





Quality Report

PIX4Dmatic v1.77.1



Camera	Generic_SONY_ILXLR1_FE35mmF2.8ZA_35.0_9504x6336
Average GSD	0.033 ftUS
Project CRS	NAD83(2011) / Louisiana South (ftUS) + NAVD88 height (ftUS) - EPSG:6479+6360 [GEOID18]

Quality check

Matches	Median of 20936 matches per calibrated image	
Dataset	100% calibrated (78/78), 1 block	
Camera optimization	0.15% relative difference between initial and optimized internal camera parameters	
Checkpoints	3 Checkpoints, Mean RMS position error 0.044 ftUS / Sigma 0.033	
ATPs	587834 ATPs	

Cameras

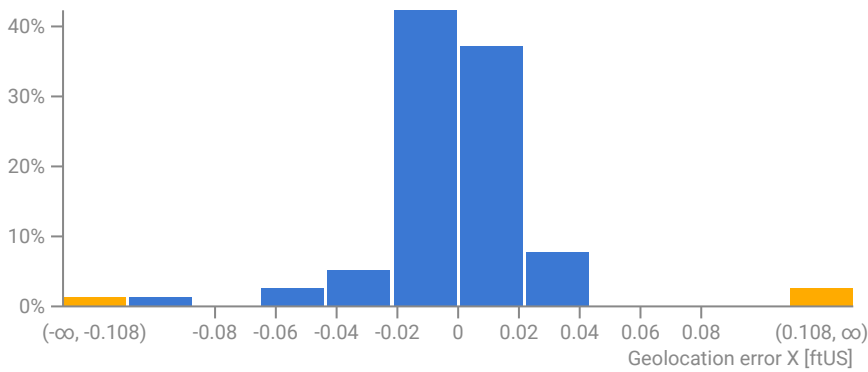


Internal camera parameters

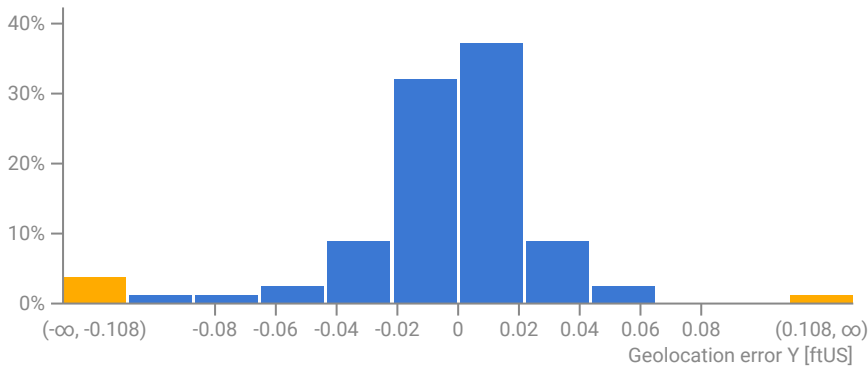
Generic_SONY_ILXLR1_FE35mmF2.8ZA_35.0_9504x6336. Sensor dimensions: 35 mm x 23.333 mm

	Focal length	Principal point x	Principal point y	R1	R2	R3	T1	T2
Initial	9617.5 px 35.418 mm	4688.6 px 17.267 mm	3151.2 px 11.605 mm	0.0424062	-0.2168578	0.0050850	-0.0005638	-0.0003527
Optimized	9631.6 px 35.47 mm	4689.0 px 17.268 mm	3151.5 px 11.606 mm	0.0425849	-0.2174383	0.0017626	-0.0005719	-0.0003479
Uncertainties (Sigma)	37.5 px 0.138 mm	<0.1 px <0.001 mm	<0.1 px <0.001 mm	<0.0000001	0.0000011	0.0000029	<0.0000001	<0.0000001

