

Quality Report

PIX4Dmatic v1.66.0



Camera	Generic_PhaseOne_P5GS128_PhaseOneSL80mmf5.6_80.0_13468x9564
Average GSD	0.3 cm
Project CRS	ETRS89 / UTM zone 32N + DVR90 height - EPSG:25832+5799 [DVR90]

Quality check

Matches	Median of 11550 matches per calibrated image	
Dataset	99.48% calibrated (3631/3650), 1 block	
Camera optimization	1.23% relative difference between initial and optimized internal camera parameters	
GCPs	3 GCPs, Mean RMS position error 0.036 mm / Sigma 0.035	
Checkpoints	10 Checkpoints, Mean RMS position error 4.409 mm / Sigma 3.995 The checkpoint position error is more than 1.5 times the average GSD.	
MTPs	0 MTPs	
mITPs	0 mITPs	
VTPs	0 VTPs	
ATPs	14191759 ATPs	

Cameras

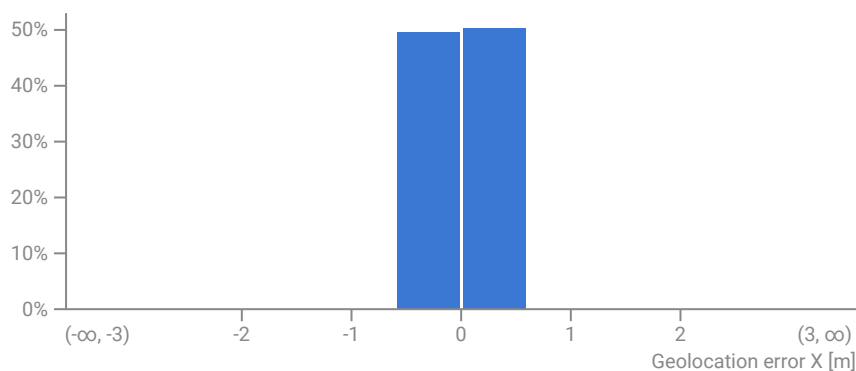


Internal camera parameters

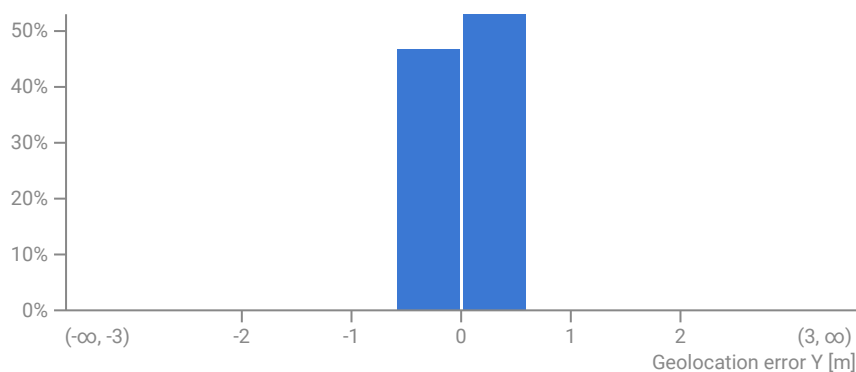
Generic_PhaseOne_P5GS128_PhaseOneSL80mmf5.6_80.0_13468x9564. Sensor dimensions: 46.465 mm x 32.996 mm

	Focal length	Principal point x	Principal point y	R1	R2	R3	T1	T2
Initial	23188.4 px 80 mm	6734.0 px 23.232 mm	4782.0 px 16.498 mm	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Optimized	23472.8 px 80.981 mm	6769.8 px 23.356 mm	4748.3 px 16.382 mm	0.0786864	-0.1065365	0.0164264	-0.0000556	0.0000752
Uncertainties (Sigma)	0.2 px 0.001 mm	0.0 px 0 mm	0.0 px 0 mm	0.0000000	0.0000025	0.0000789	0.0000000	0.0000000

