

```
[INFO] DTM is turned on, automatically turning on point cloud classification
[INFO] Initializing ODM - Sat Jun 05 12:48:31 2021
[INFO] =====
[INFO] build_overviews: False
[INFO] camera_lens: brown
[INFO] cameras: {}
[INFO] crop: 5.0
[INFO] debug: False
[INFO] dem_decimation: 1
[INFO] dem_euclidean_map: False
[INFO] dem_gapfill_steps: 3
[INFO] dem_resolution: 2.0
[INFO] depthmap_resolution: 1000.0
[INFO] dsm: True
[INFO] dtm: True
[INFO] end_with: odm_report
[INFO] fast_orthophoto: False
[INFO] feature_quality: high
[INFO] feature_type: sift
[INFO] force_gps: False
[INFO] gcp:
D:\WebODM\resources\app\apps\NodeODM\data\3977cfc2-da54-4db2-9e5c-9126eddd529f\g
cp\gcp.txt
[INFO] geo: None
[INFO] gps_accuracy: 10
[INFO] ignore_gsd: True
[INFO] matcher_distance: 0
[INFO] matcher_neighbors: 8
[INFO] matcher_type: flann
[INFO] max_concurrency: 12
[INFO] merge: all
[INFO] mesh_octree_depth: 11
[INFO] mesh_size: 200000
[INFO] min_num_features: 8000
[INFO] name: 3977cfc2-da54-4db2-9e5c-9126eddd529f
[INFO] optimize_disk_space: True
[INFO] orthophoto_compression: DEFLATE
[INFO] orthophoto_cutline: True
[INFO] orthophoto_kmz: False
[INFO] orthophoto_no_tiled: False
[INFO] orthophoto_png: False
[INFO] orthophoto_resolution: 2.0
[INFO] pc_classify: True
[INFO] pc_csv: False
[INFO] pc_ept: True
[INFO] pc_filter: 2.5
[INFO] pc_las: False
[INFO] pc_quality: medium
[INFO] pc_rectify: False
[INFO] pc_sample: 0
[INFO] pc_tile: False
[INFO] primary_band: auto
[INFO] project_path: D:\WebODM\resources\app\apps\NodeODM\data
[INFO] radiometric_calibration: none
```

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[INFO] rerun: None
[INFO] rerun_all: False
[INFO] rerun_from: None
[INFO] resize_to: 2048
[INFO] skip_3dmodel: False
[INFO] skip_band_alignment: False
[INFO] skip_report: False
[INFO] sm_cluster: None
[INFO] smrf_scalar: 1.25
[INFO] smrf_slope: 0.15
[INFO] smrf_threshold: 0.5
[INFO] smrf_window: 18.0
[INFO] split: 999999
[INFO] split_image_groups: None
[INFO] split_overlap: 150
[INFO] texturing_data_term: gmi
[INFO] texturing_keep_unseen_faces: False
[INFO] texturing_outlier_removal_type: gauss_clamping
[INFO] texturing_skip_global_seam_leveling: False
[INFO] texturing_skip_local_seam_leveling: False
[INFO] texturing_tone_mapping: none
[INFO] tiles: False
[INFO] time: False
[INFO] use_3dmesh: True
[INFO] use_exif: False
[INFO] use_fixed_camera_params: True
[INFO] use_hybrid_bundle_adjustment: False
[INFO] verbose: False
[INFO] =====
[INFO] Running dataset stage
[INFO] Loading dataset from:
D:\WebODM\resources\app\apps\NodeODM\data\3977cfc2-da54-4db2-9e5c-9126eddd529f\i
mages
[INFO] Loading 56 images
[INFO] Wrote images database:
D:\WebODM\resources\app\apps\NodeODM\data\3977cfc2-da54-4db2-9e5c-9126eddd529f\i
mages.json
[INFO] Found 56 usable images
[INFO] Parsing SRS header: +proj=tmerc +lat_0=0 +lon_0=24 +k=0.999923
+x_0=8500000 +y_0=0 +ellps=GRS80 +units=m +no_defs
[INFO] Parsing SRS header: WGS84 UTM 34N
[INFO] Parsing SRS header: WGS84 UTM 34N
[INFO] 18 GCP points will be used for georeferencing
[INFO] Generated coords file from GCP: WGS84 UTM 34N
[INFO] Wrote
D:\WebODM\resources\app\apps\NodeODM\data\3977cfc2-da54-4db2-9e5c-9126eddd529f\o
dm_georeferencing\odm_georeferencing_model_geo.txt
[INFO] Parsing SRS header: WGS84 UTM 34N
[INFO] Finished dataset stage
[INFO] Running split stage
[INFO] Normal dataset, will process all at once.
[INFO] Finished split stage
[INFO] Running merge stage
[INFO] Normal dataset, nothing to merge.
```

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[INFO] Finished merge stage
[INFO] Running opensfm stage
[INFO] Writing exif overrides
[INFO] Maximum photo dimensions: 5472px
[INFO] Photo dimensions for feature extraction: 2736px
[WARNING] Legacy option --depthmap-resolution (this might be removed in a future
version). Use --pc-quality instead.
[INFO] Altitude data detected, enabling it for GPS alignment
[INFO] ['use_exif_size: no', 'flann_algorithm: KDTree',
'feature_process_size: 2736', 'feature_min_frames: 8000', 'processes: 12',
'matching_gps_neighbors: 8', 'matching_gps_distance: 0',
'optimize_camera_parameters: no', 'undistorted_image_format: tif',
'bundle_outlier_filtering_type: AUTO', 'align_orientation_prior: vertical',
'triangulation_type: ROBUST', 'retriangulation_ratio: 2',
'camera_projection_type: BROWN', 'feature_type: SIFT', 'use_altitude_tag: yes',
'align_method: auto', 'local_bundle_radius: 0', 'bundle_use_gcp: yes',
'bundle_use_gps: no']
[INFO] running
D:\WebODM\resources\app\apps\ODM\SuperBuild\install\bin\opensfm\bin\opensfm
extract_metadata
"D:\WebODM\resources\app\apps\NodeODM\data\3977cfc2-da54-4db2-9e5c-9126eddd529f\
opensfm"
2021-06-05 12:48:33,724 INFO: Extracting EXIF for DJI_0116.JPG
2021-06-05 12:48:33,800 INFO: Extracting EXIF for DJI_0117.JPG
2021-06-05 12:48:33,869 INFO: Extracting EXIF for DJI_0118.JPG
2021-06-05 12:48:33,938 INFO: Extracting EXIF for DJI_0119.JPG
2021-06-05 12:48:34,006 INFO: Extracting EXIF for DJI_0120.JPG
2021-06-05 12:48:34,073 INFO: Extracting EXIF for DJI_0121.JPG
2021-06-05 12:48:34,141 INFO: Extracting EXIF for DJI_0122.JPG
2021-06-05 12:48:34,210 INFO: Extracting EXIF for DJI_0123.JPG
2021-06-05 12:48:34,283 INFO: Extracting EXIF for DJI_0124.JPG
2021-06-05 12:48:34,350 INFO: Extracting EXIF for DJI_0125.JPG
2021-06-05 12:48:34,423 INFO: Extracting EXIF for DJI_0126.JPG
2021-06-05 12:48:34,491 INFO: Extracting EXIF for DJI_0127.JPG
2021-06-05 12:48:34,560 INFO: Extracting EXIF for DJI_0128.JPG
2021-06-05 12:48:34,631 INFO: Extracting EXIF for DJI_0129.JPG
2021-06-05 12:48:34,703 INFO: Extracting EXIF for DJI_0130.JPG
2021-06-05 12:48:34,785 INFO: Extracting EXIF for DJI_0131.JPG
2021-06-05 12:48:34,853 INFO: Extracting EXIF for DJI_0132.JPG
2021-06-05 12:48:34,922 INFO: Extracting EXIF for DJI_0133.JPG
2021-06-05 12:48:34,991 INFO: Extracting EXIF for DJI_0134.JPG
2021-06-05 12:48:35,060 INFO: Extracting EXIF for DJI_0135.JPG
2021-06-05 12:48:35,129 INFO: Extracting EXIF for DJI_0136.JPG
2021-06-05 12:48:35,198 INFO: Extracting EXIF for DJI_0137.JPG
2021-06-05 12:48:35,267 INFO: Extracting EXIF for DJI_0138.JPG
2021-06-05 12:48:35,336 INFO: Extracting EXIF for DJI_0139.JPG
2021-06-05 12:48:35,407 INFO: Extracting EXIF for DJI_0140.JPG
2021-06-05 12:48:35,475 INFO: Extracting EXIF for DJI_0141.JPG
2021-06-05 12:48:35,546 INFO: Extracting EXIF for DJI_0142.JPG
2021-06-05 12:48:35,617 INFO: Extracting EXIF for DJI_0143.JPG
2021-06-05 12:48:35,690 INFO: Extracting EXIF for DJI_0144.JPG
2021-06-05 12:48:35,761 INFO: Extracting EXIF for DJI_0145.JPG
2021-06-05 12:48:35,830 INFO: Extracting EXIF for DJI_0146.JPG
2021-06-05 12:48:35,900 INFO: Extracting EXIF for DJI_0147.JPG
```

2021-06-05 12:48:35,969 INFO: Extracting EXIF for DJI\_0148.JPG  
2021-06-05 12:48:36,039 INFO: Extracting EXIF for DJI\_0149.JPG  
2021-06-05 12:48:37,320 INFO: Extracting EXIF for DJI\_0151.JPG  
2021-06-05 12:48:37,389 INFO: Extracting EXIF for DJI\_0152.JPG  
2021-06-05 12:48:37,458 INFO: Extracting EXIF for DJI\_0153.JPG  
2021-06-05 12:48:37,524 INFO: Extracting EXIF for DJI\_0154.JPG  
2021-06-05 12:48:37,592 INFO: Extracting EXIF for DJI\_0155.JPG  
2021-06-05 12:48:37,661 INFO: Extracting EXIF for DJI\_0156.JPG  
2021-06-05 12:48:37,729 INFO: Extracting EXIF for DJI\_0157.JPG  
2021-06-05 12:48:37,800 INFO: Extracting EXIF for DJI\_0158.JPG  
2021-06-05 12:48:37,872 INFO: Extracting EXIF for DJI\_0159.JPG  
2021-06-05 12:48:37,944 INFO: Extracting EXIF for DJI\_0160.JPG  
2021-06-05 12:48:38,011 INFO: Extracting EXIF for DJI\_0161.JPG  
2021-06-05 12:48:38,077 INFO: Extracting EXIF for DJI\_0162.JPG  
2021-06-05 12:48:38,145 INFO: Extracting EXIF for DJI\_0163.JPG  
2021-06-05 12:48:38,219 INFO: Extracting EXIF for DJI\_0164.JPG  
2021-06-05 12:48:38,286 INFO: Extracting EXIF for DJI\_0165.JPG  
2021-06-05 12:48:38,356 INFO: Extracting EXIF for DJI\_0166.JPG  
2021-06-05 12:48:38,423 INFO: Extracting EXIF for DJI\_0167.JPG  
2021-06-05 12:48:38,492 INFO: Extracting EXIF for DJI\_0168.JPG  
2021-06-05 12:48:38,560 INFO: Extracting EXIF for DJI\_0169.JPG  
2021-06-05 12:48:38,628 INFO: Extracting EXIF for DJI\_0170.JPG  
2021-06-05 12:48:38,696 INFO: Extracting EXIF for DJI\_0171.JPG  
[INFO] running  
D:\WebODM\resources\app\apps\ODM\SuperBuild\install\bin\opensfm\bin\opensfm  
detect\_features  
"D:\WebODM\resources\app\apps\NodeODM\data\3977cfc2-da54-4db2-9e5c-9126eddd529f\  
opensfm"  
2021-06-05 12:48:39,821 INFO: Extracting ROOT\_SIFT features for image  
DJI\_0118.JPG  
2021-06-05 12:48:39,822 INFO: Extracting ROOT\_SIFT features for image  
DJI\_0117.JPG  
2021-06-05 12:48:39,822 INFO: Extracting ROOT\_SIFT features for image  
DJI\_0116.JPG  
2021-06-05 12:48:39,822 INFO: Extracting ROOT\_SIFT features for image  
DJI\_0120.JPG  
2021-06-05 12:48:39,823 INFO: Extracting ROOT\_SIFT features for image  
DJI\_0121.JPG  
2021-06-05 12:48:39,822 INFO: Extracting ROOT\_SIFT features for image  
DJI\_0119.JPG  
2021-06-05 12:48:39,823 INFO: Extracting ROOT\_SIFT features for image  
DJI\_0123.JPG  
2021-06-05 12:48:39,823 INFO: Extracting ROOT\_SIFT features for image  
DJI\_0122.JPG  
2021-06-05 12:48:39,824 INFO: Extracting ROOT\_SIFT features for image  
DJI\_0124.JPG  
2021-06-05 12:48:39,824 INFO: Extracting ROOT\_SIFT features for image  
DJI\_0125.JPG  
2021-06-05 12:48:39,824 INFO: Extracting ROOT\_SIFT features for image  
DJI\_0126.JPG  
2021-06-05 12:48:39,824 INFO: Extracting ROOT\_SIFT features for image  
DJI\_0127.JPG  
2021-06-05 12:48:40,624 DEBUG: Computing sift with threshold 0.1  
2021-06-05 12:48:40,704 DEBUG: Computing sift with threshold 0.1

2021-06-05 12:48:40,734 DEBUG: Computing sift with threshold 0.1  
2021-06-05 12:48:40,736 DEBUG: Computing sift with threshold 0.1  
2021-06-05 12:48:40,743 DEBUG: Computing sift with threshold 0.1  
2021-06-05 12:48:40,743 DEBUG: Computing sift with threshold 0.1  
2021-06-05 12:48:40,743 DEBUG: Computing sift with threshold 0.1  
2021-06-05 12:48:40,743 DEBUG: Computing sift with threshold 0.1  
2021-06-05 12:48:40,744 DEBUG: Computing sift with threshold 0.1  
2021-06-05 12:48:40,748 DEBUG: Computing sift with threshold 0.1  
2021-06-05 12:48:40,749 DEBUG: Computing sift with threshold 0.1  
2021-06-05 12:48:40,751 DEBUG: Computing sift with threshold 0.1  
2021-06-05 12:48:43,860 DEBUG: Found 20001 points in 3.235008478164673s  
2021-06-05 12:48:43,862 DEBUG: done  
2021-06-05 12:48:44,085 DEBUG: Found 16875 points in 3.3479771614074707s  
2021-06-05 12:48:44,085 DEBUG: done  
2021-06-05 12:48:44,137 DEBUG: Found 23074 points in 3.3929901123046875s  
2021-06-05 12:48:44,137 DEBUG: done  
2021-06-05 12:48:44,247 DEBUG: Found 30527 points in 3.502992868423462s  
2021-06-05 12:48:44,247 DEBUG: done  
2021-06-05 12:48:44,471 DEBUG: Found 25038 points in 3.7359845638275146s  
2021-06-05 12:48:44,472 DEBUG: done  
2021-06-05 12:48:44,571 DEBUG: Found 7629 points in 3.8209924697875977s  
2021-06-05 12:48:44,571 DEBUG: reducing threshold  
2021-06-05 12:48:44,571 DEBUG: Computing sift with threshold 0.06666666666666667  
2021-06-05 12:48:44,589 DEBUG: Found 10992 points in 3.8829829692840576s  
2021-06-05 12:48:44,589 DEBUG: done  
2021-06-05 12:48:44,811 DEBUG: Found 27377 points in 4.061995267868042s  
2021-06-05 12:48:44,811 DEBUG: done  
2021-06-05 12:48:44,848 DEBUG: Found 30186 points in 4.095995187759399s  
2021-06-05 12:48:44,848 DEBUG: done  
2021-06-05 12:48:45,099 DEBUG: Found 29142 points in 4.355985164642334s  
2021-06-05 12:48:45,099 DEBUG: done  
2021-06-05 12:48:45,351 DEBUG: Found 9305 points in 4.607982397079468s  
2021-06-05 12:48:45,352 DEBUG: done  
2021-06-05 12:48:46,208 DEBUG: Found 21409 points in 5.463993072509766s  
2021-06-05 12:48:46,208 DEBUG: done  
2021-06-05 12:48:46,764 DEBUG: No segmentation for DJI\_0124.JPG, no features masked.  
2021-06-05 12:48:47,111 DEBUG: No segmentation for DJI\_0116.JPG, no features masked.  
2021-06-05 12:48:47,196 DEBUG: No segmentation for DJI\_0125.JPG, no features masked.  
2021-06-05 12:48:47,535 DEBUG: No segmentation for DJI\_0127.JPG, no features masked.  
2021-06-05 12:48:47,568 INFO: Extracting ROOT\_SIFT features for image DJI\_0128.JPG  
2021-06-05 12:48:47,666 DEBUG: Found 23513 points in 3.0929973125457764s  
2021-06-05 12:48:47,666 DEBUG: done  
2021-06-05 12:48:47,705 INFO: Extracting ROOT\_SIFT features for image DJI\_0129.JPG  
2021-06-05 12:48:47,708 DEBUG: No segmentation for DJI\_0123.JPG, no features masked.  
2021-06-05 12:48:47,888 DEBUG: No segmentation for DJI\_0118.JPG, no features masked.  
2021-06-05 12:48:47,892 DEBUG: No segmentation for DJI\_0121.JPG, no features

masked.  
2021-06-05 12:48:48,010 INFO: Extracting ROOT\_SIFT features for image DJI\_0130.JPG  
2021-06-05 12:48:48,077 INFO: Extracting ROOT\_SIFT features for image DJI\_0131.JPG  
2021-06-05 12:48:48,315 DEBUG: No segmentation for DJI\_0122.JPG, no features masked.  
2021-06-05 12:48:49,014 DEBUG: Computing sift with threshold 0.1  
2021-06-05 12:48:49,239 DEBUG: No segmentation for DJI\_0119.JPG, no features masked.  
2021-06-05 12:48:49,247 DEBUG: No segmentation for DJI\_0117.JPG, no features masked.  
2021-06-05 12:48:49,267 DEBUG: No segmentation for DJI\_0120.JPG, no features masked.  
2021-06-05 12:48:49,270 DEBUG: Computing sift with threshold 0.1  
2021-06-05 12:48:49,272 INFO: Extracting ROOT\_SIFT features for image DJI\_0132.JPG  
2021-06-05 12:48:49,306 INFO: Extracting ROOT\_SIFT features for image DJI\_0133.JPG  
2021-06-05 12:48:49,502 INFO: Extracting ROOT\_SIFT features for image DJI\_0134.JPG  
2021-06-05 12:48:49,548 DEBUG: Computing sift with threshold 0.1  
2021-06-05 12:48:49,589 DEBUG: Computing sift with threshold 0.1  
2021-06-05 12:48:50,166 INFO: Extracting ROOT\_SIFT features for image DJI\_0135.JPG  
2021-06-05 12:48:50,202 INFO: Extracting ROOT\_SIFT features for image DJI\_0136.JPG  
2021-06-05 12:48:50,281 DEBUG: Computing sift with threshold 0.1  
2021-06-05 12:48:50,283 DEBUG: Computing sift with threshold 0.1  
2021-06-05 12:48:50,491 DEBUG: Computing sift with threshold 0.1  
2021-06-05 12:48:50,506 DEBUG: No segmentation for DJI\_0126.JPG, no features masked.  
2021-06-05 12:48:50,523 INFO: Extracting ROOT\_SIFT features for image DJI\_0137.JPG  
2021-06-05 12:48:50,540 INFO: Extracting ROOT\_SIFT features for image DJI\_0138.JPG  
2021-06-05 12:48:51,108 DEBUG: Found 10030 points in 2.0940029621124268s  
2021-06-05 12:48:51,108 DEBUG: done  
2021-06-05 12:48:51,144 DEBUG: Computing sift with threshold 0.1  
2021-06-05 12:48:51,160 DEBUG: Computing sift with threshold 0.1  
2021-06-05 12:48:51,618 DEBUG: Computing sift with threshold 0.1  
2021-06-05 12:48:51,618 INFO: Extracting ROOT\_SIFT features for image DJI\_0139.JPG  
2021-06-05 12:48:51,626 DEBUG: Found 18261 points in 2.3560051918029785s  
2021-06-05 12:48:51,627 DEBUG: done  
2021-06-05 12:48:51,649 DEBUG: Computing sift with threshold 0.1  
2021-06-05 12:48:52,467 DEBUG: Found 37234 points in 2.9189975261688232s  
2021-06-05 12:48:52,467 DEBUG: done  
2021-06-05 12:48:52,786 DEBUG: Computing sift with threshold 0.1  
2021-06-05 12:48:52,853 DEBUG: Found 65982 points in 3.2630035877227783s  
2021-06-05 12:48:52,853 DEBUG: done  
2021-06-05 12:48:53,404 DEBUG: No segmentation for DJI\_0128.JPG, no features masked.  
2021-06-05 12:48:53,792 INFO: Extracting ROOT\_SIFT features for image

