Name: Evan Geissler
SID: 200331033

ENSE 400: Project Proposal

Introduction

My project is to create a 3D, first person, horror game focusing on the themes of death, depression, and terror. The game will be single player and will be mainly story driven. It will also be based around and inspired by ghost stories, real locations, and real and/or fictonal events in Saskatchewan; such as the ghost story of Camp Gilwell and stories around Fort San Sanitarium. The project, when finished, will have a game that can be played from the very start to a very end i.e. a finished product. Although there are plans to make the project accesible on different platforms, the main platform for this project will be for PCs.

Scope

I plan on having two main non-playable charcters (NPCs); one that guides the player and one that is the main antagonist. Along with these two, there will be enemy NPCs that will challenge and/or attack the player and passive NPCs that add to the game's darker atmopshere or that assist in telling the story. The enemy NPCs will consist of at least 3 different demon characters that are all affected by light to some degree. The NPCs will also have variying levels of AI depending on their purpose.

The playable area will be a landscape that is similar to the landscape of the Qu'apelle Valley. Other aspects of playable areas include the interiors and/or exteriors of popular haunted buildings inspired by different areas in Qu'apelle Valley. A large portion of the game will take place outside with smaller interior areas.

The game will have items such as a gun or a flashlight. These are mostly used to defeat the enemies in the game, but can also aide the player in different locations. These items and the player's health will be upgradable. The upgrades will be available as collectables in different areas and the player will be able to use them on any form of upgrade they wish. For example, the player may choose to upgrade maximum health or add a regeneration to the health. Another example is to increase bullet damage or to increase ammo capacity.

Some other aspects in the game's scope include dynamic menus i.e. main menu changes as the player progresses and also the ability to save the game at different points. Music and sound effects will be added to the best of my ability. Subobjectives will be used to add to the story and add a means of getting an upgrade. The story will be told by NPCs, collectibles, etc. The collectibles will be different things from sound files, letters, items, etc.

Accesibility options will also be added to allow for subtitles, brightness changes, speed of the playable character, etc. This will allow for a more userfriendly gameplay and also allow for a larger demographic to play the game.

If there is time, easter eggs/references, trohpies/achievements, and more items will be added. Multiplatforming, a new game+, better sound/music/graphics, and better detail will also be added if there is time after most, if not all the main requirements are complete.

I will segment my project by splitting tasks into different catagories such as landscape, characters, menus, AI, etc. The core creation of these tasks will typically be created first so the functionality can be added, tested, and updated as development continues. For example, creating an NPC could have the following steps:

1) Creation 2) Adding to project 3) Test 4) Functionality 5) Test 6) Additions 7) Test

This allows for the core to be created, tested, etc. and details be added at a later time when it is needed.

Beyond the scope of this project is any form of mulitplayer. There will also be a limit on quality of graphics, number of assets, in depth voice acting, sound track, etc. since many of these areas are done by experts with more time. For example, instead of having the newest most realistic graphics of a human talking I may implement subtitiles to a character who looks real, but can be easily seen as created in the game.

Constraints of the project include time to complete tasks, having to learn new or more indepth tools, money, etc. To get around these constraints I have been watching tutorials, using free programs, using easy to use programs, and using software that best fits my skills.

Representation and Data Structures
Many aspects of the project are currently straightfoward, such as creating a character uses a character blueprint (blueprint is essentially a class). This section will be reviewed and updated when AI and other game aspects are added.

Techniques and Algorithms
Same as above section.

A Structure Diagram of major "modules"
NPCs will have common traits for common types of NPC. For example, all demon NPCs share the varialbe health, but light demon’s attack with projectiles while heavy demon’s do not. Currently, all NPCs stem from a base character that contains information like skeletal mapping for animation and movements.

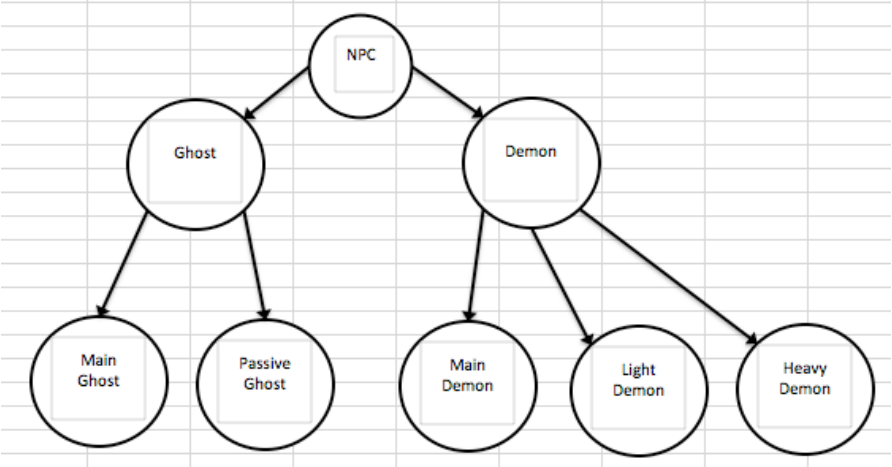

Fig. 1. NPCs Sharing Common Traits

The story is split into six distinct areas and each area has at least one subobjective the player can finish. The subobjectives are only availble in the area they are part of and the player cannot finish or start when a player moves to the next area. The subobjectives are used to add to the games story and to also provide item or health upgrades at the end of it.

