GAME DEVELOPMENT DESIGN

SUBMITTED BY:
RYAN EARLE
JARRETT HUMMEL
NORMAN GALANG

1.0 OVERVIEW

Tetris is a puzzle game where players compete for a high score, controlling falling blocks and trying to form horizontal lines, which are then cleared. Every ten lines cleared will increase the drop speed of the blocks. It is primarily composed of a field of play in which pieces of different geometric forms, descend from the top of the field. The player has their own play area on screen which they will control directly. A player loses if the fallen stack of blocks reaches the upper border of the play area.

1.1 TARGET AUDIENCE

1.2 GENRE

- Puzzle
- Competitive

1.3 VISUAL STYLE

2D Game

1.4 PLATFORM

Target platform: PC (Windows)

1.5 PLAYER END GOALS

The main **goal** of Tetris is to get the highest score by clearing as many lines as possible before the blocks reach the top of the play screen.

2.0 GAME PLAY

The player assumes control of a play field where a random sequence of shapes falls down the play field, one at a time. The shape that is currently falling will be referred to as the "active" shape, and the player may control the active shape by moving it sideways and rotating it by 90-degree units. When the active shape touches the bottom border of the play field, or the top of any other shapes, the shapes is fixed and a new random active shape spawns at the top center of the play field. The aim is to create a horizontal line that spans the entire play field and does not contain gaps. When such a line is formed, it disappears, and any block above the deleted line will move down by 1 unit. Each ten lines that are cleared, the game will increase in level and the blocks will fall at a faster pace. The game ends when the stack of fixed shapes reaches the top of the playing field.

Shapes are capable of single, double triple and quadruple (Tetris) clears, where one shape will contribute to more than one line when it enters the fixed state. This will remove all the lines and cause the remaining blocks above to move down by the corresponding number of units.

2.1 INTUITIVE DIFFICULTY

Speed and timing are factors in this game. As the game progresses blocks will fall at a greater speed. Skill is required to rotate and place on time before it reaches the bottom line.

2.2 GAME PLAY MECHANICS

Definitions

Field of play - The screen space where a single player's game is presented. Consists of a 10x20 grid where each grid unit may or may not be occupied by a block.

Block - A single square unit in the play field. Each block has a coordinate and a color assigned to it.

Shape - The de-facto configurations which the blocks appear in. The active block is controlled by the player and may be moved horizontally and rotated. The following configurations will appear: