

Table of Contents

| | | |
|-----|--|----|
| 1. | Metashape 2.0.3: New instances with a lot of RAM for very large orthophoto projects. | 2 |
| 2. | Metashape 2.0.3: ELASTIC & FIXED STORAGE 100 drone 16MP (4864x3648) images for orthophoto and 3D modeling. | 4 |
| 3. | Metashape 2.0.1: ELASTIC vs FIXED vs EPHEMERAL STORAGE 1012 drone 20MP (5472x3648) images. | 6 |
| 4. | Metashape 2.0.1: ELASTIC vs FIXED STORAGE 100 drone 16MP (4864x3648) images for orthophoto and 3D modeling. | 7 |
| 5. | Metashape 2.0.1: 76,607 and 52,626 images of DJI Mavic 3 Enterprise 21MP for DSM/DTM and orthophoto. | 8 |
| 6. | Metashape 2.0.1: 1012 and 44 images of PhaseOne iXM-RS150F 150MP for DSM/DTM and orthophoto. | 9 |
| 7. | Metashape 2.0.1: 100 drone 16MP (4864x3648) images for orthophoto and 3D modeling. | 10 |
| 8. | Metashape 1.8.4: 589 drone 42MP (7952x5304) images for orthophoto and 3D modeling. | 13 |
| 9. | Metashape 1.8.4: 932 drone 12MP (4032x3024) images for orthophoto and 3D modeling. | 14 |
| 10. | Metashape 1.8.3: 37,344 of PhaseOne and Hasselblad 100MP images on different cluster configurations. | 15 |
| 11. | Metashape 1.8.3: 1,389 images of PhaseOne PAS280 280MP images with New NVIDIA GPU A10G computers. | 16 |
| 12. | Metashape 1.8.3: 100 drone 16MP (4864x3648) images for orthophoto and 3D modeling. | 17 |
| 13. | Metashape 1.7.5: 828 images of Phase One iXM-RS100F (40mm). | 20 |
| 14. | Metashape 1.7.5: 100 drone 16MP images with AMD RADEON V520 GPU and CPU@3.8GHz based (no GPU) computers. | 21 |
| 15. | Metashape 1.7.5: 15,130 images of UAV Batmap II + Sony a6000 24MP camera on a single and cluster configuration. | 22 |
| 16. | Metashape 1.7.3: 10,338 images of DJI M300rtk and ZenmuseP1 (35mm) on a single and cluster configuration. | 23 |
| 17. | Metashape 1.7.3: 1,000/3,450/4,500 of PhaseOne iXM-RS150F 150MP (RGB+NIR) on a single and cluster configuration. | 24 |
| 18. | Metashape 1.7.3: 100 drone 16MP (4864x3648) images with the new GPU instances AMD RADEON PRO V520. | 25 |
| 19. | Metashape 1.7.2: 1,023 images of PhaseOne iXM-RS150F 150MP RGB+NIR. | 26 |
| 20. | Metashape 1.7.1: 495 drone 16MP (4864x3648) images for corridor survey. | 27 |
| 16. | Metashape 1.6.5: Parallel processing of 10 blocks on the same Storage with 10 x Metashape 192GB computers. | 28 |
| 17. | Ephemeral disk D: for Metashape 16/32/64/128 and 192GB | 29 |
| 18. | Metashape script to stop computer in a Batch Process | 30 |

1. Metashape 2.0.3: New instances with a lot of **RAM** for very large orthophoto projects.

Metashape uses GPU for processes: Match photos, Depth Maps, Build Mesh and partially for Build Tiled.

Metashape uses only CPU for processes: Point cloud, DEM and Orthomosaic.

Point Cloud and Orthomosaic use a lot of RAM for large projects.

For these processing steps the following CPU based instances can be used: **Metashape 512/768/1024/1536GB**.

The following two examples present processing steps for GPU and CPU only based instances for 100 and 1012 drone images.

| | GPU | CPU | Metashape 192GB | Metashape 192GB | Metashape 488GB | Metashape 512GB | Metashape 768GB | Metashape 1024GB | Metashape 1538GB |
|---|-----|-----|---------------------------|---------------------------|---------------------------|---------------------------|---------------------------|---------------------------|---------------------------|
| OS | | | Linux | Linux | Linux | Linux | Linux | Linux | Linux |
| Storage | | | Elastic standard | Elastic standard | Elastic standard | Elastic standard | Elastic standard | Elastic standard | Elastic standard |
| GPU | | | 4 x T4 | 4 x A10G | 4 x M60 | No | No | No | No |
| Processor configuration | | | 24 CPU@2.50GHz 48 vCPU | 24 CPU@2.80GHz 48 vCPU | 32 CPU@2.30GHz 64 vCPU | 64 CPU@3.2GHz 128 vCPU | 86 CPU@3.2GHz 192 vCPU | 64 CPU@3.2GHz 128 vCPU | 86 CPU@3.2GHz 192 vCPU |
| RAM | | | 192 | 192 | 488 | 512 | 768 | 1,024 | 1,536 |
| Match Photos (High) | v | v | 29s | 21s | 39s | 1m 42s | 1m 51s | 1m 54s | 2m 1s |
| Align Cameras | | v | 12s | 11s | 16s | 14s | 22s | 13s | 29s |
| Depth Maps (High-High, Aggressive) | v | v | 2m 11s | 1m 35s | 3m 44s | 34m 19s | 26m 53s | 33m 59s | 26m 59s |
| Build Mesh (from Depth Maps, High/High) | v | v | 3m 52s | 3m 19s | 5m 38s | 5m 27s | 5m 38s | 5m 20s | 5m 40s |
| Build Tiled (from Mesh, High/High) | v | v | 8m 43s | 11m 25s | 9m 54s | 10m 21s | 10m 1s | 7m 43s | 9m 17s |
| Point cloud (from Depth Maps) | | v | 3m 59s | 3m 9s | 3m 44s | 2m 58s | 2m 56s | 2m 51s | 2m 53s |
| DEM (from Dense cloud) | | v | 30s | 25s | 33s | 25s | 26s | 26s | 25s |
| Orthomosaic (from DEM) | | v | 2m 20s | 1m 59s | 2m 56s | 1m 51s | 1m 54s | 1m 55s | 1m 51s |
| Total time (h,m) | | | 22m | 22m | 27m | 57m | 50m | 54m | 50m |



October 19, 2023

| | GPU | CPU | Metashape 192GB | Metashape 1024GB |
|---|-----|-----|---------------------------|---------------------------|
| OS | | | Linux | Linux |
| Storage | | | Elastic standard | Elastic standard |
| GPU | | | 4 x A10G | No |
| Processor configuration | | | 24 CPU@2.50GHz 48 vCPU | 64 CPU@3.2GHz 128 vCPU |
| Match Photos (High) | v | v | 4m 25s | N/A |
| Align Cameras | | v | 4m 17s | N/A |
| Depth Maps (High-High, Aggressive) | v | v | 16m 44s | N/A |
| Build Mesh (from Depth Maps, High/High) | v | v | 29m 51s | N/A |
| Build Tiled (from Mesh, High/High) | v | v | 1h 20m | 1h 4m |
| Point cloud (from Depth Maps) | | v | 59m 25s | 39m 11s |
| DEM (from Dense cloud) | | v | 1m 43s | 1m 39s |
| Orthomosaic (from DEM) | | v | 40m 27s | 38m 24s |

2. Metashape 2.0.3: ELASTIC & FIXED STORAGE **100** drone 16MP (4864x3648) images for orthophoto and 3D modeling.

| | GPU | CPU | Metashape 16GB | Metashape 16GB | Metashape 16GB | Metashape 192GB | Metashape 192GB | Metashape 192GB |
|---|-----|-----|------------------------------------|------------------------------------|------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|
| OS | | | Windows 2019 | Linux | Linux | Windows 2019 | Linux | Linux |
| Storage | | | Fixed standard | Fixed standard | Elastic standard | Fixed standard | Fixed standard | Elastic standard |
| GPU | | | 1 x A10G | 1 x A10G | 1 x A10G | 4 x A10G | 4 x A10G | 4 x A10G |
| Processor configuration | | | 1 socket 2 CPU 2.80GHz 4vCPU | 1 socket 2 CPU 2.80GHz 4vCPU | 1 socket 2 CPU 2.80GHz 4vCPU | 1 socket 24 CPU@2.50GHz 48 vCPU | 1 socket 24 CPU@2.50GHz 48 vCPU | 1 socket 24 CPU@2.50GHz 48 vCPU |
| RAM | | | 16 | 16 | 16 | 192 | 192 | 192 |
| Match Photos (High) | v | v | 47s | 36s | 37s | 29s | 19s | 21s |
| Align Cameras | | v | 53s | 48s | 48s | 13s | 11s | 11s |
| Depth Maps (High-High, Aggressive) | v | v | 10m 4s | 6m 23s | 6m 27s | 3m 15s | 1m 24s | 1m 35s |
| Build Mesh (from Depth Maps, High/High) | v | v | 10m 23s | 8m15s | 8m 32s | 4m 4s | 2m 48s | 3m 19s |
| Build Tiled (from Mesh, High/High) | v | v | 37m 5s | 28m 0s | 26m 49s | 18m 48s | 10m 36s | 11m 25s |
| Point cloud (from Depth Maps) | | v | 21m 28s | 16m 20s | 16m 27s | 6m 0s | 3m 5s | 3m 9s |
| DEM (from Dense cloud) | | v | 47s | 41s | 44s | 27s | 24s | 25s |
| Orthomosaic (from DEM) | | v | 4m 58s | 4m 13s | 4m 13s | 2m 15s | 2m 0s | 1m 59s |
| Price (\$/h) | | | \$3.818 | \$3.793 | \$3.793 | \$14.293 | \$13.979 | \$13.979 |
| Total time (h) | | | 1.44 | 1.09 | 1.09 | 0.59 | 0.35 | 0.37 |
| Total time (h,m) | | | 1h 26m | 1h 5m | 1h 5m | 36m | 21m | 22m |
| Total price | | | \$5.50 | \$4.13 | \$4.13 | \$8.43 | \$4.89 | \$5.17 |

