

# VOLUME PRICE ANALYSIS (LAST UPDATED 10/25/15)

## INTRODUCTION

This indicator is based upon concepts originally popularized by Richard Wyckoff and Jesse Livermore nearly a century ago to read the tape to determine what the "smart money" was doing.

Tom Williams of TradeGuider was the first to computerize the indicators which he refers to as VSA, Volume Spread Analysis. Both VPA and VSA use the same concepts. Others have followed Tom William's lead, and there are other software programs out there using VPA/VSA.

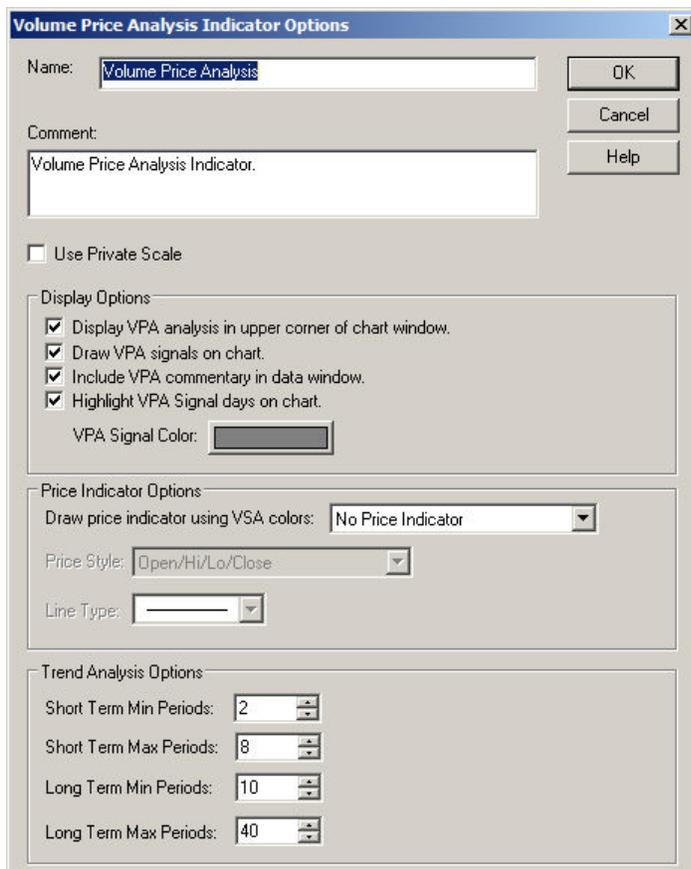
The HGSI version is based upon the work of Karthik Marar who generously coded VPA for AmiBroker, and placed his code in the public domain several years ago.

What sets the HGSI version apart from any other version of VPA is the ability to analyze markets, sectors, groups, stocks and ETFs from the top down. No other software program gives this kind of insight.

The best explanations of the concepts behind VPA are by Anna Coulling in her book, [A Complete Guide to Volume Price Analysis](#)

## INDICATOR OPTIONS:

TIP: For best display use this indicator on a dark or black window



**Name:** Your name to describe the indicator

**Comment:** Your description of this indicator

**Use Private Scale:** Not recommended. This indicator annotates price bars if you use Private Scale the signal symbols will not be aligned correctly.

## DISPLAY OPTIONS

Display Options

- Display VPA analysis in upper corner of chart window. **1**
- Draw VPA signals on chart. **2**
- Include VPA commentary in data window. **3**
- Highlight VPA Signal days on chart. **4**

VPA Signal Color:

### 1. Display VPA analysis in upper corner of chart window

VPA: MSFT - Daily - 9/17/15 - Volume: 32,768,100 -- High volume downbar after an upmove on high volume indicates weakness.  
Volume: **Above Average** Spread: **Above Average** Close: **Down**  
Major Trend: **No Trend**  
Minor Trend: **Minor Trend Up**  
Immediate Trend: **Immediate Trend Up**

**VPA line:** Shows the stocks symbol, period mode of the chart, the date and volume based on the current location of the crosshair. The text after the volume is an English description of the VSA signal. The description will also appear in the Data Window (see below).

