

JSE SHARE WATCHLIST "JSW-ONLINE"

USERGUIDE V1.5

"I have probably purchased fifty 'hot tips' in my career, maybe even more. When I put them all together, I know I am a net loser."

Charles Schwab.

Introduction

JSW-Online is Sharenet Analytics' next-generation online tool to assist JSE investors & traders in the intelligent selection of high-probability share opportunities using time-tested & well researched quantitative methods not usually available to the general public.

For 5 years, JSW was delivered to clients on a daily basis in the form of a Microsoft Excel worksheet heavily embedded with macros. Whilst the rich filtering, sorting and visual capabilities of Excel served clients well, there were a number of challenges with this delivery method:

- 1. The report compilation and checking each night required human involvement;
- 2. Clients had to have Microsoft Excel 2010 or up;
- 3. Due to the Excel & macro programs dependency, JSW was unavailable for use on Tablets and Smartphones.
- 4. Most of the complex fundamental share-screens were only updated once per month.
- 5. Due to (1) above, JSW was only published in the mornings just before the JSE opened.
- 6. The spreadsheet had to be downloaded and unzipped and saved locally before it could be used.
- 7. The portfolio management capability using the Excel sheet had reached a ceiling.
- 8. Future integration of the spreadsheet into clients brokerage platforms would be an issue
- 9. Live versions displaying real-time data would be troublesome with an Excel methodology

For this reason, JSW is being ported to an online-delivered web environment to solve ALL of the above issues. Since only 70% of the JSW Spreadsheet capability has been ported to the online version as of Version 1.1 of this user guide, we will be publishing both the old JSW Excel spreadsheet in parallel with the availability of the JSW online service. Each week, more and more functionality will be added to the JSW online service and we expect to reach full duplicative functionality by December 2014.

The purpose of this user-guide is not to provide instruction into the various techniques used by investors and traders to be successful in deploying the various tools that JSW provides, but to merely provide instruction on the basic use of the various JSW functions available.

For instruction into techniques and advanced methods used by successful traders and investors in the deployment of JSW, please consult the detailed JSW User-Guide PDF available from the RESOURCES section on the Sharenet pages where your Sharenet Analytics subscription resides.



NEW JSW CONTROL PANEL

The JSW is directed through the use of a new control panel at the top of the page, as displayed below. Old hands among you may recognize the panel as being distinctly modelled along the lines of the venerable HP 12-C Financial Calculator, which is still going strong in the financial community since 1981. This resemblance is not accidental, but homage to our favorite calculator still in use today by all our staff and a set requirement for the CFA qualification worldwide.



The JSW control panel has been designed with SESSION PRESERVATION. That means you can change a whole lot of filters and sorts on the JSW page, then go to another web page or window or go to another Sharenet Analytics menu (such as ULTRA) and everything will be preserved when you return! The only time you lose your session data is if you close your browser.

OPTIONS BOX

On the left, we have the "Options Box" where you can filter for SECTOR as well as specify your desired number of shares to display per page. The latter is dependent on your screen size, but has been defaulted to 15 shares so it fits equally well on PC screens and large tablets. You may want to change this to 10 for smartphones, smaller tablets and small laptops. The value you select is retained (memorized) for the duration of the online session.

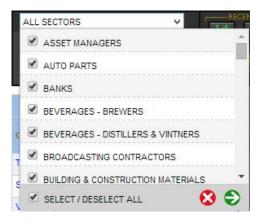


The list of shares you are currently viewing is called the "Current List" and is usually between 150 and 160 of the most liquid shares on this version of JSW Online. The number varies each day depending on the total shares for the day that meets the specific liquidity requirements we check for. The number of shares "in attendance" in the Current List is shown to the right of the Display Rows selector (153 in the above example.)

As you start selecting various functions and filters from within JSW to reduce the defaulted current list down to your final short-list of candidates, the number of shares "in attendance" in the current list will shrink. In the above example the text to the right of the display rows selector may change from "1 to 5 (151)" to read "1 to 5 (43)" to show there are now only 43 shares in total of the original 153 that meet all your criteria.



It is important to remember that the amount of shares being displayed is limited to the number you specified in the Display Rows selector. This will likely be a subset of the entire list of shares "in attendance" in the current list. In the example displayed above, the only two ways to view shares positioned between 6 and 153 in the current list is to either select a higher number of shares to display or to sort the current display by some other heading criteria that may reveal them. Since JSW is primarily used to reveal shortlists of high probability investing/trading candidates, this will not be required in most instances.



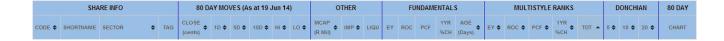
If you want to filter the current list by sectors, then you must click on the SECTORS drop-down list to reveal your options as shown to the left. You can scroll down the list and select/deselect any combination of 47 JSE sectors you wish to have displayed. By un-ticking a sector, you eliminate it from your display list.

If you have a small list of sectors you wish to examine, it will be easier to uncheck the SELECT/DESELECT ALL button on the bottom of the list and then tick the respective sectors you wish to display. This will be quicker than having to uncheck all 47 sectors.

Click on the green button on the bottom right to confirm your selection/s or the red cancel button to abandon any changes you made.

FLOATING HEADER

The light-blue table-header is a "Floating Header" meaning that if you scroll down a page that has a long list of shares on it, the headings will always remain visible at the top of the page where you can see them. Never losing sight of the headings bar means you will always know what data you are looking at, which is very important for large tables or for small screens on phones and tablets.



Clicking on any heading item with a sort-icon next to it will sort the entire list of shares attendant in the current list in ascending (one click) or descending (double click) order. Some JSW functions and filters automatically apply sort criteria to specific columns. You can always tell which heading column has a sort applied to it as the entire sorted column will be highlighted darker than any of the other columns.



SHARE INFO

This contains the 3-digit JSE short-code (CODE), the short-name (SHORTNAME) and the sector the share belongs to (SECTOR). Holding your mouse over any of the sector names will reveal longer descriptions of the sector if they have been truncated such as with the TELKOM example. Clicking on the blue CODE names will direct you to the Sharenet "Quickshare" information page for the share where you can view much more detailed information.

	SHA	RE INFO	
CODE \$	SHORTNAME	SECTOR \$	TAG
TKG	TELKOM	FIXED-LINE TELEC	NPF
SGL	SIBANYE	GOLD MINING	NF
VOD	VODACOM	TELECOMMUNICA	NDF

The TAG field shows any number of the following 5 flags:

- N There has been a news item for the share in the last week (7 calendar days)
- R Results announcement for this share is due this month.
- P Results were published for this share during the current month
- D Dividends are due this month for the share.
- F A broker consensus forecast (BUY, SELL, HOLD) is available for this share.

Clicking on any of the 5 above flags will direct you to the relevant page on Sharenet with more detailed information. To see the detailed information together with live intraday price data in the JSW Trading charts, you will require either a Sharenet Premium subscription (R600 per month) or a Sharenet JSW Data subscription (R100 per month) on top of your Sharenet Analytics subscription.

SHARE MOVES

JSW tracks the last 80 trading days (4 months) of each share. This section shows the closing price (CLOSE), the 1-day move of the share on its last full day of trading (1D), the 1-week move of the share (5D) and the two-week move of the share (10D). Also shown is the move from the high printed in the last 80 days (HI) together with the move from the low printed in the last 80 days (LO). Positive numbers implying growth are green, whilst negative numbers are red.

80 D/	AY MOY	VES (A	s at 19	Jun 14	1)
CLOSE (cents)	1D \$	5D �	10D \$	н⊧ф	LO \$
4450	0.0	6.0	7.2	0.0	45.5
2697	4.6	1.6	-1.9	-7.0	31.6
13100	1.9	3.6	3.2	-5.9	12.0

OTHER DATA

This section displays the market capitalization (MCAP) of the share which is merely the number of shares in issue (circulation) multiplied by the last closing price, which is shown in millions of Rands. Thus 23,175 implies a market-cap of R23,175,000,000 or 23.175 billion Rands and 4,531 implies 4,531,000,000 or 4.53 billion Rands. The IMP column shows the IMPACT the last days trading of the share had on the overall JSE index and is the market-cap weighted percentage move of the last trading day (price % change multiplied by the share's market-cap.) A small move from a very large share could thus have a much larger impact on the JSE than a large 1-day move from a small share.

