Quality Report

PIX4Dmatic v1.68.1

Camera	DJI_FC300S_3.6_4000x3000
Average GSD	6.9 cm
Project CRS	WGS 84 / UTM zone 13N + EGM96 height - EPSG:32613+5773 [EGM96]

Quality check

Matches	Median of 22963 matches per calibrated image	✓
Dataset	100% calibrated (369/369), 1 block	✓
Camera optimization	0.45% relative difference between initial and optimized internal camera parameters	✓
GCPs	0 GCPs	
Checkpoints	0 Checkpoints	
MTPs	4 MTPs MTPs statistics are not available.	⚠
mITPs	0 mITPs	
VTPs	1 VTP VTPs statistics are not available.	⚠
ATPs	1984285 ATPs	

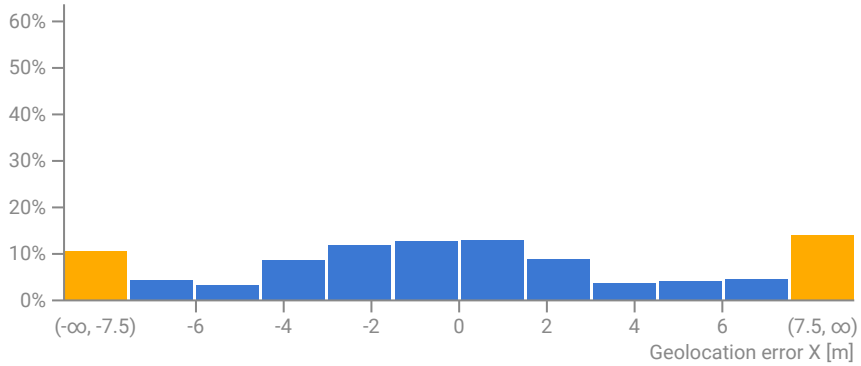
Cameras

Internal camera parameters

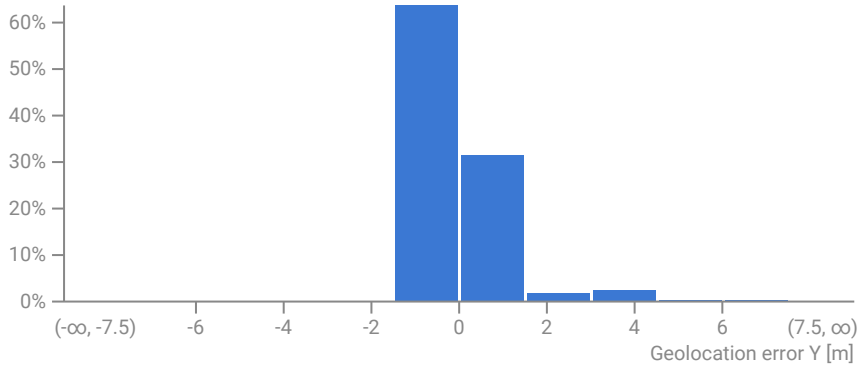
DJI_FC300S_3.6_4000x3000. Sensor dimensions: 6.317 mm x 4.738 mm

	Focal length	Principal point x	Principal point y	R1	R2	R3	T1	T2
Initial	2285.7 px 3.61 mm	2000.0 px 3.159 mm	1500.0 px 2.369 mm	-0.1324380	0.1110560	-0.0158256	0.0001102	0.0001142
Optimized	2296.0 px 3.626 mm	1984.6 px 3.134 mm	1496.3 px 2.363 mm	-0.0088050	0.0095953	0.0029669	-0.0004065	-0.0003250
Uncertainties (Sigma)	4.0 px 0.006 mm	0.0 px 0 mm	0.0 px 0 mm	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000

