DSG-HDice R&D Meeting Minutes

Date: October 16, 2020
Time: 11:00AM – 11:30PM

Attendees: Peter Bonneau, Aaron Brown, Pablo Campero, Tyler Lemon, Marc McMullen, Amrit Yegneswaran

1. Discussed HDF5 file format
    - 1.1. Example HDF5 file from Zurich Lock-in amplifier viewed using HDFView program
    - 1.2. Discussed proposed strategy for converting a CSV containing averaged data to HDF5
        - 1.2.1. Read in template.
        - 1.2.2. Determine number of samples in averaged data
        - 1.2.3. Ensure all HDF5 fields are as long as the number of samples of averaged data
            - 1.2.3.1. Expand or reduce field size as necessary
        - 1.2.4. Overwrite template HDF5 file's frequency, R, phase, X, and Y fields with data from average CSV
        - 1.2.5. Save HDF5 file as a new file.

2. HDice was given a trial period for the boxcar averager started October 12, 2020
    - 2.1. Tyler Lemon will investigate using boxcar averager once cabling is re-connected to lock-in amplifier.

3. Procedure to install LabOne to access Zurich lock-in amplifier
    - 3.1. Log on to Hall B subnet PC
    - 3.2. Install LabOne software
        - 3.2.1. Can be installed from either O Drive installation executable or from Zurich website
            - 3.2.1.1. O Drive: O:\DSG_Slow_Controls\HDIceLabOne64-20.07.2325.msi
            - 3.2.1.2. Zurich website: https://www.zhinst.com/americas/en/support/download-center
    - 3.3. Open LabOne
    - 3.4. If available, select DEV2465 to connect and open interface to Zurich lock-in amplifier