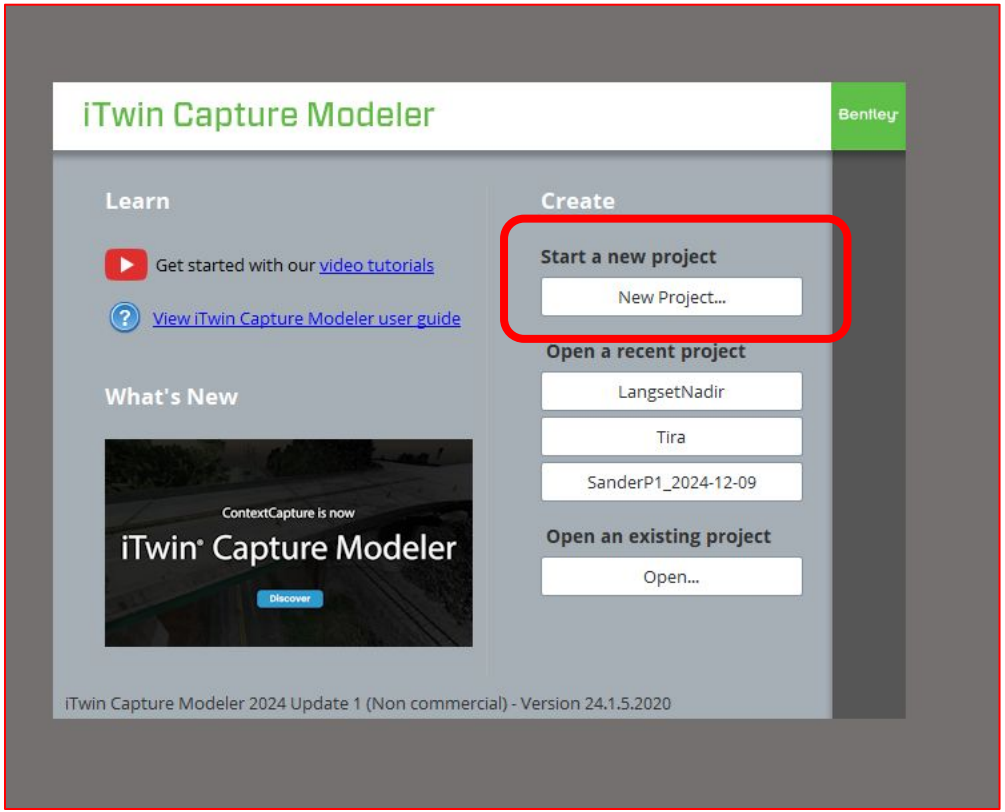
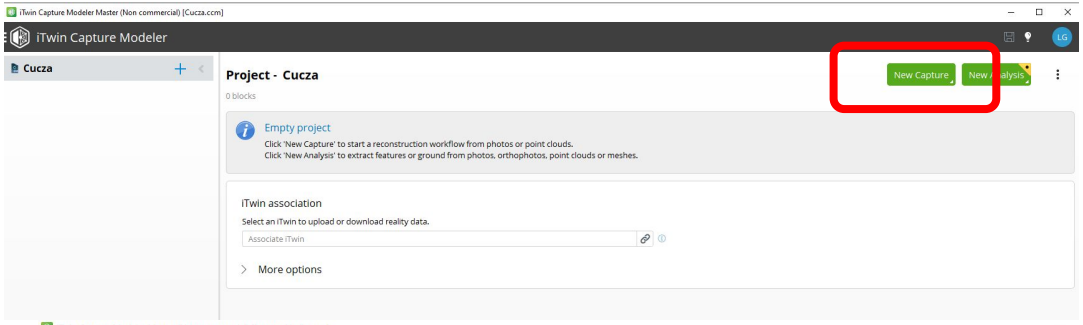
Processing photogrammetric data

Using iTwin Capture Modeler
Non geotagged data, with GCPs over Cucza abbey

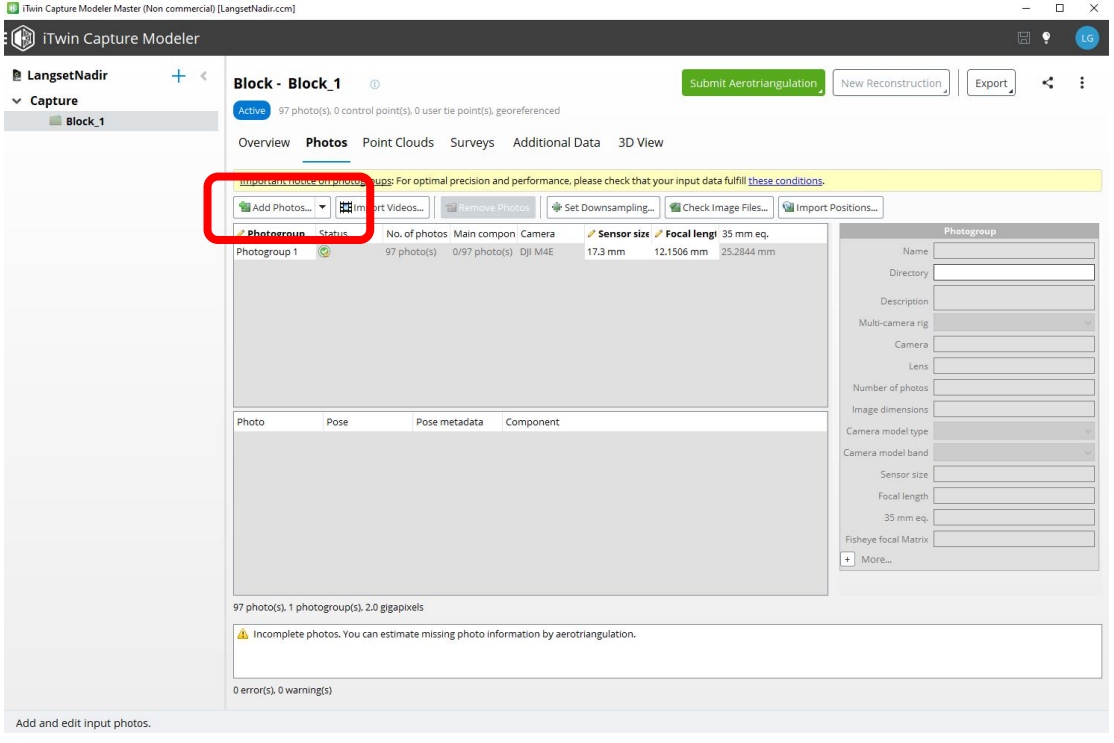
Open iTwin Capture Modeler Master, start new project



Start a “new capture”

