160906

Here is a plot of when the imaging frames happen:

|  |  |
| --- | --- |
| Machine generated alternative text: 1000  700  500  100  NIDAQ scans  10  x 10 | Machine generated alternative text: 10  6  4  100  150  NIDAQ scans  250 |

Notice that for the first 54 NIDAQ scans, there is no signal from the imaging computer (imaging frame = 0). The first imaging frame is at NIDAQ 55th scan. 54scans/5000Hz = **0.0108 seconds** is the delay time between when user hits "ENTER"/start of background acquisition and when NIDAQ first receives a trigger pulse from the imaging computer.

Question: Is this number consistent across different trials?

In a previous test, I noticed that the onset of the stimulus as recorded by the photodiode is different for every trial, ranging from **0.05 to 0.09s**. Presumably, the differences in the delay result from the time it takes to initialize Psychtoolbox and run the particular displayStim() script.

**Problem**: It concerns me that the first imaging frame starts before the first stimulus epoch (see parent onenote: Timing measurements). Could it be that the imaging computer interprets the "ENTER" key as the signal to start imaging rather than the start of the stimulus?