

Overview

This advanced charting application which is easy accessible in your browser, will provide the user with the ability to view updated financial charts as well as the ability to perform technical analysis on provided data online. The interface is specially design to be user friendly yet secure and versatile.



Features

- It offers the user the capability to perform efficient technical analysis to define and test investment strategies
- The charts are customisable

Benefits

- Instant access to technical analysis software
- Access to more than 60 predefined indicators
- Ability to customize charts and indicators
- Ability to draw and analyse trendlines
- Ability to change the values of the related indicators' parameters
- Ability to develop and test investment strategies

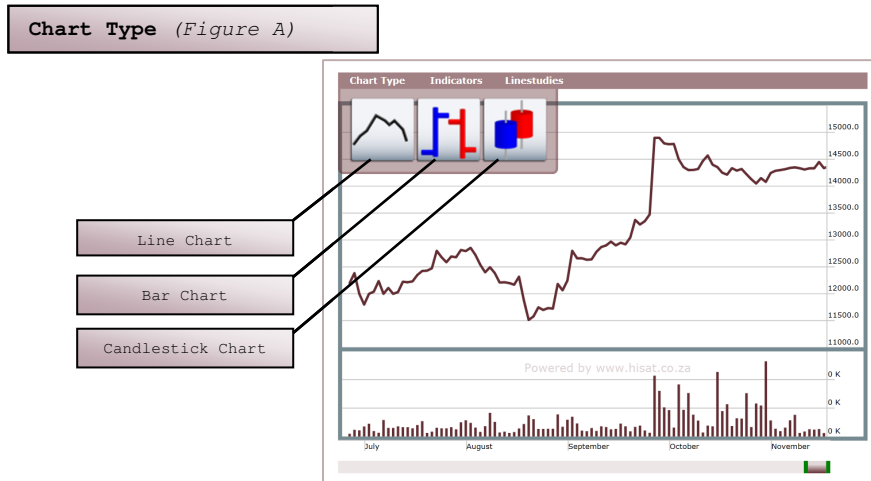
Specifications

Technical Analysis Specifications
61 Built in Indicators
Trendline Drawing
Automatic buy/sell signals for several indicators
15 Predefined Linestudies
Charting Capabilities
Linear Scale
Line Charts
Bar Charts
Candlestick Charts
Volume Chart
Information Display

Getting Started

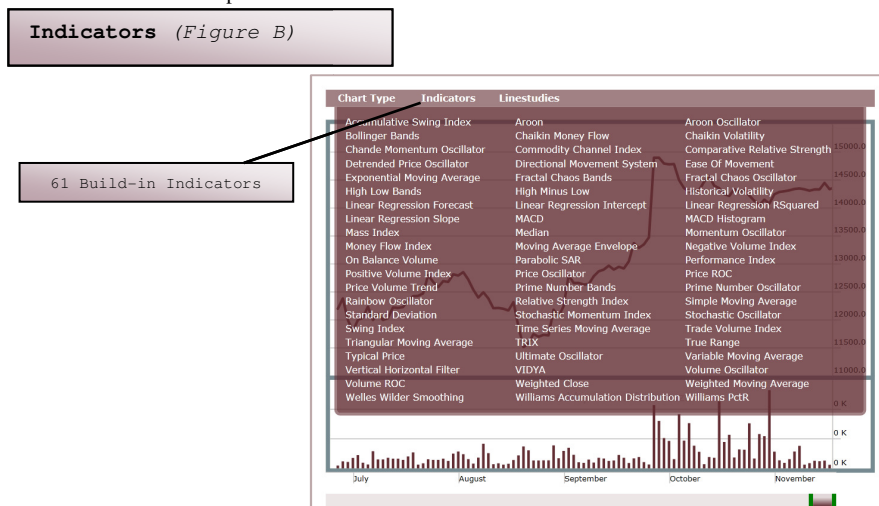
1. Display Chart

When opening <http://www.jsedata.com/corpchart/massmart.aspx> a line graph will already be displayed. This is the default setting. In order to change the line graph to either a bar chart or a candlestick chart, simply move your cursor over the “Chart Type Option” at the top left corner as seen in Figure A.

