

Block Runner

Game Design Document

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The Block Runner is a game that is the same type of game as the Temple Run mobile app. In the game the user runs across a two dimensional map with platforms, enemies and power ups. As the game runs the map will keep scrolling to the right of the screen. The users will continue to gain points for there score the farther they make it across the map. Every time the map's X off set mod 1200 is equal to 0 the maps scrolling speed will increase. The game ends if the user runs off the the left side of screen, the user falls off the maps when there Y position is equal to or greater than 550, or if the player hits an enemy.

Game Story

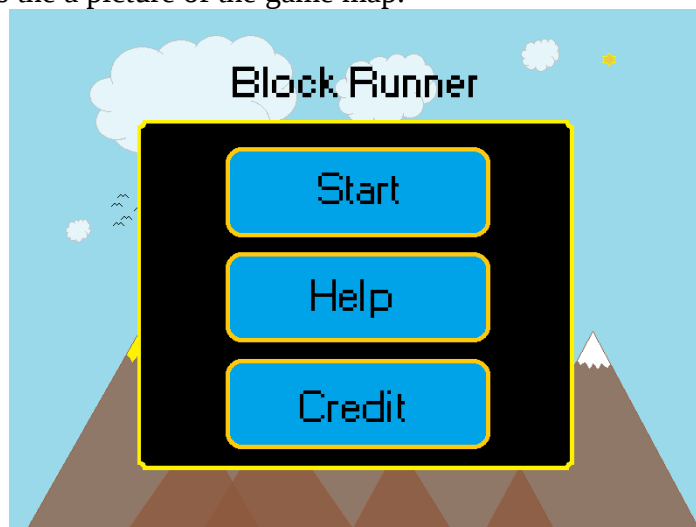
The story that the game uses is one that is introduce only in the beginning intro to the game. The story is the a stick man is in a competition to run as far as possible.

Game's Screens

The game is divide into four screens that are the start screen, live game screen, help screen, and game over screen.

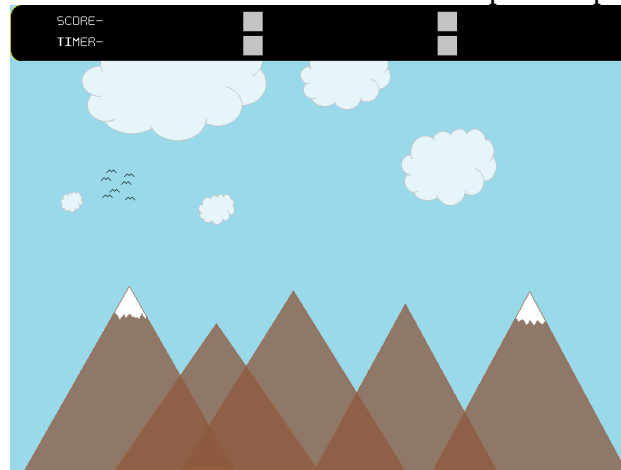
Start Screen

The start screen is divided between three buttons and the title block runner. The three buttons are the start game, help, and credit buttons that do there respective actions. The background for the start screen is the a picture of the game map.



Live Game Screen

The live game screen is divided in two with the top 100 pixels of the screen displaying the user information and the bottom half show the game map, the power ups, enemy, and players. The top information displays the current score in the top left. Followed by the timer that indicates how long the current power up will last. To the right of that there will be two rows and columns that will have the four squares that represent the four power ups that lights up when that power up is activated and has the word “active” next to the that power up.



Help Screen

The help screen will be divided between two types of screens, a quick help sheet that displays just basic information and commands that the player needs to know to play the game. The quick help sheet can only be accessed while the game is live using CTRL-H. The other type help screen is the main help screen that is accessed from the start screen. This help screen explains how to play and what everything in the game is in detail.

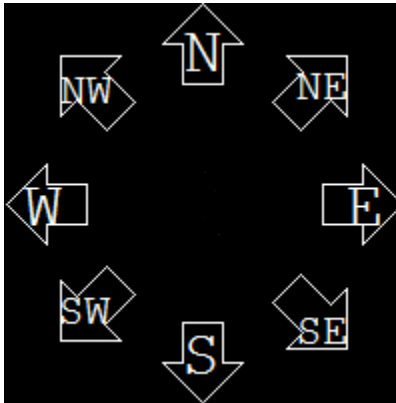
Game Over Screen

This screen is where the game goes when the game ends. In this screen the user is shown the previous high scores and if the user has got a higher score than any of the one listed the user will be prompted to enter a name they want to represent the score. The background for the screen will just be a solid green with a box in the center that will display the high score information and directly under that will be a play again button.



