

## **Entropy Trading System – White Paper**

### **Forex Autotrader’s World (FXAW)**

**December 7, 2011**

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After nearly two full years of analysis, development, testing and debugging, I finally released the first glimpse of my new Forex “Entropy Trading System” to FXAW members on Monday, 11/28/2011. I believe that this new system is a major landmark, a major breakthrough, and a major departure from all of the conventional and traditional trading systems out there. After two weeks in the hands of over 1,000 FXAW members manually trading the system signals in a beta mode, I am absolutely astonished at how good the results have been. During development of Entropy, I used MATLAB software to perform extensive testing and projection of trade signals, and estimated that they would have approximately an 87% success rate, especially the higher timeframe signals. I’ve seen that performance surpassed by my members during the past few weeks. Do I think it’s a fluke or good luck, or maybe the market is just right? I think not. I think that Entropy is something revolutionary.

So, what is Entropy exactly? Entropy is a trading system with a core signal engine at the center of it all. The Entropy signal engine is comprised of two primary components which are (1) a self-training neural network for price pattern analysis, and (b.) a series of Multivariant Bayesian Probability Projection algorithms. Using a broker currency price feed, Entropy calculates and resolves what are referred to as “TSZ’s”, or “Turn Signal Zones” which are price zones that high probability of seeing a reversal. These TSZ’s essentially allow an opportunity for Swing Trading which is a lucrative and very profitable way to trade. Entropy also determines the associated Stop and Takeprofit levels that should be utilized should a trade be taken.

The really powerful aspect of Entropy is that it isn’t based on indicators or any of the other traditional trading tools used to determine trade signals which are typically reactive and based on historical price activity and not only that...they’re late in signaling a trade opportunity. Entropy identifies reversal zones anywhere from 3 -5 price bars before any other method or mechanism out there that I know of...Entropy uses predictive, probabilistic mathematical algorithms to identify turning points in buying and selling activity within the boundaries of the current “Supply and Demand” model for the given instrument being traded, whether it’s a stock, a currency pair, or any other tradeable instrument.

When most traders look at price charts, it’s hard for them to see any real meaning, or rationale, or order to the price bars which represent the trading activity. Entropy has been designed to look at price data from an entirely unconventional perspective. That perspective is rooted in what the “real value” of the instrument is relative to it’s own unique Supply & Demand model. Within this model, there are the natural battles between buyers and sellers, bulls and bears. However, one thing is for certain in the markets, especially with currency trading is that Supply and Demand cycles repeat themselves.

I have put this document together expressly for the many traders out there who are non-FXAW members but who have expressed great interest in Entropy, either from the standpoint of just being curious as to how it works or to gaining access to the tool by becoming an FXAW member. Following are several pages of detailed information right out of the topic posts I and others have made on the FXAW forum site pertaining to the Entropy system as it has been rolled out during the past few weeks. I think that you will find this information to be interesting.

The new Entropy Signal Client v.1.1 application front-end rolled to FXAW members out on 12/08/2011:

Entropy Signal Client
Trade Signals | Chat Zone

Symbol	Timeframe	Signal Time (GMT+2)	TSZ Vector	Price-Action	Ask	Bid	TSZ-Hi	TSZ-Lo	Supp-Hi	Supp-Lo	Resist-Hi	Resist-Lo	Stop	TP-Cons.	Pips-Cons.	TP-Med	Pips- $\rightarrow$
AUDCAD	M5	2011.12.08:19:55:00	BEAR-01	Down-Trend : Ranging	1.03965	1.03928	1.03984	1.03922	1.03848	1.03828	1.04113	1.03998	1.04163	1.03885	3.70	1.03876	4.60
AUDCAD	M5	2011.12.08:19:55:00	BEAR-02	Down-Trend : Ranging	1.03965	1.03928	1.03974	1.03931	1.03848	1.03828	1.04113	1.03998	1.04163	1.03890	4.10	1.03880	5.10
CADJPY	M5	2011.12.08:19:55:00	BULL-01	Down-Trend : Ranging	76.129	76.101	76.121	75.991	75.967	75.802	76.271	76.177	75.752	76.174	0.30	76.175	0.40
CADJPY	M5	2011.12.08:19:55:00	BULL-02	Down-Trend : Ranging	76.129	76.101	76.129	76.076	75.967	75.802	76.271	76.177	76.026	76.153	2.40	76.159	3.00
CADJPY	M5	2011.12.08:19:55:00	BULL-07	Down-Trend : Ranging	76.129	76.101	76.123	76.071	75.967	75.802	76.271	76.177	76.021	76.150	2.70	76.156	3.30
GBPCAD	M5	2011.12.08:19:55:00	BEAR-01	Choppy : Ranging	1.59522	1.59484	1.59625	1.59433	1.59380	1.59291	1.59564	1.59430	1.60248	1.59407	2.60	1.59400	3.30
GBPCAD	M5	2011.12.08:19:55:00	BEAR-02	Choppy : Ranging	1.59522	1.59484	1.59594	1.59517	1.59380	1.59291	1.59564	1.59430	1.60248	1.59449	6.80	1.59432	8.50
GBPCHF	M5	2011.12.08:19:55:00	BULL-02	Down-Trend : Ranging	1.44838	1.44788	1.44744	1.44705	1.44852	1.44611	1.44989	1.44909	1.44561	1.44827	8.30	1.44846	10.2
AUDCAD	M5	2011.12.08:20:00:00	BEAR-01	Choppy : Ranging	1.04030	1.03978	1.04084	1.03967	1.03848	1.03828	1.04113	1.03998	1.04430	1.03908	5.30	1.03893	7.40
AUDCAD	M5	2011.12.08:20:00:00	BEAR-02	Choppy : Ranging	1.04030	1.03978	1.04023	1.03988	1.03848	1.03828	1.04113	1.03998	1.04163	1.03918	7.00	1.03901	8.70
CADJPY	M5	2011.12.08:20:00:00	BULL-01	Down-Trend : Ranging	76.087	76.056	76.148	75.936	75.967	75.802	76.271	76.177	75.752	76.163	1.50	76.166	1.80
CADJPY	M5	2011.12.08:20:00:00	BULL-02	Down-Trend : Ranging	76.087	76.056	76.129	75.976	75.967	75.802	76.271	76.177	75.752	76.153	2.40	76.159	3.00
CADJPY	M15	2011.12.08:20:00:00	BULL-01	Down-Trend : Trending	76.087	76.056	76.051	76.024	76.032	75.939	76.271	76.195	75.889	76.123	7.20	76.140	8.90
CADJPY	M30	2011.12.08:20:00:00	BULL-01	Down-Trend : Trending	76.087	76.056	76.051	76.024	76.037	75.939	76.794	76.726	75.889	76.389	33.80	76.468	41.7
EURCAD	H4	2011.12.08:20:00:00	BULL-01	Down-Trend : Trending	1.36251	1.36210	1.35112	1.34509	1.34086	1.33871	1.37613	1.37408	1.34459	1.36260	114.80	1.36531	141.5
EURCAD	H4	2011.12.08:20:00:00	BULL-05	Down-Trend : Trending	1.36251	1.36210	1.34837	1.34513	1.34086	1.33871	1.37613	1.37408	1.34463	1.36123	128.60	1.36426	158.5
EURCHF	M30	2011.12.08:20:00:00	BEAR-01	Down-Trend : Ranging	1.23617	1.23585	1.23686	1.23619	1.23331	1.23241	1.23882	1.23759	1.23736	1.23475	14.40	1.23441	17.8
EURGBP	H4	2011.12.08:20:00:00	BULL-01	Down-Trend : Ranging	0.85340	0.85312	0.85135	0.84731	0.84033	0.83829	0.86471	0.86203	0.84681	0.85669	53.40	0.85795	66.0
EURGBP	H4	2011.12.08:20:00:00	BULL-02	Down-Trend : Ranging	0.85340	0.85312	0.85013	0.84946	0.84033	0.83829	0.86471	0.86203	0.84896	0.85578	56.50	0.85711	69.8
EURGBP	H4	2011.12.08:20:00:00	BULL-05	Down-Trend : Ranging	0.85340	0.85312	0.85047	0.84630	0.84033	0.83829	0.86471	0.86203	0.84780	0.85625	57.80	0.85761	71.4
EURGBP	H4	2011.12.08:20:00:00	BULL-07	Down-Trend : Ranging	0.85340	0.85312	0.85096	0.84756	0.84033	0.83829	0.86471	0.86203	0.84706	0.85650	55.40	0.85780	68.4
EURGBP	H4	2011.12.08:20:00:00	BULL-10	Down-Trend : Ranging	0.85340	0.85312	0.85125	0.84749	0.84033	0.83829	0.86471	0.86203	0.84699	0.85664	53.90	0.85791	66.6
EURGBP	H4	2011.12.08:20:00:00	BULL-12	Down-Trend : Ranging	0.85340	0.85312	0.85113	0.84805	0.84033	0.83829	0.86471	0.86203	0.84755	0.85658	54.50	0.85787	67.4
EURGBP	H4	2011.12.08:20:00:00	BULL-13	Down-Trend : Ranging	0.85340	0.85312	0.85094	0.84841	0.84033	0.83829	0.86471	0.86203	0.84791	0.85649	55.50	0.85779	68.5
EURJPY	H4	2011.12.08:20:00:00	BULL-01	Down-Trend : Ranging	103.648	103.625	103.217	102.527	102.837	102.462	104.516	104.242	102.323	103.730	51.30	103.850	63.3
EURJPY	H4	2011.12.08:20:00:00	BULL-02	Down-Trend : Ranging	103.648	103.625	103.417	102.995	102.837	102.462	104.516	104.242	102.945	103.830	41.30	103.827	51.0
EURNZD	M15	2011.12.08:20:00:00	BEAR-01	Choppy : Trending	1.72582	1.72506	1.72739	1.72577	1.70906	1.70686	1.72628	1.72368	1.73258	1.72083	49.40	1.71966	61.1
EURNZD	M15	2011.12.08:20:00:00	BEAR-02	Choppy : Trending	1.72582	1.72506	1.72630	1.72574	1.70906	1.70686	1.72628	1.72368	1.73258	1.72089	48.50	1.71974	60.0
EURNZD	M30	2011.12.08:20:00:00	BEAR-01	Choppy : Trending	1.72582	1.72506	1.72685	1.72600	1.70926	1.70686	1.72628	1.72308	1.73258	1.72094	50.60	1.71975	62.5

**Client Connect**

User ID:

License Key:

Connection Status: Connected

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**Options**

## **Entropy Signal Trading By Example - NZDJPY**

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I'm putting together a User-Guide for Entropy, but it's incomplete at this point because the tool is still evolving. However, I want to take some time in this thread and explain the basics of Entropy signals including the attributes of the signals themselves and how one might go about selecting signals to trade, and finally how to conduct the actual trade. Once everyone gets the Entropy Signal Client, they're going to need to understand how to react to and use the signals in deciding upon the best trades.

I'll use the three attached screenshots of original actual signals from the Entropy Client application...I posted this screenshot yesterday but the right edge was cut off so all of the signal column attributes are not visible. We'll be looking at the D1 signals that were generated by Entropy for NZDJPY and I'll walk you through the decision and trade placement process.

