Touch screen control for digital mixing consoles

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Sooooo…

- A quick recap
- Changes to the project
- Project progress
- Deliverables
- Demo
- Summary

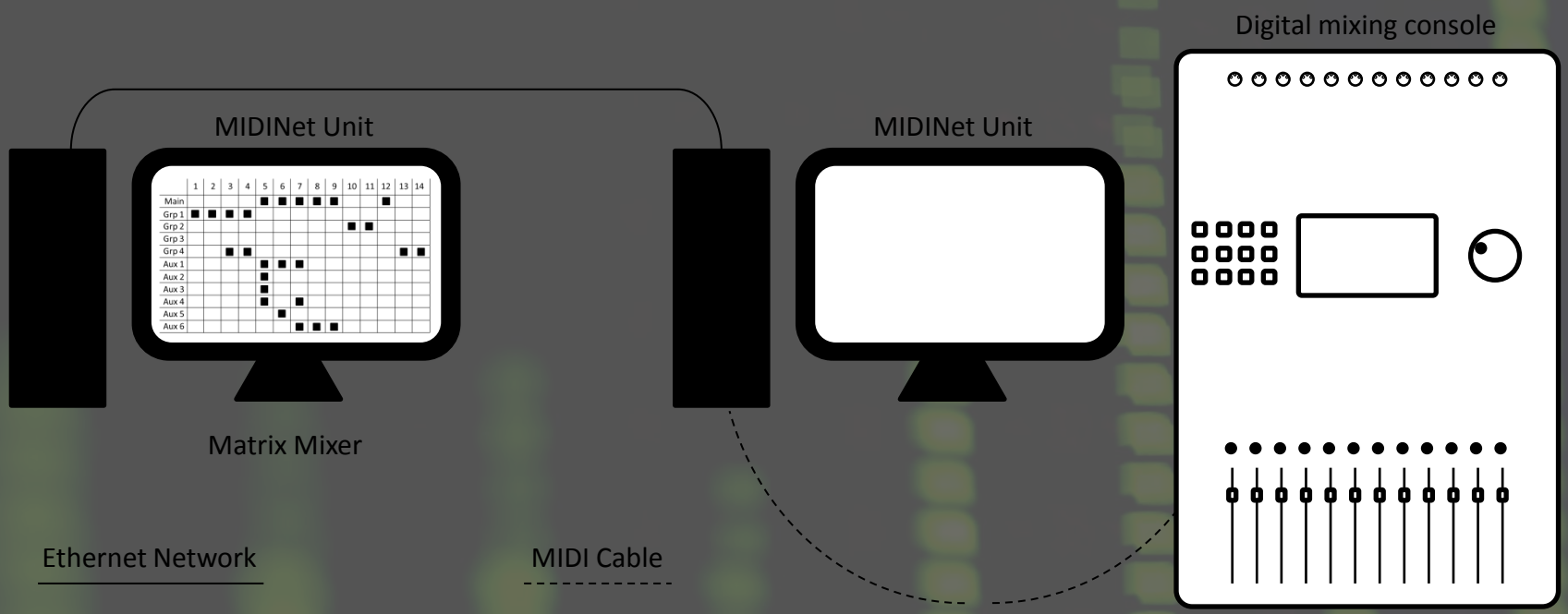
A quick recap

Aim of the project was to produce a system that allowed a user to control a digital mixing console using Wi-Fi from a touch screen tablet.

