debt-to-equity, ROE, gross margin, EPS growth, dividend yield), (2) Competitor identification, (3) Relative valuation vs sector peers, (4) Momentum (52-week range position), (5) AI synthesis producing a BUY/HOLD/AVOID conclusion with rationale, and (6) Support/resistance price range computation.

How to use it

Simply type RECO in the Command Bar and press Enter. The panel opens automatically and loads all analyzed tickers.

Reading the output

The panel is divided vertically, featuring a sortable, filterable table at the top and a detail pane that appears below when a row is clicked.

The panel header displays the command label, the subtitle (GRAHAM VALUE ANALYSIS), the date of the analysis, the total ticker count, and **Refresh** and **CSV Export** buttons.

Below the header, four conclusion tabs are available: **BUY** (default view), **HOLD**, **AVOID**, and **ALL**, each showing the count of tickers in that specific conclusion category. A filter bar allows users to narrow the results using a **Sector dropdown** (populated dynamically from the data) and an **"Exclude High Risk" checkbox**.

The table columns include:

Column	Description	Color Coding
Symbol	Clickable ticker symbol (orange).	
Company	Full company name.	
Sector	Industry classification.	
Conclusion	AI-generated rating badge.	Green for BUY, Yellow for HOLD, Red for AVOID.
Price	Latest closing price.	
P/E	Trailing twelve-month Price-to-Earnings ratio.	
PE Discount%	Percentage discount or premium vs. sector median P/E.	Green if $\le -10%$.

Column	Description	Color Coding
ROE%	Return on Equity (latest annual).	Green if $\ge 15\%$.
D/E	Debt-to-Equity ratio.	Green if ≤ 1.0.
52W%	Position in the 52-week price range (0% is low, 100% is high).	
Date	Date of the specific ticker's analysis (MM/DD format).	

Metrics are color-coded: Green indicates favorable value (ROE $\ge 15\%$, D/E ≤ 1.0, PE discount $\le -10\%$), yellow indicates a warning state, and red indicates a danger state.

Clicking a row highlights the row and loads the full AI synthesis into the detail pane below the table. This report is formatted in Markdown with sections similar to the ANA command: **Executive Summary**, **Quality Assessment**, **Valuation Verdict**, **Momentum and Sentiment**, **Key Risk Factors**, and the final **Investment Conclusion** with a suggested entry price range (support/resistance).

Interactions:

- Clicking a ticker symbol in the table or detail pane fills the Command Bar with that symbol.
- Double-clicking a row opens a GP (price chart) panel for that ticker.
- The **CSV Export** button downloads all currently filtered results with all ranking metrics.

Data sources and refresh rate

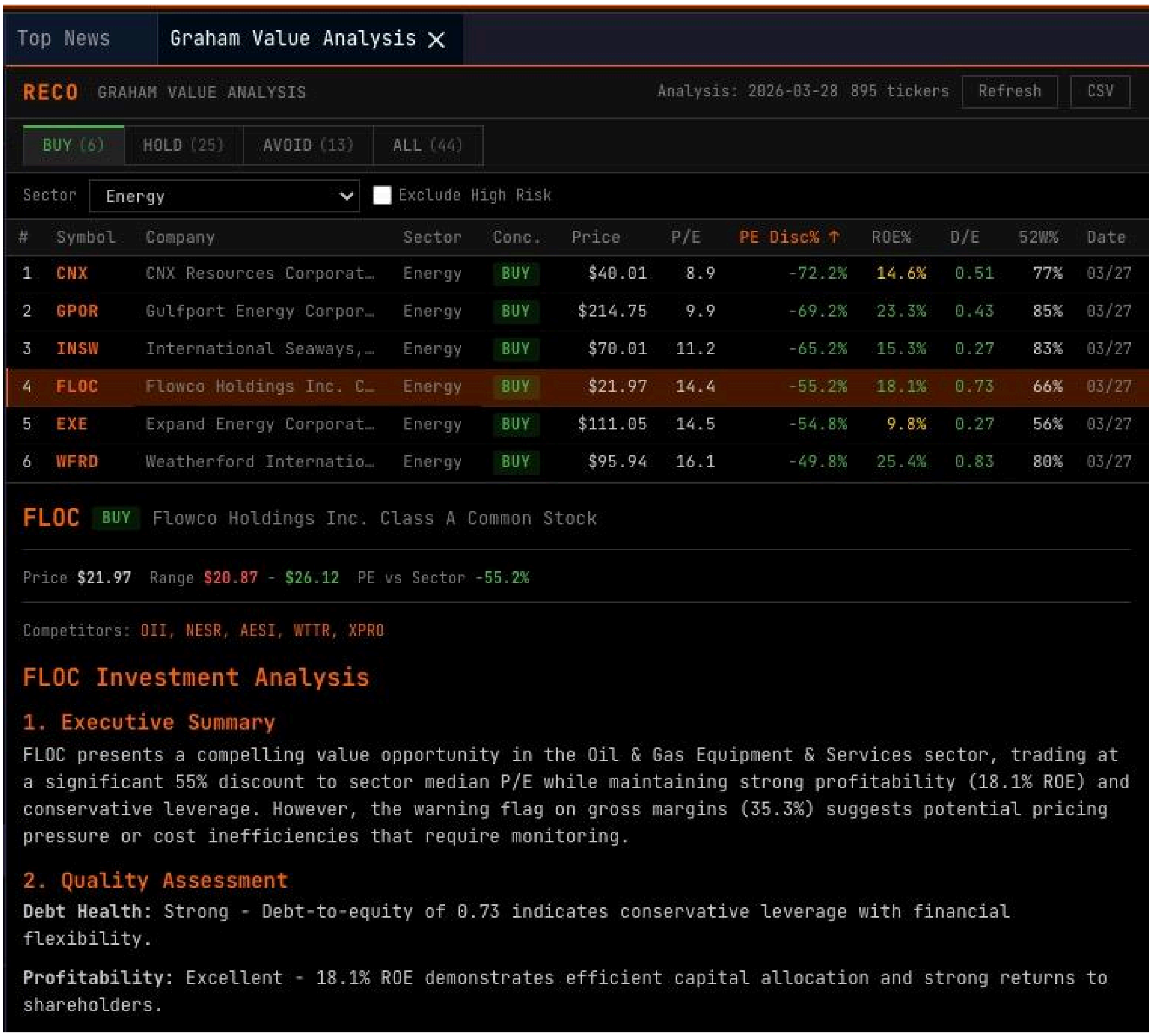
Data is generated nightly by an automated ETL batch job running on a dedicated server. The system processes approximately 50 tickers per day (Monday through Friday). Quality metrics are sourced from SEC EDGAR financial reports stored in the database. Relative valuation is computed against same-sector peers. The AI synthesis is generated by the DeepSeek model (deepseek-chat) using value investing methodology. The panel does not auto-refresh; the user must click the **Refresh** button to reload the most recent data from the server cache.

Tips and caveats

- The panel displays a **"STALE DATA"** warning in orange if the most recent analysis date in the header is more than 7 days old, which may indicate the nightly batch job did not run or is delayed.
- Not all tickers have complete data. Some cells may show empty values for metrics like

gross margin or debt-to-equity if the underlying SEC filings lack those fields.

- The BUY/HOLD/AVOID conclusion is AI-generated and should **not** be treated as financial advice. Always verify the analysis independently and consult a qualified financial advisor.
- The **Date** column shows when each individual ticker was analyzed. Tickers analyzed on different days coexist in the same list, so you will see a mix of analysis dates.
- Use the **sector filter** to focus on industries you are familiar with, and sort by **PE Discount%** to quickly find the most undervalued candidates relative to their sector peers.
- A disclaimer at the bottom of the panel reminds users that this information is for educational purposes only.



SHORT - Most shorted stocks

Command: SHORT

Category: Markets

Requires ticker: No

Overview

The Most shorted stocks command provides an essential tool for identifying potential short squeeze candidates. It displays a ranked list of US equities with a significantly high percentage of their float sold short, helping users monitor stocks that may be poised for rapid upward movement if short sellers are forced to cover their positions.

How to use it

Type SHORT in the Command Bar and press Enter. The panel loads automatically with the ranked table of tickers.

Reading the output

The panel presents a dynamic, sortable table of US equities that currently have a short float percentage greater than 20%. The table is sorted by default in descending order of Short Float percentage, listing the highest-conviction short targets first.

Key columns include:

Column	Description
SYMBOL	Ticker symbol
COMPANY	Full company name
SECTOR	Industry classification
PRICE	Latest trading price
CHG%	Daily percentage change
SHORT%	Short interest as a percentage of float (sorted column)

Column	Description
DAYS TO COVER	The short interest ratio (number of days required to cover all short positions at the average daily trading volume)
VOLUME	Current cumulative daily trading volume
CAP	Market capitalization

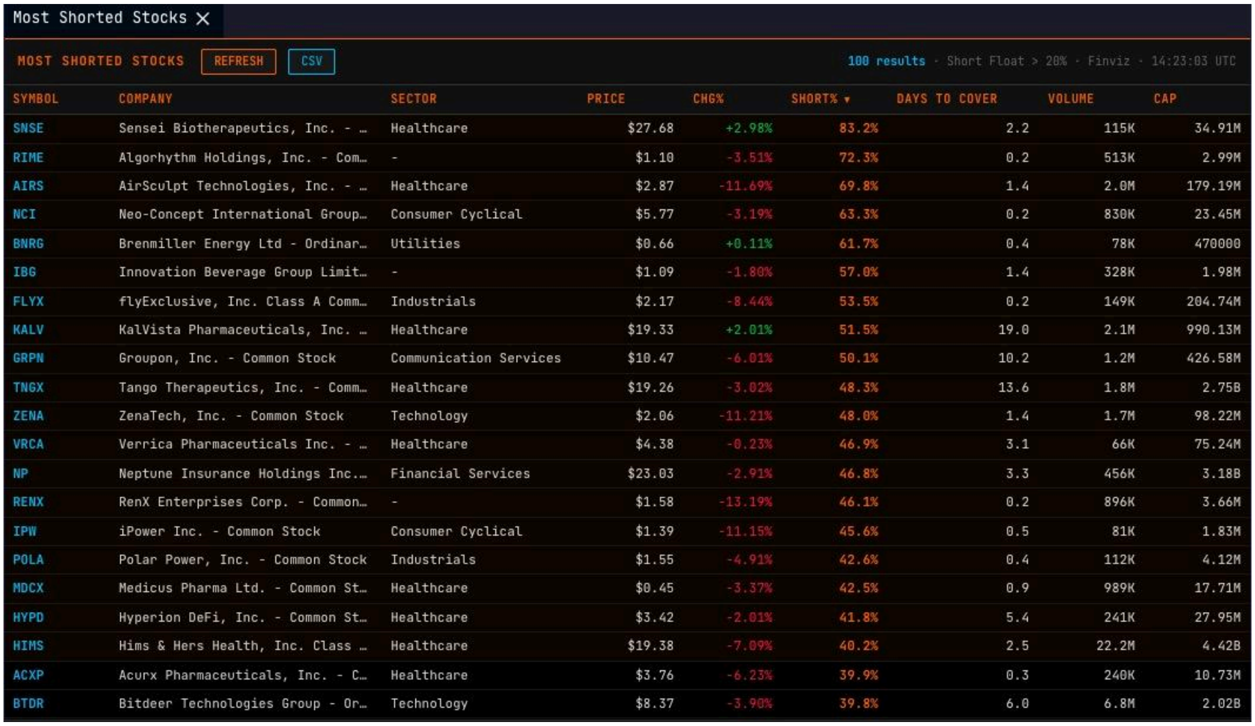
All column headers are clickable to allow sorting by any metric. Rows with extreme short interest (40% or higher) are highlighted with a subtle amber background for immediate visual flagging. Clicking a single row fills the Command Bar with the selected ticker symbol, while double-clicking a row automatically executes the GP command to open a price chart for that stock. The panel header includes a **REFRESH** button to re-fetch the data on demand and a **CSV** button to export the current results to a file.

Data sources and refresh rate

The data is sourced from Finviz via the `finvizfinance` library, utilizing their Ownership screener view. Company name, sector, and industry classifications are enriched using the internal `ref_tickers` database. The command operates on-demand; there is no caching or auto-refresh mechanism. The data reflects the latest reported figures from the source at the time of request.