**Microsoft Corp (MSFT)**

Date: 9/17/15 Thu  
High: 45.0000  
Low: 44.0800  
Close: 44.2500  
Open: 44.2900  
Volume: 32,768,100

■ RS Rk: 69  
Intraday Date:  
Intraday Time:  
Intraday Open:  
Intraday Low:  
Intraday High:  
Intraday Last:  
Intraday % Ch 1-Dy:  
Intraday Volume:  
Intraday % Vol/50 DMA Vol:  
Intraday % Range:  
VPA Signal: No  
VPA Signal Condition:  
VPA Signal Description:  
Days Since Last VPA Signal: 2

VPA: High volume downbar after an upmove on high volume indicates weakness.

■ VPA Volume: Above Average  
■ VPA Spread: Above Average  
■ VPA Close: Down  
■ VPA Major Trend: No Trend  
■ VPA Major Trend Status:  
■ VPA Minor Trend: Minor Trend Up  
■ VPA Immediate Trend: Immediate Trend Up  
■ VPA Signal: Yes  
■ VPA Signal Description: Indicates weakness.  
■ VPA Signal Condition: High volume downbar after an upmove on high volume.  
■ Group Index: 110.5309

**Volume:** A description of the volume compared to the 90 day average volume.

Very High	Twice average volume
High	1.3 times average volume
Above Average	Higher than average volume
Less than Average	Below average volume but above 70% of average volume
Low	Below one standard deviation of the average volume

**Spread:** A description of the day's price range compared to the average spread

Wide	Greater than 1.5 times the average spread
Above Average	Above the average spread
Below Average	Below the average spread but above 70% of the average spread
Narrow	Above 50% but less than 70% of the average spread
Very Narrow	Less than 50% of the average spread

**Close:** A description of the day's close value compared to the spread and the day's low value.

Very High	Close above 75% of spread
High	Close above 70% of spread
Mid	Close between 30% and 70% of spread
Down	Below 30% of spread

**Trend:** Descriptions of the price trend at the location of the crosshair/last click location. There are three types of trends:

Major Trend	Up/Down/No Trend	Major Trend also has an additional status description of Major Uptrend Ended and Major Down Trend Ended. E.g. No Trend Major Down Trend Ended.
Minor Trend	Up/Down/No Trend	For all three trends the direction is determined through the use of a long and short term Random Walk Indicator. The parameters for controlling the Random Walk Indicator are in the VPA indicator options under Trend Analysis Options.
Immediate Trend	Up/Down/No Trend	

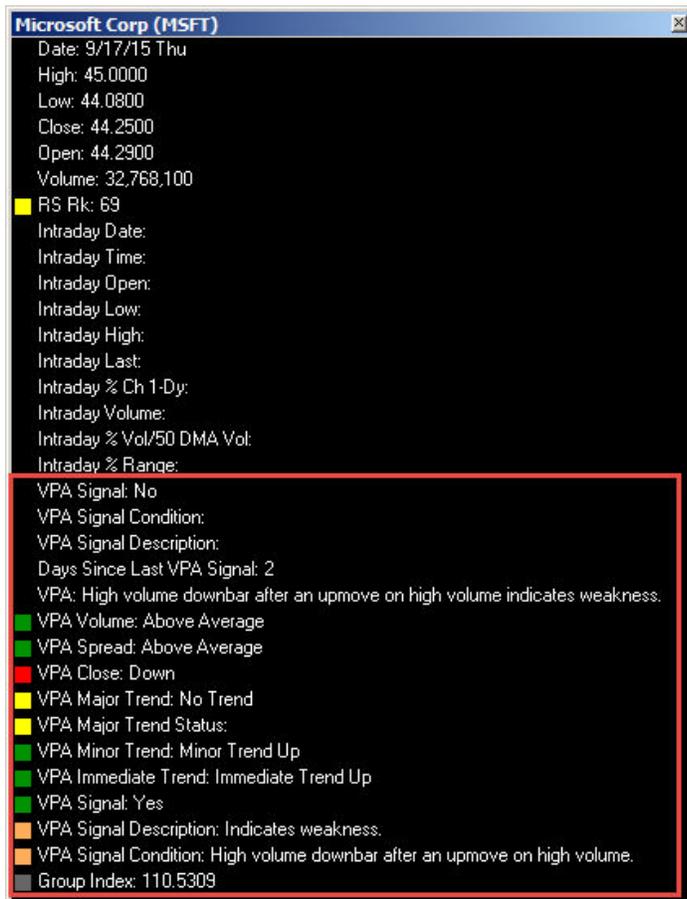
2.  Draw VPA signals on chart.