DJI\_0140.JPG

2021-06-05 12:48:53,935 DEBUG: Found 102953 points in 3.6509974002838135s  
2021-06-05 12:48:53,935 DEBUG: done  
2021-06-05 12:48:54,162 DEBUG: Found 122323 points in 3.8809916973114014s  
2021-06-05 12:48:54,162 DEBUG: done  
2021-06-05 12:48:54,353 DEBUG: Found 74237 points in 3.2079951763153076s  
2021-06-05 12:48:54,353 DEBUG: done  
2021-06-05 12:48:54,484 DEBUG: No segmentation for DJI\_0129.JPG, no features masked.  
2021-06-05 12:48:54,597 DEBUG: Found 34935 points in 2.9470012187957764s  
2021-06-05 12:48:54,597 DEBUG: done  
2021-06-05 12:48:54,670 DEBUG: Found 82282 points in 3.509997606277466s  
2021-06-05 12:48:54,670 DEBUG: done  
2021-06-05 12:48:54,715 DEBUG: Found 123736 points in 4.224005937576294s  
2021-06-05 12:48:54,715 DEBUG: done  
2021-06-05 12:48:54,781 DEBUG: Computing sift with threshold 0.1  
2021-06-05 12:48:55,031 DEBUG: Found 54904 points in 3.4130008220672607s  
2021-06-05 12:48:55,032 DEBUG: done  
2021-06-05 12:48:55,275 INFO: Extracting ROOT\_SIFT features for image

DJI\_0141.JPG

2021-06-05 12:48:55,417 DEBUG: Found 13708 points in 2.6299965381622314s  
2021-06-05 12:48:55,418 DEBUG: done  
2021-06-05 12:48:56,362 DEBUG: Computing sift with threshold 0.1  
2021-06-05 12:48:56,588 DEBUG: No segmentation for DJI\_0130.JPG, no features masked.  
2021-06-05 12:48:57,244 DEBUG: Found 9905 points in 2.4619929790496826s  
2021-06-05 12:48:57,244 DEBUG: done  
2021-06-05 12:48:57,740 DEBUG: No segmentation for DJI\_0139.JPG, no features masked.  
2021-06-05 12:48:57,973 INFO: Extracting ROOT\_SIFT features for image

DJI\_0142.JPG

2021-06-05 12:48:58,327 DEBUG: Found 9975 points in 1.9649989604949951s  
2021-06-05 12:48:58,331 DEBUG: done  
2021-06-05 12:48:58,347 INFO: Extracting ROOT\_SIFT features for image

DJI\_0143.JPG

2021-06-05 12:48:58,350 DEBUG: No segmentation for DJI\_0138.JPG, no features masked.  
2021-06-05 12:48:58,595 DEBUG: No segmentation for DJI\_0131.JPG, no features masked.  
2021-06-05 12:48:58,868 DEBUG: Computing sift with threshold 0.1  
2021-06-05 12:48:59,032 DEBUG: No segmentation for DJI\_0140.JPG, no features masked.  
2021-06-05 12:48:59,235 DEBUG: Computing sift with threshold 0.1  
2021-06-05 12:48:59,414 INFO: Extracting ROOT\_SIFT features for image

DJI\_0144.JPG

2021-06-05 12:48:59,951 DEBUG: No segmentation for DJI\_0137.JPG, no features masked.  
2021-06-05 12:48:59,965 INFO: Extracting ROOT\_SIFT features for image

DJI\_0145.JPG

2021-06-05 12:49:00,176 DEBUG: No segmentation for DJI\_0141.JPG, no features masked.  
2021-06-05 12:49:00,317 DEBUG: Computing sift with threshold 0.1  
2021-06-05 12:49:00,535 DEBUG: No segmentation for DJI\_0136.JPG, no features masked.

2021-06-05 12:49:00,611 INFO: Extracting ROOT\_SIFT features for image DJI\_0146.JPG  
2021-06-05 12:49:00,829 DEBUG: Found 7104 points in 1.9609994888305664s  
2021-06-05 12:49:00,829 DEBUG: reducing threshold  
2021-06-05 12:49:00,829 DEBUG: Computing sift with threshold 0.06666666666666667  
2021-06-05 12:49:00,848 DEBUG: Computing sift with threshold 0.1  
2021-06-05 12:49:01,171 DEBUG: Found 7474 points in 1.9360008239746094s  
2021-06-05 12:49:01,187 DEBUG: reducing threshold  
2021-06-05 12:49:01,354 DEBUG: Computing sift with threshold 0.06666666666666667  
2021-06-05 12:49:01,619 DEBUG: No segmentation for DJI\_0132.JPG, no features masked.  
2021-06-05 12:49:01,619 INFO: Extracting ROOT\_SIFT features for image DJI\_0147.JPG  
2021-06-05 12:49:01,628 DEBUG: No segmentation for DJI\_0135.JPG, no features masked.  
2021-06-05 12:49:01,860 DEBUG: Computing sift with threshold 0.1  
2021-06-05 12:49:02,400 DEBUG: Found 10097 points in 2.067004442214966s  
2021-06-05 12:49:02,402 DEBUG: done  
2021-06-05 12:49:02,402 INFO: Extracting ROOT\_SIFT features for image DJI\_0148.JPG  
2021-06-05 12:49:02,938 DEBUG: Computing sift with threshold 0.1  
2021-06-05 12:49:02,955 DEBUG: Found 7729 points in 2.106995105743408s  
2021-06-05 12:49:02,955 DEBUG: reducing threshold  
2021-06-05 12:49:02,966 DEBUG: No segmentation for DJI\_0133.JPG, no features masked.  
2021-06-05 12:49:02,966 DEBUG: Computing sift with threshold 0.06666666666666667  
2021-06-05 12:49:03,385 DEBUG: Found 19163 points in 2.5560030937194824s  
2021-06-05 12:49:03,391 DEBUG: done  
2021-06-05 12:49:03,414 DEBUG: Computing sift with threshold 0.1  
2021-06-05 12:49:03,424 DEBUG: No segmentation for DJI\_0134.JPG, no features masked.  
2021-06-05 12:49:03,697 DEBUG: Found 16427 points in 2.319000482559204s  
2021-06-05 12:49:03,707 DEBUG: done  
2021-06-05 12:49:03,950 INFO: Extracting ROOT\_SIFT features for image DJI\_0149.JPG  
2021-06-05 12:49:03,987 DEBUG: Found 4853 points in 2.126997470855713s  
2021-06-05 12:49:03,987 DEBUG: reducing threshold  
2021-06-05 12:49:03,987 DEBUG: Computing sift with threshold 0.06666666666666667  
2021-06-05 12:49:04,374 DEBUG: No segmentation for DJI\_0144.JPG, no features masked.  
2021-06-05 12:49:04,781 INFO: Extracting ROOT\_SIFT features for image DJI\_0150.JPG  
2021-06-05 12:49:04,874 DEBUG: Computing sift with threshold 0.1  
2021-06-05 12:49:05,151 DEBUG: Found 10133 points in 2.2119991779327393s  
2021-06-05 12:49:05,151 DEBUG: done  
2021-06-05 12:49:05,235 INFO: Extracting ROOT\_SIFT features for image DJI\_0151.JPG  
2021-06-05 12:49:05,498 DEBUG: Found 22599 points in 2.5210070610046387s  
2021-06-05 12:49:05,498 DEBUG: done  
2021-06-05 12:49:05,673 DEBUG: Found 18460 points in 2.2589964866638184s  
2021-06-05 12:49:05,674 DEBUG: done  
2021-06-05 12:49:05,684 DEBUG: Computing sift with threshold 0.1  
2021-06-05 12:49:06,121 DEBUG: No segmentation for DJI\_0142.JPG, no features masked.



2021-06-05 12:49:06,171 INFO: Extracting ROOT\_SIFT features for image  
DJI\_0152.JPG  
2021-06-05 12:49:06,250 DEBUG: No segmentation for DJI\_0143.JPG, no features  
masked.  
2021-06-05 12:49:06,279 DEBUG: Computing sift with threshold 0.1  
2021-06-05 12:49:06,550 DEBUG: Found 21565 points in 2.5619988441467285s  
2021-06-05 12:49:06,550 DEBUG: done  
2021-06-05 12:49:07,075 INFO: Extracting ROOT\_SIFT features for image  
DJI\_0153.JPG  
2021-06-05 12:49:07,098 DEBUG: Computing sift with threshold 0.1  
2021-06-05 12:49:07,099 INFO: Extracting ROOT\_SIFT features for image  
DJI\_0154.JPG  
2021-06-05 12:49:07,370 DEBUG: Found 25961 points in 2.4959988594055176s  
2021-06-05 12:49:07,371 DEBUG: done  
2021-06-05 12:49:07,377 DEBUG: No segmentation for DJI\_0147.JPG, no features  
masked.  
2021-06-05 12:49:07,806 INFO: Extracting ROOT\_SIFT features for image  
DJI\_0155.JPG  
2021-06-05 12:49:08,058 DEBUG: Computing sift with threshold 0.1  
2021-06-05 12:49:08,132 DEBUG: Computing sift with threshold 0.1  
2021-06-05 12:49:08,304 DEBUG: No segmentation for DJI\_0148.JPG, no features  
masked.  
2021-06-05 12:49:08,409 DEBUG: Found 35194 points in 2.7249956130981445s  
2021-06-05 12:49:08,409 DEBUG: done  
2021-06-05 12:49:08,443 INFO: Extracting ROOT\_SIFT features for image  
DJI\_0156.JPG  
2021-06-05 12:49:08,450 DEBUG: No segmentation for DJI\_0145.JPG, no features  
masked.  
2021-06-05 12:49:08,582 INFO: Extracting ROOT\_SIFT features for image  
DJI\_0157.JPG  
2021-06-05 12:49:08,774 DEBUG: Computing sift with threshold 0.1  
2021-06-05 12:49:08,822 DEBUG: Found 42975 points in 2.5429961681365967s  
2021-06-05 12:49:08,822 DEBUG: done  
2021-06-05 12:49:09,259 DEBUG: No segmentation for DJI\_0146.JPG, no features  
masked.  
2021-06-05 12:49:09,270 INFO: Extracting ROOT\_SIFT features for image  
DJI\_0158.JPG  
2021-06-05 12:49:09,438 INFO: Extracting ROOT\_SIFT features for image  
DJI\_0159.JPG  
2021-06-05 12:49:09,475 DEBUG: Computing sift with threshold 0.1  
2021-06-05 12:49:09,597 DEBUG: Computing sift with threshold 0.1  
2021-06-05 12:49:09,840 DEBUG: Found 45977 points in 2.7419917583465576s  
2021-06-05 12:49:09,840 DEBUG: done  
2021-06-05 12:49:10,219 INFO: Extracting ROOT\_SIFT features for image  
DJI\_0160.JPG  
2021-06-05 12:49:10,251 DEBUG: Computing sift with threshold 0.1  
2021-06-05 12:49:10,385 DEBUG: No segmentation for DJI\_0149.JPG, no features  
masked.  
2021-06-05 12:49:10,406 DEBUG: Computing sift with threshold 0.1  
2021-06-05 12:49:10,763 DEBUG: Found 44635 points in 2.7040021419525146s  
2021-06-05 12:49:10,763 DEBUG: done  
2021-06-05 12:49:11,183 DEBUG: Computing sift with threshold 0.1  
2021-06-05 12:49:11,398 DEBUG: Found 71540 points in 3.2660043239593506s  
2021-06-05 12:49:11,398 DEBUG: done

2021-06-05 12:49:11,515 INFO: Extracting ROOT\_SIFT features for image DJI\_0161.JPG  
2021-06-05 12:49:11,602 DEBUG: Found 47417 points in 2.827003002166748s  
2021-06-05 12:49:11,602 DEBUG: done  
2021-06-05 12:49:12,280 DEBUG: Found 9974 points in 2.682997703552246s  
2021-06-05 12:49:12,280 DEBUG: done  
2021-06-05 12:49:12,304 DEBUG: No segmentation for DJI\_0150.JPG, no features masked.  
2021-06-05 12:49:12,408 DEBUG: Found 30747 points in 2.932997465133667s  
2021-06-05 12:49:12,408 DEBUG: done  
2021-06-05 12:49:12,640 DEBUG: Found 6507 points in 2.389003276824951s  
2021-06-05 12:49:12,640 DEBUG: reducing threshold  
2021-06-05 12:49:12,640 DEBUG: Computing sift with threshold 0.06666666666666667  
2021-06-05 12:49:12,741 DEBUG: Computing sift with threshold 0.1  
2021-06-05 12:49:12,885 DEBUG: Found 8134 points in 2.4790074825286865s  
2021-06-05 12:49:12,885 DEBUG: done  
2021-06-05 12:49:13,280 DEBUG: No segmentation for DJI\_0151.JPG, no features masked.  
2021-06-05 12:49:13,741 DEBUG: Found 7899 points in 2.557995557785034s  
2021-06-05 12:49:13,741 DEBUG: reducing threshold  
2021-06-05 12:49:13,742 DEBUG: Computing sift with threshold 0.06666666666666667  
2021-06-05 12:49:13,822 INFO: Extracting ROOT\_SIFT features for image DJI\_0162.JPG  
2021-06-05 12:49:14,499 DEBUG: No segmentation for DJI\_0157.JPG, no features masked.  
2021-06-05 12:49:14,503 DEBUG: No segmentation for DJI\_0152.JPG, no features masked.  
2021-06-05 12:49:14,762 DEBUG: No segmentation for DJI\_0159.JPG, no features masked.  
2021-06-05 12:49:14,779 DEBUG: Computing sift with threshold 0.1  
2021-06-05 12:49:14,870 INFO: Extracting ROOT\_SIFT features for image DJI\_0163.JPG  
2021-06-05 12:49:14,973 INFO: Extracting ROOT\_SIFT features for image DJI\_0164.JPG  
2021-06-05 12:49:14,983 DEBUG: Found 8565 points in 2.241997718811035s  
2021-06-05 12:49:14,984 DEBUG: done  
2021-06-05 12:49:15,168 INFO: Extracting ROOT\_SIFT features for image DJI\_0165.JPG  
2021-06-05 12:49:15,176 DEBUG: No segmentation for DJI\_0153.JPG, no features masked.  
2021-06-05 12:49:15,282 DEBUG: Found 27555 points in 2.6409964561462402s  
2021-06-05 12:49:15,282 DEBUG: done  
2021-06-05 12:49:15,760 DEBUG: No segmentation for DJI\_0156.JPG, no features masked.  
2021-06-05 12:49:15,823 DEBUG: Computing sift with threshold 0.1  
2021-06-05 12:49:16,041 DEBUG: No segmentation for DJI\_0155.JPG, no features masked.  
2021-06-05 12:49:16,045 DEBUG: Computing sift with threshold 0.1  
2021-06-05 12:49:16,144 DEBUG: Computing sift with threshold 0.1  
2021-06-05 12:49:16,261 DEBUG: Found 24126 points in 2.5190019607543945s  
2021-06-05 12:49:16,262 DEBUG: done  
2021-06-05 12:49:16,434 INFO: Extracting ROOT\_SIFT features for image DJI\_0166.JPG  
2021-06-05 12:49:16,889 DEBUG: No segmentation for DJI\_0161.JPG, no features

masked.  
2021-06-05 12:49:17,007 INFO: Extracting ROOT\_SIFT features for image DJI\_0167.JPG  
2021-06-05 12:49:17,049 DEBUG: Found 8890 points in 2.2700014114379883s  
2021-06-05 12:49:17,049 DEBUG: done  
2021-06-05 12:49:17,331 INFO: Extracting ROOT\_SIFT features for image DJI\_0168.JPG  
2021-06-05 12:49:17,340 DEBUG: No segmentation for DJI\_0154.JPG, no features masked.  
2021-06-05 12:49:17,355 INFO: Extracting ROOT\_SIFT features for image DJI\_0169.JPG  
2021-06-05 12:49:17,599 DEBUG: Computing sift with threshold 0.1  
2021-06-05 12:49:17,954 DEBUG: Computing sift with threshold 0.1  
2021-06-05 12:49:18,068 INFO: Extracting ROOT\_SIFT features for image DJI\_0170.JPG  
2021-06-05 12:49:18,231 DEBUG: Found 12876 points in 2.408001661300659s  
2021-06-05 12:49:18,232 DEBUG: done  
2021-06-05 12:49:18,282 DEBUG: Computing sift with threshold 0.1  
2021-06-05 12:49:18,349 DEBUG: Computing sift with threshold 0.1  
2021-06-05 12:49:18,503 DEBUG: Found 13405 points in 2.4569966793060303s  
2021-06-05 12:49:18,503 DEBUG: done  
2021-06-05 12:49:18,511 DEBUG: Found 11578 points in 2.3659987449645996s  
2021-06-05 12:49:18,512 DEBUG: done  
2021-06-05 12:49:18,515 DEBUG: No segmentation for DJI\_0158.JPG, no features masked.  
2021-06-05 12:49:19,007 DEBUG: No segmentation for DJI\_0162.JPG, no features masked.  
2021-06-05 12:49:19,028 DEBUG: Computing sift with threshold 0.1  
2021-06-05 12:49:19,291 DEBUG: No segmentation for DJI\_0160.JPG, no features masked.  
2021-06-05 12:49:19,433 INFO: Extracting ROOT\_SIFT features for image DJI\_0171.JPG  
2021-06-05 12:49:20,180 DEBUG: Found 19084 points in 2.5799994468688965s  
2021-06-05 12:49:20,181 DEBUG: done  
2021-06-05 12:49:20,358 DEBUG: Computing sift with threshold 0.1  
2021-06-05 12:49:20,408 DEBUG: No segmentation for DJI\_0163.JPG, no features masked.  
2021-06-05 12:49:20,511 DEBUG: Found 27909 points in 2.55700421333313s  
2021-06-05 12:49:20,512 DEBUG: done  
2021-06-05 12:49:20,644 DEBUG: No segmentation for DJI\_0165.JPG, no features masked.  
2021-06-05 12:49:20,714 DEBUG: No segmentation for DJI\_0164.JPG, no features masked.  
2021-06-05 12:49:20,835 DEBUG: Found 34530 points in 2.5529978275299072s  
2021-06-05 12:49:20,836 DEBUG: done  
2021-06-05 12:49:20,961 DEBUG: Found 37369 points in 2.611999988555908s  
2021-06-05 12:49:20,961 DEBUG: done  
2021-06-05 12:49:21,316 DEBUG: Found 29477 points in 2.2869980335235596s  
2021-06-05 12:49:21,316 DEBUG: done  
2021-06-05 12:49:21,994 DEBUG: No segmentation for DJI\_0166.JPG, no features masked.  
2021-06-05 12:49:22,059 DEBUG: Found 13771 points in 1.701003074645996s  
2021-06-05 12:49:22,059 DEBUG: done  
2021-06-05 12:49:22,459 DEBUG: No segmentation for DJI\_0167.JPG, no features

masked.  
2021-06-05 12:49:22,853 DEBUG: No segmentation for DJI\_0168.JPG, no features masked.  
2021-06-05 12:49:23,083 DEBUG: No segmentation for DJI\_0169.JPG, no features masked.  
2021-06-05 12:49:23,103 DEBUG: No segmentation for DJI\_0170.JPG, no features masked.  
2021-06-05 12:49:23,113 DEBUG: No segmentation for DJI\_0171.JPG, no features masked.  
[INFO] running  
D:\WebODM\resources\app\apps\ODM\SuperBuild\install\bin\opensfm\bin\opensfm  
match\_features  
"D:\WebODM\resources\app\apps\NodeODM\data\3977cfc2-da54-4db2-9e5c-9126eddd529f\  
opensfm"  
2021-06-05 12:49:25,359 INFO: Matching 263 image pairs  
2021-06-05 12:49:25,359 INFO: Computing pair matching with 12 processes  
2021-06-05 12:49:25,448 DEBUG: No segmentation for DJI\_0127.JPG, no features masked.  
2021-06-05 12:49:25,452 DEBUG: No segmentation for DJI\_0147.JPG, no features masked.  
2021-06-05 12:49:25,454 DEBUG: No segmentation for DJI\_0157.JPG, no features masked.  
2021-06-05 12:49:25,476 DEBUG: No segmentation for DJI\_0163.JPG, no features masked.  
2021-06-05 12:49:25,494 DEBUG: No segmentation for DJI\_0143.JPG, no features masked.  
2021-06-05 12:49:25,530 DEBUG: No segmentation for DJI\_0117.JPG, no features masked.  
2021-06-05 12:49:25,531 DEBUG: No segmentation for DJI\_0146.JPG, no features masked.  
2021-06-05 12:49:25,533 DEBUG: No segmentation for DJI\_0125.JPG, no features masked.  
2021-06-05 12:49:25,549 DEBUG: No segmentation for DJI\_0162.JPG, no features masked.  
2021-06-05 12:49:25,571 DEBUG: No segmentation for DJI\_0119.JPG, no features masked.  
2021-06-05 12:49:25,583 DEBUG: No segmentation for DJI\_0148.JPG, no features masked.  
2021-06-05 12:49:25,598 DEBUG: No segmentation for DJI\_0168.JPG, no features masked.  
2021-06-05 12:49:25,601 DEBUG: No segmentation for DJI\_0138.JPG, no features masked.  
2021-06-05 12:49:25,617 DEBUG: No segmentation for DJI\_0160.JPG, no features masked.  
2021-06-05 12:49:25,655 DEBUG: No segmentation for DJI\_0152.JPG, no features masked.  
2021-06-05 12:49:25,705 DEBUG: No segmentation for DJI\_0166.JPG, no features masked.  
2021-06-05 12:49:25,706 DEBUG: No segmentation for DJI\_0121.JPG, no features masked.  
2021-06-05 12:49:25,760 DEBUG: No segmentation for DJI\_0151.JPG, no features masked.  
2021-06-05 12:49:25,768 DEBUG: No segmentation for DJI\_0154.JPG, no features masked.