The Entropy Client Application is a very early and simplistic edition of what will ultimately become a user front-end for those interested in subscribing to a FXAW signal service to be implemented sometime in early 2012. This will be a fee based service for non-FXAW members and will help to subsidize forum/web/development costs. The Entropy Signal Client receives new signals every 5 minutes from the Entropy Server which is running continuously 24-7 scanning timeframes M5 - D1 and uses a hybridized consolidated price data-feed from five different live sources. Signals times are represented as GMT+2, and every signal produced is as of the current opening bar for the given signal timeframe. The nature of Entropy signals are that they are broker-agnostic and should be usable for whichever broker a trader is using.

Before we get going, a few basic definitions and descriptions of the trade signals themselves are required:

### **ENTROPY SIGNAL ATTRIBUTES:**

Entropy is first and foremost a multi-timeframe swing-trading system which uses a variety of mathematical algorithms to identify extreme outer boundaries of the current Supply & Demand model for a given currency pair. These extreme areas represent "Turn Signal Zones", or TSZ's where we expect selling or buying to be exhausted. A TSZ is defined by a pip range consisting of a high price point and a low price point, and within this range, price is expected to reverse. There are currently 13 Bullish TSZ algorithms and 13 Bearish TSZ algorithms (with several more in the works).

The TSZ's are numbered 01 - 13, and the higher the TSZ number, the more powerful the signal and increased probability of success and follow-through on the signal. Usually, when Entropy generates signals for a pair on a given timeframe, there will be a collection of several TSZ's of different types....this is ideal and what we want to see indicating a strong confluence of the signal algorithms. It's still very early in the evolution of Entropy, but based on MATLAB simulations performed on the outcome of the TSZ collections, when there are one or more of the higher numbered TSZ's in a signal collection, the probability of success & follow-through is 87+%. If we only see one or two lower numbered TSZ's in a signal collection, that indicates that something is happening with price, but probability of follow-through on a reversal is questionable.

TSZ's have nothing to do with Support and Resistance! However, we respect traditional

Support & Resistance which most traders often regard as single price points or pivots corresponding to a prior low or high. Entropy regards the nearest Support & Resistance levels in tandem with TSZ ranges. In fact, Entropy calculates Support ranges and Resistance **ranges** represented by High & Low points similar to TSZ ranges. Then, TSZ ranges and Support/Resistance ranges are evaluated together to determine the optimum price point for the Initial Stop.

Aside from the TSZ's which are the most critical factor driving whether to consider a trade or not, each Entropy signal generates the following attributes:

- Nearest Support Range High & Low Price Points
- Nearest Resistance Range High & Low Price Points
- Initial Stop
- Conservative Risk Takeprofit Price Point with Reward:Risk Ratio
- Medium Risk Takeprofit Price Point with Reward:Risk Ratio
- Aggressive Risk Takeprofit Price Point with Reward:Risk Ratio

Remember, there can and usually will be multiple signals since there are 13 possible Bullish or Bearish TSZ's, and each one produces it's own signal, each with slightly different TSZ range values, takeprofit values, and stop values. The trick to placing a trade is by evaluating the different TSZ's and considering them as a package which is easy to do and will be explained next. Entropy signals are designed for entry and exit within a very well defined price-action range and are not intended for "let 'em run" trading or greedy extreme risk. The idea is to get in and get out within the "sweet spot". Also, Entropy Trades will take some real getting used to and perhaps some faith and soul-searching, because they are predictive and probabilistic, not reactionary. Often, a Bullish signal will be generated in the face of an obvious downtrend and visa-versa and the rationale may not be obvious for placing a trade which would seem countertrend. It has been said "never try to pick tops or bottoms when trading" but that is precisely what Entropy does.

Up to this point, before we dig into an actual trade example, the following summary statements best illustrate the Entropy Trading Method:

1. Select trade signals where there is a good collection of higher numbered TSZ's.
2. Stick with the higher timeframes such as D1 & H4 which are the best producers and have the highest probability for success. H1, M30 and even M15 have shown some really amazing trade signals, and everyone is encouraged to experiment, but for low risk high probability trades, D1 & H4 are the way to go.

Many TSZ's with 1 or more higher number TSZ's + Higher Timeframes = Success.

## **Entropy Trade Example - NZDJPY D1 @ 2011.11.23:01:00:00**

Take a look at the attached spreadsheet screenshot of the Bullish D1 signals which fired just after the opening D1 bar on 11/23/2011. The spreadsheet depicts all of the signal attributes you will see in the Entropy Signal Client. So....what do we do with these and how do we possibly turn all of these signals into a trade? We already know that D1 is a very preferable timeframe.

First, look at the TSZ's. We have five signals. We see TSZ's 01 - 03, and those alone are not something we would probably want to jump on. However, there is also a "BULL-05" TSZ and especially a "BULL-10" TSZ. This is important and indicates sufficient strength (confirmation of the signal pool) to consider placing a trade.

Ok, so we'll trade this, and since it's Bullish, we need to consider how to set the trade up and where to place it. Actually, Entropy already figures this out for you, but we'll step through it.

First off, all Bullish Entropy trades are placed when price breaks above the TSZ Range High Point. For Bearish trades, price must penetrate the TSZ Range Low point. Usually, when Entropy signals fire, price will be sitting somewhere within the TSZ range, but not always.....if price is moving swiftly with momentum, it may already be above the TSZ High (Bullish) or below the TSZ Low (Bearish) in which case you'd simply jump in ASAP at the best possible entry price.

In the case of this NZDJPY trade, price had closed just below the TSZ high on the signal day of 11/23. We could draw the TSZ High & Low range lines on the chart and then monitor things to see when price broke above the TSZ High which it did on 11/24. For Bullish trades, price will typically waffle around within the TSZ range, then penetrate the TSZ High, and then come back down and test the TSZ High (as well as our nerves), maybe re-enter the TSZ range, etc. That's ok. Entropy determines that our stop should be placed just below the TSZ Range Low price point.

