PDSnet

PDSNET ONLINE CHARTING

Getting Started Manual

Contents:

FOREWORD:

It is a well-known fact that most people do not like reading manuals.

With this in mind we have tried to keep this little booklet very concise and easy to read and in order to get a quick start with your new software it is in your own interest to set a little time aside and read about the many useful and unique features of this program.

To assist you in quickly finding your way around this booklet follow these guidelines.

If you need help logging in, go to the next page called:

"Getting Started"

To get help on understanding the pages on each individual share, unit trust and ETF in your software go straight to page 22 titled:

"Explorations"

Page 25 has very useful information about the scans found in this Software. This section is called:

"Scans"

And for useful information on how to search for specific data within the Expert Chart go to page 44 called:

"Naming Conventions"

GETTING STARTED

On your PATH to SUCCESS

Disclaimer

LOGGING INTO YOUR SOFTWARE

Once you have registered and received your confirmation email, logging in can be done by clicking on the link provided in the email received.

Click once, with the left mouse button, and your internet browser will open on the desired page where you may login.

In the username field, type in your username, which is your registered email address. In the field for password, type in the password found within the confirmation email you received.

After entering both your username and password, click on "Sign In".

You will now be redirected to the home page of the software.

THE HOME PAGE

The home page is the first page you will see when logging into your software. On the left, you will see a navigation menu which includes all other features within the software. We will explain each of these within this manual. For now, let's see what the home page includes.

The home page of your software includes general information and data on the market, including the performance of various indices and sectors as well as currency data, including:

- Market view – this tab offers a view of how the various JSE indices have performed over the last 12 months.

- Top equities (market cap.) – this shows the top shares ranked by market capitalisation as well as their performance over a 3 month and 12 month period.

- Top 20 (Volume) – this tab shows the top 20 equity shares according to volume traded for the previous trading day.

- New highs/lows – this tab gives the top 5 highs and lows over a 6 month period.

You can access each tab by simply clicking on the relevant heading.

Another thing to note here is that if you click on the ticker of the equity share (highlighted in blue and underlined) it will open another page in your browser with more information on this share. Please refer to the Individual Share Page in the manual further on for more information.

Also on this page, you will find the following:

- Top 5 Sectors – this is the top sectors in the current market, and includes the opening and closing price yesterday as well as the percentage move.

- Bottom 5 Sectors - this is the bottom sectors in the current market, and includes the opening and closing price yesterday as well as the percentage move.

- Top 5 (Price Earnings Growth) – this tab shows the top 5 equities according to their PEG ratios. Refer to the glossary for more on the PEG ratio.

- Currencies – this tab shows a few of the major currencies and their latest spot price, including a 15 minute delayed price for the rand dollar exchange rate.

Remember that you can open a page with more information on any equity by simply clicking on their ticker, which is highlighted in blue.

Also on the homepage, you will see a chart comparing the various JSE indices over a one year period.

If you hover your mouse over the individual indices within the chart, you will see more detail at that specific date.

Next on the homepage, you will be presented with the last 5 updated opinions. These include an in-depth and up-to-date analysis of the share, taking into account their latest financials and technical movements. To read more, simply click on "Read More", and a box will appear with the entire opinion on your screen.

To view the full list of opinions, go to the "Opinions" feature in the menu on the left.

Also on this page, you'll see a list of the latest SENS announcements.

PROFILE PAGE

The next item in your menu to the left is your profile page.

This page includes your personal details linked to your account.

Your profile page also provides you with the ability to add a profile picture.

To add a profile picture, click on "Browse", select an image from your computer, then click on "Upload".

EXPERT CHART

Charts are the most integral and visible components of your software. And your software's charts come equipped with many useful tools. Indicators and line studies are two of the most popular tools people use with charts.

By default, charts are divided into two main parts. The bigger part shows the price plot and the smaller section below the price graph shows the volume in bar graph format.

Finding a Share

When you first open your software, it will automatically give you a chart of the JSE Overall Index.

To open another share, or any data stream, onto your software, click on the search box in the top left corner of your software, which contains the name of the active chart.
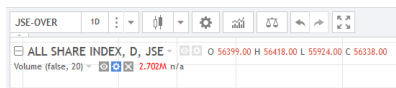
Simply type the name of the share you are looking for and a drop down menu will appear with all the various options which match your search. Select the data stream you are looking for and the chart will open on your screen.
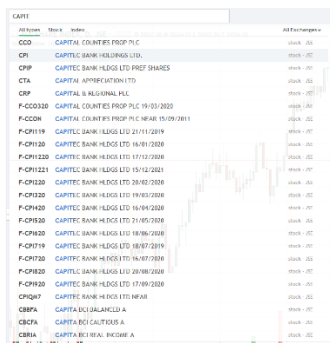
Refer to page 40 for a list of search options for the various data streams available in your software.

Changing the Graph Style

The price plot is the line formed on the chart by the share's price information. Users can change many aspects of the price plot's appearance as the program has no less than 6 different plotting styles built-in. The most frequently used of which are Candlesticks, Bar Graph and Line Graph.

The Candlestick graph is universally the most used graph. The reason is that it shows an entire picture about how a share price has moved and if you are new to technical analysis it is highly recommended that you read through the extensive lecture notes provided about Candlesticks in the educational material provided in this software.