When this option is turned on Shape images will appear indicating a certain condition had occurred. See the HGSI Shape Guide for explanations of the various shape images.



### 3. Include VPA commentary in data window

The data window displays data under the cross hairs.



### 4. Highlight VPA Signal days on chart

The VPA Signal (vertical bar) needs to have at least 120 records to compute fully, plus 30 days for standard deviation computation, about 24 weeks or about 6 months of data to be drawn on the chart. If the stock does not meet these requirements its computations results in no VPA/VSA colors and no shapes. IPOs are an example where signals will not be available.

Once the number of record requirements are met, the daily volume must be higher than 100,000 plus have one of many internal signals to be true. Most of these internal signals will also draw a VPA Shape image on top of the VPA Signal. Shape images can appear on the chart without the VPA Signal (vertical bar) because shapes do not require the 100,000 or more daily volume. Shapes are explained in the HGSI Shape Guide.

On the chart snippet below are two instances of the VPA Signal (marked with the red arrows). Those VPA Signals also have VPA Shape images that have a specific meaning. There are also numerous examples on the snippet were VPA Shape images are present but without the VPA Signal. **The VPA Signal and the VPA Shape icons are two separate systems for generating the VPA chart indicator.**

**VPA Signal Color Button:** Color defaults to gray. Change to a color of your choice.



## PRICE INDICATOR OPTIONS

### Draw Price Indicator using VSA colors:

- The default is No Price Indicator.
- The VSA coloring rules are based on volume.
- The trend coloring rules are based on the trend direction.

**Price Style** and **Line Type** are the standard HGSI options used for the Price indicator.

**NOTE:** When enabled with the VSA or Trend Colored Price Indicator you need to remove the standard Price indicator from the window where the VPA Indicator will be used, otherwise both copies of the price will be drawn in the window.

Price Indicator Options

Draw price indicator using VSA colors: VSA Colored Price Indicator

Price Style: Candlesticks

Line Type: —

No Price Indicator  
VSA Colored Price Indicator  
Trend Colored Price Indicator

## VSA Colored Price Indicator

Colors are based on the condition of various signals. The color of the price bar is determined by whatever signals are positive for that day starting at the top of this table. First signal to match decides the day's color.

Color		Signal	Condition
Turquoise		lowVolTest	Test for Supply
Pink		distributeBar	High volume up bar closing down in uptrend.
Dark Red		ownerTransfer	Wide-range bar on volume at least 1.5 times avg
Yellow		upThrustBar	Price moves above resistance of trading range
Lime		bullBar	Bullish Bar
Red		noDemandBar	Sign of weakness.
White		noSupplyBar	Sign of strength.
Magenta		upBar	Todays close is up vs yesterday
Green		downBar	Todays close is down vs yesterday
Blue		---	Flat line. Neither up or down

## Trend Colored Price Indicator

Trend is determined by computing 3 best fit lines (40 period, 10 period and 3 period) against a 5DMA. A value above 0 means the stock is trending up during that time period, less than 0 the stock is trending down.

Color		Signal			Condition
Lime		ShortTerm > 0	MediumTerm > 0	LongTerm > 0	All three time periods are trending up.
Green		ShortTerm > 0	MediumTerm > 0	LongTerm < 0	Trending up in the short and medium time frames, but down in the long time frame.
PaleGreen		ShortTerm > 0	MediumTerm < 0	LongTerm < 0	Trending up in the short time frame only.
Red		ShortTerm < 0	MediumTerm < 0	LongTerm < 0	Trending down in all three time frames.
PaleGreen		ShortTerm < 0	MediumTerm > 0	LongTerm > 0	Trending up in the medium and long time frames only.
Orange		ShortTerm < 0	MediumTerm < 0	LongTerm > 0	Trending up in only the long time frame.
Blue		----			Neutral

## TREND ANALYSIS OPTIONS

These control the length of the Random Walk Indicator used to compute the trend direction. The default settings are a short term minimum of 2 and a maximum of 8, a long term minimum of 10 and a long term maximum of 40.

