Hex Project

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Chapter 1

README

Welcome to our Hex project !

Three stategies were implemented during this project, a random strategy, a blocking strategy, a minimax strategy and a Kirchhoff strategy.

vrandom.so is our random player bloker.so is our blocking player aresistance.so is our resistance (Kirchhoff) player. minimax.so is our minimax player

To compile our code use the command "make"

To compile tests use "make test"

To run tests afterwards use "./install/alltests"

To generate a game use the command : ".install/server -m [M] -t [T] ./install/player1.so ./install/player2.so" -m allows the manipulation of the size of the board -t allows the manipulation of the form of the board. Use "h" for hexagonal, "c" for square, "t" for triangle

Chapter 2

Class Index

2.1 Class List

Here are the classes, structs, unions and interfaces with brief descriptions:

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Chapter 3

Class Documentation

3.1 dynamic_array Struct Reference

Public Attributes

- size_t * **array**
- size_t **size**
- size_t **capacity**

The documentation for this struct was generated from the following file:

- /home/hzghari/projet-s6/projetss6-hex-9145/src/dynamic_array.h

3.2 graph_t Struct Reference

Public Attributes

- size_t **num_vertices**
- gsl_spmatrix * t
- gsl_spmatrix * o

3.2.1 Member Data Documentation

3.2.1.1 o

```
gsl_spmatrix* graph_t::o
```

Sparse matrix of size n*n t[i][j] == 1 means there is an edge from i to j

3.2.1.2 t

```
gsl_spmatrix* graph_t::t
```

Number of vertices in the graph

The documentation for this struct was generated from the following file:

- /home/hzghari/projet-s6/projetss6-hex-9145/src/graph.h

3.3 move_t Struct Reference

Public Attributes

- size_t **m**
- enum color_t **c**

The documentation for this struct was generated from the following file:

- /home/hzghari/projet-s6/projetss6-hex-9145/src/move.h

3.4 person Struct Reference

Collaboration diagram for person:

3.5 pile Struct Reference

Public Attributes

- int **size**
- int ∗ **t**
- int **capacity**

The documentation for this struct was generated from the following file:

- /home/hzghari/projet-s6/projetss6-hex-9145/src/pile.h

3.6 player Struct Reference

Collaboration diagram for player:

Public Attributes

- char * **name**
- struct graph_t * **graph**
- enum color_t **color**
- struct move_t **last_move**
- struct move_t(* **player_propose_opening**)()
- int(* **player_accept_opening**)(const struct move_t opening)
- void(* **player_initialize_color**)(enum color_t id)
- void(* **player_initialize_graph**)(struct graph_t *graph)
- struct move_t(* **player_play**)(struct move_t previous_move)
- void(* **finalize**)()

The documentation for this struct was generated from the following files:

- /home/hzghari/projet-s6/projetss6-hex-9145/src/minimax.c
- /home/hzghari/projet-s6/projetss6-hex-9145/src/minimax1.c
- /home/hzghari/projet-s6/projetss6-hex-9145/src/MyMinimax.c
- /home/hzghari/projet-s6/projetss6-hex-9145/src/player1.c
- /home/hzghari/projet-s6/projetss6-hex-9145/src/player2.c
- /home/hzghari/projet-s6/projetss6-hex-9145/src/player_resistances.c
- /home/hzghari/projet-s6/projetss6-hex-9145/src/smhz.c

3.7 player_server Struct Reference

Collaboration diagram for player_server:

Public Attributes

- char const * **name**
- enum color_t **color**
- char const *(* **get_player_name**)()
- struct move_t(* **propose_opening**)()
- int(* **accept_opening**)(const struct move_t opening)
- void(* **initialize_color**)(enum color_t id)
- void(* **initialize_graph**)(struct graph_t *graph)
- struct move_t(* **play**)(struct move_t previous_move)
- void(* **finalize**)()

The documentation for this struct was generated from the following file:

- /home/hzghari/projet-s6/projetss6-hex-9145/src/server.c

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