



ClearStation Education: Oscillating

Table of Contents

Oscillating

Stochastic

Stochastic: The Basics	4
Oversold in an Uptrend: AOL	5
Oversold in an Uptrend: WLA	6
Overbought in a Downtrend: PTEL	7
What Stochastic Should Be Telling You	8
Deriving Stochastic	10
Overbought in an Uptrend: WCOM	12
Stochastic Mannerisms in a Downtrend: TDDDF	13
A Truly Oscillating Stock: SEG	14
Oversold in an Uptrend: VKNG	15
Stochastic Mannerisms in an Uptrend: KSS	16

Oscillating Stochastic

Oscillators determine the short-term movement of a stock. They identify turning points when you may want to buy or sell a stock.

Using an oscillator can be tricky. There are a number of caveats to heed. But once you understand them, the trading world opens wide before you.

In this section, you'll learn:

- What **stochastic** is and how to read its signals

Stochastic: The Basics by kensey

Stochastic is an oscillator. An oscillator compares the current price of a stock to its trading range in the recent past. It tells us if the current price is unsustainable and about to turn around and head in the other direction.

Stochastic helps identify turning points as prices swing back and forth within the scope of the more significant trend identified by MACD. Stochastic can be used to time trades effectively, but it needs to be used in conjunction with MACD. If MACD indicates an uptrend, stochastic can be used to time trades in the direction of that trend (up). If MACD indicates a downtrend, stochastic can be used to time trades in the direction of that trend (down). You don't want to trade opposite the direction of the broader trend!

Cisco Sys Inc (CSCO)



You can see the essential behavioral attributes of stochastic and MACD in the indicator graphs of CSCO.

The green bars on the top of the price graph indicate that CSCO is in an uptrend. Green means GO: you want to look for timely opportunities to buy the stock.

In mid-April, stochastic dipped below the bottom reference line. This means that CSCO was trading at a lower price compared to the range of prices in the recent past. CSCO was oversold. If you were looking to buy the stock, this was a good opportunity.

The more shallow retracement in late April was also a nice opportunity to trade into CSCO. Stochastic did not quite hit the bottom reference line, but it still indicated short-term weakness in the price of the stock.

When you are convinced of a trend's integrity, buying on pullbacks makes sense. Stochastic helps you identify these opportunities.

Oversold in an Uptrend: AOL by kensey



Even in wildly bullish markets, short-term, panicky waves of selling occur.

Stochastic tells you when that short-term sell-off has reached an unsustainable level of pessimism and prices are about to resume moving in line with the longer-term trend. That is how the professionals make money: betting against short-term extremes in favor of a return to normalcy, which is the more persistent trend identified by MACD.

After a steep sell-off in November, AOL went into a solid uptrend. The starting point is marked by the green MACD bar that started in early December.

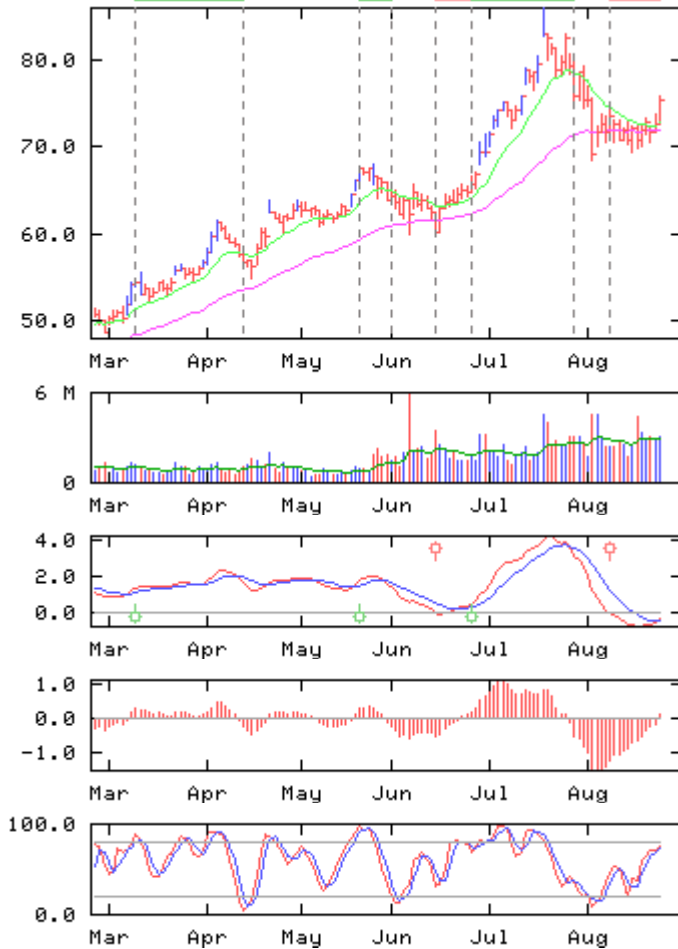
Now, stochastic gives us a number of excellent opportunities at which to establish a position. The first was in late January. The next occurred in early March and the last in late

