New Mexico State University Computer Science Course: CS371 Semester: Fall 2017

Student Group Project

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ARCADE

Arcade is a standalone PC application that allows the integration and navigation of separate games. Currently two games are bundled with the application PONG and MAZE. The application is written in The Java programming language, using the Light Weight Java Game Library (LWJGL) as the primary library for handling graphics and Input/Output.

Dependencies: Eclipse IDE, LWJGL jar files.

To install Arcade: Using the Eclipse IDE java editor is the easiest option to load the game on your system – since we used Eclipse to develop the project.

1)Create a new project in Eclipse.

2)Add all files from the github repository. All folders that have .java files within them should be transferred into the project as packages. Each of the .java file should be transferred into the project as classes within the packages. All other folders can be transferred into the project as regular folders.

3)Download a copy of LWJGL from https://www.lwjgl.org/ . All jar files are needed to run the code for Arcade. After downloading, open Eclipse → up at the top, click refactor → migrate jar files. From here, import all jar files from the download into the project in a folder named libraries.

To run Arcade: Click on the run button in the Eclipse IDE. The game launcher menu will open up. From here, you can click on either the maze game or the pong game. More detailed instructions on how each game should run are listed under each game's description below.

PONG

The recreation of the 1972 game of the same name, into the java programming language. Adding animated background, difficulty setting and power ups.

Maze

A game in which the objective is to navigate the player around in a maze environment.

To change levels: Locate levels folder → change the name of the desired .png file to "tiles.png". In other words, by renaming the desired image file to "tiles.png", you can change the arrangement of tiles within the game environment to load a different maze into the game.

To create your own level: To create your own level, you must have the GIMP image editor software. 1)open a new blank image in GIMP. 2) zoom in to 4500%. 3) change pencil size to 1.00. 4)Change foreground color of the pencil: all colors set to zero except change the color red to red = 1. This color is required because the game loads in a .png file named "tiles.png" and translates the position of all squares (with all color = 0 except red = 1) within "tiles.png" into the game as tiles. This is a quick and easy way to create levels within the game as apposed to hard-coding. 5) color in squares to your desire to create your own maze-like environment. 6)export the file as a .png file and save it into the levels folder. Use the loading instructions above to load your level.