| | GPU | CPU | Metashape 192GB | Metashape 192GB | Metashape 192GB | Metashape 256GB | Metashape 488GB | Metashape 488GB | Metashape 488GB |
|---|-----|-----|---------------------------------------|---------------------------------------|---------------------------------------|--------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|
| OS | | | Windows 2019 | Linux | Linux | Windows 2019 | Windows 2019 | Linux | Linux |
| Storage | | | Fixed standard | Fixed standard | Elastic standard | Fixed standard | Fixed standard | Fixed standard | Elastic standard |
| GPU | | | 4 x T4 | 4 x T4 | 4 x T4 | 4 x V520 | 4 x M60 | 4 x M60 | 4 x M60 |
| Processor configuration | | | 1 socket 24 CPU@2.50GHz 48 vCPU | 1 socket 24 CPU@2.50GHz 48 vCPU | 1 socket 24 CPU@2.50GHz 48 vCPU | 1 socket 32 CPU@2.80GHz 64vCPU | 2 socket 32 CPU@2.30GHz 64 vCPU | 2 socket 32 CPU@2.30GHz 64 vCPU | 2 socket 32 CPU@2.30GHz 64 vCPU |
| RAM | | | 192 | 192 | 192 | 256 | 488 | 488 | 488 |
| Match Photos (High) | v | v | 34s | 28s | 29s | 25s | 51s | 39s | 39s |
| Align Cameras | | v | 18s | 12s | 12s | 13s | 25s | 16s | 16s |
| Depth Maps (High-High, Aggressive) | v | v | 3m 33s | 1m 59s | 2m 11s | 3m 44s | 5m 29s | 3m 38s | 3m 44s |
| Build Mesh (from Depth Maps, High/High) | v | v | 5m 3s | 3m 20s | 3m 52s | 4m 4s | 6m 21s | 4m 23s | 5m 38s |
| Build Tiled (from Mesh, High/High) | v | v | 11m 52s | 7m 44s | 8m 43s | 13m 4s | 24m 27s | 9m 53s | 9m 54s |
| Point cloud (from Depth Maps) | | v | 6m 59s | 3m 54s | 3m 59s | 6m 12s | 10m 27s | 4m 16s | 3m 44s |
| DEM (from Dense cloud) | | v | 35s | 30s | 30s | 26s | 41s | 34s | 33s |
| Orthomosaic (from DEM) | | v | 2m 51s | 2m 22s | 2m 20s | 2m 13s | 3m 42s | 3m 3s | 2m 56s |
| Price (\$/h) | | | \$11.720 | \$11.410 | \$11.410 | \$11.788 | \$11.641 | \$11.531 | \$11.531 |
| Total time (h) | | | 0.53 | 0.34 | 0.37 | 0.51 | 0.87 | 0.45 | 0.46 |
| Total time (h,m) | | | 32m | 20m | 22m | 30m | 52m | 27m | 27m |
| Total price | | | \$6.21 | \$3.88 | \$4.22 | \$6.01 | \$10.13 | \$5.19 | \$5.30 |

3. Metashape 2.0.1: ELASTIC vs FIXED vs EPHEMERAL STORAGE 1012 drone 20MP (5472x3648) images.

| | | | 21/08/2023 | 21/08/2023 | 18/08/2023 | 18/08/2023 | 18/08/2023 |
|---|-----|-----|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|
| | GPU | CPU | Metashape 192GB | Metashape 192GB | Metashape 192GB | Metashape 192GB | Metashape 192GB |
| OS | | | Windows | Windows | Linux | Linux | Linux |
| Storage | | | Fixed | Ephemeral | Fixed | Elastic | Ephemeral |
| GPU | | | 4 x A10G | 4 x A10G | 4 x A10G | 4 x A10G | 4 x A10G |
| Processor type | | | Intel® Xeon® Cascade Lake 24C | Intel® Xeon® Cascade Lake 24C | Intel® Xeon® Cascade Lake 24C | Intel® Xeon® Cascade Lake 24C | Intel® Xeon® Cascade Lake 24C |
| Processor configuration | | | 1 socket 24 CPU@2.50GHz 48 vCPU | 1 socket 24 CPU@2.50GHz 48 vCPU | 1 socket 24 CPU@2.50GHz 48 vCPU | 1 socket 24 CPU@2.50GHz 48 vCPU | 1 socket 24 CPU@2.50GHz 48 vCPU |
| RAM | | | 192 | 192 | 192 | 192 | 192 |
| Images | | | 1012 | 1012 | 1012 | 1012 | 1012 |
| Match Photos (High) | v | v | 6m 34s | 6m 0s | 5m 12s | 4m 45s | 3m 58s |
| Align Cameras | | v | 5m 38s | 5m 38s | 4m 26s | 4m 22s | 4m 19s |
| Depth Maps (High-High, Aggressive) | v | v | 36m 17s | 35m 2s | 16m 1s | 17m 1s | 14m 19s |
| Build Mesh (from Depth Maps, High/High) | v | v | 41m 28s | 39m 33s | 30m 22s | 30m 23s | 23m 41s |
| Build Tiled (from Mesh, High/High) | v | v | 2h 38m | 2h 47m | 1h 44m | 1h 21m | 1h 19m |
| Point cloud (from Depth Maps) | | v | 1h 35m | 1h 33m | 59m 22 | 53m 10s | 54m 35s |
| DEM (from Dense cloud) | | v | 2m 3s | 1m 54s | 1m 46s | 1m 42s | 1m 34s |
| Orthomosaic (from DEM) | | v | 47m 25s | 43m 53s | 42m 31s | 41m 33s | 34m 59s |
| Price (\$/h) | | | \$13.979 | \$13.979 | \$13.979 | \$13.979 | \$13.979 |
| Total time (h) | | | 6.54 | 6.53 | 4.39 | 3.90 | 3.61 |
| Total time (h,m) | | | 6h 36m | 6h 32m | 4h 24m | 3h 54m | 3h 36m |
| Total price | | | \$91.42 | \$91.28 | \$61.37 | \$54.52 | \$50.46 |

4. Metashape 2.0.1: ELASTIC vs FIXED STORAGE 100 drone 16MP (4864x3648) images for orthophoto and 3D modeling.

| | | | 10/04/2023 | 06/06/2023 | 10/04/2023 | 06/06/2023 | 10/04/2023 | 31/05/2023 | 10/04/2023 | 31/05/2023 |
|---|-----|-----|------------------------------------|------------------------------------|------------------------------------|------------------------------------|--------------------------------------|--------------------------------------|---------------------------------------|---------------------------------------|
| | GPU | CPU | Metashape 16GB | Metashape 16GB | Metashape 16GB | Metashape 16GB | Metashape 256GB | Metashape 256GB | Metashape 192GB | Metashape 192GB |
| OS | | | Windows 2019 | Windows 2019 | Linux | Linux | Linux | Linux | Linux | Linux |
| Storage | | | Fixed | Elastic | Fixed | Elastic | Fixed | Elastic | Fixed | Elastic |
| GPU | | | 1 x A10G | 1 x A10G | 1 x A10G | 1 x A10G | 1 x A10G | 1 x A10G | 4 x A10G | 4 x A10G |
| Processor type | | | Intel® Xeon® Platinum 8259CL | Intel® Xeon® Platinum 8259CL | Intel® Xeon® Platinum 8259CL | Intel® Xeon® Platinum 8259CL | Intel® Xeon® Platinum 8259CL | Intel® Xeon® Platinum 8259CL | Intel® Xeon® Cascade Lake 24C | Intel® Xeon® Cascade Lake 24C |
| Processor configuration | | | 1 socket 2 CPU 2.80GHz 4vCPU | 1 socket 2 CPU 2.80GHz 4vCPU | 1 socket 2 CPU 2.80GHz 4vCPU | 1 socket 2 CPU 2.80GHz 4vCPU | 1 socket 32 CPU 2.80GHz 64vCPU | 1 socket 32 CPU 2.80GHz 64vCPU | 1 socket 24 CPU@2.50GHz 48 vCPU | 1 socket 24 CPU@2.50GHz 48 vCPU |
| RAM | | | 16 | 16 | 16 | 16 | 256 | 256 | 192 | 192 |
| Match Photos (High) | v | v | 47s | 57s | 38s | 39s | 36s | 37s | 21s | 22s |
| Align Cameras | | v | 54s | 54s | 50s | 49s | 11s | 11s | 11s | 11s |
| Depth Maps (High-High, Aggressive) | v | v | 10m 10s | 10m 31s | 6m 21s | 6m 27s | 3m 10s | 3m 18s | 1m 26s | 1m 32s |
| Build Mesh (from Depth Maps, High/High) | v | v | 10m 9s | 11m 41s | 8m 10s | 8m 39s | 3m 2s | 3m 27s | 2m 59s | 3m 21s |
| Build Tiled (from Mesh, High/High) | v | v | 36m 17s | 37m 50s | 27m 43s | 27m 21s | 10m 11s | 10m 23s | 11m 0s | 11m 39s |
| Point cloud (from Depth Maps) | | v | 20m 25s | 19m 55s | 16m 10s | 16m 11s | 2m 49s | 2m 48s | 3m 0s | 3m 4s |
| DEM (from Dense cloud) | | v | 49s | 1m 8s | 42s | 46s | 24s | 26s | 25s | 27s |
| Orthomosaic (from DEM) | | v | 5m 12s | 5m 36s | 4m 17s | 4m 14s | 1m 58s | 1m 55s | 2m 8s | 1m 56s |
| Price (\$/h) | | | \$3.818 | \$3.818 | \$3.793 | \$3.793 | \$12.043 | \$12.043 | \$13.979 | \$13.979 |
| Total time (h) | | | 1.41 | 1.48 | 1.08 | 1.09 | 0.37 | 0.38 | 0.36 | 0.38 |
| Total time (h,m) | | | 1h 25m | 1h 29m | 1h 5m | 1h 5m | 22m | 23m | 22m | 23m |
| Total price | | | \$5.38 | \$5.65 | \$4.10 | \$4.13 | \$4.46 | \$4.58 | \$5.03 | \$5.31 |

