Touch screen control for digital mixing consoles

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About this talk

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- Summary

Problem description

- Digital mixing consoles are complicated

- Engineers are always

    tethered to the mixer

- Venues may have

    more than one console

What makes this interesting?

"Everybody gets a touch screen"

- Mobile computing

- Existing technologies
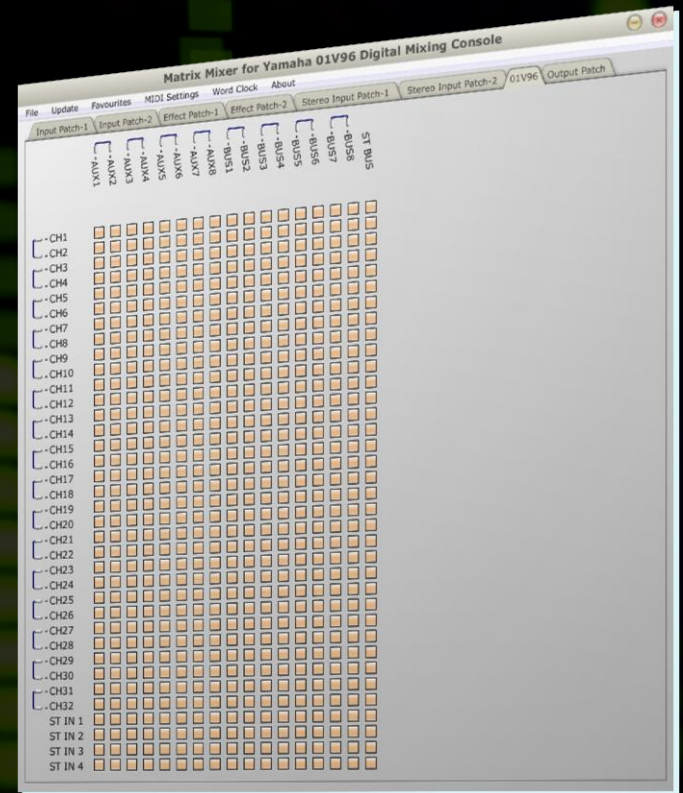
- Audio in general

Previous work

- Richard Foss and Thabo Jerry Mosala

  – MIDINet

- Philip Foulkes

  – Matrix Mixer

- Jabrudian Industries LLC

  – Missing Link

MIDINet

- System for networked computers

- MIDI devices connected to computers can be connected over the
  network

- Works over wired network

- Only used for routing messages from a specific source to a specific
  destination

Matrix Mixer

- Application for controlling a Yamaha 01v96 mixing console

- Uses MIDI for control

- No networking

Missing Link

- Receives OSC (Open Source Control) messages over wireless and converts to MIDI

- ATMega based

My Approach

- Modify Missing Link to work with MIDINet

- Create touch-centric application for tablet to control Yamaha 01v96

  mixing console using MIDINet

Timeline

Date	Task
01-03-2013	Submit project proposal.
08-03-2013	Have working knowledge of Philip Foulkes's thesis and identify sections relevant to this project.
12-03-2013	Project Seminar: Introductory presentation explaining the research goals and what the project will entail.
18-03-2013	Understand operation of Yamaha 01V96. Have experience in using Philip Foulkes's control application.
08-04-2013	Set up and use MIDINet system for control using desktop computers.
15-04-2013	Start development of iPad application.
29-04-2013	Begin reprogramming of Missing Link to incorporate MIDINet.
22-07-2013	Working iPad control application.
09-08-2013	Missing Link running MIDINet. Capable of controlling Yamaha 01V96 using iPad over wifi.
23-09-2013	Capable of controlling multiple mixing consoles from single iPad.
11-10-2013	Submission of complete project thesis.

Deliverables

- A full system for controlling a Yamaha 01v96 mixing console over a

  wireless network using a mobile touch screen device

Summary

- Control for digital mixing consoles via mobile touch devices

- Networking of devices for better control