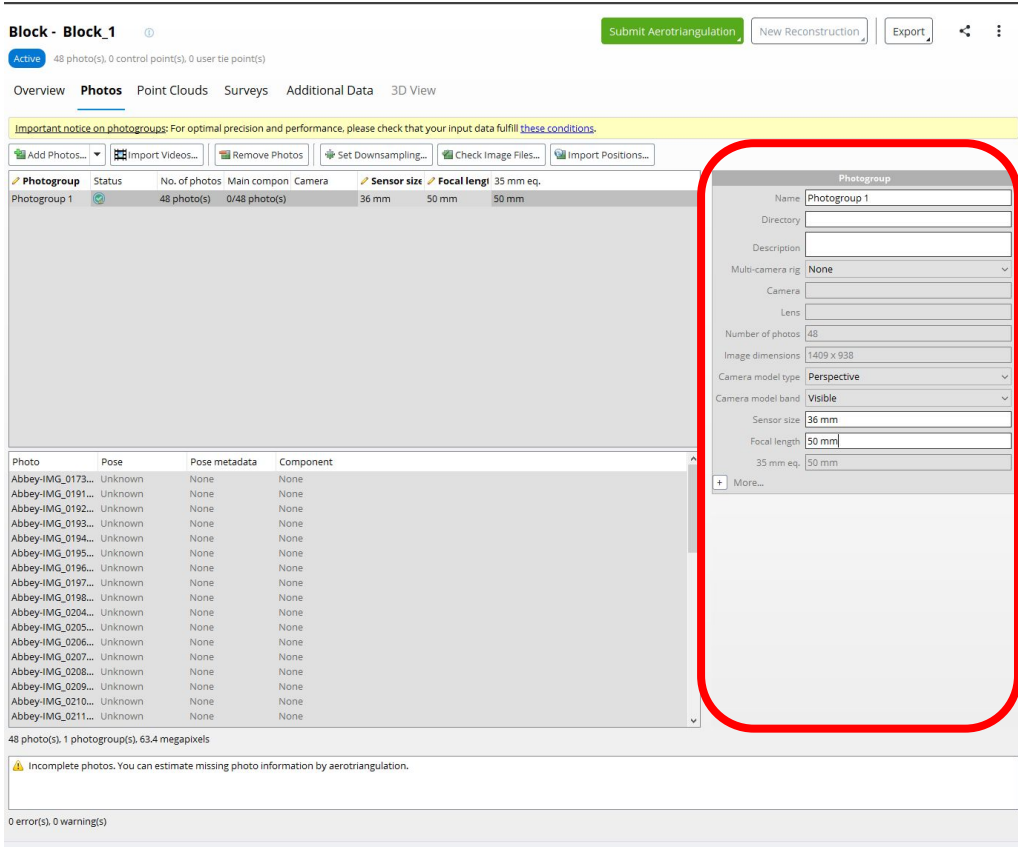


Add photos or a directory of photos

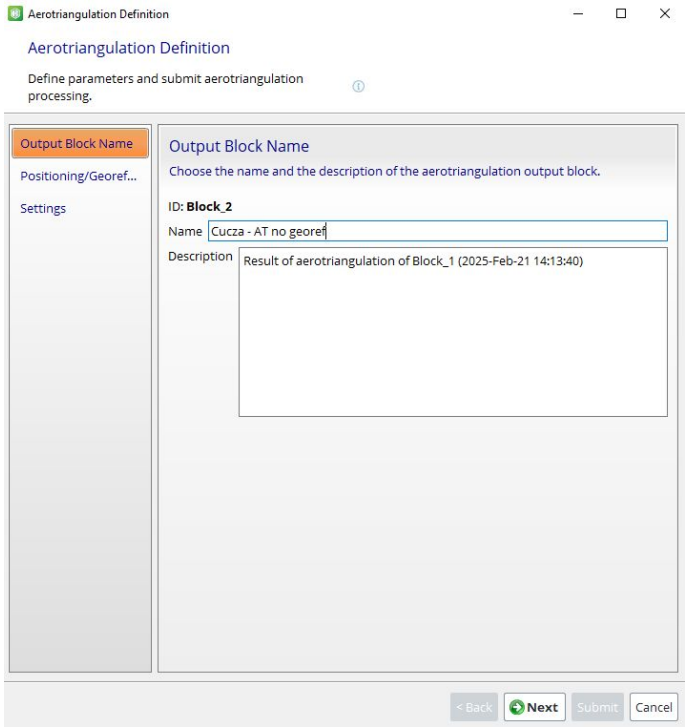


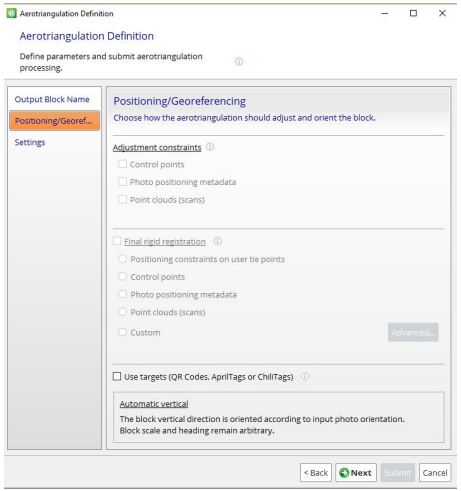
Information about your photos is missing!

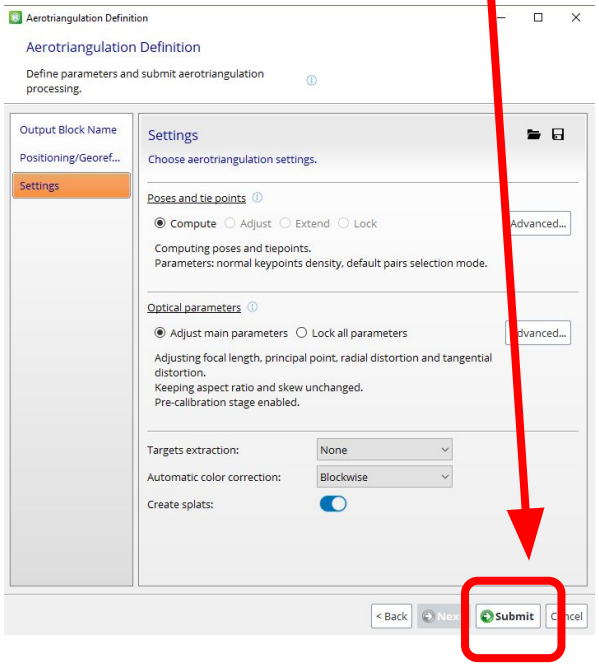
Fill the Sensor size (36mm) and Focal length (50mm)



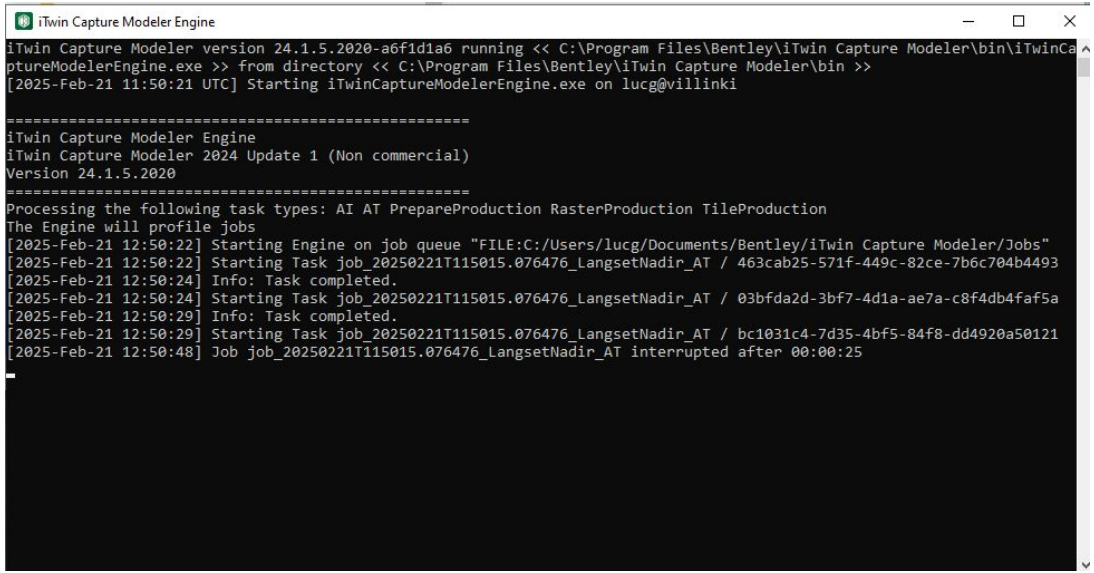
Setup parameters (default except circled here), and submit



