

Theory of Computer Games 2017 - Project 6

In the series of projects, you are required to develop AI programs that play *2584 Fibonacci*, a 2048-like game, which is similar to the one at [here](#).

Overview: **Join the 2584 Fibonacci tournament.**

1. Fine-tune the player and the evil you designed in Project 4 and 5.
2. Make sure that the programs are able to connect the arena.
3. Compete in the tournament.

Specification:

1. Date: T.B.D.
2. The rules are similar to the one of Project 4 and 5 with the following change:
 - a. The evil should decide the **position** of new tile.
 - b. The **type of new tiles is decided by the server**.
 - c. The probabilities of dropping **1-tiles** or **3-tiles** are **0.75** and **0.25**, respectively.
 - d. Refer to e3 for more details and rules of the tournament.
3. The hardware is not limited.
 - a. Your agents should be able to establish stable connections to the arena server.
4. The **testing speed** should be at least **1,000 actions per second** (time limit).
 - a. 1,000 actions per second is the speed on the local computer.
 - b. After connected to the server, due to the network latency, you may notice that the speed of your agents is lower than the testing speed on the local computer.
 - c. The speed observed by the arena server should be at least **10 actions per second**.
5. Implementation details (**the arena protocol**):
 - a. Your program should recognize the following input arena messages:
 - i. `match ID open AGENT:AGENT`
 - ii. `match ID [play/evil] take turn [, drop TILE]`
 - iii. `match ID [play/evil] move ACTION_CODE`
 - iv. `match ID close AGENT`
 - b. Your program should use the following output arena messages:
 - i. `match ID [play/evil] ready`
 - ii. `match ID [play/evil] move ACTION_CODE`
 - c. Please refer to the sample code and e3 for details.

Methodology:

1. The arena protocol has already been implemented in the sample code.
 - a. While you may need to modify some lines.

Submission: No need.

Scoring Criteria: T.B.D.

Hints: Check the e3 platform for any announcements of the tournament.