Work Sample Ben Schelhaas

Game "Hotel Peaklandia"

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Summary

The game that was used for this worksample is a demo of a game that I was part in developing. The development name of the game is Hotel Peaklandia and it is an urban exploration themed survival horror game. The game is available in both single player and multiplayer, with singleplayer supporting both flatscreen and VR. My main assignments and what I worked on are: audio design , audio programming and helping with level design for the VR map. The audio and music for the game was recorded by me , utilizing my groupmates to record voice lines as well as footsteps for the monster. The programming was only for the music playlist function and the monster voice effects that will be further explained in the audio programming chapter. The audio was designed to utilize the darkness and the feeling of isolation to create a sense of emptiness. When the monster comes the ambience is changed through footsteps and voice lines.



This game was made by me and seven other people made in a teen week time frame. The main goal of the game is for the player to explore an abandoned hotel and try not to get caught by the monster that is roaming said hotel. The player has a basic movement system such as moving around, sprinting and crouching, but no jumping. The movement was implemented by a groupmate, the same person also made the VR movement. The player has a flashlight in their left hand which is used to light the dark rooms and corridors. The player has a backpack to store key items or consumables such as batteries and plushies.



The consumables are used to aid the player against a monster that chases the player. The mechanic was implemented by other group mates but what I did was create the sound they make when they are used. The battery is used to keep the flashlight at full power, however when the batteries are low it goes into low battery mode and loses range and intensity. The sound currently implemented is when turning on and off the flashlight. Adding new batteries replenishes it and consumes the ones in the inventory. When adding a new battery from the inventory to the flashlight a battery reload sound is played. The pushies were designed to lure the monster to another point by making a sound to make it go somewhere else. I made a sound of a squeaky toy hitting the floor and squeaking.



Teamwork

As stated before this game was made by a team of eight including myself. One key part of the team work was having daily meetings and discussing what everyone did the day before or workday. The team talked about what we were playing on the following day until the next morning meeting. During the meetings I was the scrum master and made sure that everyone worked. During the morning meeting made sure everyone could work the following day and if anyone needed help we helped each other. One other thing we did when showing things to each other was giving feedback and reporting bugs to one another. Also to make sure they were fixed we playtest to make sure of it. In the project I was involved with everyone when working on the audio. On the monster I worked together with the art team, firstly creating the sounds the monster needed. I was also working with the level designer when creating the environmental sounds, as well as working on the VR map. Lastly I also worked closely with the technical designer of the game was at the level of quality we wanted it to be. Overall we all worked close together making sure that the game has a good immersive experience.

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Backlog	Doing	Done 🖬 👘 …
Monster	map background props	Batteries
Sounds/Music	Map concept	Radio
Props	map blockout	Flashlight
Declar	Al basic monster	Monster concept
Design	Monster	+ Lägg till ett kort 🛛
Enviroment	VR basic movement	
PC	Character/S	
U	Character Gloves	
+ Lagg til ett kort	Sounds	
	Music	
	Tutorial	
A SALE		

Audio Design and Programming

My assignment as the audio designer was creating the entire 3D environment sounds and integrating them into the game. My starting point was recording each and every sound that was needed for the game in my own apartment meaning each sound that can be heard in the game was recorded by myself and then edited. My main approach when recording was to recreate the sounds we hear every day and first integrating them to create a realistic feel.

After the parameters of realism were added I started working on the things that were supposed to make the player feel uneasy. But before I got to creating the monster's sounds I had to make the players walk and interact with objects. The player's footsteps were recorded using similar boots as the player, then walking on three different floor types : Wood, Carpet and Stone. My reasoning for recording on different floor types was due to wanting to try and create a more realistic 3D space and a more immersive experience. This was also a challenge to find a proper way to add footsteps to a first person game as the player sounds are what you will be hearing most of the time.

The recording of the monster of the game's footsteps and voice lines was made the same way as the player. I got help from another person who was working on this project. Due to

the monster model having high and thick heels which I don't own I had to ask this groupmate. The monster also has a female voice which I cannot replicate so me and said groupmate had a recording session. This session consisted of recording the footsteps, which was recorded on three different floor materials the same as the player. This was to replicate each floor type that exists in the game and create a more realistic experience for the player.

