

MICHIGAN STATE

UNIVERSITY

Beta Presentation

Oculus Rift Training and Inspection Tool

The Capstone Experience

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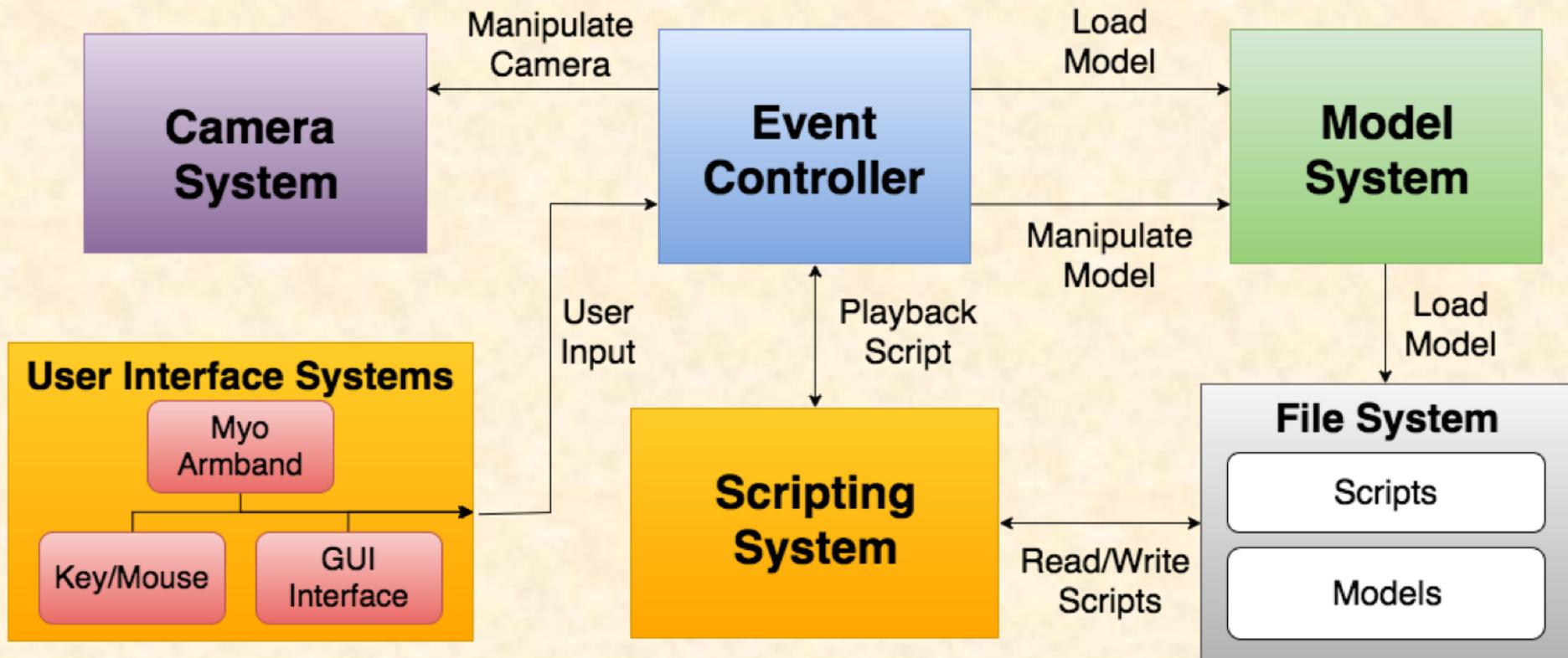
*From Students...
...to Professionals*

