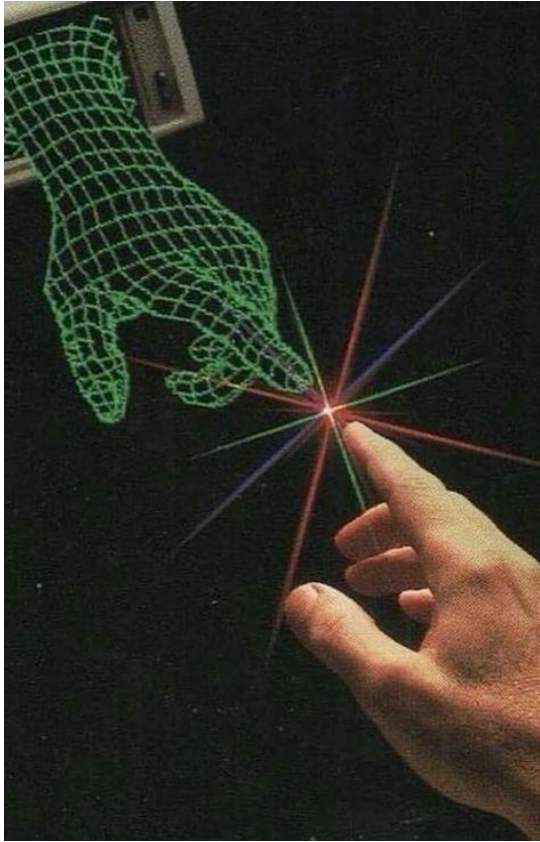




VIRTUAL PRODUCTION DESIGN

2400891 / Roman Woods

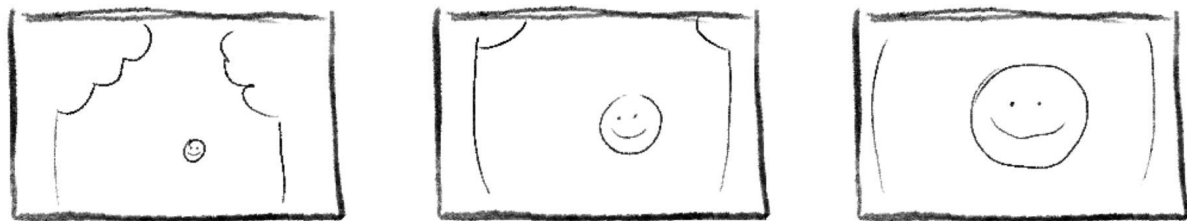
Concept

Create a cinematic forest environment

Combine live-action footage with a virtual scene

Focus on realism through:
Lighting, Camerawork,
Perspective, Scale.

Explore digital environments as an alternative to real-world on-site filming



Gentle zoom into object, ensure there's camera movement to show the dimension of the 3D space.

Planning the Shot

I created a basic storyboard for the purpose of planning the basic camera movements and to get the general idea down. I wanted a focus to be on the subject, while using movement to show depth.

Such as:





Unreal Engine Environment

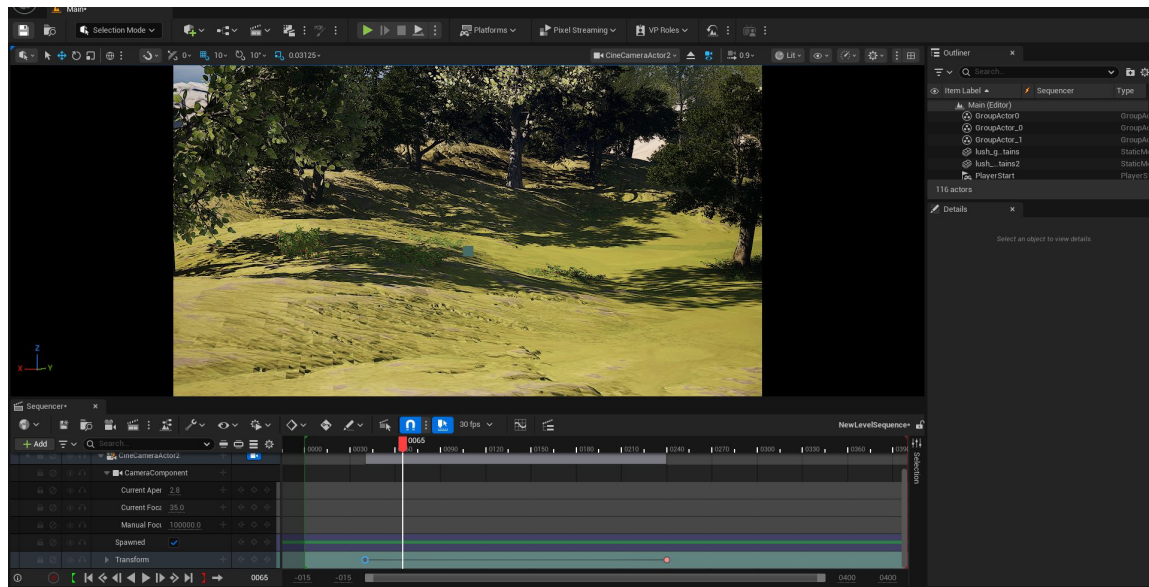
I built a forest scene using foliage assets. I included:

- Trees & Bushes
- Rocks & Terrain
- Considered lighting

I focused on creating a believable space, avoided empty areas to improve realism.

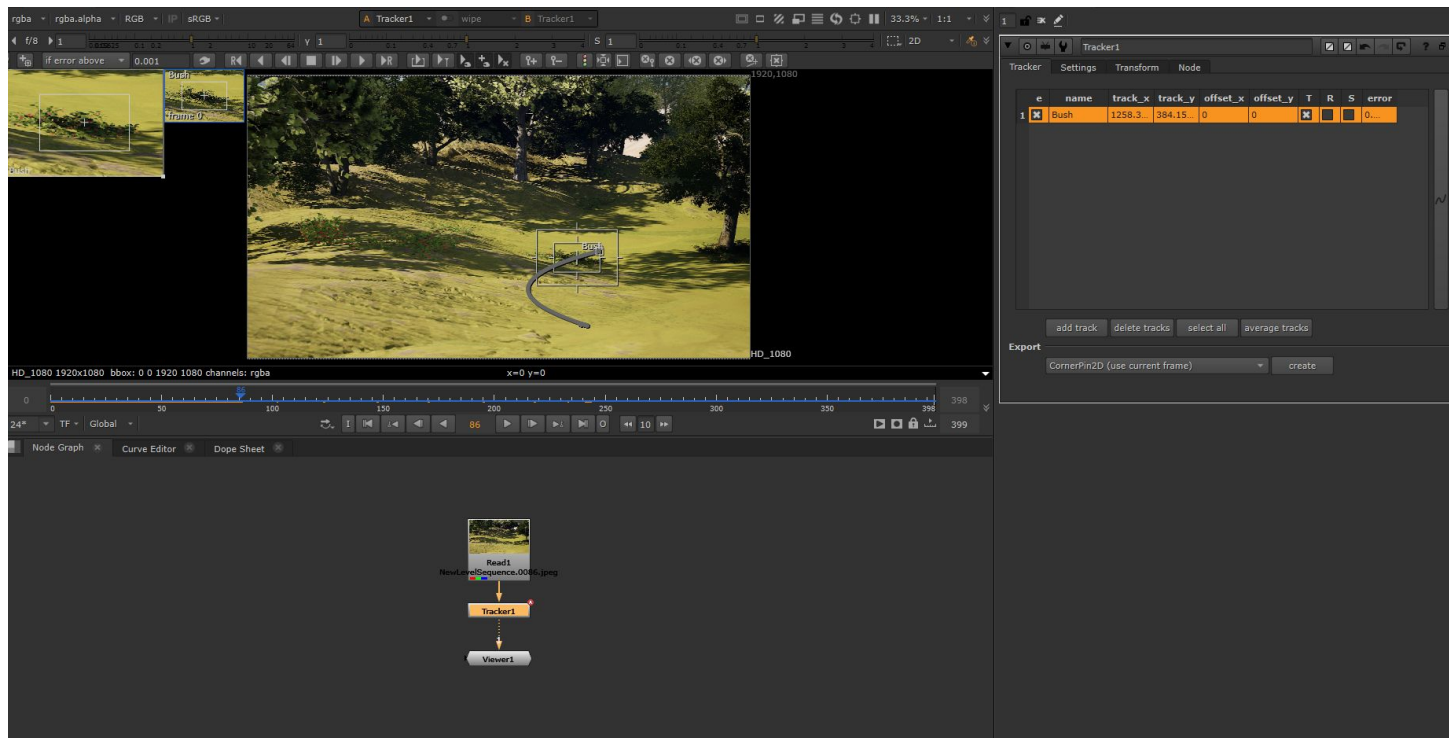
Camera

I used a sequence in Unreal Engine called CineCameraActor to capture the scenes background. I used slow camera movements to enhance the feel of the 3D space.