OTHER				
MCAP (R Mil)	IMP \$	LIQU		
23,175	0.0	•		
24,227	5.1	•		
194,922	16.9	•		
4,531	0.2	•		



The LIQU column displays a liquidity icon which indicates how many trades were concluded for the share on average over the last 10 trading days (2weeks) as follows:

= Very Liquid, > 1,000 trades (deals) per day

= Liquid, between 300 and 1,000 deals per day

= Moderately liquid, between 50 and 299 deals per day = Mildly liquid, between 10 and

49 deals per day

) = Illiquid, between 0 and 9 deals per day.

Low liquidity reflects higher risk in the share, since you may have to encounter high bid/ask spreads in your trading and there may not be enough buyers available should you require selling all your holdings in the share. Beginners should restrict their trading/investing to shares that trade at least 300 times per day on average whilst only the most experienced should attempt trading illiquid shares.

FUNDAMENTALS

This section displays the Earnings Yield (EY) of the share which is merely the inverse of the Price/Earnings ratio (P/E). Thus a EY of 19.1% implies a P/E of 1/19.1% = 5.23.

	FU	NDAMEN	IIALS	
EY	ROC	PCF	1YR %CH	AGE (Days) ◆
19.1	13.5	3.6	178.1	81 F
13.2	10.4	2.8	186.9	171 F

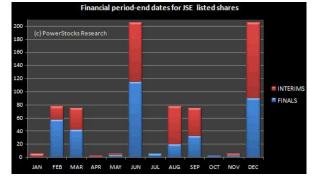
We also show the Return on Capital (ROC) and the Price/Cashflow (PCF) ratio together with the move of the share over the last 12 months (1YR %CH).

The AGE column is very important and tells us how long ago the fundamentals were fully representative of the status of the company and whether the data we extracted was from a finals (F) or interim (I) announcement. So if for example a company published its final results for the financial year ended 31 December 2013 on 28 February 2014, and todays date is 31 May 2014, then the display would show 58F on the date of results publication (28 Feb) and would be displaying 150F today. This field thus reflects the age of the fundamental data. Ages less than 3 months are green, those between 3 and 6 months are orange and those older than 6 months are red (dangerous to take them at face value).

The older the data the more you are at risk in taking it at face value since conditions may have materially changed for the company in question since the date of their last results announcement. JSW uses **Fi**nals, **Q**uarterly (if any) and **I**nterims results announcements to minimize this risk.

Most companies are required by JSE rules to publish finals and interims in a 1-year financial cycle so this means at most your data may be 6 months out of date. But remember that companies have up to 3 months to publish their results and therefore your risk could extend beyond this.

Since earnings are released in batches in various "earnings seasons" on the JSE you may want to go read "Freshly Ground Fundamentals" for more details on what periods of the year are the best for minimizing your age risk for fundamentals data.



LEFT FUNCTION PANEL

Pressing any key once in this area invokes the specific function which will then process to reveal a new set of attending shares in the display below the Floating Header. Holding your cursor above any key will reveal a "Tooltip" hinting as to the purpose of the key.



Keys demarcated into groups by orange lines and texts (such as the "FROM HIGH" and "FROM LOWS" in the supplied picture) are "Filter Keys" that apply the selected filter to the current list of attending shares. Each successive filter key pressed from differing filter groups will further reduce the current list in size as more and more criteria have to be met.

Only <u>one</u> function key in a specific Filter Group can be applied to your attendant list. If you press multiple keys in a Filter Group, the prior function selected <u>will be reversed</u> and the <u>new function applied</u>. This rule applies no matter how many steps you are into a multi filter-group elimination process. Clicking the same function key in a specific Filter Group twice (either sequentially or clicking it a second time much later on) effectively <u>removes</u> (cancels) the filter from operation.

Keys demarcated into groups by blue lines and texts (such as "IMPACT" in the above picture) are "Function Keys" (as opposed to "Filter Keys") that apply a set of filters to the original default <u>master list</u> (153 shares in this example), and effectively over-write any filters you have currently activated.

Some keys on the control panel have DUAL PURPOSES, with the 2nd function inscribed at the bottom of the key in orange. You gain access to these functions by pressing the SHIFT key before clicking the dual-purpose key. In the above example clicking the "1D" key shows largest gainers for the day, but

clicking "SHIFT [®] 1D" will display the largest <u>decliners</u> ("Dn" = Down) for the day.



This filter shows the shares that made the largest gains/losses over the last 1, 5 and 10 days respectively. Pressing the key shows all shares that made a positive or negative (shift key) move over the respective period, sorted high to low (shift=low to high)



This filter shows shares that have declined at least 20, 15 or 10% respectively from their 80-day highs. This is useful for bargain hunting, where you want a minimum margin of safety inherent in the share (as depicted by the decline) before purchasing it.



This filter shows shares that have risen at least 5 or 10% respectively from lows made in the last 80 trading days. This is useful to find shares that have printed a low and then shown some recovery from those lows as they may be potential for bargain hunters.

A very powerful screen is to use the FROM HIGHS and FROM LOWS filters in combination. Clicking both filters in succession will show you a shortlist of shares that have corrected by a minimum amount and that have also shown recovery signs.



This function will clear any filters you currently have active and then display shares that contributed the most positively (green scales) or negatively (red scales) to the JSE's move for the last day on record. This function also sorts the display by the IMP column in the OTHER heading group.

Office Park, Tokai, 7945



The blue CFD filter key will remove any shares in the current display for which SharenetCFD's or IG Markets have no CFD offerings. If you are a trader, this is a useful way to reduce your candidate list to only show shares you can trade with a leveraged CFD offering. SHIFT © CFD will reveal shares for which Standard Bank Online share trading have CFD offerings.

The SHIFT key toggles on/off every time you press it. You can see if the SHIFT key is active when the LCD display (discussed below) displays SHIFT in the top left corner.

LCD INFORMATION PANEL

The panel is modelled on an LCD information display that operates similar to a calculator. The top row is reserved for FUNCTION toggles and the bottom row is reserved for FILTER toggles. The toggles are OFF (inactive) when they are light in color and they are ON (active) when they are dark in color.



In the above example, we pressed the IMPACT-UP function key (the green scales) and the display shows "IMPT" to remind us which function we pressed and what list of shares we are looking at. If we pressed the IMPACT-DOWN (red scales) key the toggle would change to "IMPT" Afterwards, we pressed the 1D, -10%, +5% and CFD filter keys.

In addition to activating (darkening) the toggle associated with a filter/function key, there may be a description for the key you selected, which is also shown in the display. The description shown in the above example is the correct description for the IMPACT-UP function button.

When you select Filter keys, they are toggled on the bottom of the information display to remind you what filters are in effect so that you do not get confused about which shares you are staring at in a short-list. As with the IMPT function, up (3) and down (4) icons are used in the toggles to represent the directionality of the filter key you may have chosen.

There is no limit to the amount of successive (cascading) filters you can apply to a list of shares. The only rule is the system will only let you apply one filter in a filter group, since multiple filters in a group do not make any sense. Every filter you apply will enable a toggle in the bottom row of the display panel.

When applying successive (cascading) filter functions to whittle down a candidate list of JSE shares, the program always presents the resulting list sorted by a column naturally associated by the key. This column will be highlighted in the table after pressing the filter key. If there is no naturally associated column with which to associate the filter by (such as the CFD key) then the table will be sorted by MARKET CAPITALISATION. You can always change the presented list's sorting display by clicking on the heading you wish to sort by.

RIGHT FUNCTION PANEL

This houses pre-programed multi-filter screens (only 1 currently available) and more filter functions, in addition to the MEMORY and RESET buttons. There is also a green MAGIC FORMULA button used to change the style of the fundamental scoring methodology.



The programmed screen function with the green flower embossed on the button is the popular GREEN SHOOTS screen. After pressing it, all prior filters you have active will be cancelled and a new multi-filter function will be applied to the master share list. The LCD panel will display as on right.



MEMORY FUNCTION: Clicking on the **M+** key preserves all the function and/or filter key combinations you have pressed so far and saves it to memory. The MEM indicator in the top-right corner of the LCD display will light up to remind you that you have something stored in memory. You may then RESET the entire database or continue adding filters to your current screen and then return at any time to the configuration you saved by pressing SHIFT *M+ (RM = Recall Memory) When you recall memory, the exact state of your saved configuration is returned, including all the indicator lights and messages on the LCD panel.

When you have something stored in memory (MEM indicator is lit) the program will refuse to allow you to overwrite it by pressing M+ again. When MEM is lit, you will not be able to click on the M+ button. You need to recall memory (RM) to re-load the saved configuration and clear the memory to activate the M+ key again.

Pressing SHIFT M+ (RM) to recall memory will OVERWRITE the current display configuration with the one you have saved.

