

Catch Me If You Can

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Chapter 1

Main Page

This program uses the `ncurses` library. To compile it you need install this library (the `libncurses5-dev` package for Debian for instance).

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

File Index

3.1 File List

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Chapter 4

Class Documentation

4.1 CBoard Class Reference

The board on which the game is played.

```
#include <board.hpp>
```

Public Member Functions

- [CBoard](#) ()
The default constructor.
- [CBoard](#) ([Coor](#) dimensions, [Coor](#) firstPlayer, [Coor](#) secondPlayer)
The detailed constructor.
- [~CBoard](#) ()
The destructor.
- void [Display](#) ([Player](#) currentRound)
Displays the current round of the game.
- bool [PlayRound](#) ([Player](#) currentRound, unsigned Player1WinNb, unsigned Player2WinNb)
Plays a turn of the game.

Private Member Functions

- void [Move](#) ([Coor](#) squareToMove, [Direction](#) direction)
Moves a square of the board.
- [Direction](#) [UserInput](#) ()
Gets input from the player.
- void [SpawnItem](#) ()
Spawns an item in the board.
- void [ApplyPowerUp](#) ([Player](#) player, [PowerUp](#) powerUp)
Apply a powerUp on a player.
- void [ChangeWall](#) ()
Delete all wall in the board and generate another board with wall.

Private Attributes

- bool [AreWallsBroken](#)
Contain the information if wall has been broke.

- bool [PlayerHere](#)
Contain the information if the player is in the Square.
- std::vector< std::vector
< [CSquare](#) > > [playfield](#)
Square matrix to store the playfield.
- WINDOW * [window](#)
ncurses window to display the playfield.
- unsigned [Player1Wins](#)
Player 1 number of wins.
- unsigned [Player2Wins](#)
Player 2 number of wins.

4.1.1 Detailed Description

The board on which the game is played.

One Board object represents one game, it has methods to advance the state of the game or display it.

4.1.2 Constructor & Destructor Documentation

4.1.2.1 CBoard::CBoard ()

The default constructor.

It creates a 10x10 board with players in the upper-right-most and lower-left-most positions. It's only a delegation from the detailed constructor.

4.1.2.2 CBoard::CBoard (Coor *dimensions*, Coor *firstPlayer*, Coor *secondPlayer*)

The detailed constructor.

Parameters

<i>dimensions</i>	The dimensions of the desired board.
<i>firstPlayer</i>	The starting coordinates of the first player.
<i>secondPlayer</i>	The starting coordinates of the second player.

It creates a board according to the specified dimensions and will place the players if they are at a valid position. It will also initialize a ncurses window and a border accordingly.

4.1.2.3 CBoard::~~CBoard ()

The destructor.

It will get rid of the ncurses window and its border.

4.1.3 Member Function Documentation

4.1.3.1 void CBoard::ApplyPowerUp (Player *player*, PowerUp *powerUp*) [private]

Apply a powerUp on a player.

Parameters

<i>player</i>	the player that get the Power up
<i>powerUp</i>	the powerup the apply

4.1.3.2 void CBoard::Display (**Player** *currentRound*)

Displays the current round of the game.

Parameters

<i>currentRound</i>	The player that will play the next turn.
---------------------	--

4.1.3.3 void CBoard::Move (**Coor** *squareToMove*, **Direction** *direction*) [private]

Moves a square of the board.

Parameters

<i>squareToMove</i>	The coordinates of the Square that will be moved.
<i>direction</i>	The Direction in which the Square will be moved.

No check are made in the validity of the input. The Square is swapped with the one in the specified direction, its content is not modified.

4.1.3.4 bool CBoard::PlayRound (**Player** *currentRound*, unsigned *Player1WinNb*, unsigned *Player2WinNb*)

Plays a turn of the game.

Parameters

<i>currentRound</i>	The player that will play the turn. If it is no_player, the turn is skipped.
<i>Player1WinNb</i>	the number of rounds won by player1.
<i>Player2WinNb</i>	the number of rounds won by player2.

Returns

true if a player moves over the other, false otherwise.

This procedure will get the input of the player until it is valid and will then move the player square accordingly.

4.1.3.5 void CBoard::SpawnItem () [private]

Spawns an item in the board.

This method will spawn an item in a free Square of the board. The frequency of spawn is variable in the setting.

4.1.3.6 **Direction** CBoard::UserInput () [private]

Gets input from the player.