2021-06-05 12:49:25,891 DEBUG: No segmentation for DJI\_0149.JPG, no features masked.

2021-06-05 12:49:25,906 DEBUG: No segmentation for DJI\_0131.JPG, no features masked.

2021-06-05 12:49:26,362 DEBUG: Matching DJI\_0127.JPG and DJI\_0125.JPG. Matcher: FLANN (symmetric) T-desc: 0.983 T-robust: 0.010 T-total: 0.993 Matches: 322 Robust: 303 Success: True

2021-06-05 12:49:26,423 DEBUG: No segmentation for DJI\_0128.JPG, no features masked.

2021-06-05 12:49:26,468 DEBUG: Matching DJI\_0163.JPG and DJI\_0162.JPG. Matcher: FLANN (symmetric) T-desc: 1.091 T-robust: 0.005 T-total: 1.096 Matches: 948 Robust: 926 Success: True

2021-06-05 12:49:26,518 DEBUG: No segmentation for DJI\_0141.JPG, no features masked.

2021-06-05 12:49:26,631 DEBUG: Matching DJI\_0143.JPG and DJI\_0162.JPG. Matcher: FLANN (symmetric) T-desc: 1.260 T-robust: 0.003 T-total: 1.263 Matches: 452 Robust: 415 Success: True

2021-06-05 12:49:26,721 DEBUG: No segmentation for DJI\_0124.JPG, no features masked.

2021-06-05 12:49:26,827 DEBUG: Matching DJI\_0157.JPG and DJI\_0148.JPG. Matcher: FLANN (symmetric) T-desc: 1.446 T-robust: 0.008 T-total: 1.454 Matches: 1738 Robust: 1724 Success: True

2021-06-05 12:49:27,117 DEBUG: Matching DJI\_0127.JPG and DJI\_0128.JPG. Matcher: FLANN (symmetric) T-desc: 0.746 T-robust: 0.005 T-total: 0.751 Matches: 928 Robust: 901 Success: True

2021-06-05 12:49:27,135 DEBUG: Matching DJI\_0147.JPG and DJI\_0160.JPG. Matcher: FLANN (symmetric) T-desc: 1.767 T-robust: 0.001 T-total: 1.768 Matches: 80 Robust: 69 Success: True

2021-06-05 12:49:27,170 DEBUG: No segmentation for DJI\_0140.JPG, no features masked.

2021-06-05 12:49:27,293 DEBUG: No segmentation for DJI\_0120.JPG, no features masked.

2021-06-05 12:49:27,308 DEBUG: Matching DJI\_0157.JPG and DJI\_0147.JPG. Matcher: FLANN (symmetric) T-desc: 0.464 T-robust: 0.009 T-total: 0.473 Matches: 1956 Robust: 1945 Success: True

2021-06-05 12:49:27,318 DEBUG: Matching DJI\_0163.JPG and DJI\_0141.JPG. Matcher: FLANN (symmetric) T-desc: 0.847 T-robust: 0.002 T-total: 0.848 Matches: 334 Robust: 316 Success: True

2021-06-05 12:49:27,342 DEBUG: Matching DJI\_0119.JPG and DJI\_0148.JPG. Matcher: FLANN (symmetric) T-desc: 1.971 T-robust: 0.002 T-total: 1.973 Matches: 347 Robust: 312 Success: True

2021-06-05 12:49:27,477 DEBUG: No segmentation for DJI\_0150.JPG, no features masked.

2021-06-05 12:49:27,800 DEBUG: Matching DJI\_0127.JPG and DJI\_0140.JPG. Matcher: FLANN (symmetric) T-desc: 0.681 T-robust: 0.001 T-total: 0.683 Matches: 107 Robust: 88 Success: True

2021-06-05 12:49:27,889 DEBUG: No segmentation for DJI\_0129.JPG, no features masked.

2021-06-05 12:49:28,013 DEBUG: Matching DJI\_0143.JPG and DJI\_0124.JPG. Matcher: FLANN (symmetric) T-desc: 1.379 T-robust: 0.002 T-total: 1.381 Matches: 154 Robust: 127 Success: True

2021-06-05 12:49:28,126 DEBUG: Matching DJI\_0163.JPG and DJI\_0140.JPG. Matcher: FLANN (symmetric) T-desc: 0.805 T-robust: 0.002 T-total: 0.807 Matches: 120 Robust: 99 Success: True

2021-06-05 12:49:28,182 DEBUG: Matching DJI\_0146.JPG and DJI\_0121.JPG. Matcher: FLANN (symmetric) T-desc: 2.812 T-robust: 0.002 T-total: 2.814 Matches: 324 Robust: 301 Success: True

2021-06-05 12:49:28,189 DEBUG: No segmentation for DJI\_0165.JPG, no features masked.

2021-06-05 12:49:28,460 DEBUG: Matching DJI\_0168.JPG and DJI\_0166.JPG. Matcher: FLANN (symmetric) T-desc: 3.091 T-robust: 0.002 T-total: 3.092 Matches: 273 Robust: 249 Success: True

2021-06-05 12:49:28,593 DEBUG: No segmentation for DJI\_0167.JPG, no features masked.

2021-06-05 12:49:29,402 DEBUG: Matching DJI\_0143.JPG and DJI\_0127.JPG. Matcher: FLANN (symmetric) T-desc: 1.387 T-robust: 0.002 T-total: 1.389 Matches: 106 Robust: 81 Success: True

2021-06-05 12:49:30,177 DEBUG: Matching DJI\_0163.JPG and DJI\_0165.JPG. Matcher: FLANN (symmetric) T-desc: 2.049 T-robust: 0.001 T-total: 2.050 Matches: 294 Robust: 282 Success: True

2021-06-05 12:49:30,224 DEBUG: No segmentation for DJI\_0161.JPG, no features masked.

2021-06-05 12:49:30,415 DEBUG: Matching DJI\_0127.JPG and DJI\_0129.JPG. Matcher: FLANN (symmetric) T-desc: 2.613 T-robust: 0.001 T-total: 2.614 Matches: 155 Robust: 140 Success: True

2021-06-05 12:49:30,423 DEBUG: Matching DJI\_0147.JPG and DJI\_0120.JPG. Matcher: FLANN (symmetric) T-desc: 3.286 T-robust: 0.001 T-total: 3.287 Matches: 191 Robust: 174 Success: True

2021-06-05 12:49:30,554 DEBUG: No segmentation for DJI\_0122.JPG, no features masked.

2021-06-05 12:49:30,808 DEBUG: Matching DJI\_0117.JPG and DJI\_0151.JPG. Matcher: FLANN (symmetric) T-desc: 5.432 T-robust: 0.004 T-total: 5.436 Matches: 1121 Robust: 1101 Success: True

2021-06-05 12:49:31,036 DEBUG: Matching DJI\_0146.JPG and DJI\_0124.JPG. Matcher: FLANN (symmetric) T-desc: 2.851 T-robust: 0.001 T-total: 2.852 Matches: 140 Robust: 119 Success: True

2021-06-05 12:49:31,330 DEBUG: Matching DJI\_0157.JPG and DJI\_0150.JPG. Matcher: FLANN (symmetric) T-desc: 4.020 T-robust: 0.001 T-total: 4.021 Matches: 100 Robust: 84 Success: True

2021-06-05 12:49:31,374 DEBUG: No segmentation for DJI\_0159.JPG, no features masked.

2021-06-05 12:49:31,430 DEBUG: Matching DJI\_0143.JPG and DJI\_0141.JPG. Matcher: FLANN (symmetric) T-desc: 2.024 T-robust: 0.002 T-total: 2.026 Matches: 381 Robust: 357 Success: True

2021-06-05 12:49:31,523 DEBUG: No segmentation for DJI\_0142.JPG, no features masked.

2021-06-05 12:49:31,899 DEBUG: Matching DJI\_0127.JPG and DJI\_0141.JPG. Matcher: FLANN (symmetric) T-desc: 1.481 T-robust: 0.001 T-total: 1.483 Matches: 240 Robust: 226 Success: True

2021-06-05 12:49:31,924 DEBUG: Matching DJI\_0163.JPG and DJI\_0161.JPG. Matcher: FLANN (symmetric) T-desc: 1.745 T-robust: 0.001 T-total: 1.746 Matches: 229 Robust: 213 Success: True

2021-06-05 12:49:32,023 DEBUG: Matching DJI\_0119.JPG and DJI\_0120.JPG. Matcher: FLANN (symmetric) T-desc: 4.632 T-robust: 0.026 T-total: 4.658 Matches: 7942 Robust: 7910 Success: True

2021-06-05 12:49:32,087 DEBUG: No segmentation for DJI\_0164.JPG, no features masked.

2021-06-05 12:49:32,917 DEBUG: Matching DJI\_0157.JPG and DJI\_0159.JPG. Matcher:

FLANN (symmetric) T-desc: 1.586 T-robust: 0.001 T-total: 1.586 Matches: 117  
Robust: 111 Success: True  
2021-06-05 12:49:33,983 DEBUG: Matching DJI\_0168.JPG and DJI\_0167.JPG. Matcher:  
FLANN (symmetric) T-desc: 5.516 T-robust: 0.004 T-total: 5.519 Matches: 1023  
Robust: 995 Success: True  
2021-06-05 12:49:34,315 DEBUG: Matching DJI\_0146.JPG and DJI\_0148.JPG. Matcher:  
FLANN (symmetric) T-desc: 3.273 T-robust: 0.003 T-total: 3.277 Matches: 827  
Robust: 807 Success: True  
2021-06-05 12:49:34,346 DEBUG: Matching DJI\_0147.JPG and DJI\_0122.JPG. Matcher:  
FLANN (symmetric) T-desc: 3.921 T-robust: 0.001 T-total: 3.922 Matches: 223  
Robust: 206 Success: True  
2021-06-05 12:49:34,379 DEBUG: No segmentation for DJI\_0136.JPG, no features  
masked.  
2021-06-05 12:49:34,689 DEBUG: Matching DJI\_0127.JPG and DJI\_0142.JPG. Matcher:  
FLANN (symmetric) T-desc: 2.788 T-robust: 0.001 T-total: 2.789 Matches: 213  
Robust: 187 Success: True  
2021-06-05 12:49:34,689 DEBUG: Image DJI\_0127.JPG matches: 6 out of 6  
2021-06-05 12:49:34,824 DEBUG: Matching DJI\_0163.JPG and DJI\_0164.JPG. Matcher:  
FLANN (symmetric) T-desc: 2.891 T-robust: 0.005 T-total: 2.896 Matches: 1462  
Robust: 1433 Success: True  
2021-06-05 12:49:34,824 DEBUG: Image DJI\_0163.JPG matches: 6 out of 6  
2021-06-05 12:49:35,027 DEBUG: No segmentation for DJI\_0169.JPG, no features  
masked.  
2021-06-05 12:49:35,203 DEBUG: No segmentation for DJI\_0170.JPG, no features  
masked.  
2021-06-05 12:49:35,256 DEBUG: Matching DJI\_0143.JPG and DJI\_0142.JPG. Matcher:  
FLANN (symmetric) T-desc: 3.815 T-robust: 0.006 T-total: 3.821 Matches: 1768  
Robust: 1740 Success: True  
2021-06-05 12:49:35,386 DEBUG: No segmentation for DJI\_0145.JPG, no features  
masked.  
2021-06-05 12:49:36,457 DEBUG: Matching DJI\_0157.JPG and DJI\_0146.JPG. Matcher:  
FLANN (symmetric) T-desc: 3.532 T-robust: 0.005 T-total: 3.537 Matches: 802  
Robust: 786 Success: True  
2021-06-05 12:49:37,281 DEBUG: Matching DJI\_0154.JPG and DJI\_0149.JPG. Matcher:  
FLANN (symmetric) T-desc: 11.911 T-robust: 0.002 T-total: 11.913 Matches: 464  
Robust: 434 Success: True  
2021-06-05 12:49:37,464 DEBUG: No segmentation for DJI\_0156.JPG, no features  
masked.  
2021-06-05 12:49:37,665 DEBUG: Matching DJI\_0117.JPG and DJI\_0150.JPG. Matcher:  
FLANN (symmetric) T-desc: 6.853 T-robust: 0.002 T-total: 6.856 Matches: 356  
Robust: 344 Success: True  
2021-06-05 12:49:37,758 DEBUG: Matching DJI\_0119.JPG and DJI\_0117.JPG. Matcher:  
FLANN (symmetric) T-desc: 5.726 T-robust: 0.006 T-total: 5.731 Matches: 1248  
Robust: 1210 Success: True  
2021-06-05 12:49:38,277 DEBUG: Matching DJI\_0147.JPG and DJI\_0148.JPG. Matcher:  
FLANN (symmetric) T-desc: 3.905 T-robust: 0.014 T-total: 3.920 Matches: 4085  
Robust: 4065 Success: True  
2021-06-05 12:49:38,348 DEBUG: Matching DJI\_0146.JPG and DJI\_0159.JPG. Matcher:  
FLANN (symmetric) T-desc: 4.030 T-robust: 0.001 T-total: 4.031 Matches: 292  
Robust: 287 Success: True  
2021-06-05 12:49:38,622 DEBUG: Matching DJI\_0129.JPG and DJI\_0128.JPG. Matcher:  
FLANN (symmetric) T-desc: 3.929 T-robust: 0.002 T-total: 3.931 Matches: 628  
Robust: 620 Success: True  
2021-06-05 12:49:38,831 DEBUG: Matching DJI\_0138.JPG and DJI\_0131.JPG. Matcher:

FLANN (symmetric) T-desc: 13.458 T-robust: 0.005 T-total: 13.463 Matches: 72  
Robust: 44 Success: True  
2021-06-05 12:49:39,601 DEBUG: No segmentation for DJI\_0134.JPG, no features  
masked.  
2021-06-05 12:49:42,138 DEBUG: Matching DJI\_0143.JPG and DJI\_0145.JPG. Matcher:  
FLANN (symmetric) T-desc: 6.879 T-robust: 0.001 T-total: 6.880 Matches: 247  
Robust: 217 Success: True  
2021-06-05 12:49:42,682 DEBUG: Matching DJI\_0157.JPG and DJI\_0149.JPG. Matcher:  
FLANN (symmetric) T-desc: 6.220 T-robust: 0.003 T-total: 6.223 Matches: 513  
Robust: 496 Success: True  
2021-06-05 12:49:43,793 DEBUG: Matching DJI\_0146.JPG and DJI\_0147.JPG. Matcher:  
FLANN (symmetric) T-desc: 5.435 T-robust: 0.005 T-total: 5.441 Matches: 1907  
Robust: 1888 Success: True  
2021-06-05 12:49:44,123 DEBUG: Matching DJI\_0152.JPG and DJI\_0154.JPG. Matcher:  
FLANN (symmetric) T-desc: 18.748 T-robust: 0.005 T-total: 18.753 Matches: 1178  
Robust: 1136 Success: True  
2021-06-05 12:49:44,437 DEBUG: Matching DJI\_0147.JPG and DJI\_0149.JPG. Matcher:  
FLANN (symmetric) T-desc: 6.153 T-robust: 0.005 T-total: 6.158 Matches: 1097  
Robust: 1064 Success: True  
2021-06-05 12:49:44,605 DEBUG: No segmentation for DJI\_0123.JPG, no features  
masked.  
2021-06-05 12:49:46,488 DEBUG: Matching DJI\_0117.JPG and DJI\_0120.JPG. Matcher:  
FLANN (symmetric) T-desc: 8.821 T-robust: 0.001 T-total: 8.822 Matches: 98  
Robust: 74 Success: True  
2021-06-05 12:49:46,806 DEBUG: No segmentation for DJI\_0153.JPG, no features  
masked.  
2021-06-05 12:49:47,497 DEBUG: Matching DJI\_0143.JPG and DJI\_0163.JPG. Matcher:  
FLANN (symmetric) T-desc: 5.355 T-robust: 0.002 T-total: 5.357 Matches: 308  
Robust: 281 Success: True  
2021-06-05 12:49:47,535 DEBUG: Matching DJI\_0169.JPG and DJI\_0170.JPG. Matcher:  
FLANN (symmetric) T-desc: 12.698 T-robust: 0.007 T-total: 12.705 Matches: 1989  
Robust: 1967 Success: True  
2021-06-05 12:49:47,623 DEBUG: Matching DJI\_0129.JPG and DJI\_0138.JPG. Matcher:  
FLANN (symmetric) T-desc: 8.999 T-robust: 0.001 T-total: 9.000 Matches: 92  
Robust: 72 Success: True  
2021-06-05 12:49:48,679 DEBUG: Matching DJI\_0119.JPG and DJI\_0150.JPG. Matcher:  
FLANN (symmetric) T-desc: 10.914 T-robust: 0.005 T-total: 10.918 Matches: 990  
Robust: 953 Success: True  
2021-06-05 12:49:48,807 DEBUG: No segmentation for DJI\_0116.JPG, no features  
masked.  
2021-06-05 12:49:50,628 DEBUG: Matching DJI\_0157.JPG and DJI\_0156.JPG. Matcher:  
FLANN (symmetric) T-desc: 7.941 T-robust: 0.003 T-total: 7.944 Matches: 792  
Robust: 776 Success: True  
2021-06-05 12:49:50,838 DEBUG: No segmentation for DJI\_0158.JPG, no features  
masked.  
2021-06-05 12:49:51,241 DEBUG: Matching DJI\_0147.JPG and DJI\_0123.JPG. Matcher:  
FLANN (symmetric) T-desc: 6.802 T-robust: 0.001 T-total: 6.803 Matches: 81  
Robust: 65 Success: True  
2021-06-05 12:49:53,062 DEBUG: Matching DJI\_0143.JPG and DJI\_0125.JPG. Matcher:  
FLANN (symmetric) T-desc: 5.563 T-robust: 0.001 T-total: 5.564 Matches: 282  
Robust: 239 Success: True  
2021-06-05 12:49:53,168 DEBUG: Matching DJI\_0146.JPG and DJI\_0122.JPG. Matcher:  
FLANN (symmetric) T-desc: 9.367 T-robust: 0.004 T-total: 9.371 Matches: 572  
Robust: 549 Success: True



2021-06-05 12:49:53,263 DEBUG: No segmentation for DJI\_0126.JPG, no features masked.

2021-06-05 12:49:53,278 DEBUG: No segmentation for DJI\_0144.JPG, no features masked.

2021-06-05 12:49:58,180 DEBUG: Matching DJI\_0147.JPG and DJI\_0145.JPG. Matcher: FLANN (symmetric) T-desc: 6.937 T-robust: 0.001 T-total: 6.938 Matches: 187 Robust: 178 Success: True

2021-06-05 12:49:58,485 DEBUG: Matching DJI\_0119.JPG and DJI\_0116.JPG. Matcher: FLANN (symmetric) T-desc: 9.804 T-robust: 0.001 T-total: 9.805 Matches: 183 Robust: 165 Success: True

2021-06-05 12:49:58,727 DEBUG: Matching DJI\_0152.JPG and DJI\_0150.JPG. Matcher: FLANN (symmetric) T-desc: 14.590 T-robust: 0.003 T-total: 14.593 Matches: 732 Robust: 682 Success: True

2021-06-05 12:49:58,839 DEBUG: Matching DJI\_0168.JPG and DJI\_0136.JPG. Matcher: FLANN (symmetric) T-desc: 24.851 T-robust: 0.003 T-total: 24.854 Matches: 410 Robust: 365 Success: True

2021-06-05 12:49:59,190 DEBUG: Matching DJI\_0154.JPG and DJI\_0156.JPG. Matcher: FLANN (symmetric) T-desc: 21.903 T-robust: 0.004 T-total: 21.906 Matches: 799 Robust: 762 Success: True

2021-06-05 12:49:59,303 DEBUG: Matching DJI\_0157.JPG and DJI\_0158.JPG. Matcher: FLANN (symmetric) T-desc: 8.658 T-robust: 0.010 T-total: 8.668 Matches: 2535 Robust: 2524 Success: True

2021-06-05 12:49:59,303 DEBUG: Image DJI\_0157.JPG matches: 8 out of 8

2021-06-05 12:49:59,412 DEBUG: No segmentation for DJI\_0171.JPG, no features masked.