Tips and caveats

- Short interest data is reported on a bi-monthly basis by FINRA. Therefore, the **SHORT%** and **DAYS TO COVER** values are not live and do not reflect intraday changes in short positions.
- High short float alone is not a trading signal. Short squeezes require a catalyst and high trading volume. Always cross-reference candidates with fundamental analysis (FA and ANA) and daily volume.
- The command works on weekends and outside market hours because it relies on reported data rather than live market prices.
- Some micro-cap or newly listed stocks may occasionally be missing company names or sector classifications if they have not yet been fully integrated into the internal database.



Most Shorted Stocks

MOST SHORTED STOCKS REFRESH CSV 100 results · Short Float > 20% · Finviz · 14:23:03 UTC

SYMBOL	COMPANY	SECTOR	PRICE	CHG%	SHORT% ▾	DAYS TO COVER	VOLUME	CAP
SNSE	Sensei Biotherapeutics, Inc. - …	Healthcare	$27.68	+2.98%	83.2%	2.2	115K	34.91M
RIME	Algorhythm Holdings, Inc. - Com…	-	$1.10	-3.51%	72.3%	0.2	513K	2.99M
AIRS	AirSculpt Technologies, Inc. - …	Healthcare	$2.87	-11.69%	69.8%	1.4	2.0M	179.19M
NCI	Neo-Concept International Group…	Consumer Cyclical	$5.77	-3.19%	63.3%	0.2	830K	23.45M
BNRG	Brenmiller Energy Ltd - Ordinar…	Utilities	$0.66	+0.11%	61.7%	0.4	78K	470000
IBG	Innovation Beverage Group Limit…	-	$1.09	-1.80%	57.0%	1.4	328K	1.98M
FLYX	flyExclusive, Inc. Class A Comm…	Industrials	$2.17	-8.44%	53.5%	0.2	149K	204.74M
KALV	KalVista Pharmaceuticals, Inc. …	Healthcare	$19.33	+2.01%	51.5%	19.0	2.1M	990.13M
GRPN	Groupon, Inc. - Common Stock	Communication Services	$10.47	-6.01%	50.1%	10.2	1.2M	426.58M
TNGX	Tango Therapeutics, Inc. - Comm…	Healthcare	$19.26	-3.02%	48.3%	13.6	1.8M	2.75B
ZENA	ZenaTech, Inc. - Common Stock	Technology	$2.06	-11.21%	48.0%	1.4	1.7M	98.22M
VRCA	Verrica Pharmaceuticals Inc. - …	Healthcare	$4.38	-0.23%	46.9%	3.1	66K	75.24M
NP	Neptune Insurance Holdings Inc.…	Financial Services	$23.03	-2.91%	46.8%	3.3	456K	3.18B
RENX	RenX Enterprises Corp. - Common…	-	$1.58	-13.19%	46.1%	0.2	896K	3.66M
IPW	iPower Inc. - Common Stock	Consumer Cyclical	$1.39	-11.15%	45.6%	0.5	81K	1.83M
POLA	Polar Power, Inc. - Common Stock	Industrials	$1.55	-4.91%	42.6%	0.4	112K	4.12M
MDCX	Medicus Pharma Ltd. - Common St…	Healthcare	$0.45	-3.37%	42.5%	0.9	989K	17.71M
HYPD	Hyperion DeFi, Inc. - Common St…	Healthcare	$3.42	-2.01%	41.8%	5.4	241K	27.95M
HIMS	Hims & Hers Health, Inc. Class …	Healthcare	$19.38	-7.09%	40.2%	2.5	22.2M	4.42B
ACXP	Acurx Pharmaceuticals, Inc. - C…	Healthcare	$3.76	-6.23%	39.9%	0.3	240K	10.73M
BTDR	Bitdeer Technologies Group - Or…	Technology	$8.37	-3.90%	39.8%	6.0	6.8M	2.02B

HEAT - Market Heatmap

Command: HEAT

Category: Markets

Requires ticker: No

Overview

The Market Heatmap command (**HEAT**) provides a powerful, instant visualization of the daily performance and relative size of the 500 largest US equities by market capitalization. It uses a treemap structure to organize the market hierarchically by Sector and Industry, allowing users to immediately identify which sectors are driving the daily return, assess capital flow, and visually confirm the market's risk appetite at a glance.

How to use it

Type HEAT in the Command Bar and press Enter. The panel opens immediately as a full-workspace view.

Reading the output

The panel displays a large, non-scrollable treemap that fills 100% of the available panel space.

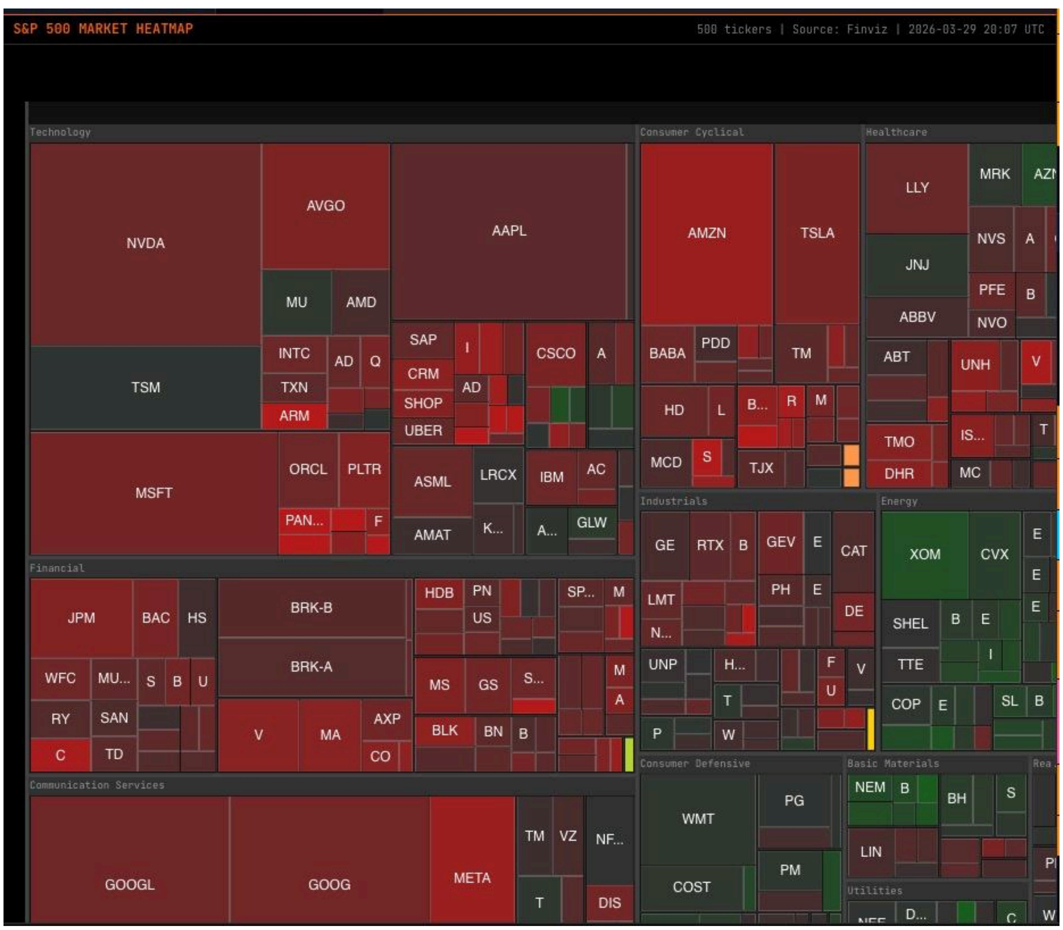
- **Size and Structure**: The 500 equities are grouped first by **Sector** (outlined with thick borders and a visible label: e.g., Technology, Financial, Energy) and then subdivided by **Industry** (thinner borders). The size of each company's rectangle is directly proportional to its market capitalization, meaning massive companies like Apple or Microsoft occupy the largest rectangular areas.
- **Color Coding (Performance)**: The color of the rectangle indicates the daily percentage change. **Bright green** represents strong gains, **bright red** indicates significant losses, and **dark gray** denotes flat movement. The color scale is clamped (saturated) between -5% and +5% to ensure that extreme outliers do not visually skew the overall market picture.
- **Data Display**: Within each company's rectangle, the **ticker symbol** and the daily **percentage change** are displayed.
- **Interactions**:
    - **Single-click** on any ticker's rectangle to fill the Command Bar with the symbol, preparing it for a subsequent command (e.g., FA, DES).
    - **Double-click** on any ticker's rectangle to automatically open a GP (price chart) panel for that specific stock.
- **Header**: The top of the panel displays the title "S&P 500 MARKET HEATMAP," the total number of analyzed tickers (500), the data source (Finviz), and the date and time of the last data update.

Data sources and refresh rate

The visualization relies on data sourced from Finviz (finviz.com), which supplies the symbol, market capitalization, sector/industry classification, and daily percentage change. This data is **not** fetched live from the frontend. An automated ETL process on the QSTMarkets server obtains the top 500 market cap data from Finviz every **15 minutes** during standard market hours (Monday-Friday, 9:00 AM - 4:30 PM ET) and stores it in an internal database table. The HEAT command backend reads this pre-fetched data, resulting in near-instant load times from a system cache that updates every **60 seconds**. Outside of market hours, the panel displays the final, official closing data from the most recent trading session. The visualization is rendered using the Apache ECharts library (treemap series).

Tips and caveats

- The Heatmap represents the **Top 500 US equities by market cap**, serving as a dynamic approximation of the S&P 500 index components.
- Use the **HEAT** command to quickly gauge market sentiment. A prevalence of red in cyclical sectors like Technology or Financials might indicate risk-off behavior, while dominant green in Defensive sectors might signal the opposite.
- Since the treemap automatically adjusts to fill the panel, users can dock the HEAT panel in a larger space to improve the readability of smaller tickers.
- The 15-minute refresh rate for the underlying data means the performance percentages are near-live but not real-time streaming data.
- The color scale clamping (-5% to +5%) is intentional to ensure the visual emphasis remains on the broad market structure, rather than being distorted by single, highly volatile small-cap stocks.



OMON - Options Monitor

Command: OMON

Category: Markets

Requires ticker: Yes

Overview

The Options Monitor command displays the full options chain for any US equity, showing all available call and put contracts organized by expiration date. While options are often associated with speculation, the data they generate is invaluable for traditional equity investors. Implied Volatility reveals expected price movement magnitude, Open Interest shows where institutional money is positioned, and Delta can be interpreted as the market-implied probability of a stock reaching a specific price level by expiration.

How to use it

Enter your ticker followed by OMON (for example, AAPL OMON). The panel opens with the nearest expiration date pre-selected. Use the expiration dropdown in the header bar to switch between available expiration dates. The header also displays the current underlying stock price for reference.

Reading the output

The panel uses the standard financial industry split-table layout. The center column shows strike prices. Call options are displayed on the left side and put options on the right side. Each side shows seven columns: Volume (VOL), Open Interest (OI), Implied Volatility (IV), Delta, Bid, Ask, and Last price.

Rows are visually coded to help you scan quickly:

- In-The-Money call contracts (strike below the underlying price) have a subtle green background tint.

- In-The-Money put contracts (strike above the underlying price) have a subtle red background tint.
- The At-The-Money strike (closest to the current stock price) is marked with an orange border and bold strike price, serving as the central reference point.
- Zero or empty values are dimmed to dark gray so that contracts with real activity stand out naturally.
- Volume and Open Interest values above 1,000 are highlighted in cyan to signal where meaningful liquidity exists.

Key columns explained:

- VOL (Volume): Number of contracts traded today. High volume indicates active interest.
- OI (Open Interest): Total number of outstanding contracts at that strike. Large OI suggests institutional positioning.
- IV (Implied Volatility): The market's expectation of future price movement, expressed as a percentage. Higher IV means the market expects bigger swings.
- Delta: Ranges from 0 to 1 for calls and 0 to -1 for puts. For a non-speculator, Delta can be roughly interpreted as the probability that the stock will reach that strike price by expiration.
- Bid/Ask: The current market prices to sell or buy the contract.
- Last: The price of the most recent trade.

Data sources and refresh rate

Options data is sourced from the Tradier API in real time. The chain data is cached for 60 seconds and expiration dates for 5 minutes. Click the REFRESH button to fetch the latest data on demand. A CSV export button allows you to download the full chain for offline analysis.

Tips and caveats

- Focus on strikes near the At-The-Money line (orange border) for the most liquid and actionable data. Deep in-the-money and far out-of-the-money contracts often have very low liquidity.
- High Open Interest at a specific strike can act as a "magnet" for the stock price near expiration, a phenomenon known as "max pain."
- A sudden spike in Implied Volatility before earnings usually signals that the market expects a significant price move, regardless of direction.
- Click any row to fill the CommandBar with the ticker symbol. Double-click to open the GP (price chart) panel for deeper analysis.