5. Metashape 2.0.1: **76,607** and **52,626** images of **DJI Mavic 3 Enterprise 21MP** for DSM/DTM and orthophoto.

1. Images – 76.607 / 52.626; Image size – 21MP (5280 x 3956); File size (Jpeg) – 12 MB;
2. Forward/Side overlap - 70%/70%; Flight altitude – 114 / 200 m; Image GSD – 3 / 5 cm; Ortho GSD – 5 cm; Area – 64 / 184 sq.km;
3. **Apps: For 76,607 images - Cluster of 5 Metashape 192GB 4xA10G Linux;**
4. **Apps: For 52,626 images – Metashape 192GB 4xA10G and Metashape 768 CPU@3.2GHz for orthophoto processing.**

| | GPU | CPU | Nodes working | Nodes max at the start | All computers processing time*** | | Processing time | | Time proportion |
|---------------------------------|-----|-----|---------------|------------------------|----------------------------------|-----------------|-----------------|-----------------|-----------------|
| | | | | | h/m/s | h1 | h/m/s | h2 | |
| Match Photos 24 cm (Lowest) | v | v | 5 | 95 | 5h 15m | 5.25 | 1h 8m 48s | 1.15 | 4.57 |
| Align Cameras | | v | 5 | 940 | 12h 23m | 12.38 | 3h 25m 5s | 3.42 | 3.62 |
| Depth Maps (Lowest, Aggressive) | v | v | 5 | 1493 | 63h | 63.00 | 13h 1m 20s | 13.02 | 4.84 |
| Point cloud (from Depth Maps) | | v | 5 | 100 | 3h 8m | 3.13 | 40m 27s | 0.67 | 4.67 |
| DEM 47 cm (from Dense cloud) | | v | 5 | 8 | 20m 4s | 0.33 | 8m 40s | 0.14 | 2.36 |
| Orthomosaic 5 cm (from DEM) | | v | 5 | 100 | 25h | 25.00 | 5h 13m 20s | 5.22 | 4.79 |
| Processing time (h) | | | | | 109h 5m | 109.09 | 23h 47m | 23.62 | 4.62 |
| Price (\$/h) | | | | | | \$13.978 | | \$13.978 | |
| Total price | | | | | | \$1,525 | | \$1,651 | |

All computers processing time*** Similar to processing a project on one computer

| 52,626 images | GPU | CPU | Processing time | |
|---------------------------------|-----|-----|-----------------|-----------------|
| | | | h/m/s | h2 |
| Match Photos 30 cm (Lowest) | v | v | 2h 39m | 2.65 |
| Align Cameras | | v | 2h 29m | 2.48 |
| Depth Maps (Lowest, Aggressive) | v | v | 24h 0m | 24.00 |
| Point cloud (from Depth Maps) | | v | 20h 16m | 20.27 |
| DEM 83 cm (from Dense cloud) | | v | 22m 0s | 0.37 |
| Orthomosaic 5 cm (from DEM) | | v | 17h 40m | 17.67 |
| Processing time (h) | | | 67h 26m | 67.44 |
| Price (\$/h) | | | | \$13.978 |
| Total price | | | | \$943 |

6. Metashape 2.0.1: **1012** and **44** images of PhaseOne iXM-RS150F 150MP for DSM/DTM and orthophoto.

- 5. Images – 44 and 1012; Image size – 150MP; File size (Jpeg) – 130 MB;
- 6. Forward/Side overlap - 70%/25%; Flight altitude – 1,100m; Image GSD – 4.6 cm; Ortho GSD – 4.6 cm; Area – 3.8 and 71.0 sq.km;

| | GPU | CPU | Metashape 192GB | Metashape 192GB | Metashape 192GB | Metashape 192GB | Metashape 192GB |
|-------------------------------|-----|-----|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------------|
| Version | | | 2.0.1 | 2.0.1 | 2.0.1 | 2.0.1 | 2.0.1 |
| OS | | | Linux | Linux | Linux | Linux | Linux |
| Storage | | | Ephemeral 3800GB | Storage Fixed Fast | Ephemeral 3800GB | Storage Fixed Fast | Storage Elastic (NEW) Standard |
| GPU | | | 4 x A10G | 4 x A10G | 4 x A10G | 4 x A10G | 4 x A10G |
| CPU | | | 24 CPU @ 2.80GHz 48 vCPU | 24 CPU @ 2.80GHz 48 vCPU | 24 CPU @ 2.80GHz 48 vCPU | 24 CPU @ 2.80GHz 48 vCPU | 24 CPU @ 2.80GHz 48 vCPU |
| RAM | | | 192 | 192 | 192 | 192 | 192 |
| Images | | | 44 | 44 | 1012 | 1012 | 1012 |
| Match Photos (High) | v | v | 36s | 36s | 10m 54s | 11m 27s | 11m 49s |
| Align Cameras (High) | v | v | 6s | 6s | 3m 35s | 3m 2s | 2m 56s |
| Depth Maps (High/Aggressive) | v | v | 2m 59s | 3m 10s | 1h 23m | 1h 29m | 1h 31m |
| Point Cloud (High/Aggressive) | | v | 22m 25s | 22m 59s | 10h 31m | 11h 14m | 10h 55m |
| DEM (from Dense Cloud) | | v | 3m 39s | 3m 59s | 1h 7m | 1h 22m | 1h 19m |
| Orthomosaic | | v | 8m 52s | 10m 44s | 2h 41m | 3h 24m | 3h 2m |
| Price (\$/h) | | | \$13.979 | \$13.979 | \$13.979 | \$13.979 | \$13.979 |
| Total time (h) | | | 0.63 | 0.69 | 15.94 | 17.72 | 17.03 |
| Total time (h,m) | | | 38m | 42m | 15h 56m | 17h 43m | 17h 2m |
| Total price | | | \$8.81 | \$9.65 | \$222.83 | \$247.71 | \$238.06 |
| Image proportion (1012/44) | | | | | 23.0 | 23.0 | |
| Time proportion | | | | | 25.3 | 25.7 | |

7. Metashape 2.0.1: **100** drone 16MP (4864x3648) images for orthophoto and 3D modeling.

| | GPU | CPU | Metashape 16GB | Metashape 16GB | Metashape 192GB | Metashape 192GB | Metashape 16GB | Metashape 128GB | Metashape 256GB |
|---|-----|-----|------------------------------------|------------------------------------|---------------------------------------|---------------------------------------|------------------------------------|--------------------------------------|--------------------------------------|
| OS | | | Windows 2019 | Linux | Windows 2019 | Linux | Windows 2019 | Windows 2019 | Windows 2019 |
| Storage | | | Storage X standard | Storage X standard | Storage X standard | Storage X standard | Storage X standard | Storage X standard | Storage X standard |
| GPU | | | 1 x TESLA T4 | 1 x TESLA T4 | 4 x TESLA T4 | 4 x TESLA T4 | 1 x RADEON V520 | 2 x RADEON V520 | 4 x RADEON V520 |
| Processor type | | | Intel® Xeon® Platinum 8259CL | Intel® Xeon® Platinum 8259CL | Intel® Xeon® Cascade Lake 24C | Intel® Xeon® Cascade Lake 24C | AMD EPYC 7R32 | AMD EPYC 7R32 | AMD EPYC 7R32 |
| Processor configuration | | | 1 socket 2 CPU 2.50GHz 4vCPU | 1 socket 2 CPU 2.50GHz 4vCPU | 1 socket 24 CPU@2.50GHz 48 vCPU | 1 socket 24 CPU@2.50GHz 48 vCPU | 1 socket 2 CPU@2.80GHz 4vCPU | 1 socket 16 CPU@2.80GHz 32vCPU | 1 socket 32 CPU@2.80GHz 64vCPU |
| RAM | | | 16 | 16 | 192 | 192 | 16 | 128 | 256 |
| Match Photos (High) | v | v | 1m 25s | 1m 10s | 30s | 29s | 1m 7s | 39s | 29s |
| Align Cameras | | v | 1m 14s | 1m 9s | 17s | 12s | 53s | 15s | 13s |
| Depth Maps (High-High, Aggressive) | v | v | 12m 45s | 9m 23s | 3m 30s | 2m 3s | 12m 16s | 5m 2s | 3m 32s |
| Build Mesh (from Depth Maps, High/High) | v | v | 13m 3s | 10m 30s | 5m 6s | 3m 24s | 10m 33s | 4m 26s | 4m 3s |
| Build Tiled (from Mesh, High/High) | v | v | 34m 19s | 28m 45s | 11m 24s | 6m 38s | 28m 32s | 10m 41s | 13m 53s |
| Point cloud (from Depth Maps) | | v | 24m 0s | 20m 17s | 6m 52s | 3m 32s | 19m 30s | 5m 57s | 6m 13s |
| DEM (from Dense cloud) | | v | 1m 2s | 55s | 35s | 30s | 48s | 28s | 27s |
| Orthomosaic (from DEM) | | v | 6m 38s | 6m 7s | 2m 54s | 2m 30s | 5m 11s | 2m 29s | 2m 16s |
| Price (\$/h) | | | \$2.860 | \$2.811 | \$11.720 | \$11.410 | \$2.845 | \$7.136 | \$11.788 |
| Total time (h) | | | 1.57 | 1.30 | 0.52 | 0.32 | 1.31 | 0.50 | 0.52 |
| Total time (h,m) | | | 1h 34m | 1h 18m | 31m | 19m | 1h 19m | 30m | 31m |
| Total price | | | \$4.49 | \$3.65 | \$6.09 | \$3.65 | \$3.73 | \$3.57 | \$6.13 |

| | GPU | CPU | Metashape 122GB | Metashape 244GB | Metashape 244GB | Metashape 488GB | Metashape 488GB |
|---|-----|-----|-------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|
| OS | | | Linux | Windows 2019 | Linux | Windows 2019 | Linux |
| Storage | | | Storage X standard | Storage X standard | Storage X standard | Storage X standard | Storage X standard |
| GPU | | | 1 x TESLA M60 | 2 x TESLA M60 | 2 x TESLA M60 | 4 x TESLA M60 | 4 x TESLA M60 |
| Processor type | | | Intel® Xeon® E5-2686 v4 | Intel® Xeon® E5-2686 v4 | Intel® Xeon® E5-2686 v4 | Intel® Xeon® E5-2686 v4 | Intel® Xeon® E5-2686 v4 |
| vCPU | | | 1 socket 8 CPU 2.30GHz 16vCPU | 1 socket 16 CPU@2.30GHz 32 vCPU | 1 socket 16 CPU@2.30GHz 32 vCPU | 2 socket 32 CPU@2.30GHz 64 vCPU | 2 socket 32 CPU@2.30GHz 64 vCPU |
| RAM | | | 122 | 244 | 244 | 488 | 488 |
| Match Photos (High) | v | v | 1m 28s | 1m 6s | 53s | 56s | 40s |
| Align Cameras | | v | 31s | 25s | 16s | 25s | 16s |
| Depth Maps (High-High, Aggressive) | v | v | 10m 52s | 7m 49s | 5m 55s | 5m 35s | 3m 48s |
| Build Mesh (from Depth Maps, High/High) | v | v | 6m 3s | 6m 5s | 4m 42s | 6m 18s | 4m 28s |
| Build Tiled (from Mesh, High/High) | v | v | 12m 57s | 15m 49s | 10m 58s | 23m 21s | 10m 11s |
| Point cloud (from Depth Maps) | | v | 7m 12s | 8m 37s | 4m 54s | 10m 7s | 4m 34s |
| DEM (from Dense cloud) | | v | 37s | 43s | 34s | 42s | 33s |
| Orthomosaic (from DEM) | | v | 3m 21s | 3m 43s | 3m 3s | 3m 41s | 3m 3s |
| Price (\$/h) | | | \$4.702 | \$7.038 | \$6.827 | \$11.641 | \$11.531 |
| Total time (h) | | | 0.72 | 0.74 | 0.52 | 0.85 | 0.46 |
| Total time (h,m) | | | 43m | 44m | 31m | 51m | 28m |
| Total price | | | \$3.39 | \$5.21 | \$3.55 | \$9.89 | \$5.30 |

