

Parque Lineal Reconquista 21/10/2024

Reporte de procesamiento
24 October 2024



Survey Data

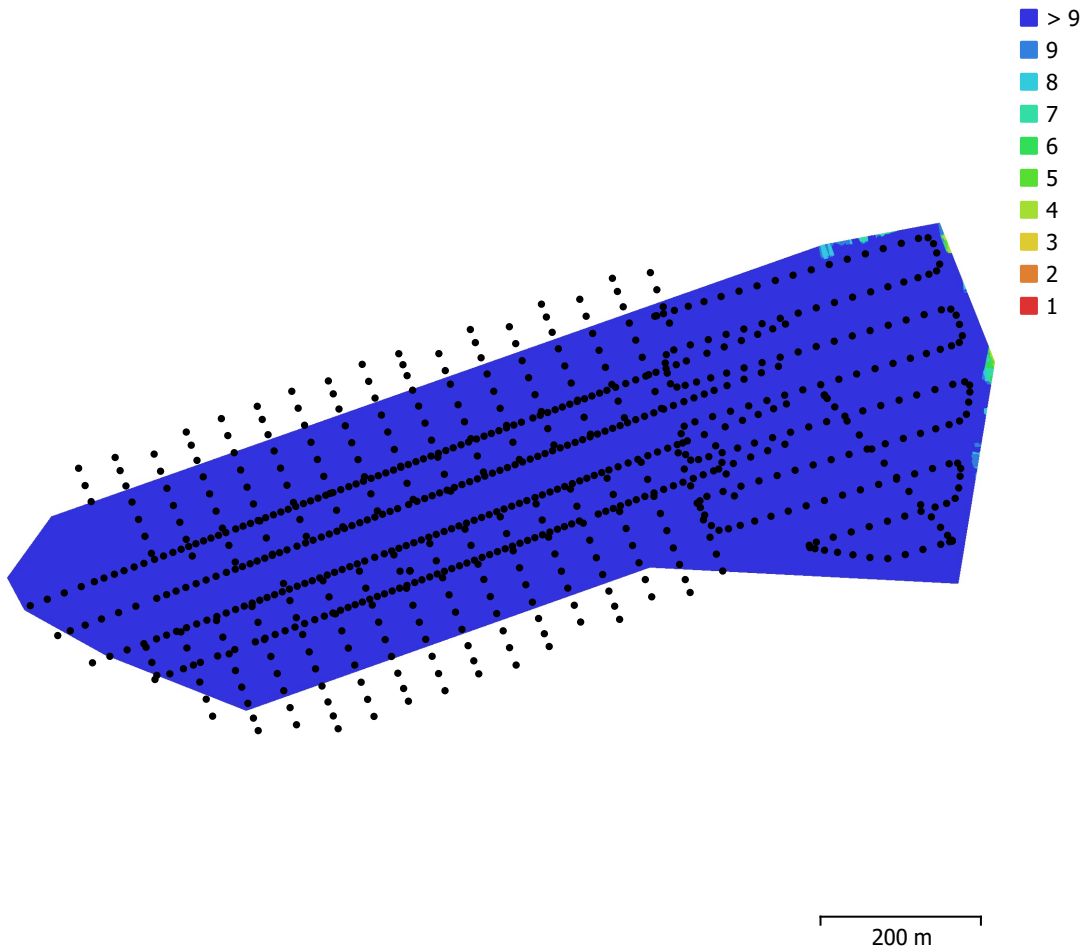


Fig. 1. Camera locations and image overlap.

Number of images:	767	Camera stations:	767
Flying altitude:	116 m	Tie points:	371,884
Ground resolution:	3.59 cm/pix	Projections:	2,474,761
Coverage area:	0.387 km ²	Reprojection error:	1.02 pix

Camera Model	Resolution	Focal Length	Pixel Size	Precalibrated
M3E (12.29mm)	5280 x 3956	12.29 mm	3.36 x 3.36 μ m	Yes

Table 1. Cameras.

