

Quality Report

See *Quality Report Help* for detailed explanations. Generated with version 3.0.3

Summary

Project:	pilapuertonuevo-unica
Processed:	2014-Feb-07 21:33:01
Camera name:	CanonIXUS127HS_4.3_4608x3456
Average Ground Sampling Distance (GSD):	8.78 cm
Area covered:	0.0473 km ² / 4.7288 ha / 0.0183 sq. mi.
Image coordinate system:	WGS84
Output coordinate system:	MAGNA-SIRGAS / Colombia Bogota zone
Processing type:	full (scale 1) aerial
Time for Initial Processing (without report):	45m:38s

Quality Check

Images:	median of 27303 keypoints per image	✓
Dataset:	143 out of 143 images calibrated (100%), 11 images disabled	✓
Camera optimization quality:	1.47% relative difference between initial and final focal length	✓
Matching quality:	median of 14872 matches per calibrated image	✓
Georeferencing:	no GCP	⚠

Preview

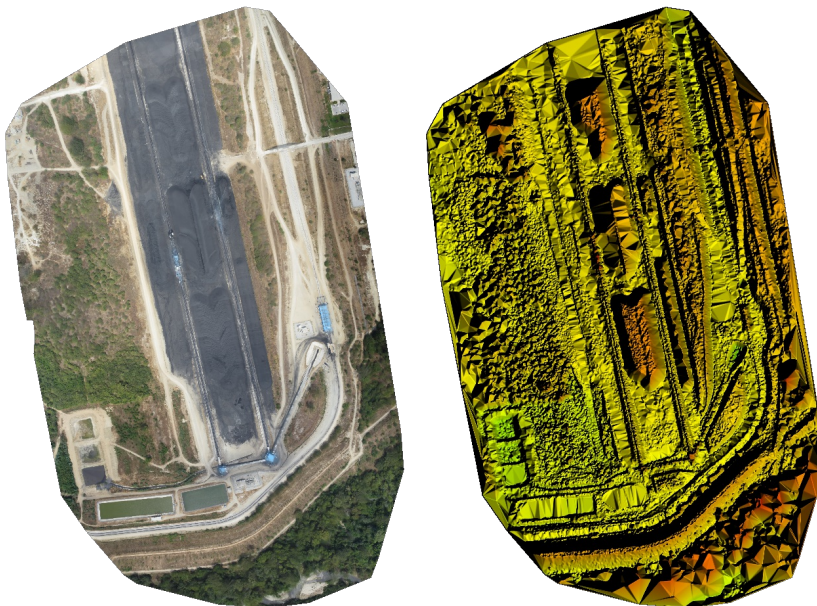


Figure 1: Ortho mosaic and the corresponding sparse digital surface model (DSM) before densification.

Calibration details

Number of calibrated images:	143 out of 154
Number of geotagged images:	143 out of 154