| | GPU | CPU | Metashape 16GB | Metashape 16GB | Metashape 256GB | Metashape 192GB | Metashape 192GB |
|---|-----|-----|------------------------------------|------------------------------------|--------------------------------------|---------------------------------------|---------------------------------------|
| OS | | | Windows 2019 | Linux | Linux | Windows 2019 | Linux |
| Storage | | | Storage X standard | Storage X standard | Storage X standard | Storage X standard | Storage X standard |
| GPU | | | 1 x A10G | 1 x A10G | 1 x A10G | 4 x A10G | 4 x A10G |
| Processor type | | | Intel® Xeon® Platinum 8259CL | Intel® Xeon® Platinum 8259CL | Intel® Xeon® Platinum 8259CL | Intel® Xeon® Cascade Lake 24C | Intel® Xeon® Cascade Lake 24C |
| Processor configuration | | | 1 socket 2 CPU 2.80GHz 4vCPU | 1 socket 2 CPU 2.80GHz 4vCPU | 1 socket 32 CPU 2.80GHz 64vCPU | 1 socket 24 CPU@2.50GHz 48 vCPU | 1 socket 24 CPU@2.50GHz 48 vCPU |
| RAM | | | 16 | 16 | 256 | 192 | 192 |
| Match Photos (High) | v | v | 47s | 38s | 36s | 34s | 21s |
| Align Cameras | | v | 54s | 50s | 11s | 13s | 11s |
| Depth Maps (High-High, Aggressive) | v | v | 10m 10s | 6m 21s | 3m 10s | 3m 23s | 1m 26s |
| Build Mesh (from Depth Maps, High/High) | v | v | 10m 9s | 8m 10s | 3m 2s | 4m 24s | 2m 59s |
| Build Tiled (from Mesh, High/High) | v | v | 36m 17s | 27m 43s | 10m 11s | 21m 13s | 11m 0s |
| Point cloud (from Depth Maps) | | v | 20m 25s | 16m 10s | 2m 49s | 6m 1s | 3m 0s |
| DEM (from Dense cloud) | | v | 49s | 42s | 24s | 28s | 25s |
| Orthomosaic (from DEM) | | v | 5m 12s | 4m 17s | 1m 58s | 2m 26s | 2m 8s |
| Price (\$/h) | | | \$3.818 | \$3.793 | \$12.043 | \$14.293 | \$13.979 |
| Total time (h) | | | 1.41 | 1.08 | 0.37 | 0.65 | 0.36 |
| Total time (h,m) | | | 1h 25m | 1h 5m | 22m | 39m | 22m |
| Total price | | | \$5.38 | \$4.10 | \$4.46 | \$9.29 | \$5.03 |

8. Metashape 1.8.4: **589** drone 42MP (7952x5304) images for orthophoto and 3D modeling.

| | GPU | CPU | Metashape 192GB | Metashape 192GB | Metashape 192GB | Metashape 192GB |
|--|-----|-----|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|
| OS | | | Linux | Linux | Linux | Linux |
| Storage | | | Storage X enhanced another segment | Local disk D: | Storage X enhanced same segment | Local disk D: |
| Volume (GB) | | | 250 | 900 | 250 | 3700 |
| GPU | | | 4 x TESLA T4 | 4 x TESLA T4 | 4 x A10G | 4 x A10G |
| Processor configuration | | | 1 socket 24 CPU@2.50GHz 48 vCPU | 1 socket 24 CPU@2.50GHz 48 vCPU | 1 socket 24 CPU@2.80GHz 48 vCPU | 1 socket 24 CPU@2.80GHz 48 vCPU |
| RAM | | | 192 | 192 | 192 | 192 |
| Match Photos (High) | v | v | 7m 28s | 6m 2s | 4m 41s | 4m 29s |
| Align Cameras | | v | 2m 0s | 2m 0s | 1m 44s | 2m 8s |
| Depth Maps (High, Moderate) | v | v | 32m 30s | 29m 29s | 19m 43s | 17m 51s |
| Dense Cloud | | v | 1h 24m | 1h 18m | 1h 3m | 57m 22s |
| DEM (from Dense cloud) | | v | 3m 50s | 2m 53s | 2m 46s | 2m 20s |
| Orthomosaic (from DEM) | | v | 33m 32s | 20m 47s | 21m 22s | 17m 42s |
| Price (\$/h) | | | \$11.356 | \$11.356 | \$13.913 | \$13.913 |
| Total time (h) | | | 2.72 | 2.32 | 1.89 | 1.70 |
| Total time (h,m) | | | 2h 43m | 2h 19m | 1h 53m | 1h 42m |
| Total price | | | \$30.89 | \$26.35 | \$26.30 | \$23.65 |
| Build Tiled (from Depth Maps, High/High) | v | v | | 1h 50m | 1h 45m | 2h 6m |

9. Metashape 1.8.4: **932** drone 12MP (4032x3024) images for orthophoto and 3D modeling.

| | GPU | CPU | Points/Resolution | Metashape 192GB |
|--|-----|-----|-------------------|---------------------------|
| Version | | | | 1.8.4 |
| OS | | | | Linux |
| Storage | | | | Storage X standard |
| GPU | | | | 4 x TESLA T4 |
| Processor configuration | | | | 24 CPU@2.50GHz 48 vCPU |
| RAM | | | | 192 |
| Match Photos (High) | v | v | 1,091,304 | 9m 40s |
| Align Cameras | | v | | 6m 19s |
| Depth Maps (Medium, Moderate) | v | v | | 6m 8s |
| Dense Cloud | | v | 90,728,857 | 18m 17s |
| Build Tiled (from Depth Maps, Medium/High) | v | v | | 56m 31s |
| DEM (from Dense cloud) | | v | 3.47 mm/pix | 2m 29s |
| Orthomosaic (from DEM) | | v | 1.73 mm/pix | 4m 8s |
| Price (\$/h) | | | | \$11.36 |
| Total time (h) | | | | 1.73 |
| Total time (h,m) | | | | 1h 44m |
| Total price | | | | \$19.60 |
| Depth Maps (Low, Moderate) | v | v | | 4m 36s |
| Dense Cloud | | v | 21,101,114 | 4m 57s |
| Depth Maps (Medium, Moderate) | v | v | | 6m 8s |
| Dense Cloud | | v | 90,728,857 | 18m 17s |
| Build Mesh (from Depth Maps, Medium/High) | v | v | | 8m 3s |
| Build Tiled (from Depth Maps, Medium/High) | v | v | | 56m 31s |
| Depth Maps (High, Moderate) | v | v | | 12m 51s |
| Dense Cloud | | v | 386,166,196 | 47m 47s |
| Build Mesh (from Depth Maps, High/High) | v | v | | 34m 56s |
| Build Tiled (from Depth Maps, High/High) | v | v | | 1h 48m |

10. Metashape 1.8.3: **37,344** of **PhaseOne** and **Hasselblad** 100MP images on different cluster configurations.

Storage of 45TB was used for processing of all three blocks simultaneously.

| Block | 1 | 2 | 3 | Total |
|--|---------------|--------------|---------------|---------------|
| Images | 15,550 | 9,510 | 12,284 | 37,344 |
| GSD (cm) | 6 | 8 | 6 | |
| Match Photos (Highest, h) | 38 | 14 | 34 | |
| Align Cameras (h) | 6 | 3 | 2 | |
| Depth Maps (Low, Aggressive, h) | 62 | 20 | 38 | |
| Dense Cloud (h) | 2 | 2 | 4 | |
| Ground classification (h) | 1 | 1 | 3 | |
| Orthomosaic (h) | 165 | 50 | 117 | |
| Total computer time (h) | 273 | 91 | 197 | |
| Computers in a cluster | 5 | 5 | 5 | |
| Total working time (h) | 55 | 18 | 39 | 112 |

11. Metashape 1.8.3: 1,389 images of PhaseOne PAS280 280MP images with New NVIDIA GPU A10G computers.

1. Images – 1,389; Image size – 280MP; File size (Tiff) – 880 MB;
2. Side/Forward overlap - 70%; Flight altitude – 1140m; GSD – 4.7 cm; Area - 189 sq.km;

