

Agisoft Metashape

Processing Report
31 January 2024



Survey Data

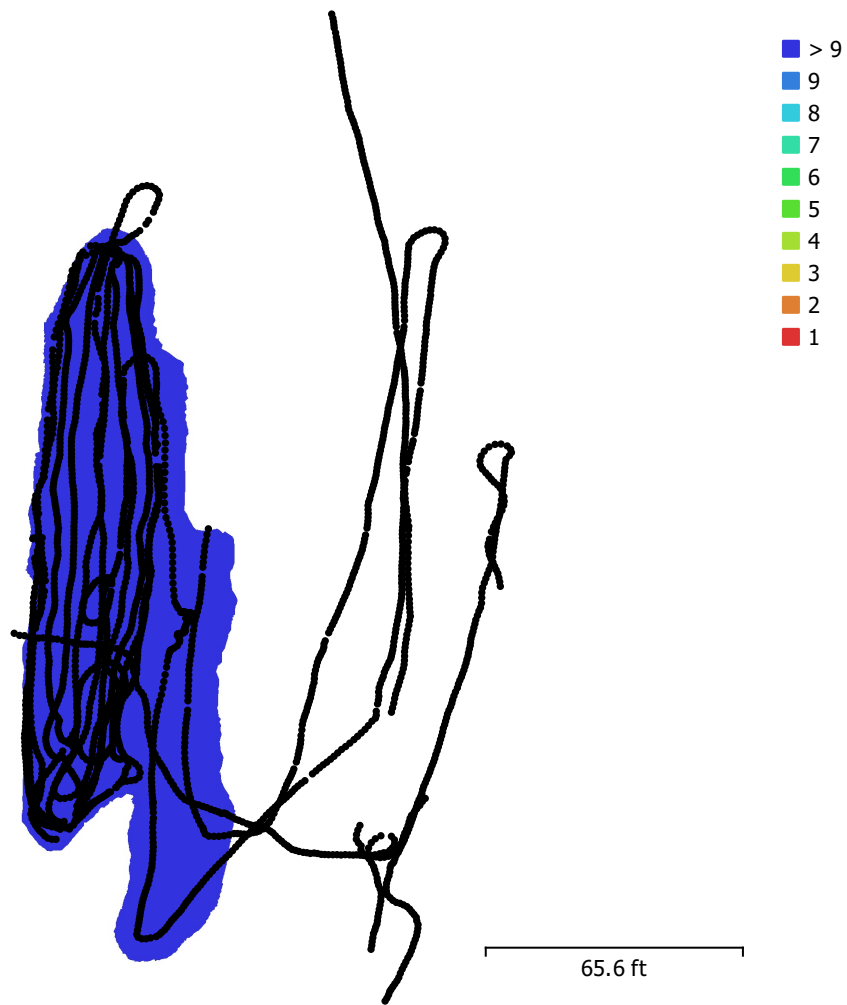


Fig. 1. Camera locations and image overlap.

Number of images:	3,144	Camera stations:	2,833
Flying altitude:	4.35 ft	Tie points:	1,642,287
Ground resolution:	0.00141 ft/pix	Projections:	3,983,956
Coverage area:	7.03e+03 ft ²	Reprojection error:	2.22 pix

Camera Model	Resolution	Focal Length	Pixel Size	Precalibrated
Canon EOS 5D Mark IV, ...	6720 x 4480	15 mm	5.36 x 5.36 μm	No

Table 1. Cameras.