These defaults are also used to compute the HGSI Warehouse columns for VPA Signal. You can alter these time frames to change the Random Walk Index to get a faster or slower trend, but your results will no longer match the fixed Warehouse column computations.

Trend Analysis Options

Short Term Min Periods:

Short Term Max Periods:

Long Term Min Periods:

Long Term Max Periods:

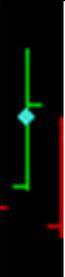
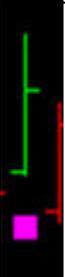
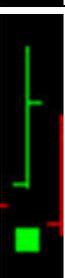
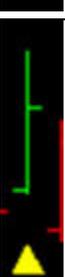
## WAREHOUSE VPA SIGNAL COLOR GUIDE

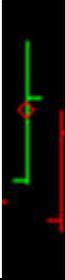
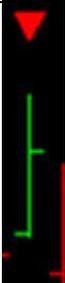
Warehouse column colors used for the VPA Signal Condition and the VPS Signal Descriptions.

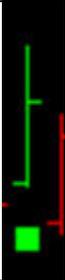
Color	Color	Condition
Yellow		strengthDown or strengthDown1
Pale Green		buyCond
Pale Green		strengthDown2
Light Orange		upThrustBar or upThrustCond1
Orange		upThrustCond2 or upThrustCond3
Lime		effortUp
Red		effortDown
Light Orange		PseudoUpThrust
Orange		pseudoUtCond or noDemandBar
Yellow		strengthDown0 or noSupplyBar or lowVolTest or lowVolTest1 or lowVolTest2
Yellow		stopVolume or revUpThrust
Orange		upThrustCond1
Light Orange		distributeBar
Light Orange		trendChange

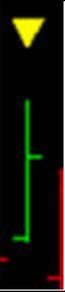
# VPA SHAPE GUIDE

SHAPE	SIGNAL	DESCRIPTION	CONDITION
	Annotates VPA Signal on chart Bc	Red down triangle with yellow border above day high	A potential buying climax, a wide range bar on heavy volume.
	buyCond	Lime up triangle below day low	<b>An up bar closing near its high.</b>  The previous bar saw strength coming back. This upbar confirms strength.
	confirmWeak1	White box below day low	<b>Test for Supply.</b>  Selling pressure is easing in a downtrend as price closes off of the daily low.
	distributeBar	Blue box above day high	<b>A high volume up bar closing down in an uptrend.</b>  A wide range, high volume bar in an uptrend. Closing down is an indication that distribution is in progress. The smart money is selling the stock to the late comers rushing to buy the stock not wanting to be left out of a bullish move.  Security trades higher from its opening price, but closes lower than its open.
	effortDown	Yellow circle at day midpoint	<b>Effort to fall.</b>  This is normally found in the beginning of a markdown phase.  Bearish. The security is showing signs of weakness with a close near the low of its daily range on a wide range bar.

	<b>effortUp</b>	Turquoise circle at day midpoint	<p><b>Effort to rise.</b></p> <p>This is normally found in the beginning of a markup phase and is a bullish sign. These may be found at the top of an Upmove as the Smart money makes a last effort to move the price to the maximum.</p>
	<b>lowVolTest</b>	Magenta box below day low	<p><b>Test for supply.</b></p> <p>Bar closes near the top of its daily range as traders "test" the market for supply and find that demand is greater than supply. Volume is generally light.</p>
	<b>lowVolTest1</b>	Lime box below daily low	<p><b>Test for supply in a uptrend.</b></p> <p>The previous bar was a successful Test of supply. The current bar is a upbar with higher volume. This confirms strength is returning after a down trend.</p> <p>A security in an uptrend trades down intraday, then closes in the upper portion of its daily range on light daily volume</p>
	<b>lowVolTest2</b>	Yellow up triangle below day low	<p><b>An upbar closing near high.</b></p> <p>The previous bar was a successful test of supply. The current bar is a upbar with higher volume. This confirms strength</p>
	<b>noDemandBar</b>	Magenta box above day high	<p><b>No demand. A sign of weakness.</b></p> <p>Any up bar which closes in the middle or low, especially if the volume has fallen off, is a potential sign of weakness.</p> <p>If the market is still strong, you will normally see signs of strength in the next few bars, which will most probably show itself as a down bar with a narrow spread closing mid to high or a down bar on low volume.</p>
	<b>noSupplyBar</b>	Lime circle below day low	<p><b>No supply. A sign of strength.</b></p> <p>Security closes in the lower part of its daily range, but on lighter volume. This indicates selling is subdued, even though the close is generally lower than the open. It is better to wait for confirmation.</p>