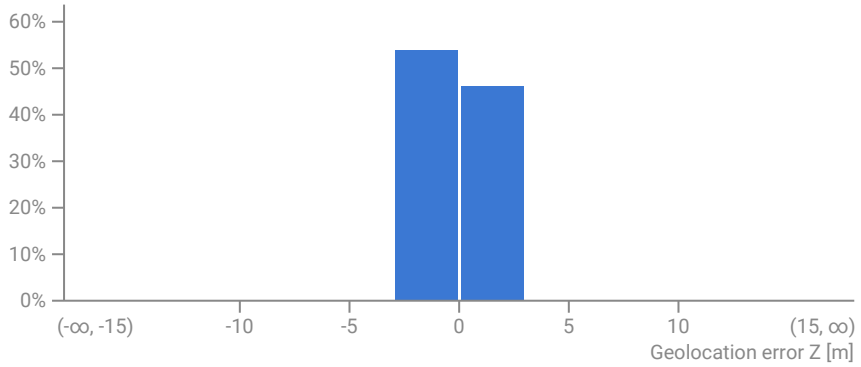
Absolute geolocation variance



	Geolocation error X [m]
Mean	0.053
Median	-0.111
Sigma	5.520
RMS	5.520



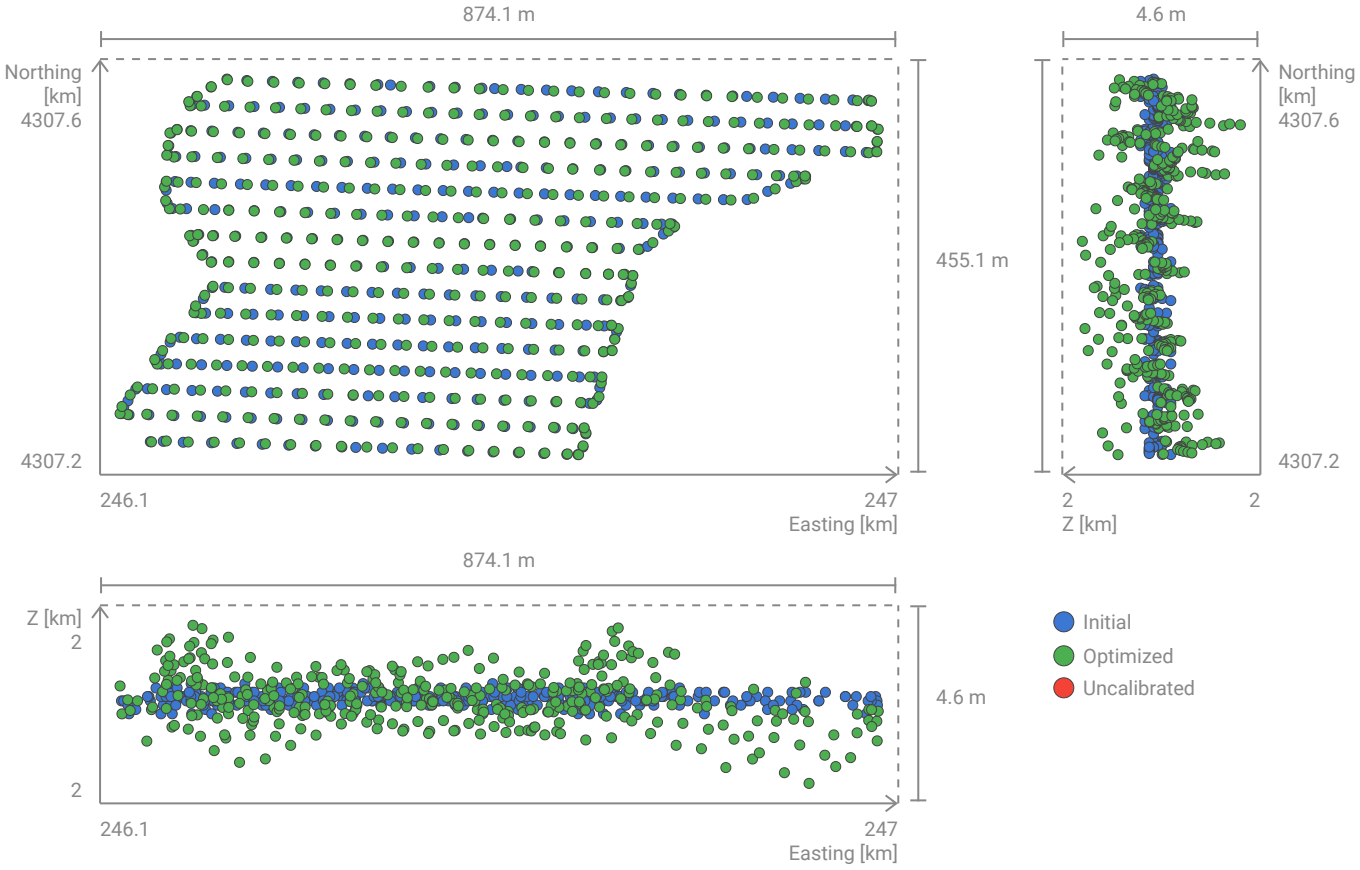
	Geolocation error Y [m]
Mean	0.004
Median	-0.237
Sigma	0.927
RMS	0.927



