

## 1. Fix the bug so it calculates the correct number of shares

Bugs:

In `vwap2.py`:

```
# generate target schedule - use bins 1 - 390 giving an automatic 1 minute "look ahead"  
# note that targets have been converted to shares from percent  
order_targets = vwap_target( np.arange( 1, 391, dtype='int64' ), vwap_coefficients ) * original_order_quantity
```

```
# FAIR VALUE CALCULATION  
# check inputs, skip if the midpoint is zero, we've got bogus data (or we're at start of day)  
if midpoint == 0:  
    #print( "{} no midpoint. b:{} a:{}".format( index, bid_price, ask_price ) )  
    continue  
tick_coef = 0.0  
fair_value = midpoint + ( schedule_coef * schedule_factor * half_spread ) + ( tick_coef * tick_factor * half_spread )
```

Results: (which is almost equals to 300,000)

```
In [11]: 1 data['shares'].sum()
```

```
Out[11]: 299999.0
```