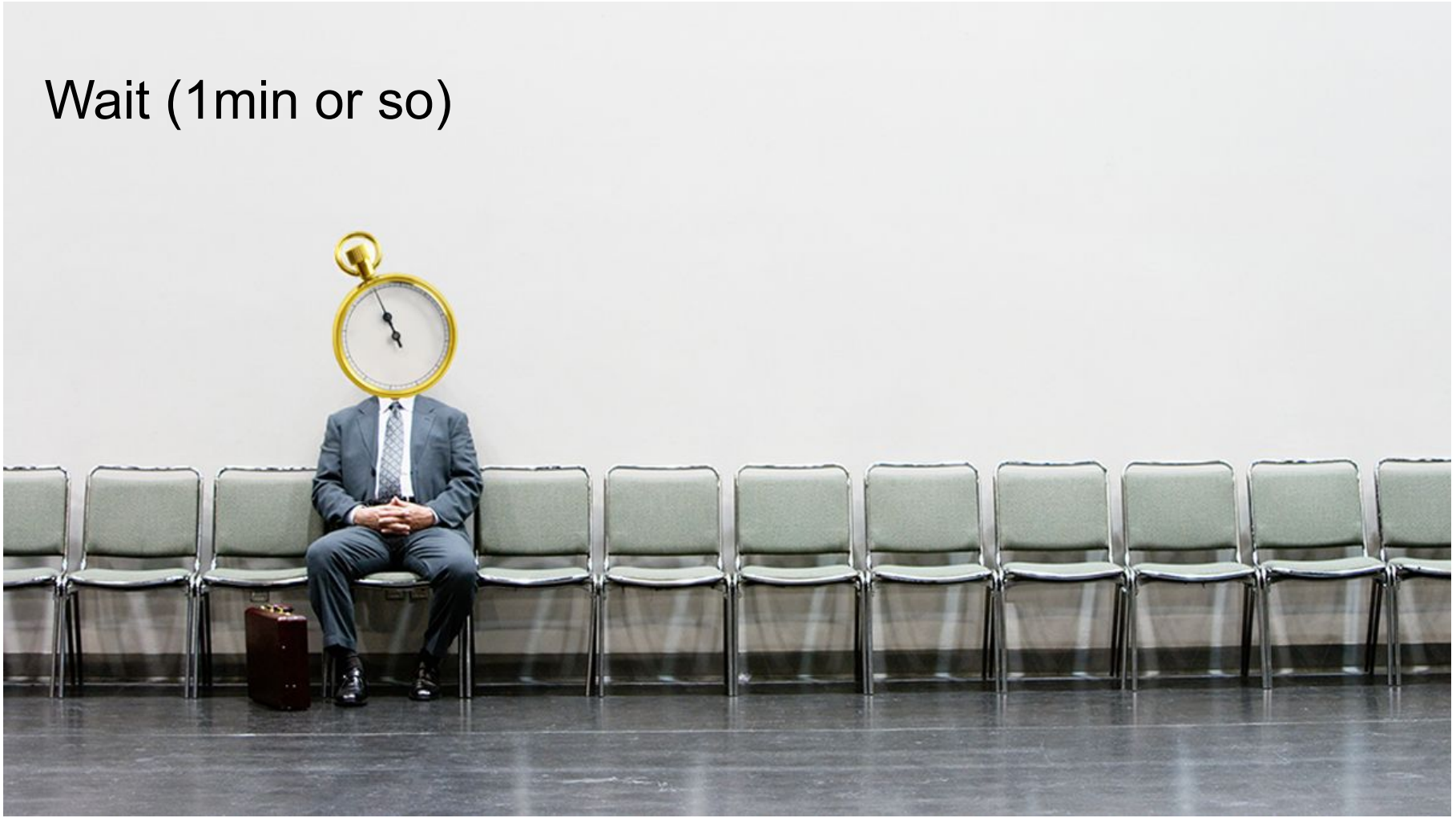




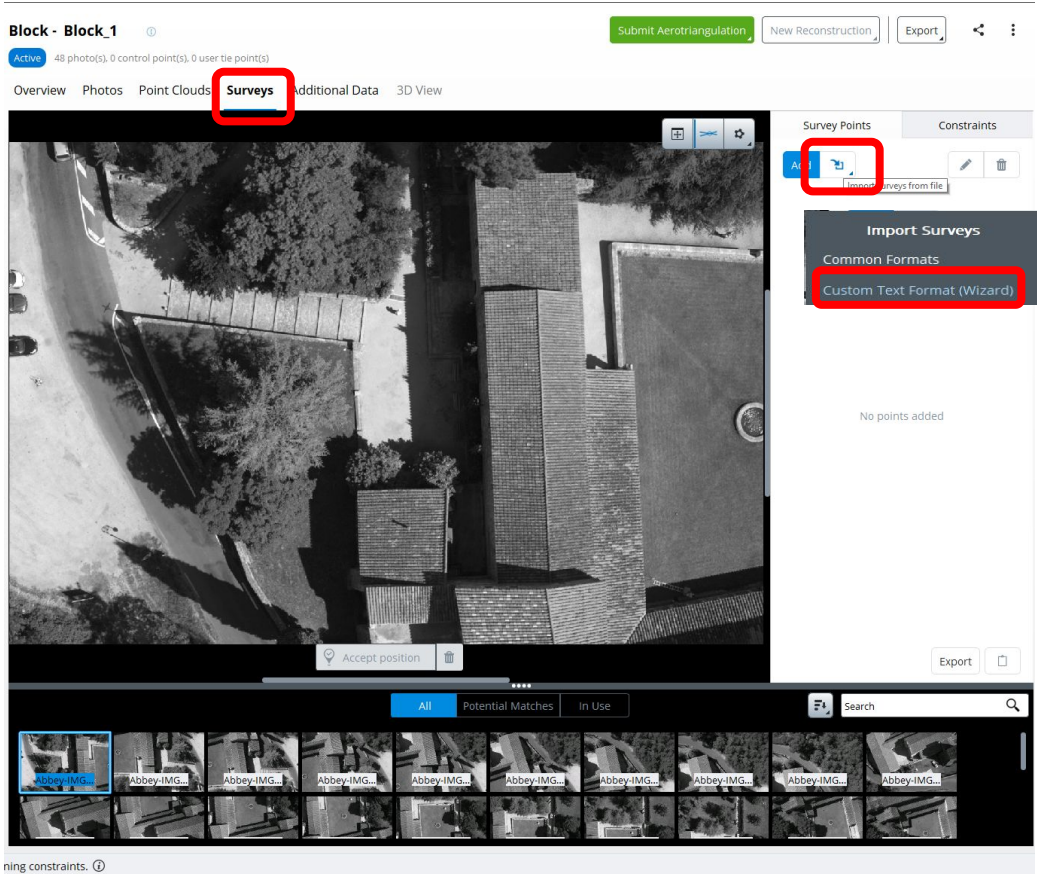
Start iTwin Capture Modeler Engine (that's the actual processing engine, it listens to new "jobs" being added by other iTwin tools)

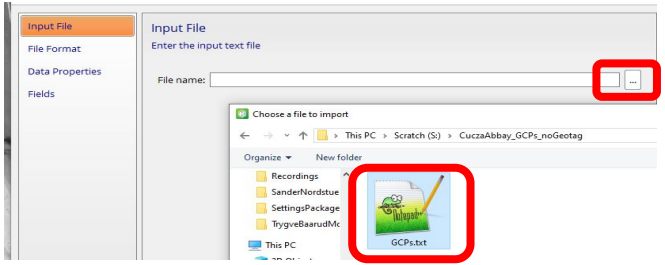


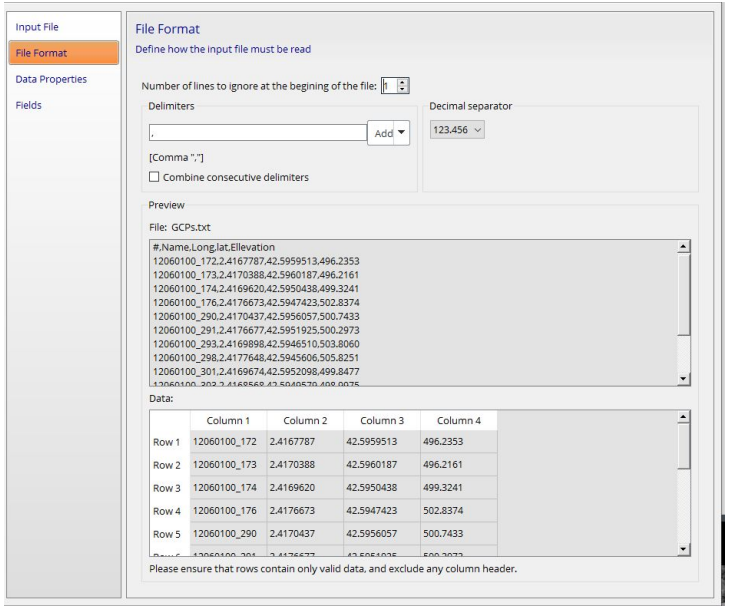
Wait (1min or so)



