

Klau Geomatics

Importing IMU data from DJI & PixHawk



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Introduction

When using DSLR, the flight log file must be downloaded and converted to a recognizable format for the Klau PPK Processing Software.

The software will use this data to apply antenna offsets caused by the aircraft motion, this will result in more precise and accurate image centre coordinates.

This guide is outline how IMU log files can be extracted and converted to the required formats for post processing.

DJI IMU Data

Software Required

- DJI Flight Assistant Software - <https://www.dji.com/au/downloads/software/assistant-dji-2>
- CSV View Software - <https://datfile.net/CsvView/downloads.html>

Note: This process requires a 64-bit operating system with a 64-bit version of Java Runtime installed.

Procedure

- After installing the necessary software, open 'DJI Assistant'.
- Power on the drone and connect it to your PC via its USB port.
- Select your drone from the list of available devices. **[Figure 1]**
- Select "Data Upload". **[Figure 2]**
- Windows explorer will now open, select the required logs **[Figure 3]** Copy these files to a directory on your PC. (File format – FLYxxx.DAT)
- At this point your drone can be turned off and disconnected from the PC.
- Open 'CSV View' software. Click on the "open" bar as shown. **[Figure 4]**
- Navigate to the directory where files were saved in the previous step. Select your file, if you have multiple files only select 1 file. **[Figure 5]**
- Navigate to the 'File' drop down menu, select 'Export CSV'. Save the newly created file in safe location. Repeat this process for all individual files that need converting.
- Your IMU log files are now saved in a format that can be imported into the Klau PPK Processing software when prompted to do so. **[Figure 6]**

Figure 1:



Figure 2:

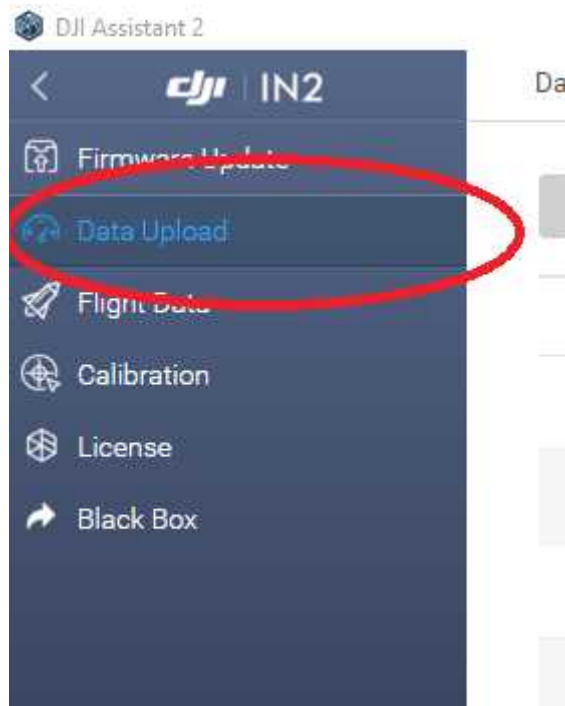


Figure 3:

Name	Date modified	Type	Size
FLY493.DAT	11/03/2019 4:44 PM	DAT File	192 KB
FLY494.DAT	11/03/2019 4:44 PM	DAT File	897 KB
FLY495.DAT	11/03/2019 4:55 PM	DAT File	14,245 KB
FLY496.DAT	11/03/2019 4:58 PM	DAT File	19,793 KB
FLY497.DAT	11/03/2019 5:20 PM	DAT File	152,265 KB
FLY498.DAT	11/03/2019 5:22 PM	DAT File	8,900 KB
FLY499.DAT	11/03/2019 6:17 PM	DAT File	352 KB
FLY500.DAT	11/03/2019 6:25 PM	DAT File	52,885 KB
FLY501.DAT	12/03/2019 5:36 PM	DAT File	10,521 KB
FLY502.DAT	15/03/2019 2:24 PM	DAT File	64 KB
FLY503.DAT	15/03/2019 3:31 PM	DAT File	460,801 KB
FLY504.DAT	15/03/2019 3:34 PM	DAT File	27,105 KB
FLY505.DAT	18/03/2019 1:51 PM	DAT File	165,497 KB
FLY506.DAT	19/03/2019 3:20 PM	DAT File	64 KB
FLY507.DAT	19/03/2019 3:41 PM	DAT File	169,677 KB
FLY508.DAT	19/03/2019 4:57 PM	DAT File	71,241 KB
FLY509.DAT	20/03/2019 8:01 AM	DAT File	352 KB
FLY510.DAT	20/03/2019 8:03 AM	DAT File	16,957 KB
FLY511.DAT	26/03/2019 1:02 PM	DAT File	46,497 KB
FLY512.DAT	26/03/2019 1:19 PM	DAT File	68,305 KB
FLY513.DAT	4/04/2019 1:23 PM	DAT File	873 KB