	Geolocation error Z [m]
Mean	-0.016
Median	-0.049
Sigma	0.613
RMS	0.613

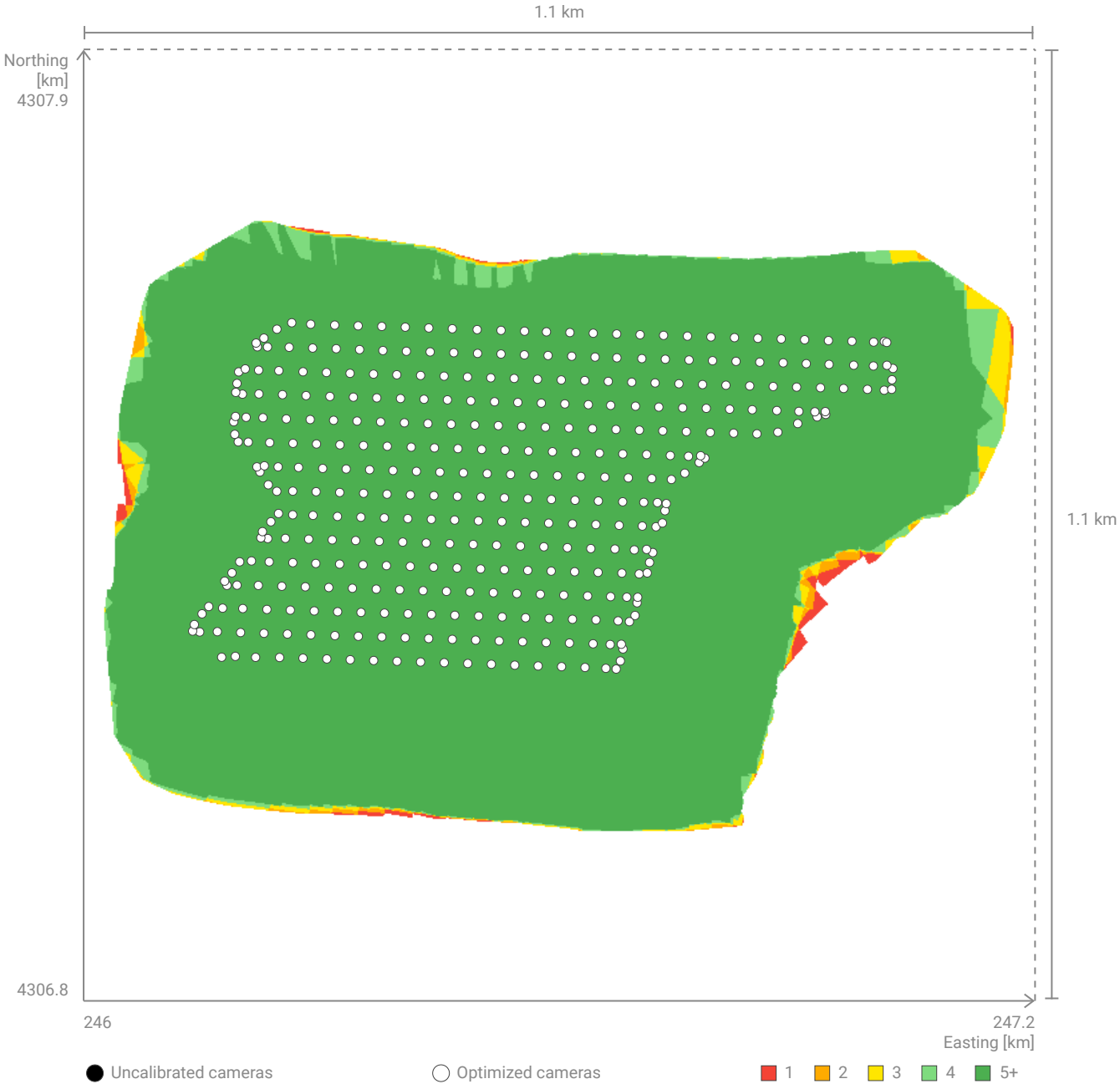
The geolocation error is the difference between the initial and computed camera positions. Plots show the per-axis distributions of geolocation errors across the cameras. Large positive and negative errors are denoted with the orange bins. Note that the image geolocation errors do not correspond to the accuracy of the observed 3D points.