In all of these instances, stochastic touched the lower reference line. This means the stock was short-term oversold. However, with MACD green and solidly above center these were opportunities to get into a very strong uptrend.

Buying into a stock that is short-term oversold but in a longer-term uptrend is an excellent way to use stochastic.

Oversold in an Uptrend: WLA by kensey

Warner Lambert Co (WLA)



It's important to identify the difference between stochastic and MACD.

MACD is a trending indicator. It tells us at a general level whether a stock is in an uptrend or a downtrend. This is the first assessment you should make on a stock. If it's trending up, you want to be long. If it's trending down, you want to be short.

Stochastic indicates short-term fluctuation. It displays the short-term movement of a stock.

So MACD tells you whether you want to be long or short, and stochastic helps you pinpoint opportunities to trade in the direction of that trend.

When WLA (which has been in a strong uptrend for most of its adult life) crossed below the bottom reference line on the stochastic indicator graph in mid-April, it became short-term oversold.

Remember this simple rule:

Long-term Uptrend
 + Short-term Oversold

 Good Buying Opportunity!

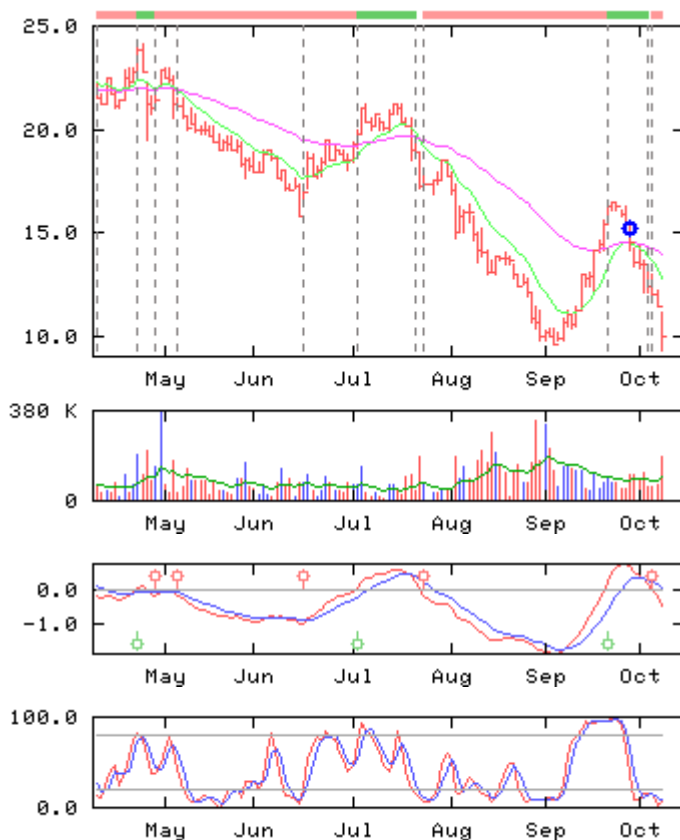
The beauty of this strategy is that as emotion grips the market in short-term bursts of buying and selling, opportunities present themselves to "get in" or "get out," in line with the longer-term trend that has demonstrated persistence and staying power. Simply put, this strategy affords you the advantage of trading in the direction of the long-term trend and against the direction of the short-term reaction.