2021-06-05 12:49:59,749 DEBUG: Matching DJI\_0169.JPG and DJI\_0167.JPG. Matcher: FLANN (symmetric) T-desc: 12.212 T-robust: 0.001 T-total: 12.214 Matches: 162 Robust: 140 Success: True

2021-06-05 12:50:00,179 DEBUG: Matching DJI\_0146.JPG and DJI\_0144.JPG. Matcher: FLANN (symmetric) T-desc: 7.008 T-robust: 0.001 T-total: 7.008 Matches: 189 Robust: 178 Success: True

2021-06-05 12:50:00,600 DEBUG: Matching DJI\_0117.JPG and DJI\_0153.JPG. Matcher: FLANN (symmetric) T-desc: 14.102 T-robust: 0.007 T-total: 14.109 Matches: 1616 Robust: 1605 Success: True

2021-06-05 12:50:02,018 DEBUG: Matching DJI\_0143.JPG and DJI\_0126.JPG. Matcher: FLANN (symmetric) T-desc: 8.952 T-robust: 0.002 T-total: 8.954 Matches: 354 Robust: 306 Success: True

2021-06-05 12:50:06,124 DEBUG: Matching DJI\_0147.JPG and DJI\_0158.JPG. Matcher: FLANN (symmetric) T-desc: 7.933 T-robust: 0.007 T-total: 7.940 Matches: 1849 Robust: 1842 Success: True

2021-06-05 12:50:06,553 DEBUG: Matching DJI\_0129.JPG and DJI\_0131.JPG. Matcher: FLANN (symmetric) T-desc: 18.925 T-robust: 0.004 T-total: 18.929 Matches: 67 Robust: 42 Success: True

2021-06-05 12:50:07,091 DEBUG: Matching DJI\_0143.JPG and DJI\_0161.JPG. Matcher: FLANN (symmetric) T-desc: 5.071 T-robust: 0.001 T-total: 5.072 Matches: 182 Robust: 149 Success: True

2021-06-05 12:50:07,091 DEBUG: Image DJI\_0143.JPG matches: 10 out of 10

2021-06-05 12:50:08,470 DEBUG: Matching DJI\_0117.JPG and DJI\_0116.JPG. Matcher: FLANN (symmetric) T-desc: 7.836 T-robust: 0.019 T-total: 7.855 Matches: 5630 Robust: 5623 Success: True

2021-06-05 12:50:08,470 DEBUG: Image DJI\_0117.JPG matches: 5 out of 5

2021-06-05 12:50:08,743 DEBUG: No segmentation for DJI\_0130.JPG, no features masked.

2021-06-05 12:50:09,856 DEBUG: Matching DJI\_0119.JPG and DJI\_0121.JPG. Matcher:

FLANN (symmetric) T-desc: 11.360 T-robust: 0.006 T-total: 11.366 Matches: 1825  
Robust: 1788 Success: True  
2021-06-05 12:50:09,856 DEBUG: Image DJI\_0119.JPG matches: 6 out of 6  
2021-06-05 12:50:10,825 DEBUG: Matching DJI\_0144.JPG and DJI\_0162.JPG. Matcher:  
FLANN (symmetric) T-desc: 3.732 T-robust: 0.001 T-total: 3.733 Matches: 135  
Robust: 113 Success: True  
2021-06-05 12:50:12,021 DEBUG: Matching DJI\_0129.JPG and DJI\_0140.JPG. Matcher:  
FLANN (symmetric) T-desc: 5.466 T-robust: 0.000 T-total: 5.467 Matches: 52  
Robust: 50 Success: True  
2021-06-05 12:50:12,039 DEBUG: Matching DJI\_0168.JPG and DJI\_0169.JPG. Matcher:  
FLANN (symmetric) T-desc: 13.191 T-robust: 0.006 T-total: 13.197 Matches: 1373  
Robust: 1335 Success: True  
2021-06-05 12:50:12,136 DEBUG: Matching DJI\_0152.JPG and DJI\_0117.JPG. Matcher:  
FLANN (symmetric) T-desc: 13.397 T-robust: 0.006 T-total: 13.403 Matches: 1581  
Robust: 1565 Success: True  
2021-06-05 12:50:12,449 DEBUG: No segmentation for DJI\_0137.JPG, no features  
masked.  
2021-06-05 12:50:13,043 DEBUG: Matching DJI\_0146.JPG and DJI\_0145.JPG. Matcher:  
FLANN (symmetric) T-desc: 12.848 T-robust: 0.010 T-total: 12.857 Matches: 2439  
Robust: 2419 Success: True  
2021-06-05 12:50:13,906 DEBUG: Matching DJI\_0169.JPG and DJI\_0138.JPG. Matcher:  
FLANN (symmetric) T-desc: 14.154 T-robust: 0.001 T-total: 14.155 Matches: 88  
Robust: 68 Success: True  
2021-06-05 12:50:13,911 DEBUG: Matching DJI\_0138.JPG and DJI\_0134.JPG. Matcher:  
FLANN (symmetric) T-desc: 35.063 T-robust: 0.016 T-total: 35.078 Matches: 48  
Robust: 11 Success: False  
2021-06-05 12:50:14,325 DEBUG: Matching DJI\_0147.JPG and DJI\_0121.JPG. Matcher:  
FLANN (symmetric) T-desc: 8.198 T-robust: 0.002 T-total: 8.200 Matches: 334  
Robust: 315 Success: True  
2021-06-05 12:50:14,325 DEBUG: Image DJI\_0147.JPG matches: 9 out of 9  
2021-06-05 12:50:14,701 DEBUG: No segmentation for DJI\_0132.JPG, no features  
masked.  
2021-06-05 12:50:17,933 DEBUG: Matching DJI\_0144.JPG and DJI\_0124.JPG. Matcher:  
FLANN (symmetric) T-desc: 7.105 T-robust: 0.002 T-total: 7.107 Matches: 271  
Robust: 246 Success: True  
2021-06-05 12:50:20,189 DEBUG: Matching DJI\_0171.JPG and DJI\_0136.JPG. Matcher:  
FLANN (symmetric) T-desc: 20.882 T-robust: 0.003 T-total: 20.885 Matches: 82  
Robust: 54 Success: True  
2021-06-05 12:50:20,475 DEBUG: Matching DJI\_0126.JPG and DJI\_0124.JPG. Matcher:  
FLANN (symmetric) T-desc: 10.616 T-robust: 0.001 T-total: 10.618 Matches: 210  
Robust: 187 Success: True  
2021-06-05 12:50:20,875 DEBUG: No segmentation for DJI\_0135.JPG, no features  
masked.  
2021-06-05 12:50:25,252 DEBUG: Matching DJI\_0129.JPG and DJI\_0130.JPG. Matcher:  
FLANN (symmetric) T-desc: 13.227 T-robust: 0.002 T-total: 13.229 Matches: 553  
Robust: 535 Success: True  
2021-06-05 12:50:25,341 DEBUG: Matching DJI\_0146.JPG and DJI\_0158.JPG. Matcher:  
FLANN (symmetric) T-desc: 12.284 T-robust: 0.007 T-total: 12.291 Matches: 2211  
Robust: 2195 Success: True  
2021-06-05 12:50:26,456 DEBUG: Matching DJI\_0144.JPG and DJI\_0142.JPG. Matcher:  
FLANN (symmetric) T-desc: 8.521 T-robust: 0.001 T-total: 8.522 Matches: 166  
Robust: 150 Success: True  
2021-06-05 12:50:28,347 DEBUG: Matching DJI\_0154.JPG and DJI\_0153.JPG. Matcher:  
FLANN (symmetric) T-desc: 29.149 T-robust: 0.004 T-total: 29.154 Matches: 956

Robust: 925 Success: True  
2021-06-05 12:50:28,409 DEBUG: Matching DJI\_0149.JPG and DJI\_0156.JPG. Matcher:  
FLANN (symmetric) T-desc: 14.052 T-robust: 0.018 T-total: 14.070 Matches: 4363  
Robust: 4338 Success: True  
2021-06-05 12:50:28,432 DEBUG: Matching DJI\_0152.JPG and DJI\_0116.JPG. Matcher:  
FLANN (symmetric) T-desc: 16.286 T-robust: 0.006 T-total: 16.292 Matches: 927  
Robust: 909 Success: True  
2021-06-05 12:50:28,810 DEBUG: No segmentation for DJI\_0155.JPG, no features  
masked.  
2021-06-05 12:50:29,707 DEBUG: Matching DJI\_0126.JPG and DJI\_0127.JPG. Matcher:  
FLANN (symmetric) T-desc: 9.220 T-robust: 0.007 T-total: 9.227 Matches: 1511  
Robust: 1433 Success: True  
2021-06-05 12:50:33,361 DEBUG: Matching DJI\_0168.JPG and DJI\_0137.JPG. Matcher:  
FLANN (symmetric) T-desc: 21.317 T-robust: 0.003 T-total: 21.319 Matches: 600  
Robust: 573 Success: True  
2021-06-05 12:50:33,889 DEBUG: Matching DJI\_0144.JPG and DJI\_0143.JPG. Matcher:  
FLANN (symmetric) T-desc: 7.428 T-robust: 0.003 T-total: 7.431 Matches: 811  
Robust: 792 Success: True  
2021-06-05 12:50:36,103 DEBUG: Matching DJI\_0146.JPG and DJI\_0123.JPG. Matcher:  
FLANN (symmetric) T-desc: 10.757 T-robust: 0.003 T-total: 10.760 Matches: 505  
Robust: 475 Success: True  
2021-06-05 12:50:36,390 DEBUG: Matching DJI\_0129.JPG and DJI\_0141.JPG. Matcher:  
FLANN (symmetric) T-desc: 11.133 T-robust: 0.004 T-total: 11.137 Matches: 29  
Robust: 19 Success: False  
2021-06-05 12:50:36,390 DEBUG: Image DJI\_0129.JPG matches: 5 out of 6  
2021-06-05 12:50:37,076 DEBUG: Matching DJI\_0130.JPG and DJI\_0131.JPG. Matcher:  
FLANN (symmetric) T-desc: 28.600 T-robust: 0.003 T-total: 28.604 Matches: 692  
Robust: 651 Success: True  
2021-06-05 12:50:38,687 DEBUG: Matching DJI\_0149.JPG and DJI\_0116.JPG. Matcher:  
FLANN (symmetric) T-desc: 10.264 T-robust: 0.013 T-total: 10.276 Matches: 25  
Robust: 13 Success: False  
2021-06-05 12:50:38,892 DEBUG: No segmentation for DJI\_0118.JPG, no features  
masked.  
2021-06-05 12:50:39,154 DEBUG: Matching DJI\_0126.JPG and DJI\_0141.JPG. Matcher:  
FLANN (symmetric) T-desc: 9.445 T-robust: 0.001 T-total: 9.447 Matches: 246  
Robust: 210 Success: True  
2021-06-05 12:50:43,197 DEBUG: Matching DJI\_0144.JPG and DJI\_0145.JPG. Matcher:  
FLANN (symmetric) T-desc: 9.301 T-robust: 0.004 T-total: 9.306 Matches: 897  
Robust: 881 Success: True  
2021-06-05 12:50:44,622 DEBUG: Matching DJI\_0169.JPG and DJI\_0136.JPG. Matcher:  
FLANN (symmetric) T-desc: 30.711 T-robust: 0.003 T-total: 30.713 Matches: 627  
Robust: 596 Success: True  
2021-06-05 12:50:45,120 DEBUG: Matching DJI\_0146.JPG and DJI\_0161.JPG. Matcher:  
FLANN (symmetric) T-desc: 9.016 T-robust: 0.001 T-total: 9.016 Matches: 66  
Robust: 56 Success: True  
2021-06-05 12:50:46,687 DEBUG: Matching DJI\_0152.JPG and DJI\_0156.JPG. Matcher:  
FLANN (symmetric) T-desc: 18.251 T-robust: 0.002 T-total: 18.253 Matches: 92  
Robust: 63 Success: True  
2021-06-05 12:50:48,785 DEBUG: Matching DJI\_0168.JPG and DJI\_0170.JPG. Matcher:  
FLANN (symmetric) T-desc: 15.420 T-robust: 0.002 T-total: 15.423 Matches: 473  
Robust: 451 Success: True  
2021-06-05 12:50:50,066 DEBUG: Matching DJI\_0171.JPG and DJI\_0135.JPG. Matcher:  
FLANN (symmetric) T-desc: 29.874 T-robust: 0.001 T-total: 29.875 Matches: 91  
Robust: 71 Success: True

2021-06-05 12:50:50,299 DEBUG: Matching DJI\_0144.JPG and DJI\_0125.JPG. Matcher: FLANN (symmetric) T-desc: 7.100 T-robust: 0.001 T-total: 7.101 Matches: 101 Robust: 79 Success: True

2021-06-05 12:50:50,738 DEBUG: Matching DJI\_0126.JPG and DJI\_0142.JPG. Matcher: FLANN (symmetric) T-desc: 11.579 T-robust: 0.003 T-total: 11.582 Matches: 692 Robust: 644 Success: True

2021-06-05 12:50:52,748 DEBUG: Matching DJI\_0149.JPG and DJI\_0118.JPG. Matcher: FLANN (symmetric) T-desc: 14.059 T-robust: 0.002 T-total: 14.061 Matches: 393 Robust: 369 Success: True

2021-06-05 12:50:57,752 DEBUG: Matching DJI\_0146.JPG and DJI\_0160.JPG. Matcher: FLANN (symmetric) T-desc: 12.628 T-robust: 0.002 T-total: 12.630 Matches: 534 Robust: 505 Success: True

2021-06-05 12:50:57,752 DEBUG: Image DJI\_0146.JPG matches: 12 out of 12

2021-06-05 12:50:57,897 DEBUG: No segmentation for DJI\_0139.JPG, no features masked.

2021-06-05 12:51:01,077 DEBUG: Matching DJI\_0144.JPG and DJI\_0123.JPG. Matcher: FLANN (symmetric) T-desc: 10.776 T-robust: 0.001 T-total: 10.778 Matches: 132 Robust: 124 Success: True

2021-06-05 12:51:01,474 DEBUG: Matching DJI\_0126.JPG and DJI\_0125.JPG. Matcher: FLANN (symmetric) T-desc: 10.725 T-robust: 0.007 T-total: 10.732 Matches: 943 Robust: 919 Success: True

2021-06-05 12:51:04,495 DEBUG: Matching DJI\_0171.JPG and DJI\_0168.JPG. Matcher: FLANN (symmetric) T-desc: 14.426 T-robust: 0.003 T-total: 14.429 Matches: 41 Robust: 27 Success: True

2021-06-05 12:51:05,639 DEBUG: Matching DJI\_0154.JPG and DJI\_0155.JPG. Matcher: FLANN (symmetric) T-desc: 37.254 T-robust: 0.021 T-total: 37.275 Matches: 5220 Robust: 5177 Success: True

2021-06-05 12:51:06,072 DEBUG: Matching DJI\_0139.JPG and DJI\_0165.JPG. Matcher: FLANN (symmetric) T-desc: 8.319 T-robust: 0.001 T-total: 8.320 Matches: 150 Robust: 136 Success: True

2021-06-05 12:51:06,263 DEBUG: Matching DJI\_0168.JPG and DJI\_0138.JPG. Matcher: FLANN (symmetric) T-desc: 17.474 T-robust: 0.002 T-total: 17.476 Matches: 308 Robust: 269 Success: True

2021-06-05 12:51:06,263 DEBUG: Image DJI\_0168.JPG matches: 7 out of 7

2021-06-05 12:51:06,769 DEBUG: Matching DJI\_0149.JPG and DJI\_0119.JPG. Matcher: FLANN (symmetric) T-desc: 14.014 T-robust: 0.004 T-total: 14.017 Matches: 938 Robust: 915 Success: True

2021-06-05 12:51:08,622 DEBUG: Matching DJI\_0152.JPG and DJI\_0153.JPG. Matcher: FLANN (symmetric) T-desc: 21.803 T-robust: 0.085 T-total: 21.888 Matches: 20493 Robust: 20479 Success: True

2021-06-05 12:51:10,732 DEBUG: Matching DJI\_0144.JPG and DJI\_0126.JPG. Matcher: FLANN (symmetric) T-desc: 9.647 T-robust: 0.007 T-total: 9.654 Matches: 49 Robust: 28 Success: True

2021-06-05 12:51:10,860 DEBUG: Matching DJI\_0126.JPG and DJI\_0128.JPG. Matcher: FLANN (symmetric) T-desc: 9.383 T-robust: 0.001 T-total: 9.385 Matches: 183 Robust: 167 Success: True

2021-06-05 12:51:10,860 DEBUG: Image DJI\_0126.JPG matches: 6 out of 6

2021-06-05 12:51:10,999 DEBUG: Matching DJI\_0138.JPG and DJI\_0132.JPG. Matcher: FLANN (symmetric) T-desc: 57.071 T-robust: 0.016 T-total: 57.086 Matches: 24 Robust: 10 Success: False

2021-06-05 12:51:12,974 DEBUG: Matching DJI\_0139.JPG and DJI\_0164.JPG. Matcher: FLANN (symmetric) T-desc: 6.900 T-robust: 0.001 T-total: 6.901 Matches: 69 Robust: 54 Success: True

2021-06-05 12:51:13,858 DEBUG: Matching DJI\_0137.JPG and DJI\_0131.JPG. Matcher:

FLANN (symmetric) T-desc: 37.464 T-robust: 0.002 T-total: 37.466 Matches: 111  
Robust: 78 Success: True  
2021-06-05 12:51:16,348 DEBUG: Matching DJI\_0144.JPG and DJI\_0161.JPG. Matcher:  
FLANN (symmetric) T-desc: 5.613 T-robust: 0.001 T-total: 5.614 Matches: 261  
Robust: 241 Success: True  
2021-06-05 12:51:16,348 DEBUG: Image DJI\_0144.JPG matches: 9 out of 9  
2021-06-05 12:51:17,088 DEBUG: Matching DJI\_0171.JPG and DJI\_0169.JPG. Matcher:  
FLANN (symmetric) T-desc: 12.591 T-robust: 0.001 T-total: 12.591 Matches: 189  
Robust: 166 Success: True  
2021-06-05 12:51:18,843 DEBUG: Matching DJI\_0118.JPG and DJI\_0119.JPG. Matcher:  
FLANN (symmetric) T-desc: 12.538 T-robust: 0.026 T-total: 12.563 Matches: 6947  
Robust: 6903 Success: True  
2021-06-05 12:51:19,221 DEBUG: Matching DJI\_0169.JPG and DJI\_0135.JPG. Matcher:  
FLANN (symmetric) T-desc: 34.595 T-robust: 0.002 T-total: 34.597 Matches: 588  
Robust: 552 Success: True  
2021-06-05 12:51:19,476 DEBUG: Matching DJI\_0149.JPG and DJI\_0121.JPG. Matcher:  
FLANN (symmetric) T-desc: 12.704 T-robust: 0.002 T-total: 12.706 Matches: 476  
Robust: 454 Success: True  
2021-06-05 12:51:20,543 DEBUG: Matching DJI\_0160.JPG and DJI\_0144.JPG. Matcher:  
FLANN (symmetric) T-desc: 9.679 T-robust: 0.003 T-total: 9.681 Matches: 173  
Robust: 151 Success: True  
2021-06-05 12:51:23,046 DEBUG: Matching DJI\_0130.JPG and DJI\_0134.JPG. Matcher:  
FLANN (symmetric) T-desc: 45.954 T-robust: 0.014 T-total: 45.968 Matches: 38  
Robust: 12 Success: False  
2021-06-05 12:51:28,437 DEBUG: Matching DJI\_0138.JPG and DJI\_0130.JPG. Matcher:  
FLANN (symmetric) T-desc: 17.436 T-robust: 0.001 T-total: 17.437 Matches: 126  
Robust: 114 Success: True  
2021-06-05 12:51:28,754 DEBUG: Matching DJI\_0139.JPG and DJI\_0138.JPG. Matcher:  
FLANN (symmetric) T-desc: 15.764 T-robust: 0.006 T-total: 15.770 Matches: 793  
Robust: 767 Success: True  
2021-06-05 12:51:30,354 DEBUG: Matching DJI\_0170.JPG and DJI\_0167.JPG. Matcher:  
FLANN (symmetric) T-desc: 13.998 T-robust: 0.007 T-total: 14.005 Matches: 53  
Robust: 30 Success: True  
2021-06-05 12:51:30,785 DEBUG: Matching DJI\_0152.JPG and DJI\_0155.JPG. Matcher:  
FLANN (symmetric) T-desc: 22.158 T-robust: 0.002 T-total: 22.160 Matches: 347  
Robust: 313 Success: True  
2021-06-05 12:51:33,932 DEBUG: Matching DJI\_0160.JPG and DJI\_0145.JPG. Matcher:  
FLANN (symmetric) T-desc: 13.384 T-robust: 0.003 T-total: 13.386 Matches: 696  
Robust: 659 Success: True  
2021-06-05 12:51:38,381 DEBUG: Matching DJI\_0118.JPG and DJI\_0151.JPG. Matcher:  
FLANN (symmetric) T-desc: 19.527 T-robust: 0.006 T-total: 19.533 Matches: 1336  
Robust: 1317 Success: True  
2021-06-05 12:51:38,937 DEBUG: Matching DJI\_0149.JPG and DJI\_0151.JPG. Matcher:  
FLANN (symmetric) T-desc: 19.451 T-robust: 0.005 T-total: 19.456 Matches: 1090  
Robust: 1058 Success: True  
2021-06-05 12:51:41,391 DEBUG: Matching DJI\_0139.JPG and DJI\_0166.JPG. Matcher:  
FLANN (symmetric) T-desc: 12.634 T-robust: 0.001 T-total: 12.635 Matches: 360  
Robust: 348 Success: True  
2021-06-05 12:51:43,029 DEBUG: Matching DJI\_0169.JPG and DJI\_0137.JPG. Matcher:  
FLANN (symmetric) T-desc: 23.804 T-robust: 0.002 T-total: 23.806 Matches: 355  
Robust: 316 Success: True  
2021-06-05 12:51:43,029 DEBUG: Image DJI\_0169.JPG matches: 6 out of 6  
2021-06-05 12:51:43,748 DEBUG: Matching DJI\_0154.JPG and DJI\_0151.JPG. Matcher:  
FLANN (symmetric) T-desc: 38.088 T-robust: 0.013 T-total: 38.101 Matches: 2811

