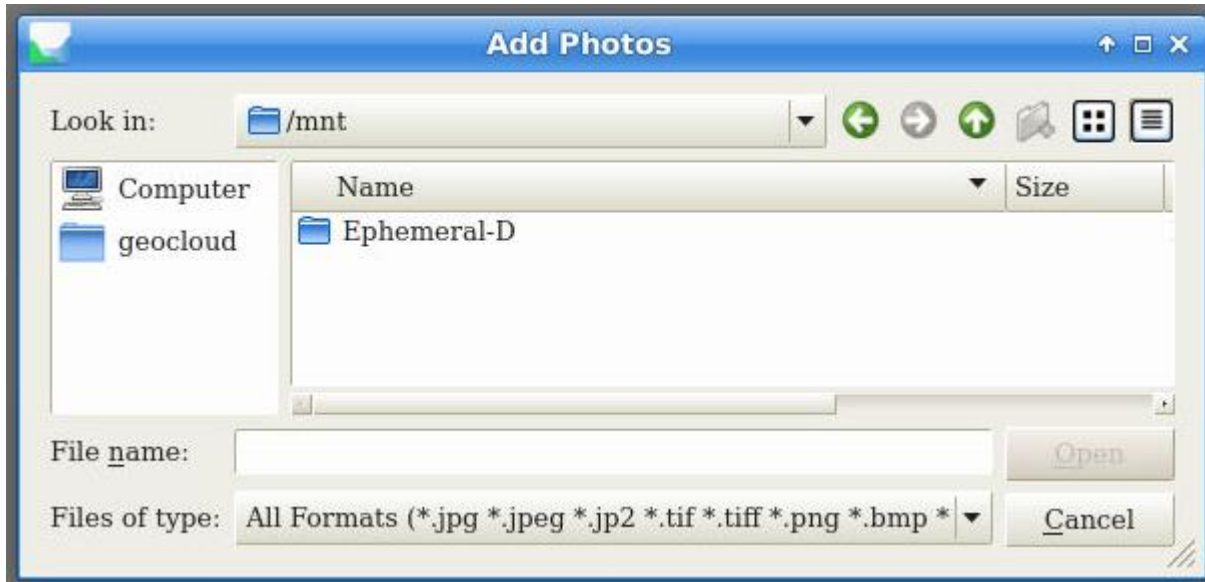


Metashape 16GB, 32GB and 192GB are able now to work with Temporary Application Store Volumes (Ephemeral) local disk D:

Using a local D drive for your data (images, project and log file) can improve processing performance by 11% for Metashape 16GB, 18% for Metashape 32GB, and 68% for Metashape 192GB (see second table for 150MP benchmarks). Processing performance improves mainly on GPU-based processes.

In our tests, there was only an improvement for 150MP large format frames, and there was only minor improvement for small 7.5MB frames. To get started with local drive D: you need to copy data from Storage X: to D:

To access the local drive from Metashape on Linux-based computers, select the folder: Computer / mnt / Ephemeral-D



Pay attention!

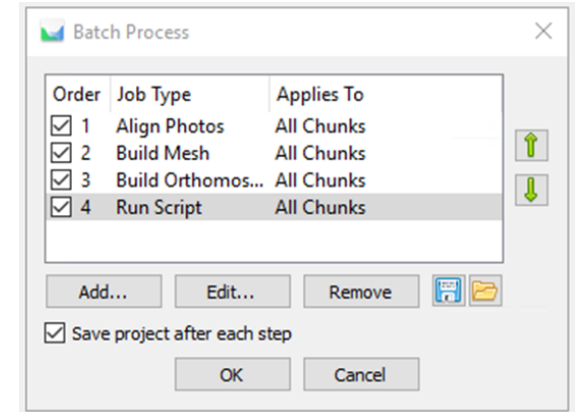
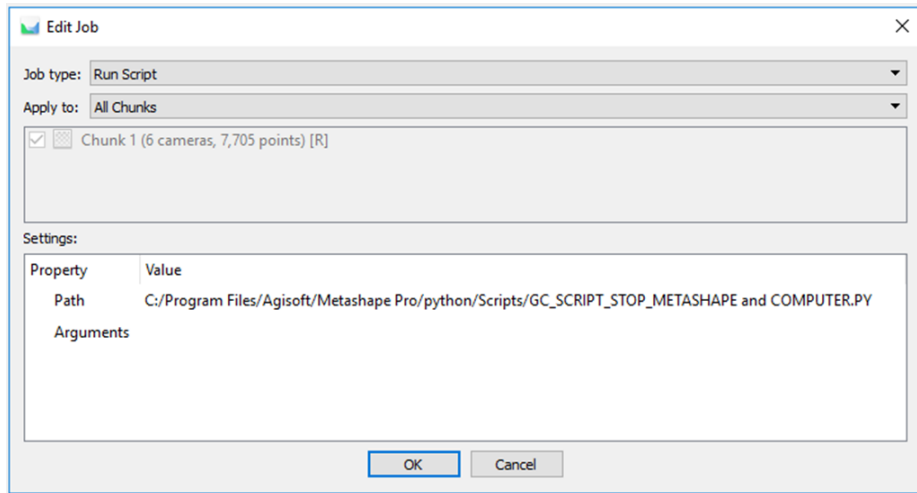
Local drive D: exists only when the computer (Metashape) is operational. If you stop your computer, the D: drive will disappear along with all data. There is no way to recover data. Therefore, please copy the processing results back to Storage X: after processing is complete and before stopping the computer.