So, we know where our stop is, now to consider the trade orders and where to place them. Incidentally, the Initial Stop will always vary depending upon the TSZ Vector gave rise to the signal since the Stop is based on the TSZ Low for Bullish Trades and the TSZ High for Bearish trades. Once you decide to take an Entropy signal, the easiest thing to do is simply place one or more Buy Pending Orders at the price points suggested by Entropy. You can set these order(s) up as soon as you decide to take the signals. Entropy provides 3 Takeprofit price point levels; the first level is considered "Conservative" and represents the smallest possible pip gain but a high likelihood that it will be reached. The 2nd level is considered "Medium Risk" and has a higher pip gain. The 3rd level is considered "Aggressive" and represents the maximum pip gain. Entropy calculates these levels for both Bullish and Bearish trades.

Now comes the fun part...or the challenging part depending on who you are (the Entropy tradebot will do all of this for you automatically). Look at the 5 Bullish signals in tandem and focus solely on the TSZ High and Low values. All of the TSZ High values for the 5 signals should be fairly close to each other, and we want to discard any TSZ signal which has obvious deviation. Same thing for the TSZ low values. Look at the "BULL-01" signal and notice how much both its TSZ High and Low values deviate from the other 4 TSZ signals.....we will discard this BULL-01 signal from consideration. Next, out of the 4 TSZ signals, pick the highest TSZ High value, and the lowest TSZ Low value. These are highlighted in Green and Red respectively on the screenshot. These two values will define

the TSZ range for our trade.

Next, use the Initial Stop value associated with the TSZ signal which we used to get the lowest TSZ Low value (above). Now, we will use the TSZ High as our trade entry price point for placement of our Pending Buy Order(s). You can place these Buy orders several different ways, but don't risk more than 2% equity for total lots traded.

**TRADE METHOD 1:** Place one pending trade order at TSZ-High entry price point for lots @ 2% equity, and select whichever Takeprofit Level suits your risk appetite.

**TRADE METHOD 2:** Split your lots into 3 separate pending orders with 1/3 lots each and all with an entry price point at the TSZ-High. Set the Takeprofit for one order at the Conservative level, one at the Medium level, and one at the Aggressive level.

**TRADE METHOD X:** Use the different Takeprofit levels as scale-in / scale-out levels to suit your preferences, but always use the TSZ High price point for your initial order. You can really do whatever you wish as far as how you place orders when trading these signals manually, but the Entropy Trading System and tradebot will adhere to the basic methods described which can be configured within the system settings.

Take a look at the spreadsheet for some example trade scenarios and corresponding Reward:Risk ratios. For the sake of simplicity, Spread & Slippage wasn't taken into consideration for these examples while in real trading, it would reduce the actual Reward side of the equation a bit. In fact, for lower timeframe Entropy signals, the Takeprofit levels may not justify jumping into a trade for pairs which have high Spreads which can usually be absorbed in higher timeframe trades.

#### **SIDE NOTE:**

***Incidentally, NZDJPY gapped up today (11/28) with a nice bullish bar and is currently sitting at around the 58.800 price point for a gain of 161 pips after earlier pushing above 59.0***

***A few other caveats:*** If you choose not to use pending orders and instead try to minimize risk by timing the trade and waiting to see what happens, you're likely to miss a substantial piece of the trade if you try to monitor the entry point manually and mother the situation.

Do not rely on your arsenal of indicators as confirmational tools to determine entry into an Entropy trade. If you do, you'll miss the boat and continue to jump into trades too late like everyone else does.

Lastly, take a look at the attached NZDJPY chart screenshot which depicts the various elements of an Entropy trade. Notice that the nearest Support level was so far below the TSZ range that it wasn't even taken into consideration in determining the Initial Stop. Most traders wouldn't even consider taking a Bullish trade position in the face of the prior downtrend move, but we will, and we'll pick up a lot of pips doing so.

Oh, and one last thing....Entropy Bearish trades work the exact same way except the TSZ Low becomes the entry point for Sell orders, and price is usually hovering around within the TSZ High and Low range at the time the Bearish signal shows itself.

Let's let this trade run and see how it turns out and how effective Entropy was at determining the target Takeprofit levels. We'll revisit in a few days.