Project Overview

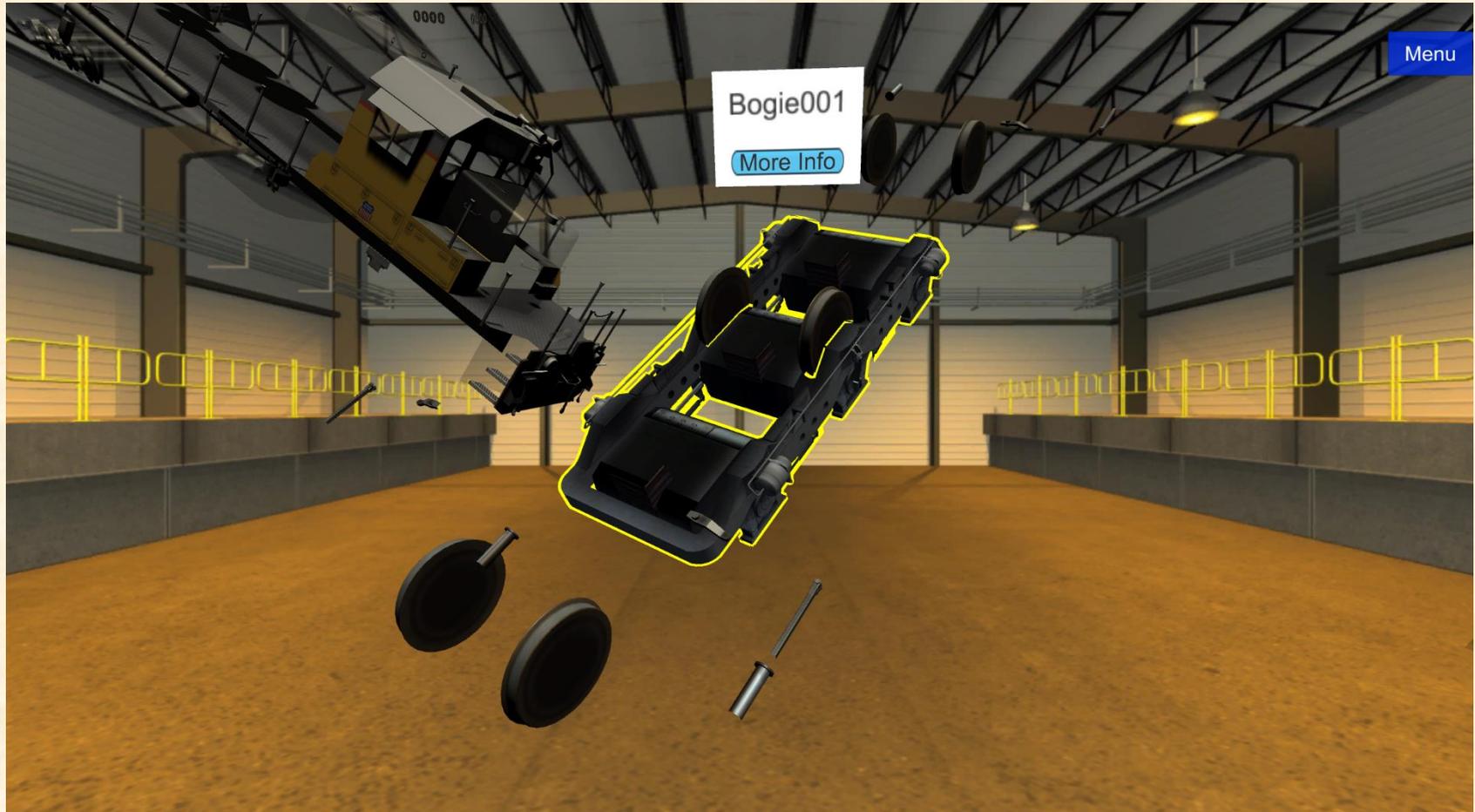
- Freeform View
- Guided Lessons
- Objective-based Scenarios
- Desktop and Oculus Viewing Modes