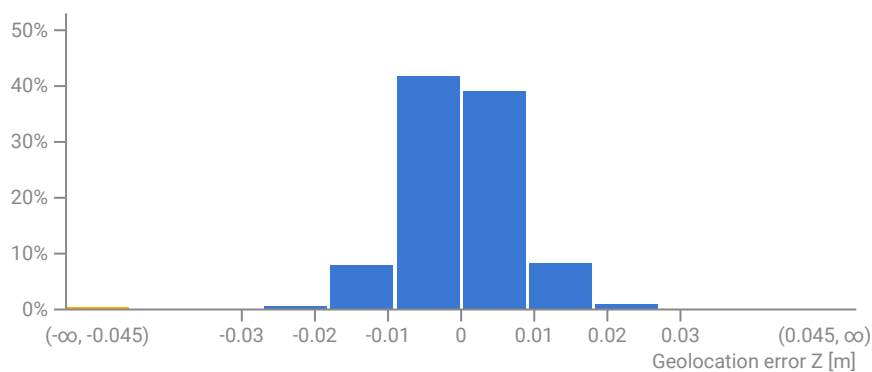
Absolute geolocation variance



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



	Geolocation error Y [m]
Mean	-0.005
Median	-0.004
Sigma	0.274
RMS	0.274

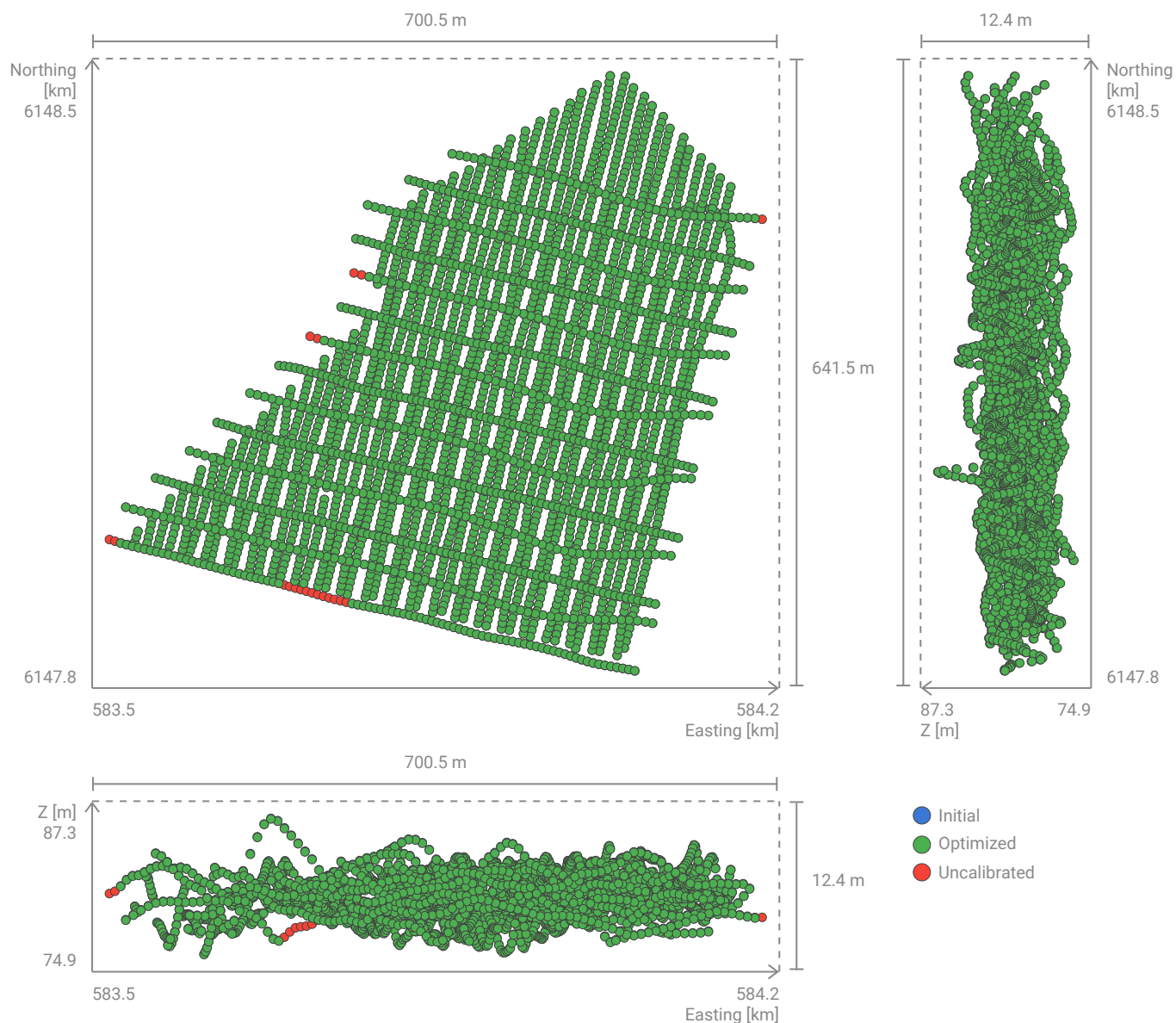


	Geolocation error Z [m]
Mean	-0.043
Median	-0.043
Sigma	0.021
RMS	0.048