Camera positions



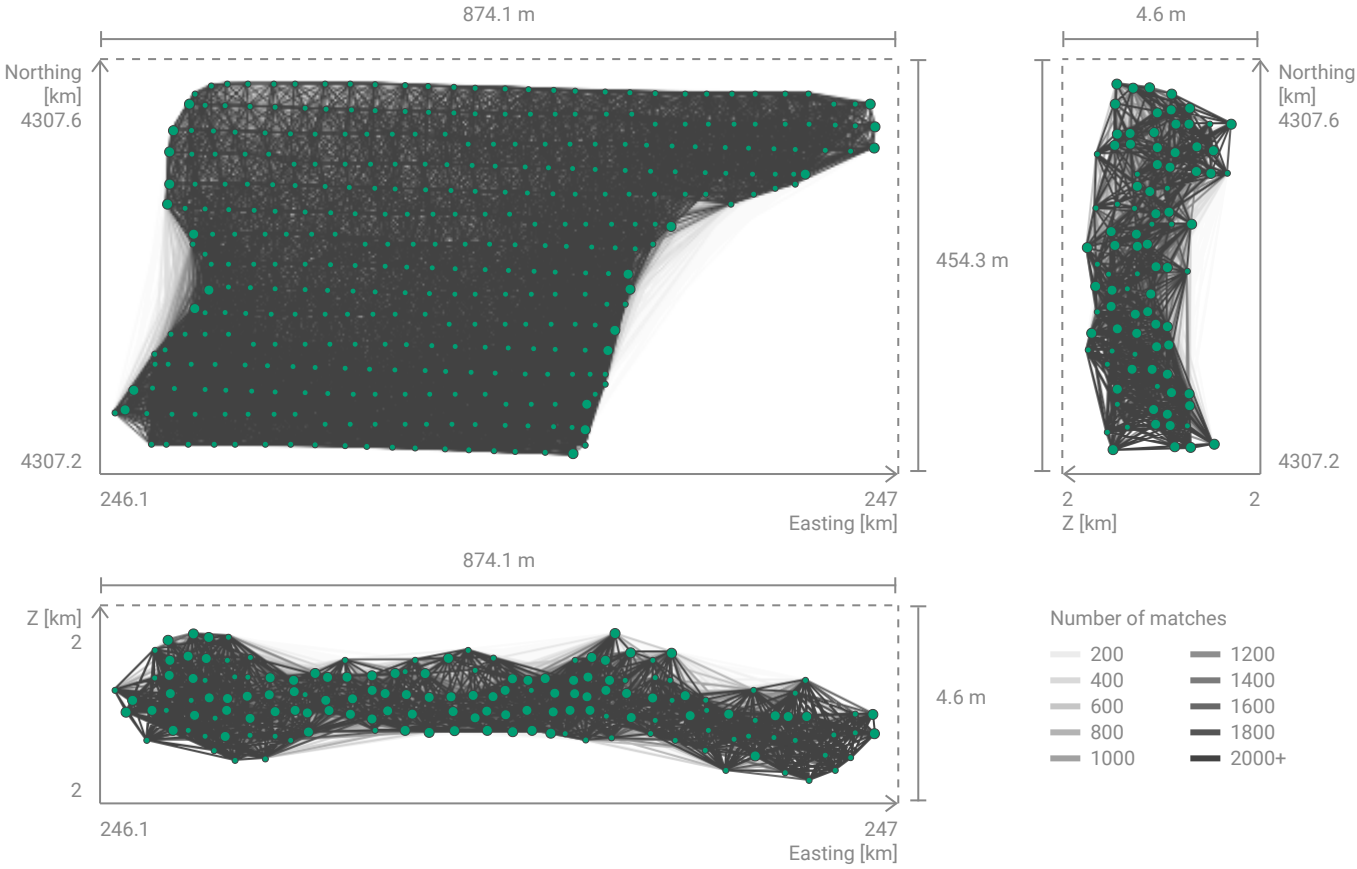
Initial and computed camera positions.

