



DVAN SmartLines App

This document is intended as a guide for DVAN SmartLines users and describes in detail each of the 5 app studies. For more information on DVAN SmartLines, please contact info@divergenceanalysis.com

DVAN SmartLines app is a series of 5 algorithm-driven studies used for market analysis and trading. DVAN SmartLines covers all asset classes, including equities, indices, commodities, currencies, and fixed income. The app operates on any time frame, from intraday, daily, weekly, monthly, to yearly analysis.

Methodology

All of DVAN SmartLines' app studies are driven by proprietary algorithms owned and created by Divergence Analysis Inc. Divergence Analysis was founded in 1989 and has operated continuously since then through a private client business based on its proprietary algorithmic models.

DVAN's algorithms are different from other methodologies because they use internal volume data from exchange feeds, rather than prices, and proprietary velocity algorithms as drivers to its models/studies. The methodology relies on the action of buyers and sellers in the market, rather than measuring the resulting prices, to show the underlying forces affecting asset movement.

DVAN's algorithmic process creates transparency from chaotic market data, producing timely and distinct analysis of markets and individual asset names. DVAN SmartLines' app studies can be applied to any asset on any time frame to make more precise trading decisions while managing risk.

The Studies - There are 5 studies comprising the DVAN SmartLines app:

- 1) DVAN Buying/Selling Pressure
- 2) DVAN Long Term Trend
- 3) DVAN Short Term Trend
- 4) DVAN Signals
- 5) DVAN SmartLines

For instructions on how to load the 5 app studies to a G chart (Bloomberg), please refer to the “DVAN SmartLines Start-up Guide” document or click here for video instruction: [DVAN SmartLines Start-up Guide](#)

Detailed Study Descriptions on following pages.

DVAN Buying/Selling Pressure



*As shown in app



*With annotation

DVAN Buying/Selling Pressure study consists of two parts:

- 1) Colored price bars (green and red price bars)
- 2) SmartLines Cycles (green and red shaded cycles outlined by 3 lines (Trend, Pivot, Stop lines))

Colored price bars: Price bars are colored either green or red. Green price bars mean buying pressure is dominant. Red price bars mean selling pressure is dominant. The price bars are colored by a proprietary algorithm measuring the buying and selling forces in the underlying asset. The colored price bars are not signals in themselves, but rather conditions on which to base decisions using other DVAN SmartLines app studies.

SmartLines Cycles: SmartLines are the three lines (light blue, gray dotted, and red) that surround prices on the price graph. They show buying/selling cycles and support/resistance. The light blue line (Trend) shows the direction of the trend. The gray dotted line (Pivot) plots the price point at which the trend will change. (E.g. A price close above the Pivot will result in turning the Trend up.) Buying/selling cycles are highlighted by green/red shading of the cycles when SmartLines converge.

****Notes:** Focus on points when the Trend (light blue) and Stop (red) converge (marked with circles on right chart.) Green prices bars going up through a convergence signal a buying cycle. Red price bars going down through a convergence signal a selling cycle. While in a buying/selling cycle, the Trend, Pivot, and Stop lines serve as points of support/resistance.

DVAN Long Term Trend (With DVAN Buying/Selling Pressure)



*As shown in app



*With annotation

DVAN Long Term Trend study consists of three parts:

- 1) Underlying indicator (blue and green-lined indicator below price graph) 2)
- Blue and yellow arrows
- 3) Green and red dots

Underlying indicator: The indicator in the panel below prices indicates longer-term bullish/bearish bias in the asset. Green line (Algorithm) above blue line (Baseline) indicates bullish trend. Green line below blue line indicates bearish trend.

Blue and yellow arrows: The blue and yellow arrows are driven by an underlying momentum indicator. Blue arrows mean the momentum has changed from negative to positive. Yellow arrows mean the momentum has changed from positive to negative. These arrows signal trend directional change.

Green and red dots: The green and red dots are driven by the same underlying momentum indicator as the blue and yellow arrows. Green dots mean the momentum indicator has risen above a

consolidation zone and into uptrending. Red dots mean the indicator has fallen below a consolidation zone and into downtrending.

****Notes:** While green/red dots are present, the trend is strong to the upside/downside, meaning no substantial directional change can occur (marked with A for uptrending and B for downtrending.)

DVAN Short Term Trend(With DVAN Buying/Selling Pressure)



*As shown in app



*With annotation

DVAN Short Term Trend study consists of three oscillator lines (Macro Oscillator 1,2, &3) below the price graph designed to show shorter-term upside/downside force for short-term and swing trading.

****Notes :** Green shading indicates upside force. Red shading indicates downside force.

Note the zero line running through the indicator. The zero line is present to create a greater positive/negative bias within the shorter-term time frame. When Macro Oscillator 1 crosses above/below the zero line, a greater positive/negative price movement is indicated (marked with arrows.)

Also, note the difference in shading color above and below the zero line. Red shading above the zero line (marked with A) can signal short-term weakness, but in an overall positive trend. Green shading below the zero line (marked with B) can signal short-term strength, but in an overall negative trend.

The slope of Macro Oscillator 2 (intermediate, red algorithm line) shows intermediate trend direction.

DVAN Signals(With DVAN Buying/Selling Pressure)

*As shown in app



*With annotation

DVAN Signals study consists of a velocity-based indicator below the price graph and corresponding green/red arrows on the price graph. Green arrows indicate long entry points in trading. Red arrows indicate short entry points. The arrows appear when the green algorithm line (Trigger) crosses above/below the blue line (Hedge Line.) Also notice the red zero line running through the underlying indicator, which is present to alert the user to overall positive/negative trending in the asset.

****Notes:** DVAN Signals indicates potential long/short entry points in trading. As with other studies, it is suggested to use DVAN Signals along with DVAN Buying/Selling Pressure and DVAN Short Term Trend studies as a confirmation system. When a multitude of studies indicate the same trend direction, probability of success rises.

DVAN SmartLines



DVAN SmartLines study consists of three indicators in panels below the price graph. The studies previously detailed draw from DVAN SmartLines study.

- 1) **Panel A – Macro Oscillator** – This indicator drives the Short Term Trend study. It is presented here in a histogram format to show forceful upside/downside shorter-term moves as well as consolidation. When green bars are present alone to the upside or downside, a forceful upside/downside price movement is indicated. When green and red bars are together on the same side of zero, consolidation is indicated.
- 2) **Panel B – Macro Algorithm** – The green and blue lines in this indicator are identical to the underlying indicator in Long Term Trend study. Here, an intermediary algorithm line (red line) is included for quicker bullish/bearish bias indications. ****Focus on the green line above/below the red line during convergences of the SmartLines on Buying/Selling Pressure study for confirmed buying/selling cycles.**
- 3) **Panel C – Differential Histogram** – This momentum indicator drives the Long Term Trend study. When bars go from negative to positive, a blue arrow appears on Long Term Trend. When bars go from positive to negative, a yellow arrow appears. These signal trend directional change. When bars are above/below green and red horizontal thresholds of the indicator, uptrending/downtrending is indicated by Long Term Trend's green and red dots. Red bars indicate increasing momentum. Blue bars indicate decreasing momentum.