Geolocation bias	X [m]	Y [m]	Z [m]
Translation	-0.000	-0.005	-0.043

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. The geolocation bias is the bias between the initial and computed camera geolocation given in the project CRS.

Camera positions



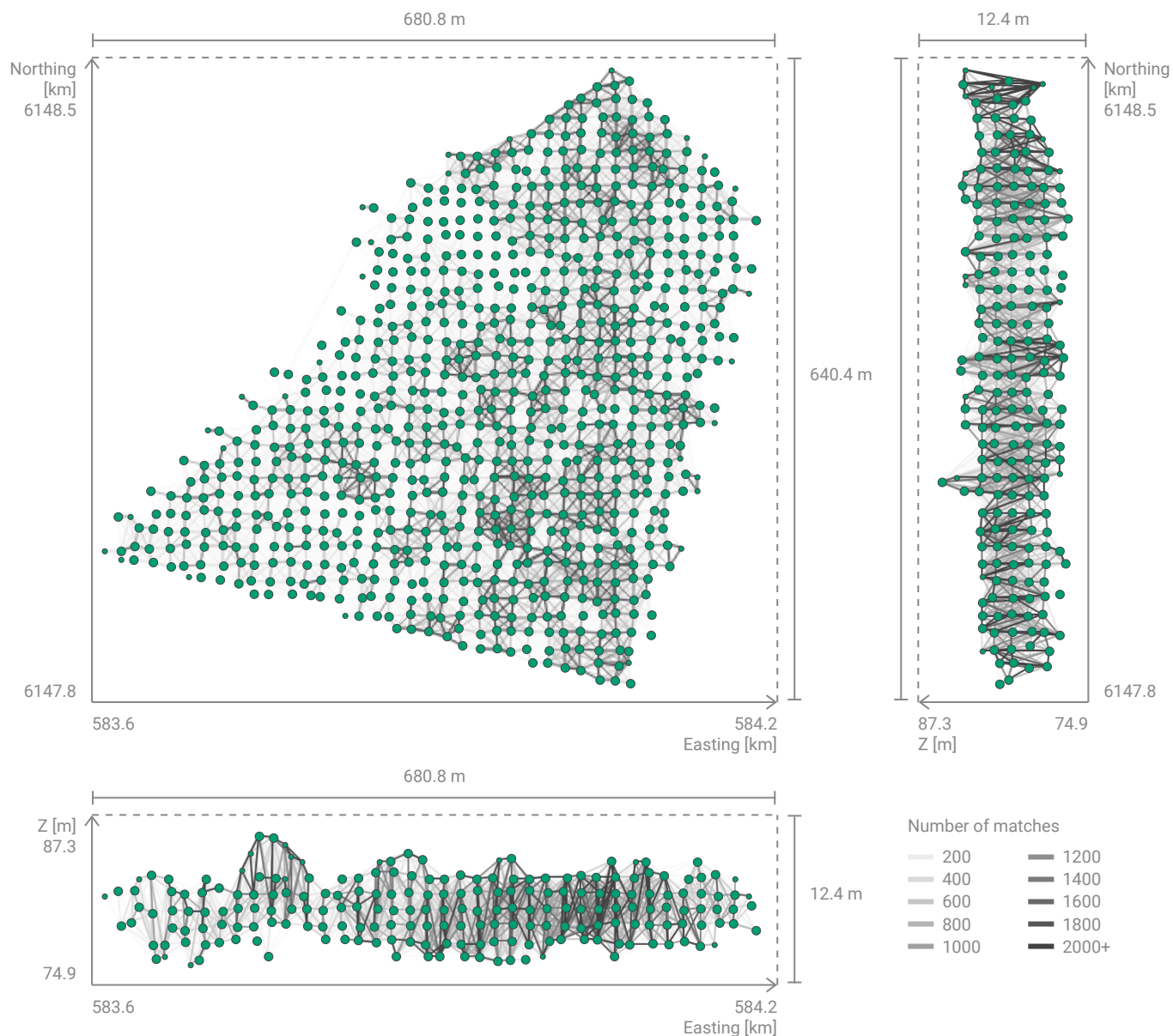
Initial and computed camera positions.

