sdmay18-39: Sound Effect Devices for Musicians

Week 8 Report

November 7 - November 14

Team Members

Benjamin Reichert — Experimentation Team Leader

Daniel Kroese — Software Integration Leader

Garrett Mayer — Technical Communications Leader

Thomas Kimler — Technical Project Manager

Virginia Boy — Communications Leader

Summary of Progress this Report

- -Acquired access to additional research information via the Audio Engineering Society
- -Revised and finalized project development plan and anticipated deliverables
- -Researched impacts of harmonic and intermodulation distortion on sound quality
- -Updated website and project plan
- -Added ABC breakout to expand test bench signal chain to allow for 3 recorded inputs (base line signal, tube amp signal, SS signal)

Pending Issues

- -Need to develop a standard sample for data acquisition via test bench
- -Need to acquire data for FFT analysis and comparision between tube amp and solid state amp signals
- -Non trivial hum introduced from preamp stage on recorder

Plans for Upcoming Reporting Period

- -Need to research literature available from AES on tube amp emulation
- -Need to update project plan and design document to match current expectations
- -Improve graphing function to plot multiple waveforms simultaneously

Individual Contributions

Team Member	Contribution	Weekly Hours	Total Hours
Benjamin Reichert	Developed ABC breakout to expand test bench signal chain to allow for 3 recorded inputs (base line signal, tube amp signal, SS signal); Acquired access to additional research information via the Audio Engineering Society; Revised and finalized project development plan and anticipated deliverables;	8	65
Daniel Kroese	Developed ABC breakout to expand test bench signal chain to allow for 3 recorded inputs (base line signal, tube amp signal, SS	7	59

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	signal); Researched impacts of harmonic and intermodulation distortion on sound quality		
Garrett Mayer	Updated website and project plan; worked to continue to develop Matlab documentation	7	64
Thomas Kimler	Developed ABC breakout to expand test bench signal chain to allow for 3 recorded inputs (base line signal, tube amp signal, SS signal); Acquired access to additional research information via the Audio Engineering Society;	8	66
Virginia Boy	Acquired access to additional research information via the Audio Engineering Society; Revised and finalized project development plan and anticipated deliverables; Researched impacts of harmonic and intermodulation distortion on sound quality	7	47