Metashape 1.6.3. Instances support using of scripts

To exit Metashape and stop your computer in a Batch Process of Metashape use the script

Windows

C:/Program Files/Agisoft/Metashape Pro/python/Scripts/GC_SCRIPT_STOP_METASHAPE and COMPUTER.py



Linux

/home/geocloud/Metashape-pro/python/Scripts/GC_SCRIPT_STOP_METASHAPE and COMPUTER.py



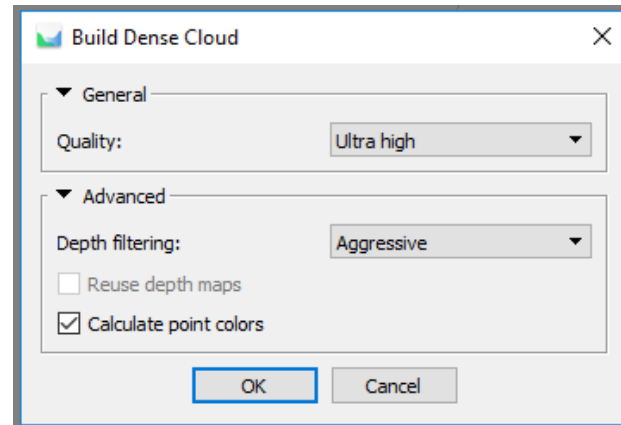
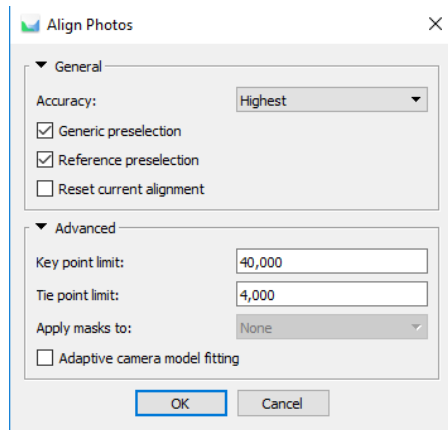
Metashape 1.6.3 processing productivity benchmarks

Drone aerial survey:

Camera - FC6310 (8.8mm); Image size – 16 MP (4864 x 3648); File size (JPG) – 7.5 MB

Number of images - 100

Side/Forward overlap - 70%; Flight altitude – 320m; GSD – 8 cm; Area - 1.35 sq.km;