The **RESET** button clears *all* filters and sort fields and restores your view to the DEFAULT MASTER LIST of shares, so that you may commence another exploration from anew. This reset action is automatically performed by Function Buttons (demarcated by blue lines and text) before they commence their respective actions. Clicking the **RESET** button <u>does not</u> clear your session data stored when you clicked the **M+** memory button!



The Donchian Channel filter buttons show 1, 2 & 4 week new <u>highs</u> (≈ breaking through resistance) and when used in conjunction with the SHIFT key, show new 1, 2 & 4 week <u>lows</u> (°falling below support levels). Toggles are 1/2/4W≈ or °



The AGE filter allows you to filter your shares by fundamental data age (the AGE column in the FUNDAMENTALS heading group). Pressing the button will remove shares from the screen whose results are older than 3 calendar months and **AGE3** will show in the LCD display. The SHIFT key together with the button removes shares whose results are older than 6 months. (**AGE6** will show in the LCD display).



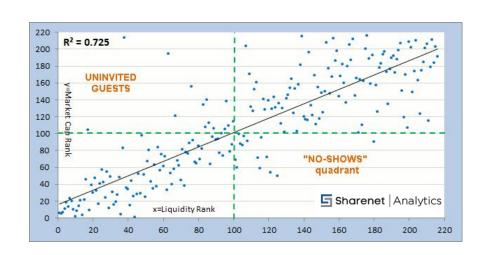
These filters allow you to adjust for liquidity risk. There are two ways to adjust for liquidity risk, namely looking at market capitalization (size) or looking at the activity (how often the share trades per day.)

Clicking on the left-most liquidity button (LQ4® toggle) filters for shares that trade at least 1,000 deals per day on average over the last 10 trading days. Clicking on the second button (LQ3®) cancels the first filter and filters for shares that trade at least 301 times per day. So clicking on a liquidity button filters for all shares tagged in the LIQU column with that buttons' icon and all the icons of the buttons to the left of it.

If you deploy the SHIFT button together with the Liquidity buttons, then you instruct JSW to filter by market capitalization (size) rather than trade activity. In this case the left-most button together with the SHIFT key selects shares that fall among the largest 10 shares (JSE TOP 10) by market capitalization on the JSE. Clicking on the SHIFT and middle liquidity button restricts your view to shares that are among the largest 50 shares on the JSE (JSE TOP50). The LCD toggle is **M50**.

There is a strong correlation of 0.72 between market capitalization and trading activity, namely the larger the market cap of the share the more it is likely to be traded. We prefer to look at liquidity (trade activity) since the main aim of trying to filter for "size" is to reduce your liquidity risk and restrict yourself to highly traded shares with a high degree of market participation. Using liquidity as RISK filter as opposed to market-cap is explained by the diagram below.

If you look at the top 100 shares sorted by liquidity rank (x-axis where 1 is most liquid share), you essentially achieve the same as looking at the top 100 largest shares by market cap (y-axis) but you introduce 14 "uninvited guests" and miss out on 14 of the largest 100 shares by market cap "No shows". But essentially you are still encapsulating 100-14-14=72% of the universe of largest 100 shares by market cap. Note this 72% is the mathematical linear correlation between liquidity and market cap.



Regardless if you look at TOP-50 or TOP-100 ranked by liquidity, the result is the same, namely you capture about 72% of the universe of top shares by market capitalization. You may miss 28% of these but the 28% you replace them with are nonetheless more liquid (traded) - which is what you probably want anyway. The inverse relationship applies equally - namely by choosing the TOP-100 shares by market capitalization you are only capturing 72% of the most liquid (active) shares on the market.

Whether you choose to limit risk by looking at the TOP-x shares by activity (liquidity) or TOP-x shares by market capitalization (size) is a matter of personal taste. Either method is equally as effective as we



have demonstrated with the correlation chart. We prefer liquidity (activity) over market capitalization and therefore the market cap options are available via the SHIFT function as opposed to being default on the buttons



The MAGIC FORMULA button is a special button that allows you to implement a simpler but very famous variant on the 4-factor multi-style share selection screen. When you press it, MAGIC will light up in the LCD display to show you that the TOT column in the MULTISTYLE RANKS heading-group is now the sum of the EY rank and the ROC rank only (as opposed to the sum of EY, ROC, PCF and 1YR %CH).

A popular JSE share selection screen for Sharenet Analytics subscribers for the last 6 years running has been the TOP50 and TOP100 Magic Formula variants as described in our original <u>Magic Formula research note</u>. To replicate these screens follow the simple steps outlined below to demonstrate the Magic Formula TOP50 stock screen:

- I. Click RESET to clear the database if you have been working on it.
- II. Click SHIFT then the middle liquidity button to select the JSE Top-50 universe
- III. Click the green MAGIC FORMULA button

The 10 shares at the top of the resulting list will be sorted by best Magic Formula score for the TOP50 universe.

The Magic Formula button is a TOGGLE meaning each time you press it, it will rotate between 4-factor MULTI-STYLE ranking in the TOT column to 2-factor Magic Formula ranking in the TOT column.

EXAMPLE OF COMPLEX CASCADING FILTERS

Let us find JSE listed shares that meet ALL NINE of the following screening criteria:

- 1. Are in the broad RESOURCES/MINING sectors [COAL, STEEL, METALS & MINERALS, OIL, PLATINUM, GOLD MINING]
- 2. Are down at least 10% from recent highs [-10%] and
- 3. Are up at least 5% from recent lows [+05%]
- 4. Have risen in the last week [5d]
- 5. Trade at least 50 deals per day on average [LQ2]
- 6. Are making NEW 1-week (5-day) breakout highs [1W]
- 7. Have IG Markets CFDs available to trade [CFD]
- 8. Have results that are no more than 6 months out of date [<6m]
- 9. Are sorted by Magic Formula Score



The resulting display after pressing all the buttons as described above as at 19 June 2014 is shown below. We whittled the JSE down from 400 shares to just 6 potential trading candidates! From a Magic Formula perspective, the top two are "no brainers", ranked 1 and 3 respectively.



*Note that all the 8 filter group toggles are displayed at the bottom of the LCD display to remind you what you are looking at. You can click again on <u>any</u> of the set filter buttons to CANCEL that particular filter currently active, which will obviously produce a larger set of candidates. Or you may elect to press another more strict/more relaxed version of the current filter to cancel the current filter and enforced the new stricter one. Every time you press filter buttons, the page will refresh with the new candidates. Finally, you can press M+ and save the list and all the filters to session memory.

ENHANCED FEATURES MADE DURING 2014

Since this manual was published, several new enhancements were made to JSW in 2014. These have not been documented yet, but many of them appear in the new JSW-ONLINE Training videos. While we were launching these new features, we were keeping clients appraised via an old online forum we no longer use. This section covers the updates we were posting to that forum during 2014 so that you can review them.

1. My favorite programmed screen

I don't know about you, but I am having amazing fun with the new JSW Online Ver 1.3. I have had the benefit of playing with it longer than most during the last 6 weeks of development and so thought I would share with you a screen I have saved for myself in my P1 button since it seems to be working well on a few trades so far, and makes a lot of sense.

The screen is defined by the following filters: -10%, $1W \blacktriangle$, $LQ1 \blacktriangle$, $05D \blacktriangle$, T1, $S1 \blacktriangle$, $B2B \blacktriangle$, FUND

The last toggle shows us that RANKING mode is OFF and FUND mode is on (see prior topic why this is important.) The reason I use FUND mode is that I want the ETF's to form part of my search. I get rid of all the illiquid company shares with the LQ1 ▲ filter.

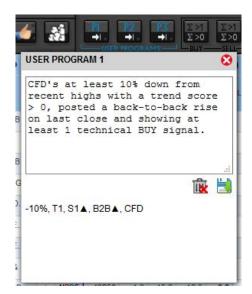
This is the description I placed into my comment box: "At least 10 Trades per day, down 10% from highs, risen over last week, 1-week breakout with back-to-back rise, trend >0 and showing at least 1 technical BUY signal. Include ETF's"

The comment above is displayed as a hover-tooltip when you hold your mouse over the program button, just to remind you which program button does what in the future. When you activate the program button the comment will also appear in the large LCD display panel to tell you what filters you have just selected.

One can opt to make this even more stringent by adding more filters (such as the requirement to have some BUZZ going on) but it seems this screen is pretty strict as it is, only finding about 2-3 candidates a day.