NukeX Workflow

Imported Unreal render into NukeX, began tracking.





Live Action

- Originally planned to record footage
- Used sourced bunny footage instead
- Chosen because it suited the forest atmosphere

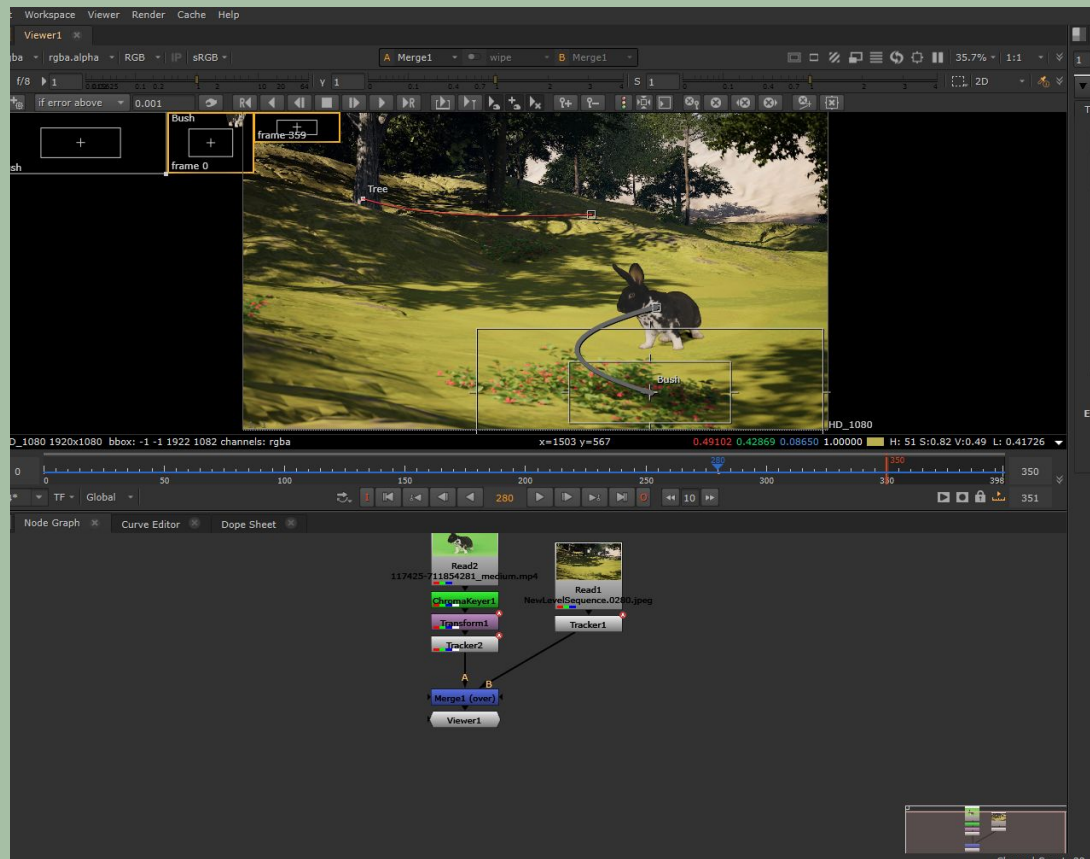
NukeX

Considerations:

- Balance lighting and shadows, ensuring the imported footage matches the background
- Keying, colour correction and match-move tracking

Challenges:

- Matching the imported movement
- Ensuring the lighting and shadows match
- Making imported footage feel natural in 3D space



Challenges

Limited green-screen access •
First time using Unreal sequencing •
Lighting consistency •

Solutions

- Used sourced footage
- Looked into tutorials
- Colour correction and compositing

Final Production

<https://youtu.be/6q4N9KTLHV8?si=EWfttRHApPSPDJvz>

Successful Areas

Believable virtual environment •
Improved compositing workflow •
Better understanding of Unreal •

Improvements

- Record original footage
- More ambitious production
- Better time management

Thank you