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How to add a scan condition: Never under 50 day moving average past x months

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Hello Everyone

This is my first question. I've done my best to check if anyone asked a similar question before, but if I missed anything please forgive me.

1

I want to look for stocks that trade at or above the 50 day moving average which as we all know is a pretty significant line.

That will probably bring up a huge number of stocks, so I basically want to filter out all stocks where the 8 day moving average has traded below the 50 day at any time in the past x (eg past 6) months.

This filter should be able to get rid of stocks that have been weak and spent significant time under 50dma in the past 6 months. (After all, if stock has been weak at any time during the past 6 months, the 8 day will go under 50dma).

At the same time it won't be so strict that one or two days under 50dma will filter it out.

How would you guys go about making this scan? Thanks in advance!

Because I'm so new at this, I only know how to use the basic scan workbench. It's ok if your answer applies to the advanced scan workbench, but I may have some difficulty applying it because I don't know coding.

moving-average   scan_filter

asked **Oct 14 '12 at 15:22**

dharmi
216 ● **8**● **13**

One Answer:

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Dharmi, welcome to the StockCharts users forum. We encourage all new users to read the FAQ section, link in the top right corner, it will tell you all the in's and out's of how this forum works and your responsibilities as a member. Following these guidelines helps this forum improve, be more sustainable and more useful to all new members in the future. Thanks Gord.

Now as for your question;

Using the basic scan workbench you will be limited as to what you can do, this is due to the fact that not all functions and math formulas can be incorporated in the drop down selection menus, if they were the menus would basically be infinite in length.

So heres a starter for what you could do in basic.

- For the last market close:
- United States Stocks with...
- Daily Close for today is greater than 50-day Exponential Moving Average of Clos
- Daily Close for yesterday is greater than 50-day Exponential Moving Average of
- Daily Close for 2 days ago is greater than 50-day Exponential Moving Average of
- Daily Close for 3 days ago is greater than 50-day Exponential Moving Average of
      etc etc.

But you will be limited as to how many lines you can add, certainly not enough to get you back 6 months. Here's a link to this scan in basic.

http://stockcharts.com/def/servlet/SC.uscan?s=I.Y|G.0|USAL[T.T_EQ_S]![T.C_EQ_U]![DTC0_GT_DAX0,50,TC]!
[DTC1_GT_DAX1,50,TC]![DTC2_GT_DAX2,50,TC]![DTC3_GT_DAX3,50,TC]

Now you could modify this to only check a few trading days going back several months, (say 10, 20, 30 etc trading days ago), it will be an approximation and you will have to review the charts to select the only the ones you want.

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Last updated: **Nov 04 '12 at 16:37**

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2- The more accurate way would be to use the Min/Max over time function, now this is available in the basic workbench but only for a few indicators, (close, vol, range, high, low). Unfortunately the one I would use is the PPO (percentage price oscillator) which is not available in the basic workbench. (Also note its based on EMA's, there is no current version based on SMA's, although some similar things can be done with BB (Bollinger Bands) which use one SMA)

The PPO indicator plots, day by day the percent difference between two EMA's, this would work directly for the part about requiring the 8 EMA to always be above the 50 EMA, ie the value always has to be a positive value greater than zero. But this can also be used for checking that the close is above the 50 EMA. We just need to use a little trick, which is that a 1 day MA or 1 EMA is equal to the close for that day, ie a one day average of the close is just simply the closing value. So to plot it the indicator would be PPO(1, 50, 9), one day average (close) minus the 50 day EMA, ignore the 9 value thats just the 9 period average of the difference and you can plot it with or without this value. So when the number is positive the close is above the 50 EMA, negative and the close is below the 50 EMA.