To program a favorite screen, select all the filter buttons on the control panel that are going to form part of your screen. Remember to disable RANK mode if you want to include ETF's. When you are happy with the result then click SHIFT and then the desired P1, P2, or P3 key to tell the system to remember all the active filters and keys currently on the display.

Give it a name and comment and click save and you're done! Open JSW every morning and click your P1, P2 or P3 key and your candidates are instantly displayed for you.



As a final step, I like to then click on the "HI" column heading to sort by shares having fallen the most first (to me these are the biggest opportunities) and then click on the GROUP CHARTS button to have the candidates all preloaded into the JAVA CHART in the order I want them, for me to flick through one by one to give the final filter - "the eyeball test".

Virtual Portfolios



This is where you track the performance of your portfolios. We have provided for an INVESTMENTS and TRADING portfolio as well as a WATCHLIST portfolio. You add shares to the respective portfolios from pressing the "+" key in the "P" column in the WATCHLIST. From there you can select a date of your purchase, the volume purchased, the price paid per share (we suggest you include all fees and commissions in this cost), which portfolio you wish to allocate the purchase to, and also what trailing stop you wish to use for the share. You may also add a text comment on your purchase. This is then saved to a database on our servers matched to your PowerStocks user-ID.

Shares are always purchased in parcels. This means if you buy VOD one month and buy some more VOD a few weeks or months later, that the two transactions will always be tracked separately and not combined. Similarly, disposals (sales of shares) are linked to originating parcels, meaning you have to select from which two parcels of VOD you are making a sale. This is very useful to track performance of individual share purchases/disposals, even if they were of the same share.

If you regularly add to trading positions (pivoting) or regularly dispose of shares during a trade (profit taking) then this means you can track the individual profit/loss of every pivot and profit-taking action. Individual parcels tracking also allows you to own one share in both an investment and a trading portfolio and not mix their statistics up, which is very useful when your investment activities are following a completely different strategy to your trading activities.

To view all disposals associated with any parcel of shares, click on the "link" (chain) icon to the right of the share for a history of the parcels disposals, including profits/losses. A separate DISPOSALS table appears at the bottom of the page to allow you to view and track the performance of all your trading and investing activities.

You record disposals (sales) of shares from a particular parcel by clicking on the money-bag icon to the right of the page, which will allow you to enter the date sold, the amount sold and the price obtained per share (we advise to include all costs and c commissions ion this price.) You may also record a text comment as to the reasons for your disposal which is very useful when wanting to work out how trades, pivot or profit-taking strategies have worked out for you.

You may allocate the remaining shares of your parcel to another Portfolio, change or update your



comment or change your Donchian stop by clicking on the EDIT icon next to the money-bag icon. The stop assigned to the parcel is displayed by a Donchian stop icon ion the TAG column next to the shares' name.

The spark-line chart on the right of the page tracks the performance of the parcel of shares since you purchased them. The holding period (time since original purchase) is shown in the AGE column as xx/yy where yy is the number of trading days and xx is the number of calendar days (including weekends and holidays.)

The %TOT column shows what percentage the parcel makes up of your total portfolio at current prices and the CAGR column gives the compound annual growth rate of the profit on the parcel, taking into account how long you have held the shares.

Hold your mouse over the comment field to have the full comment text reveal itself as a popup tool-tip. If you want to see more technical and fundamental details on your holdings, you can load the respective portfolios (or all of them) into the WATCHLIST using the "MY PORTFOLIO" buttons on the top left of the JSE control keypad.

You have instant access to your investment portfolio (clock), short term trading portfolio (arrows) or your Watchlist (glasses) from MY PORTFOLIO buttons in the JSW control panel keypad. Click **ALL** function to see all your shares loaded into the virtual portfolio:



There is also a SELL key which reveals any shares you own that have broken their trailing stops you have set for them.

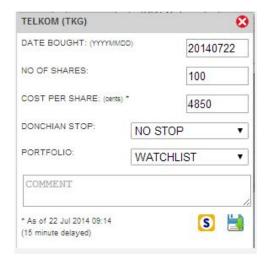
Adding shares to portfolios

Some quick tips for adding shares to your portfolios. To add a share just click on the "+" sign in the "P" (Portfolio) column:



Now add the details of the purchase in the BUY TICKET.

TIP: Click on the date field to reveal a calendar where you can select the purchase date



Include brokerage and other costs when calculating your cost per share. Select a support-stop ie 5-10 days for a short-term trade, 20-40 days for a medium-term trade and 60 days for a long-term trade. Then select the desired portfolio, type in some comments and click on the SAVE icon on bottom right. A progress bar will display while we write the information to our databases and then the share will show with a star next to it depicting the portfolio you saved it to:



A star with a plus sign in the middle tells you that you have the share assigned to MULTIPLE PORTFOLIOS. For example, you may wish to trade more shares on a pivot for later addition to your investment portfolio. This allows you to track the pivot portion of the trade separately from your initial investment block. This is very useful as all other brokerages always combine your purchases together which I have found intensely irritating. To buy more shares of an instrument you already own, click on the star for the share to reveal the OPEN POSITIONS list showing you the status of your open trades:



The "Volume 500/500" shows that you still have 500 shares of the initial 500 you purchased. The Donchian stop you have configured for each open position is also shown. Now click on the BLUE PLUS BUTTON to purchase more of the share and open a BUY TICKET where you can enter all the details of the purchase. The beauty of this system is you can purchase multiple parcels of a share and configure them with different stops and track their progress separately. Any share where you have purchased multiple parcels that have been allocated to different portfolios will have a star with a plus sign in it in the "P" column. Clicking on the star will reveal the status of all the open trades:



In the above example we have an initial KIO investment we have held for 3 years (bottom position)



but have used a correction in the share price of KIO as an opportunity to add more positions to our investment (the top parcel) The original investment portion has a far longer stop configured than the pivot portion, which we are treating as a short term trade. Once the pivot shows a 10% profit we will move it to our investment portfolio. The bottom of the OPEN POSITIONS TICKET shows the aggregate performance of the two parcels of shares.

You can now click on the star for any parcel shown in the above open trades list to edit details of the trade at any time:



Click on the MONEY BAG icon in any parcel of shares in the open trades list to make a DISPOSAL (sale) from the parcel. You can make a comment for the disposal as well which is extremely useful for later reference. You may dispose all or part of the parcel. Every disposal is recorded separately with its comments and NOT combined as is the irritating practice among brokerage firms. You can click on the MY PORTFOLIO buttons to reveal all your shares in the WATCHLIST.



Click on the up/down arrows button to show TRADING STOCK or click on the clock (use SHIFT key) to show INVESTMENT stock or click on the spectacles to show your WATCHLIST or click on SHIFT-ALL to show everything. A little light will show on the key you have selected. Click on the SELL button to reveal all your TRADING STOCK that has broken through their Donchian stops you have configured for them. This is the first button I click on each morning to see if I need to be selling any shares from my trading portfolio. Click on SHIFT-SELL to show ANY shares you own (trading stock, Investments and Watchlists) that have broken their Donchian support stops. For a detailed portfolio analysis, click on the PORTFOLIO tab:



Finding the S filters (Buy signals)

There are 4 Technical BUY signals tracked for each share in JSW:

- 1. 5-day moving average crosses above 20-day moving average
- 2. RSI(14) crosses over 30 from below
- 3. Stochastic(14,3,3) crosses over 20 from below
- 4. ROC(20) Rate of change changes from negative to positive

The share gets a score of 1 added for each of the above BUY conditions having occurred in the last 3 days.

There are 4 Technical SELL signals tracked for each share in JSW:

- 1. 5-day moving average crosses below 20-day moving average
- 2. RSI(14) crosses under 70 from above
- 3. Stochastic(14,3,3) crosses under 80 from above
- 4. ROC(20) Rate of change changes from positive to negative

The share gets a score of 1 added for each of the above SELL conditions having occurred in the last 3 days.

The number of BUY and SELL signals a share has present is shown by the S column in the TECHNICALS section where each green square is a BUY condition and each red square is a SELL condition:



We can filter for shares having more than 1 or 2 BUY or SELL signals in last 3 trading days by using the S-filter keys marked "BUY" and "SELL" respectively:



Click on the BUY key on extreme left of above picture to filter all shares showing at least 2 BUY signals (>1). Press the SHIFT-KEY and then the BUY key to filter all shares showing at least 1 BUY signal (>0). Similarly use the same sequences on the SELL key next to the BUY key to filter shares with at least 2 or 1 SELL signals respectively.



A One BUY signal filter will show \$1 ▲ in the LCD display A Two BUY signal filter will show \$2 ▲ in the LCD display The SELL signal are the same except with a down arrow.