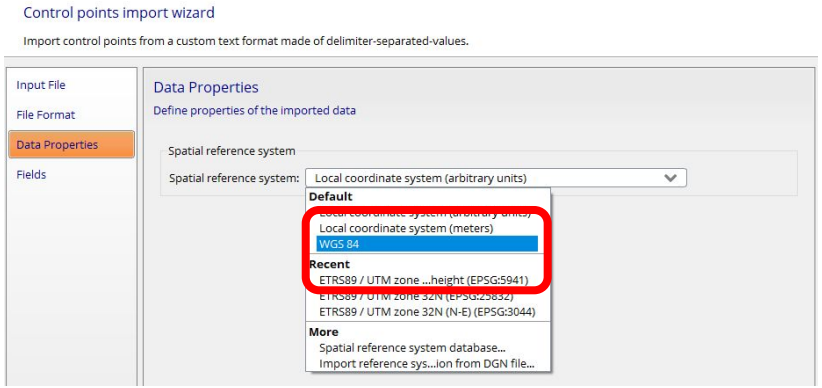
Go to Survey to add GCPs

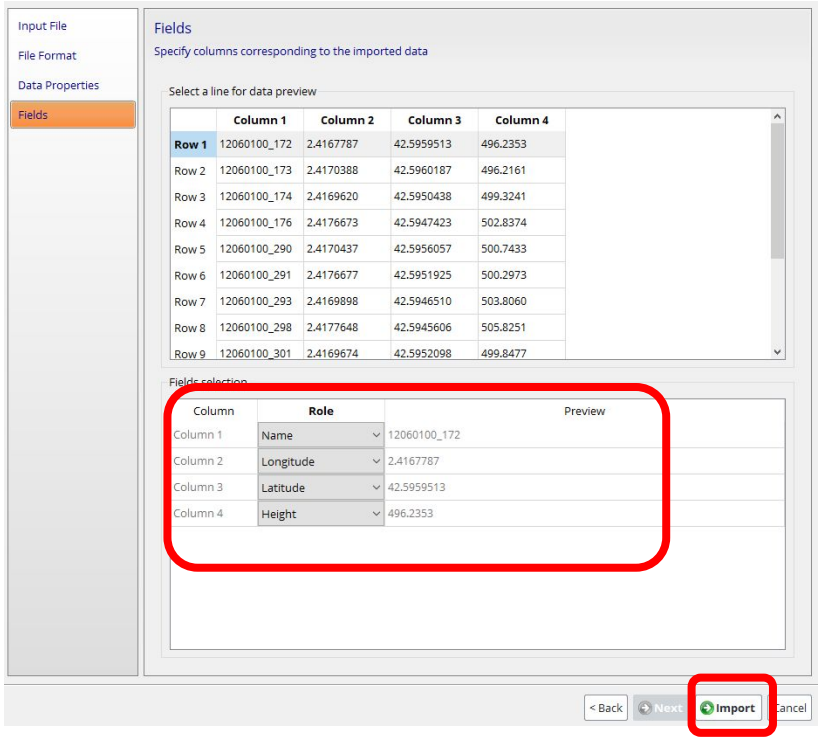






Fill up all the settings, and import



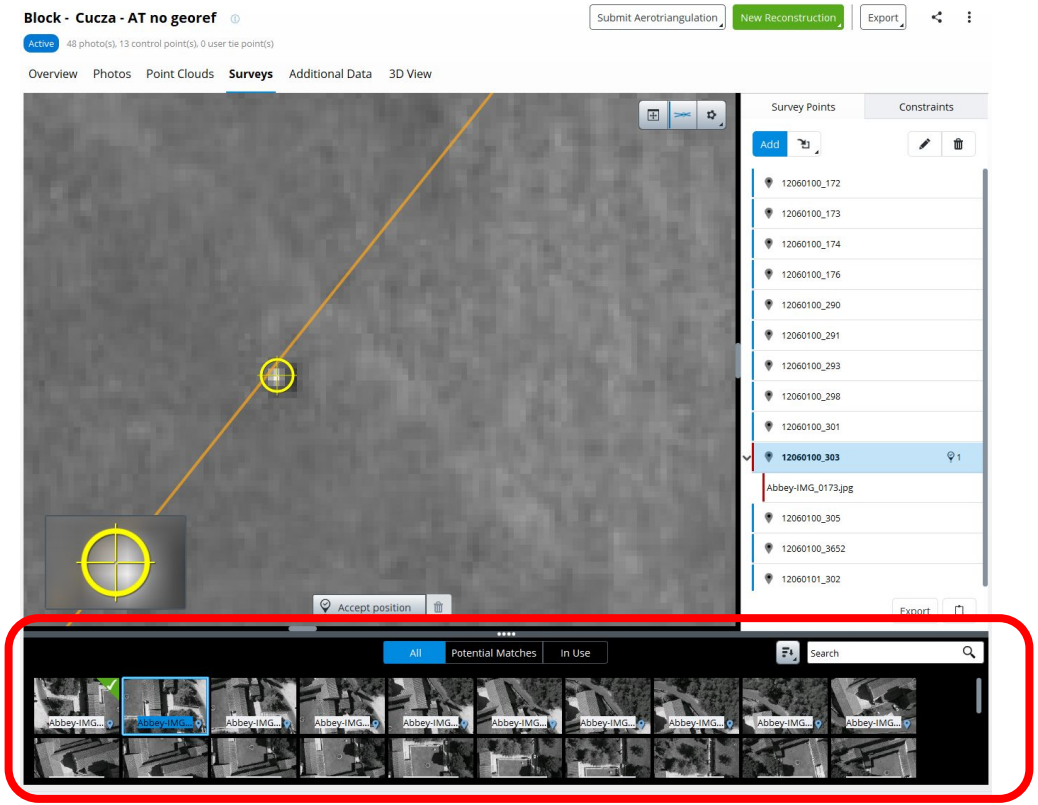


Check GCPs_reference.PNG for point location

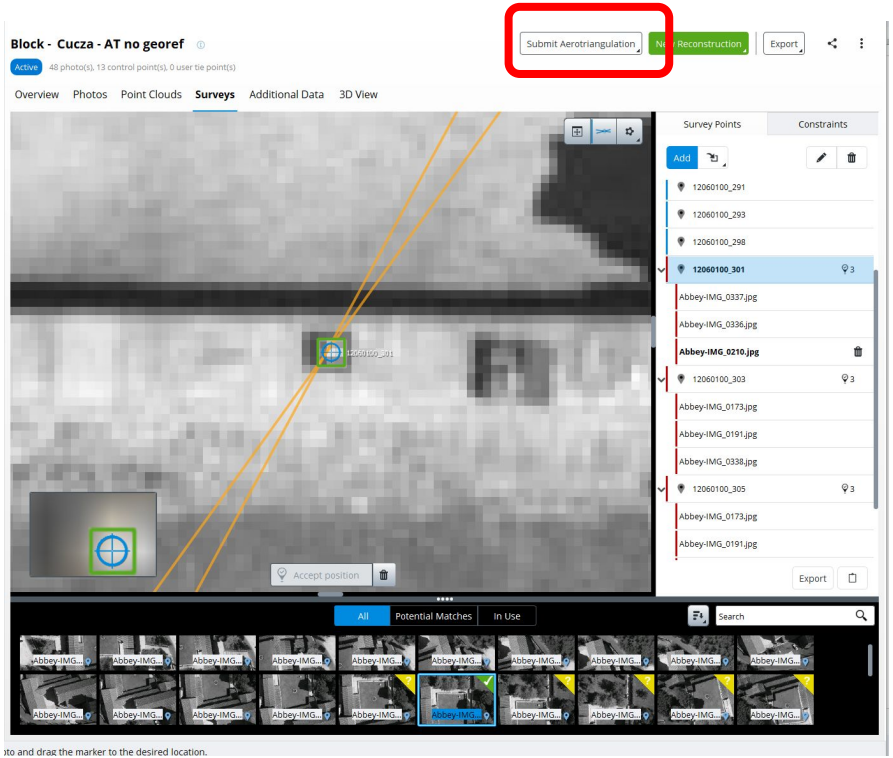
Input GCPs position

1. Click on GCP name
2. Zoom on image to GCP location
3. Make sure your target marker is at the center of the white marker
4. Click Accept position

