

# Locomotive Virtual Collaborative Platform

Showcasing vehicle through an immersive experience

**LEADING LOCOMOTIVE CLIENT**



## BACKGROUND AND CHALLENGE

To help a global Locomotive client create an immersive virtual collaborative platform to showcase their vehicle.

Tata Elxsi's work involved reviewing the interior and exterior of the locomotive collaboratively to avoid the cost of prototyping.

## SCOPE OF WORK

To create an immersive virtual platform to help all stakeholders to interact, review, operate, and train in the immersive world.





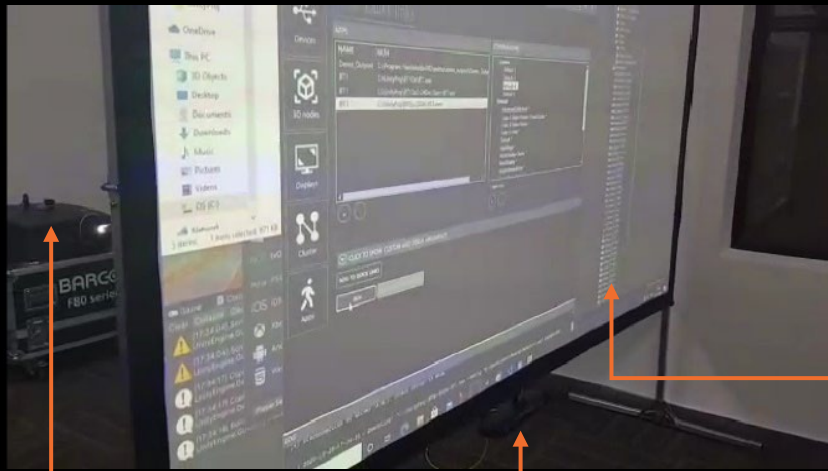
## SOLUTION

- CAD data provided by the client was used as the base over which all assets were created using Maya. This was later uploaded on Unity, followed by developing C# code on the game engine.
- MiddleVR was used to set up an active-stereoscopy option inside Unity. Vred was used for texturing, Shading & lighting.
- The final output was an interactive (hotkeys) platform on a 3D projector-based active stereoscopy using tracked 3D shutter glasses. The VR experience was developed to enable 5-6 users to use it simultaneously.

## IMPACT

- Enabled faster design output combined with an economically viable alternative.
- Human Factors / Ergonomics testing became easy, which helped the client do more innovative Research & Development.
- Significant reduction in time and efforts to visualize the end product.
- Faster development of production-ready prototypes.
- Helped clients showcase the final output as a platform for demonstrating their products and features to other potential clients.

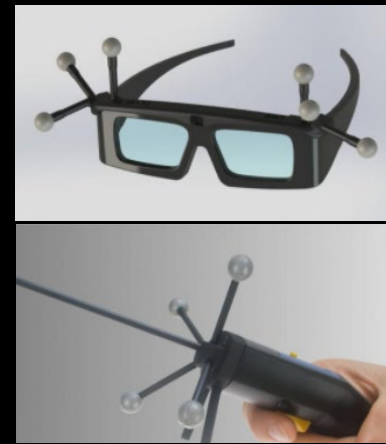




BARCO 3D PROJECTOR

SMART TRACK IR CAMERA

REAR PROJECTION SCREEN



3D GLASSES WITH IR MARKERS

VR WAND



## HARDWARE PARTS