Two BUY signals is a rare condition and three BUY signals is very rare. If you ever see 4 BUY signals consider yourself extremely lucky.

The Integrated Charting options available for JSW

There are two ways to load the shares currently displaying in JSW into a charting display. When you do this, the charts are loaded in the order they are displaying on JSW and then you can flick through the individual share's charts one by one. Our favorite technique is to sort the JSW by the "FROM HI" column before loading the list into the charts as this means we can view the shares going at the highest discount to recent highs first.

(1.) JavaCHARTS

This runs off Java which means it's not available to smartphones or tablets and will only work on your PC with Firefox (Only Firefox supports Java now). JavaCHARTS offers up to 3 years of pricing history and over 50 popular technical indicators which you can configure for yourself. We pre-load the JavaCHARTS with the standard indicators used by JSW, which are also the most popular indicators used worldwide by the investment/trading community namely:

- 1).5-day moving average
- 2).20-day moving average
- 3).RSI(14)
- 4).Stochastic(14,3,3)
- 5).Rate of Change ROC(20)

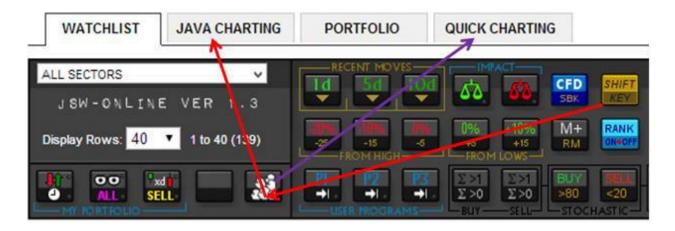
(2.) QuickCHARTS

This is the standard charting offered in our CHARTS menu and has been designed to work on all smartphones and tablets. It only offers 3 months (60 trading days) of data and is preloaded with the following technical indicators which you can hide/unhide by clicking on their legends at the bottom of the chart

- 1). 5-day moving average
- 2).20-day moving average
- 3). 5-day Donchian support
- 4).10-day Donchian support
- 5).20-day Donchian support

Both charting systems also show the J200 so you can compare the progress of each share relative to the overall JSE index.

Click on the Group Charts Button once to load currently displaying shares (preserving their order in the display) into the QuickCHART. Click the SHIFT key and then the group charts button to load the JavaCHARTS.



The QuickSHARE operates must faster due to showing far less historic data than the JavaCHART and has been designed with large buttons to navigate through the list of shares to cater for ease of use for smartphones and tablets.

Miscellaneous new features

- 1. Intraday 15-min delayed live prices! The QUICK-CHARTS will now show you 15-min delayed live pricing on the last candle on the right of the chart so you can see how shares are progressing throughout the day to enable you to time your transactions better. Market opens at 9am so the live candle will start showing at 9:15am. Great for when you click the SELL button in the WATCHLIST to see which of your shares broke under their Donchian stops you can then load these into the QUICK-CHARTS and see if the share bounced up in the morning (in which case you elect to give the trade the benefit of the doubt) or if it continues to trade below its support stop (in which case you execute the disposal.)
- 2.New multi-zoom QUICK-CHART that allows 20-day, 40-day and 80-day views in conjunction with a time-line slider at the bottom.
- 3.BUY-POINTS shown on the chart on days you made a purchase. These are color coded with green shading for investments, red for short-term trades and blue for watchlist shares. Unlimited number of buy-points will display provided they occurred in last 80 trading days.
- 4.Donchian stops configured for shares showing in the viewing list are displayed in the share display list in QUICK CHARTS with their respective stop-loss icons. Very useful when inspecting a share in the chart to remind you what stops are configured for the share so you know which Donchian lines to look at. From next week Friday you will be able to edit a share's comments, categories and Donchian stops



directly by clicking on these icons.

5.40-day Donchian support line added to the chart

6.QUICK-CHARTS, PORTFOLIO and JAVA CHART now open in a separate browser tab/window. This means you can open multiple QUICK-CHART windows from the WATCHLIST and also flick backwards and forwards from the WATCHLIST to the various QUICK CHARTS and your PORTFOLIO without having to re-load views. This significantly speeds up working between multiple charts, portfolios and the watchlist.

7.All the filters used in the WATCHLIST to create the group of charts shown in the QUICK-CHARTS share list will be listed on the bottom of the QUICK-CHART page. This is particularly useful if you run several different filter groups or functions and load them into separate QUICK-CHARTS and want to be reminded what filters were activated to create the set of charts you are viewing.



- 8. Additional information on the share you are viewing in the QUICK-CHART, namely 1-day, 2-day, 5-day, 10-day and 20-day percentage move.
- 9. Disposals transaction log. Every disposal (sale) you make will be logged chronologically in the transaction log at the bottom of the PORTFOLIO page. This data will be used later to allow the system to analyze your trading performance such as percentage winners/losers, points gained versus points lost, Rands gained versus Rands lost, gain/loss ratios, tax reports and so forth.
- 10. Filters used in the WATCHLIST to create the group of shares you are viewing in the QUICKCHART are now displayed on the bottom of the QUICK CHART.
- 11. You can now add shares to your PORTFOLIO, sell all or portions of your PORTFOLIO holdings, edit your Donchian stops, change comments, change PORTFOLIO category or view the performance of your open parcels of trades all from within

QUICKCHART:

- a). Just click on the "+" sign next to a share you do not own to add to your portfolio; b). Click on the star icon of a share you own to view status of open trades;
- c). Click on the star icon of each trade parcel after (b) to edit details (stops, comments) of the parcel. d). Click on the blue plus sign after (b) to add more shares to your portfolio.
- e). Click on the moneybag icon of any trade parcel after (b) to dispose all or portions of a parcel.



12. Simplified menu structure - we have disabled opening of new windows on each JSW tab click (WATCHLIST, JAVA CHART, PORTFOLIO, QUICKCHART) as this led to tab-creep which opened up too many tabs and became confusing. We are investigating a faster way to navigate among multiple tabs without having to refresh entire pages.

Finally, please take note that when the Power ALERTS email arrives in your inbox, this is also your cue that the JSW has finalized its data for the day and has been refreshed to fully incorporate the days trading. This happens anytime between 8:00pm and 10:00pm. You can always tell if the JSW WATCHLIST has been updated with the latest data by looking at the date and time-stamp in the MOVES column header.

13. Added 10 and 20-day Donchian highs (resistance levels) to QUICKCHARTS. These can be toggled on/off by clicking on the legend at the bottom of the chart. Distance of the current intraday price from these is shown on the right of the chart. These can be used for profit targets or to estimate the potential upside of a long trade you may be considering.

14. HIDE SHARES IN QUICKCHARTS:

To closely mimic the candidate share elimination process in the old JSW spreadsheet we have come up with an elegant method that hides unwanted shares from the QUICKCHART rather than create a new basket of wanted shares.

Two shopping basket icons now display in large iPad-friendly buttons at the bottom of the Quickchart share-list. The cart on the left HIDES whichever share is currently selected/showing. Just click this to hide shares that you do not deem suitable for your trades.



To reveal all the hidden shares again just click the shopping cart to the right, which only reveals itself once you have hidden at least one share.

This way you can flick through your share candidates and hide those you are not interested in and be left with your final shortlist. You can recycle through this shortlist multiple times, eliminating shares as you go until you have a final shortlist. No more messing about with shopping carts. Just keep hiding what you don't want until you are satisfied.



The "PowerTAPE" & Social Trading

This addition centers around a powerful new ticker-tape at the bottom of your screen on all pages in the JSW Online tab:



The TOP ROW is reserved for JSW specific "social trading" items:

- 1. TOP INVESTED: Top-5 shares appearing in subscribers' investment portfolios on JSW
- 2. TOP TRADED: Top-5 shares appearing in subscribers' trading portfolios on JSW
- 3. TOP WATCHED: Top-5 shares appearing in subscribers' watchlists on JSW
- 4. TOP DISPOSED: Top-5 shares appearing in subscribers' disposed lists on JSW
- 5. RECENT PURCHASES: Top-5 shares added to subscribers' JSW portfolios in last 7 days
- 6. RECENT SALES: Top-5 shares sold from subscribers' JSW portfolios in last 7 days
- 7. TOP LIKED: Top-5 shares liked by subscribers since JSW was last published (normally since 9:30pm previous day)

The BOTTOM ROW is reserved for JSE statistics for the current day, delayed by 15min:

- 1. VALUE LEADERS UP: Top 5 gainers by value traded
- 2. VALUE LEADERS DN: Top 5 losers by value traded
- 3. MAJOR MOVES UP: Largest 5 gainers
- 4. MAJOR MOVES DN: Largest 5 losers
- 5. NEW 52 WEEK HI: All shares making new 1-year highs
- 6. NEW 52 WEEK LO: All shares making new 1-year lows
- 7. NEW 26 WEEK HI: All shares making new 6-month highs
- 8. NEW 26 WEEK LO: All shares making new 6-month lows

The 2nd row in the PowerTAPE has had all its data reversed in direction to fit better with the direction of tape movement. Its the exact reverse of the top row - in other words looking from RIGHT-TO-LEFT we have the heading first, followed by the share name, followed by the % up/down and finally followed by the up or down arrow. This way when something is scrolling on the 2nd line you don't have to guess

what category of data you are looking at.