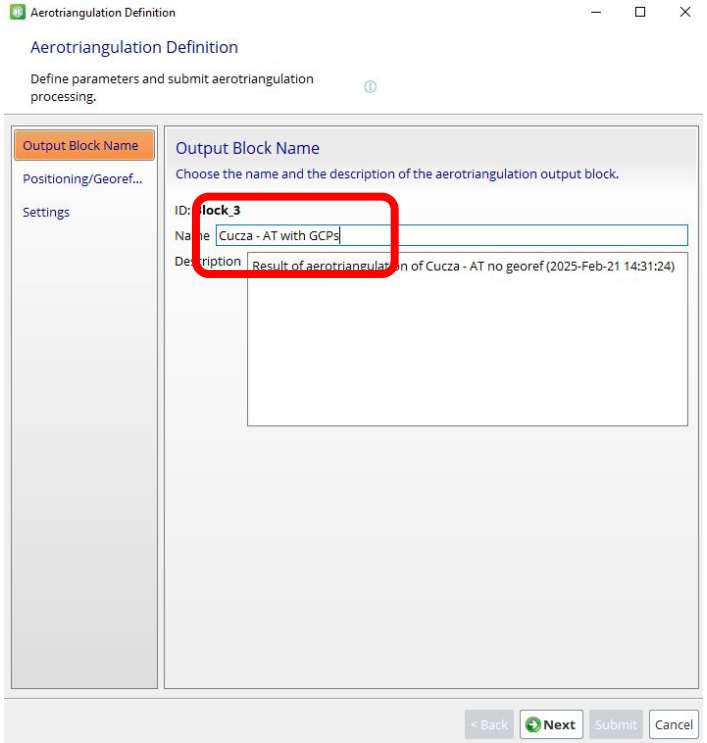
Repeat the process for several points, on several images

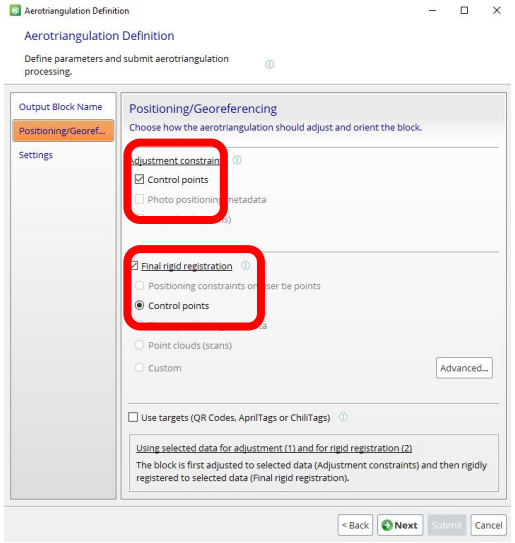


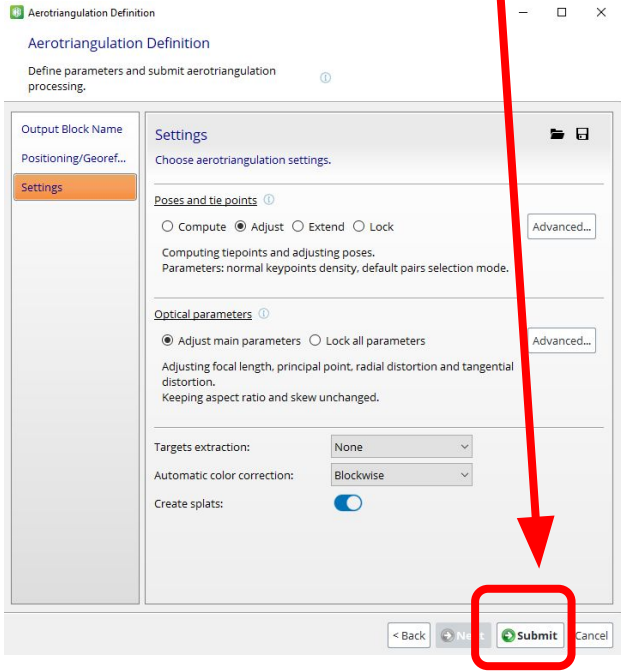
Submit a new AeroTriangulation



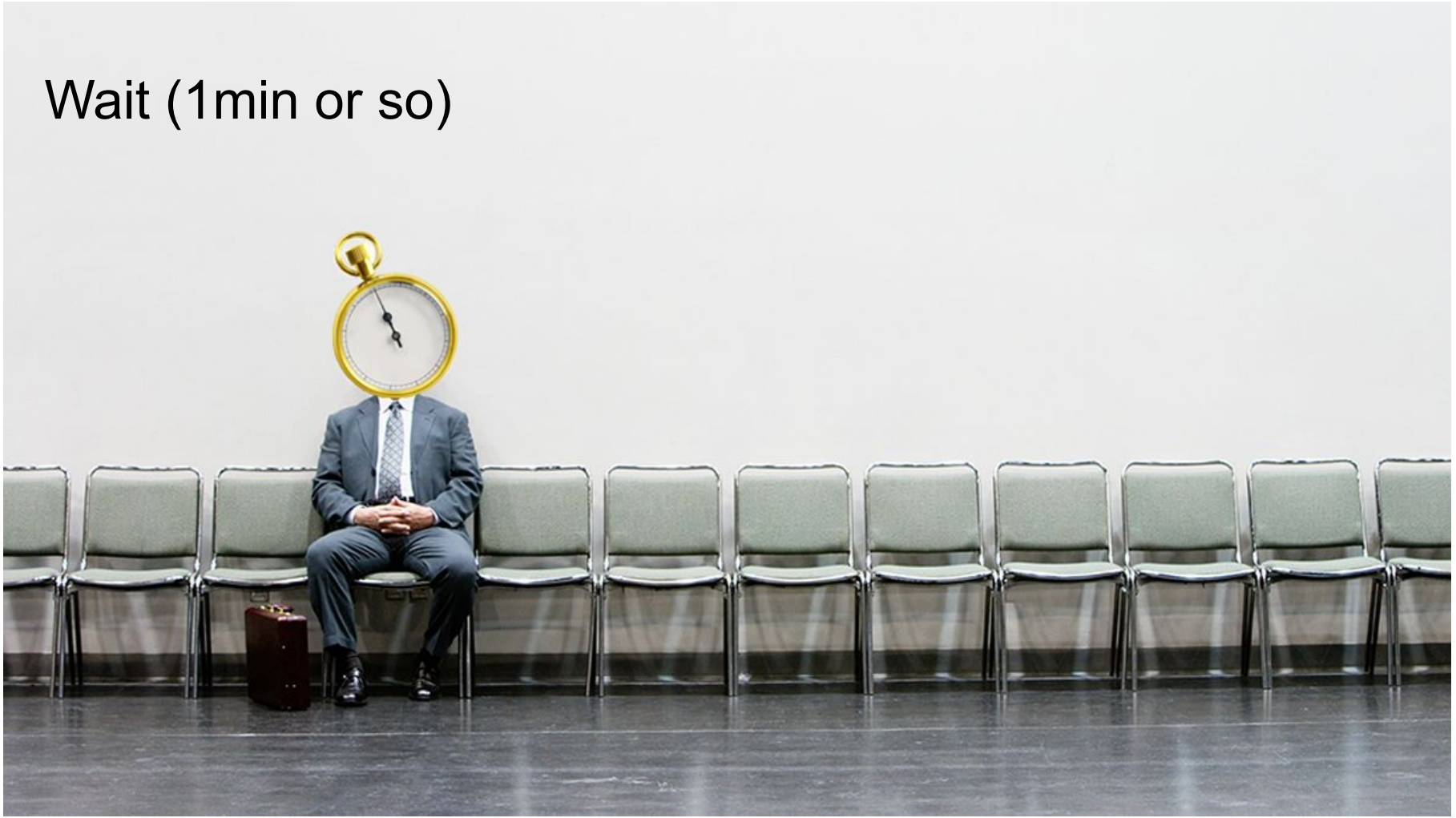
Setup parameters (default except circled here), and submit