Returns

The direction chosen by the user.

Exceptions

<code>user_exit</code>	if the player presses ESC, resulting in the program closing successfully.
--	---

4.1.4 Member Data Documentation

4.1.4.1 `bool CBoard::PlayerHere` [private]

Contain the information if the player is in the Square.

Use only for the DoubleSpeed effect.

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

- [src/board.hpp](#)
- [src/board.cpp](#)

4.2 CForm Class Reference

The form used as settings panel.

```
#include <form.hpp>
```

Public Member Functions

- [CForm](#) (const std::vector< std::string > &KVariableNames, const std::vector< FIELDTYPE * > &KFieldTypes, std::vector< void * > VariablesValuesPt)
The constructor.
- [~CForm](#) ()
The destructor.
- void [Display](#) ()
Displays the setting form.

Private Attributes

- std::vector< void * > [variables](#)
contain the values of the variables that appear in the fields
- std::vector< std::string > [VarNamesVector](#)
contain the names of the variables that appear in the fields
- std::vector< FIELDTYPE * > [RightFieldTypes](#)
contain the types of the variables that appear in the fields
- FIELD ** [fields](#)
the fields of the form
- unsigned [FieldCount](#)
the number of fields that appear in the form
- unsigned [CurrentField](#)
the indice of the current field
- FORM * [settingsform](#)
the form that contains all the fields
- WINDOW * [formwin](#)
the windows that will contain the form

4.2.1 Detailed Description

The form used as settings panel.

The fom will generate a setting window that will enable the user to set the option as wanted.

4.2.2 Constructor & Destructor Documentation

4.2.2.1 CForm::CForm (const std::vector< std::string > & KVariableNames, const std::vector< FIELDTYPE * > & KFieldTypes, std::vector< void * > VariablesValuesPt)

The constructor.

Parameters

<i>KVariableNames</i>	The names of the variables that appear in the form.
<i>KFieldTypes</i>	The types of the variables that appear in the form.
<i>VariablesValuesPt</i>	The values of the variables that appear in the form.

Will create the form windows and generate all the fields according to the variables. we give in first, second and thirs place parameters.

4.2.2.2 CForm::~~CForm ()

The destructor.

Will free the memory the fields used and remove the WINDOW.

4.2.3 Member Function Documentation

4.2.3.1 void CForm::Display ()

Displays the setting form.

The method will display the setting form that the user is able to modify and will send the new values to the configuration manager.

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

- [src/form.hpp](#)
- [src/form.cpp](#)

4.3 CHelp Class Reference

The help window.

```
#include <help.hpp>
```

Public Member Functions

- [CHelp](#) ()
The constructor.
- [~CHelp](#) ()
The destructor.
- void [DisplayHelp](#) ()
Displays help window.

Private Member Functions

- void [ReadHelpFile](#) (const std::string &KFileName)
Read the help file.

Private Attributes

- WINDOW * [helpwin](#)
The WINDOW the help information are displayed into.
- std::string [HelpString](#)
The string the information contained in the help file are stored into.

4.3.1 Detailed Description

The help window.

The help is the window that will show help to the user about how to play the game and about how the cofiguration file was made.

4.3.2 Constructor & Destructor Documentation

4.3.2.1 CHelp::CHelp ()

The constructor.

The constructor will generate the window and read the help file to display.

4.3.2.2 CHelp::~~CHelp ()

The destructor.

It will free the memory allocated by the constructor and remove the window.

4.3.3 Member Function Documentation

4.3.3.1 void CHelp::DisplayHelp ()

Displays help window.

The function will open a new window that will display the informations the player needs to play. It contains commands, the rules of the game and the available options in the configuration file.

4.3.3.2 void CHelp::ReadHelpFile (const std::string & KFileName) [private]

Read the help file.

Parameters

<i>KFileName</i>	The path of the help file.
------------------	----------------------------

The function will read the help file that have the path we give by parameters and store the file in a vector.

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

- [src/help.hpp](#)
- [src/help.cpp](#)

4.4 CMenu Class Reference

A user-friendly menu.

```
#include <menu.hpp>
```

Public Member Functions

- [CMenu](#) (std::vector< std::string > choices)
The constructor.
- [~CMenu](#) ()
The destructor.
- std::string [Display](#) ()
Displays the menu window and returns the choice of the user.

