

nulocks-core

0.1

Generated by Doxygen 1.8.5

Mon May 5 2014 18:28:12

Contents

1	nulocks-core	1
2	Namespace Index	3
2.1	Namespace List	3
3	Class Index	5
3.1	Class List	5
4	File Index	7
4.1	File List	7
5	Namespace Documentation	9
5.1	Nulocks Namespace Reference	9
5.1.1	Detailed Description	9
5.2	Nulocks::Core Namespace Reference	9
5.2.1	Detailed Description	9
6	Class Documentation	11
6.1	Nulocks::Core::Block Class Reference	11
6.1.1	Detailed Description	11
6.1.2	Member Function Documentation	12
6.1.2.1	getLevel	12
6.1.2.2	getValue	12
6.1.2.3	isEmpty	12
6.1.2.4	setLevel	12
6.1.2.5	wasMoved	12
6.2	Nulocks::Core::Board Class Reference	12
6.2.1	Detailed Description	13
6.2.2	Constructor & Destructor Documentation	13
6.2.2.1	Board	13
6.2.2.2	Board	13
6.2.3	Member Function Documentation	14
6.2.3.1	gameInProgress	14

6.2.3.2	gameLost	14
6.2.3.3	gameWon	14
6.2.3.4	getRepresentation	14
6.2.3.5	getScore	14
6.2.3.6	getSize	14
6.2.3.7	getWinPower	15
7	File Documentation	17
7.1	Block.h File Reference	17
7.1.1	Detailed Description	17
7.2	Board.h File Reference	17
7.2.1	Detailed Description	18
	Index	19

Chapter 1

nulocks-core

nulocks - NUMerical bLOCKS is a modular and customizable clone of 2048 game in C++. This is a repository with core engine of the game.

Chapter 2

Namespace Index

2.1 Namespace List

Here is a list of all documented namespaces with brief descriptions:

Nulocks	A global namespace for all Nulocks game components	9
Nulocks::Core	A namespace for Nulocks core game engine	9

Chapter 3

Class Index

3.1 Class List

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

Nulocks::Core::Block	
A class representing a block on the game board	11
Nulocks::Core::Board	
A class that represents Nulocks board	12

Chapter 4

File Index

4.1 File List

Here is a list of all documented files with brief descriptions:

Block.h	A file that contains the class representing a block on the game board	17
Board.h	A file that contains main core engine class of Nulocks - modular and customizable clone of 2048 game	17

Chapter 5

Namespace Documentation

5.1 Nulocks Namespace Reference

A global namespace for all [Nulocks](#) game components.

Namespaces

- [Core](#)
A namespace for [Nulocks](#) core game engine.

5.1.1 Detailed Description

A global namespace for all [Nulocks](#) game components.

5.2 Nulocks::Core Namespace Reference

A namespace for [Nulocks](#) core game engine.

Classes

- class [Block](#)
A class representing a block on the game board.
- class [Board](#)
A class that represents [Nulocks](#) board.

5.2.1 Detailed Description

A namespace for [Nulocks](#) core game engine.

Chapter 6

Class Documentation

6.1 Nulocks::Core::Block Class Reference

A class representing a block on the game board.

```
#include <Block.h>
```

Public Member Functions

- [Block](#) ()
Construct an empty block.
- [~Block](#) ()
Destroy the block.
- void [setMoved](#) ()
Indicate the block as moved this turn.
- void [unsetMoved](#) ()
Indicate the block as not moved this turn.
- bool [wasMoved](#) ()
Check if the block was moved this turn.
- int [getValue](#) ()
Get block value.
- int [getLevel](#) ()
Get block level.
- void [levelUp](#) ()
Increase level of the block.
- void [empty](#) ()
Make the block empty.
- bool [isEmpty](#) ()
Check if the block is empty.
- void [setLevel](#) (int level)
Set level of the block.

6.1.1 Detailed Description

A class representing a block on the game board.

6.1.2 Member Function Documentation

6.1.2.1 `int Nulocks::Core::Block::getLevel ()`

Get block level.

Returns

Level of the block.

6.1.2.2 `int Nulocks::Core::Block::getValue ()`

Get block value.

Returns

Value of the block.

6.1.2.3 `bool Nulocks::Core::Block::isEmpty ()`

Check if the block is empty.

Returns

True if the block is empty, false otherwise.

6.1.2.4 `void Nulocks::Core::Block::setLevel (int level)`

Set level of the block.

Parameters

<i>level</i>	Level of the block.
--------------	---------------------

6.1.2.5 `bool Nulocks::Core::Block::wasMoved ()`

Check if the block was moved this turn.

Returns

True if block was moved this turn, false otherwise.