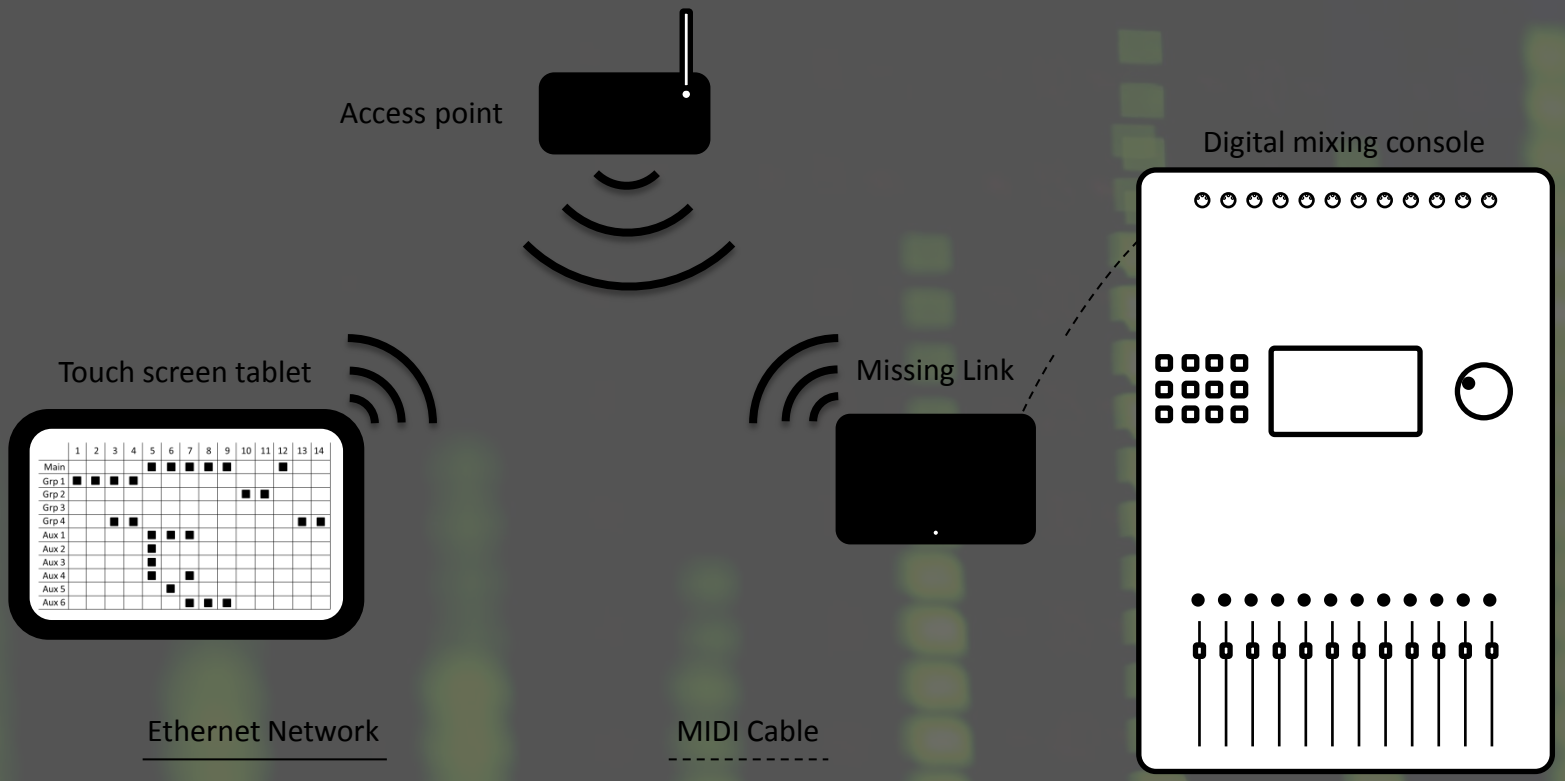
MIDINet

MIDINet Unit
MIDINet Unit
Keyboard Controller
Rack-mounted Synthesizer
Ethernet Network
MIDI Cable

MIDINet


Digital mixing console
MIDINet Unit
MIDINet Unit
1 2 3 4 5 6 7 8 9 10 11 12 13 14
Main
Grp 1
Grp 2
Grp 3
Grp 4
Aux 1
Aux 2
Aux 3
Aux 4
Aux 5
Aux 6
Matrix Mixer
Ethernet Network
MIDI Cable

MIDINet


Access point
Digital mixing console
Touch screen tablet
Missing Link
1 2 3 4 5 6 7 8 9 10 11 12 13 14
Main
Grp 1
Grp 2
Grp 3
Grp 4
Aux 1
Aux 2
Aux 3
Aux 4
Aux 5
Aux 6
Ethernet Network
MIDI Cable

Changes to the project

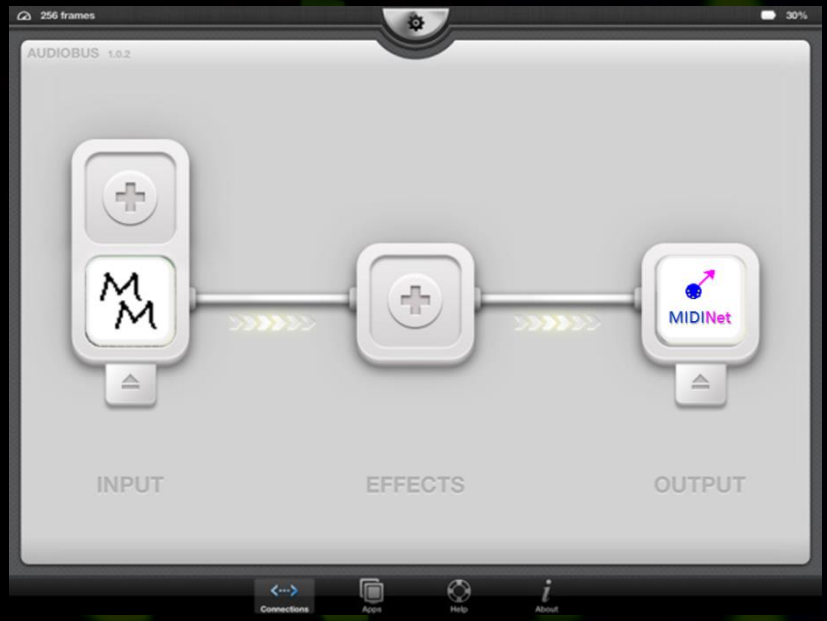
- GUI (Matrix Mixer) to be rebuilt for the iPad
- MIDINet to be rebuilt for the iPad
  - Stand alone application
- AudioBus to be used for routing MIDI internally
- Missing Link to run modified version of MIDINet
  - No way for user to manage MIDINet on Missing Link