NKE OMON EXP 2026-04-02 Underlying: $52.07 REFRESH CSV 50 strikes | 50C / 50P | Tradier

VOL	OI	IV	DELTA	BID	ASK	LAST	STRIKE	LAST	BID	ASK	DELTA	IV	OI	VOL
5	30	220.0%	0.994	11.50	12.35	12.07	40.00	0.02	0.02	0.03	-0.006	119.6%	710	334
170	3	197.6%	0.989	10.80	11.35	10.99	41.00	0.03	0.02	0.04	-0.011	120.3%	0	300
79	24	188.0%	0.980	9.80	10.35	10.12	42.00	0.05	0.03	0.05	-0.020	111.5%	60	2
0	11	174.3%	0.975	8.40	9.85	10.65	42.50	0.06	0.05	0.07	-0.025	113.5%	135	72
11	42	177.6%	0.968	8.90	9.40	9.10	43.00	0.08	0.07	0.09	-0.033	113.4%	226	35
2	1	174.6%	0.959	8.20	8.90	8.52	43.50	0.09	0.06	0.11	-0.041	109.7%	50	24
207	38	156.5%	0.949	7.95	8.45	8.13	44.00	0.13	0.11	0.13	-0.051	111.5%	171	366
1	11	163.0%	0.937	6.50	8.00	7.90	44.50	0.15	0.14	0.16	-0.063	110.7%	28	100
106	238	145.6%	0.922	7.10	7.50	7.26	45.00	0.20	0.18	0.20	-0.078	111.6%	2K	773
2	1	146.4%	0.906	6.60	7.05	6.77	45.50	0.26	0.23	0.25	-0.094	111.3%	87	27
14	4	95.3%	0.887	6.20	6.90	6.50	46.00	0.31	0.30	0.31	-0.113	110.4%	637	137
2	1	91.4%	0.866	5.70	6.20	5.76	46.50	0.39	0.36	0.41	-0.134	110.6%	277	246
2	2	110.2%	0.842	5.40	5.75	4.95	47.00	0.47	0.45	0.48	-0.158	111.3%	961	927
3	32	110.2%	0.816	5.10	5.35	4.97	47.50	0.54	0.54	0.58	-0.184	111.6%	114	67
15	43	109.6%	0.788	4.70	4.95	4.77	48.00	0.67	0.65	0.68	-0.212	111.6%	1K	366
2	2	110.9%	0.757	4.30	4.60	4.20	48.50	0.79	0.79	0.81	-0.243	112.1%	446	57
3	9	111.1%	0.725	3.95	4.20	3.65	49.00	0.93	0.90	0.95	-0.275	111.3%	572	174
1	2	110.3%	0.692	3.60	3.85	3.60	49.50	1.10	1.05	1.14	-0.308	111.9%	403	109
122	473	109.9%	0.656	3.30	3.45	3.40	50.00	1.25	1.24	1.28	-0.344	110.8%	4K	557
193	360	111.3%	0.584	2.75	2.83	2.77	51.00	1.63	1.64	1.70	-0.416	111.1%	2K	469
1K	2K	111.8%	0.510	2.25	2.29	2.26	52.00	2.15	2.07	2.19	-0.490	111.1%	1K	189
653	2K	110.4%	0.436	1.79	1.82	1.80	53.00	2.69	2.60	2.71	-0.564	110.2%	970	829

WB - World Bonds

Command: WB

Category: Markets

Requires ticker: No

Overview

The World Bonds command displays the complete US Treasury yield curve, covering 11 maturities from 1-month to 30-year. Treasury yields represent the "risk-free" rate of return and are the foundation of all asset valuation. When yields rise, the present value of future corporate earnings decreases, which typically pressures equity valuations, especially in growth and technology sectors. This panel gives investors the macroeconomic context they need to interpret daily movements in the stock market without leaving the terminal.

How to use it

Simply type WB in the command bar. No ticker is required. The panel opens as a singleton, meaning only one instance can exist at a time. Data refreshes automatically every 30 minutes, or you can click REFRESH to fetch the latest data on demand.

Reading the output

The panel is divided into three sections:

The yield table at the top displays all 11 maturities (1M, 3M, 6M, 1Y, 2Y, 3Y, 5Y, 7Y, 10Y, 20Y, 30Y). For each maturity, you can see the current yield percentage, the daily change expressed in basis points (bps), the previous closing yield, and a small ASCII trend bar that gives you an instant visual sense of the direction and magnitude of the move. Positive changes appear in green, negative changes in red.

The key spreads section below the table highlights the two most important yield curve spreads that professional investors monitor constantly:

- 2Y/10Y spread: The difference between the 10-year and 2-year yields. This is the classic recession indicator. When this spread turns negative (the 2-year yield exceeds the 10-year yield), the curve is "inverted," and a blinking red **INVERTED** tag appears as a warning.
- 3M/10Y spread: The difference between the 10-year and 3-month yields. This is the Federal Reserve's preferred measure of yield curve inversion and has historically preceded every US recession since the 1960s.

When spreads are positive (normal curve), they appear in green. When negative (inverted), they appear in red with the **INVERTED** alert.

The mini yield curve chart at the bottom draws the curve as an SVG line graph. The horizontal axis uses a logarithmic scale for maturities (so the important short-end of the curve is not compressed), and the vertical axis auto-scales to the current yield range. The line is drawn in orange under normal conditions and turns red if any portion of the curve is inverted. Each data point is marked with a circle, and all maturities are labeled along the bottom.

Data sources and refresh rate

All yield data is sourced from FRED (Federal Reserve Economic Data), the official data repository of the Federal Reserve Bank of St. Louis. FRED updates Treasury yields once daily at approximately 4:15 PM Eastern Time. The data is cached for 1 hour on the server. The panel auto-refreshes every 30 minutes on the client side.

Tips and caveats

- A normal yield curve slopes upward: longer maturities pay higher yields to compensate for time risk. When the curve flattens or inverts, it signals that the bond market expects economic weakness ahead.
- The 2Y/10Y spread turning negative has preceded every US recession in the last 50 years, though the lag between inversion and recession onset can range from 6 to 24 months.
- Pay attention to sudden large moves in basis points (CHG column). A move of +10 bps or more in a single day on the 10-year is significant and often coincides with major market events (Fed announcements, inflation reports, employment data).
- Use WB alongside the ECO, ECOCAL, and MACRO commands for a complete macroeconomic picture. The yield curve provides the "verdict" of the bond market on the data shown in those other panels.
- Click CSV to export the full yield curve data for offline analysis or record-keeping.

TECH - Technical pattern screener

Command: TECH

Category: Markets

Requires ticker: No (singleton command, scans the entire US equity market)

Overview

The Technical Pattern Screener (**TECH**) is a market-wide technical analysis tool that scans US equities for chart patterns, candlestick formations, moving average signals, and momentum indicators. It complements the **SCAN** command (which filters by fundamental criteria like sector, market cap, and P/E) by providing a purely technical view. The command is designed with educational tooltips on every filter label, making it accessible to students and retail investors who are learning technical analysis concepts.

How to use it

Type **TECH** in the Command Bar and press Enter. The panel opens with 10 filter dropdowns arranged in rows:

- **Signal**: preset market signals (Top Gainers, Top Losers, New High, New Low, Most Volatile, Most Active, Unusual Volume, Overbought, Oversold, Upgrades, Downgrades, Insider Buying, Insider Selling, Major News)
- **Pattern**: chart patterns (Double Bottom, Double Top, Head & Shoulders, H&S Inverse, Triangle Ascending, Triangle Descending, Wedge Up, Wedge Down, Channel Up, Channel Down, TL Resistance, TL Support, Horizontal S/R, Multiple Bottom, Multiple Top)
- **Candle**: candlestick patterns (Hammer, Inverted Hammer, Doji, Dragonfly Doji, Gravestone Doji, Marubozu White/Black, Spinning Top White/Black, Long Lower/Upper Shadow)
- **SMA 20**: 20-day Simple Moving Average position (price above/below, crossed above/below, SMA20 vs SMA50 cross)
- **SMA 50**: 50-day SMA (price above/below, crossed, Golden Cross = SMA50 above SMA200, Death Cross = SMA50 below SMA200)
- **SMA 200**: 200-day SMA (price above/below, crossed)
- **RSI**: Relative Strength Index 14-day (Overbought >70/>80/>90, Oversold <30/<20/<10)
- **Sector**: filter by sector (Technology, Healthcare, Financial, etc.)
- **Avg Vol**: minimum 3-month average daily volume (Over 100K, 500K, 1M, 2M, 5M) to exclude illiquid stocks
- **Price**: min and max price inputs for exact range filtering (e.g. 20 to 100 to exclude penny stocks)

Select one or more filters, then click the **SCAN** button. Results appear in a sortable table. Click any row to fill the Command Bar with that ticker. Double-click to open the **GP** (price chart) panel for that stock. Use the **CSV** button to export results or the **WL** button to save all results as a new watchlist.

Reading the output

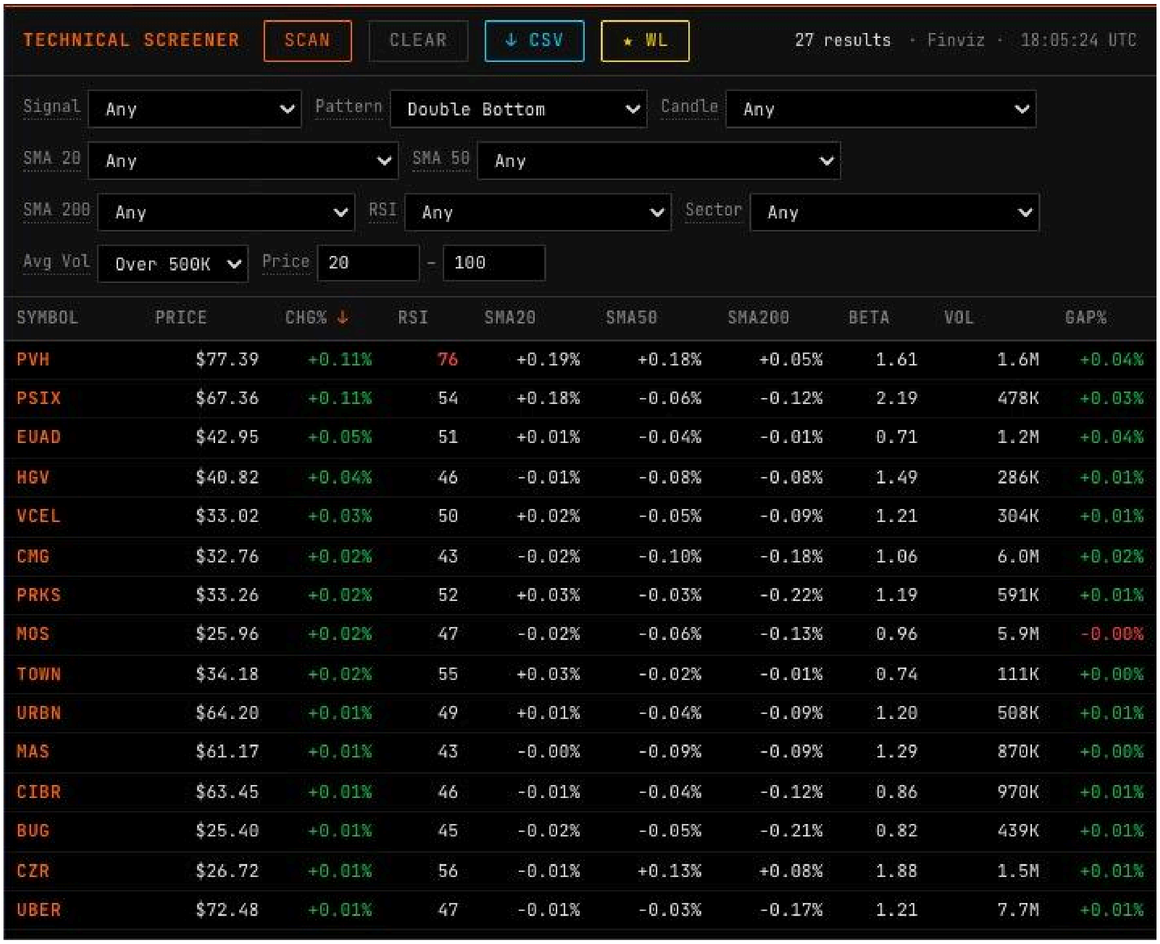
The results table displays the following columns: **SYMBOL** (ticker in orange), **PRICE**, **CHG%** (daily change, green positive, red negative), **RSI** (highlighted red when >70 overbought, cyan when <30 oversold), **SMA20** (distance from 20-day SMA as percentage), **SMA50**, **SMA200**, **BETA** (volatility vs S&P 500, >1 means more volatile), **VOL** (today's volume), **GAP%** (overnight price gap from previous close). The table is sortable by clicking any column header. An arrow indicator shows the active sort column and direction.