Symbol	Timeframe	Signal Time	TSZ Vector	Price-Action	Ask	Bid	TSZ-High	TSZ-Low	Support-High	Support-Low	Resistance-High	Resistance-Low	Stop
GBPAUD	M5	2011.11.25:23:55:00	BULL-01	Down-Trend : Trending	1.58985	1.58841	1.58893	1.58696	1.58821	1.58726	1.59301	1.59271	1.585
GBPAUD	M5	2011.11.25:23:55:00	BULL-02	Down-Trend : Trending	1.58985	1.58841	1.58855	1.58783	1.58821	1.58821	1.59271	1.59271	1.586
GBPCAD	H1	2011.11.28:03:00:00	BULL-01	Down-Trend : Ranging	1.61484	1.61408	1.61211	1.61061	1.61211	1.61211	1.62086	1.62086	1.610
GBPCHF	M30	2011.11.25:23:55:00	BULL-03	Choppy : Trending	1.43763	1.43407	1.42938	1.42709	1.43407	1.43407	1.44002	1.44002	1.424
GBPCHF	M30	2011.11.25:23:55:00	BULL-07	Choppy : Trending	1.43763	1.43407	1.42922	1.42684	1.43407	1.43407	1.44002	1.44002	1.424
GBPJPY	M5	2011.11.28:03:20:00	BEAR-01	Choppy : Trending	120.460	120.415	120.462	120.441	120.462	120.462	120.437	120.437	120.7
GBPUSD	H1	2011.11.23:01:00:00	BULL-01	Down-Trend : Ranging	1.54347	1.54322	1.55007	1.54923	1.54322	1.54322	1.54824	1.54824	1.536
GBPUSD	H1	2011.11.23:01:00:00	BULL-02	Down-Trend : Ranging	1.54347	1.54322	1.54428	1.54322	1.54322	1.53051	1.54824	1.54824	1.537
GBPUSD	H1	2011.11.23:01:00:00	BULL-07	Down-Trend : Ranging	1.54347	1.54322	1.54428	1.53855	1.53051	1.53051	1.54824	1.54824	1.538
GBPUSD	D1	2011.11.23:01:00:00	BULL-01	Down-Trend : Ranging	1.54347	1.54322	1.55923	1.55030	1.54630	1.52712	1.58874	1.57508	1.549
GBPUSD	D1	2011.11.23:01:00:00	BULL-03	Down-Trend : Ranging	1.54347	1.54322	1.55890	1.55381	1.54630	1.52712	1.58874	1.57508	1.553
NZDJPY	M5	2011.11.23:01:00:00	BEAR-01	Choppy : Ranging	57.567	57.359	57.615	57.600	57.520	57.505	57.665	57.620	57.71
NZDJPY	D1	2011.11.23:01:00:00	BULL-01	Down-Trend : Trending	57.567	57.359	57.571	56.122	54.565	52.859	62.366	62.096	56.07
NZDJPY	D1	2011.11.23:01:00:00	BULL-02	Down-Trend : Trending	57.567	57.359	57.190	56.481	54.565	52.859	62.366	62.096	56.43
NZDJPY	D1	2011.11.23:01:00:00	BULL-03	Down-Trend : Trending	57.567	57.359	57.104	56.493	54.565	52.859	62.366	62.096	56.44
NZDJPY	D1	2011.11.23:01:00:00	BULL-05	Down-Trend : Trending	57.567	57.359	57.111	56.859	54.565	52.859	62.366	62.096	56.80
NZDJPY	D1	2011.11.23:01:00:00	BULL-10	Down-Trend : Trending	57.567	57.359	57.142	56.462	54.565	52.859	62.366	62.096	56.41
USDCAD	M5	2011.11.28:03:20:00	BULL-03	Down-Trend : Trending	1.04019	1.03984	1.04004	1.03910	1.03887	1.03852	1.04240	1.04185	1.038
USDCHEF	M5	2011.11.28:03:20:00	BULL-03	Down-Trend : Ranging	0.92696	0.92656	0.92595	0.92553	0.92473	0.92412	0.92967	0.92919	0.925
USDJPY	H4	2011.11.28:03:00:00	BEAR-01	Choppy : Trending	77.635	77.613	77.906	77.731	76.822	76.754	77.876	77.749	78.12

High Probability D1 Trade; Good Selection of Multiple TSZ Vectors

EXAMPLE ENTROPY TRADE: NZDJPY D1 BULLISH SIGNALS @ 2011.11.23:01:00:00

Symbol	TF	Signal Time	TSZ Vector	Price Action	Ask	Bid	TSZ (Turn Signal Zone)		SUPPORT		RESISTANCE		Initial Stop	CONSERVATIVE TP LEVEL		MEDIUM TP LEVEL		AGGRESSIVE TP LEVEL	
							High	Low	High	Low	High	Low		Target	Pips	Target	Pips	Target	Pips
NZDJPY	D1	2011.11.23:01:00:00	BULL-01	Down-Trend : Trending	57.567	57.359	57.571	56.122	54.565	52.859	62.366	62.096	56.072	59.834	226.3	60.367	279.6	61.128	355.7
NZDJPY	D1	2011.11.23:01:00:00	BULL-02	Down-Trend : Trending	57.567	57.359	57.190	56.481	54.565	52.859	62.366	62.096	56.431	59.643	245.3	60.222	303.2	61.046	385.6
NZDJPY	D1	2011.11.23:01:00:00	BULL-03	Down-Trend : Trending	57.567	57.359	57.104	56.493	54.565	52.859	62.366	62.096	56.443	59.600	249.6	60.189	308.5	61.028	392.4
NZDJPY	D1	2011.11.23:01:00:00	BULL-05	Down-Trend : Trending	57.567	57.359	57.111	56.859	54.565	52.859	62.366	62.096	56.809	59.604	249.3	60.192	308.1	61.029	391.8
NZDJPY	D1	2011.11.23:01:00:00	BULL-10	Down-Trend : Trending	57.567	57.359	57.142	56.462	54.565	52.859	62.366	62.096	56.412	59.619	247.7	60.204	306.2	61.036	389.4

CONSERVATIVE RISK TRADE:

Entry/Pending Buy	57.190
Takeprofit Target	59.643
Initial Stop	56.412
Potential Profit (Pips)	245.300
Potential Loss (Pips)	77.800
Reward:Risk Ratio	3.15

MEDIUM RISK TRADE:

Entry/Pending Buy	57.190
Takeprofit Target	60.222
Initial Stop	56.412
Potential Profit (Pips)	303.200
Potential Loss (Pips)	77.800
Reward:Risk Ratio	3.90

AGGRESSIVE RISK TRADE:

Entry/Pending Buy	57.190
Takeprofit Target	61.046
Initial Stop	56.412
Potential Profit (Pips)	385.600
Potential Loss (Pips)	77.800
Reward:Risk Ratio	4.96



## Entropy Bullish NZDJPY D1 Trade – Final Recap:

Well, let's take a look at how the NZDJPY D1 Bullish trade played out. Below is a screenshot of the NZDJPY chart as of 12/08/2011. We can see that price did eventually reach up and took out our Aggressive Takeprofit level of 61.046, almost on the money on 12/02. So, if we had just placed one order for say one lot, that order would've had a single gain of 385.6 pips. If we had gotten creative with multiple original buy orders or did some scaling in or out at the different Takeprofit levels, we could've achieved even greater compounded gains. This is a classic Entropy trade – no frills, no noisey price action – just a very straightforward swing trade based on solid technical analysis.



