

J A N U A R Y 2 0 0 5

# Signal Selection

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When selecting which signals to use, most traders “shop charts” until they find one that tells the story they want to see. A better approach is to learn what each indicator does and apply that knowledge to the construction of specific trading systems.

## ANALYSIS

- Understand the nature of signal intervals.
- Learn more about the value of exit signals.
- See the pros and cons for popular signal types.

## ACTION

- Choose the signals that optimize your trading system and style.
- Test your signals historically and in test mode to verify before implementing your system.
- Experiment with advanced signaling techniques.

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## ABOUT THIS REPORT

The Forex Report is a periodic publication that investigates advanced strategies for superior trading performance in the foreign exchange markets. These reports utilize advanced statistical and econometric modeling techniques to create new insight into the trading strategy of the average trader. This Core Concept Brief, Signal Selection, is intended for traders with all levels of forex trading experience and technical analysis understanding.

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# ANALYSIS

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Because most technical indicators are built on price data, you can expect each to give you a similar picture of the market. There are, however, subtle differences in each indicator, and those differences can be more pronounced in active trading. Starting with a solid understanding of all signals and then working your way through each is an excellent way to increase your knowledge of the markets.

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## **WHAT ARE SIGNALS?**

Signals are events that trigger market entry, market exit, or some form of intra-trade adjustment. Usually based on technical indicators, signals provide traders with a precise, explicit script for their trades. Technical indicators are based on a particular mathematical formula applied to price, and displayed according to the interval you select.

## **UNDERSTANDING INTERVALS**

When viewing technical indicators we use charts as the viewing medium. Since you may want to view the price and indicators over different lengths of time, the chart offers different time intervals. These intervals allow you to look at the most recent few hours, days, weeks, or months. The most common intervals are: tic, 1 minute, 5 minute, 10 minute, 15 minute, 30 minute, 60 minute, 2 hour, 4 hour, and day.

Using different intervals dramatically changes the view of the data you are seeing. To present this view, the chart only marks the data on the interval – data is updated every minute for a 1 minute chart, every hour for a 60 minute chart, etc. When you look at a one minute chart you can see all of the ups and downs of the price and indicator you are using, but if you changed that same view to 5 minutes, the picture is smoother – many of the ups and downs disappear.

In many cases a trader will see a longer interval chart and assume that the smoother view is the true view, and will make trading decisions based on that. A trader might see a textbook example of a MACD cross, see that it makes money, and make that “the system”. The next time this signal happens the trader enters the market with a 25 pip stop, gets stopped out, sees the signal work exactly as it had in the previous example (i.e., a big gain), and then wonders what happened. The problem is that the longer

intervals hide price action. Candle or bar charts help to uncover this and prevent the formulation of bad systems.

Once you have an understanding of intervals and their effect on technical indicators, you can begin system building. Usually that means finding signals to enter the market. Most traders will search for an explicit, easy to read technical signal that shows them when to enter the market. This signal is based on a particular chart interval, so watching that chart becomes the routine the trader uses for market entry. The trader may even use signals based on more than one interval to create an entry signal.

Once a trade is established through the entry signal(s), the trader now turns to the exit plan. Exits can take the form of fixed stops, trailing stops, limit exits, or signals to exit the trade just as it was entered.

### **EXIT SIGNALS**

If you use a signal to enter a trade, you are probably trying to capture a reversal. For example, if a currency pair has been on a short swing lately, you want to capture it as early as possible when it turns long, to accumulate as much profit as possible. This turning point is an excellent signal for entry, but would it not also be an excellent signal for exit of the short trade?

Exit signals are the most contextual way to manage profit taking. Trailing stops and limit exits rely on numeric values to determine the exit point, and have no relation to what is actually happening in the markets. For example, if the Fed makes an announcement that spurs a buying spree, what's better – a 30 pip limit exit or a signal that tells you when the spree has subsided? It could be a move of 100 pips or more, and taking 30, while positive, does not capture that particular trade's full price run.

Some traders love limit exits. They trade frequently and for a high percentage, but usually for low pips. An alternative view would be to use signals to manage exits. The signals can be conservative if needed, but exit signals will usually capture the "real" move better than limit exits.

What signals should you use? That's a choice each trader must make. The goal is to make informed choices and stick to them. Learn as much as you can about technical indicators, then find the one that suits you best.

## SIGNAL TYPES

Technical indicators come in many variations, but they all have a foundation in price. A good technical indicator will capture the important aspects of a particular price action, discarding much of the noise that causes confusion. Unfortunately, there is no perfect indicator. All have false positives and some inconsistency, but it is possible to find a good indicator to capture the moves you see in your charts. Here are some of the popular types of signals:

Signal Type	Pros & Cons
<p><b>Crossing Signals</b> Usually the cross is formed when two indicators cross each other or when one indicator crosses price.</p> <p>Crosses are prevalent in MACD, MA's, DMS, Stochastics, and many other signals.</p>	<ul style="list-style-type: none"> <li>+ Explicit, easy to see on charts</li> <li>+ Can be set up to avoid false moves and high lags</li> <li>- Prone to false moves in low volume</li> <li>- Can have large lags in longer intervals</li> </ul>
<p><b>Oscillators</b> One or more indicators move between two fixed values, or from positive to negative. Can sometimes be combined with crossing signals.</p> <p>Examples of oscillators include Stochastics, MACD, RSI, and DMS.</p>	<ul style="list-style-type: none"> <li>+ Can provide good targets</li> <li>+ Can accurately show reversals</li> <li>- Indicators are very volume sensitive</li> <li>- Prone to being trapped in overbought/oversold conditions</li> </ul>
<p><b>Thresholds</b> Can be price reaching a certain level or a technical indicator reaching a certain level.</p> <p>Examples of thresholds include Stochastics, RSI, DMS, and Breakouts.</p>	<ul style="list-style-type: none"> <li>+ Explicit targets</li> <li>+ Responsive signals, especially in high volume</li> <li>- Thresholds can sometimes be meaningless</li> </ul>
<p><b>Conditions</b> Used when two indicators form a relationship. For example, when price is greater than a moving average, it might signal a long trend.</p> <p>Conditions can be formed from many different technical indicators.</p>	<ul style="list-style-type: none"> <li>+ Good trend setting method</li> <li>+ Filters out some bad trades</li> <li>- Not very responsive to small price moves</li> </ul>

# ACTION

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Most traders rely upon a handful of signals to determine market activity. For each trader, the selection of signals is a choice based on comfort and belief in the signal's ability to inform trading decisions. Be sure to study as many signals as possible, test your systems, and don't be afraid to try the unexpected.

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## 1 - SELECT

Check out the wide array of signals and see for yourself how they work. This is best done with real money at risk, but give it a shot in a demo account at FX Engines.

## 2 - TEST

Once you have your indicators and intervals selected, construct signals that trigger at the time you believe is right for market entry or exit. Insert the signals into engines and test them live and historically to see how they perform.

## 3 - EXPERIMENT

Try combining signals or using conditions with signals to improve their performance and reduce the chances of false moves. Each signal represents a different nuanced view of the market. Combining different signals together is a good system of checks and balances to make sure the market is doing what you expect before you make a trading move.

### RELATED MATERIAL

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For other advanced studies on the forex market, go to [www.fxengines.com/reports](http://www.fxengines.com/reports).

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Analyzing statistical, econometric, and behavioral trends in the foreign exchange markets for insight into the optimal use of the FX Engines automated trading platform.

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I can put it no better than Hoffer, who deferred to Montaigne:

“All I say is by way of discourse, and nothing by way of advice. I should not speak so boldly if it were my due to be believed.”