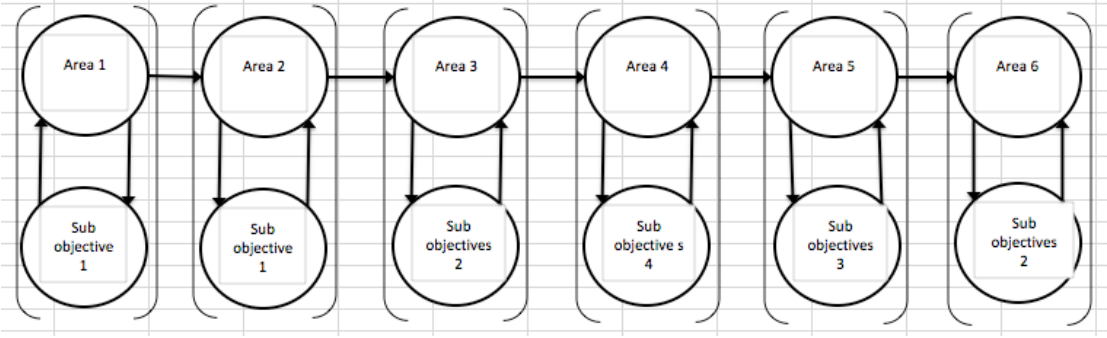

Fig. 323423. Story Split Into Areas with Sub Objectives.

Since the landscape is very large, it will most likely be split into different regions that will be loaded depending on where the player is located. This will reduce the risk of high memory usage, slow gameplay, etc.

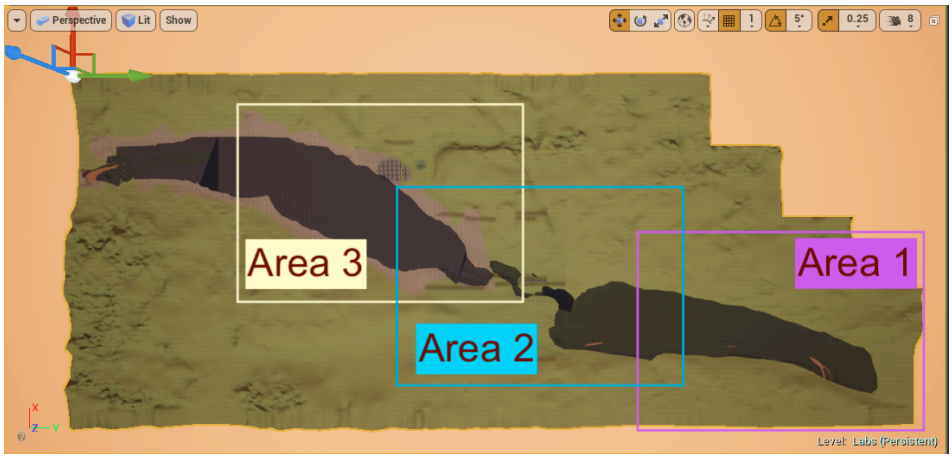

Fig. 234. Landscape Split Into Loadable Areas

			Loads In:				
			LS Area 1	LS Area 2	LS Area 3	Town Int.	Labs Int.
	Area:	1					
		2					
YES		3					
NO		4					
		5					
		6					

Fig. 234 Parts that Are Loaded Per Area

Items and health will be upgradable from perk trees. These trees follow linear paths so that certain upgrades are only available when previous perks are chosen. An example for health and the flashlight are shown below. An example of the perks is that Battery 2 cannot be chosen until Battery 1 is chosen. Another example is that Regenerate Health (2%) cannot be chosen until the second Increae Max Health is chosen first. This forces the player to only choose certain perks later in the game so they do not become over powered.

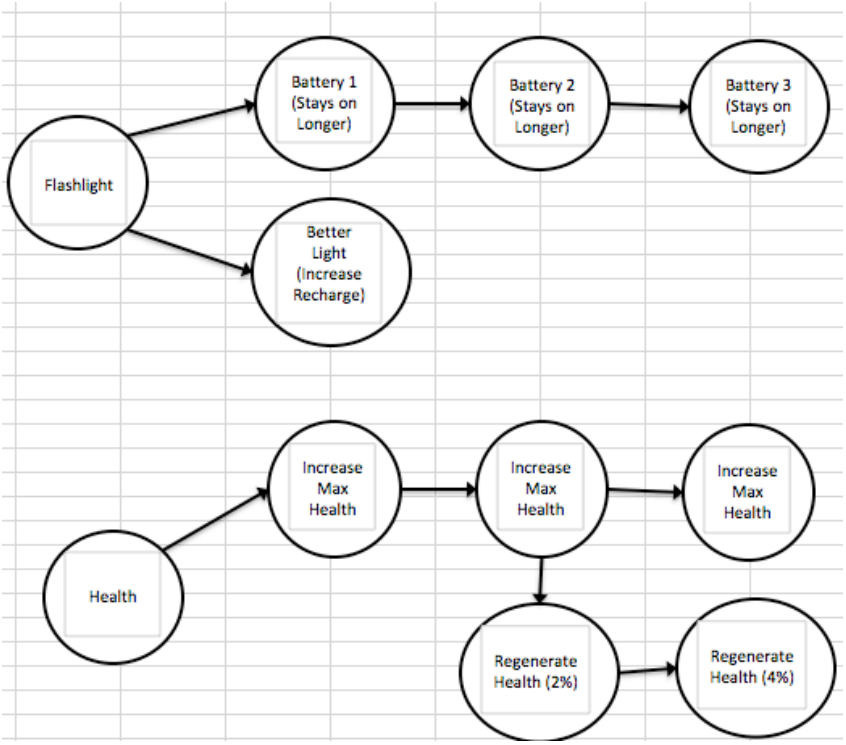

Fig. 12123. Different Perk Trees

References

Currently none