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Video Game Development

2021/12/01

Rue

Final Project

Final Links

[Final Content Review]

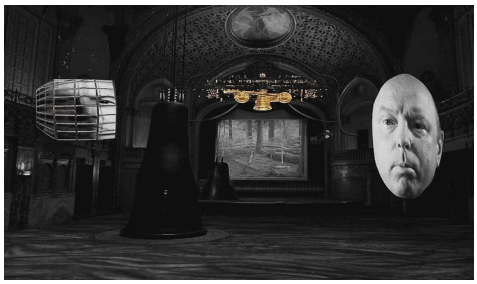
[Final Level Walkthrough]

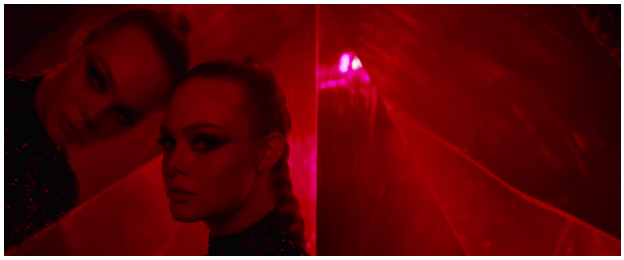
Video Descriptions

The content review is around 33 minutes long so for a more concise description of my coursework look below under “Individual Work”. I essentially go over almost everything I’ve accomplished during my time in the class, the physical examples that you can see and understand are probably the only reason to watch that video over just reading the individual work section, but I didn’t go over Takedown/Aerial Takedown or the Dynamic Camera system in detail in the video due to length issues.

The level walkthrough is what the name implies, except I’m mostly running, I don’t provide any audio commentary over the level due to having done that in class but I essentially run through all 7 of my levels (including Boss Arena and Ending Credits Level), there may be a few cuts here and there, I did die once or twice during my playthrough and I cut it for a smoother viewing.

Documentation






This time around I was going for a more visually surreal look to the game, I tried to make the first level hard to navigate visually and somewhat hard to navigate with the provided mechanics anyway and I think I've been mostly successful. Above are some of my lighting and stylistic influences and while my work doesn't exactly replicate the dreaminess of Blade Runner or the drug-induced feeling of Mandy, I think I was definitely able to get across the feel and the look I was going for from the beginning, as opposed to my Killer Karen's project which didn't end up being the goofy Psychonauts themed game my team and I had initially hoped it would be. I also included more of the direct influences on my levels in the Mood Board on the "Lighting", "Abstractness" and "Acceptance" slides and I think you'll find that, to the extent that I could, I tried to integrate the feel of those influences.

Individual Work

- Conveyor Belts
    - Dynamically Adjustable Speed of Material and Belt Itself and Color
- On Rail Camera/RE Type Stationary Follow Camera
    - Stationary Camera has to be moved to Follow Player, didn't fix as it isn't being used

- Wall Running
- Wall Jumping
    - Not Functional W/ First Person Perspective Unfortunately
- Multi-Directional Animated Movement
    - Backwards Movement is Slightly Clippy
- Jump Pads
    - Fully Functional but occasionally Hard Landing animation plays when falling onto jump pad which prevents it from functioning until you re-enter the box collision
- Moving Platforms
- Rotating Platforms
    - The fans in P4 make use of the rotating movement component with pain causing volumes attached
- Double Jump
- Vaulting
- Climbing Over Ledge
    - This is actually the vaulting animation, it just works for climbing over ledges in *very* specific circumstances
- Sliding
- Animated Physical Pushing
    - Head clips through block while pushing, didn't fix as no one used this
- Slippery/Slow Surfaces
    - Only works for forward and backwards movement, didn't apply for all directions as no one used this
- Animated Swimming
- Ziplining
- Animated Turning In Place
- Crouch
- Ladder Climbing
- Animated Punching Attack

