SRS Documentation

Chain Reaction

1. Acknowledgement

In the present scenario, where the world is taking breath at a high pace, computers have now become an integral part of our life. We are given with an excellent opportunity to learn computers by our institute under the guidance of two of the best professors in Computer Science of India Dr.D.B.Phatak and Dr.Supratik Chakraborty. He increased the field of our knowledge by indulging us in such a good project which requires a good knowledge of C++ language and graphics. Lessons by sir during the classes proved to be of great help .We learned great qualities like Professionalism, Team work, Self-Assessment, etc. which are sure to play an important role in our life. Last but not the least we will also like to thank our very helping TA Ahzaz Hingora who was there always to help us in any difficulty and to clear our doubts.

Overall it was a great journey and again a big thanks to our professor.

2. Introduction

The aim of the project is to design a game which resembles the android app chain reaction. The reason of us picking up this project is not only for fun but also for the learning that comes along with it. Designing a game which already exists might seem unimportant from a particular viewpoint. But it is the very good way to understand how to handle problems with graphics in C++.Chain Reaction is a game in which players have to use their brains carefully. It is very difficult to get a strategy to win. One has to continuously review and change it with every move of the opponent which makes the game very exciting and eventually more fun. Also, we have included new features in the game such as saving the game and loading a saved game which weren't a part of the original android game.

3. Status Of Completion

Our project has been successfully completed with both single and 2- player modes, an option to save the game in between and to load a previously saved game.

4. Rules and Basics

The Chain Reaction Gamespace

The gamespace is basically an 8x6 grid which is of the colour of the player whose turn it is currently. The player clicks on the cell of the grid in which he wants to place an orb. The player can place an orb only in the cells that are previously unoccupied or are occupied by orbs of the same colour as that of the player.

NOTE: 1st player needs to left click and the second player needs to right click.

Each cell has a certain maximum capacity, when this capacity is reached we say that the orbs have reached critical mass. This is indicated by vibration of the orbs in the game (i.e. the orbs which have reached critical mass start vibrating). When this critical mass is exceeded the orbs undergo fission and split into the neighbouring cell. In the process, the orbs of the other player in the surroundings get converted to the colour of the player.

The overall objective of the game is to take control of the board by eliminating the opponent's orbs.

5. Features

Some of the features available to the user:

A user-friendly main menu containing options to start a new game or load a previously saved game in single and 2 player modes.

Detailed instructions on how to play the game are provided.

Gamespace is made more interactive by expanding the cell on which the mouse pointer is present.

The colour of the grid indicates which player's turn it is.

The player can choose to return to the main menu in the middle of the game and start a new game. Also, he can choose to undo his last move. He can also save the game in between to play later.

6. Requirements

Windows

SFML Graphics Package

7. Sources

http://www.cplusplus.com/reference/cstdlib/rand/

http://www.sfml-dev.org/

http://www.cplusplus.com/reference/cstdio/

Images from

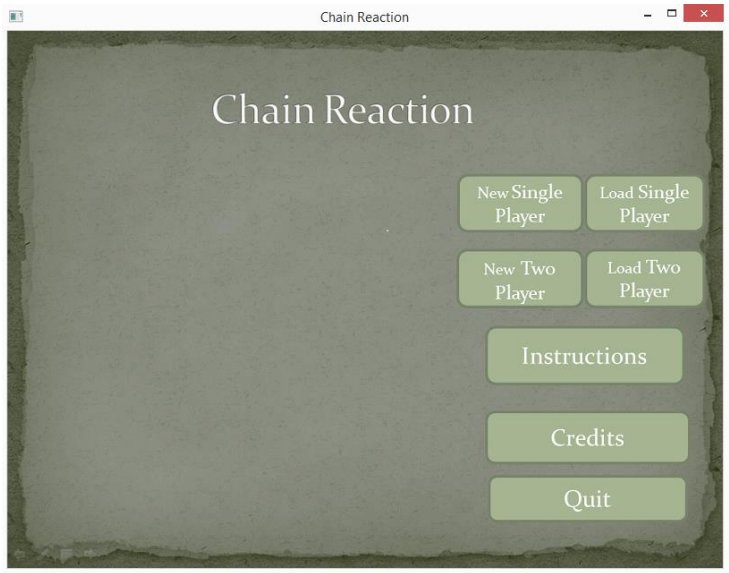
http://android.downloadatoz.com/new-incoming.html

