

# PHOTOMOD 7.0.3323 – 7.1.3520

## New functions

### General

- PHOTOMOD AutoUAS – new software for fully automatic processing of UAS images with the simplest interface
- PHOTOMOD StereoClient - new application for remote work in professional stereomode
- Block layout independency of the aerial triangulation (AT for the flights of any complexity level)
- Significant acceleration of point cloud (LAS) calculation
- New LAS filters
- New parameter presets for the aerial triangulation (feature-based correlator)
- Better quality of tie points measurements for multitime images

### Coordinate systems

- Greek coordinate system EGSA87 support
- Support of IRENET95 / Irish Transverse Mercator (EPSG:2157) (ITM)

### Project creation

- Reading flight height over the start point from XMP format
- Speeding up of reading EO parameters from XMP format
- Incorrect image sorting is fixed (loading images to the project in multithread mode)

### Aerial triangulation

- Different acceptable ratio focal length / survey basis for aerial and UAV survey
- Selfcalibration algorithm improvements for big off-nadir angle imagery
- Managing of number of stereopairs to be included into the adjustment report
- Block layout corrections for the case of the survey with big angles range
- 5-sensors MIDAS camera calibration problem is fixed
- Speeding up of deleting duplicated tie points in the project
- Selection of units and error types in the relative orientation report
- RMS of measurements in UAV project is 0.5 pixels
- AT algorithm modifications when several cameras are involved in one project
- All tie points are used in the camera selfcalibration by n-plets
- Automatic measurements of GCPs “taken” from the reference orthoimage
- Automatic pyramid level selection in dependence on the image size (tie point measurements)

## Satellite imagery

- Preliminary adjustment option when automeasuring GCPs from reference raster
- Loading previously saved adjustment results for adjustment “by steps”
- Pléiades Neo support

## Digital Elevation Models

- Dividing big point clouds into fragments while processing (speeding up)
- Combining tasks of LAS blocks creation if the number of tasks is more than 500 (speeding up)
- Undo for DEM editing operations
- Using origin for dividing LAS into fragments (speeding up)
- Partial implementation of multiray mode for DSM calculation
- “Comparing” DEMs inside / outside selected polygon
- Changes in DEMs comparing report
- Grid for DEM calculation is located on the marker height now
- Type of attribute selection when writing the height of the objects above DEM into the attribute
- DEM control by vector object – writing selected attributed to the output csv-file
- Error in batch import of DEM from MTW is fixed
- Error in volume calculation in case of using TIN as a surface is fixed

## 3D-feature extraction

- An option of topological connectivity in roof-digitizing tools in order to make one output 3D-model for each roof when exporting

## Orthorectification and mosaic

- Corrections in the algorithm of bridges embedding into DEM

## 3D modeling

- Batch export of 3D models to OSGB format
- Modifications of the algorithm of building 3D TIN by DEM
- Biltateral filtering in distributed mode
- 3D TIN simplifications (less number of triangles) keeping the model quality
- New default parameters of 3D TIN smoothing filter
- New fast algorithm of filling holes in the 3D TIN
- Mesh building algorithm changes
- Measurements over 3D-model
- Error of making 3D TIN from ADS data in case of big water areas is fixed
- Error in export from tx3 to b3dm and json is fixed



## **TrueOrtho**

- Color balancing improvements
- TrueOrtho process default parameters take into account DSM GSD
- Speeding up of holes filling process
- Additional accounting of tall objects
- Error of writing 4<sup>th</sup> channel in case of 16 bit source raster is fixed

## **Import-Export**

- Export of coordinate systems to RSW format
- The problem of partial objects skipping in import from SXF is fixed

## **Distributed processing**

- Auto calculation of number of simultaneously starts multithread tasks based on available RAM (DSM building)

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