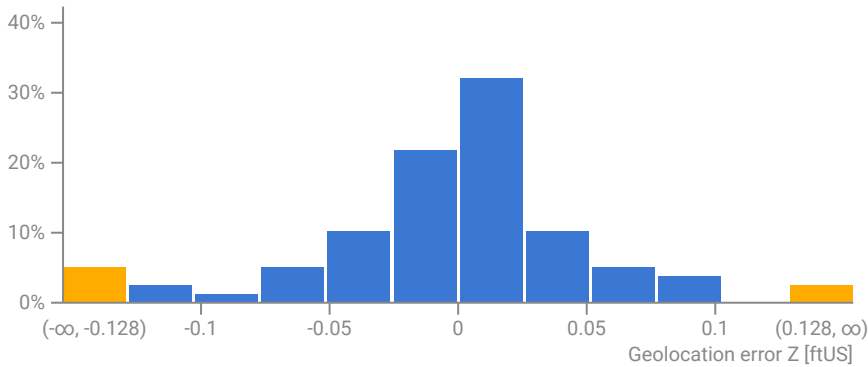
Absolute geolocation variance



	Geolocation error X [ftUS]
Mean	0.005
Median	-0.001
Sigma	0.073
RMS	0.073



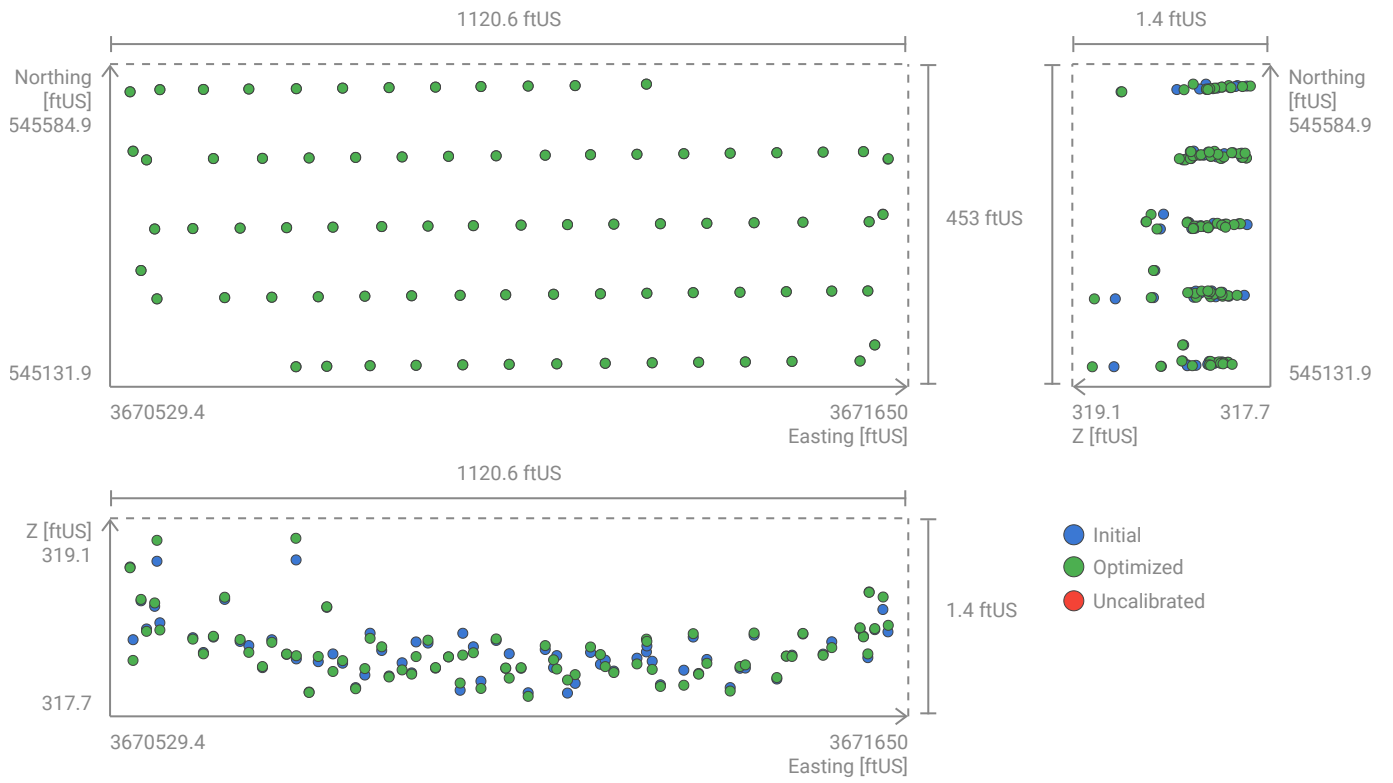
	Geolocation error Y [ftUS]
Mean	-0.004
Median	0.000
Sigma	0.096
RMS	0.097