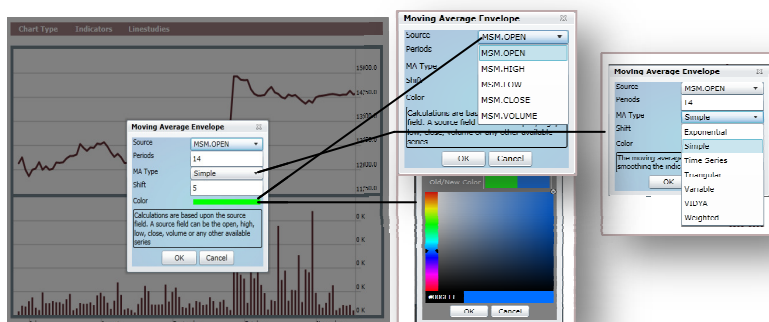


2. Indicators

The same process in selecting the chart type can be followed in order to select a predefined indicator. Move your cursor to “Indicators” at the top left corner and select one of the 61 available indicators.



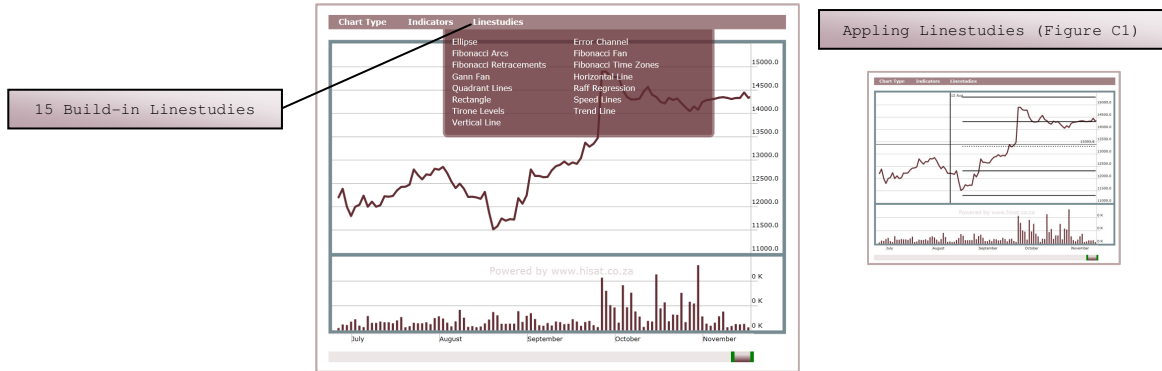
When an indicator is selected, the parameter fields can be adjusted in the pop-up box that appears:



3. Linestudies

Again the same process as previously explained can be followed to select a Linestudy. After selecting a preferred option, left-click on the graph where you want the start point to be. While holding down the button, drag across the graph and stop at desired point. Figure C1 shows a graph with quadratic, horizontal and vertical linestudies.

Linestudies (Figure C)