To change a graph style, click on the small down arrow in the top left of your expert chart.
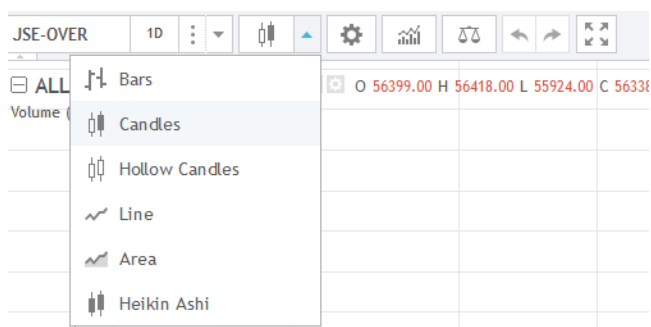
and click on any of the 6 styles provided.

The chart will then change to the selected charting style.

Zooming In and Out of a Chart

Sometimes it is useful to see a smaller or larger amount of data points on a graph. There are two preset data periods available (1 and 5 years) and specific data periods can also be manually selected.

There are 2 ways you can change/select the amount of data included in a graph. The first one is to select the Zoom menu in the left menu bar.

Then click on the chart and hold your mouse while highlighting the area you want to zoom in on.

The second way is to use your mouse's scroll ability to zoom and in and out of the chart. Simply scroll up to zoom in and scroll down to zoom out.

To zoom out simply click on the magnifying glass with the minus sign in the left menu.

Or to reset a graph to the original (default) time period, right click your mouse to activate the Quick Access menu and select the Reset Chart option.

Plotting Indicators

An Indicator is a mathematical formula that uses a share's price or volume data to generate a numerical outcome that is generally plotted in a separate window directly below a price graph.

This program includes over 60 indicators already built-in. Most experienced technicians will only use about 7 indicators on a regular basis and only in specific circumstances will they use additional indicators.

It is also a well known fact that some indicators work better on some shares than on others. Users should experiment with the different indicators over various time periods to try and establish what works best for each share. This statement specifically applies to moving averages and users are advised to try different moving average time periods to establish what time period is the best fit for different shares.

If you are new to technical analysis it is highly recommended that you read the educational material included in the program.

All indicators can be found by clicking on the indicator icon in the top menu bar.

You may also open all indicators by right clicking on your chart and selecting "Insert Indicator".

When either doing this, or clicking on the icon in the top menu, a box will appear with all the available indicators. You can scroll your mouse up and down within this box to find the indicator you are looking for. When you have found the desired indicator, select it by left clicking with your mouse and the indicator will automatically be applied to your chart.
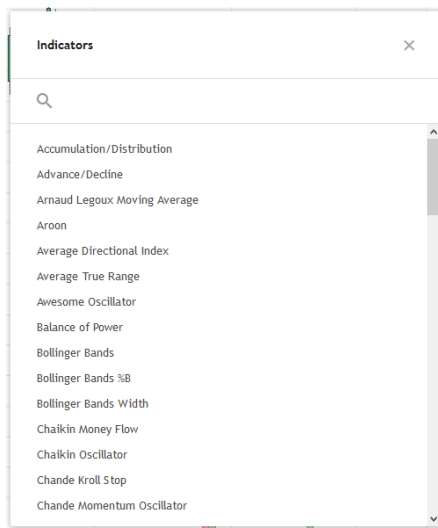
You can plot a number of different indicators on a graph at the same time.

Removing Indicators

Indicators can be removed one at a time or all at once.

The quickest way to remove all indicators simultaneously is to click the right mouse button anywhere on the graph window and select "Remove" and then "Remove all Indicators".

To remove a single indicator, position the mouse pointer on the indicator and make the indicator the active object by clicking on it with the left mouse button.

Once the object is active you will see a number of small circles on the selected line. Now click your right mouse button and select the Remove option from the easy access menu. In this way users can delete any line of an indicator. Alternatively once the object is active you can delete it by pressing the Delete key on your keyboard.

You can also delete the indicator by clicking on the small cross next to the indicator's name in the top left corner of the chart.

Drawing a Line Study

Line studies are also popular and very useful tools to help you see trends and patterns in a chart, which can give you an edge when making trading decisions.

Line studies can be applied by clicking on the desired study in the left menu.
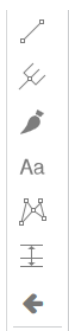
The most popular line study to use is the trendline and when you click on the trendline icon in the left menu, the icon will be activated (appear in a light blue), showing that you can now draw a trendline on your chart. Place your mouse at any point in graph and click once with your left mouse button.

This attaches the line study to the first position. Now move your mouse to any other place on the graph and you will notice that a line is drawn from the first position.

Once you are satisfied that the line is in the position where you want it to be, left click your mouse again and the line is now affixed to the graph. You can reposition the line, or extend it by clicking on it.

Removing Line Studies

As with indicators, Line Studies can be removed all at the same time or one by one.

To remove them all at the same time, right click anywhere on your chart to open the easy access menu then select "Remove, and then "Remove all Drawing Tools".

To remove one line study at a time, select the line you want to remove and make it active by clicking on it and press your Delete key. Alternatively, you can also open the easy access menu by right clicking and select Remove.

