

SE 492 – sdmay20-48

Hear Together

Biweekly Report 6

4/3 – 4/16

Client and Adviser: Mat Wymore

Team Members

Jessie Rutledge - Communicator/Full Stack Developer

Andrew Peterson - Backend Developer

Paul Licata - Full Stack/QA Developer

Richard Smith - Frontend Developer

Roger Ferguson - Test Engineer

Status for 4/3 - 4/16 (2 weeks):

Weekly Summary

Past two week accomplishments

Jessie Rutledge: Worked with Roger on adding new files and methods for establishing a wifi connection between host and client as well as sending data between the two devices. An abstracted receiver is added as well as more distinct implementations for both client and host files are made along with some changes to the wifi receiver to accommodate the change.

Andrew Peterson: Worked with Androids implementation of an Equalizer. Created implementation capable of changing sound frequencies. Researched advanced customization of the Equalizer.

Paul Licata: Worked with Andrew to figure out FFT. Gave one last attempt to make something from the TarsosDSP library before alternative libraries are considered. Talked to Jessie and Andrew about whether its best to send data from phone to phone before or after transforms. After reviewing alternative libraries, I played around and tested example code that used Android's stock Equalizer.

Richard Smith: debugged and applied real time updates and automatic scaling with firebase firestore database for users, allowing for user specific settings to be saved in the firestore in the most time efficient manner.

Roger Ferguson: Assisted with research on file transfer services. Performed testing on Wifi Direct and transfer methods. Updated receiver code to work with the transfer service.

Plans for the upcoming weeks:

(WiFi Team) Roger Ferguson and Jessie Rutledge: Be able to send data via a socket from one device to another *using the new methods we have discovered.*

Richard Smith: Implement more code in java for the overall firebase firestore real time database to allow a better user experience by storing more private settings among users

(Sound Team) Paul Licata and Andrew Peterson: We will be continuing to use Android's equalizer class. This has more potential for success because the heavy FFT lifting is already done, we have to find a way to apply the tool to our incoming sound and send it to other phones.

<u>Name</u>	<u>Individual Contributions</u>	<u>Hours this Cycle</u>	<u>Hours Cumulative</u>
Jessie	Redoing of Wifi Direct approach with Roger. New files for client/server send/receive.	16	68
Andrew	Experimented with Android Equalizer. Implemented a call to the device's default UI to control the equalizer.	12	57
Paul	Experimented with TarsosDSP. Gave it one more good attempt before a different, easier library is substituted in.	15	50
Richard	Debugged and further added onto firebase firestore implementation to sync more settings options among users with automatic scaling	15	60
Roger	Performed testing on Wifi Direct and file transfer capabilities, updated sections of code, researched techniques to transfer files via Wifi Direct	12	60