	Geolocation error Z [ftUS]
Mean	-0.003
Median	0.003
Sigma	0.058
RMS	0.058

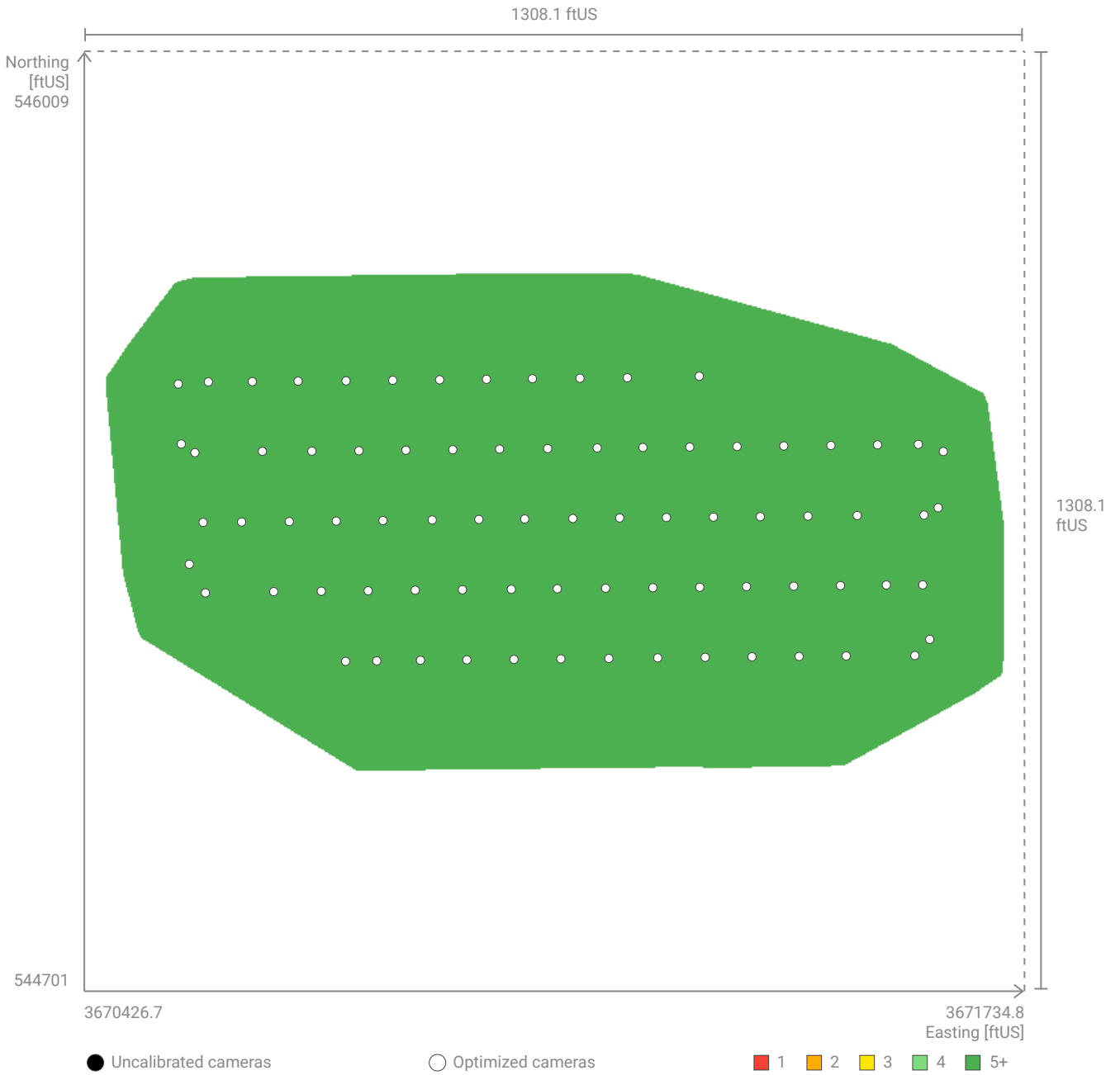
The geolocation error is the difference between the initial and computed camera positions. Plots show the per-axis distributions of geolocation errors across the cameras. Large positive and negative errors are denoted with the orange bins. Note that the image geolocation errors do not correspond to the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