Matrix Mixer & MIDINet

- Matrix Mixer and MIDINet have now been created as JUCE projects so that they can be compiled for various system
  - Linux, XCode, iOS, Andriod, Visual Studio
- Latest version of JUCE
  - Cross-platform C++ Library

AudioBus

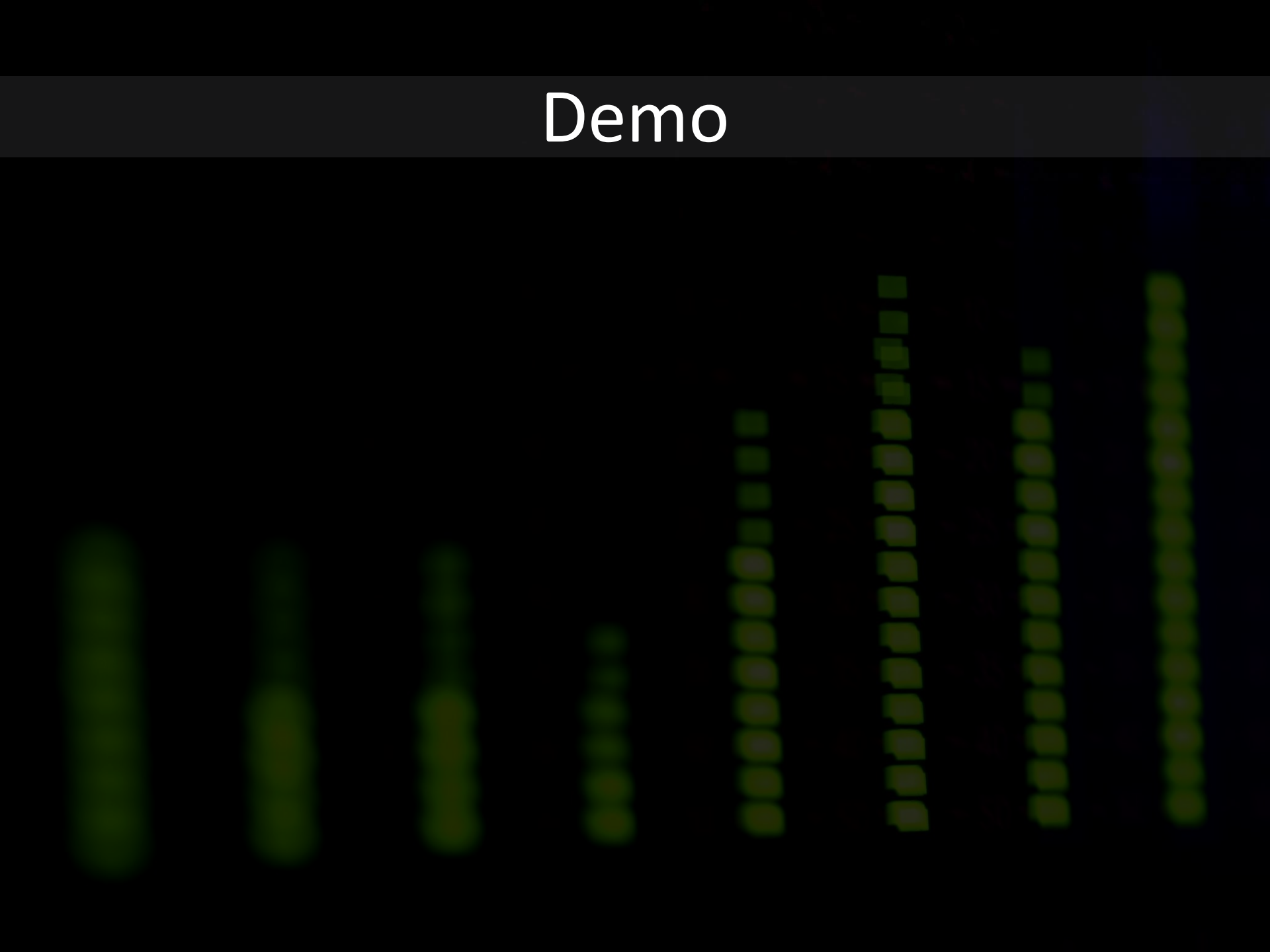
- AudioBus is an application that can be used for routing audio and MIDI between applications
- This allows for the use of more generic applications to be used together on a device (such as an iPad)



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.
	22-08-2013	Working iPad control application.
	22-08-2013	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.

Demo



Summary

- The work that has been done so far shows that the proposed system is possible
- The original idea for the system has changed a bit so that individual parts can be re-used for other projects as well as on their own.
- Matrix Mixer and MIDINet application are being rebuilt
- AudioBus has been introduced
- Things are on track