Figure 4:

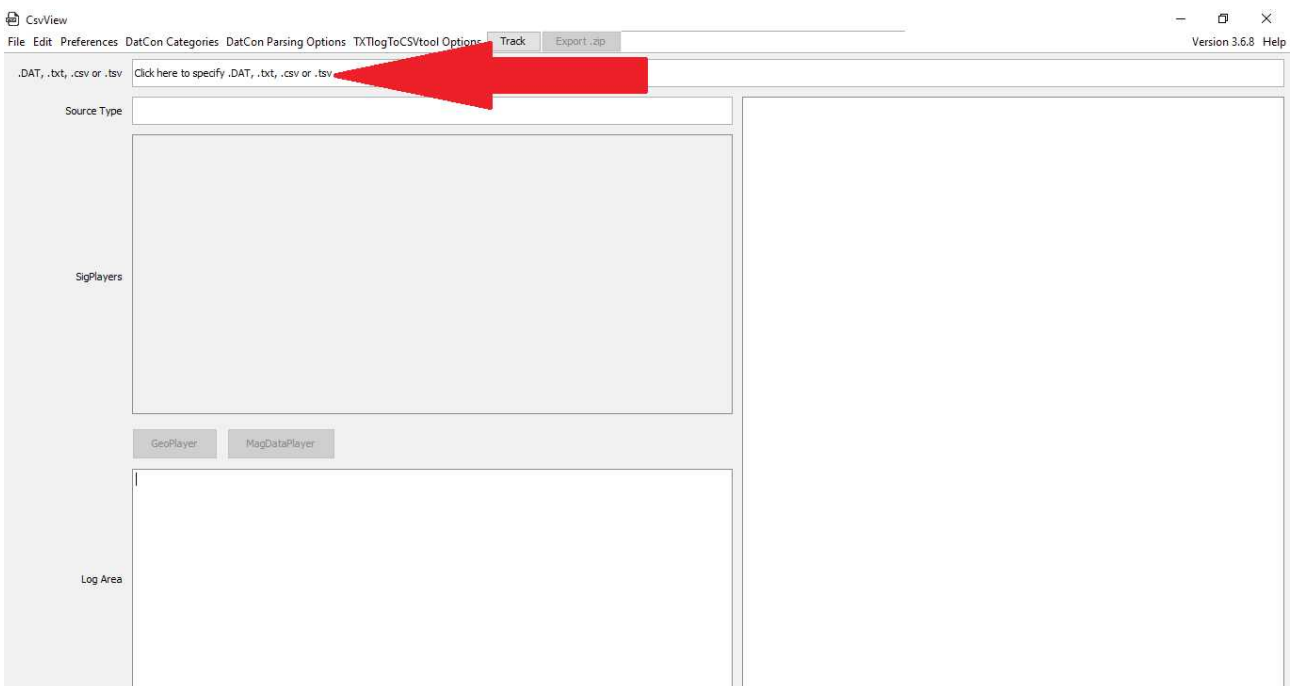


Figure 5:

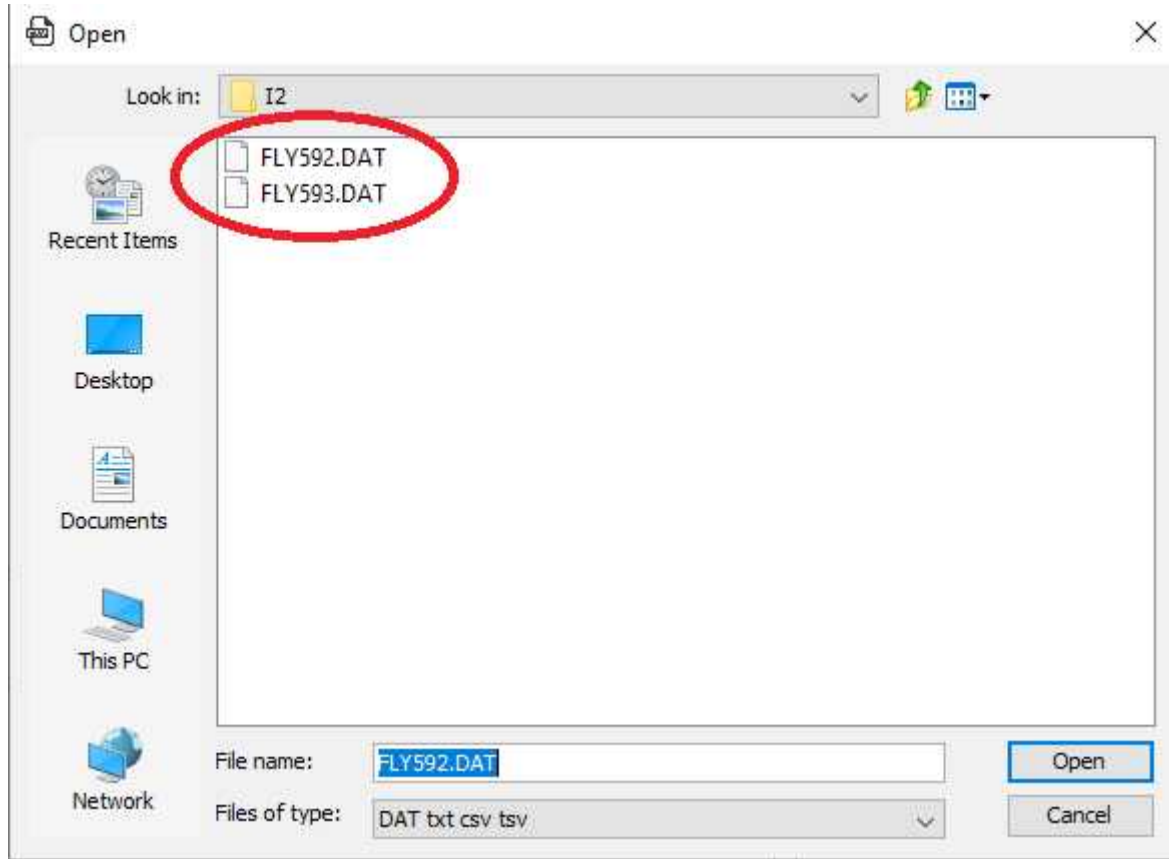
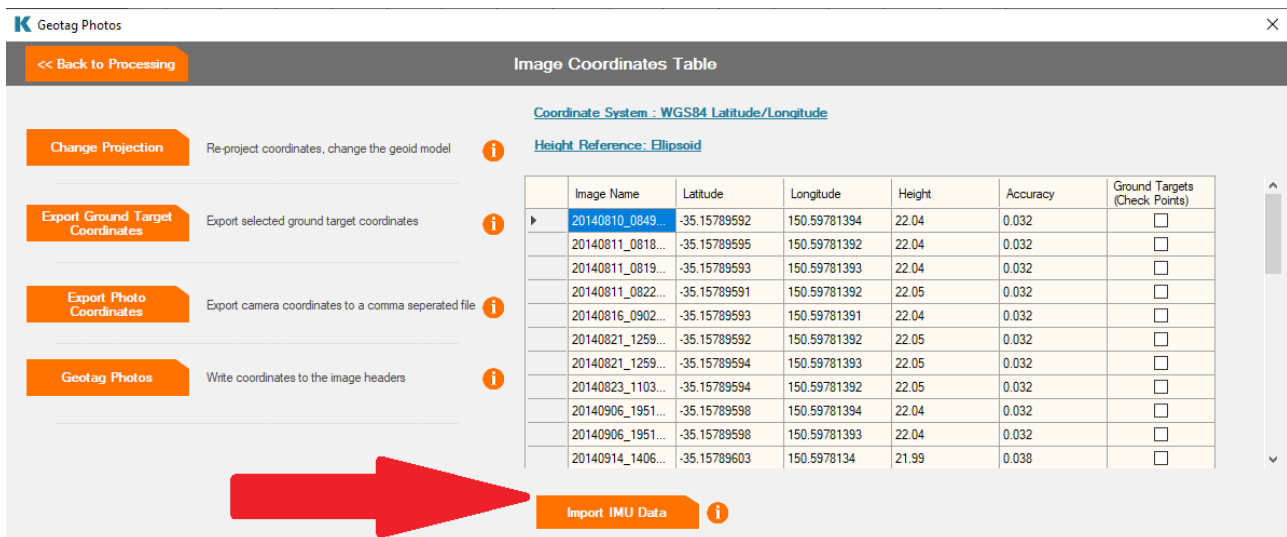