Another nice and important feature of the program is that even after a Line Study has been affixed to a graph you can still move the entire line to a different position on the graph.

First make the line active by clicking on it. Once it is the active object on the screen left click and hold your left mouse key down. This grabs the line and you can now move it to any other position on the screen.

Line studies can also be extended past the last data point of a graph. This is useful if you wish to watch if at some point in the future the price breaks through a previously drawn line study.

Comparing Two or More Shares

This feature enables you to see a direct comparison of 2 or more different shares.

For instance, if you wish to compare the price performance of Pick 'n Pay with that of Spar, or any other share/index, you can do so by following these steps.

1.   First load Pick 'n Pay onto your chart, thereafter
2.   Right click to activate the quick access menu and select "Compare or Add Symbol".

3. A box will appear where you can search for the additional data stream. Here you can select either "Compare", which will superimpose the second share on to the existing chart and the axis will show a percentage instead of a price. Or you can click on "Add Symbol", which will enable to you to compare using the actual prices of the shares. By clicking or unclicking the box which says "Overlay the main chart", you are choosing whether to open a separate chart below the existing chart, or superimpose the second share onto the first.
4. The second share will automatically load according to what you have selected on your screen.

You can add as many shares as you like to the comparison.

PORTFOLIO MANAGER

The portfolio manager is used to record all purchases and sales of shares in your stockbroking account, and it can be used to keep a record of cash transactions and cash balances.

It is an integral part of the program, meaning that as the program is updated the prices of shares recorded in the portfolio manager are also automatically updated.

You can create as many portfolios as you like. For instance, if you have speculative and long term investment shares you may like to open a speculative portfolio for your speculative shares and another portfolio for your long term investment shares or you can open separate portfolios for your family members.

Before you can use the portfolio manager you first need to create a portfolio.

1. Click "Add Portfolio Account" in the left menu bar.
2. Add the initial deposit into the portfolio, the date and a name for your portfolio.
3. Then click on "Submit".

Your portfolio has now been added, and you can manage it from the "Manage Portfolio Account" from the left menu.

Adding Transactions

To add a transaction click on "Add Transaction" under "Portfolio Manager" in the left menu.

At the top of the page, you will see a menu of options for each type of transaction.

For each type of transaction, click on the relevant menu option, and then select the portfolio from the drop down menu at the top of the page.

- BUY – Here you must enter all the information of your share purchase, as per the record from your broker.
- SELL – Here you must enter all the information of your sale, as per the record from your broker.
- DEPOSIT – This is where you enter all deposits into your stockbroking account.

- WITHDRAWAL – This is where you enter all withdrawals from your stockbroking account.
- DIVIDENDS – When you receive a dividend, enter it here, as per the record from your stockbroker.
- INTEREST – All interest in your stockbroking account must be entered here.
- DEDUCTIBLE FEES – This is for all expenses on your account including the admin fee, VAT, broker trustee fee or anything else which appears in your broker account as a negative.

After completing all fields on the page click on "Done", and the transaction will be add.

Portfolio Summary

The portfolio summary page gives a complete summary of the user's portfolio.

Here you can see:

- **Total cost of shares held** – This is the cost of the shares which are currently held within the portfolio.
- **Current value** – This is the current value of the shares held within the portfolio.
- **Shareholdings Movement** – Here you can see the capital gain or loss within the portfolio in rands, as well as a percentage value.
- **Deposits** – This is the total amount deposited into the portfolio.
- **Dividends** – This is the total dividends received within the portfolio.
- **Interest Received** – This is the total amount of interest received within the account.
- **Total Value** – This is the all the income that has come into the portfolio.
- **Share Purchases** – This shows the total of all share purchases, including historic transactions.
- **Shares Sold** – This shows the total of all share sales, including historic transactions.
- **Expenses** – This shows all the expenses within the portfolio excluding dealing costs.

- **Deal Costs** – This is the total dealing costs incurred within the portfolio.
- **Withdrawals** – This shows the total of all withdrawals from the portfolio account.
- **Net Total Cash** – This shows the remaining cash within the portfolio and should exactly match the financial report of your stockbroking account.

Portfolio Holdings

The portfolio holdings page shows a summary of all the shares which are currently held within the portfolio.

For each share within the portfolio, you will be able to see the following:

- **Code –** This is the unique JSE share code or ticker for the share within the portfolio.
- **Quantity –** This is the quantity of shares owed within the portfolio.
- **Average Price –** This is the average price paid for the share including all dealing costs.
- **Dealing Cost –** This is the total dealing costs of the shares held in the portfolio.
- **Cost –** This is the total cost of the shares currently held in the portfolio.
- **EOD Price –** This is the end-of-day (yesterday's closing price) of the share within the portfolio
- **Latest Price –** This is the 15 minute delayed price of the share.
- **% Move –** This is the move of the share during the trading day. This is 15 minute delayed.
- **Latest Value –** This is the latest value of the share within the portfolio based on the 15 minute price.
- **P/L (R) –** This is the profit or loss in rands of the holding within the portfolio based on the 15 minute price.
- **P/L (%) –** This is the percentage profit or loss of the holding within the portfolio based on the 15 minute price.
- **Recorded High –** This is the recorded high of the share since it was added to your portfolio.

This information gives you a very good idea of what has occurred within your portfolio.