Camera Calibration

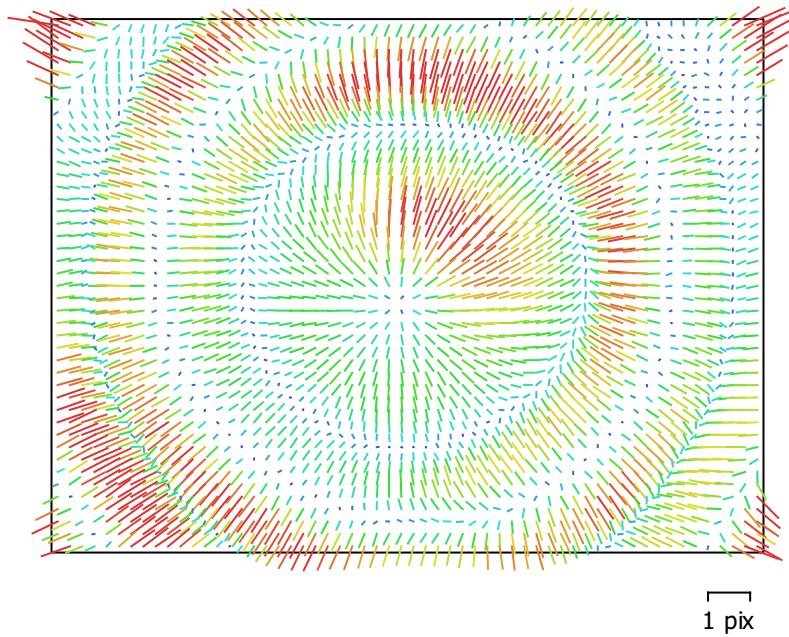


Fig. 2. Image residuals for M3E (12.29mm).

M3E (12.29mm)

767 images, precalibrated

Type	Resolution	Focal Length	Pixel Size
Frame	5280 x 3956	12.29 mm	3.36 x 3.36 μm

	Value	Error	F	Cx	Cy	K1	K2	K3	P1	P2
F	3705.99	0.0081	1.00	-0.01	-0.00	-0.60	0.53	-0.48	-0.00	0.02
Cx	23.8109	0.0089		1.00	-0.01	0.02	-0.02	0.03	0.72	-0.01
Cy	-64.1824	0.0081			1.00	-0.02	0.03	-0.03	-0.01	0.55
K1	-0.106075	1.2e-05				1.00	-0.97	0.92	0.02	-0.04
K2	3.99461e-05	3.1e-05					1.00	-0.98	-0.02	0.05
K3	-0.0166109	2.3e-05						1.00	0.03	-0.06
P1	1.37943e-05	4.6e-07							1.00	-0.00
P2	-0.000227284	4.7e-07								1.00

Table 2. Calibration coefficients and correlation matrix.

