MICHIGAN STATE UNIVERSITY

Beta Presentation

3D Model for Factory Digital Twin

The Capstone Experience

Team Magna

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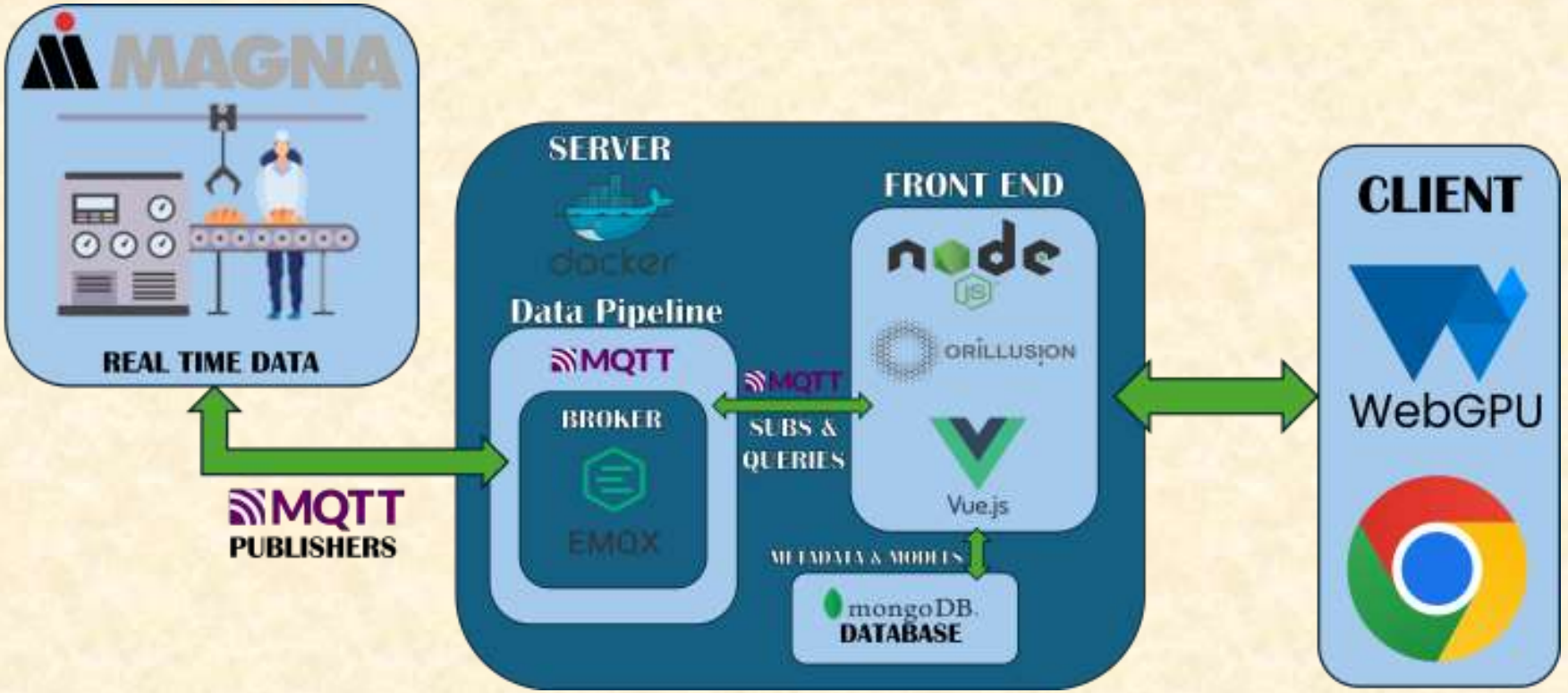
From Students…
…to Professionals