Robust: 2771 Success: True  
2021-06-05 12:51:44,772 DEBUG: Matching DJI\_0171.JPG and DJI\_0137.JPG. Matcher:  
FLANN (symmetric) T-desc: 27.668 T-robust: 0.015 T-total: 27.683 Matches: 33  
Robust: 12 Success: False  
2021-06-05 12:51:47,223 DEBUG: Matching DJI\_0130.JPG and DJI\_0137.JPG. Matcher:  
FLANN (symmetric) T-desc: 24.175 T-robust: 0.002 T-total: 24.177 Matches: 104  
Robust: 75 Success: True  
2021-06-05 12:51:48,340 DEBUG: No segmentation for DJI\_0133.JPG, no features  
masked.  
2021-06-05 12:51:48,987 DEBUG: Matching DJI\_0170.JPG and DJI\_0138.JPG. Matcher:  
FLANN (symmetric) T-desc: 18.617 T-robust: 0.015 T-total: 18.633 Matches: 44  
Robust: 14 Success: False  
2021-06-05 12:51:49,109 DEBUG: Matching DJI\_0160.JPG and DJI\_0158.JPG. Matcher:  
FLANN (symmetric) T-desc: 15.173 T-robust: 0.002 T-total: 15.175 Matches: 646  
Robust: 624 Success: True  
2021-06-05 12:51:49,510 DEBUG: Matching DJI\_0139.JPG and DJI\_0128.JPG. Matcher:  
FLANN (symmetric) T-desc: 8.117 T-robust: 0.001 T-total: 8.119 Matches: 95  
Robust: 80 Success: True  
2021-06-05 12:51:51,564 DEBUG: Matching DJI\_0152.JPG and DJI\_0118.JPG. Matcher:  
FLANN (symmetric) T-desc: 20.773 T-robust: 0.003 T-total: 20.776 Matches: 896  
Robust: 869 Success: True  
2021-06-05 12:51:52,547 DEBUG: Matching DJI\_0138.JPG and DJI\_0137.JPG. Matcher:  
FLANN (symmetric) T-desc: 24.103 T-robust: 0.005 T-total: 24.108 Matches: 839  
Robust: 815 Success: True  
2021-06-05 12:51:53,281 DEBUG: Matching DJI\_0125.JPG and DJI\_0145.JPG. Matcher:  
FLANN (symmetric) T-desc: 10.237 T-robust: 0.014 T-total: 10.251 Matches: 34  
Robust: 15 Success: False  
2021-06-05 12:51:53,764 DEBUG: Matching DJI\_0118.JPG and DJI\_0120.JPG. Matcher:  
FLANN (symmetric) T-desc: 15.374 T-robust: 0.006 T-total: 15.380 Matches: 1281  
Robust: 1246 Success: True  
2021-06-05 12:51:55,152 DEBUG: Matching DJI\_0149.JPG and DJI\_0150.JPG. Matcher:  
FLANN (symmetric) T-desc: 16.174 T-robust: 0.022 T-total: 16.196 Matches: 6500  
Robust: 6476 Success: True  
2021-06-05 12:51:56,409 DEBUG: Matching DJI\_0137.JPG and DJI\_0135.JPG. Matcher:  
FLANN (symmetric) T-desc: 42.549 T-robust: 0.001 T-total: 42.550 Matches: 244  
Robust: 208 Success: True  
2021-06-05 12:51:56,507 DEBUG: Matching DJI\_0139.JPG and DJI\_0140.JPG. Matcher:  
FLANN (symmetric) T-desc: 6.993 T-robust: 0.002 T-total: 6.995 Matches: 584  
Robust: 573 Success: True  
2021-06-05 12:51:59,240 DEBUG: Matching DJI\_0160.JPG and DJI\_0161.JPG. Matcher:  
FLANN (symmetric) T-desc: 10.121 T-robust: 0.007 T-total: 10.127 Matches: 1054  
Robust: 1040 Success: True  
2021-06-05 12:52:03,270 DEBUG: Matching DJI\_0125.JPG and DJI\_0124.JPG. Matcher:  
FLANN (symmetric) T-desc: 9.983 T-robust: 0.003 T-total: 9.986 Matches: 934  
Robust: 879 Success: True  
2021-06-05 12:52:05,791 DEBUG: Matching DJI\_0171.JPG and DJI\_0170.JPG. Matcher:  
FLANN (symmetric) T-desc: 21.011 T-robust: 0.005 T-total: 21.016 Matches: 1093  
Robust: 1068 Success: True  
2021-06-05 12:52:06,737 DEBUG: Matching DJI\_0139.JPG and DJI\_0129.JPG. Matcher:  
FLANN (symmetric) T-desc: 10.229 T-robust: 0.001 T-total: 10.230 Matches: 112  
Robust: 99 Success: True  
2021-06-05 12:52:07,963 DEBUG: Matching DJI\_0149.JPG and DJI\_0148.JPG. Matcher:  
FLANN (symmetric) T-desc: 12.774 T-robust: 0.020 T-total: 12.794 Matches: 5810  
Robust: 5790 Success: True

2021-06-05 12:52:10,259 DEBUG: Matching DJI\_0118.JPG and DJI\_0150.JPG. Matcher:  
FLANN (symmetric) T-desc: 16.488 T-robust: 0.005 T-total: 16.493 Matches: 995  
Robust: 975 Success: True

2021-06-05 12:52:11,542 DEBUG: Matching DJI\_0160.JPG and DJI\_0162.JPG. Matcher:  
FLANN (symmetric) T-desc: 12.299 T-robust: 0.001 T-total: 12.301 Matches: 203  
Robust: 193 Success: True

2021-06-05 12:52:11,542 DEBUG: Image DJI\_0160.JPG matches: 5 out of 5

2021-06-05 12:52:13,713 DEBUG: Matching DJI\_0125.JPG and DJI\_0142.JPG. Matcher:  
FLANN (symmetric) T-desc: 10.440 T-robust: 0.001 T-total: 10.441 Matches: 195  
Robust: 162 Success: True

2021-06-05 12:52:15,299 DEBUG: Matching DJI\_0139.JPG and DJI\_0141.JPG. Matcher:  
FLANN (symmetric) T-desc: 8.560 T-robust: 0.001 T-total: 8.561 Matches: 103  
Robust: 85 Success: True

2021-06-05 12:52:16,218 DEBUG: Matching DJI\_0152.JPG and DJI\_0151.JPG. Matcher:  
FLANN (symmetric) T-desc: 24.626 T-robust: 0.017 T-total: 24.643 Matches: 4230  
Robust: 4200 Success: True

2021-06-05 12:52:16,218 DEBUG: Image DJI\_0152.JPG matches: 9 out of 9

2021-06-05 12:52:18,116 DEBUG: Matching DJI\_0171.JPG and DJI\_0167.JPG. Matcher:  
FLANN (symmetric) T-desc: 12.325 Matches: FAILED

2021-06-05 12:52:18,488 DEBUG: Matching DJI\_0154.JPG and DJI\_0150.JPG. Matcher:  
FLANN (symmetric) T-desc: 34.729 T-robust: 0.006 T-total: 34.735 Matches: 1735  
Robust: 1689 Success: True

2021-06-05 12:52:20,832 DEBUG: Matching DJI\_0170.JPG and DJI\_0136.JPG. Matcher:  
FLANN (symmetric) T-desc: 31.841 T-robust: 0.002 T-total: 31.843 Matches: 503  
Robust: 465 Success: True

2021-06-05 12:52:22,756 DEBUG: Matching DJI\_0149.JPG and DJI\_0120.JPG. Matcher:  
FLANN (symmetric) T-desc: 14.788 T-robust: 0.003 T-total: 14.791 Matches: 803  
Robust: 781 Success: True

2021-06-05 12:52:22,756 DEBUG: Image DJI\_0149.JPG matches: 8 out of 9

2021-06-05 12:52:24,079 DEBUG: Matching DJI\_0125.JPG and DJI\_0123.JPG. Matcher:  
FLANN (symmetric) T-desc: 10.364 T-robust: 0.001 T-total: 10.365 Matches: 171  
Robust: 154 Success: True

2021-06-05 12:52:24,079 DEBUG: Image DJI\_0125.JPG matches: 3 out of 4

2021-06-05 12:52:26,975 DEBUG: Matching DJI\_0167.JPG and DJI\_0138.JPG. Matcher:  
FLANN (symmetric) T-desc: 15.428 T-robust: 0.003 T-total: 15.431 Matches: 486  
Robust: 453 Success: True

2021-06-05 12:52:28,632 DEBUG: Matching DJI\_0139.JPG and DJI\_0130.JPG. Matcher:  
FLANN (symmetric) T-desc: 13.331 T-robust: 0.001 T-total: 13.332 Matches: 89  
Robust: 74 Success: True

2021-06-05 12:52:30,320 DEBUG: Matching DJI\_0171.JPG and DJI\_0138.JPG. Matcher:  
FLANN (symmetric) T-desc: 12.204 Matches: FAILED

2021-06-05 12:52:30,321 DEBUG: Image DJI\_0171.JPG matches: 5 out of 8

2021-06-05 12:52:33,865 DEBUG: Matching DJI\_0118.JPG and DJI\_0117.JPG. Matcher:  
FLANN (symmetric) T-desc: 23.569 T-robust: 0.020 T-total: 23.589 Matches: 5973  
Robust: 5963 Success: True

2021-06-05 12:52:35,746 DEBUG: Matching DJI\_0140.JPG and DJI\_0138.JPG. Matcher:  
FLANN (symmetric) T-desc: 12.988 T-robust: 0.001 T-total: 12.989 Matches: 130  
Robust: 116 Success: True

2021-06-05 12:52:36,999 DEBUG: Matching DJI\_0167.JPG and DJI\_0139.JPG. Matcher:  
FLANN (symmetric) T-desc: 10.022 T-robust: 0.001 T-total: 10.023 Matches: 307  
Robust: 285 Success: True

2021-06-05 12:52:37,225 DEBUG: Matching DJI\_0138.JPG and DJI\_0133.JPG. Matcher:  
FLANN (symmetric) T-desc: 44.662 T-robust: 0.015 T-total: 44.677 Matches: 32  
Robust: 11 Success: False

2021-06-05 12:52:37,226 DEBUG: Image DJI\_0138.JPG matches: 3 out of 6  
2021-06-05 12:52:37,444 DEBUG: Matching DJI\_0128.JPG and DJI\_0130.JPG. Matcher:  
FLANN (symmetric) T-desc: 13.364 T-robust: 0.001 T-total: 13.364 Matches: 117  
Robust: 102 Success: True  
2021-06-05 12:52:38,170 DEBUG: Matching DJI\_0164.JPG and DJI\_0166.JPG. Matcher:  
FLANN (symmetric) T-desc: 7.847 T-robust: 0.001 T-total: 7.848 Matches: 217  
Robust: 200 Success: True  
2021-06-05 12:52:40,738 DEBUG: Matching DJI\_0170.JPG and DJI\_0137.JPG. Matcher:  
FLANN (symmetric) T-desc: 19.903 T-robust: 0.001 T-total: 19.904 Matches: 191  
Robust: 163 Success: True  
2021-06-05 12:52:43,609 DEBUG: Matching DJI\_0118.JPG and DJI\_0116.JPG. Matcher:  
FLANN (symmetric) T-desc: 9.736 T-robust: 0.005 T-total: 9.741 Matches: 1291  
Robust: 1274 Success: True  
2021-06-05 12:52:43,609 DEBUG: Image DJI\_0118.JPG matches: 6 out of 6  
2021-06-05 12:52:43,663 DEBUG: Matching DJI\_0154.JPG and DJI\_0117.JPG. Matcher:  
FLANN (symmetric) T-desc: 25.174 T-robust: 0.001 T-total: 25.174 Matches: 86  
Robust: 71 Success: True  
2021-06-05 12:52:43,663 DEBUG: Image DJI\_0154.JPG matches: 7 out of 7  
2021-06-05 12:52:43,764 DEBUG: Matching DJI\_0128.JPG and DJI\_0141.JPG. Matcher:  
FLANN (symmetric) T-desc: 6.318 T-robust: 0.001 T-total: 6.319 Matches: 99  
Robust: 81 Success: True  
2021-06-05 12:52:44,286 DEBUG: Matching DJI\_0140.JPG and DJI\_0166.JPG. Matcher:  
FLANN (symmetric) T-desc: 8.539 T-robust: 0.001 T-total: 8.539 Matches: 143  
Robust: 131 Success: True  
2021-06-05 12:52:45,112 DEBUG: Matching DJI\_0164.JPG and DJI\_0140.JPG. Matcher:  
FLANN (symmetric) T-desc: 6.939 T-robust: 0.001 T-total: 6.940 Matches: 271  
Robust: 255 Success: True  
2021-06-05 12:52:46,161 DEBUG: Matching DJI\_0139.JPG and DJI\_0137.JPG. Matcher:  
FLANN (symmetric) T-desc: 17.527 T-robust: 0.001 T-total: 17.528 Matches: 193  
Robust: 159 Success: True  
2021-06-05 12:52:46,161 DEBUG: Image DJI\_0139.JPG matches: 10 out of 10  
2021-06-05 12:52:47,108 DEBUG: Matching DJI\_0167.JPG and DJI\_0166.JPG. Matcher:  
FLANN (symmetric) T-desc: 10.102 T-robust: 0.003 T-total: 10.105 Matches: 996  
Robust: 974 Success: True  
2021-06-05 12:52:48,838 DEBUG: Matching DJI\_0159.JPG and DJI\_0162.JPG. Matcher:  
FLANN (symmetric) T-desc: 5.171 T-robust: 0.001 T-total: 5.173 Matches: 60  
Robust: 44 Success: True  
2021-06-05 12:52:49,472 DEBUG: Matching DJI\_0128.JPG and DJI\_0140.JPG. Matcher:  
FLANN (symmetric) T-desc: 5.706 T-robust: 0.001 T-total: 5.707 Matches: 163  
Robust: 150 Success: True  
2021-06-05 12:52:49,948 DEBUG: Matching DJI\_0140.JPG and DJI\_0141.JPG. Matcher:  
FLANN (symmetric) T-desc: 5.654 T-robust: 0.005 T-total: 5.659 Matches: 1063  
Robust: 1054 Success: True  
2021-06-05 12:52:51,051 DEBUG: Matching DJI\_0137.JPG and DJI\_0134.JPG. Matcher:  
FLANN (symmetric) T-desc: 54.625 T-robust: 0.015 T-total: 54.640 Matches: 63  
Robust: 19 Success: False  
2021-06-05 12:52:51,112 DEBUG: Matching DJI\_0164.JPG and DJI\_0141.JPG. Matcher:  
FLANN (symmetric) T-desc: 5.996 T-robust: 0.002 T-total: 5.998 Matches: 487  
Robust: 474 Success: True  
2021-06-05 12:52:53,570 DEBUG: Matching DJI\_0155.JPG and DJI\_0157.JPG. Matcher:  
FLANN (symmetric) T-desc: 16.343 T-robust: 0.001 T-total: 16.344 Matches: 90  
Robust: 83 Success: True  
2021-06-05 12:52:54,088 DEBUG: Matching DJI\_0159.JPG and DJI\_0147.JPG. Matcher:  
FLANN (symmetric) T-desc: 5.248 T-robust: 0.001 T-total: 5.249 Matches: 96



Robust: 84 Success: True  
2021-06-05 12:52:56,301 DEBUG: Matching DJI\_0116.JPG and DJI\_0153.JPG. Matcher:  
FLANN (symmetric) T-desc: 12.685 T-robust: 0.004 T-total: 12.688 Matches: 944  
Robust: 927 Success: True  
2021-06-05 12:52:56,978 DEBUG: Matching DJI\_0128.JPG and DJI\_0142.JPG. Matcher:  
FLANN (symmetric) T-desc: 7.501 T-robust: 0.005 T-total: 7.506 Matches: 35  
Robust: 21 Success: True  
2021-06-05 12:52:56,978 DEBUG: Image DJI\_0128.JPG matches: 4 out of 4  
2021-06-05 12:52:57,439 DEBUG: Matching DJI\_0164.JPG and DJI\_0165.JPG. Matcher:  
FLANN (symmetric) T-desc: 6.319 T-robust: 0.005 T-total: 6.324 Matches: 1186  
Robust: 1156 Success: True  
2021-06-05 12:52:57,439 DEBUG: Image DJI\_0164.JPG matches: 4 out of 4  
2021-06-05 12:52:59,341 DEBUG: Matching DJI\_0159.JPG and DJI\_0144.JPG. Matcher:  
FLANN (symmetric) T-desc: 5.252 T-robust: 0.001 T-total: 5.253 Matches: 89  
Robust: 81 Success: True  
2021-06-05 12:53:02,482 DEBUG: Matching DJI\_0130.JPG and DJI\_0133.JPG. Matcher:  
FLANN (symmetric) T-desc: 75.243 T-robust: 0.015 T-total: 75.258 Matches: 47  
Robust: 12 Success: False  
2021-06-05 12:53:02,819 DEBUG: Matching DJI\_0165.JPG and DJI\_0141.JPG. Matcher:  
FLANN (symmetric) T-desc: 5.379 T-robust: 0.001 T-total: 5.379 Matches: 186  
Robust: 173 Success: True  
2021-06-05 12:53:03,689 DEBUG: Matching DJI\_0167.JPG and DJI\_0137.JPG. Matcher:  
FLANN (symmetric) T-desc: 16.577 T-robust: 0.002 T-total: 16.579 Matches: 298  
Robust: 256 Success: True  
2021-06-05 12:53:07,306 DEBUG: Matching DJI\_0148.JPG and DJI\_0121.JPG. Matcher:  
FLANN (symmetric) T-desc: 10.323 T-robust: 0.002 T-total: 10.325 Matches: 690  
Robust: 664 Success: True  
2021-06-05 12:53:07,942 DEBUG: Matching DJI\_0159.JPG and DJI\_0145.JPG. Matcher:  
FLANN (symmetric) T-desc: 8.597 T-robust: 0.001 T-total: 8.599 Matches: 262  
Robust: 247 Success: True  
2021-06-05 12:53:08,613 DEBUG: Matching DJI\_0170.JPG and DJI\_0135.JPG. Matcher:  
FLANN (symmetric) T-desc: 27.868 T-robust: 0.004 T-total: 27.872 Matches: 800  
Robust: 765 Success: True  
2021-06-05 12:53:08,614 DEBUG: Image DJI\_0170.JPG matches: 4 out of 5  
2021-06-05 12:53:09,086 DEBUG: Matching DJI\_0140.JPG and DJI\_0130.JPG. Matcher:  
FLANN (symmetric) T-desc: 19.132 T-robust: 0.004 T-total: 19.136 Matches: 34  
Robust: 22 Success: True  
2021-06-05 12:53:09,086 DEBUG: Image DJI\_0140.JPG matches: 4 out of 4  
2021-06-05 12:53:09,548 DEBUG: Matching DJI\_0116.JPG and DJI\_0151.JPG. Matcher:  
FLANN (symmetric) T-desc: 13.244 T-robust: 0.002 T-total: 13.246 Matches: 421  
Robust: 397 Success: True  
2021-06-05 12:53:14,627 DEBUG: Matching DJI\_0155.JPG and DJI\_0151.JPG. Matcher:  
FLANN (symmetric) T-desc: 21.047 T-robust: 0.005 T-total: 21.052 Matches: 1738  
Robust: 1699 Success: True  
2021-06-05 12:53:16,113 DEBUG: Matching DJI\_0167.JPG and DJI\_0165.JPG. Matcher:  
FLANN (symmetric) T-desc: 12.420 T-robust: 0.001 T-total: 12.421 Matches: 199  
Robust: 185 Success: True  
2021-06-05 12:53:16,114 DEBUG: Image DJI\_0167.JPG matches: 5 out of 5  
2021-06-05 12:53:17,133 DEBUG: Matching DJI\_0165.JPG and DJI\_0138.JPG. Matcher:  
FLANN (symmetric) T-desc: 14.311 T-robust: 0.001 T-total: 14.312 Matches: 94  
Robust: 80 Success: True  
2021-06-05 12:53:19,165 DEBUG: Matching DJI\_0148.JPG and DJI\_0120.JPG. Matcher:  
FLANN (symmetric) T-desc: 11.854 T-robust: 0.003 T-total: 11.857 Matches: 694  
Robust: 666 Success: True