Private Attributes

- MENU * [menu](#)
A pointer to the ncurses MENU used by the Menu.
- ITEM ** [items](#)
A pointer to an array of the ITEMS used by the MENU.
- unsigned [itemCount](#)
The number of elements of the array items points to.
- WINDOW * [window](#)
The WINDOW the menu is displayed into.

4.4.1 Detailed Description

A user-friendly menu.

A Menu object lets the user choose between different options with arrow keys. The Menu class uses directly the MENU type from ncurses as defined in menu.h

4.4.2 Constructor & Destructor Documentation

4.4.2.1 CMenu::CMenu (std::vector< std::string > choices)

The constructor.

Parameters

<i>choices</i>	A vector of all the different choices the user can make.
----------------	--

It will create the window the menu is displayed into and allocate the memory used to store the menu.

4.4.2.2 CMenu::~~CMenu ()

The destructor.

It will free the memory allocated by the constructor and remove the window.

4.4.3 Member Function Documentation

4.4.3.1 `std::string CMenu::Display ()`

Displays the menu window and returns the choice of the user.

Returns

The choice of the user.

4.4.4 Member Data Documentation

4.4.4.1 `unsigned CMenu::itemCount` `[private]`

The number of elements of the array items points to.

This is necessary for proper destruction of the object.

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

- [src/menu.hpp](#)
- [src/menu.cpp](#)

4.5 CSquare Class Reference

The squares of the board.

```
#include <square.hpp>
```

Public Member Functions

- [CSquare](#) ([Player](#) [content](#)=no_player, bool [hasBarrier](#)=false)
The constructor.
- bool [ContainsPlayer](#) ()
Checks if the Square contains any player.
- bool [ContainsPlayer](#) ([Player](#) p)
Checks if the Square contains a particular player.
- bool [ContainsBarrier](#) ()
Checks if the Square contains a barrier.
- bool [ContainsItem](#) ()
Checks if the Square contains an item.
- void [AddItem](#) ([PowerUp](#) itemToAdd)
Adds an item to the Square.
- void [DeleteItem](#) ()
Removes the item in the Square.
- [PowerUp](#) [WhichPowerUp](#) ()
Checks which PowerUp the player have.
- void [BreakWall](#) ()
Removes barrier from the Square.
- void [AddWall](#) ()
Adds barrier to the Square.

Private Attributes

- [Player content](#)
The content of the Square.
- bool [hasBarrier](#)
Stores if the Square contains a barrier.
- [PowerUp Item](#)
Stores the kind of item the Square contains.

4.5.1 Detailed Description

The squares of the board.

One Square object represents one square of the playfield and its content. The content of a Square cannot be modified after its creation.

4.5.2 Constructor & Destructor Documentation

4.5.2.1 CSquare::CSquare ([Player content](#) = no_player, bool [hasBarrier](#) = false)

The constructor.

Parameters

<i>content</i>	The content of the Square, defaults to no_player.
<i>hasBarrier</i>	Specifies if the Square contains a barrier, default to false.

4.5.3 Member Function Documentation

4.5.3.1 void CSquare::AddItem ([PowerUp itemToAdd](#))

Adds an item to the Square.

Parameters

<i>itemToAdd</i>	The item to add to the Square.
------------------	--------------------------------

4.5.3.2 bool CSquare::ContainsBarrier ()

Checks if the Square contains a barrier.

Returns

true if the Square contains a barrier, false otherwise.

4.5.3.3 bool CSquare::ContainsItem ()

Checks if the Square contains an item.

Returns

true if the Square contains an item, false otherwise.

4.5.3.4 `bool CSquare::ContainsPlayer ()`

Checks if the Square contains any player.

Returns

false if the Square contains no_player, true otherwise.

4.5.3.5 `bool CSquare::ContainsPlayer (Player p)`

Checks if the Square contains a particular player.

Parameters

<i>p</i>	The player to look for.
----------	-------------------------

Returns

true if the Square contains *p*, false otherwise.

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

- [src/square.hpp](#)
- [src/square.cpp](#)

4.6 `user_exit` Struct Reference

The exception type thrown when the user wants to exit the game prematurely.

```
#include <common.hpp>
```

4.6.1 Detailed Description

The exception type thrown when the user wants to exit the game prematurely.

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

- [src/common.hpp](#)

Chapter 5

File Documentation

5.1 src/board.cpp File Reference

Board class implementation.

```
#include "board.hpp"
```

5.1.1 Detailed Description

Board class implementation.