Camera positions



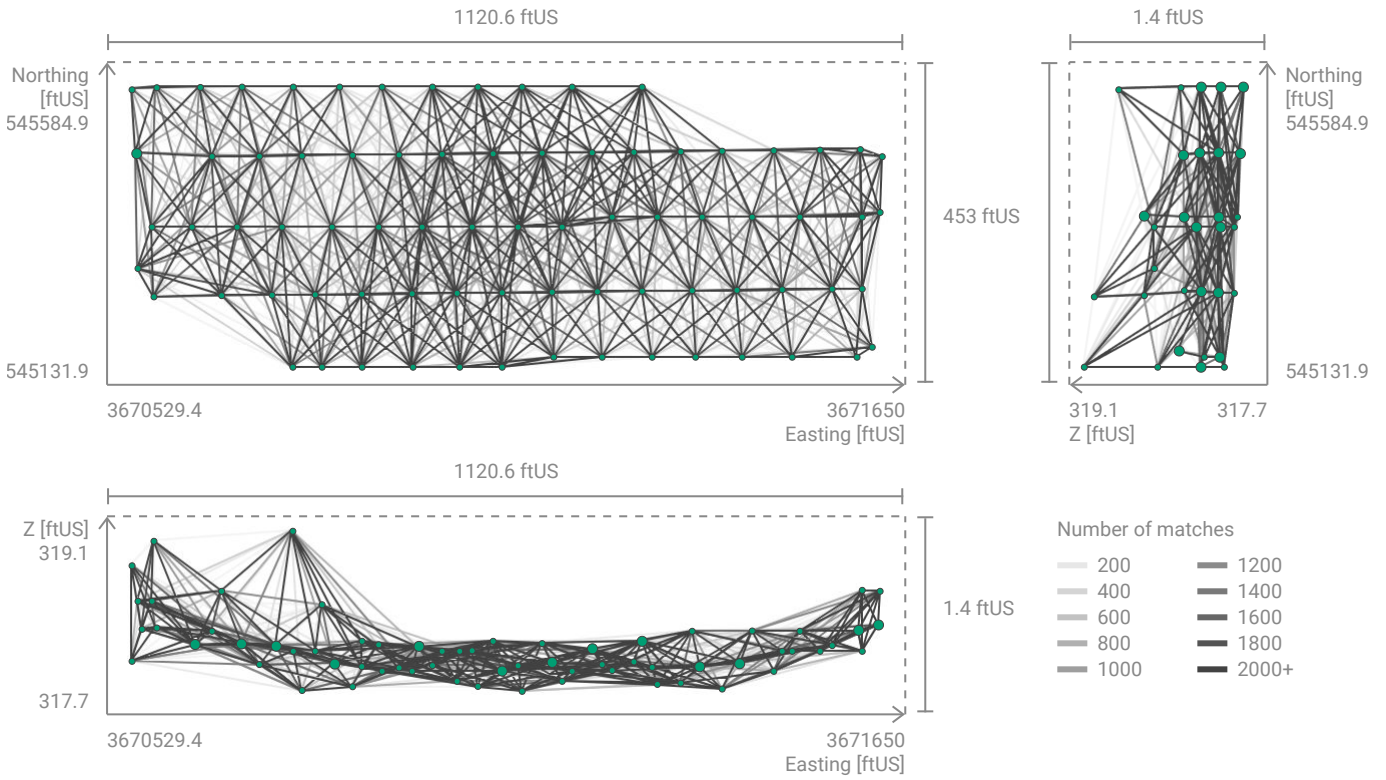
Initial and computed camera positions.

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.

