

EasyIDP: A python package for intermediate data processing in UAV based plant phenotyping



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Introduction

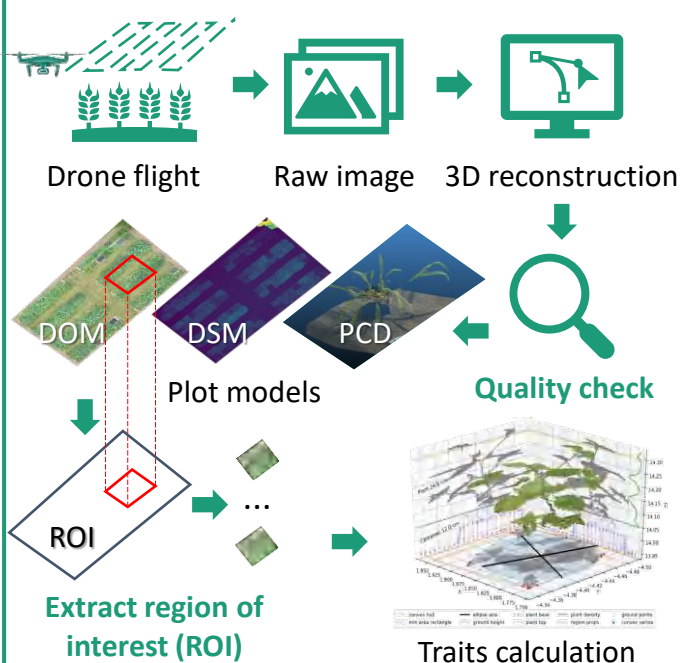
Traditional field survey



Time consuming Labor intensive

Low-throughput

High-throughput workflow

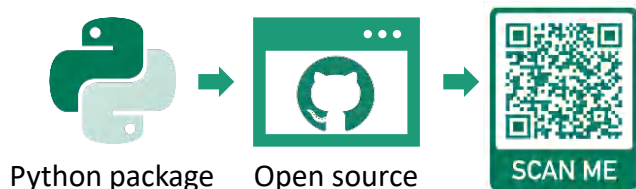


Current pain points

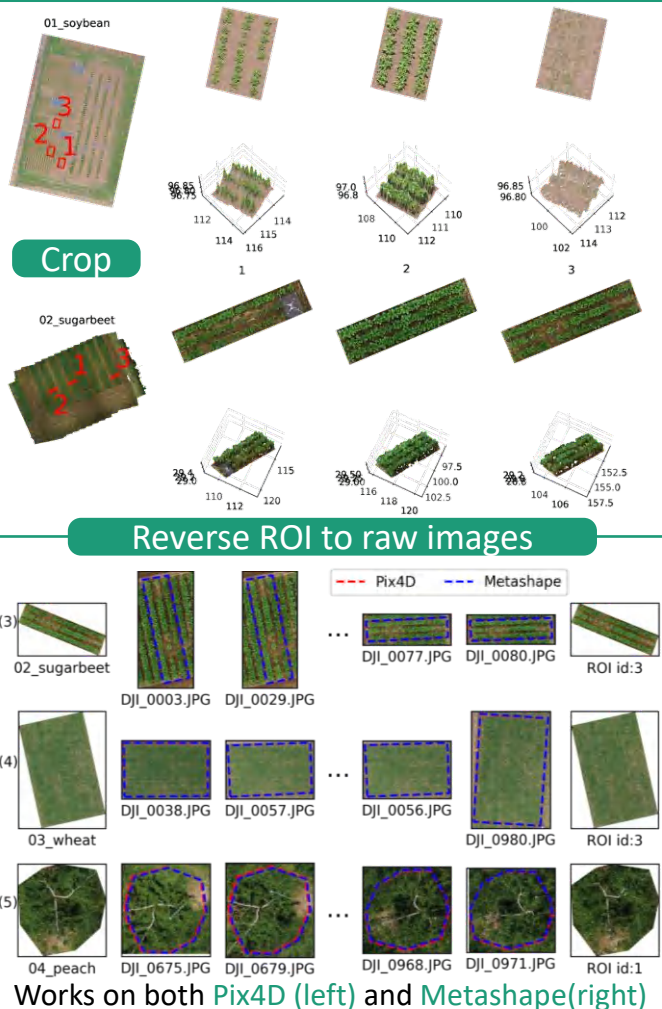
Lack **handy tools** for **previous intermediate** processing

- Crop DOM, DSM, & PCD to **small parts** (ROI)
↓
Easier to manage and analyze
- Reverse ROI back on **raw drone images**
↓
Higher quality and resolution

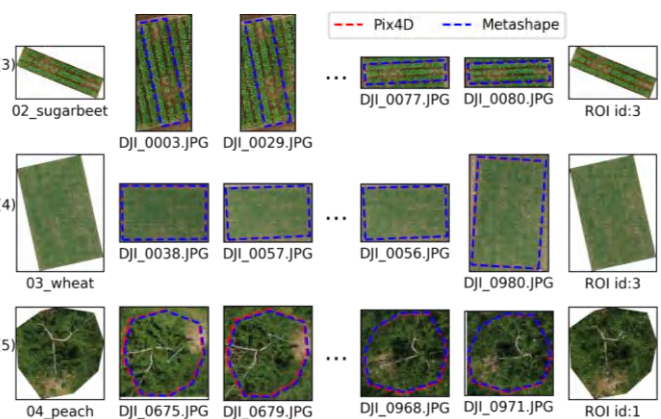
Implementation



Results

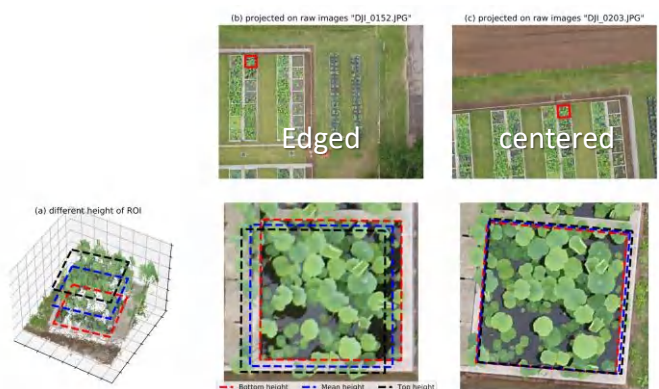


Reverse ROI to raw images



Works on both **Pix4D** (left) and **Metashape** (right)

Effects of ROI position & height



To eliminate the **effect of ROI height**, better to choose those **centered** raw images

Future work

- Integrate with practical agriculture applications

e.g., predict harvest time, lodging analysis, etc.