Data sources and refresh rate

Data is sourced from Finviz via the `finvizfinance` library (no API key required). Results are fetched on-demand each time the user clicks **SCAN** (no cache). The price filter uses a two-layer approach: Finviz pre-filters using the nearest "Over $X" bucket to reduce the dataset, then the backend applies exact min/max price filtering in Python for precise results. Average volume filtering is handled entirely by Finviz as a pre-filter.

Tips and caveats

- Hovering over any filter label shows an educational tooltip explaining the concept (e.g., hovering over "RSI" explains "Relative Strength Index: measures momentum on a 0-100 scale. RSI > 70 = overbought, RSI < 30 = oversold").
- You can combine multiple filters simultaneously. For example, Pattern "Double Bottom" + RSI "Oversold (<30)" + Avg Vol "Over 500K" + Price 20-100 finds liquid, oversold stocks forming a potential reversal pattern.
- A Golden Cross (SMA50 crossed SMA200 above) is one of the most widely followed bullish signals in technical analysis. A Death Cross is the bearish equivalent.
- Scanning with no filters selected returns all US stocks (up to 200 results). Always set at least one filter for meaningful results.
- The scan may take 30-60 seconds because it queries Finviz in real time. Be patient after clicking **SCAN**.
- **TECH** focuses on technical patterns; for fundamental screening (sector, market cap, P/E), use the **SCAN** command instead.



SYMBOL	PRICE	CHG% ↓	RSI	SMA20	SMA50	SMA200	BETA	VOL	GAP%
PVH	$77.39	+0.11%	76	+0.19%	+0.18%	+0.05%	1.61	1.6M	+0.04%
PSIX	$67.36	+0.11%	54	+0.18%	-0.06%	-0.12%	2.19	478K	+0.03%
EUAD	$42.95	+0.05%	51	+0.01%	-0.04%	-0.01%	0.71	1.2M	+0.04%
HGV	$40.82	+0.04%	46	-0.01%	-0.08%	-0.08%	1.49	286K	+0.01%
VCEL	$33.02	+0.03%	50	+0.02%	-0.05%	-0.09%	1.21	304K	+0.01%
CMG	$32.76	+0.02%	43	-0.02%	-0.10%	-0.18%	1.06	6.0M	+0.02%
PRKS	$33.26	+0.02%	52	+0.03%	-0.03%	-0.22%	1.19	591K	+0.01%
MOS	$25.96	+0.02%	47	-0.02%	-0.06%	-0.13%	0.96	5.9M	-0.00%
TOWN	$34.18	+0.02%	55	+0.03%	-0.02%	-0.01%	0.74	111K	+0.00%
URBN	$64.20	+0.01%	49	+0.01%	-0.04%	-0.09%	1.20	508K	+0.01%
MAS	$61.17	+0.01%	43	-0.00%	-0.09%	-0.09%	1.29	870K	+0.00%
CIBR	$63.45	+0.01%	46	-0.01%	-0.04%	-0.12%	0.86	970K	+0.01%
BUG	$25.40	+0.01%	45	-0.02%	-0.05%	-0.21%	0.82	439K	+0.01%
CZR	$26.72	+0.01%	56	-0.01%	+0.13%	+0.08%	1.88	1.5M	+0.01%
UBER	$72.48	+0.01%	47	-0.01%	-0.03%	-0.17%	1.21	7.7M	+0.01%

RISK - Portfolio risk (VaR / CVaR)

Command: RISK

Category: Portfolio

Requires ticker: No (accepts an optional watchlist name as argument)

Overview

The Portfolio Risk command (RISK) computes Value at Risk (VaR) and Conditional VaR (also known as Expected Shortfall or CVaR) for an equal-weight portfolio of all assets contained in a selected watchlist. It uses historical simulation (non-parametric), meaning it analyzes actual past daily returns rather than assuming a normal distribution. This command answers the question PERF cannot: "what could happen?" while PERF answers "what did happen?". It is a fundamental tool for any investor who wants to understand the worst-case scenarios their portfolio could face. This type of analysis is standard practice in professional risk management (banks, hedge funds, asset managers) but is not available in free retail platforms like TradingView or Yahoo Finance.

How to use it

The command can be invoked two ways:

1. Type **RISK** in the Command Bar and press Enter. The panel opens with a watchlist dropdown, a period selector (default 1Y), and an **Analyze** button.
2. Type **RISK** followed by a watchlist name (e.g., RISK NUCLEAR) to auto-run the analysis on that watchlist.

Authentication is required. The watchlist must contain at least one ticker with sufficient historical data. Available periods: 3M, 6M, 1Y (recommended), 2Y. Longer periods provide more data points for more statistically robust results.

Reading the output

The panel displays five sections:

1. **VaR/CVaR metric cards** (two cards side by side): The left card shows metrics at 95% confidence level, the right card at 99%. Each card contains a small table with two rows (VaR and CVaR) and three columns (1 DAY, 5 DAY, 21 DAY). All values are negative percentages representing potential losses. VaR tells you the maximum expected loss: for example, a 1-day VaR of -2.72% at 95% confidence means that on 19 out of 20 trading days, the portfolio loss should not exceed 2.72%. CVaR (Expected Shortfall) tells you the average loss on the worst days: if the 95% CVaR is -3.67%, it means that in the worst 5% of days, you lose 3.67% on average. CVaR is always a larger loss than VaR by definition. The 5-day and 21-day values are scaled from the daily figure using the square root of time rule (a standard industry approximation). 21 trading days approximates one calendar month.
2. **How to read these metrics (educational guide)**: A reference box that explains VaR, CVaR, and time horizon scaling in plain language. This section is always visible to help users who are new to quantitative risk concepts.
3. **Daily return distribution (histogram)**: An SVG chart showing the frequency distribution of daily portfolio returns over the selected period. Red bars represent loss days (negative returns), green bars represent gain days (positive returns). Two dashed vertical lines mark the VaR thresholds: orange for 95% VaR and red for 99% VaR. Everything to the left of these lines represents the tail risk. A normally distributed portfolio would show a symmetric bell curve; a portfolio with heavier left tail (more extreme losses than expected) indicates higher tail risk.
4. **Risk contribution by asset (table)**: A table showing each asset's contribution to the overall portfolio risk. Columns include: **SYMBOL** (ticker), **WEIGHT** (equal weight, e.g.,

12.5% for 8 stocks), **ANN. VOL** (annualized volatility, how much the stock price swings in a typical year), **RISK CONTRIB** (marginal contribution to portfolio risk, accounting for weight and correlation), **BETA** (sensitivity relative to the portfolio, beta > 1 means it amplifies portfolio moves). Assets are sorted by risk contribution (highest first). Values exceeding thresholds are highlighted in red: annualized volatility above 40% and beta above 1.5. Every column header has an educational tooltip explaining the metric on hover.

5. **Interpretation**: An auto-generated text block with orange left border summarizing the key findings. It states the daily VaR and CVaR at 95%, identifies the largest risk contributor (by symbol, volatility, and beta), and warns if the daily VaR exceeds 3% (indicating a high-risk portfolio).

Data sources and refresh rate

The analysis uses historical daily close prices from the QSTMarkets internal MariaDB database (up to 10 years of history), with automatic fallback to yfinance for any symbol not available in the primary database. A minimum of 30 trading days is required per symbol; symbols with insufficient data are automatically excluded and a warning is shown. Results are cached in Redis for 6 hours. The portfolio assumes equal weighting across all assets in the watchlist. Maximum 50 tickers per analysis.

Tips and caveats

- VaR and CVaR are backward-looking metrics based on historical returns. They assume the future will resemble the past, which is not guaranteed, especially during unprecedented market events (black swans).
- CVaR (Expected Shortfall) is generally considered a better risk measure than VaR because it accounts for the severity of losses beyond the VaR threshold, not just whether they exceed it.
- The square root of time rule used for 5-day and 21-day scaling assumes returns are independent and identically distributed. In reality, during market crises, losses tend to cluster (volatility clustering), which means the multi-day VaR may underestimate actual risk during stress periods.
- Use RISK in conjunction with CORR (Correlation Matrix) to understand portfolio diversification. High correlation between assets means risk is concentrated; reducing correlation through diversification will lower VaR.
- Use RISK together with PERF (Portfolio Performance) for a complete picture: PERF shows what happened (historical returns, Sharpe ratio, max drawdown), RISK shows what could happen (potential future losses).
- A daily VaR above 3% at 95% confidence typically indicates an aggressive portfolio heavily weighted toward volatile growth stocks. Consider rebalancing if this exceeds your risk tolerance.
- The analysis assumes equal weighting. If your actual portfolio has different position sizes, the results will not perfectly reflect your real risk exposure.

PORTFOLIO RISK `RISK`

WATCHLIST: Nuclear (9 symbols) PERIOD: 1Y **ANALYZE**

NUCLEAR RISK ANALYSIS (250 TRADING DAYS, 1Y PERIOD, EQUAL-WEIGHT)

95% CONFIDENCE

	1 DAY	5 DAY	21 DAY
VaR	-5.16%	-11.53%	-23.63%
CVaR	-6.31%	-14.12%	-28.93%

99% CONFIDENCE

	1 DAY	5 DAY	21 DAY
VaR	-6.35%	-14.20%	-29.10%
CVaR	-8.16%	-18.25%	-37.39%

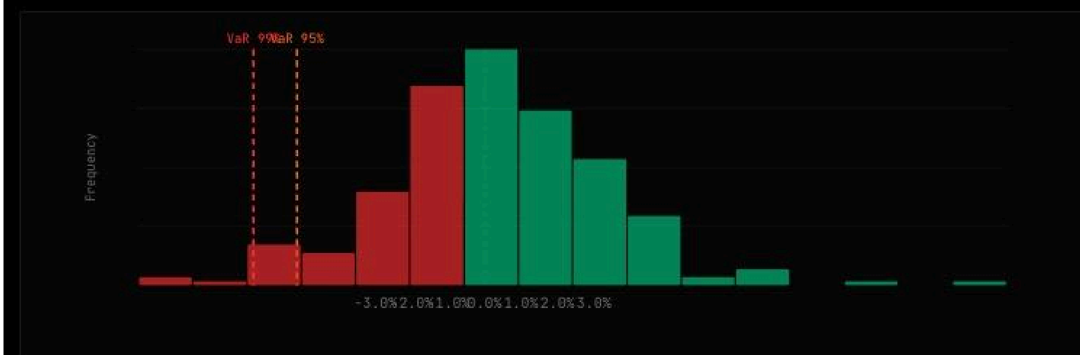
HOW TO READ THESE METRICS

VaR (Value at Risk): maximum expected loss over a time horizon at a given confidence level. A 1-day VaR of -2% at 95% means: on 19 out of 20 trading days, your loss should not exceed 2%.

CVaR (Expected Shortfall): average loss in the worst scenarios beyond VaR. Always worse than VaR. If CVaR is -3.5%, it means when things go bad (worst 5% of days), you lose 3.5% on average.

5-day / 21-day: scaled from daily using the square root of time rule. 21-day approximates one trading month.

DAILY RETURN DISTRIBUTION



RISK CONTRIBUTION BY ASSET

SYMBOL	WEIGHT	ANN. VOL	RISK CONTRIB	BETA
OKLO	11.1%	107.5%	10.0%	1.86
NNE	11.1%	97.0%	8.3%	1.55
LEU	11.1%	94.0%	8.1%	1.51
VST	11.1%	55.5%	4.5%	0.83
TLN	11.1%	56.6%	4.3%	0.81
CEG	11.1%	51.9%	4.2%	0.78
GEV	11.1%	51.2%	3.9%	0.72
BWXT	11.1%	46.2%	3.6%	0.68
DVN	11.1%	42.0%	1.4%	0.26

INTERPRETATION

At 95% confidence, the portfolio's daily VaR is 5.16%, meaning on 19 out of 20 trading days the loss should not exceed this level. In the worst 5% of days, the average loss (CVaR) is 6.31%. The

9 symbols | Period: 1y | Computed: Apr 2, 2026, 12:25 PM GMT+2

FEDW - Fed Funds rate tracker

Command: FEDW

Category: Markets

Requires ticker: No (singleton command)

Overview

The Fed Funds Rate Tracker command (FEDW) provides a comprehensive view of the Federal Reserve's interest rate policy. It displays the current effective Federal Funds rate, the FOMC target range, and the market-implied rate derived from Fed Funds futures contracts. This is the most closely watched macroeconomic indicator in financial markets, as changes in the Fed Funds rate affect everything from mortgage rates to stock valuations. This command provides the essential data points for free using public sources: the Federal Reserve Economic Data (FRED) API for official rates and Yahoo Finance for futures-implied market expectations.