If you hover your mouse over the heading above on your screen, a small box will appear giving more detail to each field.

Transaction Log

This page gives a log of all transactions in your portfolio in date order.

The transactions of your portfolio appear in date order within this page, from earliest to latest.

You may choose a date range to narrow down the view to a specific period.

To move between pages, click on the arrows at the bottom of the page. And you can also choose how many transactions to show by clicking on the drop down arrow in the bottom right corner.

Transactions can also be edited and deleted from this log, by either clicking on the "Edit" or "Delete" button.

MARKET OVERVIEW

The Market Overview page gives you a complete look at all the sectors within the JSE.

On the left of each column is the name of the sector, and to the right of this is the size of the sector within the whole market.

So, in the screenshot above, the Alt-X sector is 14.21% of the whole market.

If you click on the name of each of the sectors, a box will appear showing the shares which make up this sector. From this box you can click on any share to see more information and go to its chart in the Expert Chart.

MARKET CARPETS

Market carpets view the entire JSE, sector by sector, in the form of a matrix of squares with each sector represented by a square. The colour of the square indicates how well it has done over a period chosen by the user.

It is interesting to look at the market carpet for various periods and compare them. You will find that the market carpet of the past one year is very different from the market carpet of the last three months.

If you click on the sector name within the square, you will get a carpet which reflects the shares in that sector. This highlights which are the best and worst performers in the sector over the period selected. You can click through to see more on the individual shares by clicking on their ticker code.

SELECT SHARE   ×

| ASPEN PHARMACARE HOLDINGS LTD. | ADCOCK INGRAM HOLDINGS LIMITED | ASCENDIS HEALTH LTD |
| (86.10 %) | (2.45 %) | (-34.58 %) |

Close

EXPLORATIONS

Under the menu item for "Explorations", you'll see the sub-menu items for:

- Equity Stocks
- Top 40
- Mid Cap
- Small Cap
- Unit Trusts
- Exchange Traded Funds
- Altx
- Warrants
- Index Exclude
- Fledgling
- Sundary

When clicking on each of these sub-menus, you will see a list of companies which fall within these categories. Depending on the category selected, the columns within each list will vary.

Within the list of equity stocks, you will be presented with the share's high, low and close, as well as it's delayed price, dividend yield, earnings yield and PE.

You can also search the list for any share by typing in the share's ticker, short name or long name.

You may also filter the list according to sector by clicking on the drop down menu above the list and choose the sector you would like to view.

Lastly on this page, you'll be able to add a share to your watchlist by clicking on the plus on the far right of the table.

After clicking on this plus sign, the share will appear in your watchlist. Watchlists are discussed in a separate part of this manual.

Individual Share Page

When clicking on the ticker of the share within the equity shares list or anywhere else in your software, you'll be taken to a page with information on the specific share which you have chosen.

This page will open in a new tab in your internet browser and include a multitude of important data on each share listed on the JSE, as well as unit trusts and ETFs.

Within the individual share page, you'll find the following:

- A simple line chart of the share over the last year.
- The financial year end of the company.
- The sector which the company belongs to.
- A link to the company's website.
- The 15 day average volume traded.
- A bar chart of the share's price at the end of each year going back 6 years.
- A chart comparing the share's performance to the JSE Overall Index and the sector which the share belongs to.
- Price performance data.
- Directors dealings.
- The latest financial statements downloadable in PDF.
- A summary of the company's financial statements by up to 5 years.
- An up to date opinion of the share based on the company's fundamental performance and its technical formations.

From this share page, you can add the share to your watchlist at the top of the page, or go to the expert chart of this share, where you can do extensive technical analysis.

You can also set alerts on the share and add it to your portfolio.

Lastly, you can see a list of all the shares which belong in the same sector of the share.

FILTER TOOLS

There are two different filtering tools within the software:

1. The Progressive Filter Tool
2. The Comparative Relative Strength filter

The Progressive Filter Tool

The progressive filter tool has been designed to allow the user to filter through the database of equity shares for certain criteria. Select and enter the criteria which you would like to filter by and then click on "Filter for Shares".

A list will then appear of all shares which conform to the criteria set.

From the list you can click on the share's ticker, highlighted in blue, to go to a page with more information on the share.

For example, if you wanted to see all the shares on the JSE who have a dividend yield greater than 5% and a volume of more than 30000, you would check the box next to "more than" under dividend yield, and then check the box next to "more than" under volume and add in "30000". Then click on "Filter for Shares".

A list of shares will now appear that meet this criteria.

Comparative Relative Strength Filter

The comparative relative strength filter produces a list of all shares which have performed better than a specific data stream over a specific period.

You may also select if you would like the list to be of shares that are in the same sector as the comparing data stream.

For example, you can see all shares which have performed better than Naspers (NPN) over a 3 month, 6 month, 1 year or 3 year period. You can select if you would then like the list to be of shares in the same sector as Naspers or not. From the list you can click on the share's ticker to go to a page with more information on the share.

SCANS

There are a number of preset scans included in your software.

Bollinger Bands Scan

The Bollinger Bands indicator is an envelope indicator that draws two lines 2 standard deviations above and two standard deviations below a moving average of the share's price. The idea is that 95% of prices will occur between these two Bollinger Bands and so anything which falls outside of them must be either over-bought or over-sold.

