

Quality Report

PIX4Dmatic v1.71.0



Camera	DJI_ZenmuseP1_35.0_8192x5460
Average GSD	0.083 ftUS
Project CRS	NAD83(2011) / Illinois East (ftUS) - EPSG:6455
Dense point count	78,407,588

Quality check

Matches	Median of 3104 matches per calibrated image	
Dataset	100% calibrated (637/637), 1 block	
Camera optimization	0.01% relative difference between initial and optimized internal camera parameters	
ATPs	844544 ATPs	

Cameras

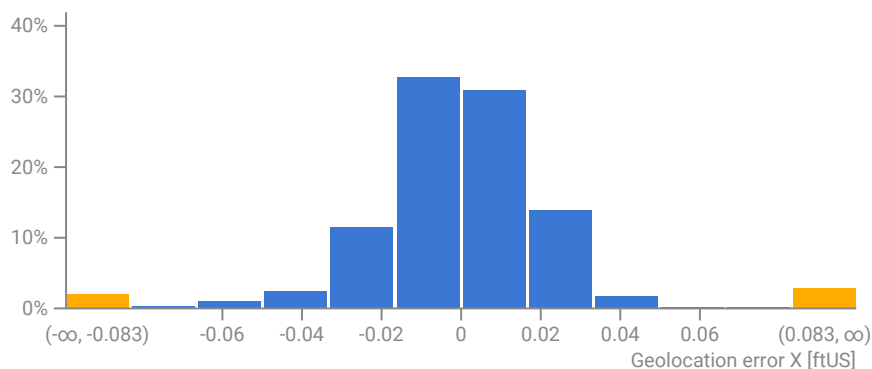


Internal camera parameters

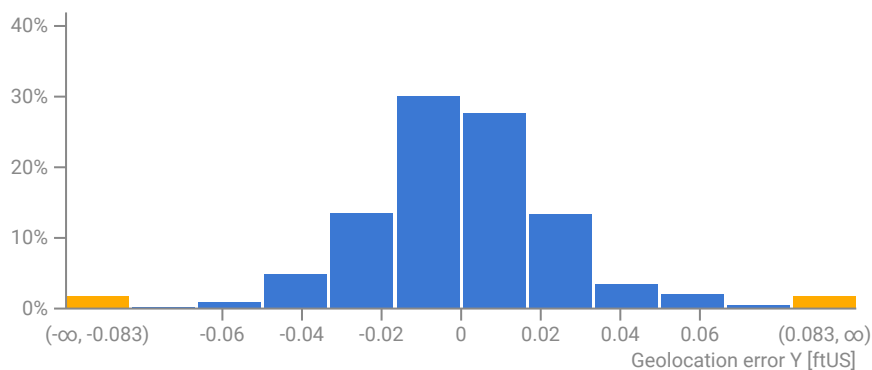
DJI_ZenmuseP1_35.0_8192x5460. Sensor dimensions: 35 mm x 23.328 mm

	Focal length	Principal point x	Principal point y	R1	R2	R3	T1	T2
Initial	8194.3 px 35.01 mm	4096.0 px 17.5 mm	2730.0 px 11.664 mm	-0.0479570	0.0205183	-0.0972836	0.0017967	-0.0013967
Optimized	8195.2 px 35.014 mm	4076.4 px 17.416 mm	2753.9 px 11.766 mm	-0.0445215	0.0128019	-0.0873506	0.0018950	-0.0012156
Uncertainties (Sigma)	0.0 px 0 mm	0.1 px 0.001 mm	0.0 px 0 mm	0.0000000	0.0000016	0.0000051	0.0000000	0.0000000