The oversold condition on stochastic in early June looks to have been a bad signal. One tip-off was the heavy selling leading in to the oversold condition. Investors bailed out in droves right as the MACD green trending bar appeared (which also appears to have been a bad signal). This happens.

Now, a pitched battle is going on as WLA struggles to hold above its 50-day EMA. There have been increases both in volume and volatility. It is best to wait these things out. Increases in volume and volatility are typical ways even the best of trends comes to an end. And it appears to be a total crapshoot which side ends up winning the battle.

Overbought in a Downtrend: PTEL by kensey

Powertel Inc (PTEL)



A phenomenal shorting opportunity presented itself when Powertel Inc (PTEL) bounced in late September. Since this was an actual trade, we've got an annotation in the form of a blue dot that marks the spot.

One key to success in using stochastic to look for shorting opportunities is to zero in on a stock that is in a persistent downtrend. This is clearly the case here. Red bars dominate the price graph and the short ill-timed green bars mark where Powertel tried to come up for air and failed. **As is always the case when evaluating the colored bars on top of a price graph, the color that dominates is the one that counts.**

As evidence of this downtrend, note that the centerline of the MACD indicator graph is pushed towards the top (the MACD indicator graph is third from the top in the set). This means the lines are below the centerline more often than not. **That means one thing - downtrend.**

In late September, prices bounced and went from 10 to 15 dollars a share. The first thing to note is that **the bounce occurred on thin volume.** This is demonstrated by the blue bars on the volume indicator graph, which stack small when compared to the red bars that were behind the selling volume during the month of August. So volume was weak during the bounce. That's negative.

The time to short was signaled by stochastic (the stochastic indicator graph is the one on the bottom). The stochastic lines formed an 'inverted pail' during the bounce. They went into overbought and stayed there. The stochastic lines go into overbought when they cross the upper reference line. This was due to the fact that the rise in prices was very linear and **prices closed near the intra-day high almost everyday.** The stochastic algorithm is sensitive to where prices close relative to the intra-day range. If prices close near the high end, the stochastic lines point and move upwards. If the lines are already in overbought territory when this happens, they stay there.

