

fireworks.pdf – update June 18, 2009

Project: Fireworks in surround

Location: Dell Diamond baseball stadium near Round Rock, Texas

Date recorded: July 26, 2008

Microphones: Experimental, Core Sound TetraMic

Recording Equipment: Experimental and TetraMic: Focusrite Saffire Pro 26i/o interface, MacBook Pro with Logic Pro.

Relative placement of microphones: Each microphone was mounted on a desk stand placed on top of my vehicle, about 1/2 meter apart.

Download files: ambisonic b-format

Calibration and equalization:

Experimental microphone b-format outputs are provided without equalization.

Core Sound TetraMic a-format outputs are converted to b-format with VVMic software with the Core Sound calibration tables.

Suggested equalization: For the experimental mic: 0dB at 400Hz to +8db at 50Hz, shelving at +8dB to lower frequencies.

Comments: My vehicle was about 215 meters from the fireworks launch site and about the same distance to the ballpark. In my AES paper, I mentioned a problem with the experimental microphone cutting out during very loud sounds. I have not spent the time to analyze the exact cause of this problem. However, my Radio Shack sound level meter peaked at 117dB. There are several examples of this issue in the recordings. The TetraMic did not cut out during the recording.

The files for download are the finale of the fireworks display, followed by the cheers of the crowd in the stadium, plus about a minute of ambient sounds in the parking lot.

Length: 01:51

Thank you for your interest in this project. Comments are welcome. Please feel free to look around the ACTLab website.

Dan Hemingson
Dhemingson (at) mail.utexas.edu