

My Project

Generated by Doxygen 1.8.17

1 Hierarchical Index	1
1.1 Class Hierarchy	1
2 Class Index	3
2.1 Class List	3
3 Class Documentation	5
3.1 Board Class Reference	5
3.2 GameMaster Class Reference	5
3.2.1 Detailed Description	5
3.2.2 Constructor & Destructor Documentation	5
3.2.2.1 GameMaster()	5
3.2.3 Member Function Documentation	6
3.2.3.1 getField()	6
3.2.3.2 getPlayerHealth()	6
3.2.3.3 getTurn()	7
3.2.3.4 makeMove()	7
3.2.3.5 saveGame()	7
3.3 GameMasterGUI Class Reference	8
3.3.1 Detailed Description	8
3.4 GamePrep Class Reference	8
3.4.1 Detailed Description	8
3.4.2 Constructor & Destructor Documentation	8
3.4.2.1 GamePrep()	8
3.4.3 Member Function Documentation	8
3.4.3.1 encapsulate()	9
3.4.3.2 loadGame()	9
3.4.3.3 makePlacement()	9
3.5 GamePrepGUI Class Reference	10
3.5.1 Detailed Description	10
3.6 GameState Class Reference	10
3.6.1 Detailed Description	10
3.6.2 Constructor & Destructor Documentation	11
3.6.2.1 GameState() [1/3]	11
3.6.2.2 GameState() [2/3]	11
3.6.2.3 GameState() [3/3]	11
3.6.3 Member Function Documentation	11
3.6.3.1 attack()	12
3.6.3.2 getField()	12
3.6.3.3 getPlayerHealth()	12
3.6.3.4 getTurn()	13
3.6.3.5 turnInc()	13
3.7 Program Class Reference	13

3.8 Ships Class Reference	14
3.8.1 Detailed Description	14
3.8.2 Constructor & Destructor Documentation	14
3.8.2.1 Ships()	14
3.8.3 Member Function Documentation	14
3.8.3.1 getShipHP()	14
3.8.3.2 hit()	15
Index	17

Chapter 1

Hierarchical Index

1.1 Class Hierarchy

This inheritance list is sorted roughly, but not completely, alphabetically:

GameMaster	5
GamePrep	8
JFrame	
GameMasterGUI	8
GamePrepGUI	10
Program	13
Serializable	
Board	5
GameState	10
Ships	14

Chapter 2

Class Index

2.1 Class List

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

Board	5
GameMaster	5
GameMasterGUI	8
GamePrep	8
GamePrepGUI	10
GameState	10
Program	13
Ships	14

Chapter 3

Class Documentation

3.1 Board Class Reference

Inheritance diagram for Board:

3.2 GameMaster Class Reference

Collaboration diagram for GameMaster:

Public Member Functions

- [GameMaster](#) ([GameState](#) newstate)
- String [saveGame](#) (String filepath)
- String [makeMove](#) (int x, int y)
- int [getTurn](#) ()
- int [getPlayerHealth](#) (int nr)
- int [getField](#) (int player, int x, int y)

3.2.1 Detailed Description

Runs the game by accepting input from player and modifying the gamestate accordingly until the game is finished.

3.2.2 Constructor & Destructor Documentation

3.2.2.1 GameMaster()

```
GameMaster.GameMaster (
    GameState newstate ) [inline]
```

Creates a new [GameMaster](#) which can run the game.

Parameters

<i>newstate</i>	- gamestate to be run by GameMaster .
-----------------	---

3.2.3 Member Function Documentation

3.2.3.1 getField()

```
int GameMaster.getField (
    int player,
    int x,
    int y ) [inline]
```

Reveals content of given player's boards (field designated by given coordinates).

Parameters

<i>player</i>	player number.
<i>x</i>	rows.
<i>y</i>	columns.

Returns

content of designated field.

3.2.3.2 getPlayerHealth()

```
int GameMaster.getPlayerHealth (
    int nr ) [inline]
```

Returns designated player's hitpoints.