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



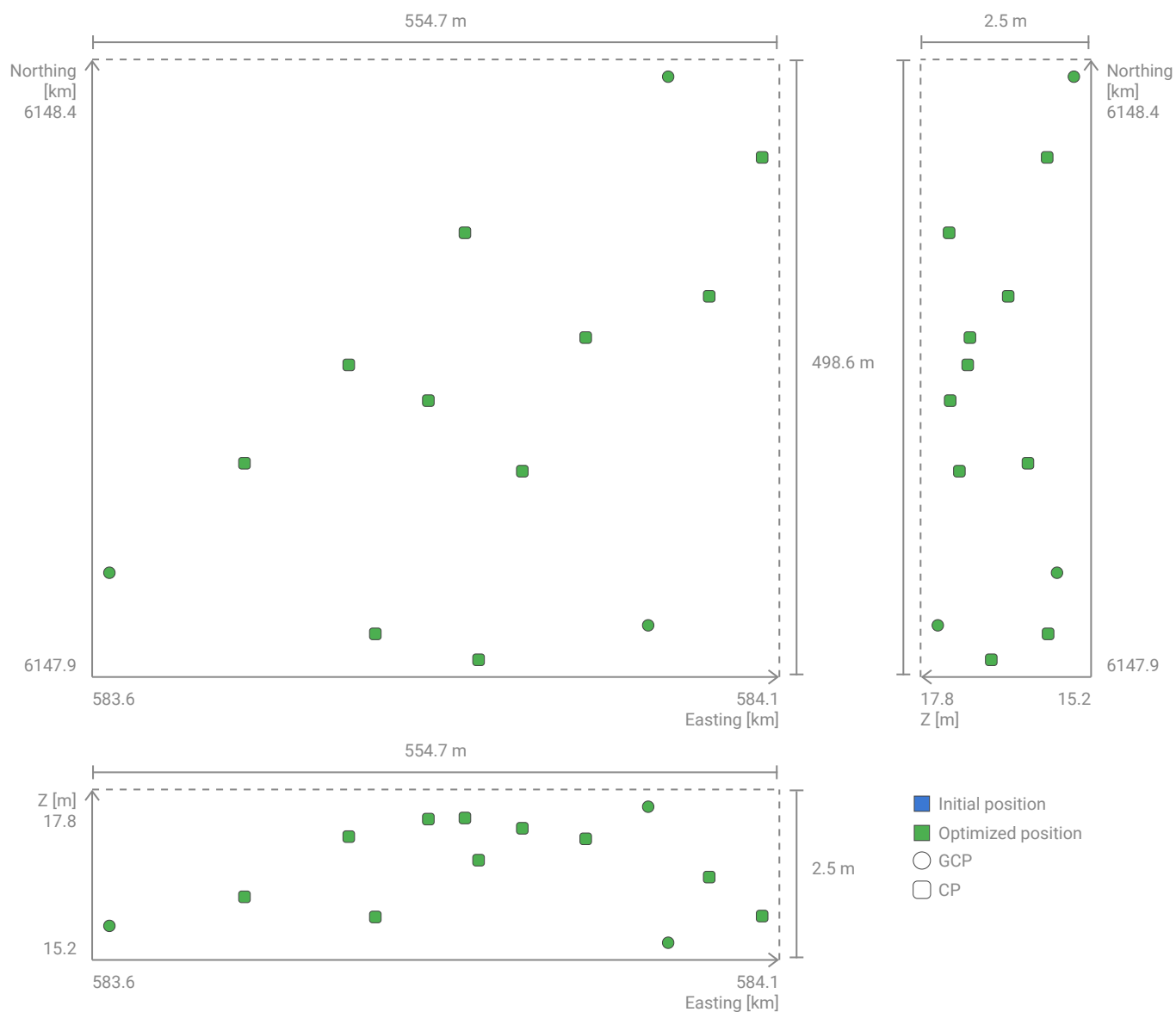
Ground control points (GCPs)