Figure 6:



PixHawk IMU Data

Software Required

- Mission Planner – Ardu Pilot: <http://firmware.ardupilot.org/Tools/MissionPlanner/>

Procedure

- After installing the necessary software, open ‘Mission Planner’.
- Plug the PixHawk into your PC using a Micro USB cable.
- Select “Connect” in the Mission Planner software. **[Figure 7]**
- The PixHawk parameters will now be loaded into the software, this may take a minute.
- Select the “Data Flash Logs” tab as shown. **[Figure 8]**
- Click “Download Data Flash Log via Mavlink” icon. **[Figure 9]**
- Select the required log file and click “Download Selected Logs”. **[Figure 10]**
- Mission Planner will create a folder in ‘My Documents’ and save log files in this location.
- Your IMU log files can now be imported into the Klau PPK Processing software when prompted to do so. **[Figure 11]**
- Take note that the file type (.GPX file extension) may need to be changed to the correct format before your log files can be seen. **[Figure 12]**

Figure 7:

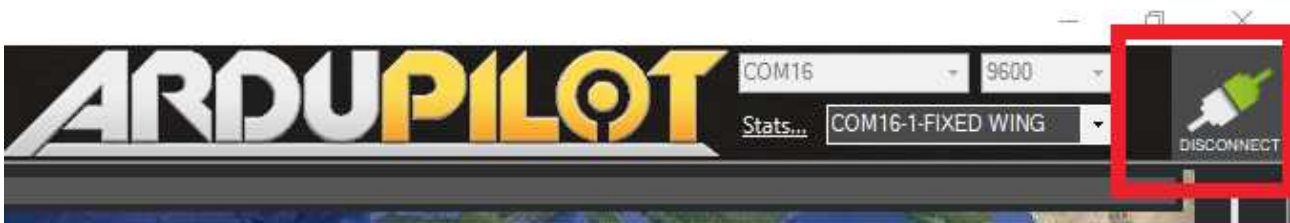


Figure 8:



Figure 9:



Figure 10:

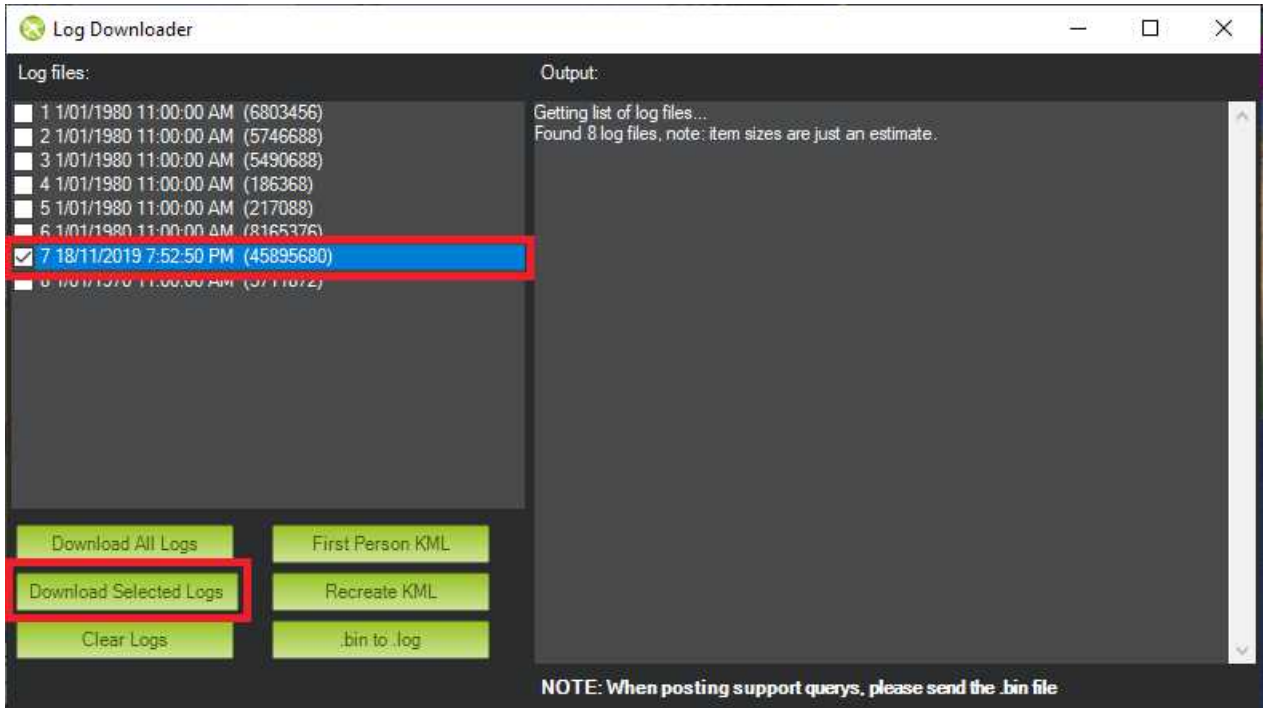


Figure 11:

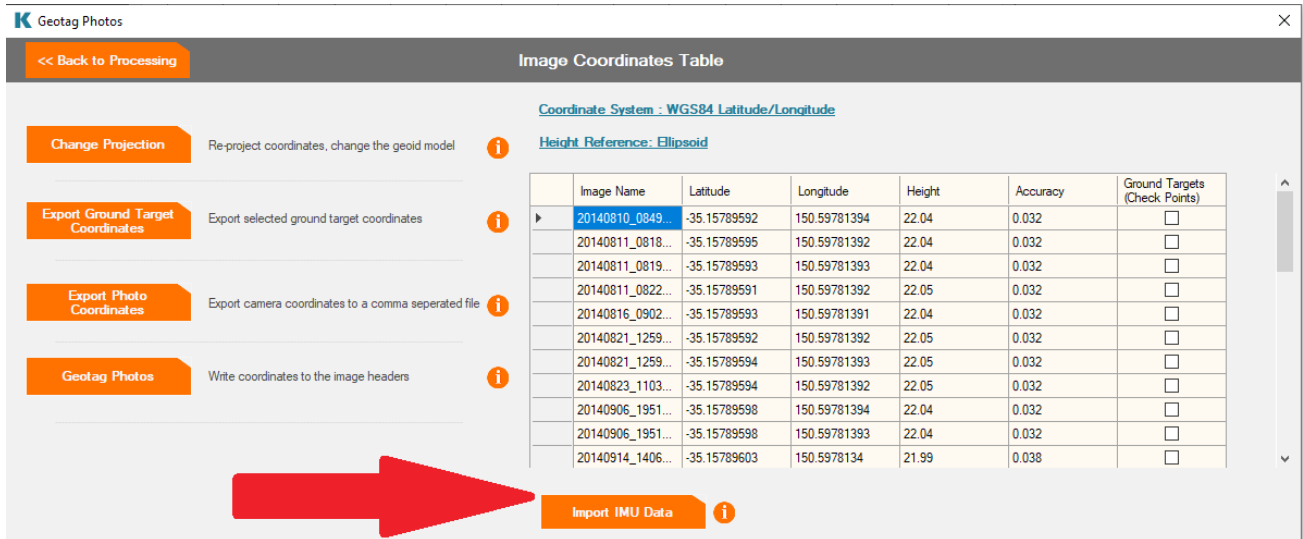


Figure 12:

