Osmium MIMU4444

Logging Sensors' Data Using USB

Instruction Manual

Revision 1.0

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Revision History

Revision	Revision Date	Updates
1.0	13 Oct 2014	Initial Release of Instruction Manual

Purpose & Scope

This document lists down instructions to collect and plot data from all the accelerometers' and gyroscopes' present in Osmium MIMU4444 module, using USB.

Hardware & Software Requirement

- Operating System: 64-bits Windows 7
- Matlab R2013
- Matlab scripts for data collection (Should be available on your computer.)
- Hardware: A computer with 4 GB SRAM
- USB data cable
- Osmium MIMU4444 (Pre programmed with OpenShoe code)

Live Demo Video with Operating Instructions

A live video is available online:

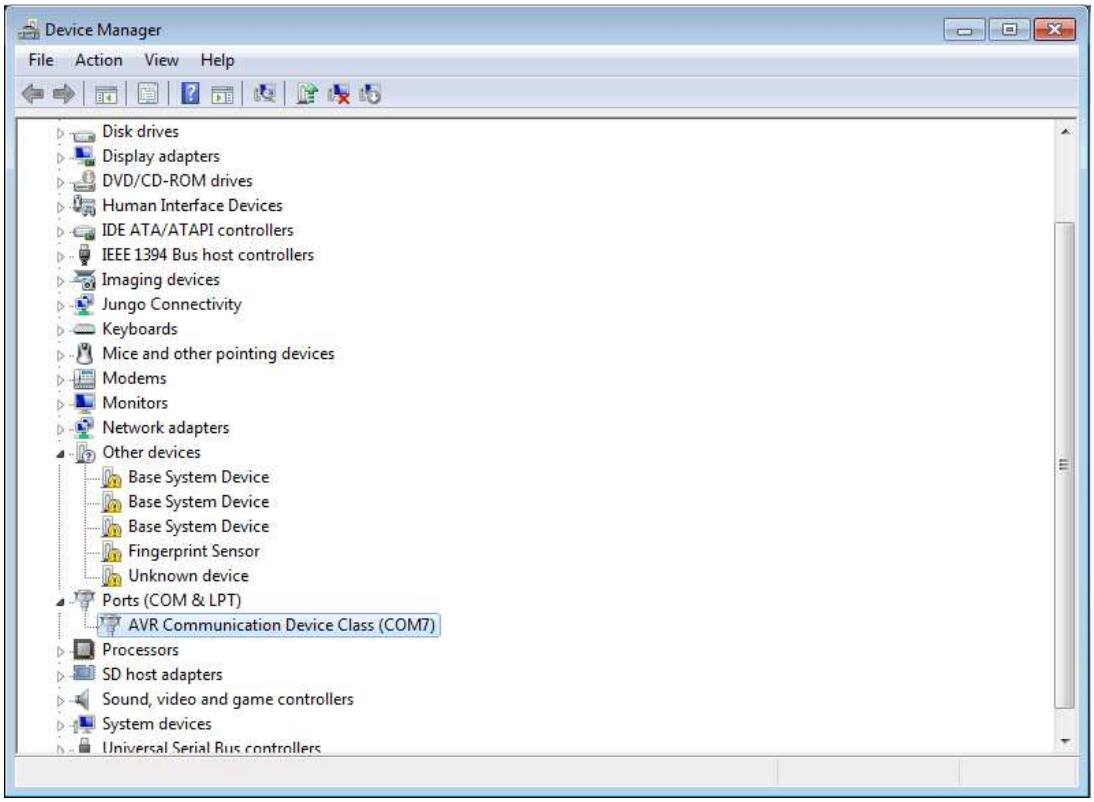
https://www.youtube.com/watch?v=ey0U16Jmjic

Same instructions are listed in the following section.