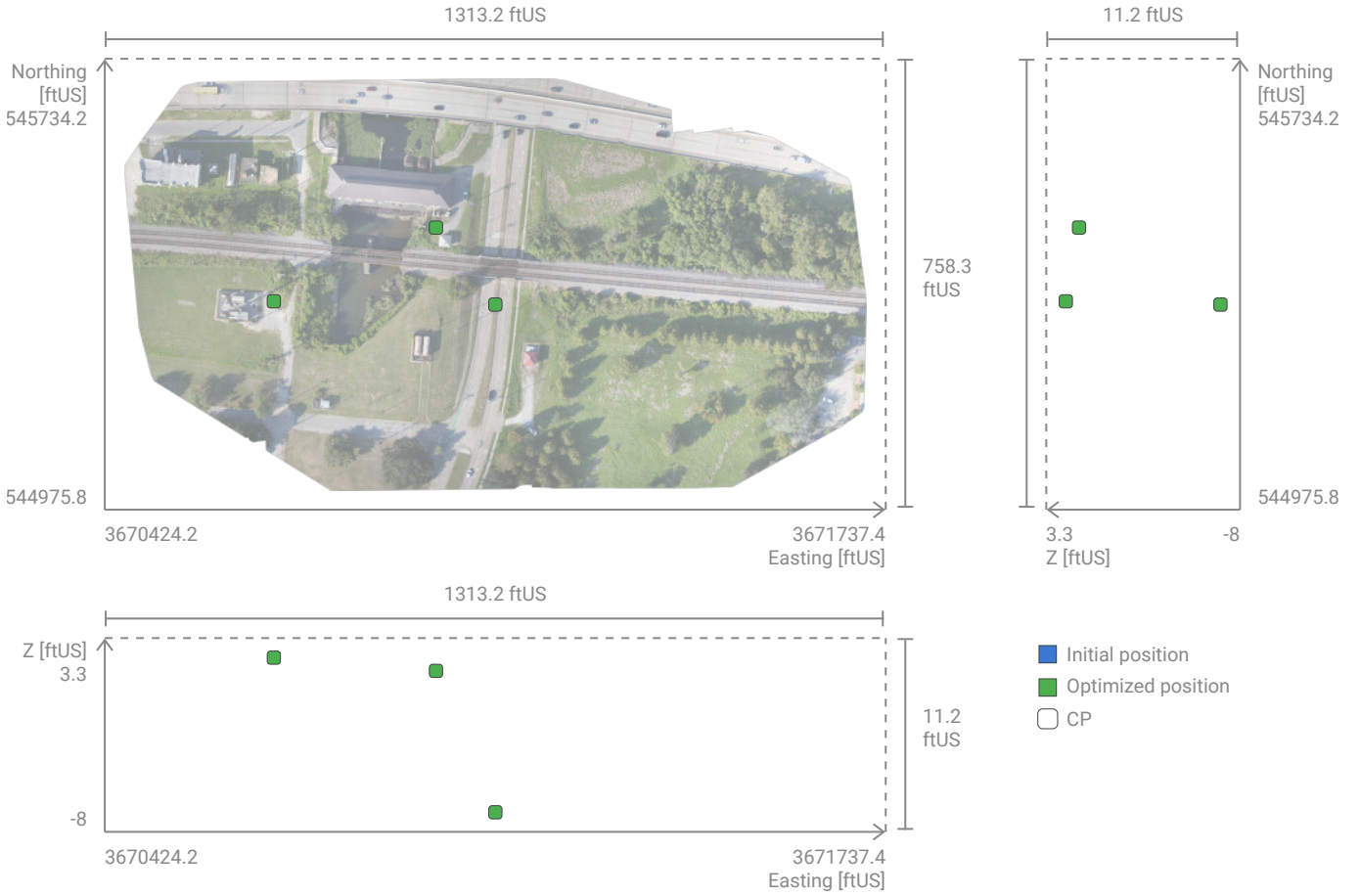
Tie points



Checkpoints (CPs)