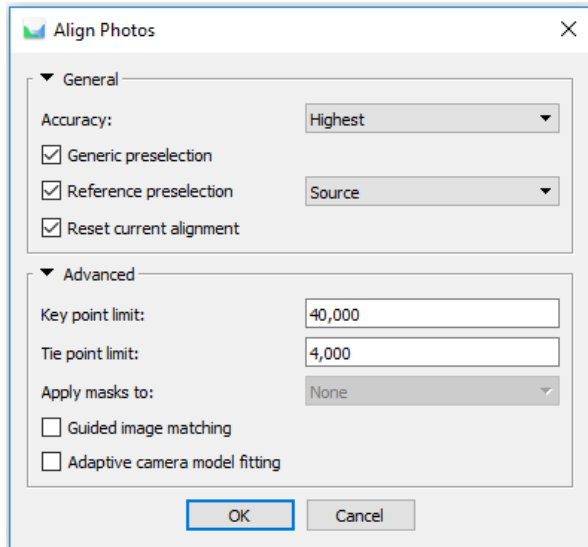
			14-07-20	20-07-20	16-07-20	20-07-20		
	GPU	CPU	Local PC	Metashape 16GB	Metashape 16GB	Metashape 32GB	Metashape 32GB	
OS			Windows	Windows	Linux	Windows	Linux	
Storage			Local disk	Storage X enhanced	Storage X enhanced	Storage X enhanced	Storage X enhanced	
GPU			1 x GeForce GTX 1080	1 x TESLA T4	1 x TESLA T4	1 x TESLA T4	1 x TESLA T4	
vCPU			Intel(R) Xeon(R) W-2123 CPU 3.60GHz	Cascade Lake 24C 4 vCPU 2.5GHz	Cascade Lake 24C 4 vCPU 2.5GHz	Cascade Lake 24C 8 vCPU 2.5GHz	Cascade Lake 24C 8 vCPU 2.5GHz	
RAM			16	16	16	32	32	
Match Photos	v		1m 27s	1m 30s	1m 23s	1m 27s	1m 25s	
Align Cameras		v	51s	1m 56s	1m 30s	1m 12s	56s	
Depth Maps	v		38m 31s	42m 5s	36m 9s	33m 41s	31m 41s	
Dense Cloud WITH "Point color calculation"		v	54m 58s	1h 55m	1h 35m	1h 1m	50m 58s	
DEM		v	2m 47s	5m 46s	3m 53s	3m 57s	2m 53s	
Orthomosaic NO "Refine seemlines"		v	4m 55s	9m 59s	7m 3s	5m 42s	5m 7s	
Price (\$/h)				\$2.936	\$2.972	\$3.726	\$4.497	
Total time (h)			1.72	2.94	2.42	1.78	1.55	
Total time (h,m)			1h 43m	2h 56m	2h 25m	1h 47m	1h 33m	
Total price				\$8.63	\$7.19	\$6.63	\$6.97	
			20-07-20	17-07-20	19-07-20	17-07-20	23-07-20	17-07-20
	GPU	CPU	Metashape 244GB	Metashape 244GB	Metashape 488GB	Metashape 488GB	Metashape 192GB	Metashape 192GB
OS			Windows	Linux	Windows	Linux	Windows	Linux
Storage			Storage X enhanced	Storage X enhanced	Storage X enhanced	Storage X enhanced	Storage X enhanced	Storage X enhanced
GPU			2 x TESLA M60	2 x TESLA M60	4 x TESLA M60	4 x TESLA M60	4 x TESLA T4	4 x TESLA T4
vCPU			Intel Xeon E5-2686 v4 32 vCPU 2.3GHz	Intel Xeon E5-2686 v4 32 vCPU 2.3GHz	Intel Xeon E5-2686 v4 64 vCPU 2.3GHz	Intel Xeon E5-2686 v4 64 vCPU 2.3GHz	Cascade Lake 24C 48 vCPU 2.5GHz	Cascade Lake 24C 48 vCPU 2.5GHz
RAM			244	244	488	488	192	192
Match Photos	v		1m 4s	1m 2s	55s	50s	35s	40s
Align Cameras		v	37s	26s	38s	25s	33s	19s
Depth Maps	v		24m 50s	24m 39s	19m 15s	13m 34s	11m 40s	8m 11s
Dense Cloud WITH "Point color calculation"		v	37m 20s	24m 10s	54m 9s	24m 59s	29m 25s	18m 13s
DEM		v	3m 51s	2m 14s	3m 53s	2m 10s	2m 49s	1m 51s
Orthomosaic NO "Refine seemlines"		v	5m 27s	4m 22s	7m 36s	4m 6s	4m 37s	3m 31s
Price (\$/h)			\$6.914	\$7.550	\$11.587	\$12.383	\$11.665	\$12.393
Total time (h)			1.22	0.95	1.44	0.77	0.83	0.55
Total time (h,m)			1h 13m	57m	1h 26m	46m	50m	33m
Total price			\$8.44	\$7.17	\$16.69	\$9.53	\$9.68	\$6.82

Aircraft aerial survey:

Camera – PhaseOne iXM-RS150F (70mm); Image size – 150 MP (14204 x 10652); File size (TIF) – 432 MB

Number of images - 100

Forward overlap - 60%; Side overlap – 40%; Flight altitude – 811 m; GSD – 4.25 cm; Area – 3.0 sq.km;



Align Photos

General

Accuracy: Highest

Generic preselection

Reference preselection: Source

Reset current alignment

Advanced

Key point limit: 40,000

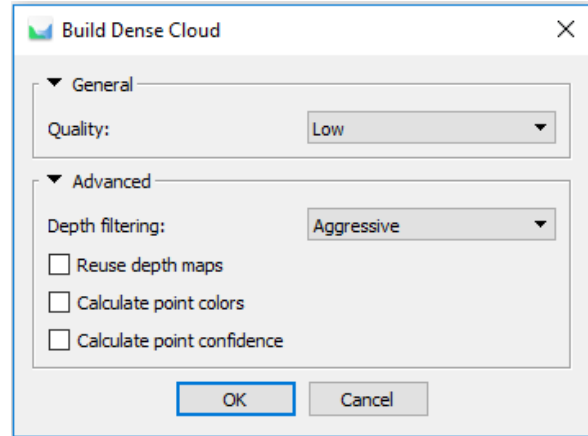
Tie point limit: 4,000

Apply masks to: None

Guided image matching

Adaptive camera model fitting

OK Cancel



Build Dense Cloud

General

Quality: Low

Advanced

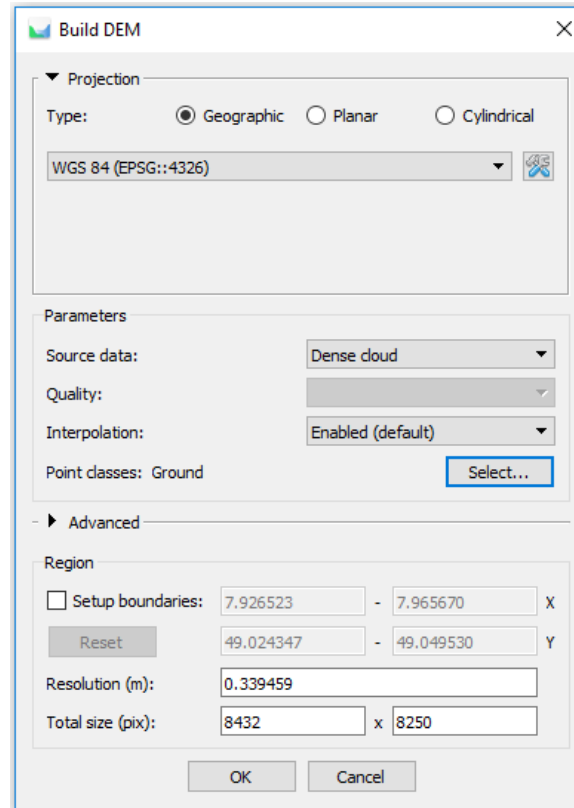
Depth filtering: Aggressive

Reuse depth maps

Calculate point colors

Calculate point confidence

OK Cancel



Build DEM

Projection

Type: Geographic Planar Cylindrical

WGS 84 (EPSG::4326)

Parameters

Source data: Dense cloud

Quality: [dropdown]

Interpolation: Enabled (default)

Point classes: Ground Select...

