Quality Report

PIX4Dmatic v2.0.2

Camera	DJI_FC6310_8.8_4864x3648
Area covered	14.545 acUS
Average GSD	0.052 ftUS
Project CRS	NAD_1983_CORS96_StatePlane_Wyoming_East_FIPS_4901_Ft_US - ESRI:103581
Dense point count	8,359,628

Quality check

Matches	Median of 8132 matches per calibrated image	✓
Dataset	100% calibrated (98/98 images), 1 calibration block	✓
Camera optimization	3.43% relative difference between initial and optimized internal camera parameters	✓
ATPs	298176 ATPs	

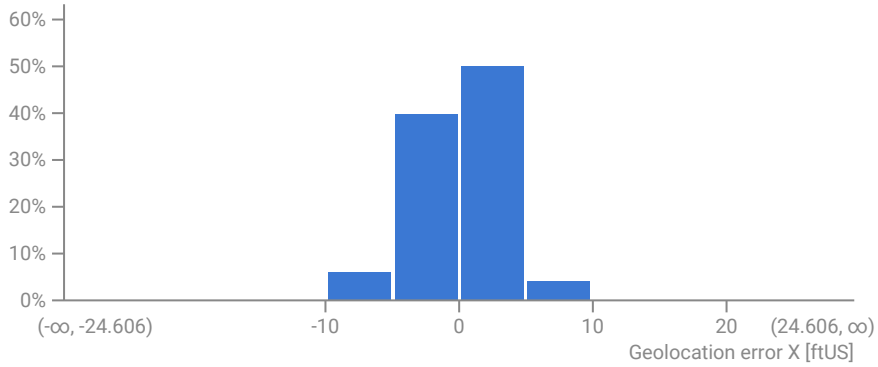
Cameras

Internal camera parameters

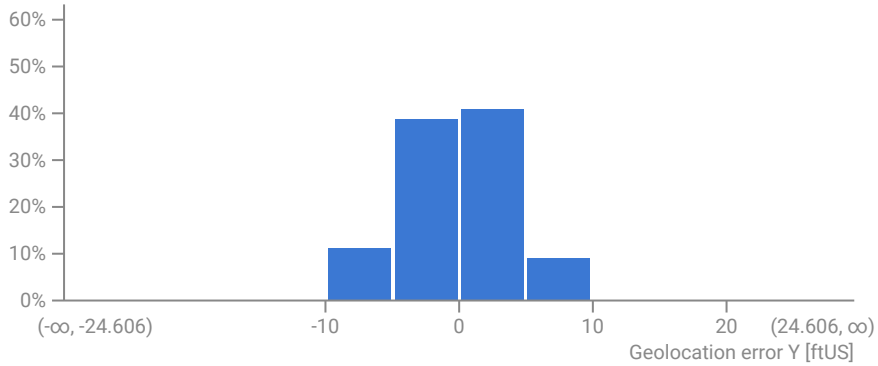
DJI_FC6310_8.8_4864x3648. Sensor dimensions: 11.407 mm x 8.556 mm

	Focal length	Principal point x	Principal point y	R1	R2	R3	T1	T2
Initial	3667.0 px 8.6 mm	2432.0 px 5.704 mm	1824.0 px 4.278 mm	0.0043674	-0.0168892	0.0187011	-0.0000485	0.0001516
Optimized	3541.0 px 8.305 mm	2449.2 px 5.744 mm	1830.6 px 4.293 mm	0.0064850	-0.0098453	0.0102919	0.0009572	0.0011453