Operating Instructions

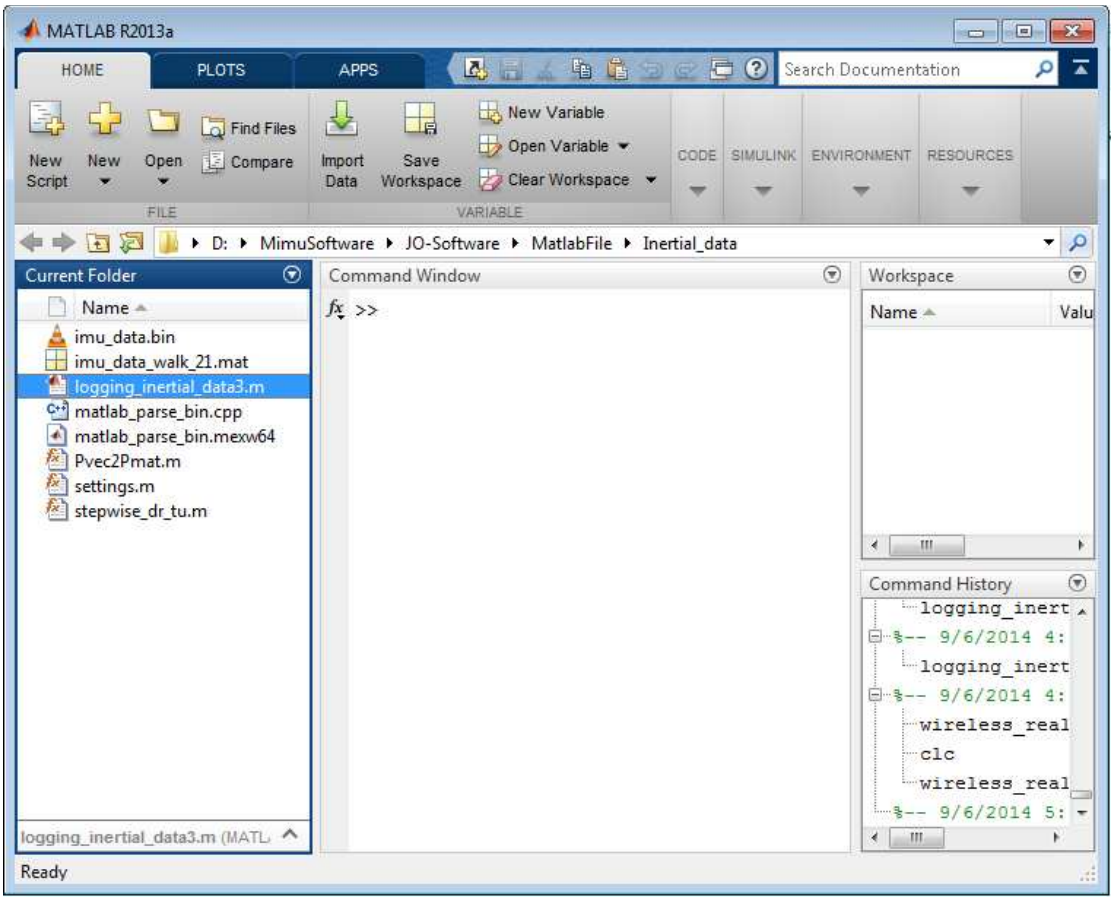
1. Connect MIMU4444 with computer using USB data cable. MIMU4444 draws its power from USB.