Advanced

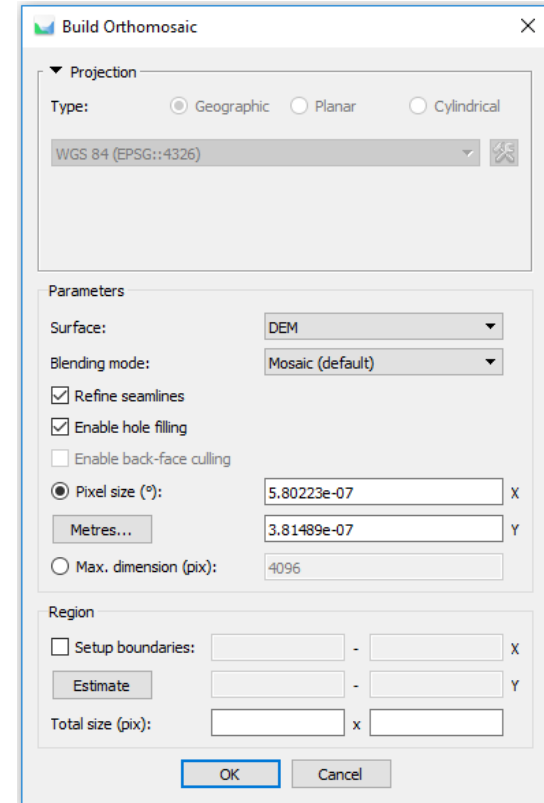
Region

Setup boundaries: 7.926523 - 7.965670 X
49.024347 - 49.049530 Y Reset

Resolution (m): 0.339459

Total size (pix): 8432 x 8250

OK Cancel



Build Orthomosaic

Projection

Type: Geographic Planar Cylindrical

WGS 84 (EPSG::4326)

Parameters

Surface: DEM

Blending mode: Mosaic (default)

Refine seamlines

Enable hole filling

Enable back-face culling

Pixel size (°): 5.80223e-07 X
Metres... 3.81489e-07 Y

Max. dimension (pix): 4096

Region

Setup boundaries: [] - [] X
[] - [] Y Estimate

Total size (pix): [] x []

OK Cancel

					14-07-20	15-07-20	16-07-20	15-07-20		
	GPU	CPU	Accuracy	GSD	Local PC	Metashape 16GB	Metashape 16GB	Metashape 32GB	Metashape 32GB	
OS					Win	Win	Linux	Win	Linux	
Storage					Local	Storage X enhanced	Storage X enhanced	Storage X enhanced	Storage X enhanced	
GPU					1 x GeForce GTX 1080	1 x TESLA T4	1 x TESLA T4	1 x TESLA T4	1 x TESLA T4	
vCPU					Intel(R) Xeon(R) W-2123 CPU 3.60GHz	Cascade Lake 24C 4 vCPU 2.5GHz	Cascade Lake 24C 4 vCPU 2.5GHz	Cascade Lake 24C 8 vCPU 2.5GHz	Cascade Lake 24C 8 vCPU 2.5GHz	
RAM					16	16	16	32	32	
Match Photos	v		Highest	4.25	17m 20s	14m 2s	8m 39s	11m 1s	7m 56s	
Align Cameras		v	Highest	4.25	44s	1m 30s	1m 9s	58s	40s	
Depth Maps	v		Low	34	11m 29s	18m 23s	13m 6s	14m 15s	11m 29s	
Dense Cloud NO "Point color calculation"		v	Low	34	7m 17s	15m 49s	13m 12s	8m 30s	6m 58s	
Classify ground points		v	15/0.25/100		2m 0s	2m 0s	2m 10s	2m 17s	1m 38s	
DEM		v	34cm	34	23s	42s	32s	31s	23s	
Orthomosaic WITH "Refine seemlines"		v	4.25cm	4.25	28m 9s	49m 28s	39m 52s	34m 41s	27m 28s	
Price (\$/h)						\$2.936	\$2.972	\$3.726	\$4.497	
Total time (h)					1.17	1.70	1.31	1.20	0.94	
Total time (h,m)					1h 10m	1h 42m	1h 19m	1h 12m	56m	
Total price						\$4.99	\$3.89	\$4.47	\$4.23	
					20-07-20	17-07-20	19-07-20	16-07-20	23-07-20	15-07-20
	GPU	CPU			Metashape 244GB	Metashape 244GB	Metashape 488GB	Metashape 488GB	Metashape 192GB	Metashape 192GB
OS					Win	Linux	Win	Linux	Win	Linux
Storage					Storage X enhanced	Storage X enhanced	Storage X enhanced	Storage X enhanced	Storage X enhanced	Storage X enhanced
GPU					2 x TESLA M60	2 x TESLA M60	4 x TESLA M60	4 x TESLA M60	4 x TESLA T4	4 x TESLA T4
vCPU					Intel Xeon E5-2686 v4 32 vCPU 2.3GHz	Intel Xeon E5-2686 v4 32 vCPU 2.3GHz	Intel Xeon E5-2686 v4 64 vCPU 2.3GHz	Intel Xeon E5-2686 v4 64 vCPU 2.3GHz	Cascade Lake 24C 48 vCPU 2.5GHz	Cascade Lake 24C 48 vCPU 2.5GHz
RAM					244	244	488	488	192	192
Match Photos	v		Highest	4.25	12m 16s	7m 39s	8m 51s	6m 24s	8m 4s	4m 49s
Align Cameras		v	Highest	4.25	37s	23s	39s	33s	27s	23s
Depth Maps	v		Low	34	16m 47s	12m 12s	17m 35s	10m 34s	11m 30s	8m 29s
Dense Cloud NO "Point color calculation"		v	Low	34	5m 2s	3m 2s	6m 51s	2m 55s	4m 6s	2m 11s
Classify ground points		v	15/0.25/100		2m 6s	1m 1s	2m 40s	1m 3s	1m 30s	1m 0s
DEM (ground points only)		v	34cm	34	32s	19s	30s	19s	24s	16s
Orthomosaic WITH "Refine seemlines"		v	4.25cm	4.25	32m 55s	21m 14s	40m 43s	20m 58s	27m 27s	17m 59s
Price (\$/h)					\$6.914	\$7.550	\$11.587	\$12.383	\$11.665	\$12.393
Total time (h)					1.17	0.76	1.30	0.71	0.89	0.59
Total time (h,m)					1h 10m	0h 46m	1h 18m	43m	53m	35m
Total price					\$8.09	\$5.74	\$15.06	\$8.79	\$10.38	\$7.31