The last part we recorded was the monster's voice lines which were for example different types of screams such as an angry scream or a sad one dpedingin on which state she is currently in. One other voice line that was very important to the game was the humming. It was created to induce fear in the player and make the empty rooms feel hollow.



When editing the sound effects and recording them I used the software Reaper.

When the audio was added to the game it needed to have certain functions and play sounds under certain requirements. Firstly I made a script that plays certain voice lines that a monster does when it's in certain states. These states are connected to another script written by another group member. This code is the brain for the monster that decides how angry they are at the player. The more the monster sees the player the angrier it gets and switches between three states. Each state has six sound effects attached to it, apart from the first one it has two.

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		S_Triggerd_Tetetete	
		S_Triggerd_Hiss	
		S_Triggerd_Laugh	
		S_Monster_Sing	
		S_Triggerd_Tsss	
		S_Creepy_Laugh_v2	
		S_Triggerd_Argling_3	
		S_Triggerd_Argling	
		S_Triggerd_Argling_2	
		S_Monster_Scream	
		S_Monster_Hunt	
		S_Monster_Angry	
		45	

The code that I wrote consists of a list that can hold the sound effects for a state. The monster is in that state, it randomly plays a sound from the ones in that state list. When the state is changed the voice lines change to that particular state and doesn't play any of the other ones. This was a way to separate them and indicate when the monster is either angry or just chasing the player, but also to give the player more of audio feedback on her state other than visuals.

The same method was used for the music, but in the current version this feature is not fully functional due to an issue that will be later discussed. The music will also mostly be used in the background when the monster is nearby and let normally the ambiance

Short footage of the game: https://youtu.be/71oXMCIhjOY

Flaws

In this chapter I will list some of my flaws or cons that were found after the development phase and in a later chapter what solutions I would implement later on the project. Firstly; not adding all sounds to the global audio volume equalization, this is a major issue when it comes to making the project itself customizable and changeable. The problem with having it like how it currently is when changing the volume on the music or sound effects throughout the game. When needing to make a minor volume adjustment many objects need to be manually changed. Instead of having one slider for all of the place objects with the same sound.

The second issue that I found was stacking sounds that happened with a couple of interactable objects such as the drawers on the desk. The problem itself was that the player was able to click the interact button fast multiple times. This resulted in that the sound played multiple times at once. This was only on one intractable type and it can be resolved. All of the other intractable objects do not have this issue.



The third issue is overall volume , due to the previously stated issue and the volume is not regulated and cannot be changed in game via the settings menu. This resulted in a lot of minor adjustments and testing to make sure that the volume is neither too loud nor too quiet. Lastly was to optimize the code that was written, as well as adding comments to make it

easier for others to understand. One of the issues was making another groupmate understand how I had written my code and I had to explain it to them, which may have been avoided if my code comments were more explanatory. The picture below is how the setting menu currently looks like, it has no features and nothing can be currently changed.



Improvements for the Future

As stated in the previous chapter, an important fix is to regulate volume and add all of the volume components to the global volume setting is unity. This is so that they can be adjusted quickly in game and in the Unity Engine. The main thing is to add all sounds to the global volume settings and then regulate them accordingly. After that some code will be needed to add an ingame slider in the settings menu so that then the player can change it to their own liking.

Another major thing that could have been done is smoother editing in Reaper and the unity engine. Due to me using Reaper the first time it took some time getting used to the program. This resulted in some sound effects in the beginning that took longer to produce and later implement in unity. After a month things went more smoothly, but there are always ways to improve. The main thing to improve is workflow and exporting was also a thing to improve and make it faster.

One other thing: equipment that was used in the beginning of the project was not able to produce as high quality as the equipment used later on. A further improvement is having a better environment to record in and also get better microphones that are more suited for different types of recordings. The learning new methods of editing and finding new ways to improve workflow with the equipment can be improved.

Lastly more voice lines and variations on the monster's voicelines will be added later in an update. Currently the game has a few voice lines for the monster in each anger mode it is in. Adding more lore to the monster could add an overall better immersive experience. Also adding a logs system in the computers or restoring electricity to the hotel via a generator could make the game more interesting, creating potential to add more mechanics and also add more lights to guide the player.



Portfolio

Portfolio Website : https://www.benschelhaas.com/