NEW "LIKE" FUNCTION: In the QuickCharts, you will notice a new LIKE icon which applies to the share currently showing in the chart:

While you are going through your elimination process in QuickCharts you will undoubtedly settle on a few finalists which you can save to you "Like-list" by clicking on the thumbs-up icon when the share is showing. You can keep using this function among multiple QuickCharts to build up your "like-list" for the day.

For example you run the pre-wired GREEN SHOOTS screen and load the candidates into QuickCharts and find only 1 share you like from this list. You can "like" the share and go back to the WATCHLIST and run one of your own pre-programmed filters and load all of those candidates into the QuickChart for another elimination process. Lets say you find 3 shares here you like. You click on the like button for them and they are added to the original share you liked from the GREENSHOOTS screen. This way you can run multiple screens and build up your "like-list".

Note that you can only "like" a share once. After you have "liked" a share, you will not be able to "like" it again. This avoids duplicates from appearing in your like-list and the community like-list shown in the PowerTAPE. Also, once you have "Liked" a share, you CANNOT "unlike" it. So in order not to clutter up your daily like-list, be sure you want to like the share before clicking the like button. Your "like-list" remains in place until JSW is republished, around 8:30pm in the evenings, after which it is cleared for the following day.



You can load all your "liked" shares into the WATCHLIST at any time by clicking on the LIKE button on the JSW control panel. Click the orange SHIFT key on the JSW KeyPad and then click the "Like" key to load the "Guru Likes" and the "Community Likes" into

the watch-list. The "Guru Likes" are likes made by PowerStocks straight after JSW is published in the evening. They "seed" the community like list. Then, as other PowerStocks subscribers (over 100 currently using JSW) click on "like" when they are evaluating lists of shares for purchase they are added to the "Guru" list. "Guru" shares with only 1 "like" take preference over community shares with only 1 "like" but in the end we land up with 5 shares that are the most liked by PowerStocks "gurus" and the subscriber community that are actively trading/investing.

Once you have loaded all your "Likes" into the WATCHLIST you can review them again by simply clicking on the group charts button next to the like button, to either load them all into the JAVACHART or the QUICKCHART.

The LIKE function essentially replaces the SHOPPING BASKET function in the old spreadsheet version of JSW.

The 5 most liked shares among all JSW-Online users for the day will appear in the PowerTAPE as a "community like-list" under the "TOP LIKED:" heading. PowerStocks Research will be adding their own LIKES each evening or morning before the market opens and this essentially "seeds" the community like-list each day.

The community like-list has a sell-by date, since it is compiled using JSW analysis done with the previous days closes.



Therefore to get the best use from it you need to use it before 11am. After about 11am the usefulness of the data diminishes as you will be too late to climb on the trades.

Towards late afternoon the list becomes pretty useless - however it is useful to load the community likelist into QUICKCHARTS at the end of the day to see how the shares fared for the day. For this reason, the community-like list is CLEARED every time JSW Online is republished between 8:30 and 9:30 each evening.

The best time to look at the like list for actionable trades is:

- 1. Early morning before the market opens at 9:am
- 2. During the weekend when people are analyzing JSW and marking their likes for the open of the trading week on Monday (people seem to apply more diligent and thorough analysis on weekends than during the week!)

*Note: We "seed" the liked-list for the day but our likes just go into the pool to be counted with other people's LIKES. We normally make our LIKES around 9:30pm just after JSW is published with the new days data and if you examine the tape around then it is highly likely the shares you see are our likes since most people only seem to do their like analysis early morning. We have 3 or 4 other experienced subscribers also contributing to the likes pool as these are active share traders so the LIKE list is probably a fair representation of good opportunities for the day.

PowerTAPE "Hide" and "Table" options.

If the TAPE is too distracting for you, you can hide it by clicking the HIDE tab.



If you would prefer to view all the TAPE data in an elegant table format, click the TABLE tab. You can click on all the headings and share names as before to directly load shares or groups of shares into the QUICKCHARTS and JAVACHARTS as a separate window.





*Note the above table is part of the PowerTAPE and as such is only updated when the page is refreshed or opened for the first time. The tables demarcated by the yellow border have scroll-bars slightly visible in them to the right. On a PC use your mouse the grip the scroll-bar and move it up or down. On a touchscreen device you can merely hold and drag the table contents up or down.

Illiquid shares are shown with red stars (trade less than 10 times per day on average) and shares that trade at least 300 times per day are shown with green stars next to their names. To remove/add illiquid shares from the table you can toggle the "basket" icon on bottom left of the table (to the right of the date.)



The liquidity stars from the PowerTAPE also show up in the QuickCHART share list:



If you come from the PowerTAPE to QuickCHARTS, then the JAVACHART will accompany the QUICKCHART by appearing as a tab next to it. You can flick between the JAVACHART (pc only) and the QUICKCHART whilst retaining the same shares selected for display from the PowerTAPE. Both these charts appear together in a separate window thus preserving your prior browsing session. Just close the window to continue from the window where you left off.

The "Guru" Filters

JSW Online has been improved with 4 "Guru" filters to cater for the needs of investors:

- 1. Piotroski "F" Score
- 2. Multi-Style Ranking
- 3. Consistently growing dividends
- 4. Consistently growing earnings

The 4 filters are available on the top left of the control panel on purple embossed buttons and a drop-down "GURU" filter as depicted below:





Pressing the first button on the left (F>7) filters for shares with Piotroski scores of 8 or 9. Pressing the orange SHIFT-key with the same Piotroski key filters for shares with Piotroski scores of 7, 8 or 9.

Pressing the second key (M10) filters for shares that rank in the top-10 in the Multi-style rankings. Pressing the same key after pressing the orange SHIFT -key filters for shares in the TOP-20 multi-style rankings. The filter will use multi-style rankings of the 2-factor Magic Formula or the 4-factor Multi-style, whichever you have selected as active on multi-style at the time.

Pressing the DIV8 key will filter for all JSE shares that have consistently, without interruption, increased their interim AND final dividend payouts for AT LEAST 8-years. Pressing the SHIFT-key and DIV5 will relax the filter to at least 5-years.

Pressing the EPS8 key will filter for all JSE shares that have consistently, without interruption, increased their earnings-per-share across both interim and final results announcements for AT LEAST 8-years. Pressing the SHIFT-key and EPS5 will relax the filter to at least 5-years.

The last two guru filters are extremely stringent since they require, for a minimum specified amount of years (8 or 5) that the interim-to-interim and the final-to-final growth metrics under consideration (dividends or earnings) are uninterrupted. Not only are the 5 and 8 year conditions restrictive, but the fact that we consider both interim's AND finals for the unbroken streaks of consecutive growth are even more restrictive.

These are truly the Dividend and Earnings aristocrats on the JSE especially when considering that the 8-year filter includes the Great Recession of 2008. Any company that continued to increase dividends and/or earnings through the greatest recession in our generations living memory has to be something special. Research we have conducted show that these shares out-perform the JSE index by a considerable margin both for capital growth and dividend yields.

The small "Guru" drop-down box lets you set another filter condition to find shares that have at least 1, 2, 3 or 4 redeeming qualities from the following list:

- 1. Piotroski score > 6
- 2. Multi-style rank in Top-20
- 3. At least 5-years uninterrupted dividends growth
- 4. At least 5-years uninterrupted earnings-per-share growth

The example in the image above is set at 2 meaning the JSW will filter for any shares that meet at least any two of the above "guru" criteria. As of 12 Sept 2014 there are 57 shares that meet at least one of the criteria, 22 shares that meet at least any two of the criteria and only 3 shares that meet at least 3 or more of the criteria. No shares meet all 4 criteria currently but this may change as economic

conditions improve (if they do.)

