

# ROTC Ranking Methodology

The ranking methodology is designed to translate absolute performance into relative performance by the use of a ranking system. This system is designed to deter traders from betting the house in one event and generating very large absolute profits that will result in a clear win of the entire competition. Instead, the trader's absolute performance in each event is converted into a series of ordinal ranks which are subsequently converted into a final case ranking. Those rankings are mapped to case scores and then combined under the following weights:

Sales & Trader Case	Options Trading Case
50%	50%

Reader's Note: The scoring system is not intended to be extremely complex. However, throughout the trading competition there will be over 500 separate trading results. These results must then be averaged and ranked over several iterations to compute a final ranking and score. This document describes that process. The main purpose of the system is to reward consistently high performance, i.e. a trader that places 8th, 5th, and 10th will have a higher final score than a trader that places 1st, 10th, and 35th.

For each sub-heat, the final liquidated portfolio value of each trader is ranked by its dollar value with 1st given to the trader with the highest dollar value. In the event of a tie, the traders that tied have a joint rank while the traders below the tie will be given a rank based on the number of traders that have scored better than them. Therefore, if three traders tied for 2nd place, the ranking would be 1st, 2nd, 2nd, 2nd, and 5th.

Based on the above, each trader will receive a rank for every sub-heat. A trader's sub-heat ranks are then averaged. Traders are then ranked based on their average sub-heat ranks to determine their overall case rank. This case ranking is then mapped to a point score where the lowest rank (best score) is given a score of  $n+1$ , where  $n$  is the number of traders below you. In the event of a tie when determining the overall rank, a winner will be determined based on the consistency of the performance across each case. This consistency will be measured by the variance of the ranks across the cases.

## Final Rank

The final scores are multiplied by their case-weights to form a final score. This final score is used to rank traders, where the highest score is the best score.