The Player

The player object's basic image will be of a stick man. The object will be able to move in six direction as the image below shows.



The player object will also have different animations for when they are moving around normally and when it is flying. The object it self will be control using the keys W for up, S for duck, A for left, and D for right. The object will also be under the affect of gravity push it down the screen, unless the fly power up is active and be push to the left of the screen.

Enemies

The game has three types of enemies but the two of the types are the same.

Type One

This enemy is just a basic object flying to the left a little fast then the map speed.

Type Two

This enemy is one where the object moves up 20 pixels then switches to move down 20 pixels than back up again.

Type Three

This enemy is the same as the last enemy type but just has its position off set at the spawn point.

Power Ups

The game has four different types of power ups that can be obtain throughout it. Each of the power ups will have a time limit on how long they last but the time limit can be increased by getting more of the same power up type. Also deactivate the power ups when a different type is obtained.

Double Jump

This power up allows the player object to jump twice. The second jump can only be activated

after the peak of the first jump. This powers timer is 150 in game time.

Fly

This power up allows the player object to fly making it immune from gravity. This powers timer is 100 in game time.

Slow Time

This power up slow the whole game down make the rest function use 50 instead of 60. This powers timers is 20 in game time.

Invulnerability

This power up makes the player object invulnerable to the enemies. This powers timers is 25 in game time.

Images Theme

The games running theme is that everything in the game is a block shape with the exception of the player.

Player Image

The image that the player will use will be a stick man. Each direction will have there own unique number of frames that are 50 pixels by 100 pixels. The exception to that will be the ducking images that will be 50 pixels by 50 pixels. The flying images for the player will use the standing image as a base for all the flying images with an image of a jet pack on there back. That will change the fire to the different directions.



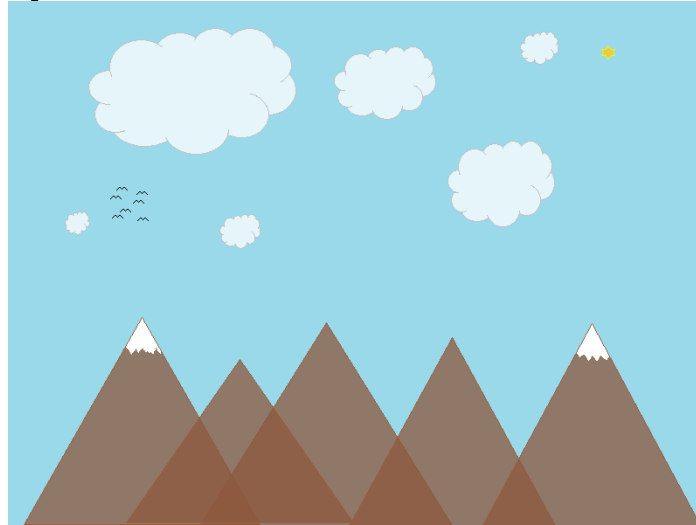
Enemy Image

The enemy images will be two different images for the different types. The images will have four frames. One image will be that of spikes moving up and down. The other image will be one of a rocket.



Background Tile Images

The background tile images will have a simple look of being in the mountains. While still following the main image theme. The tiles themselves will have the size of 50 by 50 pixels. The main background image will be one large image that the software mappy will divided into the tiles. Where as the platform tiles will be created individual.



Power Up Images

The image that the power ups will use will be unique to each power up. The double jump power up image has two arrows on it with one inside the other. The flying power up image has the word fly on it and the slow time power up image has a clock image on it. Final the invincibility power up has a number of circle each inside the other. All of the power up images have the size of 25 by 25 pixels and will be used in both the live game map and the game status bar.



Credits

The images, programming and designing will be done by Mandip Sangha.
The sound effect and music will be obtained from soundbible.com/about.php and www.midiworld.com
the exact links for them will be listed in the credit page

(New Addition)

Game Data Storage

All of games data file such as the images, sound effect, and music will be stored in allegro own unique data file. From there the game data files will be loaded.

Music

The music in the game will run in its own separate thread from the rest of the game logic and graphics.