Parameters

<i>nr</i>	nr of player.
-----------	---------------

Returns

remaining hitpoints of player with given nr.

3.2.3.3 getTurn()

```
int GameMaster.getTurn ( ) [inline]
```

Returns number of current turn.

Returns

current turn;

3.2.3.4 makeMove()

```
String GameMaster.makeMove (
    int x,
    int y ) [inline]
```

Orders game to register attack on given coordinates.

Parameters

<i>x</i>	row letter.
<i>y</i>	column number.

Returns

attack report.

3.2.3.5 saveGame()

```
String GameMaster.saveGame (
    String filepath ) [inline]
```

Saves gamestate to a file with given path.

Parameters

<i>filepath</i>	path for save file
-----------------	--------------------

Returns

Save report

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

- GameMaster.java

3.3 GameMasterGUI Class Reference

Inheritance diagram for GameMasterGUI:

Collaboration diagram for GameMasterGUI:

3.3.1 Detailed Description

Player interface.

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

- GameMasterGUI.java

3.4 GamePrep Class Reference

Collaboration diagram for GamePrep:

Public Member Functions

- [GamePrep](#) ()
- String [loadGame](#) (String filepath)
- String [makePlacement](#) (int x, int y, Boolean horizontal)
- [GameState encapsulate](#) ()

3.4.1 Detailed Description

Prepares a new gamestate or loads a saved gamestate.

3.4.2 Constructor & Destructor Documentation

3.4.2.1 GamePrep()

```
GamePrep.GamePrep ( ) [inline]
```

Initializes [GamePrep](#).

3.4.3 Member Function Documentation

3.4.3.1 encapsulate()

```
GameState GamePrep.encapsulate ( ) [inline]
```

Finalizes preparation and creates a [GameState](#) using initialized boards and ships.

Returns

[GameState](#) prepared for playing.

3.4.3.2 loadGame()

```
String GamePrep.loadGame (
    String filepath ) [inline]
```

Loads saved [GameState](#).

Parameters

<i>filepath</i>	path for file with saved GameState .
-----------------	--

Returns

loading operation report.

3.4.3.3 makePlacement()

```
String GamePrep.makePlacement (
    int x,
    int y,
    Boolean horizontal ) [inline]
```

Processes ship placement request.

Parameters

<i>x</i>	row.
<i>y</i>	column.
<i>nr</i>	placed ship's number.
<i>length</i>	placed ship's length
<i>horizontal</i>	placed ship's orientation.

Returns

placement report.

```
System.out.println(horizontal);
```

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

- [GamePrep.java](#)

3.5 GamePrepGUI Class Reference

Inheritance diagram for GamePrepGUI:

Collaboration diagram for GamePrepGUI:

3.5.1 Detailed Description

Graphical User Interface for [GamePrep](#) class.

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

- [GamePrepGUI.java](#)

3.6 GameState Class Reference

Inheritance diagram for GameState:

Collaboration diagram for GameState:

Public Member Functions

- [GameState](#) ()
- [GameState](#) ([Board](#) p1, [Board](#) p2)
- [GameState](#) ([Board](#) p1, [Board](#) p2, [Ships](#) ready_ships)
- void [turnInc](#) ()
- int [getTurn](#) ()
- String [attack](#) (int x, int y)
- int [getPlayerHealth](#) (int nr)
- int [getField](#) (int player, int x, int y)

3.6.1 Detailed Description

Represents state of a single game of Battleships.

3.6.2 Constructor & Destructor Documentation

3.6.2.1 GameState() [1/3]

```
GameState.GameState ( ) [inline]
```

Creates a new default gamestate with empty Boards.

3.6.2.2 GameState() [2/3]

```
GameState.GameState (
    Board p1,
    Board p2 ) [inline]
```

Creates a new default game-ready gamestate with given prepared boards.

Parameters

<i>p1</i>	player 1's board.
<i>p2</i>	player 2's board.