2. Open “Device Manager”

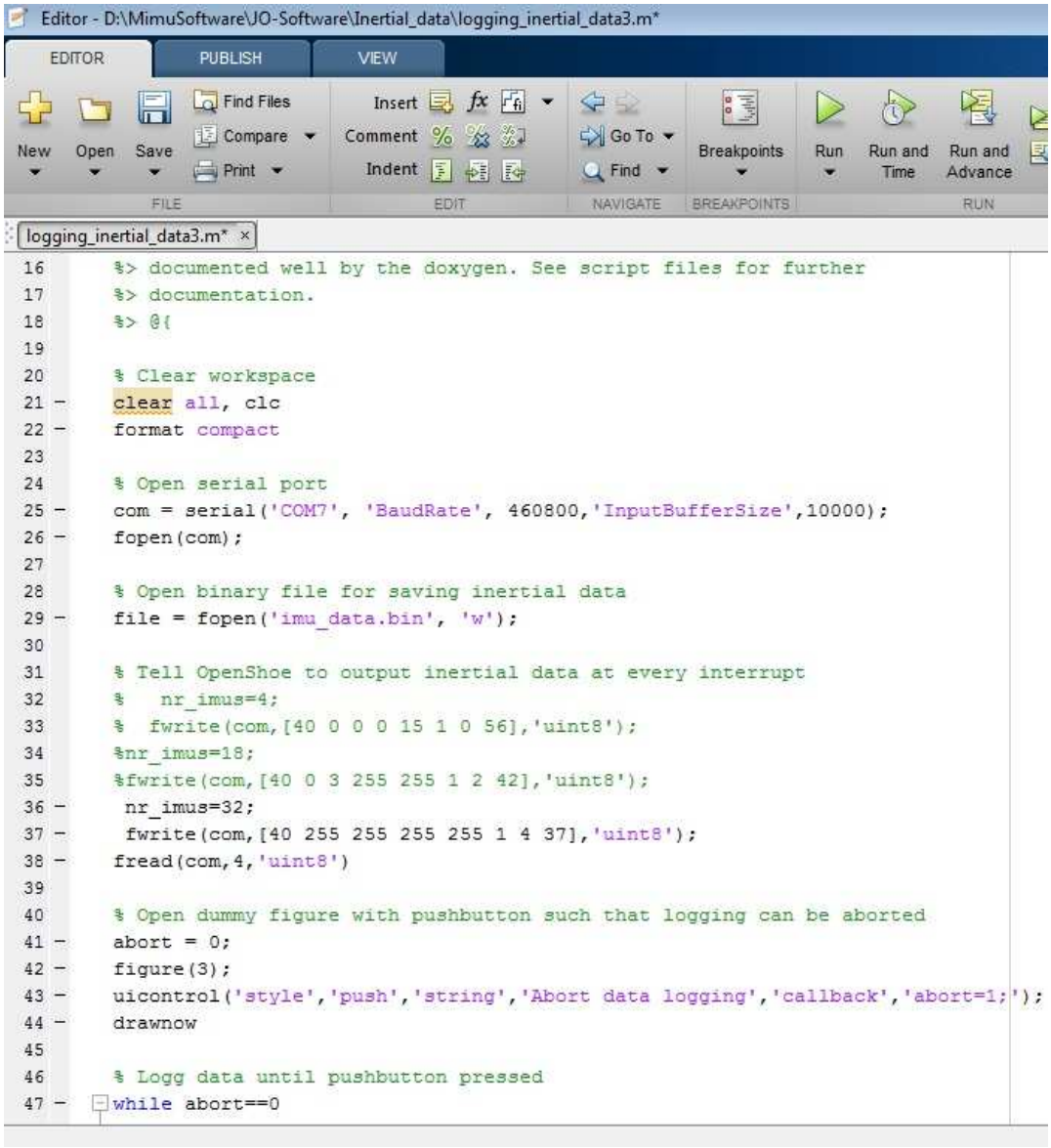


Note the connected COM Port (COM7).