So, this scan searches for shares, looking for potential buying and selling opportunities based on Bollinger Bands and the RSI indicator. Potential buying opportunities display a 'Potential Buy' and a sell indicated by 'Potential Sell' signal.

From the list, you may click on the individual share's ticker, highlighted in blue, to see more information on the stock.

Slow & Fast Moving Average Crossover

A moving average is an average of the most recent prices of a share progressed each trading day such that the same number of days remain in the average. The moving average is the most commonly used technical indicator in the world and is often used in conjunction with other indicators.

To calculate a simple moving average on a data stream (such as a series of daily share prices), simply add up the prices in the period which you have chosen and then divide by the number of days to get an average. That average is then plotted on the same day as the most recent price. The shorter the period, the more sensitive the signals.

Moving averages smooth out the 'noise' in the chart to reveal the underlying direction.

There are many types of moving averages. An exponential moving average (EMA) is one in which the latest prices in the moving average are weighted more heavily than the oldest prices. The weighting varies over the period of the moving average exponentially rather than linearly.

This scan within your software on moving averages checks if yesterday's closing price is above the following average 50, 100, 200

day moving average, and the 10, 20 and 30 exponential moving average.

MACD Scan

The moving average convergence/divergence (MACD) is the crossing of two exponentially smoothed moving averages that are plotted above and below a zero line.

The crossover, movement through the zero line, and divergences generate buy and sell signals.

The MACD measures the gap between two smoothed moving averages to give an overbought/oversold zero oscillator.

The scan in your software shows MACD Buy/Sell signals (MACD crossing above/below its 9-period EMA) and includes if it finds stocks that reflect the MACD being in an overbought or oversold condition.

Stochastic Oscillator

A stochastic oscillator is a short term indicator developed by George Lane, identifying buy and sell signals in a particular security.

The indicator compares the closing price to a range of trade over a certain period. Basic formula: (Close-Low)/(High-Low). The effect of this formula is that when the share closes at its low then the result is zero. When it closes above its low the result will be closer to 1. So you have an oscillator which moves quickly between 0 and 1 and which has been arranged mathematically so that it moves between 0 and 100.

In addition, the formula calculates a 2/3 moving average. Sell signals are given when the stochastic itself drops through 80 and the 2/3 moving average is falling. Buy signals are given when the stochastic rises through 20 and the 2/3 moving average is rising.

The stochastic oscillator scan uses classical interpretations of a slow stochastic (Settings: 5,3,20 AND close more than 200 exponential moving average) to generate a list of securities that meet either buy or sell conditions.

WATCHLIST

A watchlist is a list of shares being watched by an investor. As a private investor you should always maintain and monitor your watchlist.

Whenever you read about an interesting share which might have the potential to be profitable, you should add it to your watchlist. Once a share is on your watchlist, you should look at it every day and analyse its performance.

So your watchlist is chosen from the share market as a whole. You should choose shares to buy from this list.

To add a share to your watchlist, go to "Explorations" in the left menu, click on "Equity Stocks" (or any other option here), and on the far right of the list you will see a small plus sign. Click on this. After you have clicked on this, it will show that the share has been add to your watchlist. You may also add a share to your watchlist from the individual share page.

Within your watchlist, under the menu item "Explorations", you will see the following information:

- Date and time share was added to the list.
- Share code, from which you can access for information.
- Name of the share
- Value when added to the list
- Yesterday's closing price.
- Percentage growth of the share since it was added
- Percentage growth over 1 year

To delete a share from your watchlist, click on the small cross next to the share you want to remove.

The share will then be removed from the list.

ALERTS

The Alerts feature allows the user to choose any share and set a target high or target low at which he or she would like to be alerted.

When this share reaches the target, the user will be alerted.

Simply find the share you are interested by typing in either its name or JSE code (a drop down menu will appear as you type from which you can choose from), add in a target high or low (or both), and click on "Submit".

Your chosen share will then be added to the list below.

This list contains:

- The date and time the share was added
- The end of day price (yesterday's closing price)
- The target high chosen
- The target low chosen
- The ability to remove

Alert Notifications

When a share in your list reaches on of the target set, the small bell at the top right of the page will show that you have an alert.
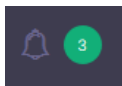
Simply click on this bell to see which of your shares have reached a target price.

You will also notice that should a share in your alerts list be above its target high, the block will appear as green on the page. When its target low is above the share's price this will appear in red.

Deleting an Alert

To delete an alert, click on the cross next to the share on the far right. The share will then be deleted from your list.

OPINIONS

This recently added feature includes an individual, detailed and elaborate description of the shares on the JSE.

Written after in-depth study of the company's financials and technical formations, these opinions give an overview of the company in the present economic conditions, taking into account their recent results, fundamental ratios and technical outlook.

Within the Opinions feature, simply find the share you are interested in, and click on Read More to view the entire opinion.

KNOWLEDGE CENTRE

The Knowledge Centre includes additional educational resources to assist you in your journey to financial independence.

Courses
Glossary
Educational Videos
Financial Freedom Calculator

Each of these provides a relevant and up-to-date tool to assist you in analysing the market and making an informed investment decision.