3.6.2.3 GameState() [3/3]

```
GameState.GameState (
    Board p1,
    Board p2,
    Ships ready_ships ) [inline]
```

Creates a new default game-ready gamestate with given prepared boards and ships registry.

Parameters

<i>p1</i>	player 1's board.
<i>p2</i>	player 2's board.
<i>ready_ships</i>	ships registry

3.6.3 Member Function Documentation

3.6.3.1 attack()

```
String GameState.attack (
    int x,
    int y ) [inline]
```

Performs attack on board (adequate to turn number) using given coordinates.

Parameters

<i>x</i>	row.
<i>y</i>	column.

Returns

attack report.

3.6.3.2 getField()

```
int GameState.getField (
    int player,
    int x,
    int y ) [inline]
```

Returns content of field (described by given coordinates) on designated player's board.

Parameters

<i>nr</i>	player number.
-----------	----------------

Returns

content of board's field.

3.6.3.3 getPlayerHealth()

```
int GameState.getPlayerHealth (
    int nr ) [inline]
```

Returns number of designated player's remaining hitpoints.

Parameters

<i>nr</i>	player number.
-----------	----------------

Returns

player's remaining hitpoints.

3.6.3.4 getTurn()

```
int GameState.getTurn ( ) [inline]
```

Reads turn number.

Returns

turn number

3.6.3.5 turnInc()

```
void GameState.turnInc ( ) [inline]
```

Increments number of turns.* Performs attack on board (adequate to turn number) using given coordinates.

Parameters

<i>x</i>	row
<i>y</i>	column

Returns

attack report

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

- GameState.java

3.7 Program Class Reference

Static Public Member Functions

- static void **main** (String[] args)

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

- Program.java

3.8 Ships Class Reference

Inheritance diagram for Ships:

Collaboration diagram for Ships:

Public Member Functions

- [Ships](#) ()
- String [hit](#) (int id)
- int [getShipHP](#) (int id)

3.8.1 Detailed Description

Represents ships' statuses.

3.8.2 Constructor & Destructor Documentation

3.8.2.1 Ships()

```
Ships.Ships ( ) [inline]
```

Builds a new ship hitpoints registry, gives every ship default number of hitpoints.

3.8.3 Member Function Documentation

3.8.3.1 getShipHP()

```
int Ships.getShipHP (
    int id ) [inline]
```

Read's hitpoints of ship desribed by given id.

Parameters

<i>id</i>	ship's id.
-----------	------------

Returns

remaining HitPoints of ship with given id.

3.8.3.2 hit()

```
String Ships.hit (  
    int id ) [inline]
```

Registers hit on the ship and returns attack report.

Parameters

<i>id</i>	id of attacked ship
-----------	---------------------

Returns

attack report.

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

- Ships.java

Index

- attack
 - GameState, 11
- Board, 5
- encapsulate
 - GamePrep, 8
- GameMaster, 5
 - GameMaster, 5
 - getField, 6
 - getPlayerHealth, 6
 - getTurn, 6
 - makeMove, 7
 - saveGame, 7
- GameMasterGUI, 8
- GamePrep, 8
 - encapsulate, 8
 - GamePrep, 8
 - loadGame, 9
 - makePlacement, 9
- GamePrepGUI, 10
- GameState, 10
 - attack, 11
 - GameState, 11
 - getField, 12
 - getPlayerHealth, 12
 - getTurn, 13
 - turnInc, 13
- getField
 - GameMaster, 6
 - GameState, 12
- getPlayerHealth
 - GameMaster, 6
 - GameState, 12
- getShipHP
 - Ships, 14
- getTurn
 - GameMaster, 6
 - GameState, 13
- hit
 - Ships, 15
- loadGame
 - GamePrep, 9
- makeMove
 - GameMaster, 7
- makePlacement
 - GamePrep, 9
- Program, 13
- saveGame
 - GameMaster, 7
- Ships, 14
 - getShipHP, 14
 - hit, 15
 - Ships, 14
- turnInc
 - GameState, 13