Extract Image Metadata from FLIR T640BX

The MATLAB script **ExmetadatFLIR.m** extracts latitude, longitude, and heading from FLIR image metadata, and converts latitude and longitude into decimal degrees. All these values are exported in ASCII file name 'FLIR_METADATA.csv'. The datum is that which you set your FLIR to -- the default being WSG84. To verify the datum the script outputs the geodetic datum from output.GPSInfo.GPSMapDatum.

 For use after downloading FLIR images.

Setup: Add Picture files to path, if from the FLIR **T640BX** camera file names should be titled IR_XXXX and have a related normal picture titled DC_XXXY, where Y=X-1. Due to this format I have made the loop go every 2nd value just read IR pictures. Therefore you will only able to export metadata in order of filename. All pictures MUST have compass and GPS coordinates or it will show an error. Many of the first images taken within a single survey do not have GPS coordinates as it takes some time for the camera GPS to locate satellites, so if you see an error try a later sequence.

Example: If you would like to read images IR_1164 to IR_1170 add this .m file to their directory and run the script; when prompted for first value in sequence type 1164 and when prompted for the last value in the sequence type in 1170. This script will next export a .csv file with these four IR images' metadata to the open directory.

The exported file consists of image number, latitude (decimal degrees), longitude, compass direction (360), North vector component of compass, east vector component of compass.

If you have any questions please contact Danielle Hare.

Danielle Hare
Graduate Student
Department of Geosciences
University of Massachusetts, Amherst
dhare@geo.umass.edu

USGS Volunteer for Science
Office of Groundwater, Branch of Geophysics
U.S. Geological Survey
http://water.usgs.gov/ogw/bgas/
(860) 487-7402

Version created November 19, 2013