Camera Calibration

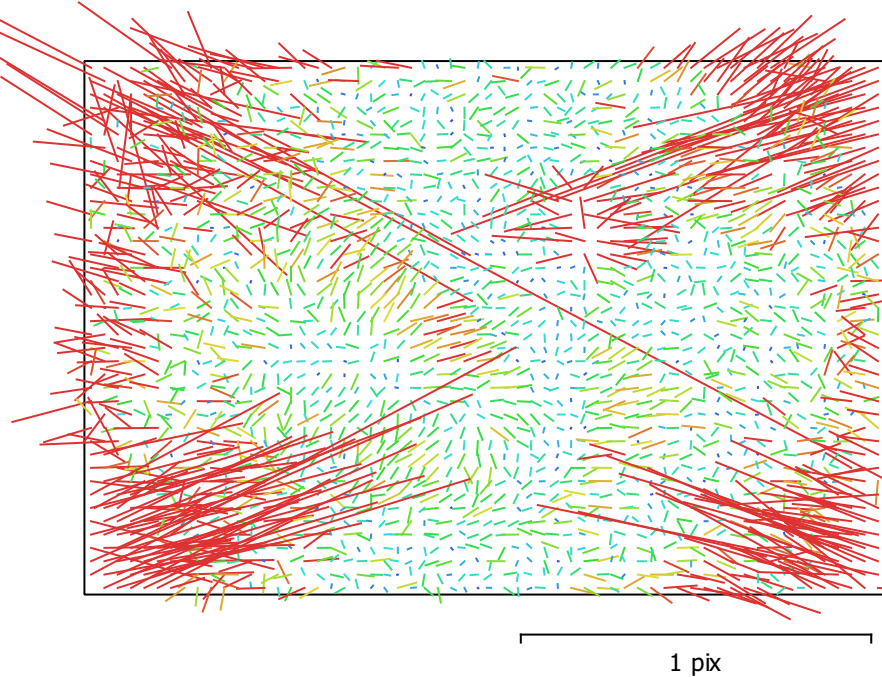


Fig. 2. Image residuals for Canon EOS 5D Mark IV, EF8-15mm f/4L FISHEYE USM (15mm).

Canon EOS 5D Mark IV, EF8-15mm f/4L FISHEYE USM (15mm)

3144 images

Type	Resolution	Focal Length	Pixel Size
Fisheye	6720 x 4480	15 mm	5.36 x 5.36 μm
F:	3074.6		
Cx:	-25.6826	B1:	0
Cy:	-33.8271	B2:	0
K1:	-0.0456822	P1:	0.000133715
K2:	0.00660049	P2:	0.000368391
K3:	-0.0022432	P3:	0
K4:	0	P4:	0

Scale Bars

Label	Distance (m)	Error (m)
target 156_point 1	0.914471	7.13761e-05
Total		7.13761e-05

Table 2. Control scale bars.