Camera Locations

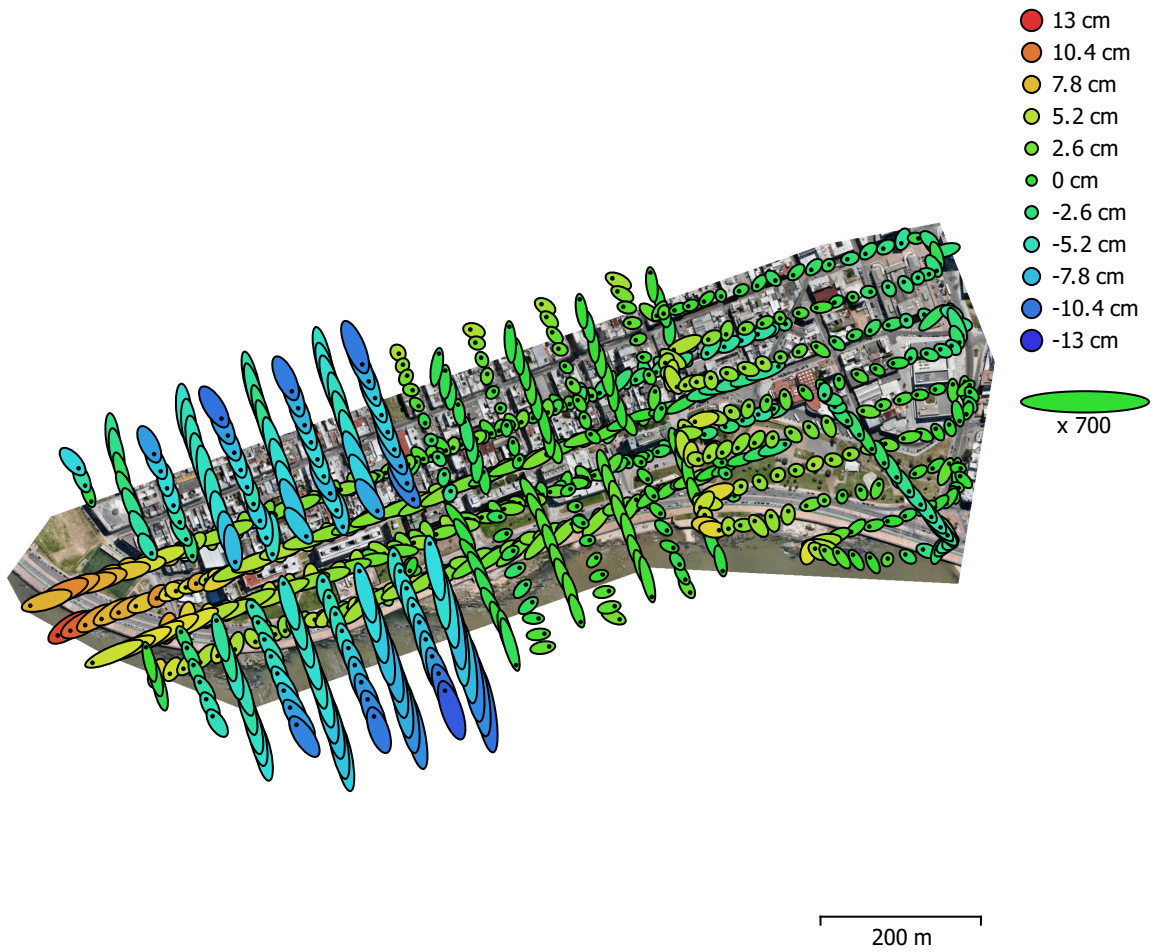


Fig. 3. Camera locations and error estimates.

Z error is represented by ellipse color. X,Y errors are represented by ellipse shape.

Estimated camera locations are marked with a black dot.

X error (cm)	Y error (cm)	Z error (cm)	XY error (cm)	Total error (cm)
2.02112	3.25567	4.02957	3.83201	5.56073

Table 3. Average camera location error.

X - Easting, Y - Northing, Z - Altitude.