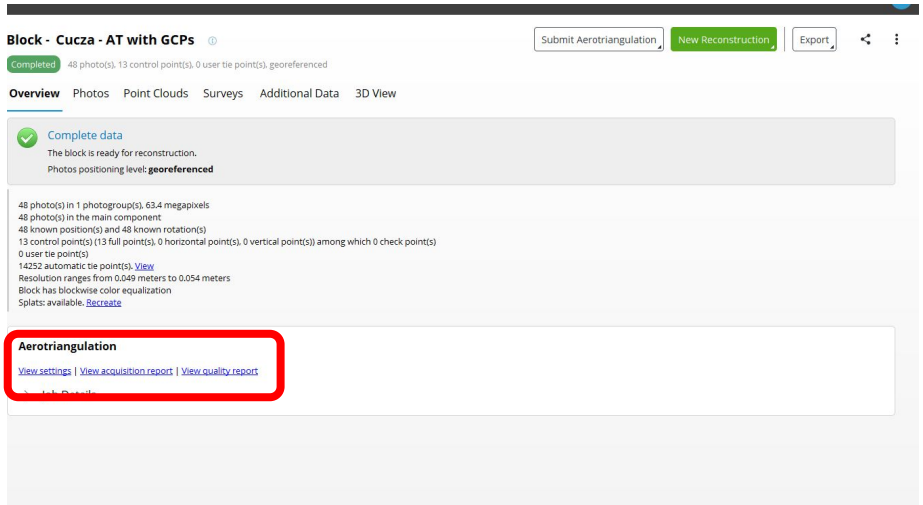


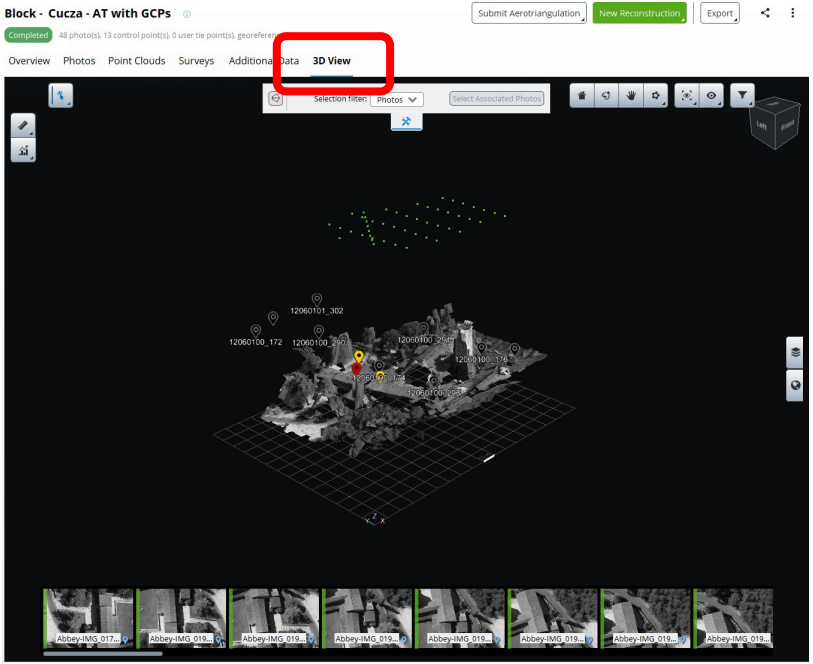


Wait (1min or so)

