

Brain - VR Dance project

Chunp Wu

Lucas Dollmann

Nils Brauer

Welcome

In **Cyberpunk 2077**, the concept of **Braindance** allows players to relive other people's memories in a fully **immersive** experience.

Inspiration: To recreate this **multi-sensory**, information-layered, and clue-based investigative experience using Unity.

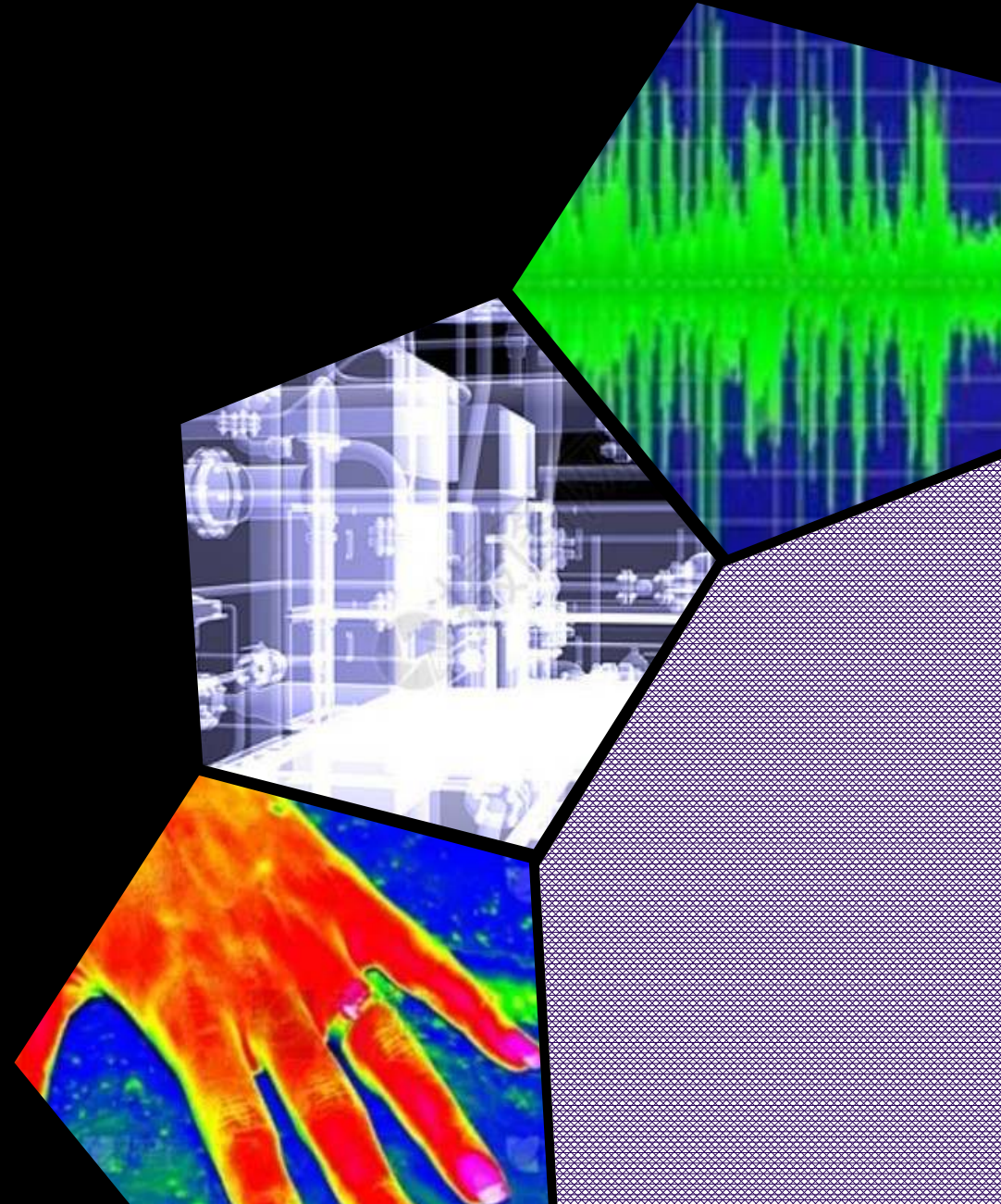


WHY
NEE
D

3

senses

Relying on a single sensory mode is not sufficient to uncover the hidden clues — players must switch between different sensory layers to fully perceive and piece together the truth.
The experiences of multiple senses are seamlessly translated into visual representations within the VR environment.



Three

Visual



Auditor



Infrared/X-



By altering an object's material, lighting, and surface properties, different atmospheres can be created.

Pre-recorded memory



Feel free to **Dance** between **TIME** and **SENSES**



The project will use a **swimming-based** locomotion system, making players feel as if they are “grabbing and pulling themselves **through** the memory.”