Authors

: J. Saffi, Y. Vidal, Y. Roux, A. Torres Aurora Dugo

Date

: 08/01/14

Version

: 1.0

See Also

[board.hpp](#)

5.2 src/board.hpp File Reference

Board class header.

```
#include "common.hpp"
#include "square.hpp"
#include "confmanager.hpp"
#include <vector>
#include <limits>
#include <exception>
#include <ncurses.h>
#include <cmath>
#include <cstdlib>
#include <chrono>
#include <thread>
```

Classes

- class [CBoard](#)

The board on which the game is played.

5.2.1 Detailed Description

Board class header.

Authors

: J. Saffi, Y. Vidal, Y. Roux, A. Torres Aurora Dugo

Date

: 08/01/14

Version

: 1.0

See Also

[board.cpp](#)

5.3 src/common.hpp File Reference

Common header.

```
#include <utility>
```

Classes

- struct [user_exit](#)

The exception type thrown when the user wants to exit the game prematurely.

Typedefs

- typedef std::pair< unsigned,
unsigned > [Coor](#)

Coordinates in a two dimensionnal matrix.

Enumerations

- enum [Player](#) { **player1** = 1, **player2** = 2, **no_player** = 3 }

One of the players or no_player.

- enum [Direction](#) {
north, **north_east**, **east**, **south_east**,
south, **south_west**, **west**, **north_west** }

One of the eight cardinal points.

- enum [PowerUp](#) {
double_speed, **teleportation**, **break_wall**, **change_wall**,
no_power_up }

Different sort of power up.

5.3.1 Detailed Description

Common header.

Authors

: J. Saffi, Y. Vidal, Y. Roux, A. Torres Aurora Dugo

Date

: 08/01/14

Version

: 1.0

Contains the type definitions used throughout the project.

See Also

[board.cpp](#)

5.4 src/confmanager.cpp File Reference

Configuration file management implementation.

```
#include "confmanager.hpp"
#include <iomanip>
```

Functions

- template<typename TYPE >
[TYPE ReadVariable](#) (const std::string &KFileName, const std::string &KVariableName)
Configuration file parser for one variable.
- template<typename TYPE >
void [WriteVariable](#) (const std::string &KFileName, const std::string &KVariableName, const TYPE &KVariableValue, bool EraseFile)
Configuration file writer for one variable.
- [Player ReadStartingPlayer](#) ()
Reads the starting Player in the config file.
- [Coor ReadBoardDimensions](#) ()
Reads the dimensions of the board in the config file.
- int [ReadPlayerColor](#) (Player player)
Reads the player color in the config file.
- int [ReadItemColor](#) ()
Reads the item color in the config file.
- float [ReadBarrierApparitionFrequency](#) ()

- Reads the apparition frequency of barriers.*
- float [ReadItemApparitionFrequency](#) ()
Reads the apparition frequency of items.
- bool [ReadDotsForBackground](#) ()
Read if the background display dots or not.
- void [WriteFloatInFile](#) (const std::string &KVariableName, char *VariableValue)
Write a float number in the configuration file.
- void [WriteIntInFile](#) (const std::string &KVariableName, char *VariableValue)
Write an integer number in the configuration file.
- void [WriteCommentInFile](#) (const std::string &KComment, bool EraseFile)
Write a comment in the configuration file.

5.4.1 Detailed Description

Configuration file management implementation.

Authors

: J. Saffi, Y. Vidal, Y. Roux, A. Torres Aurora Dugo

Date

: 08/01/14

Version

: 1.0

See Also

[confmanager.hpp](#)

5.4.2 Function Documentation

5.4.2.1 ReadBarrierApparitionFrequency ()

Reads the apparition frequency of barriers.

Returns

The apparition frequency of barriers.

The returned value is between 0 and 1.

5.4.2.2 Coor ReadBoardDimensions ()

Reads the dimensions of the board in the config file.

Returns

The dimensions of the board.

The function will return the dimensions of the board as set in the configuration file. It uses the ReadVariable function. The path of the config file is specified in a define made in [confmanager.hpp](#)

5.4.2.3 ReadDotsForBackground ()

Read if the background display dots or not.

Returns

If the background has dots or not.

The returned value is a boolean that will set the background character to none or dots.

5.4.2.4 ReadItemApparitionFrequency ()

Reads the apparition frequency of items.

Returns

The apparition frequency of items.

The returned value is between 0 and 1.

5.4.2.5 int ReadItemColor ()

Reads the item color in the config file.

