

## Pair Matcher Instruction File

**Input Symbols:** Input your sector or pair list here. We have tested the program up to 300 individual symbols and up to 3600 pairs.

Please make sure your lists are formatted like these examples.

```
MSFT  
IBM  
INTC  
AAPL
```

or this

```
MSFT IBM  
INCT AAPL  
IBM AAPL
```

**Run Scan:** This setting defaults to 6 months from today's date. You can adjust it to any amount of time back. If you haven't downloaded the data or your data is not up to date it will automatically be downloaded when you click the run scan button. When you click Run Scan it will scan back to the "starting from" date and output your results into the Scan Results window.

### **Filters: This is now in the Tools menu**

**Color:** When turned on, your results will show up as red or green, green if they meet the criteria, red if they don't.

**Filter:** When turned on, your results window will block out the results that don't meet your selected value.

**Cointegration:** This value uses standard deviation calculated on the spread. The spread calculation is started from the look back period you provide in the "Starting From" value when you run your scan. It then will look for pull backs from both peaks and troughs. When the pullback meets the value of the standard deviation (depends on the multiplier you enter) it will then add that as a 1. It then takes the sum of all of those pullbacks that meet the criteria and displays that as your Cointegration value.

**Crosses "Crossing Count":** This calculation starts from the date in the "Starting From" window. It normalizes the stocks based on percentage value and then proceeds to count every time the two stocks cross each other. That is then summed up and displayed at Crossing Count in the results window.

**Variable Crossing Count:** Looks back the amount of days you specify in the settings, normalizes the data, it then counts how many times the pair crosses in that time period. It then moves back one day and counts the crosses in the amount of time you specified. It does this until it reaches the “Starting From” date. The results in the scan results window are the cumulative count of all the crosses from the “Starting From” date.

**%Maximum Spread:** Looks at the spread starting from your “Starting From” date and displays the highest spread from that time to now.

**%Maximum Move:** Looks for the maximum move of either stock, starting from the “Starting From” date.

**1 Year Max Spread:** Displays the maximum spread for 1 year of data.

**6 Months Max Spread:** Displays the maximum spread for 6 months of data.

**3 Months Max Spread:** Displays the maximum spread for 3 months of data.

**1 Month Max Spread:** Displays the maximum spread for 1 month of data.

**Maximum Final Pair Ratio (Final Price Ratio):** This will highlight pairs who’s ratio exceeds the number you enter. This only looks at the last day of data. Example: if XYZ is 50 and ABC is 10 this is a 5/1 ratio.

**Main Chart:** This displays the first 16 stocks, with this window you can see at a glance an estimate of how well this sector matches up. It will also display the pair you pull up from the Scan Results window. This window only shows back to the “starting from” date. It also displays the standard deviation.

**Scan Results:** You can sort by any column in this window by clicking on the title of the column. If you double click on the pair it will bring up a new window containing 4 charts. You are also able to add a pair to you saved list from this window by right clicking on the pair and choosing “save pair”

**4 Charts Window:** This shows your pair based on 4 look back periods. 1 year, 6 months 3 months and 1 month. All of the values shown at the bottom of each chart are calculated on that time period. It allows you to see at a glance if the pair matches up or has spread or is spreading in a way that would cause you to get stopped out. You also have the ability to zoom in on any of the 4 charts. You are able to add and delete symbols from your Selected Pairs list from this window. You will need to use the “Insert” or “Delete” keys in this window to add or remove the pair from your list. To display the changes to your Selected Pairs window you need to click the “Reload Pairs” button.

**Selected Pairs:** This is the window where new pairs are added. To add a pair to this window right click on the pair symbols in the Scan Results and choose “save pair”. You

can also use the “a” (add pair) “d” (delete pair) “space” display new pair in 4 charts window. These hot keys need to be utilized from the Scan Results window, while highlighting the pair you wish to see. The “Copy To Input” button copies your list to the “Input Symbols” list. The “Save Pairs” button saves your pairs, or changes to your list. The “Reload Pairs” button refreshes the window; this is needed if you have added any pairs from the 4 charts window.

**Scan Results:** In this window you can sort by any column just by clicking on the column header. You are also able to move columns by dragging and dropping them where you like. To add or delete symbols from your Selected Pairs list just use the “a” or “d” key. Use “space” to load the pair into the 4 charts window. The up and down arrow keys are used to scroll through your symbols. You are also able to open the Scan Results in their own window by going to View and Scan Results in Child Window.

#### CHANGES:

1. Added Cointegration Calculation
2. Added Variable Crossing Count
3. You can now display fundamental data in the results window
4. Added Max spread for 1 year, 6, 3, and 1 months
5. Ability to add and remove pairs from 4 charts window, using hot keys and buttons, insert and delete are the hot keys
6. Added several more filters
7. Moved all of the filters to the tools menu under Configure Scan Results
8. Options for lookback period for both variable crossing count and cointegration added
9. Added standard deviation chart to main screen
10. Added copy button to copy pairs to input symbols window
11. Added refresh button to refresh selected pairs after adding from 4 charts window
12. Added save pairs button to save the pairs after adding from 4 charts window
13. Cleaned up main window to focus on main chart and results
14. Change minimum size to 1024x768
15. Added cointegration, crossing count, variable crossing count, max spread, max move and final pair ratio to 4 charts window
16. Added pairs list to 4 charts window
17. Removed manual download button
18. Only downloads data that is missing or not up to date
19. Added auto detect of single symbols or pairs in the input symbols area
20. Various other cosmetic changes were implemented