Project Spectre Enemy/NPC Design

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# Overview

This document deals with the technical aspects of all living, non-playable characters. This currently includes all bosses, mini-bosses and minion characters as there are currently no plans for peaceful NPCs.

The details shown below are subject to change and are largely based off of logical interpretation. As of the creation of this document the design of Project Spectre is not yet complete.

# Task Breakdown

* Enemy class
  + Detection radius
  + Artificial Intelligence
* Boss
  + Possible effect on surrounding minions
  + Ability structure
* Mini-Boss
  + Possible effect on surrounding minions or from nearby Boss
* Minion
  + Possible effect from nearby higher ranked monster

# Attributes

## Inherited Attributes

This section lists the attributes the Enemy branch would inherit from each higher level of the Base Graphical Object hierarchy. This section is not meant to presume on how the hierarchy would be arranged, only to make logical assumptions.

* Location on map
* Damage
* Health
* Speed
* Weapon
* Projectile stats
* Attack speed
* Attack range
* Status affect
* Name

## Enemy Attributes

This section lists the attributes that will be contained within the enemy branch of the game hierarchy. This is not meant to be a comprehensive list and will likely be added to in the future.

* Enemy
  + Artificial Intelligence
  + Vision range
  + Guard range
* Boss
  + Ability

Currently Mini-bosses and Minions do not have any attributes that a Boss doesn’t have.

## Data Structures

A data structure would be needed to contain all attributes and behaviours of an Ability. This would include a damage, target, cast range, cool-down timer and area of effect size. A passive/active toggle could also be included though this could easily be worked around with the target, and cool-down timer attributes.

# Base Enemy Archetypes

Disregarding specific enemy classes, the game will contain three generic enemy base types. The boss, mini-boss and minion. These names are not final, but they adequately describe the roles of each of the enemies.

## Boss

Bosses will have more HP and damage than any other enemy type and will be the most unique in design. Each boss will have a unique ability with a cool-down timer, an effect and a cast radius. They will also most likely have an effect on surrounding minions and mini-bosses, if any are close enough to be affected.

## Mini-Boss

Mini-bosses will most likely be more powerful minions, but possibly could be as unique as bosses in certain respects. They will have more HP and damage than minions but, less than bosses and will not have a unique ability. Though they may have an effect on surrounding minions depending on the class of mini-boss.

## Minions

Minions are the weakest and most common type of enemy in the game. They will have the least HP and the least damage. Depending on the specific classes of minion created there could be some that interact with each other in a unique way or have unique attributes.

# State Machine