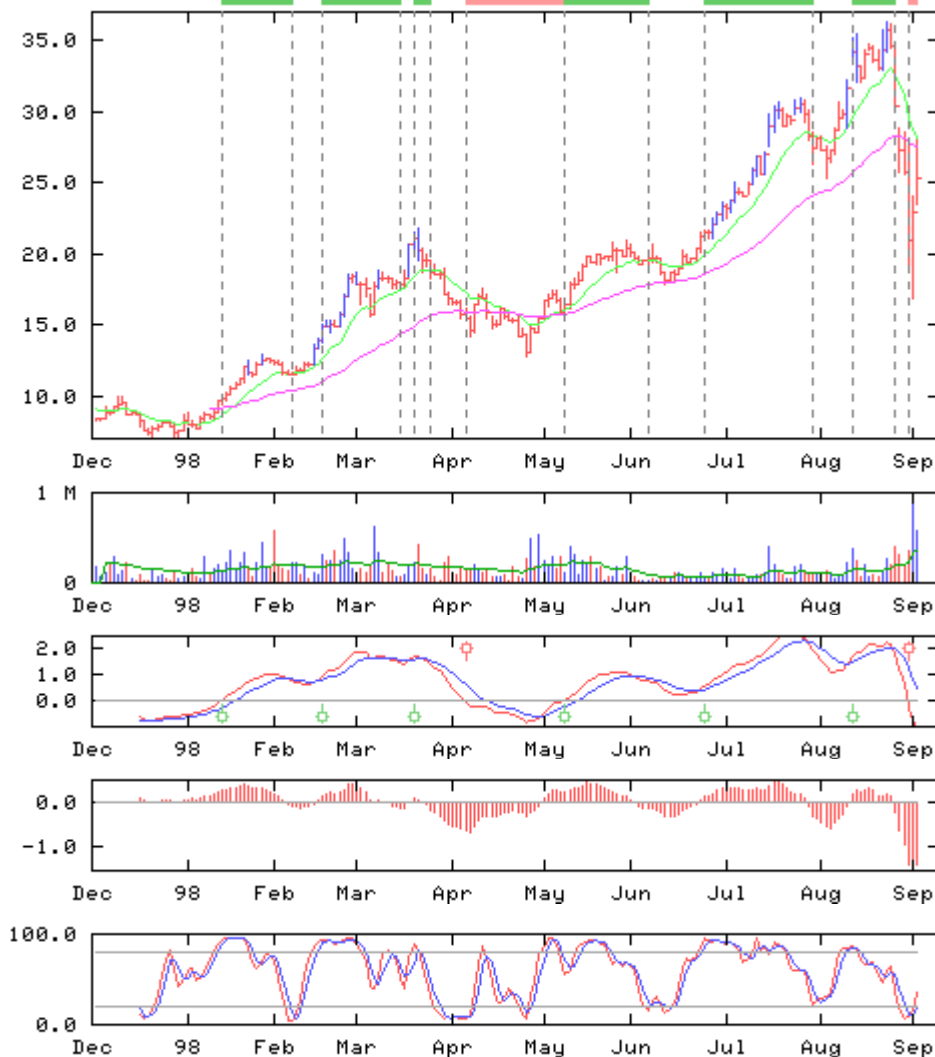
When prices started to cup right before the leg down, stochastic fell out of overbought. When the stochastic lines start turning down is when you place the short sale. Actually, shorting as prices were cupping would have been better, but that is a harder opportunity to spot.

This situation can be summarized as follows:

- MACD Downtrend
- + Stochastic Overbought
- + Weak Volume during the bounce
-
- Excellent Shorting Opportunity!

What Stochastic Should Be Telling You by kensey

Metromedia Fiber Network Inc A (MFNX)



This stock hasn't really traded very long, so its indicators don't have much track record. Nevertheless, stochastic pointed out an excellent buying point for this stock in early February.

The more you study stochastic, the more it should be starting to lead you through the following thought process:

- MACD is important in telling us which way a stock is trending. It tells us whether to buy or sell.
- But MACD doesn't tell us precisely when to pull the trigger and act on the information.
- Stochastic tells us that you never have to worry about a market running away from you, so don't rush when buying a stock.
- Stochastic tells us that it pays to have patience and wait for **both** MACD and stochastic to be issuing bullish signals before you jump the gun.

So what happened to MFNX's trading activity in late March/early April? As you can see on the stochastic graph, it formed a pail. This formation is called a pail because it resembles the bottom of a bucket. This was not a buying opportunity. Not just in hindsight, clearly at the time: prices at this point had cut way below the 13-day EMA and the MACD lines were nose-diving. When this happens, you have to be much more careful in your use of stochastic. Since stochastic is such a short-term indicator, it can sometimes be misleading. This is why we stress that it should only be used in conjunction with MACD. If MACD is totally breaking down, there is a lot more risk in going long.

The dive below the lower reference line in late April doesn't appear to have been a clear-cut opportunity either, although it happens that this trade would have worked. But the action in the MACD lines is not very definitive. Look at the shape of the lines in early February, then look at all the rest of them. Only the clearest

of formations are reliable signals. When stochastic lines start flapping around, they become more ambiguous.

Deriving Stochastic by kensey

Merck & Co Inc (MRK)



Does the technical definition of stochastic mean much? Do you need to understand how it's derived in order to use it?

I don't consider it that important, but we provide a definition. Of course, I had to look it up when I wrote the algorithm to calculate the data points. But since then, I haven't needed to refer to it.

