

# CSci 680 Term Project Progress Report

## *“Set Rising” Game Design Document (II)*

Group 1

2014/10/22

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- General

This report includes progresses of group 1 term project during time period 10/06/2014 - 10/22/2014. It is the II part of the design document.

- Main Character Design

### 1, Concept Art

The main character's name Set is from Egyptian mythology: God of Chaos and War

Aesthetic influence of the design: Ancient Egyptian art and Dracula's Helmet (Bram Stoker's Dracula, 1992)



## 2, Set Sprite

Main character sprite is 64 x 64 pixels with a hitbox of 30 x 56 pixels, as shown in figure.



Sprite sheet animations: walking, jumping, and climbing (will include standing if time allows).

Animation frames:



When Set is damaged, he will flash and be immune to damage for a short period of time.

## ● Game Mechanics

- Health meter
  - Displayed as a segmented bar. Damage is dealt (and health replenished) in integer numbers of segments.
  - A health bar will be displayed for Set and for bosses.
- Projectiles:
  - For all projectiles, the rate of fire will be limited
  - default weapon (laser, plasma, or bullets): projectile will travel full horizontal distance of the screen.
  - flamethrower: short range, high damage quick burst of flame.
  - freeze ray: will travel full horizontal distance of the screen
  - black-hole grenade: limited carrying capacity. Enemies will drop replenishments. Does damage. Travels a fixed horizontal distance.
- Enemies:
  - Myrmidon foot soldier
    - Horizontal projectiles (laser gun)
    - Maybe patrols between two fixed points, but then focuses on firing at Set when he approaches
  - Grenadier
    - Stationary, most likely on platforms
    - Launches grenades in a parabolic path
    - Small area of effect when grenades detonate
    - Black-hole grenade may suck up and dispose of grenades
  - "Big Alien"
    - Stationary
    - Harder to kill
    - Does more damage
  - Swivel guns
    - Will track player's position and shoot
    - maybe unkillable

## ● Level Design

Each level is set on a different planet. Each planet has a different theme, end boss, and new ability or weapon earned upon completion. Two planets add a new ammunition types to Set's arsenal.

## Level 1: **Vanaheim**

**Theme:** War-torn city

**Background:** Planet under siege by the Myrmidons (aliens). Destroyed buildings.

**Weapon granted:** Black-hole grenades

**Boss:** Myrmidon General

- Bigger, more powerful version of the Myrmidon foot soldier
- Armed with a shield and spear
- Shield makes him invulnerable to frontal attacks
- Will charge across the screen with his spear. Platforms (maybe stationary, maybe moving, maybe disappearing) will allow Set to jump over him while he charges.
- If Set successfully dodges the charge, the boss will be momentarily stunned, and then Set may damage him by shooting him in the back

## Level 2: **Niflheim**

**Theme:** Ice planet

**Ammo type added:** Freeze ray

**Ability granted:** Time manipulation

**Boss:** Tank

- Main idea: use freeze ray to cause the boss to damage himself
- Potential candidate: Tank that releases minions and fires missiles. Missiles can impact frozen minions, and will damage the boss if this occurs close enough to the boss
- Potential candidate: Rocket launcher pops up from the tank. Set must shoot it with the freeze ray before it fires, thereby blocking the rocket's exit, causing it to blow up inside the launcher and damaging the boss

## Level 3: **Muspelheim**

**Theme:** Volcanic/fire planet

**Ammo type added:** Flamethrower

**Ability granted:** Jetpack

**Boss:** Super Grenadier

- On a platform (possibly stationary, or a moving platform, or the boss may jump between platforms)
- Throws grenades at Set
- The black-hole grenade can suck up and dispose of these grenades as well
- Boss takes little damage from Set's weapons, but hitting a grenade with the flamethrower while the boss is still holding it will cause the grenade to blow up and do more damage to the boss.

