## **The Unique-Bid Auction**

Project by David Phillips

To create an auction environment that allows human and robotic bidders to compete for a fictitious auction item

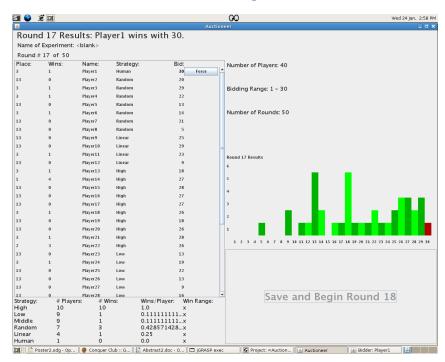
## **Procedure**

After establishing the size (number of bidders) and the range (the set of acceptable bids), the auction prompts the bidder computers for their bids. To maintain consistency of the auction outcomes, the auction also accepts bids from robotic players with artificially intelligent strategies. After the auction receives all of the robotic and human bids, it determines the winning bid, register the results from the round, and give each human player graphical displays of the outcomes. After this, the next rounds begins.

I am running two economic tests on this auction environment. For the first test, many auctions will be ran with two different numbers of participants. For the other test, auctions will be ran with two different levels of information given to the human (and robotic) participants. Specifically, in one level, the bidders will see a frequency distribution of all bids submitted in the previous round, while in the other, each bidder will only see his/her submitted bid and the winning value.

## **Progress**

The game play and interactions between the auctioneer computer and the bidder computers are operational. All interfaces have graphical displays appropriate to the progress of the auction. The next step with my project is creating the save function and networking the participating computers.



Auctioneer interface