One thing that is important to me is how MRK, which was in a very strong MACD uptrend since it gapped up in December, is depicted as being very oversold around February 4. This was a very good buying opportunity. The shape is very clear cut, and MACD didn't break down.

Pattern-matching in your brain is key, as is knowing that if a stock is in an uptrend you should use stochastic to identify oversold conditions and get in.

The other important thing to know is that stochastic detects when the current price is out of range relative to where it has been trading in the recent past. Additionally, stochastic detects when the clustering of prices at this extremist level is rounding off and prices look poised to swing back in the direction of the longer-term trend.

So what happened in April when an oversold stochastic turned out to be a bad signal? This proved to be a harbinger of what has happened to MRK since. When a stock fails to rally from an oversold stochastic when it is in a bull trend, weakness usually lies ahead. If you own a stock that is in an uptrend and you notice that following an oversold stochastic reading as it continues to head lower, it's time to get out. (That is, if you have the timeframe of weeks to months in mind, which is what ClearStation is geared towards.)

So even if you don't trade off the technicals, it pays to observe them and know what they mean so you know what to expect from the stocks you are holding long term.

If you would like to know more about the technical description and definition of stochastic, keep reading...

The stochastic oscillator compares where a security's price has closed relative to its price range over a specific period of time. George Lane, who developed this indicator, theorized that in an upwardly trending market prices tend to close near their high, and during a downward trending market prices tend to close near their low. Further, as an upward trend matures, price tends to close further away from its high; and as a downward trend matures, price tends to close further away from its low.

The stochastic indicator attempts to determine when prices start to cluster around their low of the day for an uptrending market and when they tend to cluster around their high in a downtrending market. Lane's theory is that these are the conditions that indicate a trend reversal is beginning to occur.

The stochastic indicator is plotted as two lines. They are the %D line and the %K line.

The D line is more important than the K line. The stochastic is plotted on a chart with values ranging from 0 to 100. The value can never fall below 0 or above 100. Readings above 80 are strong and indicate that price is closing near its high. Readings below 20 are strong and indicate that price is closing near its low.

Ordinarily, the K line will change direction before the D line. However, when the D line changes direction prior to the K line, a slow and steady reversal is usually indicated.

When both K and D lines change direction, and the faster K line subsequently changes direction to retest a crossing of the D line, but doesn't cross it, this is a good confirmation of the stability of the prior reversal.

A very powerful move is underway when the indicator reaches its extremes around 0 and 100. Following a pullback in price, if the indicator retests these extremes, a good entry point is indicated.

Many times, when the %K or %D lines begin to flatten out, this is an indication that the trend will reverse during the next trading range.

Quite often, divergence is set up on the chart. That is, price may be making higher highs, but the stochastic oscillator is making lower lows. Conversely, price may be making lower highs, and the stochastic oscillator is making higher highs. In either case, the indicator is usually demonstrating a change in price before price itself is changing.

The formula for %K is as follows:

$$\%K = 100[(C - L5_{close})/(H5 - L5)]$$

Where:

- C = the most recent close
- L5 = the lowest low for the last 5 trading periods
- H5 = highest high for the same five trading periods

%D is a smoothed version of the K line. Usually, three periods are used. The formula is as follows:

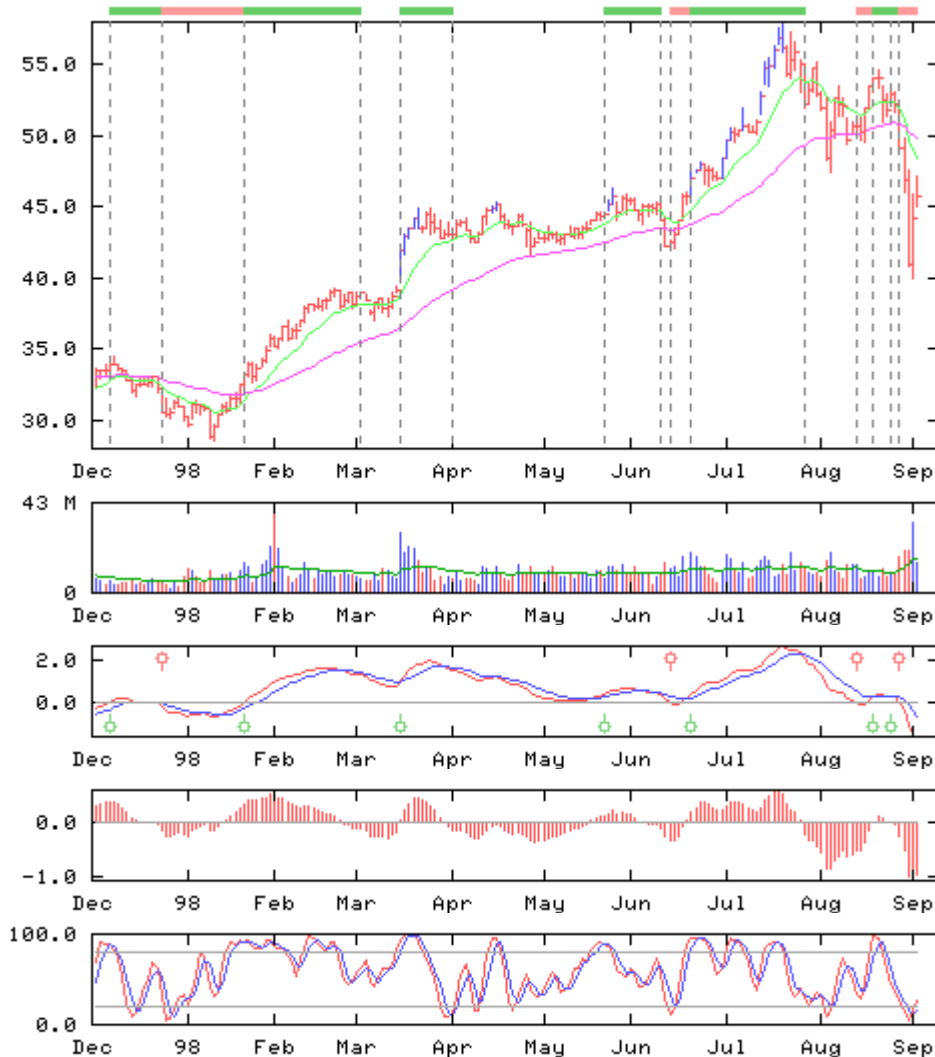
$$\%D = 100 \times (H3/L3)$$

Where:

- H3 = the 3-period sum of (C - L5)
- L3 = the 3-period sum of (H5 - L5)

Overbought in an Uptrend: WCOM by kensey

Worldcom Inc (WCOM)



On the stochastic (bottom) indicator graph, WorldCom went into overbought territory in January and stayed for over a month. Is this a big deal? Not exactly.

When WCOM went MACD bullish (green) in mid-January, it was already overbought as far as stochastic was concerned. But this was a case where the MACD trend was more important than the short-term stochastic reading - MACD was above the centerline (the third graph down), so overbought wasn't much cause for alarm.

The overbought reading on stochastic that occurred in early December was more a cause for concern because MACD was way below the centerline at the same time. In other words, this stock was acting strong short-term but was in a longer-term pullback. This typifies your "overbought in a downtrend" scenario.