## Level 4

### Myrmidon Home (choosable)

**Theme:** Underground caverns/ant colony.

**Ability granted:** No new ability

**Boss:** "Ant Queen"

- Very large. Only a specific body part visible on screen at a time
- Generates foot soldiers

### Human Capital (choosable)

**Theme:** Civilized, futuristic society.

**Ability granted:** No new ability

**Boss:** Human defender or champion, rival to Set

- Similar weapons and abilities as Set

### ● "If We Have Time" List:

- The human capital level. (highest priority on the list)
- Cool death animations, possibly different depending on type of weapon used
- Knock back animation when Set is damaged
- The behavior of the black-hole grenade changing if it is shot with one of the level -specific weapons

- Custom Level Editor

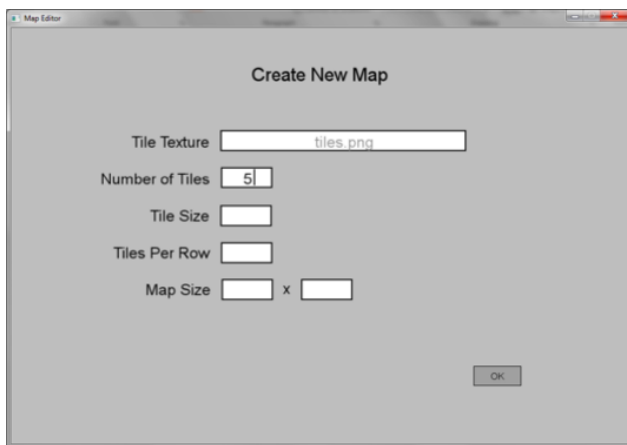
We created a custom level editor for the customization and modification of levels when designing the game. (Done by Matthew Stephens)

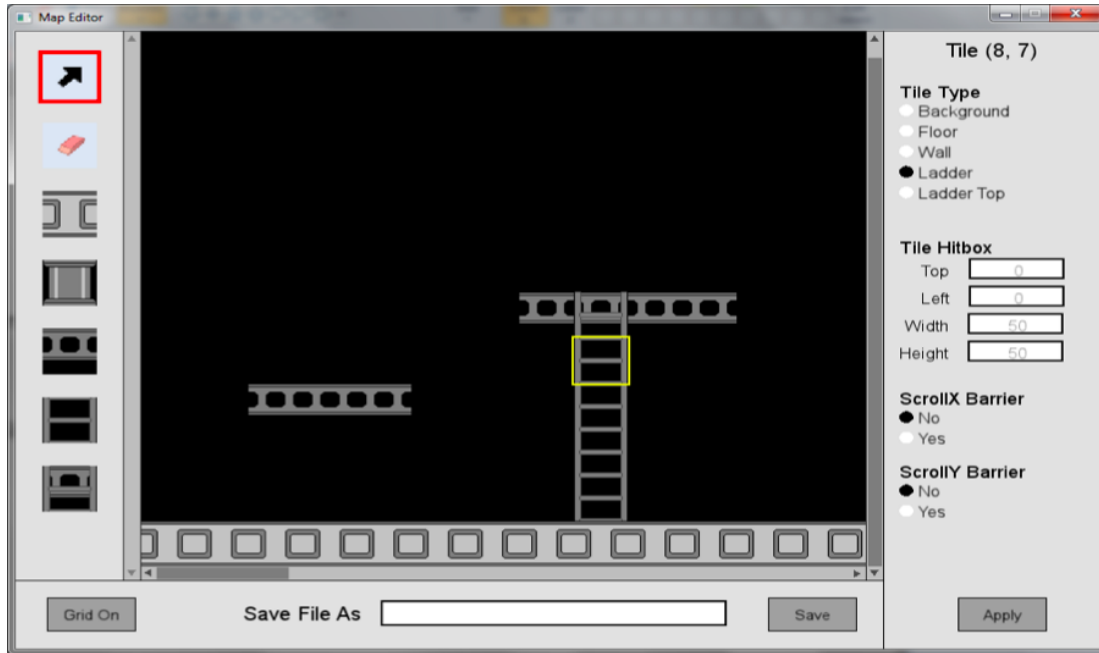
This map editor will definitely help to speed up the project progressing in the near future.

Features:

1. Create a new map / load a map from file
2. Use mouse to select tile from tile set and place on map.
3. Scroll through the map.
4. Edit tile parameters.
5. Save a map to file.

Level Editor UI:





- Changelog

At this point, basically there is no change in this project, everything is on track as we planned at the beginning.

- Updated Design Document

This report is the second part of the design document, the first part was the proposal report we submitted.

- Contributions

Ideas of game mechanics design: Gilbert Colón, Jinri Hong, Matthew Stephens, Wenting Tan

Ideas of levels design: Gilbert Colón, Jinri Hong, Matthew Stephens, Wenting Tan

“Custom Level Editor” implementation: Matthew Stephens

Art work: Matthew Stephens, Wenting Tan