Overlap



This graph shows the number of overlapping images for each pixel of the DSM preview. For precise 3D modeling and mapping applications, the overlap should be in green, i.e. each pixel should be visible in more than 5 images.

2D Keypoint matches



Computed camera positions with links between matched cameras. The opacity of the links indicates the number of matched 2D keypoints between the cameras. Near-transparent links indicate weak links and require manual tie points or more cameras. The different colors identify the distinct calibration blocks. To improve visibility, camera positions may be slightly shifted and multiple cameras may be grouped into a single point on the plot. Group of multiple cameras is indicated by a larger point on the plot.

Tie points

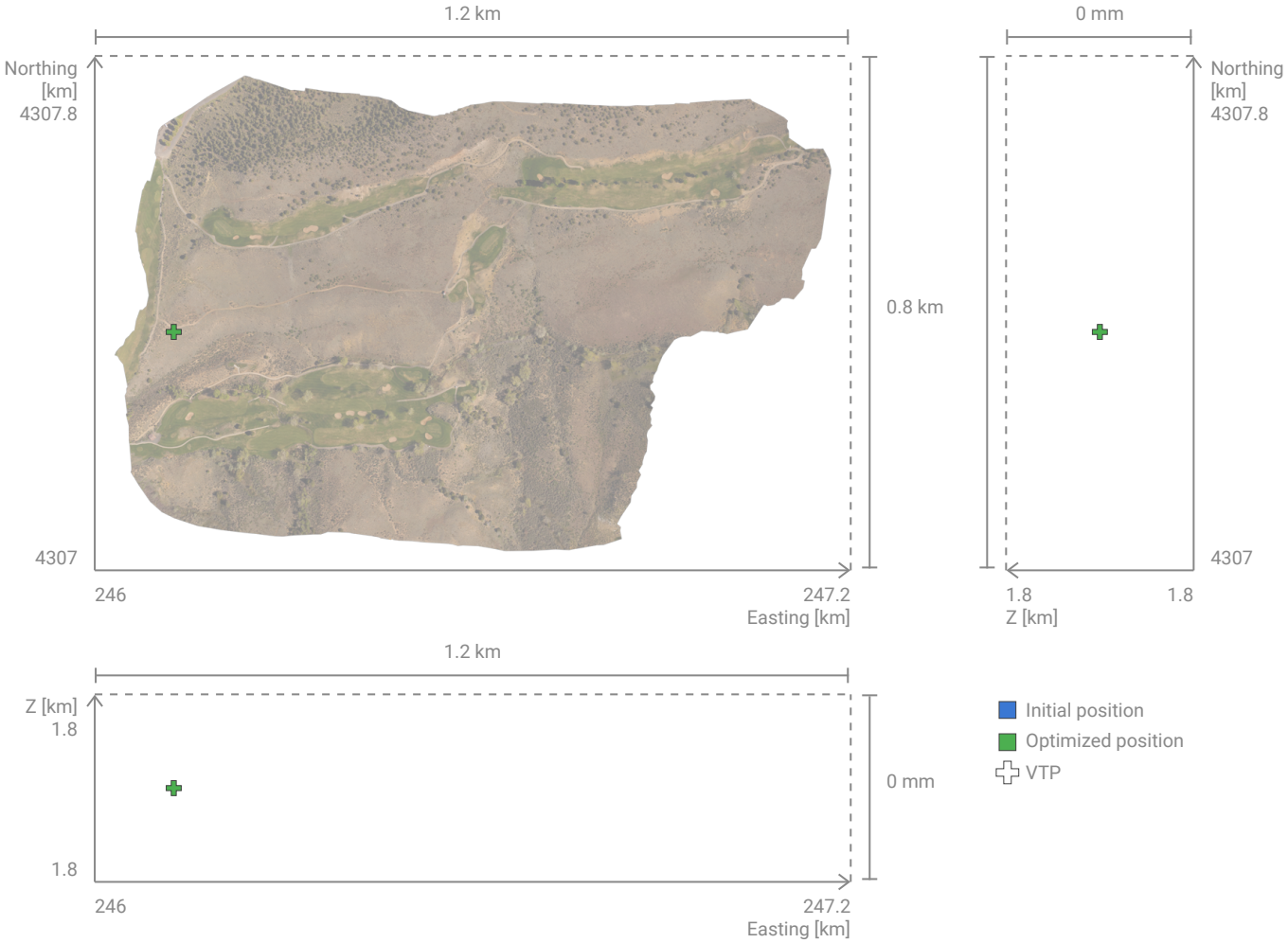
Manual tie points (MTPs)

Label	Verified/Marked
MTP1	0/0
MTP2	0/0
MTP3	0/0
MTP4	0/0

Vertex tie points (VTPs)

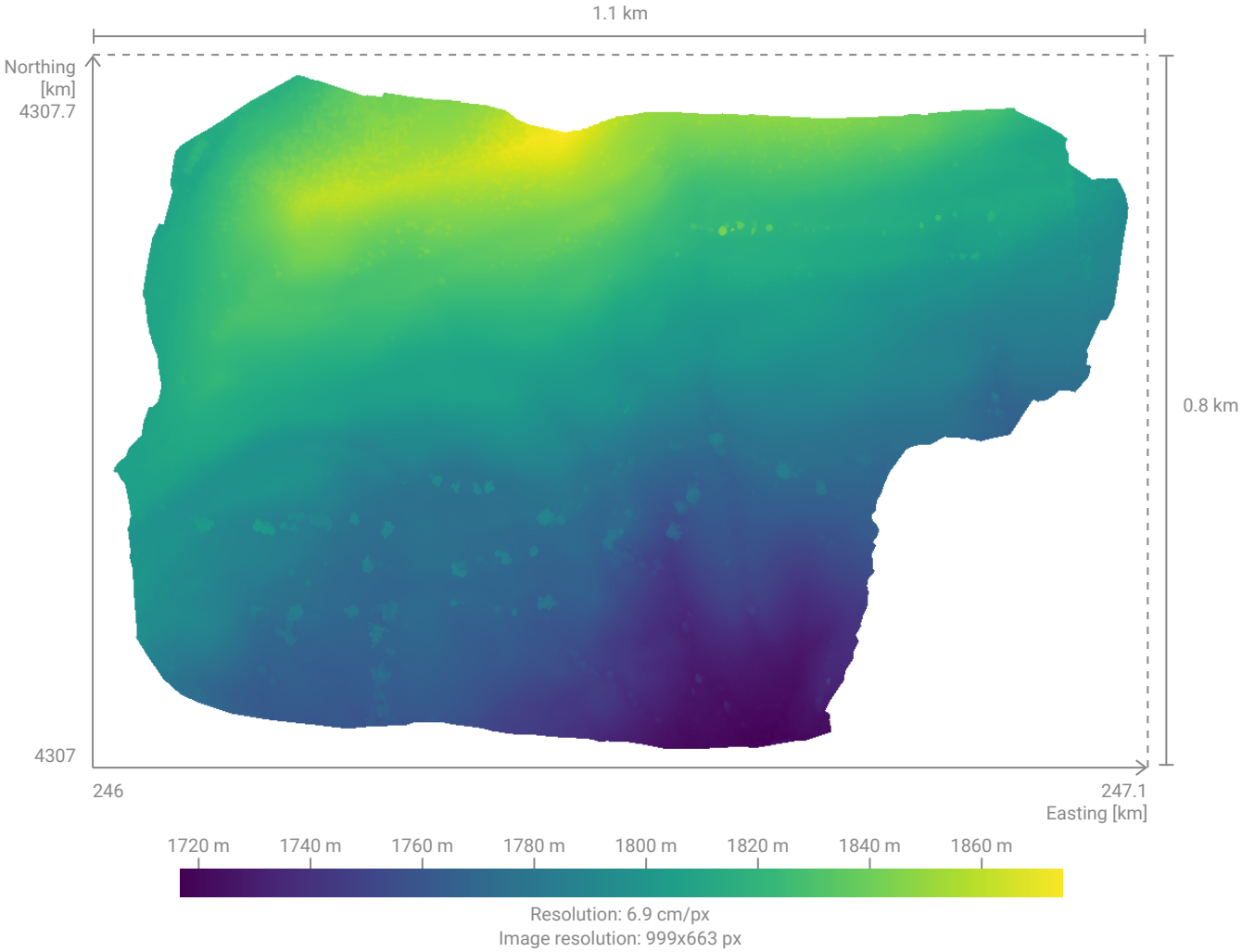
Label	Verified/Marked
VTP2	0/0

Tie point positions



Initial or optimized position of tie points.

DSM



Resolution: 6.9 cm/px
Image resolution: 999x663 px

Orthomosaic

Resolution: 6.9 cm/px
Image resolution: 999x663 px

Hardware & Settings

System information

Hardware: CPU: Intel(R) Core(TM) i9-14900HX, cpus=1, threads=32
RAM: 15.71 GB
GPU: NVIDIA Corporation NVIDIA GeForce RTX 4070 Laptop GPU/PCIe/SSE2 (Driver: 4.1.0 NVIDIA 556.08)
Operating system: Windows 11

Coordinate reference systems

Image coordinate reference system	WGS 84 + EGM96 height - EPSG:4326+5773 [EGM96]
Project coordinate reference system	WGS 84 / UTM zone 13N + EGM96 height - EPSG:32613+5773 [EGM96]

Processing settings

Calibration	Dense point cloud	Mesh	DSM
Outdated	Outdated	Outdated	Outdated
Template: Large scale and corridor **Pipeline:** Scalable standard **Image scale:** 1/1 **Internals confidence:** Low **Max extracted keypoints:** Automatic **Use automatic ITPs:** Disabled	**Algorithm:** Hardware accelerated **Image scale:** 1/2 **Density:** Optimal **Min number of matches:** 3 **Multiscale:** Enabled **Noise filter:** Disabled **Sky filter:** Disabled **Mask-aware:** Disabled	**Input point cloud:** Dense **Pipeline:** Standard **Template:** Aerial **Texture size:** 8192x8192 **Deghosting:** Weak **Decimation:** Limit triangle count **Maximum triangle count:** 1000000 **Plane-aware:** Disabled **Sky mask:** Disabled **Smoothing:** Enabled **Mask-aware:** Disabled **Interior improvement:** Disabled	**Input point cloud:** Dense **Interpolation:** Enabled **Resolution:** 6.9 cm/px **Surface smoothing:** 12 px
9m 41s	10m 5s	4m 58s	32s

Orthomosaic
Outdated
Resolution: 6.9 cm/px **Algorithm:** Hardware accelerated **Oblique:** Disabled **Deghosting:** Disabled
30s