## Entropy Signal Trading

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With the rollout of the Entropy Signal Client, I've been getting a lot of offline questions about how to go about selecting the best possible trades. Here are a few general guidelines to get started, and I'll add more as time goes by and Entropy evolves:

1. Trade the higher timeframe signals. H4 and D1 have very high probabilities for "something" to happen. It may be a huge move or it may be a reversal that sputters and runs out of gas, but usually, a reversal will occur. The higher timeframe seems to be transitional and time will tell what percentage of the signals result in winners.
2. Look for many different TSZ Vector signals at the same time. Select a trade when there are at least one or more TSZ's with a higher number. Usually, you will always see a BULL-01 and BULL-02, or BEAR-01 and BEAR-02. These are the most common and forgiving vectors which point to "something" happening with price. However, additional vectors numbered 04 - 13 indicate a much greater degree of vector confluence and chance of success.
3. Look for complimentary TSZ's occurring on lower timeframes at the same time as your trading timeframe. If you're looking for Bullish signals on the H1, pay attention to how many M30 and M15 Bullish TSZ's are firing at the same time. This provides significant and valuable insight and further confirms the direction that price might be heading with a impending reversal.
4. When setting up a trade, base your TSZ High & Low range levels and your Initial Stop only on TSZ's for the timeframe you want to trade, not for complimentary TSZ's from other timeframes.
5. Your decision to take a trade should be based on the "TSZ Pool", or collection of TSZ's that all fire at the same time. Price will usually be sitting somewhere within the range of the TSZ High and Low points. Set your Long or Short trade entries up as Pending Orders with the appropriate Initial Stop. In the case of a Bullish trade, it doesn't matter if price drops down and penetrates the TSZ Low or some even lower Support area...these are just tentative guideline levels to help determine the optimum stop placement level. Remember....your stop can't get taken out if the order isn't active which it's not if it's sitting there as a Pending order which will not occur until price rises and penetrates the TSZ High level....once it does that, it's unlikely that it will turn around and drop back down to the Initial Stop level and take out your trade. The same idea applies for Short trades. As long as your entry orders are pending, the only trigger event that matters is downward penetration of the TSZ Low for a Short, or upwards penetration of the TSZ High for a Long in which case your order becomes active.

Having said the above, you can truly go ahead and place your pending orders as soon as you decide to act on a pool of TSZ signals, even if the orders aren't triggered for hours, or even days. It usually takes a lot of inertia to get a reversal underway.

6. It is not uncommon to see a series of the same or similar TSZ's firing for the same pair on the same timeframe. Often, the Entropy algorithms will detect an extreme Supply/Demand boundary and other conditions that appear ripe for a reversal, and fire off one or more TSZ signals. However, if price stalls and congests for a period of time in a narrow price area, those same TSZ vectors can and will fire again as time passes because the conditions for a reversal remain the same, and although price may have changed very little, time has passed and time is an element of a TSZ signal. Therefore, don't be surprised as an example to see an initial volley of 4 or 5 BULL-XX TSZ's for GBPJPY on H4, and then eight hours later, see another set of the same or similar TSZ's for GBPJPY on the H4. This is simply the trade engine doing what it does.....price has consolidated but all of the makings are in place for an imminent reversal.

## The Components of the Entropy Trading System

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I saw some talk today about the planned EA tradebot that will be completed and released by the end of December, and some were really surprised by this. I'll devote this topic thread purely to ongoing posts about the components of Entropy and their purpose. I'll also use this thread to post future updates about new releases of the components as they evolve.

To recap what the components will be, we have:

1. First and foremost, we have the heart and soul of Entropy - the core trade signal engine which does all of the heavy lifting. This is an application written in object oriented development languages, mostly C++ with numerous math and A.I. support libraries written mostly in C and a little bit of Delphi. At the nucleus of the engine is an artificial intelligence "neural network" which analyzes and self-trains on digital pattern recognition. There is also a significant portion of the code devoted to a beast I call the "Multivariant Bayesian Probabilistic Network" which is a combination of graphical mathematical modeling superimposed on some digital-analog signal algorithms I adapted from the audio recording industry. Ever heard of a "Pink Noise Generator"? There's actually a virtualized model of one of those in the core engine as well.

So, this big 'ol engine takes a Metatrader price data feed which is actually a normalized and combined edition of several different broker feeds, and continuously analyzes it for TSZ Vectors which become the trade signals. I have the engine running on a beefy Windows server and it will support a commercial signal service to be launched in early 2012. The engine will also be part of the final "Entropy Full Release Package" which will be designed to run as a standalone application on a trader's desktop and utilize whatever Metatrader data feed each trader is using via their broker. In a nutshell, all of the logic to identify trade signals is in this core engine with an added GUI interface for the end user to manage and review the signals. I don't have a firm release date in mind yet for the Entropy Full Release package, but it won't be released until all of the other Entropy components have been deployed and are stabilized.

2. Next, we have the Entropy Client application which will be distributed on a fee/subscription basis to non-FXAW traders who simply want the ability to receive the trade signals and either manually trade them, or have the Entropy Tradebot EA automatically trade the signals for them. Of course, FXAW members are welcome to use the Entropy Client application as well at no cost if they wish...this might be a better option for those with older PC's, etc.

3. Next, we have two Metatrader EA's. The first one is merely a price feed EA which does nothing more than continuously gather multi-timeframe price bar data from the Metatrader installed on the user's PC, and shovels this data over to the standalone Entropy Full Release edition running on the traders PC. Those who are using the Entropy Client application will

## **The Components of the Entropy Trading System (cont.)**

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not need to run this EA since the signals they receive will be based on the remote signal server's price data.