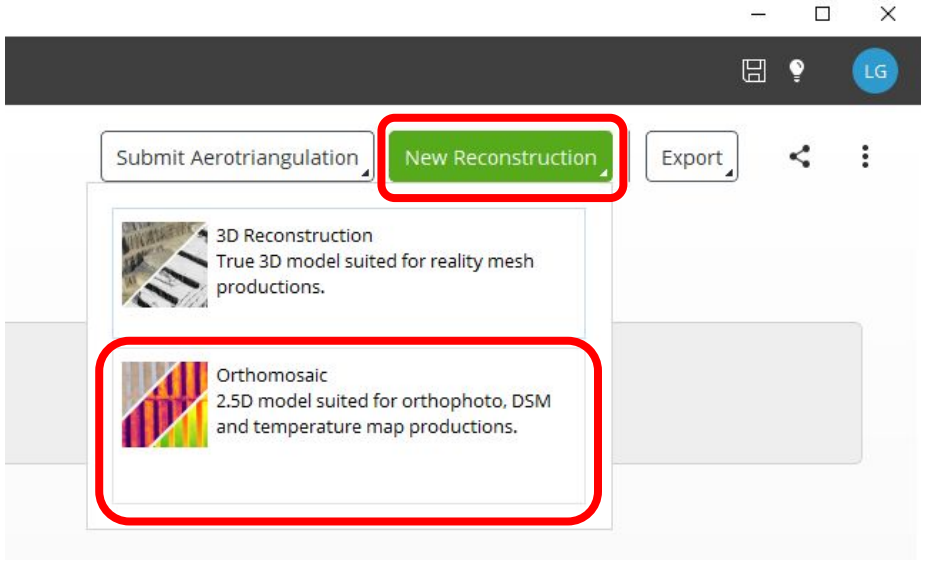


Read processing report and have a look at the 3D view

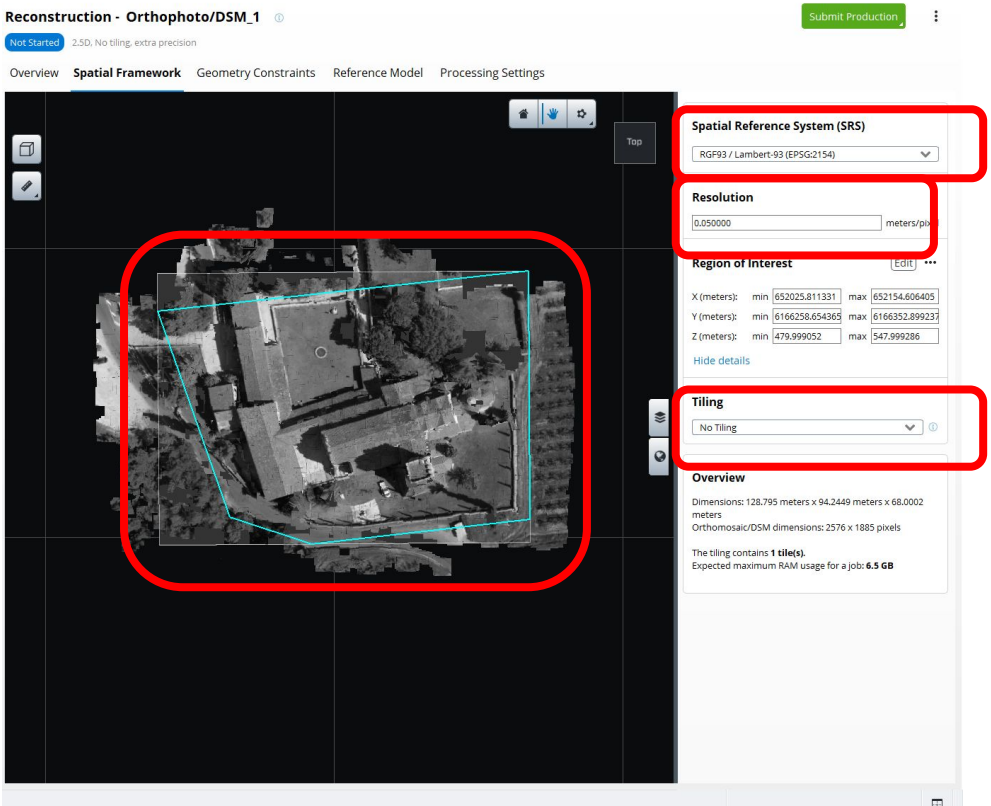


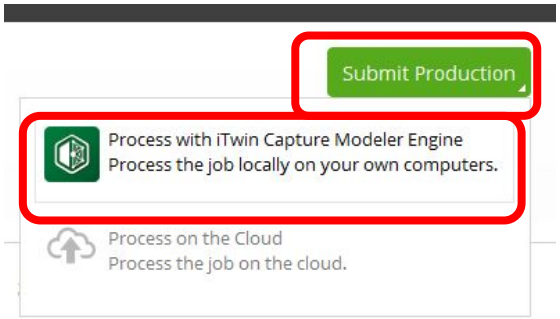


Start a new reconstruction - Orthomosaic

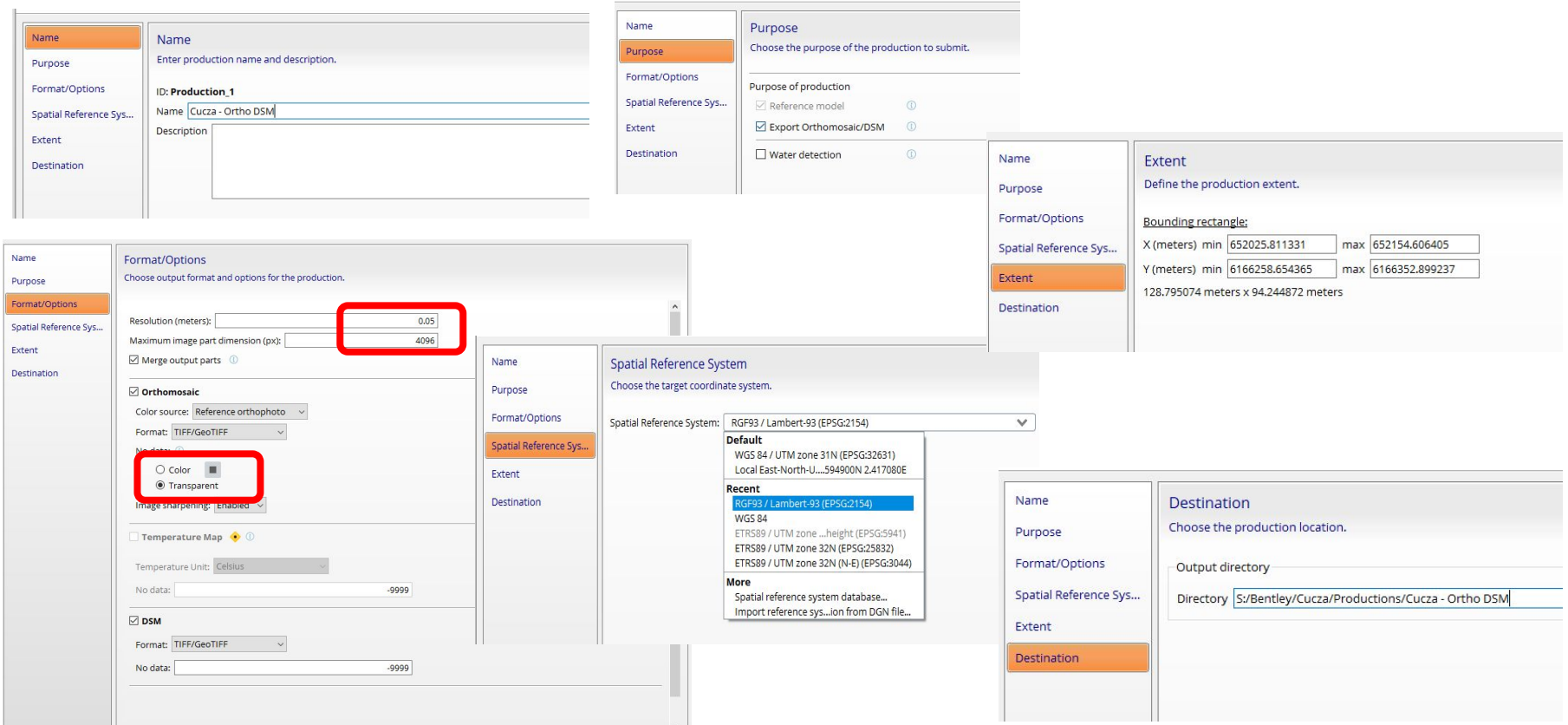


Choose all the appropriate options - submit the job

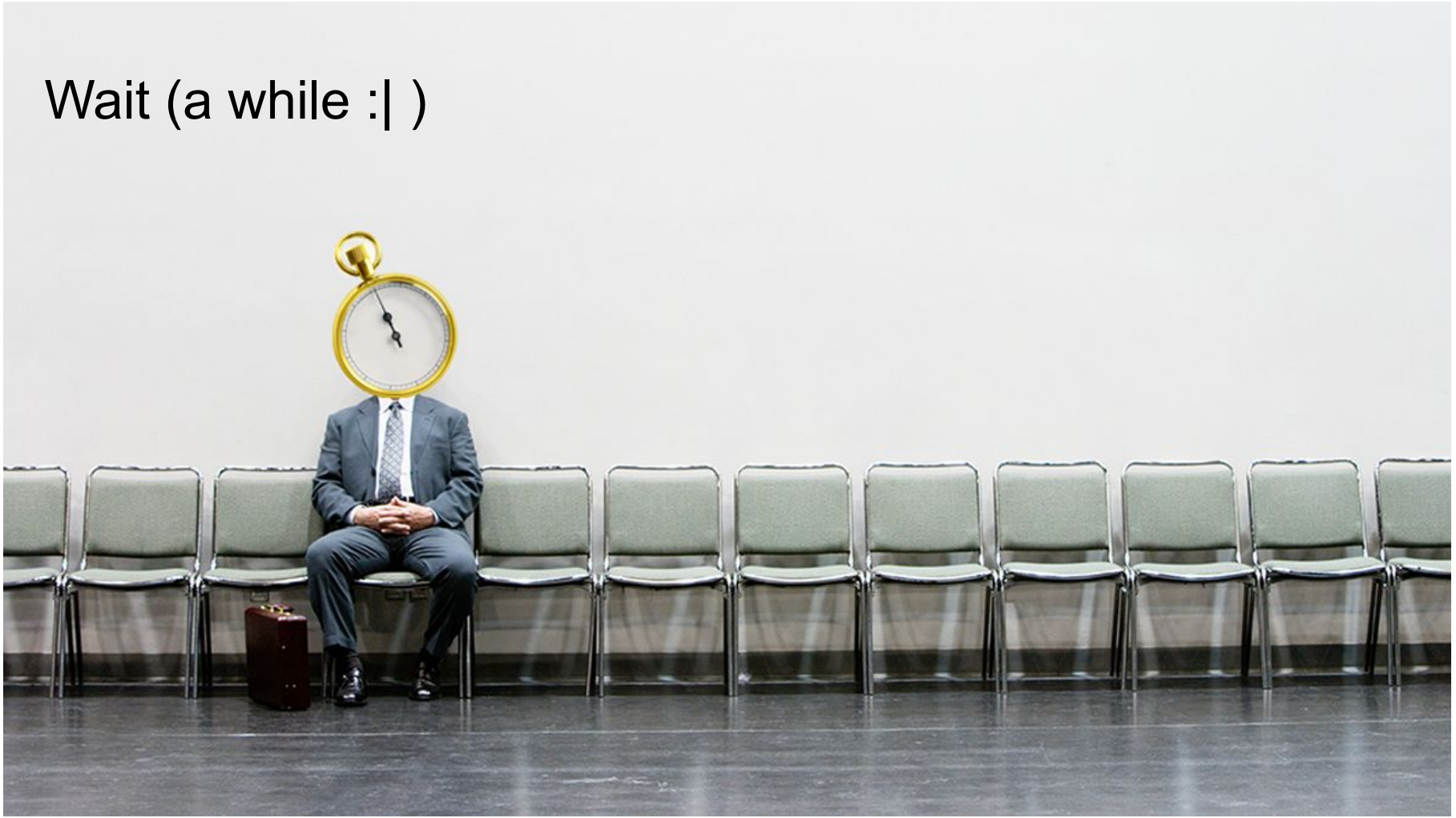




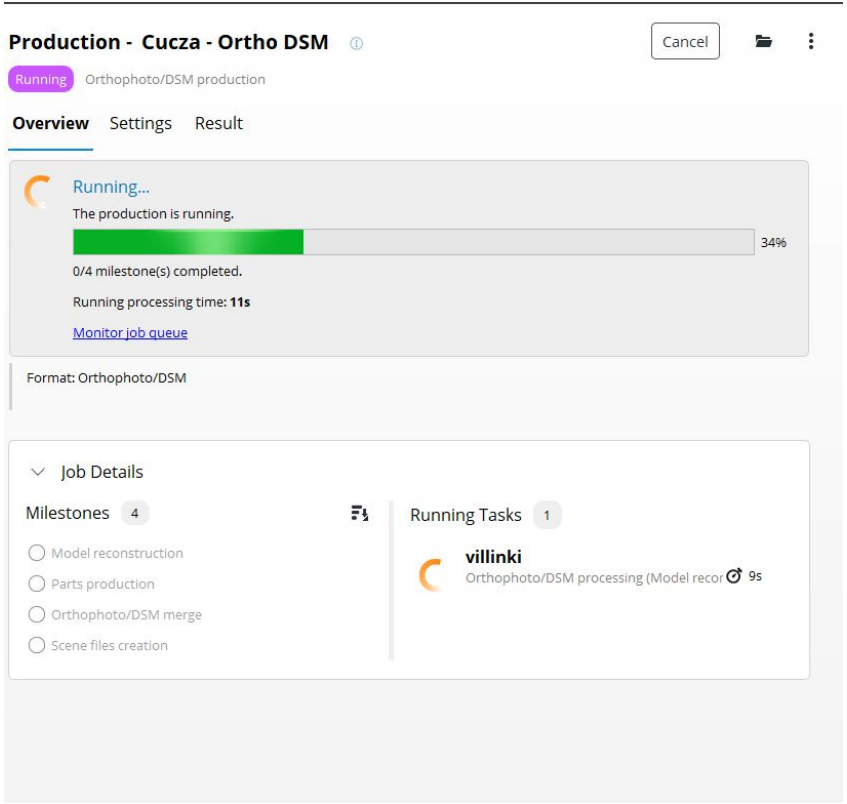
Set options and submit to the iTwin Engine

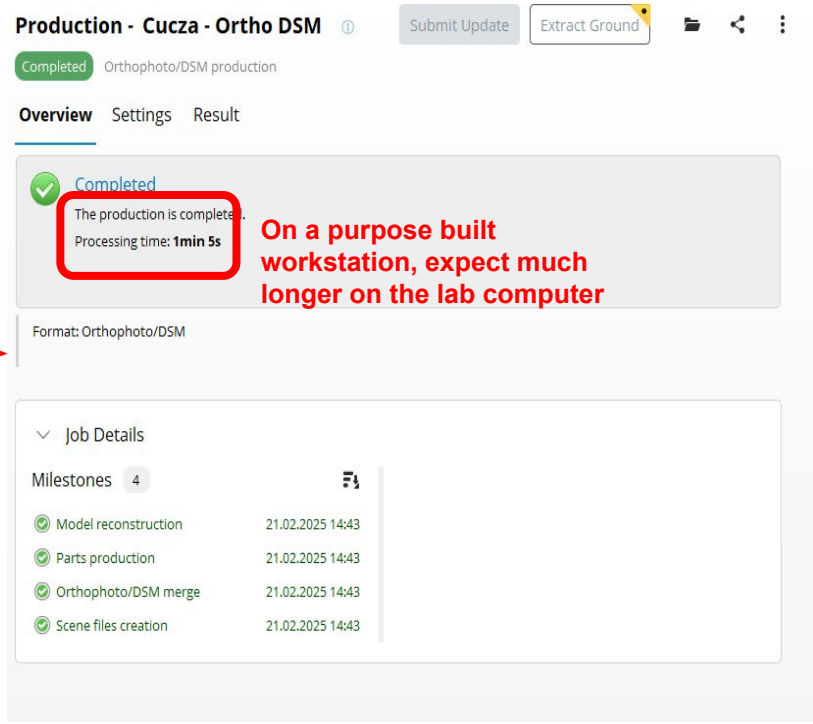


Wait (a while :|)



Wait (possibly quite a while :|)





Results
(can be opened in GIS)!

Overview **Settings** Result

Production ID: **Production_1**

Format: **Orthophoto/DSM**

Destination: **S:/Bentley/Cucza/Productions/Cucza - Ortho DSM**

Spatial Reference System: **RGF93 / Lambert-93 (EPSG:2154)**

Sampling distance: **0.05**

Projection type: **Highest point**