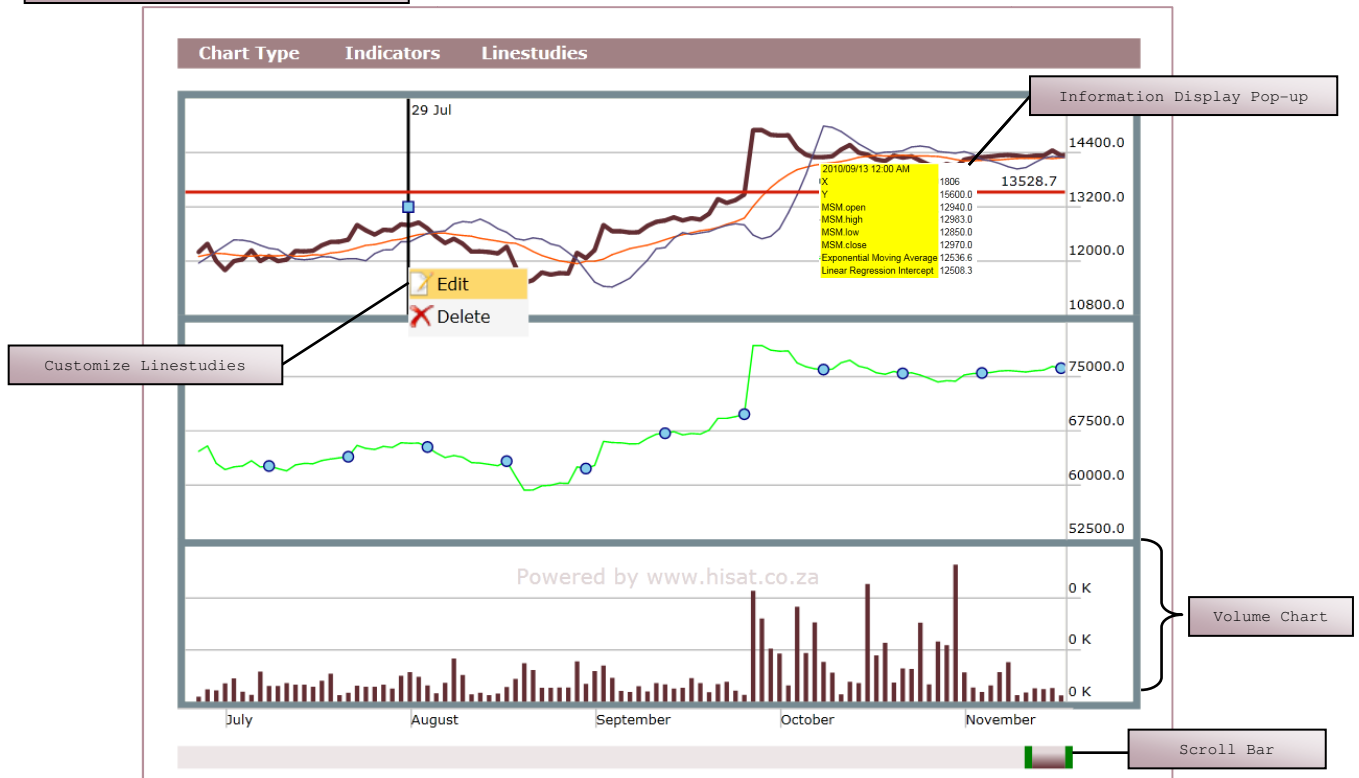


4. Chart Customisation

A variety of custom options are available. Whether it's the colour you would like to change, the history of data, the amount of data presented etc. See functions for more detailed explanations.

Functions

Functions (Figure D)



1. Select Chart Type

Line Chart

The program will always default to a basic line chart indicating instrument trade prices

Bar Chart

The bar chart displays the open, high, low and close values. The top and bottom extremities of each line indicates the respective high and low values. The horizontal strike to the left indicates the opening value while the strike to the right indicates the closing value.

Candlestick Chart

The upper and lower extremities indicates the highest and lowest traded value of the instrument while the body indicates the opening and close values. If the stock went up, the body is blue, with the opening price at the bottom of the body and the closing price at the top. If the stock went down, the body is red, with the opening price at the top and the closing price at the bottom.

2. Indicator selection

The indicator dropdown menu allows you to select from 61 available indicators

3. Indicator parameters

Default parameters are supplied; however, you may change these parameters by entering your own values.

4. Linestudy selection

The linestudies dropdown menu allows you to select from 15 available linestudies.

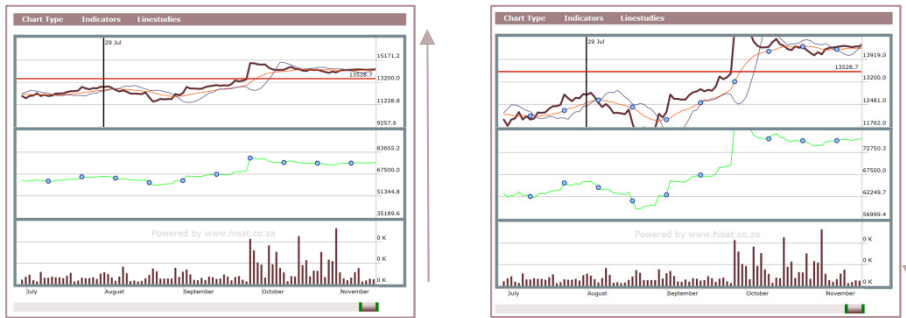
5. Information Display Pop-up

This function allows you to view the MSM open, high, low & close values at a given point as well as the exact coordinate values just by left – clicking anywhere on the background of the chart. This function can also be applied to the **Volume chart** in order to view the exact volume and coordinate values.