So thats nice to plot, but how can we use it in a scan. Well one of my favorite scan functions is the Min / Max over time function and we'll need to use the advanced workbench to apply this to the PPO indicator. Basically it looks for a Min (or Max) value of a parameter over a set period of trading days. Here's a basic scan asking for stocks where the Min close over the last 120 days (approx 6 months) to be greater than $5.

http://stockcharts.com/def/servlet/SC.uscan?s=I.Y|G.0|USAL[T.T_EQ_S]![T.C_EQ_U]![DAN0,120,TC_GT_5]

So you might be thinking, why can't I just modify this basic scan to say greater than the 50 SMA, like this.

http://stockcharts.com/def/servlet/SC.uscan?s=I.Y|G.0|USAL[T.T_EQ_S]![T.C_EQ_U]![DAN0,120,TC_GT_DAS,50,TC]

Problem is this scan would compare the lowest close over the last 120 days (probably the value from 120 days ago) to the 50 SMA for today. It would not check that close on each individual day was above the 50 SMA for that same individual day and for any steadily rising stock the close from 120 days ago will always be less than todays 50 SMA. That's where we need an indicator like the PPO which does calc and plot the difference day by day.

So in the advanced scan workbench the default (example) formats for Min and PPO look like this;

and [Min (260,close) > 99.9]

and [PPO Line (12,26,9) > 0.0]

Now we will need to modify a few parameters and nest the PPO into the Min function. First change the Min period to 120 days, then replace 'close ' with the PPO Line function, (note PPO Line is the difference between the two EMA's, the PPO Signal in the dropdown menu is for the last parameter, ie its the 9 period average of the difference, we're not using it here). Then change the PPO EMA's to 1 and 50. Then we need to change the condition to be greater than zero not 99.9 thus this would be the full criteria. This will find all stocks where the close (1 EMA) is positive, ie greater than the 50 EMA, for each individual day over the last 120 days.

and [Min (120, PPO Line (1,50,9)) > 0]

Now you can use the same format to select stocks where the 8 EMA has always been above the 50 EMA.

and [Min (120, PPO Line (8,50,9)) > 0]

In your case you don't mind if the close occasionally drops below the 50 EMA for a couple of days, now we can't do that directly, but I would just change the scan to use the 60 EMA as the criteria and then just look at the charts.

```
[type = stock]
and [Min (120, PPO Line (1,60,9) ) > 0]
and [Min (120, PPO Line (8,50,9) ) > 0]
```

Here's one of the stocks I picked up with this scan, along with the chart settings I would use to visually check the output.

http://stockcharts.com/h-sc/ui?s=LLY&p=D&yr=0&mn=6&dy=0&id=p55698120265

hope this helps get you started

Cheers Gord

link   edited Oct 16 '12 at 09:45   answered Oct 15 '12 at 11:57

Gord
17.9k ● **11** ● **22**

1   Hello! Thanks, Gord! I am impressed! As my own Technical Analysis really isn't strong enough, I probably won't use your
    scan (yet). EG I've never used PPO before not to mention I don't fully understand the logic behind the scan.

    But your idea of using 60dma instead of 50dma is absolutely elegant! As Windsurf says, your answer is really applicable to
    other threads as well.

    I think I speak for a lot of people in saying that even if we like to see a stock bounce off 50dma, we must never be so strict
    that we can't accept closing slightly below 50dma or 50ema for a few days. That will eliminate way too many perfectly good
    stocks. If 50dma is $101, chances are a stock will not respect 50dma but will respect the $100 level.

                                                                                        dharmi (Nov 04 '12 at 15:38)

1   Interesting comment, dharmi. I would just say that nothing about technical analysis can really be strict - it's a matter of
    probabilities. In any case, the 50 ma, or any ma, (or any indicator, actually) is not "real", it's just a mathematical
    manipulation of data that is useful sometimes. If you look at examples of where price appears to bounce of the 50 ma, and
    look to the left, you will very often see the turn occurs within, or just above or below a prior higher volume bar - that is the
    real support level. That the current price and the 50 ma arrived at that level at more or less the same time is just a happy
    coincidence.

                                                                                        markd (Nov 04 '12 at 16:37)

Your answer

[hide preview]

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