| | | | Metashape 192GB 4xA10G Ephemeral disk D - 3.9 TB | | | | Metashape 256GB 1xA10G Ephemeral disk D - 1.9 TB | | | |
|--|-----|-----|---|-----------------------|------------------------|---------------------------------|---|-----------------------|------------------------|---------------------------------|
| | GPU | CPU | App used | Unit Price \$/hour | Processing Time (h) | Total price App+Storage (\$) | App used | Unit Price \$/hour | Processing Time (h) | Total price App+Storage (\$) |
| Upload (IIQ, Left & Right images) | | v | Storage X: 3TB Fast | \$4.47 | 4.28 | \$19.15 | Storage X: 3TB Fast | \$4.47 | 4.28 | \$19.15 |
| Transform IIQ to TIFF Combined | v | v | PhaseOne iX Capture 2*Radeon V520 | \$5.49 | 4.05 | \$40.35 | PhaseOne iX Capture 2*Radeon V520 | \$5.49 | 4.05 | \$40.35 |
| Copy TIFF images of 1.2 TB from Storage X to local disk D | | v | Metashape 192GB 4*A10G Linux | \$13.91 | 1.00 | \$18.39 | Metashape 256GB 1*A10G Linux | \$11.99 | 1.00 | \$16.46 |
| Match Photos (5cm, High) | v | v | Metashape 192GB 4*A10G Linux | \$13.91 | 0.31 | \$5.70 | Metashape 256GB 1*A10G Linux | \$11.99 | 0.62 | \$10.21 |
| Align Cameras (5cm, High) | | v | Metashape 192GB 4*A10G Linux | \$13.91 | 0.06 | \$1.10 | Metashape 256GB 1*A10G Linux | \$11.99 | 0.05 | \$0.82 |
| Depth Maps (37cm, Low/Agressive) | v | v | Metashape 192GB 4*A10G Linux | \$13.91 | 0.62 | \$11.40 | Metashape 256GB 1*A10G Linux | \$11.99 | 1.18 | \$19.42 |
| Dense Cloud (37cm,Low/Agressive) with "Point color calculation" | | v | Metashape 192GB 4*A10G Linux | \$13.91 | 1.33 | \$24.45 | Metashape 256GB 1*A10G Linux | \$11.99 | 1.32 | \$21.73 |
| Classify ground points (Total points - 1,446,807,306) | | v | Metashape 192GB 4*A10G Linux | \$13.91 | 0.89 | \$16.36 | Metashape 256GB 1*A10G Linux | \$11.99 | 0.88 | \$14.48 |
| DEM (from Dense Cloud, 37 cm) | | v | Metashape 192GB 4*A10G Linux | \$13.91 | 0.24 | \$4.41 | Metashape 256GB 1*A10G Linux | \$11.99 | 0.23 | \$3.79 |
| Color adjustment | | v | Metashape 192GB 4*A10G Linux | \$13.91 | 0.42 | \$7.72 | Metashape 256GB 1*A10G Linux | \$11.99 | 0.48 | \$7.90 |
| Orthomosaic (DEM) with "Refine seamlines" | | v | Metashape 192GB 4*A10G Linux | \$13.91 | 5.87 | \$107.93 | Metashape 256GB 1*A10G Linux | \$11.99 | 5.70 | \$93.82 |
| Export orthophoto tiles | | v | Metashape 192GB 4*A10G Linux (to D:) | \$13.91 | 0.84 | \$15.45 | Metashape 256GB 1*A10G Linux (to X:) | \$11.99 | 0.84 | \$13.83 |
| Total | | | | | 19.91 | \$272.42 | | | 20.63 | \$261.96 |

12. Metashape 1.8.3: **100** drone 16MP (4864x3648) images for orthophoto and 3D modeling.

1. File size (JPG) – 7.5 MB;
2. Side/Forward overlap - 70%; Flight altitude – 320m; GSD – 8 cm; Area - 1.35 sq.km;

| | | | 18-05-22 | 22-05-22 | 18-05-22 | 21-05-22 |
|--|-----|-----|------------------------------------|------------------------------------|---------------------------------------|---------------------------------------|
| | GPU | CPU | Metashape 16GB | Metashape 16GB | Metashape 192GB | Metashape 192GB |
| OS | | | Windows 2019 | Linux | Windows 2019 | Linux |
| Storage | | | Storage X standard | Storage X standard | Storage X standard | Storage X standard |
| GPU | | | 1 x TESLA T4 | 1 x TESLA T4 | 4 x TESLA T4 | 4 x TESLA T4 |
| Processor type | | | Intel® Xeon® Platinum 8259CL | Intel® Xeon® Platinum 8259CL | Intel® Xeon® Cascade Lake 24C | Intel® Xeon® Cascade Lake 24C |
| Processor configuration | | | 1 socket 2 CPU 2.50GHz 4vCPU | 1 socket 2 CPU 2.50GHz 4vCPU | 1 socket 24 CPU@2.50GHz 48 vCPU | 1 socket 24 CPU@2.50GHz 48 vCPU |
| RAM | | | 16 | 16 | 192 | 192 |
| Match Photos (High) | v | v | 1m 49s | 1m 27s | 43s | 35s |
| Align Cameras | | v | 1m 11s | 1m 12s | 18s | 12s |
| Depth Maps (High, Aggressive) | v | v | 12m 5s | 9m 11s | 3m 9s | 2m 7s |
| Dense Cloud | | v | 24m 52s | 20m 4s | 6m 18s | 3m 38s |
| DEM (from Dense cloud) | | v | 1m 20s | 1m 10s | 45s | 36s |
| Orthomosaic (from DEM) | | v | 6m 27s | 5m 17s | 2m 51s | 2m 8s |
| Price (\$/h) | | | \$2.829 | \$2.798 | \$11.648 | \$11.356 |
| Total time (h) | | | 0.80 | 0.64 | 0.23 | 0.15 |
| Total time (h,m) | | | 48m | 38m | 14m | 9m |
| Total price | | | \$2.26 | \$1.79 | \$2.68 | \$1.70 |
| Build Tiled (from Depth Maps, High/High) | v | v | 51m 35s | 51m 7s | 19m 19s | 15m 38s |
| Build Mesh (from Depth Maps, High/High) | v | v | 18m 22s | 14m 34s | 7m 14s | 4m 41s |

| | | | 20-05-22 | 20-05-22 | 22-05-22 | 19-05-22 | 22-05-22 |
|--|-----|-----|-------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|
| | GPU | CPU | Metashape 122GB | Metashape 244GB | Metashape 244GB | Metashape 488GB | Metashape 488GB |
| OS | | | Windows 2019 | Windows 2019 | Linux | Windows 2019 | Linux |
| Storage | | | Storage X standard | Storage X standard | Storage X standard | Storage X standard | Storage X standard |
| GPU | | | 1 x TESLA M60 | 2 x TESLA M60 | 2 x TESLA M60 | 4 x TESLA M60 | 4 x TESLA M60 |
| Processor type | | | Intel® Xeon® E5-2686 v4 | Intel® Xeon® E5-2686 v4 | Intel® Xeon® E5-2686 v4 | Intel® Xeon® E5-2686 v4 | Intel® Xeon® E5-2686 v4 |
| vCPU | | | 1 socket 8 CPU 2.30GHz 16vCPU | 1 socket 16 CPU@2.30GHz 32 vCPU | 1 socket 16 CPU@2.30GHz 32 vCPU | 2 socket 32 CPU@2.30GHz 64 vCPU | 2 socket 32 CPU@2.30GHz 64 vCPU |
| RAM | | | 122 | 244 | 244 | 488 | 488 |
| Match Photos (High) | v | v | 1m 48s | 1m 12s | 55s | 57s | 1m 21s |
| Align Cameras | | v | 30s | 24s | 16s | 23s | 16s |
| Depth Maps (High, Aggressive) | v | v | 11m 58s | 6m 31s | 5m 49s | 4m 28s | 3m 30s |
| Dense Cloud | | v | 10m 5s | 7m 58s | 4m 56s | 9m 9s | 4m 44s |
| DEM (from Dense cloud) | | v | 57s | 53s | 43s | 53s | 42s |
| Orthomosaic (from DEM) | | v | 4m 1s | 3m 40s | 2m 39s | 3m 35s | 2m 38s |
| Price (\$/h) | | | \$4.697 | \$6.988 | \$6.794 | \$11.569 | \$11.478 |
| Total time (h) | | | 0.49 | 0.34 | 0.26 | 0.32 | 0.22 |
| Total time (h,m) | | | 29m | 20m | 16m | 19m | 13m |
| Total price | | | \$2.30 | \$2.38 | \$1.77 | \$3.70 | \$2.53 |
| Build Tiled (from Depth Maps, High/High) | v | v | 32m 31s | 27m 37s | 19m 40s | 33m 44s | 19m 52s |
| Build Mesh (from Depth Maps, High/High) | v | v | 10m 37s | 8m 25s | 5m 49s | 8m 11s | 6m 14s |

| | | | 21-05-22 | 20-05-22 | 21-05-22 |
|--|-----|-----|-------------------------------------|--------------------------------------|--------------------------------------|
| | GPU | CPU | Metashape 64GB | Metashape 128GB | Metashape 256GB |
| OS | | | Windows 2019 | Windows 2019 | Windows 2019 |
| Storage | | | Storage X STANDARD | Storage X STANDARD | Storage X STANDARD |
| GPU | | | 1 x RADEON V520 | 2 x RADEON V520 | 4 x RADEON V520 |
| Processor type | | | AMD EPYC 7R32 | AMD EPYC 7R32 | AMD EPYC 7R32 |
| Processor configuration | | | 1 socket 8 CPU@2.80GHz 16vCPU | 1 socket 16 CPU@2.80GHz 32vCPU | 1 socket 32 CPU@2.80GHz 64vCPU |
| RAM | | | 64 | 128 | 256 |
| Match Photos (High) | v | v | 1m 20s | 1m 7s | 41s |
| Align Cameras | | v | 20s | 15s | 13s |
| Depth Maps (High, Aggressive) | v | v | 8m 17s | 5m 7s | 3m 15s |
| Dense Cloud | | v | 7m 14s | 5m 26s | 5m 27s |
| DEM (from Dense cloud) | | v | 43s | 39s | 36s |
| Orthomosaic (from DEM) | | v | 2m 55s | 2m 34s | 2m 28s |
| Price (\$/h) | | | \$4.384 | \$6.892 | \$11.908 |
| Total time (h) | | | 0.35 | 0.25 | 0.21 |
| Total time (h,m) | | | 21m | 15m | 13m |
| Total price | | | \$1.53 | \$1.72 | \$2.50 |
| Build Tiled (from Depth Maps, High/High) | v | v | 20m 29s | 17m 16s | 18m 32s |
| Build Mesh (from Depth Maps, High/High) | v | v | 7m 18s | 6m 6s | 5m 58s |