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

- [Block.h](#)
- [Block.cpp](#)

6.2 Nulocks::Core::Board Class Reference

A class that represents [Nulocks](#) board.

```
#include <Board.h>
```


Public Member Functions

- [Board](#) (int size=4, int winpower=11)
Initializes the board for the new game.
- [~Board](#) ()
Destroys the board, frees the memory.
- [Board](#) (const [Board](#) &cpy)
A copy constructor.
- void [moveUp](#) ()
Performs a move upwards and starts new turn.
- void [moveDown](#) ()
Performs a move downwards and starts new turn.
- void [moveLeft](#) ()
Performs a move to the left and starts new turn.
- void [moveRight](#) ()
Performs a move to the right and starts new turn.
- bool [gameInProgress](#) ()
Checks if game is in progress.
- bool [gameWon](#) ()
Checks if game has been won.
- bool [gameLost](#) ()
Checks if game has been lost.
- int [getScore](#) ()
Returns the current score.
- int [getWinPower](#) ()
Returns the power of 2 required to win the game.
- int [getSize](#) ()
Returns size of the board.
- void [getRepresentation](#) (int ***repr)
Returns representation of the board as an array of integers.

6.2.1 Detailed Description

A class that represents [Nulocks](#) board.

6.2.2 Constructor & Destructor Documentation

6.2.2.1 Nulocks::Core::Board::Board (int size = 4, int winpower = 11)

Initializes the board for the new game.

Parameters

<i>size</i>	Size of the board, defaults to 4 as in original 2048.
<i>winpower</i>	Power of 2 to get to win the game. Defaults to 11, as in original 2048 game.

6.2.2.2 Nulocks::Core::Board::Board (const Board & cpy)

A copy constructor.

Parameters

<i>cpy</i>	A Board object to be copied.
------------	--

6.2.3 Member Function Documentation

6.2.3.1 `bool Nulocks::Core::Board::gameInProgress ()`

Checks if game is in progress.

Returns

True if game is in progress, false otherwise.

6.2.3.2 `bool Nulocks::Core::Board::gameLost ()`

Checks if game has been lost.

Returns

True if game has been lost, false otherwise.

6.2.3.3 `bool Nulocks::Core::Board::gameWon ()`

Checks if game has been won.

Returns

True if game has been won, false otherwise.

6.2.3.4 `void Nulocks::Core::Board::getRepresentation (int *** repr)`

Returns representation of the board as an array of integers.

Parameters

<i>in, out</i>	<i>repr</i>	Takes address of a two-dimensional array of integers with the same size as the board. Returns integer representation of the board to this array. Memory allocation and freeing must be handled outside this method.
----------------	-------------	---

6.2.3.5 `int Nulocks::Core::Board::getScore ()`

Returns the current score.

Returns

Current score of the player.

6.2.3.6 `int Nulocks::Core::Board::getSize ()`

Returns size of the board.

Returns

Size of the board.

6.2.3.7 int Nulocks::Core::Board::getWinPower ()

Returns the power of 2 required to win the game.

Returns

Power of 2 to get to win the game.

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

- [Board.h](#)
- Board.cpp

Chapter 7

File Documentation

7.1 Block.h File Reference

A file that contains the class representing a block on the game board.

Classes

- class [Nulocks::Core::Block](#)
A class representing a block on the game board.

Namespaces

- [Nulocks](#)
A global namespace for all [Nulocks](#) game components.
- [Nulocks::Core](#)
A namespace for [Nulocks](#) core game engine.

7.1.1 Detailed Description

A file that contains the class representing a block on the game board.

Author

Phitherek_

Date

2014

Version

0.1

7.2 Board.h File Reference

A file that contains main core engine class of [Nulocks](#) - modular and customizable clone of 2048 game.

```
#include "Block.h"
```

Classes

- class [Nulocks::Core::Board](#)
A class that represents [Nulocks](#) board.

Namespaces

- [Nulocks](#)
A global namespace for all [Nulocks](#) game components.
- [Nulocks::Core](#)
A namespace for [Nulocks](#) core game engine.

7.2.1 Detailed Description

A file that contains main core engine class of [Nulocks](#) - modular and customizable clone of 2048 game.

Author

Phitherek_

Date

2014

Version

0.1

Index

Block.h, [17](#)
Board
 Nulocks::Core::Board, [13](#)
Board.h, [17](#)

gameInProgress
 Nulocks::Core::Board, [14](#)
gameLost
 Nulocks::Core::Board, [14](#)
gameWon
 Nulocks::Core::Board, [14](#)
getLevel
 Nulocks::Core::Block, [12](#)
getRepresentation
 Nulocks::Core::Board, [14](#)
getScore
 Nulocks::Core::Board, [14](#)
getSize
 Nulocks::Core::Board, [14](#)
getValue
 Nulocks::Core::Block, [12](#)
getWinPower
 Nulocks::Core::Board, [14](#)

isEmpty
 Nulocks::Core::Block, [12](#)

Nulocks, [9](#)
Nulocks::Core, [9](#)
Nulocks::Core::Block, [11](#)
 getLevel, [12](#)
 getValue, [12](#)
 isEmpty, [12](#)
 setLevel, [12](#)
 wasMoved, [12](#)
Nulocks::Core::Board, [12](#)
 Board, [13](#)
 gameInProgress, [14](#)
 gameLost, [14](#)
 gameWon, [14](#)
 getRepresentation, [14](#)
 getScore, [14](#)
 getSize, [14](#)
 getWinPower, [14](#)

setLevel
 Nulocks::Core::Block, [12](#)

wasMoved
 Nulocks::Core::Block, [12](#)