OSC Control Dashboard

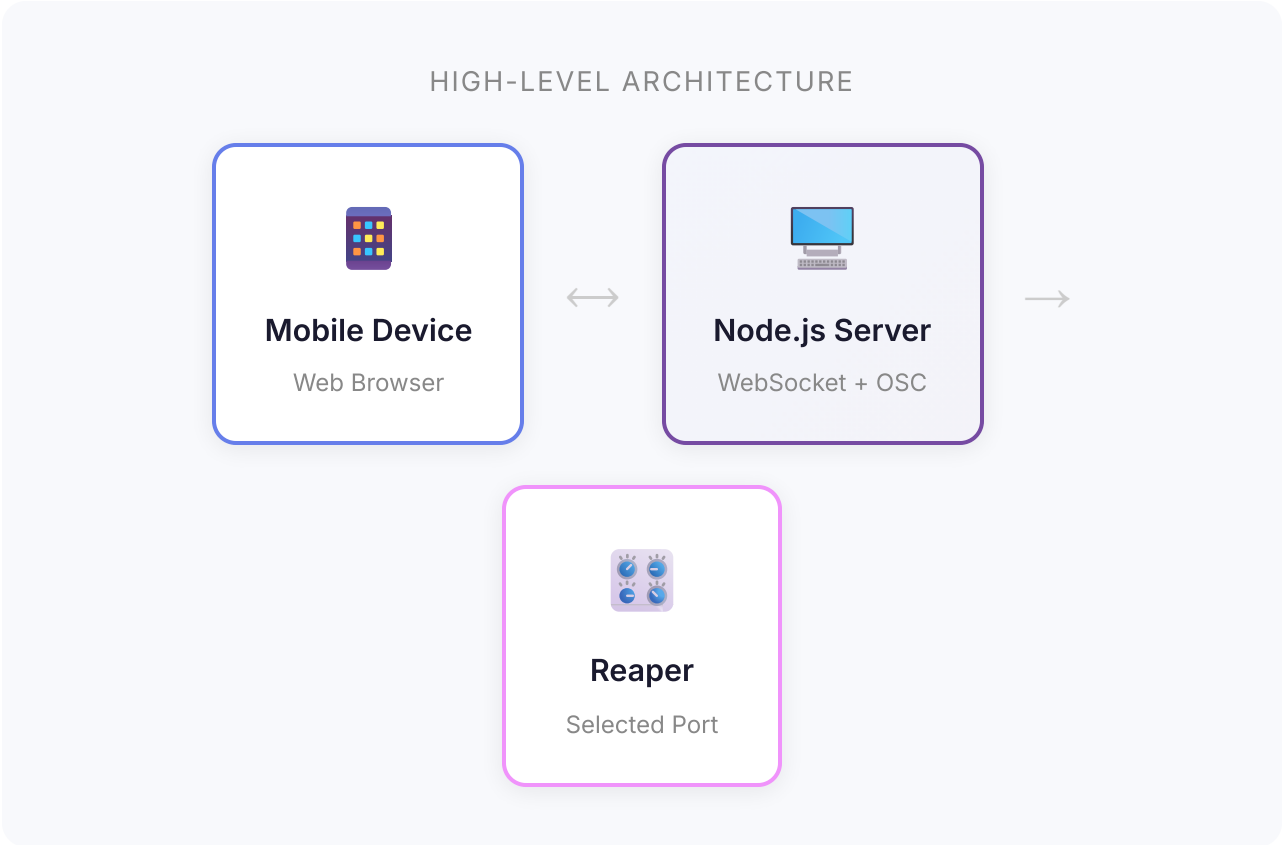
A LAN-accessible web interface for controlling Reaper or other OSC uses

485 Final Project • December 2025

Project Overview

This project is a **real-time control surface** that enables mobile devices to control Reaper over a local network using the **OSC (Open Sound Control)** protocol. Users can adjust track volumes, FX parameters, and sends from their phone or tablet.

System Data Flow

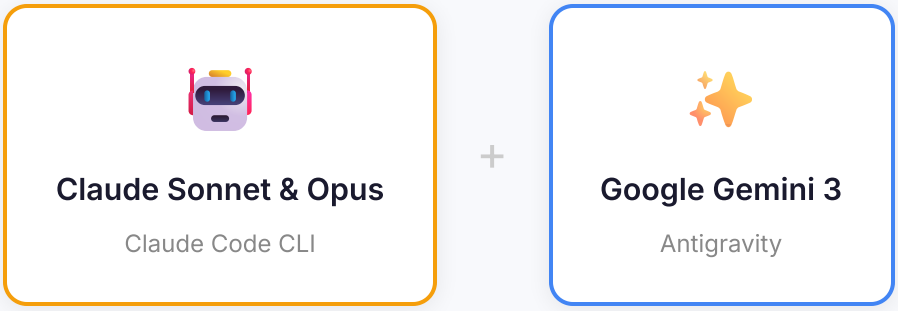


MESSAGE FLOW SEQUENCE

1. User moves slider on Mobile
2. WebSocket sends { id: 1, value: 0.75 } to Server
3. Server broadcasts update to all connected clients
4. Server sends OSC: /track/1/volume [0.75] to Reaper
5. Reaper adjusts track fader in real-time

Development Process

AI-ASSISTED DEVELOPMENT



Research & Skill Creation

Directed Claude to research OSC protocol and Reaper-specific OSC documentation, then created a persistent "Skill" file for reference throughout development.

Architecture Workshop

Workshopped system architecture with the AI, talking through features, ideas, and data flow patterns.

Isadora Research

Had the AI research Isadora and analyze how it implements similar OSC control patterns.

Tech Stack Selection

Workshopped technology choices—Node.js, Socket.IO, osc.js—balancing simplicity and capability.

Demo Development

Directed the AI to program a working demo with dashboard and mobile interfaces.

Revision & Refinement

Reviewed the output, provided feedback, and iterated until the implementation matched the vision.