13. Metashape 1.7.5: **828** images of **Phase One iXM-RS100F** (40mm).

1. Image size – 100 MP (11608 x 8708); File size (Jpeg) – 90 MB
2. Images – 828; Side/Forward overlap - 70%; Flight altitude – 433m; GSD – 4.4 cm; Area - 23.4 sq. km

| | | | | 30-12-21 | 30-12-21 | 30-12-21 | 30-12-21 |
|--|-----|-----|---------|--|---|--|--|
| | GPU | CPU | Config | Metashape 192GB | Metashape 192GB | Metashape 192GB | Metashape 192GB |
| OS | | | | Linux | Linux | Linux | Linux |
| Storage | | | | Storage X 1000 GB Enhanced | Storage D-D Ephemeral 900 GB Enhanced | Storage X 1000 GB Enhanced | Storage X 1000 GB Enhanced |
| GPU | | | | 4 x TESLA T4 | 4 x TESLA T4 | 4 x TESLA T4 | 4 x TESLA T4 |
| Processor type | | | | Intel® Xeon® Cascade Lake 24C | Intel® Xeon® Cascade Lake 24C | Intel® Xeon® Cascade Lake 24C | Intel® Xeon® Cascade Lake 24C |
| vCPU | | | | 1 socket 24 CPU @ 2.5GHz 48 vCPU | 1 socket 24 CPU @ 2.5GHz 48 vCPU | 1 socket 24 CPU @ 2.5GHz 48 vCPU | 1 socket 24 CPU @ 2.5GHz 48 vCPU |
| RAM | | | | 192 | 192 | 192 | 192 |
| Computers | | | | 1 | 1 | 3 | 5 |
| Images | | | | 828 | 828 | 828 | 828 |
| Match Photos (High) | v | v | Cluster | 9m 22s | 13m 53s | 10m 33s | 8m 44s |
| Align Cameras (High) | | v | Cluster | 2m 51s | 2m 54s | 1m 44s | 1m 25s |
| Depth Maps (Medium/Agressive) | v | v | Cluster | 37m 44s | 37m 3s | 17m 19s | 15m 1s |
| Dense Cloud (Medium/Agressive) without "Point color calculation" | | v | Cluster | 45m 13s | 42m 1s | 18m 2s | 11m 34s |
| DEM (from Dense Cloud) | | v | Cluster | 11m 18s | 6m 15s | 4m 21s | 2m 42s |
| Orthomosaic (DEM) NO "Refine seamlines" | | v | Cluster | 1h 20m | 1h 27m | 40m 43s | 24m 14s |
| Time (h) | | | | 3.11 | 3.15 | 1.55 | 1.06 |
| Price (\$/h/computer) | | | | \$11.356 | \$11.356 | \$11.356 | \$11.356 |
| Total price | | | | \$35.32 | \$35.77 | \$52.81 | \$60.19 |
| Optimizaiton parametrs | | v | Single | 4s | 4s | 4s | 4s |
| Ground classification | | v | Single | 25m | 25m | 25m | 25m |
| Export orthophoto tiles | | v | Single | 35m | 35m | 35m | 35m |

14. Metashape 1.7.5: **100** drone 16MP images with AMD RADEON V520 GPU and CPU@3.8GHz based (no GPU) computers.

1. Drone area survey: FC6310; Images – 100;
2. File size (JPG) – 7.5 MB; Side/Forward overlap - 70%; Flight altitude – 300m; GSD – 8 cm; Area - 1.35 sq. km

| | | | 19-12-21 | 19-12-21 | 19-12-21 | 19-12-21 | 20-12-21 | 24-12-21 |
|---|-----|-----|--------------------------|---------------------------|---------------------------|---------------------------|----------------------------------|----------------------------|
| | GPU | CPU | Metashape 16GB | Metashape 64GB | Metashape 128GB | Metashape 256GB | Metashape 192GB | Metashape 512GB |
| OS | | | Windows 2019 | Windows 2019 | Windows 2019 | Windows 2019 | Linux | Linux |
| Storage | | | Storage X STANDARD | Storage X STANDARD | Storage X STANDARD | Storage X STANDARD | Storage X STANDARD | Storage X STANDARD |
| GPU | | | 1 x RADEON V520 | 1 x RADEON V520 | 2 x RADEON V520 | 4 x RADEON V520 | No GPU | No GPU |
| Processor type | | | AMD EPYC 7R32 | AMD EPYC 7R32 | AMD EPYC 7R32 | AMD EPYC 7R32 | Intel Xeon Scalable Cascade Lake | Intel Xeon Platinum 8259CL |
| Processor configuration | | | 1 socket 4vCPU@2.8GHz | 1 socket 16vCPU@2.8GHz | 1 socket 32vCPU@2.8GHz | 1 socket 64vCPU@2.8GHz | 1 socket 48vCPU@3.8GHz | 1 socket 64vCPU@2.5GHz |
| RAM | | | 16 | 64 | 128 | 256 | 192 | 512 |
| Match Photos (Highest) | v | v | 2m 1s | 2m 6s | 1m 20s | 1m 3s | 2m 21s | 2m 42s |
| Align Cameras | | v | 44s | 17s | 14s | 10s | 10s | 13s |
| Depth Maps (Ultra High, Aggressive) | v | v | 36m 59s | 28m 41s | 15m 12s | 9m 4s | 4h 10m | 4h 17m |
| Dense Cloud | | v | 1h 32m | 31m 37s | 23m 5s | 20m 33s | 16m 51s | 19m 44s |
| DEM (from Dense cloud) | | v | 3m 38s | 2m 18s | 2m 2s | 2m 0s | 1m 29s | 1m 52s |
| Orthomosaic (from DEM) | | v | 8m 1s | 4m 8s | 3m 40s | 3m 42s | 3m 25s | 4m 18s |
| Price (\$/h) | | | \$2.814 | \$4.770 | \$7.085 | \$11.715 | \$11.828 | \$11.819 |
| Total time (h) | | | 2.39 | 1.15 | 0.76 | 0.61 | | |
| Total time (h,m) | | | 2h 23m | 1h 9m | 46m | 36m | | |
| Total price | | | \$6.73 | \$5.49 | \$5.38 | \$7.15 | \$0.00 | \$0.00 |
| Tiled model (from Dense cloud, Ultra High/High) | v | v | | | | 4h 59m | | |
| Tiled model (from Depth Maps, Ultra High/High) | v | v | | | | 2h 38m | | |

Comments:

CPU based images recommended to use for the steps that are not requiring GPU processing. It is also good for use in a cluster configuration for the step of orthophoto processing for very large projects with very large image size while a lot of RAM is required for processing.

15. Metashape 1.7.5: **15,130** images of UAV Batmap II + Sony a6000 24MP camera on a single and cluster configuration.

1. GSD – 4.2 cm; Forward/Side overlap - 80%/80%; Area – 40.6 sq.km;
2. Frame size – 24MP (6000 x 4000), Image file type – JPEG, Image file size – 20 Mb

| | GPU | CPU | Metashape 192GB | Metashape 192GB | Metashape 256GB |
|---|-----|-----|--|--|--|
| OS | | | Windows 2019 | Linux | Windows 2019 |
| Storage | | | Storage X 1000 GB Standard | Storage X 2000 GB Enhanced | Storage X 2000 GB Enhanced |
| GPU | | | 4 x TESLA T4 | 4 x TESLA T4 | 4 x Radeon V520 |
| Processor type | | | Intel® Xeon® Cascade Lake 24C | Intel® Xeon® Cascade Lake 24C | Intel® Xeon® Cascade Lake 24C |
| vCPU | | | 1 socket 24 CPU @ 2.5GHz 48 vCPU | 1 socket 24 CPU @ 2.5GHz 48 vCPU | 2 socket 32 CPU @ 2.8GHz 64 vCPU |
| RAM | | | 192 | 192 | 256 |
| Computers | | | 1 | 1 | 5 |
| Images | | | 15,130 | 15,130 | 15,130 |
| Match Photos (High) | v | | 9h 53m | 7h 33m | 2h 36m |
| Align Cameras (High) | | v | 1h 51m | 1h 29m | 54m |
| Optimiaztion parametrs | | v | 3 m | 3m | 3m |
| Depth Maps (Medium/Agressive) | v | | 4h 36m | 2h 46m | 2h 14m |
| Dense Cloud (Medium/Agressive) without "Point color calculation" | | v | 11h 25m | 4h 23m | 1h 26m |
| DEM (from Dense Cloud) | | v | 44m | 31m | 21m |
| Orthomosaic (DEM) NO "Refine seamlines" | | v | 5h 14m | 3h 28m | 1h 19m |
| Time (h) | | | 33.77 | 20.22 | 8.88 |
| Price (\$/h/computer) | | | \$11.648 | \$11.356 | \$11.908 |
| Total price | | | \$393.35 | \$229.62 | \$528.72 |

16. Metashape 1.7.3: **10,338** images of DJI M300rtk and ZenmuseP1 (35mm) on a single and cluster configuration.

Corridor mapping length – 30 km; Number of images – 10,348

Frame size – 45MP (8192 x 5460); Image file type – JPEG; Image file size – 20 Mb

Forward/Side overlap - 75%/75%; GSD – 1.65 cm.

| | GPU | CPU | Metashape 192GB | Metashape 192GB | Metashape 192GB | Metashape 192GB |
|--|-----|-----|--|--|--|--|
| OS | | | Windows 2019 | Linux | Windows 2019 | Linux |
| Storage | | | Storage EBS 2000 GB Enhanced | Storage EBS 2000 GB Enhanced | Storage EBS 2000 GB Enhanced | Storage EBS 2000 GB Enhanced |
| GPU | | | 4 x TESLA T4 | 4 x TESLA T4 | 4 x TESLA T4 | 4 x TESLA T4 |
| Processor type | | | Intel® Xeon® Cascade Lake 24C | Intel® Xeon® Cascade Lake 24C | Intel® Xeon® Cascade Lake 24C | Intel® Xeon® Cascade Lake 24C |
| vCPU | | | 1 socket 24 CPU @ 2.5GHz 48 vCPU | 1 socket 24 CPU @ 2.5GHz 48 vCPU | 1 socket 24 CPU @ 2.5GHz 48 vCPU | 1 socket 24 CPU @ 2.5GHz 48 vCPU |
| RAM | | | 192 | 192 | 192 | 192 |
| Computers | | | 1 | 1 | 5 | 5 |
| Images | | | 10,348 | 10,348 | 10,348 | 10,348 |
| Match Photos (High) | v | | 4h 23m | 3h 46m | 1h 32m | 1h 20m |
| Align Cameras (High) | | v | 51m | 39m | 34m | 19m |
| Depth Maps (Medium/Agressive) | v | | 5h 36m | 3h 24m | 2h 1m | 2h 11m |
| Dense Cloud (Medium/Agressive) without "Point color calculation" | | v | 12h 6m | 4h 33m | 2h 41m | 1h 9m |
| DEM (from Dense Cloud) | | v | 2h 22m | 1h 10m | 32m | 16m |
| Orthomosaic (DEM) NO "Refine seamlines" | | v | 11h 59m | 5h 58m | 4h 46m | 2h 10m |
| Time (h) | | | 37.28 | 19.50 | 12.10 | 7.42 |
| Price (\$/h/computer) | | | \$11.648 | \$11.356 | \$11.648 | \$11.356 |
| Total price | | | \$434.24 | \$221.44 | \$704.70 | \$421.31 |

17. Metashape 1.7.3: 1,000/3,450/4,500 of PhaseOne iXM-RS150F 150MP (RGB+NIR) on a single and cluster configuration.

Blocks of images – 1,000 / 3,450 / 4,500;
 Image type – PhaseOne 150MP 4-band RGB+NIR;
 Image file size – 600 MB;
 Forward/Side overlap - 80%/50%;
 GSD – 4.6 cm.