Digital Elevation Model

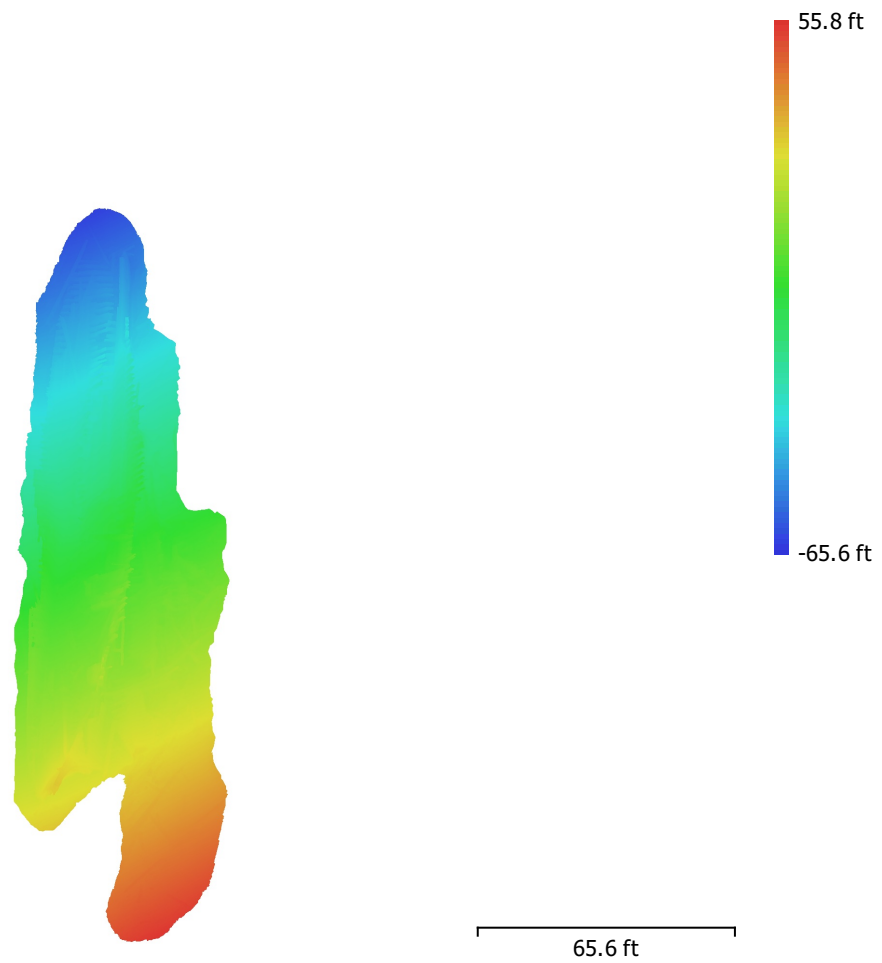


Fig. 3. Reconstructed digital elevation model.

Resolution: unknown
Point density: unknown

Processing Parameters

General

Cameras	3144
Aligned cameras	2833
Markers	2
Scale bars	1
Coordinate system	Local Coordinates (m)
Rotation angles	Yaw, Pitch, Roll

Point Cloud

Points	1,642,287 of 1,993,605
RMS reprojection error	0.17507 (2.22145 pix)
Max reprojection error	0.544439 (58.6052 pix)
Mean key point size	9.77497 pix
Point colors	3 bands, uint8
Key points	7.69 GB
Average tie point multiplicity	2.50151

Alignment parameters

Accuracy	High
Generic preselection	Yes
Reference preselection	No
Key point limit	30,000
Key point limit per Mpx	1,000
Tie point limit	2,500
Exclude stationary tie points	Yes
Guided image matching	No
Adaptive camera model fitting	No
Matching time	15 seconds
Matching memory usage	125.53 MB
Alignment time	16 minutes 19 seconds
Alignment memory usage	1.10 GB

Optimization parameters

Parameters	f, cx, cy, k1-k3, p1, p2
Adaptive camera model fitting	No
Optimization time	8 seconds
Date created	2024:01:30 19:27:19
Software version	1.8.0.13794
File size	159.30 MB

Depth Maps

Count	2820
-------	------

Depth maps generation parameters

Quality	Medium
Filtering mode	Moderate
Max neighbors	16
Processing time	49 minutes 11 seconds
Memory usage	1.75 GB
Date created	2024:01:30 22:19:26
Software version	1.8.0.13794
File size	3.60 GB

Dense Point Cloud

Points	838,637,633
Point colors	3 bands, uint8

Depth maps generation parameters	
Quality	Medium
Filtering mode	Moderate
Max neighbors	16
Processing time	49 minutes 11 seconds
Memory usage	1.75 GB
Dense cloud generation parameters	
Processing time	2 hours 54 minutes
Memory usage	6.26 GB
Date created	2024:01:31 06:13:00
Software version	1.8.0.13794
File size	10.79 GB
Model	
Faces	7,854,506
Vertices	3,927,734
Vertex colors	3 bands, uint8
Texture	8,192 x 8,192, 4 bands, uint8
Depth maps generation parameters	
Quality	Medium
Filtering mode	Moderate
Max neighbors	16
Processing time	49 minutes 11 seconds
Memory usage	1.75 GB
Reconstruction parameters	
Surface type	Arbitrary
Source data	Depth maps
Interpolation	Enabled
Strict volumetric masks	No
Processing time	28 minutes 54 seconds
Memory usage	13.18 GB
Texturing parameters	
Mapping mode	Generic
Blending mode	Mosaic
Texture size	8,192
Enable hole filling	Yes
Enable ghosting filter	No
UV mapping time	2 minutes 4 seconds
UV mapping memory usage	2.97 GB
Blending time	9 minutes 7 seconds
Blending memory usage	4.74 GB
Blending GPU memory usage	2.43 GB
Date created	2024:01:30 22:47:42
Software version	1.8.0.13794
File size	403.45 MB
System	
Software name	Agisoft Metashape Professional
Software version	1.8.0 build 13794
OS	Windows 64 bit
RAM	63.92 GB
CPU	Intel(R) Core(TM) i9-9900K CPU @ 3.60GHz
GPU(s)	NVIDIA GeForce RTX 2060 SUPER