How to use it

Type **FEDW** in the Command Bar and press Enter. The panel loads automatically with no additional input required. Data loads on first open and auto-refreshes every 30 minutes. A manual **Refresh** button is available in the top-right corner of the header.

Reading the output

The panel displays five sections:

1. **Effective Fed Funds Rate card** (left, with orange accent border): Shows the current effective Federal Funds rate as published daily by the New York Fed. This is the actual rate at which depository institutions lend reserve balances to each other overnight. Below the rate, the FOMC target range is displayed (e.g., "Target: 3.50% - 3.75%"). The effective rate always trades within this band.
2. **Market-Implied Rate card** (right, with cyan accent border): Shows the rate derived from the price of 30-Day Federal Funds futures (ticker ZQ=F on CME). The formula is simple: implied rate = 100 - futures price. This reflects the market consensus on where the Fed Funds rate will be at contract expiry. Below the rate, the spread versus the current

effective rate is shown in basis points with a color-coded interpretation: green text with "market expects cuts" if the implied rate is more than 10 bps below the current rate, red text with "market expects hikes" if above, and yellow text with "market expects hold" if within 10 bps.

3. **How to read this panel (educational guide)**: A reference box explaining four key concepts: the effective rate (what it is, who publishes it), the target range (set by FOMC, the band within which the effective rate trades), the market-implied rate (how it is derived from futures, what it means when it diverges from the current rate), and the FOMC calendar (8 meetings per year, what the NEXT badge means).
4. **Effective Fed Funds Rate history chart**: An SVG area chart showing approximately 2 years of the daily effective Fed Funds rate. The Y-axis shows rate percentages at 0.50% intervals. The chart clearly visualizes the Fed's rate cycle: rate hikes appear as upward steps, rate cuts as downward steps, and holds as flat plateaus. The orange area fill makes the trend immediately visible.
5. **FOMC meeting calendar**: A vertical list of upcoming and recent FOMC meeting dates. Each row shows the date formatted as "Month Day, Year" on the left and a countdown on the right (e.g., "in 33d" for future meetings, "15d ago" for past meetings). The next upcoming meeting is highlighted with an orange border, slightly brighter background, and an orange "NEXT" badge. Past meetings appear dimmed. The calendar currently covers 2025 and 2026 meeting dates.

Data sources and refresh rate

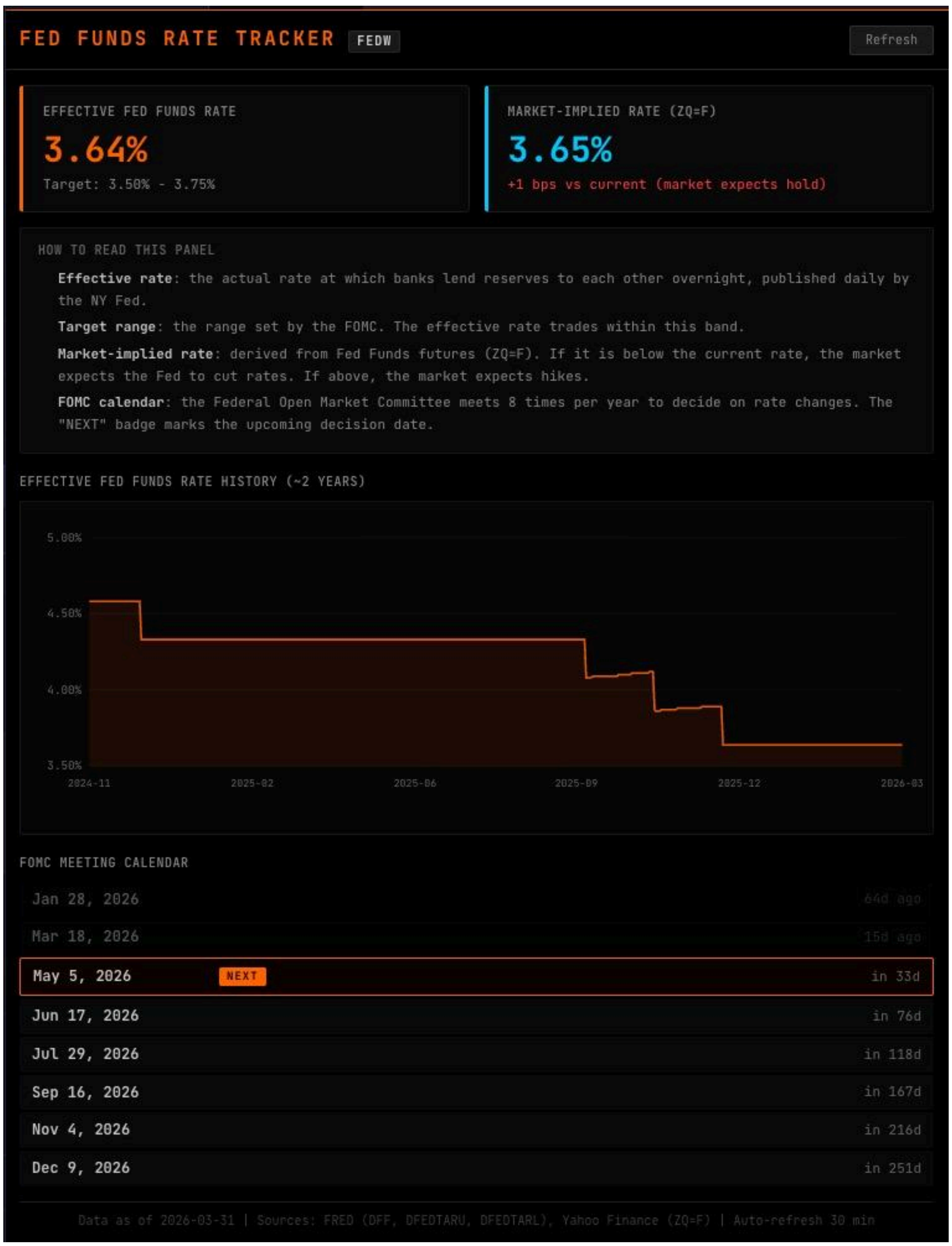
The effective Fed Funds rate comes from the FRED API series DFF (Daily Federal Funds Effective Rate), updated daily by the St. Louis Federal Reserve. The target range comes from FRED series DFEDTARU (upper limit) and DFEDTARL (lower limit). The market-implied rate comes from Yahoo Finance ticker ZQ=F (30-Day Federal Funds Futures, CME). The FOMC meeting calendar is maintained as a hardcoded list of decision dates (second day of each two-day meeting), updated once per year when the Federal Reserve publishes the following year's schedule. All data is cached in Redis for 1 hour. The panel auto-refreshes every 30 minutes.

Tips and caveats

- The market-implied rate from ZQ=F represents the front-month contract only. It reflects market expectations for the rate at the nearest contract expiry, not for specific future FOMC meetings. This is a simple indicator of the market's immediate bias.
- Use **FEDW** together with **WB** (World Bonds) for a complete interest rate picture: **WB** shows the full Treasury yield curve (1M to 30Y), while **FEDW** focuses specifically on the overnight rate controlled by the Fed.
- Use **FEDW** alongside **ECOCAL** (Economic Calendar) to see upcoming economic data releases (CPI, jobs reports) that may influence the Fed's rate decisions. Major data

surprises can shift the implied rate significantly within hours.

- The spread between the implied rate and the current effective rate is the simplest indicator of market expectations. A spread of -25 bps or more strongly suggests the market is pricing in at least one rate cut before the futures contract expires.
- FOMC meetings where the Fed releases updated economic projections (the "dot plot") tend to cause larger market moves. These occur at the March, June, September, and December meetings.
- The effective rate is published with a one-business-day lag. On Mondays, the "as of" date will typically show the previous Friday.



COMM - Agricultural commodities

Command: COMM

Category: Markets

Requires ticker: No (singleton command)

Overview

The Agricultural Commodities command (COMM) provides a real-time dashboard of the six most widely traded agricultural commodity futures: Wheat, Corn, Soybean, Coffee, Sugar, and Cotton. These commodities are the backbone of global food and textile supply chains, and their prices are influenced by weather patterns, trade policy, seasonal planting and harvest cycles, and geopolitical events. Agricultural commodities tend to have low correlation with equities, making them a valuable asset class for portfolio diversification. This command complements the existing energy commodities (WTIUSD, BRENTUSD, NGUSD) and precious metals (XAUUSD, XAGUSD) already available in QSTMarkets, giving users a complete picture of the commodity landscape.

How to use it

Type **COMM** in the Command Bar and press Enter. The panel loads automatically with no additional input required. Data loads on first open and auto-refreshes every 10 minutes. A manual **Refresh** button is available in the top-right corner of the header.

Reading the output

The panel displays a grid of six commodity cards (arranged 3 columns by 2 rows), followed by an educational reference section:

1. **Commodity cards** (6 cards in a 3x2 grid): Each card represents one agricultural commodity and contains:
    - Header row: commodity name in orange (e.g., WHEAT), and the futures contract ticker in gray on the right (e.g., ZW=F).
    - Price: the current futures price displayed in large white text with its unit. Wheat, Corn, and Soybean are priced in cents per bushel (c/bu). Coffee, Sugar, and Cotton are priced in cents per pound (c/lb).
    - Daily change percentage: shown below the price in green (positive) or red

(negative).
    - Day range: the intraday low and high prices for the current session.
    - Previous close: yesterday's settlement price for reference.
    - Clicking on any card fills the Command Bar with that commodity's futures ticker (e.g., ZW=F), allowing the user to quickly open a GP chart or other command for that commodity.
2. **Educational guide** (below the cards): A reference section titled "About agricultural commodities" that explains three key concepts: what futures prices represent (continuous front-month contracts traded on CME and ICE exchanges), the units used (cents per bushel for grains, cents per pound for softs), and why agricultural commodities are useful for portfolio diversification (low correlation with equities, influenced by weather and seasonal cycles rather than corporate earnings).

