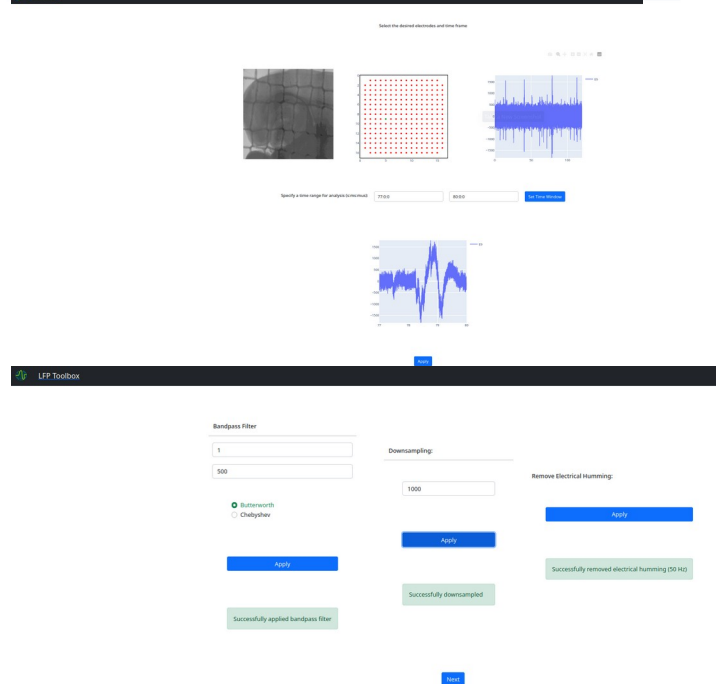
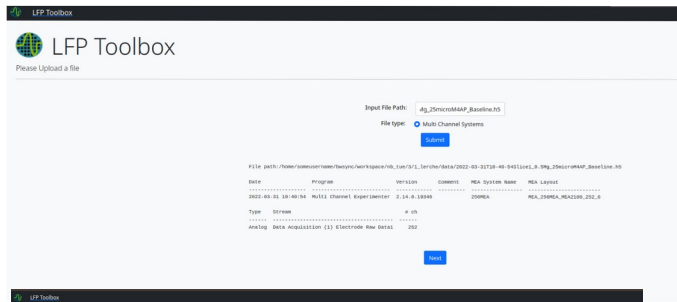


LFP Analysis Toolbox



What's there so far?

- GUI w. Interactive visualization
- Import for MCS 256 MEA (200 μm el. distance)
- Select electrodes & time window of interest
- Filter electrical humming, bandpass filter, downsample
- Amplitude per electrode animation, raw plots

What more should be there in the end?

- Exploration & Visualization:
 - Power (in dB) as animation
 - Spectrogram/PSD, Periodogram, Envelope
 - Raster plot, PSTH
- Quantitative Analysis:
 - Periodic-Aperiodic component separation (FOOOOF)
 - FFT, Hilbert T., STFT
 - Peak & Burst detection
 - Granger Causality, Cross-correlation,
- Electrode Grouping
- #Sample reduction for exploration (to incr. Performance)