Returns

The Item's color equivalent as an ncurses define.

It uses the ReadVariable function to read the configuration file. The path of the config file is specified in a define made in [confmanager.hpp](#)

5.4.2.6 int ReadPlayerColor (Player player)

Reads the player color in the config file.

Parameters

<i>player</i>	Player to get the color of.
---------------	-----------------------------

Returns

The Player's color equivalent as an ncurses define.

The function will return the color of the player whose name is the parameter. It uses the ReadVariable function to read the configuration file. The path of the config file is specified in a define made in [confmanager.hpp](#)

5.4.2.7 Player ReadStartingPlayer ()

Reads the starting Player in the config file.

Returns

The starting Player.

The function will return which player will begin to play. It uses the ReadVariable Function. The path of the config file is specified in a define made in [confmanager.hpp](#)

5.4.2.8 `template<typename TYPE > template< typename TYPE > TYPE ReadVariable (const std::string & KFileName, const std::string & KVariableName)`

Configuration file parser for one variable.

Parameters

<i>KFileName</i>	File path of the configuration file.
<i>KVariableName</i>	Name of the parsed variable.

Returns

The parsed value of the variable.

The function will parse the file we give him in first place parameter. To achieve this, it will read the variable's value in the configuration file and return the value. It uses a template to be able to parse any type using operator >>

5.4.2.9 void WriteCommentInFile (const std::string & *KComment*, bool *EraseFile* = false)

Write a comment in the configuration file.

Parameters

<i>KComment</i>	The comment to inject.
<i>EraseFile</i>	Set if the configuration file have to be erased.

The function will write the the comment gave in parameters thanks to the WriteVariable template

5.4.2.10 void WriteFloatInFile (const std::string & *KVariableName*, char * *VariableValue*)

Write a float number in the configuration file.

Parameters

<i>KVariableName</i>	The name of the variable to inject.
<i>VariableValue</i>	The value of the variable to inject.

The function will write the name of the float variable and her value thanks to the WriteVariable template.

5.4.2.11 void WriteIntInFile (const std::string & *KVariableName*, char * *VariableValue*)

Write an integer number in the configuration file.

Parameters

<i>KVariableName</i>	Name of the variable to inject.
<i>VariableValue</i>	Value of the variable to inject.

The function will write the name of the integer variable and her value thanks to the WriteVariable template.

5.4.2.12 template<typename TYPE > template< typename TYPE > void WriteVariable (const std::string & *KFileName*, const std::string & *KVariableName*, const TYPE & *KVariableValue*, bool *EraseFile*)

Configuration file writer for one variable.

Parameters

<i>KFileName</i>	File path of the configuration file.
<i>KVariableName</i>	Name of the variable to inject.
<i>KVariableValue</i>	Value of the variable to inject.
<i>EraseFile</i>	Set if the file must be erased before being written.

The function will write the file we give him in first place parameter and her value we give in second place parameter. To achieve this, it will write the variable and then value in the configuration file. It uses a template to be able to write any type properly using operator >>

5.5 src/confmanager.hpp File Reference

Configuration file management header.

```
#include "common.hpp"
#include <fstream>
#include <string>
#include <stdexcept>
#include <exception>
#include <vector>
#include <iostream>
#include <cctype>
```

Macros

- `#define CONFIG_FILE_PATH "config.cfg"`
The (relative) path of the config file at execution.

Functions

- `template<typename TYPE >`
`TYPE ReadVariable (const std::string &KFileName, const std::string &KVariableName)`
Configuration file parser for one variable.
- `template<typename TYPE >`
`void WriteVariable (const std::string &KFileName, const std::string &KVariableName, const TYPE &KVariableValue, bool EraseFile)`
Configuration file writer for one variable.
- `Player ReadStartingPlayer ()`
Reads the starting Player in the config file.
- `Coord ReadBoardDimensions ()`
Reads the dimensions of the board in the config file.
- `int ReadPlayerColor (Player player)`
Reads the player color in the config file.
- `int ReadItemColor ()`
Reads the item color in the config file.
- `float ReadBarrierApparitionFrequency ()`
Reads the apparition frequency of barriers.
- `float ReadItemApparitionFrequency ()`
Reads the apparition frequency of items.
- `bool ReadDotsForBackground ()`
Read if the background display dots or not.
- `void WriteFloatInFile (const std::string &KVariableName, char *VariableValue)`
Write a float number in the configuration file.
- `void WriteIntInFile (const std::string &KVariableName, char *VariableValue)`
Write an integer number in the configuration file.
- `void WriteCommentInFile (const std::string &KComment, bool EraseFile=false)`
Write a comment in the configuration file.

