

Game Of Life

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Chapter 1

File Index

1.1 File List

Here is a list of all files with brief descriptions:

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Chapter 2

File Documentation

2.1 /home/user/DT/GameOfLife/lib/board.c File Reference

```
#include "board.h"
#include <SDL2/SDL.h>
#include <assert.h>
#include <stdbool.h>
Include dependency graph for board.c:
```

2.2 /home/user/DT/GameOfLife/lib/readInput.c File Reference

```
#include "readInput.h"
#include <string.h>
Include dependency graph for readInput.c:
```

Functions

- int** [read_file_in_matrix](#) (char *filename, int *n, int *m)
Reads start configuration from txt files and turns it into the matrix of 0 and 1.

2.2.1 Function Documentation

2.2.1.1 read_file_in_matrix()

```
int** read_file_in_matrix (
    char * filename,
    int * n,
    int * m )
```

Reads start configuration from txt files and turns it into the matrix of 0 and 1.

Parameters

<i>filename</i>	the name of the configuration
<i>n</i>	number of rows
<i>m</i>	number of columns

Returns

int** returns pointer to the created matrix

This function gets as parameters the name of file which contains one of possible start configurations of the game. Then it allocates memory to create a matrix and copy the contents of the file to that matrix. In addition it writes the values of rows and columns to n and m. In case if file was not found it returns NULL pointer.

2.3 /home/user/DT/GameOfLife/step3.c File Reference

```
#include <stdio.h>
#include <stdlib.h>
#include <string.h>
#include <unistd.h>
#include "lib/board.h"
#include "lib/readInput.h"
Include dependency graph for step3.c:
```

Functions

- int [main](#) (int argc, char *argv[])

2.3.1 Function Documentation

2.3.1.1 main()

```
int main (
    int argc,
    char * argv[] )
```

2.4 /home/user/DT/GameOfLife/tests/test.c File Reference

```
#include <stdio.h>
#include <string.h>
#include <stdlib.h>
#include <unistd.h>
#include <sys/wait.h>
#include <fcntl.h>
#include "CUnit/Basic.h"
Include dependency graph for test.c:
```


Functions

- int [read_file_in_matrix](#) (int **matrix)
- void [next](#) (int **matrix, int n, int m)
- void [print](#) (int **matrix, int n, int m)
- int [init_suite1](#) (void)
- int [clean_suite1](#) (void)
- void [testPRINT](#) (void)
Tests [print\(\)](#) function.
- void [testNEXT](#) (void)
Tests [next\(\)](#) function.
- void [testREAD_FILE_IN_MATRIX](#) ()
Tests [read_file_in_matrix\(\)](#) function.
- int [main](#) ()

2.4.1 Function Documentation

2.4.1.1 [clean_suite1\(\)](#)

```
int clean_suite1 (  
    void )
```

2.4.1.2 [init_suite1\(\)](#)

```
int init_suite1 (  
    void )
```

2.4.1.3 [main\(\)](#)

```
int main ( )
```

2.4.1.4 [next\(\)](#)

```
void next (  
    int ** matrix,  
    int n,  
    int m )
```

2.4.1.5 print()

```
void print (
    int ** matrix,
    int n,
    int m )
```

2.4.1.6 read_file_in_matrix()

```
int read_file_in_matrix (
    int ** matrix )
```

2.4.1.7 testNEXT()

```
void testNEXT (
    void )
```

Tests [next\(\)](#) function.

testNEXT function tests whether matrix will be filled correctly and won't return NULL after function call

2.4.1.8 testPRINT()

```
void testPRINT (
    void )
```

Tests [print\(\)](#) function.

testPRINT function tests whether matrix will be successfully printed and won't be null

2.4.1.9 testREAD_FILE_IN_MATRIX()

```
void testREAD_FILE_IN_MATRIX ( )
```

Tests [read_file_in_matrix\(\)](#) function.

testREAD_FILE_IN_MATRIX function tests whether matrix will be successfully filled from one of the start configuration files

2.5 /home/user/DT/GameOfLife/version1.c File Reference

```
#include <stdio.h>
#include <stdlib.h>
#include <string.h>
#include <unistd.h>
Include dependency graph for version1.c:
```

Functions

- void [print](#) (int **matrix, int n, int m)
- void [next](#) (int **matrix, int n, int m)
- void [read_file_in_matrix](#) (int **matrix)
- int [main](#) ()

2.5.1 Function Documentation

2.5.1.1 main()

```
int main ( )
```

2.5.1.2 next()

```
void next (
    int ** matrix,
    int n,
    int m )
```

2.5.1.3 print()

```
void print (
    int ** matrix,
    int n,
    int m )
```

2.5.1.4 read_file_in_matrix()

```
void read_file_in_matrix (
    int ** matrix )
```


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