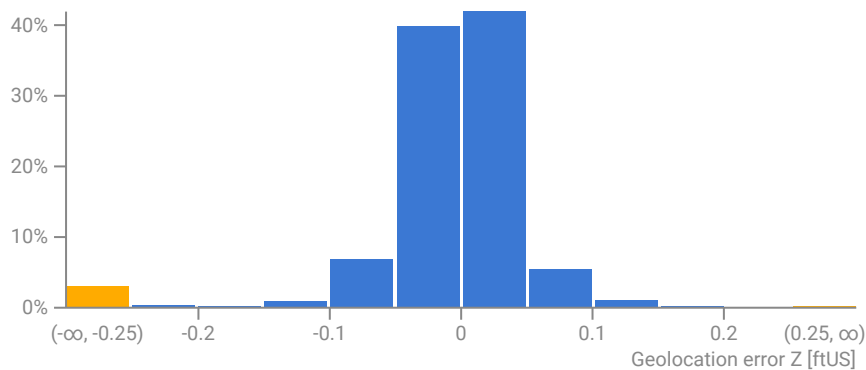
Absolute geolocation variance



	Geolocation error X [ftUS]
Mean	0.006
Median	-0.000
Sigma	0.088
RMS	0.088



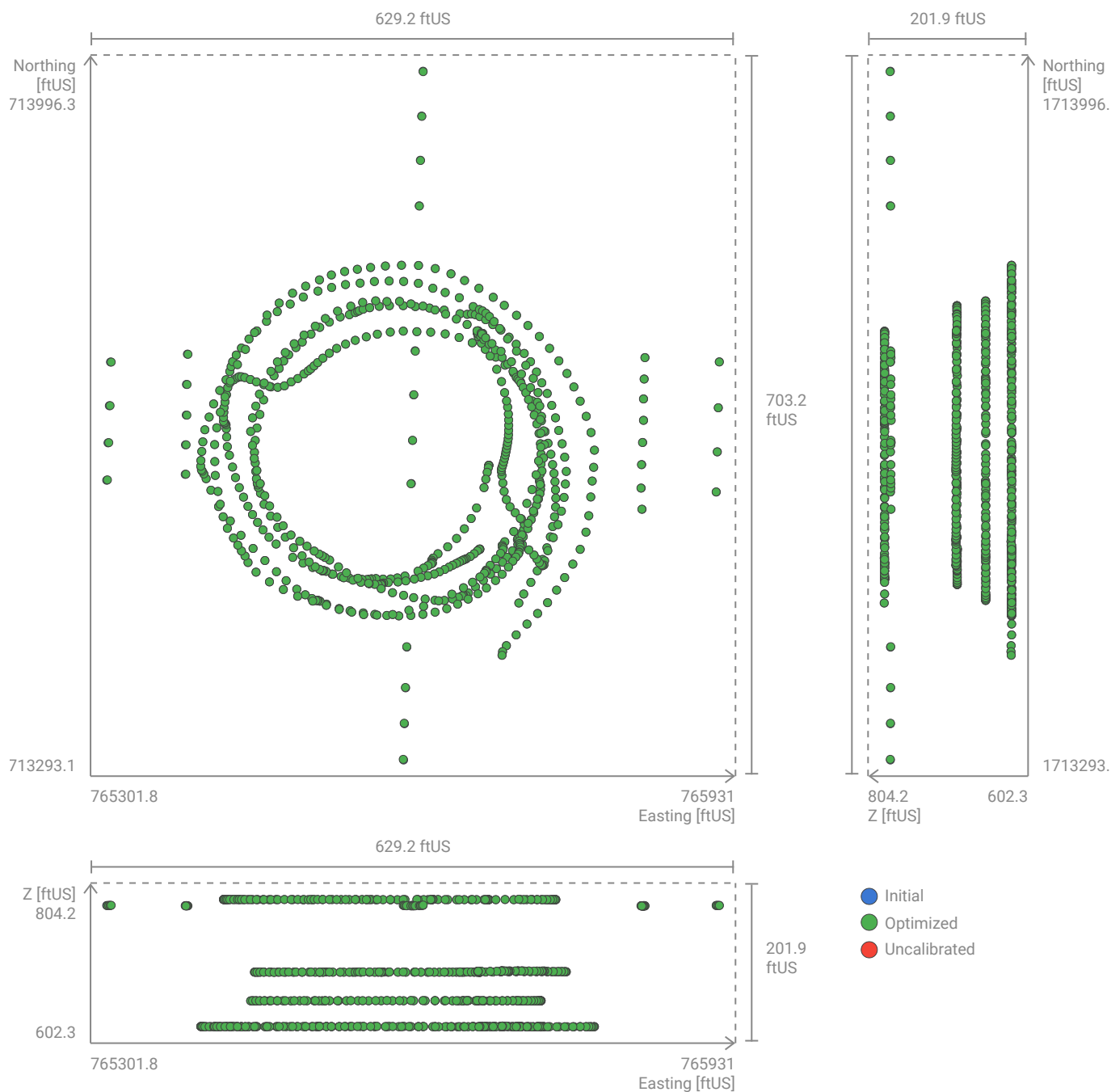
	Geolocation error Y [ftUS]
Mean	0.001
Median	-0.001
Sigma	0.059
RMS	0.059



