

## TriAverage Function - An Exponential Moving Average

In this document, we will be presenting the TriAverage Function. One of the special characteristics of this function is that it places the majority of its weighting on the middle portion of the specified length.

### What does the TriAverage Function do?

T.A.F uses 2 arguments, the first argument is the Price, where you can input an average price by the formula  $(\text{High} + \text{Low})/2$ . Also, it can be changed to close, lowest, open, highest price or any variation. The second argument is the Length input, which is represented in past bars that T.A.F takes into account. This input has to be studied in detail because it can vary the results a lot depending of the asset intraday behavior.



Strategies based on Exponential Moving Averages are frequently used in the calculation of the day's close price, which can lead to strategies opening or closing positions towards the end of the day. Also, it is widely used in the most volatile markets to take advantage of price fluctuations for intraday trading. The frequency which EMAs are used on can range from 3 ticks up, depending of the asset.

Here is a simple sample code from TradeStation's proprietary language for the TriAverage function; it takes into account the aforementioned tips and enters positions in the gold futures market:

```
TriExpAvg=Triaverage(Price,ShortLength); //To refer to Fast average initialized to 6 study periods..
```

**TriExpAvg2=Triaverage(Price,LongLength);** //To refer to Slow Average initialized to 12 study periods

Entry conditions are these:

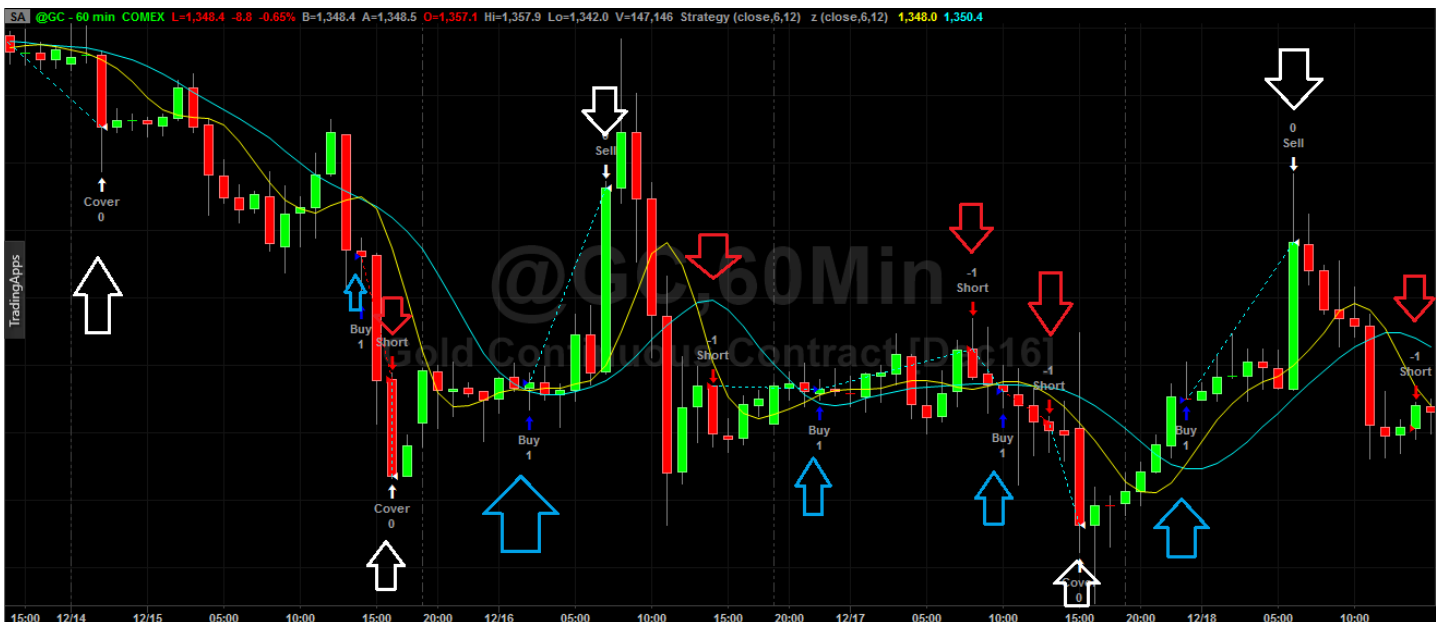
**If TriExpAvg crosses over TriExpAvg2 and TriExpAvg>TriExpAvg2 Then**

**Buy # contracts next bar at highest(high,20) stop;**

**If TriExpAvg crosses below TriExpAvg2 and TriExpAvg<TriExpAvg2 Then**

**sellshort # contracts... next bar at market... this bar on close..;**

Here is a sample performance chart of Gold @GC on 60 minute candlesticks:



The blue arrows shows when the robot bought, the red ones show when it sold and the white ones show when it closed.

Feel free to implement and test this basic strategy yourself.

If you would like to learn more about this strategy or other far more complex and robust strategies, please feel free to visit our website or get in touch using the information provided below.

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