- Takedown (From Behind)
    - Sort of Clippy during takedown, didn't fix as no one else used this
- Openable/Closable Door
- Moving Platforms on Spline
- Animated Hard Landing
- Aerial Takedown
    - Can Happen from Anywhere on Map, Never Fixed Bugs because No One used this
- Force Powers (Force Pull/Push)
- 4 Levels, plus 1 Ending Level, plus 1 Boss Fight Level, all in all 6 levels
- Fully Animated Enemy Melee AI (Punches, Recoils when Damaged, Animated Death, Chases Player)
    - Strafes around player a bit too much, for the better since levels are already pretty difficult according to classmates and professors
- Fully Animated Enemy Shooter AI (Shoots, Chases)
- Fully Animated Enemy Boss AI (Throws Tridents, Spinning Trident Close Range Attack, Drop Trident Medium Range Attack)
    - During Boss Ranged Attack, Spinning Decal appears on floor as a warning and if player is hit or attack lands near player, a camera shake is played
- Animated Turret (Recoils When Shooting Bullets)
    - Doesn't deal damage yet, didn't add damage as no one used it
- Dolly Zoom Camera Effect
- Dynamically Colored Fog
- Particle Systems (Fish, Random, Tentacle, Black Hole, Nebula, Lightning, Lasers)
- Music Manager System
    - Was functional, as shown in previous sprint videos, but by the end of the semester seemed to stop working, didn't fix due to time constraints
- Dynamic Footstep SFX Depending on Surface Material
- Combat Sounds/Audio
- Reactive Floor, Color Follows You Across Floor

- Eye Material that Follows Player and Dynamically Sizes Pupils Depending on Distance from Player
- Flashing/Pulsing Materials
- Portals
- In-Game Possession
    - Possessee characters aren't animated, didn't bother creating new Anim_BP for them because no one used this mechanic
- Images Rendered In Blender Played as Opening Scenes
- Occasional Dialogue Sounds W/ Subtitle Widgets
- Mirror Material that Complements Planar Reflections
- Inverted Color, Painted World, Outline, and Firewatch Coloring Post Processes
- End Credits Widgets
    - In Game UI doesn't get completely hidden while this plays unfortunately
- In-Game UI
- Functional Television

Post-Mortem

1.) What went right? Talk about things that worked during development.

I was able to get a lot of mechanical work done early in development so I didn't have to rush to make our levels mechanically sound later in development like I saw a lot of groups do last semester, including my own, instead, my teammates had to rush to make their levels mechanics suitable rather than the other way around which was both a good thing and a bad thing. I created a pretty large level that consisted of multiple Unreal "levels" instead of level streaming as I thought it would take too long to set that up and I'm pretty satisfied with what I was able to accomplish in the limited time frame I had. My team, for the most part, was pretty nice to work with, we had two people drop but that was expected given how many dropped from my group last semester and we dealt with it pretty well, everyone had their own level and did good work on them.

2.) What went wrong? Talk about things that didn't work or were challenging.

As I mentioned above, we had a few team members drop which resulted in some new level designers, like Cosmo and Isaiah, to work their levels themselves without much external assistance. But overall, at least, compared to last semester there isn't much to complain about, my team was decent and we got along and provided each other with valuable feedback on the levels and everything else. I enjoyed the experience of making all these mechanics with more knowledge and intuition with Unreal and blueprints than I had last semester, and will definitely continue working on personal projects after this class is over and making (hopefully) great levels or maybe even a game.

3.) **How to improve for future game projects? (and/or takeaways from developing your game)**

I think in future projects I'm going to go cold turkey on the tutorials, or at least limit them to only necessity because I think after this point they will serve only to limit my growth as a prospective game programmer/designer. Another problem I noticed this semester is that I created a bunch of mechanics that no one ever used so I think in future projects I might only make mechanics if it's needed, not just for fun but to actually complement my level or my existing game idea. I also noticed that a lot of people are calling my level overly difficult or even possibly unplayable, which is interesting because I can fairly easily play through my levels but found that some of my teammates' levels are a bit too *easy* which is a balance I think a lot of game design students need to find, the balance between Hard and Easy so it'll be interesting to hear other groups' reactions to my level if they ever get to play it.