A FINAL WORD AND TIPS TO GET STARTED

This powerful software, if used properly, will guide you towards the right shares to buy and when to buy them. Later it will warn you when it is time to sell them.

Without knowing anything at all about any listed company, you can hone in on your search by first looking at the sectors of the economy that are currently at the best or their worst.

Choosing a Sector

Like the share market itself, the various groups and sectors, as well as shares move in cycles. Each major cycle is made up from several minor cycles. The optimum time to buy is when it is recovering from a cycle low, and the best time to sell is when it has begun moving down from a cycle high.

Long-term investors would concentrate only upon major cycles and short-term investors on both major and minor cycles. But without the use of technical analysis it is impossible to spot when a sector's cycle has started to change.

This program offers powerful market scanning and filtering tools that take you by the hand and lead you to profitable decision making.

Market Carpets

Market carpets view the entire JSE, sector by sector, in the form of a matrix of squares with each sector represented by a square. The colour of the square indicates how well it has done over a period chosen by the user.

It is interesting to look at the market carpet for various periods and compare them. You will find that the market carpet of the past one year is very different from the market carpet of the last three months.

If you click on the sector name within the square, you will get a carpet which reflects the shares in that sector. This highlights which are the best and worst performers in the sector over the period selected. You can click through to see more on the individual shares by clicking on their ticker code.

MOVING AVERAGE

A Moving Average flattens out a price plotting, so removing unimportant volatility in a share's price, better showing the direction in which the share is moving. There is a choice of a simple, exponential or weighted moving average. The simple moving average merely adds up all the prices over a selected period and divides them by that period to arrive at a plotting point. The weighted moving average gives more weighting to the latest pages and less to the oldest prices. And the exponential moving average gives an even greater weighting to the most recent information.

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In this chart of Standard Bank you can see that initially, while the price is highly volatile, the 150-day moving average moves in line with the share's general direction in a much more orderly fashion. At the same time it leaves you in no doubt about the general direction of the share. By using an exponential moving average, you will notice that where the greatest weight is given to the most recent information, the lagging period is reduced.

The Moving Average Crossover

The Moving Average Crossover is an extremely valuable tool offered by the scan. But which length moving averages you choose depends on whether you are a trader, a short term investor or a long-term investor. Bear in mind that the shorter period chosen, the more unreliable the signal. A trader might use a low cross-over for example five and 10, while a long-term investor might choose a high 50 and 100. As recent crossovers are the most significant, sorting by date is preferable.

In the above chart of Standard Bank we have added a 100 day moving average (blue) and a 20 day moving average (orange). When one moving average crosses another you receive confirmation that the share has changed its trend. You'll see that ahead of a major fall, the longer term moves down through the shorter term moving average and ahead of a major rise, the shorter-term moving average moves up through the longer-term moving average.

The moving average cross over scan in your software provides a list of shares with recent cross-overs.

Volume

Most private investors who have charting or technical analysis software ignore the volume traded, but volume can often be the key to getting into a stock at the same time as the "smart money".

Joseph Granville was the first to understand the importance of volume traded and he coined the phrase, "volume leads price" to explain his idea that large increases in volume accompanied by small increases in price usually means that something is going on with the share which is only known to insiders.

For example, if one company makes a decision to buy another company, then the board members who attended the meeting at which that decision was made walk out of there with some very important information. They may then phone the uncle in Bloemfontein and say buy some XYZ Ltd. This is insider trading and it is illegal, but it goes on all the time.

The point is that insider trading must always be reflected in the volume traded. Usually what happens is that the smart money (i.e. the people who know what is going on) begin buying up all the loosely-held shares available in the market – which leads to small increases in price, but huge increases in volume. If you can spot this when it is happening you can capitalise by "jumping on the band-wagon".

To exploit this idea Granville developed the On Balance Volume (OBV) technique. The OBV begins with an arbitrary figure like 100 000 and then adds the volumes traded on the days when the price rises and subtracts them on the days when the price falls. The result is then plotted in a chart. Consider the chart of Hulamin (HLM):

The chart is divided into a candlestick chart of Hulamin in the top with a volume histogram, and OBV chart at the bottom. The volume spikes and their impact on the share price can be clearly seen.

As a private trader, you have a significant advantage over the institutional investors because your trades are a tiny fraction of the size of theirs. Big institutions have a problem because the size of their transactions tends to move the share which they are buying or selling. So they might begin buying a share at R10, but the sheer weight of their transaction pushes the price up to R12 before they have finished buying. Similarly, when they are selling they tend to push the price of the share they are selling down. But your R20 000 or R50 000 transaction is unlikely to move that share even 1c – unless you are trading in a very tightly-held share.

A tightly-held share, sometimes also called "thinly-traded", is usually a company where most of the issued shares are held by, say, three or four major shareholders who are unwilling to sell. This means that there are very few shares available for the public to trade. Such shares typically have a "lego block" chart.

As a general rule of thumb, you should not invest in a share unless it is trading some volume almost every day (i.e. it does not have a lego-block chart) and it has been trading at least three times what you want to buy on average over the past three months.