Digital Elevation Model

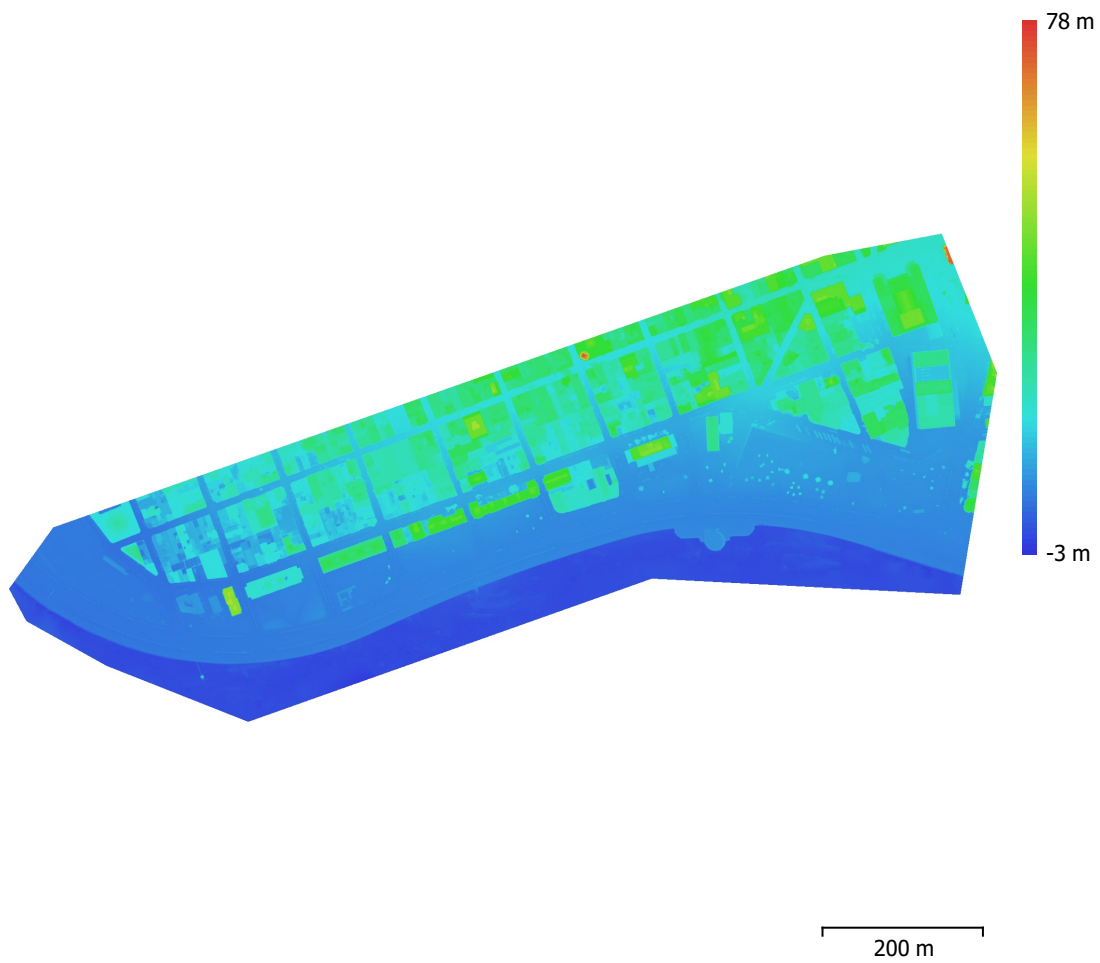


Fig. 4. Reconstructed digital elevation model.

Resolution: 7.19 cm/pix
Point density: 193 points/m²

Processing Parameters

General

Cameras	767
Aligned cameras	767
Shapes	
Polygon	1
Coordinate system	WGS 84 / UTM zone 21S EGM08
Rotation angles	Yaw, Pitch, Roll

Tie Points

Points	371,884 of 444,095
RMS reprojection error	0.248836 (1.01924 pix)
Max reprojection error	0.749868 (57.4815 pix)
Mean key point size	3.52998 pix
Point colors	3 bands, uint8
Key points	No
Average tie point multiplicity	7.73493

Alignment parameters

Accuracy	High
Generic preselection	Yes
Reference preselection	Source
Key point limit	40,000
Key point limit per Mpx	1,000
Tie point limit	4,000
Exclude stationary tie points	Yes
Guided image matching	No
Adaptive camera model fitting	Yes
Matching time	39 minutes 27 seconds
Matching memory usage	3.52 GB
Alignment time	5 minutes 51 seconds
Alignment memory usage	666.05 MB
Date created	2024:10:21 14:56:59
Software version	2.1.0.17532
File size	62.30 MB

Depth Maps

Count	767
Depth maps generation parameters	
Quality	High
Filtering mode	Aggressive
Max neighbors	16
Processing time	1 days 14 hours
Memory usage	8.07 GB
Date created	2024:10:23 09:04:08
Software version	2.1.0.17532
File size	5.38 GB

Point Cloud

Points	170,899,258
Point attributes	
Color	3 bands, uint8
Normal	
Confidence	1 - 129
Point classes	

Created (never classified)	170,899,258
Depth maps generation parameters	
Quality	High
Filtering mode	Aggressive
Max neighbors	16
Processing time	1 days 14 hours
Memory usage	8.07 GB
Point cloud generation parameters	
Processing time	5 hours 18 minutes
Memory usage	17.08 GB
Date created	2024:10:23 14:22:22
Software version	2.1.0.17532
File size	2.46 GB
Tiled Model	
Texture	3 bands, uint8
Depth maps generation parameters	
Quality	High
Filtering mode	Aggressive
Max neighbors	16
Processing time	1 days 14 hours
Memory usage	8.07 GB
Reconstruction parameters	
Source data	Depth maps
Tile size	256
Face count	High
Enable ghosting filter	Yes
Processing time	5 hours 54 minutes
Memory usage	14.16 GB
Date created	2024:10:24 01:01:16
Software version	2.1.0.17532
File size	1.20 GB
DEM	
Size	19,726 x 9,500
Coordinate system	WGS 84 / UTM zone 21S EGM08
Reconstruction parameters	
Source data	Point cloud
Interpolation	Enabled
Processing time	2 minutes 10 seconds
Memory usage	309.35 MB
Date created	2024:10:23 15:43:00
Software version	2.1.0.17532
File size	824.01 MB
Orthomosaic	
Size	39,451 x 18,999
Coordinate system	WGS 84 / UTM zone 21S EGM08
Colors	3 bands, uint8
Reconstruction parameters	
Blending mode	Mosaic
Surface	DEM
Enable hole filling	Yes
Enable ghosting filter	No
Processing time	32 minutes 52 seconds
Memory usage	2.20 GB
Date created	2024:10:23 16:06:42
Software version	2.1.0.17532
File size	21.30 GB

System

Software name	Agisoft Metashape Professional
Software version	2.1.0 build 17532
OS	Windows 64 bit
RAM	63.93 GB
CPU	Intel(R) Core(TM) i7-9700F CPU @ 3.00GHz
GPU(s)	Intel(R) FPGA Emulation Device Radeon(TM) RX 460 Graphics (Baffin)