6. Scroll

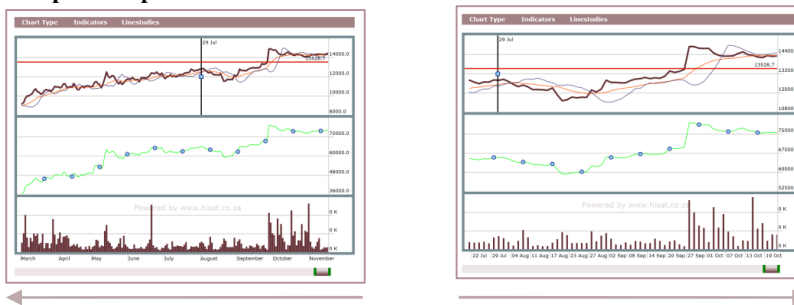
In order to view more history than provided in the initial display, simply use the **Scroll button** and scroll left. To return to the latest data, scroll right.

7. Zoom In/Out



This function allows you to increase/decrease the amount of data presented in the display. Move your cursor to the y-axis values. Left-click, when a two-way arrow appears, you can drag upwards in order to zoom out, or downwards to zoom in.

8. Compress/Expand Data

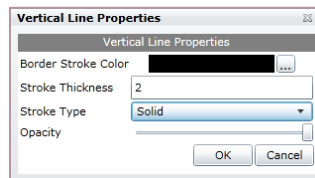


This allows you to select the graphing period, e.g. daily or monthly. To compress (monthly) or expand (daily) the data, a similar process as zoom in/out can be followed. Move your cursor now the x-axis values and left – click. When the two way arrow appears, drag left to compress or drag right to expand.

9. Customize Linestudies

It is possible to customize your linestudies. After applying a linestudy, select it by clicking on it. After it's selected, click again and the edit pop-up box will appear (see figure D).

You will have the options to change the border stroke colour, the stroke thickness, the stroke type and the opacity.



Technical Analysis Indicators

- 1. Accumulative Swing Index**

The Accumulation Swing Index is a running total of the Swing Index. The Swing Index is calculated using only the two most recent bars, by summing it, the Accumulation Swing Index shows long-term trends.
- 2. Aroon**

The Aroon indicator anticipates when a security is changing from an impulsive move to a trading range and vice versa.
- 3. Aroon Oscillator**

This a good indicator used in FOREX technical analysis by many traders. This indicator can help to define if the trading instrument is trending or not and if the trend is strong.
- 4. Bollinger Bands**

Bollinger Bands are a type of envelope that is plotted at standard deviation levels above and below a moving average. This produces an effect of having the bands widen during periods of higher volatility and contract during less volatile periods.
- 5. Chaikin Money Flow**

The Chaikin Money Flow oscillator is calculated from the daily readings of the Accumulation/Distribution Line. The basic premise behind the Accumulation Distribution Line is that the degree of buying or selling pressure can be determined by the location of the Close relative to the High and Low for the corresponding period (Closing Location Value). There is buying pressure when a stock closes in the upper half of a period's range and there is selling pressure when a stock closes in the lower half of the period's trading range. The Closing Location Value multiplied by volume forms the Accumulation/Distribution Value for each period.
- 6. Chaikin Volatility**

The Chaikin Volatility Indicator uses the percent change of two moving averages of a volume weighted accumulation-distribution line to determine the volatility of a financial data series.
- 7. Chande Momentum Oscillator**

This is a technical indicator that attempts to capture the momentum of a security. Chande discussed this and many other indicators in his book "The New Technical Trader". The Chande Momentum oscillator differs from other technical indicators like the RSI and MACD, because it uses up and down days in both the numerator and denominator.
- 8. Commodity Channel Index**

The commodity channel index (CCI) is an oscillator used to identify cyclical trends in a security. It gained its name because it was originally used to analyze commodities.
- 9. Comparative Relative Strength**

The Comparative Relative Strength parallels the price movement of a stock with an index, a sector or another stock to show how they are conducting to one another relatively.
- 10. Detrended Price Oscillator**