Geotag position



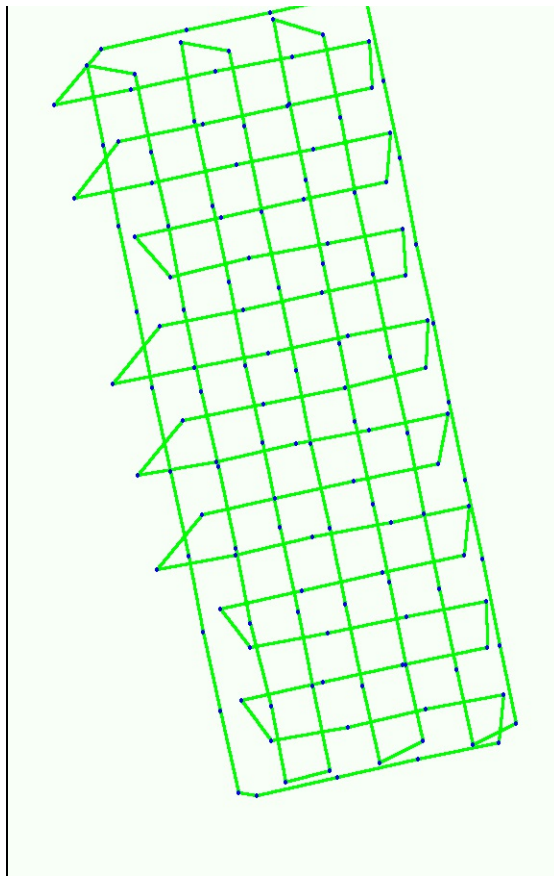
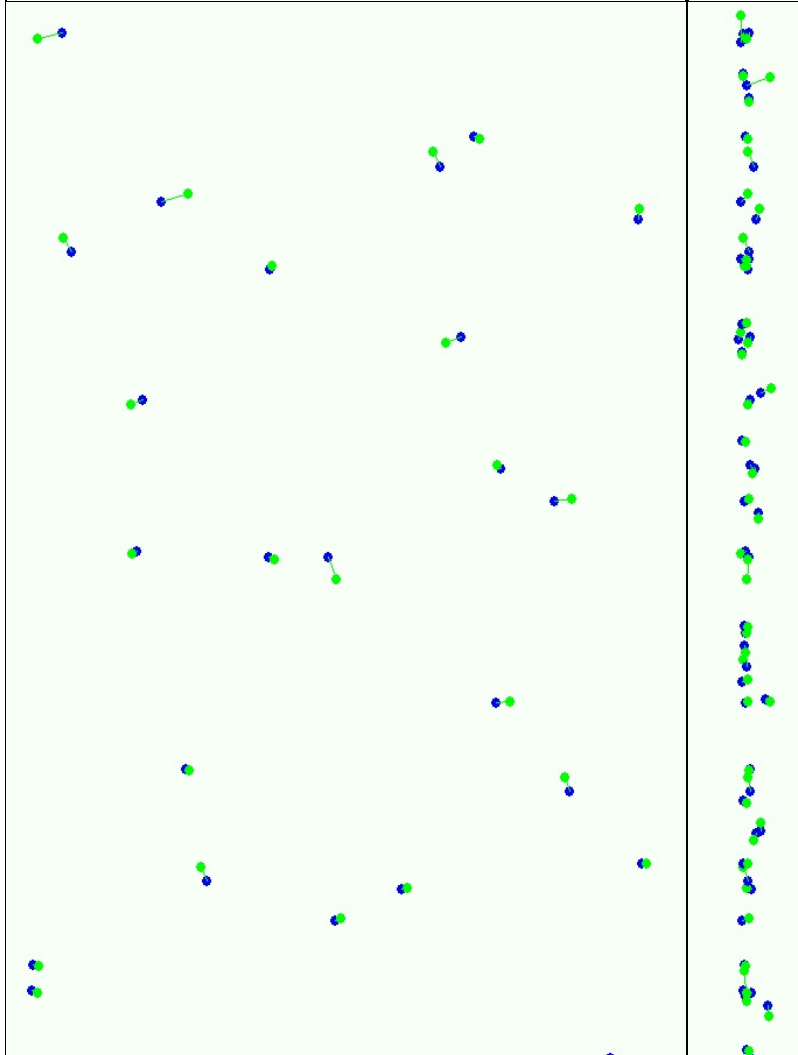


Figure 2: Top view of the geotags. The green line follows the geotags of the images in time starting from the large blue dot.

Optimized camera position



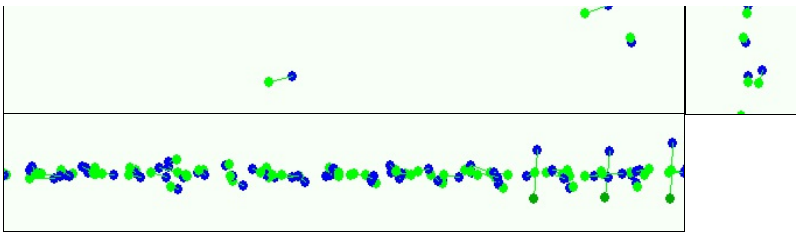


Figure 3: Offset between image geotags (blue dots) and optimized positions (green dots) as well as the offset between the GCPs positions (blue crosses) and their optimized positions (green crosses) in the top-view (XY plane), front-view (XZ plane) and side-view (YZ plane). Red dots show disabled or uncalibrated images.

Overlap

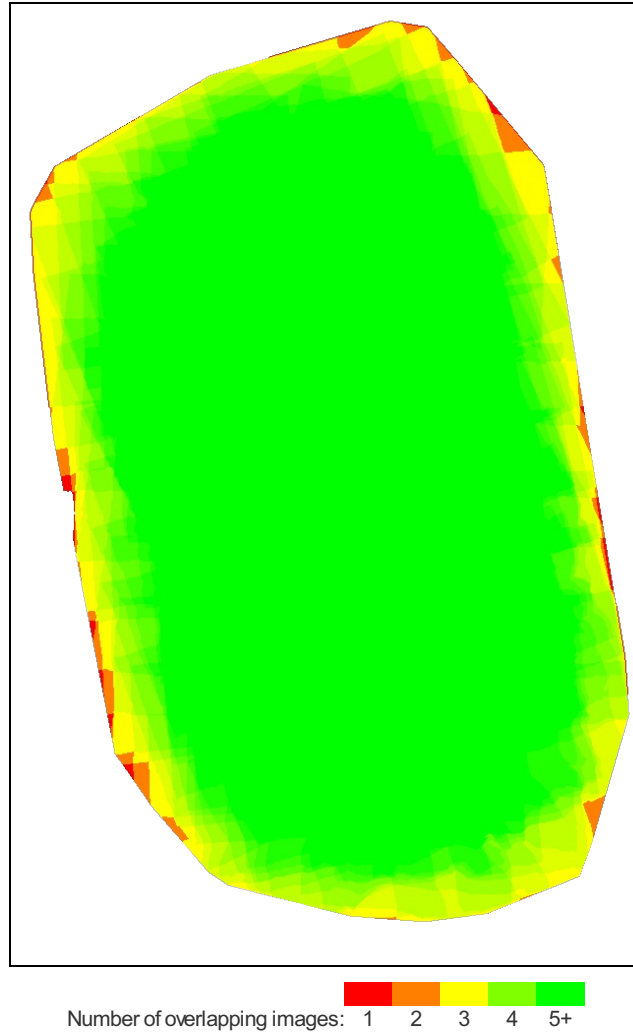



Figure 4: Overlapping score computed for each pixel of the orthomosaic. Red indicates areas where the overlap between the images is too low and could lead to poor results. For good quality results, the overlap should be over 5 images (green) for every pixel of the mosaic.

Bundle Block Adjustment details

number total keypoint observations (automatic tie points) for bundle block adjustment	2129889
number total 3D points for bundle block adjustment	549250
mean reprojection error	0.208354 [pixels]

Internal Camera Parameters  CanonIXUS127HS_4.3_4608x3456. Sensor dimensions: 6.17 [mm] x 4.63 [mm]

EXIF ID: CanonIXUS127HS_4.3_4608x3456

	Focal length	Principal point x	Principal point y	R1	R2	R3	T1	T2
initial values	3270.924 [pix] 4.380 [mm]	2303.999 [pix] 3.085 [mm]	1728.000 [pix] 2.314 [mm]	-0.049	0.059	-0.036	0.000	-0.003

optimized values	3319.026 [pix] 4.444 [mm]	2281.734 [pix] 3.055 [mm]	1829.198 [pix] 2.449 [mm]	-0.046	0.049	-0.024	0.008	-0.001
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2D Keypoints Table

	Number of 2D keypoints per image	Number of matched 2D keypoints per image
Median	27303	14872
Mn	20285	8733
Max	67685	22163
Mean	30225	14894

3D points from 2D keypoints matches

	Number of 3D points observed
In 2 images	324247
In 3 images	87095
In 4 images	38535
In 5 images	21607
In 6 images	14146
In 7 images	10048
In 8 images	7528
In 9 images	5968
In 10 images	5041
In 11 images	4294
In 12 images	3556
In 13 images	3195
In 14 images	2696
In 15 images	2409
In 16 images	2133
In 17 images	1886
In 18 images	1702
In 19 images	1485
In 20 images	1364
In 21 images	1197
In 22 images	1106
In 23 images	978
In 24 images	869
In 25 images	786
In 26 images	685
In 27 images	633
In 28 images	545
In 29 images	540
In 30 images	505
In 31 images	420
In 32 images	357
In 33 images	270
In 34 images	238
In 35 images	193
In 36 images	175
In 37 images	137
In 38 images	131
In 39 images	115
In 40 images	111
In 41 images	103
In 42 images	66
In 43 images	65
In 44 images	38
In 45 images	35
In 46 images	14
In 47 images	2
In 48 images	1