Label	Position error			Reprojection error [px]	Accuracy		Verified/ Marked
	X [m]	Y [m]	Z [m]		X/Y [m]	Z [m]	
36-04-66371	-0.000	-0.000	-0.000	0.2	0.002	0.002	12/12
36-04-66368	-0.000	0.000	-0.000	0.3	0.002	0.002	13/13
36-04-66354	0.000	-0.000	0.000	0.1	0.001	0.001	12/12
Min	-0.000	-0.000	-0.000	0.0			
Max	0.000	0.000	0.000	0.5			
Mean	-0.000	0.000	-0.000	0.2			
Median	-0.000	-0.000	-0.000	0.2			
Sigma	0.000	0.000	0.000	0.1			
RMS	0.000	0.000	0.000	0.2			

Checkpoints (CPs)

Label	Position error			Reprojection error [px]	Accuracy		Verified/ Marked
	X [m]	Y [m]	Z [m]		X/Y [m]	Z [m]	
36-04-66372	0.005	-0.004	0.003	0.6	0.002	0.002	13/13
36-04-66373	0.006	-0.002	0.003	0.5	0.002	0.002	11/11
36-04-66364	0.004	-0.005	-0.004	0.6	0.002	0.001	13/13
36-04-66366	0.001	-0.003	0.004	0.6	0.002	0.002	18/18
36-04-66363	-0.003	0.006	-0.003	0.7	0.002	0.002	15/15
36-04-66358	0.003	-0.003	0.008	0.6	0.002	0.001	13/13
36-04-66359	0.006	0.002	0.001	0.5	0.002	0.001	15/15
36-04-66360	0.000	0.006	0.009	0.6	0.002	0.002	20/20
36-04-66355	-0.002	0.002	0.003	0.7	0.001	0.002	12/12
36-04-66367	0.004	-0.003	-0.008	0.8	0.002	0.002	16/16
Min	-0.003	-0.005	-0.008	0.1			
Max	0.006	0.006	0.009	1.1			
Mean	0.003	-0.000	0.002	0.6			
Median	0.004	-0.003	0.003	0.6			
Sigma	0.003	0.004	0.005	0.2			
RMS	0.004	0.004	0.005	0.7			

Tie point positions



Initial or optimized position of tie points.

Hardware & Settings



System information

Hardware: CPU: 12th Gen Intel(R) Core(TM) i7-12700H, cpus=1, threads=20

RAM: 39.68 GB

GPU: NVIDIA Corporation NVIDIA GeForce RTX 3050 Ti Laptop GPU/PCIe/SSE2 (Driver: 4.1.0 NVIDIA 556.12)

Operating system: Windows 11

Coordinate reference systems

Image coordinate reference system	WGS 84 - EPSG:4326
Ground control point (GCP) coordinate reference system	ETRS89 / UTM zone 32N + DVR90 height - EPSG:25832+5799 [DVR90]
Project coordinate reference system	ETRS89 / UTM zone 32N + DVR90 height - EPSG:25832+5799 [DVR90]

Processing settings

Calibration Completed

Template: Large scale and corridor

Pipeline: Scalable standard

Image scale: 1/2

Internals confidence: Low

Max extracted keypoints: Automatic

Reoptimized: No

Use automatic ITPs: Disabled

1h 3m 5s