Note that you can set the 4 individual "guru" filters IN ADDITION to the overall "Guru Score" if you want to further restrict your "Guru score" list to meeting specific "guru" criteria. If your intention is to merely use the Guru Score drop-down filter, make sure you have not got any of the individual guru filters set. You can do this by checking that none of the individual guru buttons have red LED lights glowing on them.

There is now a set of GURU columns that join the Multi-style section in JSW. Here you can see the Piotroski score (F), the number of uninterrupted years of earnings per share growth (E) and the number of uninterrupted years of dividends growth (D).

TECHNICALS GURU				MULTISTYLE RANKS								
M5	M20	хо	τ φ	s ¢	F¢	E¢	D \$	EY \$	ROC ♦	PCF ♦	1YR %CH ◆	RANK TOT
0	1	1	000	00	5	8	7	122	3	46	14	185 (14)
×	×	×	000	88	7	1	5	41	57	- 4	90	192 (16)
×	×	×	000	88	8	11	5	115	10	77	115	317 (93)

All 5 Guru filters (the F>7/F>6 key, the M10/M20 key, the EPS8/EPS5 key, the DIV8/DIV5 key and the drop-down Guru Score) will be memorized for use in the programmable function keys (P1,P2 and P3) as well as the temporary memory M+ key. Furthermore, if you have selected any of the Guru filters, they will appear at the bottom of the QuickCharts if you hit the group-charts button to display the shares.

The keys used to identify the presence of these Guru filters in the programmable memory buttons and the QuickCharts "active filters" display at the bottom is:

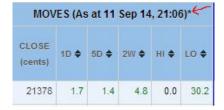
Piotroski: P>6 or P>7
 Multi-style: M\$10 or M\$20

3. Consistent earnings growth: EPS8 or EPS54. Consistent dividend growth: DIV8 or DIV5

5. Guru Score drop-down list: GS1, GS2, GS3 or GS4

The 5 new Guru filters can be combined with an unlimited number of existing JSW filters to allow investors to conduct thorough technical and fundamental-quality screens for candidate selection.

ABOUT DATA UPDATES: The JSW normally updates all its technical price-related data when the data feed from the JSE is made available around 8:30 each evening. However all fundamental data used by the Guru screens is only updated at 11pm each evening. The period between the first and second update is known as the "twilight zone", where we have todays technical data but yesterdays fundamental data. When we are in the "twilight zone" a "*" will appear in the date field to warn you that the fundamental data has not been updated yet:





This is not normally an issue, since company results announcements that change fundamental data are infrequent - but it may become an issue when we are in one of the two "earnings seasons" when 10 or sometimes even 15 shares per day are publishing their final or interim results. When we are in earnings season it is suggested you wait until after 11pm (when the star is not showing next to the date) before running your Guru screens, to ensure you are using the latest data. To see more about the two major earnings seasons on JSE and when they are/ how busy they can be, we recommend you read "Freshly Ground Fundamentals".

Repatriating Portfolio disposals

You can now "repatriate" any disposals in your disposals list, if they were made in error or just to mess about trying the portfolio functionality.

There is a cross icon on the right hand side of each disposal. Clicking on it will repatriate the disposal (reverse it) and place the shares back in the portfolio they originated from.

WARNING - This will REVERSE this disposal and move it back to the portfolio it originated from, with purchase date, price and volume intact. If you wish to permanently delete this transaction, do so from the portfolio.

If you wish to delete it in its entirety then this must be done from the portfolio itself (where you are actually deleting the entire purchase).

"Fallen Angels" automated program



The FALLEN ANGELS function button is now active. This button basically duplicates the manual process we conduct each evening to find "punts" for the traders. The Fallen Angels function cannot be duplicated by filters alone as it is a multi-process filtering function. It works like this:

- 1. Shares must be liquid and trade at least 50 times per day on average
- 2. Shares must be down at least 10% from recent 80-day highs

Shares that meet both of the above two criteria are then subjected to a battery of 6 tests to determine if they are making a recent rebound or recovery:

- 1. Share went up yesterday;
- 2. Share is higher than 5 days ago (1-week rise);
- 3. Share made a back-to-back rise (2 up-days in a row including yesterday);
- 4. Share made a gap-up yesterday;
- 5. Share made new 1 week high's (5-day resistance breakout);
- 6. Share showing at least 1 technical BUY signal (RSI, STO, ROC, MA etc.)



Any share meeting at LEAST TWO of the above six criteria are displayed in the WATCHLIST. Shares meeting 3 or more criteria have their names colored in GREEN:

In the example below, the candidates are shown colored in green since they meet at least THREE of the six tests. The candidate list is always sorted with those meeting the most criteria on the top to those meeting 2 criteria showing at the bottom.

	SHARE INFO			MOVE
SHARE \$	SECTOR	Р	TAG	CLOSE (cents)
PAN-AF	GOLD MINING	+		206
ANGGOLD	GOLD MINING	+	F	10274
	GOLD MINING	+	NF	208
-7.00	GOLD MINING	+	F	2295

TIP: Hold your mouse (without clicking) on top of any of the share names from a Fallen Angels output to see a tooltip box pop up (as shown with ANG:5 above) showing how many of the six "rebound conditions" they met.



New JSW features introduced in 2015

NEW JSW-ONLINE VER 1.4



- 1. Major Performance Improvements
- 2. Filter/Function Button repositioning
- 3. New Risk/Reward filters & visual cues
- 4. Pattern Recognition PTRN Ver 1.0

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PERFORMANCE IMPROVEMENTS



- JSW now has 3 separate databases
 - 1. All 430 instruments (as used previously in JSW Ver 1.3)

 - 3. Shares trading >50 times p/day on average (LQ2 filter) here
- JSW now defaults to LQ2 (approx. 166 shares) reducing one button press to eliminate illiquid stocks
- Liquidity buttons reduced by one
- Clicking the 1st, 2nd or 3rd button (inc SHIFT) uses the small databases which are 35% the size of the full database.
- JSW Watchlist pages thus display approx. 2x faster if you avoid small caps and illiquid stocks.
- This also uses less memory = less "unresponsive script" error messages from your browser if you have a slow/old PC.



BUTTON REPOSITIONING



- Green Shoots combined with Fallen Angels function button.
 - Fallen Angels as before
 - SHIFT + = Green shoots function
- New Pattern recognition filter replaces Green Shoots
- Only 4 liquidity buttons instead of 5
- New RISK filter button Replaces the 5th liquidity button

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REWARD-TO-RISK RATIO FILTERS



Best practice is to engage in trades with reward/risk ratios > 3

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Selecting proper reward/risk candidates

- Run your favorite share screen
- Shortlist your trading candidates
- 3. For each remaining candidate
 - Select an appropriate <u>stop_level</u>
 - Must be more than 1% from your entry
 - Use 10-day Donchian low for short-term trades
 - Otherwise take 20-day Donchian low for medium-term trades
 - Use 40-day Donchian low for longer-term trades
 - Select an appropriate profit_target (exit point)
 - Must be more than 3% from your entry
 - Use 10-day Donchian high for short-term trades
 - Use 20-day Donchian high for medium-term trades
 - Use 40-day Donchian high for longer term trades
- 4. Ensure (profit_target-entry)/(entry-stop_level) > 3



Finding qualifying Reward/Risk candidates

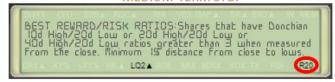


- 1. Click "RISK" filter button for 10-day low
- Click "SHIFT-RISK" for 20-day low (stops)
- Click "RISK" followed by "SHIFT-RISK" to display both 10-day and 20-day lows
- 1. "RISK" looks for all qualifying >3:1 reward/risk shares for
 - Donchian 10d Lo/Donchian 10d hi then
 - Donchian 10d Lo/Donchian 20d hi then
 - Donchian 10d Lo/Donchian 40d hi.
- 2. "SHIFT-RISK" looks for all qualifying >3:1 reward/risk shares for
 - Donchian 20d Lo/Donchian 10d hi then
 - Donchian 20d Lo/Donchian 20d hi then
 - Donchian 20d Lo/Donchian 40d hi.
- 3. Pressing "RISK" followed immediately by "SHIFT-RISK" displays qualifying shares from BOTH of the above options.
 - Just press RISK to toggle R10 on/off
 - Just press SHIFT-RISK to toggle R20 on/off
 - When R10 and R20 are both on, then R+R will display

SHORT-TERM STOP



MEDIUM-TERM STOP



SHORT & MEDIUM-TERM STOPS



These are standard FILTERS and can thus be combined with any of the other JSW filters

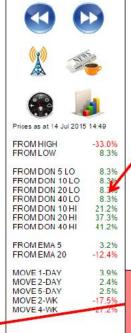
6



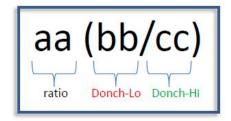
Useful Risk/Reward cues







Holding your mouse over the share name in JSW after pressing the RISK button reveals the shortest-term trade with reward/risk that qualifies based on *last EOD closing prices*. KIO has a ratio of 7.3 on a 10d-low/10d-high basis. ASR has 3.6 on a 20d-low/10d high basis



% distances between the current live intraday close (last candle) and the various Donchian support & resistance levels are shown over here.



