From: "Kieft, Brian" <bkieft@mbari.org>
Subject: **sample log for Matlab**
Date: June 1, 2011 9:04:42 AM PDT
To: "Sherman, Alana" <alana@mbari.org>
1 Attachment, 2.9 KB

Hey Alana,

Here's a little log I made for our 3D animation. It's from the atomic IMU sensor in the hamster ball. I thought since this is our test dummy for animation, maybe it would be a good one for you to use as your initial Matlab import. Maybe all inputs could have x,y,z,pitch,roll,yaw and then scaling variables? You're the Matlab wizard so I'll trust your creativity… Anyway, here's the scaling info for that sensor and I've attached the log.

Here's the first two lines of the log file 20110518135934_atomic_imu.log

```
epoch ms,accel x, accel y, accel z, pitch, roll, yaw
1305752376772,470.0,483.0,780.0,521.0,527.0,500.0
```

For this sensor, in this configuration, we're running full scale at 10 bits. For accelerations measured in g we have: 0.00403 g/count. So, in this line you'll see 780-512*.00403 = 1.08g for the Z axis. This is when it was sitting on the desk before I picked it up. So, 0g would be 512 counts and you'll notice the other two axis are slightly negative (since it all has to add up to 1 g since it was just sitting there).

For pitch,roll, and yaw we're looking at .977 degrees/count, same A/D.

2011051813….log (2.9 KB)