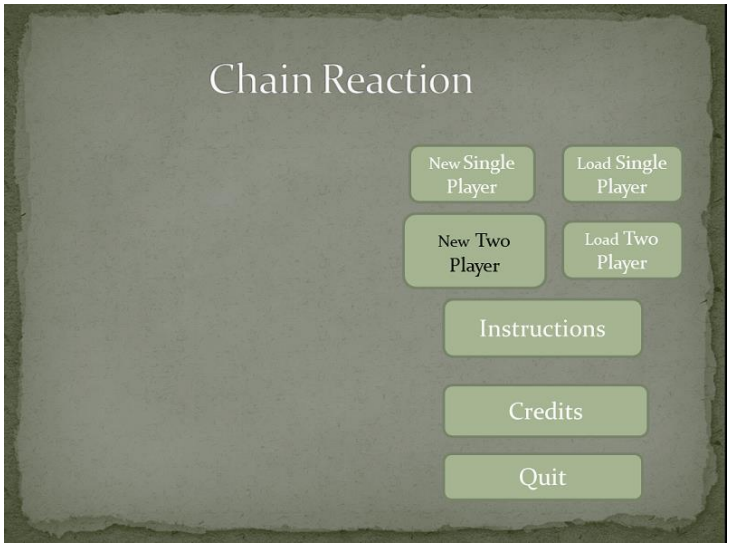
http://wallpaperforcomputer.net/funny/page/47/

Sounds from

http://soundbible.com/

8. Screenshots


Chain Reaction
Chain Reaction
New Single Player
Load Single Player
New Two Player
Load Two Player
Instructions
Credits
Quit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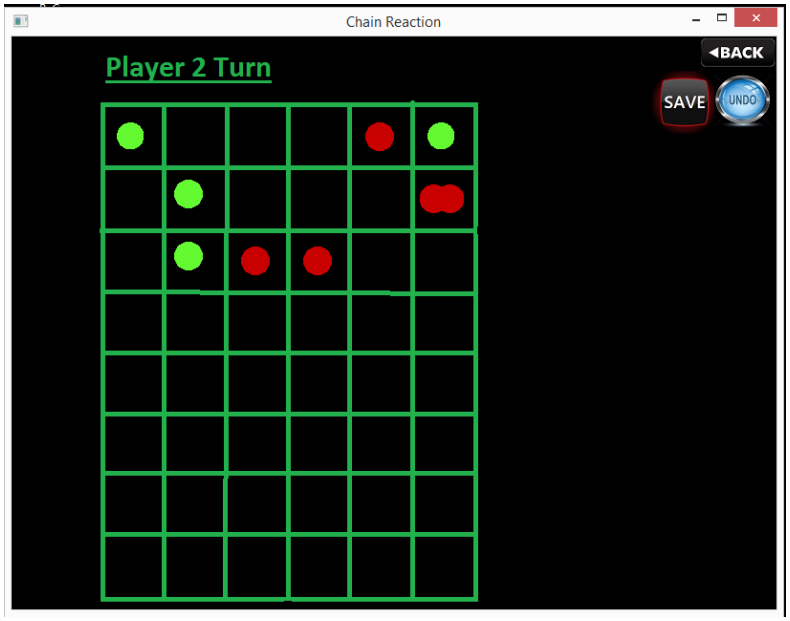
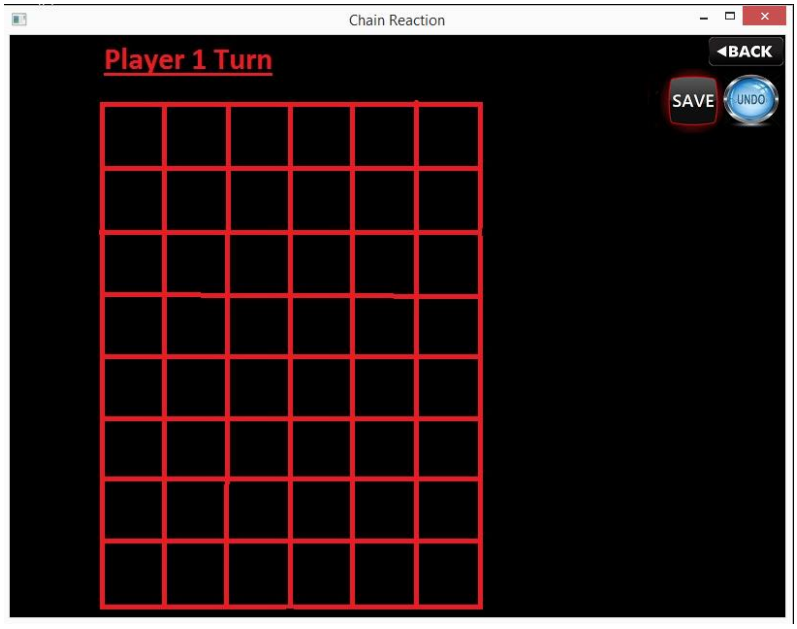

Chain Reaction
Player 2 Turn
BACK
SAVE
UNDO


Chain Reaction
Player 1 Turn
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