Strong Volume Gainer/Decliner

- **Purpose:** Strong Volume Gainer/Decliner identifies a security with unusually strong daily volume. Volume typically leads price.
- **Our Scan**: Our scan identifies utility stocks whose previous day's trading volume is 2x the 20-day simple moving average (SMA). We identify whether the volume indicator came on an "up" or a "down" day.
- **Use**: We would look for a recent trend of rising volume for an individual security or within a utility sub-sector. For individual stocks, rising volume coming on technical support/resistance can confirm a move, bullish or bearish.

Chaikin Money Flow

- **Purpose**: The Chaikin Money Flow (CMF) is a momentum oscillator. It is derived from the Accumulation/Distribution (A/D) line, which measures a security's closing price relative to its daily trading range, multiplied by volume. There is buying pressure when a stock closes in the upper half of its daily trading range, and vice versa. Each move is then weighted by volume traded for the day.
- **How CMF is Calculated**: The CMF is derived from the A/D line, which measures the location of a security's closing price relative its trading range for a designated period. We use a 21 day period. If the day's closing price is at the high of the period's range, it is assigned a Closing Location Value (CLV) of +1. If it is at the low of the period's range, it is assigned a CLV of -1. A close at the midpoint it is assigned a zero, and closes between these levels would be assigned a proportional value between -1 and +1. Each day's CLV is then multiplied by the corresponding volume to form the A/D line. The cumulative sum of the 21 A/D values divided by the cumulative total volume over the 21 day period yields the Chaikin Money Flow value.
- **Our Scan**: Improving CMF signal is triggered when CMF moves above+ 0.20. Declining CMF is when below -0.20.
- **Use**: CMF is generally bullish when it is above zero, and bearish below zero. A move above 0.20 or below -0.20 is a strong indicator. Other things to consider are the duration of the positive or negative signal and how much above or below zero it goes. After identifying the trend, we would look for concurring signals to identify buy or sell opportunities. Additionally, divergences between the "trend" of the CMF and the "trend" of a security's underlying price could signal a pending price reversal.

MACD Crossover

- **Purpose**: MACD is a simple momentum oscillator based on a security's various moving averages. When MACD is positive and rising, it indicates positive momentum for a security. When it is negative and declining, it indicates negative momentum for a security. An analysis of MACD can indicate a change in momentum for a security.
- **How MACD is Calculated**: MACD is based on the difference between a stock's faster-moving 12-day exponential moving average (EMA) and its slower moving 26 day EMA. A 9-day EMA of the MACD is used as a trigger line. As opposed to a simple moving average, the EMA assigns an increased "weighting" to newer data, making it more relevant.
- **Our Scan**: A Bullish MACD Crossover is triggered when MACD crosses above its 9-day EMA, but only if it has been below it for a minimum of the previous three days. A Bearish MACD Crossover occurs when the MACD line crosses below the 9-day EMA, but only if it has been above it for a minimum of the previous three days.
- **Use**: MACD incorporates aspects of both trend and momentum in one indicator. Since the MACD Moving Average Crossover is a common trigger, we smooth it out by requiring the signal to exist for a minimum of the previous three days. We would also look for **divergences** between the MACD trend line and the security's price trend line, which can be a precursor to a change in the security's current trend. A positive divergence can indicate improving momentum (a possible buying opportunity), and vise versa.

ADX – Average Directional Index

- **Purpose**: ADX can identify whether an equity is in a trend (as opposed to a trading range), either bullish or bearish. If a trend exists, the ADX can also indicate the strength of the trend. Importantly, the ADX indicator itself does not distinguish whether the trend is bullish or bearish, but simply identifies its existence and, if it exists, its strength.
- **How ADX is Calculated**: ADX is an oscillator which fluctuates between 0-100 and is based on the difference between two indicators, the Positive Directional Indicator (+DI) and the Negative Directional Indicator (-DI), over a pre-defined period. We use a 14-day trading period. Simplistically, the +DI and -DI are each calculated by examining a security's price range on a given day versus the price range on the previous day. A new day-over-day trading high, if one was reached, would be used to calculate the +DI. A new day-over-day trading low, if one was reached, would be used to calculate the –DI (measured in absolute terms). The difference in value between the +DI and the –DI is then divided by their sum to create the ADX.
- **Our Scan**: Identifies when a security has entered a new "trend". A "New Uptrend" is signaled when the ADX line has moved above +20 AND the +DI line is above the -DI line. A "New Downtrend" is signaled when the ADX line has moved above +20 BUT the -DI line is above the +DI line.
- **Use**: If a security scans, it would warrant a closer look. An ADX reading below 20 indicates the security is not in a trend (but rather in a trading range). An ADX move above 20 signals a new and strengthening uptrend if +DI is above –DI, or a new downtrend if –DI is above +DI. An ADX reading above 40 indicates a strong trend is in place. Once in a trend, a move below 35 (and falling) indicates an existing trend is weakening. A +DI and –DI cross would provide a directional clue. Through a closer analysis, a divergence between the ADX Oscillator's trend line and the security's price trend line can be a precursor to a change in the security's current directional trend.

RSI – Relative Strength Index

- **Purpose**: RSI is a momentum oscillator that measures the speed and directional change of a security's daily price movements over specified number of periods – we use the standard 14 day period – weighted over a minimum of 250 previous days. RSI can identify the general trend of a security, can identify overbought and oversold conditions, and can signal coming bullish or bearish reversals by identifying changes in momentum.
- **How RSI is Calculated**: RSI is composed of three calculations: (1) the Average Gain; (2) the Average Loss (expressed as an absolute figure); and (3) the RS which is the Average Gain divided by the Average Loss. To smooth out the results and make the calculation reflect a given security's specific price action, the Average Gain and the Average Loss is weighted over a minimum of 250 trading days of data, which each daily calculation weighted for the previous 13 days rolling average plus the prior day's Average Gain or Average Loss. The 14-day RS is then turned into a 0-100 oscillator index, the RSI.
- **Use**: When the RSI gives a reading above 70, it typically indicates a security is overbought, while a reading below 30 typically indicates a security is oversold. Given how each security is weighted over a minimum of 250 daily periods, each security's RSI reading reflects its own specific trading characteristics. Higher beta stocks (such as the IPPs) could see moves as high as 80 or as low as 30, while lower beta stocks such as traditional utilities will typically achieve readings of 70 or 30, and do so less often. An historical analysis (5-10 years for example) will provide the technical analyst with further context with which to analyze a specific security. The RSI can also provide warnings signs of a possible coming trend reversal, but care needs to be taken. When the RSI trend diverges from a security's stock price trend (RSI makes lower highs while a stock continues to make higher highs, for example) it should be taken as a warning sign by the analyst. If a stock is in a strong trend, either bullish or bearish (a good rule is if it is trading above or below its 200-day MA), then it could simply identify near term overbought or oversold levels. A further analysis is thus warranted.