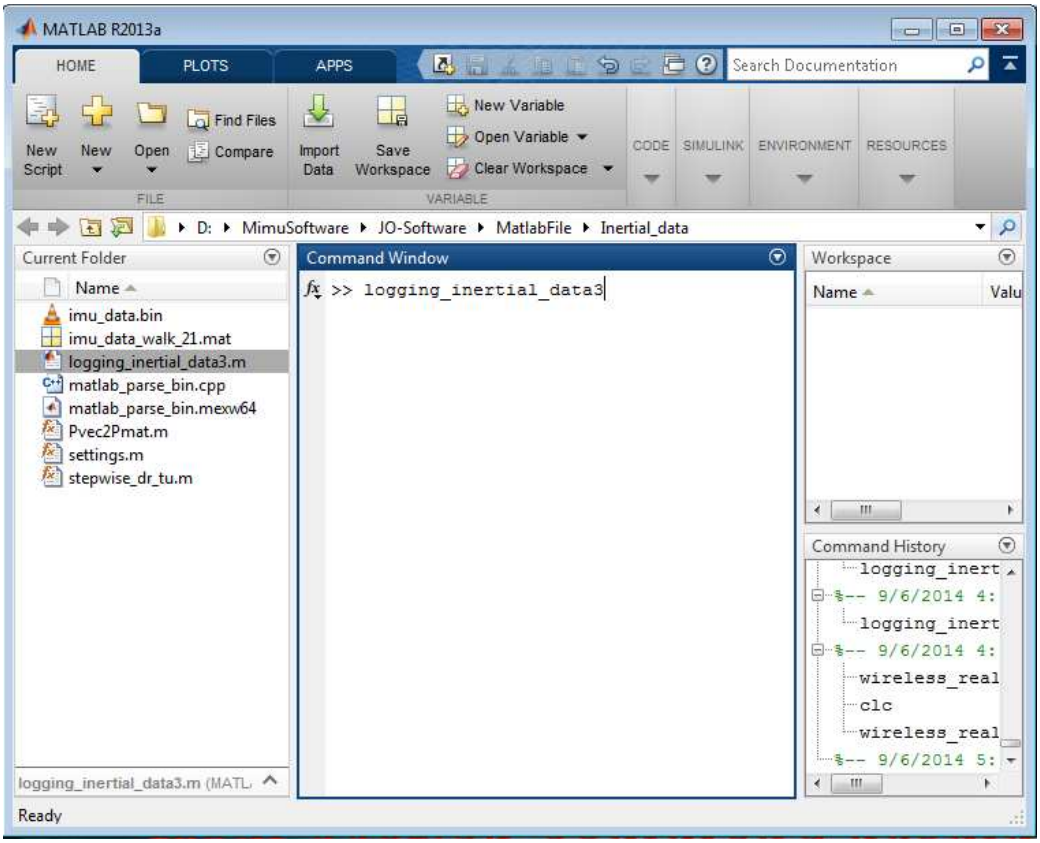
4. Open Matlab and select **logging_inertial_data3.m** for viewing



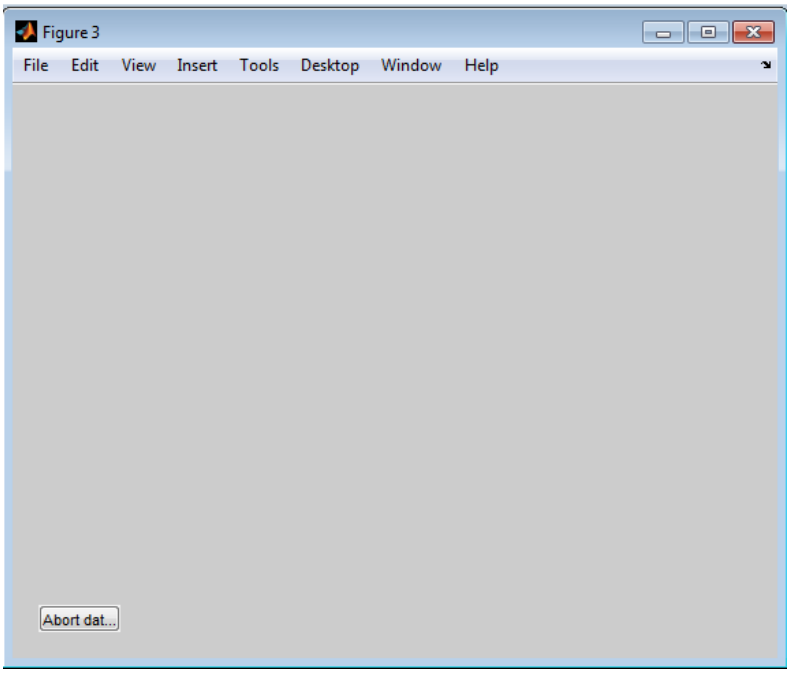
5. Update COM Port in the **logging_inertial_data3.m** file and save. Make sure that line no. 36 and 37 are uncommented and line no. 32 to 35 are commented in the same file.