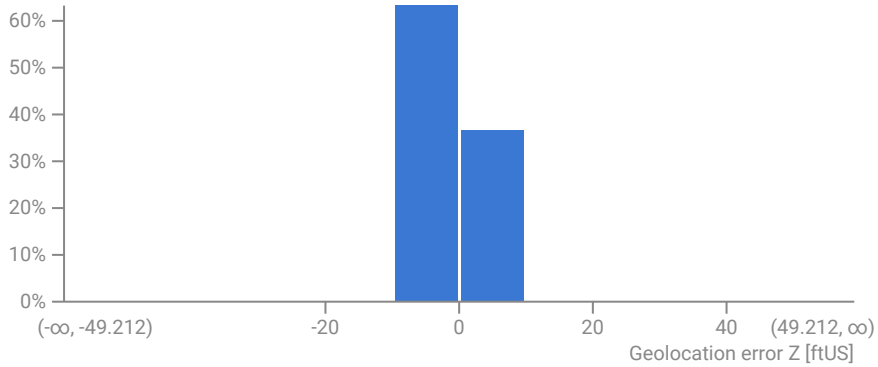
Absolute geolocation variance



	Geolocation error X [ftUS]
Mean	-0.001
Median	0.246
Sigma	3.222
RMS	3.222



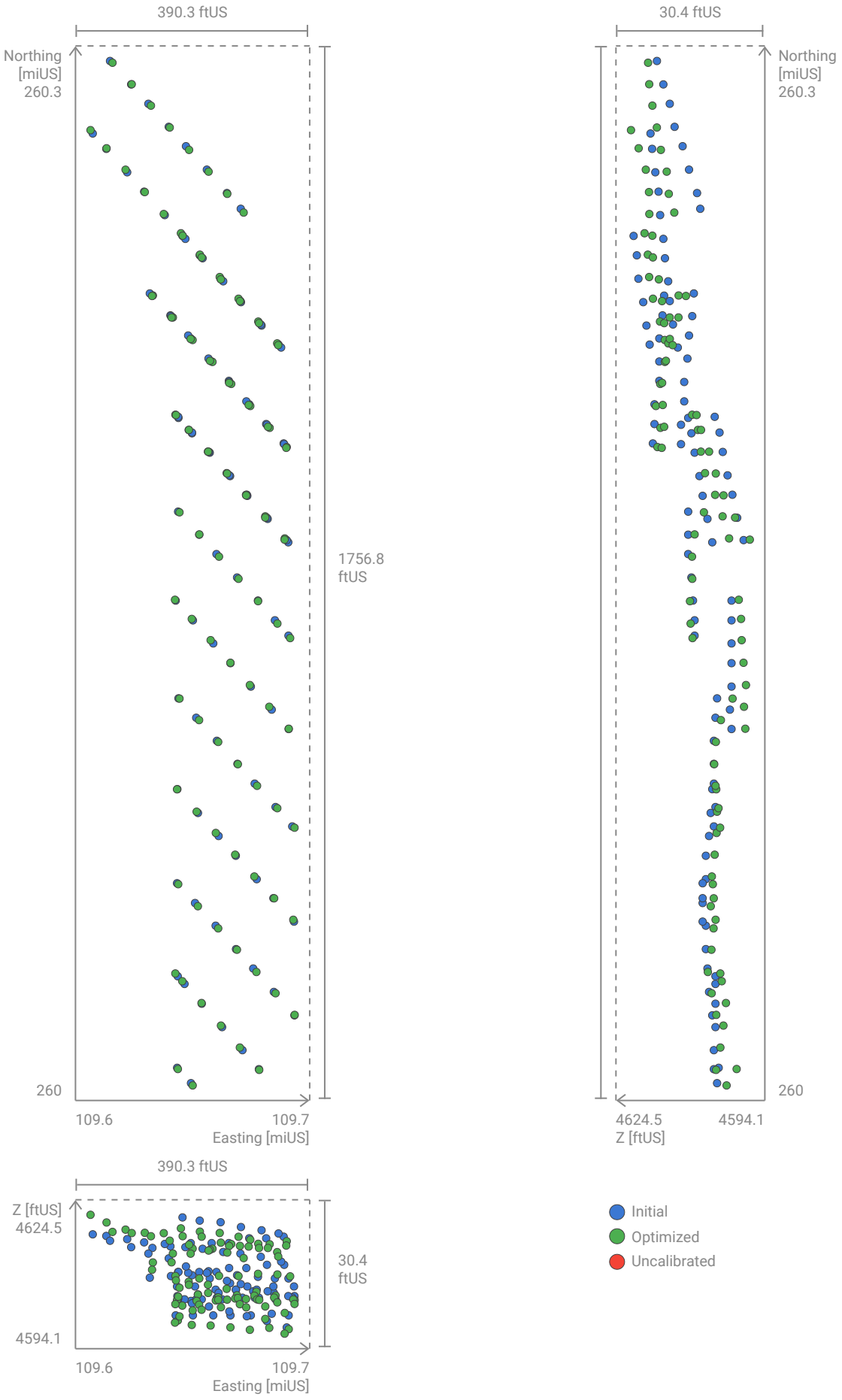
	Geolocation error Y [ftUS]
Mean	-0.000
Median	0.073
Sigma	3.542
RMS	3.542



	Geolocation error Z [ftUS]
Mean	0.001
Median	-0.817
Sigma	2.428
RMS	2.428

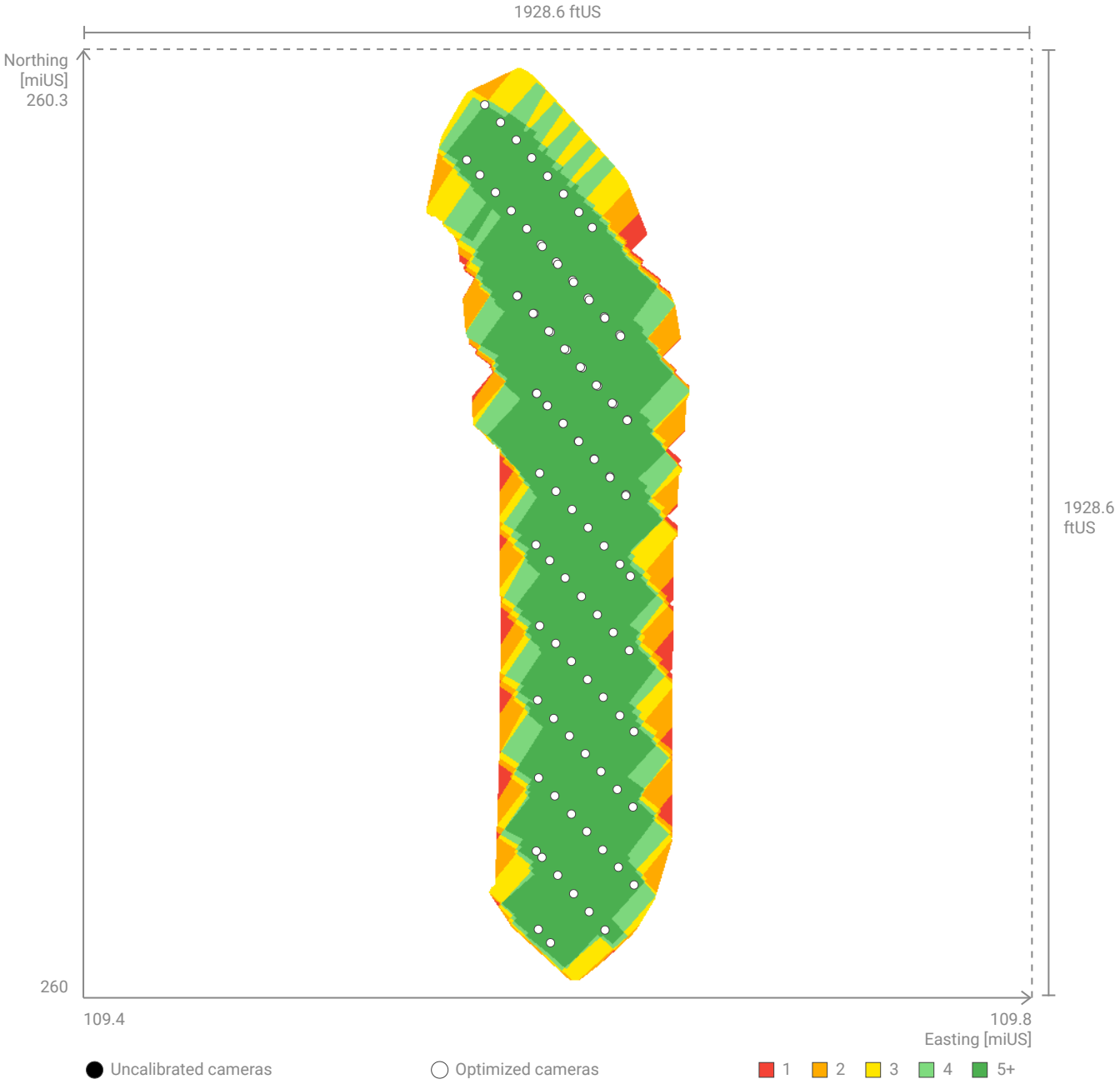
The geolocation error is the difference between the initial and computed camera positions. Plots show the per-axis distributions of geolocation errors across the cameras. Large positive and negative errors are denoted with the orange bins. Note that the image geolocation errors do not correspond to the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

Camera positions



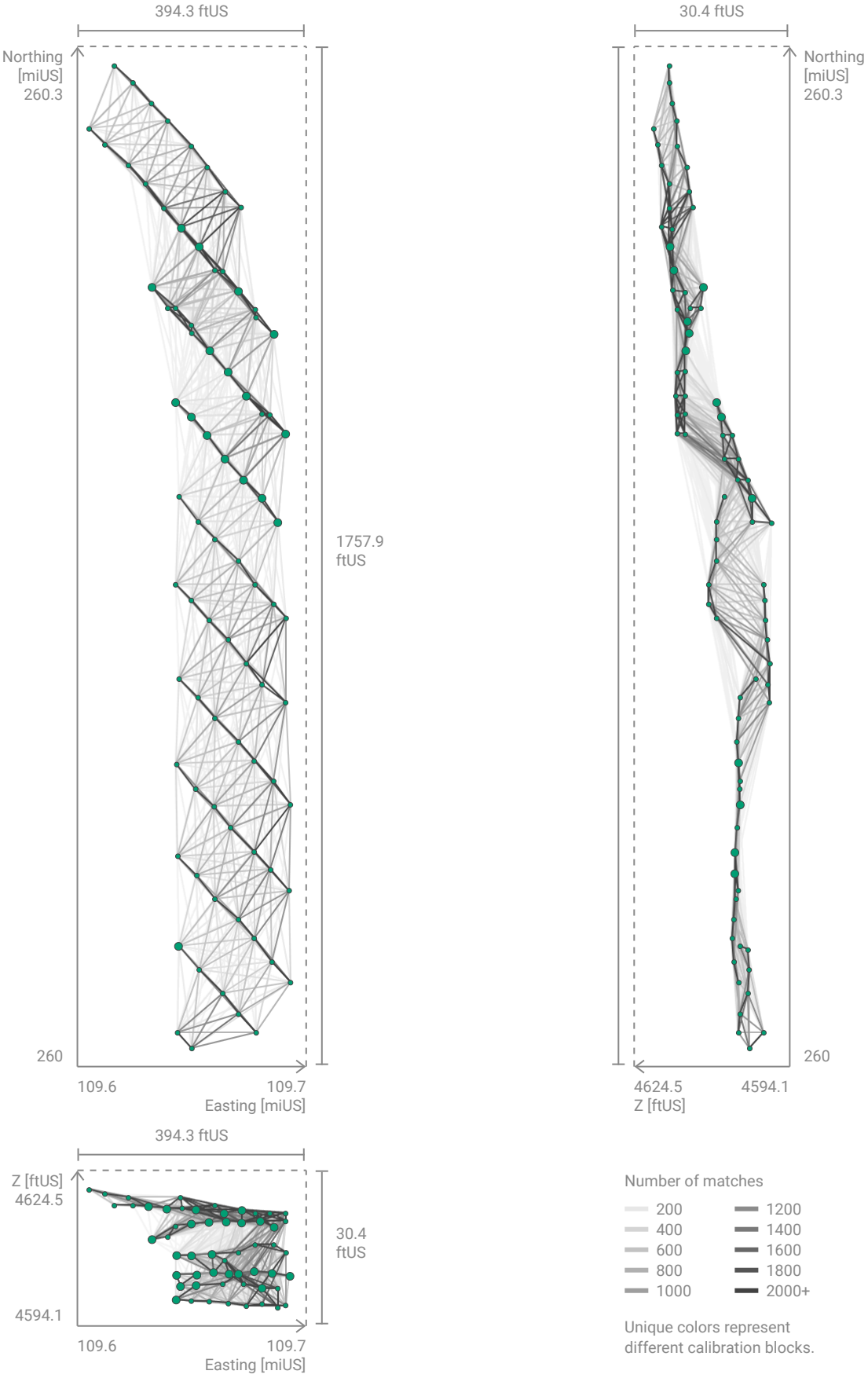
Initial and computed camera positions.

Overlap



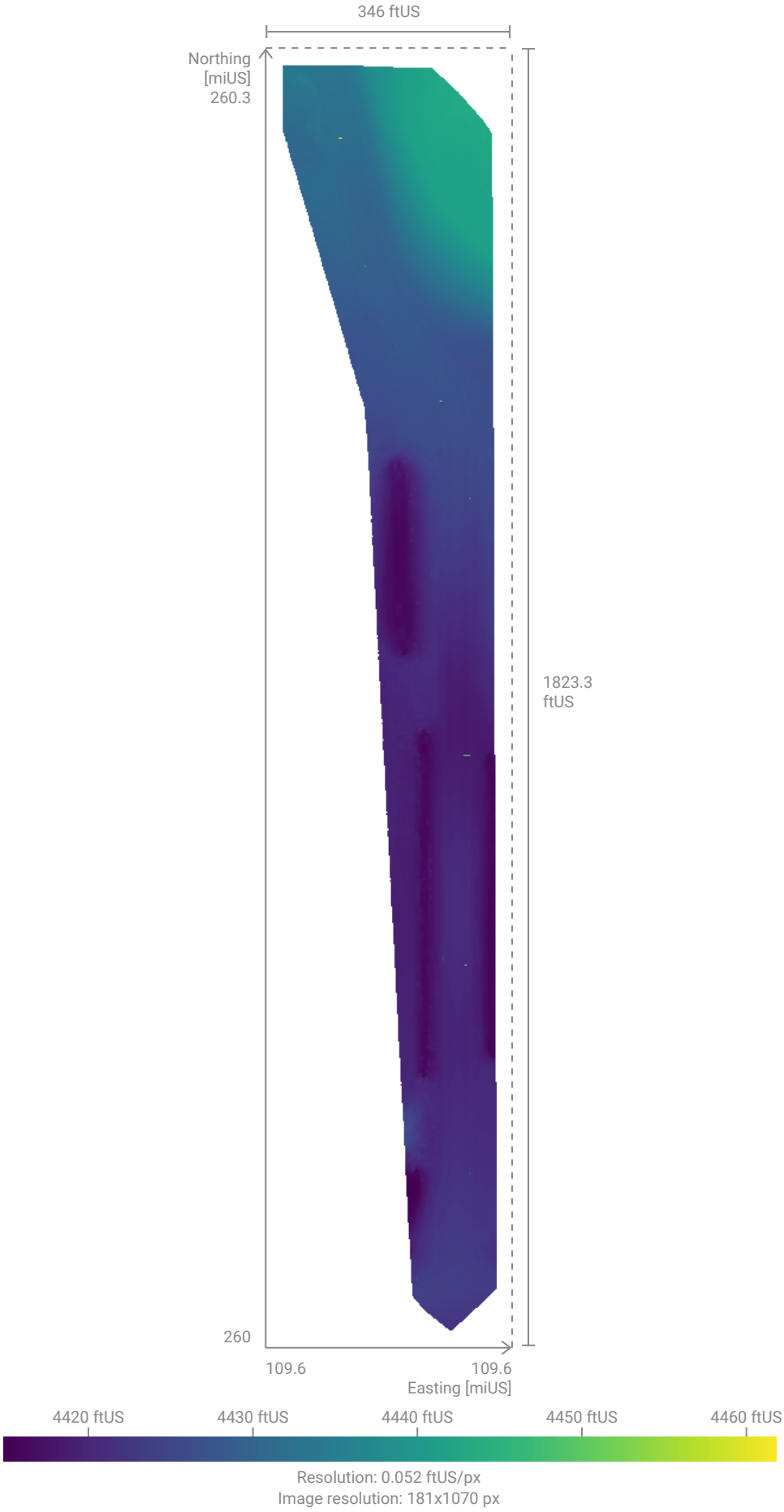
This graph shows the number of overlapping images for each pixel of the DSM preview. For precise 3D modeling and mapping applications, the overlap should be in green, i.e. each pixel should be visible in more than 5 images.

2D Keypoint matches

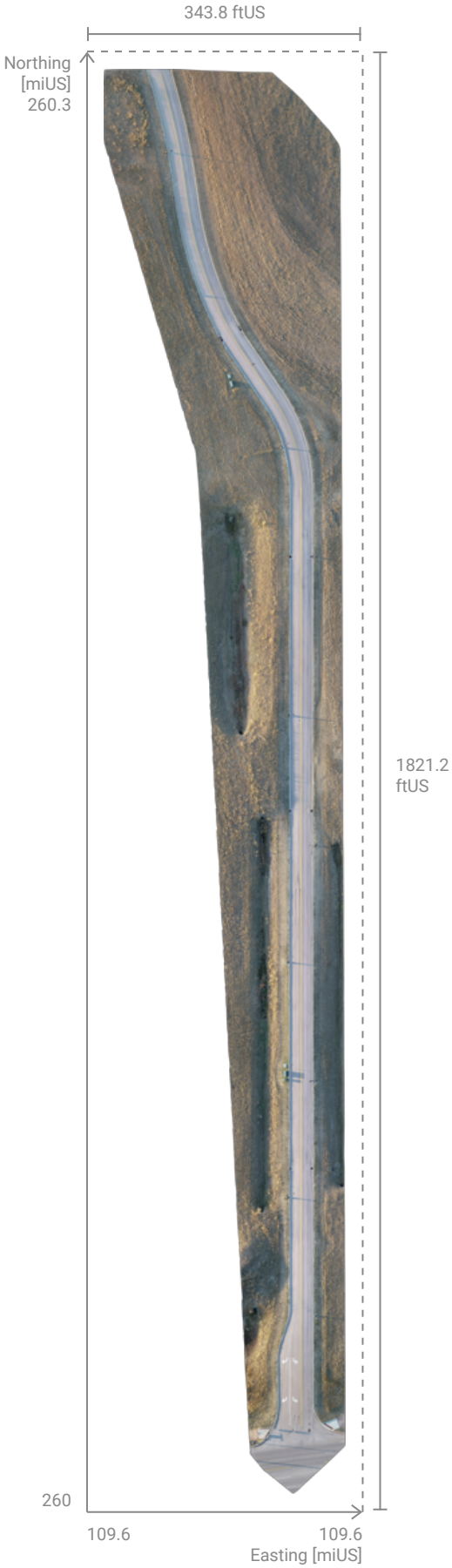


Computed camera positions with links between matched cameras. The opacity of the links indicates the number of matched 2D keypoints between the cameras. Near-transparent links indicate weak links and require manual tie points or more cameras. To improve visibility, camera positions may be slightly shifted 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.

DSM


346 ftUS
Northing [miUS]
260.3
1823.3 ftUS
260
109.6
109.6
Easting [miUS]
4420 ftUS
4430 ftUS
4440 ftUS
4450 ftUS
4460 ftUS
Resolution: 0.052 ftUS/px
Image resolution: 181x1070 px

Orthomosaic



Resolution: 0.052 ftUS/px
Image resolution: 181x1070 px

Hardware & Settings

System information

CPU	Intel(R) Core(TM) i9-10900KF CPU @ 3.70GHz, cpus=1, threads=20
RAM	31.89 GB
GPU	NVIDIA Corporation NVIDIA GeForce RTX 3090/PCIe/SSE2 (Driver: 4.1.0 NVIDIA 591.86)
Operating system	Windows 11

Coordinate reference systems

Image coordinate reference system	WGS 84 + EGM96 height - EPSG:4326+5773 [EGM96]
Project coordinate reference system	NAD_1983_CORS96_StatePlane_Wyoming_East_FIPS_4901_Ft_US - ESRI:103581

Processing settings

Calibration — Completed

Template: Large scale and corridor
Pipeline: Scalable standard
Image scale: 1/2
Internals confidence: Low
Externals confidence: Default
Simultaneous camera internals and MTP/GCP optimization: Disabled
Max. extracted keypoints: Automatic
Use automatic ITPs: Disabled

59s

Dense point cloud — Completed

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

2m 34s

DSM — Completed

Input point cloud: Dense point cloud
Interpolation: Interpolate holes
Resolution: 0.052 ftUS/px
Surface smoothing: 12 px
Polygon-aware: Disabled
Mask-aware: Disabled

59s

Orthomosaic — Completed

Resolution: 0.052 ftUS/px
Algorithm: Hardware accelerated
Oblique: Disabled
Blending algorithm: Minimal
Mask-aware: Disabled

21s