LifeGame

0.1

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1.1 Class List

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Chapter 2

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2.1 File List

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Chapter 3

Class Documentation

3.1 LGCell Class Reference

Class representing a cell.

`#include <LGCell.h>`

Public Member Functions

- LGCell ()
  Default constructor.
- LGCell (bool IsAlive)
  Constructor with parameters.
- **LGCell** (const LGCell &Cell)
- bool isAlive () const
  Is this cell alive?
- void setIsAlive (bool IsAlive)
  Modify cell's status.

3.1.1 Detailed Description

Class representing a cell.

Class managing a grod of cells and it's behavior.

3.1.2 Constructor & Destructor Documentation

3.1.2.1 LGCell::LGCell (bool *IsAlive*)

Constructor with parameters.

Parameters

IsAlive	: if true, the cell is setted as alive

3.1.3 Member Function Documentation

3.1.3.1 void LGCell::setIsAlive (bool *IsAlive*)

Modify cell's status.

Parameters

IsAlive	: if true, the cell is setted as alive

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

- D:/MyDocuments/Visual Studio 2015/Projects/LifeGame/LifeGame/sources/header/LGCell.h
- D:/MyDocuments/Visual Studio 2015/Projects/LifeGame/LifeGame/sources/cpp/LGCell.cpp

3.2 LGGrid Class Reference

Public Member Functions

- LGGrid ()
  Defaul constructor.
- LGGrid (int XSize, int YSize)
  Constructor to build a specific sized grid.
- LGGrid (const LGGrid &Grid)
  Copy constructor.
- ~LGGrid ()
  Destructor.
- int getXSize () const
  Return number of line.
- int getYSize () const
  Return number of column.
- bool isCellAlive (int X, int Y) const
  Is a cell alive?
- int getTotalAliveCells () const
  How many cells are alive?
- void setCellAlive (int X, int Y, bool IsAlive)
  Change cell's status.
- void execute ()
  Execute on turn of the game.
- void display () const
  Dispays on stdout all cells.
- void displayTech () const
  display on stdout all cells including empty edges
- void displayStats () const
  display current grid's stats
- void updateStats ()
  update statistics.

3.2.1 Constructor & Destructor Documentation

3.2.1.1 LGGrid::LGGrid ( )

Defaul constructor.

Default size is 5 by 5 grid is all cells dead

3.2.1.2 LGGrid::LGGrid (int *XSize,* int *YSize*)

Constructor to build a specific sized grid.

All cells are dead

Parameters

XSize	: number of line without empty ones
YSize	: number of column without empty ones

3.2.1.3 LGGrid::LGGrid (const LGGrid & *Grid*)

Copy constructor.

Parameters

Grid	: creates a new grid based on the parameter

3.2.1.4 LGGrid::~LGGrid ( )

Destructor.

Desallocates grid and cells.

3.2.2 Member Function Documentation

3.2.2.1 void LGGrid::displayStats ( ) const

display current grid's stats

Current stats are :

- Grid size
- Total cells
- Total alive cells
- Number of execution
- Number of death
- Number of birth

3.2.2.2 int LGGrid::getTotalAliveCells ( ) const

How many cells are alive?

Returns

: total number of alive cells on the current grid

3.2.2.3 int LGGrid::getXSize ( ) const

Return number of line.

Returns

number of line without empty ones

3.2.2.4 int LGGrid::getYSize ( ) const

Return number of column.

Returns

number of column without empty ones

3.2.2.5 bool LGGrid::isCellAlive (int *X*, int *Y*) const

Is a cell alive?

Check if a cell is alive or not. Manage empty cells therefore parameters should be as for the real grid only

Parameters

X	: line position
Y	: column position

Returns

true if the cell is alive

3.2.2.6 void LGGrid::setCellAlive (int *X*, int *Y*, bool *IsAlive*)

Change cell's status.

Parameters

X	: line position
Y	: column position

3.2.2.7 void LGGrid::updateStats ( )

update statistics.

Current stats are :

- Grid size
- Total cells
- Total alive cells
- Number of execution
- Number of death
- Number of birth

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

- D:/MyDocuments/Visual Studio 2015/Projects/LifeGame/LifeGame/sources/header/LGGrid.h
- D:/MyDocuments/Visual Studio 2015/Projects/LifeGame/LifeGame/sources/cpp/LGGrid.cpp

Chapter 4

File Documentation

4.1 D:/MyDocuments/Visual Studio 2015/Projects/LifeGame/LifeGame/sources/cpp/LGCell.cpp File Reference

Cell implementation.

```
#include ".\..\header\LGCell.h"
```

4.1.1 Detailed Description

Cell implementation.

Author

Alexis Koutero

Version

0.1

4.2 D:/MyDocuments/Visual Studio 2015/Projects/LifeGame/LifeGame/sources/cpp/LGGrid.cpp File Reference

Grid implementation.

```
#include ".\..\header\LGGrid.h"
```

4.2.1 Detailed Description

Grid implementation.

Author

Alexis Koutero

Version

0.1

4.3 D:/MyDocuments/Visual Studio 2015/Projects/LifeGame/LifeGame/sources/cpp/LifeGame.cpp File Reference

Main for test.

```
#include <iostream>
#include <cstdlib>
#include <ctime>
#include ".\..\header\LGCell.h"
#include ".\..\header\LGGrid.h"
```

Functions

- int **main** ()

4.3.1 Detailed Description

Main for test.

Author

Alexis Koutero

Version

0.1

4.4 D:/MyDocuments/Visual Studio 2015/Projects/LifeGame/LifeGame/sources/header/LGCell.h File Reference

Cell definition.

```
#include <iostream>
```

Classes

- class LGCell

  Class representing a cell.

4.4.1 Detailed Description

Cell definition.

Author

Alexis Koutero

Version

0.1

4.5 D:/MyDocuments/Visual Studio 2015/Projects/LifeGame/LifeGame/sources/header/LGGrid.h File Reference

Grid definition.

```
#include "LGCell.h"
```

Classes

- class LGGrid

4.5.1 Detailed Description

Grid definition.

Author

Alexis Koutero

Version

0.1

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