Interacti on

When the controller enters an object's interaction zone, the object displays a subtle **colored outline**, indicating that it can be

interacted with



MS 1 (17-

30) 1. Animation Settings – Progress Bar slide Animation

- > Control the animation playback time (0–1 range)
- > Bind two key to trigger changes in the value



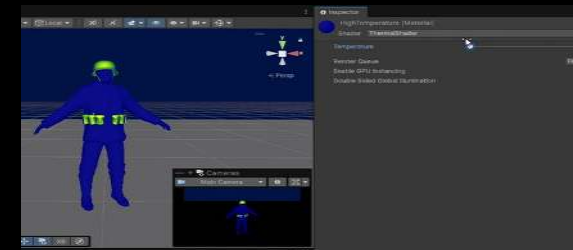
2. Interaction with Objects — Highlighting and Displaying Prompts

- > Use Controller as scanner for triggering Events
- > If clue → Display popup canvas



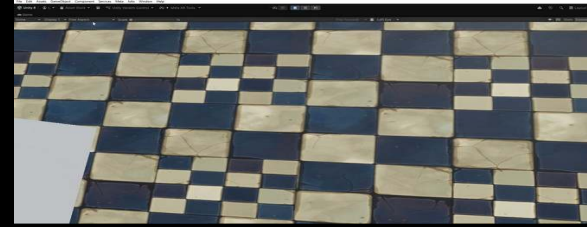
3. Three Sensory Modes Switching —Thermal imaging

- > Shader → gives the opportunity to create different thermal materials
- > Have different materials on each GameObject and switch between them



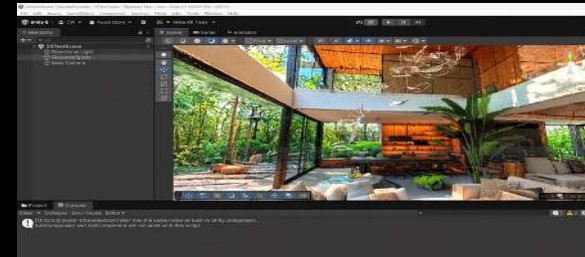
MS 1 (17-

30)
4. Combination of Basic Logics — Character Movement, Timeline Scrubbing, and Sensory Switching



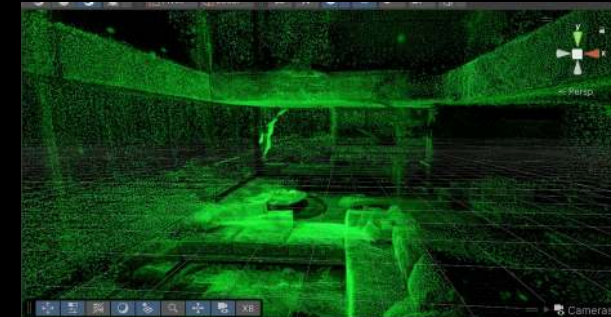
5. Scene Construction Testing — High-Performance Loading of 3D Gaussian Splatting

- > Import a package named “UnityGaussianSplatting”
- > Downloaded “.ply” from “wordlad” (generate is also possible)



6. Three Sensory Modes Switching — By Changing the RGB Colors of Gaussian Splatting Points

- > Change the RGB of the point cloud





1. Final Animation & Logic

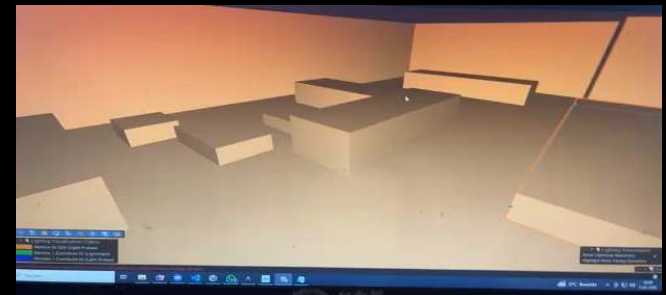
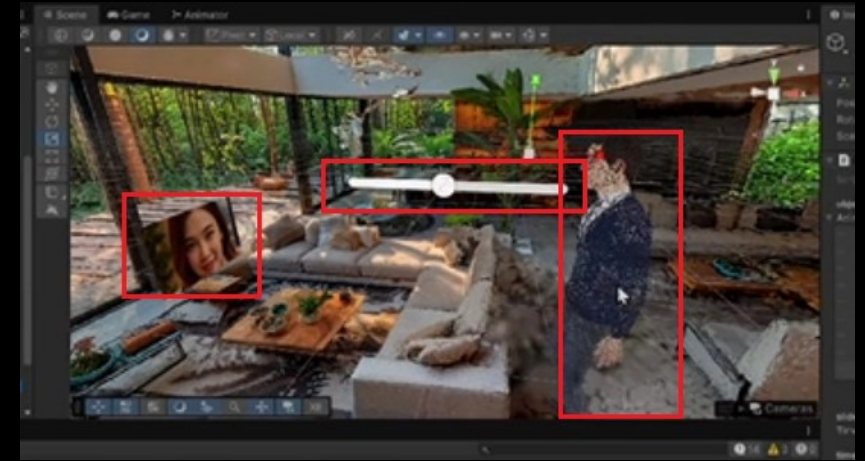
- 3
- > Integrated NPC behaviors and other logic into the core loop.
 - > Bind all animations to the range of 0-100.