5.5.1 Detailed Description

Configuration file management header.

Authors

: J. Saffi, Y. Vidal, Y. Roux, A. Torres Aurora Dugo

Date

: 08/01/14

Version

: 1.0

See Also

[confmanager.cpp](#)

5.5.2 Function Documentation

5.5.2.1 float ReadBarrierApparitionFrequency ()

Reads the apparition frequency of barriers.

Returns

The apparition frequency of barriers.

The returned value is between 0 and 1.

5.5.2.2 Coor ReadBoardDimensions ()

Reads the dimensions of the board in the config file.

Returns

The dimensions of the board.

The function will return the dimensions of the board as set in the configuration file. It uses the ReadVariable function. The path of the config file is specified in a define made in [confmanager.hpp](#)

5.5.2.3 bool ReadDotsForBackground ()

Read if the background display dots or not.

Returns

If the background has dots or not.

The returned value is a booleen that will set the background character to none or dots.

5.5.2.4 float ReadItemApparitionFrequency ()

Reads the apparition frequency of items.

Returns

The apparition frequency of items.

The returned value is between 0 and 1.

5.5.2.5 int ReadItemColor ()

Reads the item color in the config file.

Returns

The Item's color equivalent as an ncurses define.

It uses the ReadVariable function to read the configuration file. The path of the config file is specified in a define made in [confmanager.hpp](#)

5.5.2.6 int ReadPlayerColor (Player player)

Reads the player color in the config file.

Parameters

<i>player</i>	Player to get the color of.
---------------	-----------------------------

Returns

The Player's color equivalent as an ncurses define.

The function will return the color of the player whose name is the parameter. It uses the ReadVariable function to read the configuration file. The path of the config file is specified in a define made in [confmanager.hpp](#)

5.5.2.7 Player ReadStartingPlayer ()

Reads the starting Player in the config file.

Returns

The starting Player.

The function will return which player will begin to play. It uses the ReadVariable Function. The path of the config file is specified in a define made in [confmanager.hpp](#)

5.5.2.8 template<typename TYPE > TYPE ReadVariable (const std::string & KFileName, const std::string & KVariableName)

Configuration file parser for one variable.

Parameters

<i>KFileName</i>	File path of the configuration file.
<i>KVariableName</i>	Name of the parsed variable.

Returns

The parsed value of the variable.

The function will parse the file we give him in first place parameter. To achieve this, it will read the variable's value in the configuration file and return the value. It uses a template to be able to parse any type using operator >>

5.5.2.9 void WriteCommentInFile (const std::string & *KComment*, bool *EraseFile*)

Write a comment in the configuration file.

Parameters

<i>KComment</i>	The comment to inject.
<i>EraseFile</i>	Set if the configuration file have to be erased.

The function will write the the comment gave in parameters thanks to the WriteVariable template

5.5.2.10 void WriteFloatInFile (const std::string & *KVariableName*, char * *VariableValue*)

Write a float number in the configuration file.

Parameters

<i>KVariableName</i>	The name of the variable to inject.
<i>VariableValue</i>	The value of the variable to inject.

The function will write the name of the float variable and her value thanks to the WriteVariable template.

5.5.2.11 void WriteIntInFile (const std::string & *KVariableName*, char * *VariableValue*)

Write an integer number in the configuration file.

Parameters

<i>KVariableName</i>	Name of the variable to inject.
<i>VariableValue</i>	Value of the variable to inject.

The function will write the name of the integer variable and her value thanks to the WriteVariable template.

5.5.2.12 template<typename TYPE > void WriteVariable (const std::string & *KFileName*, const std::string & *KVariableName*, const TYPE & *KVariableValue*, bool *EraseFile*)

Configuration file writer for one variable.

Parameters

<i>KFileName</i>	File path of the configuration file.
<i>KVariableName</i>	Name of the variable to inject.
<i>KVariableValue</i>	Value of the variable to inject.
<i>EraseFile</i>	Set if the file must be erased before being written.

The function will write the file we give him in first place parameter and her value we give in second place parameter. To achieve this, it will write the variable and then value in the configuration file. It uses a template to be able to write any type properly using operator >>

5.6 src/form.cpp File Reference

Implementation of the Form class.

```
#include "form.hpp"
```

5.6.1 Detailed Description

Implementation of the Form class.

