1. **OBJECTIVES**

See the requirements document

1. **HARDWARE DESIGN**

See the PCB Artist schematic file

1. **SOFTWARE DESIGN**

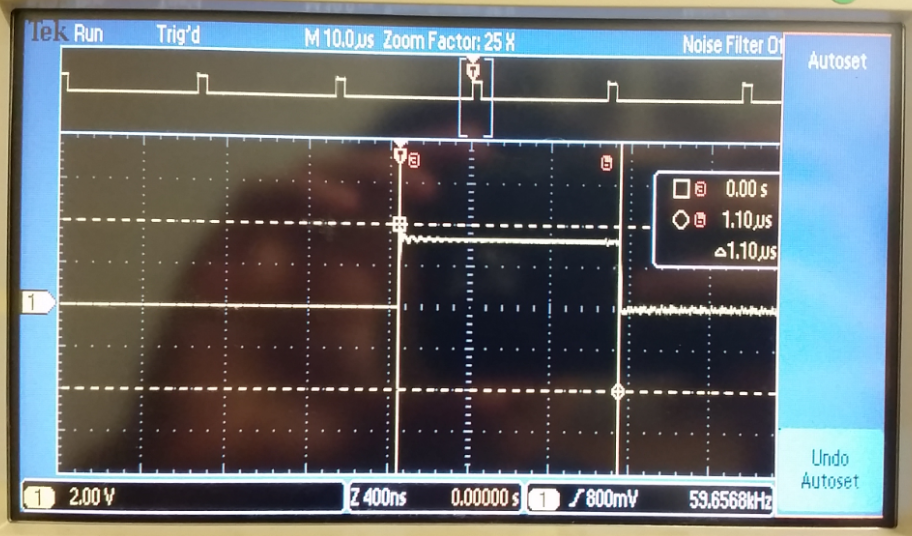
No change in software design (call graphs and data flow graphs are the same as those provided in the lab manual).

1. **MEASUREMENT DATA**

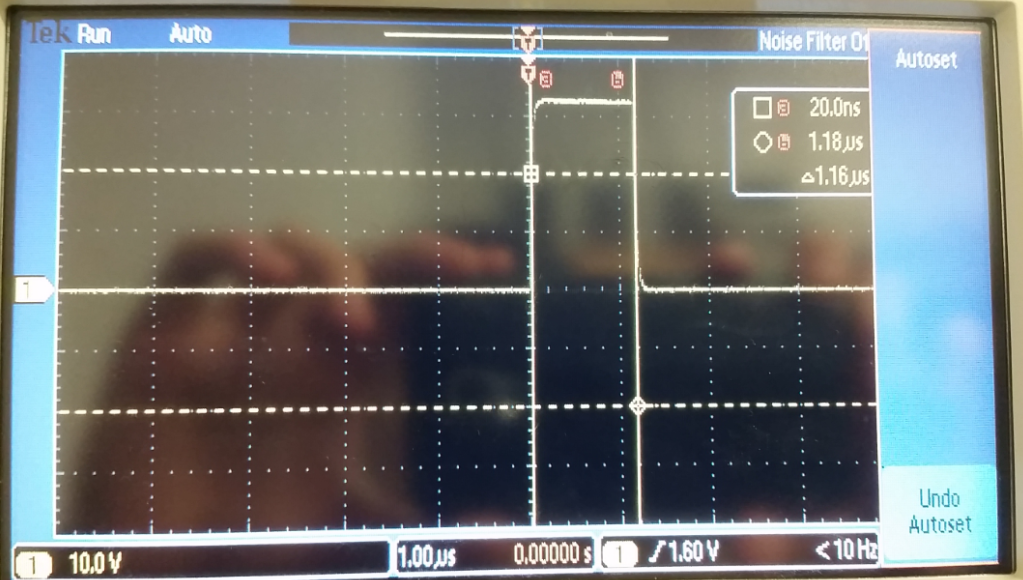
**4.1 Show the data and calculated resolution, range, precision and accuracy**

**4.2 Show the experimental response of DAC including SNR**

**4.3 Show the results of the debugging profile**



*Figure 1: This ISR shows the time it takes to output to the DAC (~1 microsecond)*



*Figure 2:*

**4.4 Measurements of current required to run the system, with and without the music playing**

1. **ANALYSIS AND DISCUSSION**
   1. **Briefly describe three errors in a DAC**
   2. **Calculate the data available and data required intervals in the SSI/DAC interface. Use these calculations to justify your choice of SSI frequency**
   3. **How is the frequency range of a spectrum analyzer determined?**
   4. **Why did we not simply drive the speaker directly from the DAC? What is the purpose of using the TPA731?**