The Detrended Price Oscillator is a tool that smoothes the trend in prices, allowing you to more easily identify cycles and overbought/oversold levels.
- 11. Directional Movement System**

An indicator used in technical analysis to determine if a financial instrument, such as a stock, is trending in particular direction.
- 12. Ease of Movement**

The Ease of Movement indicator shows the relationship between volume and price change
- 13. Exponential Moving Average**

Exponential moving averages reduce the lag by applying more weight to recent prices. The weighting applied to the most recent price depends on the number of periods in the moving average.
- 14. Fractal Chaos Bands**

The fractal chaos bands help identify if a market is choppy or trending. When a market is choppy, the bands will flatten out. When it is trending, the bands will have a slope.
- 15. Fractal Chaos Oscillator**

The chaotic nature of stock market movements explains why it is sometimes difficult to distinguish daily charts from monthly charts if the time scale is not given. The patterns are similar regardless of the time resolution. Like the chambers of the nautilus, each level is like the one before it, but the size is different. To determine what is happening in the current level of resolution, the fractal chaos oscillator can be used to examine these patterns.
- 16. High Low Bands**

High Low Bands consist of triangular moving averages calculated from the underlying price, shifted up and down by a fixed percentage, and include a median value.
- 17. High Minus Low**

Returns the high price minus the low price.
- 18. Historical Volatility**

Historical Volatility calculates the variance of fluctuations in a security over time.
- 19. Linear Regression Intercept**

Used with the (LRF) set to follow fewer bars (9) than the (LRF)

20. **Linear Regression RSquared**
Takes random bar price variables and works out a linear equation to explain the relationship, smoothed by squaring.
21. **Linear Regression Slope**
Linear Regression Slope (LRS) creates a Histogram similar to a MACD, but based on the regression of the slope.
22. **MACD**
Moving Average Convergence/Divergence (MACD), Developed by Gerald Appel, is one of the simplest and most reliable indicators available. MACD uses moving averages, which are lagging indicators, to include some trend-following characteristics.
23. **MACD Histogram**
The signals from the MACD indicator tend to lag price movements. The MACD Histogram attempts to address this problem by plotting the distance between MACD and its signal line. Because of this, the histogram signals trend changes well in advance of the normal MACD signal, but is less reliable and should be confirmed by other indicators.
24. **Mass Index**
The Mass Index identifies price changes by indexing the narrowing and widening change between high and low prices.
25. **Median**
A Median Price is simply an average of one period's high and low values
26. **Momentum Oscillator**
Created by calculating the difference between the sum of all recent gains and the sum of all recent losses and then dividing the result by the sum of all price movement over that period.
27. **Money Market Flow Index**
An indicator used to show the percentage of a stock's price on up days compared to the total of up and down days. It is an oscillator of money flow.
28. **Moving Average Envelope**
A simple moving average line can be enhanced by surrounding the line pattern with parallel envelopes. These envelopes deviate from the moving average line by a user-specified percentage in order to determine when prices have strayed from the moving average line by that percentage.
29. **Negative Volume Index**
The Negative Volume Index shows focus on periods when volume decreases from the previous period.
30. **On Balance Volume**
The On Balance Volume indicator shows a relationship of price and volume as a momentum index.
31. **Parabolic SAR**
Developed by Welles Wilder, creator of RSI and DMI, the Parabolic SAR sets trailing price stops for long or short positions. Also referred to as the stop-and-reversal indicator (SAR stands for "stop and reversal"), Parabolic SAR is more popular for setting stops than for establishing direction or trend.
32. **Performance Index**
The Performance indicator is a normalized chart showing a security's price performance as a percentage (i.e. the Performance indicator displays the percentage that the security has increased since the first period).
33. **Positive Volume Index**
The Positive Volume Index shows focus on periods when volume increases from the previous period.
34. **Price Oscillator**
The Price Oscillator is a linear indicator based on the difference between two chosen moving averages, and is expressed as either a percentage or in absolute terms. The number of time periods can vary depending on your preference. Enhanced by the use of Range Bars
35. **Price ROC**
The Rate of Change (ROC) indicator is a very simple yet effective momentum oscillator that measures the percent change in price from one period to the next. The ROC calculation compares the current price with the price, a given number of periods ago.
36. **Price Volume Trend**
The Price and Volume Trend index generally precedes actual price movements. The premise is that well-informed investors are buying when the index rises and uninformed investors are buying when the index falls
37. **Prime Number Bands**
Similar to the Prime Numbers Oscillator, the prime numbers oscillator was developed by Modulus Financial Engineering, Inc. This indicator finds the nearest prime number for the high and low, and plots the two series as bands.
38. **Prime Number Oscillator**
The prime numbers oscillator finds the nearest prime number from either the top or bottom of the series, and plots the difference between that prime number and the series itself.
39. **Rainbow Oscillator**
A technical indicator invented by Larry Williams that uses the weighted average of three different time periods to reduce the volatility and false signals that are associated with other indicators that mainly rely on a single time period. This is a range-bound indicator, which means the value fluctuates between 0-100.
40. **Simple Moving Average**
A simple moving average is just the arithmetic mean