2. Narrative & Sensory Design

- > Refined the story arc for better stylistic fit
- > developed conceptual material for clues across multiple senses.

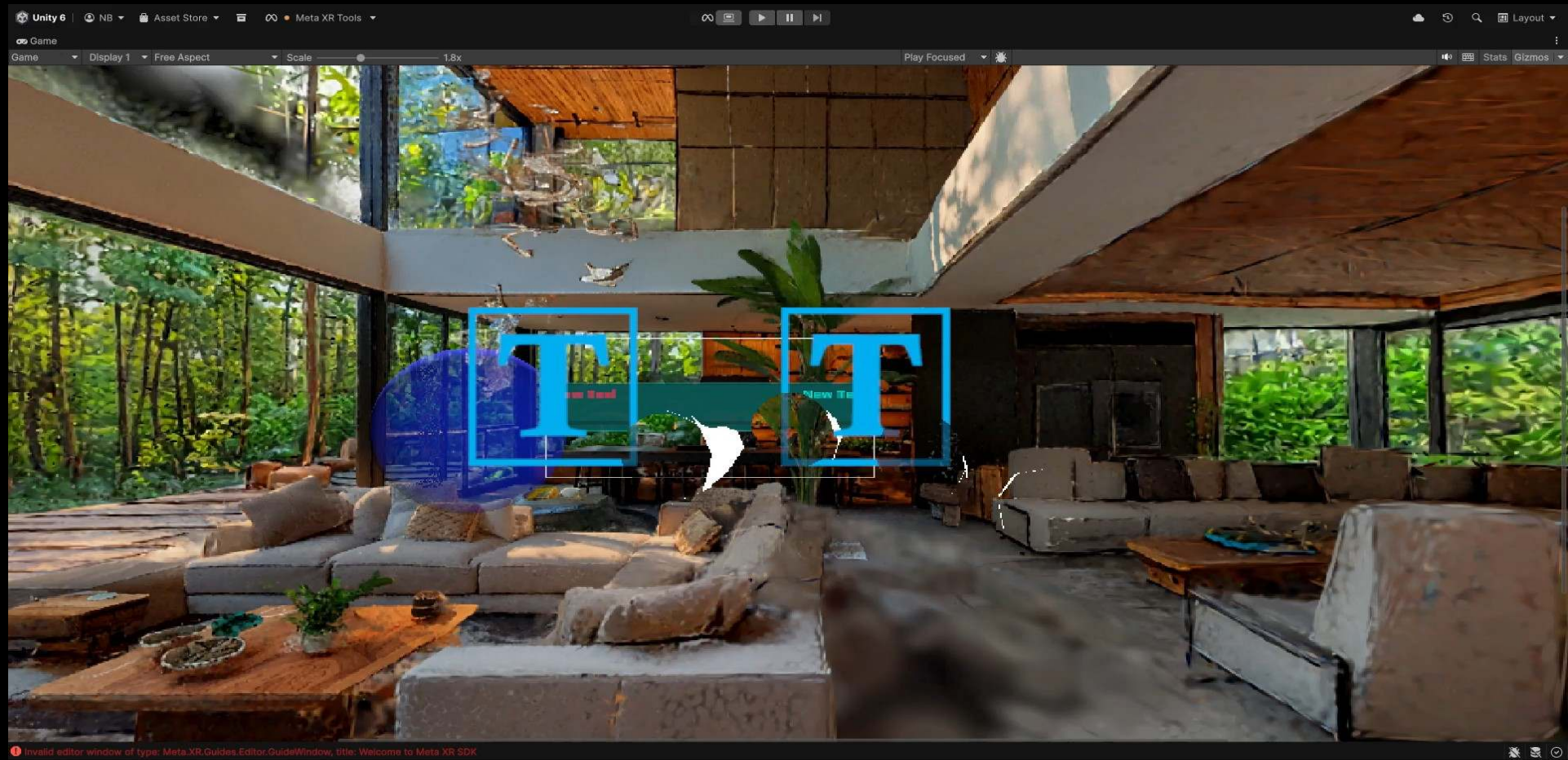
3. Systems Integration

- > Unified sensory mechanics and VR playability
- > Implemented area limitation mapping, sense-switching, and time controls for VR controllers.



MS

3



MS

3