The 2nd EA is the Entropy Tradebot. This EA of course runs on the local Metatrader installation and is designed to receive selected trade signals for placing trades from either the Entropy Client application or the Entropy Full Release application, whichever the trader is using. The settings which determine what pairs and timeframes to trade, number of lots, lot sizes, etc. are all within the EA itself; the Entropy Full Release application merely pipelines the signals over to the Entropy Tradebot to react upon selectively per the trader's pre-configured EA preference settings. The Entropy Tradebot will set up and place the orders themselves and manage the trailing stop until any trades in action are ultimately closed. When the Entropy Tradebot places an order (market or stop), it will use the StopLoss and Takeprofit values passed to it from the Entropy Client or Entropy Full Release. Essentially, the Entropy Tradebot is nothing more than a trade order placement processor with a nice trailing stop manager built in. Both the Entropy Client and the Entropy Full Release edition will have several built in features to permit filtering, querying, reporting, and generally identifying tradeable signals. There will also be a variety of analytical charts built in. Both the Entropy Tradebot EA and the Entropy Datafeed EA will be available towards the end of **December 2011**.

Lastly, there will be a mobile device Entropy application, but the features are still being worked out. I wouldn't look for this piece until mid-2012 at best.

I hope that this lays out the development and evolution path planned for the "Entropy Trade System".

## **Member Postings – Entropy Related Trading**

Craven



Craven Member



Status: Offline

Posts: 105

Date: 2 days ago

Waiting for Agressive TP to be reached on H4 timeframe for the following pairs:

AUDCHF, AUDJPY, AUDUSD, EURGBP, EURJPY, EURUSD, NZDUSD.

All other pairs on the H4 timeframe regardless of TSZ Vector have reached Agressive TP.

Outstanding results, all open trades (except for one AUDCHF) are in good profit right now.

3 hours into the most recent H4 signals with amazing accuracy.

I may just close all positions in approximately 50 minutes at the H4 close.

THANK YOU BLUTO!

---

hqstar



Craven Member



Status: Online

Posts: 68

Date: 2 days ago

Potential "high-impact" news this morning (shown in PST, USA):

Tuesday December 6, 2011 9:00am EDT CA BOC Rate Decision, Pair: USDCAD

Tuesday December 6, 2011 10:00am EDT CA IVEY PMI, Pair: USDCAD

Just a "heads up."

---

Howard Graves

Matrix

Craven Member



Status: Offline

Posts: 60

Date: 2 days ago

How are you guys filtering signals?

I'm taking trades with only high TSZ Vector numbers and only on Timeframes greater than H1.

---

flyer415

Charter Member



Status: Offline

Posts: 96

Date: 5h, 22m ago

The latest H4 EURAUD Bull-13 at 16:00 just hit its Aggr TP.

A 1:1 trade.

---

craven



Charter Member



Status: Offline

Posts: 105

Date: 5h, 16m ago

**flyer415 wrote:**

---

The latest H4 EURAUD Bull-13 at 16:00 just hit its Aggr TP.

A 1:1 trade.

---

On my live account, it made a high of 1.30414, still waiting for 1.3045.

On another note, H4 AUDCAD has reach TP @ 1.3075 for +31 pips.

---

paolo80



Charter Member



Status: Online

Posts: 161

Date: 5h, 15m ago

The strong H4 signal on AUDCHF is going very well!

---



craven



Charter Member



Status: Offline

Posts: 105

Date: 4n, 51m ago

**flyer415 wrote:**

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**craven wrote:**

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**flyer415 wrote:**

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The latest H4 EURAUD Bull-13 at 16:00 just hit its Aggr TP.

A 1:1 trade.

---

On my live account, it made a high of 1.30414, still waiting for 1.3045.

On another note, H4 AUDCAD has reach TP @ 1.3075 for +31 pips.

---

You are correct but the TP Aggr was 1.30386 for EURAUD

-- Edited by flyer415 on Thursday 8th of December 2011 10:51:19 AM

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EURAUD TP reached! +82

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craven



Charter Member



Status: Offline

Posts: 105

Date: 4n, 49m ago

**paolo80 wrote:**

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The strong H4 signal on AUDCHF is going very well! 

---

+70 pips at the moment.

Vince



Craven Member



Status: Offline

Posts: 403

Date: 4th, 12th ago

**craven wrote:**

At the moment on H4, still open trades:

AUDJPY +73  
EURNZD +100  
GBPCAD +174  
USDJPY +33

Nicely done craven. 🍀

For most people the sky is the limit, for me it is home.

craven



Craven Member



Status: Online

Posts: 105

Date: 4th, 8th ago

**craven wrote:**

It broke a low, so I am waiting for a pullback for entry.

On the EURUSD, I am waiting for a confirmation on fibonacci levels.

H4 is grand, confluence across H1 and M15 are helpful but not absolutely necessary.

Comparing with higher timeframes, D1, W1 show a clearer image.

Price has a high probability for retracing to the 38.2, 50.0 and 61.8 levels before continuing back in the direction of the trend.

It's reassuring knowing that there is order in trading, it goes to show that the chances of there being order in the universe are greater than our miniscule financial markets.

craven



H4 GBPCAD is @ +191 pips at the moment.

It made a high that was 4 pips shy of Aggressive target TP.

craven



Change Member



Status: Offline

Posts: 335

Date: 31, 4th ago

Reply Quote More ▾

Red line is the Entropy Aggressive TP level.

Blue line is the respected price point on H4 GBPCAD.

Please don't get it confused with the blue pill and red pill.