					18-08-20	18-08-20	17-08-20	17-08-20	17-08-20	16-08-20
	GPU	CPU	Accuracy	GSD	Metashape 16GB	Metashape 16GB	Metashape 32GB	Metashape 32GB	Metashape 192GB	Metashape 192GB
OS					Win	Linux	Win	Linux	Win	Linux
Storage					Local D Project D	Local D Project D	Local D Project D	Local D Project D	Local D Project D	Local D Project D
GPU					1 x TESLA T4	1 x TESLA T4	1 x TESLA T4	1 x TESLA T4	4 x TESLA T4	4 x TESLA T4
vCPU					Cascade Lake 24C 4 vCPU 2.5GHz	Cascade Lake 24C 4 vCPU 2.5GHz	Cascade Lake 24C 8 vCPU 2.5GHz	Cascade Lake 24C 8 vCPU 2.5GHz	Cascade Lake 24C 48 vCPU 2.5GHz	Cascade Lake 24C 48 vCPU 2.5GHz
RAM					16	16	32	32	192	192
Match Photos	v		Highest	4.25	11m 13s	5m 55s	9m 13s	5m 17s	2m 22s	1m 24s
Align Cameras		v	Highest	4.25	1m 31s	1m 11s	1m 0s	44s	29s	15s
Depth Maps	v		Low	34	12m 24s	11m 4s	8m 13s	7m 30s	3m 23s	2m 15s
Dense Cloud NO "Point color calculation"		v	Low	34	16m 1s	13m 3s	8m 41s	6m 53s	4m 4s	2m 6s
Classify ground points		v	15/0.25/100		3m 4s	2m 9s	2m 0s	1m 28s	1m 16s	1m 0s
DEM		v	34cm	34	36s	31s	26s	23s	19s	15s
Orthomosaic WITH "Refine seamlines"		v	4.25cm	4.25	45m 26s	37m 35s	32m 0s	25m 45s	21m 47s	13m 19s
Price (\$/h)					\$2.936	\$2.972	\$3.726	\$4.497	\$11.665	\$12.393
Total time (h)					1.50	1.19	1.03	0.80	0.56	0.35
Total time (h,m)					1h 30m	1h 11m	1h 2m	48m	34m	21m
Total price					\$4.40	\$3.54	\$3.84	\$3.60	\$6.53	\$4.34

Aircraft aerial survey:

Camera – PhaseOne iXM-RS280F (90mm); Image size – 280 MP (20150 x 14118); File size (TIF) – 813 MB

Strips – 11; Number of images - 88

Forward overlap - 73%; Side overlap – 80%; Flight altitude – 1130 m; GSD – 4.6 cm; Area – 5.5 sq.km;