Info-box shows *all qualifying* reward/risk ratios for displayed share in QUICKCHARTS based on *current live intraday price* (last candle)

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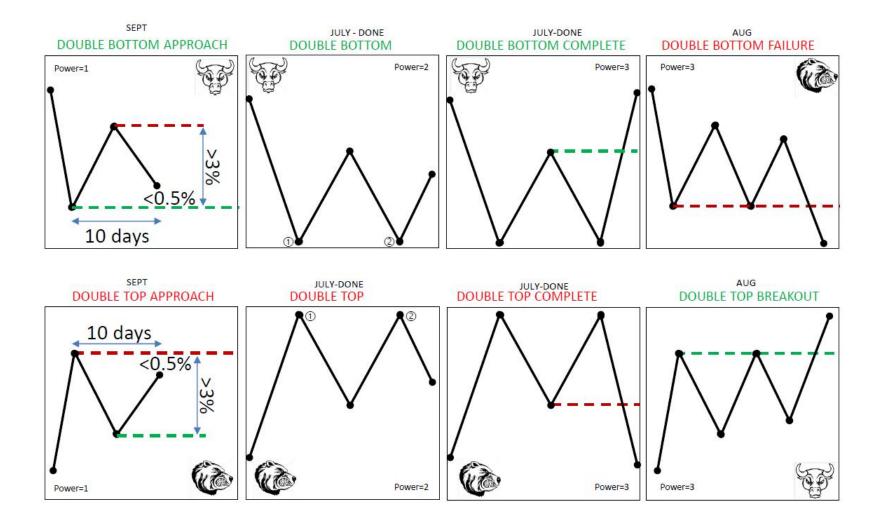
ADVANCED PATTERN RECOGNITION (PTRN)

 One filter button in JSW with BULLISH and BEARISH (Shift-key) chart pattern recognition



- Patterns graded and sorted by strength/power
- Patterns automatically drawn on QUICKCHARTS!
- Roadmap in 2015 for 22 of some of the most powerful patterns followed by technical analysts
- 8 patterns currently active
 - X4 : Double/Triple Bottom/Top
 - X4 : Double/Triple Bottom/Top Complete
- PTRN is complex and intricate and takes lots of time to code properly, hence slow rollout.
- Off-shelf software for customers to do this costs tens of thousands in addition to R500 per month hence decision to develop our own to save clients money.



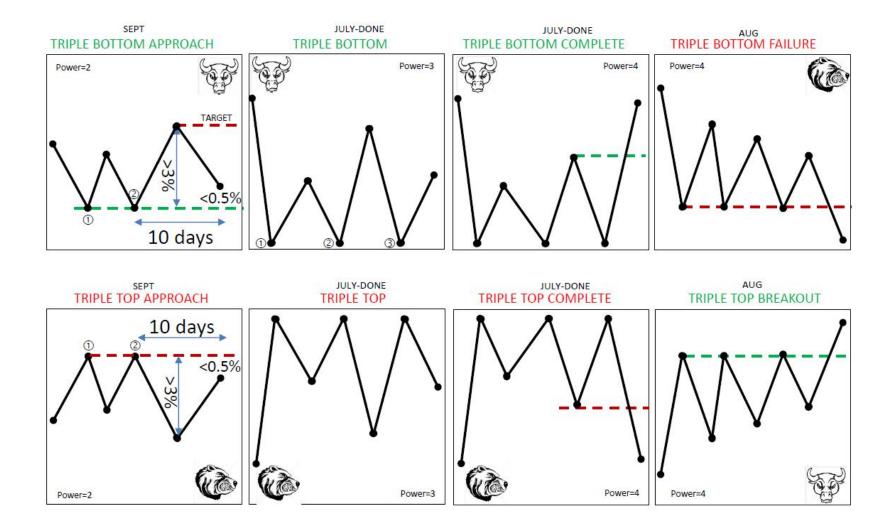


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PTRN EXAMPLES WITH RISK/REWARD QUALIFIER









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PTRN TIPS

- PTRN examines Highs & Lows (candle wicks, not the closes)
- Combine PTRN with other filters (like -10%) to see best opportunities
- Zoom into 2-month view to see the pattern better
- Hide all the Donchian Hi's and the MA20 overlays in QUICKCHARTS to see the pattern MUCH better.







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Key for JavaCHARTS within JSW-ONLINE

*NOTE: Only Firefox supports NPAPI and Java now. In order to use JavaCharts you need to use Firefox.





JSW ONLINE VER 1.5

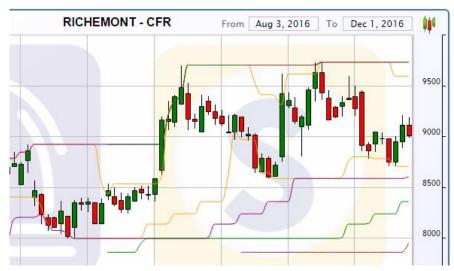
1. JSW is now updated hourly instead of at 21h30 each night

09H40		First prices compiled
09H45	-	Data completed
10H00		1 st Data made available
	27	
	*	
xxH40		Prices compiled
xxH45	-	Data completed
xxH00		Data made available
	20	
	1	
16H40		Pre auction compile
16H45	2	Data complete
17H00	2	Pre-auction publish
17H20		Post-auction compile
17H25	*	post auction published
21H15		Final data compile
21H30	ੂ	Finalized data published

JSW-ONLINE Ver 1.5 NEW UPDATE SCHEDULES



- JSW-Online is moving from an end-of-day product, when updated prices were only available from 21H30 each night, to intraday 15-min delayed prices with <u>hourly</u> updates.
- This will make actionable end-of-day data available much earlier, around 17H25 as opposed to 21H30
- It will also allow traders to be able to run more "real-time" scans on the market to take advantage of large intraday moves in the overall market.
- The JSW publication schedule is shown to left.
- "Like" social voting is now permanently open and shows shares most liked since the current time on the previous trading day. So on Monday 9am you see most liked shares since Friday 9am.
- Donchian channels now work off intraday highs and lows of the past x-days as
 opposed to closing highs and lows. Feedback from traders say these are far better
 levels to use for stops and targets since they represent intraday extremes in
 movement and allow for less guesswork when programming in stops and limits into
 your brokerage platform



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- 3. QUICKCHART overlay memory QuickCHARTS will now remember what overlays you hide/show for each share. Even on subsequent days. This means you can set the chart up with your desired stops and targets via the Donchian highs and lows and not have to repeatedly remember what levels you were following on subsequent days. Any changes made to the overlays on a chart for a share are remembered forever until they are changed again. No save action is required, whatever you are looking at will be remembered.
- 4. Donchian Hi and Low filters stricter Since we are looking at intraday highs and lows, the Donchian filters will show LESS candidates than when we were using closing prices on the Donchian channel calculations. Green up-arrows mean that at the timestamp date and time, the share was currently trading higher than the highest high (instead of the highest close) in the last 5/10/20 days. Similarly, red down arrows mean the share, at the current displayed timestamp in JSW, is trading at a price lower than the lowest low (as opposed to the lowest close) in the last 5/10/20 days. Highs and Lows are obviously more extreme than closing prices so these filters are now obviously far stricter, since we ate looking at far more extreme events in terms of psychological levels of trading.



- 5. Confirmed support/resistance levels Yellow slanted arrows with "2" in them show bounces off resistance (upward slanted) or bounces of support (downward sloping yellow arrows) where the
 - resistance or support has been confirmed at LEAST TWICE in the last 5/10/20 days. These are naturally much stronger levels than those that have just been newly set.

Here is an example of the share depicted above which has just bounced off 5 and 10-day resistance levels where the levels have been confirmed at least twice (shown by red arrows below) in the last 5 and 10 days respectively. Traders may use these to identify new long (bounce of support) or new short (bounce of resistance) opportunities.