2D Keypoints Graph

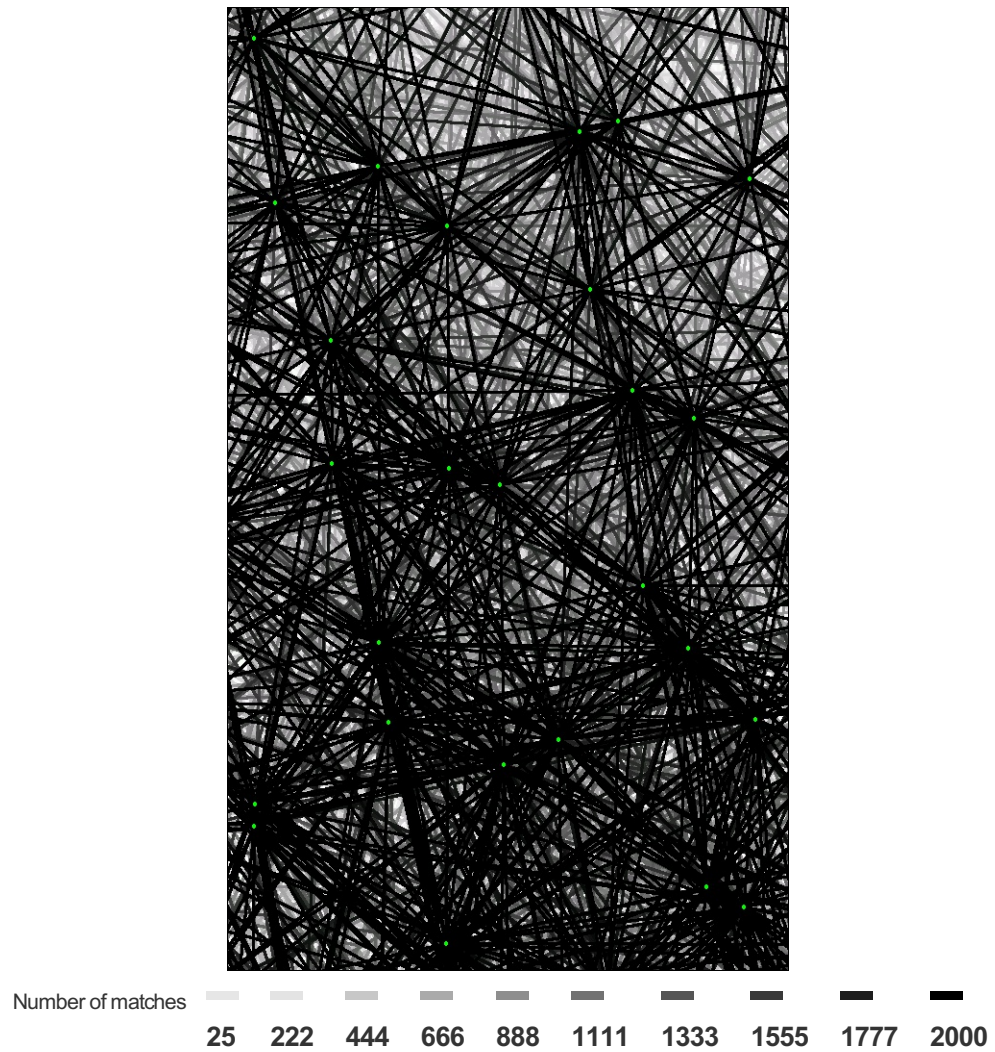


Figure 5: Top view of the geotags with a link between matching images. The darkness of the links indicates the number of matched 2D keypoints between the images. Bright links indicate low confidence and would require more overlap between the images or better quality images.

Most visible 2D keypoints

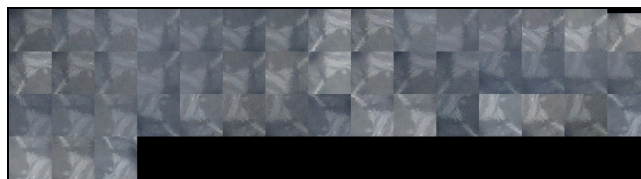


Figure 6: Cropped area of 1 3D points arising from 48 2D keypoints. Each cropped area should represent the same 3D object.

Geotag variance

Geotag localisation variance	sigma m
Longitude direction (x)	3.485
Latitude direction (y)	2.478
Altitude direction (z)	1.117

Geotag variance: The difference between the image geotags and the optimized camera positions. Please note that these images geotag errors do not correspond to the accuracy on the observed 3D points.