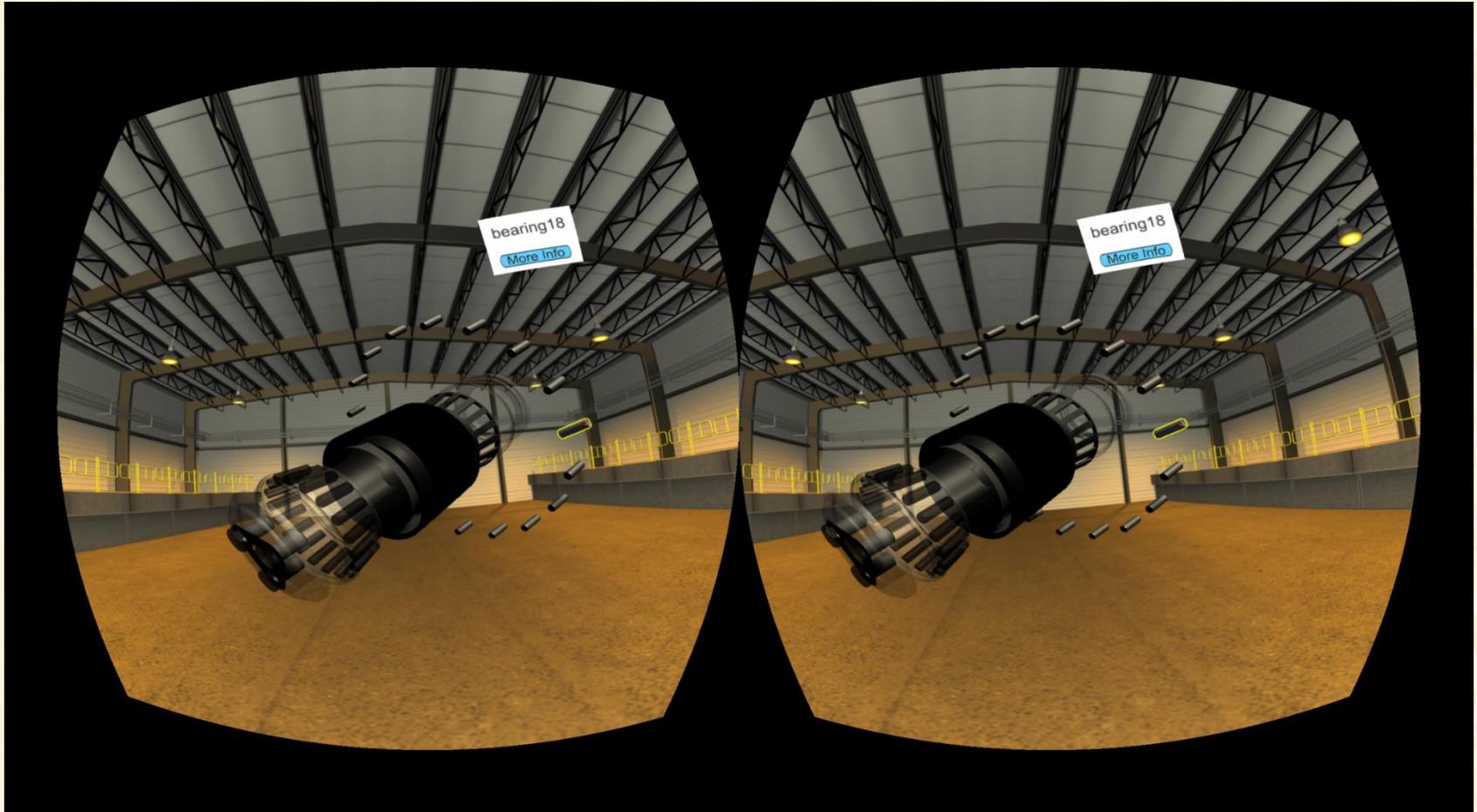
System Architecture



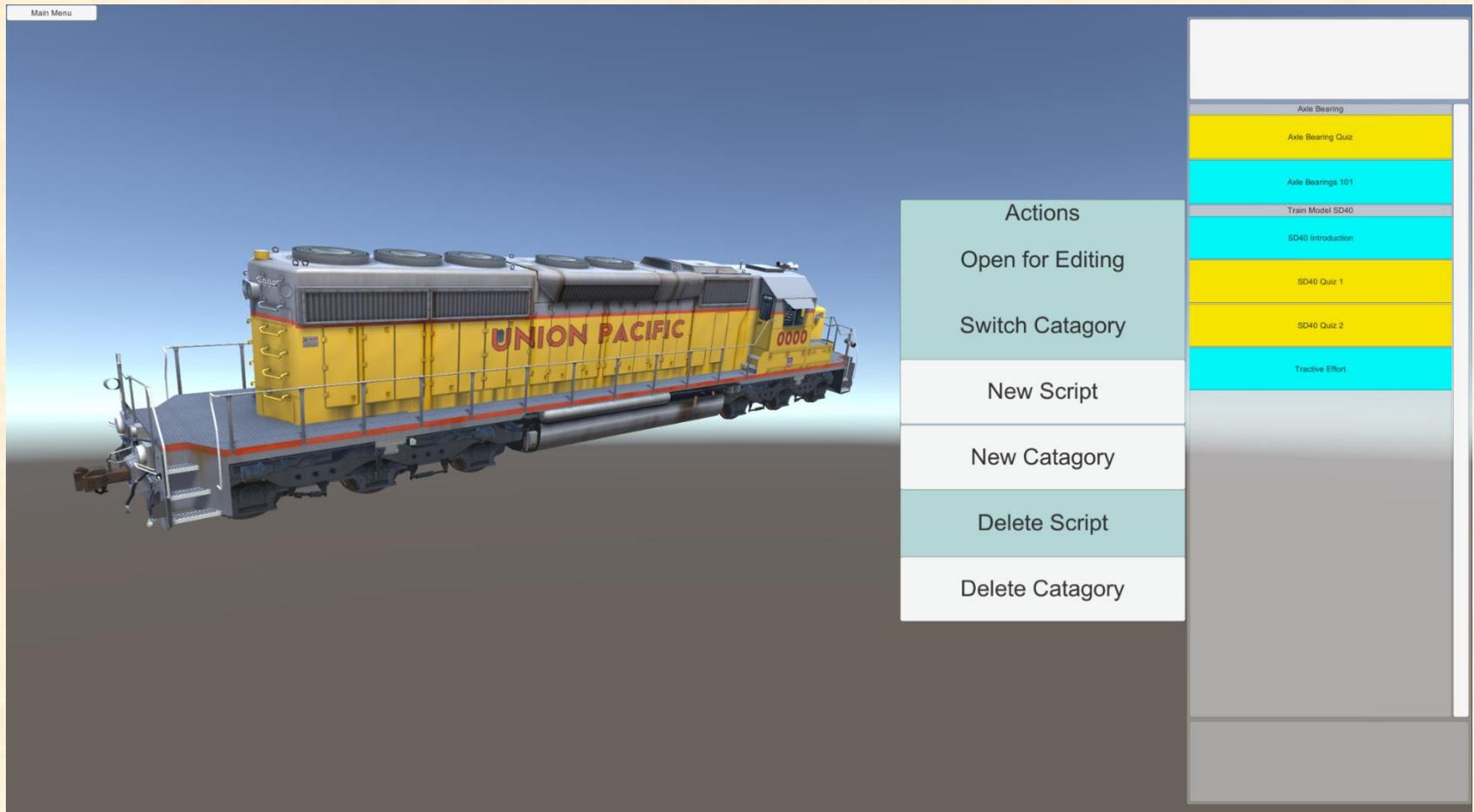
Subsystem of a Locomotive



Oculus View of an Axle Bearing



Script Editor Menu



The screenshot displays a software interface with a 3D model of a yellow and red Union Pacific locomotive on the left. The locomotive has "UNION PACIFIC" and "0000" written on its side. On the right, there is a menu with the following items:

- Actions
 - Open for Editing
 - Switch Category
 - New Script
 - New Category
 - Delete Script
 - Delete Category

Below the menu, there is a vertical list of categories or items, each with a colored background:

- Axle Bearing
- Axle Bearing Quiz (Yellow)
- Axle Bearings 101 (Cyan)
- Train Model SD40
- SD40 Introduction (Cyan)
- SD40 Quiz 1 (Yellow)
- SD40 Quiz 2 (Yellow)
- Tractive Effort (Cyan)



Creating a Quiz in Script Editor

Main Menu Axle Bearing Quiz Back

Delete Previous Frame Capture Frame *Save*

Previous **Static Events** Next <<

Print Wait Multiple Choice Quiz Select Part Quiz

Multiple Choice Event

How many cones are present in this model?

ONE;TWO;THREE;FOUR

TWO

ONE
 TWO
 THREE
 FOUR

Attempts: 3/3

Submit

Confirm Revert

Play Pause

20 Seconds



What's left to do?

- Add a variety of quiz questions
 - Select broken component
 - Select an axle bearing
- Update Oculus view based on user feedback
- Project Video