Maximum image part dimension (px): **4096**

Merge output parts: **true**

Orthophoto

Enabled: **true**

Format: **TIFF/GeoTIFF**

NoData value: **0 0 0**

NoData transparency: **true**

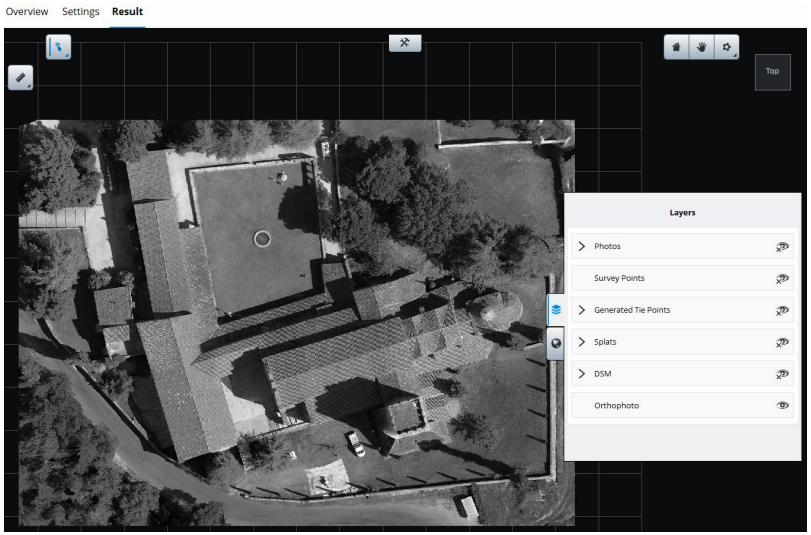
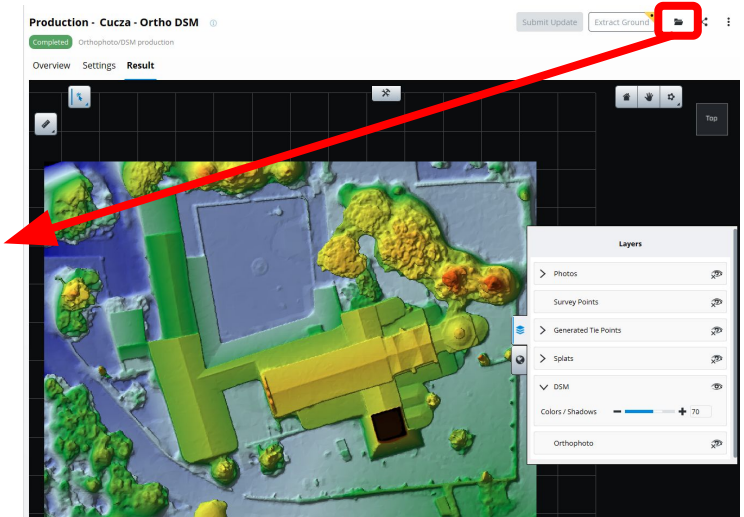
Color source: **Reference model visible colors**

Image sharpening: **Enabled**

DSM

Enabled: **true**

Format: **TIFF/GeoTIFF**

NoData value: **-9999**

Name	Date modified	Type	Size
orthoPhoto	21.02.2025 14:43	File folder	
Cucza - Ortho DSM_DSM_merge.tfw	21.02.2025 14:43	TFW File	1 KB
Cucza - Ortho DSM_DSM_merge.tif	21.02.2025 14:43	TIF File	24 577 KB
Cucza - Ortho DSM_DSM_merge.tif.ovr	21.02.2025 14:43	OVR File	8 196 KB
Cucza - Ortho DSM_ortho_merge.tfw	21.02.2025 14:43	TFW File	1 KB
Cucza - Ortho DSM_ortho_merge.tif	21.02.2025 14:43	TIF File	24 577 KB
Cucza - Ortho DSM_ortho_merge.tif.ovr	21.02.2025 14:43	OVR File	8 199 KB