| OS | | Single computer | | | | Cluster of computers (on-demand) | | | | | | |
|----------------------------------|-------------|-----------------|----------|-----------------|----------|----------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|
| | | Win 2019 | Linux | Win 2019 | Win 2019 | Linux | | | | | | |
| Application | | Metashape 192GB | | Metashape 256GB | | Metashape 192GB | | | | | | |
| Number of computers in a cluster | | 1 | 1 | 1 | 1 | 5 | 10 | 10 | 6 | 5 | 4 | 2 |
| Storage (TB) | | 2 | 2 | 10 | 2 x 1.2 | Not limited | Not limited | Not limited | Not limited | Not limited | Not limited | Not limited |
| Images | | 1,023 | 1,023 | 1,000 | 1,000 | 1,000 | 4,500 | 3,450 | 3,450 | 3,450 | 3,450 | 3,450 |
| Match Photos | 4.6 cm/pix | 55m 45s | 56m 41s | 1h 12m | 58m 38s | 14m 12s | 26m 18s | 34m 19s | 31m 28s | 37m 33s | 47m 18s | 57m 55s |
| Align Cameras | 4.6 cm/pix | 5m 27s | 5m 5s | 3m 33s | 3m 21s | 1m 17s | 7m 37s | 5m 44s | 7m 8s | 7m 5s | 8m 18s | 10m 47s |
| Depth Maps | 74 cm/pix | 2h 22m | 1h 43m | 2h 7m | 25m 50s | 27m 0s | 44m 40s | 1h 15m | 1h 33m | 1h 48m | 2h 17m | 4h 2m |
| Dense Cloud | 74 cm/pix | 10m 45s | 4m 56s | 9m 15s | 9m 6s | 1m 27s | 3m 37s | 3m 6s | 4m 38s | 5m 20s | 6m 29s | 11m 39s |
| Classify ground points | 15/0.25/100 | 2m 24s | 1m 32s | 3m 9s | 3m 15s | 2m 45s | 12m 59s | 9m 35s | 9m 55s | 10m 22s | 10m 35s | 7m 16s |
| DEM (from Dense Cloud) | 74 cm/pix | 1m 21s | 58s | 1m 25s | 1m 22s | 41s | 1m 2s | 1m 3s | 1m 34s | 1m 38s | 2m 31s | 3m 20s |
| Color adjustment | | 25m 0s | 25m 0s | 25m 0s | 18m 25s | 25m 16s | 1h 57m | 1h 31m | 1h 28m | 1h 30m | 1h 30m | 1h 30m |
| Orthomosaic (DEM) | 4.6 cm/pix | 5h 5m | 4h 3m | 4h 50m | 3h 23m | 1h 22m | 2h 13m | 2h 36m | 2h 37m | 2h 50m | 3h 32m | 6h 26m |
| Procissing price (\$/h) | | \$11.648 | \$11.356 | \$11.908 | \$11.908 | \$11.356 | \$11.356 | \$11.356 | \$11.356 | \$11.356 | \$11.356 | \$11.356 |
| Fast storage price (\$/h) | | \$4.040 | \$4.040 | \$6.140 | \$4.040 | \$6.140 | \$6.140 | \$6.140 | \$6.140 | \$6.140 | \$6.140 | \$6.140 |
| Total time (h) | | 10.38 | 8.59 | 10.11 | 8.83 | 3.83 | 5.77 | 6.26 | 6.55 | 7.17 | 8.57 | 13.48 |
| Total price | | \$162.84 | \$132.25 | \$182.47 | \$140.82 | \$240.98 | \$690.67 | \$749.32 | \$486.51 | \$451.14 | \$441.90 | \$388.92 |
| Price per 100 image | | \$15.92 | \$12.93 | \$18.25 | \$14.08 | \$24.10 | \$15.35 | \$21.72 | \$14.10 | \$13.08 | \$12.81 | \$11.27 |
| Processing speed (image/h) | | 99 | 119 | 99 | 113 | 261 | 780 | 551 | 527 | 481 | 403 | 256 |

18. Metashape 1.7.3: **100** drone 16MP (4864x3648) images with the new GPU instances AMD RADEON PRO V520.

File size (JPG) – 7.5 MB; Side/Forward overlap - 70%; Flight altitude – 320m; GSD – 8 cm; Area - 1.35 sq. km

| | | | 30-06-21 | 30-06-21 | 30-06-21 |
|-------------------------------------|-----|-----|-------------------------------------|--------------------------------------|--------------------------------------|
| | GPU | CPU | Metashape 64GB | Metashape 128GB | Metashape 256GB |
| OS | | | Windows 2019 | Windows 2019 | Windows 2019 |
| Storage | | | Storage X STANDARD | Storage X STANDARD | Storage X STANDARD |
| GPU | | | 1 x RADEON V520 | 2 x RADEON V520 | 4 x RADEON V520 |
| Processor type | | | AMD EPYC 7R32 | AMD EPYC 7R32 | AMD EPYC 7R32 |
| Processor configuration | | | 1 socket 8 CPU@2.80GHz 16vCPU | 1 socket 16 CPU@2.80GHz 32vCPU | 1 socket 32 CPU@2.80GHz 64vCPU |
| RAM | | | 64 | 128 | 256 |
| Match Photos (Highest) | v | | 2m 2s | 1m 20s | 1m 1s |
| Align Cameras | | v | 27s | 21s | 19s |
| Depth Maps (Ultra High, Aggressive) | v | | 24m 18s | 12m 43s | 7m 18s |
| Dense Cloud | | v | 28m 5s | 20m 5s | 17m 59s |
| DEM (from Dense cloud) | | v | 2m 15s | 2m 0s | 1m 55s |
| Orthomosaic (from DEM) | | v | 3m 53s | 3m 34s | 3m 26s |
| Price (\$/h) | | | \$4.384 | \$6.892 | \$11.908 |
| Total time (h) | | | 1.02 | 0.67 | 0.53 |
| Total time (h,m) | | | 1h 1m | 40m | 32m |
| Total price | | | \$4.47 | \$4.62 | \$6.31 |

19. Metashape 1.7.2: 1,023 images of PhaseOne iXM-RS150F 150MP RGB+NIR.

Strips – 15; Number of images – 1,023

Forward overlap - 80%; Side overlap – 50%; Flight altitude – 890 m; GSD – 4.6 cm; Area – 36.4 sq.km.

Orthophoto RGB+NIR (4-band) GSD = 4.6 cm

Image size – 150 MP (14204 x 10652)

Image type – RGB+NIR (4-band)

Image file volume (TIFF) – 600 MB

Total image files volume – 576 GB

Metashape project volume – 693 GB

Exported orthophoto volume – 78 GB

| OS | | | | Win 2019 | Linux | Linux |
|---|-----|-----|-------------------------------------|---------------------|---------------------|---------------------|
| Metashape 1.7.2 | | | | Metashape 192 GB | Metashape 192 GB | Metashape 192 GB |
| Storage | | | | FAST Storage X | FAST Storage X | Local D |
| Storage volume (GB) | | | | 2000 | 2000 | 900 |
| | GPU | CPU | Parameters | | | |
| Copy of images from Storage X to local disk D | | | | | | 40m |
| Generating masks | | v | | 1m 20s | 1m 20s | 1m 20s |
| Match Photos | v | | 4.6 cm/pix | 55m 45s | 56m 41s | 14m 46s |
| Align Cameras | | v | 4.6 cm/pix | 5m 27s | 5m 5s | 6m 50s |
| Depth Maps | v | | 74 cm/pix | 2h 22m | 1h 43m | 22m 35s |
| Dense Cloud | | v | 74 cm/pix | 10m 45s | 4m 56s | 4m 20s |
| Classify ground points | | v | 15/0.25/100 | 2m 24s | 1m 32s | 1m 33s |
| DEM (from Dense Cloud) | | v | 74 cm/pix | 1m 21s | 58s | 59s |
| Color adjustment | | v | | 12m 0s | 12m 0s | 11m 58s |
| Orthomosaic (DEM) | | v | 4.6 cm/pix | 5h 5m | 4h 3m | 3h 28m |
| Orthomosaic Export (TIFF) | | v | 56 tiles of size 1000 m x 1000 m | 1h 16m | 1h 6m | 1h 7m |
| Procissing price (\$/h) | | | | \$11.648 | \$11.356 | \$11.356 |
| Fast storage price (\$/h) | | | | \$3.420 | \$3.420 | \$3.420 |
| Total time (h) | | | | 10.00 | 8.24 | 7.32 |
| Total time (h,m) | | | | 10h 0m | 8h 14m | 7h 19m |
| Total price | | | | \$150.68 | \$121.75 | \$108.16 |



20. Metashape 1.7.1: **495** drone 16MP (4864x3648) images for corridor survey.

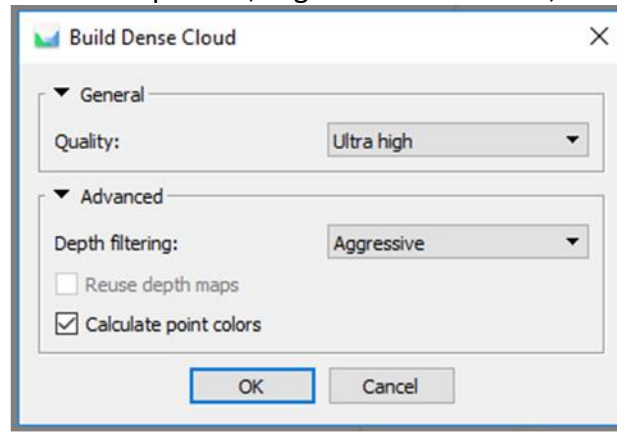
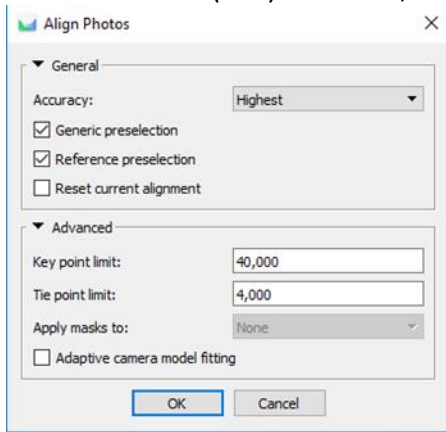
File size (JPG) – 7.5 MB; Flight altitude – 61m; GSD – 1.6 cm; Corridor mapping – 2-4 flight lines. Area - 0.56 sq.km;

| | | | |
|---|------------|------------|---|
| | | | 01-03-21 |
| | GPU | CPU | Metashape 192GB |
| OS | | | Windows 2019 |
| Storage | | | Storage X enhanced |
| GPU | | | 4 x TESLA T4 |
| Processor type | | | Intel® Xeon® Cascade Lake 24C |
| vCPU | | | 1 socket 24 CPU @ 2.50GHz 48 vCPU |
| RAM | | | 192 |
| Match Photos (High) | v | | 1m 28s |
| Align Cameras (High) | | v | 2m 52s |
| Depth Maps (High/Aggressive) | v | | 7m 6s |
| Dense Cloud (High/Aggressive) without "Point color calculation" | | v | 50m 37s |
| DEM (from Dense Cloud) | | v | 7m 50s |
| Orthomosaic (DEM) NO "Refine seamlines" | | v | 24m 58s |
| Price (\$/h) | | | \$11.648 |
| Total time (h) | | | 1.58 |
| Total time (h,m) | | | 1h 35m |
| Total price | | | \$18.40 |