2021-06-05 12:53:20,480 DEBUG: Matching DJI\_0159.JPG and DJI\_0158.JPG. Matcher:  
FLANN (symmetric) T-desc: 12.535 T-robust: 0.001 T-total: 12.536 Matches: 497  
Robust: 478 Success: True  
2021-06-05 12:53:21,647 DEBUG: Matching DJI\_0145.JPG and DJI\_0158.JPG. Matcher:  
FLANN (symmetric) T-desc: 12.557 T-robust: 0.001 T-total: 12.558 Matches: 329  
Robust: 312 Success: True  
2021-06-05 12:53:21,780 DEBUG: Matching DJI\_0123.JPG and DJI\_0121.JPG. Matcher:  
FLANN (symmetric) T-desc: 13.150 T-robust: 0.010 T-total: 13.160 Matches: 2235  
Robust: 2216 Success: True  
2021-06-05 12:53:22,447 DEBUG: Matching DJI\_0116.JPG and DJI\_0150.JPG. Matcher:  
FLANN (symmetric) T-desc: 12.897 T-robust: 0.001 T-total: 12.898 Matches: 107  
Robust: 89 Success: True  
2021-06-05 12:53:22,447 DEBUG: Image DJI\_0116.JPG matches: 3 out of 3  
2021-06-05 12:53:25,792 DEBUG: Matching DJI\_0165.JPG and DJI\_0166.JPG. Matcher:  
FLANN (symmetric) T-desc: 8.653 T-robust: 0.003 T-total: 8.656 Matches: 726  
Robust: 712 Success: True  
2021-06-05 12:53:26,618 DEBUG: Matching DJI\_0159.JPG and DJI\_0161.JPG. Matcher:  
FLANN (symmetric) T-desc: 6.135 T-robust: 0.001 T-total: 6.137 Matches: 391  
Robust: 379 Success: True  
2021-06-05 12:53:29,300 DEBUG: Matching DJI\_0148.JPG and DJI\_0122.JPG. Matcher:  
FLANN (symmetric) T-desc: 10.131 T-robust: 0.001 T-total: 10.133 Matches: 396  
Robust: 374 Success: True  
2021-06-05 12:53:29,300 DEBUG: Image DJI\_0148.JPG matches: 3 out of 3  
2021-06-05 12:53:30,830 DEBUG: Matching DJI\_0123.JPG and DJI\_0124.JPG. Matcher:  
FLANN (symmetric) T-desc: 9.032 T-robust: 0.010 T-total: 9.042 Matches: 2802  
Robust: 2774 Success: True  
2021-06-05 12:53:31,045 DEBUG: Matching DJI\_0145.JPG and DJI\_0161.JPG. Matcher:  
FLANN (symmetric) T-desc: 9.396 T-robust: 0.001 T-total: 9.396 Matches: 148  
Robust: 133 Success: True  
2021-06-05 12:53:31,752 DEBUG: Matching DJI\_0165.JPG and DJI\_0140.JPG. Matcher:  
FLANN (symmetric) T-desc: 5.957 T-robust: 0.002 T-total: 5.958 Matches: 316  
Robust: 296 Success: True  
2021-06-05 12:53:31,752 DEBUG: Image DJI\_0165.JPG matches: 4 out of 4  
2021-06-05 12:53:33,197 DEBUG: Matching DJI\_0155.JPG and DJI\_0150.JPG. Matcher:  
FLANN (symmetric) T-desc: 18.544 T-robust: 0.014 T-total: 18.558 Matches: 3685  
Robust: 3616 Success: True  
2021-06-05 12:53:34,950 DEBUG: Matching DJI\_0122.JPG and DJI\_0121.JPG. Matcher:  
FLANN (symmetric) T-desc: 12.454 T-robust: 0.029 T-total: 12.483 Matches: 8167  
Robust: 8147 Success: True  
2021-06-05 12:53:36,182 DEBUG: Matching DJI\_0159.JPG and DJI\_0160.JPG. Matcher:  
FLANN (symmetric) T-desc: 9.550 T-robust: 0.008 T-total: 9.558 Matches: 1836  
Robust: 1828 Success: True  
2021-06-05 12:53:36,183 DEBUG: Image DJI\_0159.JPG matches: 7 out of 7  
2021-06-05 12:53:37,904 DEBUG: Matching DJI\_0136.JPG and DJI\_0133.JPG. Matcher:  
FLANN (symmetric) T-desc: 81.679 T-robust: 0.006 T-total: 81.685 Matches: 144  
Robust: 87 Success: True  
2021-06-05 12:53:41,044 DEBUG: Matching DJI\_0145.JPG and DJI\_0124.JPG. Matcher:  
FLANN (symmetric) T-desc: 9.996 T-robust: 0.001 T-total: 9.997 Matches: 319  
Robust: 285 Success: True  
2021-06-05 12:53:42,479 DEBUG: Matching DJI\_0123.JPG and DJI\_0122.JPG. Matcher:  
FLANN (symmetric) T-desc: 11.592 T-robust: 0.042 T-total: 11.634 Matches: 6193  
Robust: 6167 Success: True  
2021-06-05 12:53:42,607 DEBUG: Matching DJI\_0137.JPG and DJI\_0132.JPG. Matcher:  
FLANN (symmetric) T-desc: 51.552 T-robust: 0.002 T-total: 51.554 Matches: 94

Robust: 66 Success: True  
2021-06-05 12:53:44,084 DEBUG: Matching DJI\_0130.JPG and DJI\_0132.JPG. Matcher:  
FLANN (symmetric) T-desc: 41.598 T-robust: 0.003 T-total: 41.601 Matches: 78  
Robust: 52 Success: True  
2021-06-05 12:53:44,084 DEBUG: Image DJI\_0130.JPG matches: 3 out of 5  
2021-06-05 12:53:44,578 DEBUG: Matching DJI\_0166.JPG and DJI\_0141.JPG. Matcher:  
FLANN (symmetric) T-desc: 8.393 T-robust: 0.001 T-total: 8.394 Matches: 31  
Robust: 24 Success: True  
2021-06-05 12:53:46,022 DEBUG: Matching DJI\_0122.JPG and DJI\_0124.JPG. Matcher:  
FLANN (symmetric) T-desc: 11.063 T-robust: 0.004 T-total: 11.067 Matches: 1086  
Robust: 1064 Success: True  
2021-06-05 12:53:49,408 DEBUG: Matching DJI\_0151.JPG and DJI\_0150.JPG. Matcher:  
FLANN (symmetric) T-desc: 20.071 T-robust: 0.022 T-total: 20.093 Matches: 5521  
Robust: 5496 Success: True  
2021-06-05 12:53:49,651 DEBUG: Matching DJI\_0153.JPG and DJI\_0156.JPG. Matcher:  
FLANN (symmetric) T-desc: 17.896 T-robust: 0.001 T-total: 17.897 Matches: 73  
Robust: 57 Success: True  
2021-06-05 12:53:51,957 DEBUG: Matching DJI\_0155.JPG and DJI\_0156.JPG. Matcher:  
FLANN (symmetric) T-desc: 18.719 T-robust: 0.024 T-total: 18.743 Matches: 6732  
Robust: 6690 Success: True  
2021-06-05 12:53:53,585 DEBUG: Matching DJI\_0145.JPG and DJI\_0122.JPG. Matcher:  
FLANN (symmetric) T-desc: 12.540 T-robust: 0.001 T-total: 12.541 Matches: 294  
Robust: 275 Success: True  
2021-06-05 12:53:53,586 DEBUG: Image DJI\_0145.JPG matches: 4 out of 4  
2021-06-05 12:53:54,056 DEBUG: Matching DJI\_0123.JPG and DJI\_0145.JPG. Matcher:  
FLANN (symmetric) T-desc: 11.572 T-robust: 0.001 T-total: 11.574 Matches: 484  
Robust: 456 Success: True  
2021-06-05 12:53:54,057 DEBUG: Image DJI\_0123.JPG matches: 4 out of 4  
2021-06-05 12:53:58,096 DEBUG: Matching DJI\_0166.JPG and DJI\_0138.JPG. Matcher:  
FLANN (symmetric) T-desc: 13.516 T-robust: 0.001 T-total: 13.517 Matches: 332  
Robust: 307 Success: True  
2021-06-05 12:53:58,096 DEBUG: Image DJI\_0166.JPG matches: 2 out of 2  
2021-06-05 12:54:00,254 DEBUG: Matching DJI\_0122.JPG and DJI\_0120.JPG. Matcher:  
FLANN (symmetric) T-desc: 14.219 T-robust: 0.008 T-total: 14.228 Matches: 1829  
Robust: 1802 Success: True  
2021-06-05 12:54:00,254 DEBUG: Image DJI\_0122.JPG matches: 3 out of 3  
2021-06-05 12:54:00,367 DEBUG: Matching DJI\_0161.JPG and DJI\_0162.JPG. Matcher:  
FLANN (symmetric) T-desc: 6.305 T-robust: 0.003 T-total: 6.308 Matches: 783  
Robust: 765 Success: True  
2021-06-05 12:54:00,367 DEBUG: Image DJI\_0161.JPG matches: 1 out of 1  
2021-06-05 12:54:00,367 DEBUG: Image DJI\_0120.JPG matches: 0 out of 0  
2021-06-05 12:54:00,368 DEBUG: Image DJI\_0124.JPG matches: 0 out of 0  
2021-06-05 12:54:00,368 DEBUG: Image DJI\_0131.JPG matches: 0 out of 0  
2021-06-05 12:54:00,368 DEBUG: Image DJI\_0141.JPG matches: 0 out of 0  
2021-06-05 12:54:06,824 DEBUG: Matching DJI\_0162.JPG and DJI\_0164.JPG. Matcher:  
FLANN (symmetric) T-desc: 6.567 T-robust: 0.001 T-total: 6.568 Matches: 436  
Robust: 428 Success: True  
2021-06-05 12:54:06,824 DEBUG: Image DJI\_0162.JPG matches: 1 out of 1  
2021-06-05 12:54:07,229 DEBUG: Matching DJI\_0151.JPG and DJI\_0156.JPG. Matcher:  
FLANN (symmetric) T-desc: 17.814 T-robust: 0.003 T-total: 17.817 Matches: 480  
Robust: 451 Success: True  
2021-06-05 12:54:07,986 DEBUG: Matching DJI\_0136.JPG and DJI\_0167.JPG. Matcher:  
FLANN (symmetric) T-desc: 30.077 T-robust: 0.004 T-total: 30.081 Matches: 69  
Robust: 43 Success: True

2021-06-05 12:54:09,005 DEBUG: Matching DJI\_0156.JPG and DJI\_0150.JPG. Matcher:  
FLANN (symmetric) T-desc: 15.407 T-robust: 0.007 T-total: 15.415 Matches: 2052  
Robust: 2022 Success: True  
2021-06-05 12:54:09,006 DEBUG: Image DJI\_0156.JPG matches: 1 out of 1  
2021-06-05 12:54:09,046 DEBUG: Matching DJI\_0153.JPG and DJI\_0150.JPG. Matcher:  
FLANN (symmetric) T-desc: 19.391 T-robust: 0.002 T-total: 19.393 Matches: 502  
Robust: 470 Success: True  
2021-06-05 12:54:09,046 DEBUG: Image DJI\_0153.JPG matches: 2 out of 2  
2021-06-05 12:54:10,099 DEBUG: Matching DJI\_0134.JPG and DJI\_0131.JPG. Matcher:  
FLANN (symmetric) T-desc: 83.931 T-robust: 0.005 T-total: 83.936 Matches: 108  
Robust: 66 Success: True  
2021-06-05 12:54:11,282 DEBUG: Matching DJI\_0121.JPG and DJI\_0120.JPG. Matcher:  
FLANN (symmetric) T-desc: 13.136 T-robust: 0.027 T-total: 13.163 Matches: 8448  
Robust: 8423 Success: True  
2021-06-05 12:54:11,283 DEBUG: Image DJI\_0121.JPG matches: 1 out of 1  
2021-06-05 12:54:12,510 DEBUG: Matching DJI\_0155.JPG and DJI\_0153.JPG. Matcher:  
FLANN (symmetric) T-desc: 20.551 T-robust: 0.001 T-total: 20.552 Matches: 276  
Robust: 253 Success: True  
2021-06-05 12:54:16,315 DEBUG: Matching DJI\_0158.JPG and DJI\_0149.JPG. Matcher:  
FLANN (symmetric) T-desc: 7.266 T-robust: 0.001 T-total: 7.267 Matches: 259  
Robust: 236 Success: True  
2021-06-05 12:54:20,975 DEBUG: Matching DJI\_0151.JPG and DJI\_0153.JPG. Matcher:  
FLANN (symmetric) T-desc: 13.729 T-robust: 0.010 T-total: 13.739 Matches: 3084  
Robust: 3059 Success: True  
2021-06-05 12:54:20,976 DEBUG: Image DJI\_0151.JPG matches: 3 out of 3  
2021-06-05 12:54:22,100 DEBUG: Matching DJI\_0155.JPG and DJI\_0149.JPG. Matcher:  
FLANN (symmetric) T-desc: 9.575 T-robust: 0.008 T-total: 9.583 Matches: 2806  
Robust: 2769 Success: True  
2021-06-05 12:54:22,100 DEBUG: Image DJI\_0155.JPG matches: 6 out of 6  
2021-06-05 12:54:22,226 DEBUG: Matching DJI\_0158.JPG and DJI\_0148.JPG. Matcher:  
FLANN (symmetric) T-desc: 5.905 T-robust: 0.003 T-total: 5.909 Matches: 1119  
Robust: 1100 Success: True  
2021-06-05 12:54:22,226 DEBUG: Image DJI\_0158.JPG matches: 2 out of 2  
2021-06-05 12:54:24,502 DEBUG: Matching DJI\_0136.JPG and DJI\_0138.JPG. Matcher:  
FLANN (symmetric) T-desc: 16.513 T-robust: 0.002 T-total: 16.515 Matches: 104  
Robust: 73 Success: True  
2021-06-05 12:54:24,678 DEBUG: Matching DJI\_0137.JPG and DJI\_0133.JPG. Matcher:  
FLANN (symmetric) T-desc: 42.056 T-robust: 0.015 T-total: 42.071 Matches: 49  
Robust: 17 Success: False  
2021-06-05 12:54:24,679 DEBUG: Image DJI\_0137.JPG matches: 3 out of 5  
2021-06-05 12:54:25,208 DEBUG: Matching DJI\_0133.JPG and DJI\_0131.JPG. Matcher:  
FLANN (symmetric) T-desc: 69.091 T-robust: 0.002 T-total: 69.093 Matches: 105  
Robust: 78 Success: True  
2021-06-05 12:54:26,449 DEBUG: Matching DJI\_0142.JPG and DJI\_0163.JPG. Matcher:  
FLANN (symmetric) T-desc: 1.767 T-robust: 0.002 T-total: 1.769 Matches: 645  
Robust: 612 Success: True  
2021-06-05 12:54:28,238 DEBUG: Matching DJI\_0142.JPG and DJI\_0164.JPG. Matcher:  
FLANN (symmetric) T-desc: 1.787 T-robust: 0.001 T-total: 1.788 Matches: 403  
Robust: 374 Success: True  
2021-06-05 12:54:29,580 DEBUG: Matching DJI\_0132.JPG and DJI\_0131.JPG. Matcher:  
FLANN (symmetric) T-desc: 45.491 T-robust: 0.002 T-total: 45.494 Matches: 782  
Robust: 740 Success: True  
2021-06-05 12:54:29,580 DEBUG: Image DJI\_0132.JPG matches: 1 out of 1  
2021-06-05 12:54:29,718 DEBUG: Matching DJI\_0142.JPG and DJI\_0140.JPG. Matcher:

FLANN (symmetric) T-desc: 1.478 T-robust: 0.001 T-total: 1.479 Matches: 281  
Robust: 262 Success: True  
2021-06-05 12:54:30,853 DEBUG: Matching DJI\_0142.JPG and DJI\_0162.JPG. Matcher:  
FLANN (symmetric) T-desc: 1.132 T-robust: 0.001 T-total: 1.133 Matches: 326  
Robust: 297 Success: True  
2021-06-05 12:54:32,081 DEBUG: Matching DJI\_0142.JPG and DJI\_0141.JPG. Matcher:  
FLANN (symmetric) T-desc: 1.221 T-robust: 0.004 T-total: 1.225 Matches: 1534  
Robust: 1506 Success: True  
2021-06-05 12:54:32,081 DEBUG: Image DJI\_0142.JPG matches: 5 out of 5  
2021-06-05 12:54:35,419 DEBUG: Matching DJI\_0136.JPG and DJI\_0131.JPG. Matcher:  
FLANN (symmetric) T-desc: 10.914 T-robust: 0.002 T-total: 10.916 Matches: 109  
Robust: 75 Success: True  
2021-06-05 12:54:36,557 DEBUG: Matching DJI\_0134.JPG and DJI\_0132.JPG. Matcher:  
FLANN (symmetric) T-desc: 26.452 T-robust: 0.003 T-total: 26.455 Matches: 970  
Robust: 914 Success: True  
2021-06-05 12:54:39,995 DEBUG: Matching DJI\_0133.JPG and DJI\_0132.JPG. Matcher:  
FLANN (symmetric) T-desc: 14.779 T-robust: 0.004 T-total: 14.783 Matches: 1547  
Robust: 1501 Success: True  
2021-06-05 12:54:39,995 DEBUG: Image DJI\_0133.JPG matches: 2 out of 2  
2021-06-05 12:54:41,999 DEBUG: Matching DJI\_0150.JPG and DJI\_0148.JPG. Matcher:  
FLANN (symmetric) T-desc: 1.999 T-robust: 0.003 T-total: 2.002 Matches: 1138  
Robust: 1096 Success: True  
2021-06-05 12:54:44,619 DEBUG: Matching DJI\_0150.JPG and DJI\_0120.JPG. Matcher:  
FLANN (symmetric) T-desc: 2.618 T-robust: 0.001 T-total: 2.619 Matches: 279  
Robust: 255 Success: True  
2021-06-05 12:54:44,620 DEBUG: Image DJI\_0150.JPG matches: 2 out of 2  
2021-06-05 12:54:46,084 DEBUG: Matching DJI\_0136.JPG and DJI\_0134.JPG. Matcher:  
FLANN (symmetric) T-desc: 10.660 T-robust: 0.004 T-total: 10.664 Matches: 125  
Robust: 78 Success: True  
2021-06-05 12:54:48,951 DEBUG: Matching DJI\_0134.JPG and DJI\_0133.JPG. Matcher:  
FLANN (symmetric) T-desc: 12.209 T-robust: 0.112 T-total: 12.320 Matches: 37485  
Robust: 37458 Success: True  
2021-06-05 12:54:48,951 DEBUG: Image DJI\_0134.JPG matches: 3 out of 3  
2021-06-05 12:54:50,403 DEBUG: Matching DJI\_0136.JPG and DJI\_0137.JPG. Matcher:  
FLANN (symmetric) T-desc: 4.313 T-robust: 0.003 T-total: 4.316 Matches: 1085  
Robust: 1052 Success: True  
2021-06-05 12:54:55,465 DEBUG: Matching DJI\_0136.JPG and DJI\_0135.JPG. Matcher:  
FLANN (symmetric) T-desc: 5.057 T-robust: 0.003 T-total: 5.060 Matches: 1181  
Robust: 1139 Success: True  
2021-06-05 12:54:55,797 DEBUG: Matching DJI\_0135.JPG and DJI\_0134.JPG. Matcher:  
FLANN (symmetric) T-desc: 6.843 T-robust: 0.002 T-total: 6.845 Matches: 197  
Robust: 145 Success: True  
2021-06-05 12:55:01,656 DEBUG: Matching DJI\_0136.JPG and DJI\_0132.JPG. Matcher:  
FLANN (symmetric) T-desc: 6.189 T-robust: 0.002 T-total: 6.191 Matches: 152  
Robust: 115 Success: True  
2021-06-05 12:55:01,657 DEBUG: Image DJI\_0136.JPG matches: 8 out of 8  
2021-06-05 12:55:02,581 DEBUG: Matching DJI\_0135.JPG and DJI\_0133.JPG. Matcher:  
FLANN (symmetric) T-desc: 6.782 T-robust: 0.001 T-total: 6.784 Matches: 187  
Robust: 141 Success: True  
2021-06-05 12:55:06,809 DEBUG: Matching DJI\_0135.JPG and DJI\_0132.JPG. Matcher:  
FLANN (symmetric) T-desc: 4.225 T-robust: 0.002 T-total: 4.228 Matches: 154  
Robust: 105 Success: True  
2021-06-05 12:55:06,810 DEBUG: Image DJI\_0135.JPG matches: 3 out of 3  
2021-06-05 12:55:06,811 INFO: Matched 263 pairs for 56 ref\_images (brown-brown:

263) in 341.452834 seconds (1.2982997501901141 seconds/pair).  
[INFO] running  
D:\WebODM\resources\app\apps\ODM\SuperBuild\install\bin\opensfm\bin\opensfm  
create\_tracks  
"D:\WebODM\resources\app\apps\NodeODM\data\3977cfc2-da54-4db2-9e5c-9126eddd529f\  
opensfm"  
2021-06-05 12:55:08,534 INFO: reading features  
2021-06-05 12:55:13,308 DEBUG: Merging features onto tracks  
2021-06-05 12:55:15,455 DEBUG: Good tracks: 165447  
[INFO] running  
D:\WebODM\resources\app\apps\ODM\SuperBuild\install\bin\opensfm\bin\opensfm  
reconstruct  
"D:\WebODM\resources\app\apps\NodeODM\data\3977cfc2-da54-4db2-9e5c-9126eddd529f\  
opensfm"  
2021-06-05 12:55:24,508 INFO: Starting incremental reconstruction  
2021-06-05 12:55:26,724 INFO: Starting reconstruction with DJI\_0149.JPG and  
DJI\_0150.JPG  
2021-06-05 12:55:26,930 INFO: Two-view reconstruction inliers: 6996 / 6998  
2021-06-05 12:55:27,586 INFO: Triangulated: 6996  
2021-06-05 12:55:27,716 DEBUG: Ceres Solver Report: Iterations: 4, Initial cost:  
2.263930e+02, Final cost: 5.692298e+01, Termination: CONVERGENCE  
2021-06-05 12:55:29,170 DEBUG: Ceres Solver Report: Iterations: 3, Initial cost:  
9.906135e+01, Final cost: 4.544660e+01, Termination: CONVERGENCE  
2021-06-05 12:55:29,754 DEBUG: Ceres Solver Report: Iterations: 14, Initial  
cost: 1.618106e+02, Final cost: 4.702779e+01, Termination: CONVERGENCE  
2021-06-05 12:55:29,882 INFO: Removed outliers: 18  
2021-06-05 12:55:29,914 INFO:  
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2021-06-05 12:55:29,975 INFO: DJI\_0155.JPG resection inliers: 2428 / 2429  
2021-06-05 12:55:30,034 DEBUG: Ceres Solver Report: Iterations: 4, Initial cost:  
8.353522e+01, Final cost: 7.278868e+01, Termination: CONVERGENCE  
2021-06-05 12:55:30,035 INFO: Adding DJI\_0155.JPG to the reconstruction  
2021-06-05 12:55:30,815 DEBUG: Ceres Solver Report: Iterations: 4, Initial cost:  
1.424813e+02, Final cost: 7.493013e+01, Termination: CONVERGENCE  
2021-06-05 12:55:30,991 INFO: Removed outliers: 37  
2021-06-05 12:55:31,025 INFO:  
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2021-06-05 12:55:31,092 INFO: DJI\_0156.JPG resection inliers: 3386 / 3387  
2021-06-05 12:55:31,174 DEBUG: Ceres Solver Report: Iterations: 4, Initial cost:  
2.172046e+02, Final cost: 7.207755e+01, Termination: CONVERGENCE  
2021-06-05 12:55:31,175 INFO: Adding DJI\_0156.JPG to the reconstruction  
2021-06-05 12:55:31,720 INFO: Re-triangulating  
2021-06-05 12:55:32,745 DEBUG: Ceres Solver Report: Iterations: 16, Initial  
cost: 2.087270e+02, Final cost: 1.530406e+02, Termination: CONVERGENCE  
2021-06-05 12:55:36,581 DEBUG: Ceres Solver Report: Iterations: 16, Initial  
cost: 2.569127e+02, Final cost: 1.538270e+02, Termination: CONVERGENCE  
2021-06-05 12:55:36,875 INFO: Removed outliers: 99  
2021-06-05 12:55:36,919 INFO:  
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2021-06-05 12:55:36,985 INFO: DJI\_0151.JPG resection inliers: 3044 / 3045  
2021-06-05 12:55:37,061 DEBUG: Ceres Solver Report: Iterations: 4, Initial cost:  
2.527625e+02, Final cost: 5.703372e+01, Termination: CONVERGENCE  
2021-06-05 12:55:37,062 INFO: Adding DJI\_0151.JPG to the reconstruction  
2021-06-05 12:55:38,368 DEBUG: Ceres Solver Report: Iterations: 6, Initial cost:

2.325377e+02, Final cost: 1.999903e+02, Termination: CONVERGENCE  
2021-06-05 12:55:38,739 INFO: Removed outliers: 116  
2021-06-05 12:55:38,787 INFO:  
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2021-06-05 12:55:38,850 INFO: DJI\_0154.JPG resection inliers: 3362 / 3363  
2021-06-05 12:55:38,932 DEBUG: Ceres Solver Report: Iterations: 4, Initial cost:  
6.685320e+02, Final cost: 7.196399e+01, Termination: CONVERGENCE  
2021-06-05 12:55:38,933 INFO: Adding DJI\_0154.JPG to the reconstruction  
2021-06-05 12:55:40,259 DEBUG: Ceres Solver Report: Iterations: 4, Initial cost:  
3.047843e+02, Final cost: 2.519807e+02, Termination: CONVERGENCE  
2021-06-05 12:55:40,724 INFO: Removed outliers: 136  
2021-06-05 12:55:40,778 INFO:  
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2021-06-05 12:55:40,850 INFO: DJI\_0148.JPG resection inliers: 2911 / 2912  
2021-06-05 12:55:40,922 DEBUG: Ceres Solver Report: Iterations: 4, Initial cost:  
1.986972e+02, Final cost: 5.183271e+01, Termination: CONVERGENCE  
2021-06-05 12:55:40,923 INFO: Adding DJI\_0148.JPG to the reconstruction  
2021-06-05 12:55:41,345 INFO:  
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2021-06-05 12:55:41,421 INFO: DJI\_0152.JPG resection inliers: 2121 / 2122  
2021-06-05 12:55:41,476 DEBUG: Ceres Solver Report: Iterations: 4, Initial cost:  
1.246244e+02, Final cost: 4.382887e+01, Termination: CONVERGENCE  
2021-06-05 12:55:41,477 INFO: Adding DJI\_0152.JPG to the reconstruction  
2021-06-05 12:55:43,539 DEBUG: Ceres Solver Report: Iterations: 7, Initial cost:  
4.103326e+02, Final cost: 3.526176e+02, Termination: CONVERGENCE  
2021-06-05 12:55:44,120 INFO: Removed outliers: 238  
2021-06-05 12:55:44,180 INFO:  
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2021-06-05 12:55:44,278 INFO: DJI\_0153.JPG resection inliers: 3779 / 3780  
2021-06-05 12:55:44,369 DEBUG: Ceres Solver Report: Iterations: 3, Initial cost:  
5.100492e+01, Final cost: 4.018479e+01, Termination: CONVERGENCE  
2021-06-05 12:55:44,370 INFO: Adding DJI\_0153.JPG to the reconstruction  
2021-06-05 12:55:45,692 INFO: Re-triangulating  
2021-06-05 12:55:47,596 DEBUG: Ceres Solver Report: Iterations: 4, Initial cost:  
4.677009e+02, Final cost: 4.489427e+02, Termination: CONVERGENCE  
2021-06-05 12:55:58,100 DEBUG: Ceres Solver Report: Iterations: 14, Initial  
cost: 9.334796e+02, Final cost: 4.792131e+02, Termination: CONVERGENCE  
2021-06-05 12:55:58,990 INFO: Removed outliers: 593  
2021-06-05 12:55:59,073 INFO:  
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2021-06-05 12:55:59,125 INFO: DJI\_0117.JPG resection inliers: 2174 / 2175  
2021-06-05 12:55:59,178 DEBUG: Ceres Solver Report: Iterations: 4, Initial cost:  
5.208214e+02, Final cost: 2.465231e+02, Termination: CONVERGENCE  
2021-06-05 12:55:59,179 INFO: Adding DJI\_0117.JPG to the reconstruction  
2021-06-05 12:55:59,526 INFO:  
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2021-06-05 12:55:59,595 INFO: DJI\_0118.JPG resection inliers: 2221 / 2305  
2021-06-05 12:55:59,648 DEBUG: Ceres Solver Report: Iterations: 5, Initial cost:  
7.915120e+02, Final cost: 1.898228e+02, Termination: CONVERGENCE  
2021-06-05 12:55:59,649 INFO: Adding DJI\_0118.JPG to the reconstruction  
2021-06-05 12:56:00,242 INFO:  
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2021-06-05 12:56:00,301 INFO: DJI\_0116.JPG resection inliers: 2986 / 3003  
2021-06-05 12:56:00,371 DEBUG: Ceres Solver Report: Iterations: 4, Initial cost:

1.213570e+03, Final cost: 2.030187e+02, Termination: CONVERGENCE  
2021-06-05 12:56:00,372 INFO: Adding DJI\_0116.JPG to the reconstruction  
2021-06-05 12:56:03,587 DEBUG: Ceres Solver Report: Iterations: 7, Initial cost:  
1.162008e+03, Final cost: 5.642793e+02, Termination: CONVERGENCE  
2021-06-05 12:56:04,657 INFO: Removed outliers: 155  
2021-06-05 12:56:04,750 INFO:  
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2021-06-05 12:56:04,818 INFO: DJI\_0119.JPG resection inliers: 3035 / 3044  
2021-06-05 12:56:04,890 DEBUG: Ceres Solver Report: Iterations: 4, Initial cost:  
1.232259e+02, Final cost: 7.921948e+01, Termination: CONVERGENCE  
2021-06-05 12:56:04,891 INFO: Adding DJI\_0119.JPG to the reconstruction  
2021-06-05 12:56:05,527 INFO:  
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2021-06-05 12:56:05,591 INFO: DJI\_0120.JPG resection inliers: 2621 / 2627  
2021-06-05 12:56:05,653 DEBUG: Ceres Solver Report: Iterations: 4, Initial cost:  
6.686766e+02, Final cost: 8.769106e+01, Termination: CONVERGENCE  
2021-06-05 12:56:05,654 INFO: Adding DJI\_0120.JPG to the reconstruction  
2021-06-05 12:56:09,676 DEBUG: Ceres Solver Report: Iterations: 6, Initial cost:  
7.641115e+02, Final cost: 6.215764e+02, Termination: CONVERGENCE  
2021-06-05 12:56:10,969 INFO: Removed outliers: 115  
2021-06-05 12:56:11,078 INFO:  
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2021-06-05 12:56:11,143 INFO: DJI\_0121.JPG resection inliers: 2929 / 2930  
2021-06-05 12:56:11,212 DEBUG: Ceres Solver Report: Iterations: 4, Initial cost:  
8.799637e+01, Final cost: 5.708354e+01, Termination: CONVERGENCE  
2021-06-05 12:56:11,213 INFO: Adding DJI\_0121.JPG to the reconstruction  
2021-06-05 12:56:11,943 INFO:  
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2021-06-05 12:56:11,999 INFO: DJI\_0122.JPG resection inliers: 2583 / 2585  
2021-06-05 12:56:12,061 DEBUG: Ceres Solver Report: Iterations: 4, Initial cost:  
8.911931e+01, Final cost: 6.633334e+01, Termination: CONVERGENCE  
2021-06-05 12:56:12,062 INFO: Adding DJI\_0122.JPG to the reconstruction  
2021-06-05 12:56:12,731 INFO:  
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2021-06-05 12:56:12,786 INFO: DJI\_0123.JPG resection inliers: 2746 / 2746  
2021-06-05 12:56:12,851 DEBUG: Ceres Solver Report: Iterations: 4, Initial cost:  
1.846286e+02, Final cost: 6.716760e+01, Termination: CONVERGENCE  
2021-06-05 12:56:12,852 INFO: Adding DJI\_0123.JPG to the reconstruction  
2021-06-05 12:56:18,848 DEBUG: Ceres Solver Report: Iterations: 11, Initial  
cost: 9.109697e+02, Final cost: 7.573285e+02, Termination: CONVERGENCE  
2021-06-05 12:56:20,446 INFO: Removed outliers: 116  
2021-06-05 12:56:20,575 INFO:  
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2021-06-05 12:56:20,615 INFO: DJI\_0147.JPG resection inliers: 2038 / 2042  
2021-06-05 12:56:20,664 DEBUG: Ceres Solver Report: Iterations: 4, Initial cost:  
8.178141e+01, Final cost: 5.861569e+01, Termination: CONVERGENCE  
2021-06-05 12:56:20,665 INFO: Adding DJI\_0147.JPG to the reconstruction  
2021-06-05 12:56:21,047 INFO:  
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2021-06-05 12:56:21,084 INFO: DJI\_0157.JPG resection inliers: 2066 / 2071  
2021-06-05 12:56:21,133 DEBUG: Ceres Solver Report: Iterations: 4, Initial cost:  
1.285788e+02, Final cost: 7.605923e+01, Termination: CONVERGENCE  
2021-06-05 12:56:21,133 INFO: Adding DJI\_0157.JPG to the reconstruction  
2021-06-05 12:56:21,421 INFO:



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2021-06-05 12:56:21,465 INFO: DJI\_0158.JPG resection inliers: 2177 / 2179  
2021-06-05 12:56:21,520 DEBUG: Ceres Solver Report: Iterations: 4, Initial cost: 9.886614e+01, Final cost: 6.893736e+01, Termination: CONVERGENCE  
2021-06-05 12:56:21,521 INFO: Adding DJI\_0158.JPG to the reconstruction  
2021-06-05 12:56:21,851 INFO:  
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2021-06-05 12:56:21,900 INFO: DJI\_0146.JPG resection inliers: 2474 / 2475  
2021-06-05 12:56:21,959 DEBUG: Ceres Solver Report: Iterations: 4, Initial cost: 4.051703e+02, Final cost: 1.236084e+02, Termination: CONVERGENCE  
2021-06-05 12:56:21,960 INFO: Adding DJI\_0146.JPG to the reconstruction  
2021-06-05 12:56:22,307 INFO:  
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2021-06-05 12:56:22,346 INFO: DJI\_0124.JPG resection inliers: 1462 / 1463  
2021-06-05 12:56:22,381 DEBUG: Ceres Solver Report: Iterations: 4, Initial cost: 1.176465e+02, Final cost: 2.722358e+01, Termination: CONVERGENCE  
2021-06-05 12:56:22,381 INFO: Adding DJI\_0124.JPG to the reconstruction  
2021-06-05 12:56:22,675 INFO:  
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2021-06-05 12:56:22,700 INFO: DJI\_0145.JPG resection inliers: 1134 / 1138  
2021-06-05 12:56:22,727 DEBUG: Ceres Solver Report: Iterations: 5, Initial cost: 4.837435e+02, Final cost: 1.106100e+02, Termination: CONVERGENCE  
2021-06-05 12:56:22,727 INFO: Adding DJI\_0145.JPG to the reconstruction  
2021-06-05 12:56:22,904 INFO: Re-triangulating  
2021-06-05 12:56:22,905 INFO: Shots and/or GCPs are well-conditioned. Using naive 3D-3D alignment.  
2021-06-05 12:56:31,627 DEBUG: Ceres Solver Report: Iterations: 18, Initial cost: 1.346043e+03, Final cost: 9.795015e+02, Termination: CONVERGENCE  
2021-06-05 12:56:53,870 DEBUG: Ceres Solver Report: Iterations: 12, Initial cost: 2.133811e+03, Final cost: 1.062652e+03, Termination: CONVERGENCE  
2021-06-05 12:56:55,700 INFO: Removed outliers: 1125  
2021-06-05 12:56:55,843 INFO:  
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2021-06-05 12:56:55,865 INFO: DJI\_0160.JPG resection inliers: 652 / 654  
2021-06-05 12:56:55,881 DEBUG: Ceres Solver Report: Iterations: 4, Initial cost: 3.845064e+01, Final cost: 2.481978e+01, Termination: CONVERGENCE  
2021-06-05 12:56:55,881 INFO: Adding DJI\_0160.JPG to the reconstruction  
2021-06-05 12:56:56,144 INFO:  
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2021-06-05 12:56:56,162 INFO: DJI\_0159.JPG resection inliers: 605 / 607  
2021-06-05 12:56:56,177 DEBUG: Ceres Solver Report: Iterations: 3, Initial cost: 2.077307e+01, Final cost: 1.597776e+01, Termination: CONVERGENCE  
2021-06-05 12:56:56,177 INFO: Adding DJI\_0159.JPG to the reconstruction  
2021-06-05 12:56:56,462 INFO:  
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2021-06-05 12:56:56,477 INFO: DJI\_0161.JPG resection inliers: 536 / 538  
2021-06-05 12:56:56,491 DEBUG: Ceres Solver Report: Iterations: 4, Initial cost: 3.929783e+01, Final cost: 3.633261e+01, Termination: CONVERGENCE  
2021-06-05 12:56:56,491 INFO: Adding DJI\_0161.JPG to the reconstruction  
2021-06-05 12:56:56,726 INFO:  
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2021-06-05 12:56:56,746 INFO: DJI\_0144.JPG resection inliers: 540 / 543  
2021-06-05 12:56:56,759 DEBUG: Ceres Solver Report: Iterations: 4, Initial cost: 2.532638e+02, Final cost: 3.283107e+01, Termination: CONVERGENCE

2021-06-05 12:56:56,760 INFO: Adding DJI\_0144.JPG to the reconstruction  
2021-06-05 12:56:56,991 INFO:  
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2021-06-05 12:56:57,008 INFO: DJI\_0143.JPG resection inliers: 399 / 403  
2021-06-05 12:56:57,017 DEBUG: Ceres Solver Report: Iterations: 5, Initial cost:  
6.397910e+01, Final cost: 4.794334e+01, Termination: CONVERGENCE  
2021-06-05 12:56:57,018 INFO: Adding DJI\_0143.JPG to the reconstruction  
2021-06-05 12:56:57,274 INFO:  
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2021-06-05 12:56:57,290 INFO: DJI\_0162.JPG resection inliers: 408 / 414  
2021-06-05 12:56:57,300 DEBUG: Ceres Solver Report: Iterations: 5, Initial cost:  
5.133765e+01, Final cost: 4.092416e+01, Termination: CONVERGENCE  
2021-06-05 12:56:57,300 INFO: Adding DJI\_0162.JPG to the reconstruction  
2021-06-05 12:56:57,531 INFO:  
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2021-06-05 12:56:57,547 INFO: DJI\_0142.JPG resection inliers: 431 / 436  
2021-06-05 12:56:57,557 DEBUG: Ceres Solver Report: Iterations: 5, Initial cost:  
6.510338e+01, Final cost: 5.630106e+01, Termination: CONVERGENCE  
2021-06-05 12:56:57,557 INFO: Adding DJI\_0142.JPG to the reconstruction  
2021-06-05 12:56:57,872 INFO:  
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2021-06-05 12:56:57,886 INFO: DJI\_0163.JPG resection inliers: 579 / 586  
2021-06-05 12:56:57,900 DEBUG: Ceres Solver Report: Iterations: 5, Initial cost:  
7.344070e+01, Final cost: 6.613320e+01, Termination: CONVERGENCE  
2021-06-05 12:56:57,901 INFO: Adding DJI\_0163.JPG to the reconstruction  
2021-06-05 12:56:58,151 INFO:  
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2021-06-05 12:56:58,167 INFO: DJI\_0141.JPG resection inliers: 661 / 681  
2021-06-05 12:56:58,183 DEBUG: Ceres Solver Report: Iterations: 5, Initial cost:  
3.571169e+02, Final cost: 7.928821e+01, Termination: CONVERGENCE  
2021-06-05 12:56:58,183 INFO: Adding DJI\_0141.JPG to the reconstruction  
2021-06-05 12:56:58,447 INFO:  
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2021-06-05 12:56:58,464 INFO: DJI\_0164.JPG resection inliers: 756 / 762  
2021-06-05 12:56:58,482 DEBUG: Ceres Solver Report: Iterations: 4, Initial cost:  
8.878332e+01, Final cost: 6.009887e+01, Termination: CONVERGENCE  
2021-06-05 12:56:58,482 INFO: Adding DJI\_0164.JPG to the reconstruction  
2021-06-05 12:56:58,750 INFO:  
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2021-06-05 12:56:58,768 INFO: DJI\_0140.JPG resection inliers: 584 / 591  
2021-06-05 12:56:58,782 DEBUG: Ceres Solver Report: Iterations: 4, Initial cost:  
6.587319e+01, Final cost: 5.094492e+01, Termination: CONVERGENCE  
2021-06-05 12:56:58,782 INFO: Adding DJI\_0140.JPG to the reconstruction  
2021-06-05 12:56:59,011 INFO:  
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2021-06-05 12:56:59,025 INFO: DJI\_0165.JPG resection inliers: 558 / 567  
2021-06-05 12:56:59,038 DEBUG: Ceres Solver Report: Iterations: 4, Initial cost:  
4.568067e+01, Final cost: 4.208893e+01, Termination: CONVERGENCE  
2021-06-05 12:56:59,039 INFO: Adding DJI\_0165.JPG to the reconstruction  
2021-06-05 12:56:59,287 INFO:  
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2021-06-05 12:56:59,302 INFO: DJI\_0126.JPG resection inliers: 530 / 539  
2021-06-05 12:56:59,315 DEBUG: Ceres Solver Report: Iterations: 4, Initial cost:  
1.726637e+02, Final cost: 1.353376e+02, Termination: CONVERGENCE