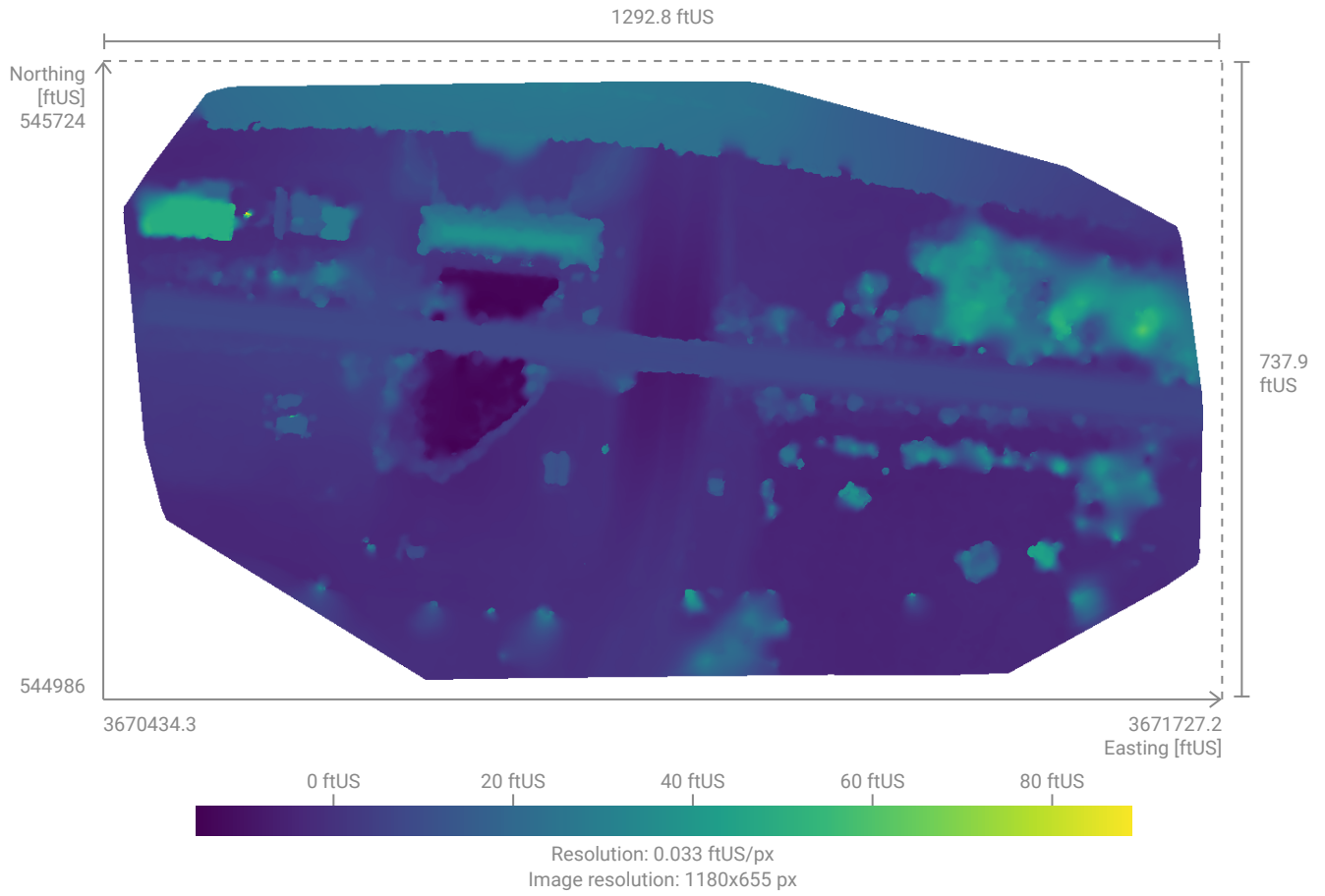
Label	Position error			Reprojection error [px]	Accuracy		Verified/Marked
	X [ftUS]	Y [ftUS]	Z [ftUS]		X/Y [ftUS]	Z [ftUS]	
1	0.056	0.116	0.016	1.6	0.066	0.066	4/4
2	0.000	0.056	0.017	0.8	0.066	0.066	4/4
3	0.013	-0.065	0.017	1.7	0.066	0.066	4/4
Min	0.000	-0.065	0.016	0.8			
Max	0.056	0.116	0.017	1.7			
Mean	0.023	0.036	0.017	1.3			
Median	0.013	0.056	0.017	1.6			
Sigma	0.024	0.075	0.000	0.4			
RMS	0.033	0.083	0.017	1.4			

Tie point positions



Initial or optimized position of tie points.

DSM



Orthomosaic



Hardware & Settings



System information

Hardware: CPU: 13th Gen Intel(R) Core(TM) i9-13900HX, cpus=1, threads=32
 RAM: 63.78 GB
 GPU: NVIDIA Corporation NVIDIA GeForce RTX 4080 Laptop GPU/PCIe/SSE2 (Driver: 4.1.0 NVIDIA 546.33)
 Operating system: Windows 11

Coordinate reference systems

Image coordinate reference system	WGS 84 - EPSG:4326
Ground control point (GCP) coordinate reference system	NAD83(2011) / Louisiana South (ftUS) + NAVD88 height (ftUS) - EPSG:6479+6360 [GEOID18]
Project coordinate reference system	NAD83(2011) / Louisiana South (ftUS) + NAVD88 height (ftUS) - EPSG:6479+6360 [GEOID18]

Processing settings

Calibration Outdated	Calibration: Reoptimization Outdated	DSM Outdated
Template: Map Pipeline: Standard Image scale: 1/2 Internals confidence: Low Simultaneous camera internals and MTP/GCP optimization: Enabled Max. extracted keypoints: Automatic Use automatic ITPs: Enabled	Rematch: Enabled Camera internals: Input internals Internals confidence: Low Simultaneous camera internals and MTP/GCP optimization: Enabled	Input point cloud: Automatic tie points Interpolation: Enabled Resolution: 0.033 ftUS/px Surface smoothing: 12 px Mask-aware: Disabled
6m 39s	1m 47s	5m 11s

Orthomosaic Outdated
Resolution: 0.033 ftUS/px Algorithm: Hardware accelerated Oblique: Disabled Blending algorithm: Minimal Mask-aware: Disabled
3m 23s