16. Metashape 1.6.5: Parallel processing of 10 blocks on the same Storage with 10 x Metashape 192GB computers.

Drone survey: FC6310 (8.8mm); Image size – 16 MP (4864 x 3648); Images - 100

File size (JPG) – 7.5 MB; Side/Forward overlap - 70%; Flight altitude – 320m; GSD – 8 cm; Area - 1.35 sq.km;



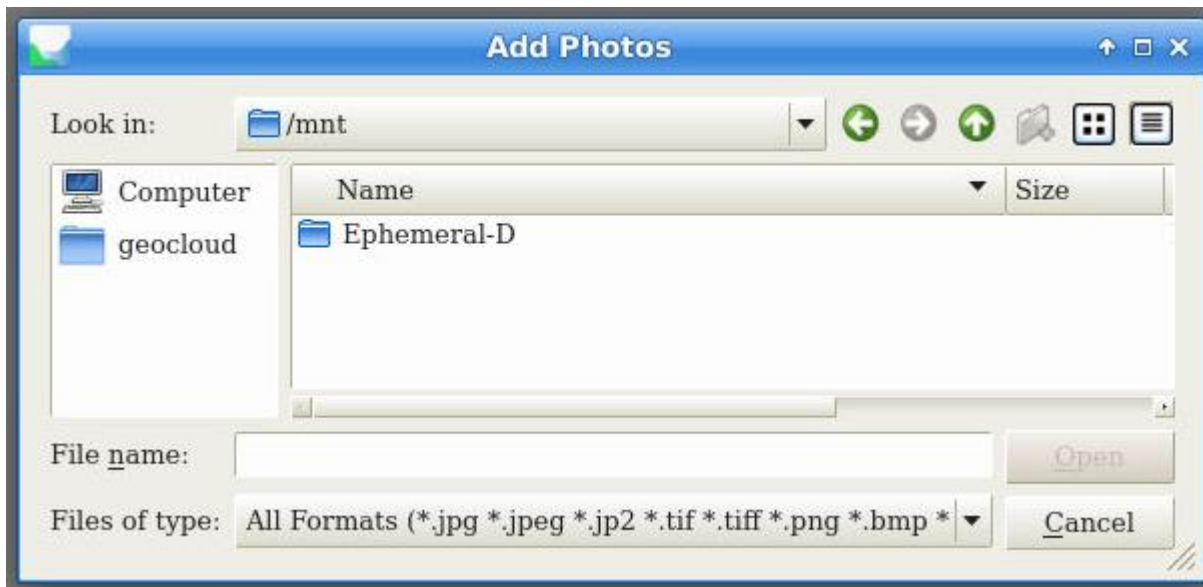
| | | | Single project | 10 parallel running projects on the same storage | | | | | | | | | |
|--|-----|-----|---------------------------------------|--|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|
| | GPU | CPU | 1 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| OS | | | Windows 2019 | Windows 2019 | Windows 2019 | Windows 2019 | Windows 2019 | Windows 2019 | Windows 2019 | Windows 2019 | Windows 2019 | Windows 2019 | Windows 2019 |
| Storage | | | Storage 750GB enhanced | Storage 750GB enhanced | Storage 750GB enhanced | Storage 750GB enhanced | Storage 750GB enhanced | Storage 750GB enhanced | Storage 750GB enhanced | Storage 750GB enhanced | Storage 750GB enhanced | Storage 750GB enhanced | Storage 750GB enhanced |
| GPU | | | 4 x TESLA T4 | 4 x TESLA T4 | 4 x TESLA T4 | 4 x TESLA T4 | 4 x TESLA T4 | 4 x TESLA T4 | 4 x TESLA T4 | 4 x TESLA T4 | 4 x TESLA T4 | 4 x TESLA T4 | 4 x TESLA T4 |
| Processor type | | | Intel® Xeon® Cascade Lake 24C | Intel® Xeon® Cascade Lake 24C | Intel® Xeon® Cascade Lake 24C | Intel® Xeon® Cascade Lake 24C | Intel® Xeon® Cascade Lake 24C | Intel® Xeon® Cascade Lake 24C | Intel® Xeon® Cascade Lake 24C | Intel® Xeon® Cascade Lake 24C | Intel® Xeon® Cascade Lake 24C | Intel® Xeon® Cascade Lake 24C | Intel® Xeon® Cascade Lake 24C |
| vCPU | | | 1 socket 24 CPU@2.50GHz 48 vCPU | 1 socket 24 CPU@2.50GHz 48 vCPU | 1 socket 24 CPU@2.50GHz 48 vCPU | 1 socket 24 CPU@2.50GHz 48 vCPU | 1 socket 24 CPU@2.50GHz 48 vCPU | 1 socket 24 CPU@2.50GHz 48 vCPU | 1 socket 24 CPU@2.50GHz 48 vCPU | 1 socket 24 CPU@2.50GHz 48 vCPU | 1 socket 24 CPU@2.50GHz 48 vCPU | 1 socket 24 CPU@2.50GHz 48 vCPU | 1 socket 24 CPU@2.50GHz 48 vCPU |
| RAM | | | 192 | 192 | 192 | 192 | 192 | 192 | 192 | 192 | 192 | 192 | 192 |
| Match Photos (Highest) | v | | 1m 1s | 36s | 38s | 37s | 37s | 40s | 33s | 37s | 36s | 36s | 42s |
| Align Cameras (Highest) | | v | 26s | 26s | 25s | 25s | 25s | 25s | 26s | 25s | 25s | 25s | 26s |
| Depth Maps (Ultra High) | v | | 9m 23s | 8m 50s | 8m 44s | 8m 52s | 9m 24s | 9m 10s | 8m 47s | 8m 51s | 9m 7s | 9m 5s | 8m 43s |
| Dense Cloud (Ultra High) | | v | 26m 56s | 30m 22s | 30m 19s | 30m 36s | 30m 22s | 29m 55s | 29m 20s | 30m 4s | 29m 16s | 28m 9s | 27m 16s |
| DEM | | v | 2m 27s | 3m 8s | 3m 17s | 3m 18s | 3m 20s | 3m 18s | 3m 37s | 4m 27s | 4m 58s | 5m 45s | 6m 19s |
| Orthomosaic | | v | 3m 51s | 4m 42s | 4m 38s | 4m 42s | 4m 44s | 4m 33s | 4m 16s | 4m 47s | 4m 40s | 4m 43s | 4m 28s |
| Total time (h) | | | 0.73 | 0.80 | 0.80 | 0.81 | 0.81 | 0.81 | 0.77 | 0.82 | 0.82 | 0.81 | 0.80 |
| Total time (h,m) | | | 44m | 48m | 48 m | 49m | 49m | 49m | 46m | 49m | 49m | 49m | 48m |
| Build Tiled (from Depth Maps, Ultra High/High) | v | v | 2h 34m | 2h 41m | 2h 37m | 2h 42s | 2h 41m | 2h 39m | 2h 36s | 2h 41m | 2h 34s | 2h 38m | 2h 38m |

17. Ephemeral disk D: for Metashape 16/32/64/128 and 192GB

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!

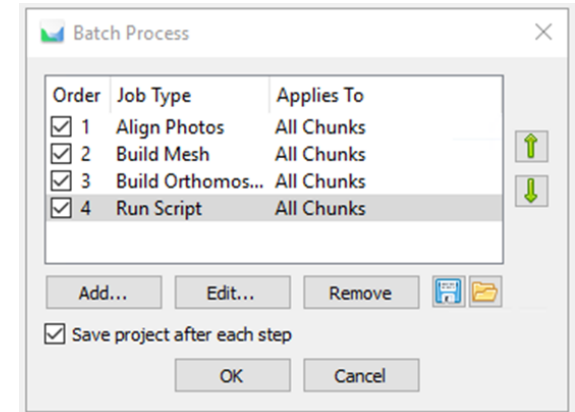
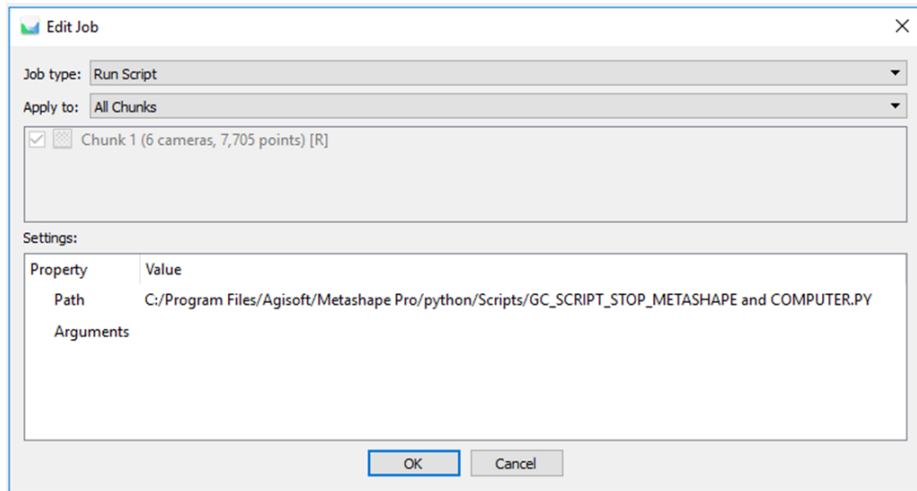
Local drive D: exists only when the computer (Metashape) is operational. If you stop your computer, the D: drive will disappear along with all data. There is no way to recover data. Therefore, please copy the processing results back to Storage X: after processing is complete and before stopping the computer. **Don't use the following script for automatic stopping of the computer in a batch mode if you use the Ephemeral disk for processing and saving the data.**

18. Metashape script to stop computer in a Batch Process

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