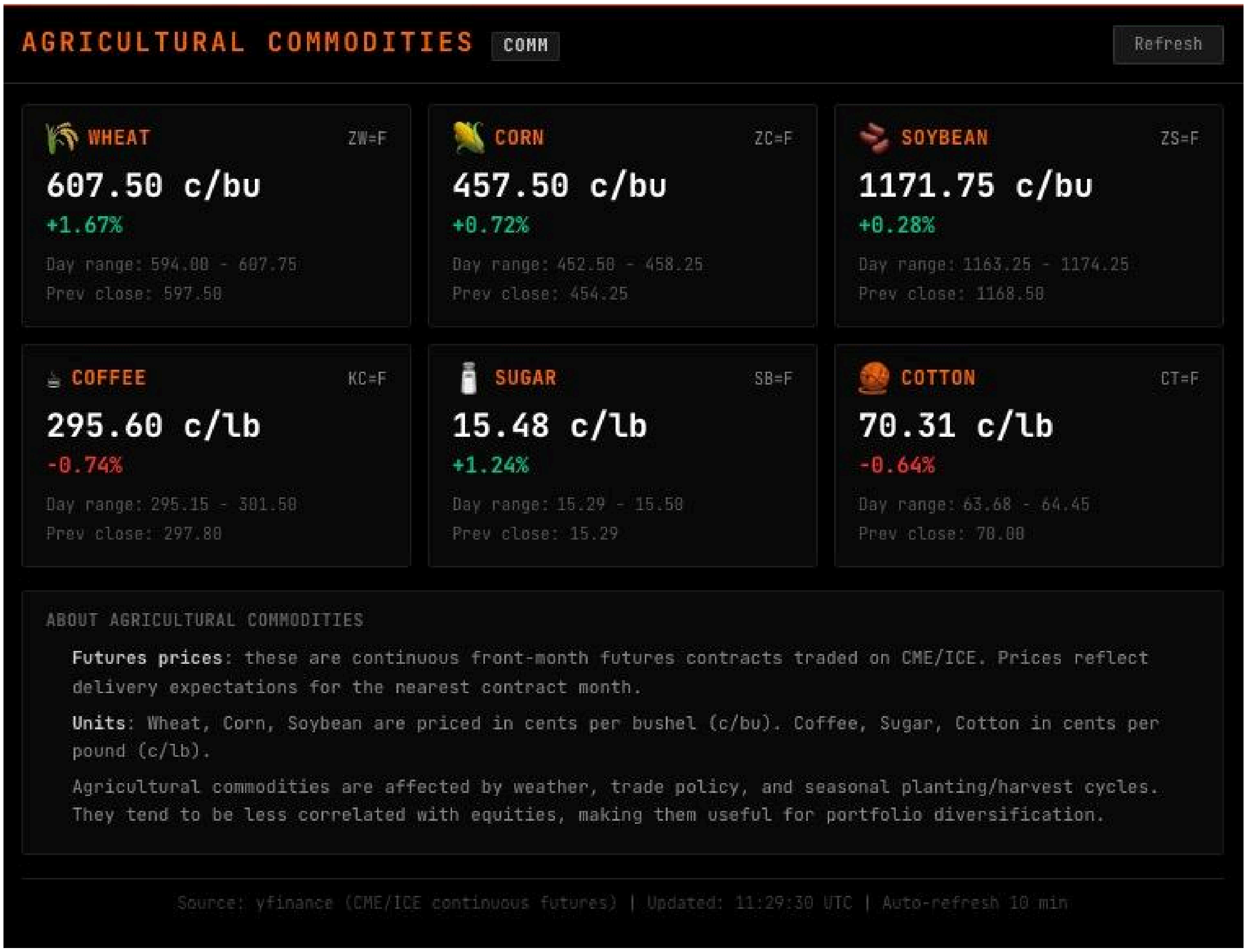
Data sources and refresh rate

All prices are sourced from Yahoo Finance using continuous front-month futures contract tickers: ZW=F (Wheat, CBOT), ZC=F (Corn, CBOT), ZS=F (Soybean, CBOT), KC=F (Coffee, ICE), SB=F (Sugar, ICE), CT=F (Cotton, ICE). No API key is required. Data is cached in Redis for 10 minutes to reduce API calls. The panel auto-refreshes every 10 minutes. A manual **Refresh** button is also available.

Tips and caveats

- Agricultural commodity futures trade on different exchanges: grains (Wheat, Corn, Soybean) trade on the Chicago Board of Trade (CBOT, part of CME Group), while softs (Coffee, Sugar, Cotton) trade on the Intercontinental Exchange (ICE). Trading hours differ between exchanges.
- Futures prices represent the front-month (nearest expiry) continuous contract. Near contract expiration, prices may diverge from the spot price due to contango or backwardation effects. This is normal futures market behavior.
- The prices shown are in contract-native units, not dollars. For example, Wheat at 607.50 c/bu means $6.075 per bushel. One standard wheat futures contract covers 5,000 bushels, so a 1-cent move equals $50 per contract.
- Agricultural commodities are highly seasonal. Grain prices typically rise during spring planting uncertainty (March-May) and fall during harvest (September-November). Coffee is affected by the Brazilian frost season (June-August).
- Use **COMM** alongside **CORR** (Correlation Matrix) to quantify how agricultural commodities correlate with your equity portfolio. Adding assets with near-zero or negative correlation to your watchlist can improve overall portfolio diversification.
- For deeper analysis of a specific commodity, click its card to fill the Command Bar with the futures ticker, then type **GP** to view the full candlestick chart with technical indicators.
- Weather events (droughts, floods, frosts) can cause sudden and extreme price moves in agricultural commodities, especially for Coffee (Brazil frost) and Wheat (US plains drought). These moves are often uncorrelated with equity market events, which is

precisely what makes commodities valuable as diversifiers.



BACKTEST - Strategy backtesting

Command: BACKTEST (alias: BT)

Category: Charts

Requires ticker: Yes

Overview

The Strategy Backtesting command (BACKTEST) allows users to test simple rule-based trading strategies against historical price data and compare their performance to a buy-and-hold benchmark. This was the most requested feature by users, many of whom previously relied on

Excel spreadsheets for this type of analysis. The command supports two strategy types: SMA Crossover (moving average trend-following) and RSI Threshold (mean-reversion based on momentum). Both are classic strategies widely taught in trading education and used as building blocks for more complex systems. Every backtest automatically includes a buy-and-hold comparison, so users can immediately see whether their strategy adds value over simply holding the asset. The backtesting engine applies a one-day signal shift to avoid lookahead bias, meaning trade signals generated today are executed at the next day's prices, simulating real-world conditions where you cannot act on information you do not yet have.

How to use it

Type a ticker symbol followed by BACKTEST (or BT) in the Command Bar. For example, `AAPL BACKTEST` or `MSFT BT`. The panel opens with a control bar containing: a strategy selector (SMA Crossover or RSI Threshold), strategy-specific parameters, a period selector (1Y, 2Y, 3Y, 5Y, or 10Y), and an initial capital input (default $10,000). For SMA Crossover, configure the fast SMA period (10, 20, or 50) and slow SMA period (50, 100, or 200). For RSI Threshold, configure the buy level (buy when RSI drops below this, e.g., 30 for oversold) and sell level (sell when RSI rises above this, e.g., 70 for overbought). Click **Run Backtest** to execute the simulation. Authentication is required. Results are cached for 1 hour.

Reading the output

The panel displays six sections:

1. **Section title**: Shows the ticker, strategy name, parameters, and period (e.g., "BWXT SMA CROSSOVER (FAST=20, SLOW=50) - 1Y").
2. **Equity curve chart**: An interactive line chart built with lightweight-charts showing two series. The orange line represents the strategy's equity over time (starting from the initial capital). The cyan dashed line represents buy-and-hold (investing the same capital on day one and holding until the end). A gray dashed reference line marks the initial capital level. Users can zoom, pan, and hover to see exact values at any point. The chart makes it immediately visual whether the strategy outperformed or underperformed the benchmark.
3. **Metrics cards (side by side)**: Two cards showing identical metrics for the strategy (left, orange header) and buy-and-hold (right, cyan header). Each card shows the equity progression (e.g., "$10,000.00 to $12,730.26") and a table of 8 metrics: **Total Return** (overall percentage gain/loss), **CAGR** (Compound Annual Growth Rate, the annualized return), **Max Drawdown** (largest peak-to-trough decline, always negative), **Sharpe Ratio** (return per unit of risk, above 1.0 is good, above 2.0 is excellent), **Win Rate** (percentage of profitable trades), **Trades** (total count with wins/losses breakdown), **Exposure** (percentage of time the strategy was invested rather than sitting in cash), and **Avg Hold** (average holding period per trade in calendar days). Every metric label has an educational tooltip on hover explaining what it means.
4. **Educational guide** ("How to read these results"): A reference section explaining each

metric in plain language, including a critical caveat: "Past performance does not guarantee future results. Backtests are inherently optimistic because they use data that was not available at the time of each trade decision."

5. **Interpretation**: An auto-generated text block with orange left border that compares the strategy to buy-and-hold. It states whether the strategy outperformed or underperformed, notes the max drawdown comparison, evaluates the Sharpe ratio quality, and reports the win rate and number of trades. If the strategy had less than 50% exposure, it notes that the strategy was only invested part of the time, sitting in cash during unfavorable conditions.
6. **Trade list (expandable)**: A button labeled "Show N trades" that expands to reveal a detailed table of every round-trip trade. Columns: **ENTRY** (date), **ENTRY $** (price), **EXIT** (date), **EXIT $** (price), **RETURN** (percentage, green for wins, red for losses), **DAYS** (holding period), and **P&L** (profit/loss in dollars). Winning trades have a subtle green background tint, losing trades a red tint.

Data sources and refresh rate

Historical daily OHLCV (Open, High, Low, Close, Volume) data is sourced from the QSTMarkets internal MariaDB database, which contains up to 10 years of data for US equities. If the database lacks sufficient data for a ticker (fewer than 60 trading days), the system automatically falls back to Yahoo Finance. Technical indicators (SMA, RSI) are computed using the `ta` library (Technical Analysis library for Python). Results are cached in Redis for 1 hour using an MD5 hash of the request parameters as the cache key. Data is fetched on demand when the user clicks **Run Backtest** and does not auto-refresh.

Tips and caveats

- The SMA Crossover strategy is a trend-following approach: it performs well in strong trending markets but generates frequent false signals (whipsaws) in sideways or choppy markets. It tends to underperform buy-and-hold in consistently bullish markets like the 2023-2025 rally, but can protect capital during bear markets by sitting in cash.
- The RSI Threshold strategy is a mean-reversion approach: it buys when the stock is oversold and sells when overbought. It works best for stocks that oscillate in a range but can produce devastating losses if a stock drops below the buy level and continues falling (value trap).
- All signals are shifted by one day to simulate realistic execution. A buy signal generated today means the position is entered at the next trading day's price. This avoids lookahead bias, which is the most common flaw in amateur backtests.
- The Sharpe Ratio assumes a risk-free rate of zero, which is a simplification. In a high-interest-rate environment, the actual risk-adjusted performance would be lower than reported.
- Max Drawdown is arguably the most important metric for real-world trading. A strategy with a 50% drawdown requires a 100% gain just to break even. Many professional traders consider any strategy with a max drawdown exceeding 25% to be too risky.
- Win Rate alone is misleading. A strategy with a 30% win rate can still be highly profitable if its average win is 3x larger than its average loss. Conversely, a 90% win rate strategy

can lose money if its rare losses are catastrophic.

- The Exposure metric shows what percentage of the time the strategy was invested. Lower exposure means more time in cash, which reduces risk but also limits upside. A strategy with 50% exposure and the same return as buy-and-hold is actually twice as capital-efficient.
- Use **BACKTEST** together with **RISK** (VaR/CVaR) to assess whether the drawdown levels of your preferred strategy align with your risk tolerance. If the strategy's max drawdown exceeds your VaR comfort zone, consider using tighter parameters.
- Try different parameter combinations (e.g., SMA 10/50 vs 20/200) and periods to understand how sensitive the strategy is to parameter choices. A strategy that only works with very specific parameters is likely overfit to historical data and will perform poorly in the future.

SOCIAL - Social sentiment radar

Command: SOCIAL

Category: News

Requires ticker: Yes

Overview

The Social sentiment radar command (SOCIAL) provides an AI-powered analysis of market sentiment for a specific ticker by aggregating recent financial news and Reddit discussions, then running a DeepSeek AI model to classify the overall sentiment as bullish, bearish, or neutral. In modern markets, social media sentiment, particularly from communities like Reddit's r/wallstreetbets and r/stocks, can drive significant short-term price action independently of fundamentals. The GameStop and AMC short squeezes of 2021 demonstrated that retail investor momentum on social platforms can move stock prices dramatically. This command gives users a quick read on what the market is saying about a stock without having to manually scan multiple news sites and forums. It is the only command in QSTMarkets that combines real-time web search with artificial intelligence to produce a synthesized sentiment verdict.

How to use it

The command is invoked by typing a ticker symbol followed by SOCIAL in the Command Bar. For example, **ADMA SOCIAL** or **TSLA SOCIAL**. The panel loads automatically, fetching recent mentions and triggering the AI analysis. No additional configuration is required. A **Refresh** button in the top-right corner allows for manual re-analysis. To conserve API quota, data is cached for 30 minutes.

Reading the output

The SOCIAL output is organized into five distinct sections:

1. **Sentiment gauge (centered card):** A large colored label showing the overall AI classification: BULLISH (green), BEARISH (red), or NEUTRAL (yellow). Below this, a confidence bar indicates the AI model's certainty level (0-100%). Higher confidence levels reflect stronger agreement across the analyzed sources. The total number of mentions analyzed is displayed at the bottom, broken down by news and Reddit counts.
2. **AI sentiment analysis (orange left border block):** A 2-3 sentence summary generated by DeepSeek AI that explains the key themes driving the sentiment. This section distills dozens of articles and posts into a concise narrative, identifying specific drivers such as earnings beats, short seller allegations, or regulatory investigations.
3. **News mentions:** A list of recent financial news articles about the ticker sourced via Google News. Each card displays the article title (clickable to open in a new tab), a

content snippet, the publication source, and the publication date. Typically, 5-10 articles are shown to cover the most recent coverage.

