IOH Documentation

Overview

This agent was created based on IOH of the 4th International Convention. We improved it to make it behave more naturally especially in terms of position estimation and voting strategies.

In addition, we made the agent capable of parsing all syntactic structures in anticipation of the growing variety of protocols and the increasing complexity of sentence structures. Although we have not implemented any new processing for those sentences, it is expected to help us use more diverse protocols in the future.

Environment

Development environment: JDK11

path: org.aiwolf.IOH.IOHRoleAssignPlayer

Algorithm

1. **Role Estimation**
   Random voting declarations in the early days are not well-grounded, so we will lighten the weight of their effect on the role estimation. Specifically, on the first turn of Day 1, only 5% of the impact of voting declarations on Day 3 and beyond will be affected, and thereafter the impact will gradually increase at a gradient of 10%, 15%, and so on as the turns progress.

   We also improved the previous agent because it did not assume a false MEDIUM and trusted medium results reported by an agent which might not be a real MEDIUM.

   In certain situations, it can be determined whether or not an opposing agent's role is WEREWOLF. In such cases, our agent remember the agent and consider it when voting for an agent to be executed.

2. **VILLAGER**
   Do not vote on the first day for an agent who came out as SEER.

3. **SEER**
   Coming out is preferred over a full open proposal.

4. **MEDIUM**

   Coming out is preferred over a full open proposal.

5. **BODYGUARD**

   When the GUARD succeeds, do not vote the person he guarded last night as a confirmed human.

6. **WEREWOLF**

   Coming out is preferred over a full open proposal.

   When coming out as SEER, make sure to report WEREWOLF as a divination result until there is a discrepancy in the number of WEREWOLVES.

7. **POSSESSED**

   Coming out is preferred over a full open proposal.