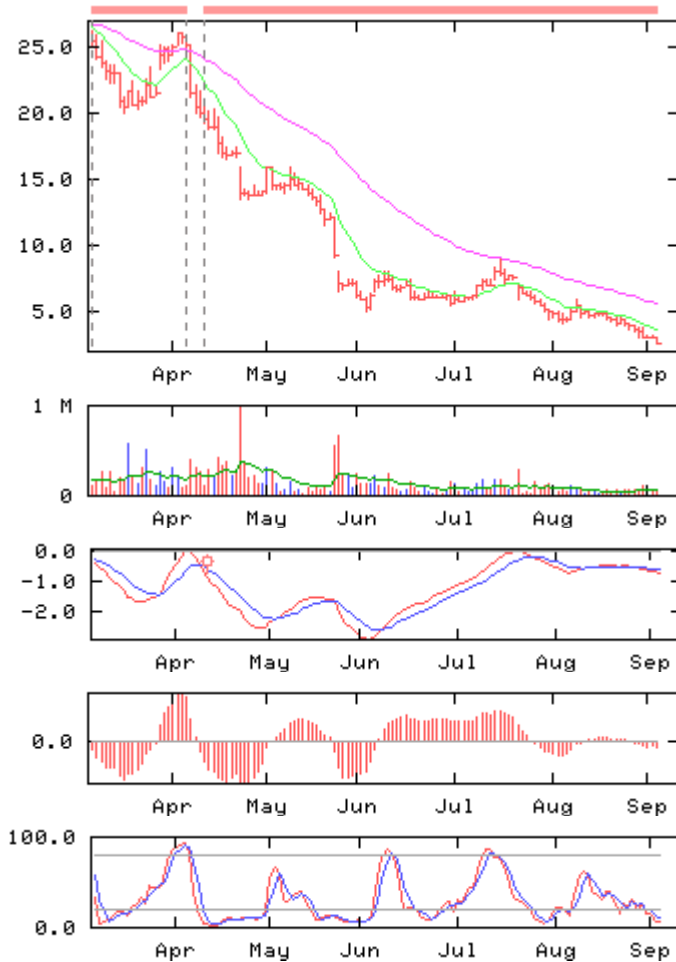
That wasn't what was going on in January and February when the stock was rebounding.

It is important to identify the change of trend. Stochastic gives the wrong signal when stocks shift from a downtrend to an uptrend. (It's always going to be overbought in such a case.)

Is it crystal clear that WCOM switched from a downtrend to an uptrend in mid-January? Yes. The thing to note is that the MACD lines crossed over the centerline in a pretty smooth and graceful manner. There was no dramatic plunge beneath the centerline that occurred during the January 1 slide. The basing action was therefore healthy and the stock, when it turned above center, vamped up in a healthy way.

Stochastic Mannerisms in a Downtrend: TDDDF by kensey

3dlabs Inc Ltd (TDDDF)



When a stock is in a strong downtrend, the lines on the stochastic indicator graph will spend the majority of their time down around the lower reference line. A good way to interpret this is as "persistent short-term weakness".

Nevertheless, short bursts of buying will inevitably cause the stochastic lines to make their way to the upper reference line. These are near-perfect shorting opportunities, because often, once a stock goes into a severe downtrend it never seems to recover.

For TDDDF, the first decent shorting opportunity occurs all the way on the left-hand side of the stochastic graph in early April when a spurt causes the lines to cross into overbought. Once the lines leave the overbought region, they fall very hard and very fast and bury themselves beneath the lower reference line in oversold territory for most of the next two months. Only in early May do the lines try to escape the clutches of oversold, only to be sucked back in. The stock gets chopped from 25 all the way down to 5.

The next shorting opportunity happens in early June, with the stock down at 8 dollars a share. The symmetrical shape of the stochastic lines as they cross into overbought is exactly what you want to see: a very clean shape.

But the shorting opportunity in July is even better. The shape of the stochastic lines as they cross into overbought is wider (like a bell curve). The stock hits the 50-day EMA (pink) line. Once it exits overbought, the stock heads straight into oversold and, by the end of August, gets chopped from 9 to around 2. This seals the fate of TDDDF (at least for now). As was the case in early May, the stock made an attempt to escape the clutches of oversold only to get half-way up the scale before getting sucked back down.

A Truly Oscillating Stock: SEG by kensey

Seagate (SEG)



Oscillation is range bound price action that occurs in waves. When you see many consecutive, ill-timed trending bars, you should recognize that as a symptom of oscillation rather than a definitive trend. In most cases, oscillation is not something to look for in a stock.

Price action for Seagate (SEG) can truly be characterized as oscillation. The big tip-off is the ill-timed MACD trending bars. However, these waves are smooth: about three weeks in length. In this instance, the waves are long enough to open windows of trading opportunity in both directions that have a high probability of success.