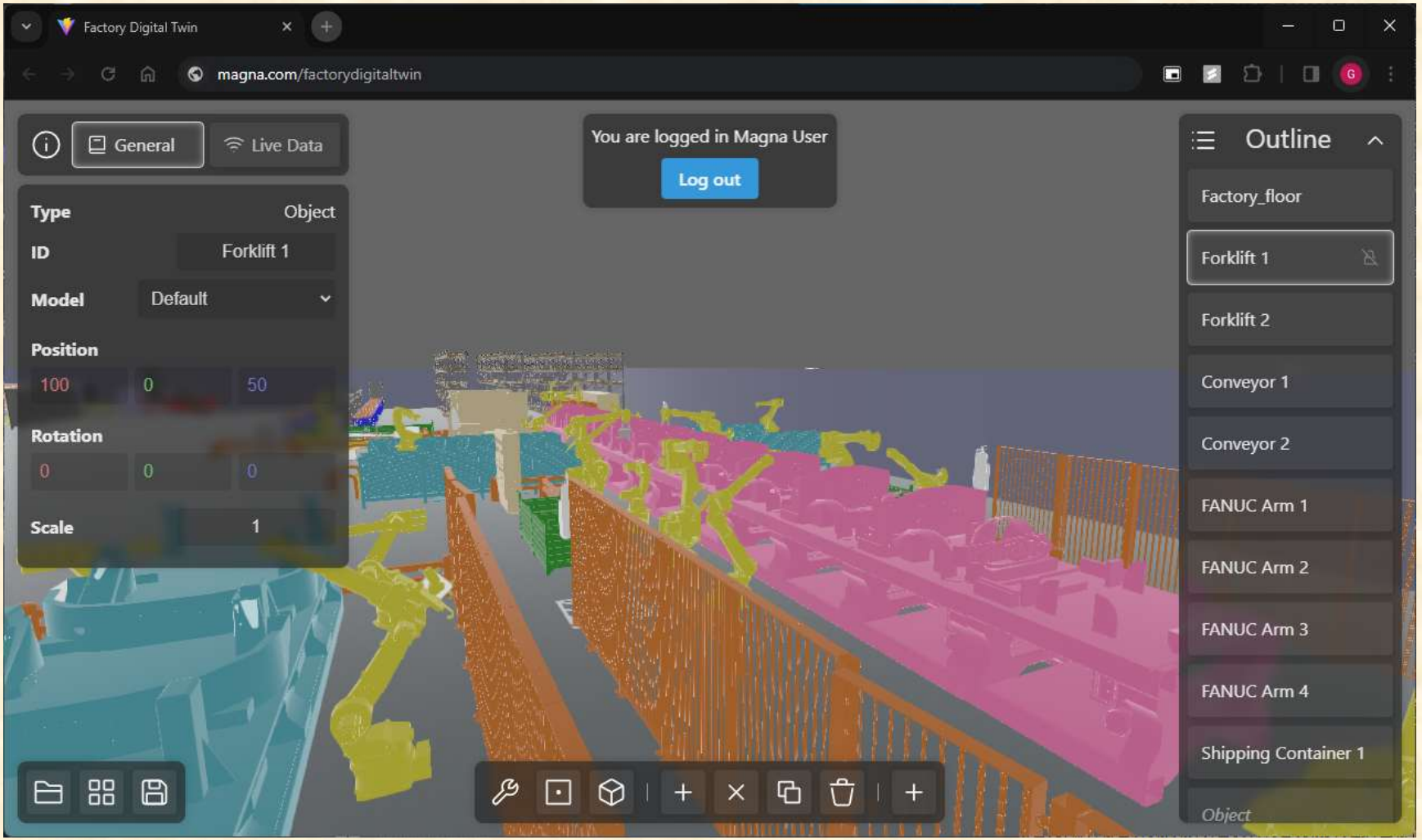
Project Overview

- Live Data 3D Model of Factory
- Display Real-Time Updates of Sensors
- Quickly View Factory and Find Issues Effectively
- Create Generalized Solution to allow for expansion & Scaling

