Development Project

Develop a hedger:

I require a hedger that is connected to the IB API that is going to use the delta of my options position in a selected product and selected positions to send a hedge to the lit market to bring my delta to my target delta.

The delta should be calculated from the API and not from the display of that delta which I believe is delayed.

I need the ability to set my target delta, and the hedger to know the change in delta, so that when it hits the change in delta number it will send the order.  I need the order that is sent to be customizable to how much through the bid or offer it should bid or offer.

For instance, if the target delta is set to 200.  200 is now considered flat.  If the delta of the desired position has changed to the number of desired change, it will then send the order to be flat.  So if delta is long 200. And send order when delta changes by 500 +/-.  Market rallies and now position has gotten longer 500, showing long 700, it will send an order to sell 500, through the bid by the amount set as sell through number.

Hedger needs to be customizable to add positions or ignore positions of same product.

Hedger needs to be customizable to set how much through the bid or offer the order should be sent through. Hedger needs to be able to be toggled on or off.  Hedger needs fat finger protection, maximum amount of stock that it can send in one order.  Orders need to be sent as limit orders.

When a new position has been created it will not add that position to the delta counter until it is selected to do so, however when a position is flattened it is running that in the delta counter and will hedge that if the parameters have been fulfilled.

IV/Realized vol calculator

IV needs to be backed out of ATM options for desired products, updating in as close to real time as possible.  Needs to be easily displayed and readable for multiple products at a time.

Realized vol calculator.  4 time frames should be able to be set for a desired product, calculating the realized vol of the product in as close to real time as possible.  Last 15 min, Last 30 min, Last hour, Last 2 hours, would be desired time frames…If those could be customizable that would be ideal.