The stochastic indicator graph (which is the last graph in the set) encapsulates Seagate's oscillatory nature accurately. There have been four excellent trading opportunities since July:

1. When the stochastic lines emerged from oversold in late July (**go long**)
2. When the stochastic lines emerged from overbought in mid-August (**go short**)
3. When the stochastic lines emerged from oversold in late August (**go long**)
4. When the stochastic lines emerged from overbought in mid-September (**go short**)

Note the last one in mid-September. There was a little bit of a feint where the lines emerged from oversold, dropped down a bit, and then went back into oversold again. This could have caused you to get shaken out (especially if you had CNBC on and the world was mightily bullish that day, which is a reason to keep it off -- you either reference the euphoria of sentiment or the chart). The main reason is that the 13-day EMA was still pointing higher when stochastic went into oversold. **You want to wait until the 13-day EMA is flattening out before you enter a short trade based on stochastic.**

At the extreme right edge, you once again have the lines in oversold territory about to start heading up the chart. What do you do? I would be cautious. The 13-day EMA is still pointing down so it might be a bit early to go long right here. But the market is oversold and due to bounce, and the downside risk appears slight. Also, down volume this week for Seagate was low.

Oversold in an Uptrend: VKNG by kensey

Viking Office Prods Inc (VKNG)



I love it when I see written on some Yahoo message board how full of crap technical analysis is. The next time I see it, I want to throw in a URL to this post.

After gapping up in mid-May, Viking did what lots of stocks do after a big gain - it came straight back to touch the 13-day EMA. Now, this doesn't happen every time, and you probably would only have been aware of this if you had either entered in a position on the day it gapped, or threw VKNG on your Watch List and then noticed the oversold condition on your Focus page.

Stochastic was classically oversold in late May. This afforded a very timely trade. This trade banked on the fact that the gap was going to hold up. Really, the volume that brought the stock to stochastic oversold was very small compared to the volume that drove the stock up on the day of the gap.

A second opportunity for trade came in mid-June. Same exact scenario. Viking got extended and came back to its 13-day EMA. At the same time, stochastic once again crossed into oversold.

Stochastic Mannerisms in an Uptrend: KSS by kensey

Kohl's Corp (KSS)



Kohl's went MACD green in early May. The action in stochastic over the next month is what you will see during a very strong uptrend - the lines linger in the upper half of that indicator graph. The trend is so strong that stochastic remains close to overbought levels.

In this case, it would have been hard to use stochastic to time an entry. It never gets to an oversold level. This is a reason that you do not necessarily want to wait for stochastic to become oversold in order to buy your first position in a stock. You might end up waiting a very long time, and you might miss the trade entirely if there isn't a pullback significant enough to pound the stock below the lower reference line to an oversold level. Stochastic is best used to establish pyramid points. A pyramid point is a price level at which you buy additional shares in order to add to an existing position.

When I first buy into a stock that has just gone MACD green, I don't like it if the stochastic lines make an immediate journey to an oversold level. I don't like the lower reference line to be penetrated, especially if the pullback in prices results in a paper loss. I much prefer (and demand) that stocks in which I make an initial trade stay relatively high on the stochastic graph. You could let a month or so go by before selling pulls it to oversold, but be wary if it happens too soon.

The action in stochastic during May and early June is exactly what I like to see. Healthy price action that keeps the lines up on the stochastic indicator graph. It is not until mid-June that stochastic almost reaches oversold. This happens again in mid-July. While prices did not penetrate the lower reference line, both of these points are legitimate pyramid points. The reason is that relatively speaking, the stochastic lines were a lot lower than they had been for the prior six weeks. It's all relative. The stochastic lines do not necessarily have to penetrate the lower reference line in order to become "oversold," especially with a stock in the midst of an uptrend as strong as Kohl's.

You can qualify the strength of an uptrend by how long and how hard the stochastic lines stay up. You can also qualify the strength of a downtrend by how long and how hard the stochastic lines stay down.