						19-09-20	19-09-20	09-09-20	09-09-20
	GPU	CPU	Processing Level	GSD (cm)	Local PC	Metashape 192GB	Metashape 192GB	Metashape 192GB	Metashape 192GB
OS					Win	WIN	WIN	Linux	Linux
Storage					Local	Storage X enhanced	Local drive D	Storage X enhanced	Local drive D
GPU					1 x GeForce GTX 1080	4 x TESLA T4	4 x TESLA T4	4 x TESLA T4	4 x TESLA T4
vCPU					Intel(R) Xeon(R) W-2123 CPU 3.60GHz	Cascade Lake 24C 48 vCPU 2.5GHz	Cascade Lake 24C 48 vCPU 2.5GHz	Cascade Lake 24C 48 vCPU 2.5GHz	Cascade Lake 24C 48 vCPU 2.5GHz
RAM					16	192	192	192	192
Match Photos	v		Highest	4.6	30m 45s	8m 18s	3m 27s	8m 57s	2m 24s
Align Cameras		v	Highest	4.6	31s	32s	27s	21s	16s
Depth Maps	v		Low	36.8	26m 15s	19m 47s	7m 11s	19m 34s	4m 45s
Dense Cloud NO "Point color calculation"		v	Low	36.8	11m 6s	5m 30s	5m 53s	3m 17s	3m 9s
Classify ground points		v	15/0.25/100	36.8	4m 0s	1m 30s	1m 45s	1m 12s	1m 15s
DEM (ground points only)		v	36.8	36.8	31s	34s	25s	21s	20s
Orthomosaic WITH "Refine seamlines"		v	4.6	4.6	1h 2m	45m 52s	38m 20s	31m 1s	23m 24s
Price (\$/h)						\$11.665	\$11.665	\$12.393	\$12.393
Total time (h)					2.25	1.37	0.96	1.08	0.59
Total time (h,m)					2h 15m	1h 22m	58m	1h 5m	35m
Total price						\$15.98	\$11.20	\$13.38	\$7.31

Aircraft aerial survey:

Camera – PhaseOne iXM-RS280F (90mm); Image size – 280 MP (20150 x 14118); File size (TIF) – 813 MB

Strips – 6; Number of images - 48

Forward overlap - 73%; Side overlap – 60%; Flight altitude – 1130 m; GSD – 4.6 cm; Area – 5.1 sq.km;

						19-09-20	19-09-20	09-09-20	09-09-20
	GPU	CPU	Processing Level	GSD (cm)	Local PC	Metashape 192GB	Metashape 192GB	Metashape 192GB	Metashape 192GB
OS					Win	WIN	WIN	Linux	Linux
Storage					Local	Storage X enhanced	Local drive D	Storage X enhanced	Local drive D
GPU					1 x GeForce GTX 1080	4 x TESLA T4	4 x TESLA T4	4 x TESLA T4	4 x TESLA T4
vCPU					Intel(R) Xeon(R) W-2123 CPU 3.60GHz	Cascade Lake 24C 48 vCPU 2.5GHz	Cascade Lake 24C 48 vCPU 2.5GHz	Cascade Lake 24C 48 vCPU 2.5GHz	Cascade Lake 24C 48 vCPU 2.5GHz
RAM					16	192	192	192	192
Match Photos	v		Highest	4.6	13m 54s	3m 34s	1m 38s	3m 54s	1m 12s
Align Cameras		v	Highest	4.6	19s	15s	16s	9s	8s
Depth Maps	v		Low	36.8	7m 27s	7m 2s	2m 25s	7m 6s	1m 31s
Dense Cloud NO "Point color calculation"		v	Low	36.8	4m 6s	3m 6s	3m 9s	1m 41s	1m 38s
Classify ground points		v	15/0.25/100	36.8	3m 30s	1m 47s	1m 31s	1m 23s	1m 9s
DEM (ground points only)		v	36.8	36.8	27s	29s	20s	17s	16s
Orthomosaic WITH "Refine seamlines"		v	4.6	4.6	40m 10s	32m 57s	29m 17s	23m 18s	19m 2s
Price (\$/h)						\$11.665	\$11.665	\$12.393	\$12.393
Total time (h)					1.16	0.84	0.64	0.63	0.42
Total time (h,m)					1h 10m	50m	38m	38m	25m
Total price						\$9.80	\$7.47	\$7.81	\$5.21