MACD

Consisting of two moving averages the Moving Average Convergence/Divergence (MACD) indicator frequently picks up buy and sell signals. The default signal line is 9-period but depending on whether you are a trader, a short-term or long-term investor, this period can be adjusted. Like all indicators, the shorter the period used, the more speculative the signal. When the MACD crosses downwards through the signal line, we have a sell signal, and when it crosses upwards, a buy signal. The position of the MACD in relation to the horizontal line indicates whether a share is overbought or oversold

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Here we have used a chart of Implats to show the working of the
MACD. The middle plotting is the MACD with a 20 period and the
lower plotting has a 9 period. The shorter plotting obviously threw up
more signals, but the upper plotting prevented some potentially
unprofitable trades as in October and May.

READ MORE ON THE INDICATORS WITHIN YOUR
SOFTWARE IN THE EDUCATIONAL MODULES
PROVIDED.

CURRENT COMPANY INFORMATION

A company's historic earnings per share are the Headline Earnings divided by the number of shares in issue. The EY is the historic Headline Earnings per share shown as a percentage of the current share price. If a company is doing better now than in that 12-month period then the EY will be less than it's forward or future yield, but if doing worse, the EY will lower than the forward yield.

A Dividend is the portion of Headline Earnings that is distributed to shareholders. The DY is the historic dividend shown as a percentage of the current share price. Assuming there is no change in the dividend distribution, this is the yield expected if the share is bought at the current price and future dividends are unchanged. But if the headline earnings change, the dividend yield may be increased or reduced in the future.

Yields move counter cyclically to share prices. As a share price improves, the earnings and dividend yields fall and as the share price falls, they improve. Therefore investors seeking income from their investment should not be seduced into buying a share purely on it high yield. The share price may have dropped because negative news about the company may have dipped the share price because its outlook is less encouraging than before. If earnings are expected to be reduced, so most likely will the forthcoming dividend.

The price-earnings ratio (PE) is a favourite amongst investors as it illustrates how the investment community regards the share. A high PE might mean that the share has been pushed up by the expectation of increased profitability, while a low PE can indicate that the share is good value at its current price but may be unpopular. As the PE calculation includes the historic earnings figure, it may be higher or lower than future or forward expectations. Typically high PEs are found in the sectors that are booming and so rather than comparing a share's PE ratio with those for the whole market, compare it with the ratios of its own sector.

It is useful to remember that the earnings yield is the reciprocal of the PE x 100 as a percentage.. Thus a PE of 5 tells you the earnings yield is 1/5 x 100, which is 20%. Conversely, the PE is the reciprocal of the earnings yield x100 as a ratio. For example, if the earnings yield is 13%, the PE will be 1/13 x 100 which is 7,69.

Not included in the DY calculation may be a possible scrip dividend. Rather than paying a cash dividend some companies distribute additional shares to current shareholders. On other occasions the company may pay part of the dividend in cash, and the balance in

more shares. As the JSE does not recognize a scrip dividend it is therefore excluded in the DY calculation.

Mkt Cap is up to date and is calculated using today's price multiplied by the number of shares in issue.

The number of deals is an important piece of information. Compare it with the volume as a huge transaction, like shares passing between two unit trusts would count as one deal, while lots of private investor transactions are individually noted. The private investor deals better reflect the market mood.

Stock Exchange News Service (SENS) is also an important source of information as it not only gives you the latest news, but all the items of official news about a share that has taken place over a period. This ability to look back is important especially when a company is in negotiations. By looking back you can see details of proposals and the progress of the negotiation. If a share price suddenly shoots up, or down SENS may tell you the reason why.

For traders the most important piece of information given in current Closing Statistics is the latest bid and offer prices. A buyer would check the last Offer price and a buyer the latest Bid price. The Highs and Lows records are interesting, but the bottom figure, the Number of Shares in Issue makes you realise that you are a small fish in a vast pond.

Also included is the background of a share as well as the brands it sells and the names of the board of directors as well as major shareholders. The bottom section of each Comment that gives you the actual Dividend, Earnings, Net Asset value history of the share is vital information for the long-term investor. The Earning figure, for example, may have slipped in one year as a result of the economic situation, but a general build up in earnings illustrates the quality of the share.

As long as its overall earnings track record has been positive, it can be judged as sound in the long term.

The Net Asset Value (NAV) tells you what the share would have been worth if the company has been wound up on the day of the last report.

Dividends are paid out of earnings, but with a few exceptions, a percentage of a company's earnings are retained to fund expansion. Retaining earning for expansion makes better sense that borrowing at high rates of interests. As many investors buy or sell according to the amount of the dividend, some companies attempt to maintain a

steady rise in dividend income even if profits are not rising. Typically retained earnings are used for this purpose.

Major Shareholder information is interesting particularly in the case of heavy-weight companies. The quality of a share might be judged by its major shareholders. If the big boys are happy to hold large quantities of the shares, so should you.

Dividend Cover is how many times the earnings are divided by the dividend. If the dividend cover is low, it may mean that the company is not investing in itself for the future expansion. A low dividend cover may also mean that in bad times, a dividend may be cut, or passed.

Financials are mini version of Balance Sheets going back five years. The differences between earnings which include non-recurring items and headline earnings are made apparent. The Headline Earnings figure gives a more accurate picture of the company's progress than overall earnings. A non-recurring earnings item, say the sale of a subsidiary, may result in a special dividend being declared. The share price typically drops by around the amount of that dividend after it has been distributed.