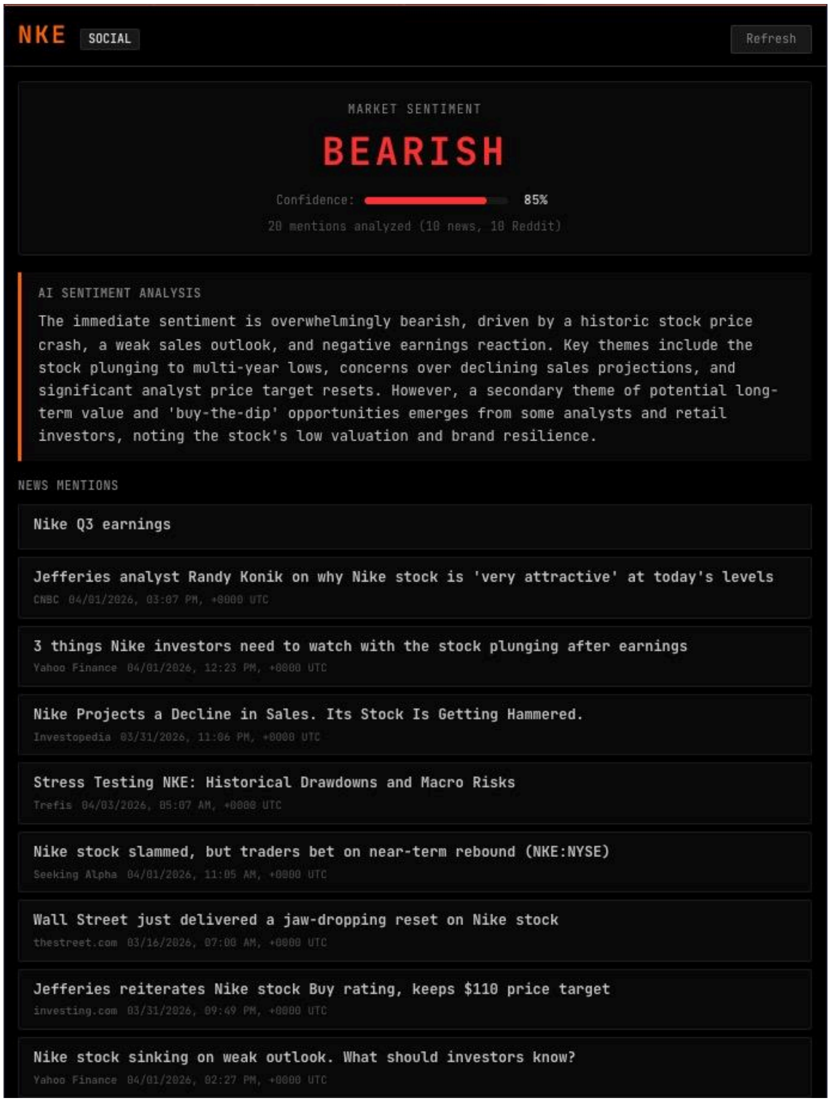
4. **Reddit mentions:** A list of recent Reddit posts and discussions mentioning the ticker, sourced via Google search filtered to reddit.com. These cards feature an orange-red left border to distinguish them from traditional news. They capture the retail investor conversation that often precedes or amplifies price moves.
5. **Educational guide:** Located at the bottom of the panel, this reference section explains the sentiment classifications. It highlights that social sentiment can act as a contrarian indicator at extremes: when sentiment is overwhelmingly bullish, a stock may be overbought; conversely, extreme bearishness may signal an oversold condition.

Data sources and refresh rate

The command utilizes three data sources in sequence. First, SerpApi's Google News engine fetches recent financial news. Second, SerpApi's Google search engine uses a site-specific filter to retrieve Reddit discussions. Finally, the DeepSeek AI (deepseek-chat model) analyzes the combined text to produce the sentiment classification and summary. The system utilizes a pool of 4 SerpApi keys rotated in round-robin fashion to manage the approximately 1,000 monthly requests available. Results are cached in Redis for 30 minutes. The panel does not auto-refresh; users must use the **Refresh** button for updated analysis.

Tips and caveats

- Social sentiment should be treated as a supplementary signal. Always cross-reference findings with fundamental analysis (**FA**, **DES**) and technical analysis (**GP**, **TECH**).
- Extreme sentiment readings are often contrarian signals. A 90%+ bullish reading with high confidence may indicate the stock is overbought, while extreme bearishness can signal market capitulation.
- Reddit-driven momentum is typically short-lived and most impactful on small-cap or heavily-shorted stocks. Large-cap stocks like AAPL or MSFT are generally less affected by social media sentiment.
- The AI model analyzes headlines and snippets rather than full-text articles. Classification is based on linguistic tone and keywords, which may occasionally lead to misclassification if a headline mentions a competitor's bearish news.
- Avoid running the SOCIAL command on dozens of tickers in rapid succession to preserve the shared pool of 1,000 monthly API requests.
- For deeper coverage, use SOCIAL in conjunction with **CN** (Company News). While **CN** provides per-article sentiment scores, SOCIAL offers a broader social media narrative and AI synthesis.



TOPREG - Regional macro-news

Command: TOPREG

Category: News

Requires ticker: No (standalone command, accepts optional region argument)

Overview

The Regional macro-news command (**TOPREG**) is a crucial tool for risk managers and macro analysts, designed to surface geopolitical, macroeconomic, and critical infrastructure news for four major global economic zones. Unlike the **TOP** command, which provides a global, market-centric US feed, **TOPREG** captures broader regional events, such as trade policy shifts, energy disruptions, geopolitical conflicts, and infrastructure incidents, before they are fully incorporated into Wall Street's financial narratives. The feed is curated to exclude non-financial noise like tabloid, entertainment, and sports content.

How to use it

The command can be used in two primary ways:

1. **Type TOPREG** in the Command Bar and press Enter. This opens the panel defaulting to the **AMER** (Americas) region.
2. **Type TOPREG followed by a region code** (for example, TOPREG MENA). This opens the panel and automatically pre-selects that region.

Once the panel is open, use the dropdown selector in the header to switch between the supported regions without closing the panel. The supported regions and their focus areas are:

Region	Code	Coverage Scope
Americas	AMER	Trade policy, Federal Reserve actions, supply chain disruptions, natural disasters in the US, Canada, and Latin America.
Europe, Middle East, Africa	EMEA	ECB policy, regional energy supply issues, regulatory changes, and broader geopolitical tensions across the zone.
Middle East and North Africa	MENA	Energy markets, geopolitical conflicts, sovereign wealth fund activity, and critical infrastructure projects.
Asia-Pacific	APAC	China policy, semiconductor supply chains, BOJ/RBA monetary decisions, and natural disasters affecting trade routes.

Reading the output

The panel displays a scrollable list of up to 25 news articles for the selected region. Each article provides: a clickable headline (opens the source article in a new browser tab), the publisher name in uppercase, and the publication date.

A colored vertical strip on the left side of the article visually identifies the selected region: orange for AMER, cyan for EMEA, gold for MENA, and green for APAC.

The panel header provides real-time status:

- A badge indicates data freshness: **LIVE** (green, pulsing) means the data was just fetched from SerpApi, and **CACHED** (amber) means it is being served from the 15-minute Redis cache.
- The article count is displayed next to the region dropdown.
- Hovering over the "Regional News" title in the header reveals an educational tooltip explaining each region's coverage scope.

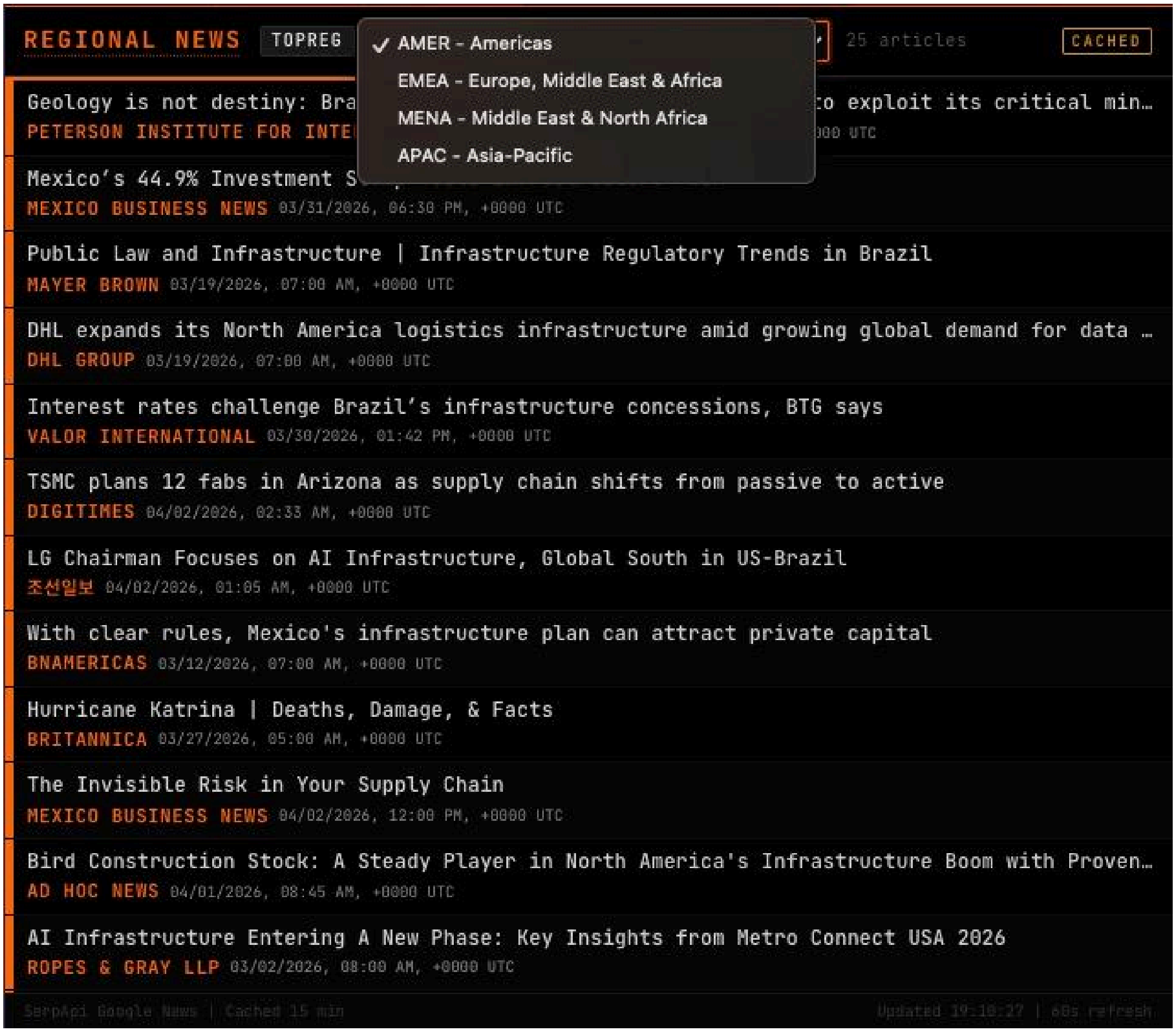
The frontend panel auto-refreshes every 60 seconds; a progress bar below the header depletes over the 60-second cycle, providing a visual countdown to the next data refresh.

Data sources and refresh rate

News articles are sourced from SerpApi (Google News engine) using curated boolean search queries specific to each region. These queries combine region-specific keywords with macro-relevant topic filters (macroeconomics, geopolitics, infrastructure, supply chain, energy, conflict) and actively exclude noise terms (celebrity, gossip, entertainment, sports). Results are cached in Redis with a 15-minute TTL per region. The panel auto-refreshes every 60 seconds from the cache to ensure timely updates.

Tips and caveats

- Regional events often propagate to global markets with a delay. Monitoring MENA energy news alongside AMER trade policy, for example, can help identify cross-border risks before they are priced into US equities.
- The **MENA** region is particularly valuable for energy and geopolitical risk tracking, as events in Iran, Saudi Arabia, and the UAE frequently impact oil prices and global risk sentiment.
- **TOPREG** is a singleton panel; typing **TOPREG APAC** when the panel is already open showing EMEA will simply switch the region dropdown to APAC without opening a duplicate panel.
- The underlying boolean search queries are designed for the English-language, US-perspective financial audience (using `gl=us, hl=en` parameters), so results reflect the international financial press rather than local-language media.
- For ticker-specific news and sentiment analysis, use the **SOCIAL** command instead (e.g., AAPL SOCIAL). **TOPREG** is strictly region-focused, not ticker-focused.



HELP - Help

Command: HELP

Category: System

Requires ticker: No

Overview

The Help command is the master reference manual built directly into the terminal. It provides a searchable index of every available command, explaining what they do and how to format them.