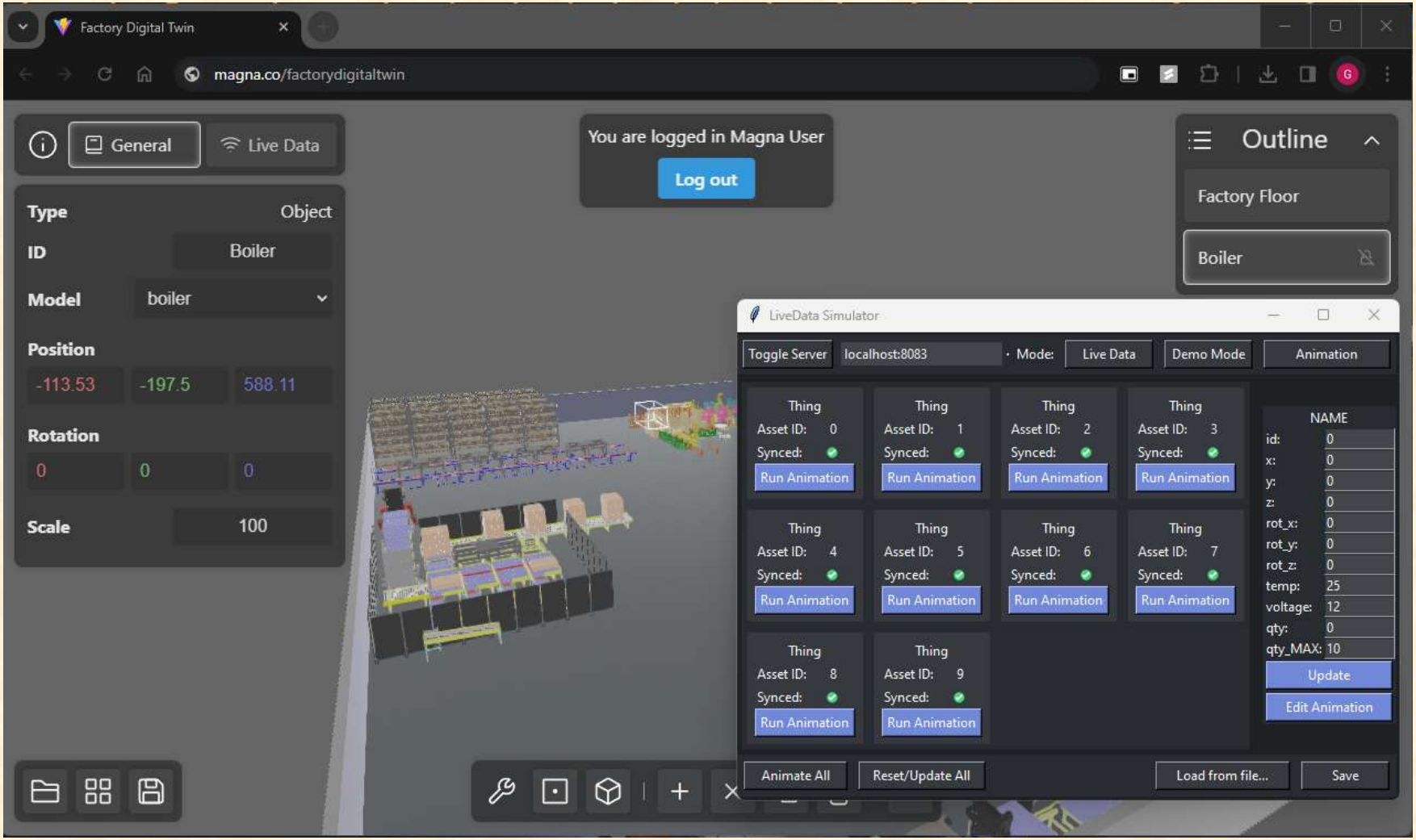
System Architecture



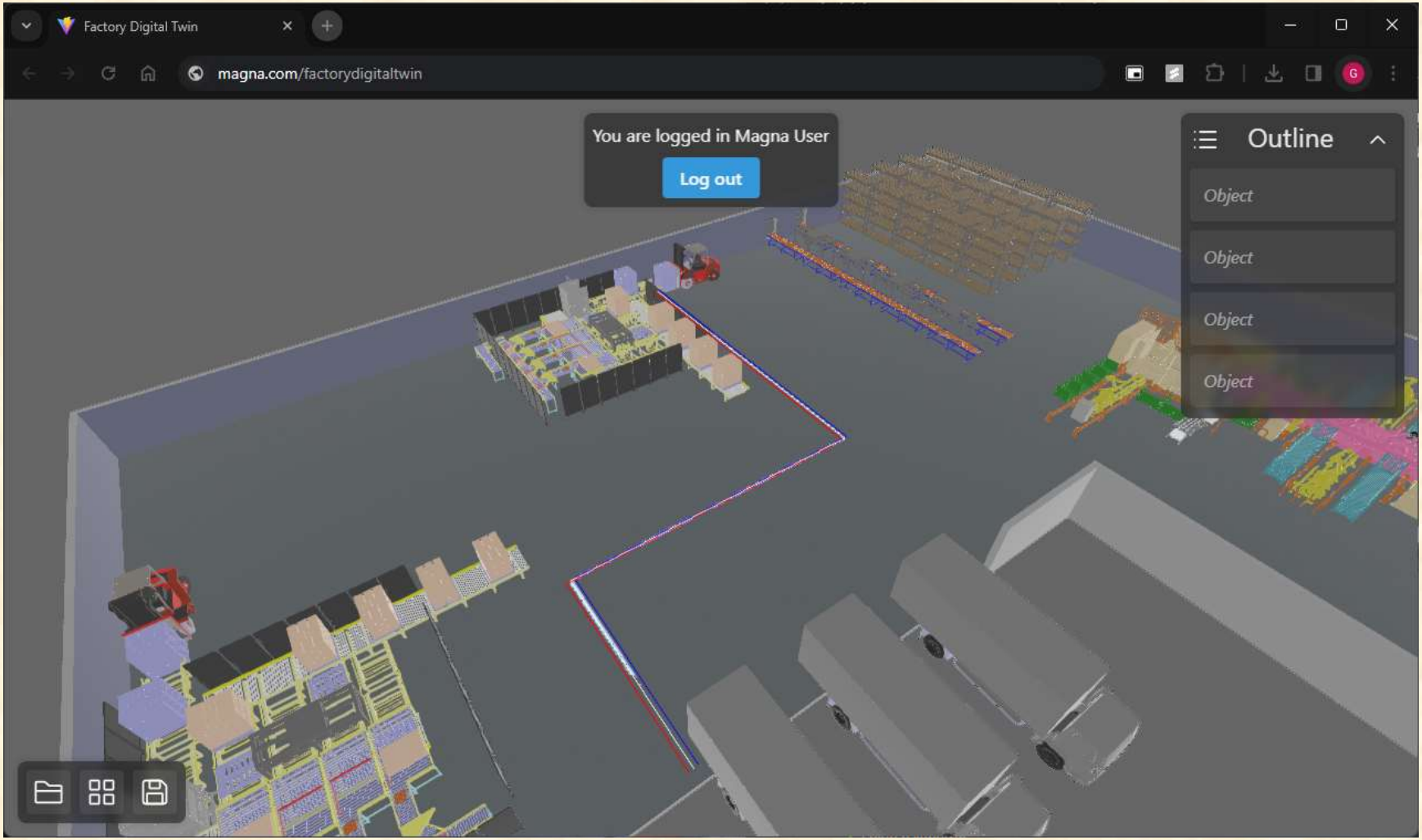
Standard Edit Mode



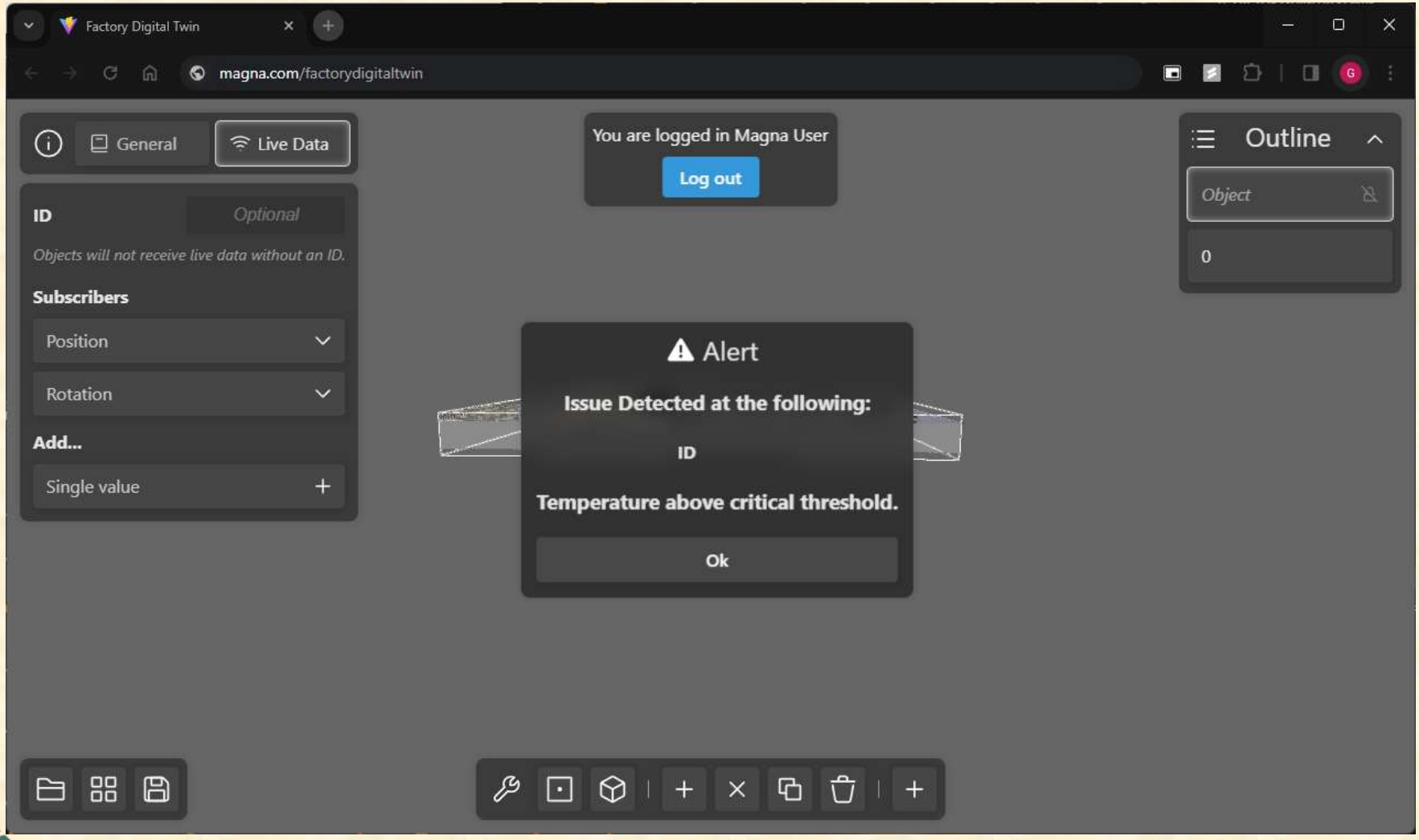
Live Data Feed Simulator