Directors' Dealings give you an insight into how those who run the company feel about it. Directors buying shares is bullish, and directors' selling shares is bearish.

NAMING CONVENTIONS USED IN ALL DATABASES

All South African Unit Trusts start with   "**U-**"
All Namibian Unit Trusts start with   "**N-**"
All Financial Futures start with   "**F-**"
All Agricultural Futures start with   "**A-**"
All JSE Indices start with   "**JSE-**"

INDICES

All International Indices start with	**"I-"**
Dow Jones Industrial	I-DJ-INDU
Dow Jones Average Index	I-DJ-COMP
Dow Jones Transportation	I-DJ-TRAN
Dow Jones Utilities	I-DJ-UTIL
Nasdaq Composite	I-NASDAQ
Amex Composite	I-AMEX
Standard & Poor 500	I-SP500
New York Stock Exchange	I-NYSE
Philadelphia Gold	I-PHLXGLD
American Gold Bugs Index	I-GLDBUGS
Comex Gold 100oz GC Comex	I-COMEX
Russel 2000 Index	I-RUSSL2K
Toronto Stock Exchange	I-TORONTO
S&PTSX Canadian Gold Index	I-TSXGOLD
US 10-Note Interest Rate	I-TNOTE10
US 30 Year Treasury Bond	I-TBOND30
Morgan Stanley High Tech Index	I-MSHITECH
American SA Investment Trust	I-ASA
Commodities Research Bureaux Futures index	I-CRBFUTR
Commodities Research Bureau Spot Index	I-CRBSPOT
Amsterdam AEX Index	I-AEX-IDX
Germany Dax Index	I-DAX-IDX
Paris CAC Index	I-CAC-40
Swiss SMS Index	I-SWISS
Financial Times 100 Index	I-FT-100
Financial Times 250Index	I-FT-250
Financial Times Gold Index	I-FT-GOLD
Tokyo Nikkei 225 Index	I-NIKKEI
Hong Kong Hang Seng Index	I-HANGSNG
Sidney All Share Index	I-AUSTRAL
Baltic Dry Index	I-BALTIC
MSCI Emerging Markets Index	I-MSCI
Bombay BSE Sensex Index	I-SENSEX
Shanghai SSE 180 Index	I-SSE180

COMMODITIES

All commodities start with	**"M-"**.
Copper	M-COPPER
Tin	M-TIN
Lead	M-LEAD
Zinc	M-ZINC
Aluminum	M-ALUMINM
Nickel	M-NICKEL
Brent Oil Index	M-BRENT
Palladium	M-PALLADM
Gold Closing Price in Euro	M-GOLDEUR
Gold Pm in US$	M-GOLD-$
Gold PM in South African Rand	M-GOLDZAR
Platinum Closing Price	M-PLATINM
Platinum Closing Price in Rand	M-PLATZAR
Silver Closing Price in US$	M-SILVER$
Silver Closing Price in Rand	M-SILVZAR
Gold Closing Price In Japanese Yen	M-GOLDYEN
Gold Closing Price in British Pounds	M-GOLDGBP
Gold Closing Price in Swiss Francs	M-GOLDSFR

CURRENCIES

All currencies start with	**"C-"**
US Dollar in Euro	C-$-EURO
US Dollar in Japanese Yen	C-$-JYEN
US Dollar in Swiss Franc	C-$-SWFR
US Dollar in British Pound	C-$-GBP
US Dollar in Australian Dollar	C-$-AUS$
US Dollar in South African Rand	C-$ZAR-AM
US Dollar in Euro	C-EUR-YEN
Euro in British Pounds	C-EUR-GBP
Euro in US Dollar	C-EUR-$
British Pound in US Dollar	C-GBP-$
British Pound in Japanese Yen	C-GBP-YEN
Euro in Swiss Franc	C-EUR-CHF
Euro in South African Rand	C-EUR-ZAR
US Dollar in Brazilian Real	C-$-BRL
US Dollar in Canadian Dollar	C-$-CAD
US Dollar in Mexican Peso	C-$-MEXP
US Dollar in South Korean Won	C-$-KRW
US Dollar in Taiwanese Dollar	C-$-TWD
US Dollar in South African Rand PM	C-$ZAR-PM

US Dollar in Botswana Pula	C-$-PULA
British Pound in South African Rand	C-GBP-ZAR
South African Rand in Swiss Franc	C-R-SWFR
South African Rand in Japanese Yen	C-R-JYEN

BONDS

All Bond Index	ALBI
RSA Bonds Index	GOVI
OTHI Bonds Index	OTHI
RSA 10.5% 21-06-2026	R186
RSA 8,75% 2014	R201
RSA 203 Bond	R203
RSA 8% DEC. 2018	R204

ADVANCE DECLINE INDICATORS

A/D NET All Shares	NET-OVER
A/D NET Industrials	NET-INDU
A/D NET Financials	NET-FINA
A/D NET Basic Materials	NET-BMAT
A/D NET Consumer Goods	NET-CONG
A/D NET Consumer Services	NET-CONS
A/D NET Health Care	NET-HCAR
A/D NET Oil & Gas	NET-OGAS
A/D NET Technology	NET-TECH
A/D NET Telecommunication	NET-TELE

MONEY MARKET

| 3 Month Banker's Acceptance Rate | BA |
| Repo Rate | REPO |