- 41. Standard Deviation**
A measure of the dispersion of a set of data from its mean
- 42. Stochastic Momentum Index**
The Stochastic Momentum Index, developed by William Blau, first appeared in the January 1993 issue of Stocks & Commodities magazine. This indicator plots the closeness relative to the midpoint of the recent high/low range.
- 43. Stochastic Oscillator**
The Stochastic Oscillator is a popular indicator that shows where a security's price has closed in proportion to its closing price range over a specified period of time.
- 44. Swing Index**
This indicator plots a running total of the swing index value of each bar. The swing index is a value from 0 to 100 for an up bar and 0 to -100 for a down bar. The swing index is calculated using the current bar's open, high, low & close, as well as the previous bar's open & close
- 45. Time Series Moving Average**
Time series analysis can be useful to see how a given asset, currency or economic variable changes over time and how it changes compared to other variables over the same time period.
- 46. Trade Volume Index**
The Trade Volume index shows whether a security is being accumulated or distribute (similar to the Accumulation/Distribution index).
- 47. Triangular Moving Average**
he triangular moving average derives its name from the way the weighting factors are applied to the un- smoothed data. For example, for a 7 period moving average, the weighting factors are 1, 2, 3, 4, 3, 2, 1.
- 48. Trix**
TRIX is a momentum indicator that displays the percent rate-of-change of a triple exponentially smoothed moving average of a security's closing price.
- 49. True Range**
A histogram of the high-minus the low of the given bar series.
- 50. Typical Price**
A Typical Price is simply an average of one period's high, low and close values
- 51. Ultimate Oscillator**
Uses the weighted average of three different time periods to reduce the volatility and false signals that are associated with many indicators that mainly rely on a single time period.
- 52. Variable Moving Average**
Variable moving averages change the weighting based on volatility of prices
- 53. Vertical Horizontal Filter**
Created to identify trending and ranging markets. VHF measures the level of trend activity, similar to ADX in the Directional Movement System.
- 54. VIDYA**
VIDYA (Volatility Index Dynamic Average), developed by Chande, is a moving average derived from linear regression R2.
- 55. Volume Oscillator**
The Volume Oscillator shows a spread of two different moving averages of volume over a specified period of time.
- 56. Volume ROC**
The Volume Rate of Change indicator shows clearly whether or not volume is trending in one direction or another.
- 57. Weighted Close**
Weighted Close is similar to Typical Price - the main difference being that the weighted close, as the name implies, place greater weighting on closing price. This indicator approximates the average price traded for a period and is used as filters in moving average systems.
- 58. Weighted Moving Average**
A type of moving average that assigns a higher weighting to recent price data than does the common simple moving average.
- 59. Welles Wilder Smoothing**
Welles Wilder described 1/14 of current period's data + 13/14 of previous period's average as a 14-period exponential moving average.
- 60. Williams Accumulation Distribution**
The Accumulation/Distribution indicator shows a relationship of price and volume.
- 61. Williams PctR**
This is a momentum indicator that works much like the Stochastic Oscillator. It is especially popular for measuring overbought and oversold levels. The scale ranges from 0 to -100 with readings from 0 to -20 considered overbought, and readings from -80 to -100 considered oversold.