How to use it

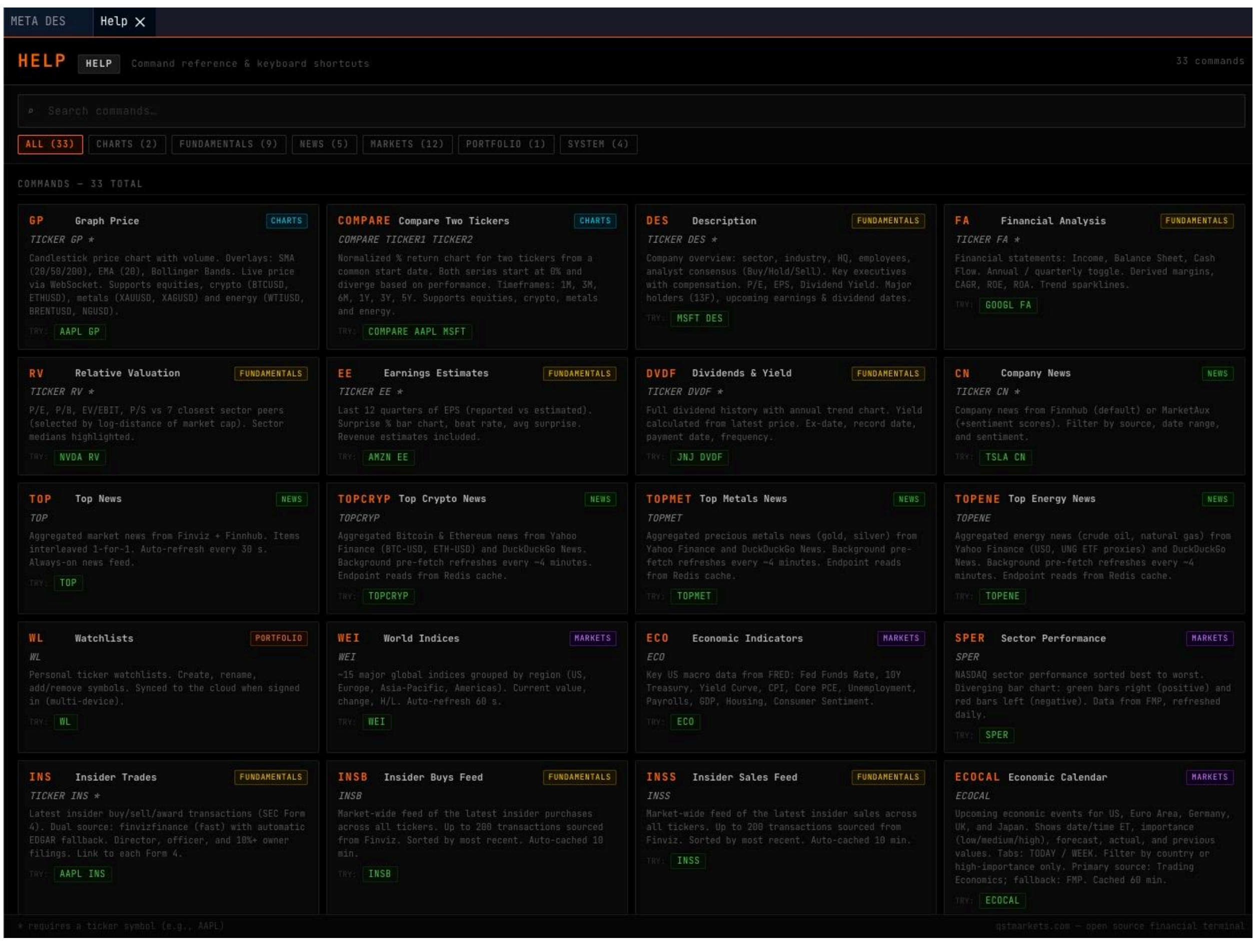
Type HELP and press Enter. The panel organizes commands into logical category tabs (Charts, Fundamentals, News, Markets, Portfolio, System). You can browse these tabs or use the search bar within the panel to find a specific command.

Reading the output

Each entry displays the command syntax, required parameters, and a brief description of its function. A clickable "TRY" button is provided for most commands, which automatically executes a sample query to demonstrate how it works.

Tips and caveats

- Whenever you forget a command mnemonic, or simply want to explore new features added to QSTMarkets, the HELP panel should be your first destination.



Section 3 - Keyboard shortcuts and tips

QSTMarkets is designed to be highly efficient for power users who prefer to keep their hands on the keyboard. Mastering these shortcuts will significantly speed up your workflow.

Action	Shortcut / Tip	Description
Open Command Bar	/ (Forward slash)	Instantly focuses the Command Bar from anywhere in the terminal, ready for typing.
Execute Command	Enter	Runs the typed command and spawns the panel.
Close Panel	Esc (while panel focused)	Closes the currently active/focused panel. You can also click the 'X' in the panel header.
Clear Workspace	CLEAR command	Type CLEAR in the Command Bar to close all open panels instantly.
Reset Layout	RESET command	Returns all panels to their default size and tiled arrangement if your workspace gets messy.
Navigate Tabs	Tab / Shift + Tab	Use standard tab navigation to cycle through interactive elements (filters, timeframe selectors, tabs) within an active panel.
Quick Ticker Change	Spacebar syntax	If you have an AAPL chart open and want to see MSFT, just click the Command Bar, type MSFT GP and hit Enter. The terminal is smart enough to open a new panel or update focus.
Modal Selection	Arrow Up/Down	When using search modals like LF, use arrow keys to

		highlight a result and Enter to select it.

Section 4 - Data sources reference

QSTMarkets relies on a robust architecture of free and freemium data providers to deliver institutional-grade analysis without subscription fees. Below is a comprehensive list of the APIs and data sources powering the terminal.

Provider	Data supplied	Refresh rate & caveats
yFinance	Historical pricing, analyst ratings (UPDN), some fundamentals.	Delayed quotes depending on exchange. Robust historical data. Rate limited on heavy concurrent requests.
Alpaca	Real-time equity market data.	Requires active market hours for live WebSocket streaming. Very low latency.
FMP	Sector performance, economic calendar fallback, SEC filings (LEO, RCRO), top movers.	Highly reliable financial modeling data. Cached hourly to respect free-tier API request caps.
Finnhub	Company news (CN), top market news (TOP).	Fast news delivery. Free tier limits apply, leading to caching mechanisms.
Finviz	Stock screener (SCAN), insider feeds (INSB, INSS), top news aggregation.	Screeners are on-demand; feeds are typically delayed by 10-15 minutes.
SEC EDGAR	Raw company filings, Form 4 insider verification.	Direct from the government. 100% accurate, but parsing can be complex. Used primarily as a verification fallback.
FRED	Core US macroeconomic indicators (ECO).	The gold standard for macro data. Updated

		dynamically as the St. Louis Fed publishes new prints.
BLS	Inflation data (INFL), labor market data (JOBS, HURG).	Government sourced. Very reliable, updated monthly according to strict release schedules.
Trading Economics	Primary economic calendar events.	Highly accurate forecasts and actuals. Cached hourly.
Tiingo	Supplementary end-of-day pricing and fundamental data.	Used as a redundant fallback for equity pricing to ensure terminal stability.
NASDAQ FTP	Security master list, symbol directories.	Used to populate the internal search database (LF). Updated nightly.
CCXT/Binance	Cryptocurrency spot pricing.	24/7 uptime. Very low latency for crypto charts.
DuckDuckGo News	Specialized news aggregation (TOPCRYP, TOPMET, TOPENE).	Used via search algorithms to pull niche sector news. Cached to prevent IP rate-limiting.
DeepSeek	AI Market Analysis generation (QSTA).	Relies on LLM inference. Analysis is generated dynamically; generation can take 5-10 seconds.

Section 5 - Frequently asked questions

How do I create an account?

In QSTMarkets creating a free account allows your panel layout, theme preferences, and watchlists to be saved to the cloud and synced across different browsers or devices. Click the profile icon in the top right corner to sign up using an email address.

Why is my chart not updating in real time?

Real-time WebSocket data is only active during standard US market hours (09:30 to 16:00 ET, Monday through Friday). If you are viewing a chart outside of these hours, on a weekend, or on a market holiday, the chart will display the final closing price and remain static until the market reopens.

Why does a specific command show "No data found" for my ticker?

Not all data providers cover every asset class. For example, trying to pull a financial statement (FA) on a cryptocurrency (BTCUSD) will fail because cryptocurrencies do not file SEC 10-K reports. Similarly, very small micro-cap stocks or newly listed IPOs might not yet have analyst coverage (EE) or established dividend histories (DVDF).

Which web browsers are supported?

QSTMarkets is optimized for modern, Chromium-based browsers (Google Chrome, Microsoft Edge, Brave) and Firefox. For the best performance, especially when running multiple live WebSocket charts simultaneously, hardware acceleration should be enabled in your browser settings.

Is there a mobile app?

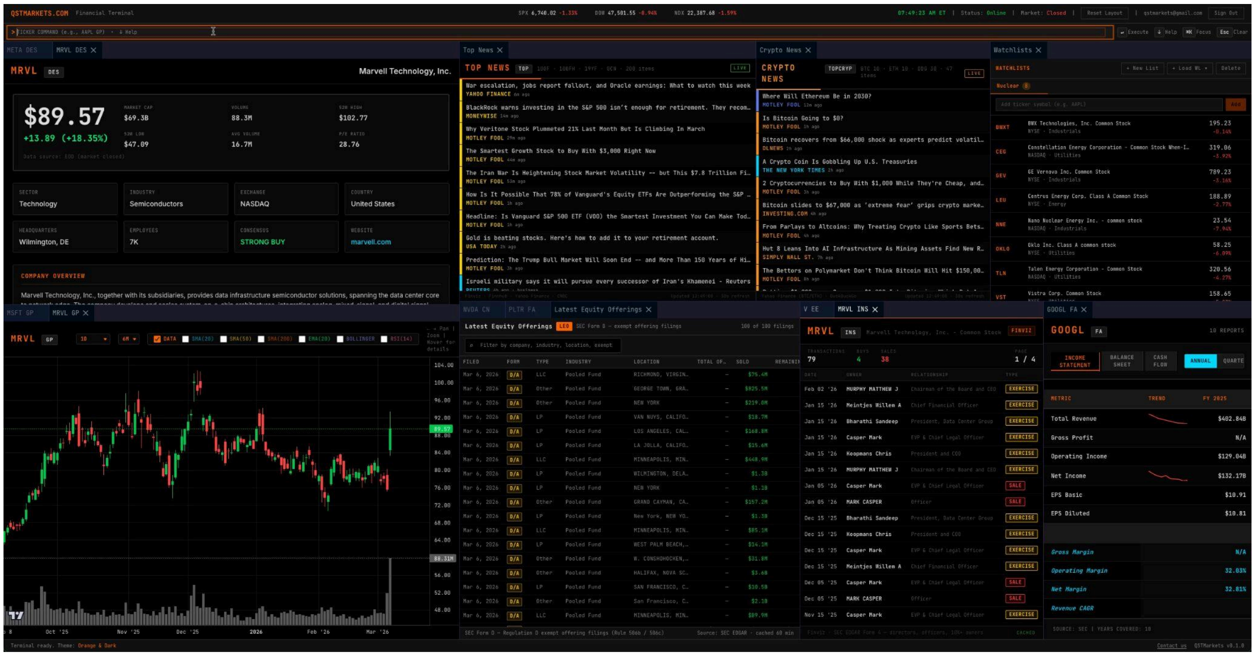
Currently, QSTMarkets is a web-only application designed primarily for desktop and laptop displays due to the dense, multi-panel nature of financial data. While it will load on a mobile browser, the interface is difficult to navigate on small touchscreen devices. A tablet in landscape mode is the minimum recommended mobile setup.

How do I report a bug or suggest a new command?

We actively encourage community feedback. Click the *Contact us* link in the bottom bar, to the left of the version number. A short form will appear, type your message and click Send. Your feedback is delivered directly to the development team. No account details beyond your registered email are required; that is included automatically.

What does it mean if the terminal says it is in "Maintenance Mode"?

Because QSTMarkets relies on over a dozen external data APIs, we occasionally need to put the terminal into Maintenance Mode to upgrade our backend routing, rotate API keys, or implement rate-limit protections. During this time, live data feeds may be paused. Maintenance is almost exclusively performed on weekends to avoid disrupting trading activities.


MRVL
Marvell Technology, Inc.
$89.57
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NASDAQ
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