2021-06-05 12:56:59,315 INFO: Adding DJI\_0126.JPG to the reconstruction  
2021-06-05 12:56:59,563 INFO:  
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2021-06-05 12:56:59,578 INFO: DJI\_0125.JPG resection inliers: 648 / 657  
2021-06-05 12:56:59,594 DEBUG: Ceres Solver Report: Iterations: 5, Initial cost: 1.818529e+02, Final cost: 1.417732e+02, Termination: CONVERGENCE  
2021-06-05 12:56:59,594 INFO: Adding DJI\_0125.JPG to the reconstruction  
2021-06-05 12:56:59,852 INFO:  
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2021-06-05 12:56:59,868 INFO: DJI\_0127.JPG resection inliers: 604 / 611  
2021-06-05 12:56:59,882 DEBUG: Ceres Solver Report: Iterations: 5, Initial cost: 1.494089e+02, Final cost: 1.100456e+02, Termination: CONVERGENCE  
2021-06-05 12:56:59,883 INFO: Adding DJI\_0127.JPG to the reconstruction  
2021-06-05 12:57:00,150 INFO:  
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2021-06-05 12:57:00,164 INFO: DJI\_0128.JPG resection inliers: 398 / 404  
2021-06-05 12:57:00,173 DEBUG: Ceres Solver Report: Iterations: 4, Initial cost: 7.958407e+01, Final cost: 5.040733e+01, Termination: CONVERGENCE  
2021-06-05 12:57:00,173 INFO: Adding DJI\_0128.JPG to the reconstruction  
2021-06-05 12:57:00,406 INFO:  
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2021-06-05 12:57:00,421 INFO: DJI\_0166.JPG resection inliers: 328 / 333  
2021-06-05 12:57:00,429 DEBUG: Ceres Solver Report: Iterations: 4, Initial cost: 5.477622e+01, Final cost: 2.610523e+01, Termination: CONVERGENCE  
2021-06-05 12:57:00,429 INFO: Adding DJI\_0166.JPG to the reconstruction  
2021-06-05 12:57:00,659 INFO:  
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2021-06-05 12:57:00,670 INFO: DJI\_0139.JPG resection inliers: 357 / 360  
2021-06-05 12:57:00,679 DEBUG: Ceres Solver Report: Iterations: 5, Initial cost: 5.436492e+01, Final cost: 3.500427e+01, Termination: CONVERGENCE  
2021-06-05 12:57:00,679 INFO: Adding DJI\_0139.JPG to the reconstruction  
2021-06-05 12:57:00,911 INFO:  
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2021-06-05 12:57:00,924 INFO: DJI\_0167.JPG resection inliers: 403 / 406  
2021-06-05 12:57:00,933 DEBUG: Ceres Solver Report: Iterations: 5, Initial cost: 1.093388e+02, Final cost: 4.498167e+01, Termination: CONVERGENCE  
2021-06-05 12:57:00,934 INFO: Adding DJI\_0167.JPG to the reconstruction  
2021-06-05 12:57:01,182 INFO:  
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2021-06-05 12:57:01,205 INFO: DJI\_0138.JPG resection inliers: 516 / 518  
2021-06-05 12:57:01,218 DEBUG: Ceres Solver Report: Iterations: 6, Initial cost: 9.967858e+01, Final cost: 7.095120e+01, Termination: CONVERGENCE  
2021-06-05 12:57:01,218 INFO: Adding DJI\_0138.JPG to the reconstruction  
2021-06-05 12:57:01,451 INFO:  
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2021-06-05 12:57:01,473 INFO: DJI\_0168.JPG resection inliers: 464 / 465  
2021-06-05 12:57:01,485 DEBUG: Ceres Solver Report: Iterations: 4, Initial cost: 5.107845e+01, Final cost: 4.419169e+01, Termination: CONVERGENCE  
2021-06-05 12:57:01,485 INFO: Adding DJI\_0168.JPG to the reconstruction  
2021-06-05 12:57:01,757 INFO:  
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2021-06-05 12:57:01,770 INFO: DJI\_0137.JPG resection inliers: 466 / 470  
2021-06-05 12:57:01,782 DEBUG: Ceres Solver Report: Iterations: 5, Initial cost: 6.005752e+01, Final cost: 5.275436e+01, Termination: CONVERGENCE

2021-06-05 12:57:01,782 INFO: Adding DJI\_0137.JPG to the reconstruction  
2021-06-05 12:57:02,047 INFO:  
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2021-06-05 12:57:02,064 INFO: DJI\_0169.JPG resection inliers: 405 / 407  
2021-06-05 12:57:02,073 DEBUG: Ceres Solver Report: Iterations: 4, Initial cost:  
4.075027e+01, Final cost: 3.175136e+01, Termination: CONVERGENCE  
2021-06-05 12:57:02,074 INFO: Adding DJI\_0169.JPG to the reconstruction  
2021-06-05 12:57:02,213 INFO: Shots and/or GCPs are well-conditioned. Using  
naive 3D-3D alignment.  
2021-06-05 12:57:16,095 DEBUG: Ceres Solver Report: Iterations: 26, Initial  
cost: 3.168228e+03, Final cost: 1.411877e+03, Termination: CONVERGENCE  
2021-06-05 12:57:18,285 INFO: Removed outliers: 1455  
2021-06-05 12:57:18,448 INFO:  
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2021-06-05 12:57:18,467 INFO: DJI\_0170.JPG resection inliers: 662 / 663  
2021-06-05 12:57:18,483 DEBUG: Ceres Solver Report: Iterations: 5, Initial cost:  
1.900108e+02, Final cost: 1.442433e+01, Termination: CONVERGENCE  
2021-06-05 12:57:18,484 INFO: Adding DJI\_0170.JPG to the reconstruction  
2021-06-05 12:57:18,803 INFO:  
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2021-06-05 12:57:18,827 INFO: DJI\_0136.JPG resection inliers: 746 / 750  
2021-06-05 12:57:18,845 DEBUG: Ceres Solver Report: Iterations: 4, Initial cost:  
5.113035e+01, Final cost: 2.743724e+01, Termination: CONVERGENCE  
2021-06-05 12:57:18,846 INFO: Adding DJI\_0136.JPG to the reconstruction  
2021-06-05 12:57:19,115 INFO:  
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2021-06-05 12:57:19,136 INFO: DJI\_0135.JPG resection inliers: 842 / 845  
2021-06-05 12:57:19,156 DEBUG: Ceres Solver Report: Iterations: 4, Initial cost:  
1.008487e+02, Final cost: 3.573011e+01, Termination: CONVERGENCE  
2021-06-05 12:57:19,156 INFO: Adding DJI\_0135.JPG to the reconstruction  
2021-06-05 12:57:19,416 INFO:  
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2021-06-05 12:57:19,429 INFO: DJI\_0129.JPG resection inliers: 276 / 277  
2021-06-05 12:57:19,436 DEBUG: Ceres Solver Report: Iterations: 4, Initial cost:  
3.250921e+01, Final cost: 7.752828e+00, Termination: CONVERGENCE  
2021-06-05 12:57:19,436 INFO: Adding DJI\_0129.JPG to the reconstruction  
2021-06-05 12:57:19,660 INFO:  
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2021-06-05 12:57:19,672 INFO: DJI\_0130.JPG resection inliers: 249 / 256  
2021-06-05 12:57:19,679 DEBUG: Ceres Solver Report: Iterations: 4, Initial cost:  
2.044180e+01, Final cost: 1.042580e+01, Termination: CONVERGENCE  
2021-06-05 12:57:19,679 INFO: Adding DJI\_0130.JPG to the reconstruction  
2021-06-05 12:57:19,905 INFO:  
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2021-06-05 12:57:19,916 INFO: DJI\_0171.JPG resection inliers: 199 / 200  
2021-06-05 12:57:19,921 DEBUG: Ceres Solver Report: Iterations: 3, Initial cost:  
2.432080e+00, Final cost: 1.771832e+00, Termination: CONVERGENCE  
2021-06-05 12:57:19,921 INFO: Adding DJI\_0171.JPG to the reconstruction  
2021-06-05 12:57:20,174 INFO:  
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2021-06-05 12:57:20,193 INFO: DJI\_0131.JPG resection inliers: 169 / 173  
2021-06-05 12:57:20,197 DEBUG: Ceres Solver Report: Iterations: 5, Initial cost:  
3.451778e+01, Final cost: 7.337732e+00, Termination: CONVERGENCE  
2021-06-05 12:57:20,197 INFO: Adding DJI\_0131.JPG to the reconstruction

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2021-06-05 12:57:20,439 INFO:
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2021-06-05 12:57:20,449 INFO: DJI_0132.JPG resection inliers: 179 / 181
2021-06-05 12:57:20,454 DEBUG: Ceres Solver Report: Iterations: 4, Initial cost:
1.267619e+01, Final cost: 7.911328e+00, Termination: CONVERGENCE
2021-06-05 12:57:20,454 INFO: Adding DJI_0132.JPG to the reconstruction
2021-06-05 12:57:20,735 INFO:
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2021-06-05 12:57:20,810 INFO: DJI_0133.JPG resection inliers: 266 / 268
2021-06-05 12:57:20,817 DEBUG: Ceres Solver Report: Iterations: 4, Initial cost:
3.014358e+01, Final cost: 6.897280e+00, Termination: CONVERGENCE
2021-06-05 12:57:20,817 INFO: Adding DJI_0133.JPG to the reconstruction
2021-06-05 12:57:21,806 INFO:
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2021-06-05 12:57:21,893 INFO: DJI_0134.JPG resection inliers: 1175 / 1178
2021-06-05 12:57:21,922 DEBUG: Ceres Solver Report: Iterations: 3, Initial cost:
2.176833e+01, Final cost: 1.912170e+01, Termination: CONVERGENCE
2021-06-05 12:57:21,922 INFO: Adding DJI_0134.JPG to the reconstruction
2021-06-05 12:57:24,513 INFO: Shots and/or GCPs are well-conditioned. Using
naive 3D-3D alignment.
2021-06-05 12:57:40,553 DEBUG: Ceres Solver Report: Iterations: 22, Initial
cost: 1.926325e+03, Final cost: 1.551139e+03, Termination: CONVERGENCE
2021-06-05 12:57:43,480 INFO: Removed outliers: 1464
2021-06-05 12:57:43,701 INFO:
-----
2021-06-05 12:57:43,702 INFO: Shots and/or GCPs are well-conditioned. Using
naive 3D-3D alignment.
2021-06-05 12:57:53,497 DEBUG: Ceres Solver Report: Iterations: 8, Initial cost:
1.352567e+03, Final cost: 1.342572e+03, Termination: CONVERGENCE
2021-06-05 12:57:56,381 INFO: Removed outliers: 164
2021-06-05 12:57:58,267 INFO: Reconstruction 0: 56 images, 163934 points
2021-06-05 12:57:58,267 INFO: 1 partial reconstructions in total.
[INFO] Export reconstruction stats
[INFO] running
D:\WebODM\resources\app\apps\ODM\SuperBuild\install\bin\opensfm\bin\opensfm
compute_statistics --diagram_max_points 100000
"D:\WebODM\resources\app\apps\NodeODM\data\3977cfc2-da54-4db2-9e5c-9126eddd529f\
opensfm"
2021-06-05 12:58:38,068 DEBUG: locator:
<matplotlib.colorbar._ColorbarAutoLocator object at 0x00000210F0B6F7F0>
2021-06-05 12:58:38,068 DEBUG: Using auto colorbar locator
<matplotlib.colorbar._ColorbarAutoLocator object at 0x00000210F0B6F7F0> on
colorbar
2021-06-05 12:58:38,068 DEBUG: Setting pcolormesh
2021-06-05 12:58:39,170 DEBUG: locator:
<matplotlib.colorbar._ColorbarAutoLocator object at 0x00000210EFA569D0>
2021-06-05 12:58:39,171 DEBUG: Using auto colorbar locator
<matplotlib.colorbar._ColorbarAutoLocator object at 0x00000210EFA569D0> on
colorbar
2021-06-05 12:58:39,171 DEBUG: Setting pcolormesh
[INFO] running
D:\WebODM\resources\app\apps\ODM\SuperBuild\install\bin\opensfm\bin\opensfm
export_geocoords --reconstruction --proj "+proj=utm +zone=34 +datum=WGS84
+units=m +no_defs +type=crs" --offset-x 596691.0 --offset-y 5685664.0
```

"D:\WebODM\resources\app\apps\NodeODM\data\3977cfc2-da54-4db2-9e5c-9126eddd529f\opensfm"

[WARNING] Legacy option --depthmap-resolution (this might be removed in a future version). Use --pc-quality instead.

[INFO] Updating

D:\WebODM\resources\app\apps\NodeODM\data\3977cfc2-da54-4db2-9e5c-9126eddd529f\opensfm\config.yaml

[INFO] undistorted\_image\_max\_size: 5472

[INFO] Undistorting

D:\WebODM\resources\app\apps\NodeODM\data\3977cfc2-da54-4db2-9e5c-9126eddd529f\opensfm ...

2021-06-05 12:59:18,482 DEBUG: Undistorting image DJI\_0152.JPG  
2021-06-05 12:59:18,482 DEBUG: Undistorting image DJI\_0149.JPG  
2021-06-05 12:59:18,483 DEBUG: Undistorting image DJI\_0150.JPG  
2021-06-05 12:59:18,483 DEBUG: Undistorting image DJI\_0168.JPG  
2021-06-05 12:59:18,483 DEBUG: Undistorting image DJI\_0155.JPG  
2021-06-05 12:59:18,483 DEBUG: Undistorting image DJI\_0156.JPG  
2021-06-05 12:59:18,483 DEBUG: Undistorting image DJI\_0119.JPG  
2021-06-05 12:59:18,484 DEBUG: Undistorting image DJI\_0118.JPG  
2021-06-05 12:59:18,484 DEBUG: Undistorting image DJI\_0154.JPG  
2021-06-05 12:59:18,484 DEBUG: Undistorting image DJI\_0148.JPG  
2021-06-05 12:59:18,484 DEBUG: Undistorting image DJI\_0169.JPG  
2021-06-05 12:59:18,484 DEBUG: Undistorting image DJI\_0151.JPG  
2021-06-05 12:59:25,460 DEBUG: Undistorting image DJI\_0153.JPG  
2021-06-05 12:59:26,388 DEBUG: Undistorting image DJI\_0166.JPG  
2021-06-05 12:59:28,191 DEBUG: Undistorting image DJI\_0117.JPG  
2021-06-05 12:59:29,806 DEBUG: Undistorting image DJI\_0167.JPG  
2021-06-05 12:59:29,815 DEBUG: Undistorting image DJI\_0116.JPG  
2021-06-05 12:59:29,833 DEBUG: Undistorting image DJI\_0120.JPG  
2021-06-05 12:59:33,037 DEBUG: Undistorting image DJI\_0121.JPG  
2021-06-05 12:59:33,046 DEBUG: Undistorting image DJI\_0171.JPG  
2021-06-05 12:59:33,074 DEBUG: Undistorting image DJI\_0122.JPG  
2021-06-05 12:59:33,090 DEBUG: Undistorting image DJI\_0170.JPG  
2021-06-05 12:59:33,884 DEBUG: Undistorting image DJI\_0123.JPG  
2021-06-05 12:59:34,778 DEBUG: Undistorting image DJI\_0147.JPG  
2021-06-05 12:59:35,755 DEBUG: Undistorting image DJI\_0157.JPG  
2021-06-05 12:59:36,760 DEBUG: Undistorting image DJI\_0165.JPG  
2021-06-05 12:59:38,427 DEBUG: Undistorting image DJI\_0158.JPG  
2021-06-05 12:59:39,253 DEBUG: Undistorting image DJI\_0146.JPG  
2021-06-05 12:59:41,017 DEBUG: Undistorting image DJI\_0124.JPG  
2021-06-05 12:59:41,048 DEBUG: Undistorting image DJI\_0145.JPG  
2021-06-05 12:59:42,821 DEBUG: Undistorting image DJI\_0160.JPG  
2021-06-05 12:59:43,639 DEBUG: Undistorting image DJI\_0164.JPG  
2021-06-05 12:59:43,659 DEBUG: Undistorting image DJI\_0159.JPG  
2021-06-05 12:59:46,070 DEBUG: Undistorting image DJI\_0161.JPG  
2021-06-05 12:59:46,868 DEBUG: Undistorting image DJI\_0144.JPG  
2021-06-05 12:59:46,888 DEBUG: Undistorting image DJI\_0143.JPG  
2021-06-05 12:59:47,715 DEBUG: Undistorting image DJI\_0162.JPG  
2021-06-05 12:59:47,749 DEBUG: Undistorting image DJI\_0142.JPG  
2021-06-05 12:59:48,685 DEBUG: Undistorting image DJI\_0163.JPG  
2021-06-05 12:59:51,033 DEBUG: Undistorting image DJI\_0141.JPG  
2021-06-05 12:59:51,054 DEBUG: Undistorting image DJI\_0140.JPG  
2021-06-05 12:59:51,068 DEBUG: Undistorting image DJI\_0126.JPG  
2021-06-05 12:59:51,996 DEBUG: Undistorting image DJI\_0125.JPG

```
2021-06-05 12:59:54,131 DEBUG: Undistorting image DJI_0127.JPG
2021-06-05 12:59:54,927 DEBUG: Undistorting image DJI_0128.JPG
2021-06-05 12:59:54,946 DEBUG: Undistorting image DJI_0139.JPG
2021-06-05 12:59:56,370 DEBUG: Undistorting image DJI_0138.JPG
2021-06-05 12:59:57,291 DEBUG: Undistorting image DJI_0137.JPG
2021-06-05 12:59:58,819 DEBUG: Undistorting image DJI_0136.JPG
2021-06-05 13:00:01,843 DEBUG: Undistorting image DJI_0135.JPG
2021-06-05 13:00:01,873 DEBUG: Undistorting image DJI_0129.JPG
2021-06-05 13:00:01,900 DEBUG: Undistorting image DJI_0131.JPG
2021-06-05 13:00:01,893 DEBUG: Undistorting image DJI_0130.JPG
2021-06-05 13:00:01,918 DEBUG: Undistorting image DJI_0132.JPG
2021-06-05 13:00:03,600 DEBUG: Undistorting image DJI_0133.JPG
2021-06-05 13:00:04,426 DEBUG: Undistorting image DJI_0134.JPG
[INFO]    running
D:\WebODM\resources\app\apps\ODM\SuperBuild\install\bin\opensfm\bin\opensfm
export_visualsfm --points
"D:\WebODM\resources\app\apps\NodeODM\data\3977cfc2-da54-4db2-9e5c-9126eddd529f\
opensfm"
[INFO]    Finished opensfm stage
[INFO]    Running openmvs stage
[INFO]    running
D:\WebODM\resources\app\apps\ODM\SuperBuild\install\bin\opensfm\bin\opensfm
export_openmvs
"D:\WebODM\resources\app\apps\NodeODM\data\3977cfc2-da54-4db2-9e5c-9126eddd529f\
opensfm"
[WARNING] Legacy option --depthmap-resolution (this might be removed in a future
version). Use --pc-quality instead.
[INFO]    Running dense reconstruction. This might take a while.
[INFO]    Estimating depthmaps
[INFO]    running
D:\WebODM\resources\app\apps\ODM\SuperBuild\install\bin\OpenMVS\DensifyPointClou
d
"D:\WebODM\resources\app\apps\NodeODM\data\3977cfc2-da54-4db2-9e5c-9126eddd529f\
opensfm\undistorted\openmvs\scene.mvs" --resolution-level 2 --min-resolution
1000 --max-resolution 5472 --max-threads 12 --number-views-fuse 2 -w
"D:\WebODM\resources\app\apps\NodeODM\data\3977cfc2-da54-4db2-9e5c-9126eddd529f\
opensfm\undistorted\openmvs\depthmaps" -v 0
```