---

stephanmunday



Change Member



Status: Offline

Posts: 759

Date: 31, 4th ago

Reply Quote More ▾

That is really a thing of beauty! The arrows for the Entropy signals are exactly at the turning point... But this is something that normally we would only see in retrospect. It's incredible that Entropy picked them out at the time when all other indications would have been saying at very best that price had simply stalled.

---

craven



Change Member



Reply Quote More ▾

H4 GBPCAD Aggressive TP reached.

+208

I'm off for the day, see everyone later!

---



I have little time now, and I'm taking some orders randomly in various TF, 5M, 15M, 1H, 4H, and any symbol, the only rule that I am considering are: good ratio  $R / R$ , and that alone I am positive.

after today's results, with GBPCAD and EURNZD, I have to say this is fantastic. Only a but! Stop levels ..... mmmmm. and avoid being hit by the noise?



Charter Member

Status: Online  
Posts: 295  
Date: 2h, 56m ago

Craig absolutely baffled me you have !!!!! Congratulations

bluto



It's all in the electrons, protons, neutrinos and superstrings.

Founder

Status: Online  
Posts: 3163  
Date: 2h, 48m ago

nubchai

Charter Member

Status: Online  
Posts: 964  
Date: 2h, 31m ago

Yes the Entropy signals are scary good

caldsmth



massively strong buy signal on EURGBP

nubchai

Reply Quote More

Charter Member

Status: Online  
Posts: 964  
Date: 1h, 49m ago

Craig,

I have to apologize for doubting. There were dark times when I thought we'd maybe never see Entropy. Now with this first-cut version alone I am simply blown away by the signals. I think now that future versions of 1M and the production version of Entropy are about as close as we will ever get to a holy grail. I have chills !! Thank you !!!

Vince



Charter Member



Status: Online  
Posts: 443  
Date: 2 days ago

AUDUSD has hit TakeProfit-Med, EURUSD TakeProfit-Con, EURGBP started its move up too now (as expected) and some way to go till TP.  
Beautiful thing to watch!



Added later: EURGBP just hit TakeProfit-Con too



-- Edited by Vince on Tuesday 6th of December 2011 07:26:17 AM

---

For most people the sky is the limit, for me it is home.

abdeldvb

Charter Member



Status: Offline  
Posts: 21  
Date: 2 days ago

Indeed Vince, for EURUSD (H4) the medium Take profit easily achieved.

Abdel

tools

Charter Member



Status: Offline  
Posts: 33  
Date: 2 days ago

Craig,

Just want to say its a rocking very nicely mainly taking the 4 hour and if i remember right some 1 hour when they agree, with my setup. Nice job!

Account history



View Trade

michael



Charter Member



Status: Offline

Posts: 394

Date: 1h, 14m ago

Reply Quote More ▾

Took the signal down time to do some preliminary analysis on today's signals (so far).....

**Signals:** only signals produced on the hour (10:00 - 17:00)

**Test conditions:** after the signals ceased at 17:05, I found myself having some idle time and decided to go through spreadsheet of all signals, pick out ones that fit the criteria detailed below. Only then I switch to the MT4 charts to obtain results of potential trades. I have absolutely no idea what the charts look like beforehand. (Ideally, trades should be analysed and placed via MT4 in real time. However, due to time constraint and being unable to sit in front of computer every hour, can only do post-analysis.)

**Criteria:**

- H4
- H1 (if 2or more)
- H1 + bunch of lower TF signals
- for buy: current price must be near or above TSZ high
- for sell: current price must be near or below TSZ low

**Result:** 14 trades - 13 profitable (12 exceeding the TP Aggr), one hit stop before reversing into profit

1. 10:00 AUDUSD long 3xH1 TP>Aggr
2. 10:00 EURCHF long 2xH1+3xM30+2xM15+2xM5 TP>Aggr
3. 10:00 EURGBP short 2xH1+3xM30+2xM15 TP>Aggr
4. 10:00 GBPUSD long 3xH1 TP>Aggr
5. 11:00 AUDUSD long 4xH1+1xM30 TP>Aggr
6. 11:00 CHFJPY short 1xH1+1xM30+3xM15+2xM5 hit stop
7. 11:00 EURCHF long 3xH1+5xM30+2xM15 TP>Aggr
8. 11:00 EURNZD long 2xH2 TP>Aggr
9. 11:00 GBPUSD long 3xH1 TP>Aggr
10. 11:00 NZDUSD long 5xH1+1xM30 TP>Aggr
11. 12:00 CHFJPY short 1xH1+2xM30+2xM15+2xM5 TP>Aggr
12. 12:00 USDCHF long 1xH1+3xM30+5xM15 TP=Cons
13. 15:00 USDCHF long 7xM15+M5 TP>Aggr
14. 16:00 EURCAD short 1xH4 TP>Aggr

**Conclusion:** potentially, a rather profitable day despite lack of higher TF signals...

michael



Charter Member



Status: Online

Posts: 421

Date: 10h, 25m ago

Reply Quote

I just can't resist the urge to shout from my "roof top" to inform members that after analysing 49 completed H4 signals covering a span of less than six days (coupled with many hours of disconnection inbetween), the "total" profit (net of stopped out trades & spread, exiting at TP Con only) comes to over 1600 pips (so far)....

can easily double that figure if we allow profits to run, and have some kind of "intelligent" order management "system"....

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**my FXAW indicators: [ScreenShot03](#) [RSIHeatMap03](#)**

**Entropy Signal Analysis: [available here](#) *[major update 2011.12.10 21:00 GMT]***

stephenmunday



Charter Member



Status: Offline

Posts: 763

Date: 10h, 16m ago

Reply Quote

That is amazing! Thank you Michael for your hard work on the analysis....

.... and thank you Craig for this incredible tool.

I think we can figure out a way to live on 1600 pips per week.