	Nut	Lime down triangle above day high	Wide range bar closing down on heavy volume after a new high. Bearish. A rare signal.
	ownerTransfer	Hollow red circle at day midpoint	A wide-range bar on volume at least 1.5 times average where the bar closes around mid-range. Bulls and Bears transfer shares as they fight for control.
	PseudoUpThrust	Blue box above day high	<p><b>Pseudo upthrust.</b></p> <p>This normally appears after an up bar with above average volume. This looks like an upthrust bar closing down near the low but the volume is normally lower than average. This is a sign of weakness. If the volume is high then weakness increases. Smart money is trying to trap the retailers into bad position.</p>
	pseudoUtCond	Blue down triangle above day high	<p><b>A down bar closing down after a pseudo upthrust.</b></p> <p>Confirms weakness. If the volume is above average the weakness is increased.</p>
	revUpThrust	Yellow box below day low	<p><b>Reverse upthrust.</b></p> <p>Strength seen returning after a down trend. Reverse upthrust. Indicates strength.</p>
	sellCond	Red down triangle above day high	Similar to the topRevBar. Bulls lost control of the security as the day progressed. An upthrust bar after a move up is a sure sign of weakness.

	<p>stopVolume</p>	<p>Hollow lime circle below day low</p>	<p><b>Stopping volume.</b></p> <p>This will be a down bar during a bearish period closing towards the top accompanied by high volume. A stopping volume normally indicates that smart money is absorbing the supply which is a indication that they are bullish on the market. Hence we can expect a reversal in the down trend.</p> <p>A down bar that closes near the top of its daily range on heavy volume. This indicates buyers are stepping in to absorb panic selling by those who must get out at any price.</p>
	<p>strengthDown</p>	<p>Lime box below daily low</p>	<p><b>Strength seen returning after a long down trend.</b></p> <p>The stock has been in a down trend. An upbar with higher volume closing near the high is a sign of strength returning. The Down trend is likely to reverse soon.</p>
	<p>strengthDown1</p>	<p>Lime box below daily low</p>	<p><b>Strength seen returning after a down trend.</b></p> <p>A security in a down trend is now showing signs of strength on higher than normal volume.</p>
	<p>strengthDown2</p>	<p>Aqua up triangle below day low</p>	<p><b>High volume upbar closing on the high.</b></p> <p>High volume upbar closing on the high indicates strength.</p>
	<p>topRevBar</p>	<p>Blue circle above day high</p>	<p>Wide range down bar with higher volume following an up bar. A rare signal.</p>

	<p>trendChange</p>	<p>Yellow down triangle above day high</p>	<p><b>High volume downbar after an upmove on high volume.</b></p> <p>The stock has been moving up on high volume. The current bar is a downbar with high volume. Indicates weakness and probably end of the up move.</p>
	<p>upThrustBar</p>	<p>Red with yellow border down triangle above day high</p>	<p><b>An upthrust bar.</b></p> <p>The price moves above the resistance level of a trading range that quickly reverses itself and moves back into the trading range. The market will 'test' almost immediately. Often a "bull trap".</p> <p>Up-thrusts are designed to catch stops and to mislead as many traders as possible. They are normally seen after there has been weakness in the background. The market makers know that the market is weak, so the price is marked up to catch stops, encourage traders to go long in a weak market, and panic traders that are already short into covering their very good position.</p>
	<p>upThrustBartrue and not sellCond</p>	<p>White above day high</p>	<p>An upthrust bar after an up move. A sure sign of weakness.</p> <p>Volume is above average.</p>