	Geolocation error Z [ftUS]
Mean	-0.013
Median	-0.001
Sigma	0.090
RMS	0.091

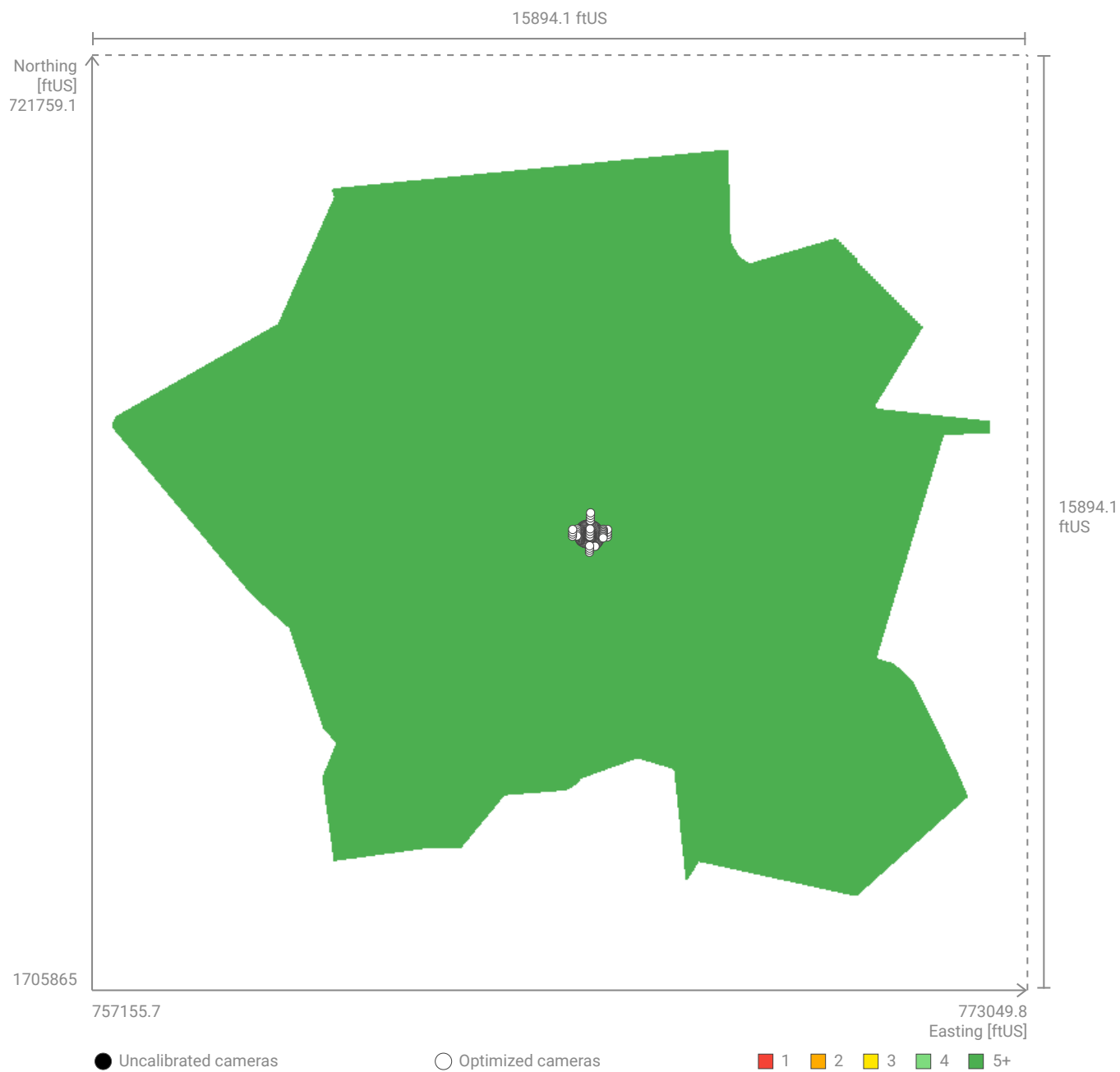
The geolocation error is the difference between the initial and computed camera positions. Plots show the per-axis distributions of geolocation errors across the cameras. Large positive and negative errors are denoted with the orange bins. Note that the image geolocation errors do not correspond to the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