Authors

: J. Saffi, Y. Vidal, Y. Roux, A. Torres Aurora Dugo

Date

: 08/01/14

Version

: 1.0

See Also

[form.hpp](#)

5.7 src/form.hpp File Reference

Header of the Form class.

```
#include "confmanager.hpp"  
#include <vector>  
#include <form.h>  
#include <fstream>  
#include <stdexcept>  
#include <exception>  
#include <ncurses.h>
```

Classes

- class [CForm](#)

The form used as settings panel.

5.7.1 Detailed Description

Header of the Form class.

Authors

: J. Saffi, Y. Vidal, Y. Roux, A. Torres Aurora Dugo

Date

: 08/01/14

Version

: 1.0

See Also

[form.cpp](#)

5.8 src/help.cpp File Reference

Help display implementation.

```
#include "help.hpp"
```

5.8.1 Detailed Description

Help display implementation.

Authors

: J. Saffi, Y. Vidal, Y. Roux, A. Torres Aurora Dugo

Date

: 08/01/14

Version

: 1.0

See Also

[help.hpp](#)

5.9 src/help.hpp File Reference

Help class header.

```
#include "common.hpp"  
#include <vector>  
#include <fstream>  
#include <stdexcept>  
#include <exception>  
#include <ncurses.h>  
#include <iostream>
```

Classes

- class [CHelp](#)

The help window.

Macros

- `#define HELP_FILE_PATH "help.txt"`
The (relative) path of the help file at execution.

5.9.1 Detailed Description

Help class header.

Authors

: J. Saffi, Y. Vidal, Y. Roux, A. Torres Aurora Dugo

Date

: 08/01/14

Version

: 1.0

See Also

[help.cpp](#)

5.10 `src/main.cpp` File Reference

Main file.

```
#include "main.hpp"
```

Functions

- `int main ()`
Main function.

5.10.1 Detailed Description

Main file.

Authors

: J.Saffi, Y.Vidal, Y.Roux, A.Torres Aurora

Date

: 08/01/14

Version

: 1.0

See Also

[main.hpp](#)

5.11 src/main.hpp File Reference

Main file header.

```
#include "common.hpp"
#include "board.hpp"
#include "confmanager.hpp"
#include "menu.hpp"
#include "form.hpp"
#include "help.hpp"
#include <cstdlib>
#include <ncurses.h>
#include <iostream>
#include <chrono>
#include <thread>
```

5.11.1 Detailed Description

Main file header.

Authors

: J. Saffi, Y. Vidal, Y. Roux, A. Torres Aurora Dugo

Date

: 08/01/14

Version

: 1.0

See Also

[main.cpp](#)

5.12 src/menu.cpp File Reference

Menu class implementation.

```
#include "menu.hpp"
```

5.12.1 Detailed Description

Menu class implementation.

Authors

: J. Saffi, Y. Vidal, Y. Roux, A. Torres Aurora Dugo

Date

: 08/01/14

Version

: 1.0

See Also

[menu.hpp](#)

5.13 src/menu.hpp File Reference

Menu class header.

```
#include "common.hpp"
#include "confmanager.hpp"
#include <ncurses.h>
#include <menu.h>
#include <exception>
#include <vector>
#include <string>
```

Classes

- class [CMenu](#)

A user-friendly menu.

5.13.1 Detailed Description

Menu class header.

Authors

: J. Saffi, Y. Vidal, Y. Roux, A. Torres Aurora Dugo

Date

: 08/01/14

Version

: 1.0

See Also

[menu.cpp](#)

5.14 src/square.cpp File Reference

Square class implementation.

```
#include "square.hpp"
```

5.14.1 Detailed Description

Square class implementation.

Authors

: J. Saffi, Y. Vidal, Y. Roux, A. Torres Aurora Dugo

Date

: 08/01/14

Version

: 1.0

See Also

[square.hpp](#)

5.15 src/square.hpp File Reference

Square class header.

```
#include "common.hpp"  
#include <exception>  
#include <stdexcept>
```

Classes

- class [CSquare](#)
The squares of the board.

5.15.1 Detailed Description

Square class header.

Authors

: J. Saffi, Y. Vidal, Y. Roux, A. Torres Aurora Dugo

Date

: 08/01/14

Version

: 1.0

See Also

[square.cpp](#)

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