Agisoft

# File Structure

4 folders

* Agisoft Projects
  + You can have multiple “Chunks” inside each project, so that each project can contain multiple flights. You could also have one chunk/flight per project, organize it however you want. I choose to have flights from the same field/date in one project to stay organized.
* Agisoft Config Files
  + Contains batch process config files. Flights from the same field usually requires the same process settings. Reusing those settings saves tons of setup time.
  + Usage: Workflow -> Batch Process -> Load
* Field\_image\_processing (python)
  + Post-processing after image stiching.
* Data (Copy)
  + I recommend saving raw data elsewhere and use the copy of that here, since we may modify file structure in this process.

1. For each flight, make sure you separate RGB and IR (thermal) images into 2 folders under the same directory.  
   \* Name it with order indicators like “1” “2” in the front so that the RGB camera will be loaded first, as the mater camera in Agisoft.  
   Graphical user interface

   Description automatically generated
2. Enter RGB folder and remove the images taken when the drone were taking off/landing, and leave only images taken about the same cruise height.  
   A screenshot of a computer

   Description automatically generated with low confidence
3. Enter IR folder and remove corresponding images.  
   Graphical user interface

   Description automatically generated
4. Load the image folder inside Agisoft.  
   Graphical user interface, application, Word

   Description automatically generated  
   A screenshot of a computer

   Description automatically generated with medium confidence
5. Load as separate sensors.  
   Graphical user interface, text, application

   Description automatically generated
6. Use batch process.  
   Graphical user interface, text, application

   Description automatically generated
7. Load batch process presettings from file.

Graphical user interface, text

Description automatically generated

A screenshot of a computer

Description automatically generated with medium confidence

1. Align Photos is the first and most important step. If your images does not have any geo info(GPS), set “Reference preselection” to “Disabled”.  
   Graphical user interface

   Description automatically generated
2. Check every batch process step and make sure you are having everything set to what you want. You can always skip some of the steps but unchecking some of them.  
   Note that if you are rerunning “Align Photos” (maybe because only half of the images was able to be aligned), and you don’t want to lose the previous successful part, make sure you set “Reset current alignment” to No.  
   Graphical user interface

   Description automatically generated
3. Some steps may sometimes fail entirely in “Batch process”. You can always choose to do it seperately under “Workflow”.  
   Graphical user interface, text, application

   Description automatically generated

Image Processing in Python

Check the “READ ME” in the link below!

<https://github.com/LJ-Jiahe/RGB-IR_Field_Image_Processing>