Camera positions



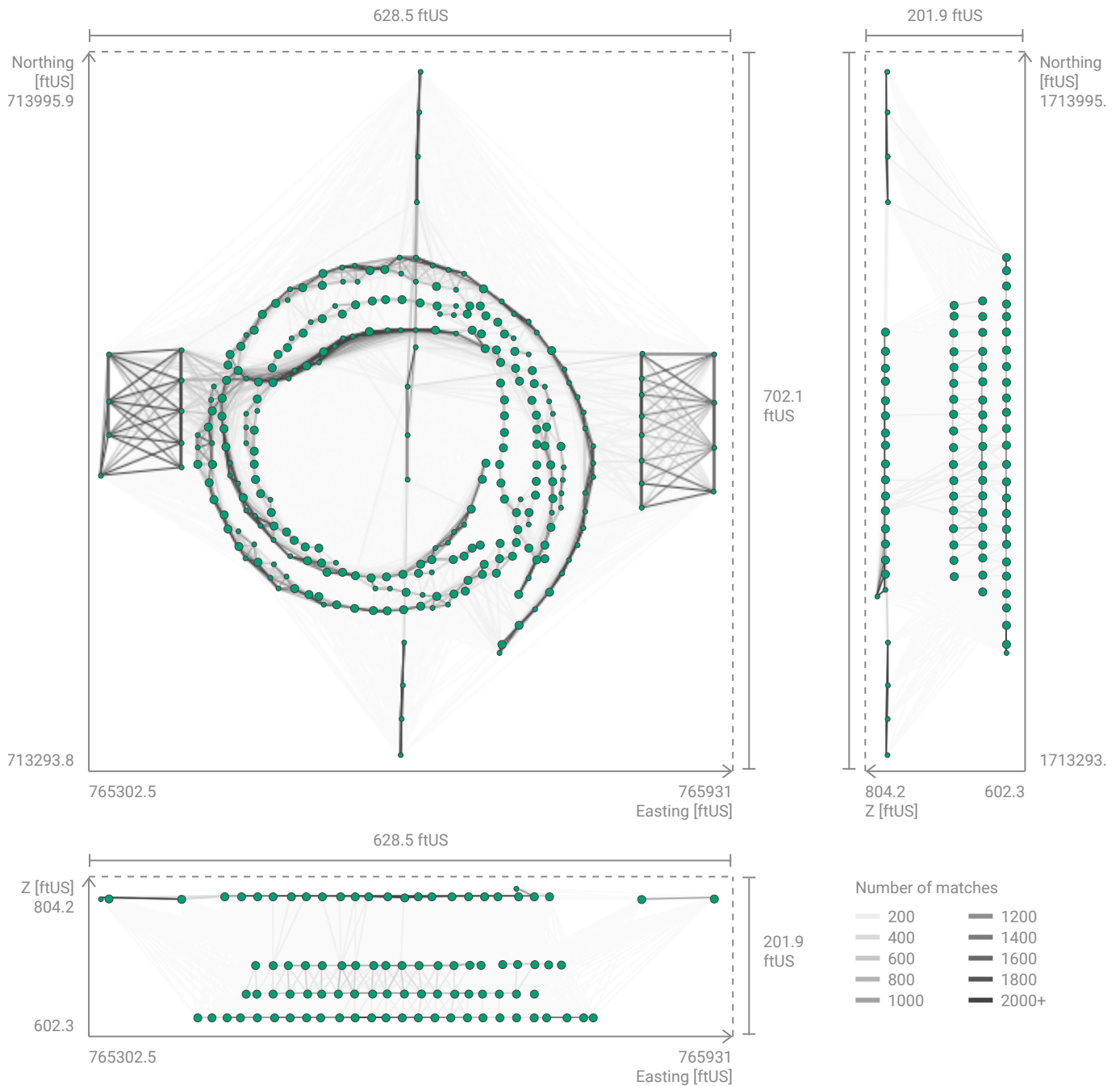
Initial and computed camera positions.

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.

Hardware & Settings



System information

Hardware: CPU: AMD Ryzen 9 7950X 16-Core Processor , cpus=1, threads=32
RAM: 95.21 GB
GPU: NVIDIA Corporation NVIDIA GeForce RTX 4080 SUPER/PCIe/SSE2 (Driver: 4.1.0 NVIDIA 566.36)
Operating system: Windows 11

Coordinate reference systems

Image coordinate reference system	WGS 84 - EPSG:4326
Project coordinate reference system	NAD83(2011) / Illinois East (ftUS) - EPSG:6455

Processing settings

Calibration	Dense point cloud	Mesh
Completed	Completed	Completed
Template: Large scale and corridor Pipeline: Scalable standard Image scale: 1/2 Internals confidence: Low Optimize internals together with tie points: Enabled 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: Enabled Sky filter: Disabled Mask-aware: Disabled	Input point cloud: Dense Pipeline: Standard Template: Aerial Texture size: 16384x16384 Deghosting: Weak Decimation: Limit triangle count Max. triangle count: 1000000 Polygon-aware: Disabled Sky mask: Disabled Smoothing: Enabled Mask-aware: Disabled Interior improvement: Disabled
7m 13s	1h 11m 4s	12m 58s