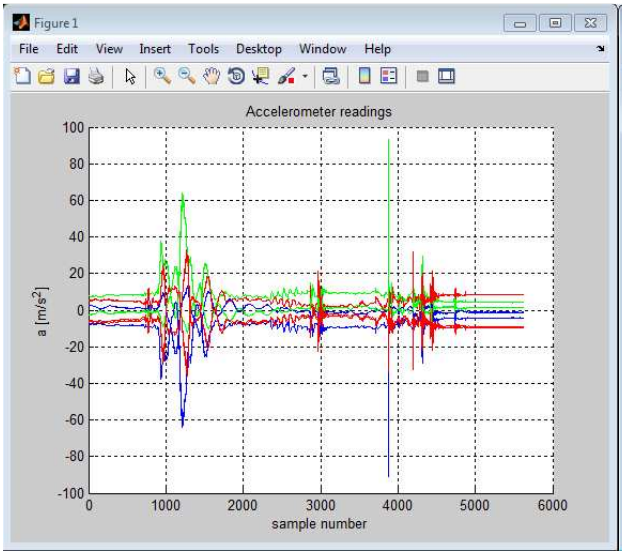
6. Run **logging_inertial_data3** from Matlab command prompt



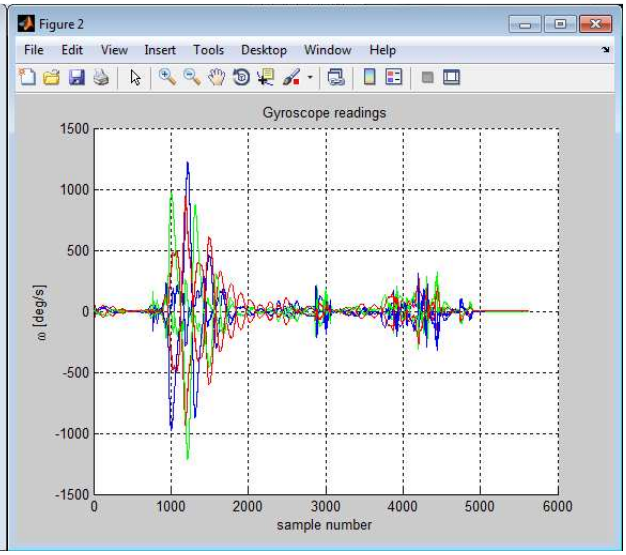
7. Shake MIMU4444 gently as shown in the video.
8. Click on Abort button of the Matlab figure which popped up on screen, on executing logging_inertial_data



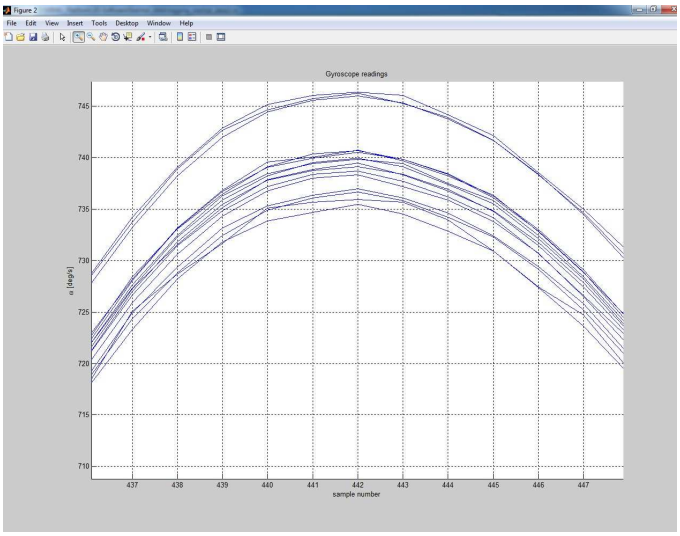
9. On clicking Abort button, two plots (one on top of other) would pop up on screen



Accelerometers' data from all four IMUs



Gyroscopes' data from all four IMUs



Zoom into the graph to note data corresponding to all the sensors present on board

Note:

- *Please restart Matlab, if it gives communication error.*