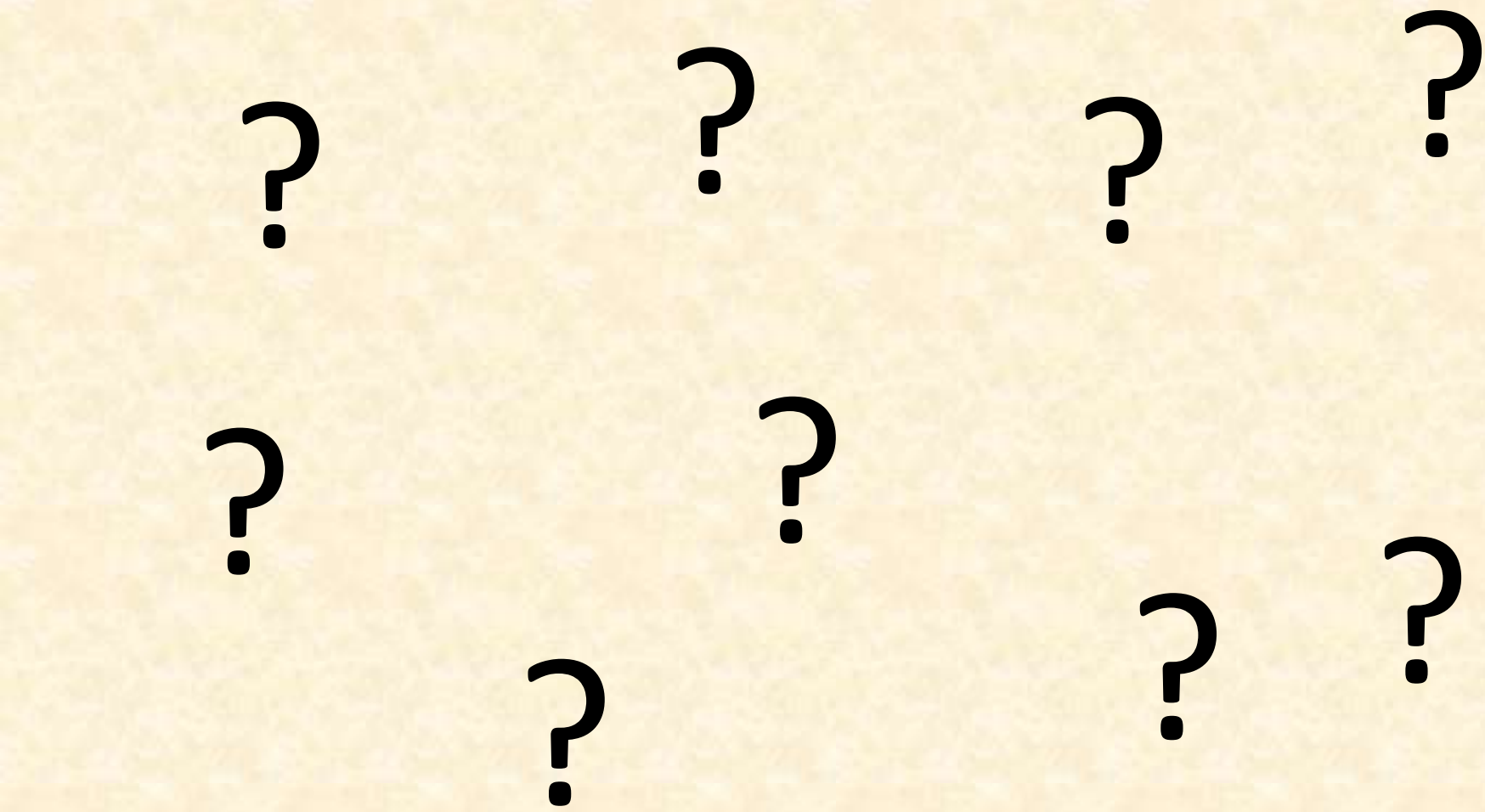
View Mode & Line Pathing



Live Alerts


Factory Digital Twin
magna.com/factorydigitaltwin
General
Live Data
ID
Optional
Objects will not receive live data without an ID.
Subscribers
Position
Rotation
Add...
Single value
You are logged in Magna User
Log out
Outline
Object
0
Alert
Issue Detected at the following:
ID
Temperature above critical threshold.
Ok

What's left to do?

- Stretch Goals
  - Layer views
  - Graphs for visual history?
  - CDN for faster load times?
- Other Tasks
  - Concurrent User Sessions
  - Server Deployment (CI/CD)
  - Generalization
  - Changes to UI elements
  - QA Testing

Questions?